DS #: 05232-1

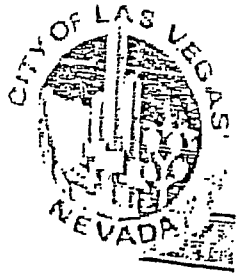
APN: 126-25-201-010

PROJECT: Centennial Heights Townhomes - Update #1

SUBMITTAL: 5th

SCANNED BY/DATE:

CHECKED BY/DATE:



CITY OF LAS VEGAS INTER-OFFICE MEMORANDUM				DATE: October 1, 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:			**COPIES TO:**
Centennial Heights Townhomes – Update #1				Horrocks Engineers
Cross Streets:	SWQ of Centennial Pkwy & Shaumber Road			Harmony Homes, LLC
File Number:	F:\Depot\DSMemos\DS5232E.doc			Bart Anderson, P.E., DevCo
Parcel Number:	126-25-201-010			CCRFCD
Zoning Action:	TMP-77575; VAC-77574; VAR-77573 & ZON-77572			
FEMA Flood Zone	YES	NO **X**		
Proposed Storm Drain	YES **X**	NO		

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Payment Trn #
1st Submittal	12/30/2019	1/31/2019	Not Approved	$400.00	3688174: $400
2nd Submittal	3/12/2020	4/12/2020	Not Approved	$400.00	3776765: $400
3rd Submittal	5/1/2020	5/25/2020	Not Approved	$400.00	3831188: $400
4th Submittal	6/12/2020	6/29/2020	Conditional Approval	$400.00	3881168: $400
5th Submittal	9/17/2020	10/1/2020	See Comments Below	$100.00	3993635: $100
			TOTAL FEES (LDDRS):	**$1,700.00**	----

REMARKS:

***** The Conditional Approval of this Drainage Study is to allow the engineer/developer to submit the Improvement Plans to City Land Development Only**

***** Do not submit the Drainage Study to Clark County Regional Flood Control District (CCRFCD) prior to the Structural Design and Calculations being approved by the City Building & Safety Department**

5th Submittal: Update #1 to lower onsite by 0.9' to balance earthwork quantities

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

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

1. **This drainage study is acceptable in concept;** however, *City of Las Vegas* will not formally accept the study until the *Clark County Regional Flood Control District (CCRFCD)* has issued a letter of concurrence. The engineer should contact the CCRFCD to confirm that they have begun their review.

   Please note that effective April 6, 2020, only electronic submittals to the CCRFCD will be accepted for regional concurrence. Contact cwang@regionalflood.org for direction.

2. The project proposes to build two (2) temporary drainage facilities (graded channels with ripraps), one along the west boundary of the subject site and one further west along the future ***Sheep Mountain Parkway*** alignment. Prior to final plan approval the developer must complete a maintenance and liability agreement for the interim drainage improvements (off-site channels) and post a minimum maintenance bond of $50,000 or 50-percent of the construction cost for the improvements, whichever is greater. The engineer must submit an estimate of the quantities for constructing the facility and an exhibit that adequately shows the location and limits of the drainage facility to *City of Las Vegas Flood Control* for approval. Once the drainage study is conditionally approved, the engineer should contact the City's Land Development Section (229-6371) to begin the agreement process.

   In order for the maintenance bond to be released in the future, a drainage update / letter will be required to justify that the offsite berms / channels are no longer necessary and can be removed.

3. Structural plans for special design storm drain facilities (such as but not limited to SDMH#1, SDMH#4 & SDMH#5) must be submitted for review. Provide a soils report, structural calculations and specifications, two wet stamped structural sets, and a grading plan to the *City of Las Vegas Building Department* for processing. The engineer must provide a copy of *Building Department* approval of the structures to *Flood Control* prior to final approval of the drainage study.

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
HDR/AYS

T/R/S: T19S/R59E/25
AREA F-25

UPDATE #1

TO THE

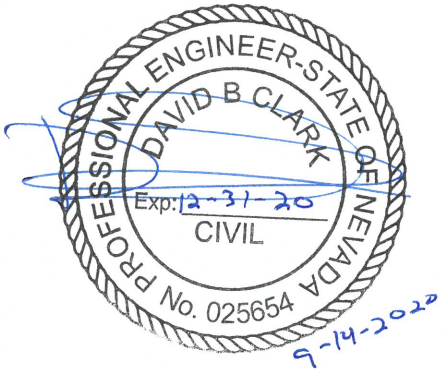
TECHNICAL DRAINAGE STUDY

FOR

CENTENNIAL HEIGHTS TOWNHOMES

IN

CITY OF LAS VEGAS, NEVADA



PREPARED FOR

HARMONY HOMES, LLC
8912 Spanish Ridge Ave. Ste. 200
Las Vegas, NV, 89148
Ph. (702) 570-7240

SEPTEMBER 2020

HORROCKS ENGINEERS PROJECT NV-1949-1909

Horrocks Engineers
1401 N Green Valley Pkwy, Suite 160
Henderson, NV 89074
702.966.4063

HORROCKS
ENGINEERS

HYDROLOGIC CRITERIA AND DRAINAGE MANUAL

DRAINAGE STUDY INFORMATION FORM

Name of Development: CENTENNIAL HEIGHTS TOWNHOMES, DS 5232 Date: 09-14-2020

Location of Development: a) Descriptive (Cross Streets) North/South: Shaumber Rd

East/West: Centennial Pkwy

b) Section: 25 Township: 19S Range: 59E

c) APN : 126-25-201-010

Name of Owner: HARMONY HOMES, LLC

Telephone No.: (702) 570-7240 Fax No.: E-Mail Address: mrosenberg@harmonyhomes.com

Address: 8912 Spanish Ridge Ave. Ste. 200, Las Vegas, NV, 89148

Contact Person-Name: David B. Clark **Telephone No.:** 702.966.4063

* **E-Mail Address:** dclark@horrocks.com **Fax No.:**

Firm: Horrocks Engineers

Address: 1401 N Green Valley Pkwy, Suite 160 Henderson, NV 89014

Type of Land Development/Land Disturbance Process:

	Rezoning	X	Subdivision Map		Clearing and Grading Only
	Parcel Map		Planned Unit Development	X	Other (Please specify below)
	Large Parcel Map		Building Permit		OFFSITE ROADWAY/IMPROVEMENTS

1. Total Owned Land Area: At Site: 30+/- acres Being Developed/Disturbed: 30+/- 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.): Residential - Townhomes
5. Approximate upstream land area which drains to the subject site: 155 acres
6. Has the site drainage been evaluated in the past? ☒ **YES** ☐ **NO** If yes, please identify documentation: Original Study: Centennial Heights Townhomes, DS 5232
7. If known, please briefly identify the proposed discharge point(s) of runoff from the site: The site discharges at 3 locations along eastern boundary of the northern half of the project site, and into the Tropical ROW at the southeast corner of the site
8. Briefly describe your proposed schedule for the subject project: ASAP



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.

Local Entity File No.

Revision	Date

REFERENCE:

STANDARD FORM 1

Updated 05/01/2008

HORROCKS
ENGINEERS

September 15, 2020

Albert Sung, P.E.
Flood Control
City of Las Vegas Public Works
333 N. Rancho Drive
Las Vegas, NV 89106

Subject: Update #1 to the Technical Drainage Study for Centennial Heights Townhomes, DS 5232

Dear Mr. Sung:

Horrocks Engineers is pleased to submit this Update #1 to the Technical Drainage Study for Centennial Heights Townhomes (DS 5232). This update addresses revised grading to balance earthwork for the project site. The project is located between Centennial and Tropical Parkway and adjacent to the Puli alignment. The original study was initially submitted by Horrocks Engineers on December 26, 2019 and was conditionally approved by CLV on June 29, 2020.

REVISIONS

The sight has been lowered by 0.9' in an effort to create a balance in the earthwork quantities. The Tropical Parkway and Centennial Parkway roadway designs are unaffected by this adjustment. In southerly portion of the Foxes Dale Street (formerly Street H), the slope has been revised as needed to transition to Centennial and Tropical Parkway. A revised normal depth calculation for the design condition (Phase 1) is included in the Appendix. The flow depth does not change from 0.50' with the increased roadway slope. The original and revised normal depth calculations results can be found in Table 1 below. The remaining onsite roadway slopes have been maintained. The grading plans for the Phase 1 and Phase 2 areas are included, showing the new FF and TBC elevations. The finished floor analysis table has been updated to show the revised finished floor elevations and relevant top of curb elevations. For this submittal, the table has been revised to more clearly show that criteria is met, and to include a 'minimum finish floor elevation' column for future convenience. Figures 7 and 9, Onsite Phase 1 and Phase 2 Interim Condition Basin Maps have been included in the Appendix for convenience. The figures have not been revised.

The project site meets the criteria from CLV and the HCDDM. The finish floor analysis table shows that the site meets finish floor criteria. There are multiple lots that are protected with solid grouted walls on the side to protect against peak flows in adjacent streets. The lots adjacent to Centennial Parkway are still protected by solid grouted walls along the Centennial Parkway frontage and the hump at the access to the north end of Foxes Dale Street remains.

TABLE 1: Normal Depth Results Summary

Cross Section	Description	Q (cfs)	Slope (%)	Depth (ft)	Velocity (ft/s)	DxV
REVISED						
Section6 onsite @ ON-D5 100YR-PH1 - UP1	CI2H	32	1.78	0.50	4.70	2.35
ORIGINAL						
Section6 onsite @ ON-D5 100YR	CI1H	32	1.78	0.50	4.70	2.35

FLOODPLAIN AND MPU

The FEMA floodplain designation has not been revised since the original submittal. For convenience a Firmette of FIRM Panel 32003C1750E, effective September 27, 2002 is provided and hasn't been revised since original approval of the original technical drainage study. The site is designated as a Zone 'X' and is described as an area of minimum flood hazard.

The Las Vegas Valley Master Plan was updated in 2018 and has not been updated since conditional approval of the original submittal.

It is anticipated that the revisions and updated calculations described above and included in the Appendix and the grading plans attached fully address the requirements and criteria of CLV and in the HCDDM. We respectfully request City approval of this Update. Please don't hesitate to contact us with any questions.

Sincerely,

David B. Clark, PE
Engineer
HORROCKS ENGINEERS

APPENDIX

Approval Letter

FIRMETTE - Panel 32003C1750E

Normal Depth Calculations

Finished Floor Analysis Table

Figure 7 – Phase 1 Interim Condition Onsite Basin Map

Figure 9 – Phase 2 Interim Condition Onsite Basin Map

CITY OF LAS VEGAS INTER-OFFICE MEMORANDUM				DATE: June 29, 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:			**COPIES TO:**
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Parcel Number:	126-25-201-010			CCRFCD
Zoning Action:	TMP-77575; VAC-77574; VAR-77573 & ZON-77572			
FEMA Flood Zone	YES	NO	X	
Proposed Storm Drain	YES X	NO		

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END OF REMARKS
HDR/AYS

T/R/S: T19S/R59E/25
AREA F-25

runoff. This flow is conveyed into the 364 ac-ft Ann Road Detention Basin and is discharged through GOAN 0044. The detention basin, GOAN 0061, is located west of the project site, south of Tropical Parkway.



FIGURE 1 – VICINITY MAP

FEMA FLOOD ZONE

The Federal Emergency Management Agency (FEMA), Flood Insurance Rate Map (FIRM) (Reference 2), Community Panel Numbers 32003C1750E, effective September 27, 2002, designates the project site as Zone 'X'. Zone 'X' is described as an area of minimum flood hazard. See Figure 2 in Appendix A for the most current panel being used in this study.

Worksheet for Section6 onsite @ ON-D5 100YR-PH1 - UP1

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth

Input Data		
Channel Slope	1.85	%
Discharge	32.00	cfs

Section Definitions

Station (ft)	Elevation (ft)
0+00.00	0.38
0+00.35	0.35
0+01.33	0.06
0+01.33	0.00
0+02.50	0.13
0+02.50	0.17
0+15.00	0.42
0+27.50	0.17
0+27.50	0.13
0+28.67	0.00
0+28.67	0.06
0+29.65	0.35
0+30.00	0.38

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00.00, 0.38)	(0+02.50, 0.13)	0.013
(0+02.50, 0.13)	(0+27.50, 0.13)	0.016
(0+27.50, 0.13)	(0+30.00, 0.38)	0.013

Options	
Current Roughness Weighted Method	Pavlovskii's Method
Open Channel Weighting Method	Pavlovskii's Method
Closed Channel Weighting Method	Pavlovskii's Method

Results		
Normal Depth	0.50	ft
Elevation Range	0.00 to 0.42	ft
Flow Area	6.7	ft^2
Wetted Perimeter	30.54	ft
Hydraulic Radius	0.22	ft
Top Width	30.00	ft

Worksheet for Section6 onsite @ ON-D5 100YR-PH1 - UP1

Results	
Normal Depth	0.50 ft
Critical Depth	0.60 ft
Critical Slope	0.52 %
Velocity	4.76 ft/s
Velocity Head	0.35 ft
Specific Energy	0.85 ft
Froude Number	1.77
Flow Type	Supercritical

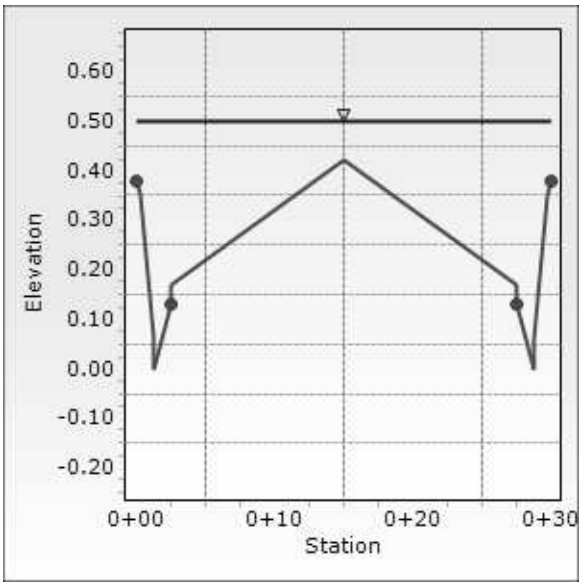
GVF Input Data	
Downstream Depth	0.00 ft
Length	0.00 ft
Number Of Steps	0

GVF Output Data	
Upstream Depth	0.00 ft
Profile Description	
Profile Headloss	0.00 ft
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	0.50 ft
Critical Depth	0.60 ft
Channel Slope	1.85 %
Critical Slope	0.52 %

Cross Section for Section6 onsite @ ON-D5 100YR-PH1 - UP1

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth

Input Data	
Channel Slope	1.85 %
Normal Depth	0.50 ft
Discharge	32.00 cfs



FINISHED FLOOR ANALYSIS

Project Number NV-1949-1909 | **Project Name:** CENTENNIAL HEIGHTS TOWNHOMES

Date: 9/14/2020 | **Designed By:** DBC

FF Check

Bldg #	FF Elev.	TC Elev.	Flow Depth	WSE	Minimum FF Elev.	Freeboard	6" Criteria[1]	2X Depth Criteria[2]	Bldg #	FF Elev.	TC Elev.	Flow Depth	WSE	Minimum FF Elev.	Freeboard	6" Criteria[1]	2X Depth Criteria[2]
1	11.06	9.30	0.47	9.39	9.86	1.67	YES	YES	43	19.51	17.54	0.38	17.54	18.04	1.97	YES	YES
2	11.06	8.84	0.47	8.93	9.40	2.13	YES	YES	44	19.51	17.54	0.38	17.54	18.04	1.97	YES	YES
3	9.56	8.38	0.47	8.47	8.94	1.09	YES	YES	45	18.35	16.37	0.47	16.46	16.93	1.89	YES	YES
4	9.56	7.92	0.47	8.01	8.48	1.55	YES	YES	46	18.35	16.83	0.47	16.92	17.39	1.43	YES	YES
5	9.56	7.46	0.47	7.55	8.02	2.01	YES	YES	47	19.85	17.29	0.47	17.38	17.85	2.47	YES	YES
6	9.56	7.00	0.47	7.09	7.56	2.47	YES	YES	48	19.85	17.75	0.47	17.84	18.31	2.01	YES	YES
7	8.06	6.53	0.47	6.62	7.09	1.44	YES	YES	49	19.85	18.21	0.47	18.30	18.77	1.55	YES	YES
8	8.06	6.41	0.47	6.50	6.97	1.56	YES	YES	50	19.85	18.68	0.47	18.77	19.24	1.08	YES	YES
9	8.55	6.07	0.47	6.16	6.63	2.39	YES	YES	51	21.35	19.14	0.47	19.23	19.70	2.12	YES	YES
10	8.55	6.57	0.47	6.66	7.13	1.89	YES	YES	52	21.35	19.70	0.47	19.79	20.26	1.56	YES	YES
11	8.55	7.04	0.47	7.13	7.60	1.42	YES	YES	53	23.20	21.32	0.38	21.32	21.82	1.88	YES	YES
12	8.55	7.60	0.47	7.69	8.16	0.86	YES	YES	54	23.20	21.78	0.38	21.78	22.28	1.42	YES	YES
13	11.04	8.61	0.47	8.70	9.17	2.34	YES	YES	55	23.20	22.24	0.38	22.24	22.74	0.96	YES	YES
14	11.04	9.07	0.47	9.16	9.63	1.88	YES	YES	56	24.70	22.70	0.38	22.70	23.20	2.00	YES	YES
15	11.04	9.53	0.47	9.62	10.09	1.42	YES	YES	57	24.70	23.16	0.38	23.16	23.66	1.54	YES	YES
16	12.54	9.99	0.47	10.08	10.55	2.46	YES	YES	58	24.70	23.73	0.38	23.73	24.23	0.97	YES	YES
17	12.54	10.45	0.47	10.54	11.01	2.00	YES	YES	59	25.75	24.23	0.38	24.23	24.73	1.52	YES	YES
18	12.54	11.02	0.47	11.11	11.58	1.43	YES	YES	60	25.75	23.66	0.38	23.66	24.16	2.09	YES	YES
19	13.85	11.07	0.47	11.16	11.63	2.69	YES	YES	61	25.75	23.20	0.38	23.20	23.70	2.55	YES	YES
20	13.85	11.54	0.47	11.63	12.10	2.22	YES	YES	62	24.25	22.71	0.38	22.71	23.21	1.54	YES	YES
21	13.85	12.00	0.47	12.09	12.56	1.76	YES	YES	63	24.25	22.28	0.38	22.28	22.78	1.97	YES	YES
22	15.35	12.46	0.47	12.55	13.02	2.80	YES	YES	64	24.25	21.82	0.38	21.82	22.32	2.43	YES	YES
23	15.35	12.92	0.47	13.01	13.48	2.34	YES	YES	65	22.69	20.71	0.47	20.80	21.27	1.89	YES	YES
24	15.35	13.49	0.47	13.58	14.05	1.77	YES	YES	66	22.69	21.17	0.47	21.26	21.73	1.43	YES	YES
25	14.01	12.02	0.47	12.11	12.58	1.90	YES	YES	67	24.19	21.63	0.47	21.72	22.19	2.47	YES	YES
26	14.01	12.49	0.47	12.58	13.05	1.43	YES	YES	68	24.19	22.09	0.47	22.18	22.65	2.01	YES	YES
27	15.51	12.95	0.47	13.04	13.51	2.47	YES	YES	69	24.19	22.55	0.47	22.64	23.11	1.55	YES	YES
28	15.51	13.41	0.47	13.50	13.97	2.01	YES	YES	70	24.19	23.02	0.47	23.11	23.58	1.08	YES	YES
29	15.51	13.87	0.47	13.96	14.43	1.55	YES	YES	71	25.69	23.48	0.47	23.57	24.04	2.12	YES	YES
30	15.50	14.33	0.47	14.42	14.89	1.08	YES	YES	72	25.69	23.99	0.47	24.08	24.55	1.61	YES	YES
31	17.01	14.80	0.47	14.89	15.36	2.12	YES	YES	73	27.94	26.06	0.47	26.15	26.62	1.79	YES	YES
32	17.01	15.19	0.47	15.28	15.75	1.73	YES	YES	74	27.94	26.52	0.47	26.61	27.08	1.33	YES	YES
33	18.46	16.58	0.38	16.58	17.08	1.88	YES	YES	75	27.94	26.98	0.47	27.07	27.54	0.87	YES	YES
34	18.46	17.04	0.38	17.04	17.54	1.42	YES	YES	76	29.44	27.44	0.47	27.53	28.00	1.91	YES	YES
35	18.46	17.50	0.38	17.50	18.00	0.96	YES	YES	77	29.44	27.90	0.47	27.99	28.46	1.45	YES	YES
36	19.96	17.96	0.38	17.96	18.46	2.00	YES	YES	78	29.44	28.47	0.47	28.56	29.03	0.88	YES	YES
37	19.96	18.42	0.38	18.42	18.92	1.54	YES	YES	79	30.49	28.97	0.47	29.06	29.53	1.43	YES	YES
38	19.93	18.99	0.38	18.99	19.49	0.94	YES	YES	80	30.49	28.40	0.47	28.49	28.96	2.00	YES	YES
39	21.01	19.49	0.38	19.49	19.99	1.52	YES	YES	81	30.49	27.94	0.38	27.94	28.44	2.55	YES	YES
40	21.01	18.92	0.38	18.92	19.42	2.09	YES	YES	82	28.99	27.48	0.38	27.48	27.98	1.51	YES	YES
41	21.01	18.46	0.38	18.84	19.22	2.17	YES	YES	83	28.99	27.02	0.38	27.02	27.52	1.97	YES	YES
42	19.51	18.00	0.38	18.38	18.76	1.13	YES	YES									

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FINISHED FLOOR ANALYSIS

Project Number NV-1949-1909 | **Project Name:** CENTENNIAL HEIGHTS TOWNHOMES

Date: 9/14/2020 | **Designed By:** DBC

FF Check

Bldg #	FF Elev.	TC Elev.	Flow Depth	WSE	Minimum FF Elev.	Freeboard	6" Criteria[1]	2X Depth Criteria[2]
84	28.99	26.56	0.38	26.56	27.06	2.43	YES	YES
85	27.03	25.05	0.47	25.14	25.61	1.89	YES	YES
86	27.03	25.51	0.47	25.60	26.07	1.43	YES	YES
87	28.53	25.97	0.47	26.06	26.53	2.47	YES	YES
88	28.53	26.43	0.47	26.52	26.99	2.01	YES	YES
89	28.83	26.90	0.47	26.99	27.46	1.84	YES	YES
90	28.53	27.36	0.47	27.45	27.92	1.08	YES	YES
91	30.03	27.82	0.47	27.91	28.38	2.12	YES	YES
92	30.03	28.38	0.47	28.47	28.94	1.56	YES	YES
93	32.68	30.80	0.38	30.80	31.30	1.88	YES	YES
94	32.68	31.26	0.38	31.26	31.76	1.42	YES	YES
95	32.68	31.72	0.38	31.72	32.22	0.96	YES	YES
96	34.18	32.18	0.38	32.18	32.68	2.00	YES	YES
97	34.18	32.64	0.38	32.64	33.14	1.54	YES	YES
98	34.18	33.21	0.38	33.21	33.71	0.97	YES	YES
99	31.37	29.39	0.47	29.48	29.95	1.89	YES	YES
100	31.37	29.85	0.47	29.94	30.41	1.43	YES	YES
101	32.87	31.30	0.47	31.39	31.86	1.48	YES	YES
102	32.87	30.78	0.47	30.87	31.34	2.00	YES	YES
103	32.87	31.14	0.47	31.23	31.70	1.64	YES	YES
104	32.87	31.35	0.47	31.44	31.91	1.43	YES	YES
105	34.37	31.56	0.47	31.65	32.12	2.72	YES	YES
106	34.37	31.93	0.47	32.02	32.49	2.35	YES	YES
107	33.24	30.80	0.38	30.80	31.30	2.44	YES	YES
108	33.24	31.26	0.38	31.26	31.76	1.98	YES	YES
109	33.24	31.72	0.38	31.72	32.22	1.52	YES	YES
110	34.74	32.18	0.38	32.18	32.68	2.56	YES	YES
111	34.74	32.64	0.38	32.64	33.14	2.10	YES	YES
112	34.74	33.21	0.38	33.21	33.71	1.53	YES	YES
113	39.71	38.10	0.50	38.22	38.72	1.49	YES	YES
114	39.71	37.59	0.50	37.71	38.21	2.00	YES	YES
115	38.21	37.20	0.50	37.32	37.82	0.89	YES	YES
116	38.21	36.81	0.50	36.93	37.43	1.28	YES	YES
117	38.21	36.42	0.50	36.54	37.04	1.67	YES	YES
118	38.21	36.03	0.50	36.15	36.65	2.06	YES	YES
119	36.71	35.64	0.50	35.76	36.26	0.95	YES	YES
120	36.71	35.25	0.50	35.37	35.87	1.34	YES	YES
121	36.06	34.41	0.50	34.53	35.03	1.53	YES	YES
122	36.06	33.94	0.50	34.06	34.56	2.00	YES	YES
123	34.56	33.55	0.50	33.67	34.17	0.89	YES	YES
124	34.56	33.16	0.50	33.28	33.78	1.28	YES	YES
125	34.56	32.77	0.50	32.89	33.77	1.67	YES	YES
126	34.56	32.38	0.50	32.50	33.00	2.06	YES	YES
127	33.06	31.99	0.50	32.11	32.61	0.95	YES	YES
128	33.06	31.60	0.50	31.72	32.22	1.34	YES	YES
129	32.41	30.76	0.50	30.88	31.38	1.53	YES	YES
130	32.41	30.29	0.50	30.41	30.91	2.00	YES	YES
131	30.91	29.90	0.50	30.02	30.52	0.89	YES	YES
132	30.91	29.51	0.50	29.63	30.13	1.28	YES	YES
133	30.91	29.12	0.50	29.24	29.74	1.67	YES	YES
134	30.91	28.73	0.50	28.85	29.35	2.06	YES	YES
135	29.41	28.34	0.50	28.46	28.96	0.95	YES	YES
136	29.41	27.95	0.50	28.07	28.57	1.34	YES	YES
137	28.76	27.11	0.50	27.23	27.73	1.53	YES	YES
138	28.76	26.64	0.50	26.76	27.26	2.00	YES	YES
139	27.60	26.25	0.50	26.37	26.87	1.23	YES	YES
140	27.60	25.86	0.50	25.98	26.48	1.62	YES	YES
141	27.26	25.47	0.50	25.59	26.09	1.67	YES	YES
142	27.26	25.08	0.50	25.20	25.70	2.06	YES	YES
143	25.76	24.69	0.50	24.81	25.31	0.95	YES	YES
144	25.76	24.30	0.50	24.42	24.92	1.34	YES	YES
145	24.41	23.46	0.50	23.58	24.08	0.83	YES	YES
146	24.41	22.99	0.50	23.11	23.61	1.30	YES	YES
147	24.41	22.60	0.50	22.72	23.22	1.69	YES	YES
148	24.41	22.21	0.50	22.33	22.83	2.08	YES	YES
149	22.64	20.82	0.50	20.94	21.44	1.70	YES	YES
150	22.64	20.33	0.50	20.45	20.95	2.19	YES	YES
151	22.64	19.95	0.50	20.07	20.57	2.57	YES	YES
152	21.14	19.56	0.50	19.68	20.18	1.46	YES	YES
153	21.14	19.20	0.50	19.32	19.82	1.82	YES	YES
154	21.14	18.96	0.50	19.08	19.58	2.06	YES	YES
155	19.64	18.71	0.50	18.83	19.33	0.81	YES	YES
156	19.64	18.54	0.50	18.66	19.16	0.98	YES	YES
157	22.20	19.68	0.27	19.57	20.18	2.63	YES	YES
158	22.20	20.14	0.27	20.03	20.64	2.17	YES	YES
159	22.20	20.60	0.27	20.49	21.10	1.71	YES	YES
160	22.20	21.16	0.27	21.05	21.66	1.15	YES	YES
161	24.11	22.59	0.27	22.48	23.09	1.63	YES	YES
162	24.11	22.02	0.27	21.91	22.52	2.20	YES	YES
163	24.11	21.56	0.27	21.45	22.06	2.66	YES	YES
164	22.61	21.10	0.27	20.99	21.60	1.62	YES	YES
165	22.61	20.64	0.27	20.53	21.14	2.08	YES	YES
166	22.61	20.18	0.27	20.07	20.68	2.54	YES	YES

