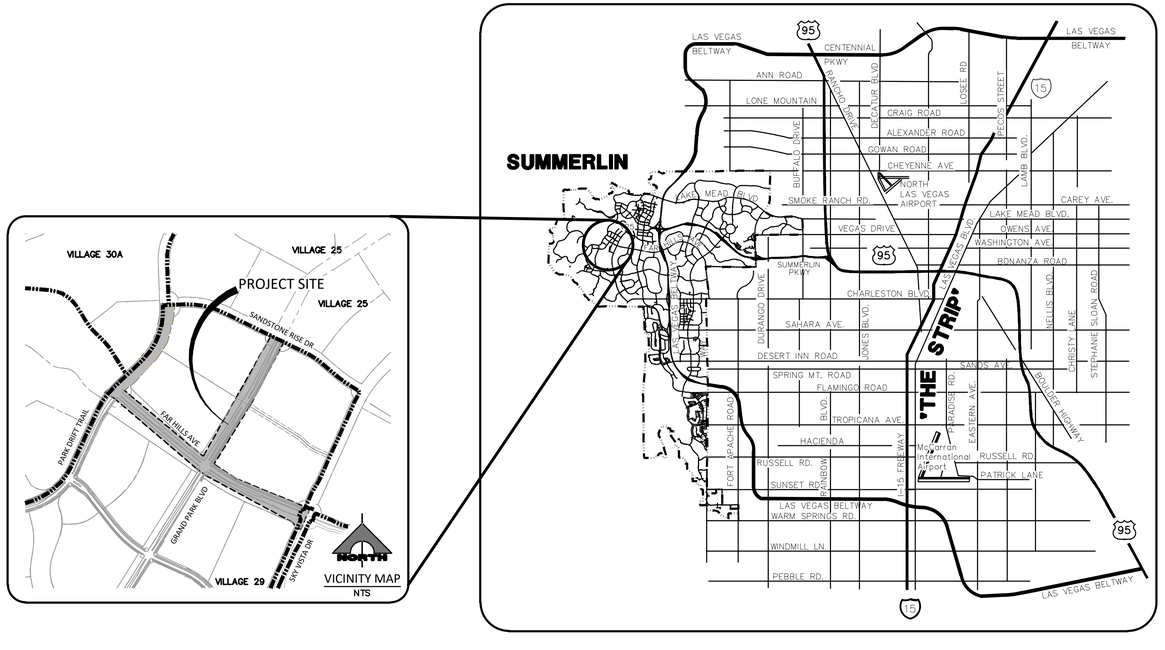
SUMMERLIN

SM

VILLAGE 29

PHASE 1 INFRASTRUCTURE

FAR HILLS AVENUE (PARK DRIFT TRAIL TO SKY VISTA DRIVE)
GRAND PARK BOULEVARD (FAR HILLS AVENUE TO SANDSTONE RISE DRIVE)
SID NO.
A.P.N. 137-28-601-001, 137-21-801-004, 137-27-101-004
2021



VICINITY MAP
NTS

OWNER/DEVELOPER

THE HOWARD HUGHES COMPANY, LLC
10845 GRIFFITH PEAK DRIVE, SUITE 160
LAS VEGAS, NEVADA 89135
OFFICE PHONE NO. (702) 791-4300

ENGINEER

GCW ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811 or 1-800-227-2600

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

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

PROFESSIONAL ENGINEER – STATE OF NEVADA – MLADJAN J. GRUJICIC – Exp. 06/30/2023 – CIVIL – No. 17109

Digitally signed by John Grujicic
Date: 2021.11.04 07:50:58 -07'00'

SHEET INDEX		
NO.	DWG	DESCRIPTION
1	G1	COVER SHEET
2	G2	PROJECT DATA
3	G3	GENERAL NOTES
4	HC1	HORIZONTAL CONTROL PLAN 1
5	HC2	HORIZONTAL CONTROL PLAN 2
6	HC3	HORIZONTAL CONTROL PLAN 3
7	MU1	MASTER UTILITY PLAN – WATER
8	MU2	MASTER UTILITY PLAN – STORM
9	MU3	MASTER UTILITY PLAN – SEWER
10	MG	MASTER GRADING PLAN
11	GD1	GRADING PLAN 1
12	GD2	GRADING PLAN 2
13	GD3	GRADING PLAN 3
14	PP1	PLAN AND PROFILE 1
15	PP2	PLAN AND PROFILE 2
16	PP3	PLAN AND PROFILE 3
17	PP4	PLAN AND PROFILE 4
18	PP5	PLAN AND PROFILE 5
19	PP6	PLAN AND PROFILE 6
20	PP7	PLAN AND PROFILE 7
21	PP8	PLAN AND PROFILE 8
22	PP9	PLAN AND PROFILE 9
23	PP10	PLAN AND PROFILE 10
24	PP11	PLAN AND PROFILE 11
25	PP12	PLAN AND PROFILE 12
26	PP13	PLAN AND PROFILE 13
27	PP14	PLAN AND PROFILE 14
28	PP15	PLAN AND PROFILE 15
29	PP16	PLAN AND PROFILE 16
30	PP17	PLAN AND PROFILE 17
31	PP18	PLAN AND PROFILE 18
32	PP19	PLAN AND PROFILE 19
33	DM	SKY VISTA AVENUE CONSTRUCTION & DEMOLITION PLAN
34	LP1	LATERAL PROFILES 1
35	LP2	LATERAL PROFILES 2
36	LP3	LATERAL PROFILES 3
37	LP4	LATERAL PROFILES 4
38	LP5	LATERAL PROFILES 5
39	LP6	LATERAL PROFILES 6
40	DT1	TYPICAL DETAILS AND SECTIONS 1
41	DT2	TYPICAL DETAILS AND SECTIONS 2
42	DT3	TYPICAL DETAILS AND SECTIONS 3
43	DT4	TYPICAL DETAILS AND SECTIONS 4
44	DT5	TYPICAL DETAILS AND SECTIONS 5
45	TR1	SIGNAGE AND STRIPING PLAN 1
46	TR2	SIGNAGE AND STRIPING PLAN 2
47	TR3	SIGNAGE AND STRIPING PLAN 3
48	SL1	STREETLIGHT AND ELECTRICAL PLAN 1
49	SL2	STREETLIGHT AND ELECTRICAL PLAN 2
50	SL3	STREETLIGHT AND ELECTRICAL PLAN 3
51	SL4	STREETLIGHT AND ELECTRICAL PLAN 4
52	SL5	STREETLIGHT AND ELECTRICAL PLAN 5
53	S–1	STRUCTURAL DETAILS
54	S–2	JUNCTION STRUCTURE 1 DETAIL
55	S–3	JUNCTION STRUCTURE 2 DETAIL
56	S–4	JUNCTION STRUCTURE 3 DETAIL

CITY OF LAS VEGAS ENGINEERING
APPROVALS

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

PROJECT NO. _____ FIRST APPROVAL DATE: _____
LVVWD APPROVED FIRE FLOW: TOTAL 1,500 GPM / ON-SITE N/A GPM
SHEETS: G1–G3, MU1–MU3, PP1–PP19, LP1–LP7

CAUTION TO CONTRACTOR

THE CONTRACTOR SHALL BE RESPONSIBLE TO INVESTIGATE AND VERIFY THE ACTUAL LOCATION AND DEPTH OF ALL EXISTING UNDERGROUND FACILITIES AT LEAST 48 HOURS IN ADVANCE OF THE PERFORMANCE OF ANY WORK.

THE HOWARD HUGHES COMPANY, LLC

BRIAN P. WALSH, P.E. DATE
SR. VICE PRESIDENT RESIDENTIAL – SUMMERLIN MPC

DRAINAGE CERTIFICATION

I CERTIFY THAT THE GRADING PLANS ARE IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY ON FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT.

MLADJAN J. GRUJICIC. P.E. 17109 DATE

FIRE DEPARTMENT APPROVAL

CITY OF LAS VEGAS FIRE DEPARTMENT DATE

UTILITY APPROVALS

COX COMMUNICATIONS LAS VEGAS, INC. DATE

CENTRAL TELEPHONE CO., DBA CENTURYLINK DATE

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

NV ENERGY DATE

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

NV ENERGY – TRANSMISSION ENGINEERING DATE

SOUTHWEST GAS CORPORATION DATE

L#: LXX–XXXXX–XXXX CLV#: 107XXXXX

PROFESSIONAL ENGINEER – STATE OF NEVADA – MLADJAN J. GRUJICIC – Exp. 06/30/2023 – CIVIL – No. 17109 DATE: 11/03/2021

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	AGEN APP	DATE	GCW APP	DATE

PROJECT NO. 62029-204
DESIGN: GH/AS
DRAWN: GH
CHECK: LG/JG
PLOT DATE: 11-03-21
PLOT TIME: 16:20:12

GCW ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com
GEORGE HOANG
F:\PROJECTS\62029-204\CIVIL\PRODUCTION\62029-204_G1_G1.DWG

THE HOWARD HUGHES COMPANY, LLC
VILLAGE 29
PHASE 1 INFRASTRUCTURE
COVER SHEET

DRAWING
G1
1 OF 56 SHTS

LAS VEGAS VALLEY WATER DISTRICT
LVVWD PROJECT # _____#####_____

(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 SUPERSEDE 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 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 STANDARDS, 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 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 TEN FOOT EASEMENT ABUTTING A PUBLIC OR PRIVATE STREET, IF DISTURBED BY THE LVVWD DURING THE REPAIR OR OPERATION OF ITS FACILITIES, WILL BE REPLACED BY LVVWD WITH AN APPROPRIATELY SIZED PLAIN FINISH CONCRETE PATCH. THE LVVWD WILL NOT RESTORE, AND WILL NOT BE RESPONSIBLE FOR THE RESTORATION OF, ANY DECORATIVE PAVING SURFACE WITHIN THE STREET. THE LVVWD WILL NOT ATTEMPT TO MATCH COLOR OR FINISH OF ANY ADJACENT MATERIALS.
15. <u>NO LEAD COMPLIANCE NOTE:</u>
    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.

ADDITIONAL WATER NOTES

1. INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE 15.
2. 24" MINIMUM DEPTH OF COVER OVER WATER LINE MUST BE MAINTAINED DURING CONSTRUCTION.
3. THE DISTRICT CANNOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE TO REMOVE FUGITIVE WATER THAT MAY IMPEDE CONSTRUCTION AT ALL TIMES. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TRIAL SHUTDOWN. CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.
4. THIS PROJECT PROVIDES FOR THE INSTALLATION OF OFF–SITE WATER MAINS ONLY, AND DOES NOT PROVIDE OR IMPLY ANY WATER COMMITMENT.

FOR TRENCHES 4-FEET WIDE AND GREATER

CONTRACTOR MUST SUBMIT SHOP DRAWINGS TO LVVWD ENGINEERING SERVICES BEFORE CONSTRUCTION TO SHOW HOW WATERLINES SPANNING A TRENCH WILL BE SUPPORTED DURING EXCAVATION AND BACKFILL.

SUPPORTED PIPELINES MAY BE EXPOSED FOR <u>NO</u> LONGER THAN 90 DAYS MAXIMUM. IF THE PIPE WILL BE EXPOSED FOR MORE THAN 90 DAYS, PIPE <u>MUST</u> BE RELOCATED PER APPROVED PLANS.

IF THE PIPE MATERIAL IS ACP, REPLACE FROM COUPLING TO COUPLING WITH DUCTILE IRON PIPE.

CONDITIONAL APPROVAL OF VALVED OUTLET (6" AND LARGER)

THE WATER PLANS SHOW ONE OR MORE VALVED OUTLETS EXTENDING OUT OF PAVED AREAS. INSTALLATION OF THESE OUTLETS IS ACCEPTABLE. HOWEVER, IF THE OUTLETS ARE INCORRECTLY LOCATED OR NOT USED FOR ANY REASON WHEN THE PROPERTY IS ACTUALLY DEVELOPED, THE DEVELOPER SHALL ABANDON THE OUTLETS AT THE CONNECTION TO THE ACTIVE MAIN IN ACCORDANCE WITH LVVWD STANDARDS AND AT THE DEVELOPER'S EXPENSE. APPROVAL OF THE VALVED OUTLET DOES NOT PROVIDE OR IMPLY A WATER COMMITMENT.

WATER MAIN JOINT NOTES (PVC 4"-24")

PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1,150 FEET, PER UDACS 2.07.01 AND 2.07.02.

FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

WATER MAIN JOINT NOTES (DIP 4"-12")

DIP PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE TWO AND ONE–HALF (2.5) DEGREES PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 415 FEET, PER UDACS 2.07.03.

FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

ALL SEWER/STORM DRAIN CROSSING WATER LINES MUST COMPLY WITH UDACS SECTION 2.22

LEGEND

- TYPICAL PROPOSED LINEWORK
- TYPICAL EXISTING LINEWORK
- TYPICAL FUTURE LINEWORK
- SECTION LINE
- EASEMENT LINE
- RIGHT–OF–WAY LINE
- PROPERTY LINE
- CENTERLINE
- TYPICAL UTILITY LINE 4" – 12" (SINGLE LINE)
- TYPICAL UTILITY LINE > THAN 12" (DOUBLE LINE)
- TYPICAL SEWER LINE W/MH
- TYPICAL WATER LINE W/GV
- TYPICAL STORM LINE W/MH
- 100 YR HYDRAULIC GRADE LINE
- CONCRETE OR STEEL ENCASEMENT
- TYPICAL STUB & BLOW–OFF
- EX. UTILITIES PROFILE VIEW
- -PE GAS- EX. GAS LINE
- -ELE UG- EX. ELECTRICAL
- EX. CABLE TV
- EX. TELEPHONE
- EX. OVERHEAD POWER LINES
- EX. ELEC & PWR POLES
- TYPICAL CURB & GUTTER, SIDEWALK AND RAMP
- POST AND CABLE FENCE
- CHAIN LINK FENCE
- SAWCUT
- PAVEMENT RESORATION AREA
- PROPOSED ABANDONMENT
- EXISTING ABANDONMENT
- CUT LINE LIMITS
- FILL LINE LIMITS
- EXISTING RIPRAP
- PROPOSED RIPRAP

- DETAIL BUBBLE W/ REF. (1/C)
- BENCHMARK
- GATE VALVE
- PRV — PRESSURE REDUCING VALVE
- BWV — BACK WATER VALVE
- DROP INLET
- FIRE HYDRANT
- WATER METER
- WATER RPPA
- WATER RPDA
- TRAFFIC SIGNAL PULL BOX
- STREET LIGHT CLARK COUNTY
- STREET LIGHT SUMMERLIN STD
- TRAFFIC SIGNAL/FLASHER
- EXISTING TELE POLE
- EXISTING POWER POLE
- EXISTING POLE
- EX. ELEC MARKER
- TRANSFORMER PAD
- SERVICE PEDESTAL
- PULLBOX
- 3005 — PROPOSED CONTOUR
- (3005) — EXISTING CONTOUR
- 60.50 TC — PROPOSED SPOT ELEVATION
- (60.50) TC — EXISTING SPOT ELEVATION
- 1.00% — PROPOSED SLOPE
- TOP SLOPE / TOE SLOPE — SLOPE DIRECTION
- FF = 2333.25 — FINISH FLOOR ELEVATION

ABBREVIATIONS

A	AIR	DIA, ø	DIAMETER	NOSHA	STATE OF NEVADA OCCUPATIONAL	SL	STREET LIGHT
AC	ASPHALT CONCRETE, ACRE	DIP	DUCTILE IRON PIPE		SAFETY AND HEALTH	SP	SERVICE POINT
ACP	ASBESTOS CEMENT PIPE	DIST	DISTANCE		ADMINISTRATION	SQ	SQUARE
ADD'L	ADDITIONAL	DR	DRIVE	NPC	NEVADA POWER COMPANY	SR	SEWER RECLAIM MAIN
AP	ANGLE POINT	DS	DOWNSPOUT	NTS	NOT TO SCALE	SS	SANITARY SEWER
APN	ASSESSOR'S PARCEL NUMBER	DTL	DETAIL	NVE	NV ENERGY	SSMH	SANITARY SEWER MANHOLE
APPROX	APPROXIMATELY	DW	DRIVEWAY	OB	OVERBUILD	STA	STATION
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS	DWG	DRAWING	OC	ON CENTER	ST	STREET
		E	EAST	OHC	OVERHEAD COX COMMUNICATION	STD	STANDARD
		ECR	END CURB RETURN	OHP	OVERHEAD POWER LINE	STL	STEEL
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	ELE,ELEC	ELECTRICAL	P	POWER LINE	STRUCT	STRUCTURE
		ELEV	ELEVATION	PB	PULL BOX	SV	SKY VISTA DRIVE
AVE	AVENUE	EP, EOP	EDGE OF PAVEMENT	PBS	PLANTMIX BITUMINOUS SURFACE	SVZ	SIGHT VISIBILITY ZONE
AVAR	AIR VALVE, AIR RELEASE ASSEMBLY	ESMT	EASEMENT	PC	POINT OF CURVE, PRESSURE CLASS	SW	SIDEWALK
		EVC	END VERTICAL CURVE			SWG	SOUTHWEST GAS
AWWA	AMERICAN WATER WORKS ASSOCIATION	EVP	END VERTICAL POINT	PCC	POINT OF COMPOUND CURVE	T	TELEPHONE OR TOP
		EXIST,EX	EXISTING	PE	PROJECT ENGINEER OR POLYETHYLENE	TAN	TANGENT
BC	BACK OF CURB	EXP	EXPANSION JOINT			TB	TOP OF BERM
BCR	BEGIN CURB RETURN	FC	FACE OF CURB	PED	PEDESTRIAN	TC	TOP OF CURB
BLM	BUREAU OF LAND MANAGEMENT	FF, FFE	FINISH FLOOR ELEVATION	PGL	PROFILE GRADE LINE	TCE	TEMPORARY CONSTRUCTION ESMT
BLVD	BOULEVARD	FG	FINISH GRADE	PH	POTHOLE	TEL,TELE	TELEPHONE
BM	BENCHMARK	FH	FIRE HYDRANT	PI	POINT OF INTERSECTION	TEMP	TEMPORARY
BO	BLOW–OFF	FL	FLOW LINE	PIV	POST INDICATOR VALVE	TF	TOP OF FOOTING
BVCE	BEGIN VERTICAL CURVE ELEVATION	FO	FIBER OPTIC	PL	PROPERTY LINE	TG	TOP OF GRATE
		FRP	FIBERGLASS REINFORCED PLASTIC	PLCP	POLYURETHANE LINED AND COATED STEEL PIPE	TMH	TOP OF MANHOLE
BVCS	BEGIN VERTICAL CURVE STATION	FS	FINISH SURFACE			TP	TOP OF PIPE
BVP	BEGIN VERTICAL POINT	FT	FOOT/FEET	PMF	PAVEMENT MARKING FILM	TP	TELEPHONE POLE
BW	BACK OF SIDEWALK	FTG	FOOTING	POB	POINT OF BEGINNING	TRANS	TRANSITION
C/L, ℄	CENTERLINE	FUT	FUTURE	POC	POINT ON CURVE, POINT OF CONNECTION	TRW	TOP OF RETAINING WALL
C&G	CURB AND GUTTER	G	GAS			TS	TEST STATION
CATV	UNDERGROUND CABLE TV	GA	GAGE, GUY ANCHOR	POT	POINT ON TANGENT	TS&V	TAPPING SLEEVE & VALVE
CCBM	CLARK COUNTY BENCH MARK	GB	GRADE BREAK	PP	POWER POLE	TW	TOP OF WALL
CCPW	CLARK COUNTY PUBLIC WORKS	GND	GROUND	PROP	PROPOSED	TYP,(TYP)	TYPICAL
CCTV	CLOSED–CIRCUIT TELEVISION	GRD	GRADE, GROUND	PRC	POINT OF REVERSE CURVE	UDACS	UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS (LATEST EDITION)
CCWRD	CLARK COUNTY WATER RECLAMATION DISTRICT	H, HGT	HEIGHT	PRVC	POINT OF REVERSE VERTICAL CURVE		
		HDWL	HEADWALL				
CE	COMMON ELEMENT	HGL	HYDRAULIC GRADE LINE	PSI	POUNDS PER SQUARE INCH		
CFS	CUBIC FEET PER SECOND	HORIZ	HORIZONTAL	PT	POINT OF TANGENCY	UG	UNDERGROUND
CIP	CAPITAL IMPROVEMENTS PROJECT, CORRUGATED IRON PIPE	HP	HIGH POINT, HIGH PRESSURE	PVC	POLYVINYL CHLORIDE	ULT	ULTIMATE
		HPS	HIGH PRESSURE SODIUM	PVI	POINT OF VERTICAL INTERSECTION	USD, USDCCA, CCAUSD	UNIFORM STD. DRAWINGS FOR PUBLIC WORKS' CONSTRUCTION OFF–SITE IMPROVEMENTS CLARK COUNTY AREA, NEVADA (LATEST EDITION)
CIPM	CURED–IN–PLACE MANHOLE	IBC	INTERNATIONAL BUILDING CODE	PVMT	PAVEMENT		
CIPP	CURED–IN–PLACE PIPE	INV	INVERT	PZ	PRESSURE ZONE		
CIR	CIRCLE	INT	INTERIM	R, RAD	RADIAL, RADIUS		
CLR	CLEAR OR CLEARANCE	JT	JOINT	R, RT	RIGHT		
CLSM	CONTROLLED LOW STRENGTH MATERIAL	L	LENGTH	RCB	REINFORCED CONCRETE BOX		
		L, LT	LEFT	RCP	REINFORCED CONCRETE PIPE		
CL	CENTER LINE	LF	LINEAR FEET	RD	ROAD	UT	UNDERGROUND TELEPHONE
CLV	CITY OF LAS VEGAS	LIP	LIP OF GUTTER	RDWY	ROADWAY	VAR	VARIABLE/VARIES
CMP	CORRUGATED METAL PIPE	LN	LANE	REC	RECTANGULAR	VC	VERTICAL CURVE
CMU	CONCRETE MASONRY UNIT	LP	LOW POINT, LIGHT POLE	REF	REFERENCE	VCP	VITRIFIED CLAY PIPE
CNLV	CITY OF NORTH LAS VEGAS	LSCP	LANDSCAPE	REINF	REINFORCED	VERT	VERTICAL
CO	CLEANOUT	LVVWD	LAS VEGAS VALLEY WATER DISTRICT	REQD	REQUIRED	VG	VALLEY GUTTER
CONC	CONCRETE	MAX	MAXIMUM	RIM	TOP OF RIM ELEVATION	VOL	VOLUME
COND	CONDUIT	MH	MANHOLE	RND	ROUND	W	WATER, WEST
CONST	CONSTRUCT OR CONSTRUCTION	MIN	MINIMUM	ROW,R/W	RIGHT OF WAY	W/	WITH
COORD	COORDINATE	MLTMCP	MORTAR LINED TAPE & MORTAR COATED PIPE	RP	RADIUS POINT	WMH	WATER MANHOLE
COR	CORNER			RPM	RAISED PAVEMENT MARKERS	WS	WATER SUPPLY
CPEP	CORRUGATED POLYETHELYNE PIPE	MP	MESA PARK	RSGV	RESILIENT SEAT GATE VALVE	WT	WEIGHT
CT	COURT	MOD	MODIFY/MODIFIED	S	SEWER, SOUTH	WTR	WATER
CY	CUBIC YARD(S)	MON	MONUMENT	SCH	SCHEDULE	XING	CROSSING
Δ	DELTA	MPH	MILES PER HOUR	SD	STORM DRAIN	YD	YARD, YARD DRAIN
DBL	DOUBLE	N	NORTH	SDMH	STORM DRAIN MANHOLE	Z	PRESSURE ZONE
DCS\ DCSWCS	DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEM (LATEST ED.)	NAP	NOT A PART	SECT	SECTION		
		NDOT	NEVADA DEPARTMENT OF TRANSPORTATION	SF	SQUARE FOOT/FEET		
DEFL	DEFLECTION	N.I.C.	NOT IN CONTRACT	SHLDR	SHOULDER		
DG	DESIGN GRADE	No.	NUMBER	SHT	SHEET		
DI/D.I.	DROP INLET			SIS	SUMMERLIN IMPROVEMENT STANDARDS		

STREETLIGHT QUANTITIES (PUBLIC)

STREETLIGHT, 32' DOUBLE FOUNDATION	28 EA
1–1/4" CONDUIT W/ WIRE & T&B	4,143 LF
SERVICE POINT	1 LF
TRANSFORMER PAD	1 EA
#3–1/2 PULLBOX	16 EA

QUANTITIES ARE ESTIMATES ONLY. CONTRACTOR IS TO VERIFY DURING BIDDING PROCESS.

SEWER QUANTITIES (PUBLIC)

SEWER MAIN C905 15" (0–12')	1,218 LF
SEWER MAIN C900 12" (0–12')	129 LF
SEWER MAIN C900 8" (0–12')	2,616 LF
SEWER MANHOLE (6'–12')	3 EA
SEWER MANHOLE (12'–18')	5 EA
SEWER MANHOLE (18'+)	16 EA
SEWER CAP	7 EA
CONNECT TO EXISTING	1 EA

QUANTITIES ARE ESTIMATES ONLY. CONTRACTOR IS TO VERIFY DURING BIDDING PROCESS.

STORM DRAIN QUANTITIES (PUBLIC)

60" RCP	789 LF
54" RCP	148 LF
48" RCP	41 LF
42" RCP	980 LF
24" RCP	413 LF
SD MANHOLE – 72"	2 EA
SD MANHOLE – TYPE I 4'	3 EA
SD MANHOLE – TYPE I 5'	1 EA
SD MANHOLE – TYPE II 4'	5 EA
SD MANHOLE – TYPE II 5'	4 EA
JUNCTION STRUCTURE	3 EA
DROP INLET – 7.5' MODIFIED "C"	4 EA
DROP INLET – 10' MODIFIED"C"	4 EA
DROP INLET – 15' MODIFIED "C"	4 EA
DROP INLET – 20' MODIFIED "C"	2 EA
LONG 6X6 RCB	1,172 LF

QUANTITIES ARE ESTIMATES ONLY. CONTRACTOR IS TO VERIFY DURING BIDDING PROCESS.

ROAD IMPROVEMENT QUANTITIES (PUBLIC)

ROUGH GRADING EXCAVATION	12,672 CY
ROUGH GRADING FILL	14,221 CY
NET (FILL)	1,549 CY

QUANTITIES ARE ESTIMATES ONLY. CONTRACTOR IS TO VERIFY DURING BIDDING PROCESS.

WATER QUANTITIES (PUBLIC)

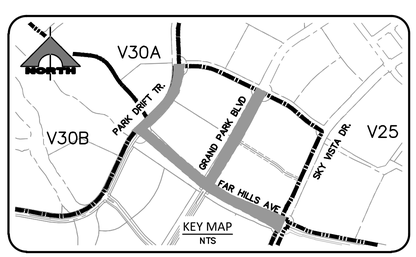
24" DIP WATER MAIN	2,389 LF
12" DIP WATER MAIN	3,520 LF
6" DIP WATER MAIN	454 LF
FIRE HYDRANT	10 EA
24" GATE VALVE W BOX & COVER	5 EA
12" GATE VALVE W BOX & COVER	18 EA
6" GATE VALVE W BOX & COVER	10 EA
12" CAP W/ 2" BLOWOFF	13 EA
24" CAP W/ 2" BLOWOFF	1 EA
12"X12" CROSS	1 EA
16"X12" REDUCER	2 EA
24"X24"X24" TEE	1 EA
24"X24"X12" TEE	1 EA
24"X24"X6" TEE	3 EA
12"X12"X12" TEE	12 EA
12"X12"X6" TEE	4 EA
INSTALL TEST STATION	5 EA
IRRIGATION METERS W/ PRV	5 EA

QUANTITIES ARE ESTIMATES ONLY. CONTRACTOR IS TO VERIFY DURING BIDDING PROCESS.

ROAD IMPROVEMENT QUANTITIES (PUBLIC)

4 IN. AC PAVEMENT	38,378 SY
TYPE "L" CURB – 6"	14,152 LF
TYPE "A" CURB	6,160 LF
PAVEMENT STRIPING – ARTERIAL	4,329 LF
BIKE LANE STRIPING	4,329 LF
PAVEMENT MARKERS	4,329 LF
SIGNAGE	4,329 LF
ADA RAMP	11 EA

QUANTITIES ARE ESTIMATES ONLY. CONTRACTOR IS TO VERIFY DURING BIDDING PROCESS.



BASIS OF BEARING AND COORDINATES

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

BM#	DESCRIPTION	NAVD 88 DATUM	NAVD 88 DATUM
CLV BM No. 5LV09 34NE6	RIVET AND PLATE IN TOP OF CURB @ NORTHEAST CORNER OF DESERT FOOTHILLS AND ALTA DRIVE.	3304.45 (FEET)	1007.197 (METERS)

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

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

LVVWD APPROVED FIRE FLOW: TOTAL 1,500 GPM / ON–SITE N/A GPM

L#: LXX–XXXXX–XXXX | CLV#: 107XXXXX

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

PROFESSIONAL ENGINEER – STATE OF NEVADA – No. 17019 – GREGORY LADJAN GRUJICIC – Exp. 06/30/2023 – CIVIL

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP	DATE: 11/03/2021

PROJECT NO. 62029-204
DESIGN: GH/AS
DRAWN: GH
CHECK: LG/AS
PLOT DATE: 11-03-21
PLOT TIME: 16:20:13

GCW ENGINEERS\SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

F:\PROJECTS\600\62029-204\DWG\PRODUCTION\62029-204_01_CV.DWG

GEORGE HOANG

THE HOWARD HUGHES COMPANY, LLC

VILLAGE 29
PHASE 1 INFRASTRUCTURE

PROJECT DATA

DRAWING
G2
2 OF 56 SHTS

SOUTHERN 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 UTILITIES 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 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.

SOUTHWEST GAS APPROVAL

SOUTHWEST GAS CORPORATION DATE

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 SHALL 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 UNIVERSAL ENGINEERING SCIENCES, REPORT # 4030.2000273, DATE FEBUARY 17TH,2021 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 N.R.S. 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.

WALL NOTES:

16. 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/UTILITY TRENCH UTILITY SURVEY INSPECTION FOR PIPE TERMINATION 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 EACH 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 ALIGNMENT, INCLUDING DEFLECTION POINTS.

OR

(MAY BE USED ONLY ON PROJECTS ASSOCIATED WITH A TENTATIVE MAP CONTAINING 5 LOTS OR MORE)

- 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 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 06/04/18

DEVIATION FROM STANDARDS

NONE

CITY OF LAS VEGAS FIRE AND RESCUE GENERAL NOTES FOR HYDRANTS AND ACCESS

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 SECTION 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 SECTION 3310, SECTION 3312]
5. TO IDENTIFY FIRE HYDRANT LOCATIONS, THE CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT THE CENTER LINE OF THE STREET ADJACENT TO THE FIRE HYDRANTS. [IFC SECTION 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 SECTION 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 SECTION 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 SECTION 507]
9. PRIVATE FIRE HYDRANTS SHALL BE PAINTED RED. [IFC SECTION 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 SECTION 507]
11. FIRE HYDRANTS SPACING SHALL BE AS FOLLOWS: [IFC SECTION 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 1,000 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 SECTION 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 SECTION 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 SECTION C102.4]
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 SECTION C102.7]
17. THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO THE END OF A DEAD-END STREET SHALL NOT EXCEED 200 FT. [IFC SECTION 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 3 FIRE HYDRANTS AND/OR FIRE SPRINKLER LEAD-INS CAN BE OF SERVICE DUE TO A SERVICE INTERRUPTION. [IFC SECTION 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 SECTION 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 SECTION 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 13 FT 6 IN. [IFC SECTION 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 NOT BE LESS THAN 24 FT. [IFC SECTION 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 SECTION 503.1.1]
25. APPROVED SECONDARY FIRE APPARATUS ACCESS SHALL BE PROVIDED FOR 200 OR MORE DWELLING UNITS, ROAD(S) WITH DEAD-ENDS OR 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 SECTION 503.3]
28. ELECTRICALLY CONTROLLED ACCESS GATES SHALL BE PROVIDED WITH AN APPROVED EMERGENCY VEHICLE DETECTOR/RECEIVER SYSTEM. [IFC SECTION 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 BEING UTILIZED TO DELIVER FIRE FLOW TO PROPOSED LOCATION SHALL BE LOCATED ON THE SAME SIDE OF THE STREET AS THE PROPOSED DEVELOPMENT. CLV REGULATION.

REVISED FEBRUARY 4, 2019

FLOOD ZONE NOTE

THIS PROJECT IS LOCATED WITHIN A FEMA DESIGNATED FLOOD ZONE X PER FIRM PANEL **32003C2150E & 32003C2125E**, DATED **SEPTEMBER 27, 2002**. A ZONE X IS DEFINED AS BEING OUTSIDE THE 100-YEAR FLOODPLAIN AND NOT LOCATED WITHIN A FEMA-DESIGNATED SPECIAL FLOOD HAZARD AREA.

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 SERVICES TO EACH.

REVISED 09/16/20

LAS VEGAS VALLEY CONSTRUCTION STORMWATER RUNOFF MANAGEMENT - STANDARD NOTES

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 ACCUMULATE IN, THE PUBLIC RIGHTS OF WAYS OF THE **CITY OF LAS VEGAS** 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 THE **CLARK COUNTY UDACS** AND THE LAS VEGAS VALLEY CONSTRUCTION SITE BEST MANAGEMENT PRACTICES 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 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 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.

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

- 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 HIW OWN EXPENSE AND AT THE DIRECTION OF THE CITY ENGINEER. TEMPORARY CONSTRUCTION INCLUDES DITCHES, BERMS, ROAD SIGNS AND BARRICADES, ETC.

REVISED 4/15/10

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 ADVANCED 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 SIGN

VILLAGE 25
PARCEL J
APN 137-21-801-003/137-22-301-006

VILLAGE 25
3665 RESERVOIR
APN 137-22-401-002

VILLAGE 25
PARCEL I
APN 137-22-301-006

VILLAGE 25
PARCEL H
APN 137-22-301-006

SANDSTONE RISE DR
CLV #107Y5132
(PUBLIC)

FUT. SIDEWALK (BY OTHERS)

EX. FH
EX. 42" W (4125)
EX. 24" W (3895)
EX. 12" W
EX. 16" DIP W
EX. 12" PVC W

20"X12" REDUCER
12" DIP W (3895 PZ)
12"X6" TEE
6" GV
6" DIP W (3895 PZ)
FH #10
2" AVAR

KEY MAP
NTS
V30A
V30B
V25
MU1
PARK DRIFT TR.
GRAND PK. BLVD
SKY VISTA DR.
FAR HILLS AVE.

NORTH
100' 0' 50' 100' 200'
SCALE: 1" = 100'

FUT. BIKE TRAIL (BY OTHERS)

EX. 24" DIP W (3895 PZ)
24" DIP W (3895 PZ)
24" G.V.
24"X6" TEE
W CAP #13
6" DIP W (3895 PZ)
6" G.V.

VILLAGE 30A
FUTURE PARCEL A
APN 137-28-101-005

FUTURE
PARK DRIFT TRAIL
(PUBLIC)

24"X12" TEE
12" G.V.
W CAP #10
12" DIP W (3895 PZ)
24" G.V.
W CAP #12
24" DIP W (3895 PZ)
6" DIP W (3895 PZ)
W CAP #14
6" GV
24" GV
24"X24" TEE
FH #6
6" DIP W (3895 PZ)
6" GV
W CAP #6
24"X6" TEE
W CAP #5

VILLAGE 29
FUTURE PARCEL A
APN 137-21-801-004/137-27-101-004/137-28-601-001

VILLAGE 29
FUTURE PARCEL B
APN 137-28-601-001/137-27-101-004

VILLAGE 29
FUTURE PARCEL C
APN 137-27-101-004

VILLAGE 29
FUTURE PARCEL D
APN 137-28-601-001/137-27-101-004

W3895

12" DIP W (3895 PZ)
12"X6" TEE
6" GV
6" DIP W (3895 PZ)
V. BEND
FH #9
1.5" METER & RPPA
W CAP #9
12"X12" TEE
12"X12" REDUCER
12"X12" CROSS
FH #8
W CAP #8
W CAP #7
FH #7
2" AVAR
FH #4
FH #5
FH #3
W CAP #4
1" METER & RPPA
2" METER & RPPA
W CAP #3

GRAND PARK BLVD
(PUBLIC)

FAR HILLS AVE
(PUBLIC)

VILLAGE 30B
FUTURE PARCEL B
APN 137-28-101-005

VILLAGE 29
FUTURE PARCEL E
APN 137-28-601-001

VILLAGE 29
FUTURE PARCEL F
APN 137-28-601-001

VILLAGE 29
FUTURE PARCEL G
APN 137-28-601-001/137-27-101-004

3665 UPPER LIMIT

3895 LOWER LIMIT

SKY VISTA DR
(PUBLIC)

EX. 6" GAS (WR3934915)

CONTACT SWG CONSTRUCTION AT (702) 528-7881 TO ADJUST VALVE CANS TO GRADE.

VILLAGE 25
PARCEL D
APN 137-22-301-001

V. BEND
12" DIP W (3895 PZ)
EX. ABANDONED WATER IMPROVEMENTS TO BE REMOVED
W CAP #1
12" G.V.
12"X6" TEE
6" G.V.
12"X12" TEE
W CAP #11
FH #2
6" DIP W (3895 PZ)
FH #1
W CAP #2

EX. 6" GAS (WR1987461)
EX. 6" GAS (WR1987458)

VILLAGE 23B

APN 137-27-101-004
PARCEL H
APN 137-28-601-001/137-27-101-004

SKY VISTA DR
CLV #107V7418
CLV #107V7884
(PUBLIC)

SOUTHWEST GAS APPROVAL

SOUTHWEST GAS CORPORATION DATE

IRRIGATION METER NOTE

IRRIGATION METER PROVIDED FOR FUTURE ROADWAY LANDSCAPE (SHRUBS, TREES, & DRIP IRRIGATION ONLY).

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

PROJECT NO. _____ FIRST APPROVAL DATE: _____

LVVWD APPROVED FIRE FLOW: TOTAL 1,500 GPM / ON-SITE N/A GPM

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811 or 1-800-642-2444

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

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

L#: LXX-XXXXX-XXXX CLV#: 107XXXXX

STATE OF NEVADA
PROFESSIONAL ENGINEER
MILADJAN GRUJICIC
No. 17101
CIVIL
Exp. 06/30/2023
11/03/2021

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP	DATE:

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

PROJECT NO. 62029-204
DESIGN: GH/AS
DRAWN: GH
CHECK: LG/JG
PLOT DATE: 11-03-21
PLOT TIME: 16:23:44

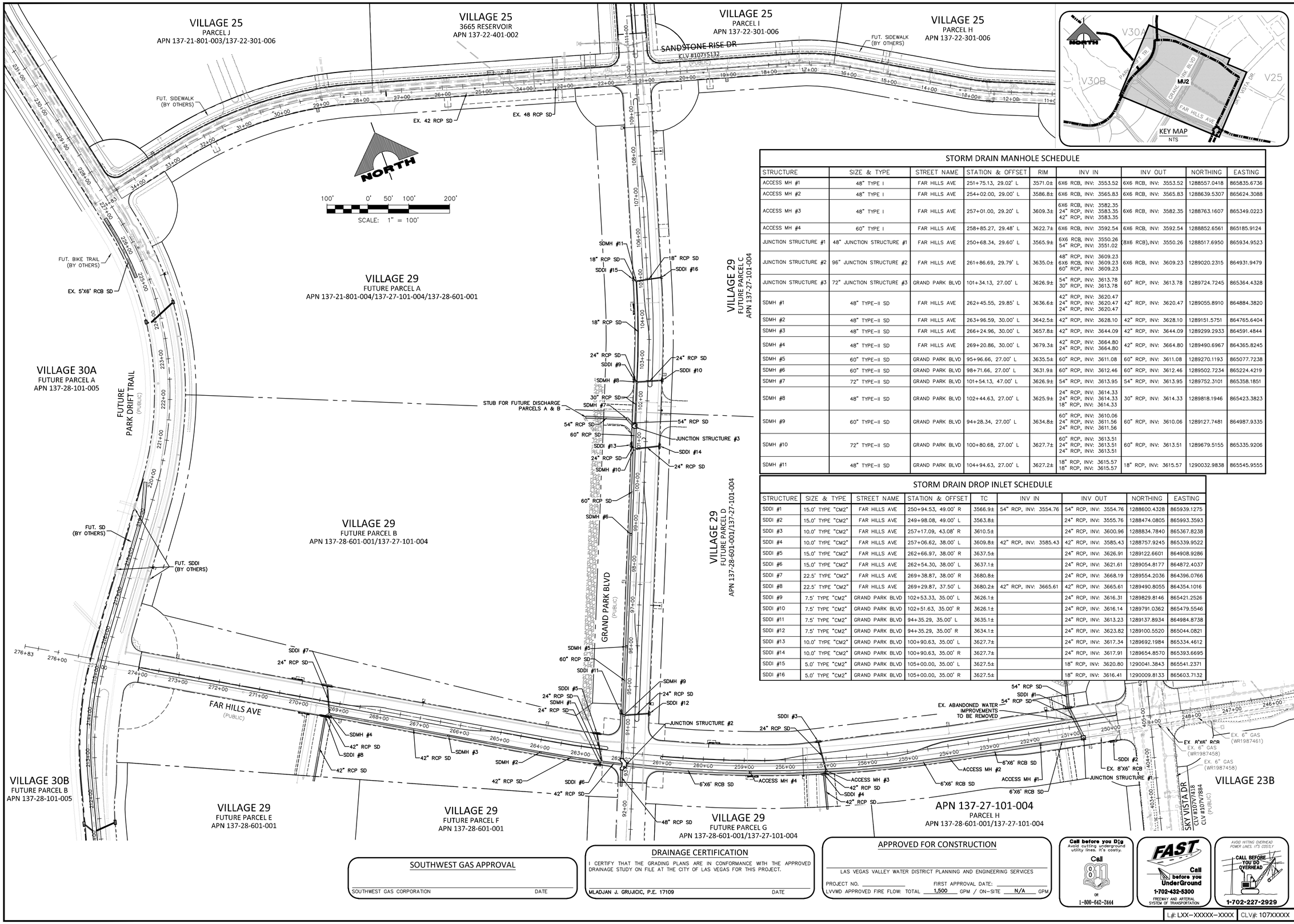
GCW ENGINEERS & SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com
F:\PROJECTS\62XX\62029-204\DWG\PRODUCTION\62029-204_03_MU1.DWG
GEORGE HOANG

THE HOWARD HUGHES COMPANY, LLC

VILLAGE 29
PHASE 1 INFRASTRUCTURE

MASTER UTILITY PLAN - WATER

DRAWING
MU1
7 OF 56 SHTS



STORM DRAIN MANHOLE SCHEDULE

STRUCTURE	SIZE & TYPE	STREET NAME	STATION & OFFSET	RIM	INV IN	INV OUT	NORTHING	EASTING
ACCESS MH #1	48" TYPE I	FAR HILLS AVE	251+75.13, 29.02' L	3571.0±	6X6 RCB, INV: 3553.52	6X6 RCB, INV: 3553.52	1288557.0418	865835.6736
ACCESS MH #2	48" TYPE I	FAR HILLS AVE	254+02.00, 29.00' L	3586.8±	6X6 RCB, INV: 3565.83	6X6 RCB, INV: 3565.83	1288639.5307	865624.3088
ACCESS MH #3	48" TYPE I	FAR HILLS AVE	257+01.00, 29.20' L	3609.3±	6X6 RCB, INV: 3582.35 24" RCP, INV: 3583.35 42" RCP, INV: 3583.35	6X6 RCB, INV: 3582.35	1288763.1607	865349.0223
ACCESS MH #4	60" TYPE I	FAR HILLS AVE	258+85.27, 29.48' L	3622.7±	6X6 RCB, INV: 3592.54	6X6 RCB, INV: 3592.54	1288852.6561	865185.9124
JUNCTION STRUCTURE #1	48" JUNCTION STRUCTURE #1	FAR HILLS AVE	250+68.34, 29.60' L	3565.9±	6X6 RCB, INV: 3550.26 54" RCP, INV: 3551.02	(8X6 RCB),INV: 3550.26	1288517.6950	865934.9523
JUNCTION STRUCTURE #2	96" JUNCTION STRUCTURE #2	FAR HILLS AVE	261+86.69, 29.79' L	3635.0±	48" RCP, INV: 3609.23 6X6 RCB, INV: 3609.23 60" RCP, INV: 3609.23	6X6 RCB, INV: 3609.23	1289020.2315	864931.9479
JUNCTION STRUCTURE #3	72" JUNCTION STRUCTURE #3	GRAND PARK BLVD	101+34.13, 27.00' L	3626.9±	54" RCP, INV: 3613.78 30" RCP, INV: 3613.78	60" RCP, INV: 3613.78	1289724.7245	865364.4328
SDMH #1	48" TYPE-II SD	FAR HILLS AVE	262+45.55, 29.85' L	3636.6±	42" RCP, INV: 3620.47 24" RCP, INV: 3620.47 24" RCP, INV: 3620.47	42" RCP, INV: 3620.47	1289055.8910	864884.3820
SDMH #2	48" TYPE-II SD	FAR HILLS AVE	263+96.59, 30.00' L	3642.5±	42" RCP, INV: 3628.10	42" RCP, INV: 3628.10	1289151.5751	864765.6404
SDMH #3	48" TYPE-II SD	FAR HILLS AVE	266+24.96, 30.00' L	3657.8±	42" RCP, INV: 3644.09	42" RCP, INV: 3644.09	1289299.2933	864591.4844
SDMH #4	48" TYPE-II SD	FAR HILLS AVE	269+20.86, 30.00' L	3679.3±	42" RCP, INV: 3664.80 24" RCP, INV: 3664.80	42" RCP, INV: 3664.80	1289490.6967	864365.8245
SDMH #5	60" TYPE-II SD	GRAND PARK BLVD	95+96.66, 27.00' L	3635.5±	60" RCP, INV: 3611.08	60" RCP, INV: 3611.08	1289270.1193	865077.7238
SDMH #6	60" TYPE-II SD	GRAND PARK BLVD	98+71.66, 27.00' L	3631.9±	60" RCP, INV: 3612.46	60" RCP, INV: 3612.46	1289502.7234	865224.4219
SDMH #7	72" TYPE-II SD	GRAND PARK BLVD	101+54.13, 47.00' L	3626.9±	54" RCP, INV: 3613.95	54" RCP, INV: 3613.95	1289752.3101	865358.1851
SDMH #8	48" TYPE-II SD	GRAND PARK BLVD	102+44.63, 27.00' L	3625.9±	24" RCP, INV: 3614.33 24" RCP, INV: 3614.33 18" RCP, INV: 3614.33	30" RCP, INV: 3614.33	1289818.1946	865423.3823
SDMH #9	60" TYPE-II SD	GRAND PARK BLVD	94+28.34, 27.00' L	3634.8±	60" RCP, INV: 3610.06 24" RCP, INV: 3611.56 24" RCP, INV: 3611.56	60" RCP, INV: 3610.06	1289127.7481	864987.9335
SDMH #10	72" TYPE-II SD	GRAND PARK BLVD	100+80.68, 27.00' L	3627.7±	60" RCP, INV: 3613.51 24" RCP, INV: 3613.51 24" RCP, INV: 3613.51	60" RCP, INV: 3613.51	1289679.5155	865335.9206
SDMH #11	48" TYPE-II SD	GRAND PARK BLVD	104+94.63, 27.00' L	3627.2±	18" RCP, INV: 3615.57 18" RCP, INV: 3615.57	18" RCP, INV: 3615.57	1290032.9838	865545.9555

STORM DRAIN DROP INLET SCHEDULE

STRUCTURE	SIZE & TYPE	STREET NAME	STATION & OFFSET	TC	INV IN	INV OUT	NORTHING	EASTING
SDDI #1	15.0' TYPE "CM2"	FAR HILLS AVE	250+94.53, 49.00' R	3566.9±	54" RCP, INV: 3554.76	54" RCP, INV: 3554.76	1288600.4328	865939.1275
SDDI #2	15.0' TYPE "CM2"	FAR HILLS AVE	249+98.08, 49.00' L	3563.8±		24" RCP, INV: 3555.76	1288474.0805	865993.3593
SDDI #3	10.0' TYPE "CM2"	FAR HILLS AVE	257+17.09, 43.08' R	3610.5±		24" RCP, INV: 3600.96	1288834.7840	865367.8238
SDDI #4	10.0' TYPE "CM2"	FAR HILLS AVE	257+06.62, 38.00' L	3609.8±	42" RCP, INV: 3585.43	42" RCP, INV: 3585.43	1288757.9245	865339.9522
SDDI #5	15.0' TYPE "CM2"	FAR HILLS AVE	262+66.97, 38.00' R	3637.5±		24" RCP, INV: 3626.91	1289122.6601	864908.9286
SDDI #6	15.0' TYPE "CM2"	FAR HILLS AVE	262+54.30, 38.00' L	3637.1±		24" RCP, INV: 3621.61	1289054.8177	864872.4037
SDDI #7	22.5' TYPE "CM2"	FAR HILLS AVE	269+38.87, 38.00' R	3680.8±		24" RCP, INV: 3668.19	1289554.2036	864396.0766
SDDI #8	22.5' TYPE "CM2"	FAR HILLS AVE	269+29.87, 37.50' L	3680.2±	42" RCP, INV: 3665.61	42" RCP, INV: 3665.61	1289490.8055	864354.1016
SDDI #9	7.5' TYPE "CM2"	GRAND PARK BLVD	102+53.33, 35.00' L	3626.1±		24" RCP, INV: 3616.31	1289829.8146	865421.2526
SDDI #10	7.5' TYPE "CM2"	GRAND PARK BLVD	102+51.63, 35.00' R	3626.1±		24" RCP, INV: 3616.14	1289791.0362	865479.5546
SDDI #11	7.5' TYPE "CM2"	GRAND PARK BLVD	94+35.29, 35.00' L	3635.1±		24" RCP, INV: 3613.23	1289137.8934	864984.8738
SDDI #12	7.5' TYPE "CM2"	GRAND PARK BLVD	94+35.29, 35.00' R	3634.1±		24" RCP, INV: 3623.82	1289100.5520	865044.0821
SDDI #13	10.0' TYPE "CM2"	GRAND PARK BLVD	100+90.63, 35.00' L	3627.7±		24" RCP, INV: 3617.34	1289692.1984	865334.4612
SDDI #14	10.0' TYPE "CM2"	GRAND PARK BLVD	100+90.63, 35.00' R	3627.7±		24" RCP, INV: 3617.91	1289654.8570	865393.6695
SDDI #15	5.0' TYPE "CM2"	GRAND PARK BLVD	105+00.00, 35.00' L	3627.5±		18" RCP, INV: 3620.80	1290041.3843	865541.2371
SDDI #16	5.0' TYPE "CM2"	GRAND PARK BLVD	105+00.00, 35.00' R	3627.5±		18" RCP, INV: 3616.41	1290009.8133	865603.7132

SOUTHWEST GAS APPROVAL

SOUTHWEST GAS CORPORATION DATE

DRAINAGE CERTIFICATION

I CERTIFY THAT THE GRADING PLANS ARE IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY ON FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT.

MLADJAN J. GRUJICIC, P.E. 17109 DATE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

PROJECT NO. _____ FIRST APPROVAL DATE: _____

LVVWD APPROVED FIRE FLOW: TOTAL 1,500 GPM / ON-SITE N/A GPM

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call
or
1-800-642-2444

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

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

NEVADA PROFESSIONAL ENGINEER - STATE OF NEVADA
MLADJAN GRUJICIC
No. 17109
CIVIL
06/05/2023
DATE: 11/03/2021

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

PROJECT NO. 62029-204
DESIGN: GH/AS
DRAWN: GH
CHECK: LG/JG
PLOT DATE: 11-03-21
PLOT TIME: 16:23:52

GCW ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

F:\PROJECTS\62029-204\PRODUCTION\62029-204_03_MU1.DWG
GEORGE HOANG

THE HOWARD HUGHES COMPANY, LLC

VILLAGE 29
PHASE 1 INFRASTRUCTURE

MASTER UTILITY PLAN - STORM

DRAWING
MU2
8 OF 56 SHTS

L#: LXX-XXXXX-XXXX CLV#: 107XXXXX

VILLAGE 25
PARCEL J
APN 137-21-801-003/137-22-301-006

VILLAGE 25
3665 RESERVOIR
APN 137-22-401-002

VILLAGE 25
PARCEL I
APN 137-22-301-006

VILLAGE 25
PARCEL H
APN 137-22-301-006

SANDSTONE RISE DR
CLV #107Y5132
(PUBLIC)

FUT. SIDEWALK (BY OTHERS)

EX. 12" C-900 SS

FUT. BIKE TRAIL (BY OTHERS)

VILLAGE 29
FUTURE PARCEL A
APN 137-21-801-004/137-27-101-004/137-28-601-001

VILLAGE 29
FUTURE PARCEL C
APN 137-27-101-004

VILLAGE 30A
FUTURE PARCEL A
APN 137-28-101-005

FUTURE PARK DRIFT TRAIL (PUBLIC)

SSMH #22
SSMH #23
8" C-900 SS
SS CAP #7
8" C-900 SS
SSMH #21
SSMH #20

VILLAGE 29
FUTURE PARCEL B
APN 137-28-601-001/137-27-101-004

GRAND PARK BLVD (PUBLIC)

VILLAGE 29
FUTURE PARCEL D
APN 137-28-601-001/137-27-101-004

SS CAP #5
8" C-900 SS
SSMH #17
SSMH #16
8" C-900 SS
SSMH #14
8" C-900 SS
SSMH #13
SSMH #12
8" C-900 SS
SSMH #11
SSMH #10
8" C-900 SS
SSMH #19
8" C-900 SS

FAR HILLS AVE (PUBLIC)

8" C-900 SS
SSMH #15
8" C-900 SS
SS CAP #4

VILLAGE 30B
FUTURE PARCEL B
APN 137-28-101-005

VILLAGE 29
FUTURE PARCEL E
APN 137-28-601-001

VILLAGE 29
FUTURE PARCEL F
APN 137-28-601-001

SSMH #24
SS CAP #6
15" C-905 SS
15" C-905 SS
SSMH #18
8" C-900 SS
SSMH #9
15" C-905 SS
SSMH #8
15" C-905 SS
SSMH #6
15" C-905 SS
SSMH #5
15" C-905 SS
8" C-900 SS
SSMH #4
12" C-900 SS

VILLAGE 29
FUTURE PARCEL G
APN 137-28-601-001/137-27-101-004

8" C-900 SS
SSMH #7
8" C-900 SS
SS CAP #3

APN 137-27-101-004
PARCEL H
APN 137-28-601-001/137-27-101-004

EX. 6" GAS (WR39349I5)

CONTACT SWG CONSTRUCTION AT (702) 528-7881 TO ADJUST VALVE CANS TO GRADE.

