

DS #:

5269

APN:

137-22-301-004

PROJECT:

Swinnerton West Village 25. Sunset Run Drive
(Scurry Bend Dr. to Lake Mead Dr.)

SUBMITTAL:

1st

SCANNED BY/DATE:

CHECKED BY/DATE:



CITY OF LAS VEGAS INTER-OFFICE MEMORANDUM		DATE: May 4, 2020
TO: Land Development Services Department of Building & Safety		FROM: Albert Sung, P.E. Flood Control Project Engineer Department of Public Works
SUBJECT: Drainage Study for: Summerlin West Village 25 – Sunset Run Drive (Scurry Bend Dr. to Lake Mead Dr.)		COPIES TO: VTN Nevada, Inc.
Cross Streets:	Sunset Run Drive & Scurry Bend Drive	Howard Hughes Corp.
File Number:	F:\Depot\DSMemos\DS5269A.doc	Bart Anderson, P.E., DevCo
Parcel Number:	137-22-301-004	CCRFC
Zoning Action:	N/A	
FEMA Flood Zone	YES NO X	
Proposed Storm Drain	YES X NO	

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Payment Trn #
1 st Submittal	4/15/2020	5/4/2020	See Comments Below	\$400.00	3816284: \$400
TOTAL FEES (LDDRS):				\$400.00	----

REMARKS:

The Drainage Study for the subject project has been reviewed and:

	is approved subject to conformance to all City standards and the following conditions:
X	must be resubmitted or supplemented including the following:
	is conditionally approved subject to Clark County Regional Flood Control District concurrence.

1. The site is adjacent to or crosses an existing or proposed *Clark County Regional Flood Control District* (CCRFC) master planned facility. Therefore, CCRFC concurrence is required prior to final approval of the drainage study.

Please note that effective March 15, 2019, the CCRFC adopted new requirements for drainage study concurrence submittal. Follow the link below for specific guidance.

<http://gustfront.ccrfcd.org/LandDev/LandDev.aspx>

2. The subject drainage study is premised on the *Summerlin West Grand Park Detention Basin Inlet Pipe* being installed within the subject roadway. The subject improvement plans will not be approved prior to the execution of the construction bond of the *Summerlin West Grand Park Detention Inlet Pipe Project* and the associated facilities.
3. **SDDI #1** is more than 10' in depth. All storm drain inlets that are more than 10' deep require a special structure detail and structural calculation. Submit the structural package to the *City of Las Vegas Building & Safety Department* for review and approval prior to the final approval of the subject drainage study.
4. Label the depth of proposed drop inlets in all pertinent plans.
5. All offsite 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*. Provide a note as such on the grading plans.

In an effort to increase administrative efficiency, for all original and re-submittal packages including updates and the addenda, the City of Las Vegas Public Works Department requires both a hardcopy and a digital copy (PDF) on CD for the drainage study.

A letter sealed and signed by a Nevada registered civil engineer must be included in every submittal certifying documents on the electronic CD matches 100% of the hardcopy submittal. The new submittal requirement is effective on May 1, 2019. If there are any questions regarding these new requirements, please contact Albert Sung in the City Flood Control Section at (702) 229-6541.



Sample Letter to
certify CD.pdf

NOTE: Please be advised that all land surface area disturbances over 1 acre or any area adjacent to a water way must submit to the *Nevada Division of Environmental Protection* a "Notice of Intent" to discharge that certifies a stormwater pollution prevention plan has been developed and is maintained on site; for inclusion in the Stormwater General Permit No. NVR100000. A phased construction unit in a contiguous subdivision is considered under construction until all stripped or disturbed surface areas have been covered by paving, building construction or planting. For more information, including forms and applications see <http://ndep.nv.gov/bwpc/storm01.htm> or call (775) 687-9429.

END OF REMARKS
ays

T/R/S: T20S/R59E/22
AREA K-22

Addendum #1 to the Technical Drainage Study for

Summerlin West Village 22 Sunset Run Drive - Scurry Bend Dr to Lake Mead Blvd *Las Vegas, Nevada*

Prepared for:

Howard Hughes Company, LLC

Submitted to:

City of Las Vegas
Public Works



HYDROLOGIC CRITERIA AND DRAINAGE MANUAL
DRAINAGE STUDY INFORMATION FORM

Name of Development: Summerlin West Village 25 Sunset Run Drive (Scurry Bend to Lake Mead) Date: 05/11/2020
Location of Development: a) Descriptive (Cross Streets) North/South: Scurry Bend Drive
East/West: Sunset Run Drive
b) Section: 22 Township: 20S Range: 59E
c) APN : 137-22-301-004

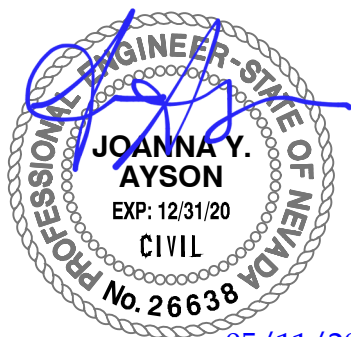
Name of Owner: The Howard Hughes Company, LLC
Telephone No.: (702) 791-4336 Fax No.: (702) 791-4453 E-Mail Address: chris.anderson@howardhughes.com
Address: 10801 W. Charleston Blvd. LV, NV, 89135

Contact Person-Name: Joanna Ayson Telephone No.: (702)-873-7550
* E-Mail Address: jayson@vtnnv.com Fax No.: (702)-362-2597
Firm: VTN Nevada
Address: 2727 S. Rainbow Blvd, LV, NV, 89146

Type of Land Development/Land Disturbance Process:

☐	Rezoning	☐	Subdivision Map	☐	Clearing and Grading Only
☐	Parcel Map	☐	Planned Unit Development	☒	Other (Please specify below)
☐	Large Parcel Map	☐	Building Permit		Roadway, Storm Drain, Grading

1. Total Owned Land Area: At Site: +/- 5 Acres Being Developed/Disturbed: +/-5 Acres
2. Is a portion or all of the subject property located in a designated FEMA Flood Hazard Area? ☐ Yes** ☒ No
3. Is the property bordered or crossed by an existing or proposed Clark County Regional Flood Control District Master Planned Facility? ☒ Yes** ☐ No
4. Proposed type of development (Residential, Commercial, Etc.): Roadway
5. Approximate upstream land area which drains to the subject site: +/- 0 acres
6. Has the site drainage been evaluated in the past? ☒ YES ☐ NO If yes, please identify documentation: SWPA MPU(DS 4926), MDS for Summerlin West Village 25, Summerlin West V22 and V25 Mass Grading
7. If known, please briefly identify the proposed discharge point(s) of runoff from the site: Flow will be collected by onsite drop inlets which discharge flow to the existing 7'x6' RCB Grand Park Detention Basin Inflow Pipe.
8. Briefly describe your proposed schedule for the subject project: As soon as possible



Engineer's Seal

Submit this form as part of the required drainage study to the local entity which has jurisdiction over the subject property. This form may provide sufficient information to serve as the Conceptual Drainage Study.

***New Required Field**

****Review and concurrence of the Clark County Regional Flood Control District is required.**

	Revision	Date

Local Entity File No. _____

REFERENCE:

STANDARD FORM 1



May 5, 2020

Albert Sung, P.E.
Flood Control Division
Department of Public Works
CITY OF LAS VEGAS
333 N. Rancho Blvd, 7th Floor
Las Vegas, NV 89106

**Subject: Addendum #1 to the Technical Drainage Study for Summerlin West Village
25 Sunset Run Drive – Scurry Bend Drive to Lake Mead Boulevard**

Mr. Sung:

This letter certifies that all items on the **Addendum #1 to the Technical Drainage Study for Summerlin West Village 25 Sunset Run Drive – Scurry Bend Drive to Lake Mead Boulevard** electronic submittal matches the paper version bound into the study.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'J. Ayson', is written over a light blue horizontal line.

Joanna Ayson, P.E.

ADDENDUM #1
TO THE TECHNICAL DRAINAGE STUDY
FOR
SUMMERLIN WEST VILLAGE 25 SUNSET RUN DRIVE –
SCURRY BEND DRIVE TO LAKE MEAD BLVD
DS-5269
CITY OF LAS VEGAS, NEVADA
W.O. # 7919

Prepared for:
HOWARD HUGHES COMPANY LLC

Submitted to:
CITY OF LAS VEGAS



May 12, 2020
W.O. #7919

City of Las Vegas
Department of Public Works
Flood Control
333 N. Rancho Drive, 7th Floor
Las Vegas, NV 89106

Attention: Albert Sung, P.E.
Project Engineer

SUBJECT: ADDENDUM #1 TO THE TECHNICAL DRAINAGE STUDY FOR SUMMERLIN WEST VILLAGE 25 – SUNSET RUN DRIVE (SCURRY BEND DRIVE TO LAKE MEAD BOULEVARD) – DS5269

Mr. Albert Sung:

This *Addendum #1 to the Technical Drainage Study for Summerlin West Village 25 Sunset Run Drive (Scurry Bend Drive to Lake Mead Boulevard) (DS-5269)* is being submitted to the City of Las Vegas Department of Public Works to address review comments dated May 4, 2020.

Comment #1

The site is adjacent to or crosses an existing or proposed Clark County Regional Flood Control District (CCRFCDD) master planned facility. Therefore, CCRFCDD concurrence is required prior to final approval of the drainage study.

Please note that effective March 15, 2019, the CCRFCDD adopted new requirements for drainage study concurrence submittal. Follow the link below for specific guidance

<http://gustfront.ccrfcd.org/LandDev/LandDev.aspx>

RESPONSE: Acknowledged. The drainage study and addenda will be submitted to CCRFCDD for concurrence.

Comment #2

The subject drainage study is premised on the *Summerlin West Grand Park Detention Basin Inlet Pipe* being installed upstream. The subject improvement plans will not be approved prior to the execution of the construction bond of the *Summerlin West Grand Park Detention Basin Inlet Pipe Project* and associated facilities.

RESPONSE: Acknowledged.

Comment #3

SDDI #1 is more than 10' in depth. All storm drain inlets that are more than 10'-deep require a special structural detail and calculations. Submit structural design and calculation to City Building & Safety Department for review and approval prior to the final approval of the drainage study.

RESPONSE: Acknowledged. The structural package will be submitted to the Building & Safety department for review and approval.

Comment #4

Label the depth of proposed drop inlets in all pertinent plans.

RESPONSE: The depth of the proposed drop inlets can be calculated from the drop inlet invert and top of curb elevation labeled on the plans. The following table summarizes the depth of each drop inlet. A table summarizing the drop inlet depths has also been added to the plans.

Drop Inlet	Invert	TC	Depth
SDDI #1	3586.17	3599.69	13.52'
SDDI #2	3590.63	3598.88	8.25'
SDDI #3	3542.17	3551.16	8.99'
SDDI #4	3541.88	3550.81	8.93'

Comment #5

All offsite 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. Provide a note as such on the grading plans.

RESPONSE: The requested note has been added to the grading plans.

I hope this addresses your concerns regarding this project. If there are any questions or any additional information is required, please contact this office.

Respectfully Submitted,

VTN Consulting



Joanna Ayson, P.E.

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Parcel Number:	137-22-301-004	CCRFCD
Zoning Action:	N/A	
FEMA Flood Zone	YES NO X	
Proposed Storm Drain	YES X NO	

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END OF REMARKS
ays

T/R/S: T20S/R59E/22
AREA K-22

SHEET INDEX

SHEET #	SHEET	DESCRIPTION
1	CV	COVER SHEET
2	NT	NOTE SHEET
3	HC1	HORIZONTAL CONTROL PLAN 1
4	HC2	HORIZONTAL CONTROL PLAN 2
5	HC3	HORIZONTAL CONTROL PLAN 3
6	MUTSS	MASTER UTILITY SEWER
7	MUTW	MASTER UTILITY WATER
8	MUTSD	MASTER UTILITY STORM DRAIN
9	MGRD	MASTER GRADING PLAN
10	GR1	GRADING PLAN 1
11	GR2	GRADING PLAN 2
12	GR3	GRADING PLAN 3
13	GR4	GRADING PLAN 4
14	DT1	DETAIL SHEET 1
15	UT1	UTILITY PLAN 1
16	UT1A	UTILITY PROFILE 1A
17	UT2	UTILITY PLAN 2
18	UT2A	UTILITY PROFILE 2A
19	UT3	UTILITY PLAN 3
20	UT3A	UTILITY PROFILE 3A
21	UT4	UTILITY PLAN & PROFILE 4
22	UT5	UTILITY PLAN & PROFILE 5 WATER LATERAL
23	UT6	UTILITY PLAN & PROFILE 6 WATER LATERAL
24	UT7	UTILITY PLAN & PROFILE 7 SANITARY SEWER LATERAL
25	UT8	UTILITY PLAN & PROFILE 8 STORM DRAIN LATERAL
26	UT9	UTILITY PLAN & PROFILE 9 SANITARY SEWER LATERAL
27	UT10	UTILITY PLAN & PROFILE 10 WATER LATERAL
28	UT11	UTILITY PLAN & PROFILE 11 SANITARY SEWER LATERAL
29	UT12	UTILITY PLAN & PROFILE 12 WATER LATERAL
30	UT13	UTILITY PLAN & PROFILE 13 STORM DRAIN LATERAL
31	TR1	TRAFFIC PLAN 1
32	TR2	TRAFFIC PLAN 2
33	TR3	TRAFFIC PLAN 3
34	TR4	TRAFFIC PLAN 4
35	S1	STRUCTURAL DETAILS

STA: 30+00 TO STA: 34+50
STA: 30+00 TO STA: 34+50
STA: 34+50 TO STA: 39+00
STA: 34+50 TO STA: 39+00
STA: 39+00 TO STA: 43+00
STA: 39+00 TO STA: 43+00
STA: 43+00 TO STA: 46+50

SUMMERLIN WEST VILLAGE 25

SUNSET RUN DRIVE

SCURRY BEND DRIVE TO LAKE MEAD BOULEVARD

APN: 137-22-301-004

CITY OF LAS VEGAS

STATE OF NEVADA

DEVELOPED BY:

HOWARD HUGHES COMPANY, LLC

10845 GRIFFITH PEAK DRIVE, SUITE 160
LAS VEGAS, NEVADA 89135
702-791-4000

OWNER
HOWARD HUGHES COMPANY, LLC
10845 GRIFFITH PEAK DRIVE, SUITE 160
LAS VEGAS, NEVADA 89135
702-791-4000

DEVELOPER
HOWARD HUGHES COMPANY, LLC
10845 GRIFFITH PEAK DRIVE, SUITE 160
LAS VEGAS, NEVADA 89135
702-791-4000

ENGINEERING FIRM
VTN
2727 SOUTH RAINBOW BOULEVARD
LAS VEGAS, NEVADA 89146-5148
PH. (702) 873-7550
FAX (702) 362-2597

BASIS OF BEARING
GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS HIGH ELEVATION ZONE, NORTH AMERICAN DATUM OF 1983; SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.
LINEAR UNIT: US SURVEY FOOT (FTUS)
DATUM (REFERENCE FRAME): NAD 83 (2011) EPOCH 2010.00
SYSTEM: NEVADA COORDINATE REFERENCE SYSTEM (NCRS)
ZONE: LAS VEGAS HIGH ELEVATION ZONE
PROJECTION: TRANSVERSE MERCATOR
STANDARD PARALLEL (AND LATITUDE OF GRID ORIGIN): 36°15'00"N
LONGITUDE OF CENTRAL MERIDIAN: 114°58'00"W
NORTHING AT GRID ORIGIN: 400,000.00 M (1,312,333.3333 FTUS)
EASTING AT CENTRAL MERIDIAN: 300,000.00 M (984,250.0000 FTUS)
SCALE FACTOR ON CENTRAL MERIDIAN: 1.000135 (EXACT)
NOTES:
1. ALL DISTANCES AND BEARINGS SHOWN HEREON ARE PROJECTED (GRID) VALUES BASED ON THE PRECEDING PROJECTION DEFINITION. THE PROJECTION WAS DEFINED SUCH THAT PROJECTED (GRID) DISTANCES ARE EQUIVALENT TO "GROUND" DISTANCES IN THE PROJECT AREA.
2. GRID BEARINGS SHOWN HEREON (OR IMPLIED BY GRID COORDINATES) DO NOT EQUAL GEODETIC BEARINGS DUE TO MERIDIAN CONVERGENCE.

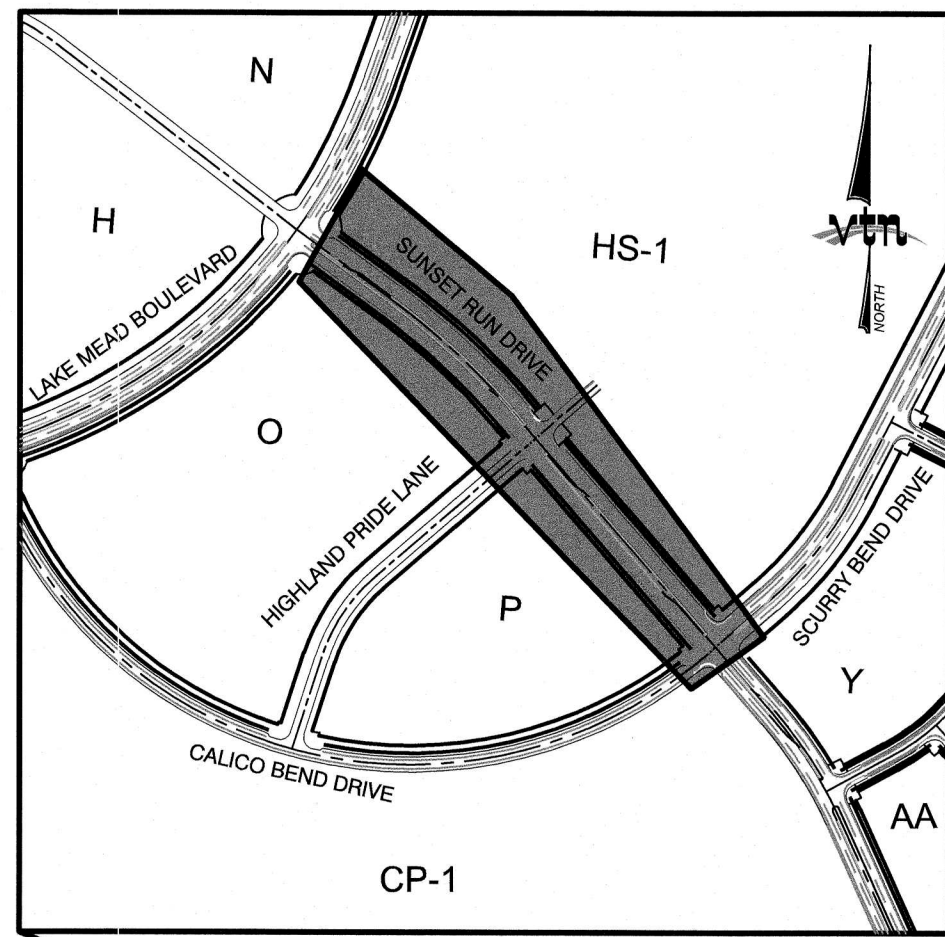
BENCHMARK
PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
CITY OF LAS VEGAS BENCHMARK: D368 (REVISED 2008)
NAVD88 ELEVATION: 989.574 METERS (3,246.63 FEET)
FND USCGS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S,R69E,S03

THESE PLANS AND THE DESIGN CRITERIA CONTAINED WITHIN THESE PLANS ARE BASED UPON THE INFORMATION PRESENTLY KNOWN BY THE ENGINEER AND INTENDED SOLELY AS A GENERAL GUIDELINE FOR CONSTRUCTION. ALL CONSTRUCTION SHALL BE IN CONFORMANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL STATUTES, LAWS, CODES, REGULATIONS AND ORDINANCES, INCLUDING BUT NOT LIMITED TO THE FEDERAL FAIR HOUSING AMENDMENTS ACT, AMERICANS WITH DISABILITIES ACT, THE ARCHITECTURAL BARRIERS ACT AND ANY APPLICABLE UNIFORM STANDARDS, SPECIFICATIONS OR DRAWINGS. THE PERSON OR ENTITY PERFORMING THE CONSTRUCTION SHALL BE SOLELY RESPONSIBLE TO MAKE SURE CONSTRUCTION IS IN CONFORMANCE WITH ALL LOCAL, STATE AND FEDERAL STATUTES, LAWS, CODES, REGULATIONS, STANDARDS, GUIDELINES AND ORDINANCES AND FURTHER, IS IN CONFORMANCE WITH ANY APPLICABLE DESIGN CRITERIA, INCLUDING BUT NOT LIMITED TO SOILS REPORTS, TRAFFIC STUDIES, GEOTECHNICAL REPORTS, ARCHITECTURAL PLANS AND SPECIFICATIONS, DRAINAGE PLANS OR STUDIES AND ANY OTHER CRITERIA, STANDARDS OR REQUIREMENTS LISTED IN THE PLANS OR THE GENERAL NOTES RELATED TO THESE PLANS OR PROVIDED BY ANYONE IN REFERENCE TO THIS PROJECT.

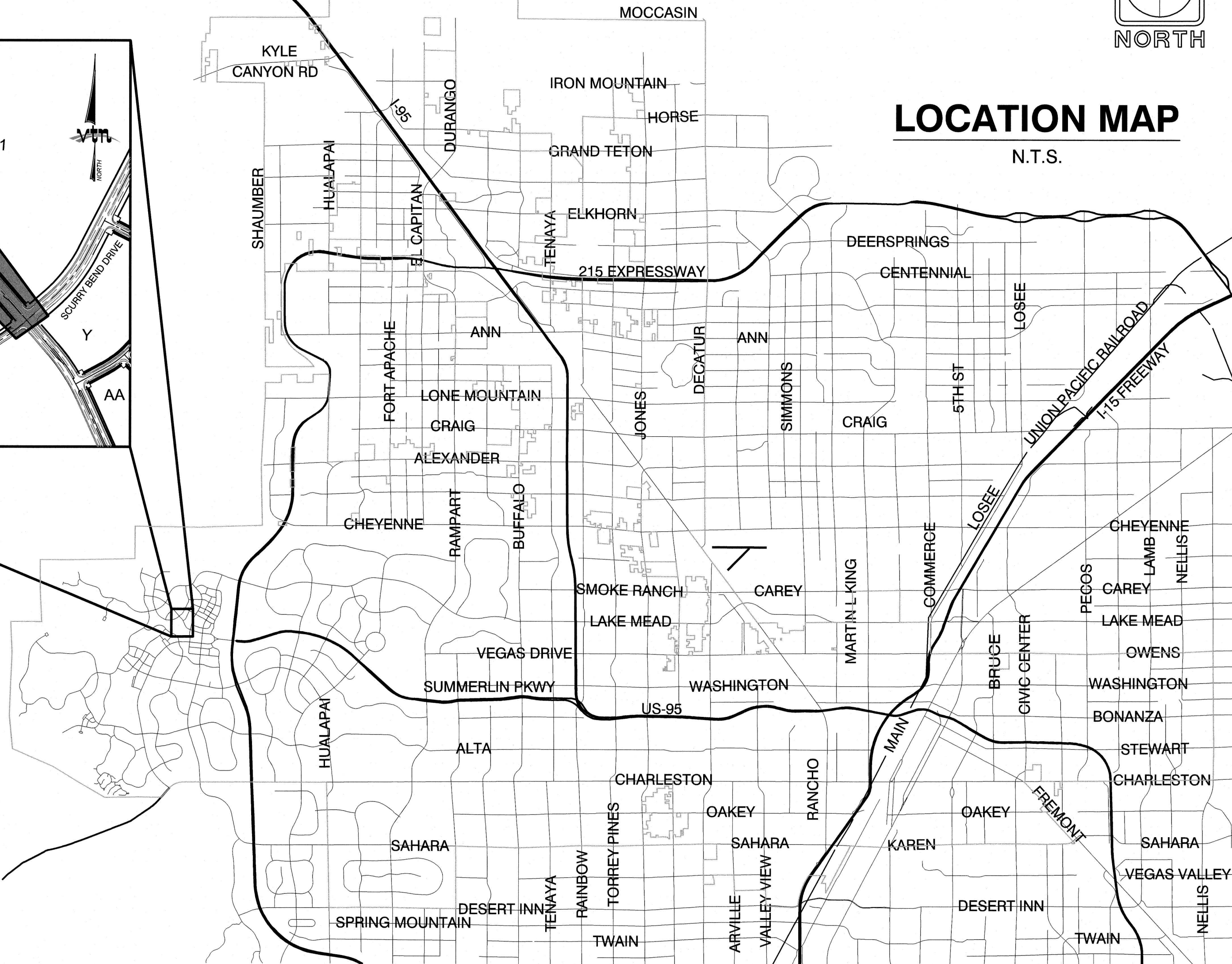


LOCATION MAP

N.T.S.



KEY MAP
NTS



FIRE DEPARTMENT APPROVAL

APPROVAL BY THE FIRE DEPARTMENT HAVING JURISDICTION IS REQUIRED PRIOR TO OBTAINING FINAL APPROVAL FROM THE LVVWD.

APPROVALS

CENTRAL TELEPHONE COMPANY d/b/a CENTURYLINK _____ DATE

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

NV ENERGY _____ DATE

NV ENERGY ACKNOWLEDGES THAT WE HAVE RECEIVED YOUR PLANS AND WILL PROVIDE SERVICE TO ALL ELECTRICAL NEEDS ASSOCIATED WITH THIS PROJECT. NVENERGY 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.

COX COMMUNICATIONS LAS VEGAS, INC. _____ DATE

SOUTHWEST GAS CORPORATION _____ DATE

LAS VEGAS VALLEY WATER DISTRICT

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER

PROJECT: _____ DATE: _____
SHEETS: _____

OWNER: DEVELOPER

KEVIN T. ORROCK, VICE PRESIDENT _____ DATE

HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.

CALL BEFORE YOU DIG

1-702-227-2929

Call before you Dig

Avoid cutting underground utility lines. It's costly.

811

OR

1-800-227-2600
AND
1-702-455-6000

CLARK COUNTY TRAFFIC OPERATIONS

AVOID HITTING UNDERGROUND TRAFFIC SIGNALS AND TRAFFIC LIGHT SYSTEMS. IT'S COSTLY.

Call before you Underground

1-702-455-7511
OR
1-702-228-6611

LAS VEGAS AREA COMPUTERIZED TRAFFIC SYSTEM

HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY
10845 GRIFFITH PEAK DRIVE, SUITE 160
LAS VEGAS, NEVADA 89135
702-791-4000

CITY OF LAS VEGAS

CITY OF LAS VEGAS

DRAWN BY: BCC 01/10/2020

DESIGNED BY: BCC 01/10/2020

CHECKED BY: WJM 06/07/2020

PROJECT NO: 7919

SCALE: N/A

HORIZ. VERT. N/A

PROFESSIONAL ENGINEER STATE OF NEVADA

WILLIAM J. MEYER

EXP. 12/31/21

CIVIL

No. 15745

6/11/20

SHEET

CV

1 OF 35 SHEETS

DRAWING NO. _____

3. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA NEVADA", LATEST EDITION, THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA NEVADA", LATEST REVISED EDITION, THE "SUMMITHILL IMPROVEMENT STANDARDS" FOR WORK IN THE SUMMITHILL 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".

4. 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 ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, LOCATE ALL UNDERGROUND AND OVERHEAD INTERFERENCE 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.

5. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING UTILITY LINES, STRUCTURES AND STREET INTERSECTIONS WHICH ARE TO REMAIN IN PLACE. REPAIRS 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.

6. ALL CONSTRUCTION SHALL BE AS SHOWN ON THESE PLANS, ANY REVISIONS SHALL HAVE THE PRIOR WRITTEN APPROVAL OF THE CITY ENGINEER.

7. 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.

8. PERMITS ARE REQUIRED FOR ANY WORK IN THE PUBLIC RIGHT-OF-WAY. THE CONTRACTOR SHALL SECURE ALL PERMITS AND INSPECTIONS REQUIRED FOR THIS CONSTRUCTION.

9. EXPANSION JOINTS REQUIRED, MAXIMUM EVERY 300' IN EXTRUDED-TYPE CURB.

10. AC PAVEMENT TO BE ONE-HALF INCH (1/2") ABOVE LIP OF ALL GUTTERS AFTER COMPACTION, EXCEPT AT SIDEWALK RAMPS AND CROSS GUTTERS.

11. CURB AND GUTTER GROUND TO BE UNACCEPTABLE TO THE CITY OF LAS VEGAS SHALL BE REMOVED AND REPLACED PER STANDARD DRAWING 216.

12. 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.

13. 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.

14. ALL GRADING WORK SHALL CONFORM TO THE SOILS REPORT AS PREPARED BY: NOVA GEOTECHNICAL, PROJECT NO. G-18-003, DATED MAY 9, 2019, APPROVED BY THE CITY ENGINEER, AND AS SHOWN ON THESE PLANS.

15. 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.

16. 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.P.S. STATUTE NO. 625-380, CITY OF LAS VEGAS TITLE 18, APPENDIX D.

17. 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:

18. 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.

19. ASPHALT MIX DESIGN MUST BE SUBMITTED AND APPROVED BY THE CITY ENGINEER PRIOR TO THE PLACEMENT OF ASPHALT WITHIN CITY RIGHT OF WAY.

20. 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.

21. MATERIALS, HANDLING AND PLACEMENT OF PORTLAND CEMENT CONCRETE SHALL BE IN ACCORDANCE WITH APPLICABLE SECTIONS OF MDOT OR THE CLARK COUNTY AREA SPECIFICATIONS (AS APPLICABLE) AND THE PLANS AND DETAILS SHOWN HEREON.

22. 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.

23. SANITARY SEWER AND STORM DRAIN FINAL LOCATION MAP(S) SHALL BE PROVIDED TO THE CITY AND APPROVED PRIOR TO ACCEPTANCE OF CONSTRUCTION. THE MAP(S) SHALL INCLUDE THE HORIZONTAL AND VERTICAL (INVERT) LOCATION OF PUBLIC SEWER MANHOLES, STORM DRAIN MANHOLES AND TRANSITION STRUCTURES, STORM DRAIN LATERALS AT THE CONNECTION TO THE STORM DRAIN MAIN AND AT THE CONNECTION TO A DROP INLET, THE CONNECTION OF SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERAL MEETS THE RIGHT-OF-WAY, AND STORM DRAIN MAIN ALIGNMENT, INCLUDING DEFLECT 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 CERTAINTEES 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).

24. CCTV VIDEO INSPECTION IS REQUIRED FOR ALL SEWER AND STORM DRAINS. THE CCTV VIDEO INSPECTIONS MUST BE PERFORMED PER THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS LATEST EDITION.

25. A SEPARATE BORING PERMIT IS REQUIRED FOR ALL BORING ACTIVITIES.

26. REVISED 02/03/15

1. ALL STREET LIGHTING INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE STREET LIGHTING PLANS, THE "UNIFORM STANDARD SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA," LATEST REVISION (USS), AND THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA" (USD), LATEST REVISION.
2. NO DEVIATION OF STREET LIGHT, PULL BOX, CONDUITS, ETC., LOCATIONS SHALL BE PERMITTED WITHOUT WRITTEN APPROVAL OF THE TRAFFIC AND CITY ENGINEER. ANY DEVIATION FROM THE PLAN LOCATION WILL REQUIRE COMPLIANCE WITH SECTION 623 OF THE USS.
3. ALL EXISTING STREET LIGHTING SHALL REMAIN OPERATIONAL DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 623 G.03.01 OF THE USS.
4. ALL EMPTY CONDUIT SHALL HAVE AT LEAST ONE GREEN NO. #8 AWG WIRE INSTALLED AS TRACER WIRE IN ACCORDANCE WITH SECTION 623 G.02.01 OF THE USS PRIOR TO BACKFILLING AND FINAL INSPECTION.
5. ANY STRUCTURE SUCH AS BLOCK WALLS, CHAIN LINK FENCES, RETAINING WALLS, ETC., SHALL LEAVE A MINIMUM CLEARANCE IN COMPLIANCE WITH USS NO. 320A WHEN POLE IS INSTALLED BEHIND SIDEWALK, AND SHALL AT NO TIME COMPLETELY ENCLOSE THE STREET LIGHTING POLE.
6. AS-BUILT DRAWINGS SHALL BE SUPPLIED TO THE TRAFFIC ENGINEERING DIVISION PRIOR TO ANY PRE-FINAL INSPECTION. THE AS-BUILT DRAWING NEEDS TO BE STAMPED AS-BUILT AND SIGNED BY THE PREPARER.
7. SERVICE POINTS SHALL BE COORDINATED WITH NV ENERGY, AND WHEREVER POSSIBLE, BE LOCATED NEAR THE CENTER OF THE CIRCUIT. SERVICEPOINTS SHALL BE SHOWN ON THE PLANS.
8. WHEREVER THERE IS AN OVERHEAD UTILITY THAT MAY CONFLICT WITH THE INSTALLATION OF STREETLIGHTING CIRCUITS AND/OR POLES, THESE CONFLICTS MUST BE RESOLVED BETWEEN THE DEVELOPER AND THE UTILITIES INVOLVED BEFORE STREETLIGHTS ARE INSTALLED. AT NO EXPENSE TO THE CITY OF LAS VEGAS.
9. THE CONTRACTOR SHALL FURNISH COMPLETE CONDUIT, WIRE, ETC. FROM SERVICE TO TRANSFORMERS AND CONTROL SYSTEMS IF REQUIRED ON THE PLANS.

REVISED JUNE 28, 2016 (LD VERSION)

1. THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, THE PUBLIC RIGHTS OF WAY OF THE CITY OF LAS VEGAS AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE NEVADA STORMWATER 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 CITY OF LAS VEGAS AND LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
3. TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY; REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR1000000, SECTION II.A.12.
4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE SUBJECT TO PRECIPITATION, FLOODING, AND EXIT LOCATIONS, AND ALL BMPs WEEKLY, AND WITHIN 24 HOURS AFTER ANY RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR1000000, SECTION II.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.

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. [FC § 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. [FC § 5310, § 5312]
5. TO IDENTIFY THE FIRE HYDRANT LOCATIONS, THE CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT THE CENTERLINE OF THE STREET ADJACENT TO THE FIRE HYDRANTS. [FC § 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. [FC § 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. [FC § 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. [FC § 507]
9. PRIVATE HYDRANTS SHALL BE PAINTED RED. [FC § 507.5.7.1]
10. PRIOR TO THE FINAL CLOSURE, A FIRE FLOW TEST SHALL BE WITNESSED BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION TO VERIFY AVAILABILITY OF THE REQUIRED FIRE FLOW. [FC § 507]
11. FIRE HYDRANT SPACING SHALL BE AS FOLLOWS: [FC § C102]
RESIDENTIAL - 500 FT UNSPRINKLERED; 600 FT SPRINKLERED.
COMMERCIAL - 300 FT UNSPRINKLERED; 400 FT SPRINKLERED.
12. WHERE THE WATER MAINS ARE EXTENDED ALONG STREETS OR NEW STREETS ARE INSTALLED WHERE FIRE HYDRANTS ARE NOT NEEDED FOR PROTECTION OF THE STRUCTURES, FIRE HYDRANTS SHALL BE INSTALLED AT A MAXIMUM OF 1000 FT SPACING, TO PROVIDE FOR TRANSPORTATION HAZARDS, WHERE STREETS ARE PROVIDED WITH MEDIAN DIVIDERS OR HAVE FOUR (4) OR MORE TRAFFIC LANES AND HAVE A TRAFFIC COUNT OF MORE THAN 30,000 PER DAY, HYDRANTS ARE REQUIRED ON EACH SIDE OF THE STREET SPACED AT 500 FT ON AN ALTERNATING BASIS. [FC § 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. [FC § 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. [FC § 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. [FC § C102.7]
17. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL NOT EXCEED 200 FT. [FC § 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 OUT OF SERVICE DUE TO A SERVICE INTERRUPTION. FOR SYSTEMS PERMITTED TO HAVE ONE SOURCE OF WATER SUPPLY, SECTIONAL CONTROL VALVES SHALL BE INSTALLED SO THAT NO MORE THAN 3 FIRE HYDRANTS AND/OR FIRE SPRINKLER LEAD-INS CAN BE OUT OF SERVICE DUE TO A SERVICE INTERRUPTION. [FC § C104]
19. A FIRE APPARATUS ACCESS ROAD SHALL BE PAVED TO PROVIDE ALL-WEATHER DRIVING CAPABILITIES, AND SHALL BE DESIGNED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF THE FIRE APPARATUS. [FC § 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 GRADATE CHANGE. ADJACENT TO THE STRUCTURES GRADIENT SHALL NOT EXCEED 6%. [FC § 503.7.2, 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. [FC § 503.2.4]
22. VERTICAL CLEARANCE OF ALL FIRE APPARATUS ACCESS ROADS SHALL NOT BE LESS THAN 13FT 6 INS. [FC § 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 AND NOT LESS THAN 28 FT WITH PARKING RESTRICTED TO ONE SIDE MEASURED TO FACE OF CURB, NOT LESS THAN 24 FT WIDE WITH NO PARKING ON EITHER SIDE MEASURED TO FACE OF CURB. FIRE LANES THROUGH PARKING LOTS SHALL BE NOT LESS THAN 24 FT. [FC § 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. THIS DISTANCE COULD BE INCREASED TO 250 FT IF THE BUILDING IS SPRINKLERED. [FC § 503.1.1]
25. APPROVED SECONDARY FIRE APPARATUS ACCESS SHALL BE PROVIDED FOR 200 OR MORE DWELLING UNITS, ROAD(S) WITH DEAD-ENDS, COMMERCIAL AND INDUSTRIAL DEVELOPMENTS WHERE BUILDINGS EXCEED 2 STORIES OR 30 FEET IN HEIGHT, OR EXCEEDING 62,000 SQUARE FEET IN AREA. [FC § 503.1.2]
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. [FC § 503.2.5]
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. [FC § 503.3]
28. ELECTRICALLY CONTROLLED CROSS GATE SHALL BE PROVIDED WITH AN APPROVED EMERGENCY VEHICLE DETECTOR/RECEIVER SYSTEM. [FC § 503.6]

EFFECTIVE DATE: FEBRUARY 4th, 2019

1. ALL CONSTRUCTION SIGNING, BARRICADING, AND TRAFFIC DELINEATION SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.
2. THE STREET SIGN CONTRACTOR SHALL OBTAIN STREET NAMES AND BLOCK NUMBERING FROM THE PLANNING DEPARTMENT PRIOR TO CONSTRUCTION.
3. BEFORE ANY WORK IS STARTED IN THE RIGHT-OF-WAY, THE CONTRACTOR SHALL INSTALL ALL ADVANCE WARNING SIGNS FOR THE CONSTRUCTION ZONE. THE CONTRACTOR SHALL INSTALL TEMPORARY STOP SIGNS AT ALL NEW STREET ENCROACHMENTS INTO EXISTING CITY STREETS. ALL SIGNS 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 ENCLOSED 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 PAYMENT MARKING, SUCH PAYMENT MARKING SHALL BE RESTORED OR REPLACED WITH LIKE MATERIALS TO THE SATISFACTION OF THE CITY TRAFFIC ENGINEER.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL PERMANENT SIGNS SHOWN ON THE PLANS. ALL NEW TRAFFIC SIGNS SHALL UTILIZE TYPE XI RETROREFLECTIVE SHEETING IN ACCORDANCE WITH CSAUSS 627 AND 716 AND SHALL HAVE AN ANTI-GRAFFITI PROTECTIVE OVERLAY FILM THAT IS A MATCHING COMPONENT TO, AND OF THE SAME MANUFACTURER AS THE RETROREFLECTIVE SHEETING TO BE APPLIED. TRAFFIC NAME SIGNS SHALL CONFORM IN THEIR ENTIRETY TO CURRENT CITY STANDARDS. ALL OTHER SIGNS SHALL BE STANDARD SIZE UNLESS OTHERWISE SPECIFIED ON THE PLANS. ALL SIGN POSTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT CITY STANDARDS.
7. WHEN A PROPOSED STREET LIGHT STANDARD IS LOCATED WITHIN FIVE (5) FEET OF ANY PROPOSED SIGN SHOWN ON THE PLANS TO BE MOUNTED ON A SIGNPOST, THE SIGN SHALL BE MOUNTED ON THE STREET LIGHT STANDARD AND THE SIGNPOST SHALL BE ELIMINATED.
8. ALL PERMANENT TRAFFIC CONTROL DEVICES CALLED FOR HEREON SHALL BE IN PLACE AND IN FINAL POSITION PRIOR TO ALLOWING ANY PUBLIC TRAFFIC ONTO THE PORTIONS OF THE ROAD(S) BEING IMPROVED HERE UNDER, REGARDLESS OF THE STATUS OF COMPLETION OF PAVING OR OTHER OFF-SITE IMPROVEMENTS CALLED FOR BY THESE PLANS.