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FINISHED FLOOR ANALYSIS

Project Number NV-1949-1909 | **Project Name:** CENTENNIAL HEIGHTS TOWNHOMES

Date: 9/14/2020 | **Designed By:** DBC

FF Check

Bldg #	FF Elev.	TC Elev.	Flow Depth	WSE	Minimum FF Elev.	Freeboard	6" Criteria[1]	2X Depth Criteria[2]	Bldg #	FF Elev.	TC Elev.	Flow Depth	WSE	Minimum FF Elev.	Freeboard	6" Criteria[1]	2X Depth Criteria[2]
167	25.54	23.67	0.27	23.56	24.17	1.98	YES	YES	209	40.05	38.53	0.27	38.42	39.03	1.63	YES	YES
168	25.54	24.13	0.27	24.02	24.63	1.52	YES	YES	210	40.05	37.96	0.27	37.85	38.46	2.20	YES	YES
169	25.54	24.59	0.27	24.48	25.09	1.06	YES	YES	211	40.05	37.50	0.27	37.39	38.00	2.66	YES	YES
170	27.04	25.05	0.27	24.94	25.55	2.10	YES	YES	212	38.55	37.04	0.27	36.93	37.54	1.62	YES	YES
171	27.04	25.51	0.27	25.40	26.01	1.64	YES	YES	213	38.55	36.58	0.27	36.47	37.08	2.08	YES	YES
172	27.04	26.08	0.27	25.97	26.58	1.07	YES	YES	214	38.55	36.12	0.27	36.01	36.62	2.54	YES	YES
173	28.10	26.58	0.27	26.47	27.08	1.63	YES	YES	PHASE 2								
174	28.10	26.01	0.27	25.90	26.51	2.20	YES	YES	215	42.52	39.73	0.27	39.62	40.23	2.90	YES	YES
175	28.10	25.55	0.27	25.44	26.05	2.66	YES	YES	216	42.52	40.19	0.27	40.08	40.69	2.44	YES	YES
176	26.60	25.09	0.27	24.98	25.59	1.62	YES	YES	217	42.52	40.55	0.27	40.44	41.05	2.08	YES	YES
177	26.60	24.63	0.27	24.52	25.13	2.08	YES	YES	218	44.02	41.11	0.27	41.00	41.61	3.02	YES	YES
178	26.60	24.17	0.27	24.06	24.67	2.54	YES	YES	219	44.02	41.57	0.27	41.46	42.07	2.56	YES	YES
179	29.53	27.65	0.27	27.54	28.15	1.99	YES	YES	220	44.02	42.14	0.27	42.03	42.64	1.99	YES	YES
180	29.53	28.11	0.27	28.00	28.61	1.53	YES	YES	221	45.08	42.64	0.27	42.53	43.14	2.55	YES	YES
181	29.53	28.57	0.27	28.46	29.07	1.07	YES	YES	222	45.08	42.07	0.27	41.96	42.57	3.12	YES	YES
182	31.03	29.03	0.27	28.92	29.53	2.11	YES	YES	223	45.08	41.61	0.27	41.50	42.11	3.58	YES	YES
183	31.03	29.49	0.27	29.38	29.99	1.65	YES	YES	224	43.58	41.15	0.27	41.04	41.65	2.54	YES	YES
184	31.03	30.06	0.27	29.95	30.56	1.08	YES	YES	225	43.58	40.69	0.27	40.58	41.19	3.00	YES	YES
185	32.08	30.56	0.27	30.45	31.06	1.63	YES	YES	226	43.58	40.23	0.27	40.12	40.73	3.46	YES	YES
186	32.08	29.99	0.27	29.88	30.49	2.20	YES	YES	227	43.00	39.66	0.27	39.55	40.16	3.45	YES	YES
187	32.08	29.53	0.27	29.42	30.03	2.66	YES	YES	228	43.00	40.12	0.27	40.01	40.62	2.99	YES	YES
188	30.58	29.00	0.27	28.89	29.50	1.69	YES	YES	229	43.00	40.58	0.27	40.47	41.08	2.53	YES	YES
189	30.58	28.61	0.27	28.50	29.11	2.08	YES	YES	230	44.50	41.04	0.27	40.93	41.54	3.57	YES	YES
190	30.58	28.15	0.27	28.04	28.65	2.54	YES	YES	231	44.50	41.51	0.27	41.40	42.01	3.10	YES	YES
191	33.51	31.64	0.27	31.53	32.14	1.98	YES	YES	232	44.50	42.07	0.27	41.96	42.57	2.54	YES	YES
192	33.51	32.10	0.27	31.99	32.60	1.52	YES	YES	233	47.27	44.47	0.27	44.36	44.97	2.91	YES	YES
193	33.51	32.56	0.27	32.45	33.06	1.06	YES	YES	234	47.27	44.93	0.27	44.82	45.43	2.45	YES	YES
194	35.01	33.02	0.27	32.91	33.52	2.10	YES	YES	235	47.27	45.39	0.27	45.28	45.89	1.99	YES	YES
195	35.01	33.48	0.27	33.37	33.98	1.64	YES	YES	236	48.77	45.85	0.27	45.74	46.35	3.03	YES	YES
196	35.01	34.05	0.27	33.94	34.55	1.07	YES	YES	237	48.77	46.31	0.27	46.20	46.81	2.57	YES	YES
197	36.07	34.55	0.27	34.44	35.05	1.63	YES	YES	238	48.77	46.88	0.27	46.77	47.38	2.00	YES	YES
198	36.07	33.98	0.27	33.87	34.48	2.20	YES	YES	239	49.82	47.37	0.27	47.26	47.87	2.56	YES	YES
199	36.07	33.52	0.27	33.41	34.02	2.66	YES	YES	240	49.82	46.82	0.27	46.71	47.32	3.11	YES	YES
200	34.57	33.06	0.27	32.95	33.56	1.62	YES	YES	241	49.82	46.35	0.27	46.24	46.85	3.58	YES	YES
201	34.57	32.60	0.27	32.49	33.10	2.08	YES	YES	242	48.32	45.89	0.27	45.78	46.39	2.54	YES	YES
202	34.57	32.14	0.27	32.03	32.64	2.54	YES	YES	243	48.32	45.43	0.27	45.32	45.93	3.00	YES	YES
203	37.50	35.62	0.27	35.51	36.12	1.99	YES	YES	244	48.32	44.97	0.27	44.86	45.47	3.46	YES	YES
204	37.50	36.08	0.27	35.97	36.58	1.53	YES	YES	245	45.98	43.07	0.50	43.19	43.69	2.79	YES	YES
205	37.50	36.54	0.27	36.43	37.04	1.07	YES	YES	246	45.98	43.54	0.50	43.66	44.16	2.32	YES	YES
206	39.00	37.00	0.27	36.89	37.50	2.11	YES	YES	247	47.48	44.00	0.50	44.12	44.62	3.36	YES	YES
207	39.00	37.46	0.27	37.35	37.96	1.65	YES	YES	248	47.48	44.46	0.50	44.58	45.08	2.90	YES	YES
208	39.00	38.03	0.27	37.92	38.53	1.08	YES	YES	249	47.48	44.92	0.50	45.04	45.54	2.44	YES	YES

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250	47.48	45.37	0.50	45.49	45.99	1.99	YES	YES	292	61.37	58.02	0.27	57.91	58.52	3.46	YES	YES
251	48.98	45.85	0.50	45.97	46.47	3.01	YES	YES	293	59.40	56.50	0.45	56.57	57.02	2.83	YES	YES
252	48.98	46.32	0.50	46.44	46.94	2.54	YES	YES	294	59.40	56.96	0.45	57.03	57.48	2.37	YES	YES
253	50.71	47.81	0.45	47.88	48.33	2.83	YES	YES	295	60.90	57.42	0.45	57.49	57.94	3.41	YES	YES
254	50.71	48.27	0.45	48.34	48.79	2.37	YES	YES	296	60.90	57.88	0.45	57.95	58.40	2.95	YES	YES
255	52.21	48.74	0.45	48.81	49.26	3.40	YES	YES	297	60.90	58.34	0.45	58.41	58.86	2.49	YES	YES
256	52.21	49.20	0.45	49.27	49.72	2.94	YES	YES	298	60.90	58.81	0.45	58.88	59.33	2.02	YES	YES
257	52.21	49.66	0.45	49.73	50.18	2.48	YES	YES	299	62.40	59.27	0.45	59.34	59.79	3.06	YES	YES
258	52.21	50.12	0.45	50.19	50.64	2.02	YES	YES	300	62.40	59.83	0.45	59.90	60.35	2.50	YES	YES
259	53.71	50.58	0.45	50.65	51.10	3.06	YES	YES	301	65.06	62.15	0.27	62.04	62.65	3.02	YES	YES
260	53.71	51.15	0.45	51.22	51.67	2.49	YES	YES	302	65.06	62.61	0.27	62.50	63.11	2.56	YES	YES
261	55.58	52.67	0.27	52.56	53.17	3.02	YES	YES	303	65.06	63.07	0.27	62.96	63.57	2.10	YES	YES
262	55.58	53.03	0.27	52.92	53.53	2.66	YES	YES	304	66.56	63.53	0.27	63.42	64.03	3.14	YES	YES
263	55.58	53.50	0.27	53.39	54.00	2.19	YES	YES	305	66.56	63.99	0.27	63.88	64.49	2.68	YES	YES
264	57.08	53.92	0.27	53.81	54.42	3.27	YES	YES	306	66.56	64.56	0.27	64.45	65.06	2.11	YES	YES
265	57.08	54.51	0.27	54.40	55.01	2.68	YES	YES	307	67.61	65.06	0.27	64.95	65.56	2.66	YES	YES
266	57.08	55.08	0.27	54.97	55.58	2.11	YES	YES	308	67.61	64.49	0.27	64.38	64.99	3.23	YES	YES
267	58.13	55.58	0.27	55.47	56.08	2.66	YES	YES	309	67.61	64.03	0.27	63.92	64.53	3.69	YES	YES
268	58.13	55.01	0.27	54.90	55.51	3.23	YES	YES	310	66.11	63.57	0.27	63.46	64.07	2.65	YES	YES
269	58.13	54.59	0.27	54.48	55.09	3.65	YES	YES	311	66.11	63.11	0.27	63.00	63.61	3.11	YES	YES
270	56.63	54.20	0.27	54.09	54.70	2.54	YES	YES	312	66.11	62.65	0.27	62.54	63.15	3.57	YES	YES
271	56.63	53.74	0.27	53.63	54.24	3.00	YES	YES	313	64.13	61.23	0.45	61.30	61.75	2.83	YES	YES
272	56.63	53.28	0.27	53.17	53.78	3.46	YES	YES	314	64.13	61.69	0.45	61.76	62.21	2.37	YES	YES
273	55.05	52.15	0.45	52.22	52.67	2.83	YES	YES	315	65.63	62.16	0.45	62.23	62.68	3.40	YES	YES
274	55.05	52.62	0.45	52.69	53.14	2.36	YES	YES	316	65.63	62.62	0.45	62.69	63.14	2.94	YES	YES
275	56.55	53.08	0.45	53.15	53.60	3.40	YES	YES	317	65.63	63.08	0.45	63.15	63.60	2.48	YES	YES
276	56.55	53.54	0.45	53.61	54.06	2.94	YES	YES	318	65.63	63.54	0.45	63.61	64.06	2.02	YES	YES
277	56.55	54.00	0.45	54.07	54.52	2.48	YES	YES	319	67.13	64.00	0.45	64.07	64.52	3.06	YES	YES
278	56.55	54.46	0.45	54.53	54.98	2.02	YES	YES	320	67.13	64.57	0.45	64.64	65.09	2.49	YES	YES
279	58.05	54.93	0.45	55.00	55.45	3.05	YES	YES	321	69.80	66.89	0.27	66.78	67.39	3.02	YES	YES
280	58.08	55.49	0.45	55.56	56.01	2.52	YES	YES	322	69.80	67.35	0.27	67.24	67.85	2.56	YES	YES
281	60.32	57.40	0.27	57.29	57.90	3.03	YES	YES	323	69.80	67.81	0.27	67.70	68.31	2.10	YES	YES
282	60.32	57.87	0.27	57.76	58.37	2.56	YES	YES	324	71.30	68.27	0.27	68.16	68.77	3.14	YES	YES
283	60.32	58.33	0.27	58.22	58.83	2.10	YES	YES	325	71.30	68.73	0.27	68.62	69.23	2.68	YES	YES
284	61.82	58.79	0.27	58.68	59.29	3.14	YES	YES	326	71.30	69.30	0.27	69.19	69.80	2.11	YES	YES
285	61.82	59.25	0.27	59.14	59.75	2.68	YES	YES	327	72.34	69.80	0.27	69.69	70.30	2.65	YES	YES
286	61.82	59.82	0.27	59.71	60.32	2.11	YES	YES	328	72.34	69.23	0.27	69.12	69.73	3.22	YES	YES
287	62.87	60.32	0.27	60.21	60.82	2.66	YES	YES	329	72.34	68.77	0.27	68.66	69.27	3.68	YES	YES
288	62.87	59.75	0.27	59.64	60.25	3.23	YES	YES	330	70.84	68.31	0.27	68.20	68.81	2.64	YES	YES
289	62.87	59.29	0.27	59.18	59.79	3.69	YES	YES	331	70.84	67.85	0.27	67.74	68.35	3.10	YES	YES
290	61.37	58.83	0.27	58.72	59.33	2.65	YES	YES	332	70.84	67.39	0.27	67.28	67.89	3.56	YES	YES
291	61.37	58.37	0.27	58.64	58.91	2.73	YES	YES									

1 Per Section 1602 of the HCDDM Minimum finished floor elevation is 6 inches above the highest adjacent top of curb. (304.4.E.1)

2 Per Section 304.4 of HCDDM, The finished floor shall be set at a a vetical distance above the gutter flowline of at least twice the depth of flow in the gutter flowline up to a maximum of 18 inches above the wse in the street. The TC is generally 0.38' above gutter flowline for this project.

* - Lot protected with solid grouted walls up to the elevation to meet protection criteria.

FINISHED FLOOR ANALYSIS

Project Number	NV-1949-1909	**Project Name:**	CENTENNIAL HEIGHTS TOWNHOMES
Date:	9/14/2020	**Designed By:**	DBC

FF Check

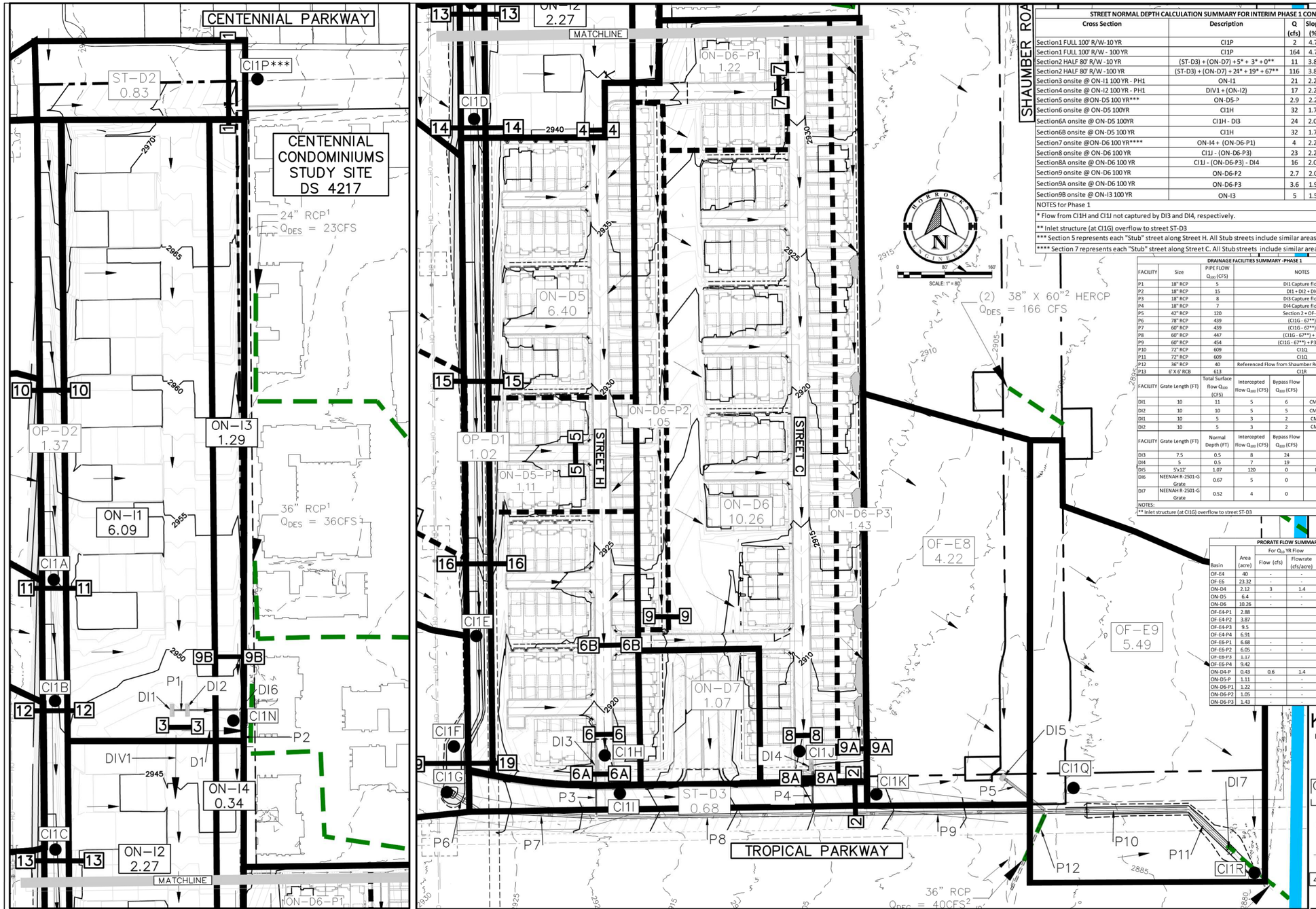
Bldg #	FF Elev.	TC Elev.	Flow Depth	WSE	Minimum FF Elev.	Freeboard	6" Criteria[1]	2X Depth Criteria[2]
333	68.92	65.57	0.48	66.05	66.15	2.87	YES	YES
334	68.92	66.04	0.27	65.93	66.54	2.99	YES	YES
335	68.92	66.50	0.27	66.39	67.00	2.53	YES	YES
336	68.92	67.06	0.27	66.95	67.56	1.97	YES	YES
SIDE LOTS								
1*	11.06	12.76	0.38	12.76	13.26	-1.70	NO	YES
19	13.85	12.26	0.38	12.26	12.76	1.59	YES	YES
44	19.51	18.12	0.47	18.21	18.68	1.30	YES	YES
64	24.25	22.77	0.47	22.86	23.33	1.39	YES	YES
84	28.99	27.60	0.47	27.69	28.16	1.30	YES	YES
166	22.61	20.93	0.50	21.05	21.55	1.56	YES	YES
178	26.61	24.73	0.50	24.85	25.35	1.76	YES	YES
190	30.58	28.90	0.50	29.02	29.52	1.56	YES	YES
202	34.57	32.88	0.50	33.00	33.50	1.57	YES	YES
214	38.55	36.87	0.50	36.99	37.49	1.56	YES	YES
226	43.58	40.80	0.50	40.92	41.42	2.66	YES	YES
244	48.32	45.21	0.50	45.33	45.83	2.99	YES	YES
272	56.63	54.02	0.45	54.09	54.54	2.54	YES	YES
312	61.37	58.42	0.45	58.49	58.94	2.88	YES	YES
332	70.84	69.06	0.45	69.13	69.58	1.71	YES	YES
LOTS ADJACENT TO CENTENNIAL*								
327	72.34	74.01	0.72	74.35	74.95	-2.01	NO	NO
328	72.34	73.92	0.72	74.26	74.86	-1.92	NO	NO
329	72.34	73.92	0.72	74.26	74.86	-1.92	NO	NO
330	70.84	72.11	0.72	72.45	73.05	-1.61	NO	NO
331	70.84	72.11	0.72	72.45	73.05	-1.61	NO	NO
332	70.84	71.67	0.72	72.01	72.61	-1.17	NO	NO

Bldg #	FF Elev.	TC Elev.	Flow Depth	WSE	Minimum FF Elev.	Freeboard	6" Criteria[1]	2X Depth Criteria[2]

1 Per Section 1602 of the HCDDM Minimum finished floor elevation is 6 inches above the highest adjacent top of curb. (304.4.E.1)

2 Per Section 304.4 of HCDDM, The finished floor shall be set at a a vetical distance above the gutter flowline of at least twice the depth of flow in the gutter flowline up to a maximum of 18 inches above the wse in the street. The TC is generally 0.38' above gutter flowline for this project.

* - Lot protected with solid grouted walls up to the elevation to meet protection criteria.



STREET NORMAL DEPTH CALCULATION SUMMARY FOR INTERIM PHASE 1 CONDITION

Cross Section	Description	Q (cfs)	Slope (%)	Depth (ft)	Velocity (ft/s)	DxV
Section1 FULL 100' R/W-10 YR	CI1P	2	4.77	0.22	3.53	0.78
Section1 FULL 100' R/W - 100 YR	CI1P	164	4.77	0.72	8.64	6.22
Section2 HALF 80' R/W -10 YR	(ST-D3) + (ON-D7) + 5* + 3* + 0**	11	3.82	0.42	5.15	2.16
Section2 HALF 80' R/W -100 YR	(ST-D3) + (ON-D7) + 24* + 19* + 67**	116	3.82	0.82	8.88	7.28
Section3 onsite @ ON-I1 100 YR - PH1	ON-I1	21	2.20	0.32	4.15	1.33
Section4 onsite @ ON-I2 100 YR - PH1	DIV1 + (ON-I2)	17	2.20	0.30	3.82	1.15
Section5 onsite @ON-D5 100 YR***	ON-D5-P	2.9	2.20	0.27	2.67	0.72
Section6 onsite @ ON-D5 100YR	CI1H	32	1.78	0.50	4.70	2.35
Section6A onsite @ ON-D5 100YR	CI1H - DI3	24	2.00	0.41	5.59	2.29
Section6B onsite @ ON-D5 100 YR	CI1H	32	1.78	0.41	3.71	1.52
Section7 onsite @ON-D6 100 YR****	ON-I4 + (ON-D6-P1)	4	2.20	0.29	2.84	0.82
Section8 onsite @ ON-D6 100 YR	CI1J - (ON-D6-P3)	23	2.20	0.45	4.39	1.98
Section8A onsite @ ON-D6 100 YR	CI1J - (ON-D6-P3) - DI4	16	2.00	0.36	5.05	1.82
Section9 onsite @ ON-D6 100 YR	ON-D6-P2	2.7	2.00	0.52	3.31	1.72
Section9A onsite @ ON-D6 100 YR	ON-D6-P3	3.6	1.93	0.58	3.51	2.04
Section9B onsite @ ON-I3 100 YR	ON-I3	5	1.50	0.69	3.47	2.39

NOTES for Phase 1

* Flow from CI1H and CI1J not captured by DI3 and DI4, respectively.