SS CAP #1
SSMH #2
EX. ABANDONED WATER IMPROVEMENTS TO BE REMOVED

VILLAGE 25
PARCEL D
APN 137-22-301-001

SSMH #1
8" C-900 SS
SSMH #3
8" C-900 SS
SS CAP #2

EX. 6" GAS (WR1987461)
EX. 6" GAS (WR1987458)
EX. 6" GAS (WR1987458)

SKY VISTA DR
CLV #107V7418
CLV #107V7884
(PUBLIC)

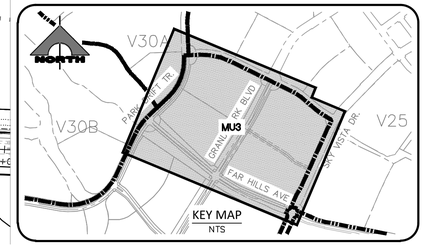
VILLAGE 23B

FUT. SIDEWALK (BY OTHERS)

EX. 12" C-900 SS

NORTH

100' 0' 50' 100' 200'
SCALE: 1" = 100'



KEY MAP
NTS

SANITARY SEWER MANHOLE SCHEDULE

MH #	STREET NAME	STATION & OFFSET	RIM	INV IN	INV OUT	NORTHING	EASTING	MH SIZE
SSMH #1	FAR HILLS AVE	251+16.87, 14.00' L	3568.4±	3545.95 3546.53 3546.53	3545.75	1288549.86	865895.41	60"
SSMH #2	FAR HILLS AVE	251+16.87, 85.99' R	3569.1±	3553.27	3553.07	1288643.02	865931.76	48"
SSMH #3	FAR HILLS AVE	251+16.87, 133.99' L	3569.0±	3554.24	3554.04	1288438.08	865851.80	48"
SSMH #4	FAR HILLS AVE	252+59.44, 14.00' L	3576.6±	3552.25	3552.05	1288601.68	865762.59	60"
SSMH #5	FAR HILLS AVE	254+02.01, 14.00' L	3587.1±	3559.94	3559.74	1288653.50	865629.76	60"
SSMH #6	FAR HILLS AVE	257+20.24, 14.31' L	3611.0±	3577.73 3578.11	3577.53	1288785.28	865338.61	60"
SSMH #7	FAR HILLS AVE	257+20.24, 122.99' L	3611.8±	3591.67	3591.47	1288688.84	865288.52	48"
SSMH #8	FAR HILLS AVE	258+01.87, 14.40' L	3617.1±	3582.60	3582.40	1288823.99	865266.30	60"
SSMH #9	FAR HILLS AVE	259+85.98, 14.58' L	3628.6±	3592.51	3592.31	1288918.44	865107.27	60"
SSMH #10	FAR HILLS AVE	261+70.81, 14.77' L	3634.7±	3603.25 3603.25 3603.25	3603.05	1289022.90	864953.73	60"
SSMH #11	FAR HILLS AVE	263+96.59, 15.00' L	3642.8±	3623.34	3623.14	1289163.01	864775.34	48"
SSMH #12	FAR HILLS AVE	265+81.59, 15.00' L	3654.9±	3638.13	3637.93	1289282.68	864634.26	48"
SSMH #13	FAR HILLS AVE	267+66.59, 15.00' L	3668.4±	3651.28	3651.08	1289402.35	864493.17	48"
SSMH #14	FAR HILLS AVE	269+55.87, 15.00' L	3682.2±	3664.38 3664.38	3664.18	1289524.78	864348.83	48"
SSMH #15	FAR HILLS AVE	269+55.87, 193.94' L	3684.8±	3666.37	3666.17	1289388.32	864233.08	48"
SSMH #16	FAR HILLS AVE	271+37.87, 15.00' L	3695.4±	3681.87	3681.67	1289642.51	864210.03	48"
SSMH #17	FAR HILLS AVE	273+55.00, 15.00' L	3708.6±	3694.68	3694.48	1289782.96	864044.44	48"
SSMH #18	GRAND PARK BLVD	93+48.37, 15.00' L	3635.1±	3603.61	3603.41	1289053.71	864955.42	48"
SSMH #19	GRAND PARK BLVD	95+44.36, 15.00' L	3635.1±	3604.78	3604.58	1289219.48	865059.97	48"
SSMH #20	GRAND PARK BLVD	97+46.78, 15.00' L	3634.6±	3606.19	3605.99	1289390.69	865167.95	48"
SSMH #21	GRAND PARK BLVD	99+49.18, 15.00' L	3630.6±	3607.60	3607.40	1289561.89	865275.93	48"
SSMH #22	GRAND PARK BLVD	101+71.13, 15.00' L	3626.8±	3609.13	3608.93	1289749.62	865394.32	48"
SSMH #23	GRAND PARK BLVD	101+71.13, 100.00' L	3627.8±	3611.88	3611.68	1289794.96	865322.42	48"
SSMH #24	GRAND PARK BLVD	92+60.00, 15.00' L	3635.7±	3604.18	3603.98	1288978.96	864908.28	60"

SOUTHWEST GAS APPROVAL

SOUTHWEST GAS CORPORATION DATE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

PROJECT NO. _____ FIRST APPROVAL DATE: _____

LVVWD APPROVED FIRE FLOW: TOTAL 1,500 GPM / ON-SITE N/A GPM

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811 OR 1-800-642-2444

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

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

L#: LXX-XXXXX-XXXX CLV#: 107XXXXX

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

PROFESSIONAL ENGINEER - STATE OF NEVADA
GRUJICIC, MILADJAN
No. 17101
CIVIL
06/05/2023
DATE: 11/03/2021

REV	DATE	DESCRIPTION	AGEN APP	DATE	GCW APP	DATE

PROJECT NO. 62029-204
DESIGN: GH/AS
DRAWN: GH
CHECK: LG/JG
PLOT DATE: 11-03-21
PLOT TIME: 16:24:00
PLOTTED BY: GEORGE HOANG

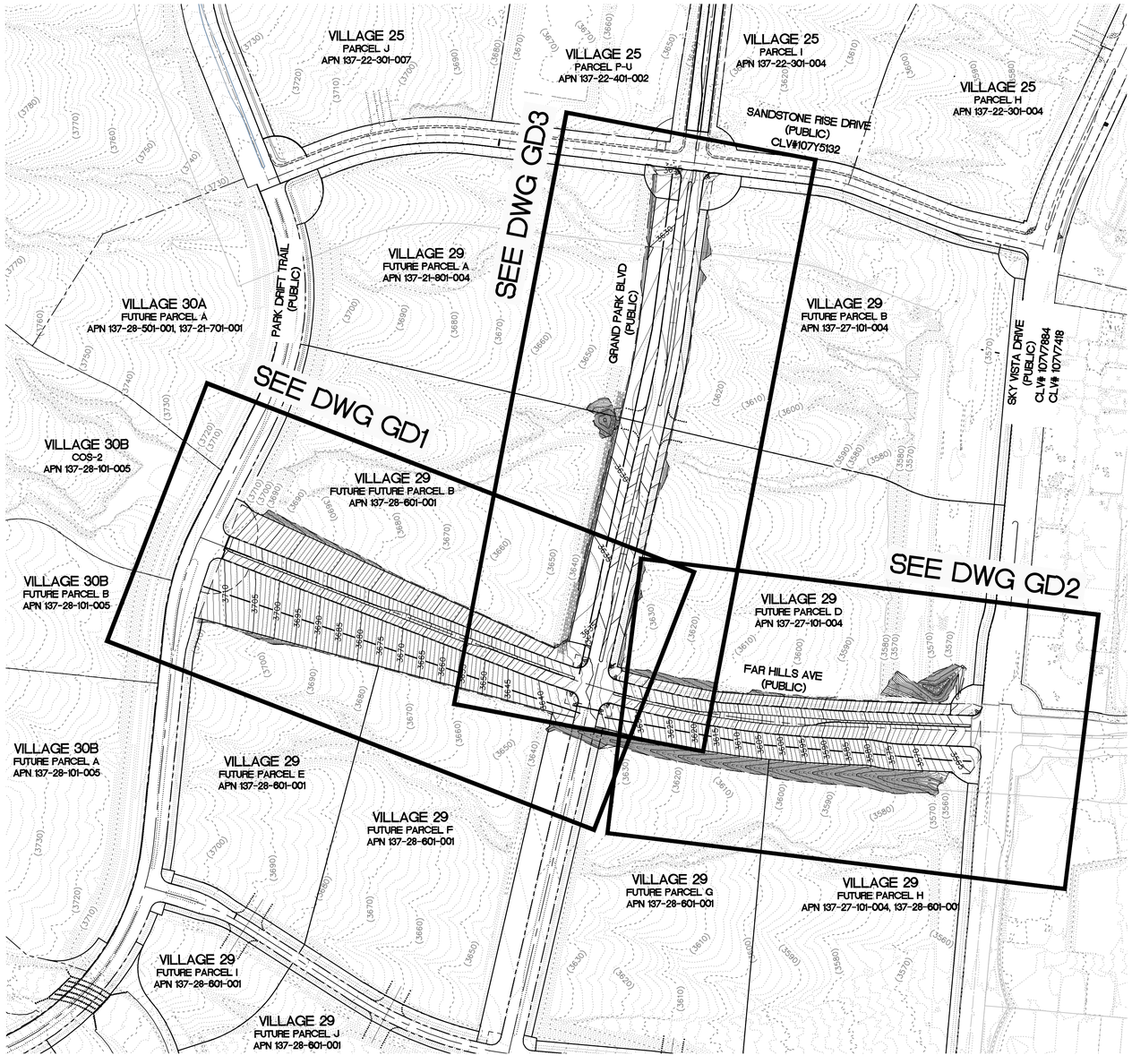
GCW ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com
F:\PROJECTS\600\62029-204\GWC\PRODUCTION\62029-204_GD_MU1.DWG

THE HOWARD HUGHES COMPANY, LLC

VILLAGE 29
PHASE 1 INFRASTRUCTURE

MASTER UTILITY PLAN - SEWER

DRAWING
MU3
9 OF 56 SHTS



NORTH

200' 0' 100' 200' 400'

SCALE: 1" = 200'

DRAINAGE MAINTENANCE NOTE

ALL INTERIM FLOOD CONTROL FACILITIES SUCH AS BUT NOT LIMITED TO BERMS/DITCHES AND TEMPORARY SUMP ARE PRIVATELY OWNED AND TO BE PRIVATELY MAINTAINED BY THE HOWARD HUGHES COMPANY.

DRAINAGE CERTIFICATION

I CERTIFY THAT THE GRADING PLANS ARE IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY ON FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT.

MLADJAN J. GRUJICIC, P.E. 17109 DATE

OFF-SITE FLOOD CONTROL NOTE

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BASIS OF BEARING AND COORDINATES

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:
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BENCHMARK

BM#	DESCRIPTION	NAVD 88 DATUM	NAVD 88 DATUM
CLV BM No. 7LV09345W6	FIND RIVET AND PLATE IN TOP OF CURB SE CORNER OF DESERT MOON RD. AND SKY VISTA DR. T20S,R59E,S34	3318.31 (FEET)	1,011.422 (METERS)

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call
811
OR
1-800-642-2444

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

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1-702-227-2929

L#: LXX-XXXXX-XXXX CLV#: 107XXXXX

ENGINEER - STATE OF NEVADA
MLADJAN GRUJICIC
Exp. 06/30/2023
PROFESSIONAL ENGINEER
CIVIL
No. 17109
DATE: 11/03/2021

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

PROJECT NO. 62029-204
DESIGN: GH/AS
DRAWN: GH
CHECK: LG/JG
PLOT DATE: 11-03-21
PLOT TIME: 16:25:46
GEORGE HOANG

1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

GCW ENGINEERS \ SURVEYORS

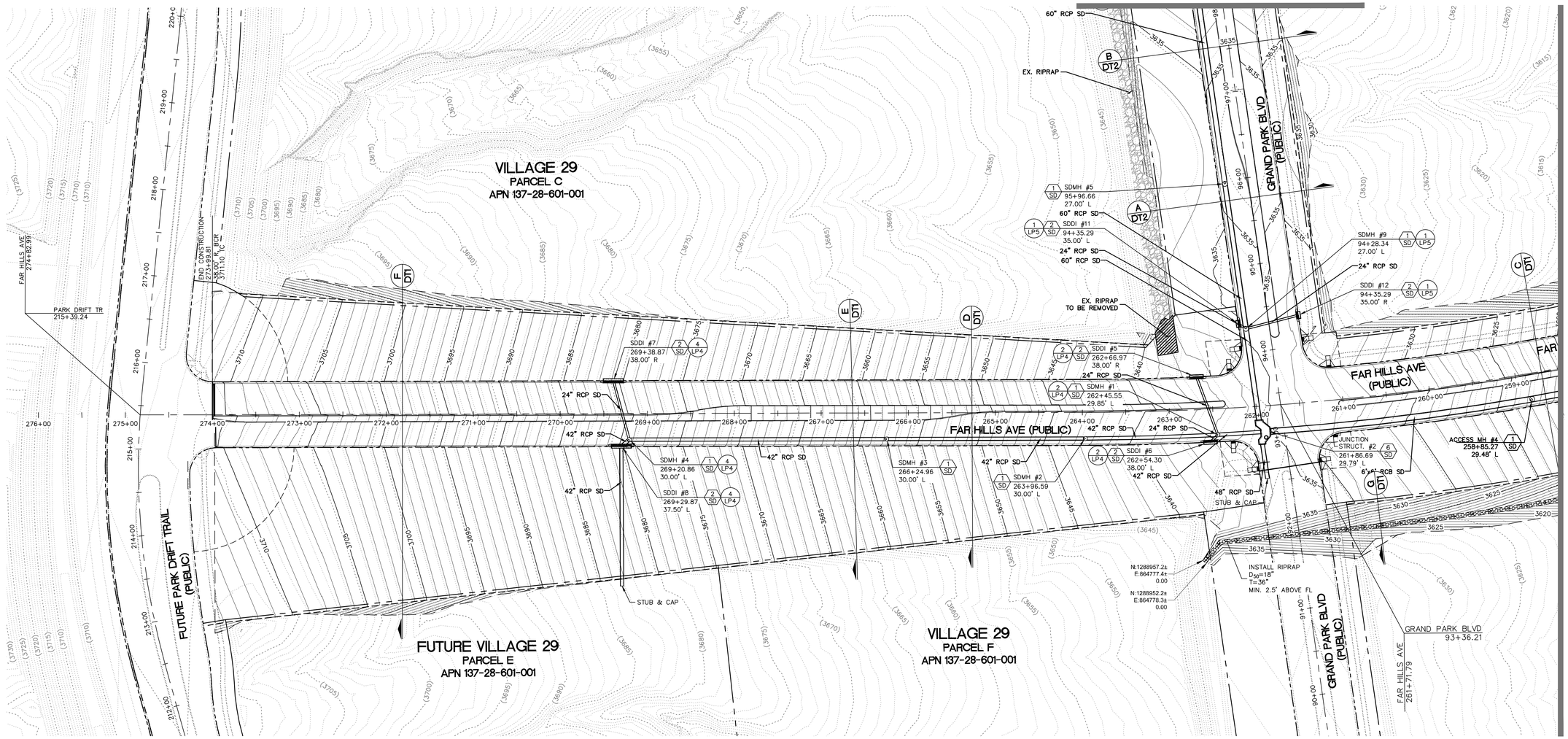
F:\PROJECTS\9000\62029-204\DWG\PRODUCTION\62029-204_GD1.DWG

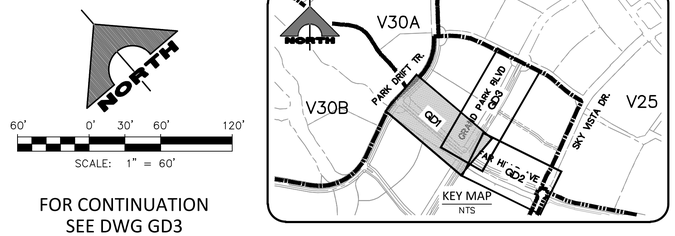
THE HOWARD HUGHES COMPANY, LLC

VILLAGE 29
PHASE 1 INFRASTRUCTURE

MASTER GRADING PLAN

DRAWING
MG
10 OF 56 SHTS





DRAINAGE MAINTENANCE NOTE

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DRAINAGE CERTIFICATION

I CERTIFY THAT THE GRADING PLANS ARE IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY ON FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT.

MLADJAN J. GRUJICIC, P.E. 17109 — DATE

STORM DRAIN CONSTRUCTION NOTES

1 SD — INSTALL TYPE II MANHOLE PER USD DWG. No. 405.1

2 SD — INSTALL TYPE "CM2" DROP INLET PER USD DWG. No. 421

3 SD — INSTALL TEMPORARY PLUG AND CAP PER DETAIL 4 ON DWG. DT3

4 SD — REMOVE PLUG & CONNECT TO EX. STORM DRAIN TO NEAREST RCP JOINT OR W/ CONCRETE COLLAR PER DETAIL 5 ON DWG. DT3 (CONTRACTOR TO VERIFY SIZE, INVERT, AND LOCATION OF EX. STORM DRAIN PRIOR TO CONSTRUCTION)

5 SD — INSTALL JUNCTION STRUCTURE PER SHEET S-2

6 SD — INSTALL JUNCTION STRUCTURE PER SHEET S-3

7 SD — INSTALL JUNCTION STRUCTURE PER SHEET S-4

BASIS OF BEARING AND COORDINATES

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)

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BM#	DESCRIPTION	NAVD 88 DATUM	NAVD 88 DATUM
CLV BM No. 7LV09345W6	FIND RIVET AND PLATE IN TOP OF CURB SE CORNER OF DESERT MOON RD. AND SKY VISTA DR. T20S,R59E,S34	3318.31 (FEET)	1,011.422 (METERS)

Call before you Dig
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FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

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L#: LXX-XXXXX-XXXX | CLV#: 107XXXXX

ENGINEER - STATE OF NEVADA
MLADJAN GRUJICIC
No. 17109
PROFESSIONAL
Expires 06/30/2023
CIVIL
DATE: 11/03/2021

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

PROJECT NO. 62029-204
DESIGN: GH/AS
DRAWN: GH
CHECK: LG/JG
PLOT DATE: 11-03-21
PLOT TIME: 16:27:57

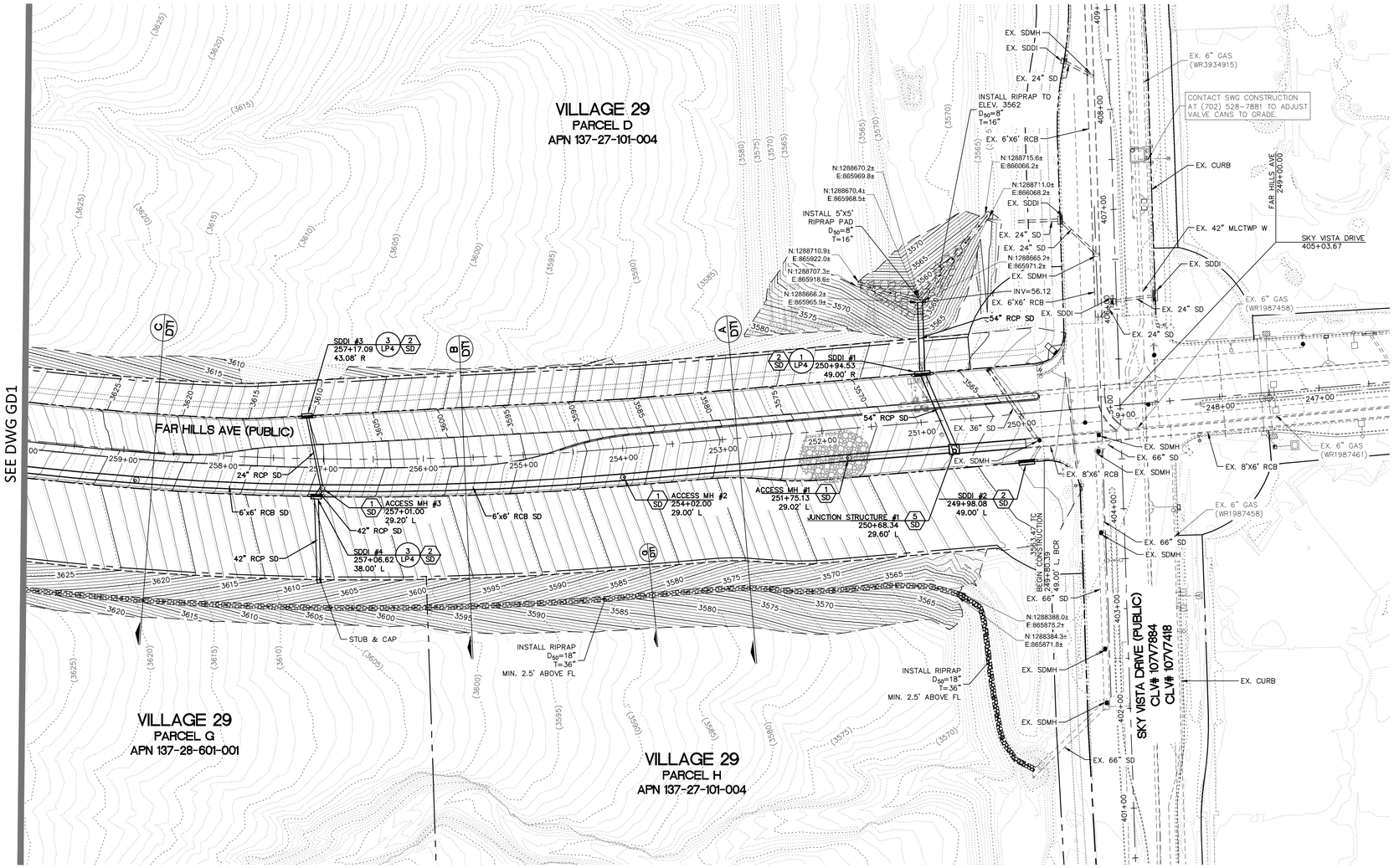
GCW
ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com
GEORGE HOANG
F:\PROJECTS\62029-204\PRODUCTION\62029-204_24_GD2.DWG

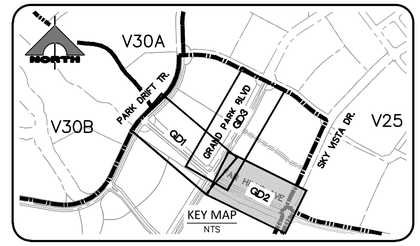
THE HOWARD HUGHES COMPANY, LLC

VILLAGE 29
PHASE 1 INFRASTRUCTURE

GRADING PLAN 1

DRAWING
GD1
11 OF 56 SHTS





NORTH

60' 0' 30' 60' 120'

SCALE: 1" = 60'

SOUTHWEST GAS APPROVAL

SOUTHWEST GAS CORPORATION DATE

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MLADJAN J. GRUJICIC, P.E. 17109 DATE

STORM DRAIN CONSTRUCTION NOTES

1 SD — INSTALL TYPE II MANHOLE PER USD DWG. No. 405.1
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CLV BM No. 7LV0934SW6	FIND RIVET AND PLATE IN TOP OF CURB SE CORNER OF DESERT MOON RD. AND SKY VISTA DR. T20S,R59E,S34	3318.31 (FEET)	1,011.422 (METERS)

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

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY
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1-702-227-2929

L#: LXX-XXXXX-XXXX CLV#: 107XXXXX

ENGINEER - STATE OF NEVADA
MLADJAN GRUJICIC
No. 17109
PROFESSIONAL
CIVIL
Exp. 06/30/2023
DATE: 11/03/2021

REV	DATE	DESCRIPTION	AGEN APP	DATE	GCW APP	DATE

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

PROJECT NO. 62029-204
DESIGN: GH/AS
DRAWN: GH
CHECK: LG/JG
PLOT DATE: 11-03-21
PLOT TIME: 16:28:03
GEORGE HOANG

GCW
ENGINEERS & SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

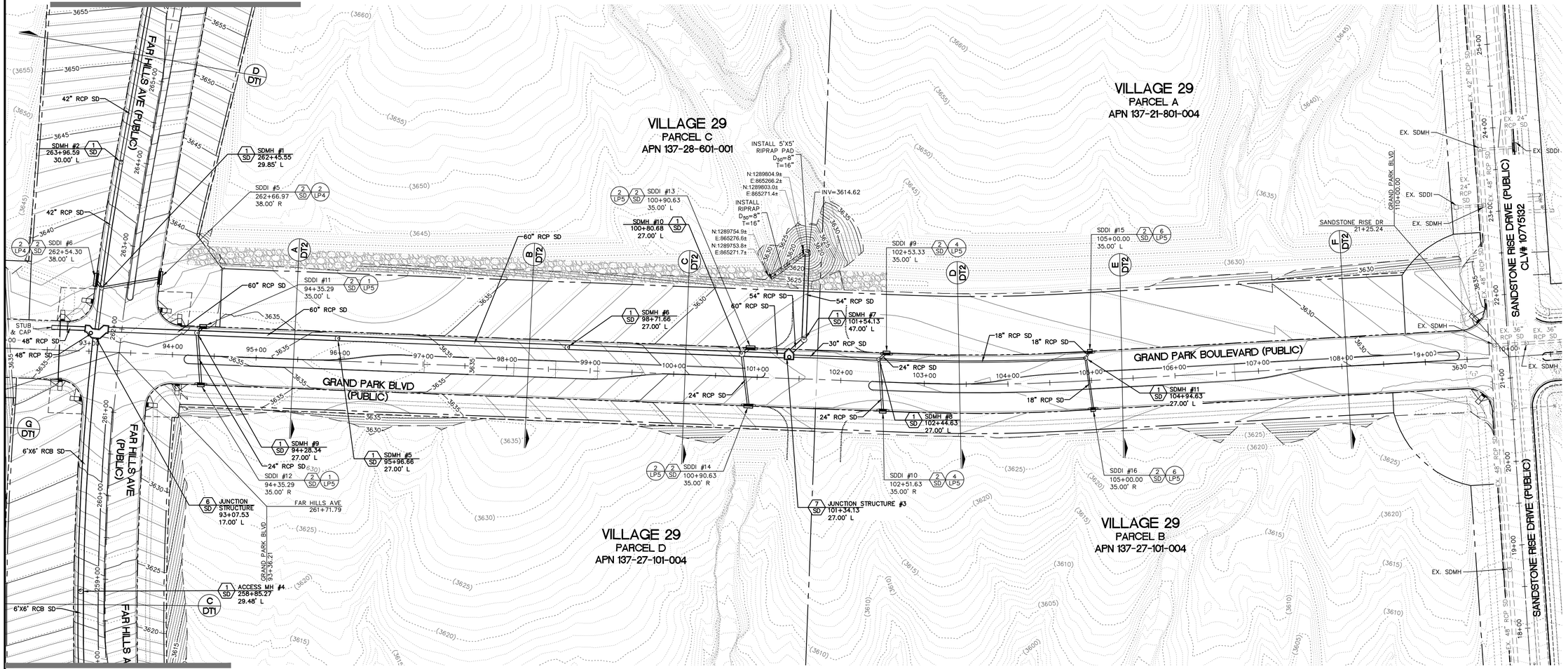
F:\PROJECTS\62029-204\DWG\PRODUCTION\62029-204_04_002.DWG

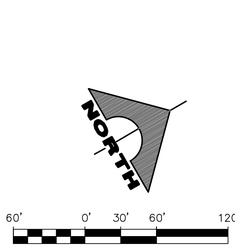
THE HOWARD HUGHES COMPANY, LLC

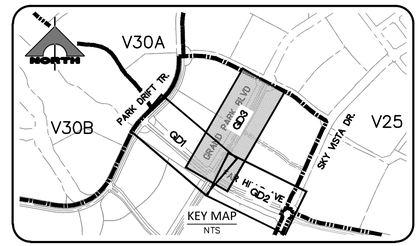
VILLAGE 29
PHASE 1 INFRASTRUCTURE

GRADING PLAN 2

DRAWING
GD2
12 OF 56 SHTS







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1. SD — INSTALL TYPE II MANHOLE PER USD DWG. No. 405.1
2. SD — INSTALL TYPE "CM2" DROP INLET PER USD DWG. No. 421
3. SD — INSTALL TEMPORARY PLUG AND CAP PER DETAIL 4 ON DWG. DT3
4. SD — REMOVE PLUG & CONNECT TO EX. STORM DRAIN TO NEAREST RCP JOINT OR W/ CONCRETE COLLAR PER DETAIL 5 ON DWG. DT3 (CONTRACTOR TO VERIFY SIZE, INVERT, AND LOCATION OF EX. STORM DRAIN PRIOR TO CONSTRUCTION)
5. SD — INSTALL JUNCTION STRUCTURE PER SHEET S-2
6. SD — INSTALL JUNCTION STRUCTURE PER SHEET S-3
7. SD — INSTALL JUNCTION STRUCTURE PER SHEET S-4

BASIS OF BEARING AND COORDINATES

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.

OFF-SITE FLOOD CONTROL NOTE

ALL OFF-SITE INTERIM FLOOD CONTROL FACILITIES SUCH AS, BUT NOT LIMITED TO, BERMS/DITCHES AND TEMPORARY SUMPS ARE PRIVATELY OWNED AND ARE TO BE PRIVATELY MAINTAINED BY THE HOWARD HUGHES COMPANY.

BENCHMARK

BM#	DESCRIPTION	NAVD 88 DATUM	NAVD 88 DATUM
CLV BM No. 7LV0934SW6	FIND RIVET AND PLATE IN TOP OF CURB SE CORNER OF DESERT MOON RD. AND SKY VISTA DR. T20S,R59E,S34	3318.31 (FEET)	1,011.422 (METERS)

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811 or 1-800-642-2444

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

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

L#: LXX-XXXXX-XXXX | CLV#: 107XXXX

ENGINEER - STATE OF NEVADA
MLADJAN GRUJICIC
Exp. 06/30/2023
PROFESSIONAL ENGINEER
No. 17109
DATE: 11/03/2021

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	AGEN APP	DATE	GCW APP	DATE

PROJECT NO. 62029-204
DESIGN: GH/AS
DRAWN: GH
CHECK: LG/JG
PLOT DATE: 11-03-21
PLOT TIME: 16:28:09

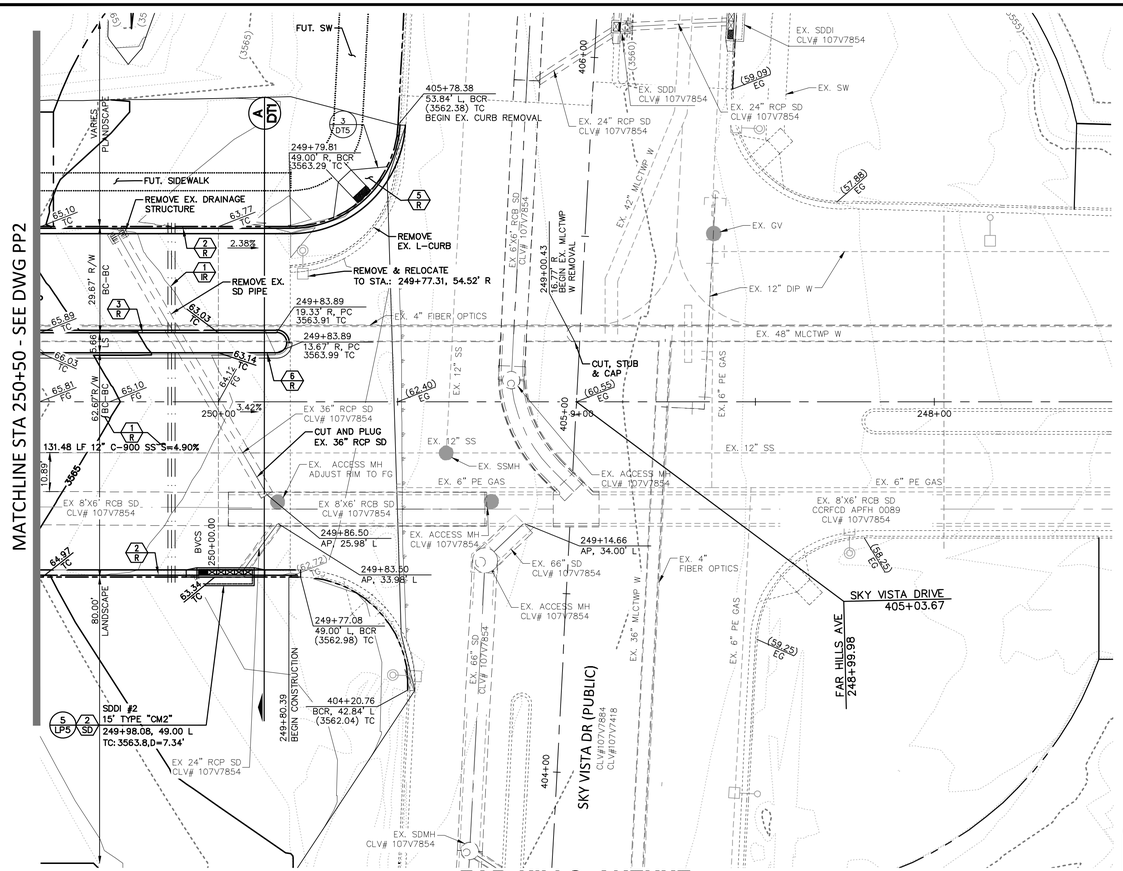
GCW
ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com
F:\PROJECTS\62029-204\GMO\PRODUCTION\62029-204_GD2.DWG
GEORGE HOANG

THE HOWARD HUGHES COMPANY, LLC

VILLAGE 29
PHASE 1 INFRASTRUCTURE

GRADING PLAN 3

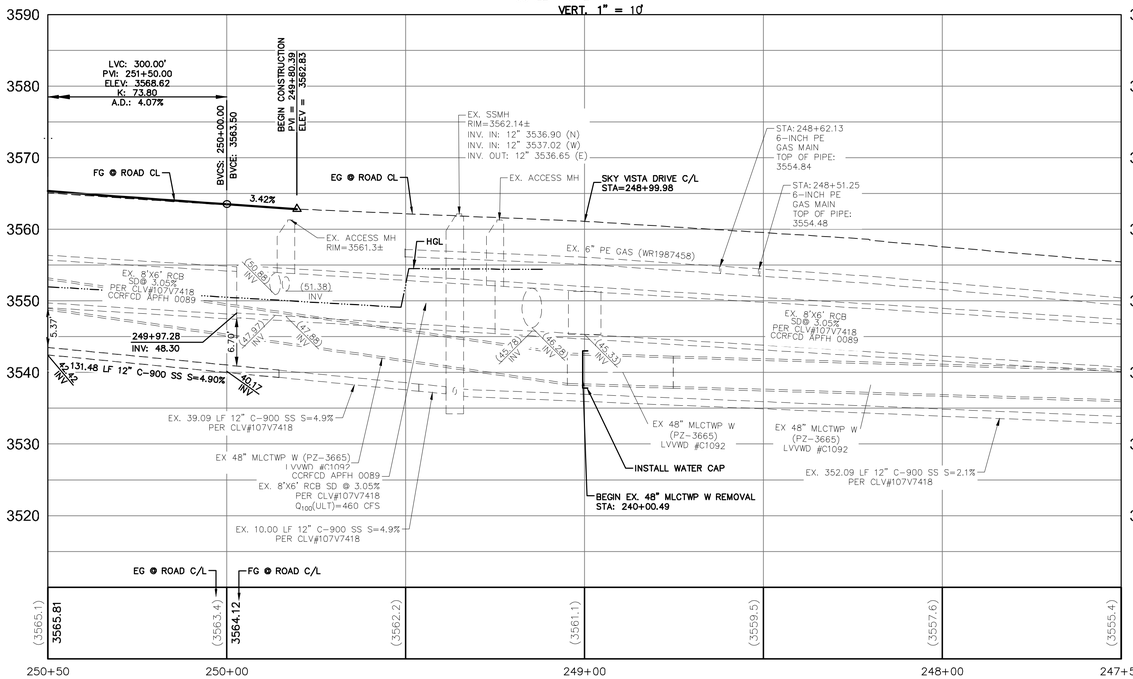
DRAWING
GD3
13 OF 56 SHTS

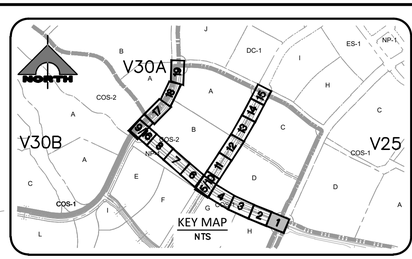


FAR HILLS AVENUE

(PUBLIC)

SCALE: HORIZ 1" = 20'
VERT. 1" = 10'





20' 0' 10' 20' 40'

SCALE: 1" = 20'

NOTE: THIS PROJECT PLAN APPROVAL CONTINGENT ON

######

BEING OPERATIONAL.

DEPTH OF COVER DURING CONSTRUCTION

MAINTAIN MINIMUM TWENTY-FOUR (24) INCH COVER PER UDACS SECTION 2.08.04. GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION.

LVVWD NOTES

1. INSTALL PIPELINE MARKER BALLS, PER UDACS PLATE NO. 15.
2. PROTECT IN PLACE AND ADJUST LVVWD EXISTING FACILITIES TO FINISHED GRADE PER UDACS. ALL LVVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES.
3. WATER MAIN JOINT DEFLECTION, PER UDACS 2.07.01 AND 2.07.03.
4. IN AREAS WHERE THE EXCAVATION OR GROUND ELEVATION IS LESS THAN THREE (3) FEET, FROM THE TOP OF THE LVVWD TRANSMISSION MAIN, NO EXCAVATION EQUIPMENT, OTHER THAN HAND HELD EQUIPMENT WILL BE ALLOWED WITHIN TEN (10) FEET OF THE PIPELINE IN THESE AREAS. THE CONTRACTOR IS TO PLACE A CONCRETE BARRIER; I.E. JERSEY RAIL, TO IDENTIFY AND PROTECT THE "NO EQUIPMENT ZONE."
5. ALL SEWER/STORM DRAIN CROSSING WATER LINES MUST COMPLY WITH UDACS SECTION 2.22.

LVVWD NOTE

LVVWD CANNOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE TO REMOVE REMAINING WATER. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TRIAL SHUTDOWN.

CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.

DROP INLET NOTE

WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE:

ALL STORM DRAIN DROP INLETS ARE TO BE CONSTRUCTED PER THE REQUIREMENTS OF USDCCA DWG. NO. 421 (STORMWATER QUALITY MANAGEMENT STAMP AND SIGN DETAIL).

OFF-SITE FLOOD CONTROL NOTE

ALL OFF-SITE INTERIM FLOOD CONTROL FACILITIES SUCH AS, BUT NOT LIMITED TO, BERMS/DITCHES AND TEMPORARY SUMPS ARE PRIVATELY OWNED AND ARE TO BE PRIVATELY MAINTAINED BY THE HOWARD HUGHES COMPANY.

FOR ALL DRY UTILITY CROSSINGS

1. MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING.
2. MAINTAIN MINIMUM 3' PARALLEL SEPARATION
3. ANY EXCAVATION AT BACK OF CURB MUST REMAIN OPEN FOR INSPECTION OF COPPER SERVICE LATERALS. ANY COPPER SERVICE LATERAL KINKED, BENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP.

3895 PZ W NOTES

1. 3895 PZ WATER LINE TO BE INSTALLED UNDER DRY CONDITION
2. ALL 3895 ZONE (DIP) WATER LINE JOINTS TO BE MECHANICALLY RESTRAINED PER UDACS SECTION 2.15
3. 3895 PZ WATER MAINS TO BE CHLORINATED AND PRESSURE TESTED. ALL WATER MUST BE DRAINED FROM THE LINE AFTER THE PRESSURE TEST COMPLETION AS A CONDITION FOR LVVWD WATER UTILITIES ACCEPTANCE.

SOUTHWEST GAS APPROVAL

SOUTHWEST GAS CORPORATION DATE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

PROJECT NO. _____ FIRST APPROVAL DATE: _____

LVVWD APPROVED FIRE FLOW: TOTAL 1,500 GPM / ON-SITE N/A GPM

BENCHMARK

BM#	DESCRIPTION	NAVD 88 DATUM	NAVD 88 DATUM
CLV BM No. 7LV0934SW6	FIND RIVET AND PLATE IN TOP OF CURB SE CORNER OF DESERT MOON RD. AND SKY VISTA DR. T20S,R59E,S34	3318.31 (FEET)	1,011.422 (METERS)

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1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

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

PROTECTION CONSTRUCTION NOTES

1 P EXISTING PAVEMENT, PROTECT IN PLACE
2 P EXISTING CURB/GUTTER, PROTECT IN PLACE
3 P EXISTING PULLBOX, ADJUST TO FINISH GRADE
4 P EXISTING CONDUIT, PROTECT IN PLACE
5 P EXISTING SDMH, PROTECT IN PLACE & ADJUST TO FINISH GRADE IF IMPACTED BY PAVEMENT IMPROVEMENTS
6 P EXISTING SSMH, PROTECT IN PLACE & ADJUST TO FINISH GRADE IF IMPACTED BY PAVEMENT IMPROVEMENTS

ROADWAY CONSTRUCTION NOTES

1 R INSTALL A.C. PAVEMENT PER STREET SECTIONS, SEE DWG. DT1
2 R INSTALL "L" TYPE CURB & GUTTER, SEE SUMMERLIN STD DWG. S-47
3 R INSTALL "A" TYPE ISLAND CURB, SEE SUMMERLIN STD DWG. S-50
4 R INSTALL CURB TRANSITION PER DETAIL 2 DWG. DT3
5 R CONSTRUCT SIDEWALK RAMP PER USD DWG No. 235 (CASE II)
6 R INSTALL "L" TYPE ISLAND CURB, SEE SUMMERLIN STD DWG. S-50

WATER CONSTRUCTION NOTES

1 W INSTALL FIRE HYDRANT & ASSEMBLY PER UDACS PLT. No. 40
2 W INSTALL GATE VALVE AND BOX PER UDACS PLT. No. 30 AND 39
3 W INSTALL TEE PER UDACS PLT. No. 31
4 W INSTALL HORIZONTAL BEND PER UDACS PLT. No. 31 (SEE PLAN FOR ANGLE)
5 W INSTALL REDUCER PER UDACS PLT. No. 31
6 W INSTALL CAP W/ 2" BLOW-OFF ASSEMBLY PER UDACS PLT. No. 36
7 W INSTALL 1-½" WATER METER AND 1-½" RPPA PER DETAIL 1 DWG. DT4
8 W INSTALL VERTICAL BEND PER UDACS PLT. No. 31 (SEE PROFILE FOR ANGLE)
9 W REMOVE CAP AND BLOWOFF PER UDACS PLT. No. 36 AND CONNECT TO EXISTING WATER LINE.
10 W INSTALL CROSS PER UDACS PLT. No. 31
11 W LVVWD APPROVED ELASTOMERIC JOINT SEALANT AT ALL MANHOLE JOINTS.
12 W INSTALL TYPE "T" TEST STATION PER DETAIL 1 ON DWG. DT3
13 W INSTALL 1" WATER METER AND 1" RPPA PER DETAIL 1 DWG. DT4
14 W INSTALL 2" WATER METER AND 2" RPPA PER DETAIL 1 DWG. DT4
15 W INSTALL VALVED OUTLET W/ STUB VALVE AND CAP PER DETAIL 8 DWG. DT3
16 W INSTALL 24" DIRECT BURIED GATE VALVE W/ BYPASS PER DETAIL 1 DWG. DT4

SEWER CONSTRUCTION NOTES

1 S INSTALL SEWER MANHOLE PER DCS STD. DWG. 1A AND 1B
2 S STUB AND CAP SEWER PIPE PER DETAIL 6 DWG. DT3
3 S REMOVE PLUG & CONNECT TO SEWER LINE (CONTRACTOR TO VERIFY SIZE, INVERT, AND LOCATION OF EX. SEWER PRIOR TO CONSTRUCTION)

STORM DRAIN CONSTRUCTION NOTES

1 SD INSTALL TYPE II MANHOLE PER USD DWG. No. 405.1
2 SD INSTALL TYPE "CM2" DROP INLET PER USD DWG. No. 421
3 SD INSTALL TEMPORARY PLUG AND CAP PER DETAIL 4 ON DWG. DT3
4 SD REMOVE PLUG & CONNECT TO EX. STORM DRAIN TO NEAREST RCP JOINT OR W/ CONCRETE COLLAR PER DETAIL 5 ON DWG. DT3 (CONTRACTOR TO VERIFY SIZE, INVERT, AND LOCATION OF EX. STORM DRAIN PRIOR TO CONSTRUCTION)
5 SD INSTALL JUNCTION STRUCTURE.
6 SD INSTALL TYPICAL TYPE I ACCESS MANHOLE IN RCB PER DETAILS ON DWG S1 AND USD DWG NO. 403.1.
7 SD INSTALL TYPICAL TYPE II MANHOLE PER USD DWG NO. 405.2.

IRRIGATION CONSTRUCTION NOTES

1 IR BANK "A": 1-6" & 2-4" SCH 40 PVC. PER DETAIL 7 DRAWING DT3

CONTRACTOR TO FIELD VERIFY SIZE, LOCATION AND INVERT OF EXISTING PIPE, AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO NEW SEWER CONSTRUCTION

BASIS OF BEARING AND COORDINATES

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:
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L#: LXX-XXXXX-XXXX CLV#: 107XXXX

PROFESSIONAL ENGINEER - STATE OF NEVADA - No. 17107 - LADAN GRUJICIC - Exp. 06/30/2023 - CIVIL

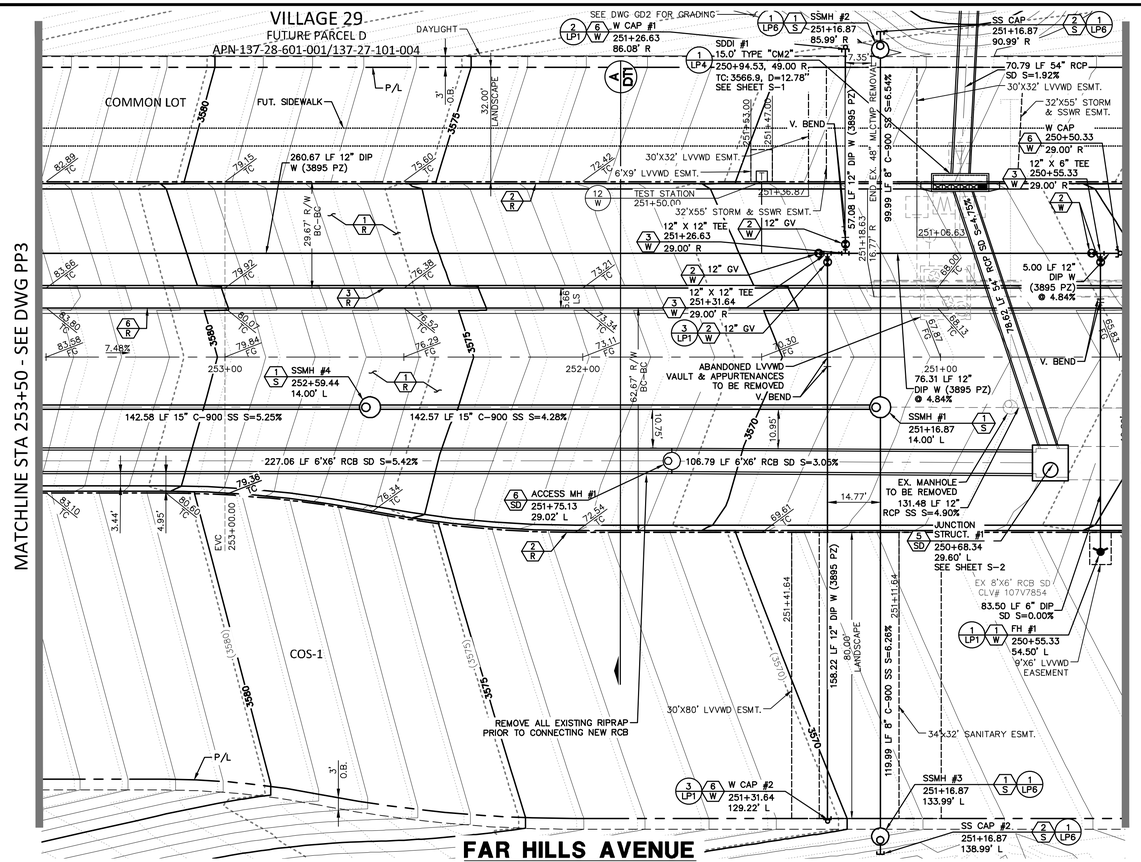
DATE:	DESCRIPTION	REV	DATE	AGEN APP	DATE	GCW APP	DATE
11/03/2021	FOR AGENCY REVIEW - NOT FOR CONSTRUCTION						

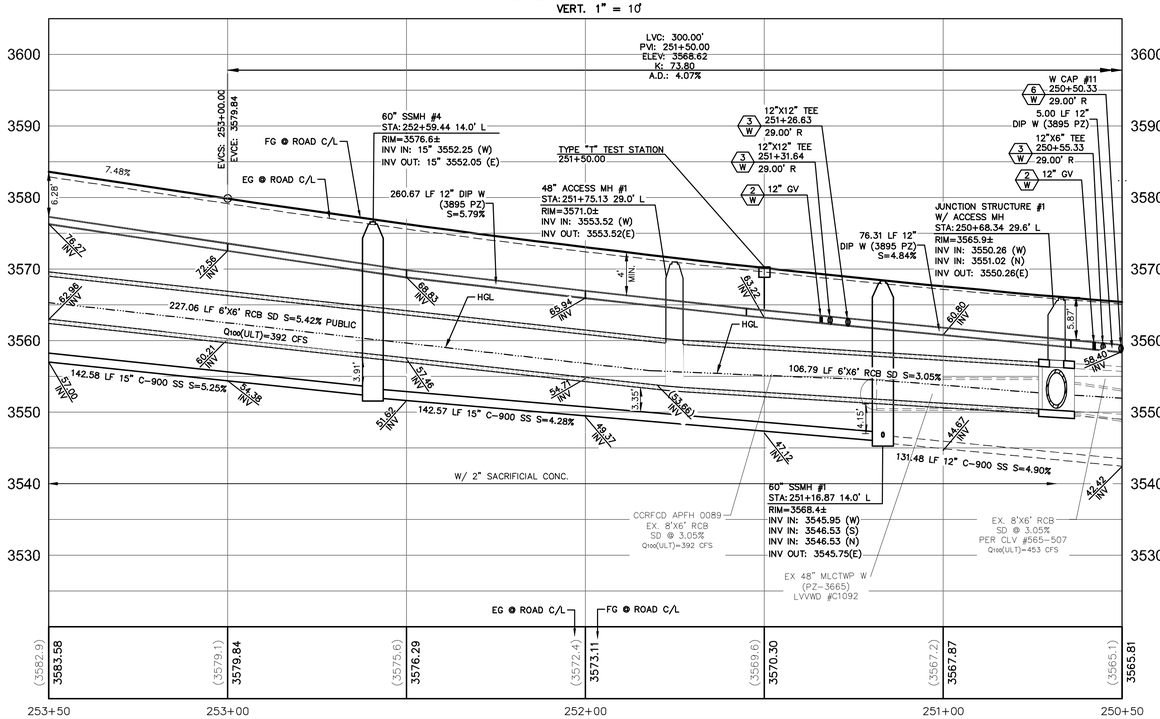
PROJECT NO. 62029-204
DESIGN: GH/AS
DRAWN: GH
CHECK: LG/JG
PLOT DATE: 11-03-21
PLOT TIME: 16:28:37

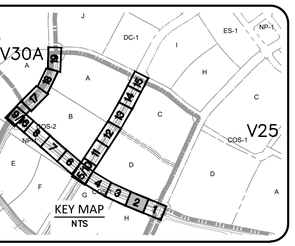
GCW ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD. LAS VEGAS, NV 89146
T: 702.804.2000 F: 702.804.2299 gcwengineering.com
F:\PROJECTS\6200\62029-204\LWG\PRODUCTION\62029-204_05.JPP - PAPA.DWG
GEORGE HOANG

THE HOWARD HUGHES COMPANY, LLC
VILLAGE 29
PHASE 1 INFRASTRUCTURE
PLAN AND PROFILE 1

DRAWING
PP1
14 OF 56 SHTS







NOTE: THIS PROJECT PLAN APPROVAL CONTINGENT ON

######

BEING OPERATIONAL.

DEPTH OF COVER DURING CONSTRUCTION

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APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

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

LVVWD APPROVED FIRE FLOW: TOTAL 1,500 GPM / ON-SITE N/A GPM

BENCHMARK

BM#	DESCRIPTION	NAVD 88 DATUM	NAVD 88 DATUM
CLV BM No. 7LV0934SW6	FIND RIVET AND PLATE IN TOP OF CURB SE CORNER OF DESERT MOON RD. AND SKY VISTA DR. T20S,R59E,S34	3318.31 (FEET)	1,011.422 (METERS)

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WATER CONSTRUCTION NOTES

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SCALE FACTOR ON CENTRAL MERIDIAN: 1.000135 (EXACT)

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L#: LXX-XXXXX-XXXX | CLV#: 107XXXX

NEVADA PROFESSIONAL ENGINEER — STATE OF NEVADA — No. 17010 — MILADJAN GRUJICIC — Exp. 06/30/2023 — CIVIL — DATE: 11/03/2021

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

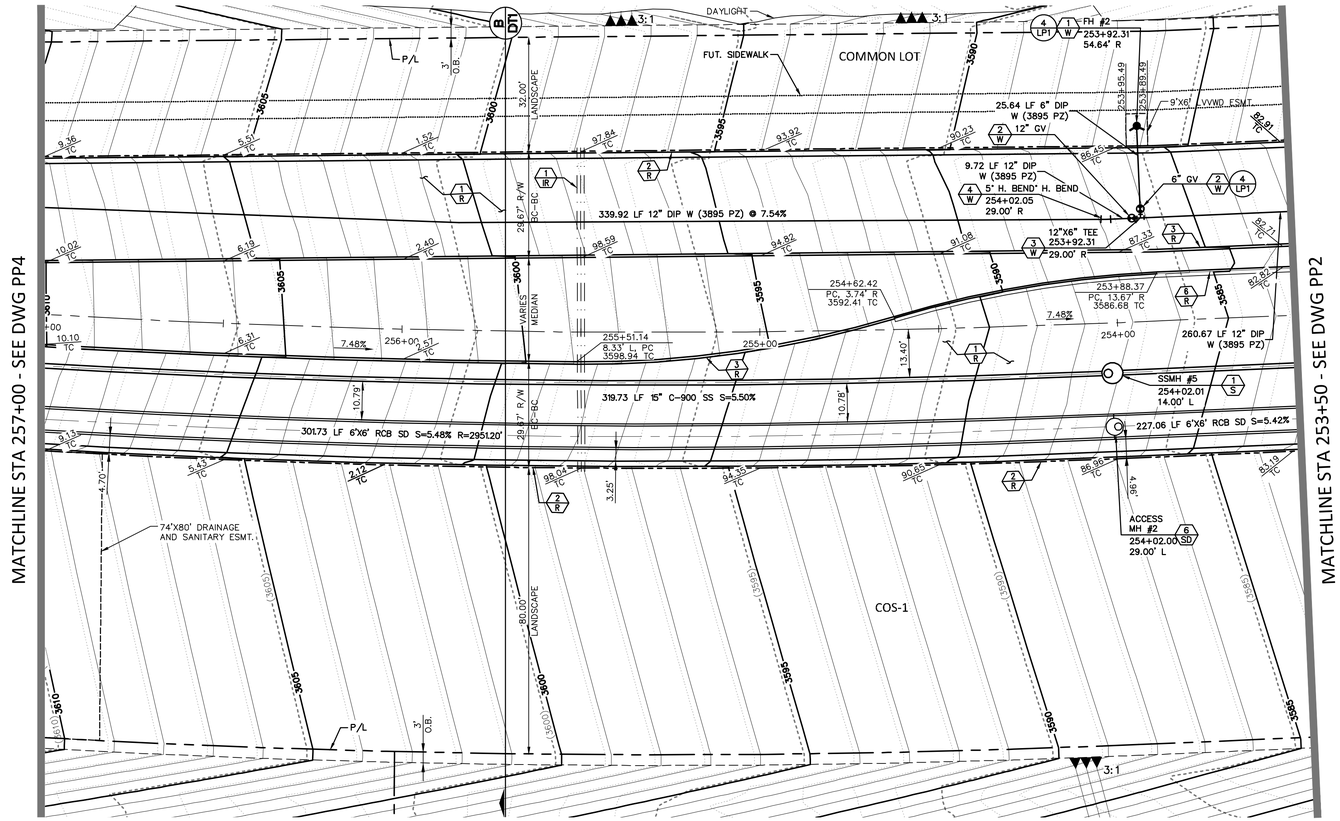
REV	DATE	DESCRIPTION	AGEN APP	DATE	GCW APP	DATE

PROJECT NO. 62029-204
DESIGN: GH/AS
DRAWN: GH
CHECK: LG/JG
PLOT DATE: 11-03-21
PLOT TIME: 16:29:00
GEORGE HOANG

GCW ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com
F:\PROJECTS\62029-204\DWG\PRODUCTION\62029-204_05.JPF - PHA.DWG

THE HOWARD HUGHES COMPANY, LLC
VILLAGE 29
PHASE 1 INFRASTRUCTURE
PLAN AND PROFILE 2

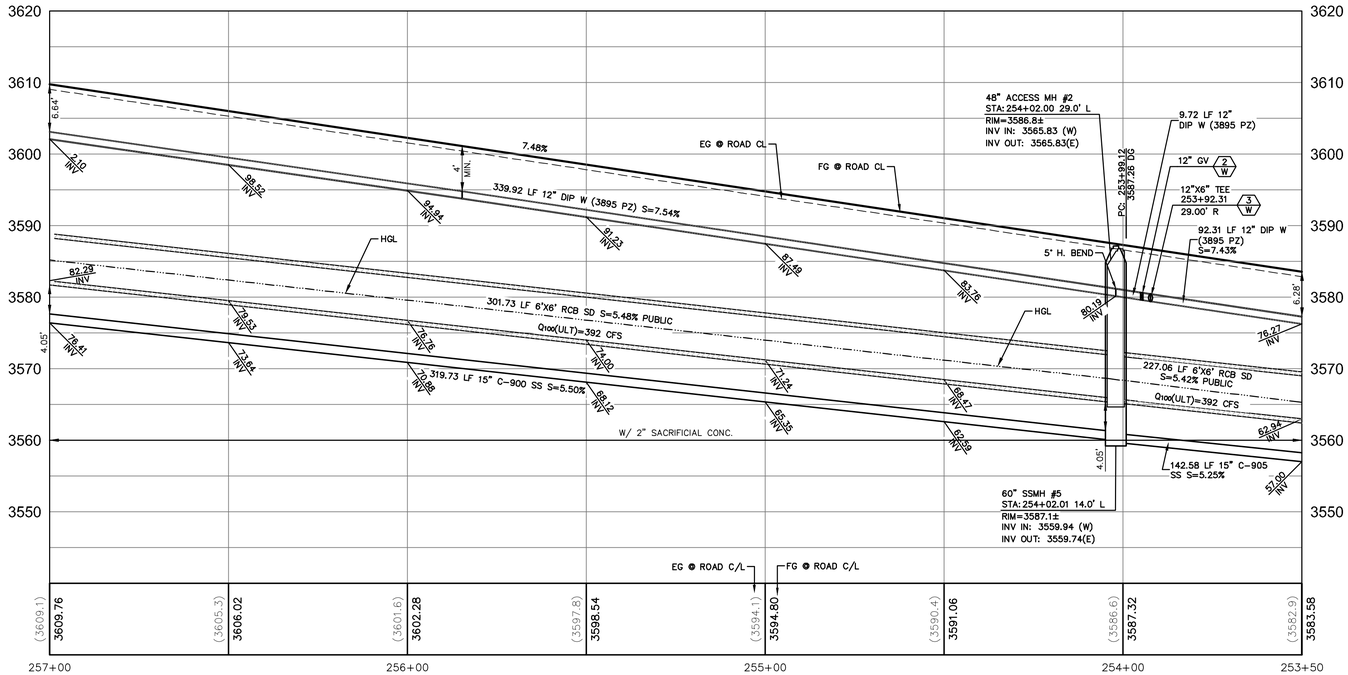
DRAWING
PP2
15 OF 56 SHTS



FAR HILLS AVENUE

(PUBLIC)

SCALE: HORIZ 1" = 20'
VERT. 1" = 10'



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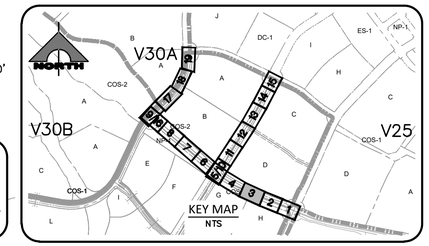

NOTE: THIS PROJECT PLAN APPROVAL CONTINGENT ON

######

BEING OPERATIONAL.