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 NOTICE, WORK NOTICES 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 PLANS, 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 WATER 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 SHALL BE FILLED, DISINFECTED, PRESSURE TESTED, FLUSHED, PILED, AND AN ACCEPTABLE WATER SAMPLE OBTAINED, PRIOR TO CONNECTION TO THE LVVWD DISTRIBUTION SYSTEM.
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 RESPONSE DIVISION PRIOR TO SHUTDOWN. PROPER WRITTEN NOTIFICATION MUST BE GIVEN TO ALL AFFECTED CUSTOMERS.
12. ALL WATER FACILITY CONSTRUCTION MATERIALS USED MUST AS BE LISTED ON THE LVVWD PRE-APPROVED MATERIALS AND MANUFACTURERS LISTING FOR NEW FACILITIES, LATEST REVISION, OR SPECIFICALLY APPROVED ON THESE PLANS.
13. TELEPHONE "CALL BEFORE YOU DIG" AT "811" OR 1-800-227-8600.
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 PATCH ON THE STREET SURFACE.
15. ANY DECORATIVE PAVING SURFACE WITHIN THE STREET IS THE RESPONSIBILITY OF THE OWNERS ASSOCIATION, OR THE INDIVIDUAL PROPERTY OWNERS IF NO OWNERS ASSOCIATION IS IN EXISTENCE, OR THE AGENCY HAVING JURISDICTION. DECORATIVE SURFACE MATERIALS PLACED WITHIN THE TEN FOOT EASEMENT ADJUTING A PUBLIC OR PRIVATE STREET, IF DISTURBED BY THE LVVWD DURING THE REPAIR OR OPERATION OF THE FACILITIES, OR REPAIRS MADE BY THE LVVWD AFTER THE PLACEMENT OF THE USED PLANT 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.
16. NO LEAD COMPLIANCE NOTE:
TO COMPLY WITH THE FEDERAL SAFE DRINKING WATER ACT, ALL WATER WORKS BRASS PRODUCTS PROPOSED TO BE RELOCATED, OR INSTALLED AS NEW MUST BE INSTALLED WITH THE LEAD FREE APPROVED PRODUCT. THE OLD LEADED PRODUCT MAY NOT BE REUSED.

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 BACK FILL OF TYPE II AGGREGATE BASE.
5. ALL MANHOLES IN PAVED STREETS 8' 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 (12) INCH 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 LVWD STANDARDS WHENEVER A SEWER MAIN CROSSES OVER A WATER MAIN OR THE SEWER IS LESS THAN EIGHTEEN (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 PVC PIPE WHICH ALLOWS FOR PIPE DEFLECTION AT THE JOINTS.

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 GRADE 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"	+0.010-0.1"	SEE SOILS REPORT
B ENGINEERED FILL	0.5"	+0.110-0.1"	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 HIS OWN EXPENSE AND AT THE DIRECTION OF THE CITY ENGINEER. TEMPORARY CONSTRUCTION INCLUDES DITCHES, BERMS, ROAD SIGNS AND BARRICADES, ETC.

ABBREVIATIONS

FF	FINISH FLOOR	DI	DIP INLET
FG	FINISH GRADE	BFPE	BASE FLOOD ELEVATION
FL	FLOW LINE	CUUSD	CLARK COUNTY UNIFORM STANDARD DRAWINGS
TC	TOP OF CURB	SW	SIDEWALK
TRC	TOP OF ROLL CURB	TSW	TOP OF SIDEWALK
EOP	EDGE OF ASPHALT PAVEMENT	INT.	INTERSECTION
FUT	FUTURE	D.G.	DESIGN GRADE
EX	EXISTING	C/L	CENTER LINE
VG	VALLY GUTTER	O/C	OFFSET CROWN
NG	NATURAL GROUND	B/C	BACK OF CURB
H.P.	HIGH POINT	BOR	BEGIN CURB RETURN
L.P.	LOW POINT	BL	BACK OF CURB LENGTH
SMWH	SEWER MANHOLE	T/F	TOP OF FOOTING
WTR	WATER LINE	GB	GRADE BREAK
SD	STORM DRAIN	PC	POINT OF CURVATURE
RCP	REINFORCED CONCRETE PIPE	TPW	TOP OF PLANTER WALL
PT	POINT OF TANGENCY	TRW	TOP OF RETAINMENT WALL
PC	POINT OF REVERSE CURVATURE	TOE	TOP OF MANHOLE SCARP
PCC	POINT OF COMPOUND CURVATURE	TOE	TOE OF CHANNEL/SCARP
BVC	BEGIN VERTICAL CURVE	TOB	TOP OF BOX
MVC	MID-POINT OF VERTICAL CURVE	POB	POWER POLE
ENC	END VERTICAL CURVE	TRANS.	TRANSITION
PRVC	POINT OF REVERSE VERTICAL CURVE	RET.	RETAINMENT
R/W	RIGHT-OF-WAY	TMH	TOP OF MANHOLE

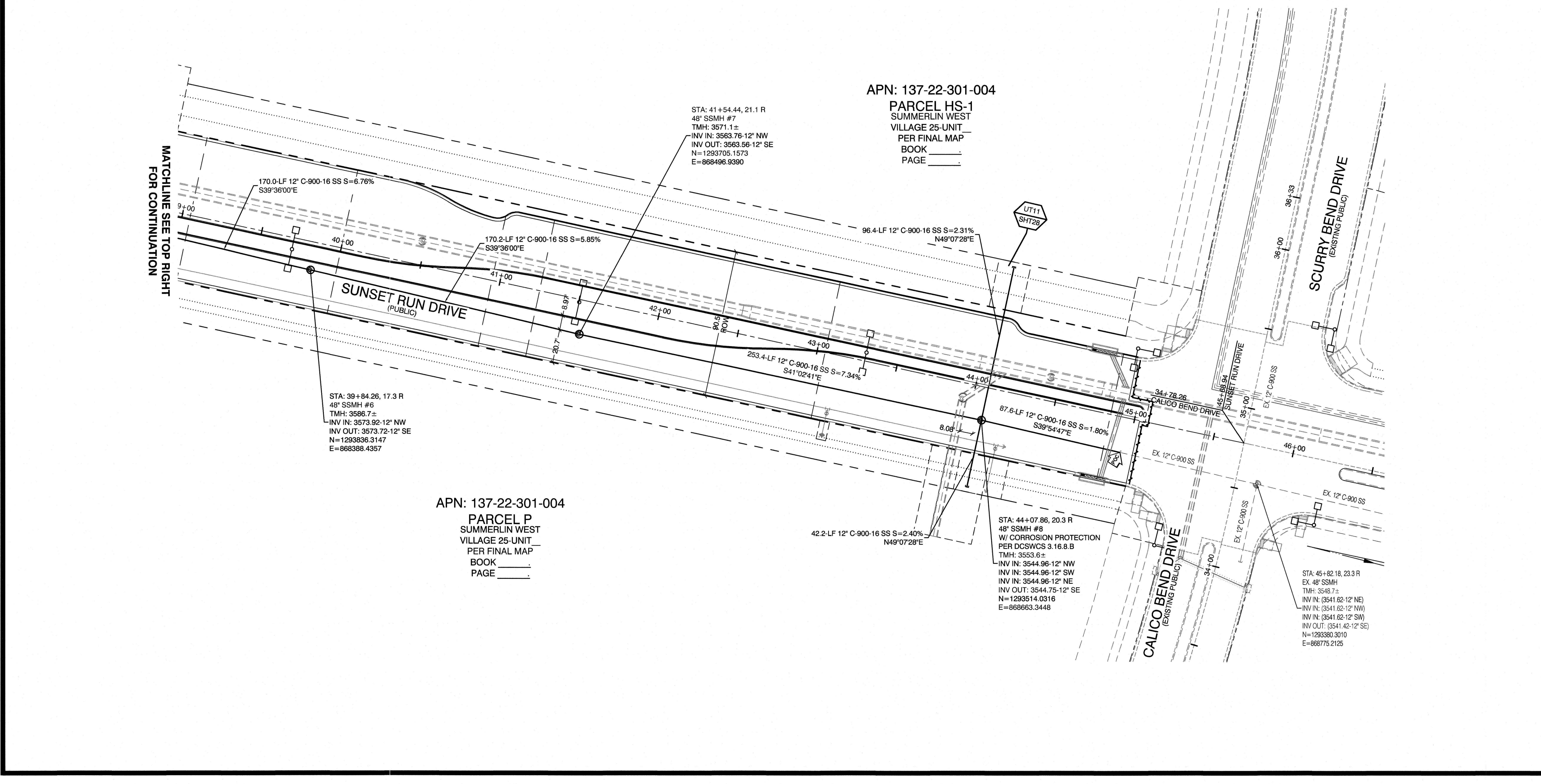
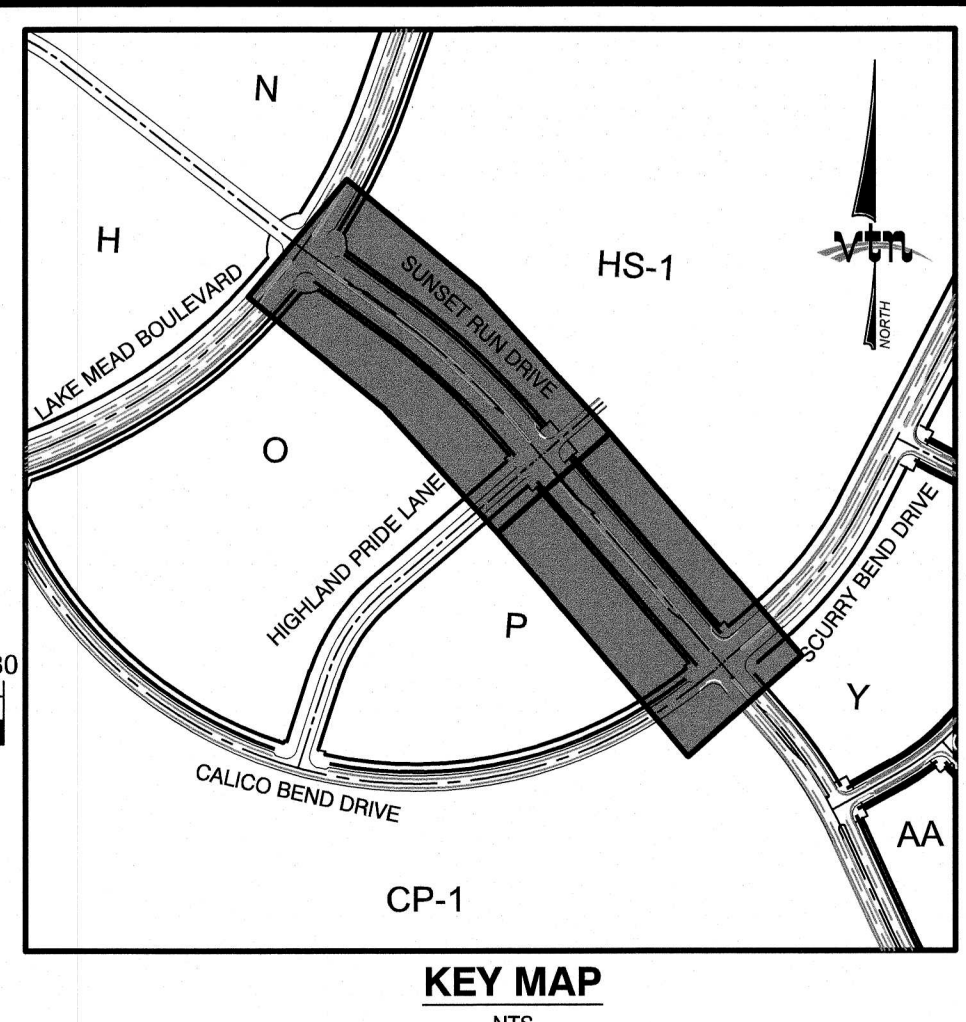
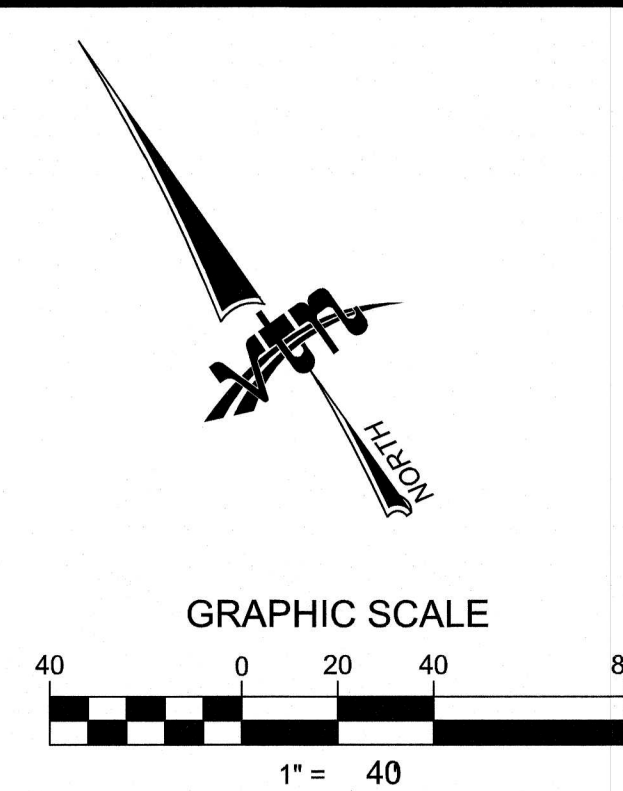
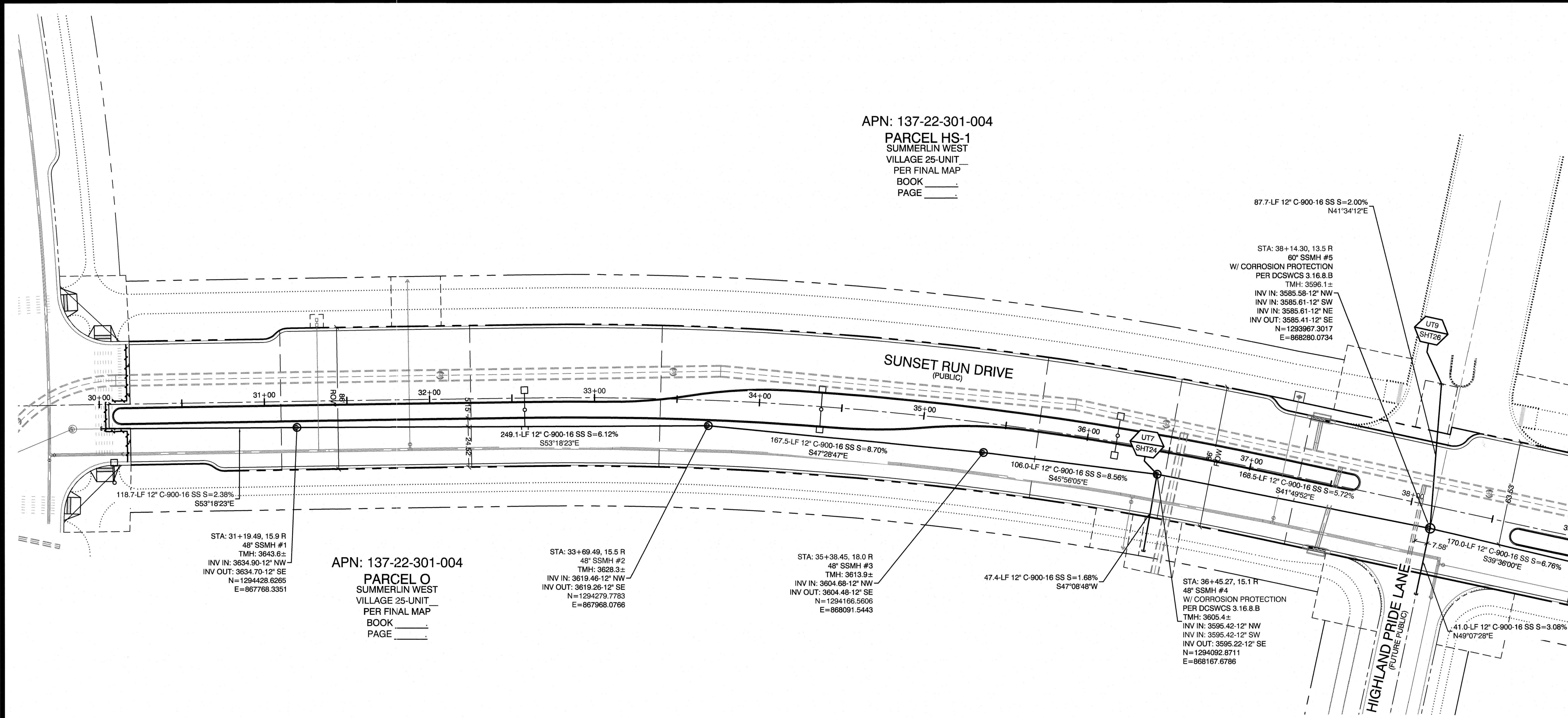
<u>LEGEND</u>			
DESCRIPTION	PROPOSED	EXISTING	FUTURE
CONTOUR (5' INTERVAL)			
CONTOUR (1' INTERVAL)			
EDGE OF PAVEMENT			
SAW CUT			
RIGHT OF WAY			
CENTER LINE			
BACK OF CURB			
LIP OF GUTTER			
FACE OF CURB			
SIDEWALK			
UNIT BOUNDARY LINE			
UNIT BOUNDARY / ROW			
PROPERTY LINE			
SLOPE AND FLOW DIRECTION			
SCARP AREA			
MATCHLINE			
SIDEWALK RAMP			
SIGHT VISIBILITY ZONES			
PAVED ROAD			
PAVEMENT REMOVAL			
WATER UNDER 18"			
WATER 18" & OVER			
SANITARY SEWER UNDER 18"			
SANITARY SEWER 18" & OVER			
STORM SEWER			
FIRE HYDRANT			
SANITARY SEWER MAN HOLE			
STORM DRAIN MAN HOLE			

ESTIMATED WATER QUANTITIES		PUBLIC
FIRE HYDRANT ASSEMBLY (16"X6") WITH TEE AND 6" GATE VALVE	1 EA	
FIRE HYDRANT ASSEMBLY (12"X6") WITH TEE AND 6" GATE VALVE	1 EA	
16" CAP AND BLOW OFF	2 EA	
16" 90° BEND	1 EA	
16"X12" TEE	3 EA	
12" CAP AND BLOW OFF	4 EA	
12" GATE VALVE	4 EA	
12"X12" TEE	1 EA	
12" 11" VERTICAL BEND	2 EA	
12" 45° VERTICAL BEND	2 EA	
6" C-900 WATER MAIN	107 LF	
12" DIP WATER MAIN	169 LR	
12" C-900 WATER MAIN	598 LR	
12" C-900 WATER MAIN	833 LR	
1.5" TYPE K SOFT COUP WATER LATERAL SERVICE W/ 1.5" IRRIGATION METHOD W/ RPPA	1 EA	
IRRIGATION SI FVPS	468 LF	

ESTIMATED SEWER QUANTITIES		PUBLIC
48" SANITARY SEWER MAN-HOLE	7 EA	
60" SANITARY SEWER MAN-HOLE	1 EA	
SANITARY SEWER CAP	6 EA	
12" C-900-16 SANITARY SEWER	1,810 LBS	
ESTIMATED GRADING QUANTITIES		PUBLIC
4" ASPHALT CONCRETE PAVING	11,412 SV	
4" TYPE II GRAVEL BASE	1,268 CV	
"A" TYPE CURB	2,822 LBS	
"L" TYPE CURB	2,975 LBS	
24" RCP STORM DRAIN	126 LBS	
10" RCP C MODIFIED SDDI	2 EA	
15" TYPE C MODIFIED SDDI	2 EA	
EARTHWORKS CUT	2,526 CV	
EARTHWORKS FILL	3,820 CV	
EARTHWORKS TOTAL (FILL)	1,294 CV	

ESTIMATED TRAFFIC QUANTITIES	PUBLIC
PAVEMENT MARKERS (REFLECTIVE)	97 EA
PAVEMENT MARKERS (NON-REFLECTIVE)	246 EA
PAVEMENT STRIPING (COLLECTOR)	3,907 LF
SOLID WHITE CROSSWALK/STOP BAR	2 EA
SOLID WHITE BIKE LANE SYMBOL WITH ARROW	8 EA
DIRECTION/TURN ARROW	16 EA
RED PAINTED CURB	62 LF
YELLOW PAINT FOR MEDIAN NOSE	108 SF
YELLOW RAISED PAVEMENT MARKER	25 EA
STREET SIGNS	34 EA
STREETLIGHT (SINGLE ARM)	1 EA
STREETLIGHT (DUAL ARM)	6 EA
1½" PVC CONDUIT (STREETLIGHT)	1,488 LF
3" PVC CONDUIT (INTERCONNECT)	1,458 LF
PULL BOXES	9 EA
SURVEY MONUMENTS	4 EA
TYPE III BARRICADE	6 EA

4/28/2020 2:36 AM



MATCHLINE SEE BOTTOM LEFT
FOR CONTINUATION

CONSTRUCTION NOTE
UTILITY PROFILE REFERENCE LABEL
UT # = SHEET INDEX
SHT # = SHEET NUMBER

WATER PRESSURE ZONE:
WATER SERVICE LOCATED IN THE 3780 PRESSURE ZONE.

WATER MAIN COVER NOTE:
ALL NEW WATER MAIN TO HAVE MINIMUM DEPTH OF COVER PER UDACS SECTION 2.08

WATERLINE TRENCH NOTE:
CONSTRUCT WATERLINE TRENCH SECTION AND BACKFILL PER UDACS PLATE NO. 17.

WATER LINE MARKER BALLS NOTE
INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE NO. 15

FIRE HYDRANT MARKER NOTES
BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS ARE TO BE INSTALLED:
1. ON ROADWAYS WITH NO PARKING PERMITTED ON HYDRANT SIDE, LOCATE MAKER 6' FROM FACE OF CURB ON HYDRANT SIDE.
2. ON ROADWAYS WITH PARKING PERMITTED ON HYDRANT SIDE, LOCATE MARKER 16' FROM FACE OF CURB ON HYDRANT SIDE.

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Avoid cutting underground utility lines. It's costly.

Call before you Dig
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CLARK COUNTY TRAFFIC OPERATIONS
1-702-227-8111
LAS VEGAS AREA COMPUTERIZED TRAFFIC SYSTEM

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Call before you Dig
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AND
1-702-455-6000
CLARK COUNTY TRAFFIC OPERATIONS

LAS VEGAS VALLEY WATER DISTRICT APPROVAL
APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: _____ PROJECT: _____
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 P.S.I. RESIDUAL

BASIS OF BEARING
GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS HIGH ELEVATION ZONE, NORTH AMERICAN DATUM OF 1983, SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.
LINEAR UNIT: US SURVEY FOOT (FTUS)
DATUM (REFERENCE FRAME): NAD 83 (2011) EPOCH 2010.00
SYSTEM: NEVADA COORDINATE REFERENCE SYSTEM (NCRS)
ZONE: LAS VEGAS HIGH ELEVATION ZONE

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

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

BENCHMARK
PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
CITY OF LAS VEGAS BENCHMARK: D368 (REVISED 2008)
NAVD88 ELEVATION: 989.574 METERS (3,246.63 FEET)
FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S, R89E, S03

WATER MAIN JOINT DEFLECTION
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.

UTILITY CROSSING NOTE:
ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR PORTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.

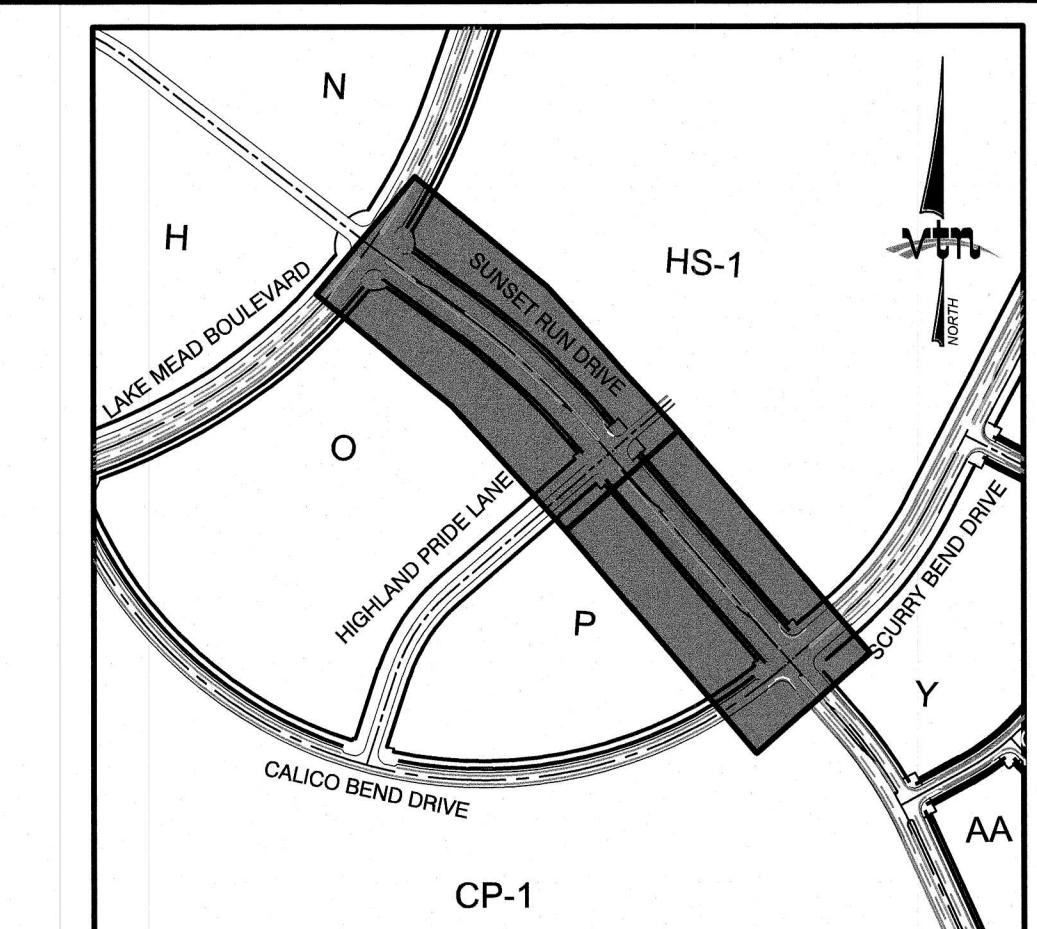
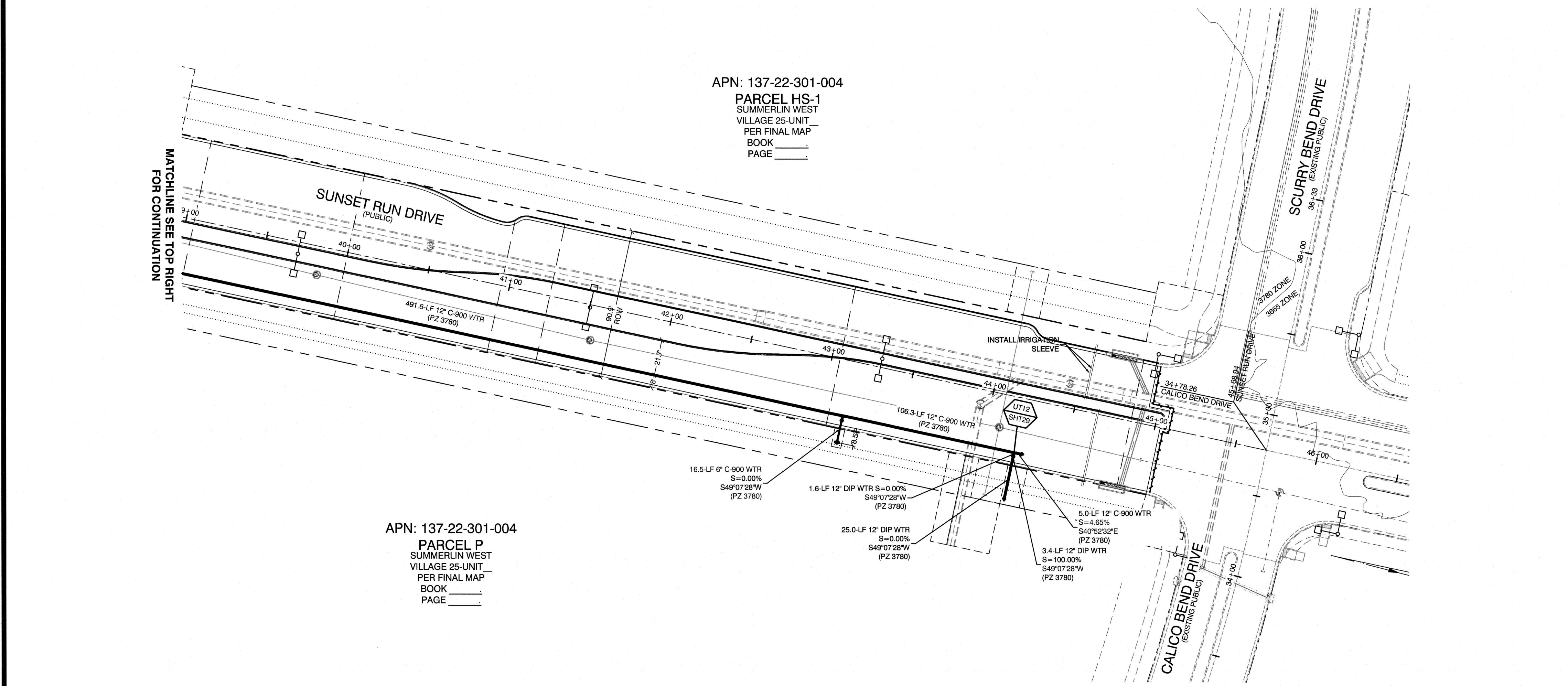
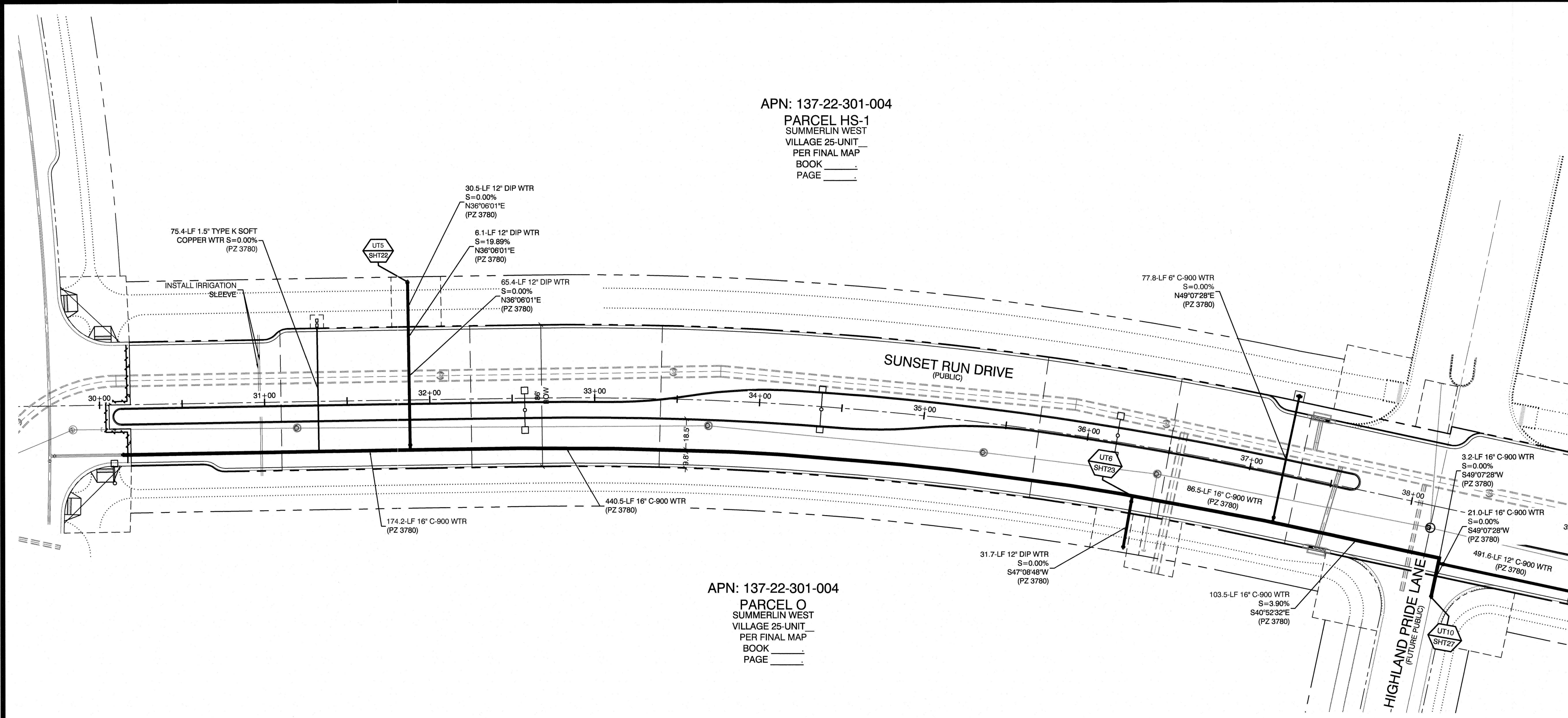
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DRAWN BY: KTC		DESIGNED BY: BOC		CHECKED BY: WJM		PROJECT NO: 7919		SCALE: 1"=40'		HORIZ. VERT.	
01/10/2020		01/10/2020		06/07/2020		1-40'		N/A			
PROFESSIONAL ENGINEER - SITE WILLIAM J. MEYER CIVIL No. 15745 5/11/20 SHEET MUTSS 6 OF 35 SHEETS DRAWING NO. _____											

HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY
CITY OF LAS VEGAS
2727 SOUTH RAINBOW BOULEVARD
LAS VEGAS, NEVADA 89146-5148
PH. (702) 875-7550 FAX (702) 362-2397 WEB WWW.VTNV.COM
CONSULTING ENGINEERS • PLANNERS • LAND SURVEYORS

MASTER UTILITY SEWER
SUMMERLIN WEST VILLAGE 25
SUNSET RUN DRIVE
SCURRY BEND DRIVE TO LAKE MEAD BOULEVARD

H:\919\SUNSET RUN DRIVE - SBD to LMB\Sheet Set\919 MUTSS.dwg 3/7/2020 2:44 PM\campbell



CONSTRUCTION NOTE

UT # _____
SHT # _____

UTILITY PROFILE REFERENCE LABEL
UT # = SHEET INDEX
SHT # = SHEET NUMBER

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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.

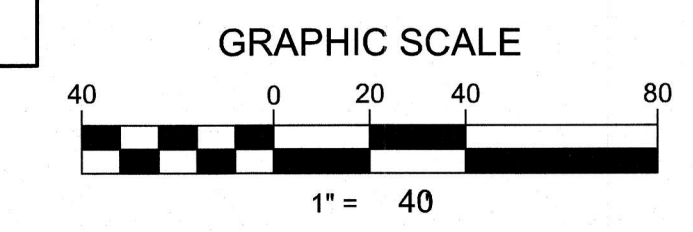
LINEAR UNIT: US SURVEY FOOT (FTUS)

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\"/>



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WATER SERVICE LOCATED IN THE 3780 PRESSURE ZONE.