** Inlet structure (at CI1G) overflow to street ST-D3

*** Section 5 represents each "Stub" street along Street H. All Stub streets include similar areas and street slopes.

**** Section 7 represents each "Stub" street along Street C. All Stub streets include similar areas and street slopes

DRAINAGE FACILITIES SUMMARY -PHASE 1

FACILITY	Size	PIPE FLOW Q_{100} (CFS)	NOTES
P1	18" RCP	5	DI1 Capture flow
P2	18" RCP	15	DI1 + DI2 + DI6
P3	18" RCP	8	DI3 Capture flow
P4	18" RCP	7	DI4 Capture flow
P5	42" RCP	120	Section 2 + OF-E8
P6	78" RCP	439	(C1G - 67**)
P7	60" RCP	439	(C1G - 67**)
P8	60" RCP	447	(C1G - 67**) + P3
P9	60" RCP	454	(C1G - 67**) + P3 + P4
P10	72" RCP	609	C1Q
P11	72" RCP	609	C1Q
P12	36" RCP	40	Referenced Flow from Shaumber Road Realignment Study
P13	6' X 6' RCB	613	C1R

FACILITY	Grate Length (FT)	Total Surface flow Q_{100} (CFS)	Intercepted flow Q_{100} (CFS)	Bypass Flow Q_{100} (CFS)	Notes
DI1	10	11	5	6	CM2 DI on Grade for Q_{100}
DI2	10	10	5	5	CM2 DI on Grade for Q_{100}
DI1	10	5	3	2	CM2 DI on Grade for Q_{10}
DI2	10	5	3	2	CM2 DI on Grade for Q_{10}

FACILITY	Grate Length (FT)	Normal Depth (FT)	Intercepted flow Q_{100} (CFS)	Bypass Flow Q_{100} (CFS)	Notes
DI3	7.5	0.5	8	24	CM2 DI on Sump
DI4	5	0.5	7	19	CM2 DI on Sump
DI5	5'x12'	1.07	120	0	Ditch Inlet on Sump
DI6	NEENAH R-2501-G Grate	0.67	5	0	ON-I3
DI7	NEENAH R-2501-G Grate	0.52	4	0	OF-E9

NOTES:
** Inlet structure (at C1G) overflow to street ST-D3

PRORATE FLOW SUMMARY

Basin	Area (acre)	For Q_{10} YR Flow: Flow (cfs)	For Q_{10} YR Flow: Flowrate (cfs/acre)	For Q_{100} YR Flow: Flow (cfs)	For Q_{100} YR Flow: Flowrate (cfs/acre)
OF-E4	40	-	-	83	2.1
OF-E6	23.32	-	-	47	2.0
ON-D4	2.12	3	1.4	7	3.3
ON-D5	6.4	-	-	17	2.7
ON-D6	10.26	-	-	26	2.5
OF-E4-P1	2.88			6.0	2.1
OF-E4-P2	3.87			8.0	2.1
OF-E4-P3	9.5			19.7	2.1
OF-E4-P4	6.91			14.3	2.1
OF-E6-P1	6.68	-	-	13.5	2.0
OF-E6-P2	6.05	-	-	12.2	2.0
OF-E6-P3	1.17			2.4	2.0
OF-E6-P4	9.42			19.0	2.0
ON-D4-P	0.43	0.6	1.4	1.4	3.3
ON-D5-P	1.11	-	-	2.9	2.7
ON-D6-P1	1.22	-	-	3.0	2.5
ON-D6-P2	1.05	-	-	2.7	2.5
ON-D6-P3	1.43	-	-	3.6	2.5

PHASE 1 INTERIM CONDITION HYDROLOGIC SUMMARY

Basin	Area (acres)	Q_{10} (cfs)	Q_{100} (cfs)
CI1A	-	13	32
CI1B	-	24	59
CI1C	-	53	142
CI1D	-	53	144
CI1E	-	68	191
CI1F	-	127	349
CI1G	-	284	506
CI1H	-	13	32
CI1I	-	296	536
CI1J	-	10	26
CI1K	-	308	566
CI1N	-	8	16
CI1P	-	2	164**
CI1Q	-	348	609
CI1R	-	348	613
D1*	-	6	11
DIV1	-	4	10
36LAT	-	40	40
GOAN	-	157	157
OF-E1	4.60	5	13
OF-E2	6.12	7	16
OF-E3	10.78	11	28
OF-E4	40.00	29	83
OF-E5	2.94	<1	2
OF-E6	23.32	16	47
OF-E7	67.8	59	158
OF-E8	4.22	<1	4
OF-E9	5.49	<1	4
ON-I1	6.09	10	21
ON-I2	2.27	2	6
ON-I3	1.29	2	5
ON-I4	0.34	1	1
ON-D5	6.40	7	17
ON-D6	10.26	10	26
ON-D7	1.07	1	3
OP-D1	1.02	1	2
OP-D2	1.37	1	3
RTCI1D	-	52	142
ST-D2	0.83	2	3
ST-D3	0.68	2	3
ST-E1	0.58	1	2

C1A = OF-E1 + OF-E2 + OP-D2
C1B = C1A + OF-E3
C1C = C1B + OF-E4
C1D = C1C + OF-E5
C1E = RTCI1D + OF-E6 + OP-D1
C1F = C1E + OF-E7
C1G = C1F + GOAN
C1H = DIV1 + ON-I2 + ON-D5
C1I = C1G + C1H
C1J = ON-I4 + ON-D6
C1K = C1I + C1J + ON-D7 + ST-D3
C1N = ON-I3 + D1
C1P = ST-E1 + ST-D2
C1Q = C1K + OF-E8 + 36LAT
C1R = C1Q + OF-E9
DIV1 = ON-I1 - D1

Notes:
*D1 is the sum of flow captured by drop inlets DI1 and DI2 in street H

164** Flow referenced from the Master Drainage Study for Cliff's Edge (Now known as Providence), DS 3404

PULI CHANNEL NORMAL DEPTH CALCULATION SUMMARY FOR INTERIM PHASE 1 & 2 CONDITIONS

Cross Section	Description	Q_{100} (cfs)	Slope (%)	Depth (ft)	Velocity (ft/s)	DxV	Bottom Width (ft)
Section10 INT PH1_PH2	(OF-E1) + (OP-D2)	16	3.47	0.21	3.77	0.79	20
Section11 INT PH1_PH2	CI1A	32	3.47	0.31	4.92	1.53	20
Section12 INT PH1_PH2	CI1B	59	1.70	0.55	4.94	2.72	20
Section13 INT PH1_PH2	CI1C - SMC*(48)	94	1.00	0.85	4.92	4.18	20
Section14 INT PH1_PH2	CI1D - SMC*(48)	96	1.00	0.86	4.96	4.27	20
Section15 INTPH1_PH2	CI1D + (OF-E6 -P1) + (OP-D1) - SMC*(48)	112	1.00	0.83	4.92	4.08	25
Section16 INT PH1_PH2	CI1D + (OF-E6 -P1) + (OF-E6-P2) + (OP-D1) - SMC*(48)	124	11.10	0.59	7.89	4.66	25
Section17 INT PH1_PH2	OF-E6-P4	19	4.3	0.21	4.24	0.89	-
Section18 INT PH1_PH2	(OF-E7) + SMC*(50)	208	4.1	0.21	4.22	0.89	-
Section19 INT PH1_PH2	CI1F	349	0.7	1.53	4.96	7.59	-

*SMC = Sheep Mountain Channel diverted flow

SHEEP MOUNTAIN CHANNEL NORMAL DEPTH CALCULATION SUMMARY FOR INTERIM PHASE 1 & 2 CONDITIONS

Cross Section	Description	Q_{100} (cfs)	Slope (%)	Depth (ft)	Velocity (ft/s)	DxV	NOTES
Section 20 Sheep Mountain Channel	(OF-E4-P1)	6	1.11	0.79	3.24	2.56	V Ditch
Section 21 Sheep Mountain Channel	(OF-E4-P1) + (OF-E4-P2)	14	3.06	0.31	4.49	1.39	Trap. 9' BW
Section 22 Sheep Mountain Channel	(OF-E4-P1) + (OF-E4-P2) + (OF-E4-P3)	34	2.00	0.35	4.05	1.42	Trap. 23' BW
Section 23 Sheep Mountain Channel	(OF-E4-P1) + (OF-E4-P2) + (OF-E4-P3) + (OF-E4-P4) + (OF-E6-P3)	50	4.00	0.28	4.99	1.40	Trap. 35' BW

NOTES
1. Referenced from the Centennial Condominiums Study.
2. Facility size and flows are referenced from Shaumber Road Realignment Study.
3. Facility size is referenced from 215 Bruce Woodbury Beltway-Craig Road Study and site visits.

KEY:
- ON-D1 4.04 — BASIN NAME/AREA
- ON-D6-P2 0.49 — PRORATE BASIN NAME/AREA
- CI11 — CONCENTRATION POINT
- FLOW DIRECTION
- 4 — 4 CROSS SECTION
- BASIN BOUNDARY
- PRORATE BASIN BOUNDARY
- EXISTING CCRFCD REG. FAC.
- LOCAL EXISTING FACILITY

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PROJECT NV-1949-1909

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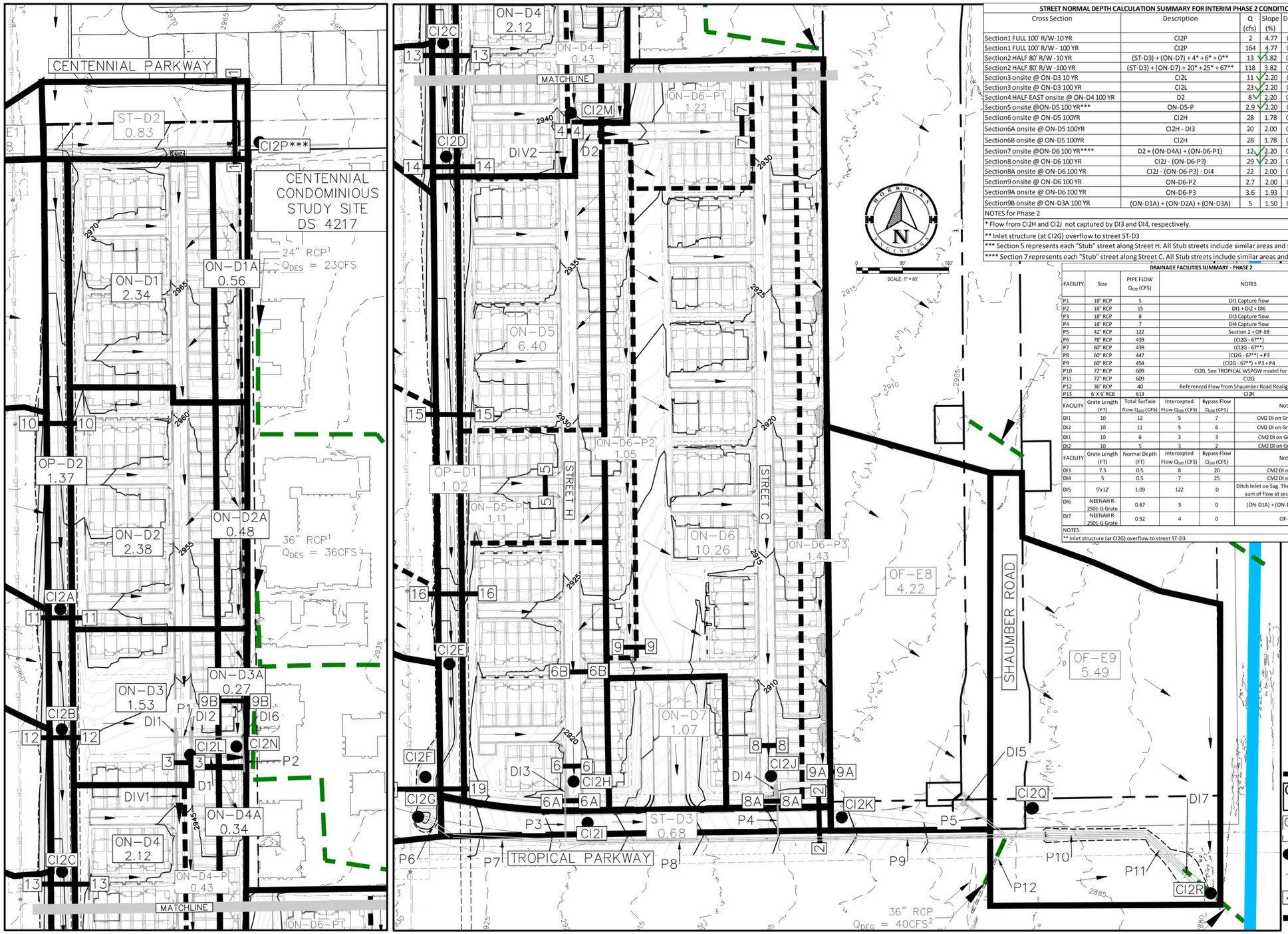
CENTENNIAL HEIGHTS TOWNHOMES
HARMONY HOMES, LLC
CITY OF LAS VEGAS, NEVADA

PHASE 1 INTERIM CONDITION ONSITE BASIN MAP

A PORTION OF APN# 126-25-201-010

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PAGE #



STREET NORMAL DEPTH CALCULATION SUMMARY FOR INTERIM PHASE 2 CONDITION

Cross Section	Description	Q (cfs)	Slope (%)	Depth (ft)	Velocity (ft/s)	DxV
Section1 FULL 100' R/W-10 YR	CI2P	2	4.77	0.22	3.53	0.78
Section1 FULL 100' R/W - 100 YR	CI2P	164	4.77	0.72	8.64	6.22
Section2 HALF 80' R/W - 10 YR	(ST-D3) + (ON-D7) + 4* +6* + 0**	13	3.82	0.44	5.36	2.36
Section2 HALF 80' R/W - 100 YR	(ST-D3) + (ON-D7) + 20* +25* + 67**	118	3.82	0.82	8.93	7.32
Section3 onsite @ ON-D3 10 YR	CI2L	11	2.20	0.37	3.53	1.31
Section3 onsite @ ON-D3 100 YR	CI2L	23	2.20	0.45	4.39	1.98
Section4 HALF EAST onsite @ ON-D4 100 YR	D2	8	2.20	0.41	3.85	1.58
Section5 onsite @ON-D5 100 YR***	ON-D5-P	2.9	2.20	0.27	2.67	0.72
Section6 onsite @ ON-D5 100YR	CI2H	28	1.78	0.48	4.46	2.14
Section6A onsite @ ON-D5 100YR	CI2H - DI3	20	2.00	0.39	5.34	2.08
Section6B onsite @ ON-D5 100YR	CI2H	28	1.78	0.39	3.59	1.40
Section7 onsite @ON-D6 100 YR****	D2 + (ON-D4A) + (ON-D6-P1)	12	2.20	0.38	3.59	1.36
Section8 onsite @ ON-D6 100 YR	CI2J - (ON-D6-P3)	29	2.20	0.47	4.82	2.27
Section8A onsite @ ON-D6 100 YR	CI2J - (ON-D6-P3) - DI4	22	2.00	0.40	5.46	2.18
Section9 onsite @ ON-D6 100 YR	ON-D6-P2	2.7	2.00	0.52	3.31	1.72
Section9A onsite @ ON-D6 100 YR	ON-D6-P3	3.6	1.93	0.58	3.51	2.04
Section9B onsite @ ON-D3A 100 YR	(ON-D1A) + (ON-D2A) + (ON-D3A)	5	1.50	0.69	3.47	2.39

NOTES for Phase 2

* Flow from CI2H and CI2J not captured by DI3 and DI4, respectively.

** Inlet structure (at CI2G) overflow to street ST-D3

*** Section 5 represents each "Stub" street along Street H. All Stub streets include similar areas and street slopes.

**** Section 7 represents each "Stub" street along Street C. All Stub streets include similar areas and street slopes

DRAINAGE FACILITIES SUMMARY - PHASE 2

FACILITY	Size	PIPE FLOW Q_{100} (CFS)	NOTES
P1	18" RCP	5	DI1 Capture flow
P2	18" RCP	15	DI1 + DI2 + DI6
P3	18" RCP	8	DI3 Capture flow
P4	18" RCP	7	DI4 Capture flow
P5	42" RCP	122	Section 2 + OF-E8
P6	78" RCP	439	(CI2G - 67**)
P7	60" RCP	439	(CI2G - 67**)
P8	60" RCP	447	(CI2G - 67**) + P3
P9	60" RCP	454	(CI2G - 67**) + P3 + P4
P10	72" RCP	609	CI2Q, See TROPICAL WSPGW model for detail.
P11	72" RCP	609	CI2Q
P12	36" RCP	40	Referenced Flow from Shaumber Road Realignment Study
P13	6' X 6' RCB	613	CI2R

FACILITY	Grate Length (FT)	Total Surface flow Q_{100} (CFS)	Intercepted Flow Q_{100} (CFS)	Bypass Flow Q_{100} (CFS)	Notes
DI1	10	12	5	7	CM2 DI on Grade for Q_{100}
DI2	10	11	5	6	CM2 DI on Grade for Q_{100}
DI1	10	6	3	3	CM2 DI on Grade for Q_{10}
DI2	10	5	3	2	CM2 DI on Grade for Q_{10}

FACILITY	Grate Length (FT)	Normal Depth (FT)	Intercepted Flow Q_{100} (CFS)	Bypass Flow Q_{100} (CFS)	Notes
DI3	7.5	0.5	8	20	CM2 DI on Sump
DI4	5	0.5	7	25	CM2 DI on Sump
DI5	5'x12'	1.09	122	0	Ditch Inlet on Sag. The intercepted flow is sum of flow at section 2 plus OF-E8
DI6	NEENAH R-2501-G Grate	0.67	5	0	(ON-D1A) + (ON-D2A) + (ON-D3A)
DI7	NEENAH R-2501-G Grate	0.52	4	0	OF-E9

NOTES:

** Inlet structure (at CI2G) overflow to street ST-D3

PHASE 2 INTERIM CONDITION HYDROLOGIC SUMMARY

Basin	Area (acres)	Q_{10} (cfs)	Q_{100} (cfs)
CI2A	-	13	32
CI2B	-	24	59
CI2C	-	53	142
CI2D	-	53	144
CI2E	-	68	191
CI2F	-	127	349
CI2G	-	284	506
CI2H	-	12	28
CI2I	-	292	531
CI2J	-	13	32
CI2K	-	307	566
CI2L	-	11	23
CI2M	-	8	19
CI2N	-	9	17
CI2P	-	2	164***
CI2Q	-	347	609
CI2R	-	348	613
D1*	-	6	11
D2**	-	3	8
DIV1	-	5	12
DIV2	-	5	11
36LAT	-	40	40
GOAN	-	157	157
OF-E1	4.60	5	13
OF-E2	6.12	7	16
OF-E3	10.78	11	28
OF-E4	40.00	29	83
OF-E5	2.94	<1	2
OF-E6	23.32	16	47
OF-E7	67.8	59	158
OF-E8	4.22	<1	4
OF-E9	5.49	<1	4
ON-D1	2.34	4	9
ON-D1A	0.56	1	2
ON-D2	2.38	4	9
ON-D2A	0.48	1	2
ON-D3	1.53	3	6
ON-D3A	0.27	<1	1
ON-D4	2.12	3	7
ON-D4A	0.34	1	1
ON-D5	6.40	7	17
ON-D6	10.26	10	26
ON-D7	1.07	1	3
OP-D1	1.02	1	2
OP-D2	1.37	1	3
RTC02D	-	52	142
ST-D2	0.83	2	3
ST-D3	0.68	2	3
ST-E1	0.58	1	2

CI2A = OF-E1 + OF-E2 + OP-D2

CI2B = CI2A + OF-E3

CI2C = CI2B + OF-E4

CI2D = CI2C + OF-E5

CI2E = RTC02D + OF-E6 + OP-D1

CI2F = CI2E + OF-E7

CI2G = CI2F + GOAN

CI2H = DIV2 + ON-D5

CI2I = CI2G + CI2H

CI2J = ON-D4A + ON-D6 + D2

CI2K = CI2I + CI2J + ON-D7 + ST-D3

CI2L = ON-D1 + ON-D2 + ON-D3

CI2M = DIV1 + ON-D4

CI2N = ON-D1A + ON-D2A + ON-D3A +D1

CI2P = ST-E1 + ST-D2

CI2Q = CI2K + OF-E8 + 36LAT

CI2R = CI2Q + OF-E9

DIV1 = CI2L - D1

DIV2 = CI2M - D2

Notes:

D1* is the sum of flow captured by drop inlets DI1 and DI2 in street H

D2** is Sum of DI2 bypass flow and the flow (ON-D4-P) contributed by east side of ON-D4 in street H.

164*** Flow referenced from the Master Drainage Study for Cliff's Edge (Now known as Providence), DS 3404

PRORATE FLOW SUMMARY

Basin	Area (acre)	For Q_{10} YR Flow: Flow (cfs)	For Q_{10} YR Flow: Flowrate (cfs/acre)	For Q_{100} YR Flow: Flow (cfs)	For Q_{100} YR Flow: Flowrate (cfs/acre)
OF-E4	40	-	-	83	2.1
OF-E6	23.32	-	-	47	2.0
ON-D4	2.12	3	1.4	7	3.3
ON-D5	6.4	-	-	17	2.7
ON-D6	10.26	-	-	26	2.5
OF-E4-P1	2.88			6.0	2.1
OF-E4-P2	3.87			8.0	2.1
OF-E4-P3	9.5			19.7	2.1
OF-E4-P4	6.91			14.3	2.1
OF-E6-P1	6.68	-	-	13.5	2.0
OF-E6-P2	6.05	-	-	12.2	2.0
OF-E6-P3	1.17	-	-	2.4	2.0
OF-E6-P4	9.42	-	-	19.0	2.0
ON-D4-P	0.43	0.6	1.4	1.4	3.3
ON-D5-P	1.11	-	-	2.9	2.7
ON-D6-P1	1.22	-	-	3.0	2.5
ON-D6-P2	1.05	-	-	2.7	2.5
ON-D6-P3	1.43	-	-	3.6	2.5

PULI CHANNEL NORMAL DEPTH CALCULATION SUMMARY FOR INTERIM PHASE 1 & 2 CONDITIONS

Cross Section	Description	Q_{100} (cfs)	Slope (%)	Depth (ft)	Velocity (ft/s)	DxV	Bottom Width (ft)
Section10 INT PH1_PH2	(OF-E1) + (OP-D2)	16	3.47	0.21	3.77	0.79	20
Section11 INT PH1_PH2	CI2A	32	3.47	0.31	4.92	1.53	20
Section12 INT PH1_PH2	CI2B	59	1.70	0.55	4.94	2.72	20
Section13 INT PH1_PH2	CI2C - SMC*(48)	94	1.00	0.85	4.92	4.18	20
Section14 INT PH1_PH2	CI2D - SMC*(48)	96	1.00	0.86	4.96	4.27	20
Section15 INTPH1_PH2	CI2D + (OF-E6 -P1) + (OP-D1) - SMC*(48)	112	1.00	0.83	4.92	4.08	25
Section16 INT PH1_PH2	CI2D + (OF-E6 -P1) + (OF-E6-P2) + (OP-D1) - SMC*(48)	124	11.10	0.59	7.89	4.66	25
Section17 INT PH1_PH2	OF-E6-P4	19	4.3	0.21	4.24	0.89	-
Section18 INT PH1_PH2	(OF-E7) + SMC*(50)	208	4.1	0.21	4.22	0.89	-
Section19 INT PH1_PH2	CI2F	349	0.7	1.53	4.96	7.59	-

*SMC = Sheep Mountain Channel diverted flow

SHEEP MOUNTAIN CHANNEL NORMAL DEPTH CALCULATION SUMMARY FOR INTERIM PHASE 1 & 2 CONDITIONS

Cross Section	Description	Q_{100} (cfs)	Slope (%)	Depth (ft)	Velocity (ft/s)	DxV	NOTES
Section 20 Sheep Mountain Channel	(OF-E4-P1)	6	1.11	0.79	3.24	2.56	V Ditch
Section 21 Sheep Mountain Channel	(OF-E4-P1) + (OF-E4-P2)	14	3.06	0.31	4.49	1.39	Trap. 9' BW
Section 22 Sheep Mountain Channel	(OF-E4-P1) + (OF-E4-P2) + (OF-E4-P3)	34	2.00	0.35	4.05	1.42	Trap. 23' BW
Section 23 Sheep Mountain Channel	(OF-E4-P1) + (OF-E4-P2) + (OF-E4-P3) + (OF-E4-P4) + (OF-E6-P3)	50	4.00	0.28	4.99	1.40	Trap. 35' BW

NOTES

1. Referenced from the Centennial Condominiums Study.
2. Facility size and flows are referenced from Shaumber Road Realignment Study.
3. Facility size is referenced from 215 Bruce Woodbury Beltway-Craig Road Study and site visits.