DEPTH OF COVER DURING CONSTRUCTION

MAINTAIN MINIMUM TWENTY-FOUR (24) INCH COVER PER UDACS SECTION 2.08.04. GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION.

LVVWD NOTES

1. INSTALL PIPELINE MARKER BALLS, PER UDACS PLATE NO. 15.
2. PROTECT IN PLACE AND ADJUST LVVWD EXISTING FACILITIES TO FINISHED GRADE PER UDACS. ALL LVVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES.
3. WATER MAIN JOINT DEFLECTION, PER UDACS 2.07.01 AND 2.07.03.
4. IN AREAS WHERE THE EXCAVATION OR GROUND ELEVATION IS LESS THAN THREE (3) FEET, FROM THE TOP OF THE LVVWD TRANSMISSION MAIN, NO EXCAVATION EQUIPMENT, OTHER THAN HAND HELD EQUIPMENT WILL BE ALLOWED WITHIN TEN (10) FEET OF THE PIPELINE IN THESE AREAS. THE CONTRACTOR IS TO PLACE A CONCRETE BARRIER; I.E. JERSEY RAIL, TO IDENTIFY AND PROTECT THE "NO EQUIPMENT ZONE."
5. ALL SEWER/STORM DRAIN CROSSING WATER LINES MUST COMPLY WITH UDACS SECTION 2.22.

LVVWD NOTE

LVVWD CANNOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE TO REMOVE REMAINING WATER. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TRIAL SHUTDOWN.

CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.

DROP INLET NOTE

WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE:

ALL STORM DRAIN DROP INLETS ARE TO BE CONSTRUCTED PER THE REQUIREMENTS OF USDCCA DWG. NO. 421 (STORMWATER QUALITY MANAGEMENT STAMP AND SIGN DETAIL).

OFF-SITE FLOOD CONTROL NOTE

ALL OFF-SITE INTERIM FLOOD CONTROL FACILITIES SUCH AS, BUT NOT LIMITED TO, BERMS/DITCHES AND TEMPORARY SUMPS ARE PRIVATELY OWNED AND ARE TO BE PRIVATELY MAINTAINED BY THE HOWARD HUGHES COMPANY.

FOR ALL DRY UTILITY CROSSINGS

1. MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING.
2. MAINTAIN MINIMUM 3' PARALLEL SEPARATION
3. ANY EXCAVATION AT BACK OF CURB MUST REMAIN OPEN FOR INSPECTION OF COPPER SERVICE LATERALS. ANY COPPER SERVICE LATERAL KINKED, BENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP.

3895 PZ W NOTES

1. 3895 PZ WATER LINE TO BE INSTALLED UNDER DRY CONDITION
2. ALL 3895 ZONE (DIP) WATER LINE JOINTS TO BE MECHANICALLY RESTRAINED PER UDACS SECTION 2.15
3. 3895 PZ WATER MAINS TO BE CHLORINATED AND PRESSURE TESTED. ALL WATER MUST BE DRAINED FROM THE LINE AFTER THE PRESSURE TEST COMPLETION AS A CONDITION FOR LVVWD WATER UTILITIES ACCEPTANCE.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

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

LVVWD APPROVED FIRE FLOW: TOTAL 1,500 GPM / ON-SITE N/A GPM

BENCHMARK

BM#	DESCRIPTION	NAVD 88 DATUM	NAVD 88 DATUM
CLV BM No. 7LV0934SW6	FIND RIVET AND PLATE IN TOP OF CURB SE CORNER OF DESERT MOON RD. AND SKY VISTA DR. T20S,R59E,S34	3318.31 (FEET)	1,011.422 (METERS)

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811 or 1-800-642-2444

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

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

PROTECTION CONSTRUCTION NOTES

1 P EXISTING PAVEMENT, PROTECT IN PLACE
2 P EXISTING CURB/GUTTER, PROTECT IN PLACE
3 P EXISTING PULLBOX, ADJUST TO FINISH GRADE
4 P EXISTING CONDUIT, PROTECT IN PLACE
5 P EXISTING SDMH, PROTECT IN PLACE & ADJUST TO FINISH GRADE IF IMPACTED BY PAVEMENT IMPROVEMENTS
6 P EXISTING SSMH, PROTECT IN PLACE & ADJUST TO FINISH GRADE IF IMPACTED BY PAVEMENT IMPROVEMENTS

ROADWAY CONSTRUCTION NOTES

1 R INSTALL A.C. PAVEMENT PER STREET SECTIONS, SEE DWG. DT1
2 R INSTALL "L" TYPE CURB & GUTTER, SEE SUMMERLIN STD DWG. S-47
3 R INSTALL "A" TYPE ISLAND CURB, SEE SUMMERLIN STD DWG. S-50
4 R INSTALL CURB TRANSITION PER DETAIL 2 DWG. DT3
5 R CONSTRUCT SIDEWALK RAMP PER USD DWG No. 235 (CASE II)
6 R INSTALL "L" TYPE ISLAND CURB, SEE SUMMERLIN STD DWG. S-50

WATER CONSTRUCTION NOTES

1 W INSTALL FIRE HYDRANT & ASSEMBLY PER UDACS PLT. No. 40
2 W INSTALL GATE VALVE AND BOX PER UDACS PLT. No. 30 AND 39
3 W INSTALL TEE PER UDACS PLT. No. 31
4 W INSTALL HORIZONTAL BEND PER UDACS PLT. No. 31 (SEE PLAN FOR ANGLE)
5 W INSTALL REDUCER PER UDACS PLT. No. 31
6 W INSTALL CAP W/ 2" BLOW-OFF ASSEMBLY PER UDACS PLT. No. 36
7 W INSTALL 1-½" WATER METER AND 1-½" RPPA PER DETAIL 1 DWG. DT4
8 W INSTALL VERTICAL BEND PER UDACS PLT. No. 31 (SEE PROFILE FOR ANGLE)
9 W REMOVE CAP AND BLOWOFF PER UDACS PLT. No. 36 AND CONNECT TO EXISTING WATER LINE.
10 W INSTALL CROSS PER UDACS PLT. No. 31
11 W LVVWD APPROVED ELASTOMERIC JOINT SEALANT AT ALL MANHOLE JOINTS.
12 W INSTALL TYPE "T" TEST STATION PER DETAIL 1 ON DWG. DT3
13 W INSTALL 1" WATER METER AND 1" RPPA PER DETAIL 1 DWG. DT4
14 W INSTALL 2" WATER METER AND 2" RPPA PER DETAIL 1 DWG. DT4
15 W INSTALL VALVED OUTLET W/ STUB VALVE AND CAP PER DETAIL 8 DWG. DT3
16 W INSTALL 24" DIRECT BURIED GATE VALVE W/ BYPASS PER DETAIL 1 DWG. DT4

SEWER CONSTRUCTION NOTES

1 S INSTALL SEWER MANHOLE PER DCS STD. DWG. 1A AND 1B
2 S STUB AND CAP SEWER PIPE PER DETAIL 6 DWG. DT3
3 S REMOVE PLUG & CONNECT TO SEWER LINE (CONTRACTOR TO VERIFY SIZE, INVERT, AND LOCATION OF EX. SEWER PRIOR TO CONSTRUCTION)

STORM DRAIN CONSTRUCTION NOTES

1 SD INSTALL TYPE II MANHOLE PER USD DWG. No. 405.1
2 SD INSTALL TYPE "CM2" DROP INLET PER USD DWG. No. 421
3 SD INSTALL TEMPORARY PLUG AND CAP PER DETAIL 4 ON DWG. DT3
4 SD REMOVE PLUG & CONNECT TO EX. STORM DRAIN TO NEAREST RCP JOINT OR W/ CONCRETE COLLAR PER DETAIL 5 ON DWG. DT3 (CONTRACTOR TO VERIFY SIZE, INVERT, AND LOCATION OF EX. STORM DRAIN PRIOR TO CONSTRUCTION)
5 SD INSTALL JUNCTION STRUCTURE.
6 SD INSTALL TYPICAL TYPE I ACCESS MANHOLE IN RCB PER DETAILS ON DWG S1 AND USD DWG NO. 403.1.
7 SD INSTALL TYPICAL TYPE II MANHOLE PER USD DWG NO. 405.2.

IRRIGATION CONSTRUCTION NOTES

1 IR BANK "A": 1-6" & 2-4" SCH 40 PVC. PER DETAIL 7 DRAWING DT3

CONTRACTOR TO FIELD VERIFY SIZE, LOCATION AND INVERT OF EXISTING PIPE, AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO NEW SEWER CONSTRUCTION

BASIS OF BEARING AND COORDINATES

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:
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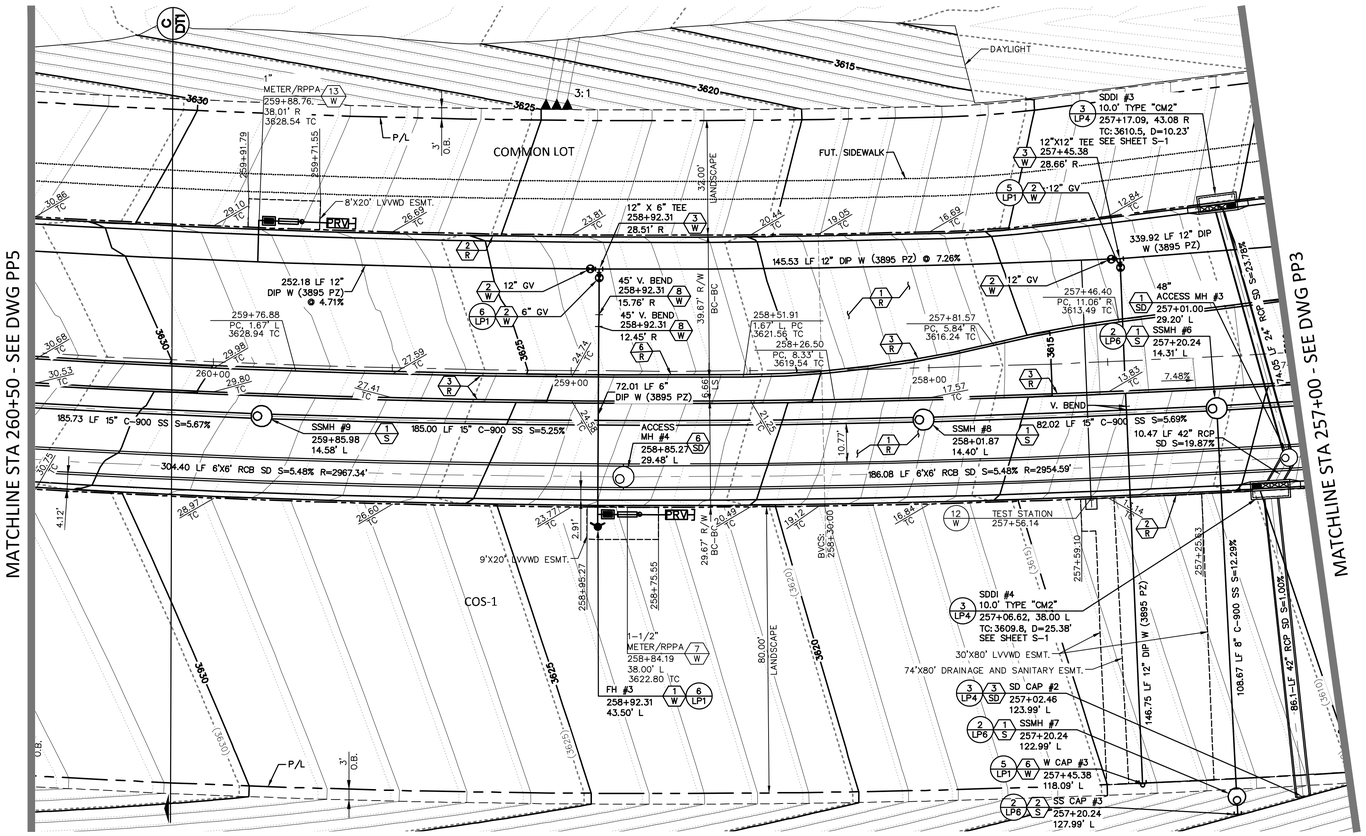
VILLAGE 29
PHASE 1 INFRASTRUCTURE
PLAN AND PROFILE 3

DRAWING
PP3
16 OF 56 SHTS



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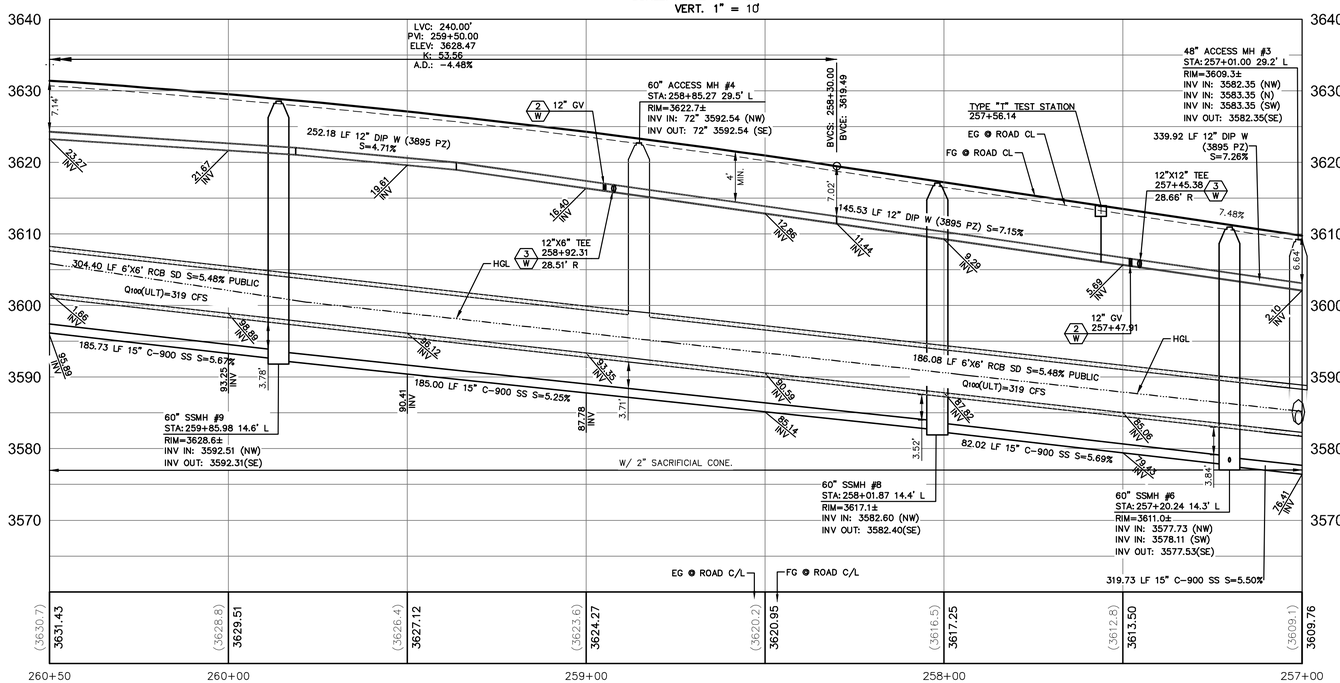

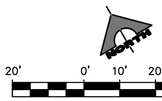

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APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

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

LVVWD APPROVED FIRE FLOW: TOTAL 1,500 GPM / ON-SITE N/A GPM

BENCHMARK

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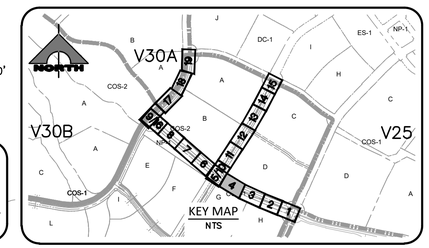

PROTECTION CONSTRUCTION NOTES

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(3 R) INSTALL "A" TYPE ISLAND CURB, SEE SUMMERLIN STD DWG. S-50
(4 R) INSTALL CURB TRANSITION PER DETAIL 2 DWG. DT3
(5 R) CONSTRUCT SIDEWALK RAMP PER USD DWG No. 235 (CASE II)
(6 R) INSTALL "L" TYPE ISLAND CURB, SEE SUMMERLIN STD DWG. S-50

WATER CONSTRUCTION NOTES

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(12 W) INSTALL TYPE "I" TEST STATION PER DETAIL 1 ON DWG. DT3
(13 W) INSTALL 1" WATER METER AND 1" RPPA PER DETAIL 1 DWG. DT4
(14 W) INSTALL 2" WATER METER AND 2" RPPA PER DETAIL 1 DWG. DT4
(15 W) INSTALL VALVED OUTLET W/ STUB VALVE AND CAP PER DETAIL 8 DWG. DT3
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SEWER CONSTRUCTION NOTES

(1 S) INSTALL SEWER MANHOLE PER DCS STD. DWG. 1A AND 1B
(2 S) STUB AND CAP SEWER PIPE PER DETAIL 6 DWG. DT3
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(6 SD) INSTALL TYPICAL TYPE I ACCESS MANHOLE IN RCB PER DETAILS ON DWG S1 AND USD DWG NO. 403.1.
(7 SD) INSTALL TYPICAL TYPE II MANHOLE PER USD DWG NO. 405.2.

IRRIGATION CONSTRUCTION NOTES

(1 IR) BANK "A": 1-6" & 2-4" SCH 40 PVC. PER DETAIL 7 DRAWING DT3

CONTRACTOR TO FIELD VERIFY SIZE, LOCATION AND INVERT OF EXISTING PIPE, AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO NEW SEWER CONSTRUCTION

BASIS OF BEARING AND COORDINATES

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
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ZONE:LAS VEGAS HIGH ELEVATION ZONE

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LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

STATE OF NEVADA PROFESSIONAL ENGINEER
MILADJAN GRUJICIC
No. 17019
Exp. 06/30/2023
DATE: 11/03/2021

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

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GEORGE HOANG
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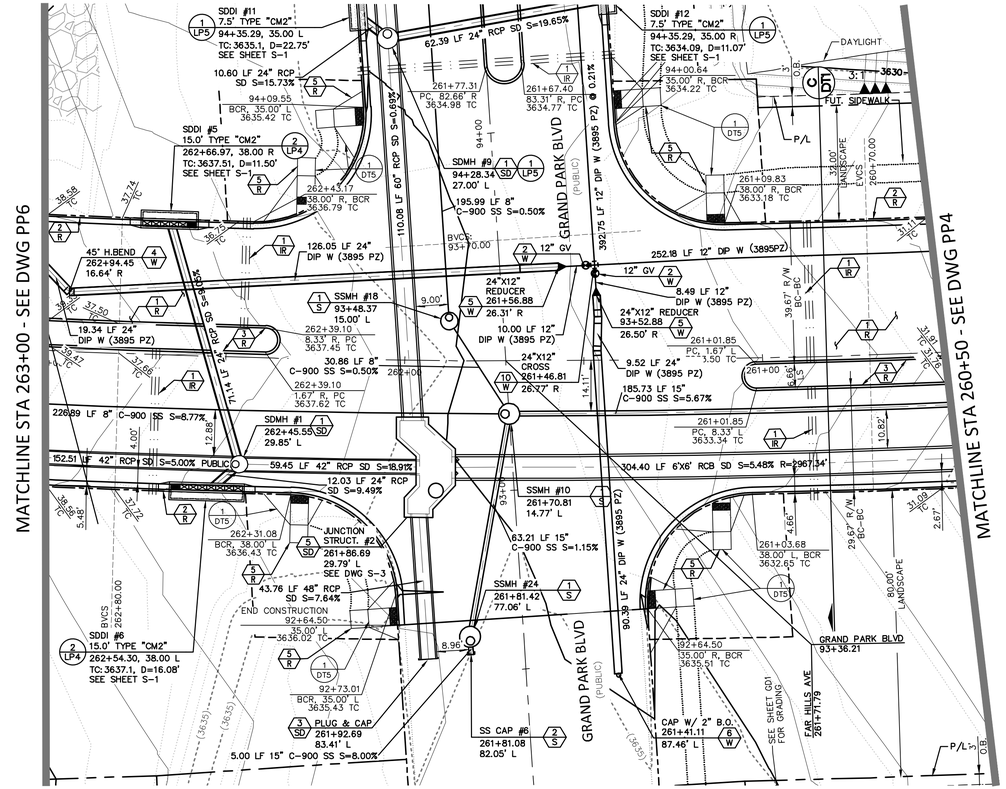
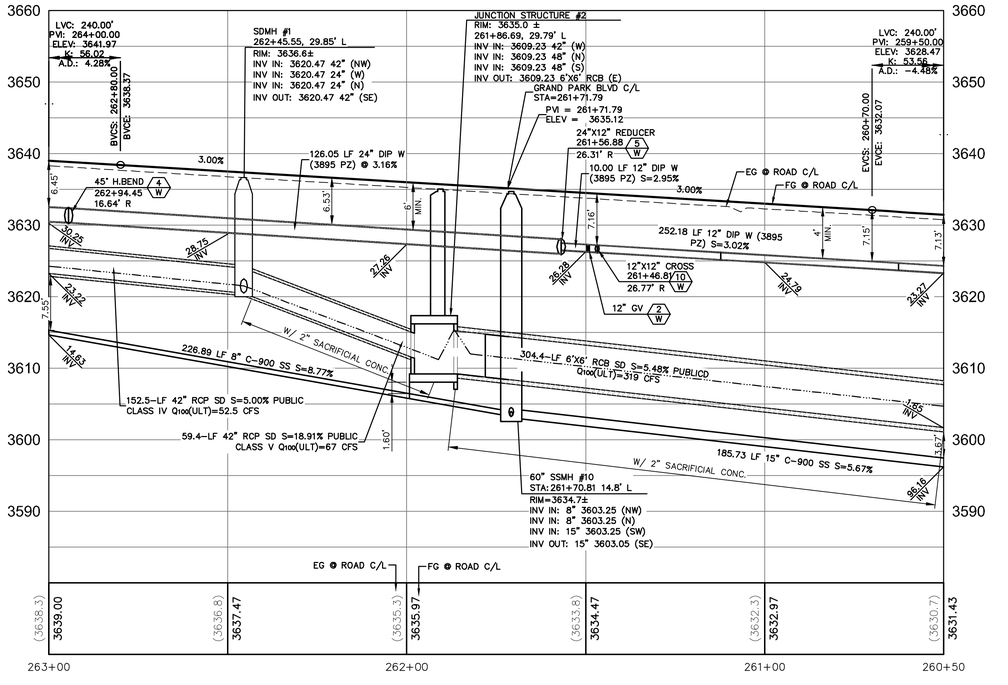
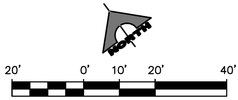
THE HOWARD HUGHES COMPANY, LLC
VILLAGE 29
PHASE 1 INFRASTRUCTURE
PLAN AND PROFILE 4

DRAWING
PP4
17 OF 56 SHTS







NOTE: THIS PROJECT PLAN APPROVAL CONTINGENT ON

######

BEING OPERATIONAL.

DEPTH OF COVER DURING CONSTRUCTION

MAINTAIN MINIMUM TWENTY-FOUR (24) INCH COVER PER UDACS SECTION 2.08.04. GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION.

LVVWD NOTES

1. INSTALL PIPELINE MARKER BALLS, PER UDACS PLATE NO. 15.
2. PROTECT IN PLACE AND ADJUST LVVWD EXISTING FACILITIES TO FINISHED GRADE PER UDACS. ALL LVVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES.
3. WATER MAIN JOINT DEFLECTION, PER UDACS 2.07.01 AND 2.07.03.
4. IN AREAS WHERE THE EXCAVATION OR GROUND ELEVATION IS LESS THAN THREE (3) FEET, FROM THE TOP OF THE LVVWD TRANSMISSION MAIN, NO EXCAVATION EQUIPMENT, OTHER THAN HAND HELD EQUIPMENT WILL BE ALLOWED WITHIN TEN (10) FEET OF THE PIPELINE IN THESE AREAS. THE CONTRACTOR IS TO PLACE A CONCRETE BARRIER; I.E. JERSEY RAIL, TO IDENTIFY AND PROTECT THE "NO EQUIPMENT ZONE."
5. ALL SEWER/STORM DRAIN CROSSING WATER LINES MUST COMPLY WITH UDACS SECTION 2.22.

LVVWD NOTE

LVVWD CANNOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE TO REMOVE REMAINING WATER. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TRIAL SHUTDOWN.

CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.

DROP INLET NOTE

WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE:

ALL STORM DRAIN DROP INLETS ARE TO BE CONSTRUCTED PER THE REQUIREMENTS OF USDCCA DWG. NO. 421 (STORMWATER QUALITY MANAGEMENT STAMP AND SIGN DETAIL).

OFF-SITE FLOOD CONTROL NOTE

ALL OFF-SITE INTERIM FLOOD CONTROL FACILITIES SUCH AS, BUT NOT LIMITED TO, BERMS/DITCHES AND TEMPORARY SUMPS ARE PRIVATELY OWNED AND ARE TO BE PRIVATELY MAINTAINED BY THE HOWARD HUGHES COMPANY.

FOR ALL DRY UTILITY CROSSINGS

1. MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING.
2. MAINTAIN MINIMUM 3' PARALLEL SEPARATION
3. ANY EXCAVATION AT BACK OF CURB MUST REMAIN OPEN FOR INSPECTION OF COPPER SERVICE LATERALS. ANY COPPER SERVICE LATERAL KINKED, BENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP.

3895 PZ W NOTES

1. 3895 PZ WATER LINE TO BE INSTALLED UNDER DRY CONDITION
2. ALL 3895 ZONE (DIP) WATER LINE JOINTS TO BE MECHANICALLY RESTRAINED PER UDACS SECTION 2.15
3. 3895 PZ WATER MAINS TO BE CHLORINATED AND PRESSURE TESTED. ALL WATER MUST BE DRAINED FROM THE LINE AFTER THE PRESSURE TEST COMPLETION AS A CONDITION FOR LVVWD WATER UTILITIES ACCEPTANCE.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

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

LVVWD APPROVED FIRE FLOW: TOTAL 1,500 GPM / ON-SITE N/A GPM

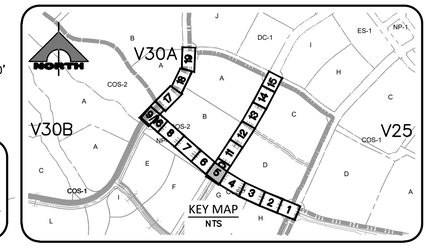
BENCHMARK

BM#	DESCRIPTION	NAVD 88 DATUM	NAVD 88 DATUM
CLV BM No. 7LV0934SW6	FIND RIVET AND PLATE IN TOP OF CURB SE CORNER OF DESERT MOON RD. AND SKY VISTA DR. T20S,R59E,S34	3318.31 (FEET)	1,011.422 (METERS)

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811 OR 1-800-642-2444

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

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



PROTECTION CONSTRUCTION NOTES

(1 P) EXISTING PAVEMENT, PROTECT IN PLACE
(2 P) EXISTING CURB/GUTTER, PROTECT IN PLACE
(3 P) EXISTING PULLBOX, ADJUST TO FINISH GRADE
(4 P) EXISTING CONDUIT, PROTECT IN PLACE
(5 P) EXISTING SDMH, PROTECT IN PLACE & ADJUST TO FINISH GRADE IF IMPACTED BY PAVEMENT IMPROVEMENTS
(6 P) EXISTING SSMH, PROTECT IN PLACE & ADJUST TO FINISH GRADE IF IMPACTED BY PAVEMENT IMPROVEMENTS

ROADWAY CONSTRUCTION NOTES

(1 R) INSTALL A.C. PAVEMENT PER STREET SECTIONS, SEE DWG. DT1
(2 R) INSTALL "L" TYPE CURB & GUTTER, SEE SUMMERLIN STD DWG. S-47
(3 R) INSTALL "A" TYPE ISLAND CURB, SEE SUMMERLIN STD DWG. S-50
(4 R) INSTALL CURB TRANSITION PER DETAIL 2 DWG. DT3
(5 R) CONSTRUCT SIDEWALK RAMP PER USD DWG No. 235 (CASE II)
(6 R) INSTALL "L" TYPE ISLAND CURB, SEE SUMMERLIN STD DWG. S-50

WATER CONSTRUCTION NOTES

(1 W) INSTALL FIRE HYDRANT & ASSEMBLY PER UDACS PLT. No. 40
(2 W) INSTALL GATE VALVE AND BOX PER UDACS PLT. No. 30 AND 39
(3 W) INSTALL TEE PER UDACS PLT. No. 31
(4 W) INSTALL HORIZONTAL BEND PER UDACS PLT. No. 31 (SEE PLAN FOR ANGLE)
(5 W) INSTALL REDUCER PER UDACS PLT. No. 31
(6 W) INSTALL CAP W/ 2" BLOW-OFF ASSEMBLY PER UDACS PLT. No. 36
(7 W) INSTALL 1-½" WATER METER AND 1-½" RPPA PER DETAIL 1 DWG. DT4
(8 W) INSTALL VERTICAL BEND PER UDACS PLT. No. 31 (SEE PROFILE FOR ANGLE)
(9 W) REMOVE CAP AND BLOWOFF PER UDACS PLT. No. 36 AND CONNECT TO EXISTING WATER LINE.
(10 W) INSTALL CROSS PER UDACS PLT. No. 31
(11 W) LVVWD APPROVED ELASTOMERIC JOINT SEALANT AT ALL MANHOLE JOINTS.
(12 W) INSTALL TYPE "1" TEST STATION PER DETAIL 1 ON DWG. DT3
(13 W) INSTALL 1" WATER METER AND 1" RPPA PER DETAIL 1 DWG. DT4
(14 W) INSTALL 2" WATER METER AND 2" RPPA PER DETAIL 1 DWG. DT4
(15 W) INSTALL VALVED OUTLET W/ STUB VALVE AND CAP PER DETAIL 8 DWG. DT3
(16 W) INSTALL 24" DIRECT BURIED GATE VALVE W/ BYPASS PER DETAIL 1 DWG. DT4

SEWER CONSTRUCTION NOTES

(1 S) INSTALL SEWER MANHOLE PER DCS STD. DWG. 1A AND 1B
(2 S) STUB AND CAP SEWER PIPE PER DETAIL 6 DWG. DT3
(3 S) REMOVE PLUG & CONNECT TO SEWER LINE (CONTRACTOR TO VERIFY SIZE, INVERT, AND LOCATION OF EX. SEWER PRIOR TO CONSTRUCTION)

STORM DRAIN CONSTRUCTION NOTES

(1 SD) INSTALL TYPE II MANHOLE PER USD DWG. No. 405.1
(2 SD) INSTALL TYPE "CM2" DROP INLET PER USD DWG. No. 421
(3 SD) INSTALL TEMPORARY PLUG AND CAP PER DETAIL 4 ON DWG. DT3
(4 SD) REMOVE PLUG & CONNECT TO EX. STORM DRAIN TO NEAREST RCP JOINT OR W/ CONCRETE COLLAR PER DETAIL 5 ON DWG. DT3 (CONTRACTOR TO VERIFY SIZE, INVERT, AND LOCATION OF EX. STORM DRAIN PRIOR TO CONSTRUCTION)
(5 SD) INSTALL JUNCTION STRUCTURE.
(6 SD) INSTALL TYPICAL TYPE I ACCESS MANHOLE IN RCB PER DETAILS ON DWG S1 AND USD DWG NO. 403.1.
(7 SD) INSTALL TYPICAL TYPE II MANHOLE PER USD DWG NO. 405.2.

IRRIGATION CONSTRUCTION NOTES

(1 IR) BANK "A": 1-6" & 2-4" SCH 40 PVC. PER DETAIL 7 DRAWING DT3

CONTRACTOR TO FIELD VERIFY SIZE, LOCATION AND INVERT OF EXISTING PIPE, AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO NEW SEWER CONSTRUCTION

BASIS OF BEARING AND COORDINATES

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.

L#: LXX-XXXXX-XXXX | CLV#: 107XXXXX

NEVADA PROFESSIONAL ENGINEER — No. 17010 — STATE OF NEVADA — MILADJAN GRUJICIC — Exp. 06/30/2023 — CIVIL
DATE: 11/03/2021

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

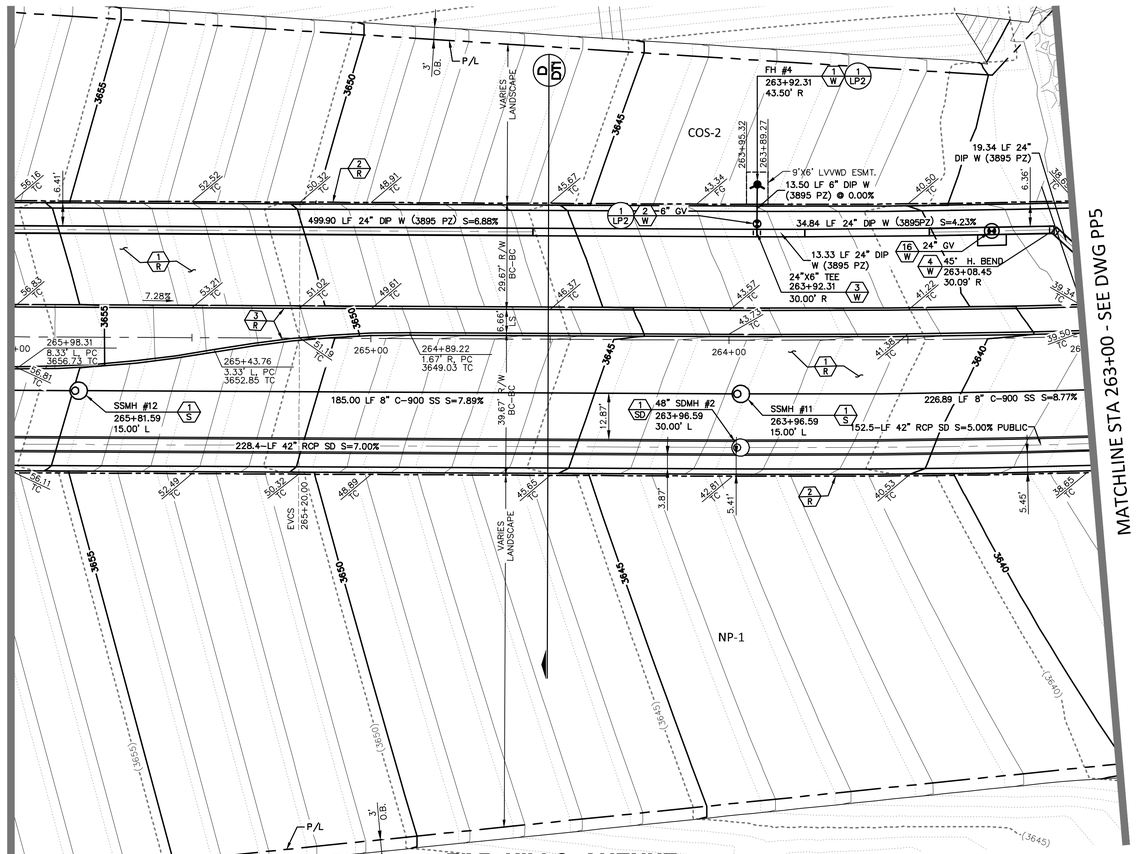
PROJECT NO. 62029-204
DESIGN: GH/AS
DRAWN: GH
CHECK: LG/AS
PLOT DATE: 11-03-21
PLOT TIME: 16:30:12

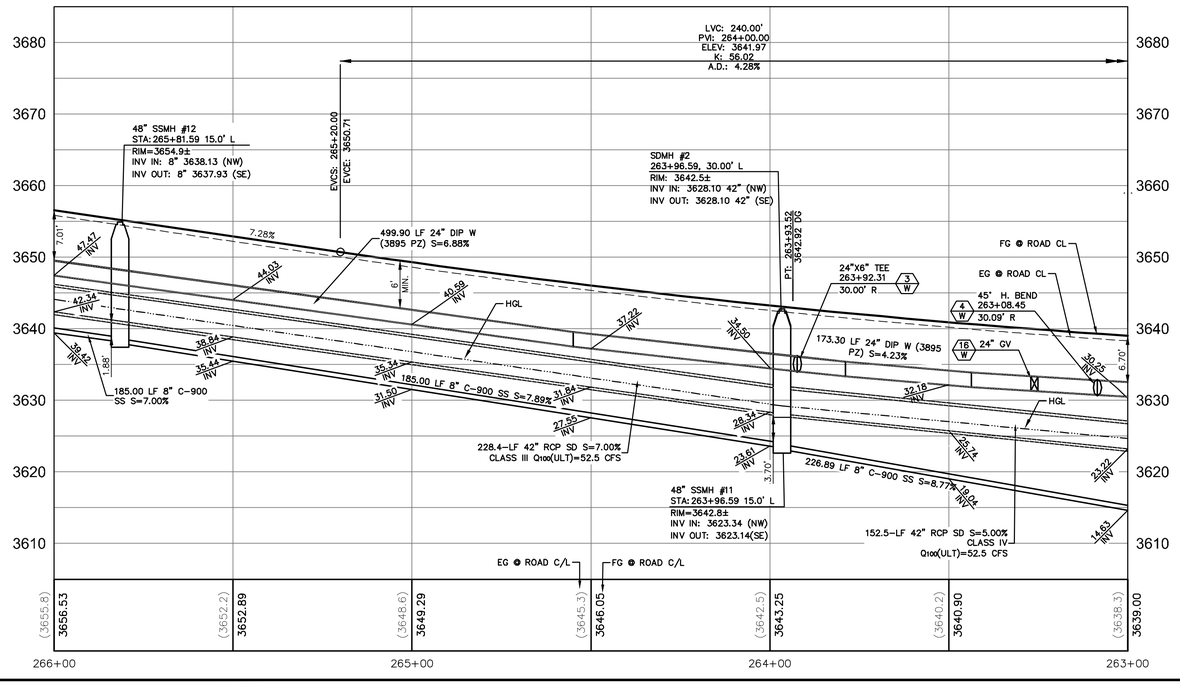
GCW ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

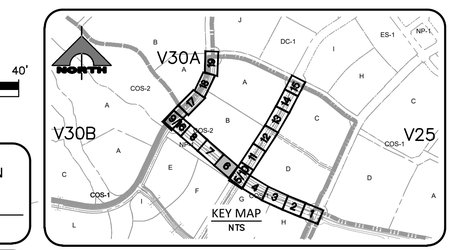
F:\PROJECTS\6200\62029-204\DWG\PRODUCTION\62029-204_05_PP - - PHA.DWG
GEORGE HOANG

THE HOWARD HUGHES COMPANY, LLC
VILLAGE 29
PHASE 1 INFRASTRUCTURE
PLAN AND PROFILE 5

DRAWING
PP5
18 OF 56 SHTS







NOTE: THIS PROJECT PLAN APPROVAL CONTINGENT ON

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APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

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

LVVWD APPROVED FIRE FLOW: TOTAL 1,500 GPM / ON-SITE N/A GPM

BENCHMARK

BM#	DESCRIPTION	NAVD 88 DATUM	NAVD 88 DATUM
CLV BM No. 7LV0934SW6	FIND RIVET AND PLATE IN TOP OF CURB SE CORNER OF DESERT MOON RD. AND SKY VISTA DR. T20S,R59E,S34	3318.31 (FEET)	1,011.422 (METERS)

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3 P EXISTING PULLBOX, ADJUST TO FINISH GRADE
4 P EXISTING CONDUIT, PROTECT IN PLACE
5 P EXISTING SDMH, PROTECT IN PLACE & ADJUST TO FINISH GRADE IF IMPACTED BY PAVEMENT IMPROVEMENTS
6 P EXISTING SSMH, PROTECT IN PLACE & ADJUST TO FINISH GRADE IF IMPACTED BY PAVEMENT IMPROVEMENTS

ROADWAY CONSTRUCTION NOTES

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2 R INSTALL "L" TYPE CURB & GUTTER, SEE SUMMERLIN STD DWG. S-47
3 R INSTALL "A" TYPE ISLAND CURB, SEE SUMMERLIN STD DWG. S-50
4 R INSTALL CURB TRANSITION PER DETAIL 2 DWG. DT3
5 R CONSTRUCT SIDEWALK RAMP PER USD DWG No. 235 (CASE II)
6 R INSTALL "L" TYPE ISLAND CURB, SEE SUMMERLIN STD DWG. S-50

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7 W INSTALL 1-½" WATER METER AND 1-½" RPPA PER DETAIL 1 DWG. DT4
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9 W REMOVE CAP AND BLOWOFF PER UDACS PLT. No. 36 AND CONNECT TO EXISTING WATER LINE.
10 W INSTALL CROSS PER UDACS PLT. No. 31
11 W LVVWD APPROVED ELASTOMERIC JOINT SEALANT AT ALL MANHOLE JOINTS.
12 W INSTALL TYPE "T" TEST STATION PER DETAIL 1 ON DWG. DT3
13 W INSTALL 1" WATER METER AND 1" RPPA PER DETAIL 1 DWG. DT4
14 W INSTALL 2" WATER METER AND 2" RPPA PER DETAIL 1 DWG. DT4
15 W INSTALL VALVED OUTLET W/ STUB VALVE AND CAP PER DETAIL 8 DWG. DT3
16 W INSTALL 24" DIRECT BURIED GATE VALVE W/ BYPASS PER DETAIL 1 DWG. DT4

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1 S INSTALL SEWER MANHOLE PER DCS STD. DWG. 1A AND 1B
2 S STUB AND CAP SEWER PIPE PER DETAIL 6 DWG. DT3
3 S REMOVE PLUG & CONNECT TO SEWER LINE (CONTRACTOR TO VERIFY SIZE, INVERT, AND LOCATION OF EX. SEWER PRIOR TO CONSTRUCTION)

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2 SD INSTALL TYPE "CM2" DROP INLET PER USD DWG. No. 421
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4 SD REMOVE PLUG & CONNECT TO EX. STORM DRAIN TO NEAREST RCP JOINT OR W/ CONCRETE COLLAR PER DETAIL 5 ON DWG. DT3 (CONTRACTOR TO VERIFY SIZE, INVERT, AND LOCATION OF EX. STORM DRAIN PRIOR TO CONSTRUCTION)
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7 SD INSTALL TYPICAL TYPE II MANHOLE PER USD DWG NO. 405.2.

IRRIGATION CONSTRUCTION NOTES

1 IR BANK "A": 1-6" & 2-4" SCH 40 PVC. PER DETAIL 7 DRAWING DT3

CONTRACTOR TO FIELD VERIFY SIZE, LOCATION AND INVERT OF EXISTING PIPE, AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO NEW SEWER CONSTRUCTION

BASIS OF BEARING AND COORDINATES

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)

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L#: LXX-XXXXX-XXXX CLV#: 107XXXXX

GCV ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcvengineering.com

PROJECT NO. 62029-204
DESIGN: GH/AS
DRAWN: GH
CHECK: LG/AS
PLOT DATE: 11-03-21
PLOT TIME: 16:30:37
F:\PROJECTS\6200\62029-204\DWG\PRODUCTION\62029-204_05_PP - PHALDWG
GEORGE HOANG

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP	DATE

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

DATE: 11/03/2021

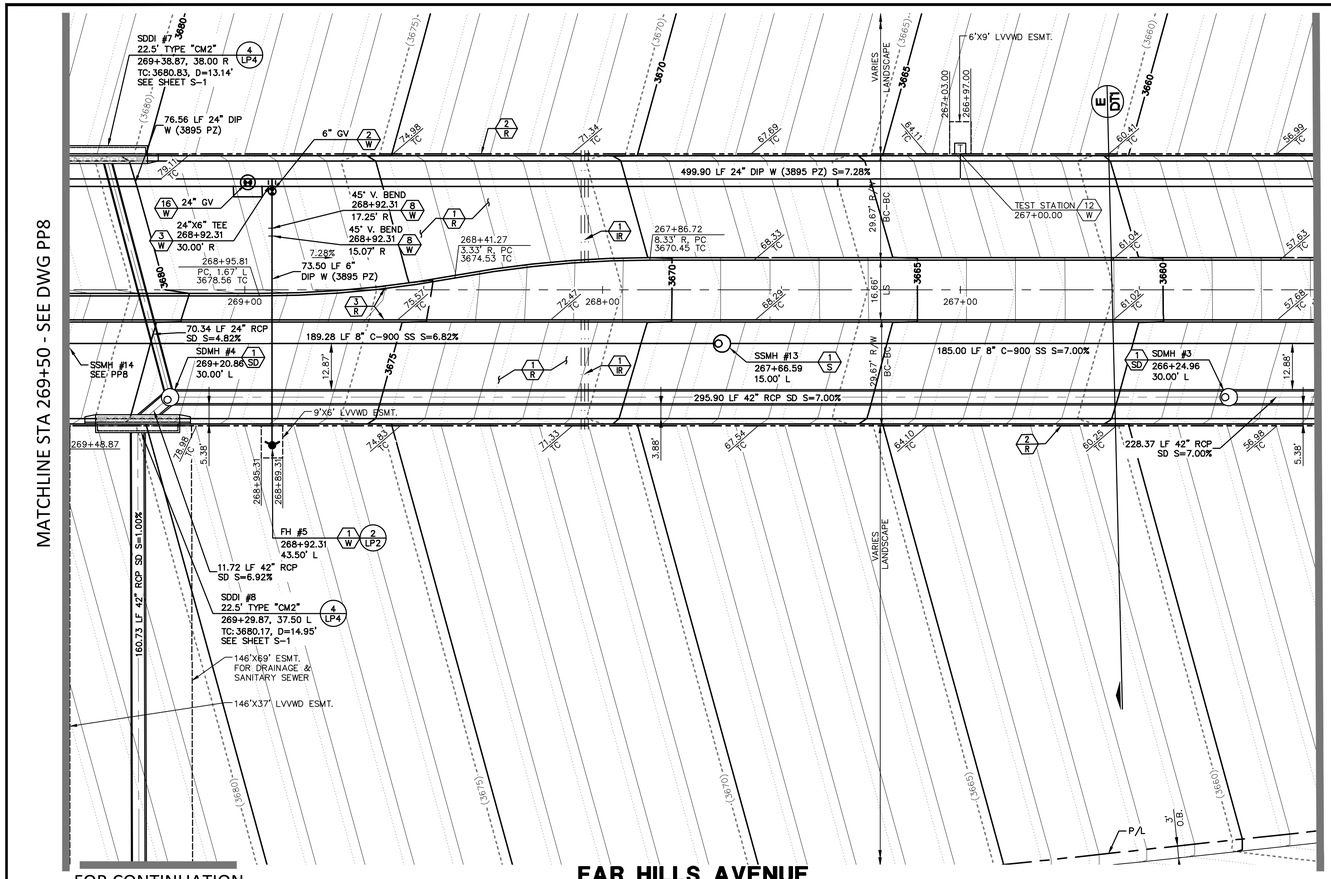
ENGINEER - STATE OF NEVADA - PROFESSIONAL
PHALJAN GRUJICIC
No. 17107
CIVIL
Exp. 06/30/2023

THE HOWARD HUGHES COMPANY, LLC

VILLAGE 29
PHASE 1 INFRASTRUCTURE

PLAN AND PROFILE 6

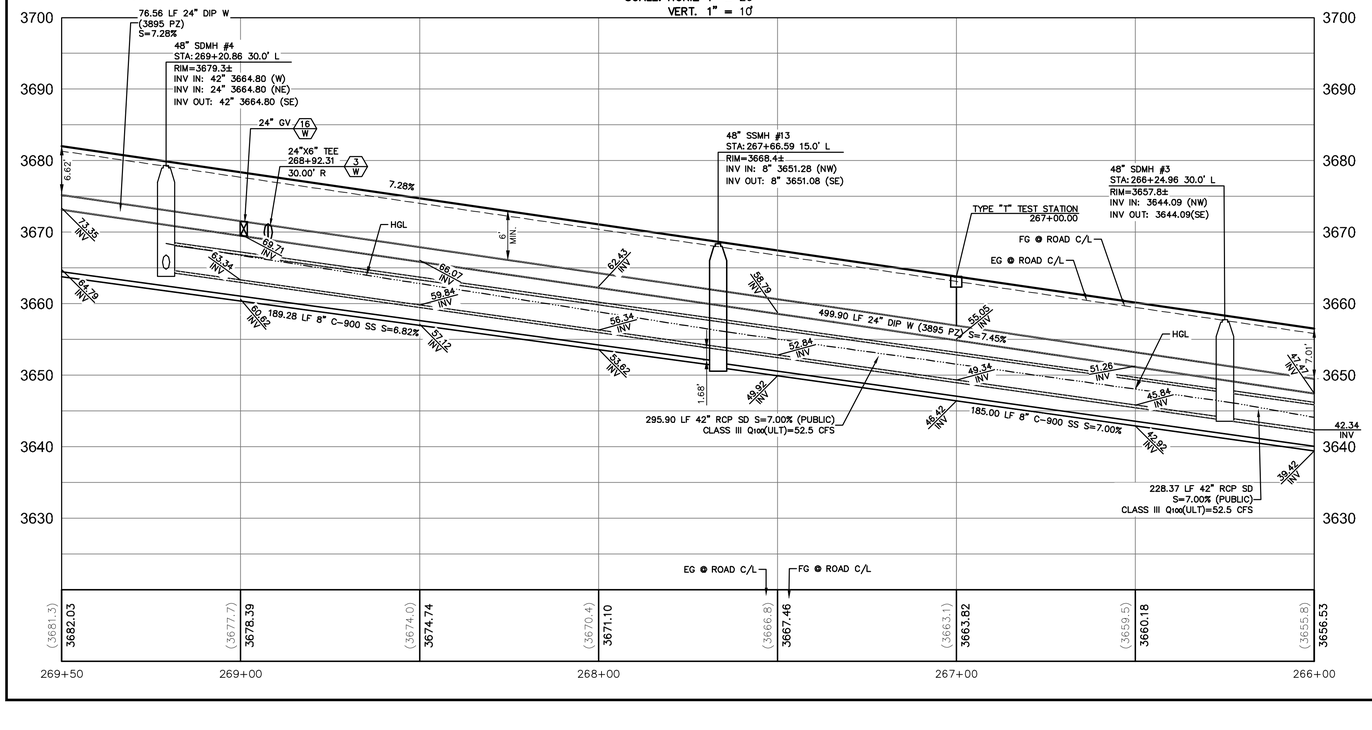
DRAWING
PP6
19 OF 56 SHTS

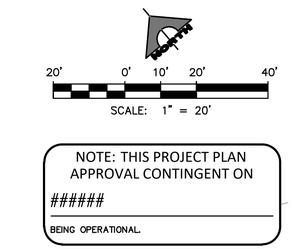


FAR HILLS AVENUE

(PUBLIC)

SCALE: HORIZ 1" = 20'
VERT. 1" = 10'





NOTE: THIS PROJECT PLAN APPROVAL CONTINGENT ON

######

BEING OPERATIONAL.

DEPTH OF COVER DURING CONSTRUCTION

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2. PROTECT IN PLACE AND ADJUST LVVWD EXISTING FACILITIES TO FINISHED GRADE PER UDACS. ALL LVVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES.
3. WATER MAIN JOINT DEFLECTION, PER UDACS 2.07.01 AND 2.07.03.
4. IN AREAS WHERE THE EXCAVATION OR GROUND ELEVATION IS LESS THAN THREE (3) FEET, FROM THE TOP OF THE LVVWD TRANSMISSION MAIN, NO EXCAVATION EQUIPMENT, OTHER THAN HAND HELD EQUIPMENT WILL BE ALLOWED WITHIN TEN (10) FEET OF THE PIPELINE IN THESE AREAS. THE CONTRACTOR IS TO PLACE A CONCRETE BARRIER; I.E. JERSEY RAIL, TO IDENTIFY AND PROTECT THE "NO EQUIPMENT ZONE."
5. ALL SEWER/STORM DRAIN CROSSING WATER LINES MUST COMPLY WITH UDACS SECTION 2.22.

LVVWD NOTE

LVVWD CANNOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE TO REMOVE REMAINING WATER. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TRIAL SHUTDOWN.

CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.

DROP INLET NOTE

WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE:

ALL STORM DRAIN DROP INLETS ARE TO BE CONSTRUCTED PER THE REQUIREMENTS OF USDCCA DWG. NO. 421 (STORMWATER QUALITY MANAGEMENT STAMP AND SIGN DETAIL).

OFF-SITE FLOOD CONTROL NOTE

ALL OFF-SITE INTERIM FLOOD CONTROL FACILITIES SUCH AS, BUT NOT LIMITED TO, BERMS/DITCHES AND TEMPORARY SUMPS ARE PRIVATELY OWNED AND ARE TO BE PRIVATELY MAINTAINED BY THE HOWARD HUGHES COMPANY.

FOR ALL DRY UTILITY CROSSINGS

1. MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING.
2. MAINTAIN MINIMUM 3' PARALLEL SEPARATION
3. ANY EXCAVATION AT BACK OF CURB MUST REMAIN OPEN FOR INSPECTION OF COPPER SERVICE LATERALS. ANY COPPER SERVICE LATERAL KINKED, BENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP.

3895 PZ W NOTES

1. 3895 PZ WATER LINE TO BE INSTALLED UNDER DRY CONDITION
2. ALL 3895 ZONE (DIP) WATER LINE JOINTS TO BE MECHANICALLY RESTRAINED PER UDACS SECTION 2.15
3. 3895 PZ WATER MAINS TO BE CHLORINATED AND PRESSURE TESTED. ALL WATER MUST BE DRAINED FROM THE LINE AFTER THE PRESSURE TEST COMPLETION AS A CONDITION FOR LVVWD WATER UTILITIES ACCEPTANCE.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

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

LVVWD APPROVED FIRE FLOW: TOTAL 1,500 GPM / ON-SITE N/A GPM

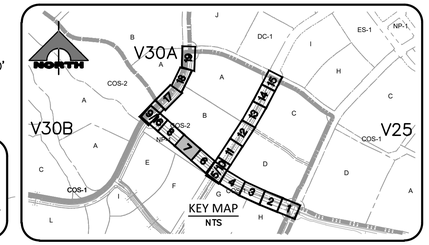
BENCHMARK

BM#	DESCRIPTION	NAVD 88 DATUM	NAVD 88 DATUM
CLV BM No. 7LV0934SW6	FIND RIVET AND PLATE IN TOP OF CURB SE CORNER OF DESERT MOON RD. AND SKY VISTA DR. T20S,R59E,S34	3318.31 (FEET)	1,011.422 (METERS)

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811 or 1-800-642-2444

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

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



PROTECTION CONSTRUCTION NOTES

1 P EXISTING PAVEMENT, PROTECT IN PLACE
2 P EXISTING CURB/GUTTER, PROTECT IN PLACE
3 P EXISTING PULLBOX, ADJUST TO FINISH GRADE
4 P EXISTING CONDUIT, PROTECT IN PLACE
5 P EXISTING SDMH, PROTECT IN PLACE & ADJUST TO FINISH GRADE IF IMPACTED BY PAVEMENT IMPROVEMENTS
6 P EXISTING SSMH, PROTECT IN PLACE & ADJUST TO FINISH GRADE IF IMPACTED BY PAVEMENT IMPROVEMENTS

ROADWAY CONSTRUCTION NOTES

1 R INSTALL A.C. PAVEMENT PER STREET SECTIONS, SEE DWG. DT1
2 R INSTALL "L" TYPE CURB & GUTTER, SEE SUMMERLIN STD DWG. S-47
3 R INSTALL "A" TYPE ISLAND CURB, SEE SUMMERLIN STD DWG. S-50
4 R INSTALL CURB TRANSITION PER DETAIL 2 DWG. DT3
5 R CONSTRUCT SIDEWALK RAMP PER USD DWG No. 235 (CASE II)
6 R INSTALL "L" TYPE ISLAND CURB, SEE SUMMERLIN STD DWG. S-50

WATER CONSTRUCTION NOTES

1 W INSTALL FIRE HYDRANT & ASSEMBLY PER UDACS PLT. No. 40
2 W INSTALL GATE VALVE AND BOX PER UDACS PLT. No. 30 AND 39
3 W INSTALL TEE PER UDACS PLT. No. 31
4 W INSTALL HORIZONTAL BEND PER UDACS PLT. No. 31 (SEE PLAN FOR ANGLE)
5 W INSTALL REDUCER PER UDACS PLT. No. 31
6 W INSTALL CAP W/ 2" BLOW-OFF ASSEMBLY PER UDACS PLT. No. 36
7 W INSTALL 1-½" WATER METER AND 1-½" RPPA PER DETAIL 1 DWG. DT4
8 W INSTALL VERTICAL BEND PER UDACS PLT. No. 31 (SEE PROFILE FOR ANGLE)
9 W REMOVE CAP AND BLOWOFF PER UDACS PLT. No. 36 AND CONNECT TO EXISTING WATER LINE.
10 W INSTALL CROSS PER UDACS PLT. No. 31
11 W LVVWD APPROVED ELASTOMERIC JOINT SEALANT AT ALL MANHOLE JOINTS.
12 W INSTALL TYPE "I" TEST STATION PER DETAIL 1 ON DWG. DT3
13 W INSTALL 1" WATER METER AND 1" RPPA PER DETAIL 1 DWG. DT4
14 W INSTALL 2" WATER METER AND 2" RPPA PER DETAIL 1 DWG. DT4
15 W INSTALL VALVED OUTLET W/ STUB VALVE AND CAP PER DETAIL 8 DWG. DT3
16 W INSTALL 24" DIRECT BURIED GATE VALVE W/ BYPASS PER DETAIL 1 DWG. DT4

SEWER CONSTRUCTION NOTES

1 S INSTALL SEWER MANHOLE PER DCS STD. DWG. 1A AND 1B
2 S STUB AND CAP SEWER PIPE PER DETAIL 6 DWG. DT3
3 S REMOVE PLUG & CONNECT TO SEWER LINE (CONTRACTOR TO VERIFY SIZE, INVERT, AND LOCATION OF EX. SEWER PRIOR TO CONSTRUCTION)

STORM DRAIN CONSTRUCTION NOTES

1 SD INSTALL TYPE II MANHOLE PER USD DWG. No. 405.1
2 SD INSTALL TYPE "CM2" DROP INLET PER USD DWG. No. 421
3 SD INSTALL TEMPORARY PLUG AND CAP PER DETAIL 4 ON DWG. DT3
4 SD REMOVE PLUG & CONNECT TO EX. STORM DRAIN TO NEAREST RCP JOINT OR TO W/ CONCRETE COLLAR PER DETAIL 5 ON DWG. DT3 (CONTRACTOR TO VERIFY SIZE, INVERT, AND LOCATION OF EX. STORM DRAIN PRIOR TO CONSTRUCTION)
5 SD INSTALL JUNCTION STRUCTURE.
6 SD INSTALL TYPICAL TYPE I ACCESS MANHOLE IN RCB PER DETAILS ON DWG S1 AND USD DWG NO. 403.1.
7 SD INSTALL TYPICAL TYPE II MANHOLE PER USD DWG NO. 405.2.