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ALL NEW WATER MAIN TO HAVE MINIMUM DEPTH OF COVER PER UDACS SECTION 2.08

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LAS VEGAS AREA COMPREHENSIVE TRAFFIC SYSTEM

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AND
1-702-455-6000
CLARK COUNTY TRAFFIC OPERATIONS

LAS VEGAS VALLEY WATER DISTRICT APPROVAL

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: _____ PROJECT: _____
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20' P.S.I. RESIDUAL

DRAWN BY: KTC		01/10/2020
DESIGNED BY: BCC		01/10/2020
CHECKED BY: WJM		06/07/2020
PROJECT NO: 7819		HORIZ: 1"=40' VERT: N/A

HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY
10946 GRIFFITH PEAK DRIVE, SUITE 100
LAS VEGAS, NEVADA 89135
702.791.4000

CITY OF LAS VEGAS

MASTER UTILITY WATER

SUMMERLIN WEST VILLAGE 25
SUNSET RUN DRIVE
SCURRY BEND DRIVE TO LAKE MEAD BOULEVARD

PROFESSIONAL ENGINEER - STATE OF NEVADA
WILLIAM J. MEYER
EXP. 12/31/21
CIVIL
No. 15745
5/11/20

SHEET
MUTW
7 OF 35 SHEETS
DRAWING NO. _____

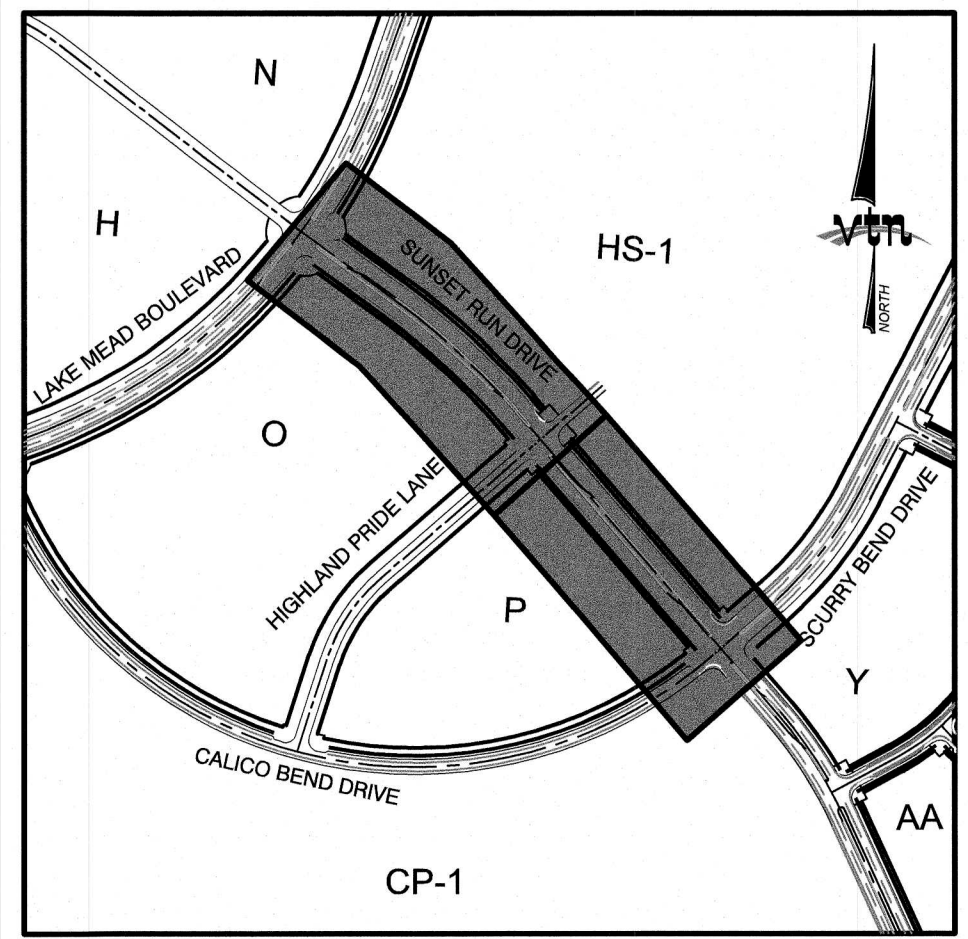
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APN: 137-22-301-004
PARCEL HS-1
SUMMERLIN WEST
VILLAGE 25-UNIT
PER FINAL MAP
BOOK _____
PAGE _____

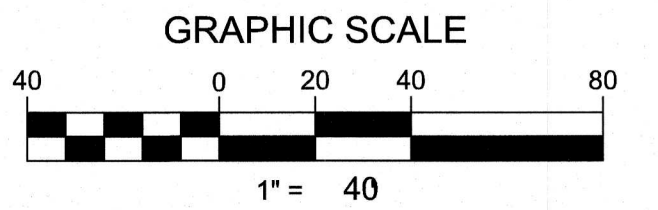
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PARCEL O
SUMMERLIN WEST
VILLAGE 25-UNIT
PER FINAL MAP
BOOK _____
PAGE _____

APN: 137-22-301-004
PARCEL HS-1
SUMMERLIN WEST
VILLAGE 25-UNIT
PER FINAL MAP
BOOK _____
PAGE _____

APN: 137-22-301-004
PARCEL P
SUMMERLIN WEST
VILLAGE 25-UNIT
PER FINAL MAP
BOOK _____
PAGE _____



KEY MAP
NTS



CONSTRUCTION NOTE

UTILITY PROFILE REFERENCE LABEL
UT # = SHEET INDEX
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BASIS OF BEARING

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

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DATUM (REFERENCE FRAME): NAD 83 (2011) EPOCH 2010.00

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BENCHMARK

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

CITY OF LAS VEGAS BENCHMARK: D368 (REVISED 2008)

NAVD88 ELEVATION: 988.574 METERS (3,246.63 FEET)

FND USCS&S DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S,R59E,S03

GRADING PERMIT NOTE

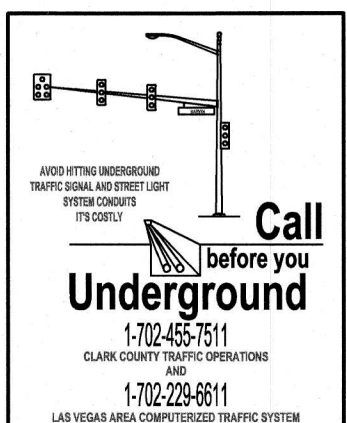
THIS GRADING PERMIT DOES NOT INCLUDE THE CONSTRUCTION OF RETAINING WALLS AND OTHERS STRUCTURES. SEPARATE PERMITS AND APPLICATIONS ARE REQUIRED FOR THESE.

GEOTECHNICAL NOTE:

REFER TO SOILS REPORT: NOVA GEOTECHNICAL PROJECT #G-18-003, DATED MAY 9, 2019
HTE # _____

SIGHT VISIBILITY ZONES:

NO STRUCTURE, WALLS, VEGETATION, OR OBJECT OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.



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I CERTIFY THAT THIS GRADING PLAN CONFORMS TO THE APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE WITH CITY OF LAS VEGAS, # _____

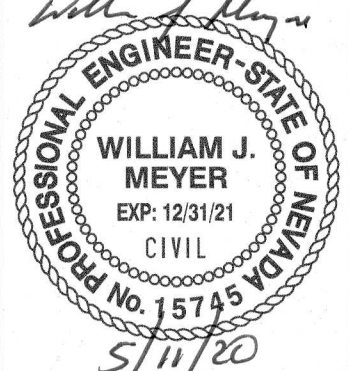
WILLIAM J MEYER, P.E. No. 15745 DATE _____

SDDI #	STATION	RIGHT/LEFT	TC ELEVATION	INV OUT ELEVATION	DEPTH
SDDI #1	37+36.23	LEFT	3599.09	3586.17	13.52
SDDI #2	37+49.80	RIGHT	3598.88	3590.63	8.25
SDDI #3	44+73.14	LEFT	3551.16	3542.17	8.99
SDDI #4	44+82.24	RIGHT	3550.81	3541.88	8.93

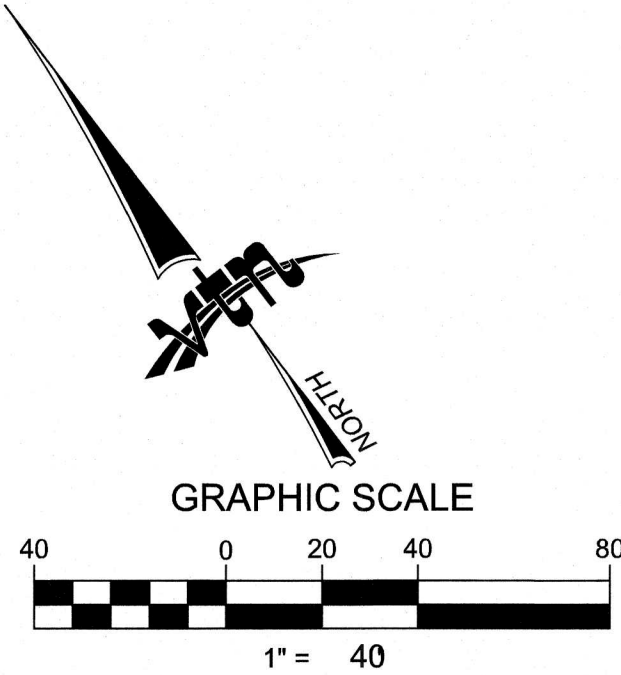
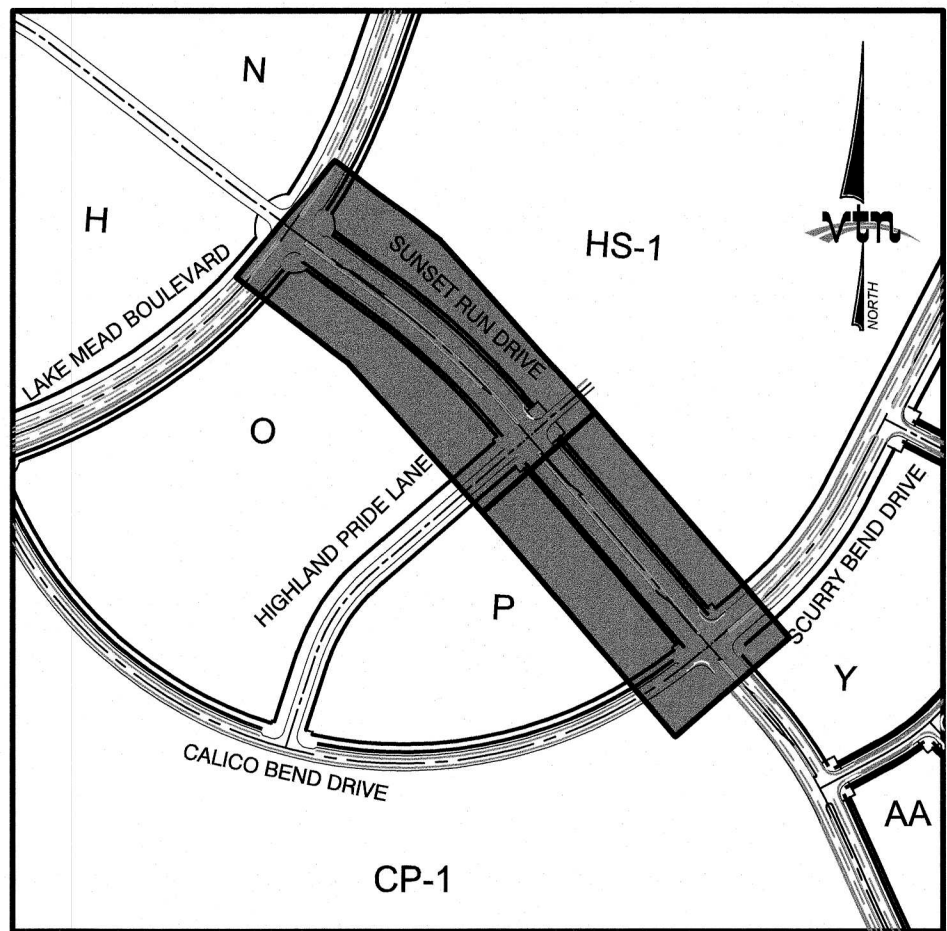
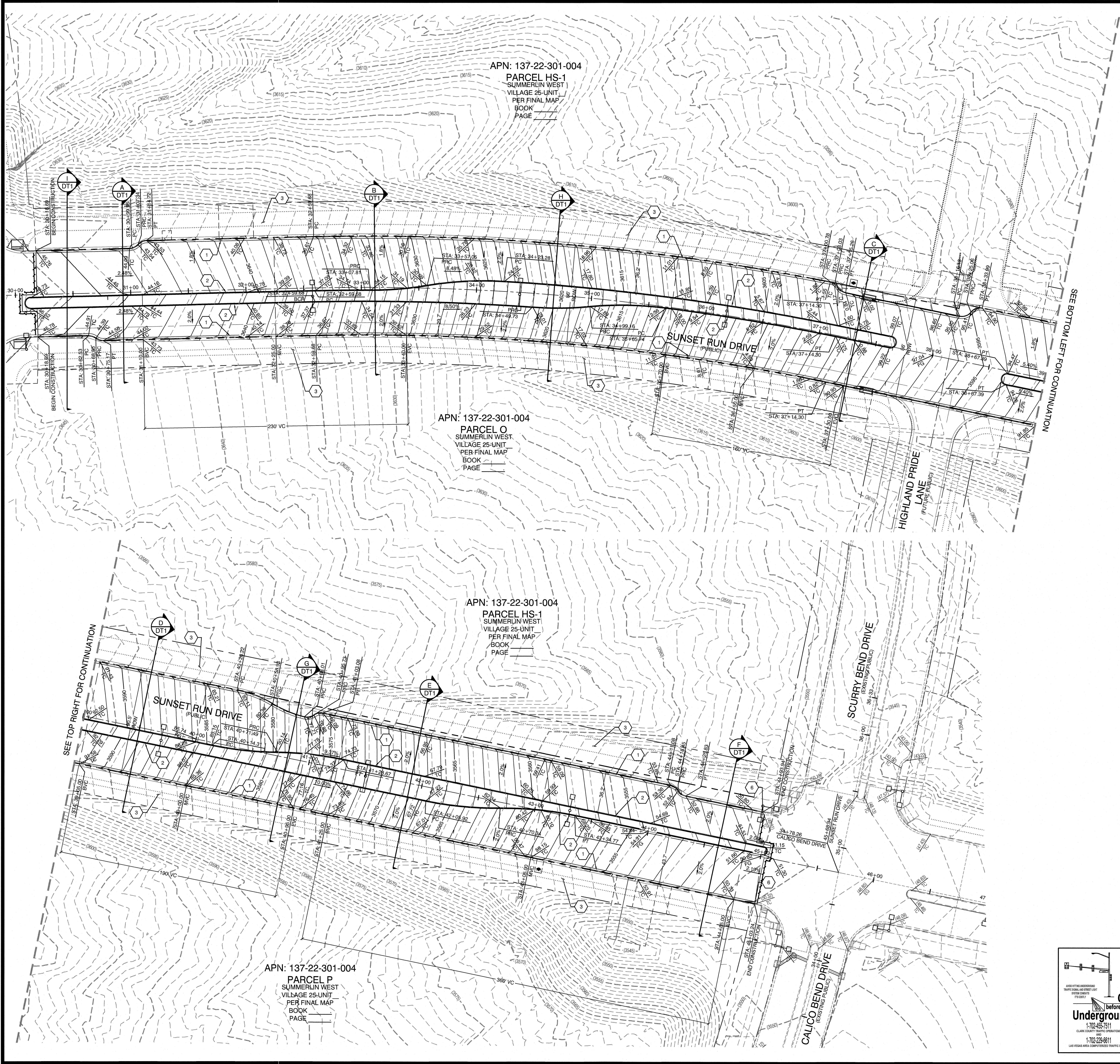
HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY
CITY OF LAS VEGAS
10446 GRIFFITH PEAK DRIVE, SUITE 100
LAS VEGAS, NEVADA 89155
702-791-4000

MASTER UTILITY STORM DRAIN
SUMMERLIN WEST VILLAGE 25
SUNSET RUN DRIVE
SCURRY BEND DRIVE TO LAKE MEAD BOULEVARD

DRAWN BY: BCC
DESIGNED BY: BCC
CHECKED BY: WJM
PROJECT NO: 7919
SCALE: 1"=40'
HORIZ: N/A
VERT: N/A



SHEET
MUTSD
8 OF 35 SHEETS
DRAWING NO. _____



GEOTECHNICAL NOTE:
REFER TO SOILS REPORT, NOVA GEOTECHNICAL
PROJECT #G-18-003, DATED MAY 8, 2019
HTE #---

- CONSTRUCTION NOTES**
1. CONSTRUCT 36" TYPE "L" CURB & GUTTER PER STD. DWG. 218.
 2. CONSTRUCT TYPE "A" CURB PER STD. DWG. 219.
 3. FUTURE 6' SIDEWALK
 4. CONSTRUCT HANDICAP RAMP PER STD. DWG. 235 CASE II SEE SHEET DT2
 5. SAWCUT AND REMOVE ASPHALT PAVING AND MATCH WITH NEW CONSTRUCTION PER CCAUSD #500.5 & #503.
 6. FIELD VERIFY AND MATCH EXISTING
 7. FUTURE 12' MULTI-MODAL TRAIL

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

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

BENCHMARK
PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
CITY OF LAS VEGAS BENCHMARK: D368 (REVISED 2008)
NAVD88 ELEVATION: 989.574 METERS (3,246.63 FEET)
FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
121S, R98E, S23

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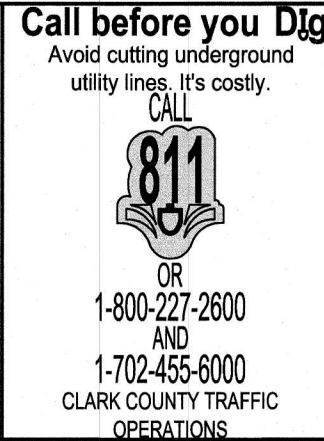
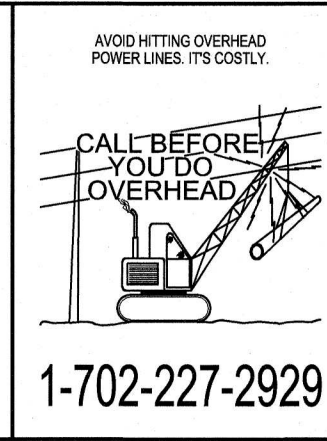
I CERTIFY THAT THIS GRADING PLAN CONFORMS TO THE APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE WITH CITY OF LAS VEGAS, #---

WILLIAM J MEYER, P.E. No. 15745 DATE

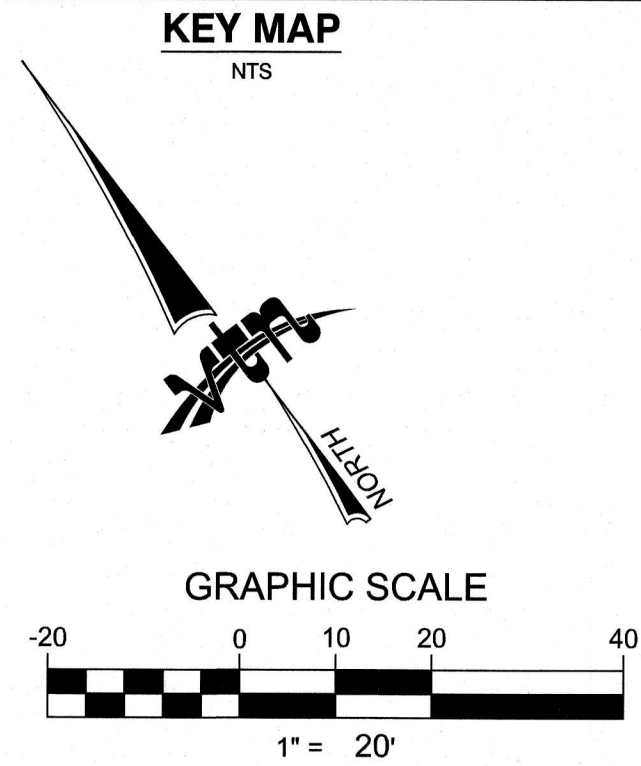
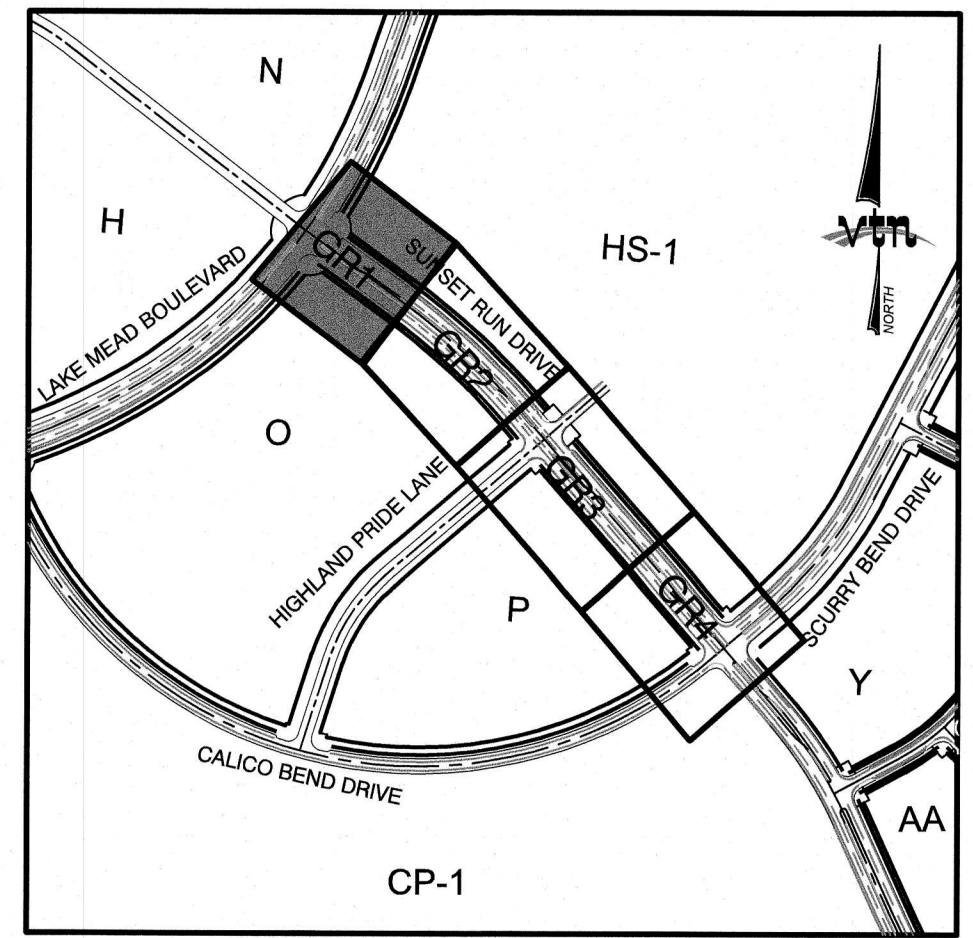
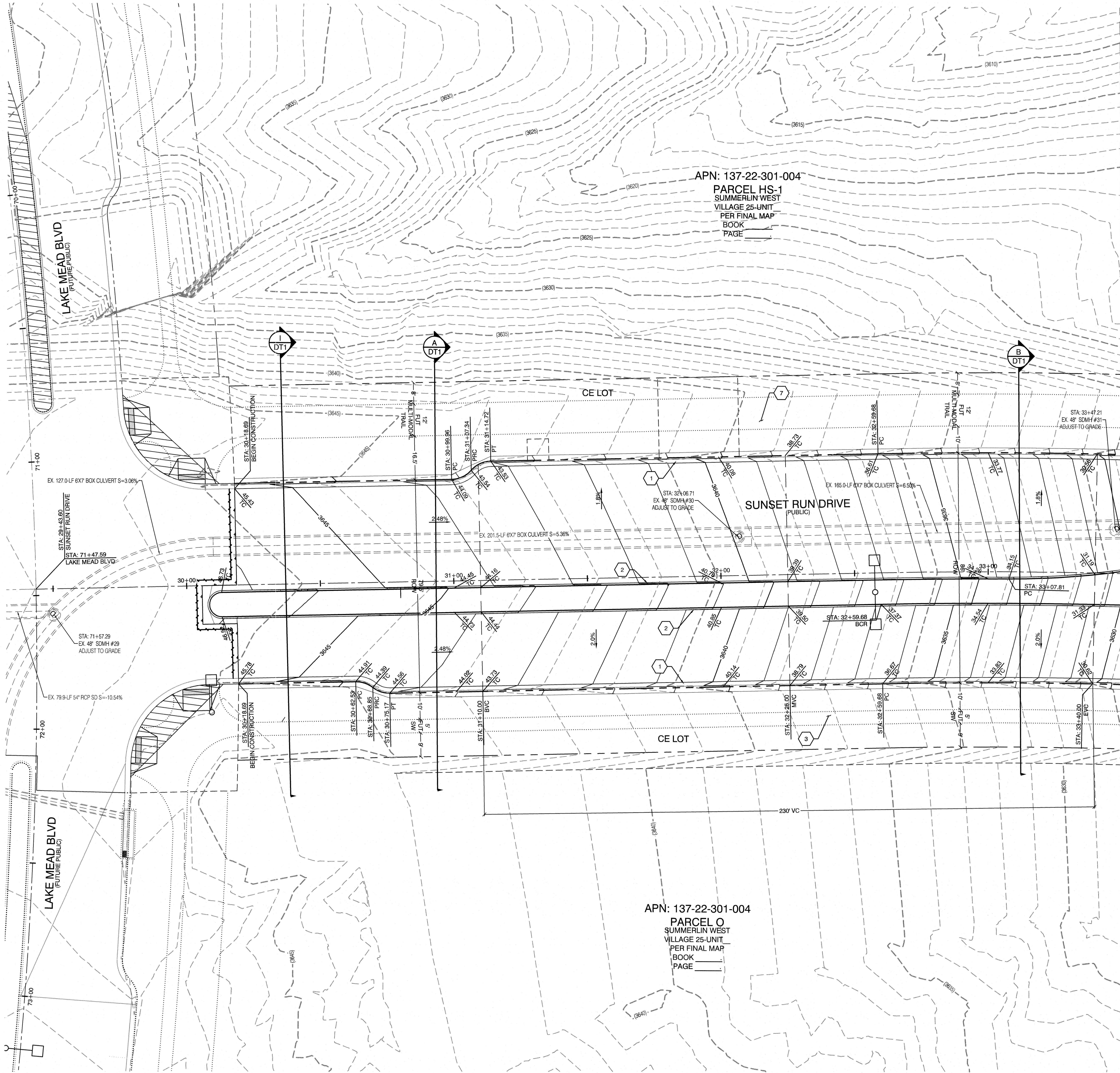
GRADING PERMIT NOTE
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INTERIM FLOOD CONTROL FACILITY NOTE:
ALL OFFSITE INTERIM FLOOD CONTROL FACILITIES SUCH AS BUT NOT LIMITED TO BERMS/DITCHES AND TEMPORARY SUMPS ARE PRIVATELY OWNED AND TO BE PRIVATELY MAINTAINED BY THE HOWARD HUGHES COMPANY



HOWARD HUGHES COMPANY, LLC A DELAWARE LIMITED LIABILITY COMPANY 10845 GRIFFITH PEAK DRIVE, SUITE 160 LAS VEGAS, NEVADA 89135 702-791-4000		CITY OF LAS VEGAS 2727 SOUTH RAINBOW BOULEVARD LAS VEGAS, NEVADA 89149-5148 PH. (702) 675-7550 FAX (702) 382-2597 WEB WWW.VTNV.COM CONSULTING ENGINEERS • PLANNERS • LAND SURVEYORS	
MASTER GRADING PLAN		SUMMERLIN WEST VILLAGE 25 SUNSET RUN DRIVE SCURRY BEND DRIVE TO LAKE MEAD BOULEVARD	
DRAWN BY: KTC	DESIGNED BY: DEH	CHECKED BY: WJM	PROJECT NO: 7919
01/10/2020	01/10/2020	05/07/2020	HORIZ. N/A
SCALE: 1"=40'		VERT.	
SHEET 9 OF 35 SHEETS		DRAWING NO.	



GEOTECHNICAL NOTE:
REFER TO SOILS REPORT: NOVA GEOTECHNICAL
PROJECT #G-18-003, DATED MAY 6, 2019
HTE #---

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 2. CONSTRUCT TYPE "A" CURB PER STD. DWG. 219.
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 7. FUTURE 12' MULTI-MODAL TRAIL

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LINEAR UNIT: US SURVEY FOOT (FT/US)
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T21S, R69E, S03

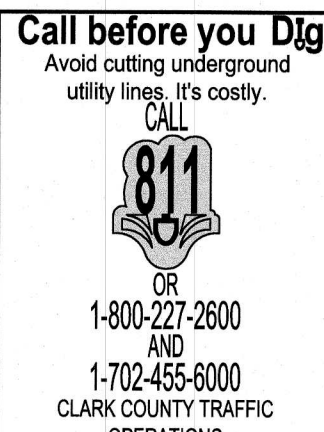
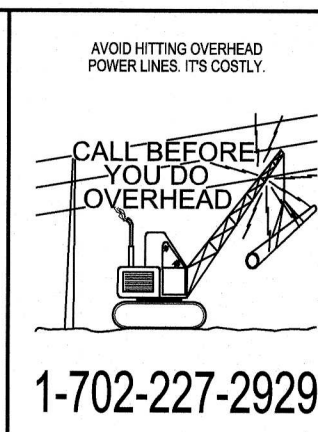
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WILLIAM J MEYER, P.E. No. 15745 DATE

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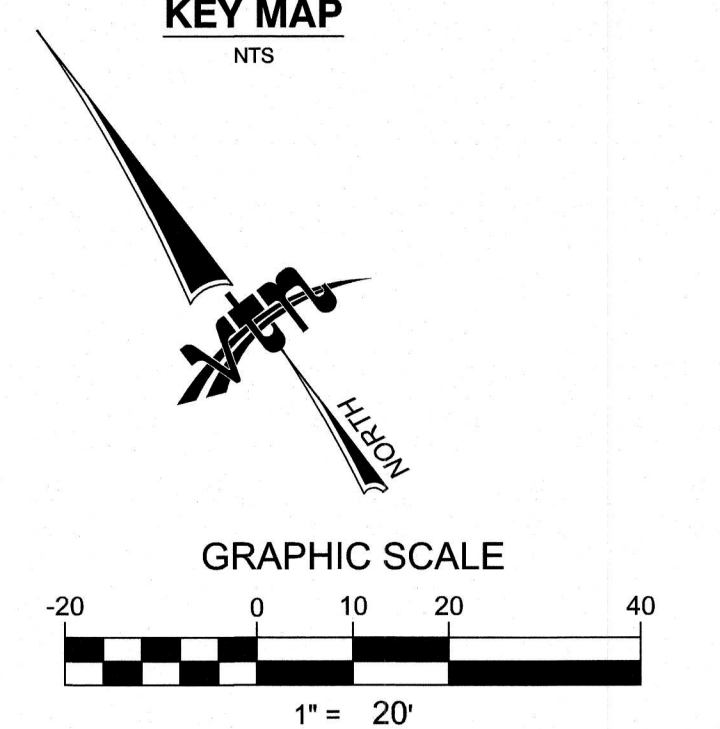
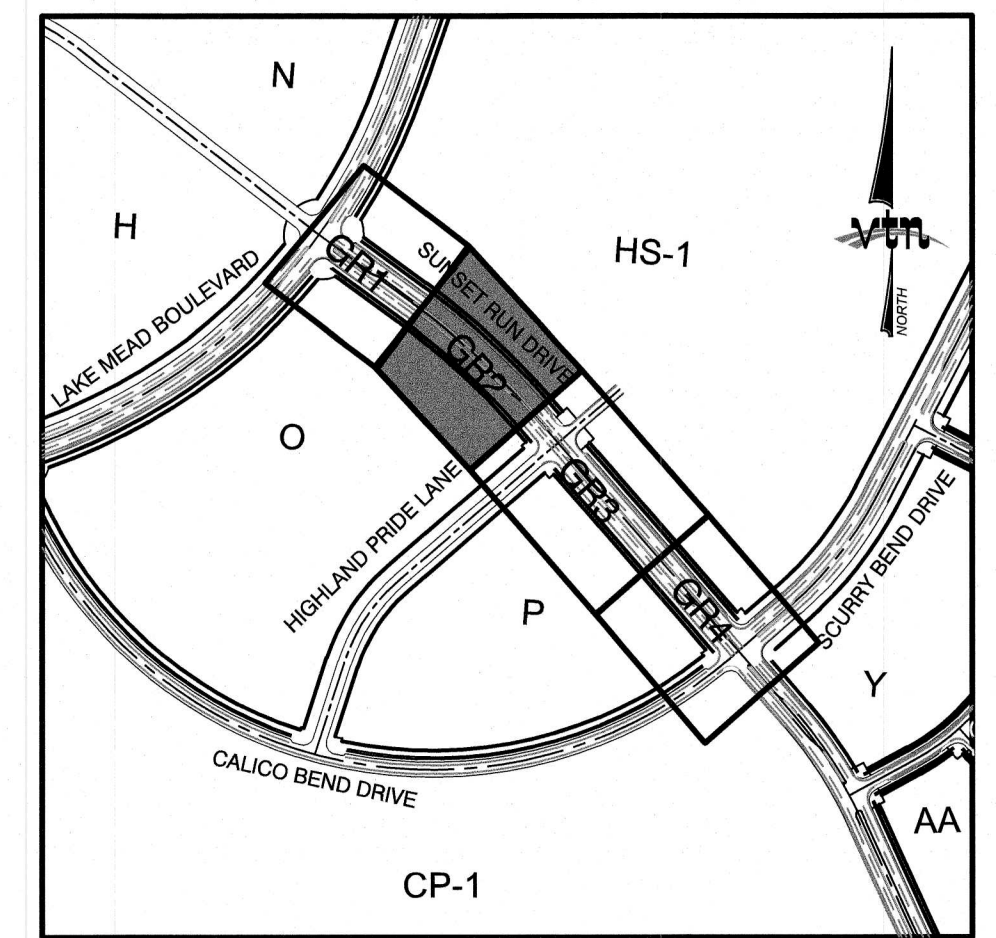


HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY
CITY OF LAS VEGAS
10845 GRIFFITH PEAK DRIVE, SUITE 160
LAS VEGAS, NEVADA 89146-5146
PH: (702) 873-7550 FAX: (702) 862-2897 WEB: WWW.HTC.COM
CONSULTING ENGINEERS & LAND SURVEYORS

GRADING PLAN 1
SUMMERLIN WEST VILLAGE 25
SUNSET RUN DRIVE
SCURRY BEND DRIVE TO LAKE MEAD BOULEVARD

DRAWN BY: BCC
DESIGNED BY: BCC
CHECKED BY: WJM
PROJECT NO: 7919
SCALE: 1"=20' HORIZ. N/A VERT.

WILLIAM J. MEYER
ENGINEER, STATE OF NEVADA
EXP. 12/31/21
CIVIL
No. 15745
SHEET
GR1
10 OF 35 SHEETS
DRAWING NO.



APN: 137-22-301-004
PARCEL HS-1
SUMMERLIN WEST
VILLAGE 25-UNIT
PER FINAL MAP
BOOK _____
PAGE _____

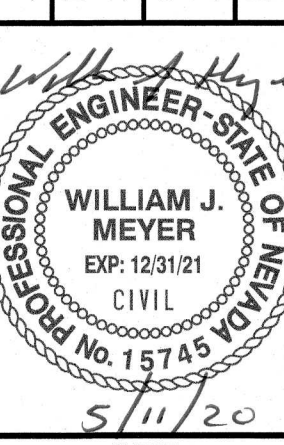
APN: 137-22-301-004
PARCEL O
 SUMMERLIN WEST
 VILLAGE 25-UNIT
 PER FINAL MAP
 BOOK _____
 PAGE _____

SDDI #	STATION	RIGHT/LEFT	TC ELEVATION	INV OUT ELEVATION	DEPTH
SDDI #1	37+36.23	LEFT	3599.69	3596.17	13.52
SDDI #2	37+49.80	RIGHT	3598.88	3590.63	8.25
SDDI #3	44+73.14	LEFT	3551.16	3542.17	8.99
SDDI #4	44+82.24	RIGHT	3550.81	3541.88	8.93

THE DELAWARE LIMITED LIABILITY COMPANY
10945 GRIFFITH PEAK DRIVE, SUITE 160
LAS VEGAS, NEVADA 89135
702-791-4000

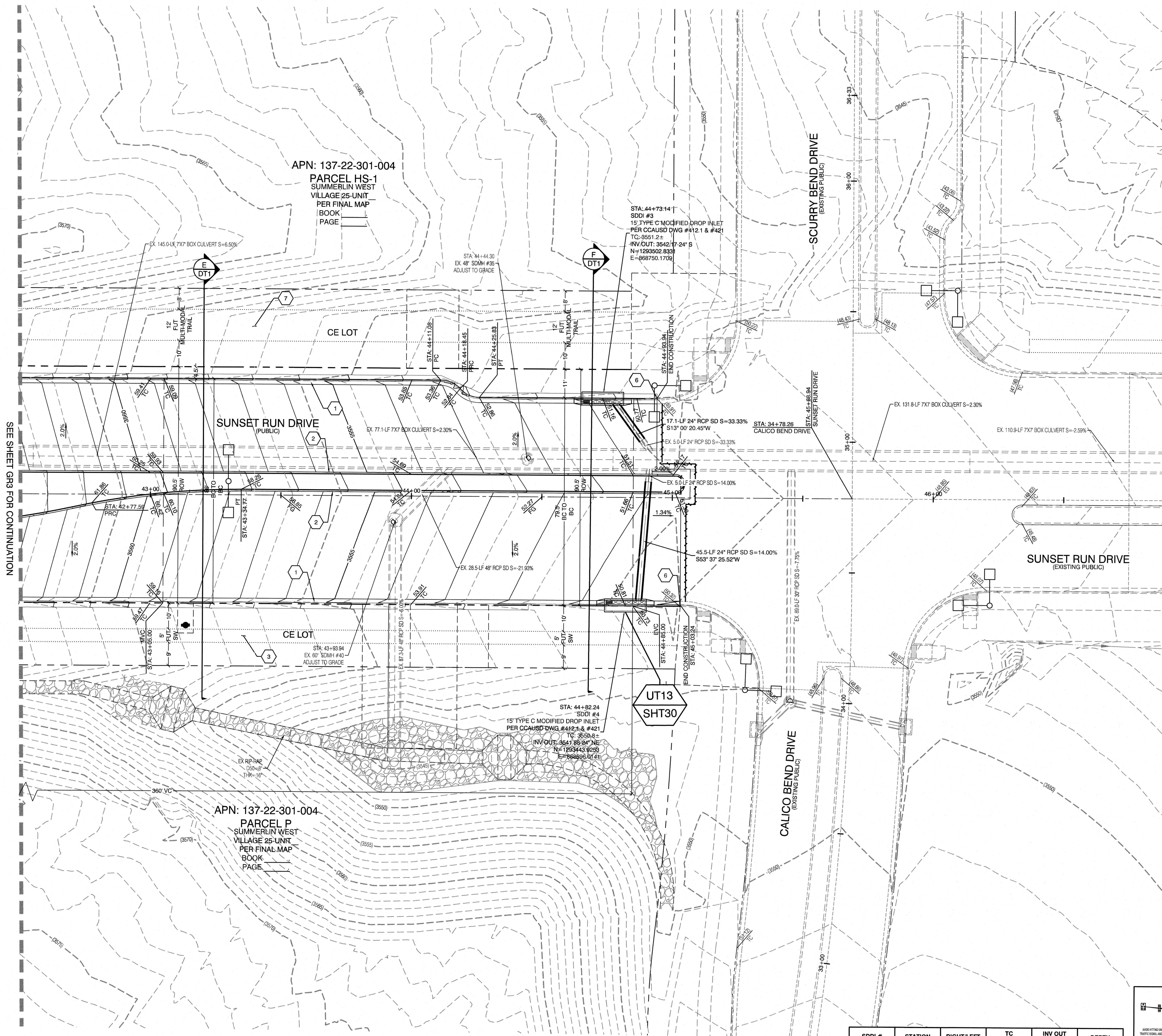
SUMMERLIN WEST VILLAGE 25
SUNSET RUN DRIVE
BEND DRIVE TO LAKE MEAD BO

BCC	01/10/2020
DESIGNED BY:	
BCC	01/10/2020
CHECKED BY:	
WJM	05/07/2020
PROJECT NO:	SCALE:
	1"=20' HORIZ.