KEY:

- ON-D1 / 4.04 — BASIN NAME/AREA
- ON-D6-P2 / 0.49 — PRORATE BASIN NAME/AREA
- CI11 — CONCENTRATION POINT
- FLOW DIRECTION
- 4—4 — CROSS SECTION
- BASIN BOUNDARY
- PRORATE BASIN BOUNDARY
- EXISTING CCRFCD REG. FAC.
- LOCAL EXISTING FACILITY

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy, Suite 160
Henderson, NV 89074
(702) 966-4063
www.horrocks.com

WARNING
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE

REVISIONS
REV# | DATE

DRAWING INFO
DATE 09/19/2019
DESIGNED MDP
DRAWN SS
CHECKED LMB
PROJECT NV-1949-1909

*SEE GENERAL NOTES SHEET

CENTENNIAL HEIGHTS TOWNHOMES
HARMONY HOMES, LLC
CITY OF LAS VEGAS, NEVADA

PHASE 2 INTERIM CONDITION ONSITE BASIN MAP

A PORTION OF APN# 126-25-201-010

9

PAGE #

H:\2019\NV-1949-1909 Centennial Heights Townhomes\Project Data\03 Engineering\3.01 Drainage\03_ADD2\Figure\NV-1826-1907_BASIN-PH2.dwg - PH2_INTON - 4/30/2020 07:57am, dclark

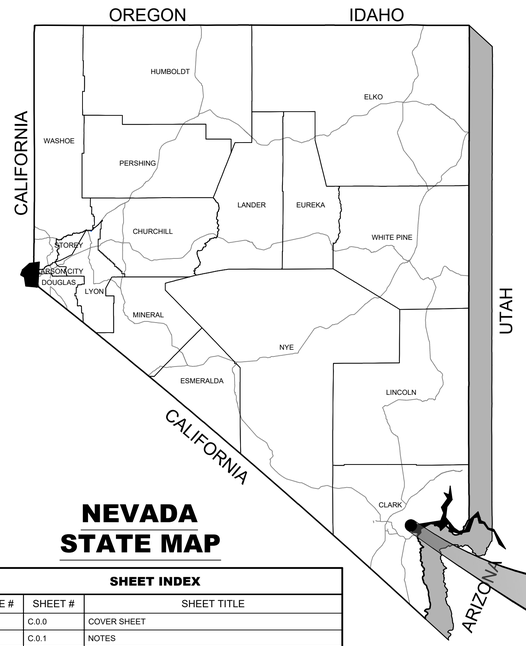
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CENTENNIAL HEIGHTS TOWNHOMES PHASE 1

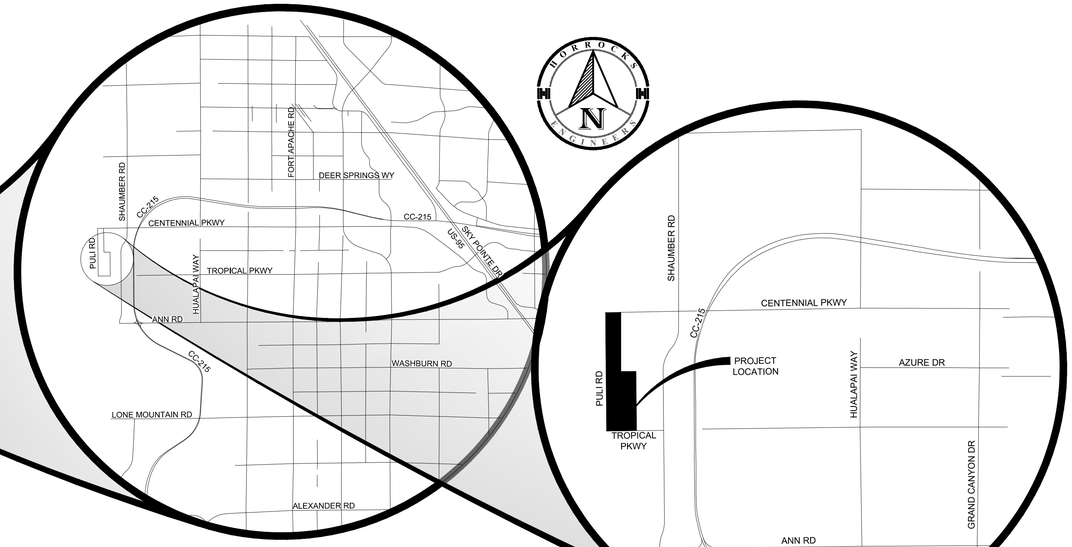
located in

CITY OF LAS VEGAS

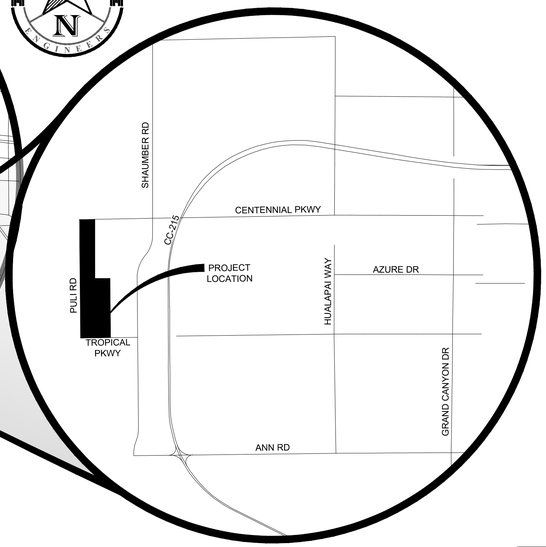
APN # 126-25-201-010



NEVADA STATE MAP



VICINITY MAP



PROJECT SITE

SHEET INDEX		
PAGE #	SHEET #	SHEET TITLE
01	C.0.0	COVER SHEET
02	C.0.1	NOTES
03	C.0.2	LEGEND & ABBREVIATIONS
04	C.1.0	HORIZONTAL CONTROL PLAN 1
05	C.1.1	HORIZONTAL CONTROL PLAN 2
06	C.1.2	HORIZONTAL CONTROL PLAN 3
07	C.1.3	HORIZONTAL CONTROL PLAN 4
08	C.1.4	HORIZONTAL CONTROL PLAN 5
09	C.1.5	HORIZONTAL CONTROL PLAN 6
10	C.1.6	HORIZONTAL CONTROL PLAN 7
11	C.1.7	HORIZONTAL CONTROL PLAN 8
12	C.1.8	HORIZONTAL CONTROL PLAN 9
13	C.1.9	HORIZONTAL CONTROL PLAN 10
14	C.1.10	HORIZONTAL CONTROL PLAN 11
15	C.1.11	HORIZONTAL CONTROL PLAN 12
16	C.1.12	HORIZONTAL CONTROL PLAN 13
17	C.1.13	HORIZONTAL CONTROL PLAN 14
18	C.1.14	HORIZONTAL CONTROL PLAN 15
19	C.1.15	HORIZONTAL CONTROL PLAN 16
20	C.1.16	HORIZONTAL CONTROL PLAN 17
21	C.2.0	GRADING PLAN 1
22	C.2.1	GRADING PLAN 2
23	C.2.2	GRADING PLAN 3
24	C.2.3	GRADING PLAN 4
25	C.2.4	GRADING PLAN 5
26	C.2.5	GRADING PLAN 6
27	C.2.6	GRADING PLAN 7
28	C.2.7	GRADING PLAN 8
29	C.2.8	GRADING PLAN 9
30	C.2.9	GRADING PLAN 10
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57	C.4.1	TRAFFIC PLAN 2
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72	C.4.16	TRAFFIC PLAN 17
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74	C.5.1	GASKIN AVE PLAN & PROFILE (STA 9+75 TO STA 14+00) CLARENCE CT PLAN & PROFILE (STA 9+75 TO STA 12+00)
75	C.5.2	RATHBONE ST PLAN & PROFILE (STA 16+00 TO STA 23+50)
76	C.5.3	RATHBONE ST PLAN & PROFILE (STA 9+50 TO STA 17+00)
77	C.5.4	NORFOLK VIEW CT, LILESTONE CT, & BENDMORE CT PLAN & PROFILE (STA 9+75 TO STA 12+00)
78	C.5.5	BURTON GROVE AVE PLAN & PROFILE (STA 9+50 TO STA 13+50)
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82	C.5.9	FOXES DALE ST PLAN & PROFILE (STA 9+00 TO STA 15+50)
83	C.5.10	BRISET CT, DITCHBURN CT, & PURDY CT PLAN & PROFILE (STA 9+75 TO STA 12+00)
84	C.5.11	BLORE CT PLAN & PROFILE (STA 9+75 TO STA 12+00) CENTENNIAL PKWY PLAN & PROFILE (STA 9+50 TO STA 14+00)
85	C.5.12	TROPICAL PKWY PLAN & PROFILE (STA 5+50 TO STA 11+50)
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88	C.5.15	CHANNEL PLAN & PROFILE (STA 10+75 TO STA 18+25)
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90	C.5.17	CHANNEL PLAN & PROFILE (STA 23+75 TO 31+25)
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92	C.5.19	STORM DRAIN 3 PLAN & PROFILE (STA 9+50 TO STA 12+00) STORM DRAIN 4 PLAN & PROFILE (STA 9+50 TO STA 12+50)
93	C.5.20	SHEEP MOUNTAIN CHANNEL 1 (STA 0+00 TO STA 8+00)
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95	C.5.22	NVE ACC. RD. PLAN & PROFILE (STA 9+50 TO STA 17+50)
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97	C.5.24	NVE ACC. RD. PLAN & PROFILE (STA 23+50 TO STA 31+00)
98	C.5.25	NVE ACC. RD. PLAN & PROFILE (STA 30+00 TO STA 37+50)
99	C.5.26	PROFILE KEY MAP
100	C.6.0	DETAIL SHEET 1
101	C.6.1	DETAIL SHEET 2

FLOOD ZONE:

THIS SITE IS LOCATED IN A ZONE 'X', AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN AND PARTIALLY IN A SHADED ZONE 'X', AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE OF FLOOD PER THE FLOOD INSURANCE RATE MAP COMMUNITY PANEL 32003C2565F, CLARK COUNTY, NEVADA DATED NOVEMBER 16, 2011, REVISED TO REFLECT LOMR DATED OCTOBER 18, 2018.

BENCHMARK

RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

ELEVATION (meters) 901.13
ELEVATION (feet) 2,956.44
NAVD 88

BASIS OF BEARING

NORTH 00°37'29" WEST, BEING THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.,CLARK COUNTY, NEVADA, AS SHOWN ON THE PLAT OF CONSTELLATION ESTATES, RECORDED IN BOOK 102, PAGE 92, OFFICIAL RECORDS, CLARK COUNTY, NEVADA.

LEGAL DESCRIPTION:

A PORTION OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.D., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE WEST HALF (W 1/2) OF THE WEST HALF (W 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., TOGETHER WITH:

THE WEST HALF (W 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.

SITE DATA

APN NUMBER:	124-25-201-010
GROSS AREA:	20.7± ACRES
ZONING:	R-TH
TOTAL COMMON LOT COUNT:	2 LOTS
TOTAL RESIDENTIAL LOT COUNT:	214 LOTS
TOTAL DENSITY:	10.34 DU/AC

UTILITY DISCLAIMER NOTE:

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

NOTE:

FOR ALL REFERENCES TO FINAL MAP #_____ SHOWN THROUGHOUT THIS SET OF PLANS, SEE PLAT BOOK ___ PAGE ___.

APPROVALS

CITY OF LAS VEGAS FIRE& RESCUE DATE

DEPARTMENT OF PLANNING DATE

DEPARTMENT OF LAND DEVELOPMENT DATE

SOUTHWEST GAS CORPORATION DATE

COX COMMUNICATIONS LAS VEGAS, INC DATE

CENTRAL TELEPHONE COMPANY DBA CENTURY LINK DATE

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

NV ENERGY DATE

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

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

PROJECT NO. 137504 FIRST APPROVED DATE: _____

LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDUAL

Call before you AVOID CUTTING UNDERGROUND UTILITY LINES, IT'S COSTLY... Call 811 or 1-800-227-2600

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

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

OWNER:
HARMONY HOMES
8912 SPANISH RIDGE AVE, STE 200
LAS VEGAS, NV 89148
PHONE: (702)570-7213
CONTACT: MATT ROSENBERG
EMAIL: MROSENBERG@HARMONYHOMES.COM

DEVELOPER:
HARMONY HOMES
8912 SPANISH RIDGE AVE, STE 200
LAS VEGAS, NV 89148
PHONE: (702)570-7213
CONTACT: MATT ROSENBERG
EMAIL: MROSENBERG@HARMONYHOMES.COM

ENGINEER:
HORROCKS ENGINEERS
1401 N. GREEN VALLEY PKWY., STE 160
HENDERSON, NV 89074
PHONE: (702)966-4063
CONTACT: LARRY BITTON, P.E.
EMAIL: LARRYB@HORROCKS.COM

UTILITY CONTACTS

WATER
LAS VEGAS VALLEY WATER DISTRICT
1001 S. VALLEY VIEW BLVD.
LAS VEGAS, NV 89107
(702) 870-2011

POWER
NEVADA ENERGY
7155 LINDELL RD.
LAS VEGAS, NV 89118
(702) 402-8400

NATURAL GAS
SOUTHWEST GAS CORPORATION
6355 SHATZ ST.
LAS VEGAS, NV 89115
(877) 860-6020

SEWER
CITY OF LAS VEGAS
333 N. RANCHO DR.
LAS VEGAS, NV 89106
(702) 229-6301

TELEPHONE
CENTURY LINK
2340 E. TROPICANA AVE.
LAS VEGAS, NV 89119
(877) 862-9343

CATV SERVICE
COX COMMUNICATIONS
LAS VEGAS INC.
819 E. OGDEN AVE.
LAS VEGAS, NV 89010
(702) 883-4000

EARTHWORKS

CUT: 67,671 CY
FILL: 108,494 CY
NET: 40,823 CY (FILL)

ESTIMATED QUANTITY FROM EXISTING TO FINISHED GRADES. PER SOILS REPORT BY GEOTEK, INC., PROJECT #15256-LV, DATED JAN. 9, 2020

AREA OF DISTURBANCE:

29.85 AC. ONSITE (PRIVATE)
6.97 AC. OFFSITE (PUBLIC)

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy., Suite 160
Henderson, NV 89074
(702) 966-4063
www.horrocks.com

WARNING
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE
0 1 2

REVISIONS
REV # | DATE
*SEE GENERAL NOTES SHEET

DRAWING INFO
DATE 9/15/2020
DESIGNED SS
DRAWN PMP
CHECKED AD
PROJECT NV-1949-1909

PROFESSIONAL ENGINEER - STATE OF NEVADA - LARRY M. BITTON - EXP. 12-31-20 - CIVIL - No. 0069 - 9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 1
CITY OF LAS VEGAS, NEVADA
COVER SHEET

C.0.0

PAGE 01

CITY OF LAS VEGAS GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA NEVADA", LATEST ISSUE; THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA NEVADA", LATEST REVISED EDITION; THE "SUMMERLIN IMPROVEMENT STANDARDS" FOR WORK IN THE SUMMERLIN AREA; AND OTHER APPLICABLE APPROVED STANDARDS ISSUED BY THE CONTROLLING AGENCY; THE UNIFORM BUILDING CODE; AND ALL LOCAL CITY CODES AND ORDINANCES APPLICABLE, EXCEPT AS NOTED ON THIS SHEET AS "DEVIATIONS FROM STANDARDS".

2. THE EXISTENCE AND LOCATION OF ANY OVERHEAD OR UNDERGROUND UTILITY LINES, PIPES, OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A RESEARCH OF THE AVAILABLE RECORDS. EXISTING UTILITIES AS SHOWN FROM CLV PLANS LIBRARY ARE APPROXIMATE AND FOR RECORD PURPOSES. EXISTING UTILITIES ARE LOCATED ON PLANS ONLY FOR THE CONVENIENCE OF THE CONTRACTOR. EXISTING UTILITY SERVICE LATERALS MAY NOT BE SHOWN ON THE PLANS. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, LOCATE ALL UNDERGROUND AND OVERHEAD INTERFERENCE'S WHICH MAY AFFECT HIS OPERATION DURING CONSTRUCTION AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO SAME. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING NEAR OVERHEAD UTILITIES SO AS TO SAFELY PROTECT ALL PERSONNEL AND EQUIPMENT, AND SHALL BE RESPONSIBLE FOR ALL COST AND LIABILITY IN CONNECTION THEREWITH.

3. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING UTILITY LINES, STRUCTURES AND STREET IMPROVEMENTS WHICH ARE TO REMAIN IN PLACE, FROM DAMAGE, AND ALL SUCH IMPROVEMENTS OR STRUCTURES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED SATISFACTORY TO THE CITY ENGINEER AND OWNING UTILITY COMPANY AT THE EXPENSE OF THE CONTRACTOR.

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

5. TYPE V CEMENT SHALL BE USED IN ALL OFF-SITE CONCRETE WORK. CONCRETE TO BE 3000 P.S.I. MINIMUM @ 28 DAYS. MIX DESIGNS TO BE APPROVED BY THE CITY, PRIOR TO THE USE ON THE PROJECT.

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

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

8. AC PAVEMENT TO BE ONE-HALF INCH (½") ABOVE LIP OF ALL GUTTERS AFTER COMPACTION, EXCEPT AT SIDEWALK RAMPS AND CROSS GUTTERS.

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

10. SIDEWALK RAMPS SHALL BE CONSTRUCTED IN EACH QUADRANT OF AN INTERSECTION PER STANDARD DRAWING 235. EXACT LOCATION OF RAMPS MAY BE ADJUSTED IN THE FIELD BY A CITY INSPECTOR.

11. CONTRACTOR SHALL PROVIDE ALL NECESSARY HORIZONTAL AND VERTICAL TRANSITIONS BETWEEN NEW CONSTRUCTION AND EXISTING SURFACES TO PROVIDE FOR PROPER DRAINAGE AND FOR INGRESS AND EGRESS TO NEW CONSTRUCTION. THE EXTENT OF THE TRANSITIONS TO BE AS SHOWN ON PLANS.

12. ALL GRADING WORK SHALL CONFORM TO THE SOILS REPORT AS PREPARED BY THE (GEOTEK, INC., 15256-LV, JANUARY 9, 2020) APPROVED BY THE CITY ENGINEER, AND AS SHOWN ON THESE PLANS.

13. EXACT LOCATION OF ALL SAWCUT LINES MAY BE ADJUSTED OR DETERMINED IN THE FIELD BY A CITY OF LAS VEGAS ENGINEER IF EXCATION ON PLANS IS NOT CLEARLY SHOWN, OR EXISTING PAVEMENT CONDITION REQUIRES RELOCATIONS.

14. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT EXISTING PERMANENT SURVEY MONUMENTS. ANY MONUMENTS DISTURBED SHALL BE REPLACED AND ADJUSTED PER AVAILABLE RECORDS IN ACCORDANCE WITH N.R.S. STATUTE NO. 625.380 & CITY OF LAS VEGAS TITLE 18, APPENDIX D.

15. UTILITY COMPANY METER BOXES, MANHOLE LIDS, VALVE COVERS, ETC., SHALL BE LOCATED OUT OF DRIVEWAYS, DRIVEWAY APRONS, FLOWLINES, AND CROSS GUTTERS UNLESS WRITTEN APPROVAL IS GRANTED BY THE UTILITY COMPANY AND THE CITY ENGINEER.

WALL NOTES:

16. ALL WALLS, NEW OR EXISTING, ARE ONLY SHOWN ON CIVIL PLANS FOR THE PURPOSE OF REVIEWING GRADING RELATIONSHIPS; FLOOD CONTROL AND SIGHT DISTANCE AT INTERSECTIONS. NEW WALLS REQUIRE A SEPARATE PERMIT AND INSPECTION BY THE BUILDING DEPARTMENT.

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

18. CONTRACTOR SHALL ADJUST ALL NEW AND EXISTING INLETS, VALVE BOXES, MANHOLE RIMS, AND SEWER CLEAN OUTS, ETC. TO FINISH GRADE AS APPLICABLE WHETHER OR NOT THEY ARE SHOWN ON THE PLANS.

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

20. WHEN INSTALLING UNDERGROUND FACILITIES THAT REQUIRE UNDERGROUND LOCATING DEVICES SUCH AS MARKER BALLS, LOCATING RIBBON, ETC., THE CONTRACTOR SHALL PROVIDE WRITTEN DOCUMENTATION TO OFFSITE INSPECTION AND TESTING CERTIFYING THAT ALL DEVICES HAVE BEEN PLACED AND VERIFIED TO BE IN GOOD WORKING CONDITION PRIOR TO THE CONSTRUCTION OF ANY ROAD BASE.

21. SANITARY SEWER AND STORM DRAIN FINAL LOCATION MAP(S) SHALL BE PROVIDED TO THE CITY AND APPROVED PRIOR TO ACCEPTANCE OF FACILITY VIDEO INSPECTION. THE MAP(S) SHALL INCLUDE THE HORIZONTAL AND VERTICAL (INVERT) LOCATION OF PUBLIC SEWER MANHOLES, STORM DRAIN MANHOLES AND TRANSITION STRUCTURES, STORM DRAIN LATERALS AT THE CONNECTION TO THE STORM DRAIN MAIN AND AT THE CONNECTION TO A DROP INLET, THE CONNECTION OF SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERALS EXIT THE PUBLIC RIGHT-OF-WAY, AND STORM DRAIN MAIN ALIGNMENT, INCLUDING DEFLECTION POINTS. THE LOCATION SHALL BE DESCRIBED BY COORDINATES WHICH SHALL BE BASED ON THE OFFICIAL HORIZONTAL AND VERTICAL CONTROL NETWORKS OF THE CITY OF LAS VEGAS. FINAL LOCATION MAPS MUST BE SEALED AND CERTIFIED BY A NEVADA PROFESSIONAL LAND SURVEYOR TO HAVE POSITIONAL CERTAINTIES OF ± 0.09 METERS (± 0.3 FEET) HORIZONTALLY AND VERTICALLY. A SEPARATE ELECTRONIC COMMA DELIMITED FILE FOR THE SANITARY SEWER AND STORM DRAIN COORDINATES SHALL ALSO ACCOMPANY THE SANITARY SEWER AND STORM DRAIN FINAL LOCATION MAP(S).

OR

SANITARY SEWER AND STORM DRAIN FACILITIES SHOWN ON THESE PLANS SHALL BE USED TO MEET THE REQUIREMENTS OF NRS 455 AND SHALL SHOW AT A MINIMUM THE HORIZONTAL AND VERTICAL (INVERT) LOCATION OF PUBLIC SEWER MANHOLES, STORM DRAIN MANHOLES, STORM DRAIN LATERALS AT THE CONNECTION TO THE STORM DRAIN MAIN AND AT THE CONNECTION TO A DROP INLET, AND THE CONNECTION OF SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERALS EXIT THE PUBLIC RIGHT-OF-WAY. ANY DEVIATIONS FROM THE INFORMATION SHOWN SHALL BE NOTED AND SUBMITTED AS A REVISION TO THE PLANS AND APPROVED PRIOR TO ACCEPTANCE OF FACILITY VIDEO INSPECTION.

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

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

CITY OF LAS VEGAS GRADING NOTES

1. IN THE EVENT THAT ANY UNFORESEEN CONDITIONS NOT COVERED BY THESE NOTES ARE ENCOUNTERED DURING GRADING OPERATIONS, THE OWNER/ENGINEER SHALL BE IMMEDIATELY NOTIFIED FOR DIRECTION.

2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM ALL NECESSARY CUTS AND FILLS WITHIN THE LIMITS OF THIS PROJECT AND THE RELATED OFF-SITE WORK, SO AS TO GENERATE THE DESIRED SUBGRADE, FINISH GRADES AND SLOPES SHOWN.

3. CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ALL EXCAVATION. ADEQUATE SHORING SHALL BE DESIGNED AND PROVIDED BY THE CONTRACTOR TO PREVENT UNDERMINING OF ANY ADJACENT FEATURES OR FACILITIES AND/OR CAVING OF THE EXCAVATION.

4. THE CONTRACTOR IS WARNED THAT AN EARTHWORK BALANCE WAS NOT NECESSARILY THE INTENT OF THIS PROJECT. ANY ADDITIONAL MATERIAL REQUIRED OR LEFTOVER MATERIAL FOLLOWING EARTHWORK OPERATIONS BECOMES THE RESPONSIBILITY OF THE CONTRACTOR.

5. THE GRADING CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE OWNER TO PROVIDE FOR THE REQUIREMENTS OF THE PROJECT STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND ASSOCIATED PERMIT.

6. CONTRACTOR SHALL GRADE TO THE LINES AND ELEVATIONS SHOWN ON THE PLANS WITHIN THE FOLLOWING HORIZONTAL AND VERTICAL TOLERANCES AND DEGREES OF COMPACTION, IN THE AREAS INDICATED:

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

COMPACTION TESTING WILL BE PERFORMED BY THE OWNER OR HIS REPRESENTATIVE.

7. ALL CUT AND FILL SLOPES SHALL BE PROTECTED UNTIL EFFECTIVE EROSION CONTROL HAS BEEN ESTABLISHED.

8. THE USE OF POTABLE WATER WITHOUT A SPECIAL PERMIT FOR BUILDING OR CONSTRUCTION PURPOSES INCLUDING CONSOLIDATION OF BACKFILL OR DUST CONTROL IS PROHIBITED. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR CONSTRUCTION WATER.

9. THE CONTRACTOR SHALL MAINTAIN THE STREETS, SIDEWALKS AND ALL OTHER PUBLIC RIGHT-OF-WAY IN A CLEAN, SAFE AND USABLE CONDITION. ALL SPILLS OF SOIL, ROCK OR CONSTRUCTION DEBRIS SHALL BE PROMPTLY REMOVED FROM THE PUBLICLY OWNED PROPERTY DURING CONSTRUCTION AND UPON COMPLETION OF THE PROJECT. ALL ADJACENT PROPERTY, PRIVATE OR PUBLIC SHALL BE MAINTAINED IN A CLEAN, SAFE AND USABLE CONDITION.