IRRIGATION CONSTRUCTION NOTES

1 IR BANK "A": 1-6" & 2-4" SCH 40 PVC. PER DETAIL 7 DRAWING DT3

CONTRACTOR TO FIELD VERIFY SIZE, LOCATION AND INVERT OF EXISTING PIPE, AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO NEW SEWER CONSTRUCTION

BASIS OF BEARING AND COORDINATES

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.

L#: LXX-XXXXX-XXXX | CLV#: 107XXXXX

PROFESSIONAL ENGINEER - STATE OF NEVADA - No. 17019 - LADLAN GRUJICIC - CIVIL - Exp. 06/30/2023 - DATE: 11/03/2021

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

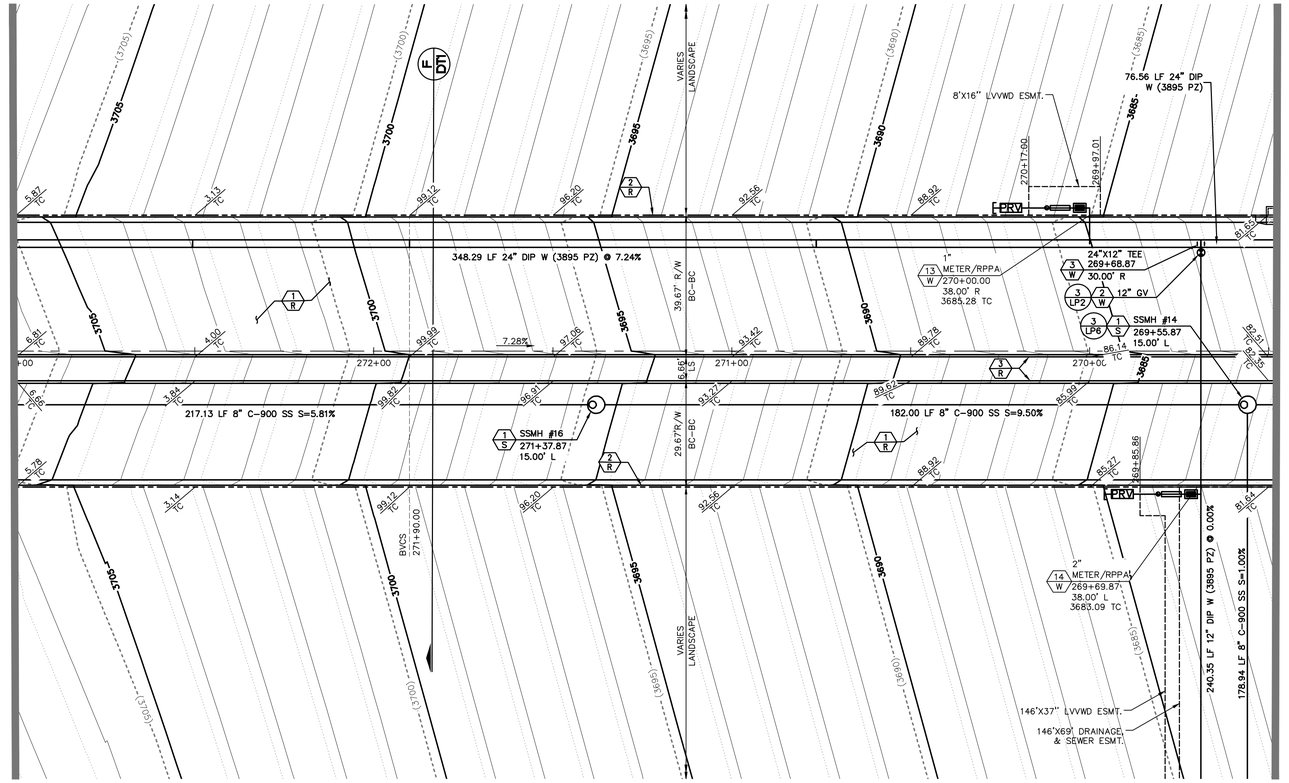
REV	DESCRIPTION	DATE	AGEN APP	DATE	GW APP

PROJECT NO. 62029-204
DESIGN: GH/AS
DRAWN: GH
CHECK: LG/AS
PLOT DATE: 11-03-21
PLOT TIME: 16:31:00

GCV ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com
GEORGE HOANG
F:\PROJECTS\6000\62029-204\DWG\PRODUCTION\62029-204_DP - FHA.DWG

THE HOWARD HUGHES COMPANY, LLC
VILLAGE 29
PHASE 1 INFRASTRUCTURE
PLAN AND PROFILE 7

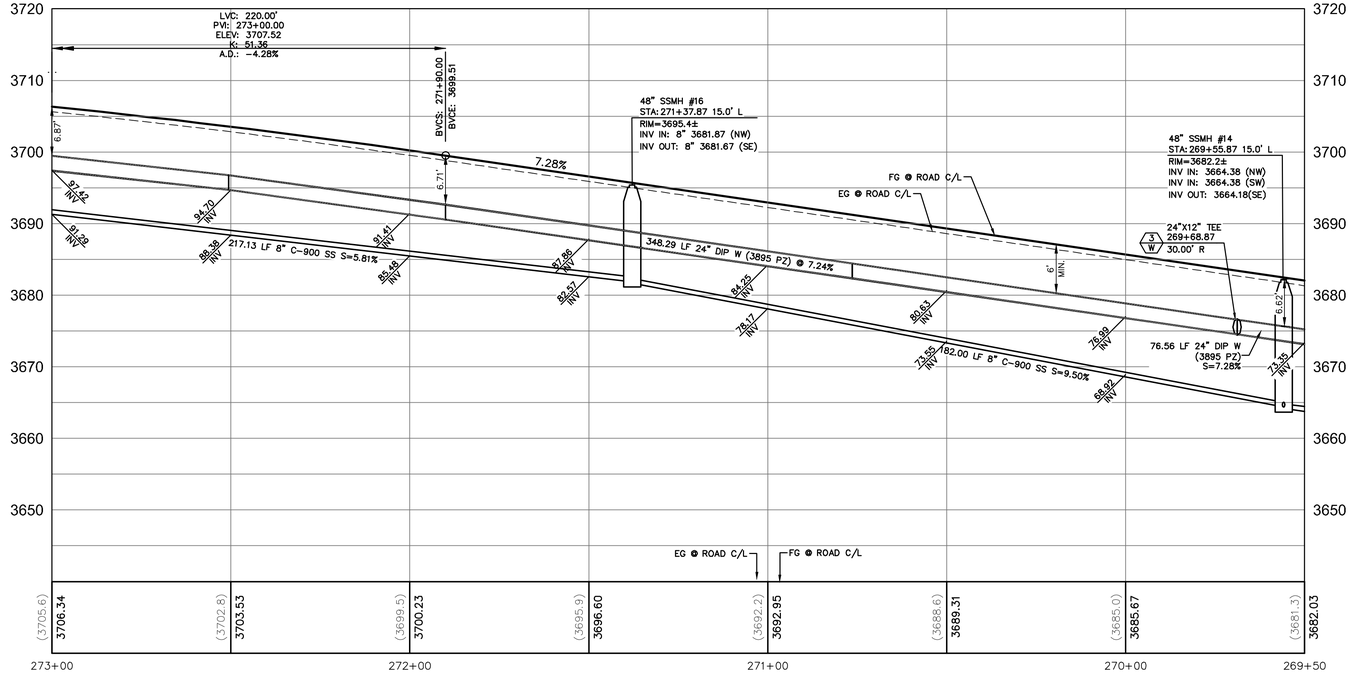
DRAWING
PP7
20 OF 56 SHTS



FAR HILLS AVENUE

(PUBLIC)

SCALE: HORIZ 1" = 20'
VERT. 1" = 10'



SCALE: 1" = 20'

NOTE: THIS PROJECT PLAN APPROVAL CONTINGENT ON

######

BEING OPERATIONAL.

DEPTH OF COVER DURING CONSTRUCTION

MAINTAIN MINIMUM TWENTY-FOUR (24) INCH COVER PER UDACS SECTION 2.08.04. GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION.

LVVWD NOTES

1. INSTALL PIPELINE MARKER BALLS, PER UDACS PLATE NO. 15.
2. PROTECT IN PLACE AND ADJUST LVVWD EXISTING FACILITIES TO FINISHED GRADE PER UDACS. ALL LVVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES.
3. WATER MAIN JOINT DEFLECTION, PER UDACS 2.07.01 AND 2.07.03.
4. IN AREAS WHERE THE EXCAVATION OR GROUND ELEVATION IS LESS THAN THREE (3) FEET, FROM THE TOP OF THE LVVWD TRANSMISSION MAIN, NO EXCAVATION EQUIPMENT, OTHER THAN HAND HELD EQUIPMENT WILL BE ALLOWED WITHIN TEN (10) FEET OF THE PIPELINE IN THESE AREAS. THE CONTRACTOR IS TO PLACE A CONCRETE BARRIER; I.E. JERSEY RAIL, TO IDENTIFY AND PROTECT THE "NO EQUIPMENT ZONE."
5. ALL SEWER/STORM DRAIN CROSSING WATER LINES MUST COMPLY WITH UDACS SECTION 2.22.

LVVWD NOTE

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CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.

DROP INLET NOTE

WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE:

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OFF-SITE FLOOD CONTROL NOTE

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2. MAINTAIN MINIMUM 3' PARALLEL SEPARATION
3. ANY EXCAVATION AT BACK OF CURB MUST REMAIN OPEN FOR INSPECTION OF COPPER SERVICE LATERALS. ANY COPPER SERVICE LATERAL KINKED, BENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP.

3895 PZ W NOTES

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3. 3895 PZ WATER MAINS TO BE CHLORINATED AND PRESSURE TESTED. ALL WATER MUST BE DRAINED FROM THE LINE AFTER THE PRESSURE TEST COMPLETION AS A CONDITION FOR LVVWD WATER UTILITIES ACCEPTANCE.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

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

LVVWD APPROVED FIRE FLOW: TOTAL 1,500 GPM / ON-SITE N/A GPM

BENCHMARK

BM#	DESCRIPTION	NAVD 88 DATUM	NAVD 88 DATUM
CLV BM No. 7LV0934SW6	FIND RIVET AND PLATE IN TOP OF CURB SE CORNER OF DESERT MOON RD. AND SKY VISTA DR. T20S,R59E,S34	3318.31 (FEET)	1,011.422 (METERS)

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811 OR 1-800-642-2444

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

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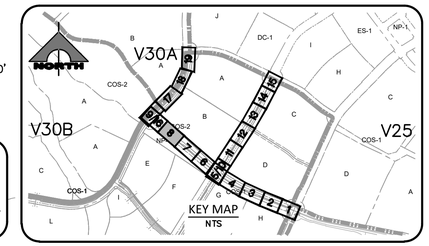
CALL BEFORE YOU DO OVERHEAD
1-702-227-2929



PROTECTION CONSTRUCTION NOTES

1 P EXISTING PAVEMENT, PROTECT IN PLACE
2 P EXISTING CURB/GUTTER, PROTECT IN PLACE
3 P EXISTING PULLBOX, ADJUST TO FINISH GRADE
4 P EXISTING CONDUIT, PROTECT IN PLACE
5 P EXISTING SDMH, PROTECT IN PLACE & ADJUST TO FINISH GRADE IF IMPACTED BY PAVEMENT IMPROVEMENTS
6 P EXISTING SSMH, PROTECT IN PLACE & ADJUST TO FINISH GRADE IF IMPACTED BY PAVEMENT IMPROVEMENTS

ROADWAY CONSTRUCTION NOTES

1 R INSTALL A.C. PAVEMENT PER STREET SECTIONS, SEE DWG. DT1
2 R INSTALL "L" TYPE CURB & GUTTER, SEE SUMMERLIN STD DWG. S-47
3 R INSTALL "A" TYPE ISLAND CURB, SEE SUMMERLIN STD DWG. S-50
4 R INSTALL CURB TRANSITION PER DETAIL 2 DWG. DT3
5 R CONSTRUCT SIDEWALK RAMP PER USD DWG No. 235 (CASE II)
6 R INSTALL "L" TYPE ISLAND CURB, SEE SUMMERLIN STD DWG. S-50

WATER CONSTRUCTION NOTES

1 W INSTALL FIRE HYDRANT & ASSEMBLY PER UDACS PLT. No. 40
2 W INSTALL GATE VALVE AND BOX PER UDACS PLT. No. 30 AND 39
3 W INSTALL TEE PER UDACS PLT. No. 31
4 W INSTALL HORIZONTAL BEND PER UDACS PLT. No. 31 (SEE PLAN FOR ANGLE)
5 W INSTALL REDUCER PER UDACS PLT. No. 31
6 W INSTALL CAP W/ 2" BLOW-OFF ASSEMBLY PER UDACS PLT. No. 36
7 W INSTALL 1-½" WATER METER AND 1-½" RPPA PER DETAIL 1 DWG. DT4
8 W INSTALL VERTICAL BEND PER UDACS PLT. No. 31 (SEE PROFILE FOR ANGLE)
9 W REMOVE CAP AND BLOWOFF PER UDACS PLT. No. 36 AND CONNECT TO EXISTING WATER LINE.
10 W INSTALL CROSS PER UDACS PLT. No. 31
11 W LVVWD APPROVED ELASTOMERIC JOINT SEALANT AT ALL MANHOLE JOINTS.
12 W INSTALL TYPE "I" TEST STATION PER DETAIL 1 ON DWG. DT3
13 W INSTALL 1" WATER METER AND 1" RPPA PER DETAIL 1 DWG. DT4
14 W INSTALL 2" WATER METER AND 2" RPPA PER DETAIL 1 DWG. DT4
15 W INSTALL VALVED OUTLET W/ STUB VALVE AND CAP PER DETAIL 8 DWG. DT3
16 W INSTALL 24" DIRECT BURIED GATE VALVE W/ BYPASS PER DETAIL 1 DWG. DT4

SEWER CONSTRUCTION NOTES

1 S INSTALL SEWER MANHOLE PER DCS STD. DWG. 1A AND 1B
2 S STUB AND CAP SEWER PIPE PER DETAIL 6 DWG. DT3
3 S REMOVE PLUG & CONNECT TO SEWER LINE (CONTRACTOR TO VERIFY SIZE, INVERT, AND LOCATION OF EX. SEWER PRIOR TO CONSTRUCTION)

STORM DRAIN CONSTRUCTION NOTES

1 SD INSTALL TYPE II MANHOLE PER USD DWG. No. 405.1
2 SD INSTALL TYPE "CM2" DROP INLET PER USD DWG. No. 421
3 SD INSTALL TEMPORARY PLUG AND CAP PER DETAIL 4 ON DWG. DT3
4 SD REMOVE PLUG & CONNECT TO EX. STORM DRAIN TO NEAREST RCP JOINT OR W/ CONCRETE COLLAR PER DETAIL 5 ON DWG. DT3 (CONTRACTOR TO VERIFY SIZE, INVERT, AND LOCATION OF EX. STORM DRAIN PRIOR TO CONSTRUCTION)
5 SD INSTALL JUNCTION STRUCTURE.
6 SD INSTALL TYPICAL TYPE I ACCESS MANHOLE IN RCB PER DETAILS ON DWG S1 AND USD DWG NO. 403.1.
7 SD INSTALL TYPICAL TYPE II MANHOLE PER USD DWG NO. 405.2.

IRRIGATION CONSTRUCTION NOTES

1 IR BANK "A": 1-6" & 2-4" SCH 40 PVC. PER DETAIL 7 DRAWING DT3

CONTRACTOR TO FIELD VERIFY SIZE, LOCATION AND INVERT OF EXISTING PIPE, AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO NEW SEWER CONSTRUCTION

BASIS OF BEARING AND COORDINATES

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.

L#: LXX-XXXXX-XXXX | CLV#: 107XXXXX

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	AGEN APP	DATE	GCW APP	DATE

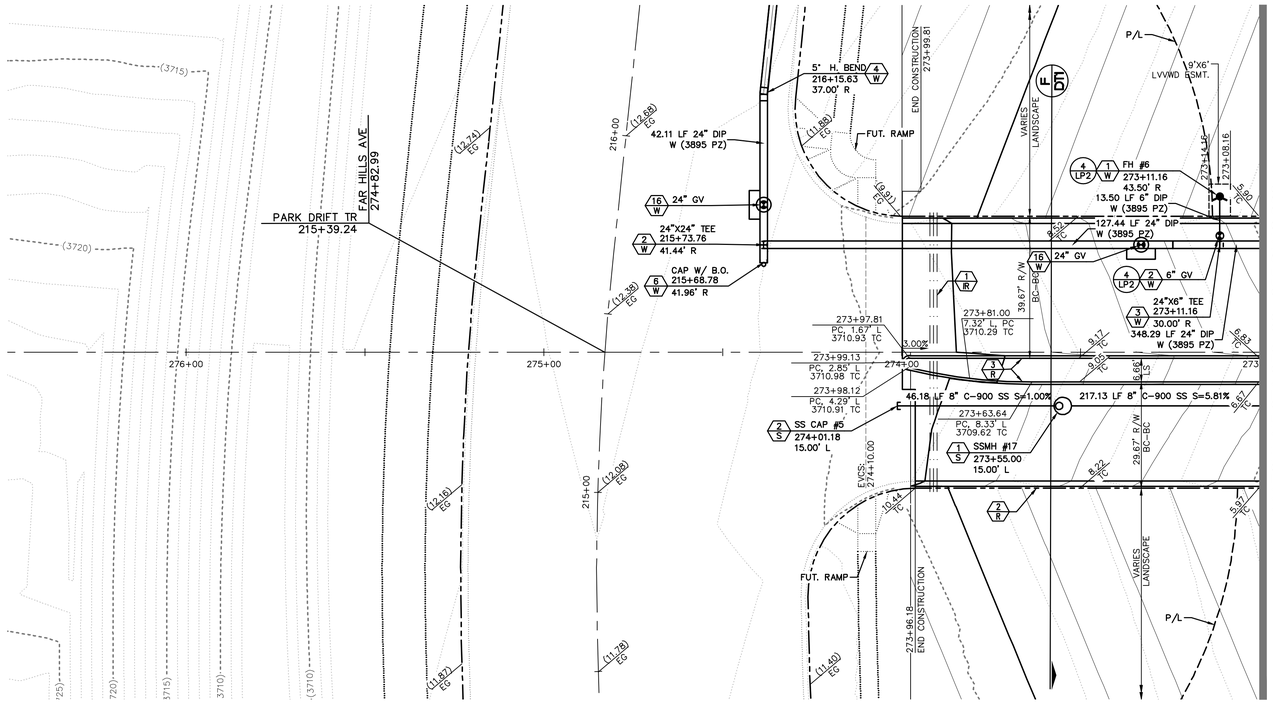
PROJECT NO. 62029-204
DESIGN: GH/AS
DRAWN: GH
CHECK: LG/AS
PLOT DATE: 11-03-21
PLOT TIME: 16:31:22

GCW ENGINEERS\SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com
F:\PROJECTS\62029-204\DWG\PRODUCTION\62029-204_05_PP - PHA.DWG
GEORGE HOANG

STATE OF NEVADA PROFESSIONAL ENGINEER No. 17107 MILADAN GRUJICIC Exp. 06/30/2023 CIVIL
DATE: 11/03/2021

THE HOWARD HUGHES COMPANY, LLC
VILLAGE 29
PHASE 1 INFRASTRUCTURE
PLAN AND PROFILE 8

DRAWING
PP8
21 OF 56 SHTS


PARK DRIFT TR
215+39.24
FAR HILLS AVE
274+82.99
5" H. BEND
216+15.63
37.00' R
42.11 LF 24" DIP
W (3895 PZ)
24" GV
24"X24" TEE
215+73.76
41.44' R
CAP W/ B.O.
215+68.78
41.96' R
FUT. RAMP
END CONSTRUCTION
273+99.81
VARIES
LANDSCAPE
P/L
9'X6'
LVVWD ESMT.
FH #6
273+11.16
43.50' R
13.50 LF 6" DIP
W (3895 PZ)
127.44 LF 24" DIP
W (3895 PZ)
24"X6" TEE
273+11.16
30.00' R
348.29 LF 24" DIP
W (3895 PZ)
6" GV
273+97.81
PC, 1.67° L
3710.93 TC
273+99.13
PC, 2.86° L
3710.98 TC
273+98.12
PC, 4.29° L
3710.91 TC
273+81.00
7.32° L, PC
3710.29 TC
39.67' R/W
BC-BC
46.18 LF 8" C-900 SS S=1.00%
217.13 LF 8" C-900 SS S=5.81%
273+63.64
PC, 8.33° L
3709.62 TC
29.67' R/W
BC-BC
SS CAP #5
274+01.18
15.00' L
SSMH #17
273+55.00
15.00' L
EVCS: 274+10.00
END CONSTRUCTION
273+96.18
FUT. RAMP
VARIES
LANDSCAPE
P/L
MATCHLINE STA 273+00 - SEE DWG PP8
276+00
275+00
274+00
216+00
215+00
(3715)
(3720)
(3725)
(3710)
(12.74) EG
(12.68) EG
(12.38) EG
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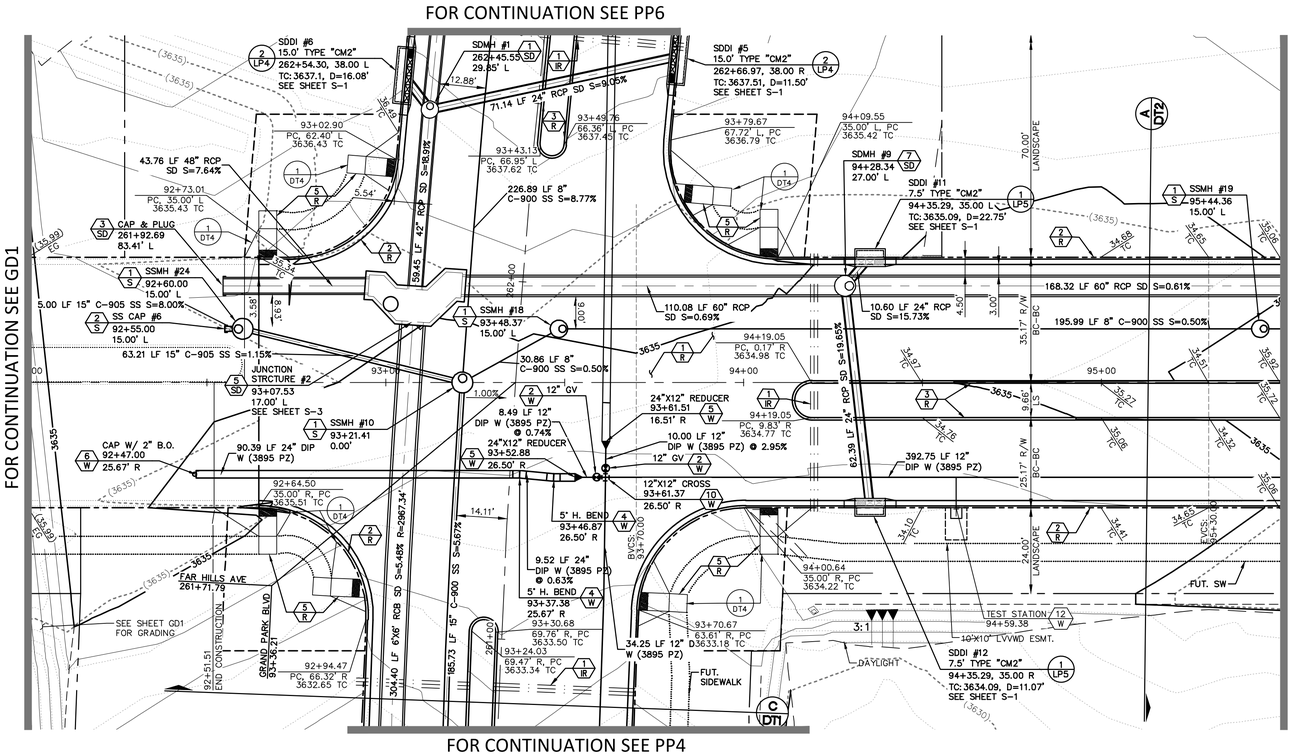
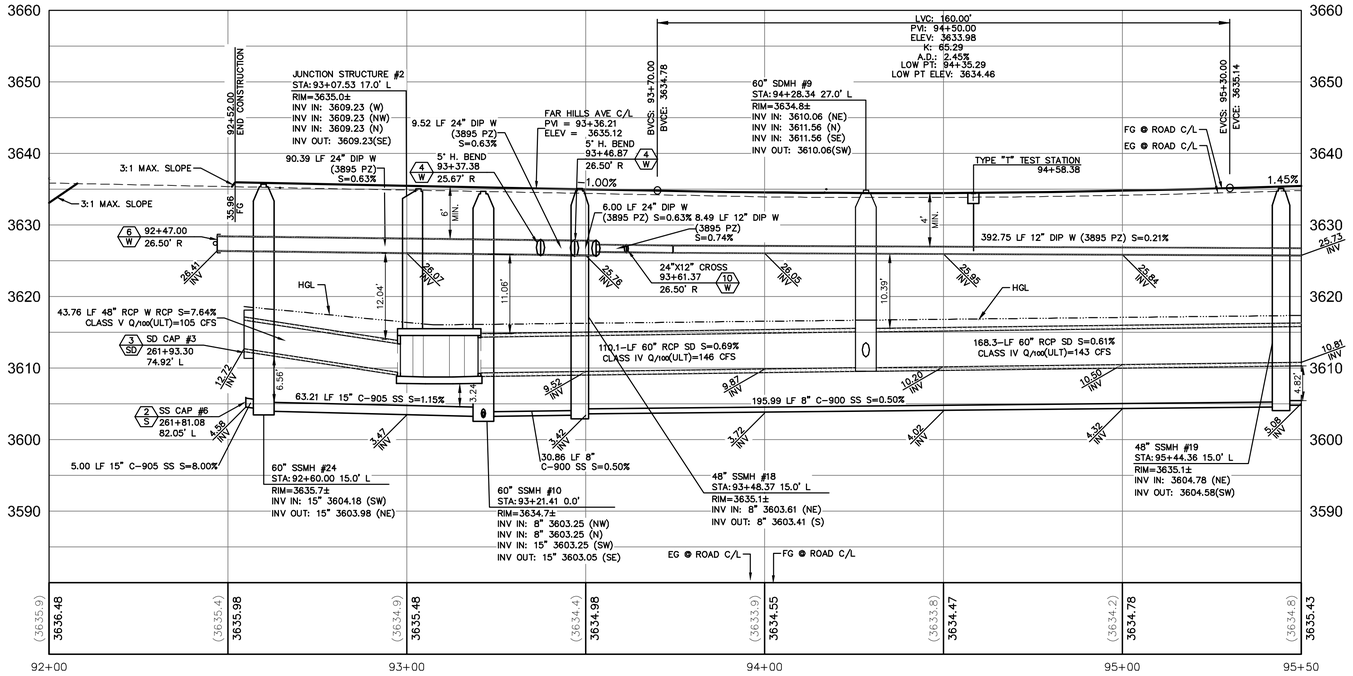
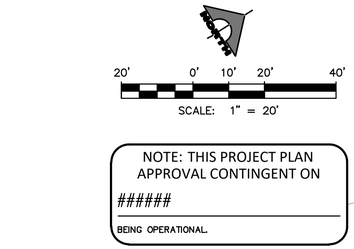






20' 0' 10' 20' 40'

SCALE: 1" = 20'

NOTE: THIS PROJECT PLAN APPROVAL CONTINGENT ON

######

BEING OPERATIONAL.

DEPTH OF COVER DURING CONSTRUCTION

MAINTAIN MINIMUM TWENTY-FOUR (24) INCH COVER PER UDACS SECTION 2.08.04. GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION.

LVVWD NOTES

1. INSTALL PIPELINE MARKER BALLS, PER UDACS PLATE NO. 15.
2. PROTECT IN PLACE AND ADJUST LVVWD EXISTING FACILITIES TO FINISHED GRADE PER UDACS. ALL LVVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES.
3. WATER MAIN JOINT DEFLECTION, PER UDACS 2.07.01 AND 2.07.03.
4. IN AREAS WHERE THE EXCAVATION OR GROUND ELEVATION IS LESS THAN THREE (3) FEET, FROM THE TOP OF THE LVVWD TRANSMISSION MAIN, NO EXCAVATION EQUIPMENT, OTHER THAN HAND HELD EQUIPMENT WILL BE ALLOWED WITHIN TEN (10) FEET OF THE PIPELINE IN THESE AREAS. THE CONTRACTOR IS TO PLACE A CONCRETE BARRIER; I.E. JERSEY RAIL, TO IDENTIFY AND PROTECT THE "NO EQUIPMENT ZONE."
5. ALL SEWER/STORM DRAIN CROSSING WATER LINES MUST COMPLY WITH UDACS SECTION 2.22.

LVVWD NOTE

LVVWD CANNOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE TO REMOVE REMAINING WATER. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TRIAL SHUTDOWN.

CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.

DROP INLET NOTE

WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE:

ALL STORM DRAIN DROP INLETS ARE TO BE CONSTRUCTED PER THE REQUIREMENTS OF USDCCA DWG. NO. 421 (STORMWATER QUALITY MANAGEMENT STAMP AND SIGN DETAIL).

OFF-SITE FLOOD CONTROL NOTE

ALL OFF-SITE INTERIM FLOOD CONTROL FACILITIES SUCH AS, BUT NOT LIMITED TO, BERMS/DITCHES AND TEMPORARY SUMPS ARE PRIVATELY OWNED AND ARE TO BE PRIVATELY MAINTAINED BY THE HOWARD HUGHES COMPANY.

FOR ALL DRY UTILITY CROSSINGS

1. MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING.
2. MAINTAIN MINIMUM 3' PARALLEL SEPARATION
3. ANY EXCAVATION AT BACK OF CURB MUST REMAIN OPEN FOR INSPECTION OF COPPER SERVICE LATERALS. ANY COPPER SERVICE LATERAL KINKED, BENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP.

3895 PZ W NOTES

1. 3895 PZ WATER LINE TO BE INSTALLED UNDER DRY CONDITION
2. ALL 3895 ZONE (DIP) WATER LINE JOINTS TO BE MECHANICALLY RESTRAINED PER UDACS SECTION 2.15
3. 3895 PZ WATER MAINS TO BE CHLORINATED AND PRESSURE TESTED. ALL WATER MUST BE DRAINED FROM THE LINE AFTER THE PRESSURE TEST COMPLETION AS A CONDITION FOR LVVWD WATER UTILITIES ACCEPTANCE.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

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

LVVWD APPROVED FIRE FLOW: TOTAL 1,500 GPM / ON-SITE N/A GPM

BENCHMARK

BM#	DESCRIPTION	NAVD 88 DATUM	NAVD 88 DATUM
CLV BM No. 7LV0934SW6	FIND RIVET AND PLATE IN TOP OF CURB SE CORNER OF DESERT MOON RD. AND SKY VISTA DR. T20S,R59E,S34	3318.31 (FEET)	1,011.422 (METERS)

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811 or 1-800-642-2444

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

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

PROTECTION CONSTRUCTION NOTES

1 P EXISTING PAVEMENT, PROTECT IN PLACE
2 P EXISTING CURB/GUTTER, PROTECT IN PLACE
3 P EXISTING PULLBOX, ADJUST TO FINISH GRADE
4 P EXISTING CONDUIT, PROTECT IN PLACE
5 P EXISTING SDMH, PROTECT IN PLACE & ADJUST TO FINISH GRADE IF IMPACTED BY PAVEMENT IMPROVEMENTS
6 P EXISTING SSMH, PROTECT IN PLACE & ADJUST TO FINISH GRADE IF IMPACTED BY PAVEMENT IMPROVEMENTS

ROADWAY CONSTRUCTION NOTES

1 R INSTALL A.C. PAVEMENT PER STREET SECTIONS, SEE DWG. DT1
2 R INSTALL "L" TYPE CURB & GUTTER, SEE SUMMERLIN STD DWG. S-47
3 R INSTALL "A" TYPE ISLAND CURB, SEE SUMMERLIN STD DWG. S-50
4 R INSTALL CURB TRANSITION PER DETAIL 2 DWG. DT3
5 R CONSTRUCT SIDEWALK RAMP PER USD DWG No. 235 (CASE II)
6 R INSTALL "L" TYPE ISLAND CURB, SEE SUMMERLIN STD DWG. S-50

WATER CONSTRUCTION NOTES

1 W INSTALL FIRE HYDRANT & ASSEMBLY PER UDACS PLT. No. 40
2 W INSTALL GATE VALVE AND BOX PER UDACS PLT. No. 30 AND 39
3 W INSTALL TEE PER UDACS PLT. No. 31
4 W INSTALL HORIZONTAL BEND PER UDACS PLT. No. 31 (SEE PLAN FOR ANGLE)
5 W INSTALL REDUCER PER UDACS PLT. No. 31
6 W INSTALL CAP W/ 2" BLOW-OFF ASSEMBLY PER UDACS PLT. No. 36
7 W INSTALL 1-½" WATER METER AND 1-½" RPPA PER DETAIL 1 DWG. DT4
8 W INSTALL VERTICAL BEND PER UDACS PLT. No. 31 (SEE PROFILE FOR ANGLE)
9 W REMOVE CAP AND BLOWOFF PER UDACS PLT. No. 36 AND CONNECT TO EXISTING WATER LINE.
10 W INSTALL CROSS PER UDACS PLT. No. 31
11 W LVVWD APPROVED ELASTOMERIC JOINT SEALANT AT ALL MANHOLE JOINTS.
12 W INSTALL TYPE "T" TEST STATION PER DETAIL 1 ON DWG. DT3
13 W INSTALL 1" WATER METER AND 1" RPPA PER DETAIL 1 DWG. DT4
14 W INSTALL 2" WATER METER AND 2" RPPA PER DETAIL 1 DWG. DT4
15 W INSTALL VALVED OUTLET W/ STUB VALVE AND CAP PER DETAIL 8 DWG. DT3
16 W INSTALL 24" DIRECT BURIED GATE VALVE W/ BYPASS PER DETAIL 1 DWG. DT4

SEWER CONSTRUCTION NOTES

1 S INSTALL SEWER MANHOLE PER DCS STD. DWG. 1A AND 1B
2 S STUB AND CAP SEWER PIPE PER DETAIL 6 DWG. DT3
3 S REMOVE PLUG & CONNECT TO SEWER LINE (CONTRACTOR TO VERIFY SIZE, INVERT, AND LOCATION OF EX. SEWER PRIOR TO CONSTRUCTION)

STORM DRAIN CONSTRUCTION NOTES

1 SD INSTALL TYPE II MANHOLE PER USD DWG. No. 405.1
2 SD INSTALL TYPE "CM2" DROP INLET PER USD DWG. No. 421
3 SD INSTALL TEMPORARY PLUG AND CAP PER DETAIL 4 ON DWG. DT3
4 SD REMOVE PLUG & CONNECT TO EX. STORM DRAIN TO NEAREST RCP JOINT OR W/ CONCRETE COLLAR PER DETAIL 5 ON DWG. DT3 (CONTRACTOR TO VERIFY SIZE, INVERT, AND LOCATION OF EX. STORM DRAIN PRIOR TO CONSTRUCTION)
5 SD INSTALL JUNCTION STRUCTURE.
6 SD INSTALL TYPICAL TYPE I ACCESS MANHOLE IN RCB PER DETAILS ON USD DWG NO. 403.1.
7 SD INSTALL TYPICAL TYPE II MANHOLE PER USD DWG NO. 405.2.

IRRIGATION CONSTRUCTION NOTES

1 IR BANK "A": 1-6" & 2-4" SCH 40 PVC. PER DETAIL 7 DRAWING DT3

CONTRACTOR TO FIELD VERIFY SIZE, LOCATION AND INVERT OF EXISTING PIPE, AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO NEW SEWER CONSTRUCTION

BASIS OF BEARING AND COORDINATES

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.

L#: LXX-XXXXX-XXXX | CLV#: 107XXXXX

NEVADA PROFESSIONAL ENGINEER — STATE OF NEVADA — No. 17010 — MILADAN GRUJICIC — Exp. 06/30/2023 — CIVIL
DATE: 11/03/2021

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

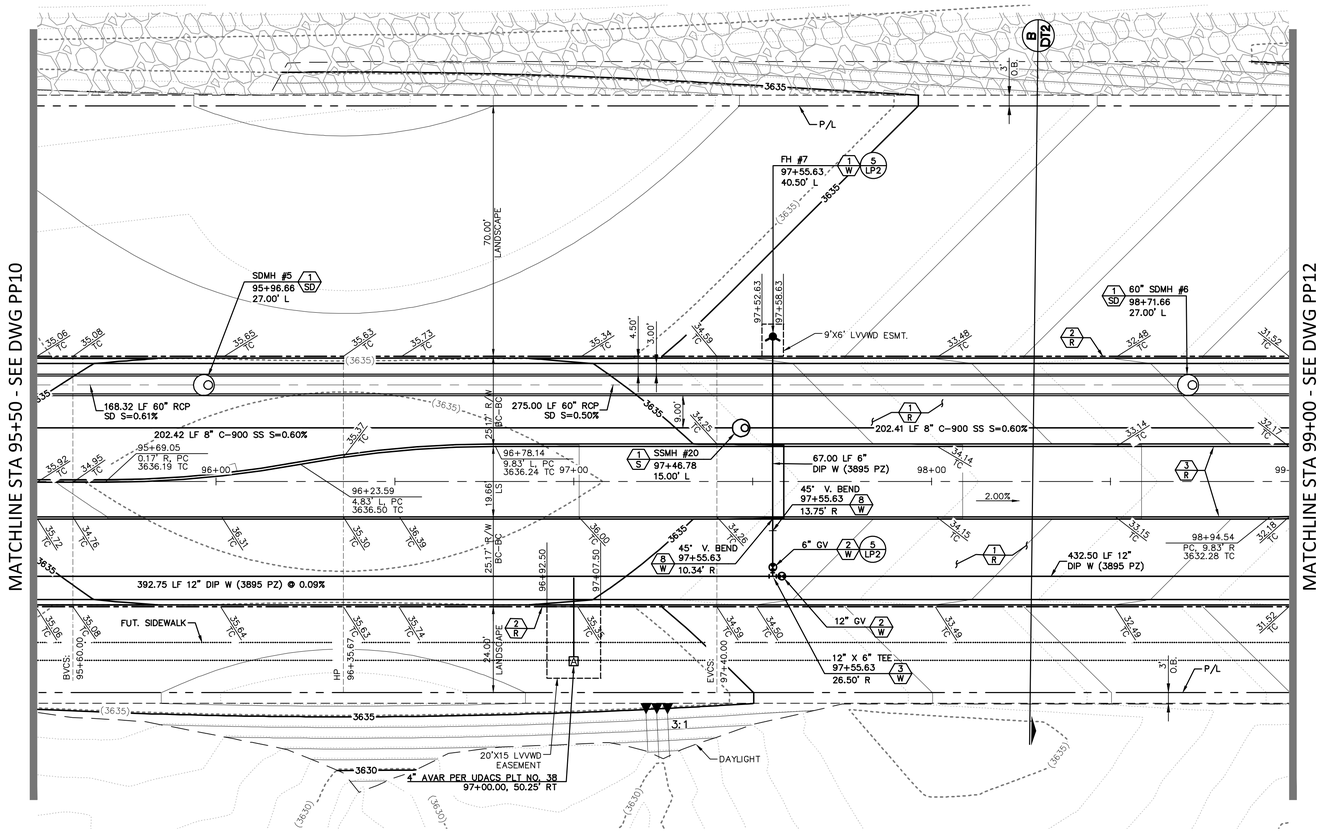
REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

PROJECT NO. 62029-204
DESIGN: GH/AS
DRAWN: GH
CHECK: LG/AS
PLOT DATE: 11-03-21
PLOT TIME: 16:32:12

GCW ENGINEERS\SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com
F:\PROJECTS\6000\62029-204\DWG\PRODUCTION\62029-204_05_PP - GRB.DWG
GEORGE HOANG

THE HOWARD HUGHES COMPANY, LLC
VILLAGE 29
PHASE 1 INFRASTRUCTURE
PLAN AND PROFILE 10

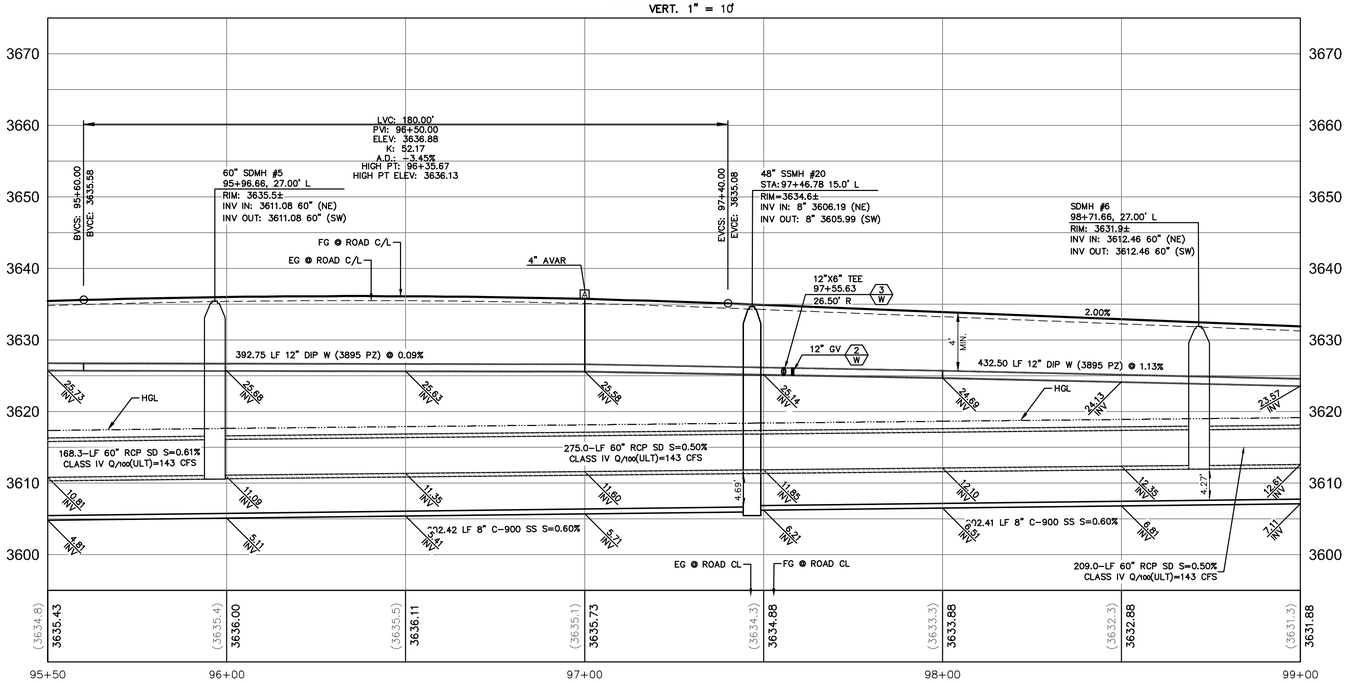
DRAWING
PP10
23 OF 56 SHTS

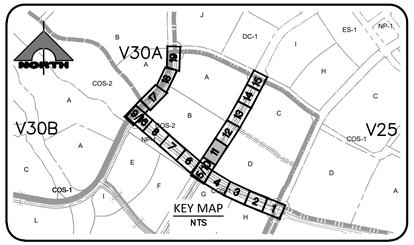


GRAND PARK BLVD

(PUBLIC)

SCALE: HORIZ 1" = 20'
VERT. 1" = 10'





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NOTE: THIS PROJECT PLAN APPROVAL CONTINGENT ON

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BEING OPERATIONAL.

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APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

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

LVVWD APPROVED FIRE FLOW: TOTAL 1,500 GPM / ON-SITE N/A GPM

BENCHMARK

BM#	DESCRIPTION	NAVD 88 DATUM	NAVD 88 DATUM
CLV BM No. 7LV0934SW6	FIND RIVET AND PLATE IN TOP OF CURB SE CORNER OF DESERT MOON RD. AND SKY VISTA DR. T20S,R59E,S34	3318.31 (FEET)	1,011.422 (METERS)

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Call 811 or 1-800-642-2444

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

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY
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1-702-227-2929

PROTECTION CONSTRUCTION NOTES

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ROADWAY CONSTRUCTION NOTES

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2 R INSTALL "L" TYPE CURB & GUTTER, SEE SUMMERLIN STD DWG. S-47
3 R INSTALL "A" TYPE ISLAND CURB, SEE SUMMERLIN STD DWG. S-50
4 R INSTALL CURB TRANSITION PER DETAIL 2 DWG. DT3
5 R CONSTRUCT SIDEWALK RAMP PER USD DWG No. 235 (CASE II)
6 R INSTALL "L" TYPE ISLAND CURB, SEE SUMMERLIN STD DWG. S-50

WATER CONSTRUCTION NOTES

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1 S INSTALL SEWER MANHOLE PER DCS STD. DWG. 1A AND 1B
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STORM DRAIN CONSTRUCTION NOTES

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5 SD INSTALL JUNCTION STRUCTURE.
6 SD INSTALL TYPICAL TYPE I ACCESS MANHOLE IN RCB PER DETAILS ON USD DWG NO. 403.1.
7 SD INSTALL TYPICAL TYPE II MANHOLE PER USD DWG NO. 405.2.

IRRIGATION CONSTRUCTION NOTES

1 IR BANK "A": 1-6" & 2-4" SCH 40 PVC. PER DETAIL 7 DRAWING DT3

CONTRACTOR TO FIELD VERIFY SIZE, LOCATION AND INVERT OF EXISTING PIPE, AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO NEW SEWER CONSTRUCTION

BASIS OF BEARING AND COORDINATES

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)
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L#: LXX-XXXXX-XXXX | CLV#: 107XXXXX

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	AGEN APP	DATE	GCW APP	DATE

PROJECT NO. 62029-204
DESIGN: GH/AS
DRAWN: GH
CHECK: LG/AS
PLOT DATE: 11-03-21
PLOT TIME: 16:32:34

GCW ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

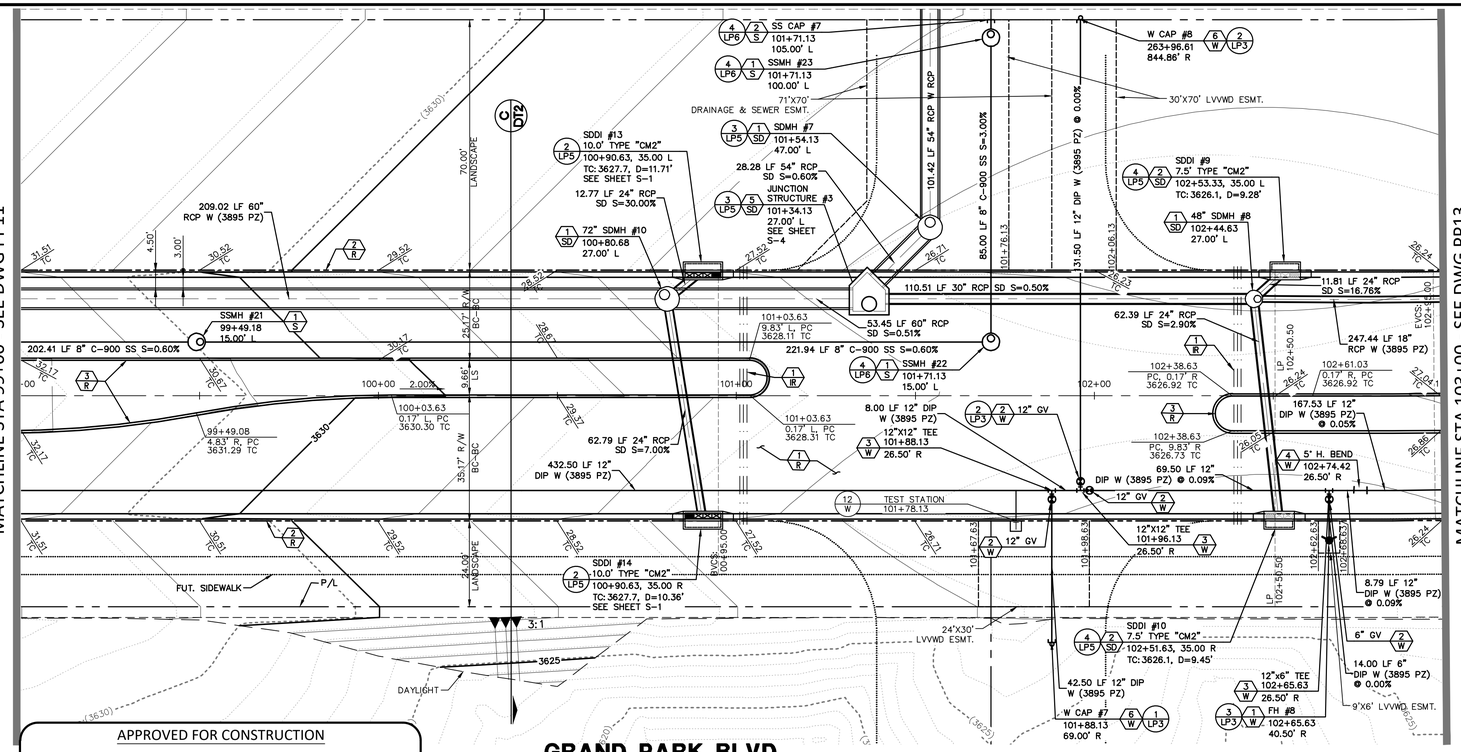
F:\PROJECTS\62029-204\LVWD\PRODUCTION\62029-204_DS_PP - GRB.DWG
GEORGE HOANG

THE HOWARD HUGHES COMPANY, LLC
VILLAGE 29
PHASE 1 INFRASTRUCTURE
PLAN AND PROFILE 11

DRAWING
PP11
24 OF 56 SHTS

MATCHLINE STA 99+00 - SEE DWG PP11

MATCHLINE STA 103+00 - SEE DWG PP13



GRAND PARK BLVD

(PUBLIC)

SCALE: HORIZ 1" = 20'
VERT. 1" = 10'

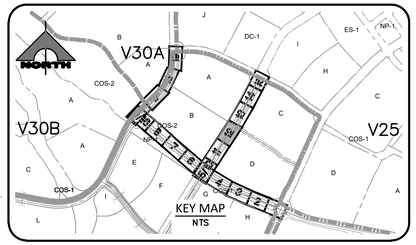
APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

PROJECT NO. ###### FIRST APPROVAL DATE:

LVVWD APPROVED FIRE FLOW: TOTAL 1,500 GPM / ON-SITE N/A GPM

SCALE: 1" = 20'



NOTE: THIS PROJECT PLAN APPROVAL CONTINGENT ON

######

BEING OPERATIONAL.

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CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.

DROP INLET NOTE

WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE.

ALL STORM DRAIN DROP INLETS ARE TO BE CONSTRUCTED PER THE REQUIREMENTS OF USDCCA DWG. NO. 421 (STORMWATER QUALITY MANAGEMENT STAMP AND SIGN DETAIL).

OFF-SITE FLOOD CONTROL NOTE

ALL OFF-SITE INTERIM FLOOD CONTROL FACILITIES SUCH AS, BUT NOT LIMITED TO, BERMS/DITCHES AND TEMPORARY SUMPS ARE PRIVATELY OWNED AND ARE TO BE PRIVATELY MAINTAINED BY THE HOWARD HUGHES COMPANY.

FOR ALL DRY UTILITY CROSSINGS

1. MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING.
2. MAINTAIN MINIMUM 3' PARALLEL SEPARATION
3. ANY EXCAVATION AT BACK OF CURB MUST REMAIN OPEN FOR INSPECTION OF COPPER SERVICE LATERALS. ANY COPPER SERVICE LATERAL KINKED, BENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP.

3895 PZ W NOTES

1. 3895 PZ WATER LINE TO BE INSTALLED UNDER DRY CONDITION
2. ALL 3895 ZONE (DIP) WATER LINE JOINTS TO BE MECHANICALLY RESTRAINED PER UDACS SECTION 2.15
3. 3895 PZ WATER MAINS TO BE CHLORINATED AND PRESSURE TESTED. ALL WATER MUST BE DRAINED FROM THE LINE AFTER THE PRESSURE TEST COMPLETION AS A CONDITION FOR LVVWD WATER UTILITIES ACCEPTANCE.

PROTECTION CONSTRUCTION NOTES

1 P EXISTING PAVEMENT, PROTECT IN PLACE
2 P EXISTING CURB/GUTTER, PROTECT IN PLACE
3 P EXISTING PULLBOX, ADJUST TO FINISH GRADE
4 P EXISTING CONDUIT, PROTECT IN PLACE
5 P EXISTING SDMH, PROTECT IN PLACE & ADJUST TO FINISH GRADE IF IMPACTED BY PAVEMENT IMPROVEMENTS
6 P EXISTING SSMH, PROTECT IN PLACE & ADJUST TO FINISH GRADE IF IMPACTED BY PAVEMENT IMPROVEMENTS

ROADWAY CONSTRUCTION NOTES

1 R INSTALL A.C. PAVEMENT PER STREET SECTIONS, SEE DWG. DT1
2 R INSTALL "L" TYPE CURB & GUTTER, SEE SUMMERLIN STD DWG. S-47
3 R INSTALL "A" TYPE ISLAND CURB, SEE SUMMERLIN STD DWG. S-50
4 R INSTALL CURB TRANSITION PER DETAIL 2 DWG. DT3
5 R CONSTRUCT SIDEWALK RAMP PER USD DWG No. 235 (CASE II)
6 R INSTALL "L" TYPE ISLAND CURB, SEE SUMMERLIN STD DWG. S-50

WATER CONSTRUCTION NOTES

1 W INSTALL FIRE HYDRANT & ASSEMBLY PER UDACS PLT. No. 40
2 W INSTALL GATE VALVE AND BOX PER UDACS PLT. No. 30 AND 39
3 W INSTALL TEE PER UDACS PLT. No. 31
4 W INSTALL HORIZONTAL BEND PER UDACS PLT. No. 31 (SEE PLAN FOR ANGLE)
5 W INSTALL REDUCER PER UDACS PLT. No. 31
6 W INSTALL CAP W/ 2" BLOW-OFF ASSEMBLY PER UDACS PLT. No. 36
7 W INSTALL 1-½" WATER METER AND 1-½" RPPA PER DETAIL 1 DWG. DT4
8 W INSTALL VERTICAL BEND PER UDACS PLT. No. 31 (SEE PROFILE FOR ANGLE)
9 W REMOVE CAP AND BLOWOFF PER UDACS PLT. No. 36 AND CONNECT TO EXISTING WATER LINE.
10 W INSTALL CROSS PER UDACS PLT. No. 31
11 W LVVWD APPROVED ELASTOMERIC JOINT SEALANT AT ALL MANHOLE JOINTS.
12 W INSTALL TYPE "I" TEST STATION PER DETAIL 1 ON DWG. DT3
13 W INSTALL 1" WATER METER AND 1" RPPA PER DETAIL 1 DWG. DT4
14 W INSTALL 2" WATER METER AND 2" RPPA PER DETAIL 1 DWG. DT4
15 W INSTALL VALVED OUTLET W/ STUB VALVE AND CAP PER DETAIL 8 DWG. DT3
16 W INSTALL 24" DIRECT BURIED GATE VALVE W/ BYPASS PER DETAIL 1 DWG. DT4

SEWER CONSTRUCTION NOTES

1 S INSTALL SEWER MANHOLE PER DCS STD. DWG. 1A AND 1B
2 S STUB AND CAP SEWER PIPE PER DETAIL 6 DWG. DT3
3 S REMOVE PLUG & CONNECT TO SEWER LINE (CONTRACTOR TO VERIFY SIZE, INVERT, AND LOCATION OF EX. SEWER PRIOR TO CONSTRUCTION)

STORM DRAIN CONSTRUCTION NOTES

1 SD INSTALL TYPE II MANHOLE PER USD DWG. No. 405.1
2 SD INSTALL TYPE "CM2" DROP INLET PER USD DWG. No. 421
3 SD INSTALL TEMPORARY PLUG AND CAP PER DETAIL 4 ON DWG. DT3
4 SD REMOVE PLUG & CONNECT TO EX. STORM DRAIN TO NEAREST RCP JOINT OR W/ CONCRETE COLLAR PER DETAIL 5 ON DWG. DT3 (CONTRACTOR TO VERIFY SIZE, INVERT, AND LOCATION OF EX. STORM DRAIN PRIOR TO CONSTRUCTION)
5 SD INSTALL JUNCTION STRUCTURE.
6 SD INSTALL TYPICAL TYPE I ACCESS MANHOLE IN RCB PER DETAILS ON USD DWG NO. 403.1.
7 SD INSTALL TYPICAL TYPE II MANHOLE PER USD DWG NO. 405.2.