OF **35** SHEETS

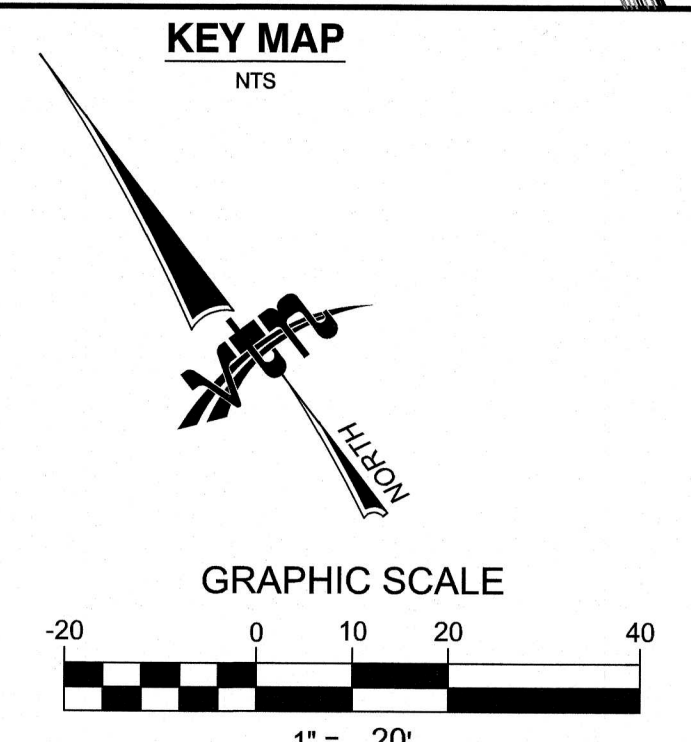
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SEE SHEET GR3 FOR CONTINUATION

APN: 137-22-301-004
PARCEL HS-1
SUMMERLIN WEST
VILLAGE 25 UNIT
PER FINAL MAP
BOOK
PAGE

APN: 137-22-301-004
PARCEL P
SUMMERLIN WEST
VILLAGE 25 UNIT
PER FINAL MAP
BOOK
PAGE



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REFER TO SOILS REPORT, NOVA GEOTECHNICAL
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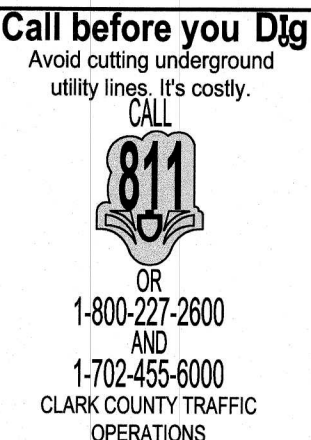
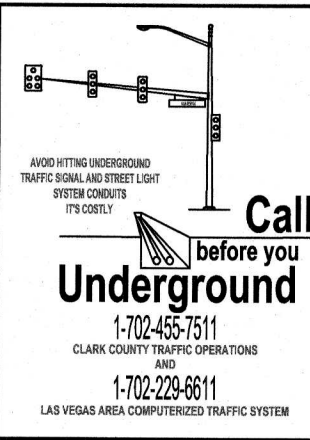
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CITY OF LAS VEGAS
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PH: (702) 973-7550 FAX: (702) 362-2887 WEB: WWW.VTNV.COM
CONSULTING ENGINEERS • PLANNERS • LAND SURVEYORS

GRADING PLAN 4

SUMMERLIN WEST VILLAGE 25
SUNSET RUN DRIVE
SCURRY BEND DRIVE TO LAKE MEAD BOULEVARD

DRAWN BY: BCC 01/10/2020

DESIGNED BY: BCC 01/10/2020

CHECKED BY: WJM 05/07/2020

PROJECT NO: 7918

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

PROJECT NO: 7918

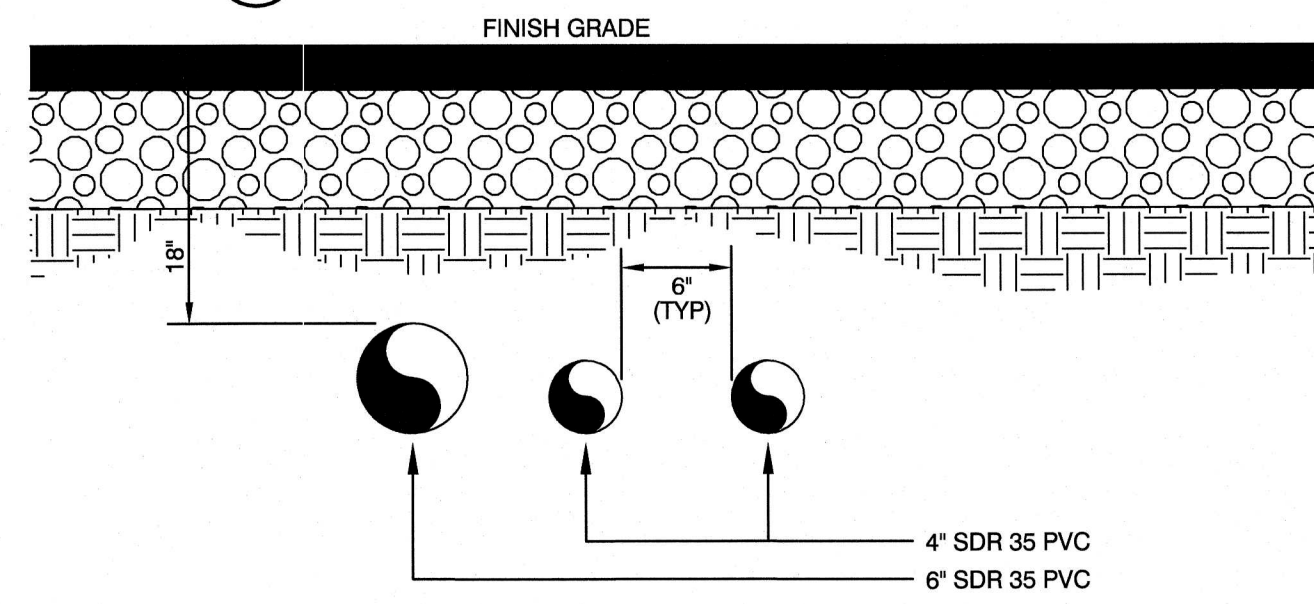
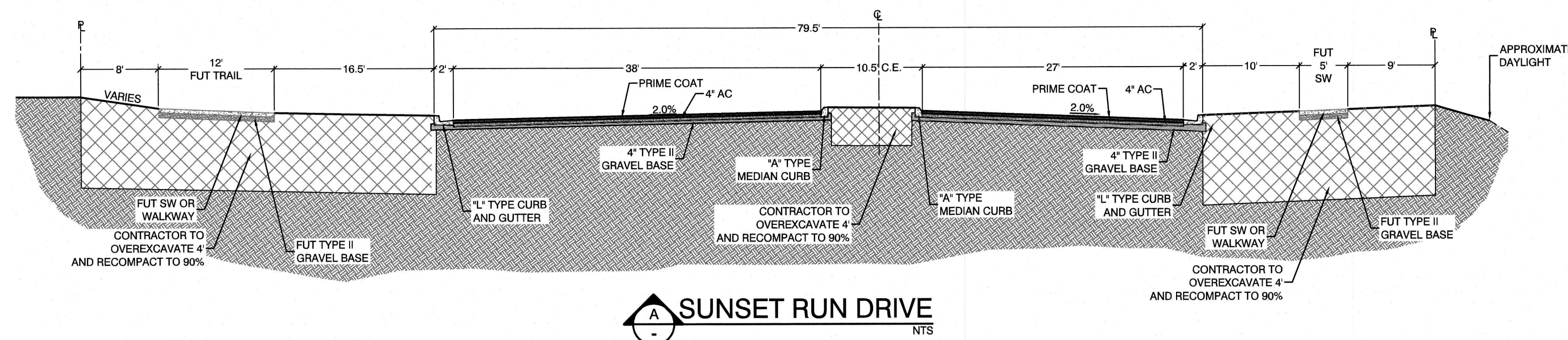
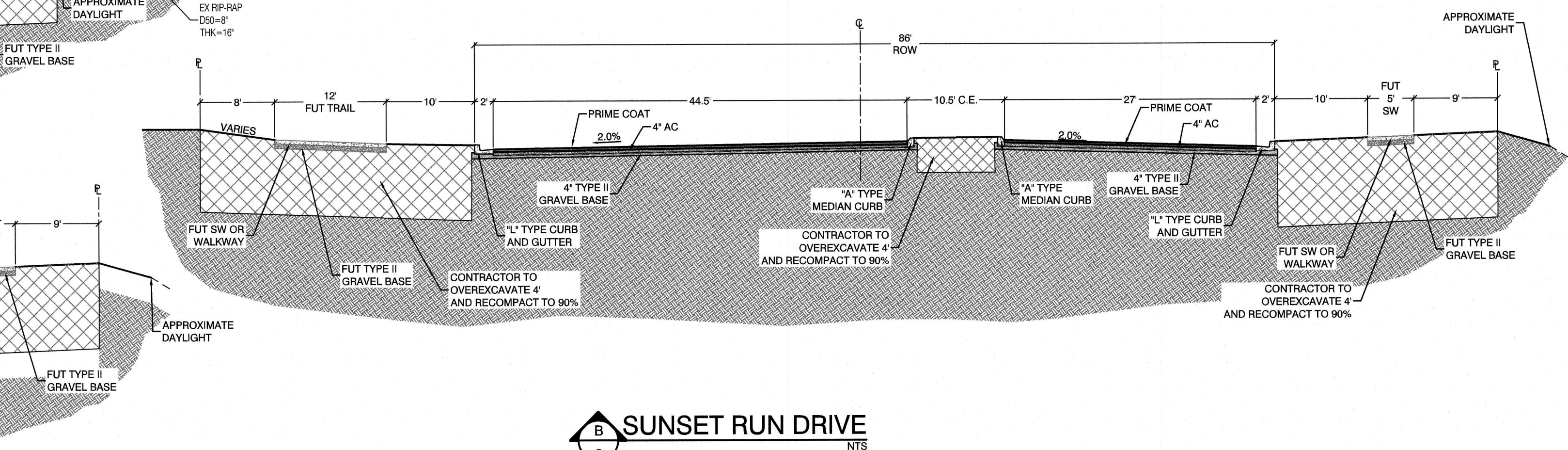
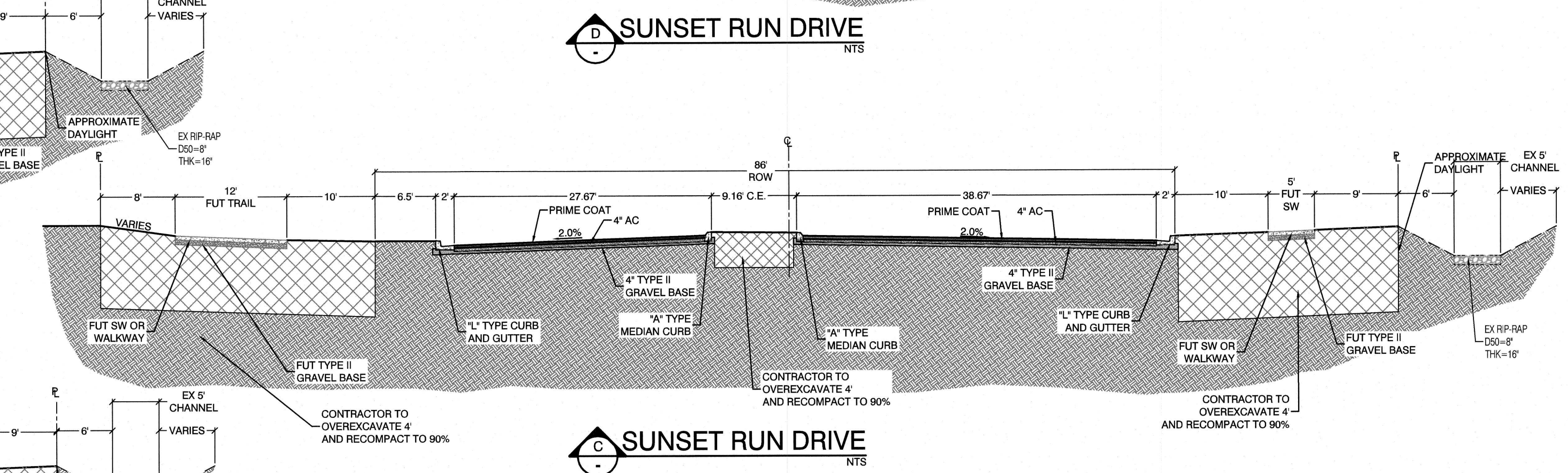
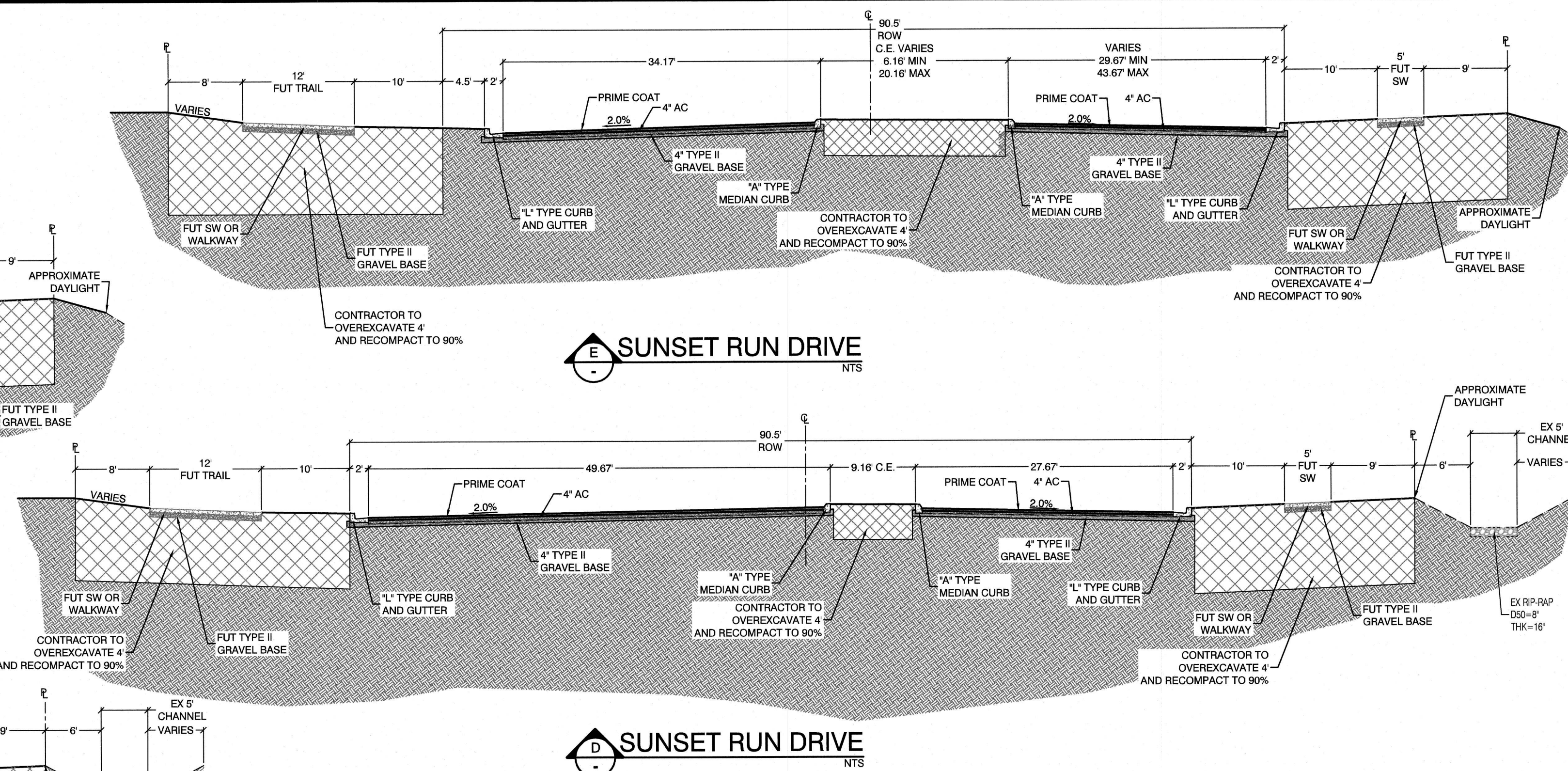
DATE: 05/11/20

SHEET 13 OF 35

DRAWING NO. GR4

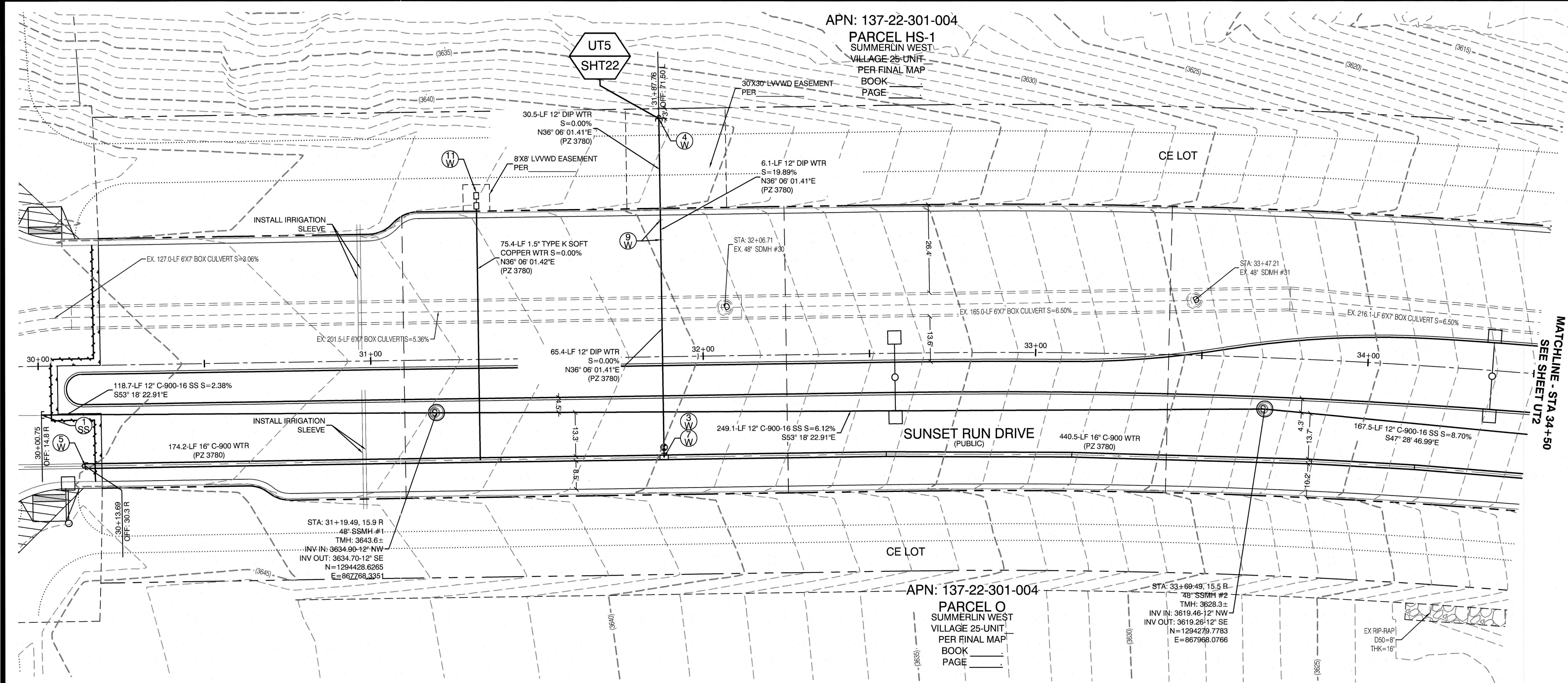
WILLIAM J MEYER
P.E. No. 15745
CIVIL ENGINEER-STATE OF NEVADA

5/11/20



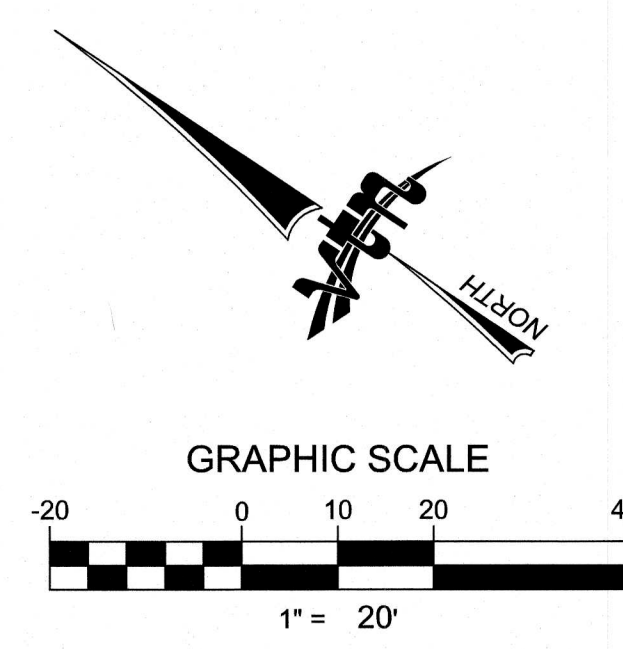
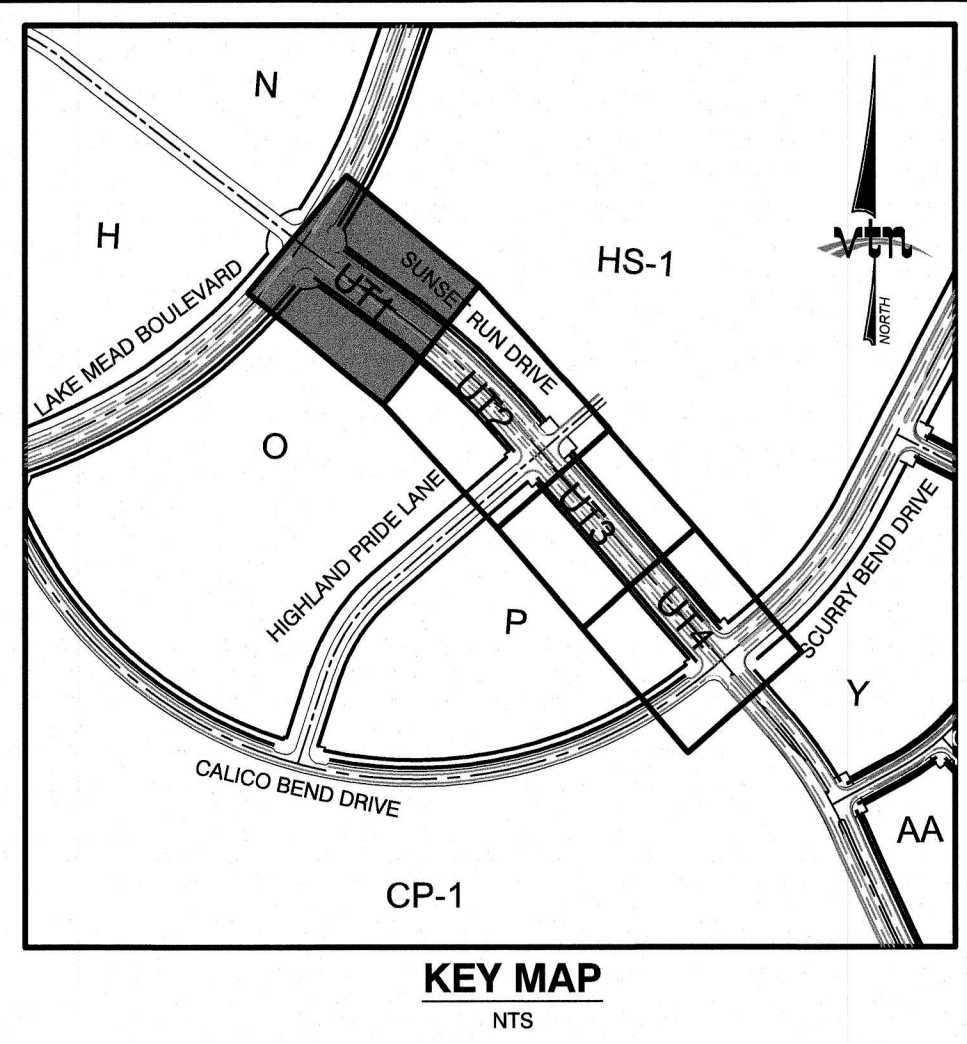
NOTE:
CONTRACTOR TO EXTEND SLEEVES 1' (12") BEHIND BACK OF CURB, TYP

IRRIGATION SLEEVE BANK
SCALE: N.T.S.



SUNSET RUN DRIVE
(PUBLIC)

PROFILE SCALES:
HORIZ = 1"=20'
VERT. = 1"=4'



CONSTRUCTION NOTE

UTILITY PROFILE REFERENCE LABEL
UT # = SHEET INDEX
SHT # = SHEET NUMBER

WATER PRESSURE ZONE:

WATER SERVICE LOCATED IN THE 3780 PRESSURE ZONE.

WATER MAIN COVER NOTE:

ALL NEW WATER MAIN TO HAVE MINIMUM DEPTH OF COVER PER UDACS SECTION 2.08

WATERLINE TRENCH NOTE:

CONSTRUCT WATERLINE TRENCH SECTION AND BACKFILL PER UDACS PLATE NO. 17.

WATER LINE MARKER BALLS NOTE

INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE NO. 15

FIRE HYDRANT MARKER NOTES

BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS ARE TO BE INSTALLED:

- ON ROADWAYS WITH NO PARKING PERMITTED ON HYDRANT SIDE, LOCATE MARKER 8' FROM FACE OF CURB ON HYDRANT SIDE.
- ON ROADWAYS WITH PARKING PERMITTED ON HYDRANT SIDE, LOCATE MARKER 16' FROM FACE OF CURB ON HYDRANT SIDE.

WATER MAIN JOINT DEFLECTION

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.

UTILITY CROSSING NOTE:

ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR PORTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.

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Call before you Dig

Avoid cutting underground utility lines. It's costly.

811

1-800-227-2600

1-702-455-7511

1-702-227-6811

CLARK COUNTY TRAFFIC OPERATIONS

CLARK COUNTY TRAFFIC OPERATIONS

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CLARK COUNTY TRAFFIC OPERATIONS

CLARK COUNTY TRAFFIC OPERATIONS

LAS VEGAS VALLEY WATER DISTRICT APPROVAL

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER

DATE: 5/14/20 PROJECT: 1509

LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 P.S.I. RESIDUAL

CONTRACTOR NOTE:

CONTRACTOR TO ADJUST ALL EXISTING STORM DRAIN MANHOLES AND RIMS TO NEW GRADE AS REQUIRED

BASIS OF BEARING

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

LINEAR UNIT: US SURVEY FOOT (FTUS)

DATUM (REFERENCE FRAME): NAD 83 (2011) EPOCH 2010.00

SYSTEM: NEVADA COORDINATE REFERENCE SYSTEM (NCRS)

ZONE: LAS VEGAS HIGH ELEVATION ZONE

PROJECTION: TRANSVERSE MERCATOR

STANDARD PARALLEL (AND LATITUDE OF GRID ORIGIN): 38°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:

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

BENCHMARK

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

NAVD88 ELEVATION: 989.574 METERS (3,246.63 FEET)

CITY OF LAS VEGAS BENCHMARK: D368 (REVISED 2006)

CHARLESTON BLVD. & WEST OF DETENTION BASIN.

T21S, R98E, S03

CONSTRUCTION NOTES	
WATER	PUBLIC
1. FIRE HYDRANT ASSEMBLY: INCLUDING 12"X12" TEE WITH 12" G.V. (PER UDACS PLATE 39 & 40)	1 EA.
2. FIRE HYDRANT ASSEMBLY: INCLUDING 16"X12" TEE WITH 12" G.V. (PER UDACS PLATE 39 & 40)	1 EA.
3. 12" GATE VALVE (PER UDACS PLATE 30 & 39)	4 EA.
4. 12" CAP & BLOW OFF (PER UDACS PLATE 36)	4 EA.
5. 16" CAP & BLOW OFF (PER UDACS PLATE 36)	2 EA.
6. 12"X12" TEE (PER UDACS PLATE 31)	1 EA.
7. 16"X16"X12" TEE (PER UDACS PLATE 31)	3 EA.
8. 16" 90° BEND (PER UDACS PLATE 31)	1 EA.
9. 12" 11" VERTICAL BEND (PER UDACS PLATE 31)	2 EA.
10. 12" 45° VERTICAL BEND (PER UDACS PLATE 31)	2 EA.
11. 1.5" TYPE K SOFT COPPER WATER LATERAL SERVICE WITH 1.5" METER PER UDACS PLATE #4 (IRRIGATION) AND 1.5" RPPA PER UDACS PLATE #8	1 EA.
12. 6" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17	94 LF.
13. 12" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17	598 LF.
14. 16" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17	827 LF.
15. 12" DIP WATER MAIN PER UDACS 2.06.01 & PLATE 17	163 LF.
WATER POINT OF CONNECTION	

SEWER	PUBLIC
1. STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" DIAMETER MANHOLE COVER UNLESS NOTED OTHERWISE	7 EA.
2. 12" C-900-16 SANITARY SEWER MAIN (PER STD 4.6 & 4.11)	1,809 LF.
3. 12" SEWER CAP (PER STD 4.6 & 4.11)	6 EA.
SEWER POINT OF CONNECTION	

SEE SHEET UT1A FOR PROFILE VIEW

HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY
10946 GRIFFITH PEAK DRIVE, SUITE 100
LAS VEGAS, NEVADA 89135
702.791.4000

2727 SOUTH RAINBOW BOULEVARD
LAS VEGAS, NEVADA 89146-5148
PH. (702) 878-7550 FAX (702) 382-2587
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UTILITY PLAN 1
30+00 TO 34+50

SUNSET RUN DRIVE
SCURRY BEND DRIVE TO LAKE MEAD BOULEVARD

DRAWN BY:
BCC

DESIGNED BY:
BCC

CHECKED BY:
WJM

PROJECT NO:
7919

01/10/2020

01/10/2020

05/07/2020

SCALE:
1"=20'
VERT. 1"=4'

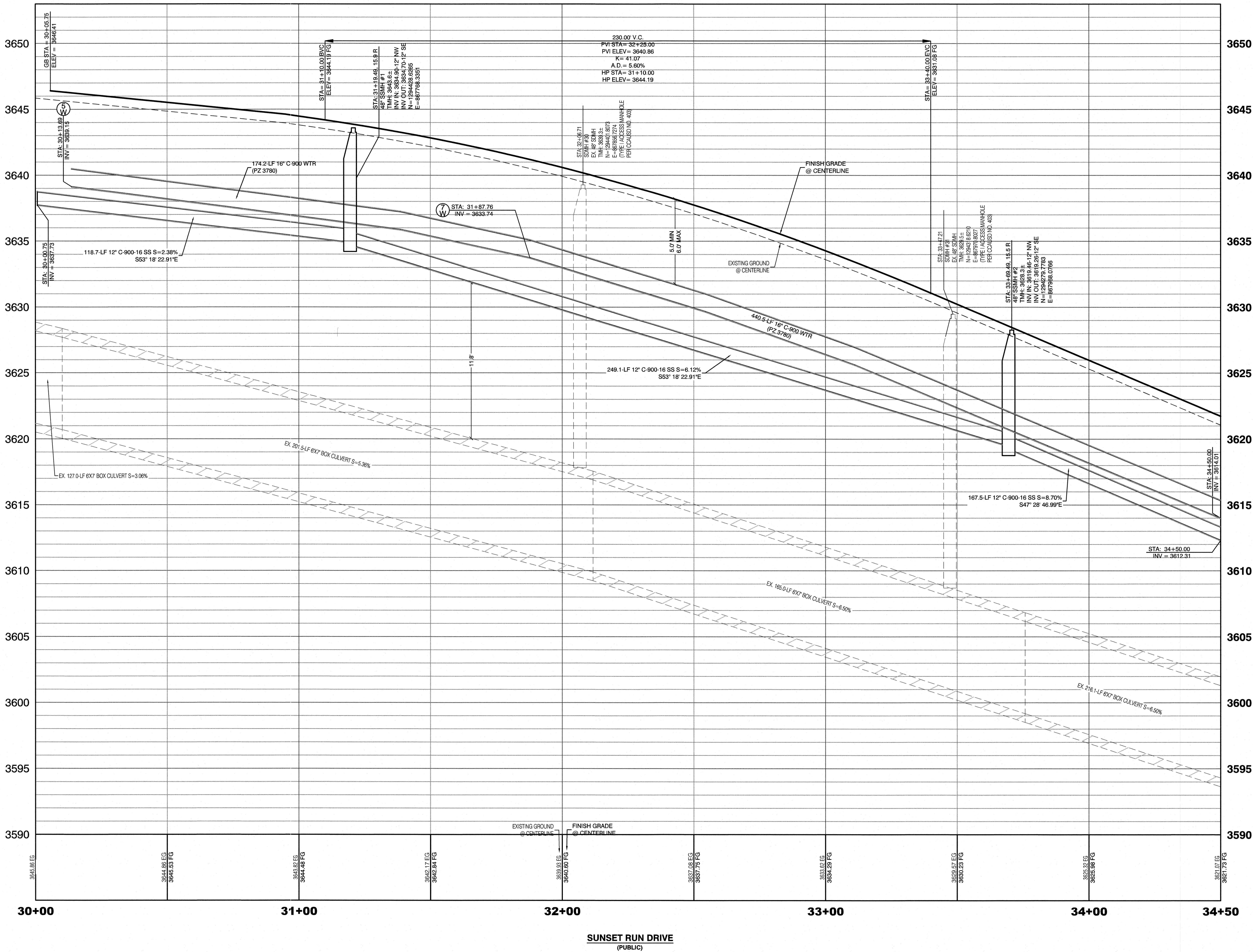
WILLIAM J. MEYER
CIVIL
No. 15745
5/14/20

UT1
15 OF 35 SHEETS
DRAWING NO.

SEE SHEET UT1 FOR PLAN VIEW

PROFILE SCALES:

HORIZ. = N/A
VERT. = 1"=4'



BASIS OF BEARING

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

LINEAR UNIT: US SURVEY FOOT (FT/US)

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
NORTHINGS AT GRID ORIGIN: 400,000.00 M (1,312,333.3333 FT/US)
EASTINGS AT CENTRAL MERIDIAN: 300,000 M (984,250.0000 FT/US)
SCALE FACTOR ON CENTRAL MERIDIAN: 1.000135 (EXACT)

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

BENCHMARK

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

CITY OF LAS VEGAS BENCHMARK: D368 (REVISED 2008)
NAVD88 ELEVATION: 989.574 METERS (3,246.63 FEET)

FND USCSGS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S, R69E, S03

CONSTRUCTION NOTES

WATER

- 1. FIRE HYDRANT ASSEMBLY: INCLUDING 12"X12" TEE WITH 12" G.V. (PER UDACS PLATE 38 & 40)
- 2. FIRE HYDRANT ASSEMBLY: INCLUDING 16"X12" TEE WITH 12" G.V. (PER UDACS PLATE 38 & 40)
- 3. 12" GATE VALVE (PER UDACS PLATE 30 & 39)
- 4. 12" CAP & BLOW OFF (PER UDACS PLATE 36)
- 5. 16" CAP & BLOW OFF (PER UDACS PLATE 36)
- 6. 12"X12" TEE (PER UDACS PLATE 31)
- 7. 16"X16"X12" TEE (PER UDACS PLATE 31)
- 8. 16" 90° BEND (PER UDACS PLATE 31)
- 9. 12" 11" VERTICAL BEND (PER UDACS PLATE 31). SEE PROFILE VIEW
- 10. 12" 45° VERTICAL BEND (PER UDACS PLATE 31). SEE PROFILE VIEW
- 11. 1.5" TYPE K S05 COPPER WATER LATERAL SERVICE WITH 1.5" METER PER UDACS PLATE #4 (IRRIGATION) AND 1.5" RPPA PER UDACS PLATE #8

- 6" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17
- 12" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17
- 16" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17
- 12" DIP WATER MAIN PER UDACS 2.06.01 & PLATE 17

WATER POINT OF CONNECTION

SEWER

- STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" DIAMETER MANHOLE COVER UNLESS NOTED OTHERWISE
- 12" C-900-16 SANITARY SEWER MAIN
- 12" SEWER CAP (PER STD 4.6 & 4.11)
- SEWER POINT OF CONNECTION

CONTRACTOR NOTE:

CONTRACTOR TO ADJUST ALL EXISTING STORM DRAIN MANHOLES AND RIMS TO NEW GRADE AS REQUIRED

WATER PRESSURE ZONE:

WATER SERVICE LOCATED IN THE 3780 PRESSURE ZONE.

WATER MAIN COVER NOTE:

ALL NEW WATER MAIN TO HAVE MINIMUM DEPTH OF COVER PER UDACS SECTION 2.08

WATERLINE TRENCH NOTE:

CONSTRUCT WATERLINE TRENCH SECTION AND BACKFILL PER UDACS PLATE NO. 17.