10. IN THE EVENT THAT ANY TEMPORARY CONSTRUCTION ITEM IS REQUIRED THAT IS NOT SHOWN ON THESE DRAWINGS, THE OWNER AGREES TO PROVIDE AND INSTALL SUCH ITEM AT HIS OWN EXPENSE AND AT THE DIRECTION OF THE CITY ENGINEER. TEMPORARY CONSTRUCTION INCLUDES DITCHES, BERMS, ROAD SIGNS AND BARRICADES, ETC.

CITY OF LAS VEAGS TRAFFIC NOTES

1. ALL CONSTRUCTION SIGNING, BARRICADING, AND TRAFFIC DELINEATION SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.

2. THE STREET SIGN CONTRACTOR SHALL OBTAIN STREET NAMES AND BLOCK NUMBERING FROM THE PLANNING DEPARTMENT PRIOR TO CONSTRUCTION.

3. BEFORE ANY WORK IS STARTED IN THE RIGHT-OF-WAY, THE CONTRACTOR SHALL INSTALL ALL ADVANCE WARNING SIGNS FOR THE CONSTRUCTION ZONE. THE CONTRACTOR SHALL INSTALL TEMPORARY STOP SIGNS AT ALL NEW STREET ENCROACHMENTS INTO EXISTING CITY STREETS WHERE WARRANTED IMMEDIATELY AFTER FIRST GRADING WORK IS ACCOMPLISHED, AND SHALL MAINTAIN SAID SIGNS UNTIL PERMANENT SIGNS ARE INSTALLED.

4. WHEN A DESIGNATED "SAFE ROUTE TO SCHOOL" IS ENCROACHED UPON BY A CONSTRUCTION WORK ZONE AND PUBLIC WORKS STAFF IDENTIFIES A NEED FOR STUDENTS TO BE ASSISTED IN THE SAFE CROSSING THROUGH THAT WORK ZONE, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE A QUALIFIED "CROSSING GUARD". THE GUARD SHALL BE PRESENT FOR THE FULL DURATION OF TIME THAT CHILDREN ARE LIKELY TO BE PRESENT.

5. IF THE IMPROVEMENTS NECESSITATE THE OBLITERATION, TEMPORARY OBSTRUCTION, TEMPORARY REMOVAL OR RELOCATION OF ANY EXISTING TRAFFIC PAVEMENT MARKING, SUCH PAVEMENT MARKING SHALL BE RESTORED OR REPLACED WITH LIKE MATERIALS TO THE SATISFACTION OF THE CITY TRAFFIC ENGINEER.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL PERMANENT SIGNS SHOWN ON THE PLANS. ALL NEW TRAFFIC SIGNS SHALL BE FABRICATED WITH DIAMOND GRADE VIP CLASS 6 REFLECTIVE SHEETING OR APPROVED EQUAL. ALL NEW TRAFFIC SIGNS, EXCEPT STREETNAME AND SCHOOL SPEED LIMIT SIGNS, SHALL HAVE 3M SERIES 1160 OR APPROVED EQUIVALENT ANTI-GRAFFITI PROTECTIVE OVERLAY FILM; SCHOOL ZONE SIGNS SHALL HAVE 3M SERIES 1150 ANTI-GRAFFITI PROTECTIVE OVERLAY FILM. STREET NAME SIGNS SHALL CONFORM IN THEIR ENTIRETY TO CURRENT CITY STANDARDS. ALL OTHER SIGNS SHALL BE STANDARD SIZE UNLESS OTHERWISE SPECIFIED ON THE PLANS. ALL SIGN POSTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT CITY STANDARDS.

7. WHEN A PROPOSED STREET LIGHT STANDARD IS LOCATED WITHIN FIVE (5') FEET OF ANY PROPOSED SIGN SHOWN ON THE PLANS TO BE MOUNTED ON A SIGNPOST, THE SIGN SHALL BE MOUNTED ON THE STREET LIGHT STANDARD AND THE SIGNPOST SHALL BE ELIMINATED.

8. ALL PERMANENT TRAFFIC CONTROL DEVICES CALLED FOR HEREON SHALL BE IN PLACE AND IN FINAL POSITION PRIOR TO ALLOWING ANY PUBLIC TRAFFIC ONTO THE PORTIONS OF THE ROAD(S) BEING IMPROVED HERE UNDER, REGARDLESS OF THE STATUS OF COMPLETION OF PAVING OR OTHER OFF-SITE IMPROVEMENTS CALLED FOR BY THESE PLANS.

9. STREET SIGNS AND STOPS SIGNS SHALL BE INSTALLED PER CITY STANDARD SPECIFICATIONS FOR PLACEMENT OF STREET NAME SIGNS.

10. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY TRAFFIC CONTROL DEVICES AND FLAGGERS TO INSURE THE SAFETY OF THE PUBLIC IN OR AROUND THE WORK AREA. THE CONTRACTOR SHALL HAVE A CERTIFIED ATSSA TRAFFIC CONTROL TECHNICIAN OR IMSA WORK ZONE SAFETY SPECIALIST SET UP, MAINTAIN AND/OR REMOVE ALL TRAFFIC CONTROL DEVICES IN THE CITY OF LAS VEGAS RIGHT OF WAY.

11. WORK IN PUBLIC STREETS, ONCE BEGUN, SHALL BE EXPEDITED TO COMPLETION SO AS TO PROVIDE MINIMUM INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND TO THE TRAVELING PUBLIC.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING CITIZENS AREA TRANSIT (C.A.T.) IF THE CONSTRUCTION INTERRUPTS OR RELOCATES A BUS STOP OR HAS AN ADVERSE EFFECT ON BUS SERVICE ON THAT STREET TO ARRANGE FOR TEMPORARY RELOCATION OF STOP.

13. GUARDS SHALL BE OBTAINED BY CONTACTING THE METROPOLITAN POLICE DEPARTMENT SPECIAL EVENTS UNIT (PHONE # 828-3442) WHO WILL PROVIDE OFFICERS PROPERLY TRAINED IN TRAFFIC CONTROL. FEES FOR THE USE OF THESE OFFICERS SHALL BE SET BY METRO AND WILL BE PAID BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR ALL ARRANGEMENTS WITH METRO.

14. ANY WORK WITHIN 300' OF A SIGNALIZED INTERSECTION WILL BE NIGHT WORK, UNLESS OTHERWISE DIRECTED BY THE CITY OF LAS VEGAS TRAFFIC ENGINEER.

15. THE CONTRACTOR SHALL CONTACT THE TRAFFIC ENGINEERING DIVISION (TRANSPORTATION SECTION) THROUGH THE PROJECT'S OFFSITE INSPECTOR PRIOR TO INITIATING PAVING TO RECEIVE DIRECTION FOR ANY PERMANENT OR TEMPORARY MODIFICATIONS TO THE APPROVED DRAWINGS REGARDING FINAL PAVEMENT TRANSITIONS, MARKINGS AND SIGNING THAT ARE REQUIRED TO MATCH ADJACENT ROADWAY SEGMENTS. THE CONTRACTOR SHALL PROVIDE A DRAWING FOR APPROVAL BY THE TRAFFIC ENGINEERING DIVISION DEPICTING ANY ADJUSTMENTS TO THE FINAL PAVEMENT MARKINGS AND SIGNAGE, WHICH MAY INCLUDE OMITTING, ADDING OR MODIFYING PAVEMENT MARKINGS AND TRAFFIC CONTROL SIGNS SUCH THAT ADEQUATE TRANSITIONS AND LANE TERMINATIONS BETWEEN ADJACENT ROADWAY SEGMENTS ARE CONSTRUCTED

CITY OF LAS VEGAS STREETLIGHT NOTES

1. ALL STREET LIGHTING INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE STREET LIGHTING PLANS, THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA", LATEST REVISION, AND THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA", LATEST REVISION, AND ANY ADOPTED SPECIAL AREA STANDARDS.

2. NO DEVIATION OF STREET LIGHT, PULL BOX, CONDUITS (ETC.) LOCATIONS SHALL BE PERMITTED WITHOUT WRITTEN APPROVAL OF TRAFFIC ENGINEERING AND THE CITY ENGINEER.

3. ALL EXISTING STREET LIGHTING SHALL REMAIN OPERATIONAL DURING CONSTRUCTION.

4. ALL STREET LIGHTING CONDUITS STUB SHALL HAVE AT LEAST ONE GREEN #8 THW WIRE INSTALLED, AS TRACER WIRE. WHEN "EMPTY" CONDUIT IS COMPLETELY INSTALLED FROM PB TO PB, IT SHALL HAVE MINIMUM OF 2 #4 AND 1 #8 THW WIRE WITH THE ENDS TAPED OR "SAFE OFF" PRIOR TO FINAL INSPECTION.

5. ANY STRUCTURE SUCH AS BLOCK WALLS, CHAIN LINK FENCES, RETAINING WALLS, ETC., SHALL LEAVE A MINIMUM CLEARANCE IN ACCORDANCE WITH THE USD NO. 320A.

6. AS-BUILT DRAWINGS SHALL BE SUPPLIED TO THE TEFO PRIOR TO ANY PRE-FINAL INSPECTION. THE AS- BUILT DRAWING NEEDS TO BE STAMPED AS-BUILT AND SIGNED BY THE PREPARER.

7. SERVICE POINT SHALL BE COORDINATED WITH NV ENERGY COMPANY, AND WHEREVER POSSIBLE, BE LOCATED NEAR THE CENTER OF THE CIRCUIT. SERVICE POINTS SHALL BE SHOWN ON THE CIVIL PLANS.

8. IT SHALL BE ASSUMED THAT IN THE ABSENCE OF AN EXISTING, WORKABLE CIRCUIT TO ATTACH TO, ALL INSTALLATIONS SHALL REQUIRE A NEW SERVICE FOR OPERATION OF THE CIRCUIT.

9. WHEREVER THERE IS AN OVERHEAD UTILITY THAT MAY CONFLICT WITH THE INSTALLATION OF STREET LIGHTING CIRCUITS AND/OR POLES, THESE CONFLICTS MUST BE RESOLVED BETWEEN THE DEVELOPER AND THE UTILITIES INVOLVED, AT NO EXPENSE TO THE CITY OF LAS VEGAS, BEFORE STREETLIGHT BASES ARE INSTALLED.

10. THE CONTRACTOR SHALL FURNISH COMPLETE SERVICE TO TRANSFORMERS AND CONTROL SYSTEMS IF REQUIRED ON PLANS.

11. THE DEVELOPER/OWNER WILL BE REQUIRED TO SUPPLY POWER TO ALL NEW PUBLIC STREET LIGHTS INSTALLED UNDER THIS DESIGN PRIOR TO BOND RELEASE OR PROJECT COMPLETION. THE DEVELOPER/OWNER WILL BE RESPONSIBLE FOR ALL ITEMS ASSOCIATED WITH THE INSTALLATION, CONSTRUCTION, ENERGIZING, MAINTENANCE AND OPERATIONAL COST OF SAID STREET LIGHTS PRIOR TO PROJECT COMPLETION. REFER TO THE PLAN FOR ANY NEW SERVICE REQUIREMENTS. THE TRANSFER OF OWNERSHIP FROM THE DEVELOPER/OWNER TO THE CITY OF LAS VEGAS FOR ALL NEW PUBLIC STREET LIGHTS AND/OR SERVICES INSTALLED UNDER THIS PLAN DESIGN WILL BE IN CONJUNCTION WITH THIS PROJECT COMPLETION. COORDINATE ALL MAINTENANCE AND OPERATIONAL TRANSFERS WITH THE CITY OF LAS VEGAS TRAFFIC ENGINEERING DEPARTMENT (TEFO) AT (702) 229-6331.

STORMWATER MANAGEMENT NOTES

1. THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, THE PUBLIC RIGHTS OF WAY OF CLARK COUNTY AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.

2. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN CLARK COUNTY TITLE 24.40 AND THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.

3. TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY, REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR 100000, SECTION III.A.5.

4. AT A MINIMUM, THE CONSTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS AND ALL BMPS WEEKLY, AND WITHIN 24 HOURS AFTER A 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 NVR 100000, SECTION III.A.12.

5. ACCUMULATED SEDIMENT IN BMPS SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.

SOUTHERN NEVADA - SOUTHWEST GAS CORPORATION GENERAL NOTES

1. IN THE EVENT OF A NATURAL GAS EMERGENCIES CALL 911 AND 1-877-860-6020.

2. MINIMUM HORIZONTAL AND VERTICAL CLEARANCES BETWEEN NATURAL GAS FACILITIES AND ANY UNDERGROUND UTILITIES AND/OR STRUCTURES, INCLUDING BUT NOT LIMITED TO WATER, SEWER, STORM DRAIN, COMMUNICATIONS, AND ELECTRIC SHALL BE AT LEAST 12-INCHES OR GREATER AS DICTATED BY LOCAL CODES AND STANDARDS.
   2.a. ANY DEVIATION FROM SPECIFIED MINIMUM CLEARANCES MUST BE APPROVED BY ALL AFFECTED UTILITIES AND/OR MUNICIPALITIES.

3. FOR VALVE ADJUSTMENT CONTACT 702-528-7881 14 DAYS PRIOR TO CONSTRUCTION.

4. IN THE EVENT OF A NATURAL GAS CONFLICT WITH PROPOSED UTILITIES AND STRUCTURES CONTACT 702-365-2099.

CITY OF LAS VEGAS FIRE PREVENTION NOTES

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE LAS VEGAS FIRE AND RESCUE ADOPTED FIRE CODE ORDINANCE # 6325 FOR HYDRANT SPECIFICATIONS AND HYDRANT INSTALLATION SPECIFICATIONS.

2. ONLY FIRE HYDRANTS THAT ARE ON THE LAS VEGAS VALLEY WATER DISTRICT'S - **APPROVED PRODUCTS LIST** ARE ALLOWED TO BE INSTALLED.

3. A PERMIT IS REQUIRED FROM LAS VEGAS FIRE AND RESCUE FOR THE INSTALLATION OF ON-SITE WATER LINES AND FIRE HYDRANTS. THE PERMIT AND CONTRACTORS MATERIAL TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER *BEFORE* COMMENCEMENT OF WORK. [IFC § 105.7.12]

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 ORDE AND SHALL BE CAPABLE OF DELIVERING THE REQUIRED FIRE FLOW. [IFC § 3310, § 3312]

5. TO IDENTIFY THE FIRE HYDRANT LOCATIONS, THE CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT THE CENTER LINE OF THE STREET ADJACENT TO THE FIRE HYDRANTS. [IFC § 507.5.7.3]

6. ALL UNDERGROUND INSPECTIONS, PRESSURE AND FLUSH VERIFICATIONS OF ALL FIRE HYDRANTS AND FIRE LINES, SHALL BE CONDUCTED *BEFORE* COVERING THE LINES. CENTER LOADING IS ACCEPTABLE FOR THE HYDRO TESTS WITH PRIOR FIRE PREVENTION APPROVAL. [IFC § 106.3]

7. ALL ON-SITE UNDERGROUND WATER MAINS AND MATERIALS SHALL BE U.L. LISTED, A.W.W.A APPROVED AND SHALL BE RATED FOR THE APPROPRIATE WORKING PRESSURE. [IFC § 507.2.1, NFPA 24]

8. PAINTING OF CURBS, FIRE HYDRANTS, PADS, PROTECTION OF FIRE HYDRANTS FROM PHYSICAL DAMAGE, AND ALL OTHER WORK NECESSARY PER PLANS SHALL BE COMPLETED BEFORE APPROVAL BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION. [IFC § 507]

9. PRIVATE HYDRANTS SHALL BE PAINTED RED. [IFC § 507.5.7.1]

10. PRIOR TO THE FINAL OCCUPANCY, A FIRE FLOW TEST SHALL BE WITNESSED BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION TO VERIFY AVAILABILITY OF THE REQUIRED FIRE FLOW. [IFC § 507]

11. FIRE HYDRANT SPACING SHALL BE AS FOLLOWS: [IFC § C102]
    - RESIDENTIAL - 500 FT UNSPRINKLERED; 600 FT SPRINKLERED.
    - COMMERCIAL - 300 FT UNSPRINKLERED; 400 FT SPRINKLERED.

12. WHERE THE WATER MAINS ARE EXTENDED ALONG STREETS OR NEW STREETS ARE INSTALLED WHERE FIRE HYDRANTS ARE NOT NEEDED FOR PROTECTION OF THE STRUCTURES, FIRE HYDRANTS SHALL BE INSTALLED AT A MAXIMUM OF 1000 FT SPACING, TO PROVIDE FOR TRANSPORTATION HAZARDS. WHERE STREETS ARE PROVIDED WITH MEDIAN DIVIDERS OR HAVE FOUR (4) OR MORE TRAFFIC LANES AND HAVE A TRAFFIC COUNT OF MORE THAN 30,000 PER DAY, HYDRANTS ARE REQUIRED ON EACH SIDE OF THE STREET SPACED AT 500 FT ON AN ALTERNATING BASIS. [IFC § C102.8]

13. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN THE RADIUS OF A CUL-DE-SAC OR WITHIN 20 FT OF THE PERIMETER OF THE RADIUS OF THE CUL-DE-SAC.

14. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN 6 FT OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREETLIGHT OR ANY OTHER OBSTRUCTION. [IFC § C102.12]

15. A MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A ONE-TWO FAMILY DWELLING SHALL NOT EXCEED 300 FT, AS MEASURED BY AN APPROVED ROUTE. [IFC § C102.4]

16. THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A FIRE DEPARTMENT CONNECTION (FDC) SHALL NOT EXCEED 100 FT, AS MEASURED BY AN APPROVED ROUTE. [IFC § C102.7]

17. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL NOT EXCEED 200 FT. [IFC § C102.6]

18. TWO (2) SOURCES OF SUPPLY ARE REQUIRED WHENEVER THERE IS 4 OR MORE FIRE HYDRANTS/SPRINKLER LEAD-INS ARE INSTALLED ON A SINGLE SYSTEM. SECTIONAL CONTROL VALVES SHALL BE INSTALLED SO THAT NO MORE THAN 2 FIRE HYDRANTS CAN BE OUT OF SERVICE DUE TO A BREAK IN A WATER MAIN. [IFC § C104]

19. ALL FIRE APPARATUS ACCESS ROADS SHALL BE PAVED TO PROVIDE ALL-WEATHER DRIVING CAPABILITIES, AND SHALL BE DESIGNED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF THE FIRE APPARATUS. [IFC § 503.2.3]

20. THE GRADIENT FOR THE FIRE APPARATUS ACCESS ROADS SHALL NOT EXCEED 12%. ANGLES OF APPRO

SEWER

EXISTING	PROPOSED
UNKNOWN	SS
4 INCH	4" SS
6 INCH	6" SS
8 INCH	8" SS
10 INCH	10" SS
12 INCH	12" SS
14 INCH	14" SS
15 INCH	15" SS
16 INCH	16" SS
18 INCH	18" SS
24 INCH	24" SS
30 INCH	30" SS
36 INCH	36" SS
SERVICE LATERAL	

POWER

EXISTING	PROPOSED
OVERHEAD	OHP
UNDERGROUND	BEL
2 INCH	2" BEL
3 INCH	3" BEL
4 INCH	4" BEL
6 INCH	6" BEL
8 INCH	8" BEL
10 INCH	10" BEL
1 PH A 1/0	A-1/0
1 PH A 4/0	A-4/0
1 PH B 1/0	B-1/0
1 PH B 4/0	B-4/0
1 PH C 1/0	C-1/0
1 PH C 4/0	C-4/0
3 PH ABC 4/0	ABC-4/0
3 PH ABC 750A	ABC-750
SECONDARY	SEC
STREET LIGHT	SL

HATCH PATTERNS

- BUILDING / PAD
- CONCRETE SIDEWALK / FLATWORK
- DECORATIVE BRICK / SIDEWALK / FLATWORK / LANDSCAPE AREAS
- POOL DECK
- XERISCAPE
- LANDSCAPE AREAS / GRASS
- HEAVY DUTY PAVEMENT SECTION
- LIGHT DUTY PAVEMENT SECTION
- ADA ACCESS RAMP TRUNCATED DOMES
- RIPRAP
- GRAVEL

STANDARD SYMBOLS

EXISTING		PROPOSED
e	ELECTRICAL MANHOLE	E
fo	FIBER OPTIC MANHOLE	FO
t	TELEPHONE MANHOLE	T
tv	CABLE TV MANHOLE	TV
pp	ELECTRICAL POWER POLE	PP
sp	SIGNAL POLE	
e	ELECTRICAL BOX	E
fo	FIBER OPTIC BOX	FO
jb	JUNCTION BOX	JB
tb	TELEPHONE BOX	TB
tp	TELEPHONE PEDESTAL	T
tv	CABLE TV BOX	TV
	LIGHT POLE	
	LIGHT POLE OPT 2	
	LIGHT POLE OPT 3	
g	GAS MANHOLE	G
gm	GAS METER	G
co	CLEANOUT	CO
s	SEWER MANHOLE	S
ir	IRRIGATION MANHOLE	IR
ir	IRRIGATION BOX	IR
w	WATER MANHOLE	W
w	WATER METER	W
	WATER METER OPT 2	WM
	BLOW-OFF	BO
	FIRE HYDRANT	
	FIRE HYDRANT OPT 2	
	GATE VALVE	
	GATE VALVE OPT 2	
	CROSS	
	TEE	
	90° BEND	
	45° BEND	
	22.5° BEND	
	11.25° BEND	
	WYE	
	REDUCER	
	CAP & PLUG	
sd	STORM DRAIN MANHOLE	SD
	AREA DRAIN ROUND	
	AREA DRAIN SQUARE	
	DROP INLET	
	CURB INLET	
	CURB INLET OPT 2	
	CURB INLET OPT 3	
	CURB DOUBLE INLET	
	CURB DOUBLE INLET OPT 2	
SC	COMBO BOX	SC
	OIL/WATER SAND/GREASE	
	OIL/WATER SAND/GREASE OPT 2	
	FLARED END LARGE	
	FLARED END SMALL	
	SIGN	
	BOLLARD	
BH	BORE HOLE	BH
TP	TEST PIT	TP

ABBREVIATIONS

Aban	- Abandon
AIP	- Abandoned in Place
Agg	- Aggregate
Alt	- Alternate
A	- Anode, Gas
ACP	- Asbestos Cement Pipe
AC	- Asphaltic Concrete
Ave	- Avenue
BOC	- Back of Curb
BCR	- Back of Curb Radius
BVC	- Beginning of Vertical Curve
BM	- Bench Mark
Bdry Line	- Boundary Line
CATV	- Cable Television
C-C	- Center to Center
℄	- Centerline
CBC	- City of Boulder City
CLV	- City of Las Vegas
COH	- City of Henderson
CM	- City of Mesquite
CNLV	- City of North Las Vegas
CC	- Clark County
CCSD	- Clark County Sanitation District
CO	- Clean Out, Sewer
Comm	- Commercial
Conc, PCC	- Concrete
Const	- Construction or Construct
Cor	- Corner
CMP	- Corrugated Metal Pipe
CSAP	- Corrugated Steel Arch Pipe
CSP	- Corrugated Steel Pipe
C&G	- Curb and Gutter
CIP	- Cast Iron Pipe
Col	- Column
Cu Yd, CY	- Cubic Yard
Cu Ft, CF	- Cubic Feet
Culv	- Culvert
CF	- Curb Face
Dept	- Department
Dia	- Diameter
Dwy	- Driveway
DI	- Drop Inlet
Esmt	- Easement
E/o	- East of
EOP	- Edge of Pavement
EO	- Edge of Oil
E	- Electric
EM	- Electric Meter
Elev	- Elevation
Embk	- Embankment
ECR	- End of Curb Return
EC	- End of Curve
EBS	- Cathode Protection Bond Station
ETS	- Cathode Protection Test Station
EVC	- End of Vertical Curve
Exist	- Existing
Ft	- Feet or Foot
FG	- Finish Grade
FA	- Fire Alarm
FH	- Fire Hydrant
℄	- Flow Line
Galv	- Galvanized
GM	- Gas Meter
GR	- Gas Pressure Regulator
PL-G	- Plastic Gas
S-G	- Steel Gas
GB	- Grade Break
Gut	- Gutter
Hdwl	- Headwall
In	- Inch
INT	- Intersection
INV	- Invert
ISL	- Island
JB	- Junction Box
LOC	- Length of Curb
Lt	- Left
LF	- Linear Feet
LVVWD	- Las Vegas Valley Water District
MH	- Manhole
Max	- Maximum
Min	- Minimum
Mon	- Monolithic
N/o	- North of
NTS	- Not to Scale
OC	- On Center
OG	- Open-Graded Pavement, Original Ground
Pvmt	- Pavement
PI	- Point of Intersection
PRC	- Point of Reverse Curve
PC	- Point of Curve
PT	- Point of Tangency
PCC	- Point of Compound Curve
PCC, Conc	- Portland Cement Concrete
PP	- Power Pole
P	- Power
℄	- Property Line
Prop	- Proposed
PB	- Pull Box
RP	- Radius Point
R	- Radius
RR	- Railroad
Reinf	- Reinforced
RC	- Reinforced Concrete
RCB	- Reinforced Concrete Box
RCP	- Reinforced Concrete Pipe
Reloc	- Relocate
RT	- Right
ROW	- Right-of-way
RD	- Road
SS	- Sanitary Sewer
Sht	- Sheet
S/o	- South of
SW	- Sidewalk
SQ FT, SF	- Square foot
SQ YD, SY	- Square yard
Sta	- Station
SHP	- Steel Highpressure Pipe
SD	- Storm Drain
STD	- Standard
Struct	- Structural or Structure
Surv	- Survey
STLT	- Streetlight
T	- Telephone
Temp	- Temporary
TBA	- To Be Adjusted
TBR	- To Be Removed
TOC	- Top of Concrete
TBC	- Top of Back of Curb
TS	- Traffic Signal
TSI	- Traffic Signal Interconnect
Trans	- Transition
Typ	- Typical
UG	- Underground
Var	- Variable
Vert	- Vertical
VC	- Vertical Curve
VG	- Valley Gutter
VCP	- Vitrified Clay Pipe
W	- Water
WM	- Water Meter
W/o	- West of
Yd	- Yard