IRRIGATION CONSTRUCTION NOTES

1 IR BANK "A": 1-6" & 2-4" SCH 40 PVC. PER DETAIL 7 DRAWING DT3

CONTRACTOR TO FIELD VERIFY SIZE, LOCATION AND INVERT OF EXISTING PIPE, AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO NEW SEWER CONSTRUCTION

BASIS OF BEARING AND COORDINATES

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

BM#	DESCRIPTION	NAVD 88 DATUM	NAVD 88 DATUM
CLV BM No. 7LV0934SW6	FIND RIVET AND PLATE IN TOP OF CURB SE CORNER OF DESERT MOON RD. AND SKY VISTA DR. T20S,R59E,S34	3318.31 (FEET)	1,011.422 (METERS)

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811 OR 1-800-642-2444

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

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

L#: LXX-XXXXX-XXXX CLV#: 107XXXXX

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

STATE OF NEVADA — PROFESSIONAL ENGINEER — No. 17019 — MILADJAN GRUJICIC — Exp. 06/30/2023 — CIVIL — DATE: 11/03/2021

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP	DATE

PROJECT NO. 62029-204
DESIGN: GH/AS
DRAWN: GH
CHECK: LG/AS
PLOT DATE: 11-03-21
PLOT TIME: 16:32:55

GCW ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

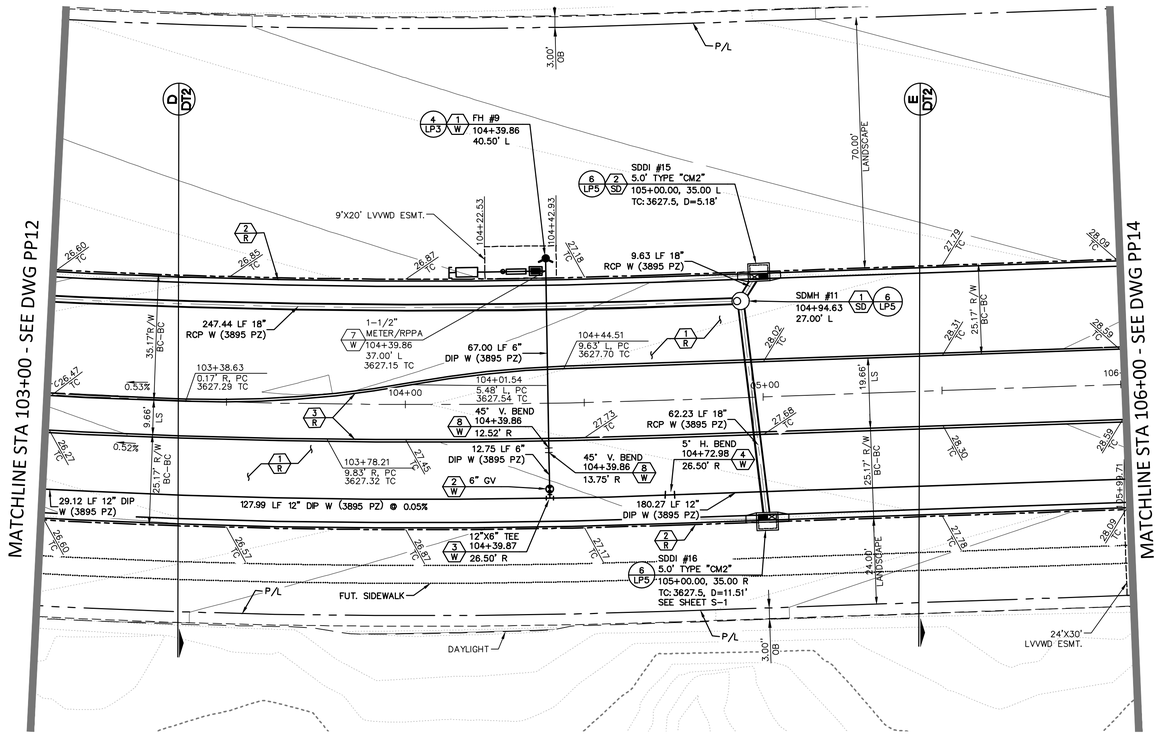
F:\PROJECTS\6201\62029-204\DWG\PRODUCTION\62029-204_05.PP - GRB.DWG GEORGE HOANG

THE HOWARD HUGHES COMPANY, LLC

VILLAGE 29
PHASE 1 INFRASTRUCTURE

PLAN AND PROFILE 12

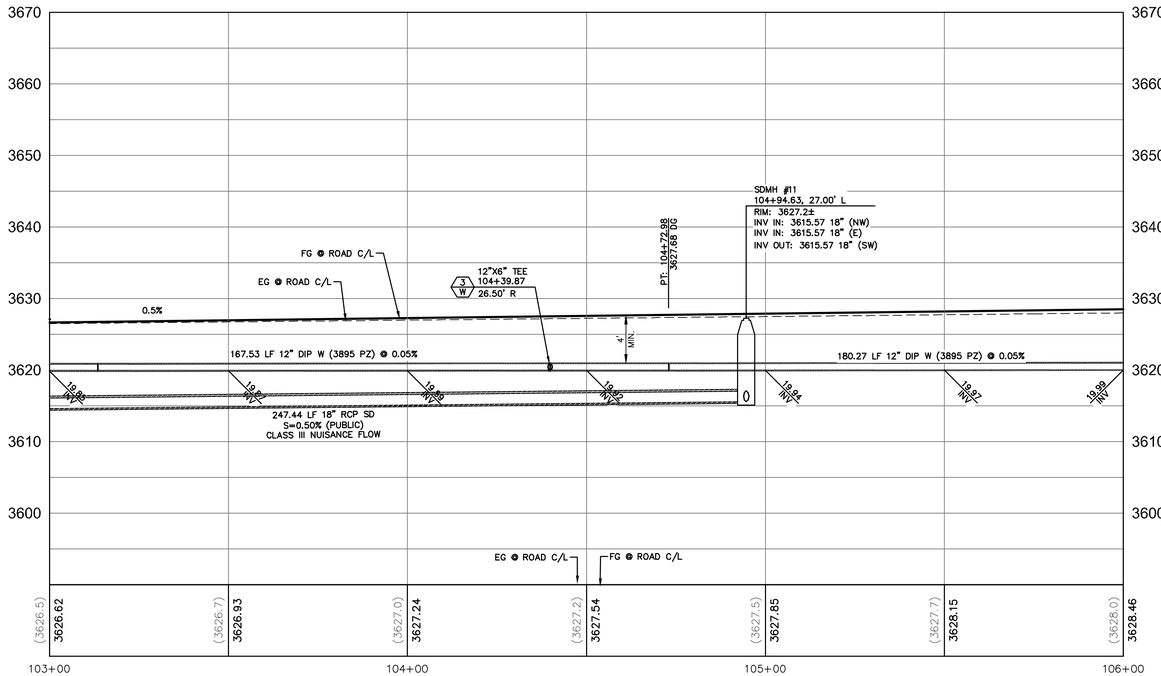
DRAWING
PP12
25 OF 56 SHTS



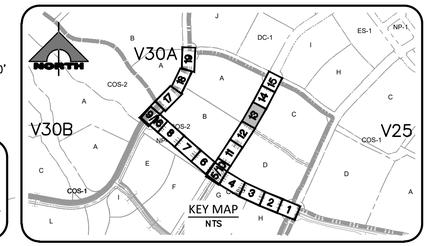
GRAND PARK BLVD

(PUBLIC)

SCALE: HORIZ 1" = 20'
VERT. 1" = 10'



SCALE: 1" = 20'



NOTE: THIS PROJECT PLAN APPROVAL CONTINGENT ON

######

BEING OPERATIONAL.

DEPTH OF COVER DURING CONSTRUCTION

MAINTAIN MINIMUM TWENTY-FOUR (24) INCH COVER PER UDACS SECTION 2.08.04. GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION.

LVVWD NOTES

1. INSTALL PIPELINE MARKER BALLS, PER UDACS PLATE NO. 15.
2. PROTECT IN PLACE AND ADJUST LVVWD EXISTING FACILITIES TO FINISHED GRADE PER UDACS. ALL LVVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES.
3. WATER MAIN JOINT DEFLECTION, PER UDACS 2.07.01 AND 2.07.03.
4. IN AREAS WHERE THE EXCAVATION OR GROUND ELEVATION IS LESS THAN THREE (3) FEET, FROM THE TOP OF THE LVVWD TRANSMISSION MAIN, NO EXCAVATION EQUIPMENT, OTHER THAN HAND HELD EQUIPMENT WILL BE ALLOWED WITHIN TEN (10) FEET OF THE PIPELINE IN THESE AREAS. THE CONTRACTOR IS TO PLACE A CONCRETE BARRIER; I.E. JERSEY RAIL, TO IDENTIFY AND PROTECT THE "NO EQUIPMENT ZONE."
5. ALL SEWER/STORM DRAIN CROSSING WATER LINES MUST COMPLY WITH UDACS SECTION 2.22.

LVVWD NOTE

LVVWD CANNOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE TO REMOVE REMAINING WATER. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TRIAL SHUTDOWN.

CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.

DROP INLET NOTE

WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE:

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3895 PZ W NOTES

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3. 3895 PZ WATER MAINS TO BE CHLORINATED AND PRESSURE TESTED. ALL WATER MUST BE DRAINED FROM THE LINE AFTER THE PRESSURE TEST COMPLETION AS A CONDITION FOR LVVWD WATER UTILITIES ACCEPTANCE.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

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

LVVWD APPROVED FIRE FLOW: TOTAL 1,500 GPM / ON-SITE N/A GPM

BENCHMARK

BM#	DESCRIPTION	NAVD 88 DATUM	NAVD 88 DATUM
CLV BM No. 7LV0934SW6	FIND RIVET AND PLATE IN TOP OF CURB SE CORNER OF DESERT MOON RD. AND SKY VISTA DR. T20S,R59E,S34	3318.31 (FEET)	1,011.422 (METERS)

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Avoid cutting underground utility lines. It's costly.
Call 811 OR 1-800-642-2444

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

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

PROTECTION CONSTRUCTION NOTES

1 P EXISTING PAVEMENT, PROTECT IN PLACE
2 P EXISTING CURB/GUTTER, PROTECT IN PLACE
3 P EXISTING PULLBOX, ADJUST TO FINISH GRADE
4 P EXISTING CONDUIT, PROTECT IN PLACE
5 P EXISTING SDMH, PROTECT IN PLACE & ADJUST TO FINISH GRADE IF IMPACTED BY PAVEMENT IMPROVEMENTS
6 P EXISTING SSMH, PROTECT IN PLACE & ADJUST TO FINISH GRADE IF IMPACTED BY PAVEMENT IMPROVEMENTS

ROADWAY CONSTRUCTION NOTES

1 R INSTALL A.C. PAVEMENT PER STREET SECTIONS, SEE DWG. DT1
2 R INSTALL "L" TYPE CURB & GUTTER, SEE SUMMERLIN STD DWG. S-47
3 R INSTALL "A" TYPE ISLAND CURB, SEE SUMMERLIN STD DWG. S-50
4 R INSTALL CURB TRANSITION PER DETAIL 2 DWG. DT3
5 R CONSTRUCT SIDEWALK RAMP PER USD DWG No. 235 (CASE II)
6 R INSTALL "L" TYPE ISLAND CURB, SEE SUMMERLIN STD DWG. S-50

WATER CONSTRUCTION NOTES

1 W INSTALL FIRE HYDRANT & ASSEMBLY PER UDACS PLT. No. 40
2 W INSTALL GATE VALVE AND BOX PER UDACS PLT. No. 30 AND 39
3 W INSTALL TEE PER UDACS PLT. No. 31
4 W INSTALL HORIZONTAL BEND PER UDACS PLT. No. 31 (SEE PLAN FOR ANGLE)
5 W INSTALL REDUCER PER UDACS PLT. No. 31
6 W INSTALL CAP W/ 2" BLOW-OFF ASSEMBLY PER UDACS PLT. No. 36
7 W INSTALL 1-½" WATER METER AND 1-½" RPPA PER DETAIL 1 DWG. DT4
8 W INSTALL VERTICAL BEND PER UDACS PLT. No. 31 (SEE PROFILE FOR ANGLE)
9 W REMOVE CAP AND BLOWOFF PER UDACS PLT. No. 36 AND CONNECT TO EXISTING WATER LINE.
10 W INSTALL CROSS PER UDACS PLT. No. 31
11 W LVVWD APPROVED ELASTOMERIC JOINT SEALANT AT ALL MANHOLE JOINTS.
12 W INSTALL TYPE "T" TEST STATION PER DETAIL 1 ON DWG. DT3
13 W INSTALL 1" WATER METER AND 1" RPPA PER DETAIL 1 DWG. DT4
14 W INSTALL 2" WATER METER AND 2" RPPA PER DETAIL 1 DWG. DT4
15 W INSTALL VALVED OUTLET W/ STUB VALVE AND CAP PER DETAIL 8 DWG. DT3
16 W INSTALL 24" DIRECT BURIED GATE VALVE W/ BYPASS PER DETAIL 1 DWG. DT4

SEWER CONSTRUCTION NOTES

1 S INSTALL SEWER MANHOLE PER DCS STD. DWG. 1A AND 1B
2 S STUB AND CAP SEWER PIPE PER DETAIL 6 DWG. DT3
3 S REMOVE PLUG & CONNECT TO SEWER LINE (CONTRACTOR TO VERIFY SIZE, INVERT, AND LOCATION OF EX. SEWER PRIOR TO CONSTRUCTION)

STORM DRAIN CONSTRUCTION NOTES

1 SD INSTALL TYPE II MANHOLE PER USD DWG. No. 405.1
2 SD INSTALL TYPE "CM2" DROP INLET PER USD DWG. No. 421
3 SD INSTALL TEMPORARY PLUG AND CAP PER DETAIL 4 ON DWG. DT3
4 SD REMOVE PLUG & CONNECT TO EX. STORM DRAIN TO NEAREST RCP JOINT OR W/ CONCRETE COLLAR PER DETAIL 5 ON DWG. DT3 (CONTRACTOR TO VERIFY SIZE, INVERT, AND LOCATION OF EX. STORM DRAIN PRIOR TO CONSTRUCTION)
5 SD INSTALL JUNCTION STRUCTURE.
6 SD INSTALL TYPICAL TYPE I ACCESS MANHOLE IN RCB PER DETAILS ON USD DWG NO. 403.1.
7 SD INSTALL TYPICAL TYPE II MANHOLE PER USD DWG NO. 405.2.

IRRIGATION CONSTRUCTION NOTES

1 IR BANK "A": 1-6" & 2-4" SCH 40 PVC. PER DETAIL 7 DRAWING DT3

CONTRACTOR TO FIELD VERIFY SIZE, LOCATION AND INVERT OF EXISTING PIPE, AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO NEW SEWER CONSTRUCTION

BASIS OF BEARING AND COORDINATES

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.

L#: LXX-XXXXX-XXXX CLV#: 107XXXX

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	AGEN APP	DATE	GCW APP	DATE

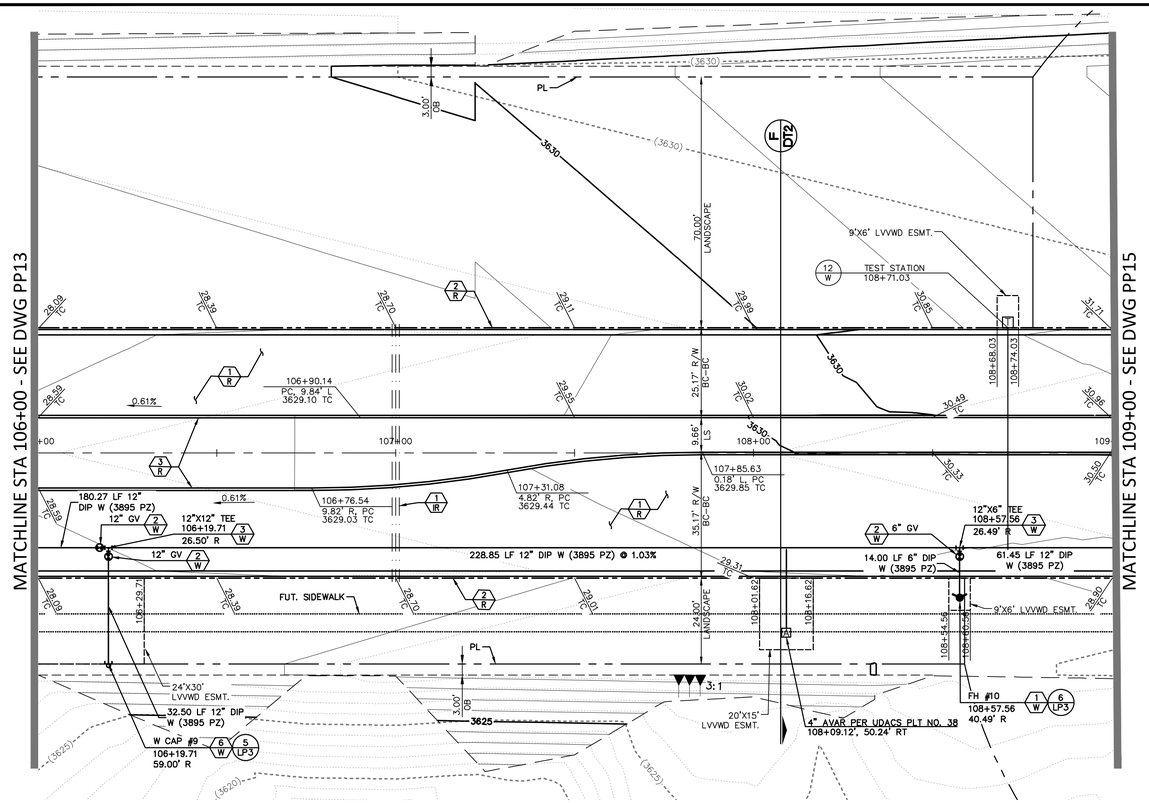
PROJECT NO. 62029-204
DESIGN: GH/AS
DRAWN: GH
CHECK: LG/AS
PLOT DATE: 11-03-21
PLOT TIME: 16:33:10

GCW ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com
F:\PROJECTS\620\62029-204\DWG\PRODUCTION\62029-204_05.PP - - GRB.DWG
GEORGE HOANG

THE HOWARD HUGHES COMPANY, LLC
VILLAGE 29
PHASE 1 INFRASTRUCTURE
PLAN AND PROFILE 13

DRAWING
PP13
26 OF 56 SHTS

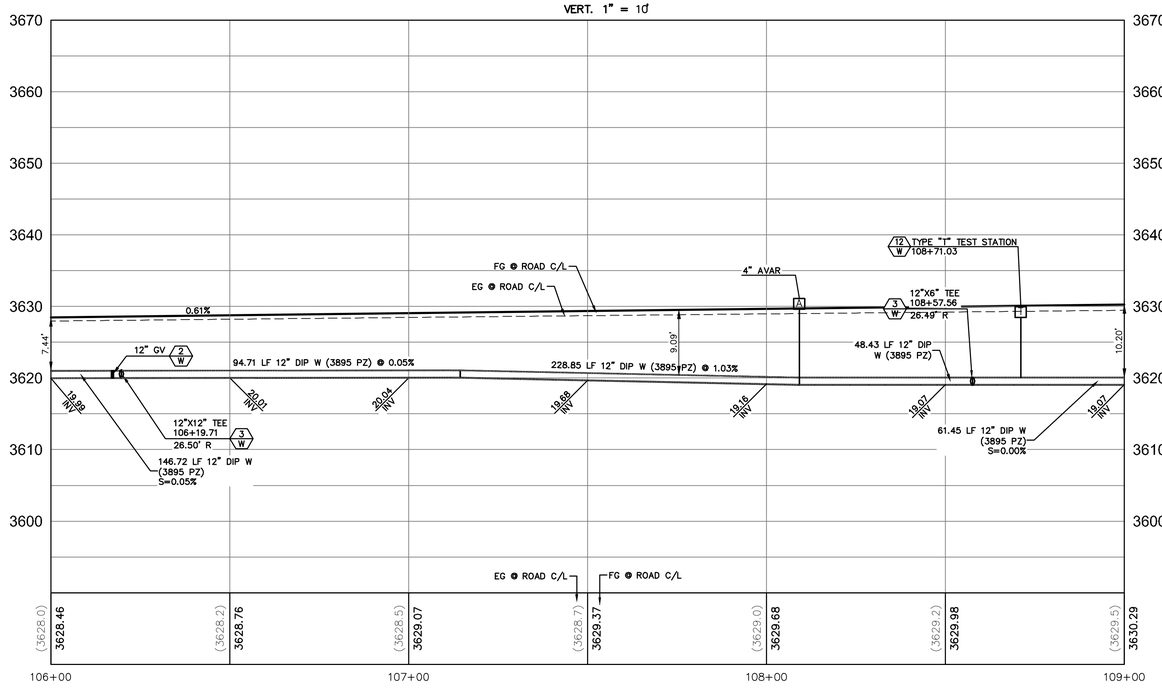
NEVADA PROFESSIONAL ENGINEER - STATE OF NEVADA - MILADJAN GRUJICIC - No. 17107 - Exp. 06/30/2023 - CIVIL
DATE: 11/03/2021

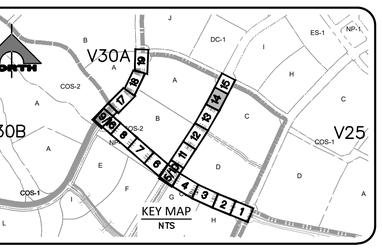


GRAND PARK BLVD

(PUBLIC)

SCALE: HORIZ 1" = 20'
VERT. 1" = 10'





SCALE: 1" = 20'

NOTE: THIS PROJECT PLAN APPROVAL CONTINGENT ON

######

BEING OPERATIONAL.

DEPTH OF COVER DURING CONSTRUCTION

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APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

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

LVVWD APPROVED FIRE FLOW: TOTAL 1,500 GPM / ON-SITE N/A GPM

BENCHMARK

BM#	DESCRIPTION	NAVD 88 DATUM	NAVD 88 DATUM
CLV BM No. 7LV0934SW6	FIND RIVET AND PLATE IN TOP OF CURB SE CORNER OF DESERT MOON RD. AND SKY VISTA DR. T20S,R59E,S34	3318.31 (FEET)	1,011.422 (METERS)

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ROADWAY CONSTRUCTION NOTES

1 R INSTALL A.C. PAVEMENT PER STREET SECTIONS, SEE DWG. DT1
2 R INSTALL "L" TYPE CURB & GUTTER, SEE SUMMERLIN STD DWG. S-47
3 R INSTALL "A" TYPE ISLAND CURB, SEE SUMMERLIN STD DWG. S-50
4 R INSTALL CURB TRANSITION PER DETAIL 2 DWG. DT3
5 R CONSTRUCT SIDEWALK RAMP PER USD DWG No. 235 (CASE II)
6 R INSTALL "L" TYPE ISLAND CURB, SEE SUMMERLIN STD DWG. S-50

WATER CONSTRUCTION NOTES

1 W INSTALL FIRE HYDRANT & ASSEMBLY PER UDACS PLT. No. 40
2 W INSTALL GATE VALVE AND BOX PER UDACS PLT. No. 30 AND 39
3 W INSTALL TEE PER UDACS PLT. No. 31
4 W INSTALL HORIZONTAL BEND PER UDACS PLT. No. 31 (SEE PLAN FOR ANGLE)
5 W INSTALL REDUCER PER UDACS PLT. No. 31
6 W INSTALL CAP W/ 2" BLOW-OFF ASSEMBLY PER UDACS PLT. No. 36
7 W INSTALL 1-½" WATER METER AND 1-½" RPPA PER DETAIL 1 DWG. DT4
8 W INSTALL VERTICAL BEND PER UDACS PLT. No. 31 (SEE PROFILE FOR ANGLE)
9 W REMOVE CAP AND BLOWOFF PER UDACS PLT. No. 36 AND CONNECT TO EXISTING WATER LINE.
10 W INSTALL CROSS PER UDACS PLT. No. 31
11 W LVVWD APPROVED ELASTOMERIC JOINT SEALANT AT ALL MANHOLE JOINTS.
12 W INSTALL TYPE "T" TEST STATION PER DETAIL 1 ON DWG. DT3
13 W INSTALL 1" WATER METER AND 1" RPPA PER DETAIL 1 DWG. DT4
14 W INSTALL 2" WATER METER AND 2" RPPA PER DETAIL 1 DWG. DT4
15 W INSTALL VALVED OUTLET W/ STUB VALVE AND CAP PER DETAIL 8 DWG. DT3
16 W INSTALL 24" DIRECT BURIED GATE VALVE W/ BYPASS PER DETAIL 1 DWG. DT4

SEWER CONSTRUCTION NOTES

1 S INSTALL SEWER MANHOLE PER DCS STD. DWG. 1A AND 1B
2 S STUB AND CAP SEWER PIPE PER DETAIL 6 DWG. DT3
3 S REMOVE PLUG & CONNECT TO SEWER LINE (CONTRACTOR TO VERIFY SIZE, INVERT, AND LOCATION OF EX. SEWER PRIOR TO CONSTRUCTION)

STORM DRAIN CONSTRUCTION NOTES

1 SD INSTALL TYPE II MANHOLE PER USD DWG. No. 405.1
2 SD INSTALL TYPE "CM2" DROP INLET PER USD DWG. No. 421
3 SD INSTALL TEMPORARY PLUG AND CAP PER DETAIL 4 ON DWG. DT3
4 SD REMOVE PLUG & CONNECT TO EX. STORM DRAIN TO NEAREST RCP JOINT OR W/ CONCRETE COLLAR PER DETAIL 5 ON DWG. DT3 (CONTRACTOR TO VERIFY SIZE, INVERT, AND LOCATION OF EX. STORM DRAIN PRIOR TO CONSTRUCTION)
5 SD INSTALL JUNCTION STRUCTURE.
6 SD INSTALL TYPICAL TYPE I ACCESS MANHOLE IN RCB PER DETAILS ON USD DWG NO. 403.1.
7 SD INSTALL TYPICAL TYPE II MANHOLE PER USD DWG NO. 405.2.

IRRIGATION CONSTRUCTION NOTES

1 IR BANK "A": 1-6" & 2-4" SCH 40 PVC. PER DETAIL 7 DRAWING DT3

CONTRACTOR TO FIELD VERIFY SIZE, LOCATION AND INVERT OF EXISTING PIPE, AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO NEW SEWER CONSTRUCTION

BASIS OF BEARING AND COORDINATES

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.

L#: LXX-XXXXX-XXXX | CLV#: 107XXXXX

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP	DATE: 11/03/2021

PROJECT NO. 62029-204
DESIGN: GH/AS
DRAWN: GH
CHECK: LG/AS
PLOT DATE: 11-03-21
PLOT TIME: 16:33:30

GCW ENGINEERS\SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

F:\PROJECTS\600\62029-204\DWG\PRODUCTION\62029-204_05_PP - GPB.DWG

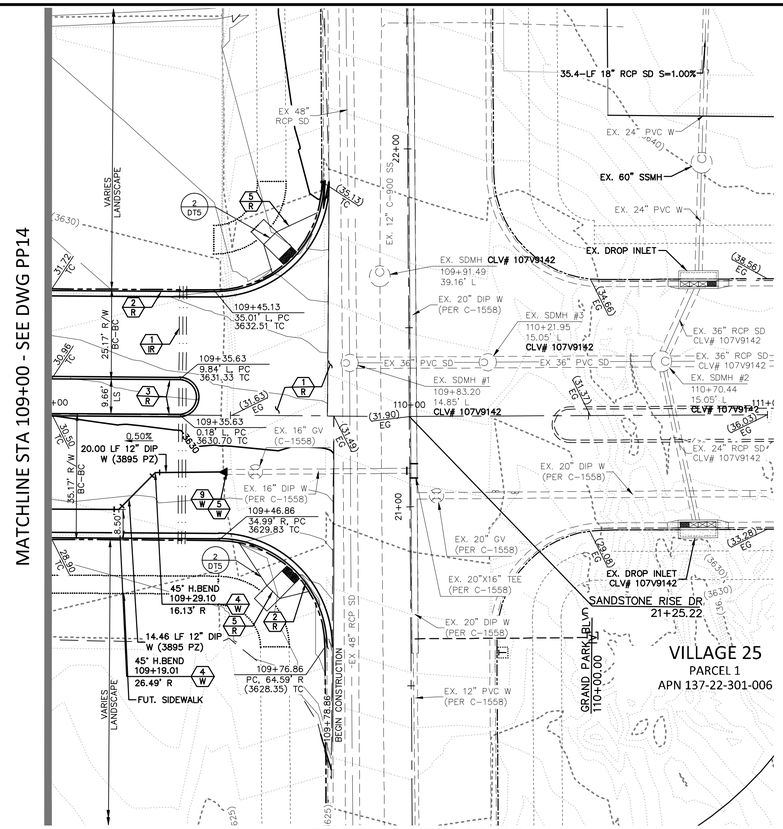
GEORGE HOANG

THE HOWARD HUGHES COMPANY, LLC

VILLAGE 29
PHASE 1 INFRASTRUCTURE

PLAN AND PROFILE 14

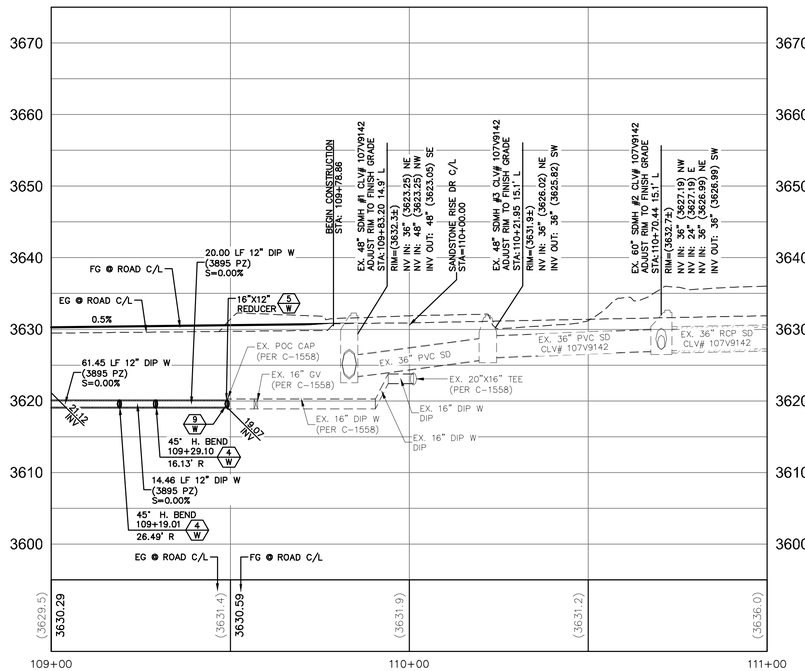
DRAWING
PP14
27 OF 56 SHTS

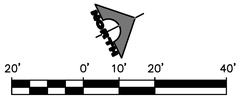


GRAND PARK BLVD

(PUBLIC)

SCALE: HORIZ 1" = 20'
VERT. 1" = 10'





SCALE: 1" = 20'

NOTE: THIS PROJECT PLAN APPROVAL CONTINGENT ON

######

BEING OPERATIONAL.

DEPTH OF COVER DURING CONSTRUCTION

MAINTAIN MINIMUM TWENTY-FOUR (24) INCH COVER PER UDACS SECTION 2.08.04. GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION.

LVVWD NOTES

1. INSTALL PIPELINE MARKER BALLS, PER UDACS PLATE NO. 15.
2. PROTECT IN PLACE AND ADJUST LVVWD EXISTING FACILITIES TO FINISHED GRADE PER UDACS. ALL LVVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES.
3. WATER MAIN JOINT DEFLECTION, PER UDACS 2.07.01 AND 2.07.03.
4. IN AREAS WHERE THE EXCAVATION OR GROUND ELEVATION IS LESS THAN THREE (3) FEET, FROM THE TOP OF THE LVVWD TRANSMISSION MAIN, NO EXCAVATION EQUIPMENT, OTHER THAN HAND HELD EQUIPMENT WILL BE ALLOWED WITHIN TEN (10) FEET OF THE PIPELINE IN THESE AREAS. THE CONTRACTOR IS TO PLACE A CONCRETE BARRIER; I.E. JERSEY RAIL, TO IDENTIFY AND PROTECT THE "NO EQUIPMENT ZONE."
5. ALL SEWER/STORM DRAIN CROSSING WATER LINES MUST COMPLY WITH UDACS SECTION 2.22.

LVVWD NOTE

LVVWD CANNOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE TO REMOVE REMAINING WATER. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TRIAL SHUTDOWN.

CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.

DROP INLET NOTE

WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE:

ALL STORM DRAIN DROP INLETS ARE TO BE CONSTRUCTED PER THE REQUIREMENTS OF USDCCA DWG. NO. 421 (STORMWATER QUALITY MANAGEMENT STAMP AND SIGN DETAIL).

OFF-SITE FLOOD CONTROL NOTE

ALL OFF-SITE INTERIM FLOOD CONTROL FACILITIES SUCH AS, BUT NOT LIMITED TO, BERMS/DITCHES AND TEMPORARY SUMPS ARE PRIVATELY OWNED AND ARE TO BE PRIVATELY MAINTAINED BY THE HOWARD HUGHES COMPANY.

FOR ALL DRY UTILITY CROSSINGS

1. MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING.
2. MAINTAIN MINIMUM 3' PARALLEL SEPARATION
3. ANY EXCAVATION AT BACK OF CURB MUST REMAIN OPEN FOR INSPECTION OF COPPER SERVICE LATERALS. ANY COPPER SERVICE LATERAL KINKED, BENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP.

3895 PZ W NOTES

1. 3895 PZ WATER LINE TO BE INSTALLED UNDER DRY CONDITION
2. ALL 3895 ZONE (DIP) WATER LINE JOINTS TO BE MECHANICALLY RESTRAINED PER UDACS SECTION 2.15
3. 3895 PZ WATER MAINS TO BE CHLORINATED AND PRESSURE TESTED. ALL WATER MUST BE DRAINED FROM THE LINE AFTER THE PRESSURE TEST COMPLETION AS A CONDITION FOR LVVWD WATER UTILITIES ACCEPTANCE.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

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

LVVWD APPROVED FIRE FLOW: TOTAL 1,500 GPM / ON-SITE N/A GPM

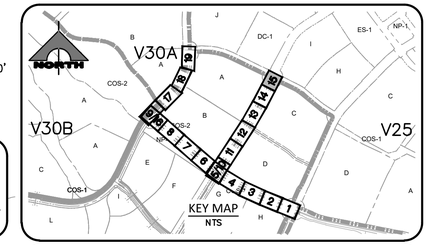
BENCHMARK

BM#	DESCRIPTION	NAVD 88 DATUM	NAVD 88 DATUM
CLV BM No. 7LV0934SW6	FND RIVET AND PLATE IN TOP OF CURB SE CORNER OF DESERT MOON RD. AND SKY VISTA DR. T20S,R59E,S34	3318.31 (FEET)	1,011.422 (METERS)

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call
811
OR
1-800-642-2444

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

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



PROTECTION CONSTRUCTION NOTES

1P EXISTING PAVEMENT, PROTECT IN PLACE
2P EXISTING CURB/GUTTER, PROTECT IN PLACE
3P EXISTING PULLBOX, ADJUST TO FINISH GRADE
4P EXISTING CONDUIT, PROTECT IN PLACE
5P EXISTING SDMH, PROTECT IN PLACE & ADJUST TO FINISH GRADE IF IMPACTED BY PAVEMENT IMPROVEMENTS
6P EXISTING SSMH, PROTECT IN PLACE & ADJUST TO FINISH GRADE IF IMPACTED BY PAVEMENT IMPROVEMENTS

ROADWAY CONSTRUCTION NOTES

1R INSTALL A.C. PAVEMENT PER STREET SECTIONS, SEE DWG. DT1
2R INSTALL "L" TYPE CURB & GUTTER, SEE SUMMERLIN STD DWG. S-47
3R INSTALL "A" TYPE ISLAND CURB, SEE SUMMERLIN STD DWG. S-50
4R INSTALL CURB TRANSITION PER DETAIL 2 DWG. DT3
5R CONSTRUCT SIDEWALK RAMP PER USD DWG No. 235 (CASE II)
6R INSTALL "L" TYPE ISLAND CURB, SEE SUMMERLIN STD DWG. S-50

WATER CONSTRUCTION NOTES

1W INSTALL FIRE HYDRANT & ASSEMBLY PER UDACS PLT. No. 40
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7W INSTALL 1-½" WATER METER AND 1-½" RPPA PER DETAIL 1 DWG. DT4
8W INSTALL VERTICAL BEND PER UDACS PLT. No. 31 (SEE PROFILE FOR ANGLE)
9W REMOVE CAP AND BLOWOFF PER UDACS PLT. No. 36 AND CONNECT TO EXISTING WATER LINE.
10W INSTALL CROSS PER UDACS PLT. No. 31
11W LVVWD APPROVED ELASTOMERIC JOINT SEALANT AT ALL MANHOLE JOINTS.
12W INSTALL TYPE "T" TEST STATION PER DETAIL 1 ON DWG. DT3
13W INSTALL 1" WATER METER AND 1" RPPA PER DETAIL 1 DWG. DT4
14W INSTALL 2" WATER METER AND 2" RPPA PER DETAIL 1 DWG. DT4
15W INSTALL VALVED OUTLET W/ STUB VALVE AND CAP PER DETAIL 8 DWG. DT3
16W INSTALL 24" DIRECT BURIED GATE VALVE W/ BYPASS PER DETAIL 1 DWG. DT4

SEWER CONSTRUCTION NOTES

1S INSTALL SEWER MANHOLE PER DCS STD. DWG. 1A AND 1B
2S STUB AND CAP SEWER PIPE PER DETAIL 6 DWG. DT3
3S REMOVE PLUG & CONNECT TO SEWER LINE (CONTRACTOR TO VERIFY SIZE, INVERT, AND LOCATION OF EX. SEWER PRIOR TO CONSTRUCTION)

STORM DRAIN CONSTRUCTION NOTES

1SD INSTALL TYPE II MANHOLE PER USD DWG. No. 405.1
2SD INSTALL TYPE "CM2" DROP INLET PER USD DWG. No. 421
3SD INSTALL TEMPORARY PLUG AND CAP PER DETAIL 4 ON DWG. DT3
4SD REMOVE PLUG & CONNECT TO EX. STORM DRAIN TO NEAREST RCP JOINT OR W/ CONCRETE COLLAR PER DETAIL 5 ON DWG. DT3 (CONTRACTOR TO VERIFY SIZE, INVERT, AND LOCATION OF EX. STORM DRAIN PRIOR TO CONSTRUCTION)
5SD INSTALL JUNCTION STRUCTURE.
6SD INSTALL TYPICAL TYPE I ACCESS MANHOLE IN RCB PER DETAILS ON USD DWG NO. 403.1.
7SD INSTALL TYPICAL TYPE II MANHOLE PER USD DWG NO. 405.2.

IRRIGATION CONSTRUCTION NOTES

1IR BANK "A": 1-6" & 2-4" SCH 40 PVC. PER DETAIL 7 DRAWING DT3

CONTRACTOR TO FIELD VERIFY SIZE, LOCATION AND INVERT OF EXISTING PIPE, AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO NEW SEWER CONSTRUCTION

BASIS OF BEARING AND COORDINATES

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:
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2. GRID BEARINGS SHOWN HEREON (OR IMPLIED BY GRID COORDINATES) DO NOT EQUAL GEODETIC BEARINGS DUE TO MERIDIAN CONVERGENCE.

L#: LXX-XXXXX-XXXX CLV#: 107XXXXX

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	AGEN APP	DATE	GCW APP	DATE

PROJECT NO. 62029-204
DESIGN: GH/AS
DRAWN: GH
CHECK: LG/AS
PLOT DATE: 11-03-21
PLOT TIME: 16:33:44

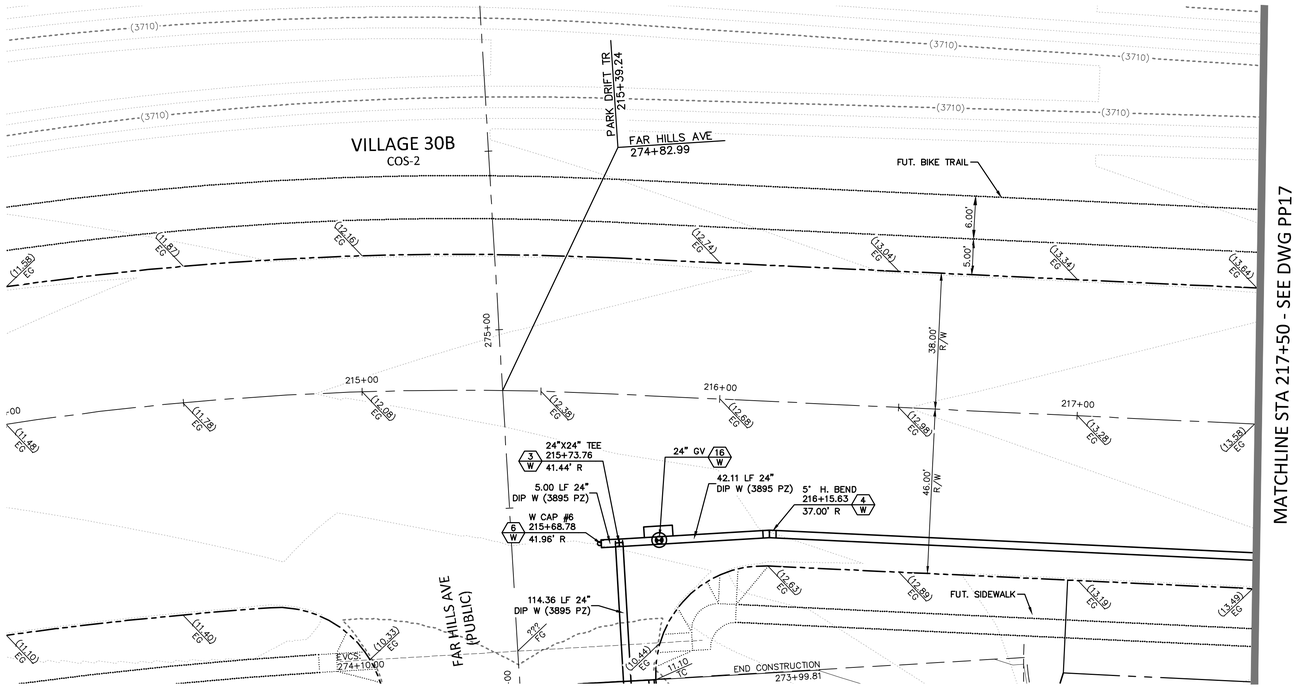
GCW ENGINEERS\SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

F:\PROJECTS\6200\62029-204\DWG\PRODUCTION\62029-204_05_PP - GRB.DWG
GEORGE HOANG

THE HOWARD HUGHES COMPANY, LLC
VILLAGE 29
PHASE 1 INFRASTRUCTURE
PLAN AND PROFILE 15

DRAWING
PP15
28 OF 56 SHTS

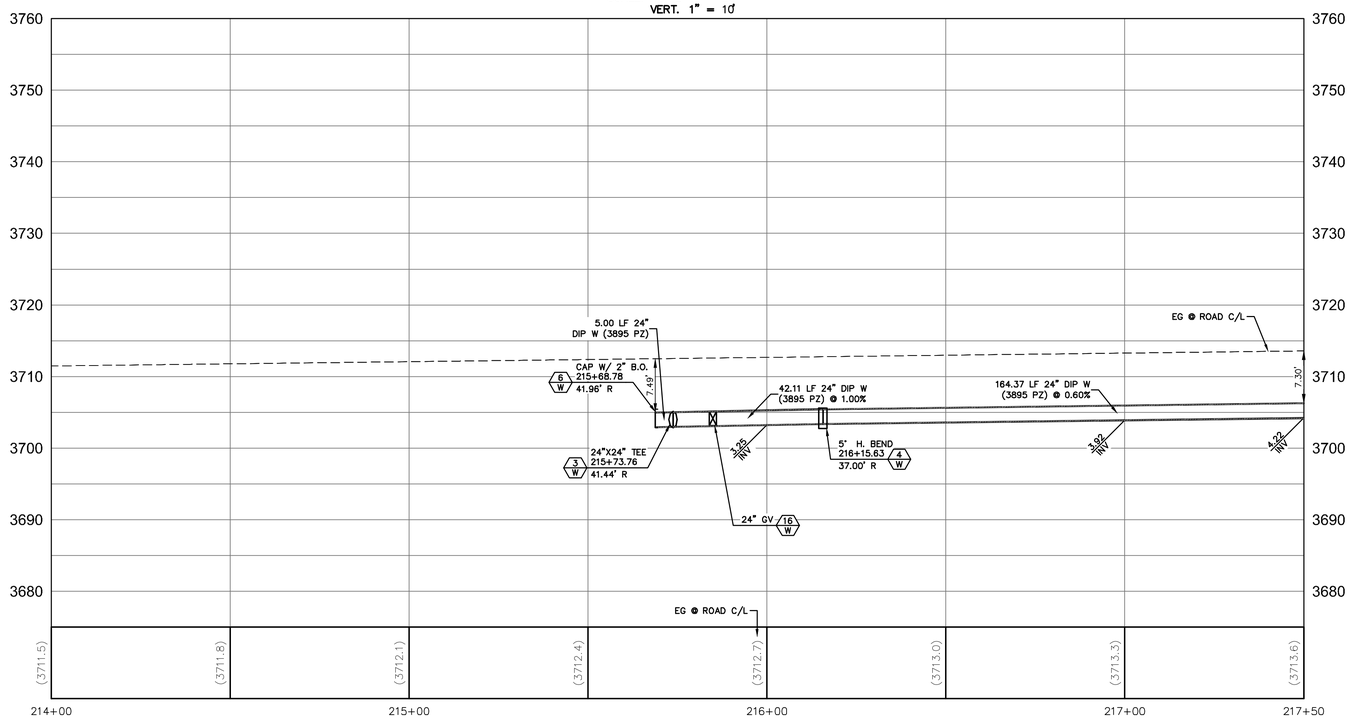
NEVADA PROFESSIONAL ENGINEER - STATE OF NEVADA
MILADJAN GRUJICIC
No. 17107
Exp. 06/30/2023
CIVIL
DATE: 11/03/2021

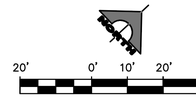


PARK DRIFT TRAIL

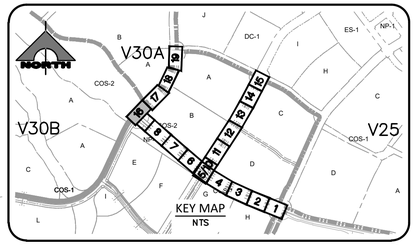
(PUBLIC)

SCALE: HORIZ 1" = 20'
VERT. 1" = 10'





SCALE: 1" = 20'



NOTE: THIS PROJECT PLAN APPROVAL CONTINGENT ON

######

BEING OPERATIONAL.

DEPTH OF COVER DURING CONSTRUCTION

MAINTAIN MINIMUM TWENTY-FOUR (24) INCH COVER PER UDACS SECTION 2.08.04. GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION.

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1. INSTALL PIPELINE MARKER BALLS, PER UDACS PLATE NO. 15.
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DROP INLET NOTE

WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE.

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OFF-SITE FLOOD CONTROL NOTE

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3895 PZ W NOTES

1. 3895 PZ WATER LINE TO BE INSTALLED UNDER DRY CONDITION
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APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

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

LVVWD APPROVED FIRE FLOW: TOTAL 1,500 GPM / ON-SITE N/A GPM

BENCHMARK

BM#	DESCRIPTION	NAVD 88 DATUM	NAVD 88 DATUM
CLV BM No. 7LV0934SW6	FIND RIVET AND PLATE IN TOP OF CURB SE CORNER OF DESERT MOON RD. AND SKY VISTA DR. T20S,R59E,S34	3318.31 (FEET)	1,011.422 (METERS)

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811 OR 1-800-642-2444

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

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY
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PROTECTION CONSTRUCTION NOTES

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SEWER CONSTRUCTION NOTES

1 S INSTALL SEWER MANHOLE PER DCS STD. DWG. 1A AND 1B
2 S STUB AND CAP SEWER PIPE PER DETAIL 6 DWG. DT3
3 S REMOVE PLUG & CONNECT TO SEWER LINE (CONTRACTOR TO VERIFY SIZE, INVERT, AND LOCATION OF EX. SEWER PRIOR TO CONSTRUCTION)

STORM DRAIN CONSTRUCTION NOTES

1 SD INSTALL TYPE II MANHOLE PER USD DWG. No. 405.1
2 SD INSTALL TYPE "CM2" DROP INLET PER USD DWG. No. 421
3 SD INSTALL TEMPORARY PLUG AND CAP PER DETAIL 4 ON DWG. DT3
4 SD REMOVE PLUG & CONNECT TO EX. STORM DRAIN TO NEAREST RCP JOINT OR W/ CONCRETE COLLAR PER DETAIL 5 ON DWG. DT3 (CONTRACTOR TO VERIFY SIZE, INVERT, AND LOCATION OF EX. STORM DRAIN PRIOR TO CONSTRUCTION)
5 SD INSTALL JUNCTION STRUCTURE.
6 SD INSTALL TYPICAL TYPE I ACCESS MANHOLE IN RCB PER DETAILS ON USD DWG NO. 403.1.
7 SD INSTALL TYPICAL TYPE II MANHOLE PER USD DWG NO. 405.2.

IRRIGATION CONSTRUCTION NOTES

1 IR BANK "A": 1-6" & 2-4" SCH 40 PVC. PER DETAIL 7 DRAWING DT3

CONTRACTOR TO FIELD VERIFY SIZE, LOCATION AND INVERT OF EXISTING PIPE, AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO NEW SEWER CONSTRUCTION

BASIS OF BEARING AND COORDINATES

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

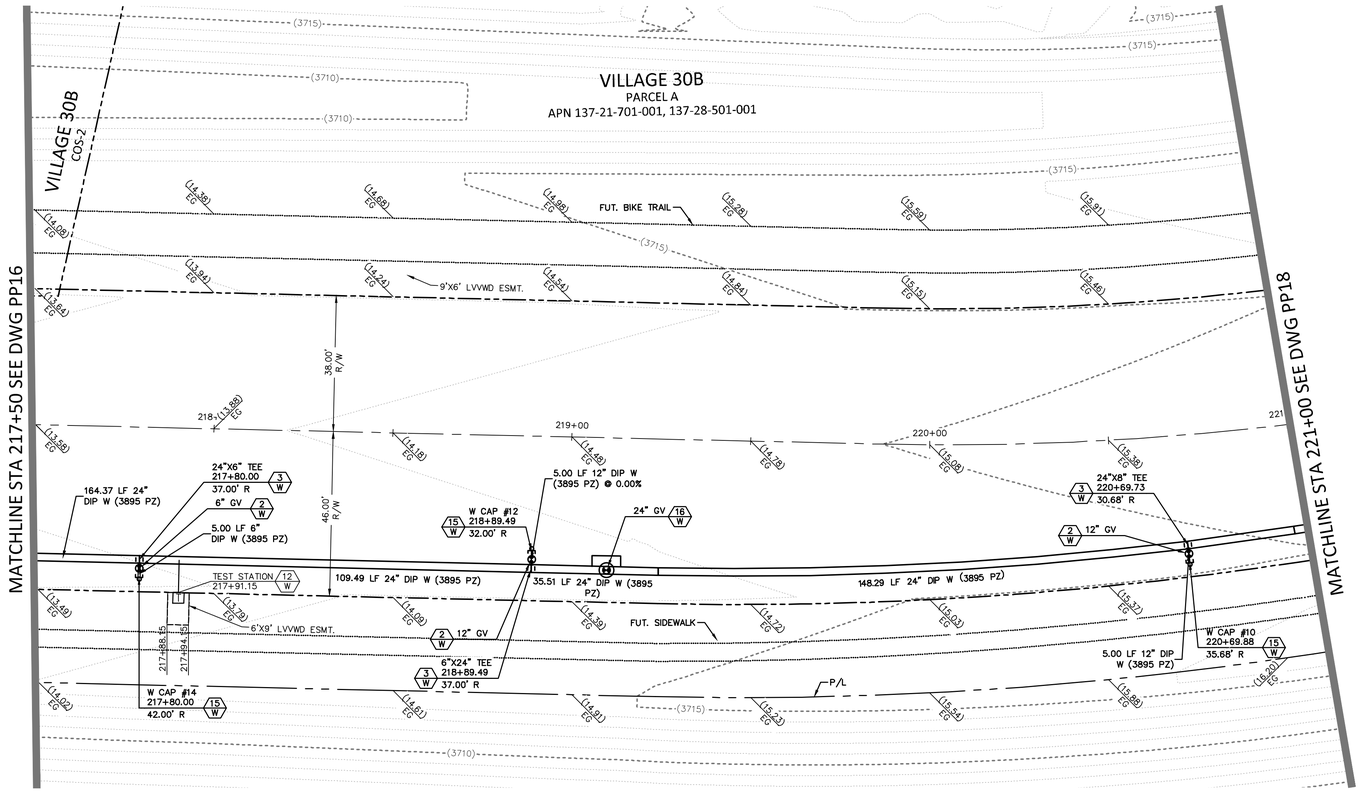
PROJECTION: TRANSVERSE MERCATOR
STANDARD PARALLEL (AND LATITUDE OF GRID ORIGIN): 36°15'00"N
LONGITUDE OF CENTRAL MERIDIAN: 114°58'00"W
NORTHING AT GRID ORIGIN: 400,000.00 M (1,312,333.3333 FTUS)
EASTING AT CENTRAL MERIDIAN: 300,000 M (984,250.0000 FTUS)
SCALE FACTOR ON CENTRAL MERIDIAN: 1.000135 (EXACT)

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.