WATER LINE MARKER BALLS NOTE

INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE NO. 15

FIRE HYDRANT MARKER NOTES

- ON ROADWAYS WITH NO PARKING PERMITTED ON HYDRANT SIDE, LOCATE MARKER 8' FROM FACE OF CURB ON HYDRANT SIDE.
- ON ROADWAYS WITH PARKING PERMITTED ON HYDRANT SIDE, LOCATE MARKER 16' FROM FACE OF CURB ON HYDRANT SIDE.

WATER MAIN JOINT DEFLECTION

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.

UTILITY CROSSING NOTE:

ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR PORTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.

ENGINEER DISCLAIMER NOTE:

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



Call before you Dig
Avoid cutting underground utility lines. It's costly.
811
OR
1-800-227-2600
AND
1-702-455-6000
CLARK COUNTY TRAFFIC OPERATIONS



LAS VEGAS VALLEY WATER DISTRICT APPROVAL

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: _____ PROJECT: _____
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 P.S.I. RESIDUAL

HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY

UTILITY PROFILE 1A
30+00 TO 34+50

SUMMERLIN WEST VILLAGE 25
SUNSET RUN DRIVE
SCURRY BEND DRIVE TO LAKE MEAD BOULEVARD

DRAWN BY: KTC
DESIGNED BY: BCC
CHECKED BY: WJM
PROJECT NO: 7919

DATE: 01/10/2020
DATE: 01/10/2020
DATE: 06/07/2020

SCALE: N/A
HORIZ. 1"=4'
VERT. 1"=4'

SHEET
UT1A
16 OF 35 SHEETS
DRAWING NO. _____

WILLIAM J. MEYER
CIVIL
EXP: 12/31/21
No. 15745
5/11/20

PROFESSIONAL ENGINEER SITE 30

REVISION

DATE BY REV

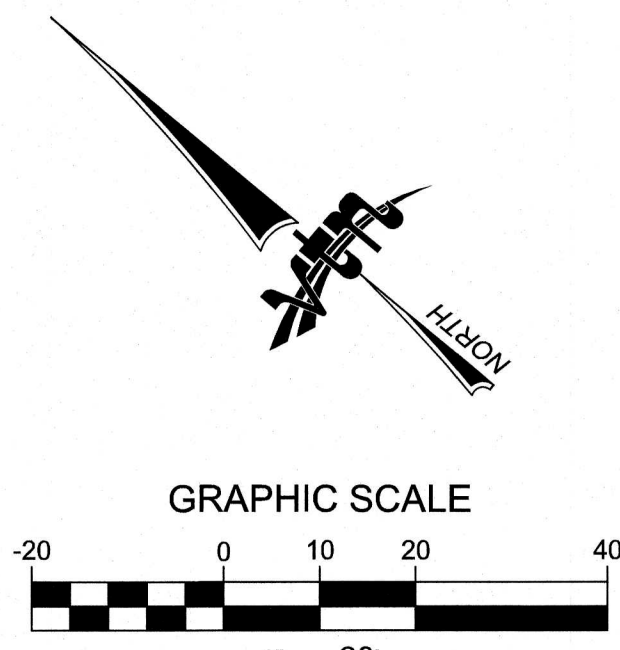
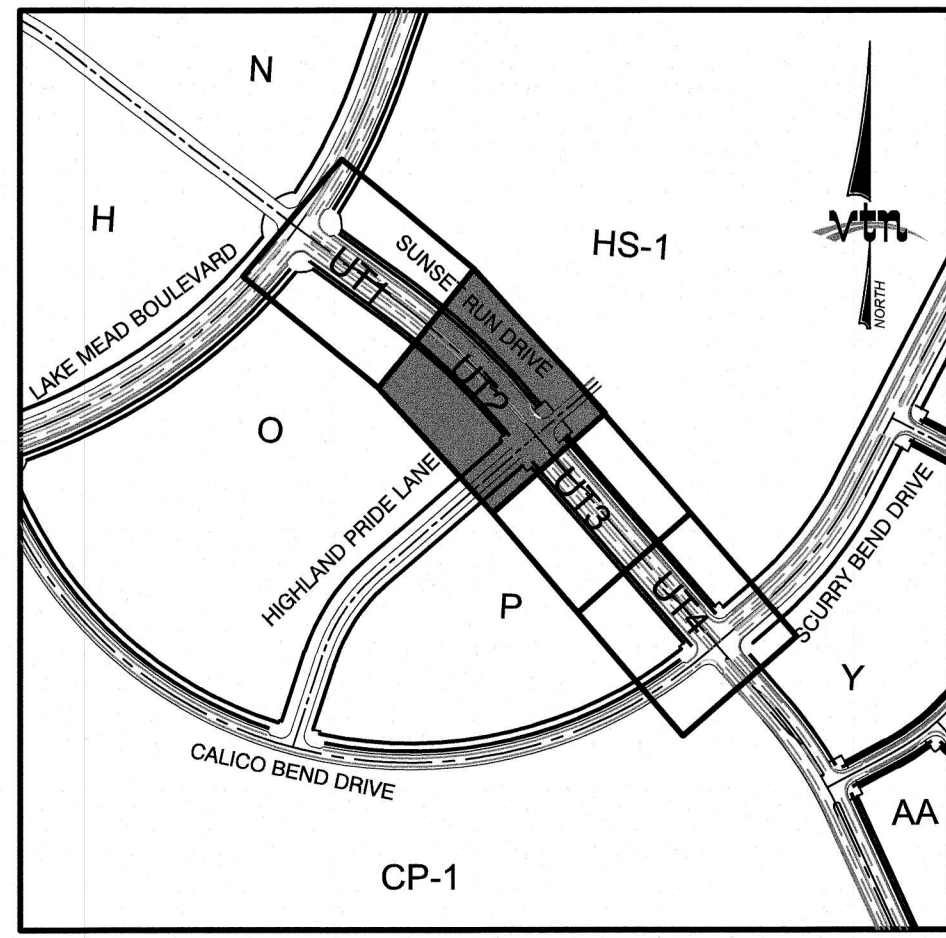
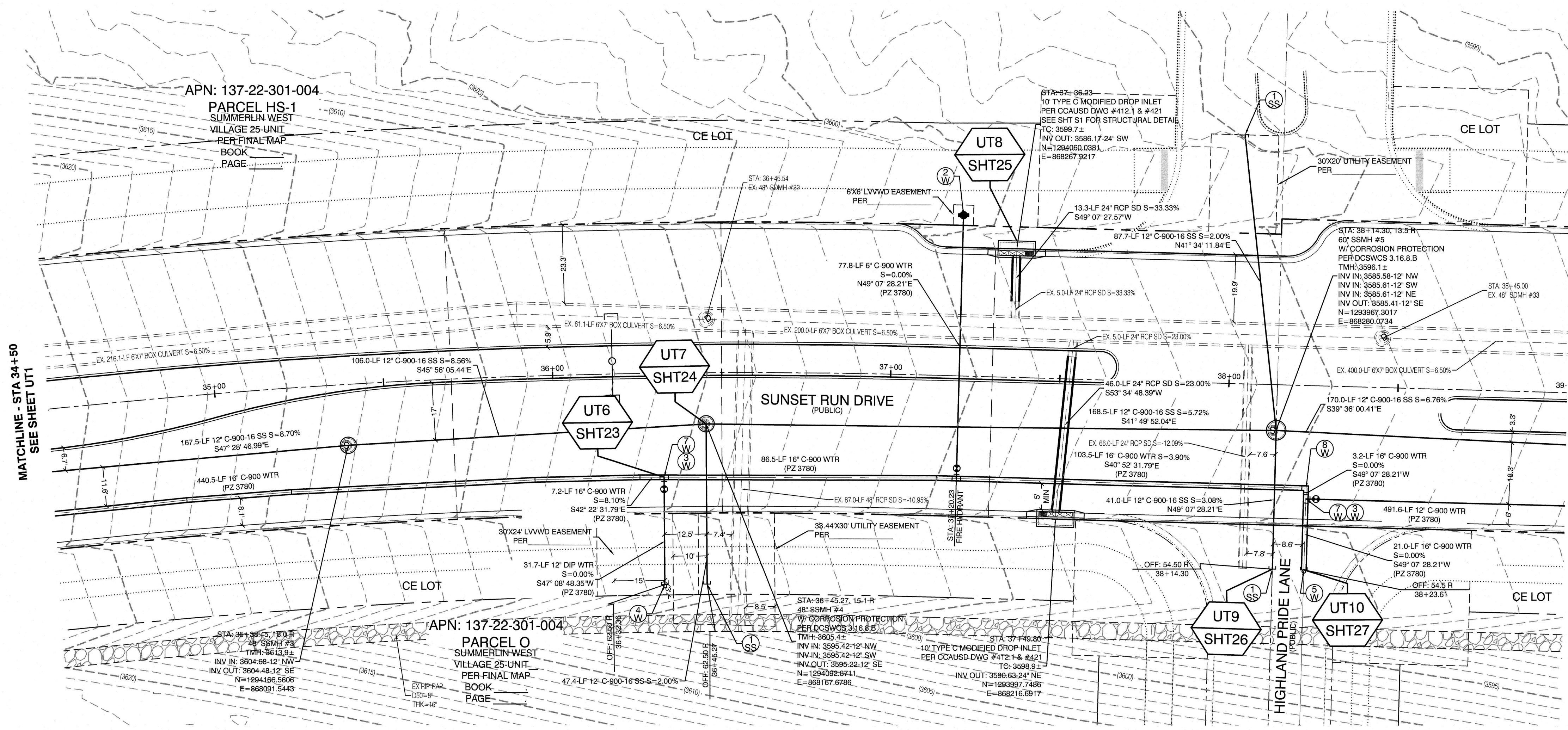
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LAS VEGAS, NEVADA 89146-5148

10846 GRIFFITH PEAK DRIVE, SUITE 100
LAS VEGAS, NEVADA 89135
702-791-4000

7/19/19 SUNSET RUN DRIVE - SBD to LMB Sheet Set 7919 UT1 - 19mg 5/8/2020 7/19 AM Brandon



CONSTRUCTION NOTE
UTILITY PROFILE REFERENCE LABEL
UT # = SHEET INDEX
SHT # = SHEET NUMBER

WATER PRESSURE ZONE:
WATER SERVICE LOCATED IN THE 3780 PRESSURE ZONE

WATER MAIN COVER NOTE:
ALL NEW WATER MAIN TO HAVE MINIMUM DEPTH OF COVER PER UDACS SECTION 2.08

WATERLINE TRENCH NOTE:
CONSTRUCT WATERLINE TRENCH SECTION AND BACKFILL PER UDACS PLATE NO. 17

WATER LINE MARKER BALLS NOTE
INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE NO. 15

FIRE HYDRANT MARKER NOTES
BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS ARE TO BE INSTALLED:
1. ON ROADWAYS WITH NO PARKING PERMITTED ON HYDRANT SIDE, LOCATE MAKER 8' FROM FACE OF CURB ON HYDRANT SIDE.
2. ON ROADWAYS WITH PARKING PERMITTED ON HYDRANT SIDE, LOCATE MARKER 16' FROM FACE OF CURB ON HYDRANT SIDE.

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

UTILITY CROSSING NOTE:
ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR PORTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.

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Call before you Dig
Avoid cutting underground utility lines. It's costly.
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1-800-227-2600
OR
1-702-455-6000
CLARK COUNTY TRAFFIC OPERATIONS

Call before you Dig
Avoid hitting overhead power lines. It's costly.
Call 1-702-227-2929

- CONSTRUCTION NOTES**
- WATER**
- 1" FIRE HYDRANT ASSEMBLY, INCLUDING 12"X12" TEE WITH 12" G.V. (PER UDACS PLATE 39 & 40)
 - 2" FIRE HYDRANT ASSEMBLY, INCLUDING 16"X12" TEE WITH 12" G.V. (PER UDACS PLATE 39 & 40)
 - 12" GATE VALVE (PER UDACS PLATE 30 & 39)
 - 12" CAP & BLOW OFF (PER UDACS PLATE 36)
 - 16" CAP & BLOW OFF (PER UDACS PLATE 36)
 - 12"X12" TEE (PER UDACS PLATE 31)
 - 16"X16"X12" TEE (PER UDACS PLATE 31)
 - 16" 90° BEND (PER UDACS PLATE 31)
 - 12" 11" VERTICAL BEND (PER UDACS PLATE 31). SEE PROFILE VIEW
 - 12" 45" VERTICAL BEND (PER UDACS PLATE 31). SEE PROFILE VIEW
 - 1.5" TYPE K SOFT COPPER WATER LATERAL SERVICE WITH 1.5" METER PER UDACS PLATE #4 (IRRIGATION) AND 1.5" RPPA PER UDACS PLATE #6
 - 6" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17
 - 12" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17
 - 16" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17
 - 12" DIP WATER MAIN PER UDACS 2.06.01 & PLATE 17
 - WATER POINT OF CONNECTION
- SEWER**
- STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" DIAMETER MANHOLE COVER UNLESS NOTED OTHERWISE
 - 12" C-900-16 SANITARY SEWER MAIN
 - 12" SEWER CAP (PER STD 4.6 & 4.11)
 - SEWER POINT OF CONNECTION

SDDI #	STATION	RIGHT/LEFT	TC ELEVATION	INV OUT ELEVATION	DEPTH
SDDI #1	37+36.23	LEFT	3599.69	3586.17	13.52
SDDI #2	37+49.80	RIGHT	3598.88	3590.63	8.25
SDDI #3	44+73.14	LEFT	3551.16	3542.17	8.99
SDDI #4	44+82.24	RIGHT	3550.81	3541.88	8.93

CONTRACTOR NOTE:
CONTRACTOR TO ADJUST ALL EXISTING STORM DRAIN MANHOLES AND RIMS TO NEW GRADE AS REQUIRED

BASIS OF BEARING
GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS HIGH ELEVATION ZONE, NORTH AMERICAN DATUM OF 1983, SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.
LINEAR UNIT: US SURVEY FOOT (FTUS)
DATUM (REFERENCE FRAME): NAD 83 (2011) EPOCH 2010.00
SYSTEM: NEVADA COORDINATE REFERENCE SYSTEM (NCRS)
ZONE: LAS VEGAS HIGH ELEVATION ZONE
PROJECTION: TRANSVERSE MERCATOR STANDARD PARALLEL (AND LATITUDE OF GRID ORIGIN) 36°15'00"N
LONGITUDE OF CENTRAL MERIDIAN: 114°58'00"W
NORTHING AT GRID ORIGIN: 400,000.00 M (1,312,333.333 FTUS)
EASTING AT CENTRAL MERIDIAN: 300,000.00 M (984,250.000 FTUS)
SCALE FACTOR ON CENTRAL MERIDIAN: 1.000135 (EXACT)
NOTES:
1. ALL DISTANCES AND BEARINGS SHOWN HEREON ARE PROJECTED (GRID) VALUES BASED ON THE PRECEDING PROJECTION DEFINITION. THE PROJECTION WAS DEFINED SUCH THAT PROJECTED (GRID) DISTANCES ARE EQUIVALENT TO "GROUND" DISTANCES IN THE PROJECT AREA.
2. GRID BEARINGS SHOWN HEREON (OR IMPLIED BY GRID COORDINATES) DO NOT EQUAL GEODETIC BEARINGS DUE TO MERIDIAN CONVERGENCE.

BENCHMARK
PROJECT DATUM: NORTH AMERICAN DATUM OF 1988 (NAVD88)
CITY OF LAS VEGAS BENCHMARK: D368 (REVISED 2008) NAVD88 ELEVATION: 989.574 METERS (3,246.63 FEET)
FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S, R96E, S03

SEE SHEET UT2A FOR PROFILE VIEW

HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY
10845 GRIFFITH PEAK DRIVE, SUITE 180
LAS VEGAS, NEVADA 89135
702.791.4000

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LAS VEGAS, NEVADA 89146-5148
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UTILITY PLAN 2
34+50 TO 39+00

SUMMERLIN WEST VILLAGE 25
SUNSET RUN DRIVE
SCURRY BEND DRIVE TO LAKE MEAD BOULEVARD

DRAWN BY:
BCC

DESIGNED BY:
BCC

CHECKED BY:
WJM

PROJECT NO:
7919

DATE:
01/10/2020

SCALE:
1"=20'
HORIZ.
1"=4'
VERT.

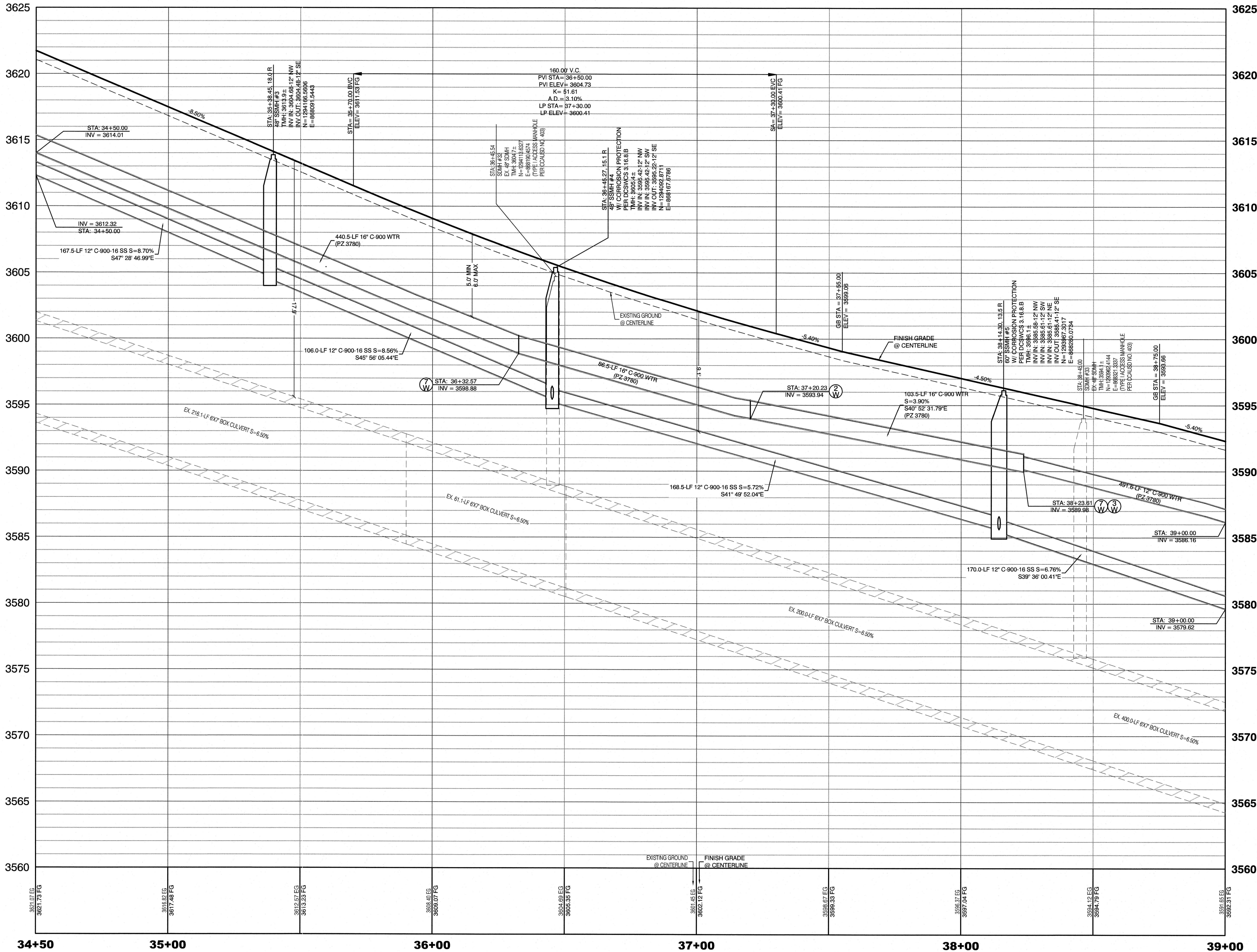
WILLIAM J. MEYER
EXP. 12/31/21
CIVIL
PROFESSIONAL ENGINEER STATE OF NEVADA
No. 15745

SHEET
UT2
17 OF 35 SHEETS
DRAWING NO.

SEE SHEET UT2 FOR PLAN VIEW

PROFILE SCALES:

HORIZ. = N/A
VERT. = 1"=4'



BASIS OF BEARING

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

LINEAR UNIT: US SURVEY FOOT (FT/US)

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\"/>

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.
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BENCHMARK

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

CITY OF LAS VEGAS BENCHMARK: D368 (REVISED 2008)
NAVD88 ELEVATION: 989.574 METERS (3,246.63 FEET)

FND USCS&S DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T218, R59E, S03

CONSTRUCTION NOTES

WATER

FIRE HYDRANT ASSEMBLY:
INCLUDING 12\"/>

FIRE HYDRANT ASSEMBLY:
INCLUDING 16\"/>

12\"/>

12\"/>

12\"/>

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CONTRACTOR NOTE:

CONTRACTOR TO ADJUST ALL EXISTING STORM DRAIN MANHOLES AND RIMS TO NEW GRADE AS REQUIRED

WATER PRESSURE ZONE:

WATER SERVICE LOCATED IN THE 3780 PRESSURE ZONE.

WATER MAIN COVER NOTE:

ALL NEW WATER MAIN TO HAVE MINIMUM DEPTH OF COVER PER UDACS SECTION 2.08

WATERLINE TRENCH NOTE:

CONSTRUCT WATERLINE TRENCH SECTION AND BACKFILL PER UDACS PLATE NO. 17.

WATER LINE MARKER BALLS NOTE

INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE NO. 15

FIRE HYDRANT MARKER NOTES

BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS ARE TO BE INSTALLED:

- ON ROADWAYS WITH NO PARKING PERMITTED ON HYDRANT SIDE, LOCATE MAKER 8' FROM FACE OF CURB ON HYDRANT SIDE.
- ON ROADWAYS WITH PARKING PERMITTED ON HYDRANT SIDE, LOCATE MARKER 16' FROM FACE OF CURB ON HYDRANT SIDE.

WATER MAIN JOINT DEFLECTION

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.

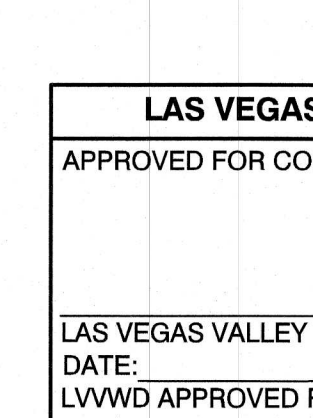
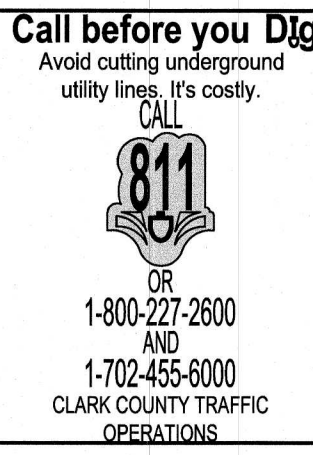
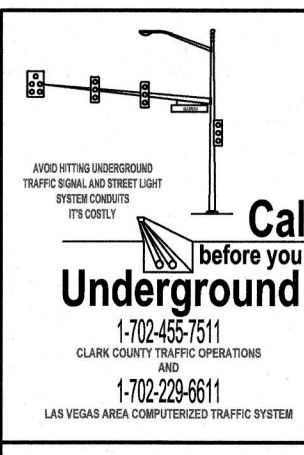
FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

UTILITY CROSSING NOTE:

ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR PORTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.

ENGINEER DISCLAIMER NOTE:

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LAS VEGAS VALLEY WATER DISTRICT APPROVAL

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: _____ PROJECT: _____
LVWWD APPROVED FIRE FLOW 1,500 GPM AT 20 P.S.I. RESIDUAL

HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY
10945 GRIFFITH PEAK DRIVE, SUITE 180
LAS VEGAS, NEVADA 89135
702.791.4000

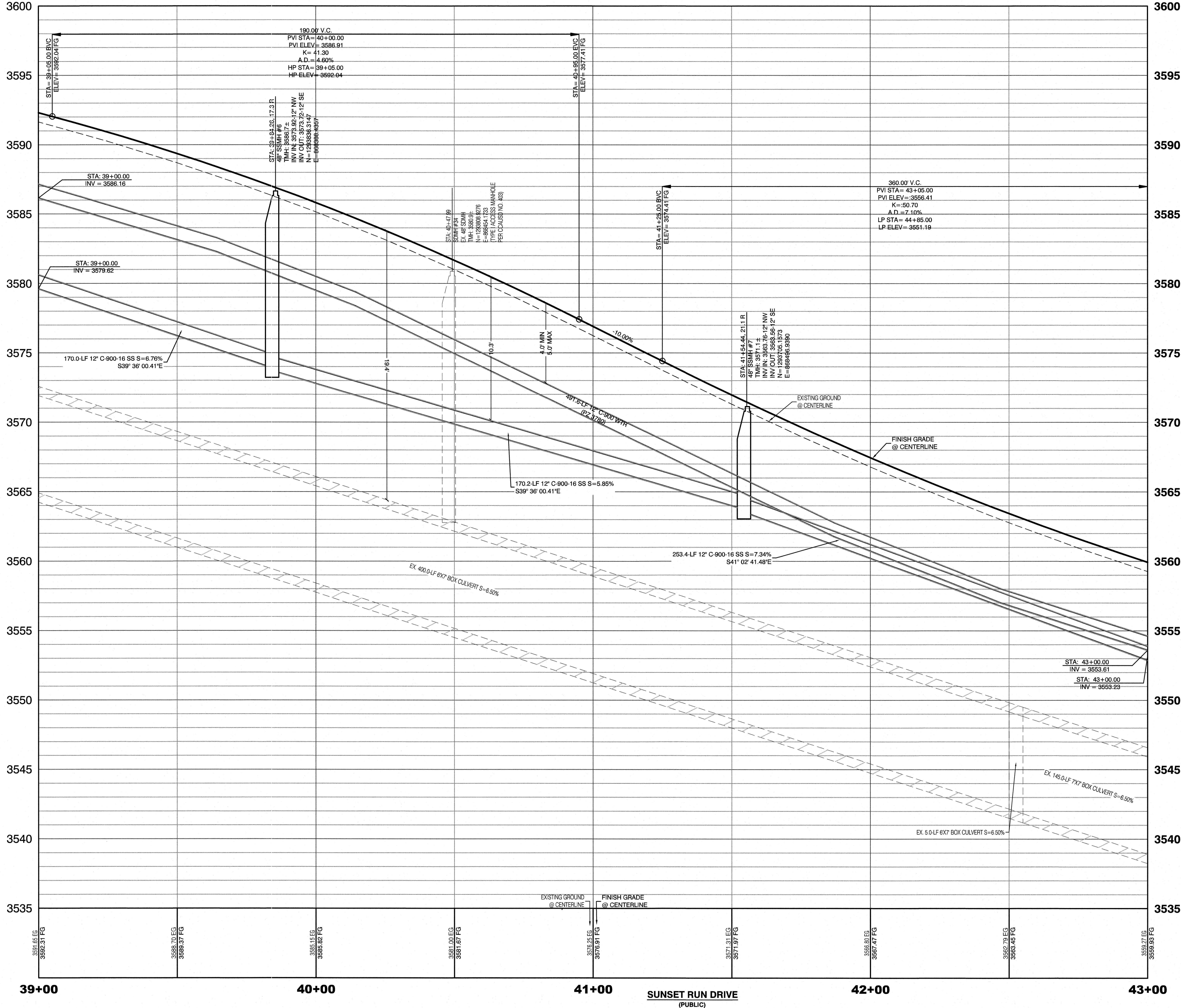
UTILITY PROFILE 2A
34+50 TO 39+00
SUMMERLIN WEST VILLAGE 25
SUNSET RUN DRIVE
SCURRY BEND DRIVE TO LAKE MEAD BOULEVARD

DRAWN BY: KTC
DESIGNED BY: BCC
CHECKED BY: WJM
PROJECT NO: 7919
SCALE: N/A
HORIZ. 1"=4'
VERT. 1"=4'

WILLIAM J. MEYER
PROFESSIONAL ENGINEER - STATE OF NEVADA
NO. 15745
S/11/20
SHEET
18 OF 35 SHEETS
DRAWING NO. _____

117919\SUNSET RUN DRIVE - SED TO LMS\SHEET Set\7919 UT1.dwg 5/8/2020 7:19 AM\branding

SEE SHEET UT3 FOR PLAN VIEW



WATER PRESSURE ZONE:
WATER SERVICE LOCATED IN THE 3780 PRESSURE ZONE.

WATER MAIN COVER NOTE: ALL NEW WATER MAIN TO HAVE MINIMUM DEPTH OF COVER PER UDACS SECTION 2.08
--

WATERLINE TRENCH NOTE:	
CONSTRUCT WATERLINE TRENCH SECTION AND BACKFILL PER UDACS PLATE NO. 17.	

WATER LINE MARKER BALLS NOTE			
INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE No. 15			

FIRE HYDRANT MARKER NOTES	
BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS ARE TO BE INSTALLED:	
1.	ON ROADWAYS WITH NO PARKING PERMITTED ON HYDRANT SIDE; LOCATE MAKER 8' FROM FACE OF CURB ON HYDRANT SIDE.
2.	ON ROADWAYS WITH PARKING PERMITTED ON HYDRANT SIDE; LOCATE MARKER 16' FROM FACE OF CURB ON HYDRANT SIDE.

WATER MAIN JOINT DEFLECTION
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.

UTILITY CROSSING NOTE: ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR PORTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.

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CONTRACTOR NOTE: CONTRACTOR TO ADJUST ALL EXISTING STORM DRAIN MANHOLES AND RIMS TO NEW GRADE AS REQUIRED
--

BASIS OF BEARING

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS HIGH ELEVATION ZONE, NORTH AMERICAN DATUM OF 1983; SAD 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 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)
SCALING AT CENTRAL MERIDIAN: 300,000.00 M (984,250.0000 FTUS)

SCALE FACTOR ON CENTRAL MERIDIAN: 1.000135 (EXACT)

NOTES:

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

BENCHMARK

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

CITY OF LAS VEGAS BENCHMARK: D368 (REVISED 2008)
NAVD88 ELEVATION: 989.574 METERS (3,246.63 FEET)

FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF
CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S.R59E.S03

Call before you Dig
Avoid cutting underground utility lines. It's costly.

CALL

OR
1-800-227-2600
AND
1-702-455-6000
CLARK COUNTY TRAFFIC
OPERATIONS

LAS VEGAS VALLEY WATER DISTRICT APPROVAL	
APPROVED FOR CONSTRUCTION	
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER DATE: _____ PROJECT: _____ LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 P.S.I. RESIDUAL	

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

UTILITY PROFILE 3A
39+00 TO 43+00

SUMMERLIN WEST VILLAGE 25
SUNSET RUN DRIVE
SCURRY BEND DRIVE TO LAKE MEAD BOULEVARD

DRAWN BY:	KTC	01/10/2020
DESIGNED BY:	BCC	01/10/2020
CHECKED BY:	WJM	05/07/2020
PROJECT NO:	SCALE:	HOT

with 1 ply

PROFESSIONAL ENGINEER-STATE OF NEVADA

WILLIAM J. MEYER

EXP: 12/31/21

CIVIL

No. 15745

5/11/20

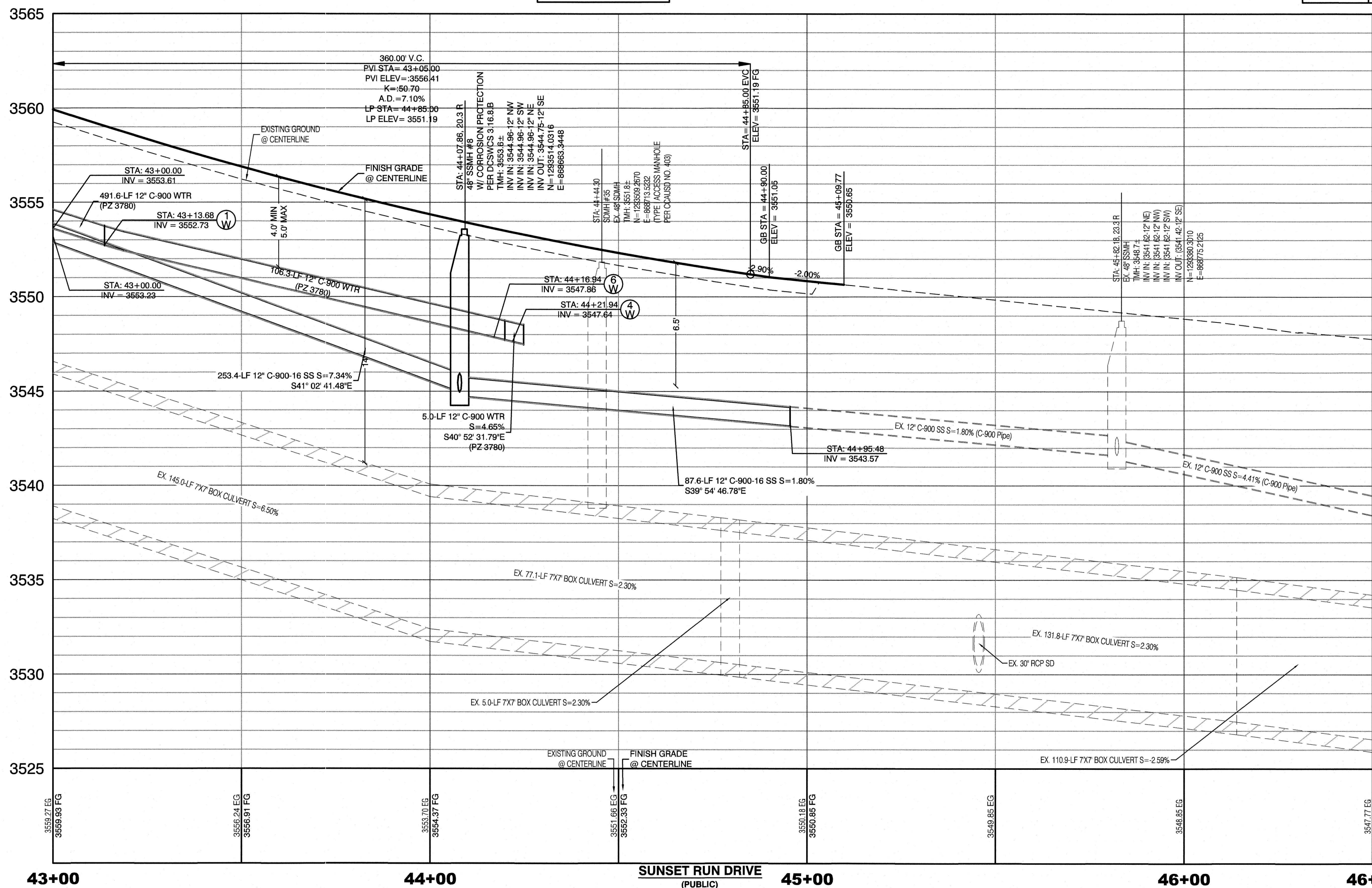
SHEET

UT3A

20 OF 35 SHEETS

DRAWING NO.

H:\7919\SUNSET RUN DRIVE - SBD to LMB\Sheet Set\7919 UT-1.dwg;5/8/2020 7:19 AM;brandonc



SDDI #	STATION	RIGHT/LEFT	TC ELEVATION	INV OUT ELEVATION	DEPTH
SDDI #1	37+36.23	LEFT	3599.69	3598.17	13.52
SDDI #2	37+49.80	RIGHT	3598.88	3590.63	8.25
SDDI #3	44+73.14	LEFT	3551.16	3542.17	8.99
SDDI #4	44+82.24	RIGHT	3550.81	3541.88	8.93

UTILITY PROFILE REFERENCE LABEL
UT # = SHEET INDEX
SHT# = SHEET NUMBER

WATER SERVICE LOCATED IN THE 3780 PRESSURE ZONE

ALL NEW WATER MAIN TO HAVE MINIMUM DEPTH OF COVER
PER UDACS SECTION 2.08

CONSTRUCT WATERLINE TRENCH SECTION AND BACKFILL PER
UDACS PLATE NO. 17.

INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UO PLATE No. 15

BLUE COLORED REFLECTIVE RAISED
PAVEMENT MARKERS ARE TO BE INSTALLED:

1. ON ROADWAYS WITH NO PARKING PERMITTED ON HYDRANT SIDE; LOCATE MAKER 8' FROM FACE OF CURB ON HYDRANT SIDE.
2. ON ROADWAYS WITH PARKING PERMITTED ON HYDRANT SIDE; LOCATE MARKER 16' FROM FACE OF CURB ON HYDRANT SIDE.

PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) INCH PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 10 FEET, PER UDACS 2.07.01 AND 2.07.02.

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

ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR PORTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.

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

ALL UTILITIES SHOWN HEREON ARE APPROXIMATE
 SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO
 THE EXACT HORIZONTAL AND VERTICAL LOCATION
 EXISTING UNDERGROUND AND OVERHEAD UTILITIES
 BY THE DESIGN ENGINEER IMMEDIATELY OF ANY
 UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO
 GUARANTEE IS MADE THAT ALL EXISTING UTILITIES ARE
 SHOWN. THE ENGINEER ASSUMES NO
 LIABILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT
 AT THEIR PROPER LOCATION.