STORM

EXISTING	PROPOSED
UNKNOWN	SD
4 INCH	4" SD
6 INCH	6" SD
8 INCH	8" SD
10 INCH	10" SD
12 INCH	12" SD
15 INCH	15" SD
16 INCH	16" SD
18 INCH	18" SD
24 INCH	24" SD
30 INCH	30" SD
36 INCH	36" SD
42 INCH	42" SD
48 INCH	48" SD
54 INCH	54" SD
60 INCH	60" SD
66 INCH	66" SD
72 INCH	72" SD
LAND DRAIN	LD

GAS

EXISTING	PROPOSED
UNKNOWN	G
1 INCH	1" G
2 INCH	2" G
3 INCH	N/A
4 INCH	4" G
6 INCH	6" G
8 INCH	8" G
12 INCH	12" G
HIGH PRESSURE	HPG

SURFACE FEATURES

EXISTING/PROPOSED

- CUT LINE
- FILL LINE
- LIMITS OF DISTURBANCE
- DITCH
- GRADE BREAK
- HIGH WATER MARK
- HIGH WATER MARK - 1 YEAR EVENT
- HIGH WATER MARK - 5 YEAR EVENT
- HIGH WATER MARK - 10 YEAR EVENT
- HIGH WATER MARK - 25 YEAR EVENT
- HIGH WATER MARK - 50 YEAR EVENT
- HIGH WATER MARK - 100 YEAR EVENT
- FENCE - BARBED
- FENCE - CHAIN LINK
- FENCE - DECORATIVE
- FENCE - WOOD
- WALL - BLOCK
- WALL - CONCRETE
- WALL - PANEL
- WALL - ROCK
- WALL - RETAINING
- RIGHT OF WAY
- CENTERLINE (ROAD/ENTITY)
- CURB & GUTTER
- PARCEL LINE
- PROPERTY BOUNDARY
- 10' PUBLIC UTILITY & DRAINAGE EASEMENT (P.U.E.)
- PAINT STRIPE - SOLID
- PAINT STRIPE - DOUBLE SOLID
- PAINT STRIPE - BROKEN
- PAINT STRIPE - BIKE LANE INTERSECTION
- PAINT STRIPE - LANE DROP
- PAINT STRIPE - LANE LINE EXTENSION
- TRAFFIC SIGNAL - DETECTION CONDUIT
- TRAFFIC SIGNAL - FUTURE CONDUIT
- TRAFFIC SIGNAL - LIGHTING CONDUIT
- TRAFFIC SIGNAL - PEDESTRIAN CONDUIT
- TRAFFIC SIGNAL - POWER SOURCE CONDUIT
- TRAFFIC SIGNAL - SIGNAL CONDUIT

WATER

EXISTING	PROPOSED
UNKNOWN	W
3/4 INCH	3/4" W
1 INCH	1" W
1-1/2 INCH	1-1/2" W
2 INCH	2" W
3 INCH	3" W
4 INCH	4" W
6 INCH	6" W
8 INCH	8" W
10 INCH	10" W
12 INCH	12" W
14 INCH	14" W
16 INCH	16" W
18 INCH	18" W
24 INCH	24" W
30 INCH	30" W
36 INCH	36" W
48 INCH	48" W
60 INCH	60" W
72 INCH	72" W
SERVICE LATERAL	

COMMUNICATIONS

EXISTING	PROPOSED
OVERHEAD CABLE TV	CTV
UNDERGROUND CABLE TV	BCTV
OVERHEAD FIBER OPTIC	FO
UNDERGROUND FIBER OPTIC	BFO
OVERHEAD TELEPHONE	TEL
UNDERGROUND TELEPHONE	BTEL

IRRIGATION

EXISTING	PROPOSED
UNKNOWN	IRR
1 INCH	1" IRR
2 INCH	2" IRR
4 INCH	4" IRR
6 INCH	6" IRR
8 INCH	8" IRR
10 INCH	10" IRR
12 INCH	12" IRR
18 INCH	N/A
24 INCH	N/A
30 INCH	N/A
36 INCH	N/A
SERVICE LATERAL	

MISCELLANEOUS

EXISTING	PROPOSED
DEMO	
UNKNOWN PIPE	
JOINT UTILITY TRENCH	JUT
TOE OF SLOPE	TOE
TOP OF SLOPE	TOP
DIRECTIONAL FLOWLINE	
EDGE OF PAVEMENT	
GUARDRAIL	
RAILROAD TRACKS	
CONTOUR - MAJOR	4000
CONTOUR - MINOR	4002

CONSTRUCTION KEYNOTE TAGS

- D00 OR D99 DEMO PLAN
- G1 OR G9 GRADING PLAN
- 01 OR 35 SITE PLAN
- 36 OR 50 WATER
- 51 OR 65 SEWER
- 66 OR 80 STORM DRAIN
- 81 OR 90 IRRIGATION
- 91 OR 93 CABLE TV
- 94 OR 96 TELEPHONE
- 97 OR 99 GAS
- 00 OR 00 POWER
- A OR Z MISCELLANEOUS

CALLOUTS

- FFE: XXXX.XX — PROPOSED BUILDING FINISHED FLOOR ELEVATION
- 75.19 — PROPOSED TBC SPOT ELEVATION (@ PC'S, PT'S & PL)
- 75.19 — PROPOSED EOP SPOT ELEVATION (@ EDGE OF)
- # — PARKING STALL COUNT

DETAIL REFERENCE

X / - **DETAIL NAME**
SCALE: NTS

MATCHLINE STA. XX+XX.XX
SEE SHEET PP-XX

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES
PROJECT# 137504 FIRST APPROVED DATE: _____

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy., Suite 160
Henderson, NV 89074
(702) 966-4063
www.horrocks.com

WARNING
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE
0 1 2

REVISIONS
REV # | DATE

*SEE GENERAL NOTES SHEET

DRAWING INFO
DATE 9/15/2020
DESIGNED SS
DRAWN PMP
CHECKED AD
PROJECT NV-1949-1909

PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
No. 00059
9/15/2020

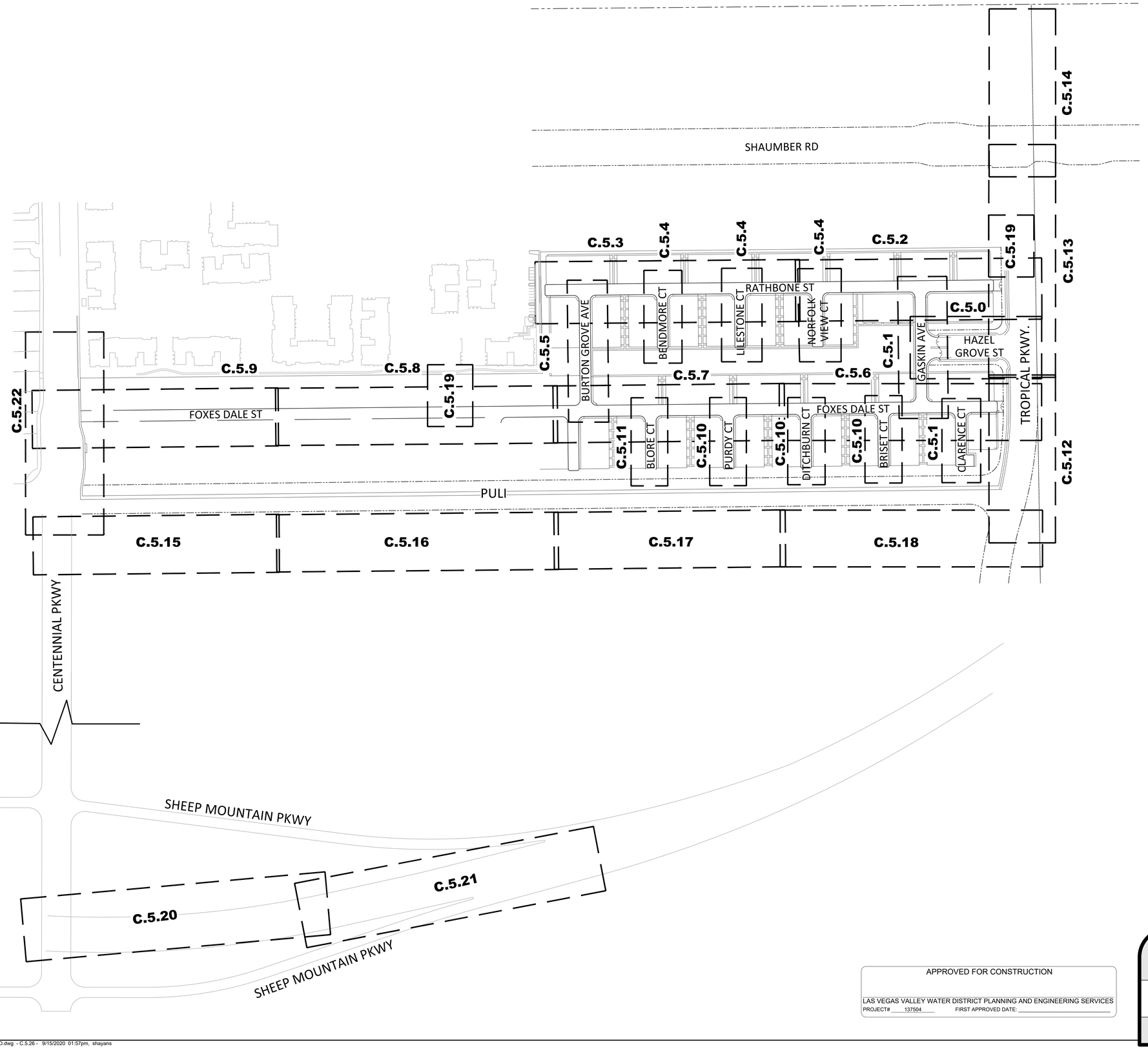
CENTENNIAL HEIGHTS TOWNHOMES PHASE 1

CITY OF LAS VEGAS, NEVADA

LEGEND & ABBREVIATIONS

C.0.2

PAGE 03



APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES

PROJECT# 137504 FIRST APPROVED DATE:

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy., Suite 160
Henderson, NV 89074
(702) 966-4063
www.horrocks.com

WARNING

IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE

0 1 2

REVISIONS

REV #	DATE

*SEE GENERAL NOTES SHEET

DRAWING INFO

DATE	9/15/2020
DESIGNED	SS
DRAWN	PMP
CHECKED	AD
PROJECT	NV-1949-1909

PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
NO. 010169
9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 1

IMPROVEMENT PLANS

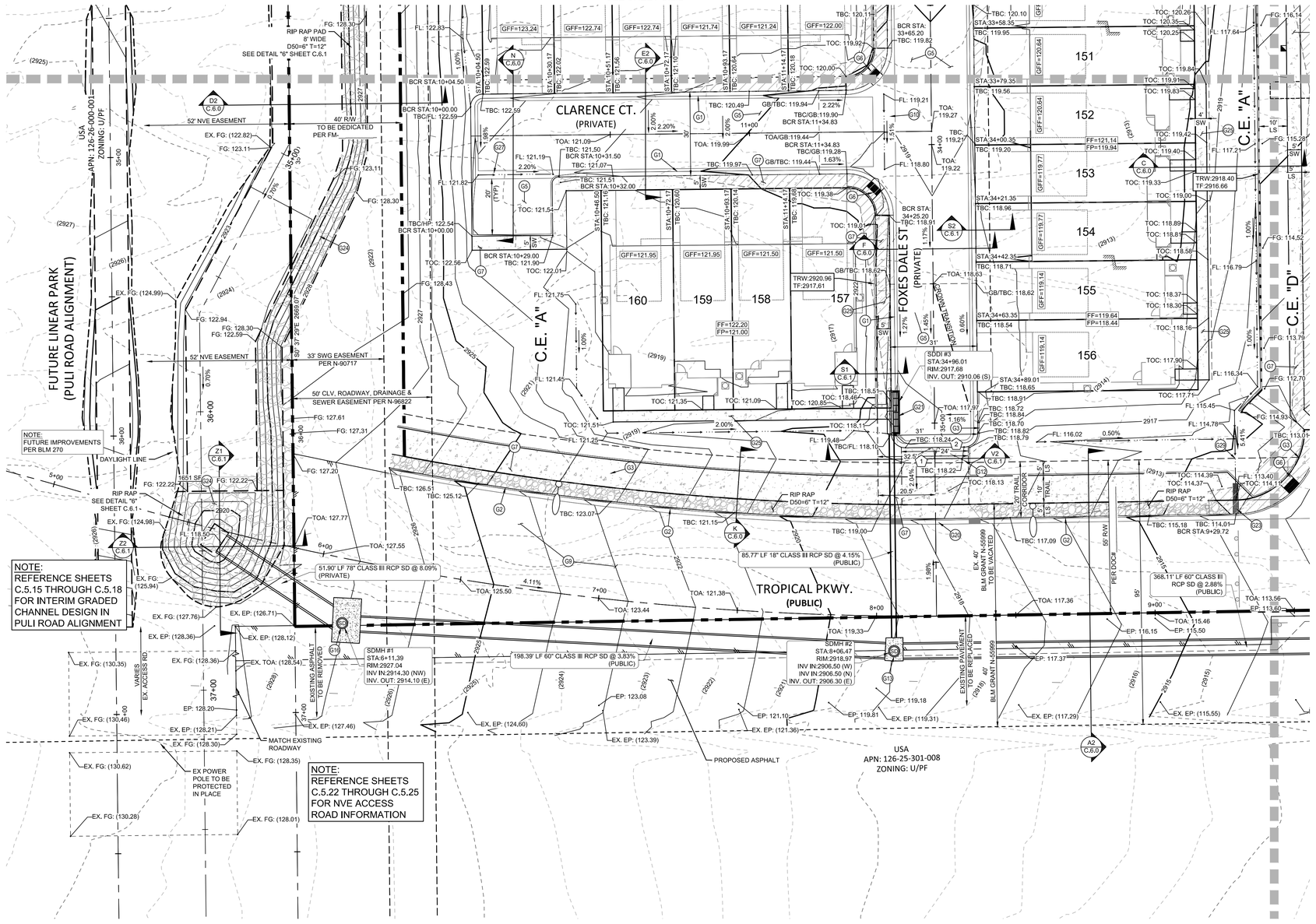
CITY OF LAS VEGAS, NEVADA

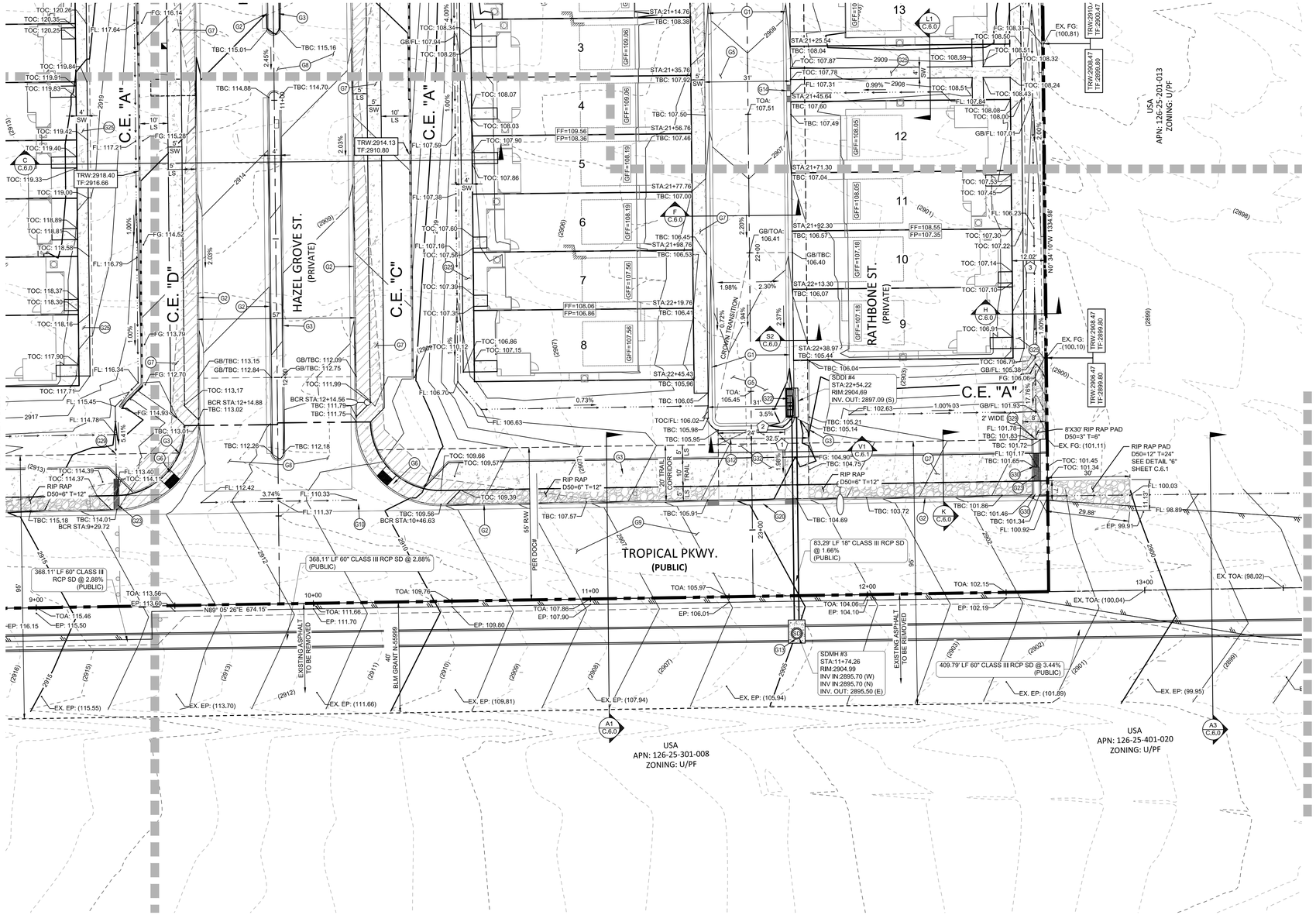
SITE KEY MAP

C.0.3

H:\!2019\NV-1949-1909 Centennial Heights Townhomes\Project Data\02 CAD\2.03 Sheet Files\Phase 1\NV-1949-1909_C.0.2_PH1_LGD.dwg - C.5.26 - 9/15/2020 01:57pm, shayans

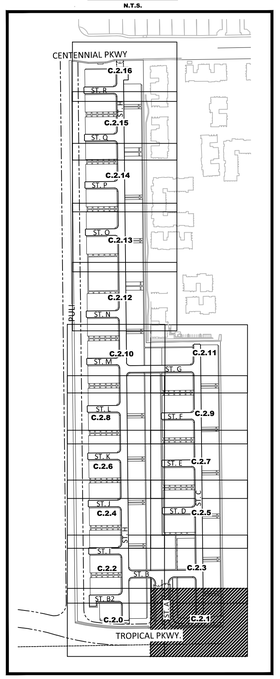
REFERENCE LINE
SEE SHEET C.2.2


CLARENCE CT.
(PRIVATE)
FOXES DALE ST.
(PRIVATE)
C.E. "A"
C.E. "D"
FUTURE LINEAR PARK
(PULI ROAD ALIGNMENT)
TROPICAL PKWY.
(PUBLIC)
USA
APN: 126-26-000-001
ZONING: U/PF
USA
APN: 126-25-301-008
ZONING: U/PF
52' NVE EASEMENT
40' R/W
TO BE DEDICATED
PER FM-
33' SWG EASEMENT
PER N-90717
50' CLV, ROADWAY, DRAINAGE &
SEWER EASEMENT PER N-96822
NOTE:
FUTURE IMPROVEMENTS
PER BLM 270
DAYLIGHT LINE
RIP RAP PAD
8' WIDE
D50=6" T=12"
SEE DETAIL "6" SHEET C.6.1
RIP RAP
SEE DETAIL "6"
SHEET C.6.1
RIP RAP
D50=6" T=12"
51.90' LF 78" CLASS III RCP SD @ 8.09%
(PRIVATE)
85.77' LF 18" CLASS III RCP SD @ 4.15%
(PUBLIC)
198.39' LF 60" CLASS III RCP SD @ 3.83%
(PUBLIC)
368.11' LF 60" CLASS III
RCP SD @ 2.88%
(PUBLIC)
SDMH #1
STA:8+11.39
RIM:2927.04
INV IN:2914.30 (NW)
INV. OUT: 2914.10 (E)
SDMH #2
STA:8+06.47
RIM:2918.97
INV IN:2906.50 (W)
INV IN:2906.50 (N)
INV. OUT: 2906.30 (E)
SODI #3
STA:34+96.01
RIM:2917.68
INV. OUT: 2910.06 (S)
EXISTING ASPHALT
TO BE REMOVED
EXISTING PAVEMENT
TO BE REPLACED
PROPOSED ASPHALT
EX. 40'
BLM GRANT N-55999
TO BE VACATED
PER DOCKET
55' R/W
20' TRAIL
CORRIDOR
10' TRAIL
5' LS
10' LS
5' SW
4' SW
VARIES
EX ACCESS RD
MATCH EXISTING
ROADWAY
EX POWER
POLE TO BE
PROTECTED
IN PLACE
151
152
153
154
155
156
157
158
159
160
GFF=123.24
GFF=122.74
GFF=122.74
GFF=121.74
GFF=121.24
GFF=122.00
GFF=120.64
GFF=119.77
GFF=119.14
GFF=121.95
GFF=121.50
GFF=121.50
FF=121.14
FP=119.94
FF=119.64
FP=118.44
FF=122.20
FP=121.00
TRW:2920.96
TF:2917.61
TRW:2918.40
TF:2916.66
1651 SF
2920
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2962



KEY MAP

N.T.S.



GRADING KEY NOTES:

(G1) CONSTRUCT 30" ROLL CURB PER CCAUSD #217.2.S1
(G2) CONSTRUCT "L" TYPE CURB PER CCAUSD #216
(G3) CONSTRUCT "A" TYPE CURB PER CCAUSD #219
(G4) CONSTRUCT 10' TRANSITION FROM "L" TYPE CURB TO ROLL CURB PER DETAIL "1" ON SHEET C.6.1
(G5) CONSTRUCT 2" AC PAVEMENT OVER 4" TYPE II AGG BASE
(G6) CONSTRUCT SIDEWALK RAMP "CASE I" PER CCAUSD #235
(G7) CONSTRUCT 5" CONCRETE SIDEWALK PER CCAUSD #234
(G8) CONSTRUCT 4" AC PAVEMENT OVER 4" TYPE II AGG BASE
(G9) CONSTRUCT 5.5" AC PAVEMENT OVER 6" TYPE II AGG BASE
(G10) CONSTRUCT 8' CONCRETE VALLEY GUTTER PER CCAUSD #228
(G11) SAWCUT, TRENCH, BACKFILL, AND ASPHALT PATCH PER CCAUSD 500.3, 500.4, 500.5 & 503 (PATCH DIMENSIONS TO BE DETERMINED IN THE FIELD) PROPOSED SAWCUT TO BE AT LANE LINE
(G12) INSTALL WROUGHT IRON GATE PER CCAUSD #425.S1
(G13) INSTALL 60" TYPE II-SD STORM DRAIN MANHOLE PER CCAUSD #401 & 405.2
(G14) CONSTRUCT CURB OPENING PER DETAIL "2" OF SHEET C.6.1
(G15) INSTALL TYPE I-SD STORM DRAIN MANHOLE PER CCAUSD #403 WITH NEENAH 2501-G GRATED LID PER DETAIL "8" ON C.6.1
(G16) INSTALL STORM DRAIN JUNCTION STRUCTURE PER STRUCTURAL DRAWINGS ON SHEETS S1.0-S3.0.
(G17) EXISTING TO REMAIN. PROTECT IN PLACE.
(G18) INSTALL LANDSCAPING PER LANDSCAPE PLAN BY OTHERS
(G19) CONSTRUCT 5'X5' CONCRETE SIDEWALK PAD PER CCAUSD #234 FOR ADA TURNAROUND
(G20) CONSTRUCT DRIVEWAY PER CCAUSD #223
(G21) CONSTRUCT DROP INLET TYPE "CM2" PER CCAUSD #412.1 & 421. L=15', D=8.20'
(G22) CONSTRUCT DROP INLET TYPE "CM2" PER CCAUSD #412.1 & 421. L=10', D=7.95'
(G23) CONSTRUCT SIDEWALK UNDER DRAIN PER CCAUSD #236
(G24) INSTALL RIP-RAP D50=6",T=12" SUBGRADE @ 90% COMPACTION LENGTH AND WIDTH SPECIFIED ON PLAN
(G25) CONSTRUCT 4" CONCRETE SIDEWALK PER CCAUSD #234
(G26) CONSTRUCT BUS TURNOUT PER CCAUSD #234.1 & DETAIL "O" ON C.6.0
(G27) CONSTRUCT 3' CONCRETE VALLEY GUTTER PER CCAUSD #228
(G28) INSTALL 4" SIDEWALK DRAIN PIPE PER DETAIL "7" ON SHEET C.6.1
(G29) CONSTRUCT BLOCK WALL OPENING PER DETAIL "3" ON SHEET C.6.1
(G30) CONSTRUCT 24" WIDE CONCRETE FLUME PER DETAIL "5" ON SHEET C.6.1
(G31) CONSTRUCT 24"X36" BUBBLER STRUCTURE PER DETAIL "4" ON SHEET C.6.1
(G32) CONSTRUCT 6" CONCRETE PAVEMENT OVER 4" TYPE II AGG BASE

LEGAL DESCRIPTION:

A PORTION OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.B., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE WEST HALF (W 1/2) OF THE WEST HALF (W 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., TOGETHER WITH:

THE WEST HALF (W 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.