L#: LXX-XXXXX-XXXX | CLV#: 107XXXXX

STATE OF NEVADA PROFESSIONAL ENGINEER — MILADJAN GRUJICIC — No. 17107 — Exp. 06/30/2023 — CIVIL

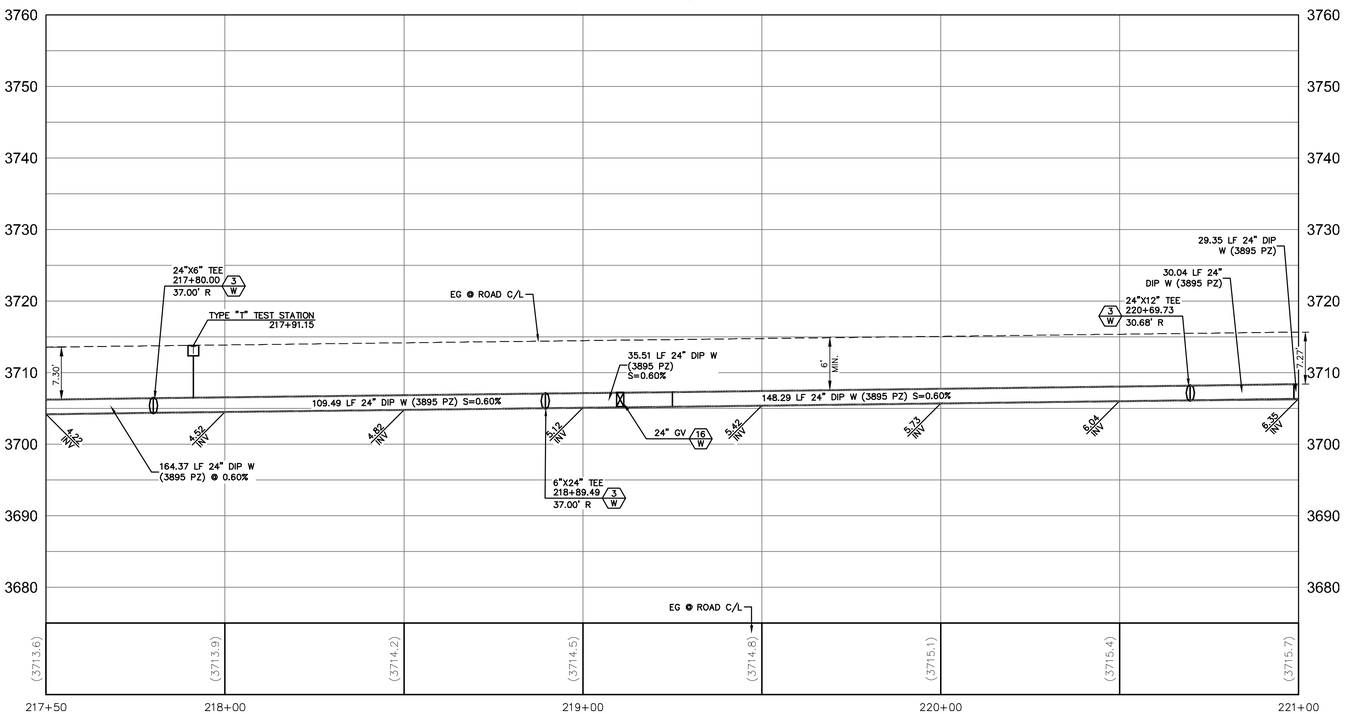
DATE:	DESCRIPTION	REV	DATE
11/03/2021	FOR AGENCY REVIEW - NOT FOR CONSTRUCTION		



PARK DRIFT TRAIL

(PUBLIC)

SCALE: HORIZ 1" = 20'
VERT. 1" = 10'



SCALE: 1" = 20'

NOTE: THIS PROJECT PLAN APPROVAL CONTINGENT ON

######

BEING OPERATIONAL.

DEPTH OF COVER DURING CONSTRUCTION

MAINTAIN MINIMUM TWENTY-FOUR (24) INCH COVER PER UDACS SECTION 2.08.04. GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION.

LVVWD NOTES

1. INSTALL PIPELINE MARKER BALLS, PER UDACS PLATE NO. 15.
2. PROTECT IN PLACE AND ADJUST LVVWD EXISTING FACILITIES TO FINISHED GRADE PER UDACS. ALL LVVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES.
3. WATER MAIN JOINT DEFLECTION, PER UDACS 2.07.01 AND 2.07.03.
4. IN AREAS WHERE THE EXCAVATION OR GROUND ELEVATION IS LESS THAN THREE (3) FEET, FROM THE TOP OF THE LVVWD TRANSMISSION MAIN, NO EXCAVATION EQUIPMENT, OTHER THAN HAND HELD EQUIPMENT WILL BE ALLOWED WITHIN TEN (10) FEET OF THE PIPELINE IN THESE AREAS. THE CONTRACTOR IS TO PLACE A CONCRETE BARRIER; I.E. JERSEY RAIL, TO IDENTIFY AND PROTECT THE "NO EQUIPMENT ZONE."
5. ALL SEWER/STORM DRAIN CROSSING WATER LINES MUST COMPLY WITH UDACS SECTION 2.22.

LVVWD NOTE

LVVWD CANNOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE TO REMOVE REMAINING WATER. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TRIAL SHUTDOWN.

CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.

DROP INLET NOTE

WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE:

ALL STORM DRAIN DROP INLETS ARE TO BE CONSTRUCTED PER THE REQUIREMENTS OF USDCCA DWG. NO. 421 (STORMWATER QUALITY MANAGEMENT STAMP AND SIGN DETAIL).

OFF-SITE FLOOD CONTROL NOTE

ALL OFF-SITE INTERIM FLOOD CONTROL FACILITIES SUCH AS, BUT NOT LIMITED TO, BERMS/DITCHES AND TEMPORARY SUMPS ARE PRIVATELY OWNED AND ARE TO BE PRIVATELY MAINTAINED BY THE HOWARD HUGHES COMPANY.

FOR ALL DRY UTILITY CROSSINGS

1. MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING.
2. MAINTAIN MINIMUM 3' PARALLEL SEPARATION
3. ANY EXCAVATION AT BACK OF CURB MUST REMAIN OPEN FOR INSPECTION OF COPPER SERVICE LATERALS. ANY COPPER SERVICE LATERAL KINKED, BENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP.

3895 PZ W NOTES

1. 3895 PZ WATER LINE TO BE INSTALLED UNDER DRY CONDITION
2. ALL 3895 ZONE (DIP) WATER LINE JOINTS TO BE MECHANICALLY RESTRAINED PER UDACS SECTION 2.15
3. 3895 PZ WATER MAINS TO BE CHLORINATED AND PRESSURE TESTED. ALL WATER MUST BE DRAINED FROM THE LINE AFTER THE PRESSURE TEST COMPLETION AS A CONDITION FOR LVVWD WATER UTILITIES ACCEPTANCE.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

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

LVVWD APPROVED FIRE FLOW: TOTAL 1,500 GPM / ON-SITE N/A GPM

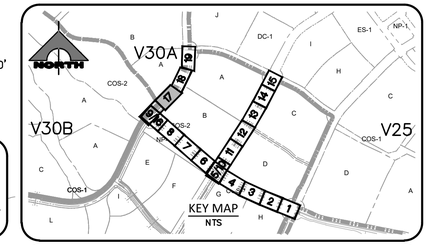
BENCHMARK

BM#	DESCRIPTION	NAVD 88 DATUM	NAVD 88 DATUM
CLV BM No. 7LV0934SW6	FIND RIVET AND PLATE IN TOP OF CURB SE CORNER OF DESERT MOON RD. AND SKY VISTA DR. T20S,R59E,S34	3318.31 (FEET)	1,011.422 (METERS)

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811 OR 1-800-642-2444

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

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



PROTECTION CONSTRUCTION NOTES

1P EXISTING PAVEMENT, PROTECT IN PLACE
2P EXISTING CURB/GUTTER, PROTECT IN PLACE
3P EXISTING PULLBOX, ADJUST TO FINISH GRADE
4P EXISTING CONDUIT, PROTECT IN PLACE
5P EXISTING SDMH, PROTECT IN PLACE & ADJUST TO FINISH GRADE IF IMPACTED BY PAVEMENT IMPROVEMENTS
6P EXISTING SSMH, PROTECT IN PLACE & ADJUST TO FINISH GRADE IF IMPACTED BY PAVEMENT IMPROVEMENTS

ROADWAY CONSTRUCTION NOTES

1R INSTALL A.C. PAVEMENT PER STREET SECTIONS, SEE DWG. DT1
2R INSTALL "L" TYPE CURB & GUTTER, SEE SUMMERLIN STD DWG. S-47
3R INSTALL "A" TYPE ISLAND CURB, SEE SUMMERLIN STD DWG. S-50
4R INSTALL CURB TRANSITION PER DETAIL 2 DWG. DT3
5R CONSTRUCT SIDEWALK RAMP PER USD DWG No. 235 (CASE II)
6R INSTALL "L" TYPE ISLAND CURB, SEE SUMMERLIN STD DWG. S-50

WATER CONSTRUCTION NOTES

1W INSTALL FIRE HYDRANT & ASSEMBLY PER UDACS PLT. No. 40
2W INSTALL GATE VALVE AND BOX PER UDACS PLT. No. 30 AND 39
3W INSTALL TEE PER UDACS PLT. No. 31
4W INSTALL HORIZONTAL BEND PER UDACS PLT. No. 31 (SEE PLAN FOR ANGLE)
5W INSTALL REDUCER PER UDACS PLT. No. 31
6W INSTALL CAP W/ 2" BLOW-OFF ASSEMBLY PER UDACS PLT. No. 36
7W INSTALL 1-½" WATER METER AND 1-½" RPPA PER DETAIL 1 DWG. DT4
8W INSTALL VERTICAL BEND PER UDACS PLT. No. 31 (SEE PROFILE FOR ANGLE)
9W REMOVE CAP AND BLOWOFF PER UDACS PLT. No. 36 AND CONNECT TO EXISTING WATER LINE.
10W INSTALL CROSS PER UDACS PLT. No. 31
11W LVVWD APPROVED ELASTOMERIC JOINT SEALANT AT ALL MANHOLE JOINTS.
12W INSTALL TYPE "1" TEST STATION PER DETAIL 1 ON DWG. DT3
13W INSTALL 1" WATER METER AND 1" RPPA PER DETAIL 1 DWG. DT4
14W INSTALL 2" WATER METER AND 2" RPPA PER DETAIL 1 DWG. DT4
15W INSTALL VALVED OUTLET W/ STUB VALVE AND CAP PER DETAIL 8 DWG. DT3
16W INSTALL 24" DIRECT BURIED GATE VALVE W/ BYPASS PER DETAIL 1 DWG. DT4

SEWER CONSTRUCTION NOTES

1S INSTALL SEWER MANHOLE PER DCS STD. DWG. 1A AND 1B
2S STUB AND CAP SEWER PIPE PER DETAIL 6 DWG. DT3
3S REMOVE PLUG & CONNECT TO SEWER LINE (CONTRACTOR TO VERIFY SIZE, INVERT, AND LOCATION OF EX. SEWER PRIOR TO CONSTRUCTION)

STORM DRAIN CONSTRUCTION NOTES

1SD INSTALL TYPE II MANHOLE PER USD DWG. No. 405.1
2SD INSTALL TYPE "CM2" DROP INLET PER USD DWG. No. 421
3SD INSTALL TEMPORARY PLUG AND CAP PER DETAIL 4 ON DWG. DT3
4SD REMOVE PLUG & CONNECT TO EX. STORM DRAIN TO NEAREST RCP JOINT OR W/ CONCRETE COLLAR PER DETAIL 5 ON DWG. DT3 (CONTRACTOR TO VERIFY SIZE, INVERT, AND LOCATION OF EX. STORM DRAIN PRIOR TO CONSTRUCTION)
5SD INSTALL JUNCTION STRUCTURE.
6SD INSTALL TYPICAL TYPE I ACCESS MANHOLE IN RCB PER DETAILS ON USD DWG NO. 403.1.
7SD INSTALL TYPICAL TYPE II MANHOLE PER USD DWG NO. 405.2.

IRRIGATION CONSTRUCTION NOTES

1IR BANK "A": 1-6" & 2-4" SCH 40 PVC. PER DETAIL 7 DRAWING DT3

CONTRACTOR TO FIELD VERIFY SIZE, LOCATION AND INVERT OF EXISTING PIPE, AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO NEW SEWER CONSTRUCTION

BASIS OF BEARING AND COORDINATES

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:
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L#: LXX-XXXXX-XXXX CLV#: 107XXXXX

STATE OF NEVADA PROFESSIONAL ENGINEER No. 17107 MILADJAN GRUJICIC Exp. 06/30/2023 CIVIL
DATE: 11/03/2021

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	AGEN APP	DATE	GOV APP	DATE

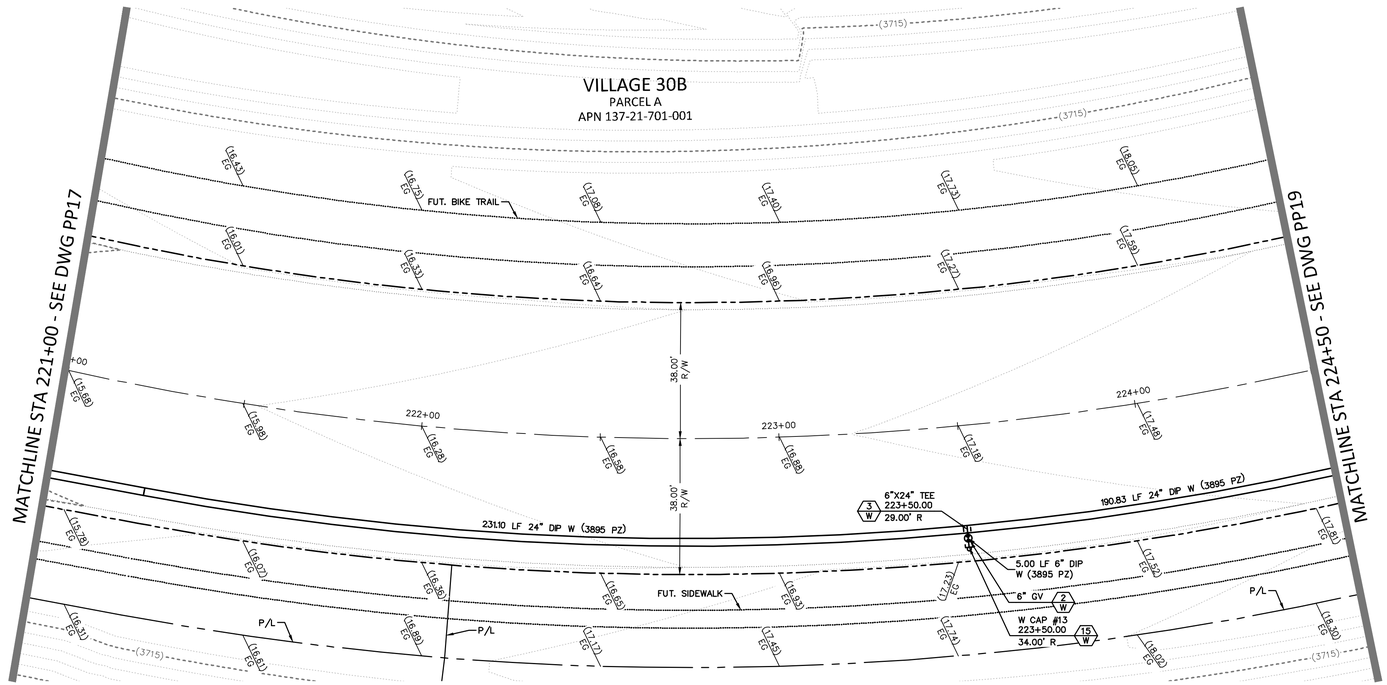
PROJECT NO. 62029-204
DESIGN: GH/AS
DRAWN: GH
CHECK: LG/AS
PLOT DATE: 11-03-21
PLOT TIME: 16:34:22

GCW ENGINEERS\SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

F:\PROJECTS\600\62029-204\DWG\PRODUCTION\62029-204_05_PP - GRIS.DWG GEORGE HOANG

THE HOWARD HUGHES COMPANY, LLC
VILLAGE 29
PHASE 1 INFRASTRUCTURE
PLAN AND PROFILE 17

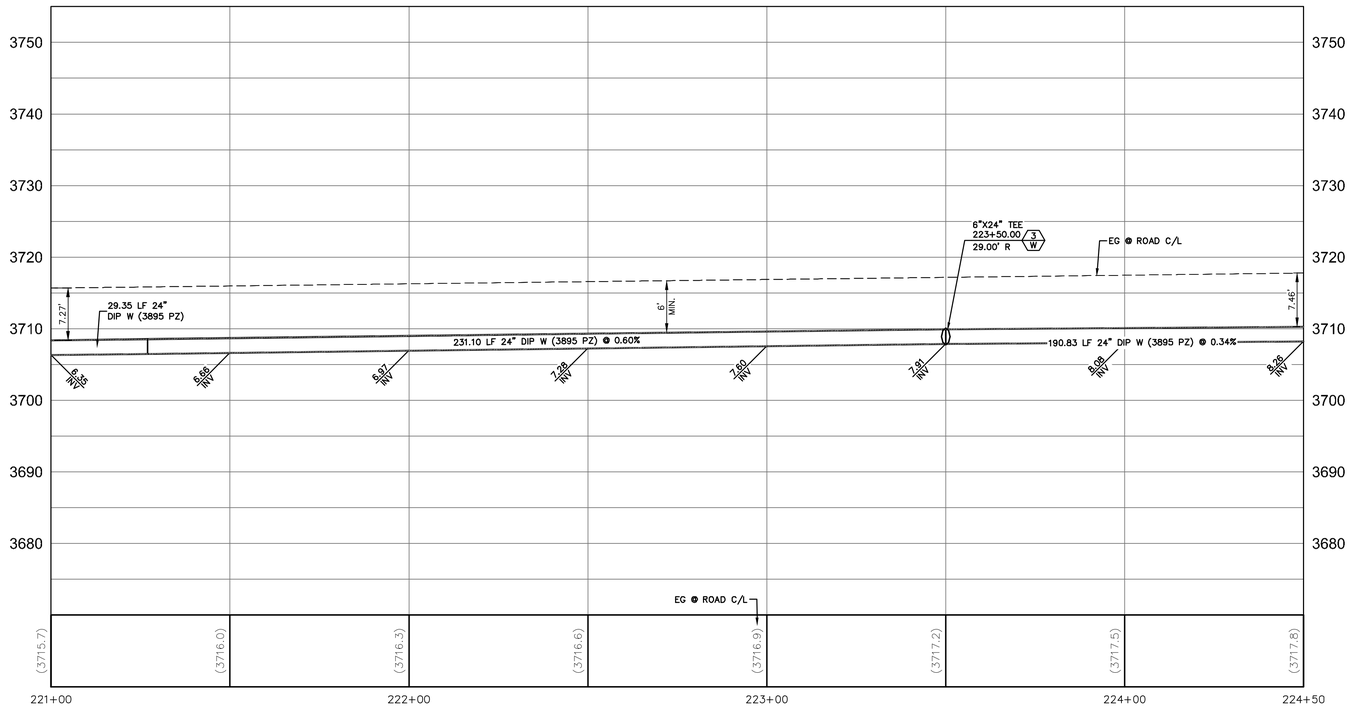
DRAWING
PP17
30 OF 56 SHTS



PARK DRIFT TRAIL

(PUBLIC)

SCALE: HORIZ 1" = 20'
VERT. 1" = 10'



SCALE: 1" = 20'

NOTE: THIS PROJECT PLAN APPROVAL CONTINGENT ON

######

BEING OPERATIONAL.

DEPTH OF COVER DURING CONSTRUCTION

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DROP INLET NOTE

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APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

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

LVVWD APPROVED FIRE FLOW: TOTAL 1,500 GPM / ON-SITE N/A GPM

BENCHMARK

BM#	DESCRIPTION	NAVD 88 DATUM	NAVD 88 DATUM
CLV BM No. 7LV0934SW6	FND RIVET AND PLATE IN TOP OF CURB SE CORNER OF DESERT MOON RD. AND SKY VISTA DR. T20S,R59E,S34	3318.31 (FEET)	1,011.422 (METERS)

Call before you Dig
Avoid cutting underground utility lines. It's costly.
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FAST
Call before you UnderGround
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FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

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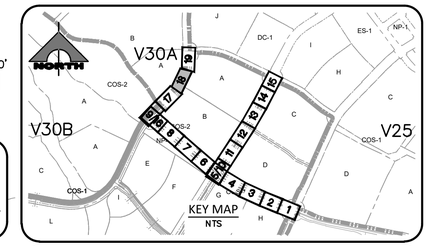

PROTECTION CONSTRUCTION NOTES

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14W INSTALL 2" WATER METER AND 2" RPPA PER DETAIL 1 DWG. DT4
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BASIS OF BEARING AND COORDINATES

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
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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)
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L#: LXX-XXXXX-XXXX CLV#: 107XXXXX

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	AGEN APP	DATE	GOV APP	DATE

PROJECT NO. 62029-204
DESIGN: GH/AS
DRAWN: GH
CHECK: LG/AS
PLOT DATE: 11-03-21
PLOT TIME: 16:34:42

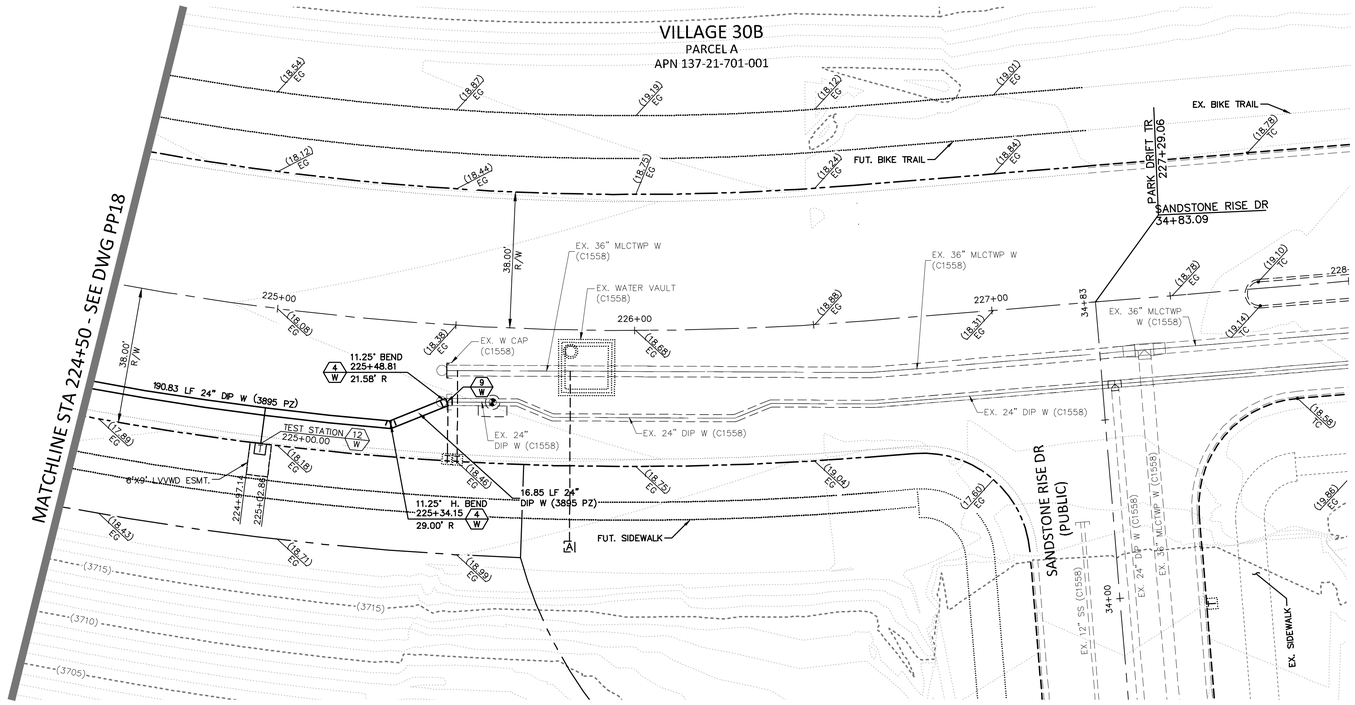
GCV ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcvengineering.com

F:\PROJECTS\600\62029-204\DWG\PRODUCTION\62029-204_05_PP - GP&LDWG GEORGE HOANG

THE HOWARD HUGHES COMPANY, LLC
VILLAGE 29
PHASE 1 INFRASTRUCTURE
PLAN AND PROFILE 18

DRAWING
PP18
31 OF 56 SHTS

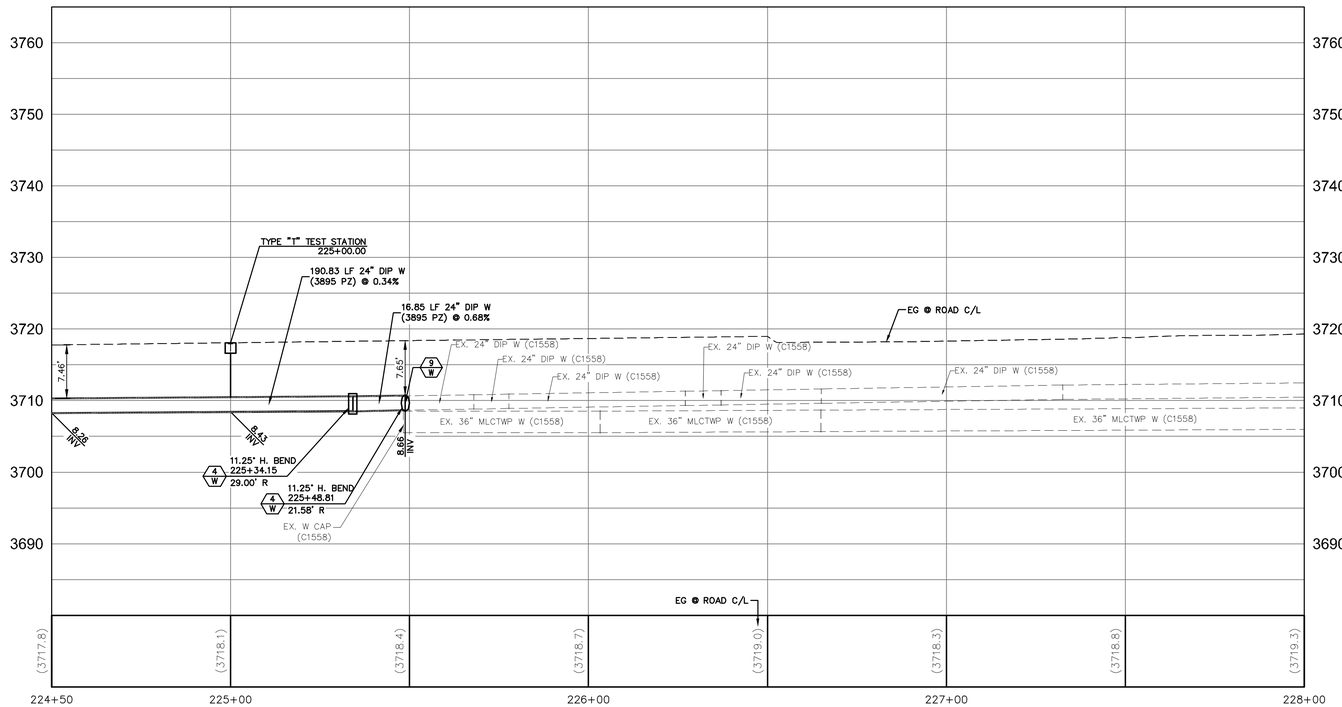
PROFESSIONAL ENGINEER - STATE OF NEVADA
MILADJAN GRUJICIC
No. 17107
Exp. 06/30/2023
CIVIL
DATE: 11/03/2021



PARK DRIFT TRAIL

(PUBLIC)

SCALE: HORIZ 1" = 20'
VERT. 1" = 10'



SCALE: 1" = 20'

NOTE: THIS PROJECT PLAN APPROVAL CONTINGENT ON

######

BEING OPERATIONAL.

DEPTH OF COVER DURING CONSTRUCTION

MAINTAIN MINIMUM TWENTY-FOUR (24) INCH COVER PER UDACS SECTION 2.08.04. GRADING MUST BE COMPLETED PRIOR TO WATERLINE INSTALLATION.

LVVWD NOTES

1. INSTALL PIPELINE MARKER BALLS, PER UDACS PLATE NO. 15.
2. PROTECT IN PLACE AND ADJUST LVVWD EXISTING FACILITIES TO FINISHED GRADE PER UDACS. ALL LVVWD FACILITIES SHALL BE ACCESSIBLE AT ALL TIMES.
3. WATER MAIN JOINT DEFLECTION, PER UDACS 2.07.01 AND 2.07.03.
4. IN AREAS WHERE THE EXCAVATION OR GROUND ELEVATION IS LESS THAN THREE (3) FEET, FROM THE TOP OF THE LVVWD TRANSMISSION MAIN, NO EXCAVATION EQUIPMENT, OTHER THAN HAND HELD EQUIPMENT WILL BE ALLOWED WITHIN TEN (10) FEET OF THE PIPELINE IN THESE AREAS. THE CONTRACTOR IS TO PLACE A CONCRETE BARRIER; I.E. JERSEY RAIL, TO IDENTIFY AND PROTECT THE "NO EQUIPMENT ZONE."
5. ALL SEWER/STORM DRAIN CROSSING WATER LINES MUST COMPLY WITH UDACS SECTION 2.22.

LVVWD NOTE

LVVWD CANNOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE TO REMOVE REMAINING WATER. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TRIAL SHUTDOWN.

CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN IN THE EVENT NO OTHER APPURTENANCES ARE AVAILABLE.

DROP INLET NOTE

WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE:

ALL STORM DRAIN DROP INLETS ARE TO BE CONSTRUCTED PER THE REQUIREMENTS OF USDCCA DWG. NO. 421 (STORMWATER QUALITY MANAGEMENT STAMP AND SIGN DETAIL).

OFF-SITE FLOOD CONTROL NOTE

ALL OFF-SITE INTERIM FLOOD CONTROL FACILITIES SUCH AS, BUT NOT LIMITED TO, BERMS/DITCHES AND TEMPORARY SUMPS ARE PRIVATELY OWNED AND ARE TO BE PRIVATELY MAINTAINED BY THE HOWARD HUGHES COMPANY.

FOR ALL DRY UTILITY CROSSINGS

1. MAINTAIN MINIMUM 12" VERTICAL SEPARATION AT ALL POINTS OF CROSSING.
2. MAINTAIN MINIMUM 3' PARALLEL SEPARATION
3. ANY EXCAVATION AT BACK OF CURB MUST REMAIN OPEN FOR INSPECTION OF COPPER SERVICE LATERALS. ANY COPPER SERVICE LATERAL KINKED, BENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP.

3895 PZ W NOTES

1. 3895 PZ WATER LINE TO BE INSTALLED UNDER DRY CONDITION
2. ALL 3895 ZONE (DIP) WATER LINE JOINTS TO BE MECHANICALLY RESTRAINED PER UDACS SECTION 2.15
3. 3895 PZ WATER MAINS TO BE CHLORINATED AND PRESSURE TESTED. ALL WATER MUST BE DRAINED FROM THE LINE AFTER THE PRESSURE TEST COMPLETION AS A CONDITION FOR LVVWD WATER UTILITIES ACCEPTANCE.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

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

LVVWD APPROVED FIRE FLOW: TOTAL 1,500 GPM / ON-SITE N/A GPM

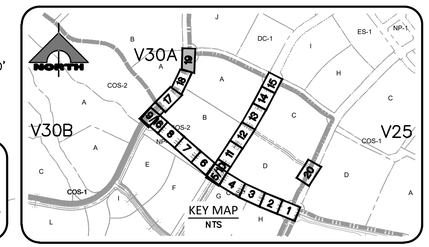
BENCHMARK

BM#	DESCRIPTION	NAVD 88 DATUM	NAVD 88 DATUM
CLV BM No. 7LV0934SW6	FIND RIVET AND PLATE IN TOP OF CURB SE CORNER OF DESERT MOON RD. AND SKY VISTA DR. T20S,R59E,S34	3318.31 (FEET)	1,011.422 (METERS)

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811 or 1-800-642-2444

FAST
Call 811 before you UnderGround
1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

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



PROTECTION CONSTRUCTION NOTES

1 P EXISTING PAVEMENT, PROTECT IN PLACE
2 P EXISTING CURB/GUTTER, PROTECT IN PLACE
3 P EXISTING PULLBOX, ADJUST TO FINISH GRADE
4 P EXISTING CONDUIT, PROTECT IN PLACE
5 P EXISTING SDMH, PROTECT IN PLACE & ADJUST TO FINISH GRADE IF IMPACTED BY PAVEMENT IMPROVEMENTS
6 P EXISTING SSMH, PROTECT IN PLACE & ADJUST TO FINISH GRADE IF IMPACTED BY PAVEMENT IMPROVEMENTS

ROADWAY CONSTRUCTION NOTES

1 R INSTALL A.C. PAVEMENT PER STREET SECTIONS, SEE DWG. DT1
2 R INSTALL "L" TYPE CURB & GUTTER, SEE SUMMERLIN STD DWG. S-47
3 R INSTALL "A" TYPE ISLAND CURB, SEE SUMMERLIN STD DWG. S-50
4 R INSTALL CURB TRANSITION PER DETAIL 2 DWG. DT3
5 R CONSTRUCT SIDEWALK RAMP PER USD DWG No. 235 (CASE II)
6 R INSTALL "L" TYPE ISLAND CURB, SEE SUMMERLIN STD DWG. S-50

WATER CONSTRUCTION NOTES

1 W INSTALL FIRE HYDRANT & ASSEMBLY PER UDACS PLT. No. 40
2 W INSTALL GATE VALVE AND BOX PER UDACS PLT. No. 30 AND 39
3 W INSTALL TEE PER UDACS PLT. No. 31
4 W INSTALL HORIZONTAL BEND PER UDACS PLT. No. 31 (SEE PLAN FOR ANGLE)
5 W INSTALL REDUCER PER UDACS PLT. No. 31
6 W INSTALL CAP W/ 2" BLOW-OFF ASSEMBLY PER UDACS PLT. No. 36
7 W INSTALL 1-½" WATER METER AND 1-½" RPPA PER DETAIL 1 DWG. DT4
8 W INSTALL VERTICAL BEND PER UDACS PLT. No. 31 (SEE PROFILE FOR ANGLE)
9 W REMOVE CAP AND BLOWOFF PER UDACS PLT. No. 36 AND CONNECT TO EXISTING WATER LINE.
10 W INSTALL CROSS PER UDACS PLT. No. 31
11 W LVVWD APPROVED ELASTOMERIC JOINT SEALANT AT ALL MANHOLE JOINTS.
12 W INSTALL TYPE "1" TEST STATION PER DETAIL 1 ON DWG. DT3
13 W INSTALL 1" WATER METER AND 1" RPPA PER DETAIL 1 DWG. DT4
14 W INSTALL 2" WATER METER AND 2" RPPA PER DETAIL 1 DWG. DT4
15 W INSTALL VALVED OUTLET W/ STUB VALVE AND CAP PER DETAIL 8 DWG. DT3
16 W INSTALL 24" DIRECT BURIED GATE VALVE W/ BYPASS PER DETAIL 1 DWG. DT4

SEWER CONSTRUCTION NOTES

1 S INSTALL SEWER MANHOLE PER DCS STD. DWG. 1A AND 1B
2 S STUB AND CAP SEWER PIPE PER DETAIL 6 DWG. DT3
3 S REMOVE PLUG & CONNECT TO SEWER LINE (CONTRACTOR TO VERIFY SIZE, INVERT, AND LOCATION OF EX. SEWER PRIOR TO CONSTRUCTION)

STORM DRAIN CONSTRUCTION NOTES

1 SD INSTALL TYPE II MANHOLE PER USD DWG. No. 405.1
2 SD INSTALL TYPE "CM2" DROP INLET PER USD DWG. No. 421
3 SD INSTALL TEMPORARY PLUG AND CAP PER DETAIL 4 ON DWG. DT3
4 SD REMOVE PLUG & CONNECT TO EX. STORM DRAIN TO NEAREST RCP JOINT OR W/ CONCRETE COLLAR PER DETAIL 5 ON DWG. DT3 (CONTRACTOR TO VERIFY SIZE, INVERT, AND LOCATION OF EX. STORM DRAIN PRIOR TO CONSTRUCTION)
5 SD INSTALL JUNCTION STRUCTURE.
6 SD INSTALL TYPICAL TYPE I ACCESS MANHOLE IN RCB PER DETAILS ON USD DWG NO. 403.1.
7 SD INSTALL TYPICAL TYPE II MANHOLE PER USD DWG NO. 405.2.

IRRIGATION CONSTRUCTION NOTES

1 IR BANK "A": 1-6" & 2-4" SCH 40 PVC. PER DETAIL 7 DRAWING DT3

CONTRACTOR TO FIELD VERIFY SIZE, LOCATION AND INVERT OF EXISTING PIPE, AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO NEW SEWER CONSTRUCTION

BASIS OF BEARING AND COORDINATES

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.

L#: LXX-XXXXX-XXXX CLV#: 107XXXXX

NEVADA PROFESSIONAL ENGINEER — STATE OF NEVADA — MILADJAN GRUJICIC — No. 17107 — Exp. 06/30/2023 — CIVIL — DATE: 11/03/2021

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP	DATE

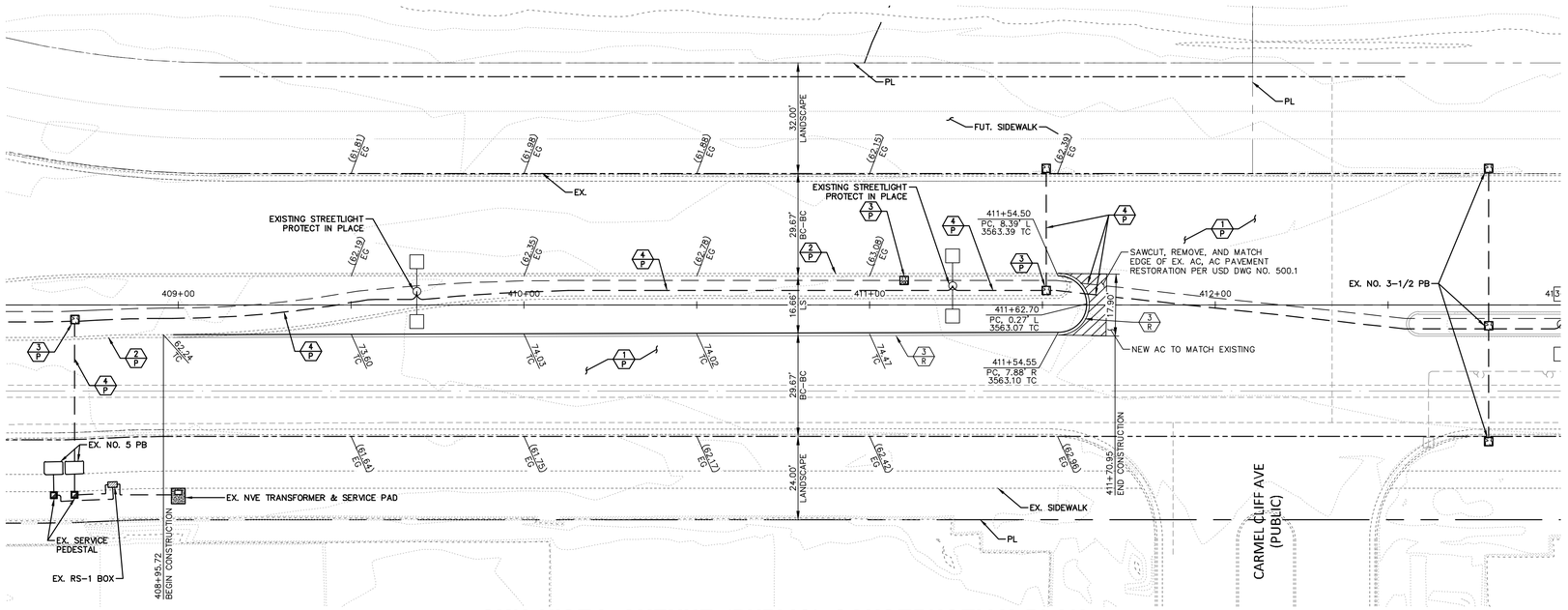
PROJECT NO. 62029-204
DESIGN: GH/AS
DRAWN: GH
CHECK: LG/AS
PLOT DATE: 11-03-21
PLOT TIME: 16:35:01

GCW ENGINEERS\SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com

F:\PROJECTS\600\62029-204\DWG\PRODUCTION\62029-204_05_PP - GRBL.DWG GEORGE HOANG

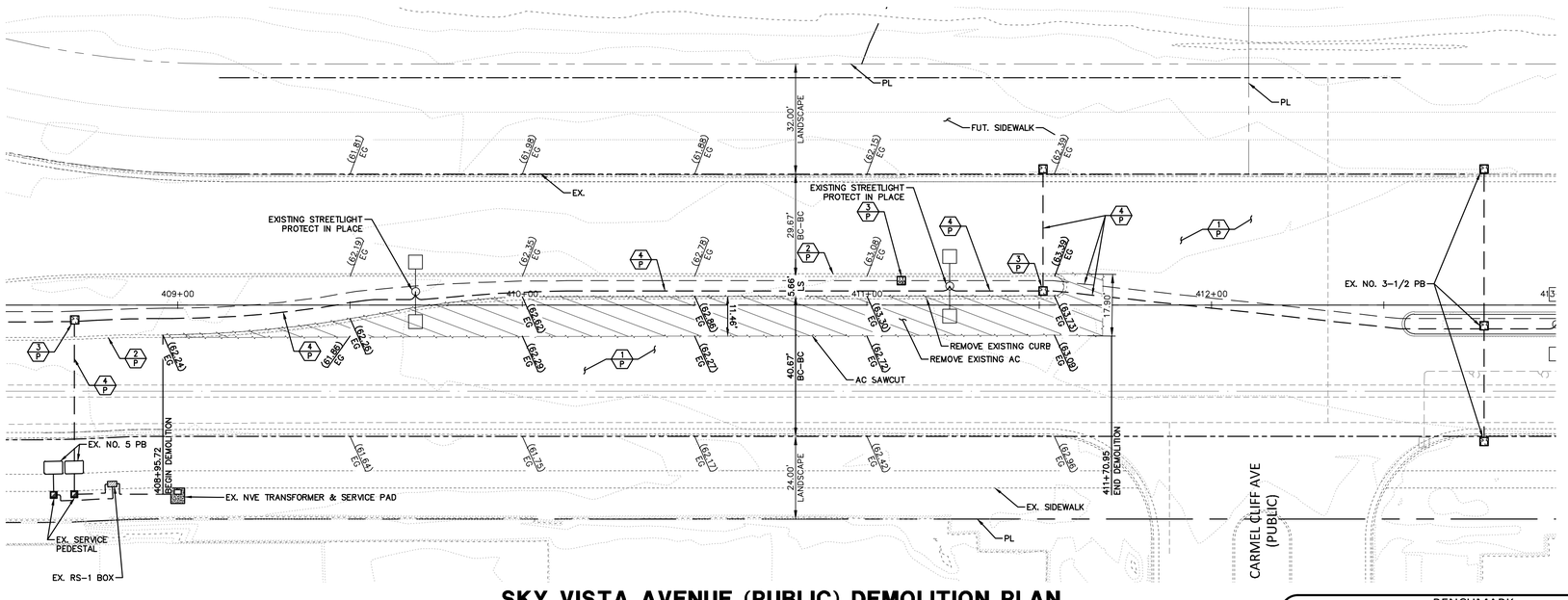
THE HOWARD HUGHES COMPANY, LLC
VILLAGE 29
PHASE 1 INFRASTRUCTURE
PLAN AND PROFILE 19

DRAWING
PP19
32 OF 56 SHTS



SKY VISTA AVENUE (PUBLIC) CONSTRUCTION PLAN

SCALE: HORIZ 1" = 20'



SKY VISTA AVENUE (PUBLIC) DEMOLITION PLAN

SCALE: HORIZ 1" = 20'

20' 0' 10' 20' 40'

SCALE: 1" = 20'

NOTE: THIS PROJECT PLAN APPROVAL CONTINGENT ON

C1558

BEING OPERATIONAL.

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APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

PROJECT NO. 137143 FIRST APPROVAL DATE:

LVVWD APPROVED FIRE FLOW: TOTAL 1,500 GPM / ON-SITE N/A GPM

BENCHMARK

BM#	DESCRIPTION	NAVD 88 DATUM	NAVD 88 DATUM
CLV BM No. 7LV0934SW6	FIND RIVET AND PLATE IN TOP OF CURB SE CORNER OF DESERT MOON RD. AND SKY VISTA DR. T20S,R59E,S34	3318.31 (FEET)	1,011.422 (METERS)

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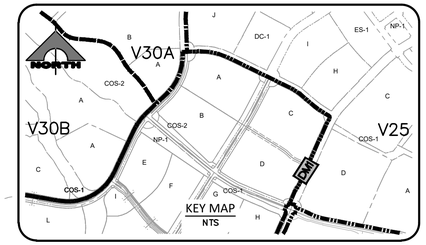

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1IR BANK "A": 1-6" & 2-4" SCH 40 PVC. PER DETAIL 7 DRAWING DT3

CONTRACTOR TO FIELD VERIFY SIZE, LOCATION AND INVERT OF EXISTING PIPE, AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO NEW SEWER CONSTRUCTION

BASIS OF BEARING AND COORDINATES

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)

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L#: LXX-XXXXX-XXXX CLV#: 107XXXX

PROFESSIONAL ENGINEER - STATE OF NEVADA - No. 17107 - MILADJAN GRUJICIC - Exp. 06/30/2023 - CIVIL

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	AGEN APP	DATE	GOV APP	DATE
						11/03/2021

PROJECT NO. 62029-204
DESIGN: GH/AS
DRAWN: GH
CHECK: LG/AS
PLOT DATE: 11-03-21
PLOT TIME: 16:36:07

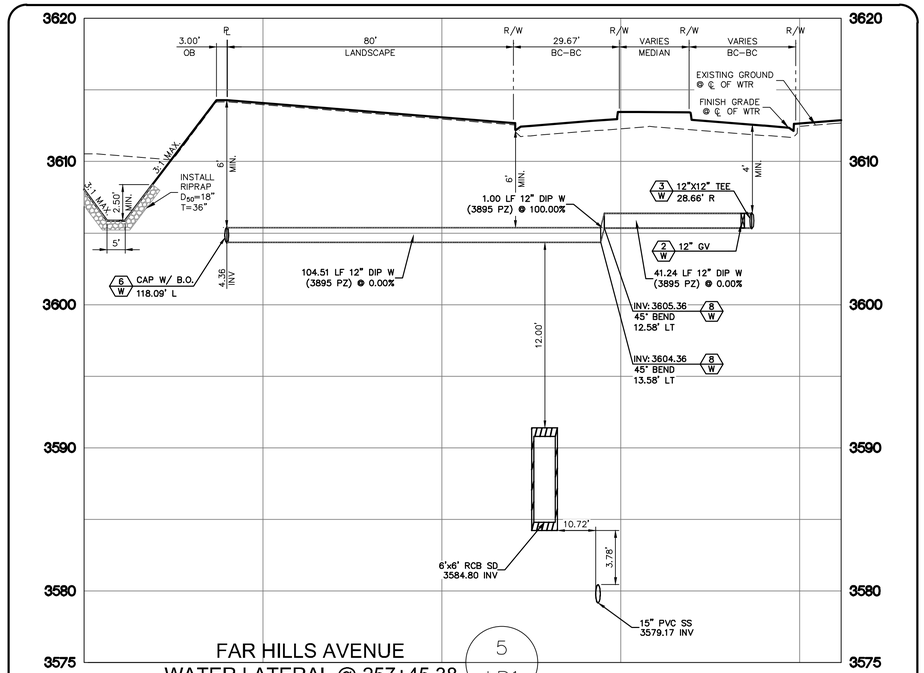
GCV ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcvengineering.com
DESIGNER: HOANG
F:\PROJECTS\6XX\62029-204\DWG\PRODUCTION\62029-204_J0A_PPSA.DWG

THE HOWARD HUGHES COMPANY, LLC

VILLAGE 29
PHASE 1 INFRASTRUCTURE

SKY VISTA AVE CONSTRUCTION & DEMOLITION PLAN

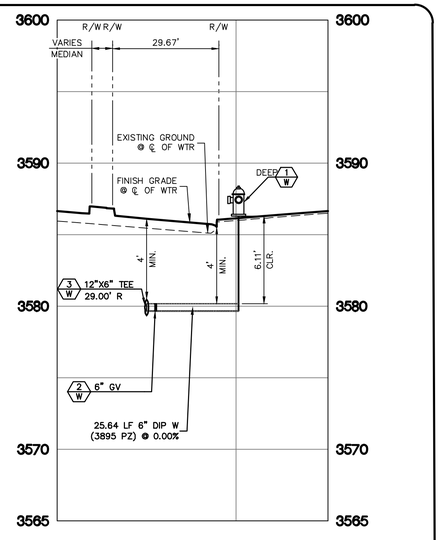
DRAWING
DM
33 OF 56 SHTS



FAR HILLS AVENUE
WATER LATERAL @ 257+45.38 — 5 LP1

SCALE: HORIZ. 1"=20', VERT. 1"=5'

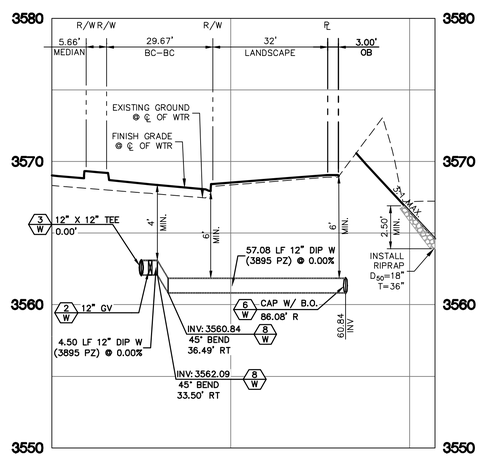
SEE DRAWING PP4



FAR HILLS AVENUE
WATER LATERAL @ 253+92.31 — 4 LP1

SCALE: HORIZ. 1"=20', VERT. 1"=5'

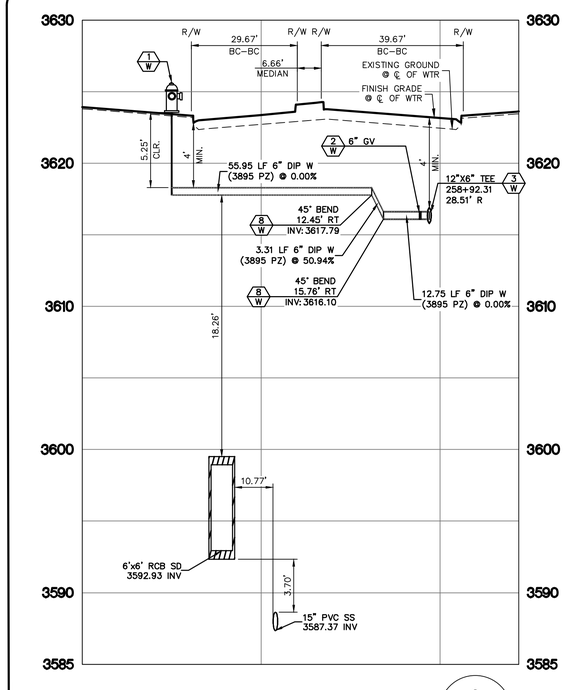
SEE DRAWING PP3



FAR HILLS AVENUE
WATER LATERAL @ 251+26.63 — 2 LP1

SCALE: HORIZ. 1"=20', VERT. 1"=5'

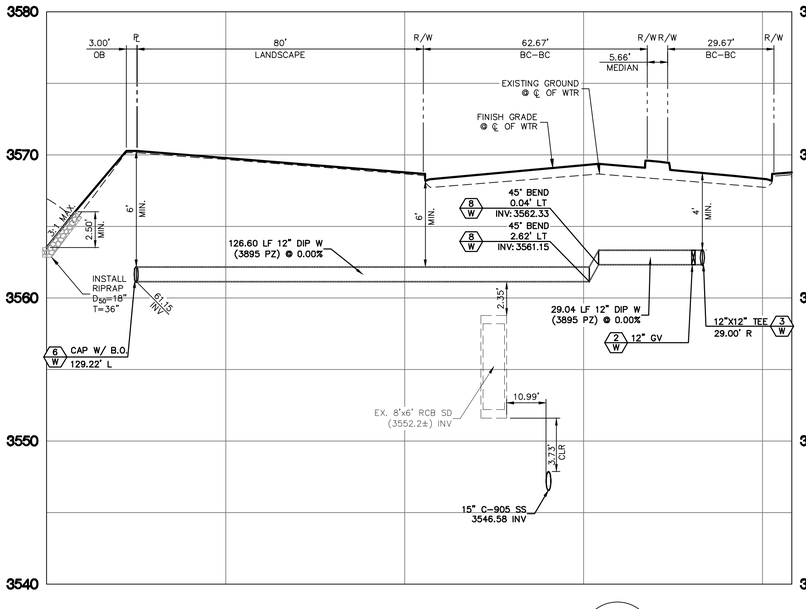
SEE DRAWING PP2



FAR HILLS AVENUE
WATER LATERAL @ 258+92.31 — 6 LP1

SCALE: HORIZ. 1"=20', VERT. 1"=5'

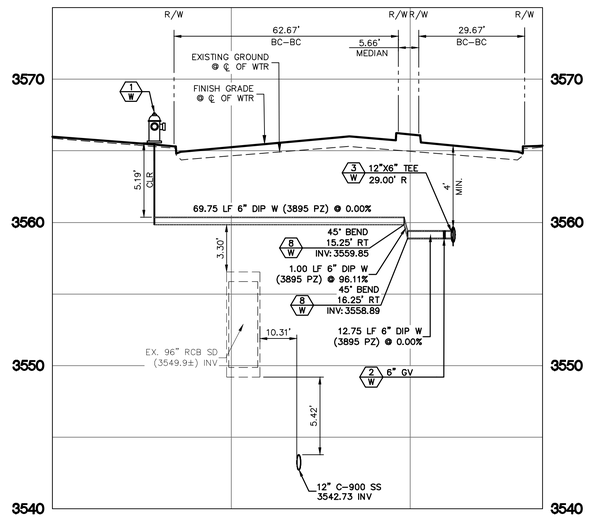
SEE DRAWING PP4



FAR HILLS AVENUE
WATER LATERAL @ 251+31.64 — 3 LP1

SCALE: HORIZ. 1"=20', VERT. 1"=5'

SEE DRAWING PP2



FAR HILLS AVENUE
WATER LATERAL @ 250+55.33 — 1 LP1

SCALE: HORIZ. 1"=20', VERT. 1"=5'

SEE DRAWING PP2

ALL 3895 ZONE (DIP) WATER LINE JOINTS TO BE MECHANICALLY RESTRAINED PER UDACS SECTION 2.15 OR RESTRAINED WITH AMERICAN AMARILLO FAST-GRIP GASKET AND JOINT RESTRAINING SYSTEM PER AMERICAN CAST IRON PIPE COMPANY.