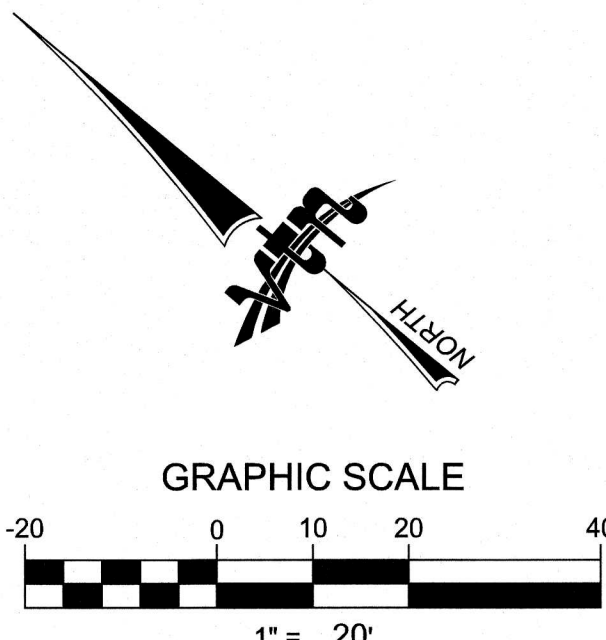
Call before you Dig
Avoid cutting underground

Call
before you
dig
ground

CLARK COUNTY
TRAFFIC
OPERATIONS

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: _____ PROJECT: ----
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 P.S.I. RESIDUAL



WATER

		FIRE HYDRANT ASSEMBLY: INCLUDING 12"x12" TEE WITH 12" G.V. (PER UDACS PLATE 38 & 40)
		FIRE HYDRANT ASSEMBLY: INCLUDING 16"x12" TEE WITH 12" G.V. (PER UDACS PLATE 38 & 40)
		12" GATE VALVE (PER UDACS PLATE 38 & 39)
		12" CAP & BLOW OFF (PER UDACS PLATE 36)
		16" CAP & BLOW OFF (PER UDACS PLATE 36)
		12"x12" TEE (PER UDACS PLATE 31)
		12"x16"x12" TEE (PER UDACS PLATE 31)
		16" 90° BEND (PER UDACS PLATE 31)
		12" 11° VERTICAL BEND (PER UDACS PLATE 31) SEE PROFILE VIEW
		12" 45° VERTICAL BEND (PER UDACS PLATE 31) SEE PROFILE VIEW
		1.5" TYPE K SOFT COPPER WATER LATERAL SERVICE WITH 1.5" METER PER UDACS PLATE #4 (IRRIGATION) AND 1.5" RPPA PER UDACS PLATE #8

	6" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17
	12" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17
	16" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17
	12" DIP WATER MAIN PER UDACS 2.06.01 & PLATE 17

	STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" DIAMETER MANHOLE COVER UNLESS NOTED OTHERWISE
	12" C-900-16 SANITARY SEWER MAIN
	12" SEWER CAP (PER STD 4.6 & 4.11)
	SEWER POINT OF CONNECTION

HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY
 10845 GRIFFITH PEAK DRIVE, SUITE 160
 LAS VEGAS, NEVADA 89135
CITY OF LAS VEGAS

**UTILITY PLAN & PROFILE 4
43+00 TO 46+50**

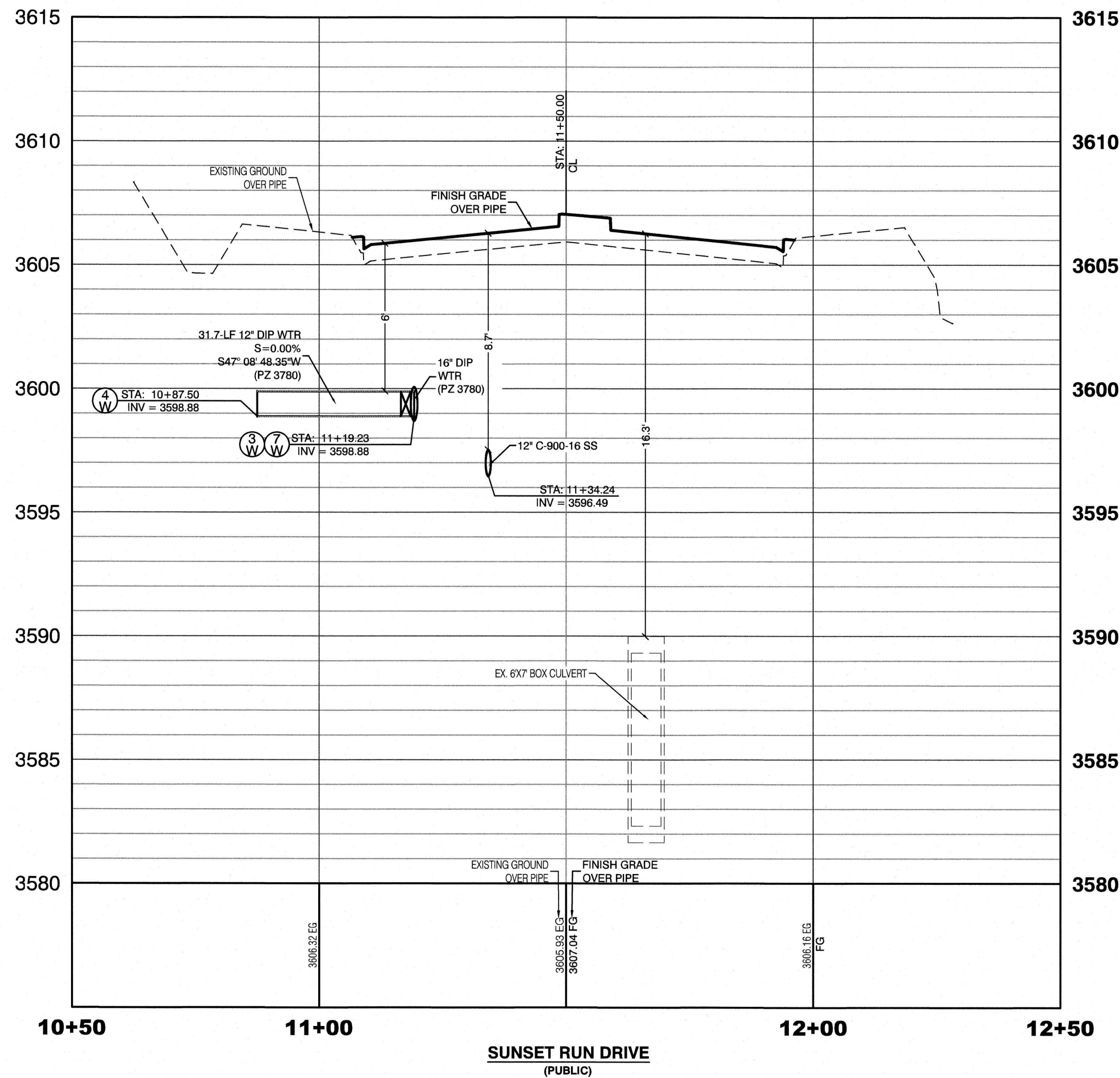
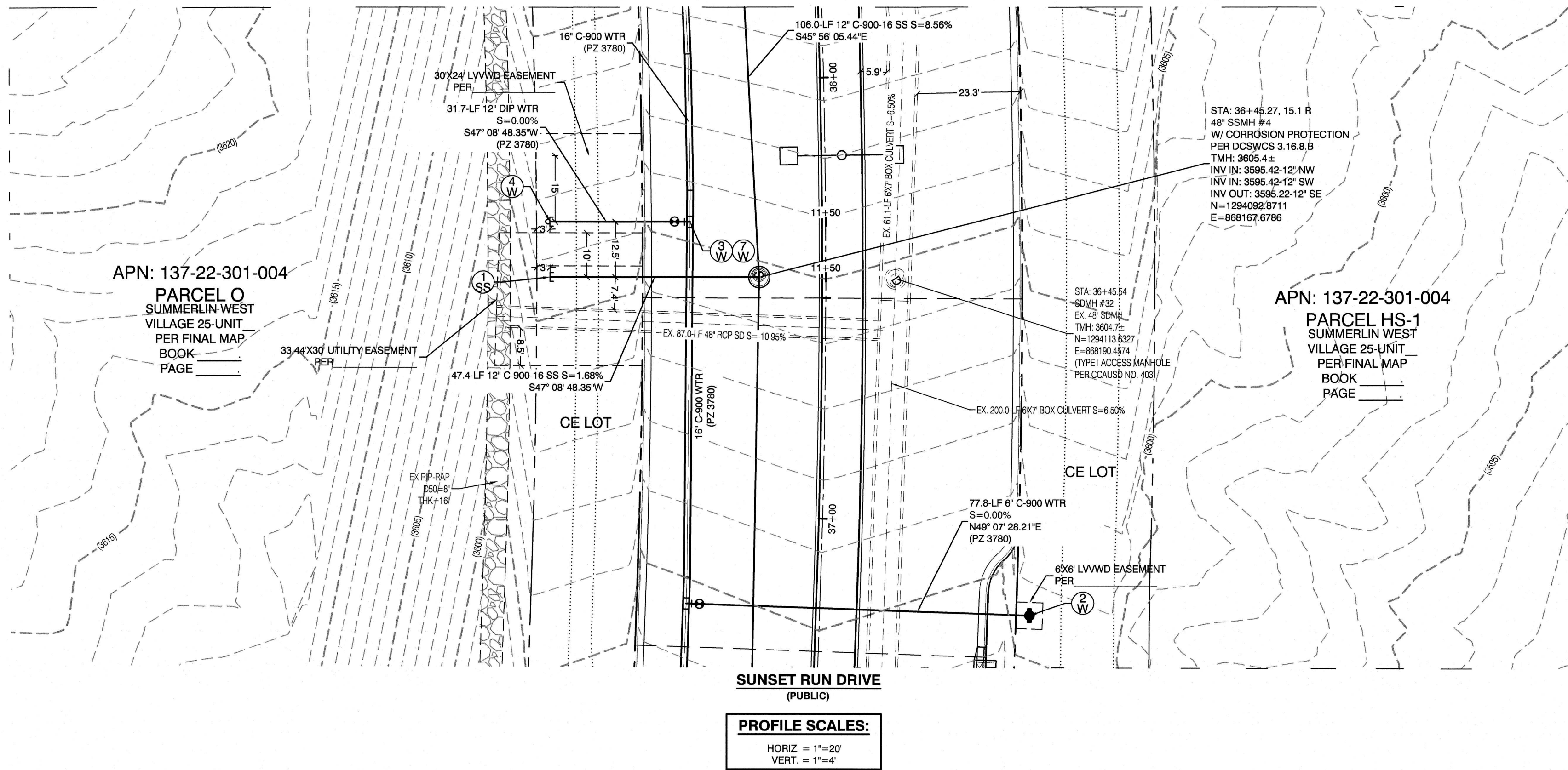
UTILITY PLAN & PROFILE 4 43+00 TO 46+50	SUMMERLIN WEST VILLAGE 25 SUNSET RUN DRIVE CURRY BEND DRIVE TO LAKE MEAD BOULEVARD
--	--

DRAWN BY:		01/10/2020
BCC		
DESIGNED BY:		01/10/2020
BCC		
CHECKED BY:		05/07/2020
WJM		
PROJECT NO:	SCALE:	1"=20'
7910		

WILLIAM J. MEYER
EXP: 12/31/21
CIVIL
No. 15745
5/11/20

SHEET
UT4
21 OF 35 SHEETS
DRAWING NO.

417919(S) INSET R IN DRIVE - S&P to | MRS. Heidi S. Smith | 7919 | IT.1 dwg: 5/8/2020 7:19 AM: brandonc / 319



BASIS OF BEARING
GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS HIGH ELEVATION ZONE, NORTH AMERICAN DATUM OF 1983, SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.
LINEAR UNIT: US SURVEY FOOT (FT/US)
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 FT/US)
EASTING AT CENTRAL MERIDIAN: 300,000.00 M (984,250.0000 FT/US)
SCALE FACTOR ON CENTRAL MERIDIAN: 1.000135 (EXACT)
NOTES:
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BENCHMARK
PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
CITY OF LAS VEGAS BENCHMARK: D368 (REVISED 2008)
NAVD88 ELEVATION: 989.574 METERS (3,246.63 FEET)
FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S, R96E, S03

CONTRACTOR NOTE:
CONTRACTOR TO ADJUST ALL EXISTING STORM DRAIN MANHOLES AND RIMS TO NEW GRADE AS REQUIRED

WATER PRESSURE ZONE:
WATER SERVICE LOCATED IN THE 3780 PRESSURE ZONE.

WATER MAIN COVER NOTE:
ALL NEW WATER MAIN TO HAVE MINIMUM DEPTH OF COVER PER UDACS SECTION 2.08

WATERLINE TRENCH NOTE:
CONSTRUCT WATERLINE TRENCH SECTION AND BACKFILL PER UDACS PLATE NO. 17.

WATER LINE MARKER BALLS NOTE
INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE NO. 15

FIRE HYDRANT MARKER NOTES
BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS ARE TO BE INSTALLED:
1. ON ROADWAYS WITH NO PARKING PERMITTED ON HYDRANT SIDE, LOCATE MARKER 8' FROM FACE OF CURB ON HYDRANT SIDE.
2. ON ROADWAYS WITH PARKING PERMITTED ON HYDRANT SIDE, LOCATE MARKER 16' FROM FACE OF CURB ON HYDRANT SIDE.

WATER MAIN JOINT DEFLECTION
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.
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CONSTRUCTION NOTES
WATER
1. FIRE HYDRANT ASSEMBLY: INCLUDING 12"X12" TEE WITH 12" G.V. (PER UDACS PLATE 38 & 40)
2. FIRE HYDRANT ASSEMBLY: INCLUDING 16"X12" TEE WITH 12" G.V. (PER UDACS PLATE 38 & 40)
3. 12" GATE VALVE (PER UDACS PLATE 30 & 39)
4. 12" CAP & BLOW OFF (PER UDACS PLATE 36)
5. 16" CAP & BLOW OFF (PER UDACS PLATE 36)
6. 12"X12" TEE (PER UDACS PLATE 31)
7. 16"X16"X12" TEE (PER UDACS PLATE 31)
8. 16" 90° BEND (PER UDACS PLATE 31)
9. 12" 11" VERTICAL BEND (PER UDACS PLATE 31). SEE PROFILE VIEW
10. 12" 45" VERTICAL BEND (PER UDACS PLATE 31). SEE PROFILE VIEW
11. 1.5" TYPE K SOFT COPPER WATER LATERAL SERVICE WITH 1.5" METER PER UDACS PLATE #4 (IRRIGATION) AND 1.5" RPPA PER UDACS PLATE #8
12. 6" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17
13. 12" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17
14. 16" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17
15. 12" DIP WATER MAIN PER UDACS 2.06.01 & PLATE 17
16. WATER POINT OF CONNECTION
17. SEWER POINT OF CONNECTION

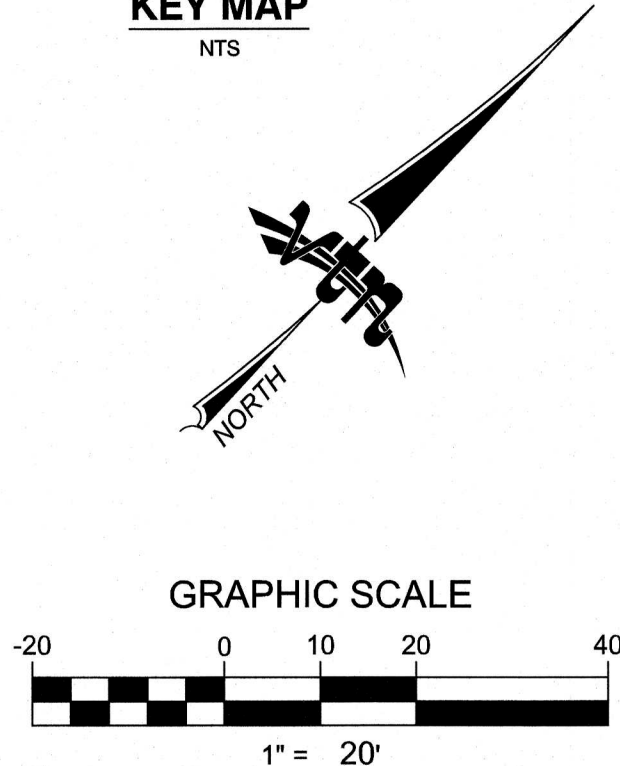
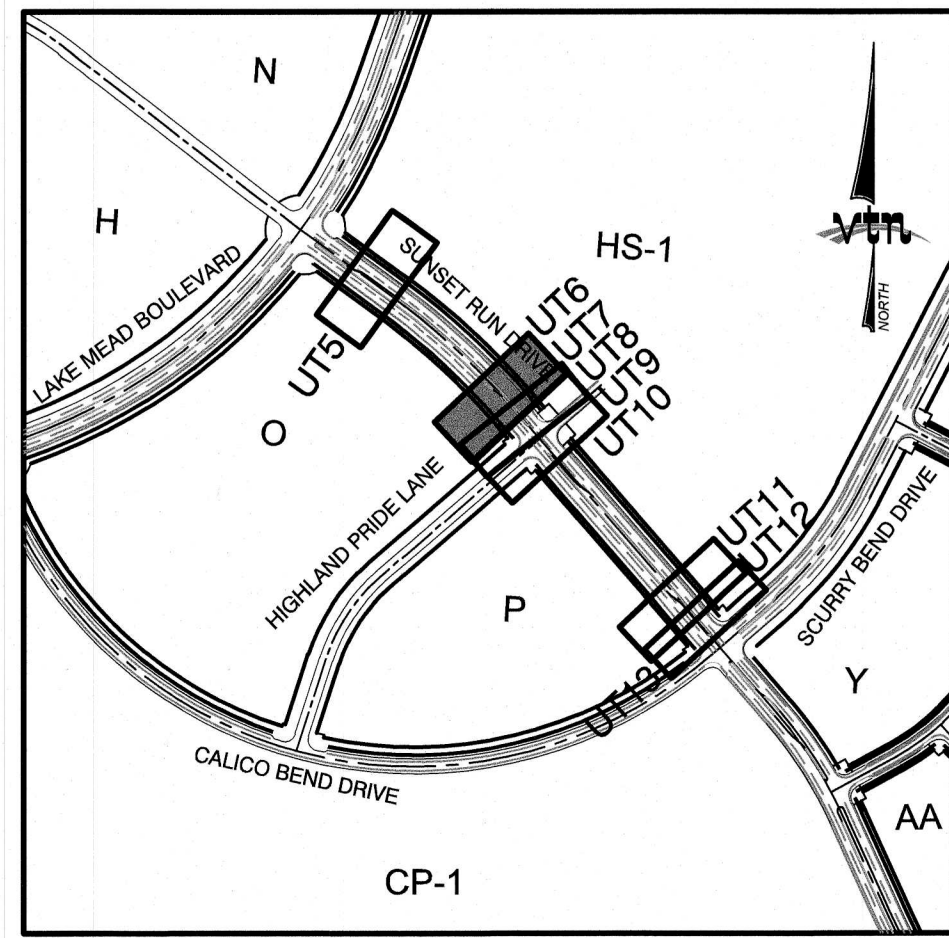
SEWER
1. STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" DIAMETER MANHOLE COVER UNLESS NOTED OTHERWISE
2. 12" C-900-16 SANITARY SEWER MAIN
3. 12" SEWER CAP (PER STD 4.6 & 4.11)
4. SEWER POINT OF CONNECTION

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811 before you dig
1-800-227-2600
1-702-455-7511
1-702-227-2600
CLARK COUNTY TRAFFIC OPERATIONS
LAS VEGAS VALLEY WATER DISTRICT

Call before you Dig
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Call 1-800-227-2600
1-702-455-7511
1-702-227-2600
CLARK COUNTY TRAFFIC OPERATIONS
LAS VEGAS VALLEY WATER DISTRICT

LAS VEGAS VALLEY WATER DISTRICT APPROVAL
APPROVED FOR CONSTRUCTION
DATE: 5/11/20
SHEET
23 OF 35 SHEETS
DRAWING NO. UT6

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: 5/11/20
PROJECT: LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 P.S.I. RESIDUAL



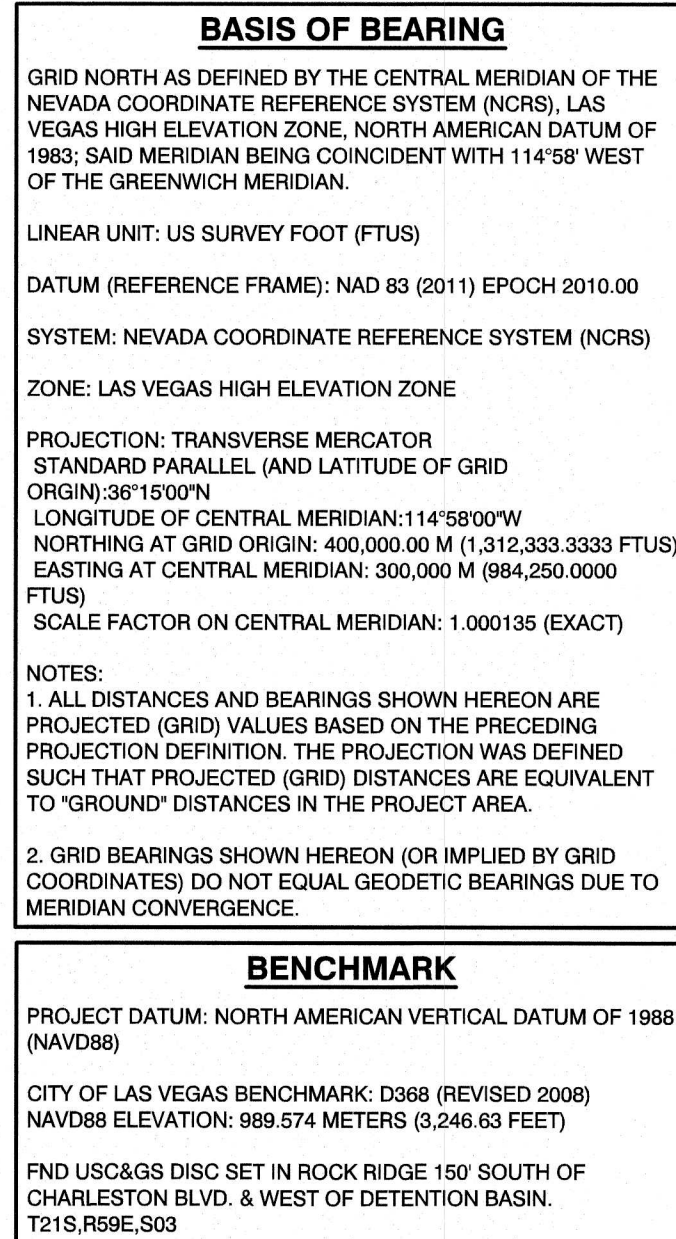
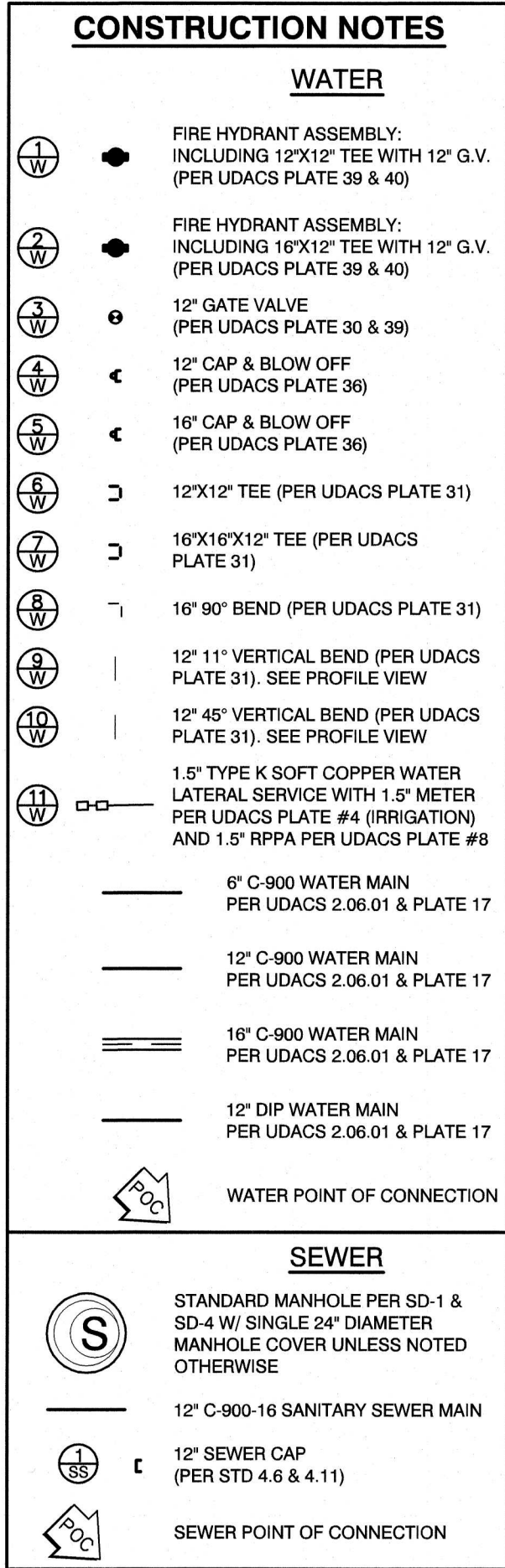
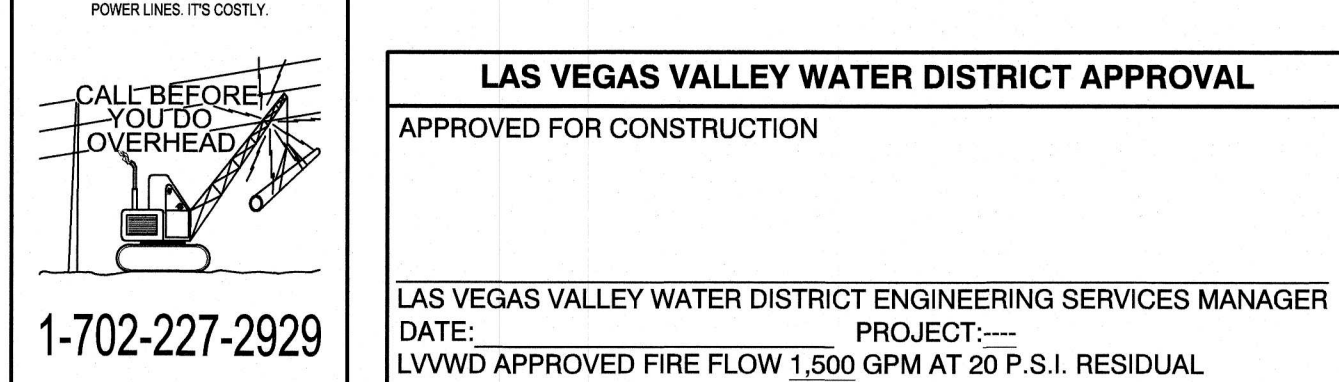
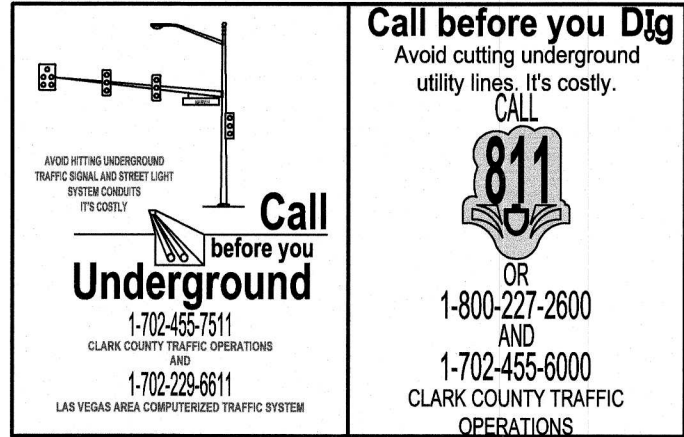
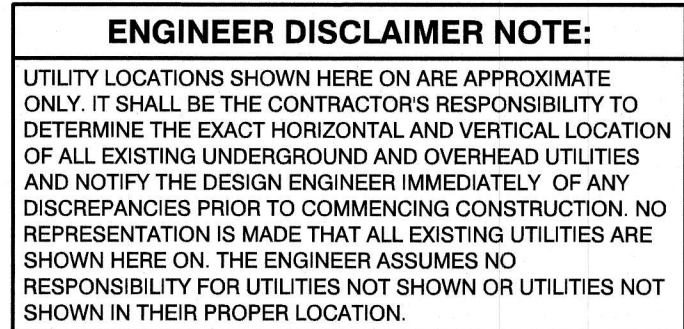
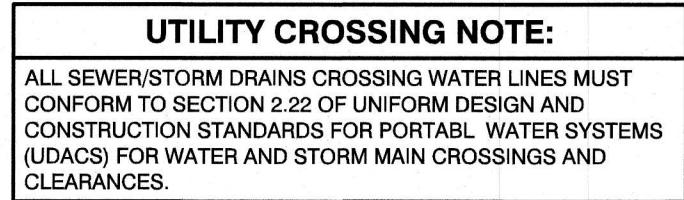
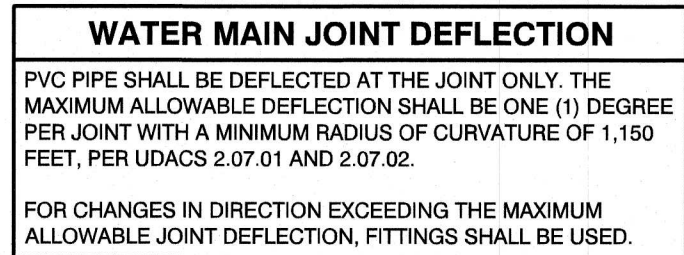
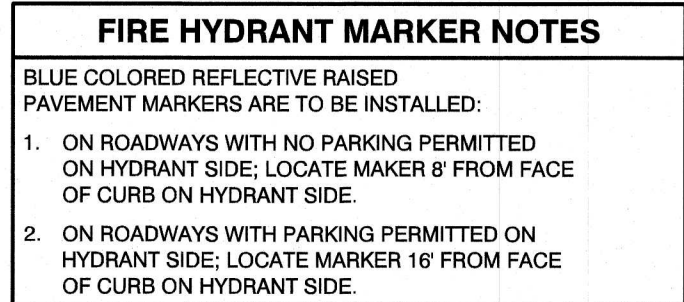
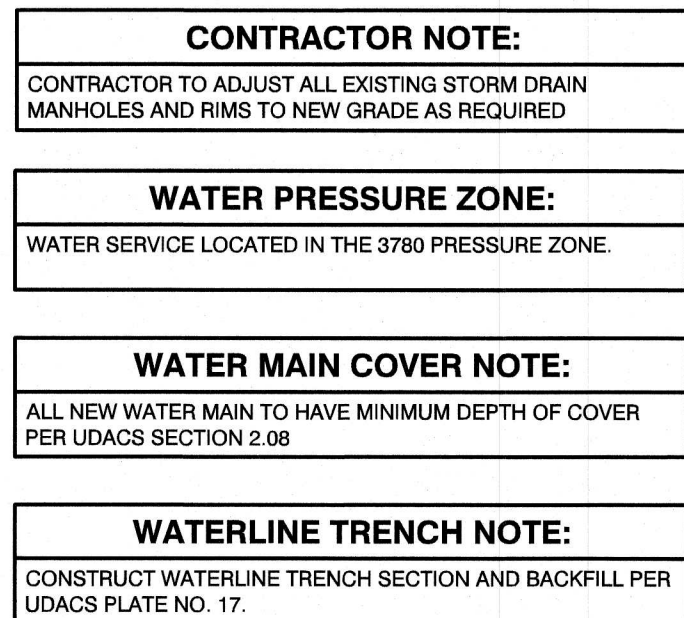
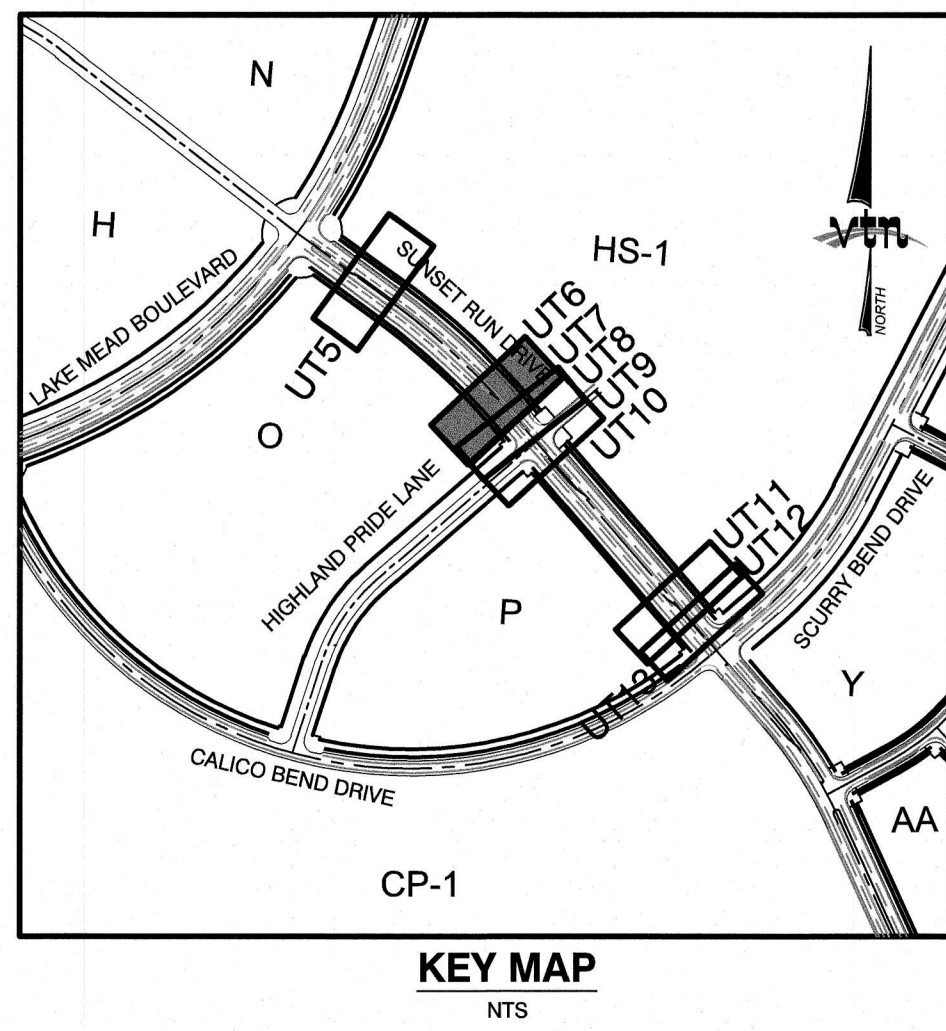
HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY
CITY OF LAS VEGAS
2727 SOUTH RAINBOW BOULEVARD
LAS VEGAS, NEVADA 89146-5148
PH. (702) 872-7500 FAX (702) 382-2897 WEB WWW.VTNV.COM
10845 GRIFFITH PEAK DRIVE SUITE 100
LAS VEGAS, NEVADA 89135
702.791.4000

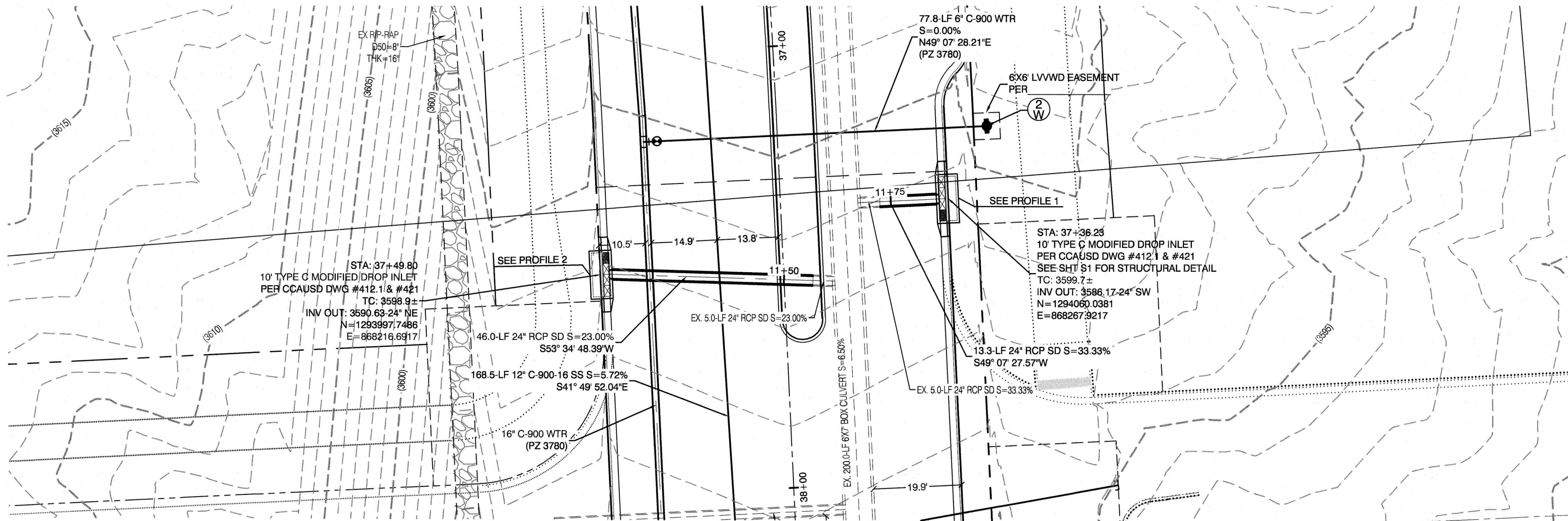
UTILITY PLAN & PROFILE 6
WATER LATERAL
SUMMERLIN WEST VILLAGE 25
SUNSET RUN DRIVE
SCURRY BEND DRIVE TO LAKE MEAD BOULEVARD

DRAWN BY: BCC
DESIGNED BY: BCC
CHECKED BY: WJM
PROJECT NO: 7919
SCALE: 1"=20' HORIZ. 1"=4' VERT.