BASIS OF BEARING

NORTH 00°37'29" WEST, BEING THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.,CLARK COUNTY, NEVADA, AS SHOWN ON THE PLAT OF CONSTELLATION ESTATES, RECORDED IN BOOK 102, PAGE 92, OFFICIAL RECORDS, CLARK COUNTY, NEVADA.

BENCHMARK

RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

ELEVATION (meters) 901.13
ELEVATION (feet) 2,956.44
NAVD 88

FLOOD ZONE:

THIS SITE IS LOCATED IN A ZONE 'X', AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN AND PARTIALLY IN A SHADED ZONE 'X', AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE OF FLOOD PER THE FLOOD INSURANCE RATE MAP COMMUNITY PANEL 32003C1750E, CLARK COUNTY, NEVADA DATED NOVEMBER 16, 2011, REVISED TO REFLECT LOMR DATED OCTOBER 18, 2018.

Call before you AVOID CUTTING UNDERGROUND UTILITY LINES, IT'S COSTLY.
Call 811
1-800-227-2600

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

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

SIGHT VISIBILITY ZONE PER CCAUSD# 201.2 (TYP)

SIGHT VISIBILITY ZONE NOTE:

NO WALLS, FENCES, SHRUBS, UTILITY APPURTENANCES OR ANY OTHER OBJECT, OTHER THAN TRAFFIC CONTROL DEVICES, FIRE HYDRANTS, TREES, AND STREET LIGHT POLES, MAY BE CONSTRUCTED OR INSTALLED WITHIN THE SIGHT VISIBILITY ZONE UNLESS SAID OBJECT IS MAINTAINED AT LESS THAN 24 INCHES IN HEIGHT, MEASURED FROM TOP OF CURB, OR WHERE NO CURB EXISTS, A HEIGHT OF 27 INCHES MEASURED FROM THE TOP OF ADJACENT ASPHALT, GRAVEL OR PAVEMENT STREET SURFACE. THIS RESTRICTION EXTENDS ALONG THE SIGHT VISIBILITY LINE THROUGH LANDSCAPED MEDIANS.

NOTE:
ALL COMMON ELEMENTS ARE PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY THE HOA.

NOTE:
ALL PRIVATE STREETS ARE P.U.E., PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY THE HOA.

NOTE:
ADD 2900' TO GRADING ELEVATIONS SHOWN HEREON TO ADJUST THEM TO THE ASSOCIATED DATUM. FINISHED GRADE CONTOURS ARE APPROXIMATE. REFER TO SPOT ELEVATION GRADE TAGS FOR CONSTRUCTION STAKING PURPOSES.

ENGINEER'S NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR EROSION AND DUST CONTROL, AND STORMWATER MANAGEMENT DURING CONSTRUCTION.
2. SEE HORIZONTAL CONTROL PLAN FOR EXACT PROPERTY LINE DIMENSIONS
3. ENGINEER TO BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES BETWEEN THESE PLANS AND FIELD CONDITIONS.
4. THESE PLANS SHALL NOT IN PART, OR IN WHOLE, BE USED FOR CONSTRUCTION UNTIL APPROVED AND SIGNED BY GOVERNING AGENCIES.
5. ALL GRADING SHALL CONFORM TO SOILS REPORT RECOMMENDATIONS.
6. DURING CONSTRUCTION, SURVEYORS AND CONTRACTORS MUST VERIFY THAT ALL STREETS AND LOTS HAVE POSITIVE DRAINAGE. SAME MUST UTILIZE AT LEAST THREE GRADES ON VERTICAL TANGENTS TO VERIFY SLOPES.
7. SOILS REPORT NOTE:
   GRADING SHALL BE IN ACCORDANCE WITH SOILS REPORT
   PREPARED BY: GEOTEK, INC.
   PROJECT NO.: 15256-LV
   DATE: JANUARY 9, 2020
8. CUT/FILL ESTIMATES (PUBLIC AND PRIVATE):
   FROM EXISTING TO FINISH GRADE ELEVATIONS
   NET CUT: 67,671 CY
   NET FILL: 108,494 CY
   TOTAL: 40,823 CY (FILL)
9. FLOOR SECTION ASSUMES 1.2' PAD SECTION. CONTRACTOR TO VERIFY WITH STRUCTURAL PLANS AND GEOTECHNICAL ENGINEER.

EASEMENT KEY NOTES:

(1) 32.5' PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.
(2) 24' PUBLIC EMERGENCY ACCESS EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.
(3) PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY HOA. PER FINAL MAP.

AREA OF DISTURBANCE

ONSITE: 29.85 AC.
OFFSITE: 6.97 AC.

DRAINAGE CERTIFICATION:

THIS SET OF IMPROVEMENT PLANS IS CERTIFIED TO CONFORM TO THE REQUIREMENTS OF THE APPROVED DRAINAGE STUDY.
DS# 5232

LARRY BITTON, P.E. NO. 010159 DATE

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy., Suite 160
Henderson, NV 89074
(702) 966-4063
www.horrocks.com

WARNING
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE
0 1 2

REVISIONS
REV #	DATE
1	

*SEE GENERAL NOTES SHEET

DRAWING INFO	
DATE	9/15/2020
DESIGNED	SS
DRAWN	PMP
CHECKED	AD
PROJECT	NV-1949-1909

PROFESSIONAL ENGINEER-STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
No. 010159
9/15/2020

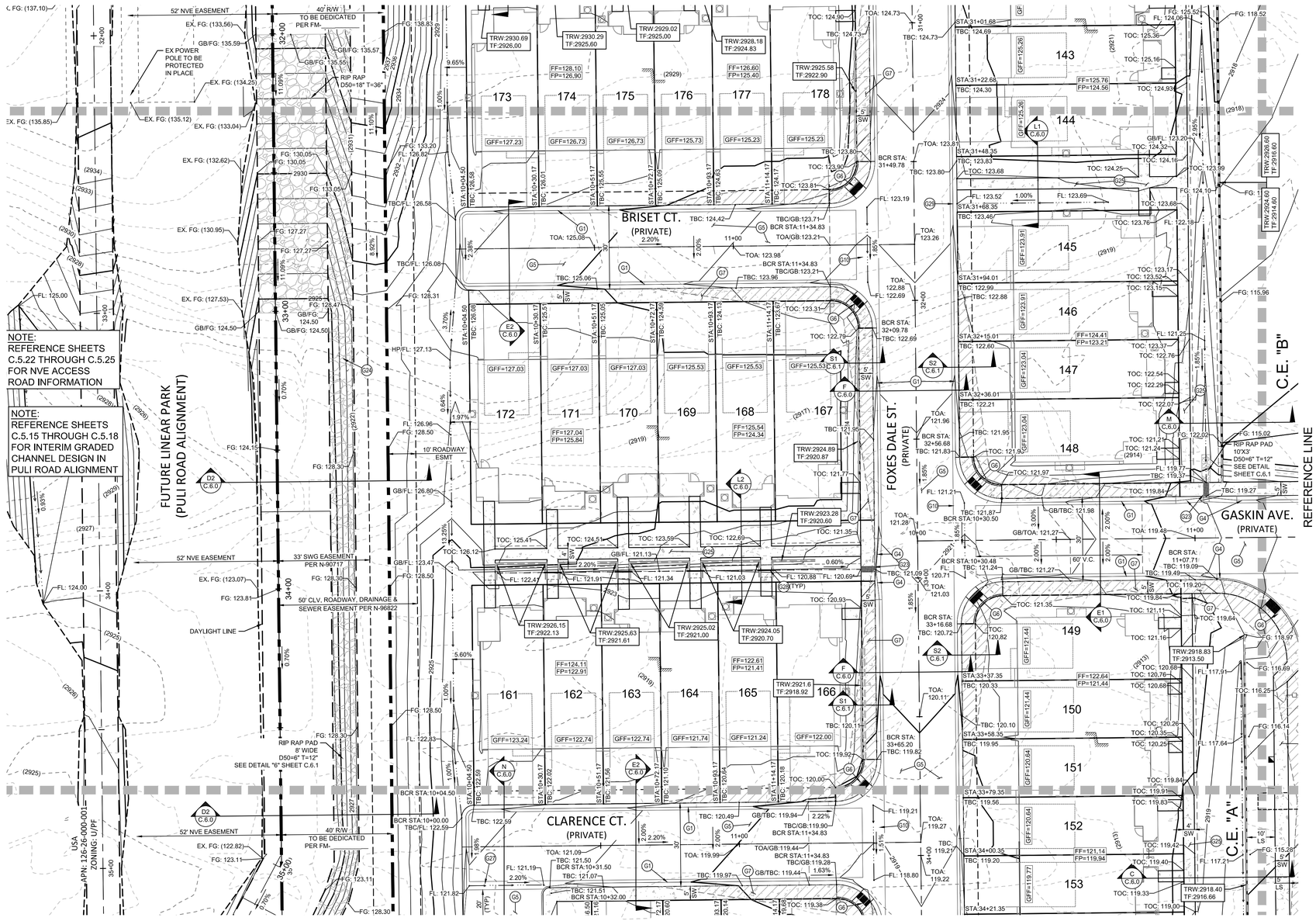
CENTENNIAL HEIGHTS TOWNHOMES PHASE 1

CITY OF LAS VEGAS, NEVADA

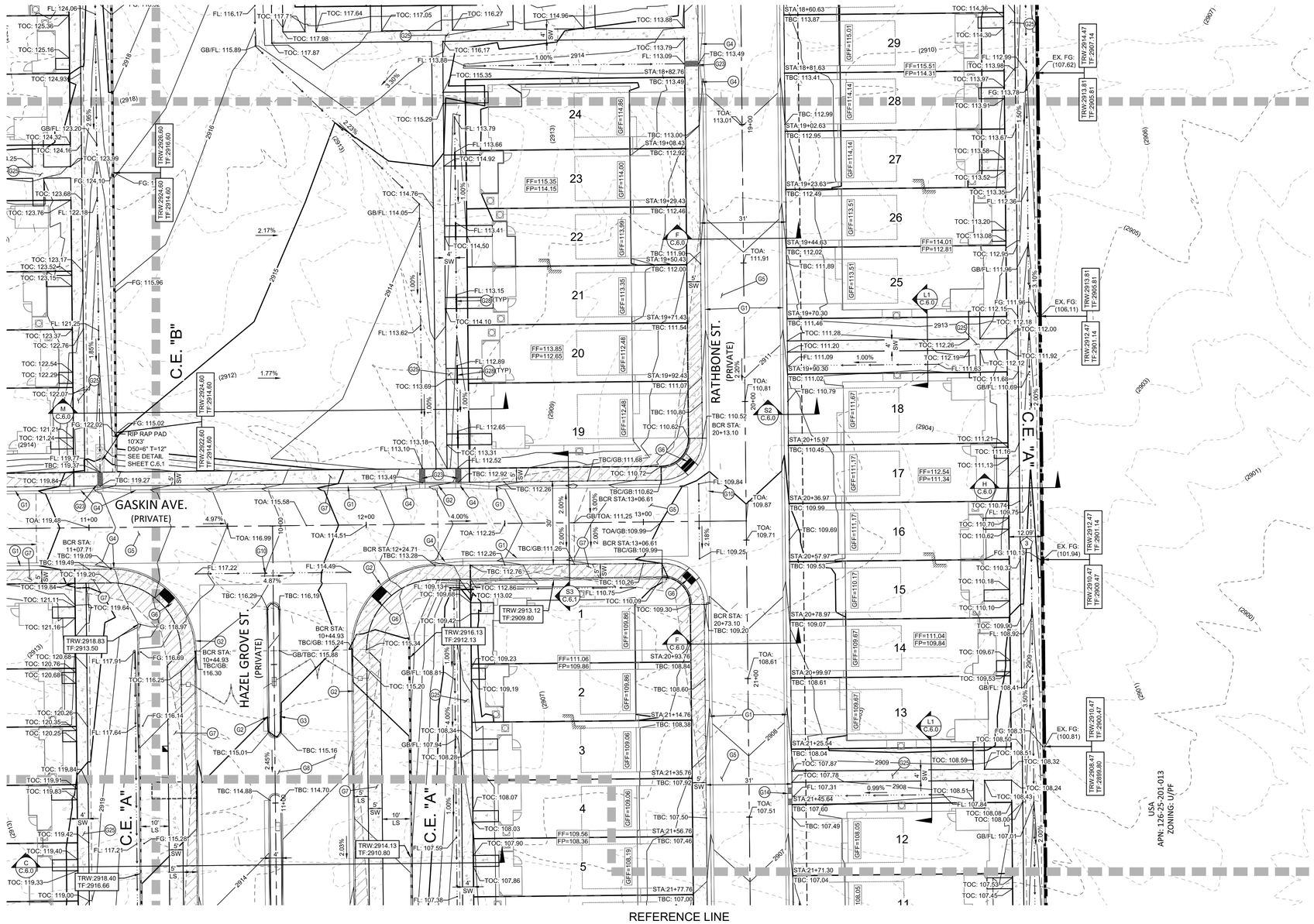
GRADING PLAN 2

C.2.1

PAGE 06

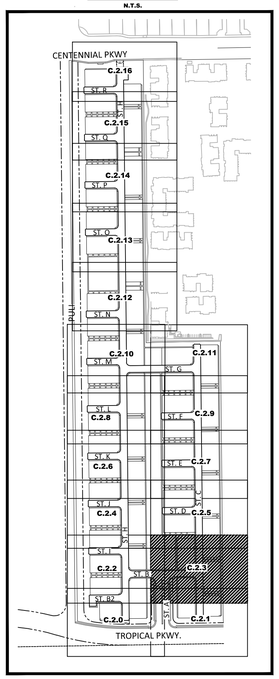

REFERENCE LINE
SEE SHEET C.2.4
52' NVE EASEMENT
40' R/W TO BE DEDICATED PER FM-
EX. FG: (137.10)
EX. FG: (135.85)
EX. FG: (135.12)
EX. FG: (133.56)
GB/FG: 135.59
EX POWER POLE TO BE PROTECTED IN PLACE
EX. FG: (134.25)
EX. FG: (133.04)
EX. FG: (132.62)
EX. FG: (130.95)
EX. FG: (127.53)
FG: 138.83
FG: 133.20
FG: 130.05
FG: 133.05
FG: 127.27
FG: 126.31
FG: 126.47
GB/FG: 124.50
FL: 125.00
RIP RAP D50=18" T=36"
TBC/FL: 126.58
TBC/FL: 126.08
HP/FL: 127.13
FL: 126.96
FG: 128.50
FG: 124.15
FG: 128.30
GB/FL: 126.80
GB/FL: 123.47
FG: 128.50
FL: 122.43
FG: 128.30
RIP RAP PAD 8' WIDE D50=6" T=12" SEE DETAIL "6" SHEET C.6.1
BCR STA:10+04.50
TBC: 122.59
BCR STA:10+00.00
TBC/FL: 122.59
FG: 123.11
FG: 123.11
FG: 128.30
EX. FG: (123.07)
FG: 123.81
DAYLIGHT LINE
FL: 124.00
USA
APN: 126-26-000-001
ZONING: U/PF
NOTE: REFERENCE SHEETS C.5.22 THROUGH C.5.25 FOR NVE ACCESS ROAD INFORMATION
NOTE: REFERENCE SHEETS C.5.15 THROUGH C.5.18 FOR INTERIM GRADED CHANNEL DESIGN IN PULI ROAD ALIGNMENT
FUTURE LINEAR PARK (PULI ROAD ALIGNMENT)
10' ROADWAY ESMT
33' SWG EASEMENT PER N-90717
50' CLV, ROADWAY, DRAINAGE & SEWER EASEMENT PER N-96822
52' NVE EASEMENT
40' R/W TO BE DEDICATED PER FM-
BRISET CT. (PRIVATE) 2.20%
CLARENCE CT. (PRIVATE)
FOXES DALE ST. (PRIVATE)
GASKIN AVE. (PRIVATE)
C.E. "A"
C.E. "B"
REFERENCE LINE SEE SHEET C.2.3
TRW:2930.69 TF:2926.00
TRW:2930.29 TF:2925.60
TRW:2929.02 TF:2925.00
TRW:2928.18 TF:2924.83
TRW:2925.58 TF:2922.90
TRW:2924.89 TF:2920.87
TRW:2923.28 TF:2920.60
TRW:2926.15 TF:2922.13
TRW:2925.63 TF:2921.61
TRW:2925.02 TF:2921.00
TRW:2924.05 TF:2920.70
TRW:2921.6 TF:2918.92
TRW:2926.60 TF:2916.60
TRW:2924.60 TF:2914.60
TRW:2918.83 TF:2913.50
TRW:2918.40 TF:2916.66
173
174
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152
153
GFF=127.23
GFF=126.73
GFF=126.73
GFF=125.73
GFF=125.23
GFF=125.23
GFF=127.03
GFF=127.03
GFF=127.03
GFF=125.53
GFF=125.53
GFF=127.04
FF=125.84
FF=125.54
FF=124.34
GFF=123.24
GFF=122.74
GFF=122.74
GFF=121.74
GFF=121.24
GFF=122.00
FF=124.11
FF=122.91
FF=122.61
FF=121.41
GFF=125.26
GFF=125.26
GFF=123.91
GFF=123.91
GFF=123.04
GFF=123.04
GFF=120.64
GFF=120.64
GFF=121.44
GFF=121.44
GFF=119.77
FF=125.76
FF=124.56
FF=124.41
FF=123.21
FF=122.64
FF=121.44
FF=121.14
FF=119.94
BCR STA: 31+49.78
BCR STA: 32+09.78
BCR STA: 32+56.68
BCR STA: 33+16.68
BCR STA: 33+65.20
BCR STA: 11+07.71
BCR STA: 10+30.48
BCR STA: 10+30.50
BCR STA: 11+34.83
BCR STA: 10+32.00
BCR STA: 10+04.50
BCR STA: 10+00.00
TBC: 124.90
TOA: 124.73
TBC: 124.73
TOC: 125.36
TOC: 125.16
TOC: 124.93
TOC: 124.32
TOC: 124.16
TOC: 123.99
TOC: 124.10
TOC: 123.66
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FL: 116.25
FL: 116.14
FL: 116.69
FL: 118.97
FL: 115.28
FG: 118.52
FG: 115.96
FG: 115.02
FG: 122.02
FG: 119.27
FG: 116.69
FG: 118.97
FG: 116.14
FG: 115.28
RIP RAP PAD 10'X3' D50=6" T=12" SEE DETAIL SHEET C.6.1
STA:31+01.68
STA:31+22.68
STA:31+48.35
STA:31+68.35
STA:31+94.01
STA:32+15.01
STA:32+36.01
STA:33+37.35
STA:33+58.35
STA:33+79.35
STA:34+00.35
STA:34+21.35
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STA:10+30.17
STA:10+51.17
STA:10+77.17
STA:10+93.17
STA:11+14.17
STA:11+34.83
STA:10+30.17
STA:10+51.17
STA:10+77.17
STA:10+93.17
STA:11+14.17
STA:11+34.83
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TBC: 7.10
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TBC: 5.73
TBC: 5.28
TBC: 4.82
TBC: 4.37
TBC: 3.91
TBC: 3.46
TBC: 3.00
TBC: 2.55
TBC: 2.09
TBC: 1.64
TBC: 1.18
TBC: 0.73
TBC: 0.27
TBC: -0.18
TBC: -0.64
TBC: -1.09
TBC: -1.55
TBC: -2.00
TBC: -2.46
TBC: -2.91
TBC: -3.37
TBC: -3.82
TBC: -4.28
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TBC: -7.46
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TBC:

REFERENCE LINE
SEE SHEET C.2.5



KEY MAP

N.T.S.



GRADING KEY NOTES:

- G1 CONSTRUCT 30" ROLL CURB PER CCAUSD #217.2.S1
- G2 CONSTRUCT "L" TYPE CURB PER CCAUSD #216
- G3 CONSTRUCT "A" TYPE CURB PER CCAUSD #219
- G4 CONSTRUCT 10' TRANSITION FROM "L" TYPE CURB TO ROLL CURB PER DETAIL "1" ON SHEET C.6.1
- G5 CONSTRUCT 2" AC PAVEMENT OVER 4" TYPE II AGG BASE
- G6 CONSTRUCT SIDEWALK RAMP "CASE I" PER CCAUSD #235
- G7 CONSTRUCT 5" CONCRETE SIDEWALK PER CCAUSD #234
- G8 CONSTRUCT 4" AC PAVEMENT OVER 4" TYPE II AGG BASE
- G9 CONSTRUCT 5.5" AC PAVEMENT OVER 6" TYPE II AGG BASE
- G10 CONSTRUCT 8' CONCRETE VALLEY GUTTER PER CCAUSD #228
- G11 SAWCUT, TRENCH, BACKFILL, AND ASPHALT PATCH PER CCAUSD 500.3, 500.4, 500.5 & 503 (PATCH DIMENSIONS TO BE DETERMINED IN THE FIELD) PROPOSED SAWCUT TO BE AT LANE LINE
- G12 INSTALL WROUGHT IRON GATE PER CCAUSD #425.S1
- G13 INSTALL 60" TYPE II-SD STORM DRAIN MANHOLE PER CCAUSD #401 & 405.2
- G14 CONSTRUCT CURB OPENING PER DETAIL "2" OF SHEET C.6.1
- G15 INSTALL TYPE I-SD STORM DRAIN MANHOLE PER CCAUSD #403 WITH NEENAH 2501-G GRATED LID PER DETAIL "8" ON C.6.1
- G16 INSTALL STORM DRAIN JUNCTION STRUCTURE PER STRUCTURAL DRAWINGS ON SHEETS S1.0-S3.0.
- G17 EXISTING TO REMAIN. PROTECT IN PLACE.
- G18 INSTALL LANDSCAPING PER LANDSCAPE PLAN BY OTHERS
- G19 CONSTRUCT 5'X5' CONCRETE SIDEWALK PAD PER CCAUSD #234 FOR ADA TURNAROUND
- G20 CONSTRUCT DRIVEWAY PER CCAUSD #223
- G21 CONSTRUCT DROP INLET TYPE "CM2" PER CCAUSD #412.1 & 421. L=15', D=8.20'
- G22 CONSTRUCT DROP INLET TYPE "CM2" PER CCAUSD #412.1 & 421. L=10', D=7.95'
- G23 CONSTRUCT SIDEWALK UNDER DRAIN PER CCAUSD #236
- G24 INSTALL RIP-RAP D50=6",T=12" SUBGRADE @ 90% COMPACTION LENGTH AND WIDTH SPECIFIED ON PLAN
- G25 CONSTRUCT 4" CONCRETE SIDEWALK PER CCAUSD #234
- G26 CONSTRUCT BUS TURNOUT PER CCAUSD #234.1 & DETAIL "O" ON C.6.0
- G27 CONSTRUCT 3' CONCRETE VALLEY GUTTER PER CCAUSD #228
- G28 INSTALL 4" SIDEWALK DRAIN PIPE PER DETAIL "7" ON SHEET C.6.1
- G29 CONSTRUCT BLOCK WALL OPENING PER DETAIL "3" ON SHEET C.6.1
- G30 CONSTRUCT 24" WIDE CONCRETE FLUME PER DETAIL "5" ON SHEET C.6.1
- G31 CONSTRUCT 24"X36" BUBBLER STRUCTURE PER DETAIL "4" ON SHEET C.6.1
- G32 CONSTRUCT 6" CONCRETE PAVEMENT OVER 4" TYPE II AGG BASE

LEGAL DESCRIPTION:

A PORTION OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.D., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE WEST HALF (W 1/2) OF THE WEST HALF (W 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., TOGETHER WITH:

THE WEST HALF (W 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.

Call before you dig
AVOID CUTTING UNDERGROUND UTILITY LINES, IT'S COSTLY.
Call 811 OR 1-800-227-2600

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

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

BASIS OF BEARING

NORTH 00°37'29" WEST. BEING THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.,CLARK COUNTY, NEVADA, AS SHOWN ON THE PLAT OF CONSTELLATION ESTATES, RECORDED IN BOOK 102, PAGE 92, OFFICIAL RECORDS, CLARK COUNTY, NEVADA.

BENCHMARK

RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

ELEVATION (meters) 901.13
ELEVATION (feet) 2,956.44
NAVD 88

FLOOD ZONE:

THIS SITE IS LOCATED IN A ZONE 'X', AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN AND PARTIALLY IN A SHADED ZONE 'X', AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE OF FLOOD PER THE FLOOD INSURANCE RATE MAP COMMUNITY PANEL 32003C1750E, CLARK COUNTY, NEVADA DATED NOVEMBER 16, 2011, REVISED TO REFLECT LOMR DATED OCTOBER 18, 2018.