WATER CONSTRUCTION NOTES:

1 W — INSTALL FIRE HYDRANT PER UDACS PL. NO. 30, 39 AND 40. FOR "DEEP" FIRE HYDRANTS SEE UDACS PL. NO. 41.
2 W — INSTALL GATE VALVE AND BOX PER UDACS PL. NO. 30 AND 39
3 W — INSTALL TEE PER UDACS PLT. NO. 31
6 W — INSTALL CAP W/ 2" BLOW-OFF ASSEMBLY PER UDACS PL. NO. 36
8 W — INSTALL VERTICAL BEND PER UDACS PL. NO. 31 UNLESS OTHERWISE IDENTIFIED. (SEE PLAN FOR ANGLE)
9 W — REMOVE CAP AND BLOWOFF PER UDACS PL. NO. 36 AND CONNECT TO EX WATER LINE (CONTRACTOR TO VERIFY SIZE, INVERT AND LOCATION OF EX WATER PRIOR TO CONSTRUCTION)
10 W — INSTALL CROSS PER UDACS PLT. NO. 31

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

PROJECT NO. ###### FIRST APPROVAL DATE:

L#: LXX-XXXXX-XXXX | CLV#: 107XXXXX

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

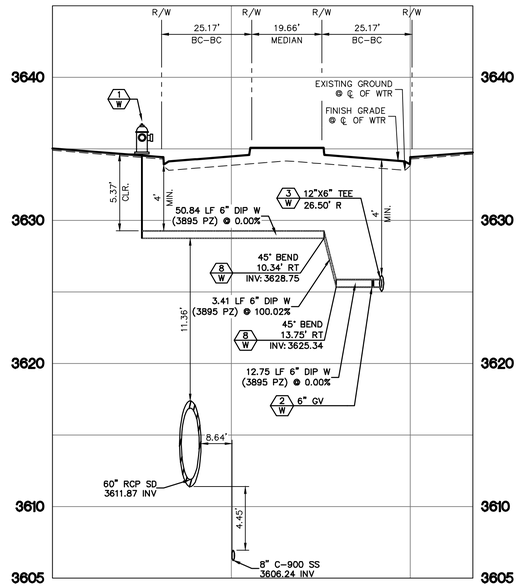
REV	DESCRIPTION	DATE	AGEN APP	DATE	GVW APP	DATE
						11/03/2021

PROJECT NO. 62029-204
DESIGN: GH/AS
DRAWN: GH
CHECK: LG/AS
PLOT DATE: 11-03-21
PLOT TIME: 16:36:17

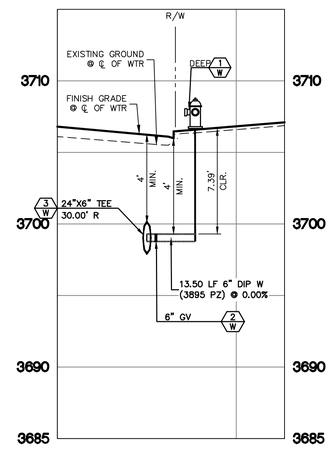
GCW ENGINEERS \ SURVEYORS
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
T: 702.804.2000
F: 702.804.2299
gcwengineering.com
F:\PROJECTS\6200\62029-204\PWC\PRODUCTION\62029-204_LP.DWG
GEORGE HOANG

THE HOWARD HUGHES COMPANY, LLC
VILLAGE 29
PHASE 1 INFRASTRUCTURE
LATERAL PROFILES 1

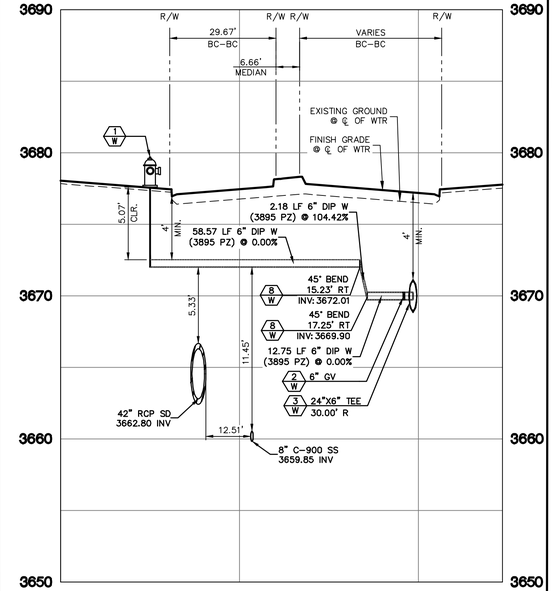
DRAWING
LP1
34 OF 56 SHTS



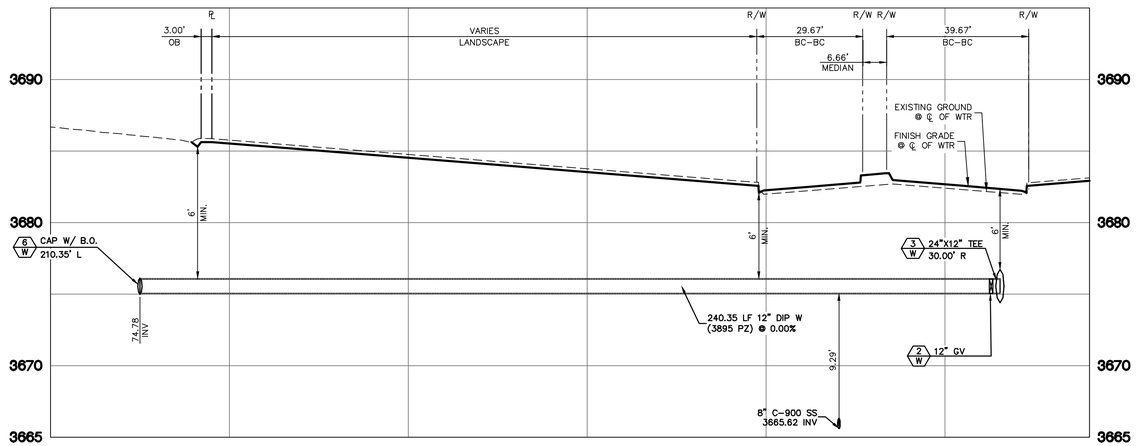
GRAND PARK BOULEVARD
WATER LATERAL @ 97+55.63 — 5 / LP2
SCALE: HORIZ. 1"=20', VERT. 1"=5'
SEE DRAWING PP11



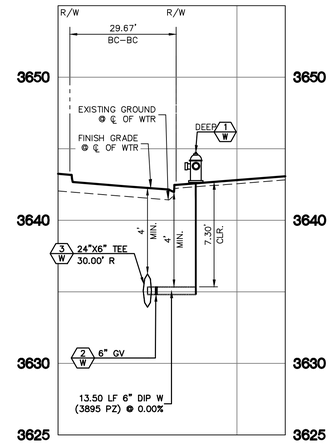
FAR HILLS AVENUE
WATER LATERAL @ 273+11.16 — 4 / LP2
SCALE: HORIZ. 1"=20', VERT. 1"=5'
SEE DRAWING PP9



FAR HILLS AVENUE
WATER LATERAL @ 268+92.31 — 2 / LP2
SCALE: HORIZ. 1"=20', VERT. 1"=5'
SEE DRAWING PP7



FAR HILLS AVENUE
WATER LATERAL @ 269+68.87 — 3 / LP2
SCALE: HORIZ. 1"=20', VERT. 1"=5'
SEE DRAWING PP8



FAR HILLS AVENUE
WATER LATERAL @ 263+92.31 — 1 / LP2
SCALE: HORIZ. 1"=20', VERT. 1"=5'
SEE DRAWING PP6

ALL 3895 ZONE (DIP) WATER LINE JOINTS TO BE MECHANICALLY RESTRAINED PER UDACS SECTION 2.15 OR RESTRAINED WITH AMERICAN AMARILLO FAST-GRIP GASKET AND JOINT RESTRAINING SYSTEM PER AMERICAN CAST IRON PIPE COMPANY

WATER CONSTRUCTION NOTES:

1 W — INSTALL FIRE HYDRANT PER UDACS PL. NO. 30, 39 AND 40. FOR "DEEP" FIRE HYDRANTS SEE UDACS PL. NO. 41.
2 W — INSTALL GATE VALVE AND BOX PER UDACS PL. NO. 30 AND 39
3 W — INSTALL TEE PER UDACS PLT. NO. 31
6 W — INSTALL CAP W/ 2" BLOW-OFF ASSEMBLY PER UDACS PL. NO. 36
8 W — INSTALL VERTICAL BEND PER UDACS PL. NO. 31 UNLESS OTHERWISE IDENTIFIED. (SEE PLAN FOR ANGLE)
9 W — REMOVE CAP AND BLOWOFF PER UDACS PL. NO. 36 AND CONNECT TO EX WATER LINE (CONTRACTOR TO VERIFY SIZE, INVERT AND LOCATION OF EX WATER PRIOR TO CONSTRUCTION)
10 W — INSTALL CROSS PER UDACS PLT. NO. 31

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

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

L#: LXX-XXXXX-XXXX CLV#: 107XXXXX

ENGINEER - STATE OF NEVADA — PROFESSIONAL — GRUJICIC, MILADJAN — No. 17019 — 06/30/2023 — CIVIL

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	AGEN APP	DATE	GCW APP	DATE: 11/03/2021

PROJECT NO. 62029-204
DESIGN: GH/AS
DRAWN: GH
CHECK: LG/JG
PLOT DATE: 11-03-21
PLOT TIME: 16:36:21

GCW ENGINEERS & SURVEYORS
1555 S. RAINBOW BLVD.
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gcwengineering.com

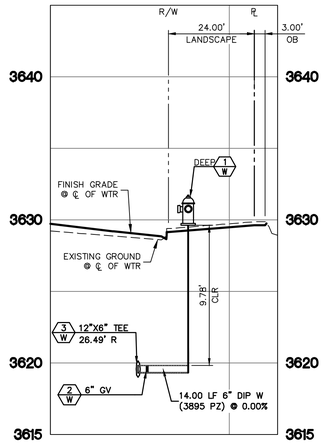
F:\PROJECTS\62029-204\DWG\PRODUCTION\62029-204_08_LP.DWG
GEORGE HOANG

THE HOWARD HUGHES COMPANY, LLC

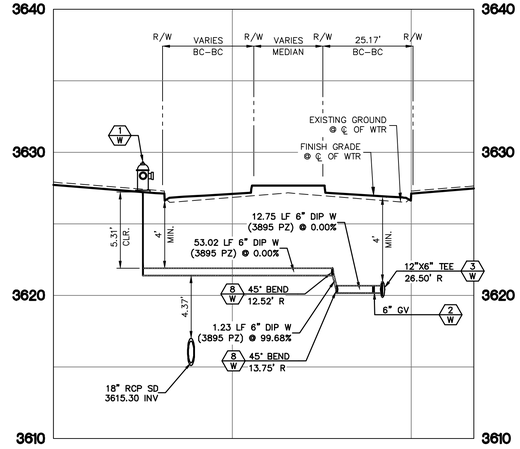
VILLAGE 29
PHASE 1 INFRASTRUCTURE

LATERAL PROFILES 2

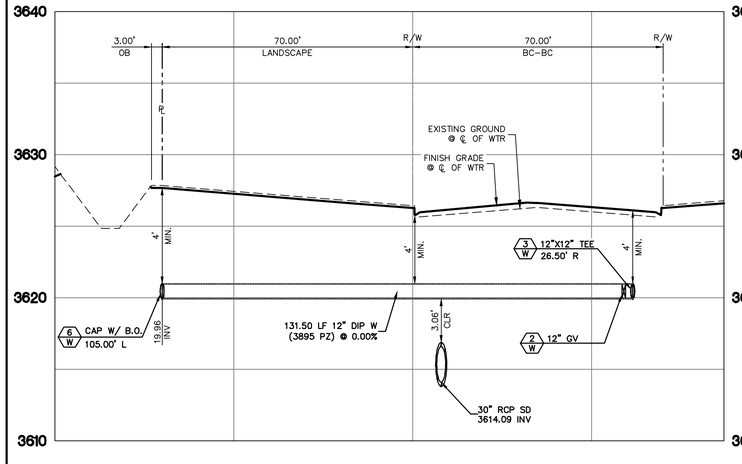
DRAWING
LP2
35 OF 56 SHTS



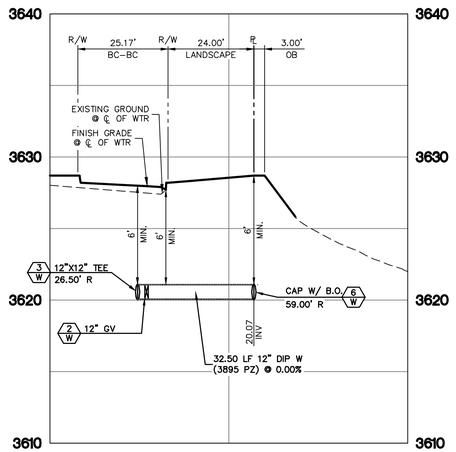
GRAND PARK BOULEVARD
WATER LATERAL @ 108+57.56 — 6 / LP3
SCALE: HORIZ. 1"=20', VERT. 1"=5'
SEE DRAWING PP14



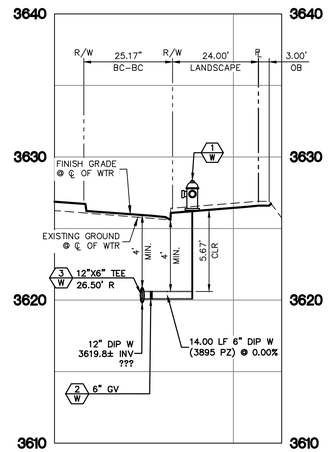
GRAND PARK BOULEVARD
WATER LATERAL @ 104+39.86 — 4 / LP3
SCALE: HORIZ. 1"=20', VERT. 1"=5'
SEE DRAWING PP13



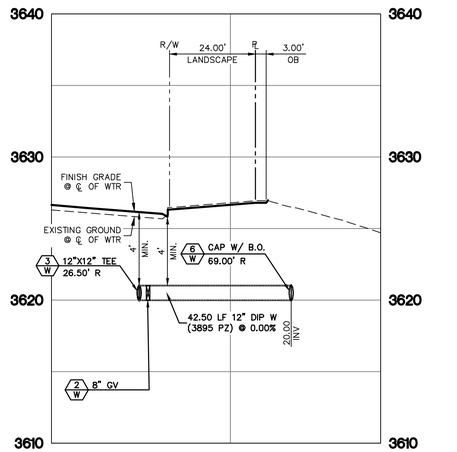
GRAND PARK BOULEVARD
WATER LATERAL @ 101+96.13 — 2 / LP3
SCALE: HORIZ. 1"=20', VERT. 1"=5'
SEE DRAWING PP12



GRAND PARK BOULEVARD
WATER LATERAL @ 106+19.71 — 5 / LP3
SCALE: HORIZ. 1"=20', VERT. 1"=5'
SEE DRAWING PP14



GRAND PARK BOULEVARD
WATER LATERAL @ 102+65.63 — 3 / LP3
SCALE: HORIZ. 1"=20', VERT. 1"=5'
SEE DRAWING PP12



GRAND PARK BOULEVARD
WATER LATERAL @ 101+88.13 — 1 / LP3
SCALE: HORIZ. 1"=20', VERT. 1"=5'
SEE DRAWING PP12

ALL 3895 ZONE (DIP) WATER LINE JOINTS TO BE MECHANICALLY RESTRAINED PER UDACS SECTION 2.15 OR RESTRAINED WITH AMERICAN AMARILLO FAST-GRIP GASKET AND JOINT RESTRAINING SYSTEM PER AMERICAN CAST IRON PIPE COMPANY

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10 W — INSTALL CROSS PER UDACS PLT. NO. 31

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

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

L#: LXX-XXXXX-XXXX | CLV#: 107XXXXX

ENGINEER - STATE OF NEVADA — PROFESSIONAL — GRUJICIC, MLADJAN — No. 17107 — CIVIL — 06/05/2023

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP	DATE: 11/03/2021

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

PROJECT NO. 62029-204
DESIGN: GH/AS
DRAWN: GH
CHECK: LG/JG
PLOT DATE: 11-03-21
PLOT TIME: 16:36:25
GEORGE HOANG
F:\PROJECTS\6GV\62029-204\DWG\PRODUCTION\62029-204_08_LP.DWG

GCW ENGINEERS & SURVEYORS
1555 S. RAINBOW BLVD.
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gcwengineering.com

THE HOWARD HUGHES COMPANY, LLC
VILLAGE 29
PHASE 1 INFRASTRUCTURE
LATERAL PROFILES 3

DRAWING
LP3
36 OF 56 SHTS

OFF-SITE FLOOD CONTROL NOTE

ALL OFF-SITE INTERIM FLOOD CONTROL FACILITIES SUCH AS, BUT NOT LIMITED TO, BERMS/DITCHES AND TEMPORARY SUMPS ARE PRIVATELY OWNED AND ARE TO BE PRIVATELY MAINTAINED BY THE HOWARD HUGHES COMPANY.

DROP INLET NOTE

ALL STORM DRAIN DROP INLETS ARE TO BE CONSTRUCTED PER THE REQUIREMENTS OF USDCCA DWG. NO. 421 (STORMWATER QUALITY MANAGEMENT STAMP AND SIGN DETAIL).

DROP INLET NOTE

WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE:

CAST-IN-PLACE MONOLITHIC POUR WITH WATERSTOP BETWEEN SLAB AND WALLS. BASE, WALLS AND TOP TO BE CONSTRUCTED WITH WATERSTOPS, CENTER BULB OR FLAT STRIP (VINYLEX, GREENSTREAK PLASTIC PRODUCTS OR APPROVED EQUAL).

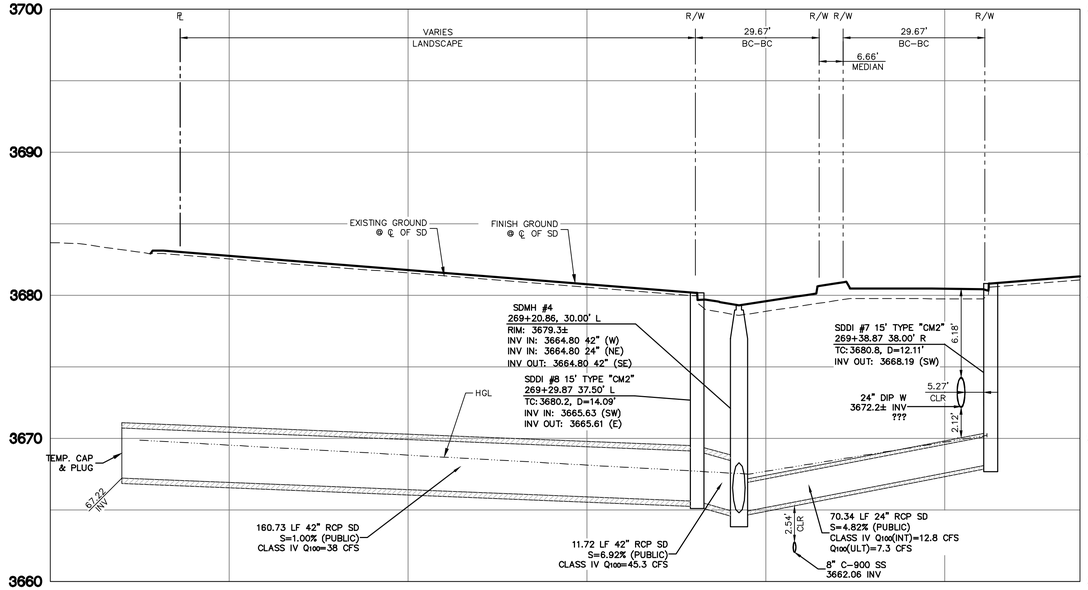
CONSTRUCTION NOTE

IN AREAS WHERE THE EXCAVATION OR GROUND ELEVATION IS LESS THAN THREE (3) FEET, FROM THE TOP OF THE LVVWD TRANSMISSION MAIN, **NO** EXCAVATION EQUIPMENT, OTHER THAN HAND HELD EQUIPMENT WILL BE ALLOWED WITHIN TEN (10) FEET OF THE PIPELINE IN THESE AREAS. THE CONTRACTOR IS TO PLACE A CONCRETE BARRIER; I.E. JERSEY RAIL, TO IDENTIFY AND PROTECT THE **"NO EQUIPMENT ZONE".**

APPROVED FOR CONSTRUCTION

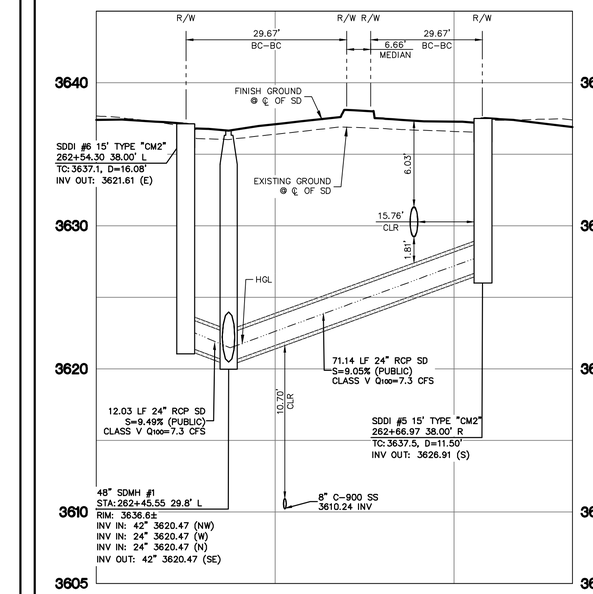
LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

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



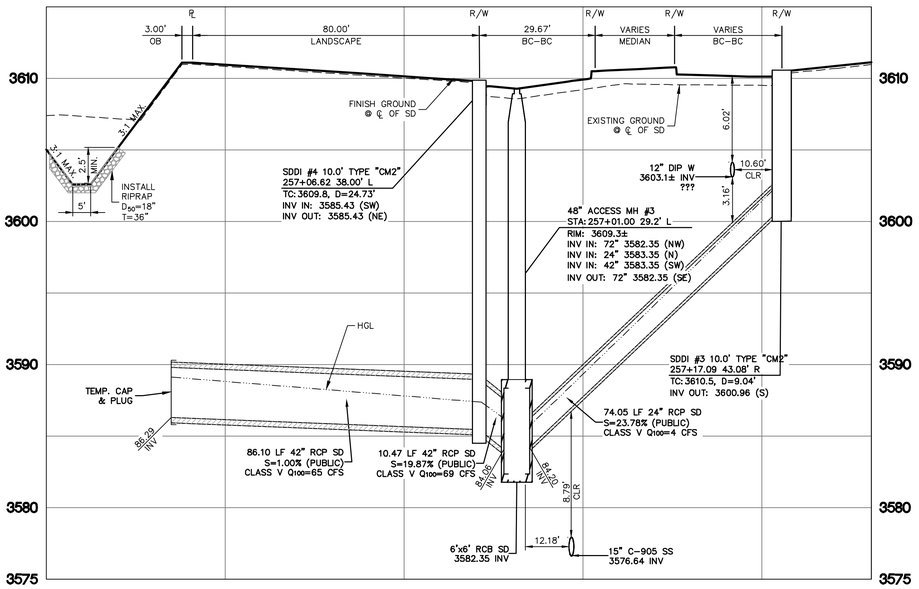
FAR HILLS AVENUE
SD LATERAL @ 269+20.86
SCALE: HORIZ. 1"=20', VERT. 1"=5'
SEE DRAWING PP7, GD1

4 / LP4



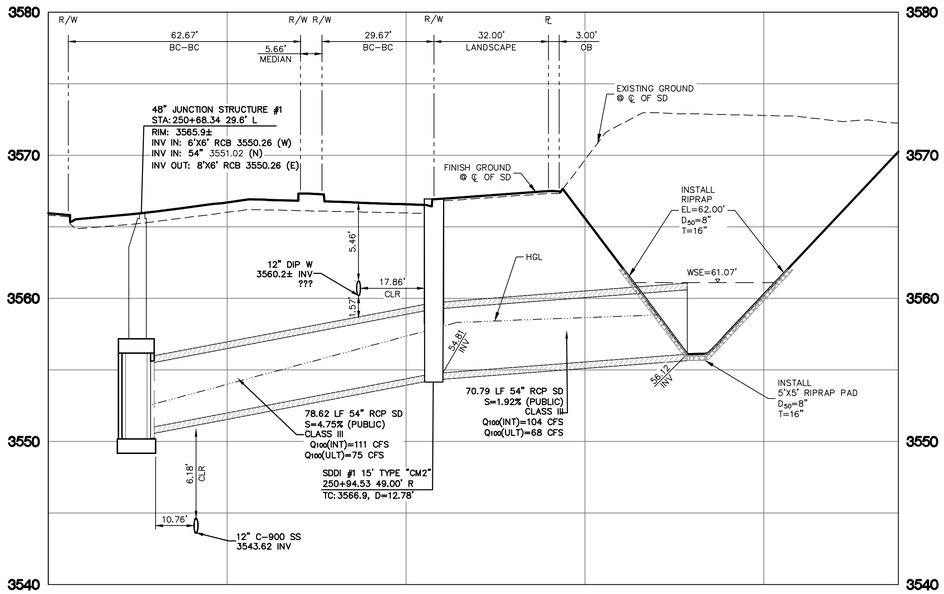
FAR HILLS AVENUE
SD LATERAL @ 262+66.97
SCALE: HORIZ. 1"=20', VERT. 1"=5'
SEE DRAWING PP5, GD1, GD3

2 / LP4



FAR HILLS AVENUE
SD LATERAL @ 257+01.00
SCALE: HORIZ. 1"=20', VERT. 1"=5'
SEE DRAWING PP4, GD2

3 / LP4



FAR HILLS AVENUE
SD LATERAL @ 250+94.53
SCALE: HORIZ. 1"=20', VERT. 1"=5'
SEE DRAWING PP2, GD2

1 / LP4

L#: LXX-XXXXX-XXXX | CLV#: 107XXXXX

ENGINEER - STATE OF NEVADA - PROFESSIONAL - GRUJICIC, MILADJAN - No. 17102 - 06/09/2023 - CIVIL

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP	DATE: 11/03/2021

PROJECT NO. 62029-204
DESIGN: GM/AS
DRAWN: GH
CHECK: LG/JG
PLOT DATE: 11-03-21
PLOT TIME: 16:36:23
GEORGE HOANG

GCW ENGINEERS \ SURVEYORS
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LAS VEGAS, NV 89146
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gcwengineering.com

F:\PROJECTS\9000\62029-204\GWC\PRODUCTION\62029-204_LP.DWG

THE HOWARD HUGHES COMPANY, LLC
VILLAGE 29
PHASE 1 INFRASTRUCTURE
LATERAL PROFILES 4

DRAWING
LP4
37 OF 56 SHTS

OFF-SITE FLOOD CONTROL NOTE

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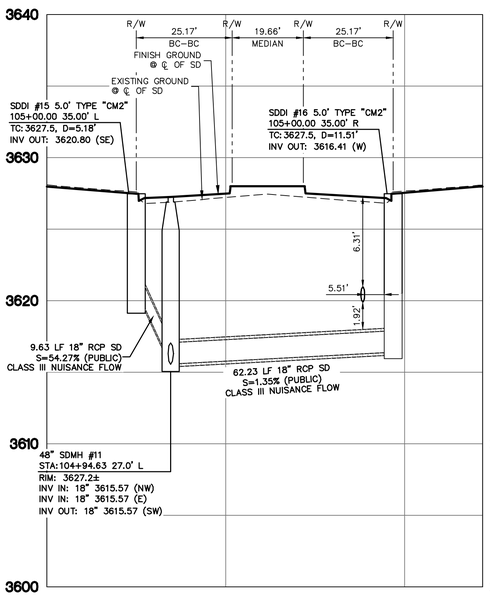
APPROVED FOR CONSTRUCTION

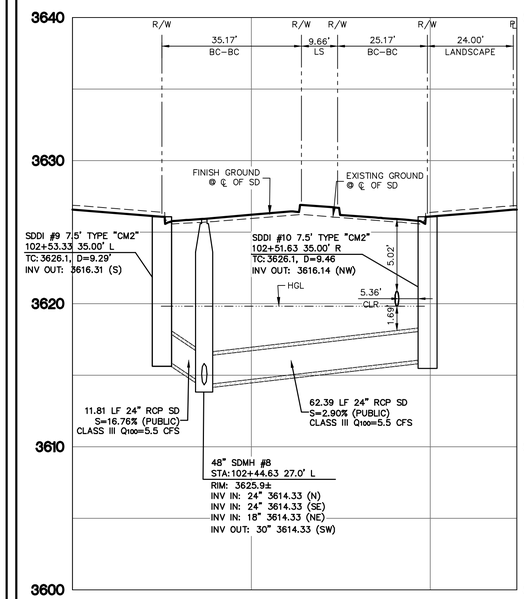
LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

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



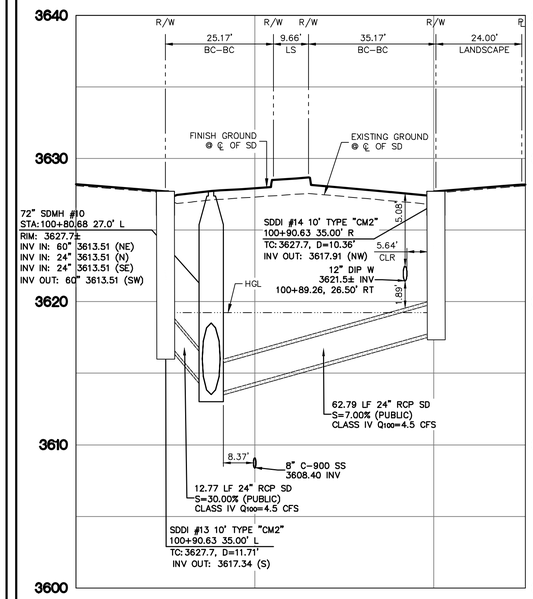
GRAND PARK BOULEVARD
SD LATERAL @ 105+00.00
SCALE: HORIZ. 1"=20', VERT. 1"=4'
SEE DRAWING PP13, GD3

6 LP5



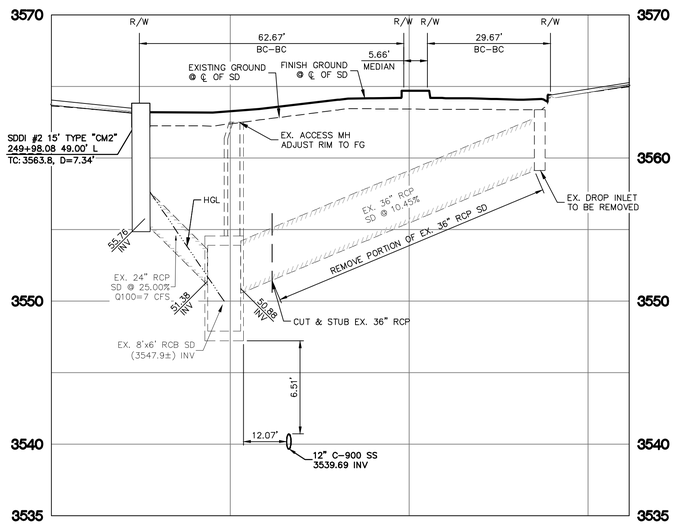
GRAND PARK BOULEVARD
SD LATERAL @ 102+51.63
SCALE: HORIZ. 1"=20', VERT. 1"=4'
SEE DRAWING PP12, GD3

4 LP5



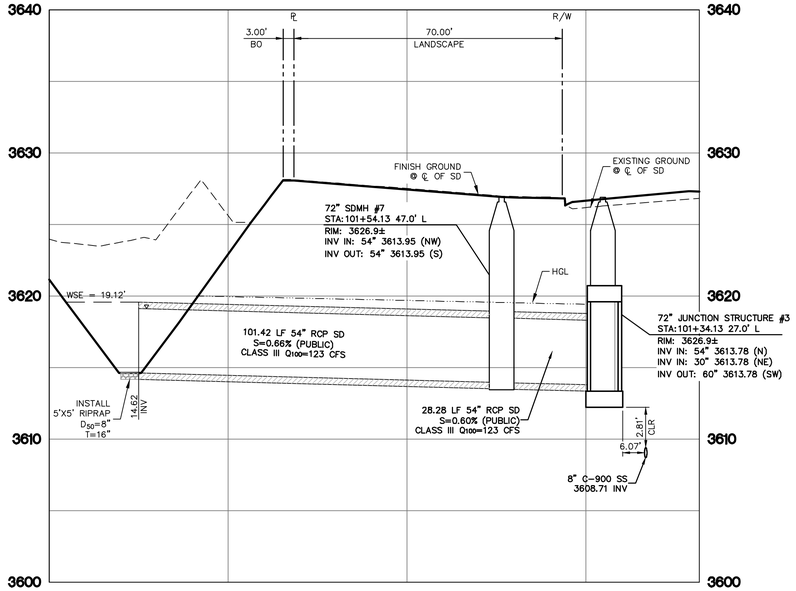
GRAND PARK BOULEVARD
SD LATERAL @ 100+90.63
SCALE: HORIZ. 1"=20', VERT. 1"=5'
SEE DRAWING PP12, GD3

2 LP5



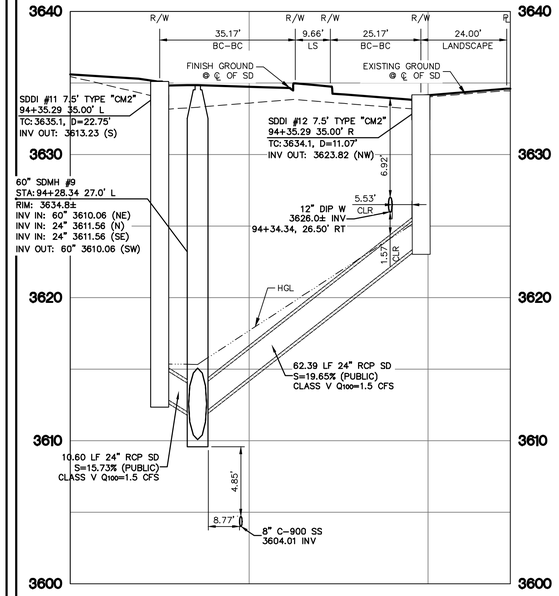
FAR HILLS AVENUE
SD LATERAL @ 249+98.08
SCALE: HORIZ. 1"=20', VERT. 1"=5'
SEE DRAWING PP1

5 LP5



GRAND PARK BOULEVARD
SD LATERAL @ 101+54.13
SCALE: HORIZ. 1"=20', VERT. 1"=4'
SEE DRAWING PP12

3 LP5



GRAND PARK BOULEVARD
SD LATERAL @ 94+35.29
SCALE: HORIZ. 1"=20', VERT. 1"=5'
SEE DRAWING PP10, GD3

1 LP5

L#: LXX-XXXXX-XXXX | CLV#: 107XXXXX

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

ENGINEER - STATE OF NEVADA - PROFESSIONAL - GRUJICIC, MILADJAN - No. 17141 - 06/30/2023

DATE	DESCRIPTION	REV	DATE	AGEN APP	DATE	GCW APP	DATE: 11/03/2021

PROJECT NO. 62029-204
DESIGN: GH/AS
DRAWN: GH
CHECK: LG/JG
PLOT DATE: 11-03-21
PLOT TIME: 16:36:33

GCW
1555 S. RAINBOW BLVD.
LAS VEGAS, NV 89146
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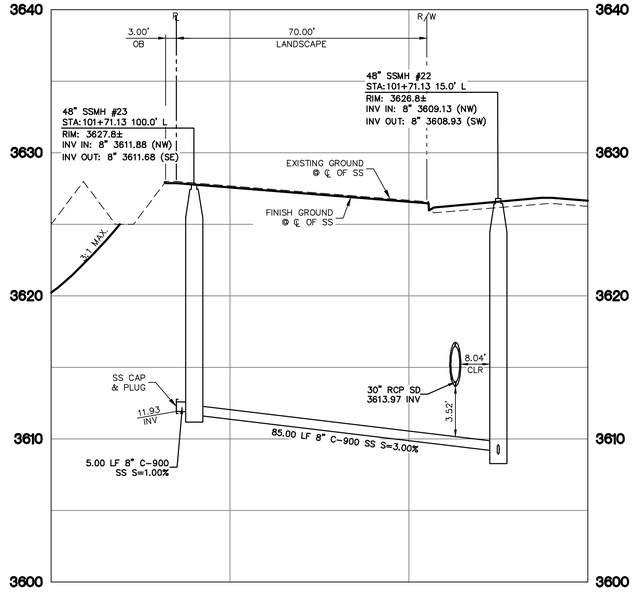
F: 702.804.2299
gcwengineering.com
ENGINEERS \ SURVEYORS
F:\PROJECTS\6XX\62029-204\GWO\PRODUCTION\62029-204_08_LP.DWG
GEORGE HOANG

THE HOWARD HUGHES COMPANY, LLC
VILLAGE 29
PHASE 1 INFRASTRUCTURE
LATERAL PROFILES 5

DRAWING
LP5
38 OF 56 SHTS

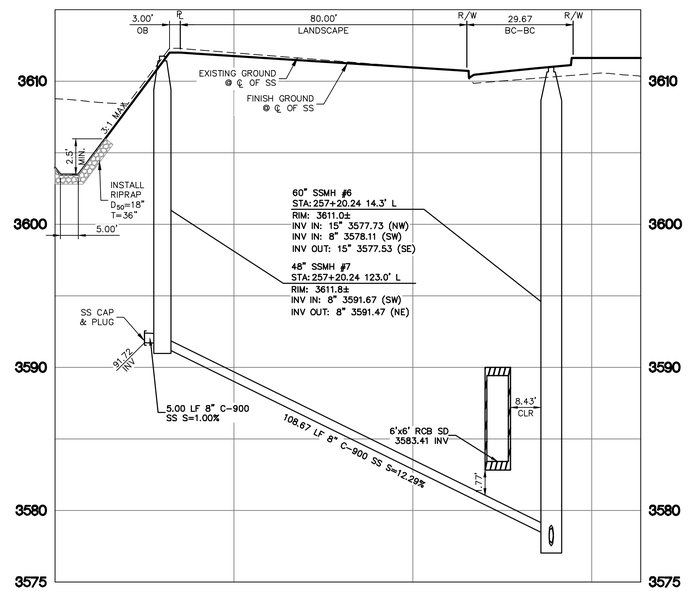


GRAND PARK BOULEVARD
SS LATERAL @ 101+71.13

4
LP6

SCALE: HORIZ. 1"=20', VERT. 1"=5'

SEE DRAWING PP12



FAR HILLS AVENUE
SS LATERAL @ 257+20.24

2
LP6

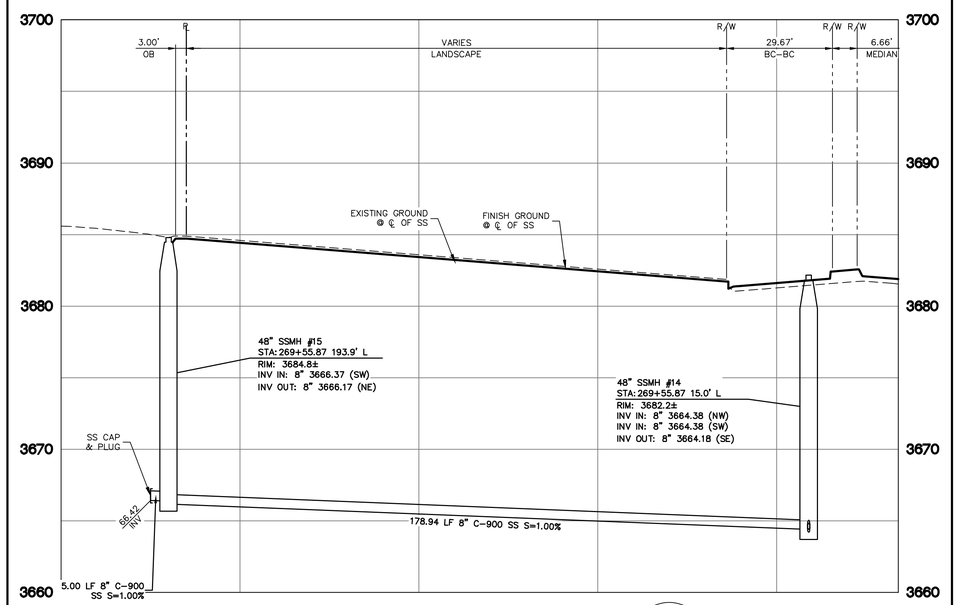
SCALE: HORIZ. 1"=20', VERT. 1"=5'

SEE DRAWING PP4

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

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

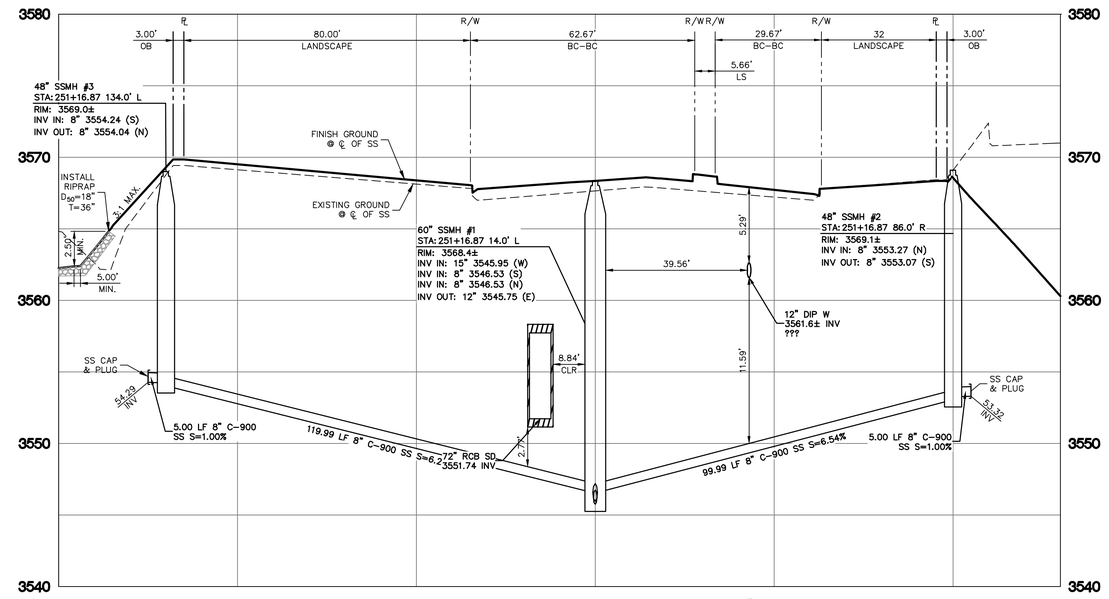


FAR HILLS AVENUE
SS LATERAL @ 269+55.87

3
LP6

SCALE: HORIZ. 1"=20', VERT. 1"=5'

SEE DRAWING PP8



FAR HILLS AVENUE
SS LATERAL @ 251+16.87

1
LP6

SCALE: HORIZ. 1"=20', VERT. 1"=5'

SEE DRAWING PP2

L#: LXX-XXXXX-XXXX CLV#: 107XXXXX

ENGINEER - STATE OF NEVADA
VLADJAN GRUJICIC
No. 17167
PROFESSIONAL
Exp. 06/30/2023
CIVIL
Vladjan Grujicic 11/03/2021

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP	DATE: 11/03/2021

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

PROJECT NO. 62029-204
DESIGN: GH/AS
DRAWN: GH
CHECK: LG/JG
PLOT DATE: 11-03-21
PLOT TIME: 16:36:37

GCW ENGINEERS & SURVEYORS
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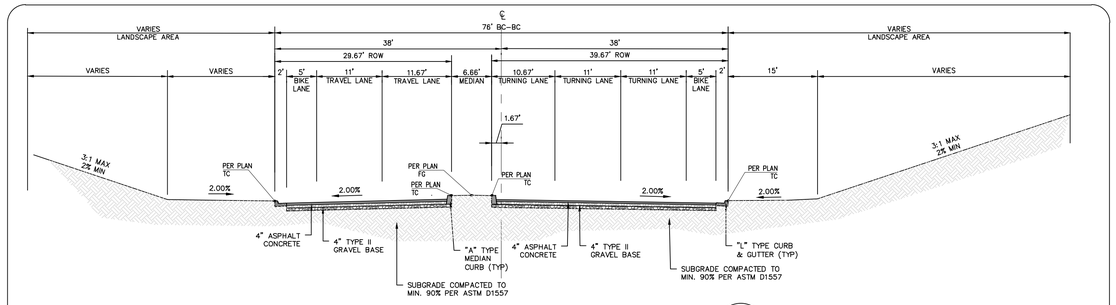
GEORGE HOANG

F:\PROJECTS\62029-204\DWG\PRODUCTION\62029-204_06_LP.DWG

THE HOWARD HUGHES COMPANY, LLC
VILLAGE 29
PHASE 1 INFRASTRUCTURE
LATERAL PROFILES 6

DRAWING
LP6
39 OF 56 SHTS

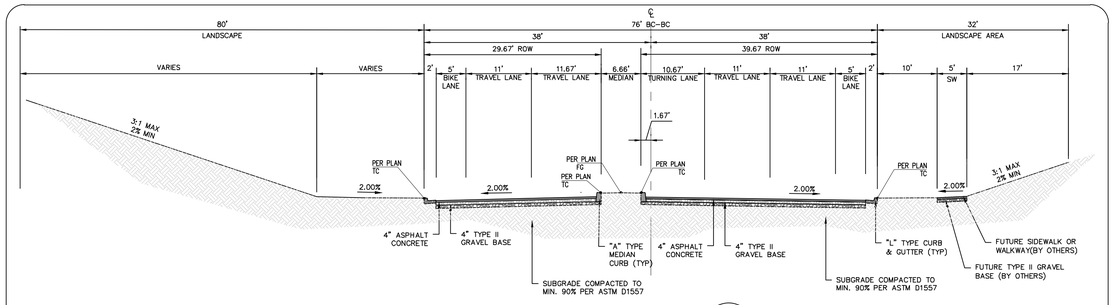


FAR HILLS AVE

SCALE: NTS

F

NEIGHBORHOOD ARTERIAL (76' RIGHT-OF-WAY)



FAR HILLS AVE

SCALE: NTS

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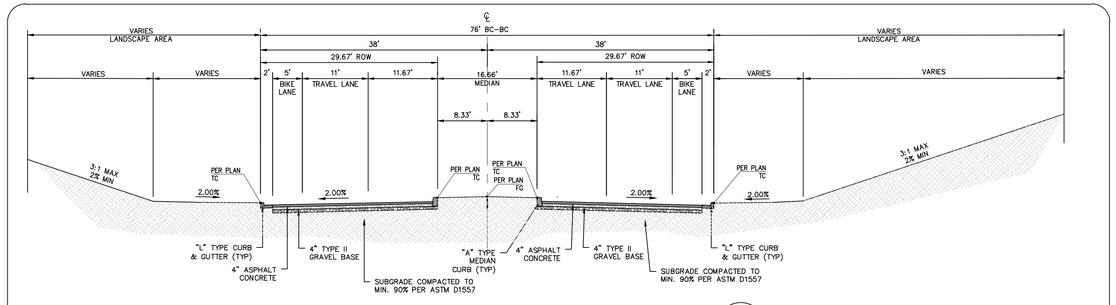
NEIGHBORHOOD ARTERIAL (76' RIGHT-OF-WAY)

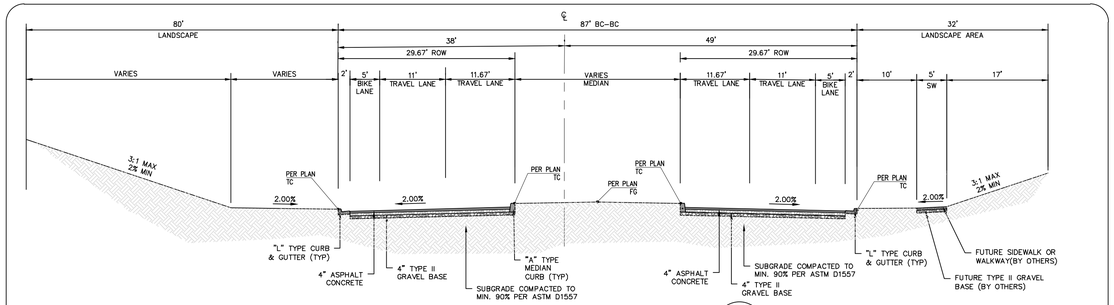


FAR HILLS AVE

SCALE: NTS

E

NEIGHBORHOOD ARTERIAL (76' RIGHT-OF-WAY)



FAR HILLS AVE

SCALE: NTS

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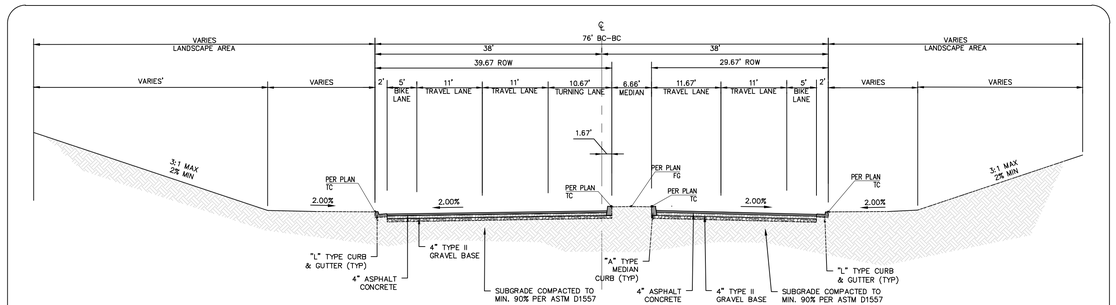
NEIGHBORHOOD ARTERIAL (87' RIGHT-OF-WAY)



FAR HILLS AVE

SCALE: NTS

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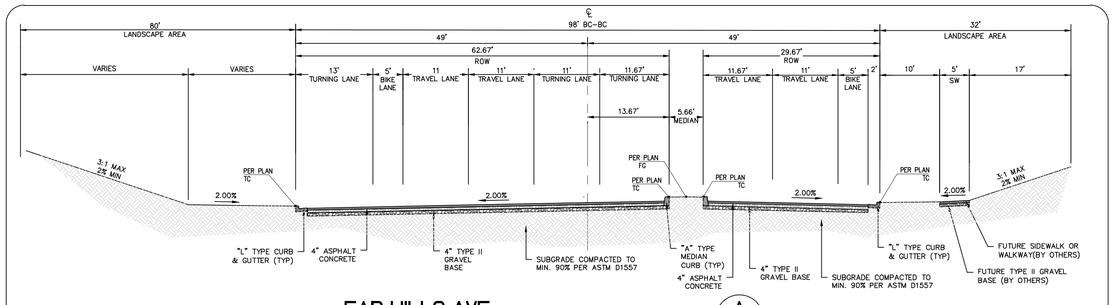
NEIGHBORHOOD ARTERIAL (76' RIGHT-OF-WAY)

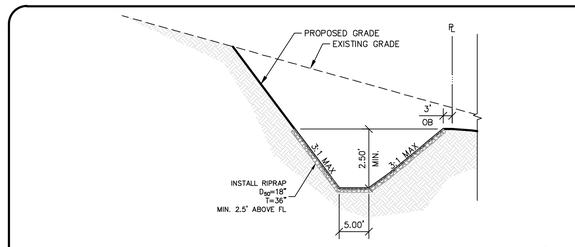


FAR HILLS AVE

SCALE: NTS

A

NEIGHBORHOOD ARTERIAL (98' RIGHT-OF-WAY)



DRAINAGE CHANNEL

SCALE: NTS

G

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

DATE	DESCRIPTION	REV
11/03/2021		

DATE	AGEN. APP	DATE	GCW APP

PROJECT NO. 62029-204

DESIGN: GH/AS
DRAWN: GH
CHECK: LG/JG
PLOT DATE: 11-03-21
PLOT TIME: 16:36:58

GCW ENGINEERS \ SURVEYORS
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GEORGE HOANG

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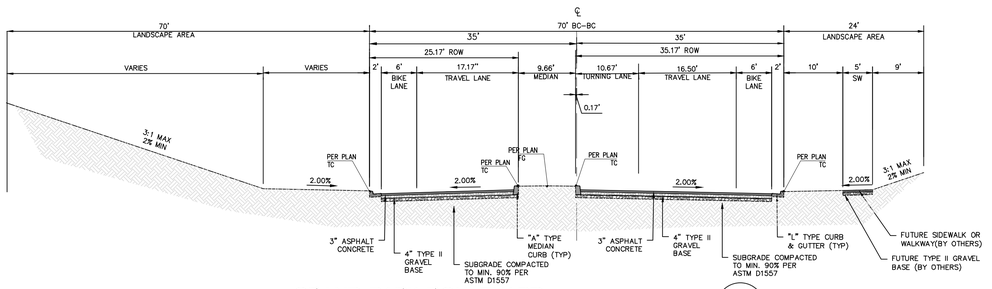
THE HOWARD HUGHES COMPANY, LLC

VILLAGE 29
PHASE 1 INFRASTRUCTURE

TYPICAL DETAILS AND SECTIONS 1

DRAWING
DT1
40 OF 56 SHTS

L#: LXX-XXXXX-XXXX | CLV#: 107XXXXX

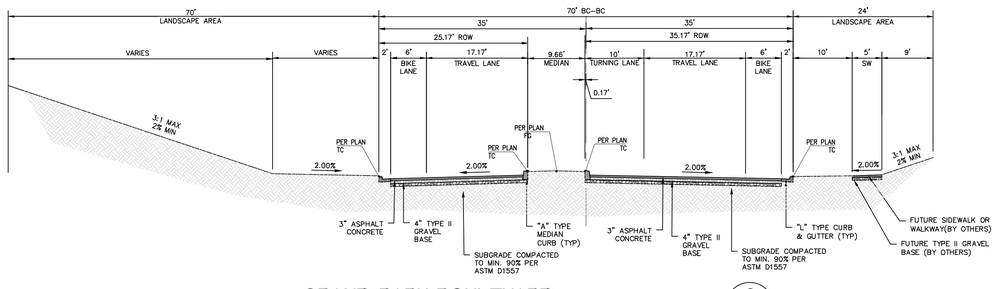


GRAND PARK BOULEVARD

SCALE: NTS

RESIDENTIAL COLLECTOR (70' RIGHT-OF-WAY)

F

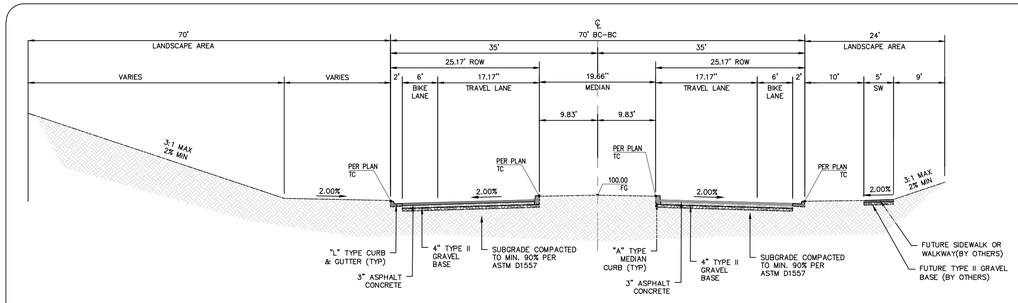


GRAND PARK BOULEVARD

SCALE: NTS

RESIDENTIAL COLLECTOR (70' RIGHT-OF-WAY)

C

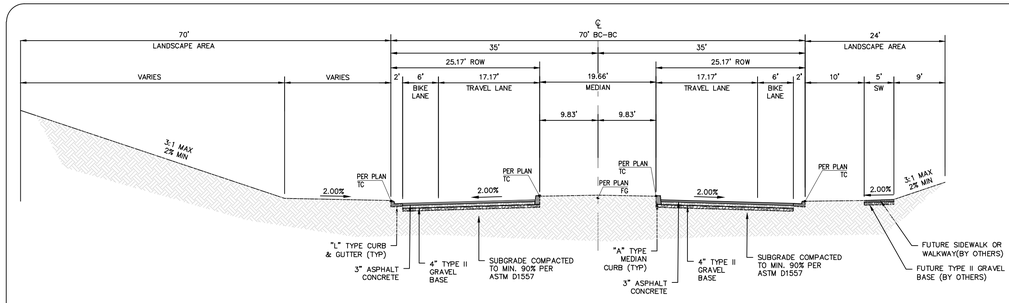


GRAND PARK BOULEVARD

SCALE: NTS

RESIDENTIAL COLLECTOR (70' RIGHT-OF-WAY)

E

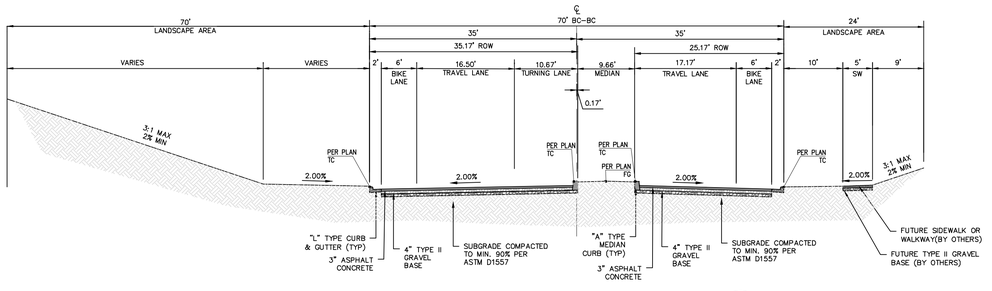


GRAND PARK BOULEVARD

SCALE: NTS

RESIDENTIAL COLLECTOR (70' RIGHT-OF-WAY)

B

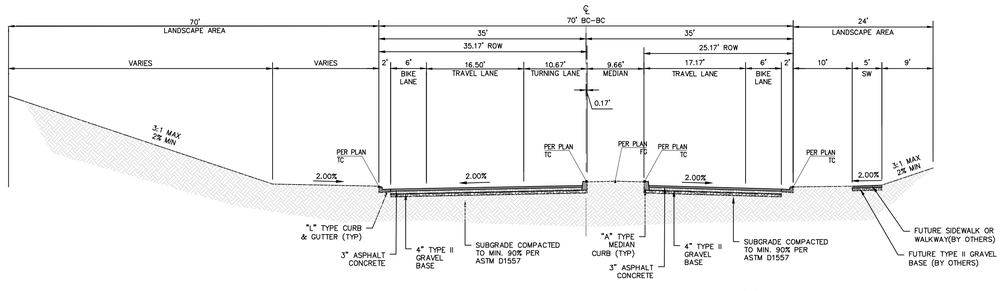


GRAND PARK BOULEVARD

SCALE: NTS

RESIDENTIAL COLLECTOR (70' RIGHT-OF-WAY)

D



GRAND PARK BOULEVARD

SCALE: NTS

RESIDENTIAL COLLECTOR (70' RIGHT-OF-WAY)

A

L#: LXX-XXXXX-XXXX | CLV#: 107XXXXX

ENGINEER - STATE OF NEVADA
MLADJAN J. GRUJICIC
No. 009
PROFESSIONAL
CIVIL
DATE: 05/30/2023
Revision 1

DATE: 11/03/2021

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	DATE	AGEN. APP	DATE	GCW APP

PROJECT NO. 62029-204

DESIGN: GH/AS
DRAWN: GH
CHECK: LG/JG
PLOT DATE: 11-03-21
PLOT TIME: 16:36:59

GCW ENGINEERS\SURVEYORS
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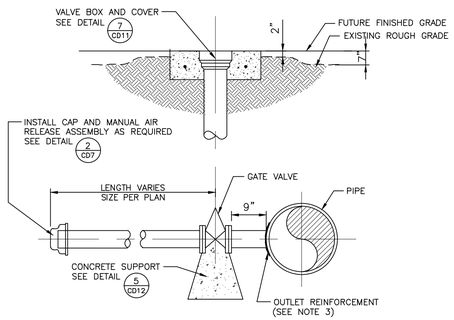
GEORGE HOANG

THE HOWARD HUGHES COMPANY, LLC

VILLAGE 29
PHASE 1 INFRASTRUCTURE

TYPICAL DETAILS AND SECTIONS 2

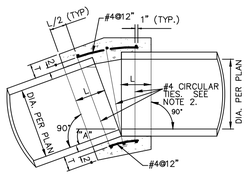
DRAWING
DT2
41 OF 56 SHTS



LOCATION DETAILS	
DRAWING	STATION
C2	14+75.87
C4	19+46.07
C4	19+72.67
C6	29+90.68
C6	30+34.92

NOTES:
1. INSTALL VALVES CLOSED AND OPEN DURING TEST.
2. COAT AND WRAP OUTLET, VALVE AND PLUG. SEE SPECS SEC 33 05 13 AND 09 96 00.
3. OUTLET REINFORCEMENT SHALL BE DETERMINED PER AWWA M11 DESIGN METHOD.