WILLIAM J. MEYER
PROFESSIONAL ENGINEER STATE OF NEVADA
EXP. 12/31/21
CIVIL
No. 15745
SHEET
23 OF 35 SHEETS
DRAWING NO. UT6

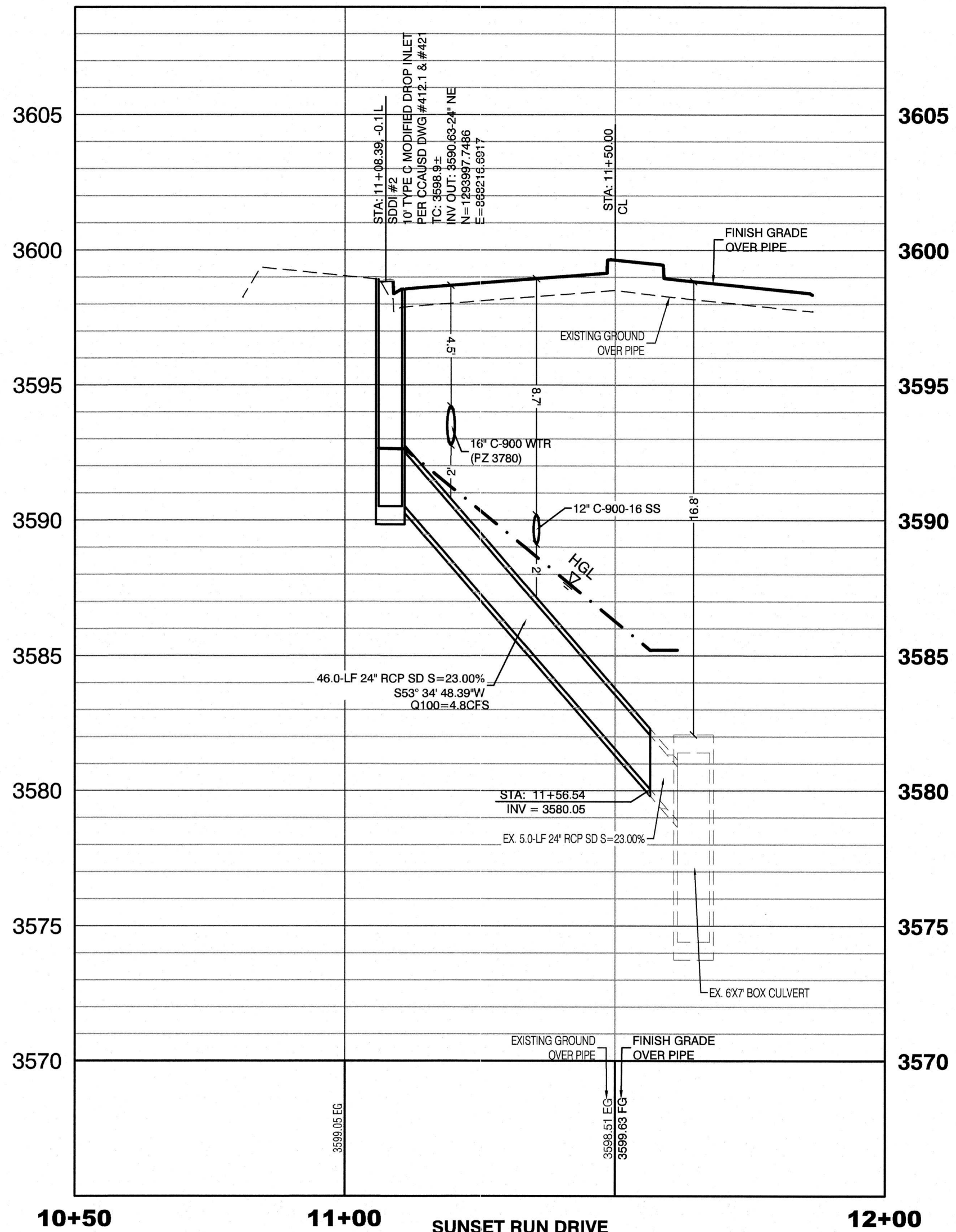
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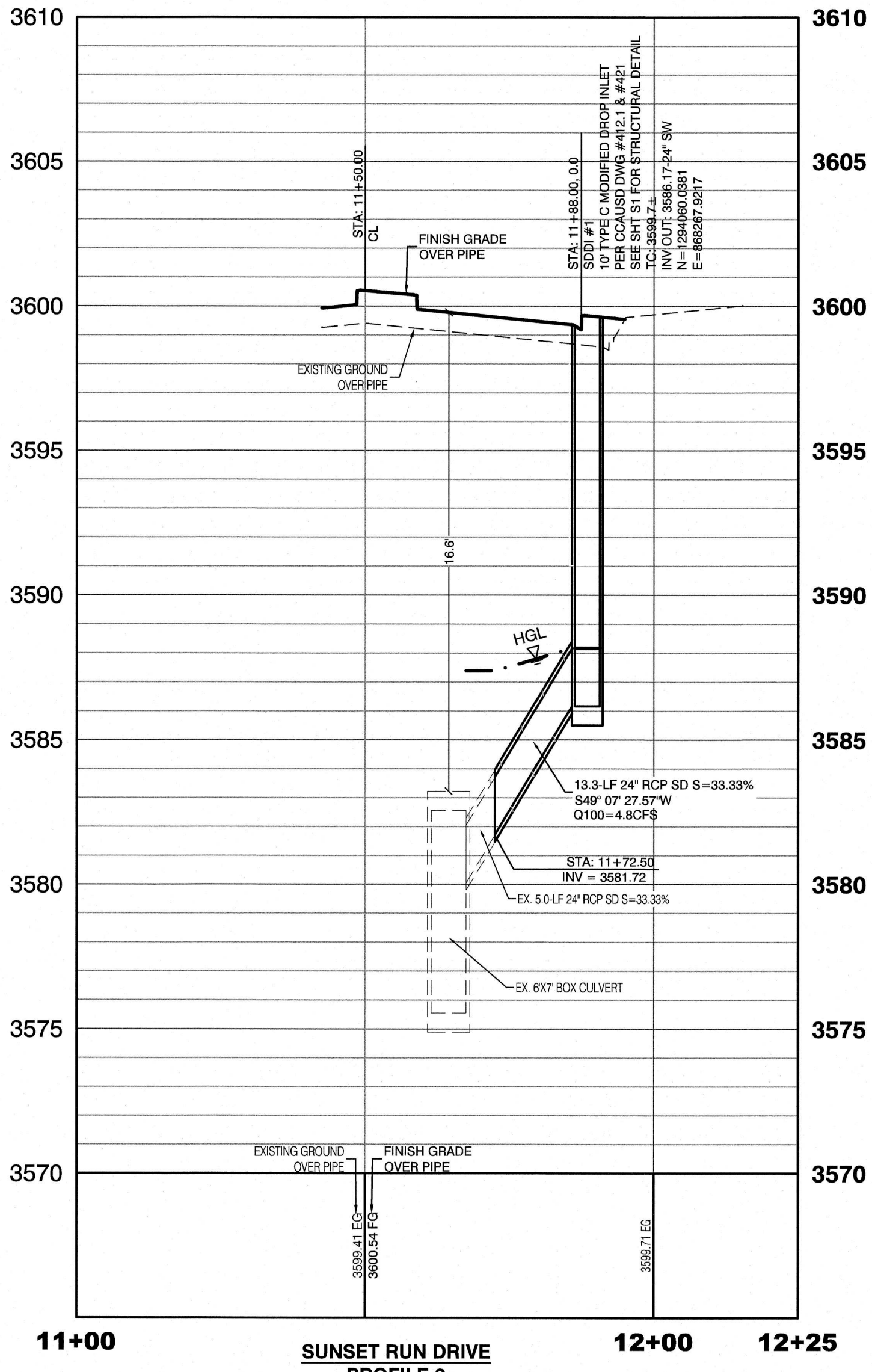


SUNSET RUN DRIVE
(PUBLIC)

PROFILE SCALES:
HORIZ. = 1"=20'
VERT. = 1"=4'



SUNSET RUN DRIVE
PROFILE 1
(PUBLIC)



SUNSET RUN DRIVE
PROFILE 2
(PUBLIC)

SDDI #	STATION	RIGHT/LEFT	TC ELEVATION	INV OUT ELEVATION	DEPTH
SDDI #1	37+36.23	LEFT	3599.68	3586.17	13.52
SDDI #2	37+49.80	RIGHT	3598.88	3590.63	8.25
SDDI #3	44+73.14	LEFT	3551.16	3542.17	8.99
SDDI #4	44+82.24	RIGHT	3550.81	3541.88	8.93

BASIS OF BEARING
GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS HIGH ELEVATION ZONE, NORTH AMERICAN DATUM OF 1983, SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.
LINEAR UNIT: US SURVEY FOOT (FTUS)
DATUM (REFERENCE FRAME): NAD 83 (2011) EPOCH 2010.00
SYSTEM: NEVADA COORDINATE REFERENCE SYSTEM (NCRS)
ZONE: LAS VEGAS HIGH ELEVATION ZONE
PROJECTION: TRANSVERSE MERCATOR
STANDARD PARALLEL (AND LATITUDE OF GRID ORIGIN): 36°15'00"N
LONGITUDE OF CENTRAL MERIDIAN: 114°58'00"W
NORTHING AT GRID ORIGIN: 400,000.00 M (1,312,333.333 FTUS)
EASTING AT CENTRAL MERIDIAN: 300,000 M (984,250.000 FTUS)
SCALE FACTOR ON CENTRAL MERIDIAN: 1.000135 (EXACT)
NOTES:
1. ALL DISTANCES AND BEARINGS SHOWN HEREON ARE PROJECTED (GRID) VALUES BASED ON THE PRECEDING PROJECTION DEFINITION. THE PROJECTION WAS DEFINED SUCH THAT PROJECTED (GRID) DISTANCES ARE EQUIVALENT TO "GROUND" DISTANCES IN THE PROJECT AREA.
2. GRID BEARINGS SHOWN HEREON (OR IMPLIED BY GRID COORDINATES) DO NOT EQUAL GEODETIC BEARINGS DUE TO MERIDIAN CONVERGENCE.
BENCHMARK
PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
CITY OF LAS VEGAS BENCHMARK: D368 (REVISED 2008)
NAVD88 ELEVATION: 989.574 METERS (3,246.63 FEET)
END US&GS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S, R98E, S03

CONTRACTOR NOTE:
CONTRACTOR TO ADJUST ALL EXISTING STORM DRAIN MANHOLES AND RIMS TO NEW GRADE AS REQUIRED

WATER PRESSURE ZONE:
WATER SERVICE LOCATED IN THE 3780 PRESSURE ZONE.

WATER MAIN COVER NOTE:
ALL NEW WATER MAIN TO HAVE MINIMUM DEPTH OF COVER PER UDACS SECTION 2.08

WATERLINE TRENCH NOTE:
CONSTRUCT WATERLINE TRENCH SECTION AND BACKFILL PER UDACS PLATE NO. 17.

WATER LINE MARKER BALLS NOTE
INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE NO. 15

FIRE HYDRANT MARKER NOTES
BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS ARE TO BE INSTALLED:
1. ON ROADWAYS WITH NO PARKING PERMITTED ON HYDRANT SIDE, LOCATE MARKER 8' FROM FACE OF CURB ON HYDRANT SIDE.
2. ON ROADWAYS WITH PARKING PERMITTED ON HYDRANT SIDE, LOCATE MARKER 16' FROM FACE OF CURB ON HYDRANT SIDE.

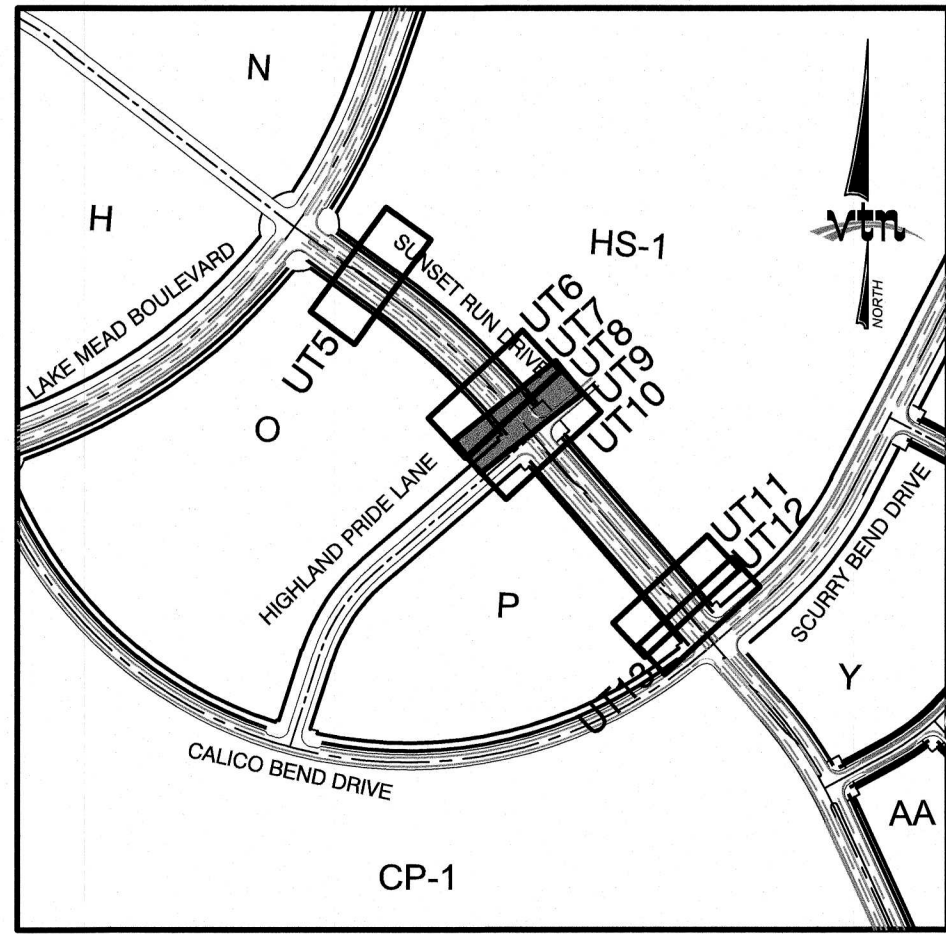
WATER MAIN JOINT DEFLECTION
PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1,150 FEET, PER UDACS 2.07.01 AND 2.07.02.
FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

UTILITY CROSSING NOTE:
ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR PORTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.

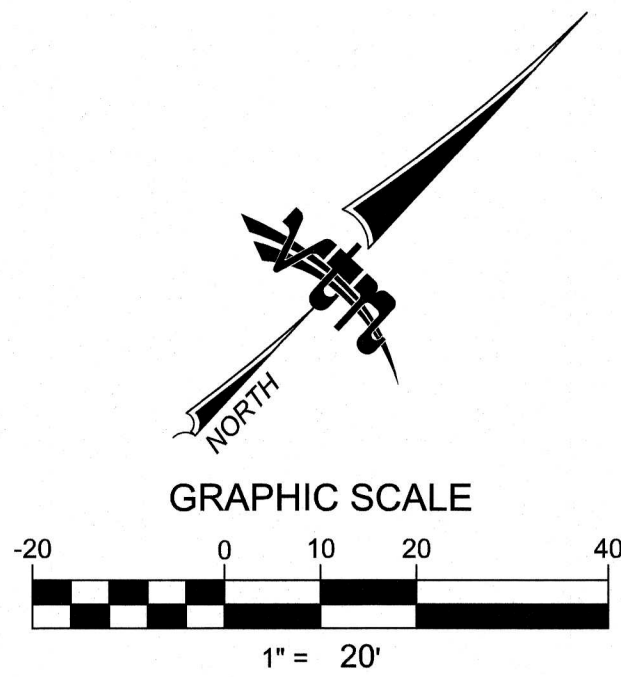
ENGINEER DISCLAIMER NOTE:
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CLARK COUNTY TRAFFIC OPERATIONS
1-702-227-2600
CLARK COUNTY TRAFFIC OPERATIONS
1-702-227-2600
CLARK COUNTY TRAFFIC OPERATIONS

LAS VEGAS VALLEY WATER DISTRICT APPROVAL
APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: _____ PROJECT: _____
LWVWD APPROVED FIRE FLOW 1,500 GPM AT 20 P.S.I. RESIDUAL



KEY MAP
NTS



CONSTRUCTION NOTES

- WATER**
- 1. FIRE HYDRANT ASSEMBLY: INCLUDING 12"x12" TEE WITH 12" G.V. (PER UDACS PLATE 39 & 40)
 - 2. FIRE HYDRANT ASSEMBLY: INCLUDING 16"x12" TEE WITH 12" G.V. (PER UDACS PLATE 39 & 40)
 - 3. 12" GATE VALVE (PER UDACS PLATE 30 & 39)
 - 4. 12" CAP & BLOW OFF (PER UDACS PLATE 39)
 - 5. 16" CAP & BLOW OFF (PER UDACS PLATE 39)
 - 6. 12"x12" TEE (PER UDACS PLATE 31)
 - 7. 16"x16"x12" TEE (PER UDACS PLATE 31)
 - 8. 16" 90° BEND (PER UDACS PLATE 31)
 - 9. 12" 11" VERTICAL BEND (PER UDACS PLATE 31). SEE PROFILE VIEW
 - 10. 12" 45" VERTICAL BEND (PER UDACS PLATE 31). SEE PROFILE VIEW
 - 11. 1.5" TYPE K SOFT COPPER WATER LATERAL SERVICE WITH 1.5" METER PER UDACS PLATE #4 (IRRIGATION) AND 1.5" RPPA PER UDACS PLATE #8
 - 12. 6" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17
 - 13. 12" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17
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 - 15. 12" DIP WATER MAIN PER UDACS 2.06.01 & PLATE 17
 - 16. WATER POINT OF CONNECTION

- SEWER**
- 1. STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" DIAMETER MANHOLE COVER UNLESS NOTED OTHERWISE
 - 2. 12" C-900-16 SANITARY SEWER MAIN
 - 3. 12" SEWER CAP (PER STD 4.6 & 4.11)
 - 4. SEWER POINT OF CONNECTION

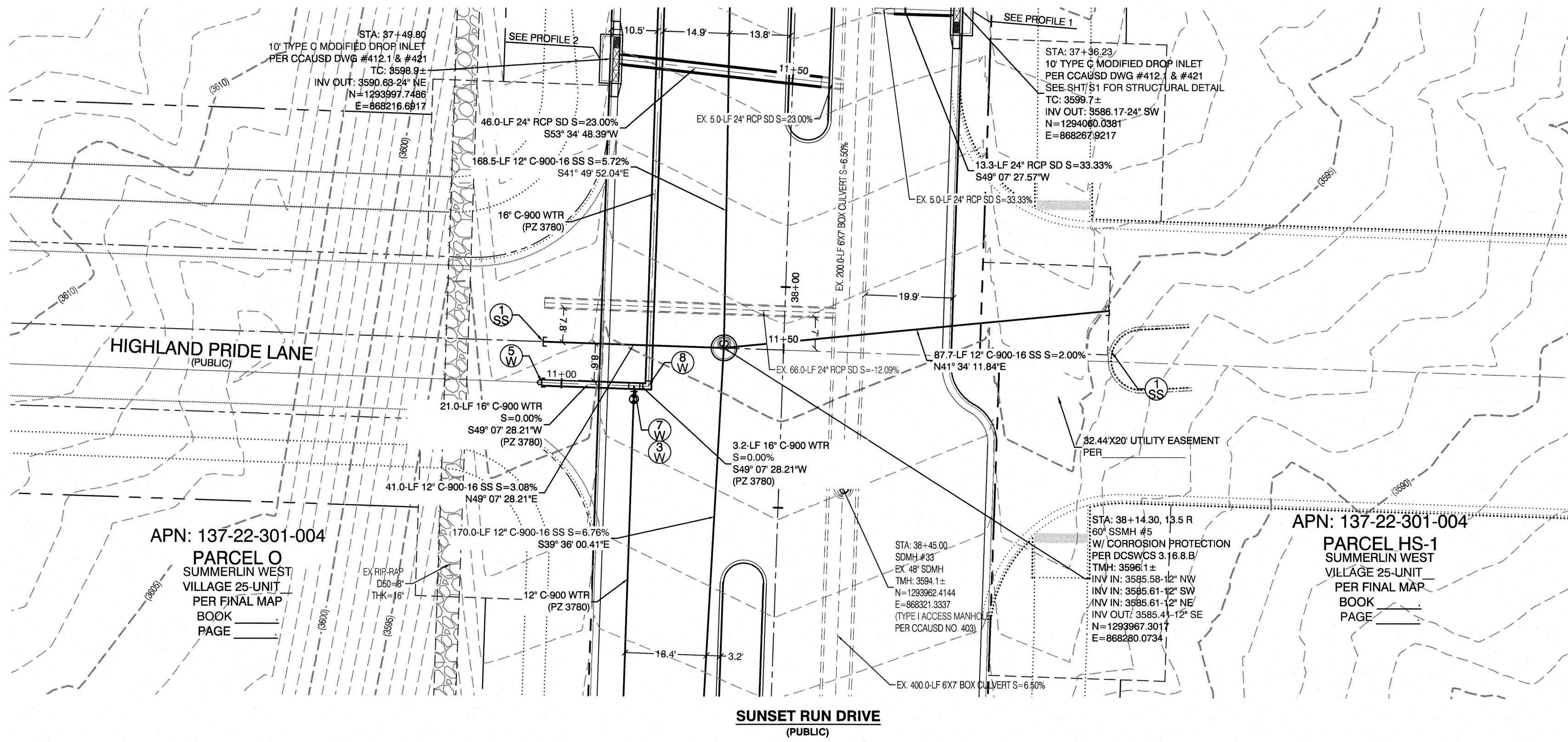
HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY
CITY OF LAS VEGAS
10845 GRIFFITH PEAK DRIVE, SUITE 100
LAS VEGAS, NEVADA 89135
702.791.4000

UTILITY PLAN & PROFILE 8
STORM DRAIN LATERAL
SUMMERLIN WEST VILLAGE 25
SUNSET RUN DRIVE
SCURRY BEND DRIVE TO LAKE MEAD BOULEVARD

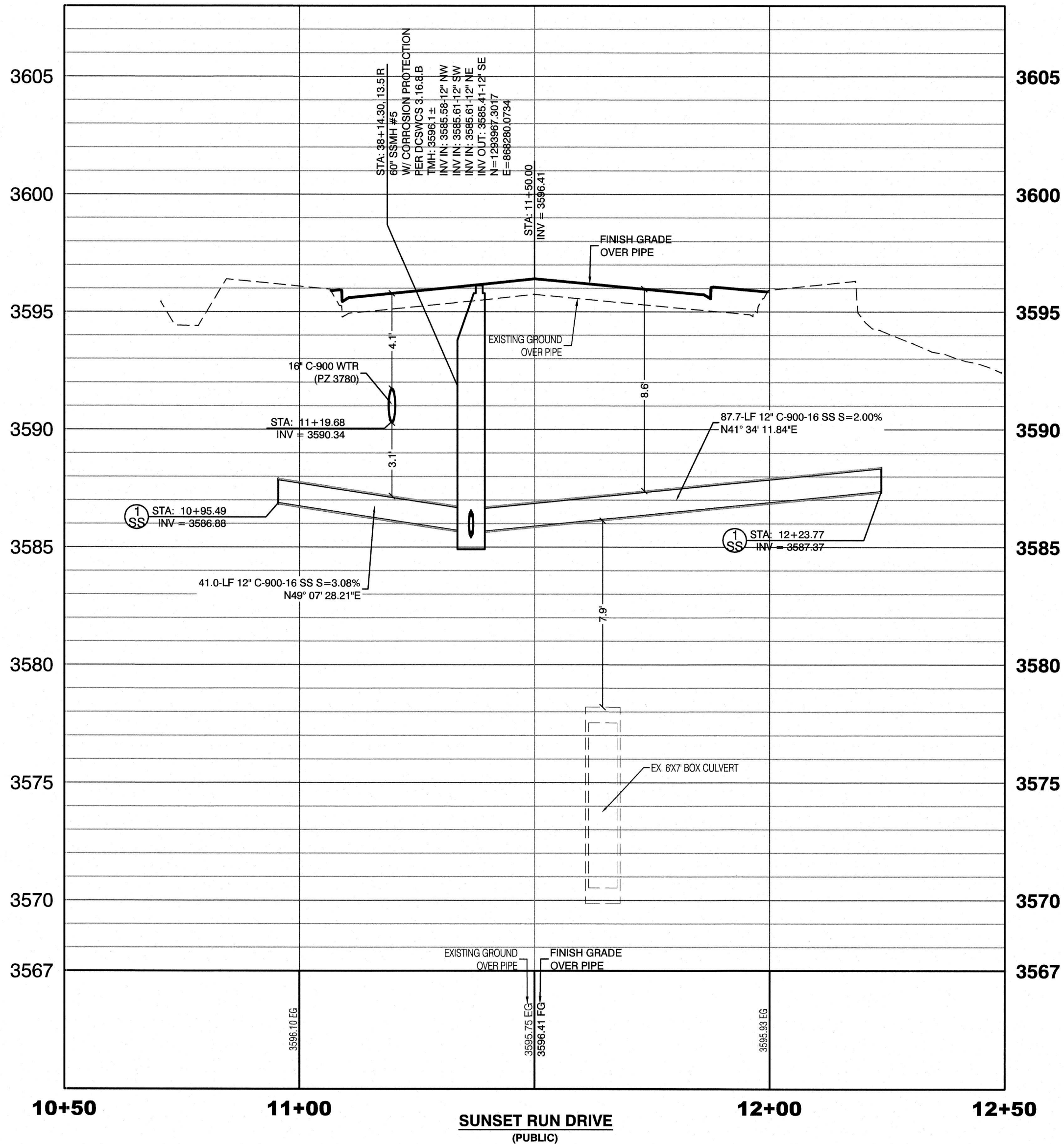
DRAWN BY: BCC
DESIGNED BY: BCC
CHECKED BY: WJM
PROJECT NO: 7919
SCALE: 1"=20' HORIZ.
1"=4' VERT.

WILLIAM J. MEYER
PROFESSIONAL ENGINEER STATE OF NEVADA
No. 115745
CIVIL
Exp. 12/31/21

SHEET
UT8
25 OF 35 SHEETS
DRAWING NO. ---



PROFILE SCALES:
HORIZ. = 1"=20'
VERT. = 1"=4'



BASIS OF BEARING
GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS HIGH ELEVATION ZONE, NORTH AMERICAN DATUM OF 1983, SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.
LINEAR UNIT: US SURVEY FOOT (FTUS)
DATUM (REFERENCE FRAME): NAD 83 (2011) EPOCH 2010.00
SYSTEM: NEVADA COORDINATE REFERENCE SYSTEM (NCRS)
ZONE: LAS VEGAS HIGH ELEVATION ZONE
PROJECTION: TRANSVERSE MERCATOR STANDARD PARALLEL (AND LATITUDE OF GRID ORIGIN) 38°15'00"N
LONGITUDE OF CENTRAL MERIDIAN: 114°58'00"W
NORTHING AT GRID ORIGIN: 400,000.00 M (1,312,333.333 FTUS)
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CITY OF LAS VEGAS BENCHMARK: D368 (REVISED 2008) NAVD88 ELEVATION: 989.574 METERS (3,246.63 FEET)
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T21S, R98E, S03

CONTRACTOR NOTE:
CONTRACTOR TO ADJUST ALL EXISTING STORM DRAIN MANHOLES AND RIMS TO NEW GRADE AS REQUIRED

WATER PRESSURE ZONE:
WATER SERVICE LOCATED IN THE 3780 PRESSURE ZONE.

WATER MAIN COVER NOTE:
ALL NEW WATER MAIN TO HAVE MINIMUM DEPTH OF COVER PER UDACS SECTION 2.08

WATERLINE TRENCH NOTE:
CONSTRUCT WATERLINE TRENCH SECTION AND BACKFILL PER UDACS PLATE NO. 17.

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INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE NO. 15

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BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS ARE TO BE INSTALLED:
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WATER MAIN JOINT DEFLECTION
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.
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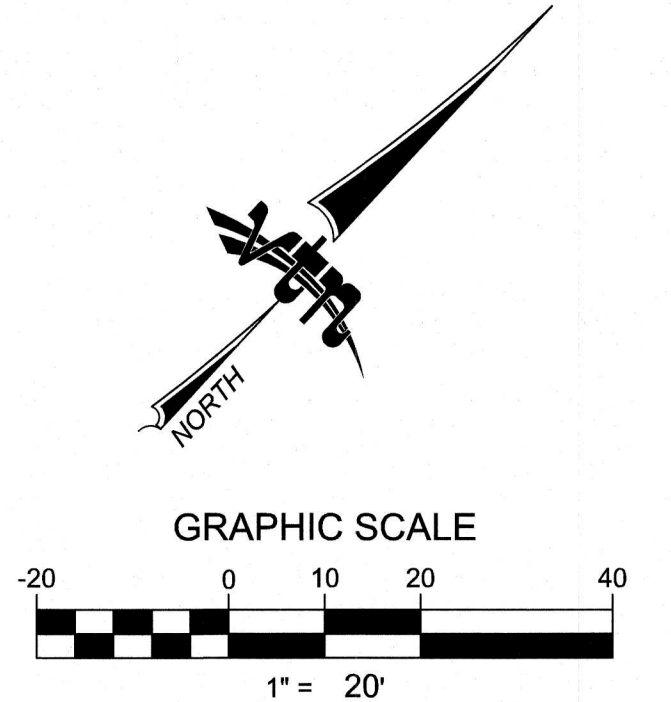
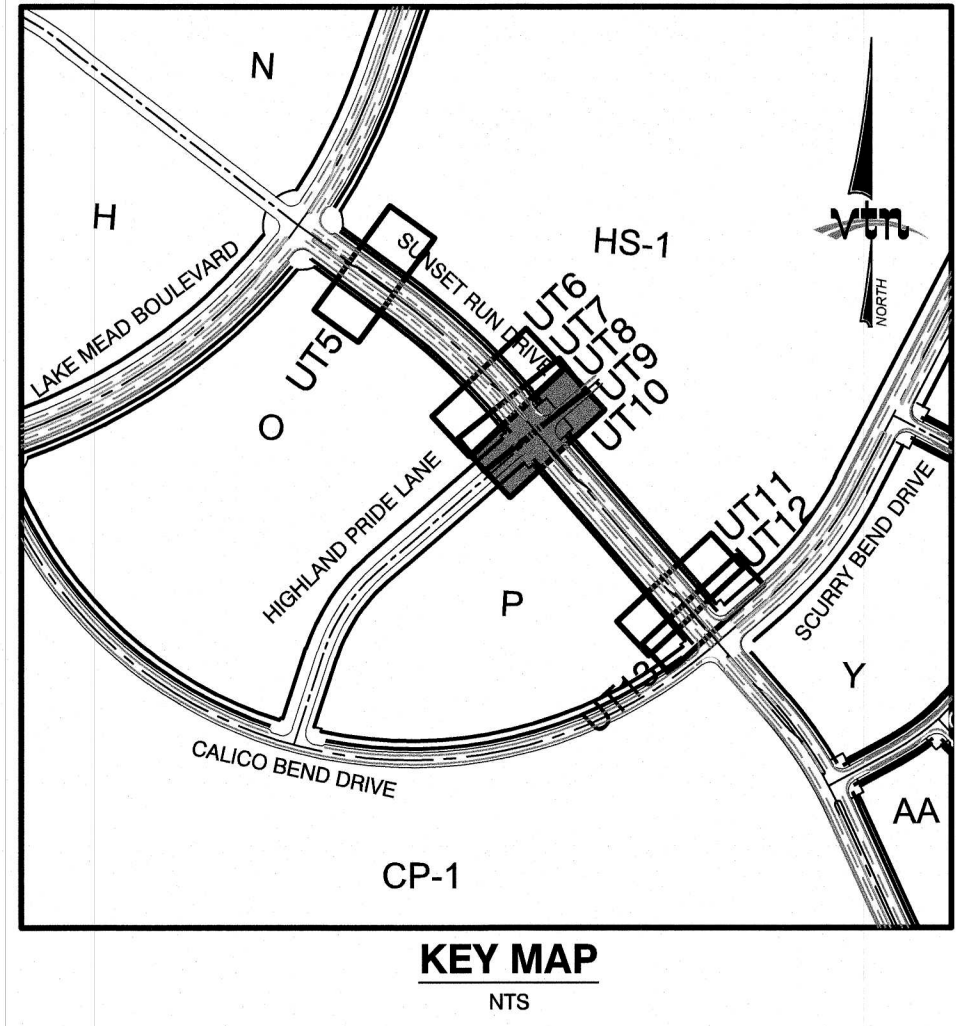
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1-800-227-2800
1-702-455-6000
CLARK COUNTY TRAFFIC OPERATIONS

Call before you Dig
Avoid hitting overhead power lines. It's costly.
Call before you Dig
1-702-227-2929

LAS VEGAS VALLEY WATER DISTRICT APPROVAL
APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: _____ PROJECT: _____
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 P.S.I. RESIDUAL



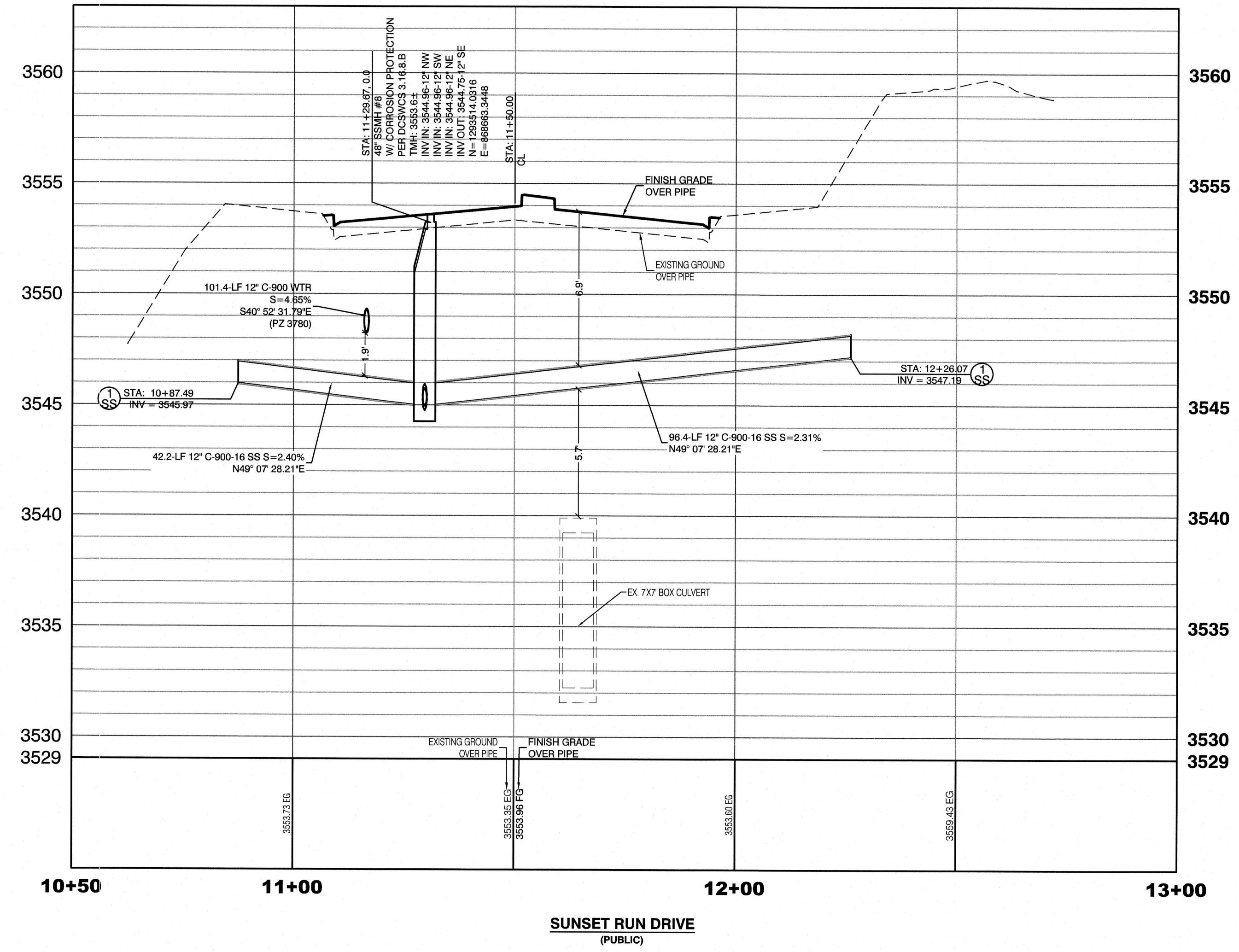
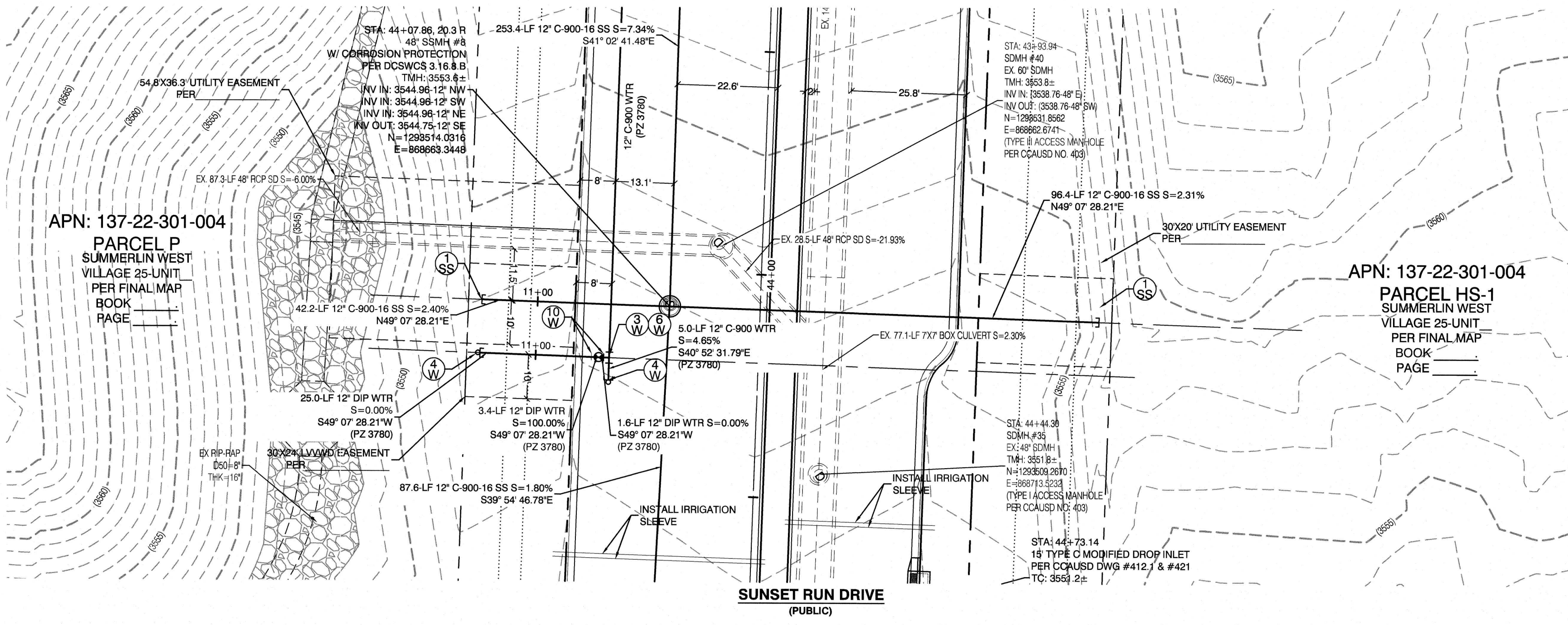
CONSTRUCTION NOTES
WATER
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15. 12" DIP WATER MAIN PER UDACS 2.06.01 & PLATE 17
16. WATER POINT OF CONNECTION
SEWER
1. STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" DIAMETER MANHOLE COVER UNLESS NOTED OTHERWISE
2. 12" C-900-16 SANITARY SEWER MAIN
3. 12" SEWER CAP (PER STD 4.6 & 4.11)
4. SEWER POINT OF CONNECTION

HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY
CITY OF LAS VEGAS
10846 GRIFFITH PEAK DRIVE, SUITE 100
LAS VEGAS, NEVADA 89135
PH: (702) 679-7500 FAX: (702) 362-2597 WEB: WWW.VTNV.COM
CONSULTING ENGINEERS • PLANNERS • LAND SURVEYORS

UTILITY PLAN & PROFILE 9
SANITARY SEWER LATERAL
SUMMERLIN WEST VILLAGE 25
SUNSET RUN DRIVE
SCURRY BEND DRIVE TO LAKE MEAD BOULEVARD

DRAWN BY: BCC
DESIGNED BY: BCC
CHECKED BY: WJM
PROJECT NO.: 7919
SCALE: 1"=20' HORIZ. 1"=4' VERT.
DATE: 02/17/2020
DATE: 02/17/2020
DATE: 05/07/2020

WILLIAM J. MEYER
PROFESSIONAL ENGINEER - STATE OF NEVADA
NO. 15745
CIVIL
5/11/20
SHEET
26 OF 35 SHEETS
DRAWING NO. _____



- CONTRACTOR NOTE:**
CONTRACTOR TO ADJUST ALL EXISTING STORM DRAIN MANHOLES AND RIMS TO NEW GRADE AS REQUIRED
- WATER PRESSURE ZONE:**
WATER SERVICE LOCATED IN THE 3780 PRESSURE ZONE.
- WATER MAIN COVER NOTE:**
ALL NEW WATER MAIN TO HAVE MINIMUM DEPTH OF COVER PER UDACS SECTION 2.08
- WATERLINE TRENCH NOTE:**
CONSTRUCT WATERLINE TRENCH SECTION AND BACKFILL PER UDACS PLATE NO. 17.
- WATER LINE MARKER BALLS NOTE:**
INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE NO. 15
- FIRE HYDRANT MARKER NOTES:**
BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS ARE TO BE INSTALLED:
1. ON ROADWAYS WITH NO PARKING PERMITTED ON HYDRANT SIDE, LOCATE MARKER 8' FROM FACE OF CURB ON HYDRANT SIDE.
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FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.
- UTILITY CROSSING NOTE:**
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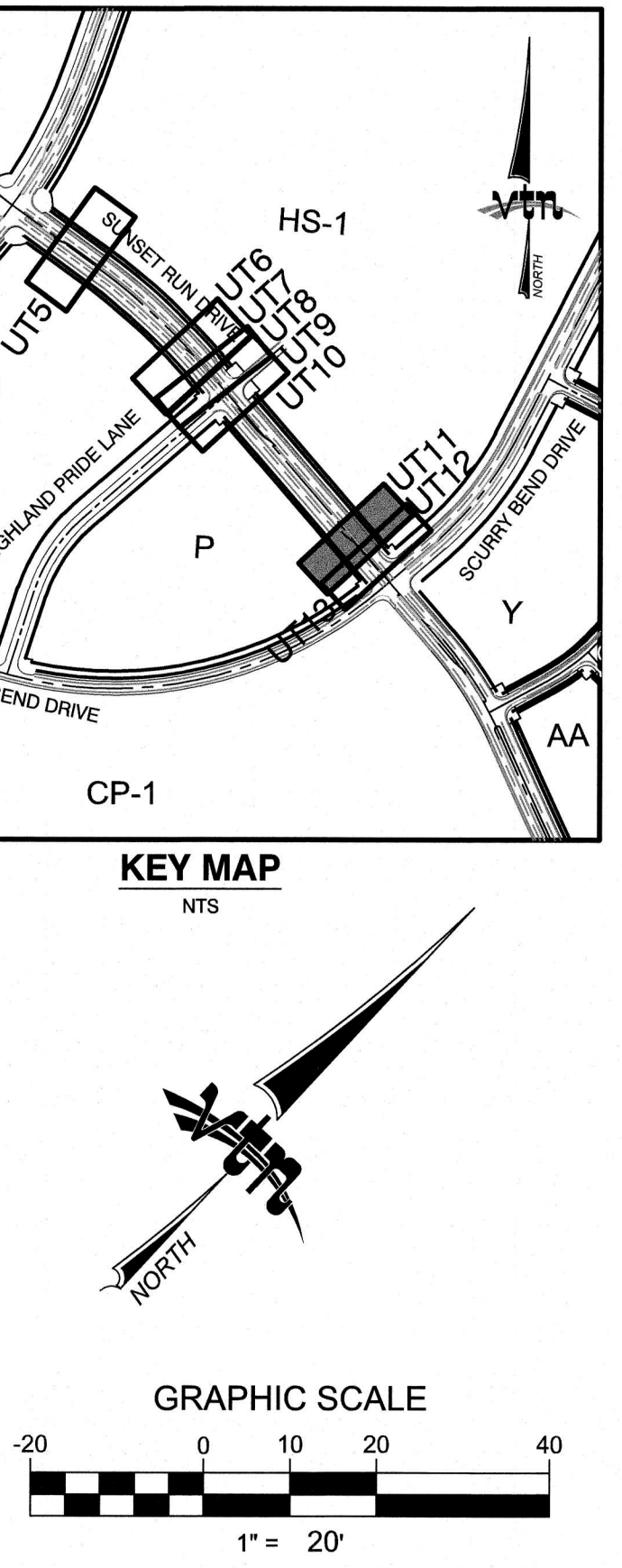
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LAS VEGAS AREA COORDINATED TRAFFIC SYSTEM

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Avoid cutting underground utility lines. It's costly.

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OR
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AND
1-702-455-6000
CLARK COUNTY TRAFFIC OPERATIONS

LAS VEGAS VALLEY WATER DISTRICT APPROVAL
APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: _____ PROJECT: _____
LVWWD APPROVED FIRE FLOW 1,500 GPM AT 20 P.S.I. RESIDUAL



- CONSTRUCTION NOTES**
- WATER**
- FIRE HYDRANT ASSEMBLY: INCLUDING 12"X12" TEE WITH 12" G.V. (PER UDACS PLATE 39 & 40)
 - FIRE HYDRANT ASSEMBLY: INCLUDING 16"X12" TEE WITH 12" G.V. (PER UDACS PLATE 39 & 40)
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 - 16" 90° BEND (PER UDACS PLATE 31)
 - 12" 11" VERTICAL BEND (PER UDACS PLATE 31). SEE PROFILE VIEW
 - 12" 45" VERTICAL BEND (PER UDACS PLATE 31). SEE PROFILE VIEW
 - 1.5" TYPE K SOFT COPPER WATER LATERAL SERVICE WITH 1.5" METER PER UDACS PLATE #4 (IRRIGATION) AND 1.5" RPPA PER UDACS PLATE #8
 - 6" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17
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10845 GRIFFITH PEAK DRIVE, SUITE 100
LAS VEGAS, NEVADA 89135
702-791-4000

CITY OF LAS VEGAS

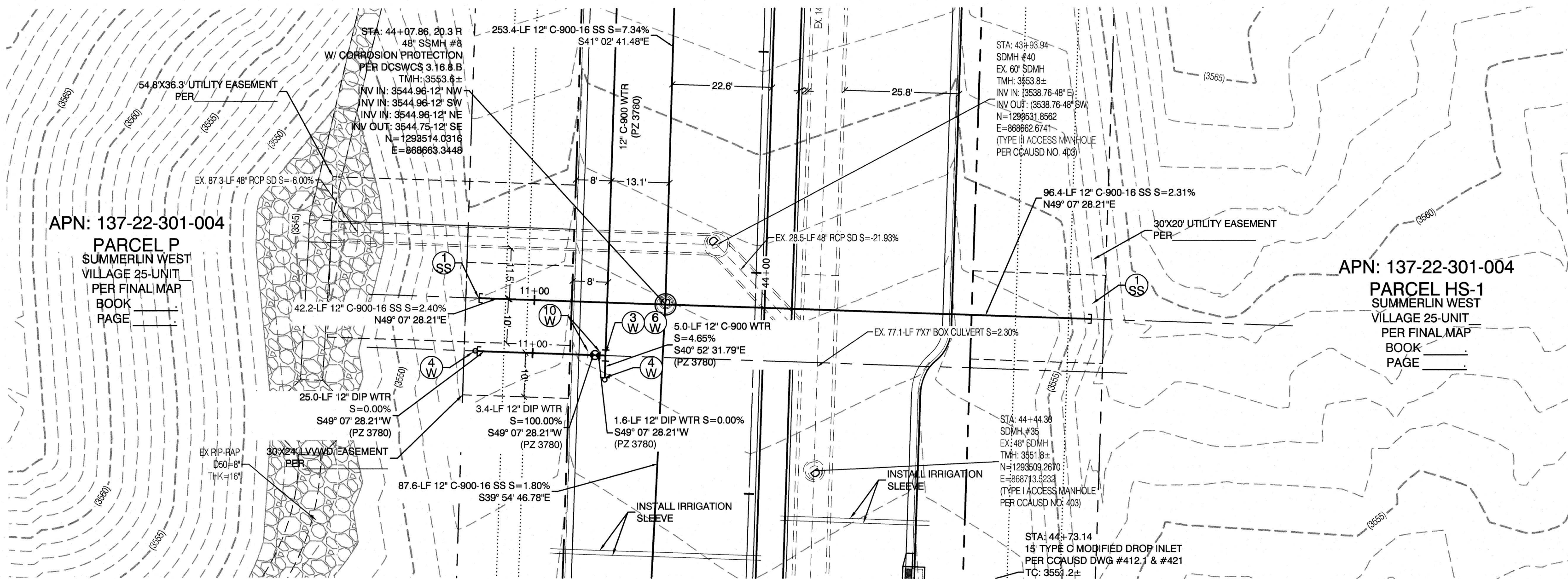
UTILITY PLAN & PROFILE 11
SANITARY SEWER LATERAL

SUMMERLIN WEST VILLAGE 25
SUNSET RUN DRIVE
SCURRY BEND DRIVE TO LAKE MEAD BOULEVARD

DRAWN BY: BCC
DESIGNED BY: BCC
CHECKED BY: WJM
PROJECT NO.: 7919
DATE: 02/17/2020
SCALE: 1"=20' HORIZ. 1"=4' VERT.

WILLIAM J. MEYER
REGISTERED PROFESSIONAL ENGINEER
STATE OF NEVADA
EXP. 12/31/21
CIVIL
No. 15745

UT11
SHEET
28 OF 35 SHEETS
DRAWING NO. ---

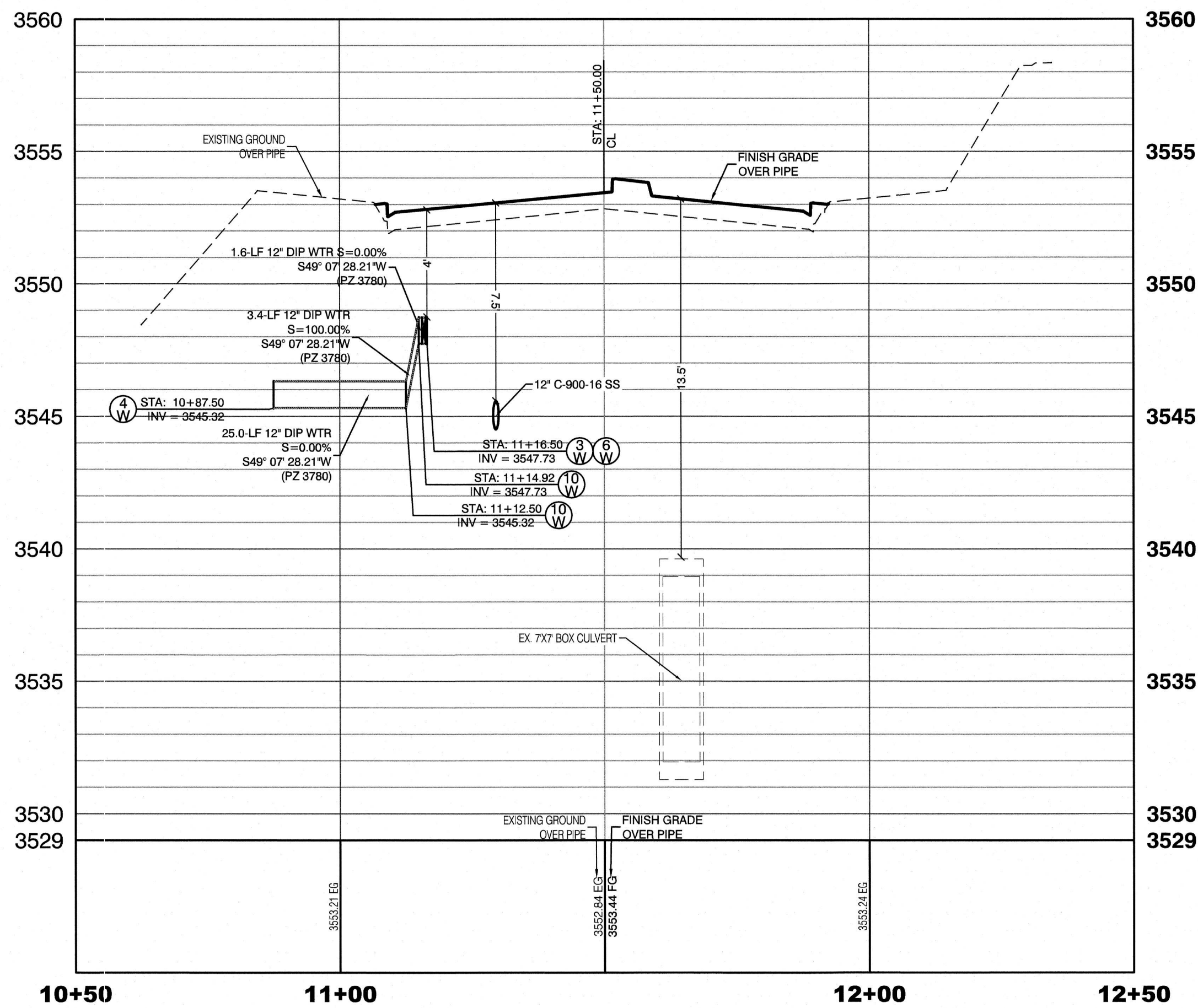


SUNSET RUN DRIVE
(PUBLIC)

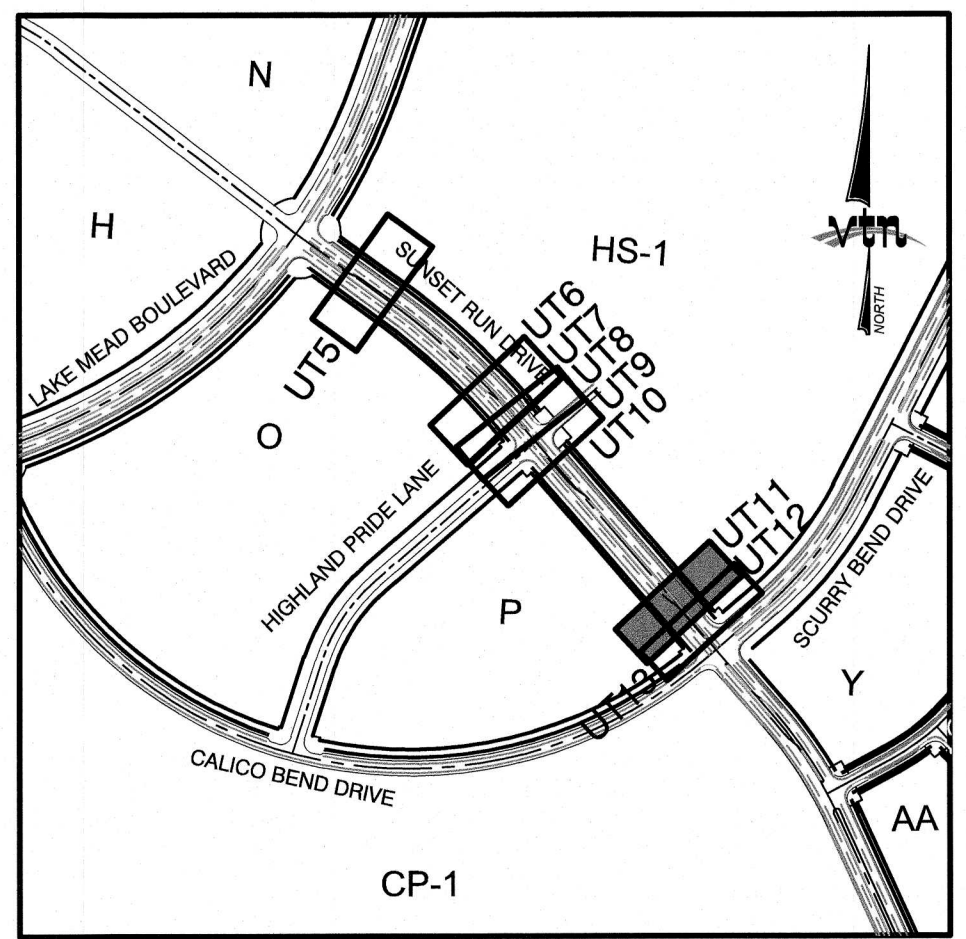
PROFILE SCALES:

HORIZ. = 1"=20'

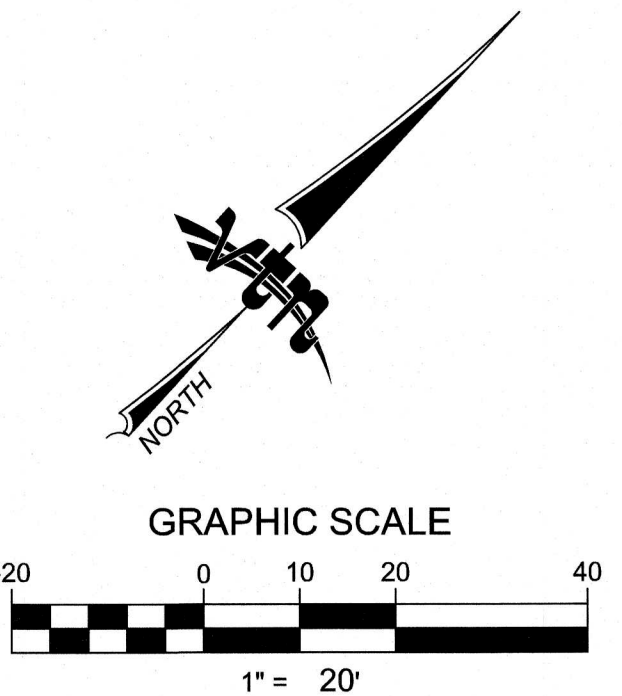
VERT. = 1"=4'



SUNSET RUN DRIVE
(PUBLIC)



KEY MAP
NTS



CONSTRUCTION NOTES

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INCLUDING 12"x12" TEE WITH 12" G.V.
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(PER UDACS PLATE 30 & 39)
- 4. 12" CAP & BLOW OFF
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(PER UDACS PLATE 36)
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PER UDACS 2.06.01 & PLATE 17
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PER UDACS 2.06.01 & PLATE 17
- 14. 16" C-900 WATER MAIN
PER UDACS 2.06.01 & PLATE 17
- 15. 12" DIP WATER MAIN
PER UDACS 2.06.01 & PLATE 17
- 16. WATER POINT OF CONNECTION
- 17. SEWER
- 18. STANDARD MANHOLE PER SD-1 &
SD-4 W/ SINGLE 24" DIAMETER
MANHOLE COVER UNLESS NOTED
OTHERWISE
- 19. 12" C-900-16 SANITARY SEWER MAIN
- 20. 12" SEWER CAP
(PER STD 4.8 & 4.11)
- 21. SEWER POINT OF CONNECTION

CONTRACTOR NOTE:

CONTRACTOR TO ADJUST ALL EXISTING STORM DRAIN
MANHOLES AND RIMS TO NEW GRADE AS REQUIRED

WATER PRESSURE ZONE:

WATER SERVICE LOCATED IN THE 3780 PRESSURE ZONE.

WATER MAIN COVER NOTE:

ALL NEW WATER MAIN TO HAVE MINIMUM DEPTH OF COVER
PER UDACS SECTION 2.08

WATERLINE TRENCH NOTE:

CONSTRUCT WATERLINE TRENCH SECTION AND BACKFILL PER
UDACS PLATE NO. 17.

WATER LINE MARKER BALLS NOTE

INSTALL PIPELINE MARKER BALLS IN
TRENCH ABOVE EACH
HORIZONTAL ELBOW FITTING, PER UDACS
PLATE NO. 15

FIRE HYDRANT MARKER NOTES

BLUE COLORED REFLECTIVE RAISED
PAVEMENT MARKERS ARE TO BE INSTALLED:

1. ON ROADWAYS WITH NO PARKING PERMITTED
ON HYDRANT SIDE, LOCATE MARKER 8' FROM FACE
OF CURB ON HYDRANT SIDE.
2. ON ROADWAYS WITH PARKING PERMITTED ON
HYDRANT SIDE, LOCATE MARKER 16' FROM FACE
OF CURB ON HYDRANT SIDE.

WATER MAIN JOINT DEFLECTION

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.

UTILITY CROSSING NOTE:

ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST
CONFORM TO SECTION 2.22 OF UNIFORM DESIGN AND
CONSTRUCTION STANDARDS FOR PORTABLE WATER SYSTEMS
(UDACS) FOR WATER AND STORM MAIN CROSSINGS AND
CLEARANCES.

ENGINEER DISCLAIMER NOTE:

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

Call before you Dig
Avoid cutting underground
utility lines. IT'S COSTLY.

Call before you Dig
1-702-455-7511
1-702-455-7511
1-702-229-9611
LAS VEGAS AREA UNIFORMED SERVICES OF AMERICA

Call before you Dig
Avoid cutting underground
utility lines. IT'S COSTLY.

811
OR
1-800-227-2600
AND
1-702-455-6000
CLARK COUNTY TRAFFIC
OPERATIONS

Call before you Dig
Avoid cutting overhead
power lines. IT'S COSTLY.

Call before you Dig
1-702-227-2929

LAS VEGAS VALLEY WATER DISTRICT APPROVAL
APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: _____ PROJECT: _____
LVVWD APPROVED FIRE FLOW 1,500 GPM AT 20 P.S.I. RESIDUAL

HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY
10845 GRIFFITH PEAK DRIVE, SUITE 100
LAS VEGAS, NEVADA 89135
702-791-0000

CITY OF LAS VEGAS
2727 SOUTH HANCOCK BOULEVARD
LAS VEGAS, NEVADA 89146-5148
PH. (702) 878-7550 FAX. (702) 362-2559 WEB WWW.VTNV.COM
CONSULTING ENGINEERS • PLANNERS • LAND SURVEYORS

UTILITY PLAN & PROFILE 12
WATER LATERAL

SUMMERLIN WEST VILLAGE 25
SUNSET RUN DRIVE
SCURRY BEND DRIVE TO LAKE MEAD BOULEVARD

DRAWN BY:
BCC

DESIGNED BY:
BCC

CHECKED BY:
WJM

PROJECT NO.:
7919

DATE:
08/17/2020

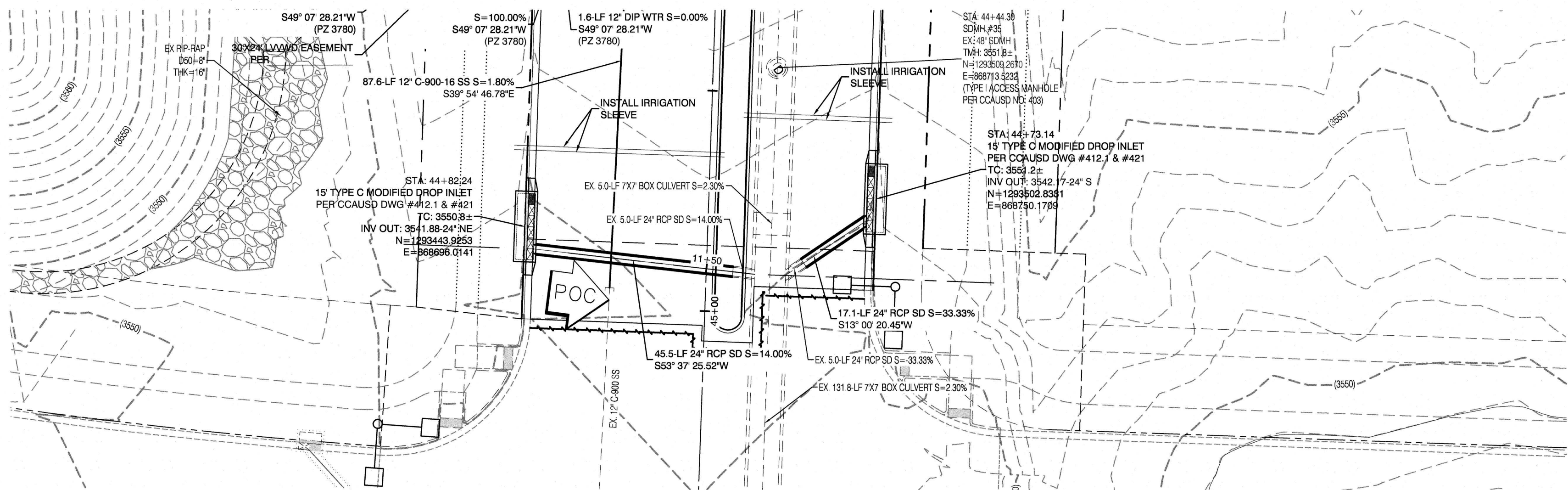
DATE:
08/17/2020

DATE:
08/07/2020

SCALE:
1"=20'
1"=4'

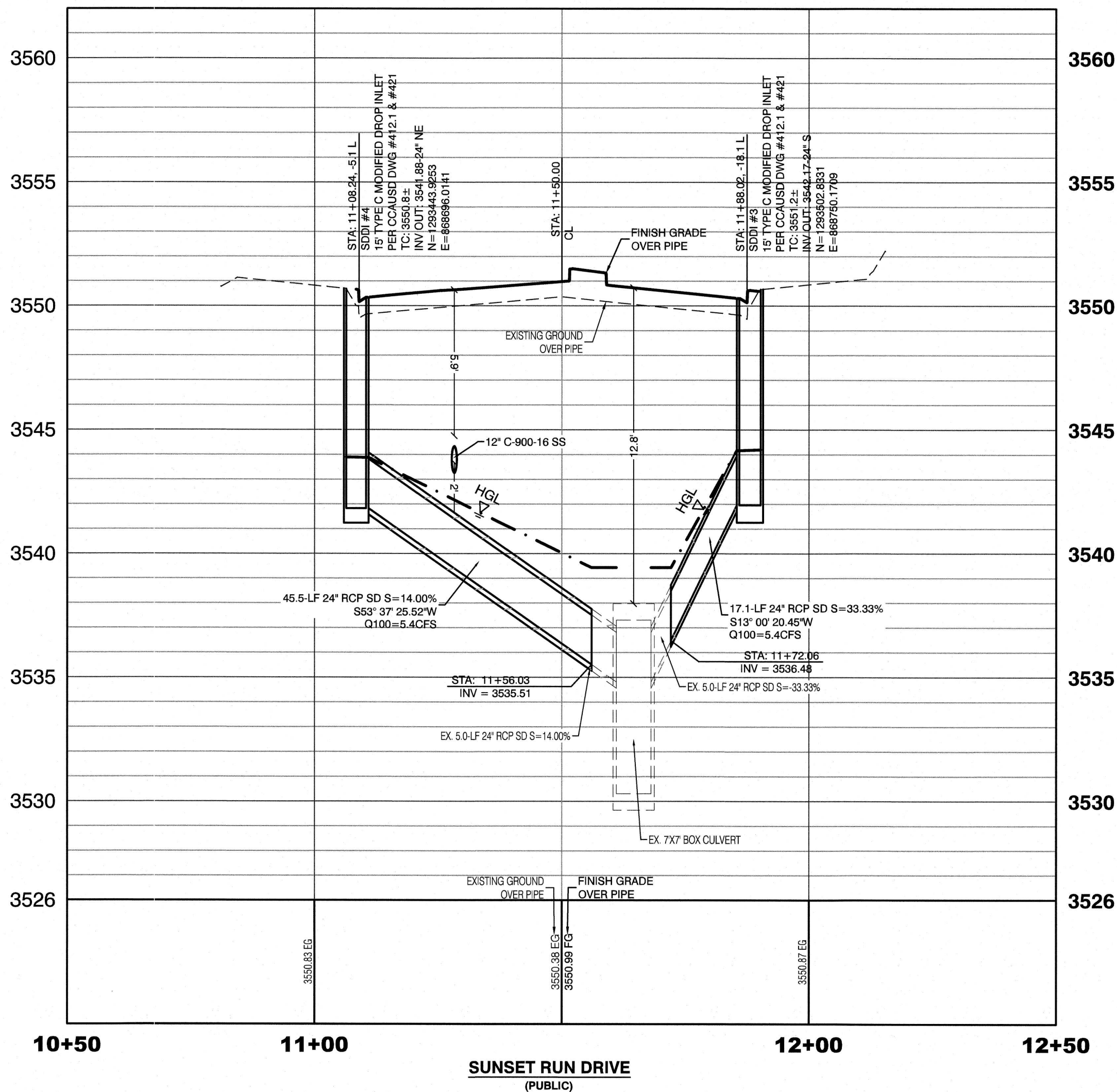
PROFESSIONAL ENGINEER - STATE OF NEVADA
WILLIAM J. MEYER
EXP. 12/31/21
CIVIL
No. 15745
5/11/20

SHEET
UT12
29 OF 35 SHEETS
DRAWING NO.

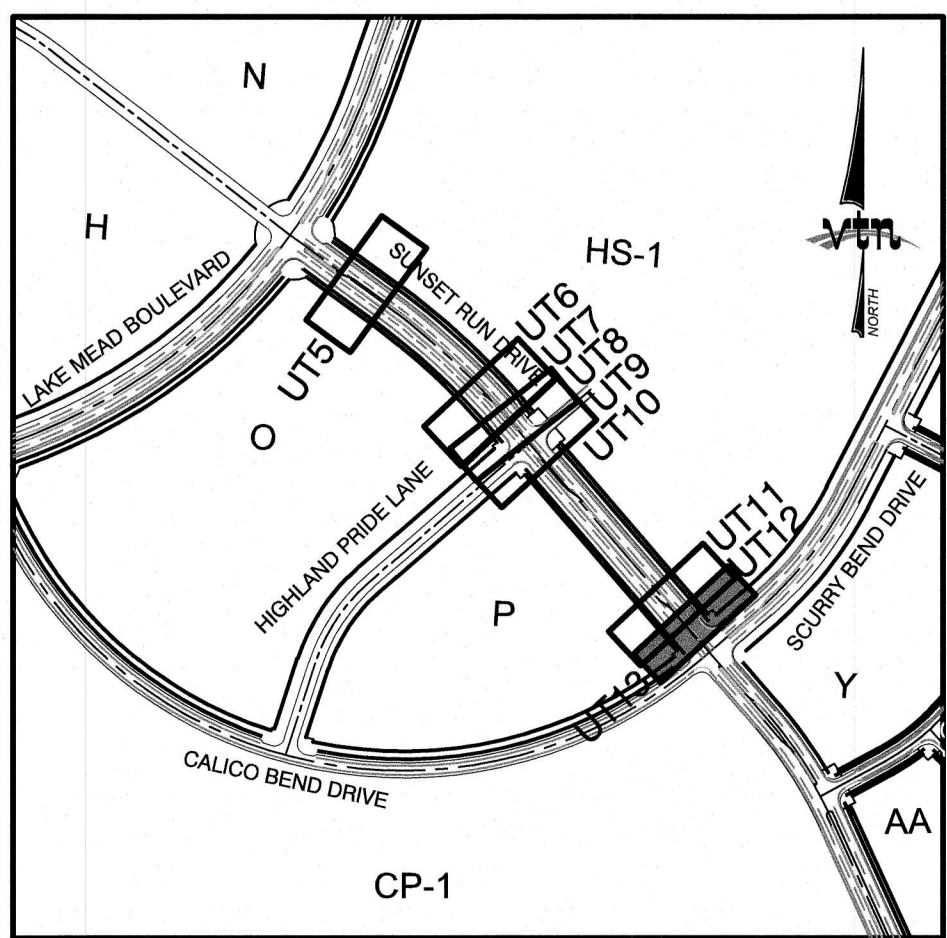


SUNSET RUN DRIVE
(PUBLIC)

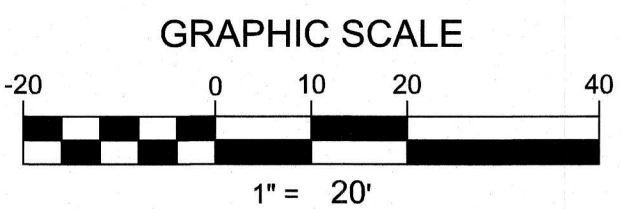
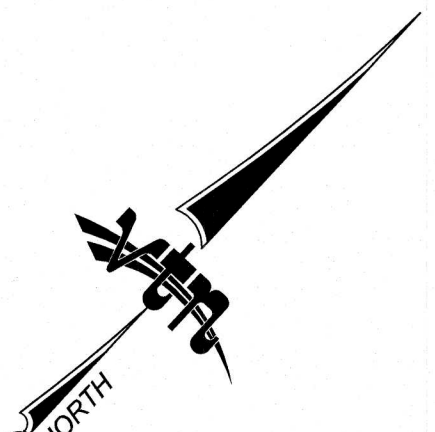
PROFILE SCALES:
HORIZ. = 1"=20'
VERT. = 1"=4'



SDDI #	STATION	RIGHT/LEFT	TC ELEVATION	INV OUT ELEVATION	DEPTH
SDDI #1	37+36.23	LEFT	3599.69	3586.17	13.52
SDDI #2	37+49.80	RIGHT	3598.88	3590.63	8.25
SDDI #3	44+73.14	LEFT	3551.16	3542.17	8.99
SDDI #4	44+82.24	RIGHT	3550.81	3541.88	8.93



KEY MAP
NTS



CONTRACTOR NOTE:
CONTRACTOR TO ADJUST ALL EXISTING STORM DRAIN MANHOLES AND RIMS TO NEW GRADE AS REQUIRED

WATER PRESSURE ZONE:
WATER SERVICE LOCATED IN THE 3780 PRESSURE ZONE

WATER MAIN COVER NOTE:
ALL NEW WATER MAIN TO HAVE MINIMUM DEPTH OF COVER PER UDACS SECTION 2.08

WATERLINE TRENCH NOTE:
CONSTRUCT WATERLINE TRENCH SECTION AND BACKFILL PER UDACS PLATE NO. 17

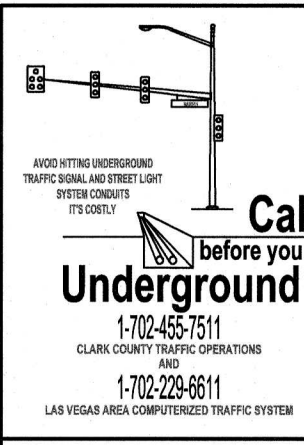
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CLARK COUNTY TRAFFIC OPERATIONS
1-702-455-7511
1-702-227-2600
1-702-455-6000
CLARK COUNTY TRAFFIC OPERATIONS



LAS VEGAS VALLEY WATER DISTRICT APPROVAL
APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
DATE: 5/11/20
PROJECT: LWWDD APPROVED FIRE FLOW 1,500 GPM AT 20 P.S.I. RESIDUAL

CONSTRUCTION NOTES

- WATER**
- 1" FIRE HYDRANT ASSEMBLY: INCLUDING 12"X12" TEE WITH 12" G.V. (PER UDACS PLATE 39 & 40)
 - 2" FIRE HYDRANT ASSEMBLY: INCLUDING 16"X12" TEE WITH 12" G.V. (PER UDACS PLATE 39 & 40)
 - 3" 12" GATE VALVE (PER UDACS PLATE 30 & 39)
 - 4" 12" CAP & BLOW OFF (PER UDACS PLATE 36)
 - 5" 16" CAP & BLOW OFF (PER UDACS PLATE 36)
 - 6" 12"X12" TEE (PER UDACS PLATE 31)
 - 7" 16"X16"X12" TEE (PER UDACS PLATE 31)
 - 8" 16" 90° BEND (PER UDACS PLATE 31)
 - 9" 12" 11" VERTICAL BEND (PER UDACS PLATE 31). SEE PROFILE VIEW
 - 10" 12" 45° VERTICAL BEND (PER UDACS PLATE 31). SEE PROFILE VIEW
 - 11" 1.5" TYPE K SOFT COPPER WATER LATERAL SERVICE WITH 1.5" METER PER UDACS PLATE #4 (IRRIGATION) AND 1.5" RPPA PER UDACS PLATE #8
 - 12" 6" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17
 - 13" 12" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17
 - 14" 16" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17
 - 15" 12" DIP WATER MAIN PER UDACS 2.06.01 & PLATE 17
- SEWER**
- 16" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" DIAMETER MANHOLE COVER UNLESS NOTED OTHERWISE
 - 17" 12" C-900-16 SANITARY SEWER MAIN
 - 18" 12" SEWER CAP (PER STD 4.6 & 4.11)
 - 19" SEWER POINT OF CONNECTION

HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY
10846 GRIFFITH PEAK DRIVE, SUITE 100
LAS VEGAS, NEVADA 89145-5148
PH: (702) 672-7550 FAX: (702) 382-2597 WEB: WWW.VTNV.COM
CONSULTING ENGINEERS • PLANNERS • LAND SURVEYORS

UTILITY PLAN & PROFILE 13
STORM DRAIN LATERAL
SUMMERLIN WEST VILLAGE 25
SUNSET RUN DRIVE
SCURRY BEND DRIVE TO LAKE MEAD BOULEVARD

DRAWN BY: BCC
DESIGNED BY: BCC
CHECKED BY: WJM
PROJECT NO: 7919
SCALE: 1"=20' HORIZ.
1"=4' VERT.

WILLIAM J. MEYER
PROFESSIONAL ENGINEER STATE OF NEVADA
NO. 15745
CIVIL
SHEET
UT13
30 OF 35 SHEETS
DRAWING NO.