VALVED OUTLET DETAIL 8
NOT TO SCALE



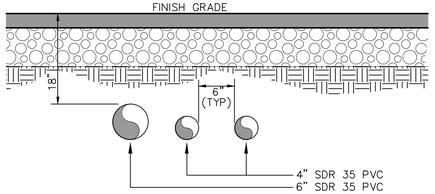
PLAN

NOTES:
1. WHERE THE SLOPE OF THE UPSTREAM PIPE IS GREATER THAN THE SLOPE OF THE DOWNSTREAM PIPE, JOIN SOFFITS. WHERE THE SLOPE OF THE UPSTREAM PIPE IS LESS THAN THE SLOPE OF THE DOWNSTREAM PIPE, JOIN INVERTS.
2. WHERE THE SPACE BETWEEN THE PIPE EXTREMITIES EXCEEDS 2 1/2 INCHES, THE NUMBER OF CIRCULAR TIES SHALL BE INCREASED TO MAINTAIN A MAXIMUM SPACING OF 6 INCHES CENTER TO CENTER. CIRCULAR TIES SHALL HAVE A DIAMETER 5 INCHES GREATER THAN THE OUTSIDE DIAMETER OF THE LARGER PIPE.

CIRCULAR TIES:

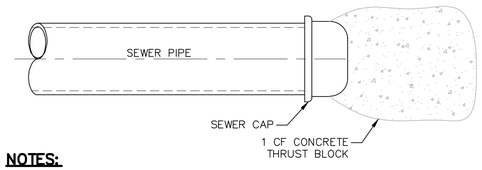
PIPE DIAMETER	SPACE BETWEEN PIPE EXTREMITIES	NO. OF CIRCULAR TIES	L	T
18" OR LESS	2 1/2"	3	12"	5"
24" OR LESS	2 1/2"	3	12"	6"
30" OR LESS	2 1/2"	3	12"	7"
36" OR LESS	2 1/2" OR LESS	4	18"	9"
60" OR LESS	2 1/2" OR LESS	5	21"	11"
78" OR LESS	2 1/2" OR LESS	7	24"	12"

CONCRETE COLLAR DETAIL 4
SCALE: N.T.S.



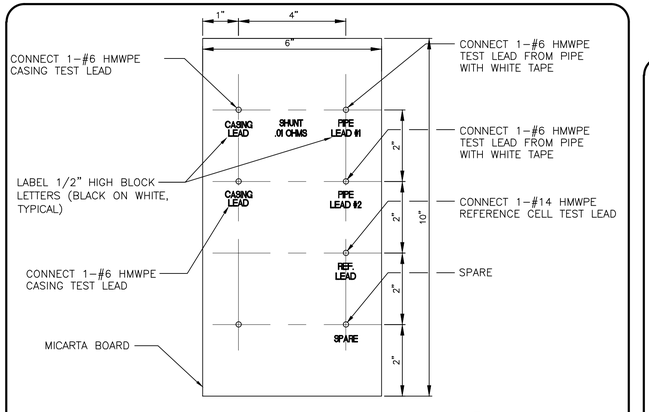
NOTE:
CONTRACTOR TO EXTEND SLEEVES 1' (12") BEHIND BACK OF CURB, TYP.

IRRIGATION SLEEVE BANK "A" 7
SCALE: N.T.S.

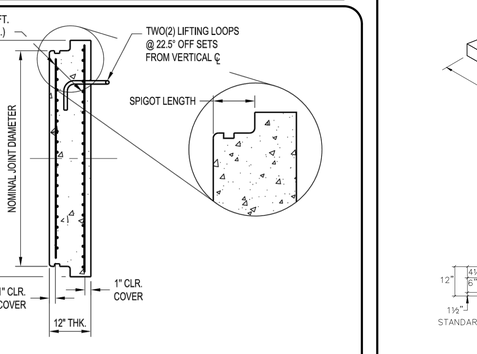


NOTES:
1. CONCRETE TO CONFORM WITH SECTION 4.11.2 OF THE LATEST VERSION OF THE DCS.

SEWER STUB AND CAP WITH THRUST BLOCK 6
SCALE: N.T.S.

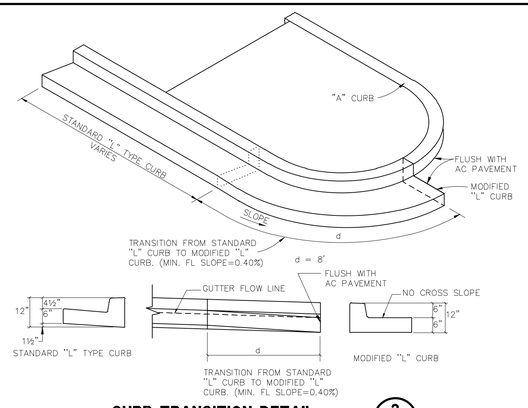


STANDARD TEST BOARD INSTALLATION 3
SCALE: N.T.S.



SECTION : 'X'-'X'

CONCRETE COLLAR DETAIL 5
SCALE: N.T.S.



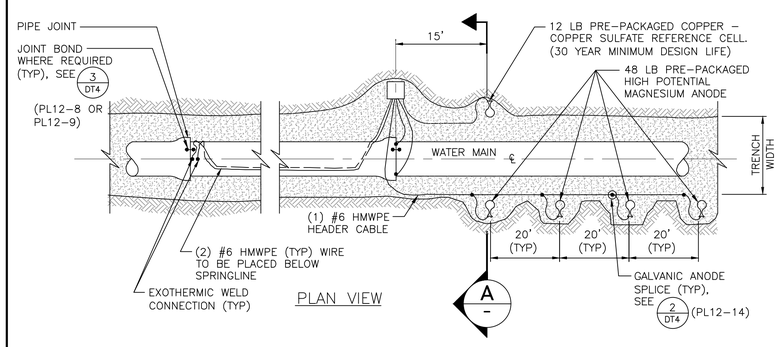
CURB TRANSITION DETAIL 2
SCALE: N.T.S.

TEST BOX TO BE LOCATED IN BACK OF EXISTING AND FUTURE CURB IN SIDEWALK
BLUE MARKING TAPE LABELED "CAUTION CATHODIC PROTECTION CABLE BURIED BELOW"
(4) #6 HMWPE TEST LEADS
FINISH GRADE
(1) #6 HMWPE HEADER CABLE
2" MIN
4" MIN
BIND WITH TIES @ 48" O.C.
REFERENCE TEST LEAD (1) #14 HMWPE
12 LB PRE–PACKAGED COPPER – COPPER SULFATE REFERENCE CELL. (30 YEAR MINIMUM DESIGN LIFE)
48 LB PRE–PACKAGED HIGH POTENTIAL MAGNESIUM ANODE, WITH #8 HMWPE (MIN) LEAD
24"
12"
SEE TRENCH SECTION BACKFILL SPECIFICATION

SECTION A

NOTES:
1. USE ONLY NATIVE SOIL FREE OF ROCKS AND CLODS FOR BACKFILL AROUND CELLS WITH A MINIMUM OF (10) TEN GALS OF WATER SATURATION DURING INSTALLATION. DO NOT USE SAND AS BACKFILL.
2. SUPPLY ENOUGH WIRE FROM EACH LEAD TO REACH FULL R/W WIDTH PLUS FIVE (5) ADDITIONAL FEET. COIL WIRE IN BOTTOM OF BOX.
3. TEST STATION PLACEMENT TO BE PERPENDICULAR TO PIPE, AT INTERSECTIONS, TEST STATION WIRES TO BE PLACED PARALLEL TO PIPE FOR PLACEMENT PERPENDICULAR TO PIPE AFTER ROAD EASEMENT RADIUS.

APPROXIMATE PIPELINE STATIONING OF TEST STATIONS		
DWG NO	STATION	ADDITIONAL WIRE
PP2	251+50.00	
PP4	257+56.00	
PP7	267+00.00	
PP10	94+60.00	
PP12	101+80.00	
PP14	108+71.00	
PP17	217+91.00	
PP19	225+00.00	



PLAN VIEW

TYPE T TEST STATION INSTALLATION WITH 4 PRE-PACKAGED ANODES 1
SCALE: N.T.S.

GENERAL NOTES

1. ALL TEST LEADS AND ANODE LEADS SHALL BE ATTACHED TO THE STEEL CYLINDER OF THE PIPE BY MEANS OF A "CADWELD" EXOTHERMIC WELD.
2. ALL TEST LEADS SHALL BE ATTACHED TO EITHER THE PIPELINE'S BELL END, SPIGOT END OR PLAIN END AS SHOWN ON THE DRAWING.
3. ALL EXPOSED PORTIONS OF THE EXOTHERMIC WELD AND COPPER CABLE CONDUCTORS SHALL BE COATED WITH A SCOTCHCOAT 4 INSULATING RESIN PRIOR TO PLACING GROUT AROUND THE PIPELINE JOINT.
4. NO WIRE SPLICES ARE ALLOWED
5. ALL TEST LEADS INSIDE THE TEST BOX SHALL BE BUNDLED TOGETHER AT 8 INCH INTERVALS WITH NYLON CABLE TIES. ALL TEST STATION LEADS SHALL BE PROVIDED WITH SUFFICIENT SLACK SO THAT THE TEST BOARD MAY BE EXTENDED A MINIMUM OF 4 FEET ABOVE THE TEST BOX.
6. ALL TEST LEADS AND ANODE LEADS (WIRE INSULATION) ARE COLOR CODED
   TEST STATION LEADS FROM PIPE – WHITE
   REFERENCE CELL TEST LEADS – RED
   CASING – BLACK

   ALL TEST LEADS SHALL BE COLOR CODED WITH COLORED WIRE INSULATION (TYP)
   ** WHEN APPROVED BY DISTRICT ENGINEER COLOR CODED "TAPING" IS PERMITTED **
   IN LIEU OF COLOR CODED WIRES ALL SHALL BE INSTALLED AS FOLLOWS:
   A. ALL WIRE INSULATION SHALL BE ONE UNIFORM COLOR.
   B. ALL COLOR CODED TAPE SHALL FOLLOW THE ABOVE COLOR TABLE.
   C. TAPE SHALL BE INSTALLED AT EACH END AND 4 FOOT INTERVALS.
7. ALL TEST LEADS SHALL BE CONNECTED TO THE BRASS BOLTS ON THE TEST BOARD WITH SOLDER–LESS SCREW TIGHT COPPER LUG CONNECTORS OR PRESSURE TERMINAL CONNECTORS.
8. ALL TEST LEADS SHALL HAVE A MINIMUM OF 4 FEET OF SLACK NEAR THE PIPE JOINT TO PREVENT DAMAGE DURING THE BACKFILL OPERATION.

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FI:\PROJECTS\62029-204\DWG\PRODUCTION\62029-204_DT.DWG
GEORGE HOANG

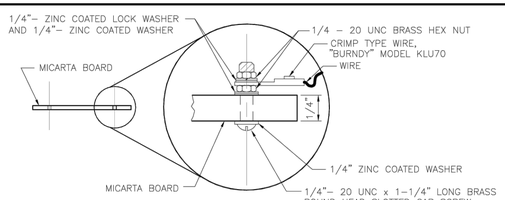
REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP	DATE: 11/03/2021

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

THE HOWARD HUGHES COMPANY, LLC
VILLAGE 29
PHASE 1 INFRASTRUCTURE
TYPICAL DETAILS AND SECTIONS 3

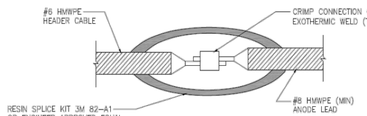
DRAWING
DT3
42 OF 56 SHTS

L#: LXX–XXXXX–XXXX | CLV#: 107XXXXX



TEST BOARD DETAIL - TYPICAL — 5 DT4

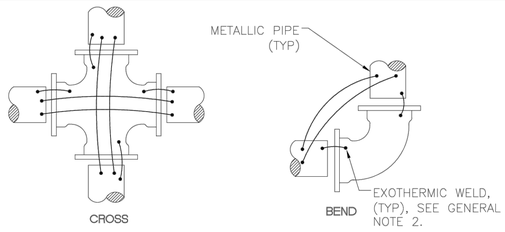
NOT TO SCALE



INLINE SPLICE

INLINE SPLICE DETAIL — 4 DT4

NOT TO SCALE

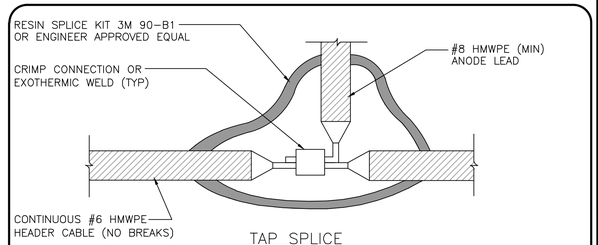


NOTES:

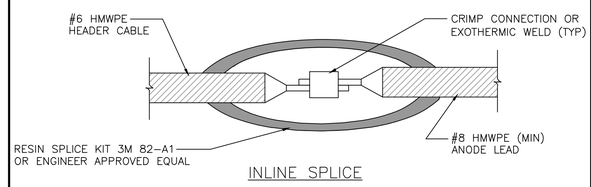
1. ALL BOND WIRES SHALL BE NO. 2 AWG STRANDED COPPER WIRE WITH HMWPE INSUL. EACH INSTALLED AT MINIMUM LENGTH.
2. ALL WIRE CONNECTIONS SHALL BE MADE BY THE EXOTHERMIC WELD PROCESS. PER DETAIL ATTACHED
3. BOND WIRES SHALL NOT BE INSTALLED ACROSS JOINTS WITH ELECTRICAL INSULATION DEVICES.

BONDING FOR NON-WELDED JOINTS — 3 DT4

NOT TO SCALE



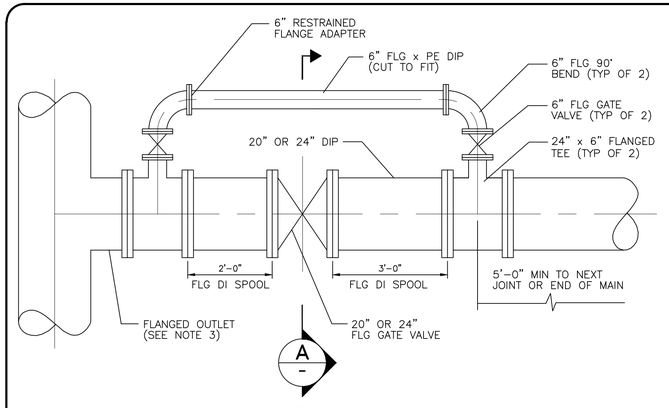
TAP SPLICE



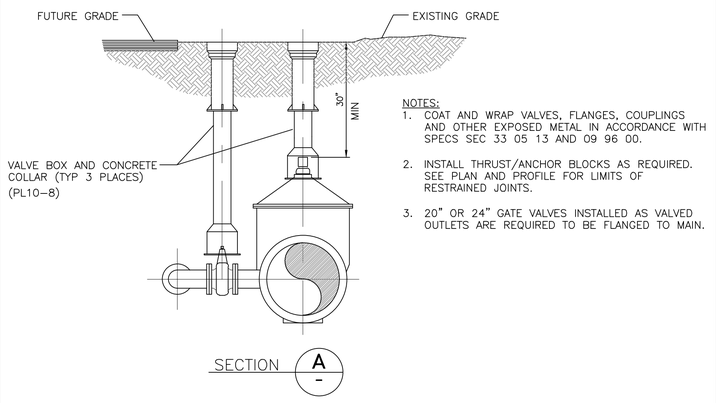
INLINE SPLICE

GALVANIC ANODE SPLICE — 2 DT4

NOT TO SCALE PL12–14 022519



PLAN

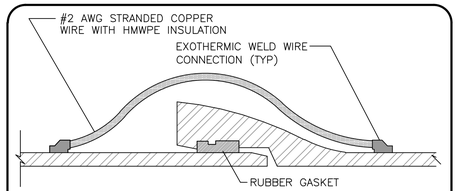


NOTES:

1. COAT AND WRAP VALVES, FLANGES, COUPLINGS AND OTHER EXPOSED METAL IN ACCORDANCE WITH SPECS SEC 33 05 13 AND 09 96 00.
2. INSTALL THRUST/ANCHOR BLOCKS AS REQUIRED. SEE PLAN AND PROFILE FOR LIMITS OF RESTRAINED JOINTS.
3. 20" OR 24" GATE VALVES INSTALLED AS VALVED OUTLETS ARE REQUIRED TO BE FLANGED TO MAIN.

20" AND 24" DIRECT BURIED GATE VALVE WITH BY-PASS INSTALLATION (DIP) — 1 DT4

NOT TO SCALE PL10–10 072715



NOTE
INSTALL TWO BOND WIRES AT EACH PIPE JOINT.

PUSH-ON JOINT BOND DETAIL DUCTILE IRON PIPE — 6 DT4

NOT TO SCALE PL12–9 022519

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP	DATE: 11/03/2021

ENGINEER - STATE OF NEVADA — PROFESSIONAL — MILADJAN GRUJICIC — No. 17101 — CIVIL — 06/30/2023

PROJECT NO. 62029-204

DESIGN: GH/AS
DRAWN: GH
CHECK: LG/JG
PLOT DATE: 11-03-21
PLOT TIME: 16:37:03

GCW ENGINEERS \ SURVEYORS
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GEORGE HOANG

F:\PROJECTS\600\62029-204\GWC\PRODUCTION\62029-204_DT.DWG

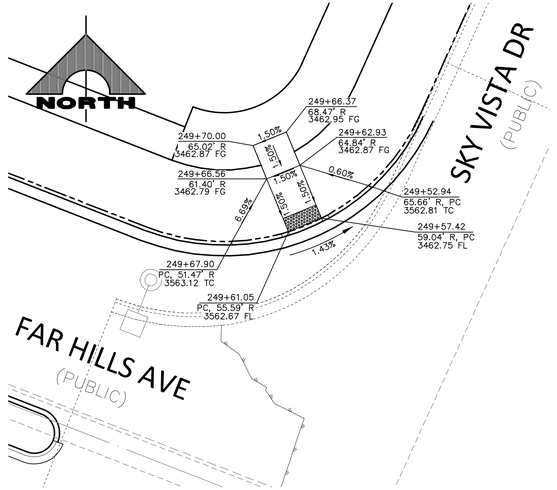
THE HOWARD HUGHES COMPANY, LLC

VILLAGE 29
PHASE 1 INFRASTRUCTURE

TYPICAL DETAILS AND SECTIONS 4

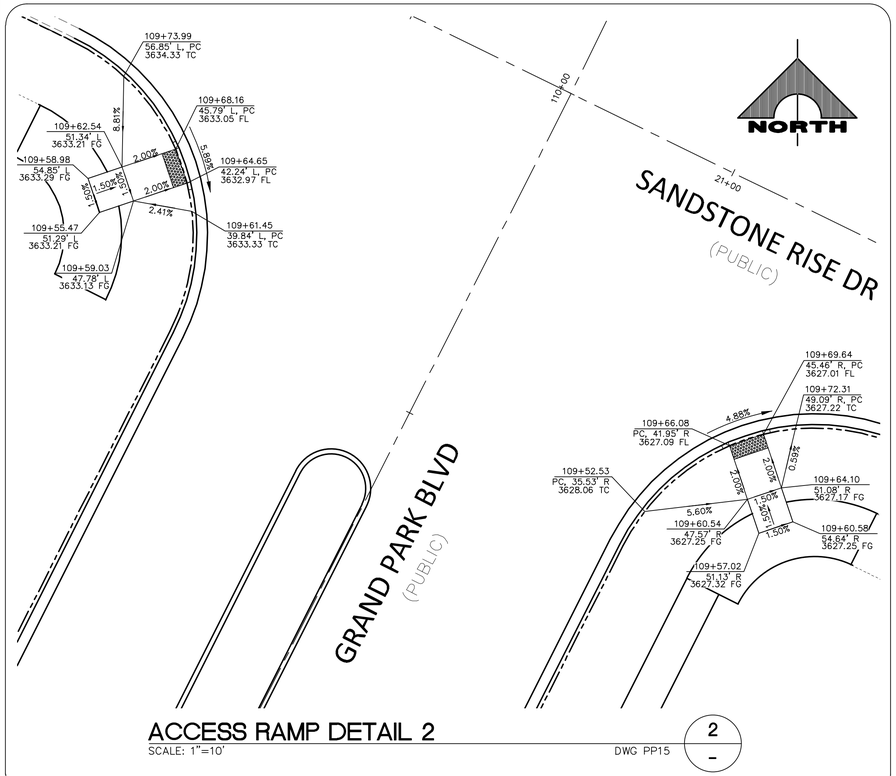
DRAWING
DT4
43 OF 56 SHTS

L#: LXX–XXXXX–XXXX CLV#: 107XXXXX



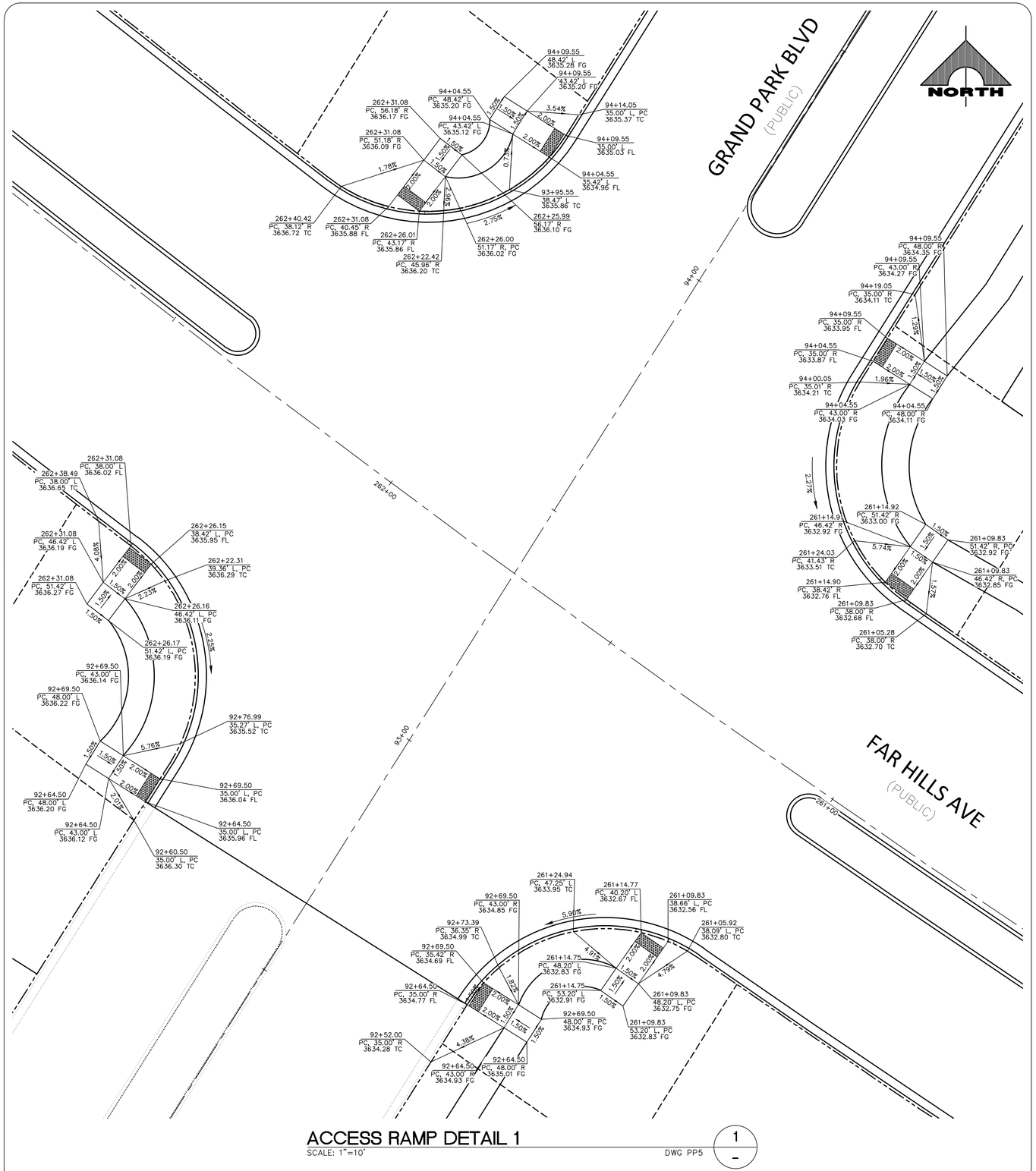
ACCESS RAMP DETAIL 2

SCALE: 1"=10' DWG PP1 — 3 / –



ACCESS RAMP DETAIL 2

SCALE: 1"=10' DWG PP15 — 2 / –



ACCESS RAMP DETAIL 1

SCALE: 1"=10' DWG PP5 — 1 / –

L#: LXX–XXXXX–XXXX CLV#: 107XXXXX

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	AGEN APP	DATE	GCW APP	DATE

PROJECT NO. 62029-204

DESIGN: GH/AS
DRAWN: GH
CHECK: LG/JG
PLOT DATE: 11-03-21
PLOT TIME: 16:38:48

PROFESSIONAL ENGINEER – STATE OF NEVADA
MILADJAN GRUJICIC
No. 17107
Exp. 06/30/2023
DATE: 11/03/2021

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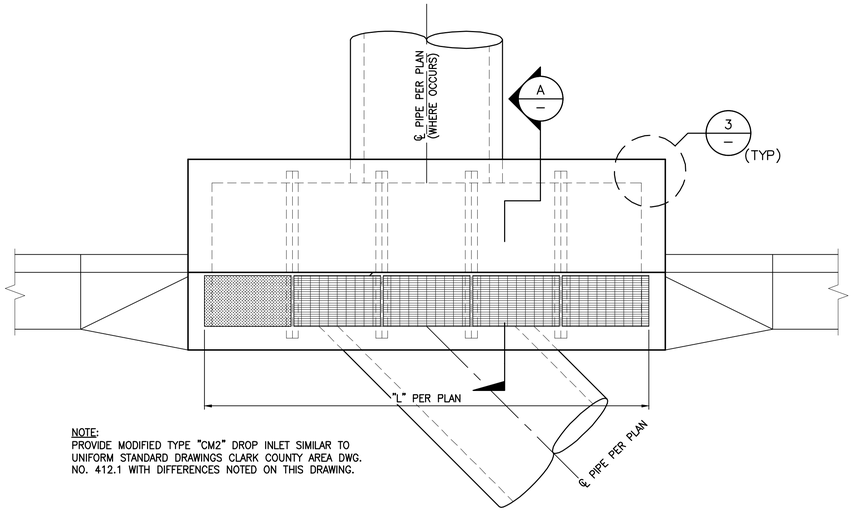
DRAWN BY: GEORGE HOANG

THE HOWARD HUGHES COMPANY, LLC

VILLAGE 29
PHASE 1 INFRASTRUCTURE

TYPICAL DETAILS & SECTIONS 5

DRAWING
DT5
44 OF 56 SHTS



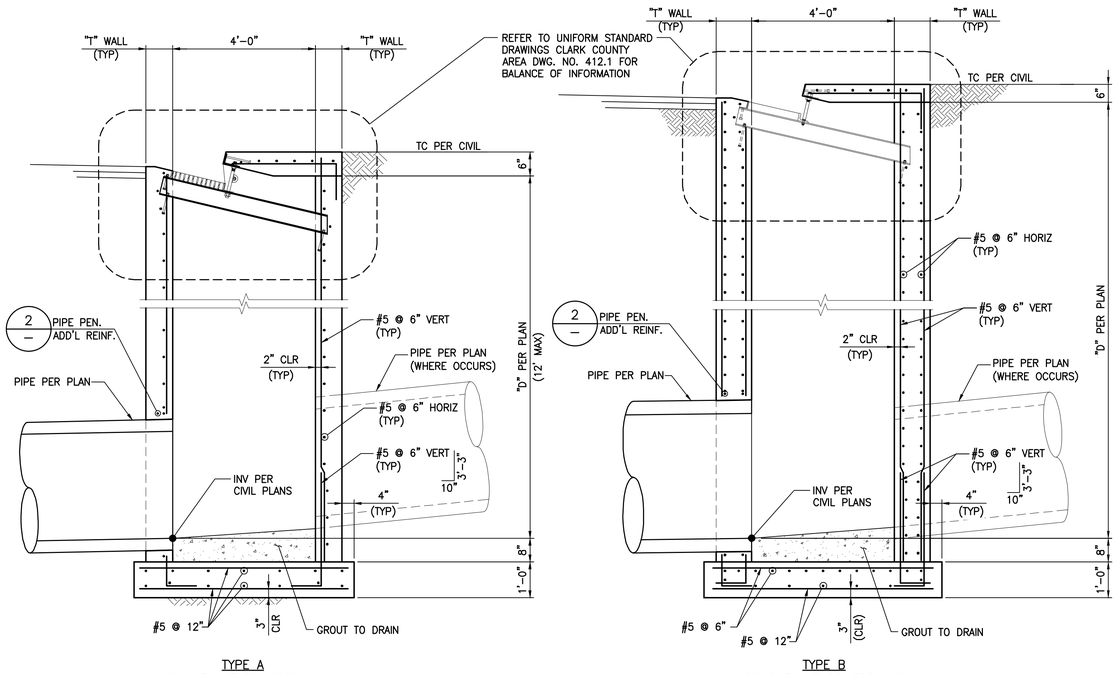
NOTE:
PROVIDE MODIFIED TYPE "CM2" DROP INLET SIMILAR TO UNIFORM STANDARD DRAWINGS CLARK COUNTY AREA DWG. NO. 412.1 WITH DIFFERENCES NOTED ON THIS DRAWING.

DROP INLET	LENGTH, L	DEPTH, D	TYPE*	WALL THICKNESS, T
SDDI #1	15'-0"	12.78'	B	1'-0"
SDDI #3	10'-0"	10.23'	A	9"
SDDI #4	10'-0"	25.38'	B	1'-1"
SDDI #5	15'-0"	11.50'	B	1'-0"
SDDI #6	15'-0"	16.08'	B	1'-0"
SDDI #7	22'-6"	13.14'	B	1'-0"

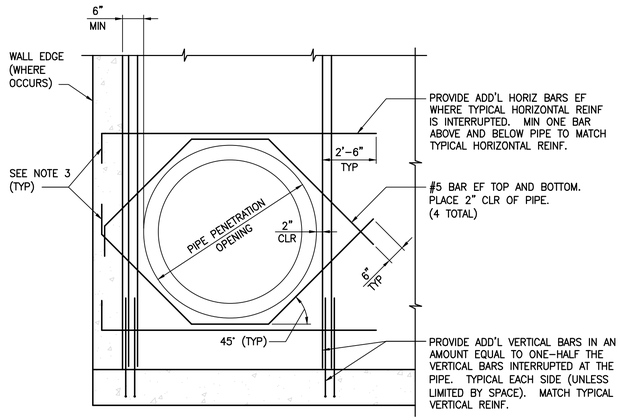
DROP INLET	LENGTH, L	DEPTH, D	TYPE*	WALL THICKNESS, T
SDDI #8	22'-6"	14.95'	B	1'-1"
SDDI #11	7'-6"	22.75'	B	1'-0"
SDDI #12	7'-6"	11.07'	A	9"
SDDI #13	10'-0"	11.71'	A	10"
SDDI #14	10'-0"	10.36'	A	9"
SDDI #16	5'-0"	11.51'	A	9"

NOTE: VERIFY DIMENSIONS WITH CIVIL DRAWINGS. *SEE SECTION A FOR TYPE

1 PLAN - MODIFIED TYPE CM2 DROP INLET
SCALE: NTS



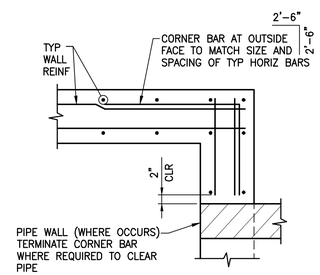
A SECTION
SCALE: NTS



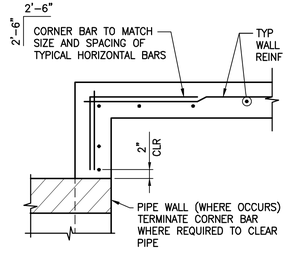
NOTES:

1. TYPICAL WALL REINFORCING NOT SHOWN FOR CLARITY.
2. FIELD CUT TYPICAL WALL REINFORCING 2" CLEAR OF PIPE.
3. IF ADDITIONAL BARS AROUND PENETRATION CANNOT EXTEND BEYOND PIPE AS SHOWN, EXTEND AS FAR AS POSSIBLE AND PROVIDE STANDARD HOOK.

2 PIPE PENETRATION REINFORCING DETAIL
SCALE: NTS



DOUBLE REINFORCING STEEL MAT



SINGLE REINFORCING STEEL MAT

3 TYP. WALL CORNER DETAIL
SCALE: NTS

GENERAL STRUCTURAL NOTES

1. DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, EIGHTH EDITION, 2018.
2. CONSTRUCTION SPECIFICATIONS: UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA.
3. EXISTING UTILITIES: THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES WITHIN THE WORK AREA, AND PROVIDING PROTECTION FOR THE VARIOUS UTILITIES AFFECTED PRIOR TO PROCEEDING WITH THE WORK.
4. CONCRETE: CONCRETE SHALL BE CLASS D MODIFIED AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF f'c=4,500 PSI AND A MAXIMUM WATER TO CEMENT RATIO, BY WEIGHT, OF 0.45. USE TYPE V CEMENT PER ASTM C-150. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4", UNLESS NOTED OTHERWISE.
5. REINFORCING STEEL: ALL REINFORCING STEEL SHALL BE ASTM A615 GRADE 60. DIMENSIONS ARE FROM OUT TO OUT OF BARS. MINIMUM CLEARANCE TO REINFORCING STEEL SHALL BE 3" WHERE CONCRETE IS CAST AGAINST SOIL AND 2" ELSEWHERE, UNLESS NOTED OTHERWISE. HOOKS MAY BE ROTATED OR TILTED AS NECESSARY TO PROVIDE THE PROPER CLEARANCES.
6. BEDDING MATERIAL: BEDDING MATERIAL SHALL BE 6-INCHES OF TYPE II AGGREGATE BASE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY. EXPOSED NATIVE SOILS IN BOTTOMS OF EXCAVATIONS SHALL BE SCARIFIED TO A DEPTH OF 6-INCHES, MOISTURE-CONDITIONED TO WITHIN 2% OF OPTIMUM MOISTURE CONTENT AND COMPACTED TO 90%.
7. EPOXY: EPOXY SHALL BE SIMPSON STRONG-TIE "SET-XP EPOXY-TIE ADHESIVE" PER ICC REPORT ESR-2508 OR APPROVED EQUAL. INSTALL IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.
8. INVERTS, SLOPES, BEARINGS, ALIGNMENTS, AND ELEVATIONS SHOWN ARE FOR "REFERENCE ONLY". INFORMATION ON CIVIL DRAWINGS SHALL GOVERN.
9. CONTRACTOR SHALL PROVIDE SLOPE STABILIZATION, SHEETING, BRACING, AND/OR SHORING AS REQUIRED TO PROTECT EXISTING EMBANKMENTS, STRUCTURES, AND UNDERGROUND ITEMS.
10. THE DESIGN IS BASED ON THE GEOTECHNICAL REPORT PREPARED BY UNIVERSAL ENGINEERING SCIENCES, PROJECT NO. 4030.2000273, DATED FEBRUARY 17, 2021.

SPECIAL INSPECTION

	CONTINUOUS MONITORING	PERIODIC MONITORING
FOUNDATION SOILS, EXCAVATIONS, FILL MATERIALS, SUBGRADE		X
PLACEMENT AND COMPACTION OF FILL	X	
REBAR PLACEMENT IN CONCRETE		X
ANCHORS CAST IN CONCRETE		X
VERIFICATION OF CONCRETE MIX DESIGN		X
SAMPLING OF FRESH CONCRETE AND PLACEMENT	X	
CONCRETE CURING AND FORMWORK		X
EMBEDDED PLATES	X	
POST-INSTALLED ADHESIVE ANCHORS	X	
EPOXY ANCHORS AND DOWELS	X	

1. SPECIAL INSPECTIONS ARE TO BE PERFORMED BY QUALIFIED FIRMS OR PERSONNEL. THE SPECIAL INSPECTOR MUST BE ICC CERTIFIED AND APPROVED BY CLARK COUNTY IN THE CATEGORY OF WORK REQUIRED TO HAVE SPECIAL INSPECTION.
2. THE CONSTRUCTION MATERIALS TESTING LABORATORY MUST BE APPROVED BY CLARK COUNTY, FOR TESTING OF MATERIALS, SYSTEMS, COMPONENTS, AND EQUIPMENTS.
3. AS IDENTIFIED WITHIN THE CONTRACT DOCUMENTS, AND THE IBC 2018 BUILDING CODE CHAPTER 17. THE SPECIAL INSPECTORS SHALL MAINTAIN RECORDS OF ALL INSPECTIONS PERTAINING TO THE PORTIONS OF WORK THEY ARE TO INSPECT. PROVIDE COPIES OF REPORTS TO THE OWNER AND ARCHITECT/ ENGINEER PERIODICALLY AND AS REQUIRED FOR ADEQUATE COMMUNICATION AS WORK PROGRESSES.

David A. Turner
Digitally signed by David A. Turner
Date: 2021.11.04 07:33:38-07'00'

REGISTERED PROFESSIONAL ENGINEER - STATE OF NEVADA - DAVID A. TURNER - No. 18979 - STRUCTURAL - 11/03/2021

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP	DATE: 11/03/2021

PROJECT NO. 62029-204
DESIGN: CZ
DRAWN: CZ
CHECK: DAT
PLOT DATE: 11-03-21
PLOT TIME: 17:02:45

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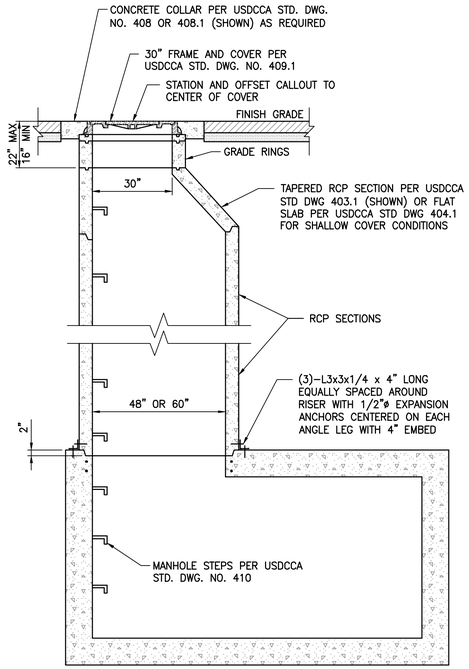
GEORGE HOANG

THE HOWARD HUGHES COMPANY, LLC
VILLAGE 29
PHASE 1 INFRASTRUCTURE
STRUCTURAL DETAILS

DRAWING
S-1
53 OF 56 SHTS

L#: LXX-XXXXX-XXXX CLV#: 107XXXXX

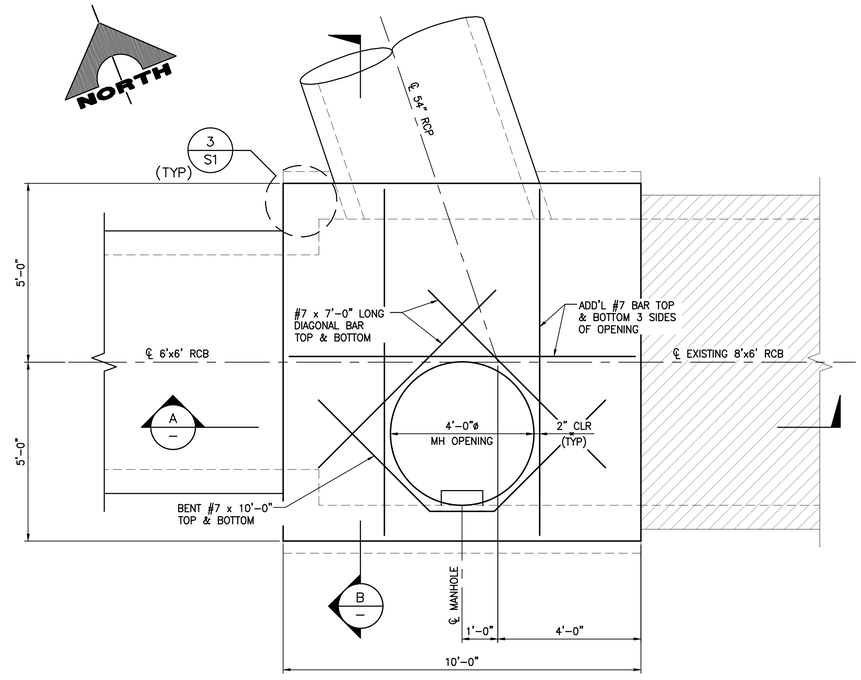


NOTES:

1. SEE USDCCA STD. DWG. NO. 403.1 AND 404.1 FOR ADDITIONAL MANHOLE CONSTRUCTION NOTES AND DETAILS.

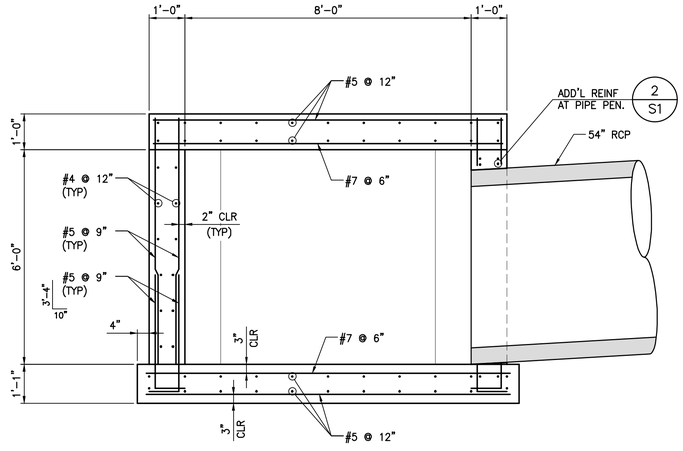
2 - RCB ACCESS MANHOLE

SCALE: NTS



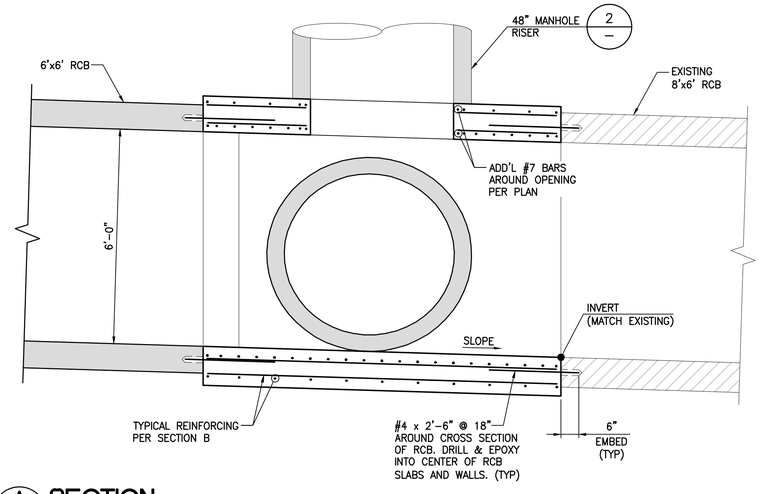
1 - PLAN - JUNCTION STRUCTURE I

SCALE: 1/2" = 1'-0"



B - SECTION

SCALE: 1/2" = 1'-0"



A - SECTION

SCALE: 1/2" = 1'-0"

L#: LXX-XXXXX-XXXX | CLV#: 107XXXXX

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GEORGE HOANG

REGISTERED - STATE OF NEVADA - PROFESSIONAL ENGINEER - DAVID A. TURNER - No. 18979 - CIVIL STRUCTURAL - Exp. 06/30/2022 - DATE: 11/03/2021

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

PROJECT NO. 62029-204

DESIGN: CZ
DRAWN: CZ
CHECK: DAT
PLOT DATE: 11-03-21
PLOT TIME: 17:02:46

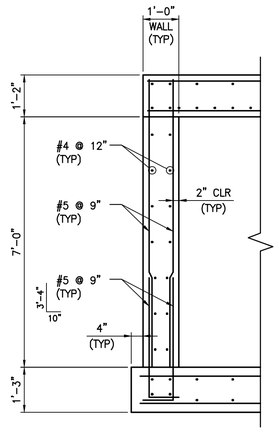
THE HOWARD HUGHES COMPANY, LLC

VILLAGE 29
PHASE 1 INFRASTRUCTURE

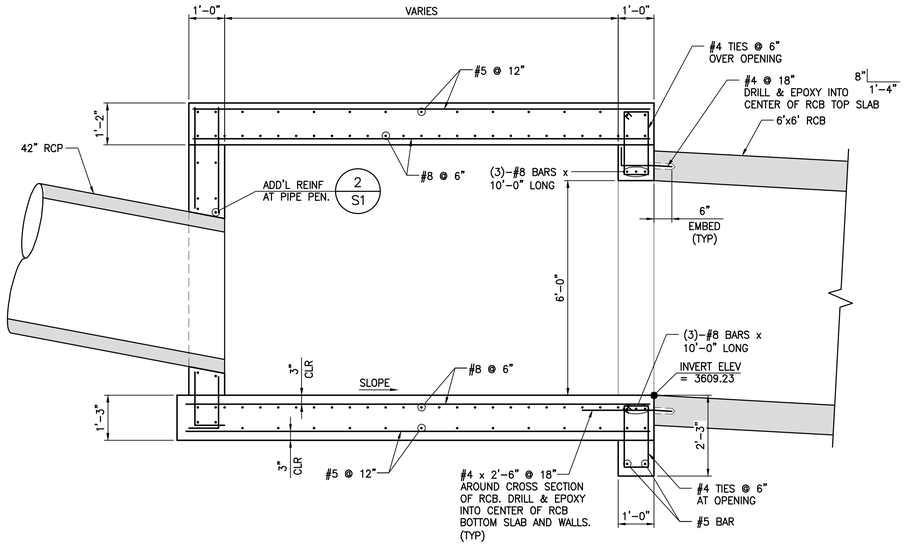
JUNCTION STRUCTURE 1 DETAIL

DRAWING
S-2
54 OF 56 SHTS

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION



C SECTION
SCALE: 1/2" = 1'-0"



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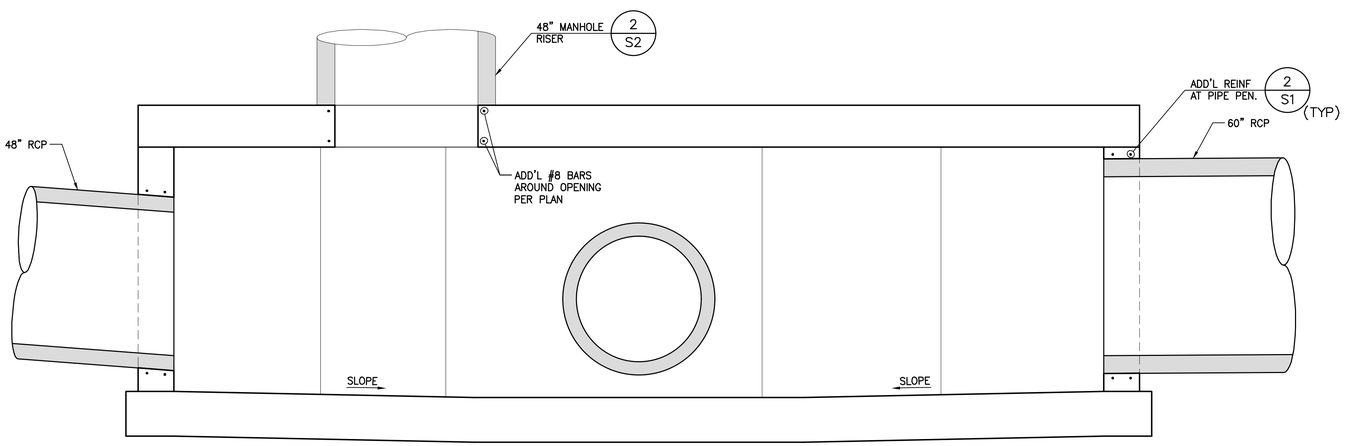
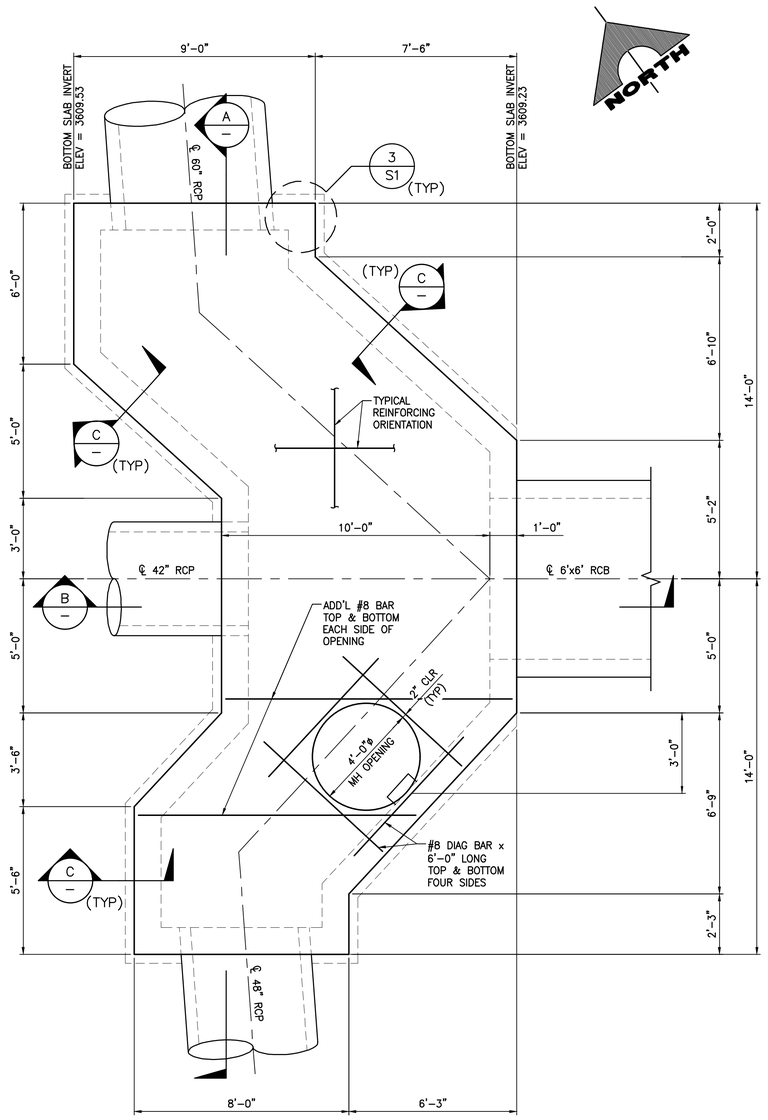
SCALE: 1/2" = 1'-0"



NOTE:
TYPICAL REINFORCING NOT SHOWN. SEE SECTION B.

A SECTION
SCALE: 1/2" = 1'-0"



1 PLAN - JUNCTION STRUCTURE II
SCALE: 3/8" = 1'-0"

L#: LXX-XXXXX-XXXX | CLV#: 107XXXXX

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

REGISTERED - STATE OF NEVADA
PROFESSIONAL ENGINEER
DAVID A. TURNER
No. 18979
CIVIL STRUCTURAL
DATE: 11/03/2021

REV	DATE	DESCRIPTION	AGEN APP	DATE	GCW APP	DATE

PROJECT NO. 62029-204
DESIGN:
DRAWN:
CHECK:
PLOT DATE: 11-03-21
PLOT TIME: 17:02:46

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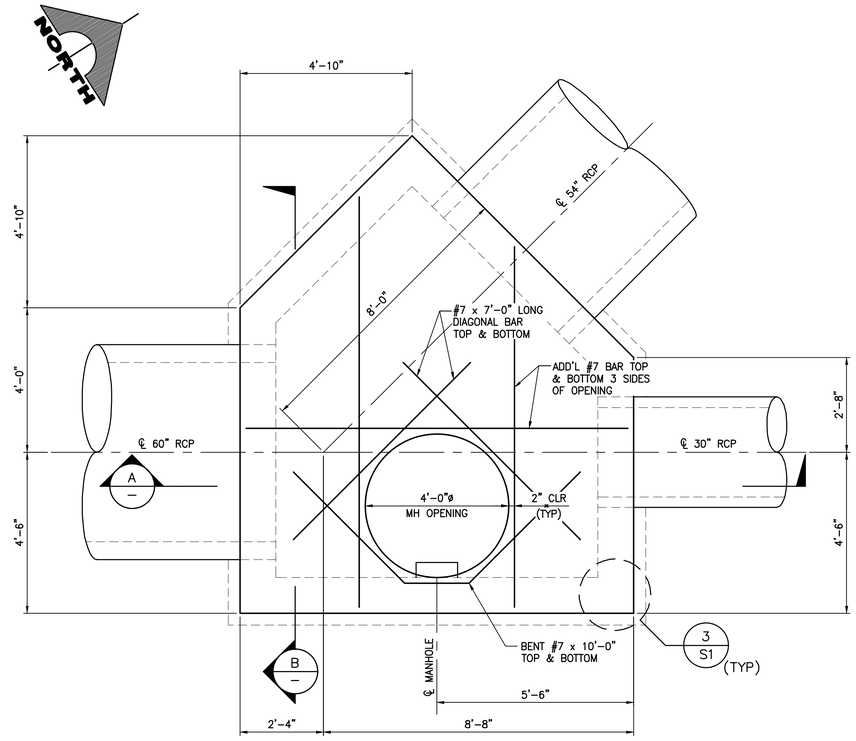
PLOTTED BY: GEORGE HOANG

THE HOWARD HUGHES COMPANY, LLC

VILLAGE 29
PHASE 1 INFRASTRUCTURE

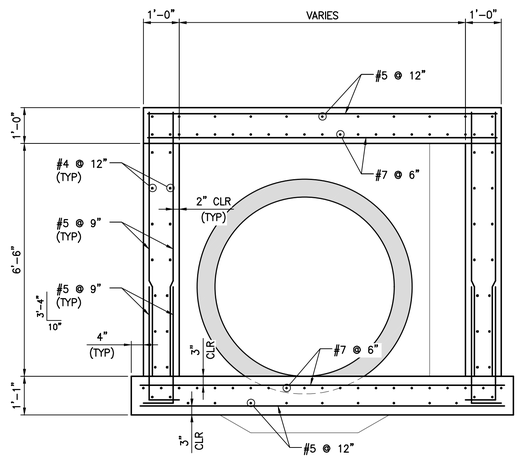
JUNCTION STRUCTURE 2 DETAIL

DRAWING
S-3
55 OF 56 SHTS



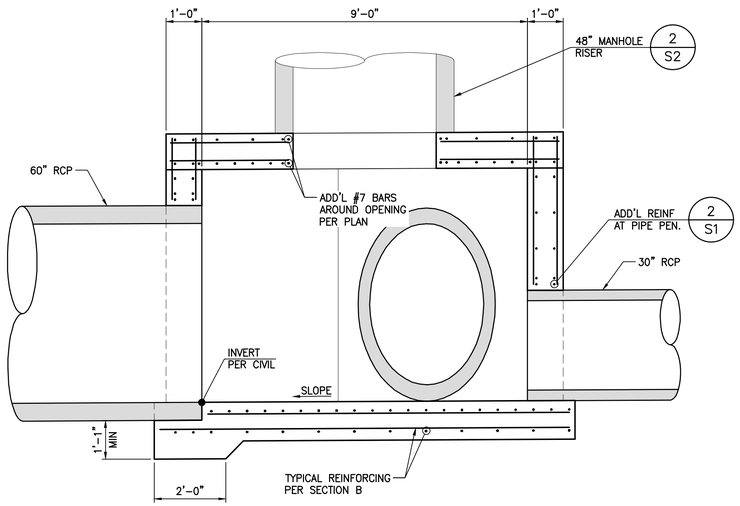
1 PLAN - JUNCTION STRUCTURE III

SCALE: 1/2" = 1'-0"



B SECTION

SCALE: 1/2" = 1'-0"



A SECTION

SCALE: 1/2" = 1'-0"

L#: LXX-XXXXX-XXXX | CLV#: 107XXXXX

ENGINEER - STATE OF NEVADA
PROFESSIONAL
DAVID A. TURNER
No. 18979
CIVIL STRUCTURAL
DATE: 11/03/2021

FOR AGENCY REVIEW - NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	DATE	AGEN APP	DATE	GCW APP

PROJECT NO. 62029-204

DESIGN: CZ
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CHECK: DAT
PLOT DATE: 11-03-21
PLOT TIME: 17:02:47

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THE HOWARD HUGHES COMPANY, LLC

VILLAGE 29
PHASE 1 INFRASTRUCTURE

JUNCTION STRUCTURE 3 DETAIL

DRAWING
S-4
56 OF 56 SHTS