SIGHT VISIBILITY ZONE PER CCAUSD# 201.2 (TYP)

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DS# 5232

LARRY BITTON, P.E. NO. 010159 DATE

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Henderson, NV 89074
(702) 966-4063
www.horrocks.com

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REVISIONS
REV # | DATE
*SEE GENERAL NOTES SHEET

DRAWING INFO
DATE 9/15/2020
DESIGNED SS
DRAWN PMP
CHECKED AD
PROJECT NV-1949-1909

PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
NO. 010159
9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 1

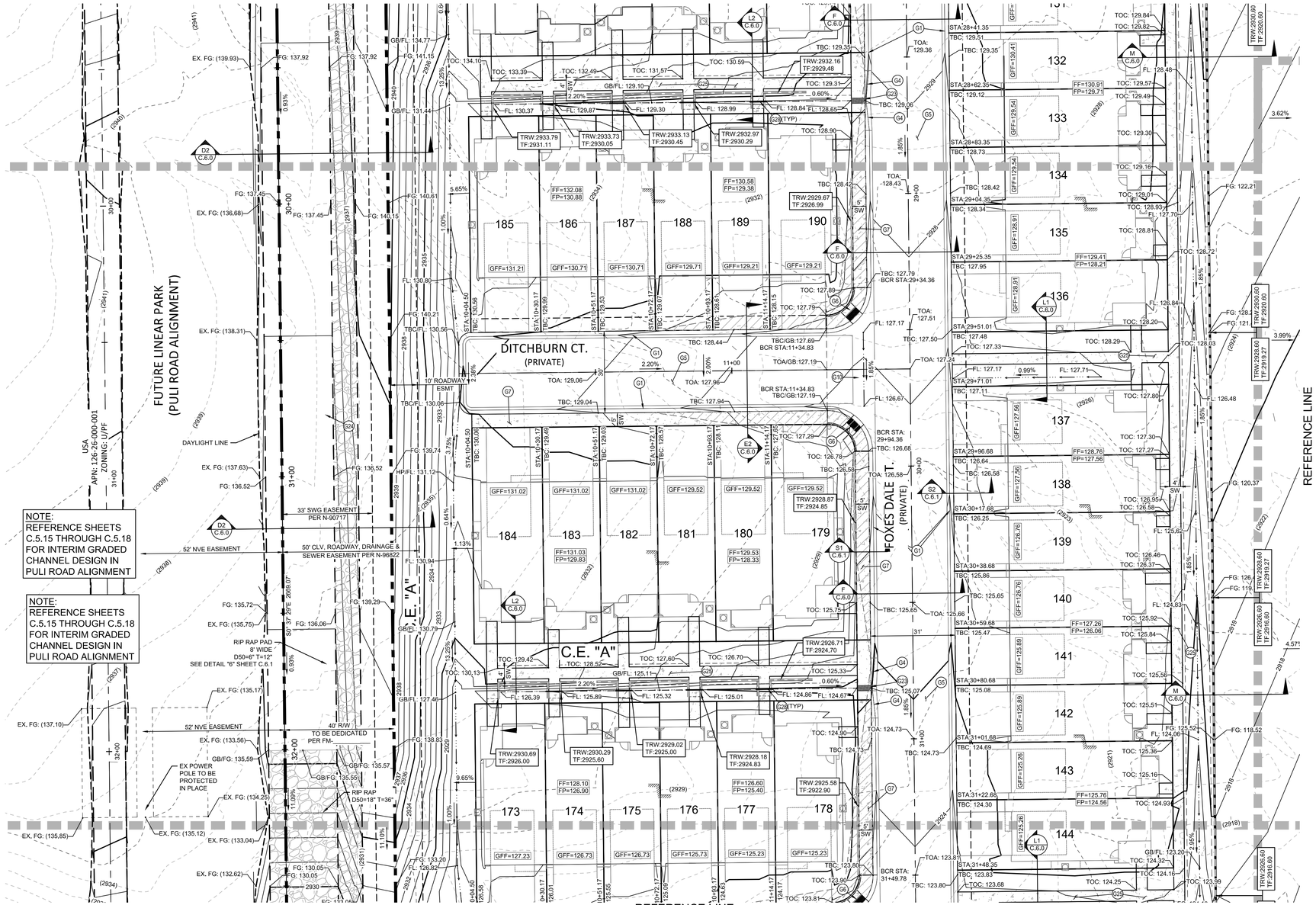
CITY OF LAS VEGAS, NEVADA

GRADING PLAN 4

C.2.3

PAGE 08

H:\2019\NV-1949-1909 Centennial Heights Townhomes\Project Data\02 CAD\2.03 Sheet Files\Phase 1\NV-1949-1909_C.2.0_PH1_GRD.dwg - C.2.3 - 9/15/2020 02:00pm, shayans

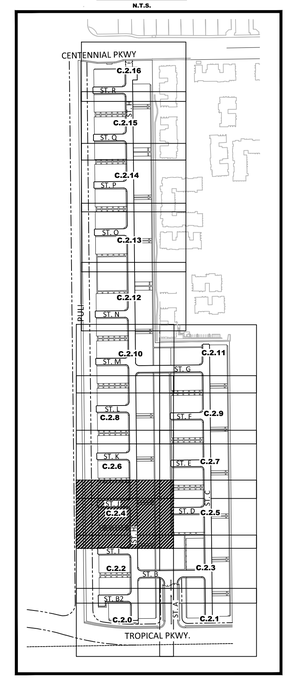


NOTE:
REFERENCE SHEETS C.5.15 THROUGH C.5.18 FOR INTERIM GRADED CHANNEL DESIGN IN PULI ROAD ALIGNMENT

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KEY MAP

N.T.S.



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BENCHMARK

RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

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

FAST
Call before you UnderGround
1-702-432-5300
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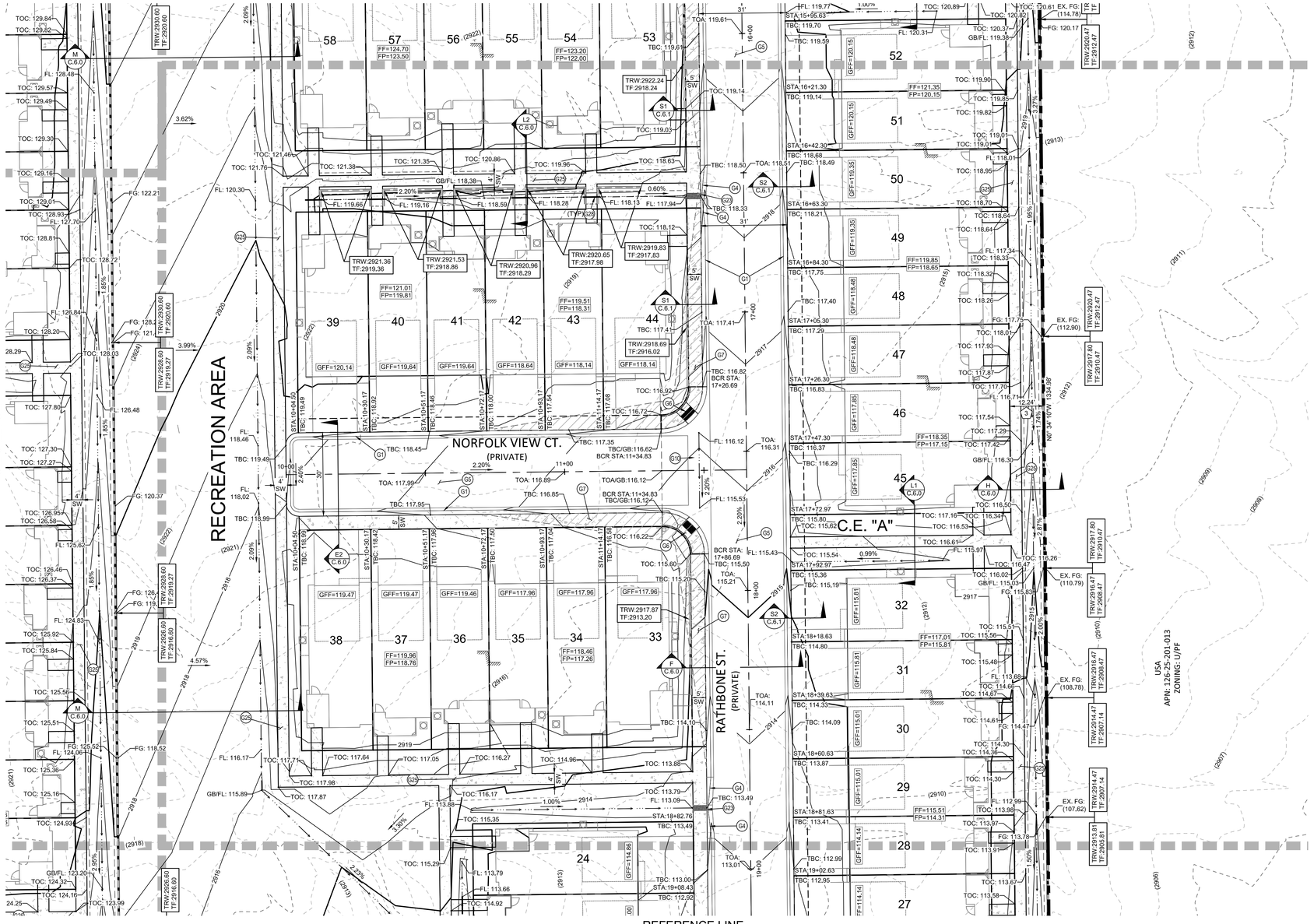
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DATE 9/15/2020
DESIGNED SS
DRAWN PMP
CHECKED AD
PROJECT NV-1949-1909

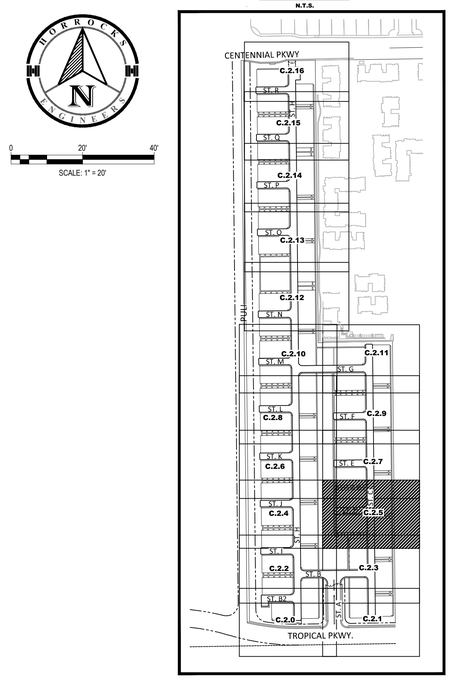
PROFESSIONAL ENGINEER-STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
NO. 010159
9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 1
CITY OF LAS VEGAS, NEVADA
GRADING PLAN 5

C.2.4

PAGE 09





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REVISIONS
REV #	DATE
1	

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DESIGNED	SS
DRAWN	PMP
CHECKED	AD
PROJECT	NV-1949-1909

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EXP. 12-31-20
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9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 1

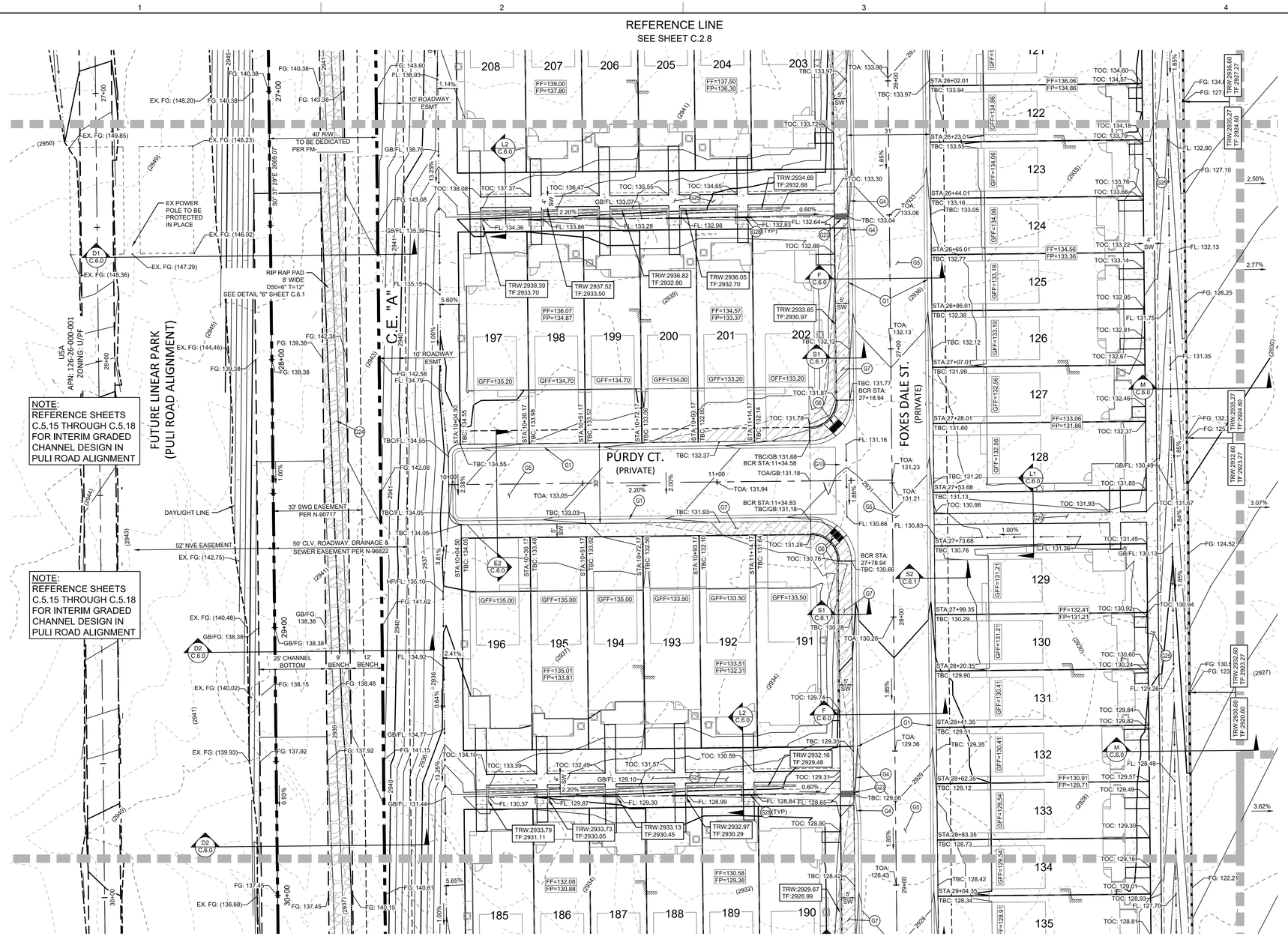
CITY OF LAS VEGAS, NEVADA

GRADING PLAN 6

C.2.5

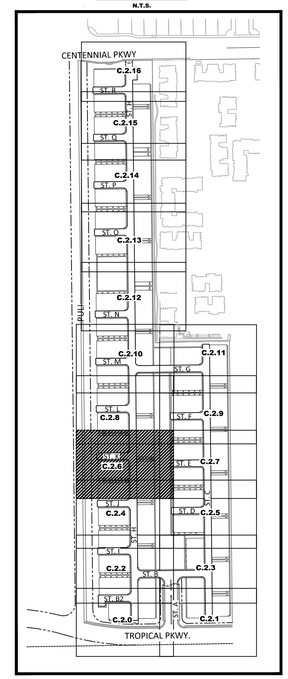
PAGE 10

H:\2019\NV-1949-1909 Centennial Heights Townhomes\Project Data\02 CAD\2.03 Sheet Files\Phase 1\NV-1949-1909_C.2.0_PH1_GRD.dwg - C.2.5 - 9/15/2020 02:01pm, shayans



KEY MAP

N.T.S.



GRADING KEY NOTES:

- (G1) CONSTRUCT 30" ROLL CURB PER CCAUSD #217.2,S1
- (G2) CONSTRUCT "L" TYPE CURB PER CCAUSD #216
- (G3) CONSTRUCT "A" TYPE CURB PER CCAUSD #219
- (G4) CONSTRUCT 10' TRANSITION FROM "L" TYPE CURB TO ROLL CURB PER DETAIL "1" ON SHEET C.6.1
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- (G6) CONSTRUCT SIDEWALK RAMP "CASE I" PER CCAUSD #235
- (G7) CONSTRUCT 5" CONCRETE SIDEWALK PER CCAUSD #234
- (G8) CONSTRUCT 4" AC PAVEMENT OVER 4" TYPE II AGG BASE
- (G9) CONSTRUCT 5.5" AC PAVEMENT OVER 6" TYPE II AGG BASE
- (G10) CONSTRUCT 8' CONCRETE VALLEY GUTTER PER CCAUSD #228
- (G11) SAWCUT, TRENCH, BACKFILL, AND ASPHALT PATCH PER CCAUSD 500.3, 500.4, 500.5 & 503 (PATCH DIMENSIONS TO BE DETERMINED IN THE FIELD) PROPOSED SAWCUT TO BE AT LANE LINE
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- (G16) INSTALL STORM DRAIN JUNCTION STRUCTURE PER STRUCTURAL DRAWINGS ON SHEETS S1.0-S3.0.
- (G17) EXISTING TO REMAIN. PROTECT IN PLACE.
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- (G19) CONSTRUCT 5'X5' CONCRETE SIDEWALK PAD PER CCAUSD #234 FOR ADA TURNAROUND
- (G20) CONSTRUCT DRIVEWAY PER CCAUSD #223
- (G21) CONSTRUCT DROP INLET TYPE "CM2" PER CCAUSD #412.1 & 421. L=15', D=8.20'
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- (G23) CONSTRUCT SIDEWALK UNDER DRAIN PER CCAUSD #236
- (G24) INSTALL RIP-RAP D50=6",T=12" SUBGRADE @ 90% COMPACTION LENGTH AND WIDTH SPECIFIED ON PLAN
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BASIS OF BEARING

NORTH 00°37'29" WEST, BEING THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.,CLARK COUNTY, NEVADA, AS SHOWN ON THE PLAT OF CONSTELLATION ESTATES, RECORDED IN BOOK 102, PAGE 92, OFFICIAL RECORDS, CLARK COUNTY, NEVADA.

BENCHMARK

RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

ELEVATION (meters) 901.13
ELEVATION (feet) 2,956.44
NAVD 88

FLOOD ZONE:

THIS SITE IS LOCATED IN A ZONE 'X', AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN AND PARTIALLY IN A SHADED ZONE 'X', AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE OF FLOOD PER THE FLOOD INSURANCE RATE MAP COMMUNITY PANEL 32003C1750E, CLARK COUNTY, NEVADA DATED NOVEMBER 16, 2011, REVISED TO REFLECT LOMR DATED OCTOBER 18, 2018.

LEGAL DESCRIPTION:

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THE WEST HALF (W 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.

Call before you AVOID CUTTING UNDERGROUND UTILITY LINES, IT'S COSTLY. Call 811 OR 1-800-227-2600

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

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

SIGHT VISIBILITY ZONE PER CCAUSD# 201.2 (TYP)

SIGHT VISIBILITY ZONE NOTE:

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NOTE:
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   PREPARED BY: GEOTEK, INC.
   PROJECT NO.: 15256-LV
   DATE: JANUARY 9, 2020
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   TOTAL: 40,823 CY (FILL)
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AREA OF DISTURBANCE

ONSITE: 29.85 AC.
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THIS SET OF IMPROVEMENT PLANS IS CERTIFIED TO CONFORM TO THE REQUIREMENTS OF THE APPROVED DRAINAGE STUDY.
DS# 5232

LARRY BITTON, P.E. NO. 010159 DATE

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy., Suite 160
Henderson, NV 89074
(702) 966-4063
www.horrocks.com

WARNING
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE
0 1 2

REVISIONS
REV # | DATE
*SEE GENERAL NOTES SHEET

DRAWING INFO
DATE 9/15/2020
DESIGNED SS
DRAWN PMP
CHECKED AD
PROJECT NV-1949-1909

PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
NO. 010159
9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 1

CITY OF LAS VEGAS, NEVADA

GRADING PLAN 7

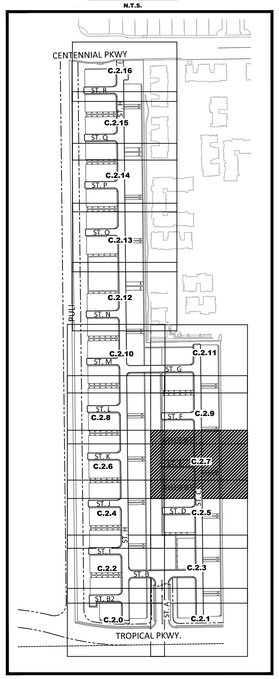
C.2.6

PAGE 11



KEY MAP

N.T.S.



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LARRY BITTON, P.E. NO. 010159 DATE

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0 1 2

REVISIONS
REV # | DATE

*SEE GENERAL NOTES SHEET

DRAWING INFO
DATE 9/15/2020
DESIGNED SS
DRAWN PMP
CHECKED AD
PROJECT NV-1949-1909

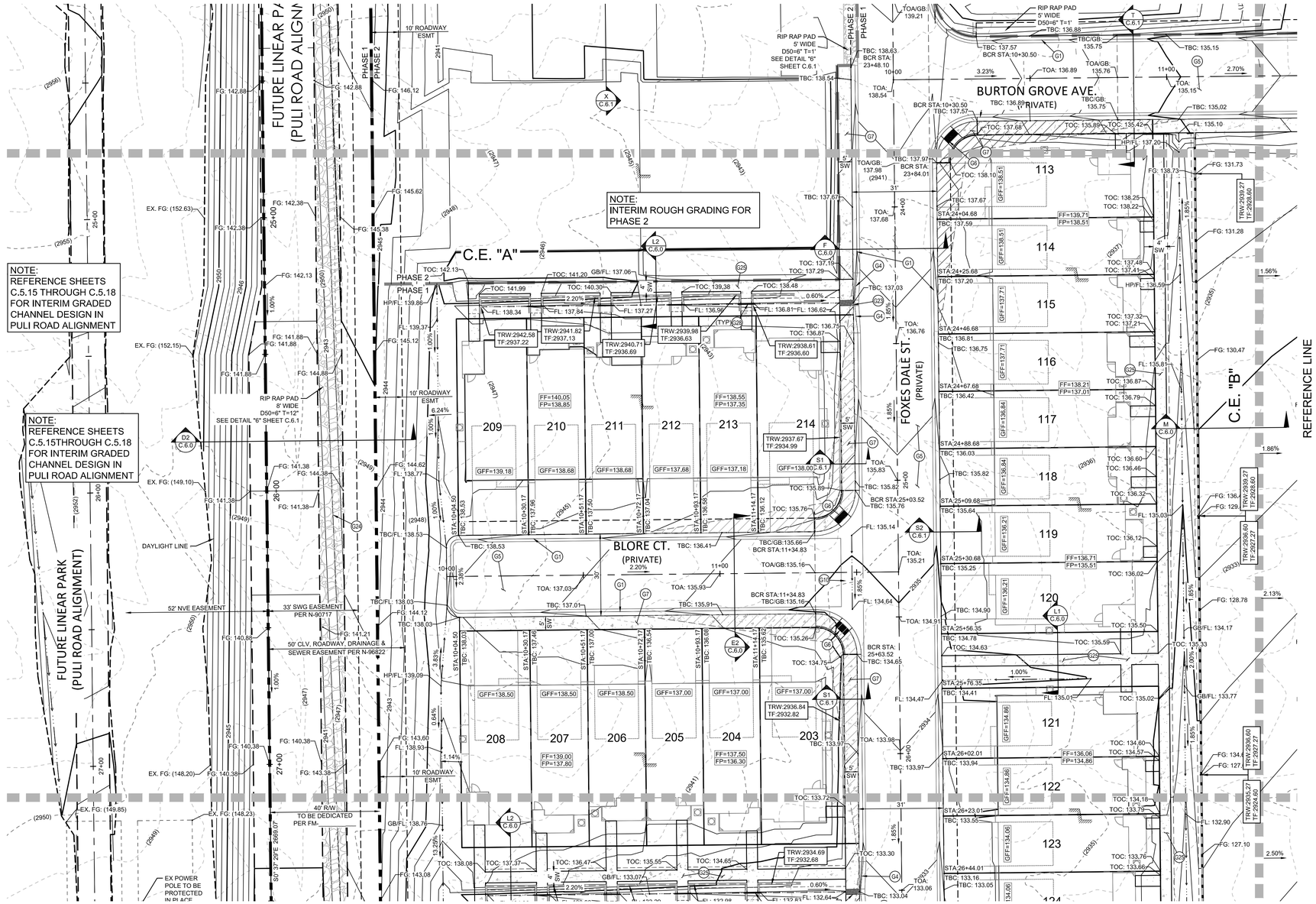
PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
NO. 010159
9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 1

CITY OF LAS VEGAS, NEVADA

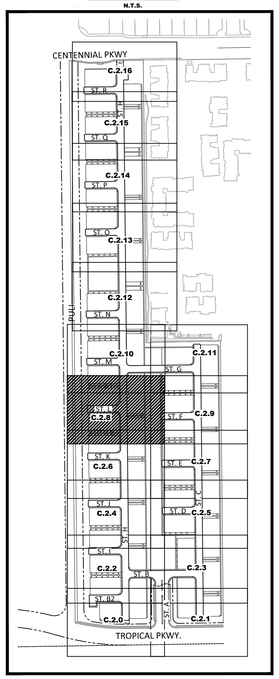
GRADING PLAN 8

C.2.7



KEY MAP

N.T.S.



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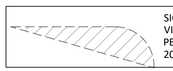
BENCHMARK

RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

ELEVATION (meters) 901.13
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LARRY BITTON, P.E. NO. 010159 DATE

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REVISIONS		
REV #	DATE	
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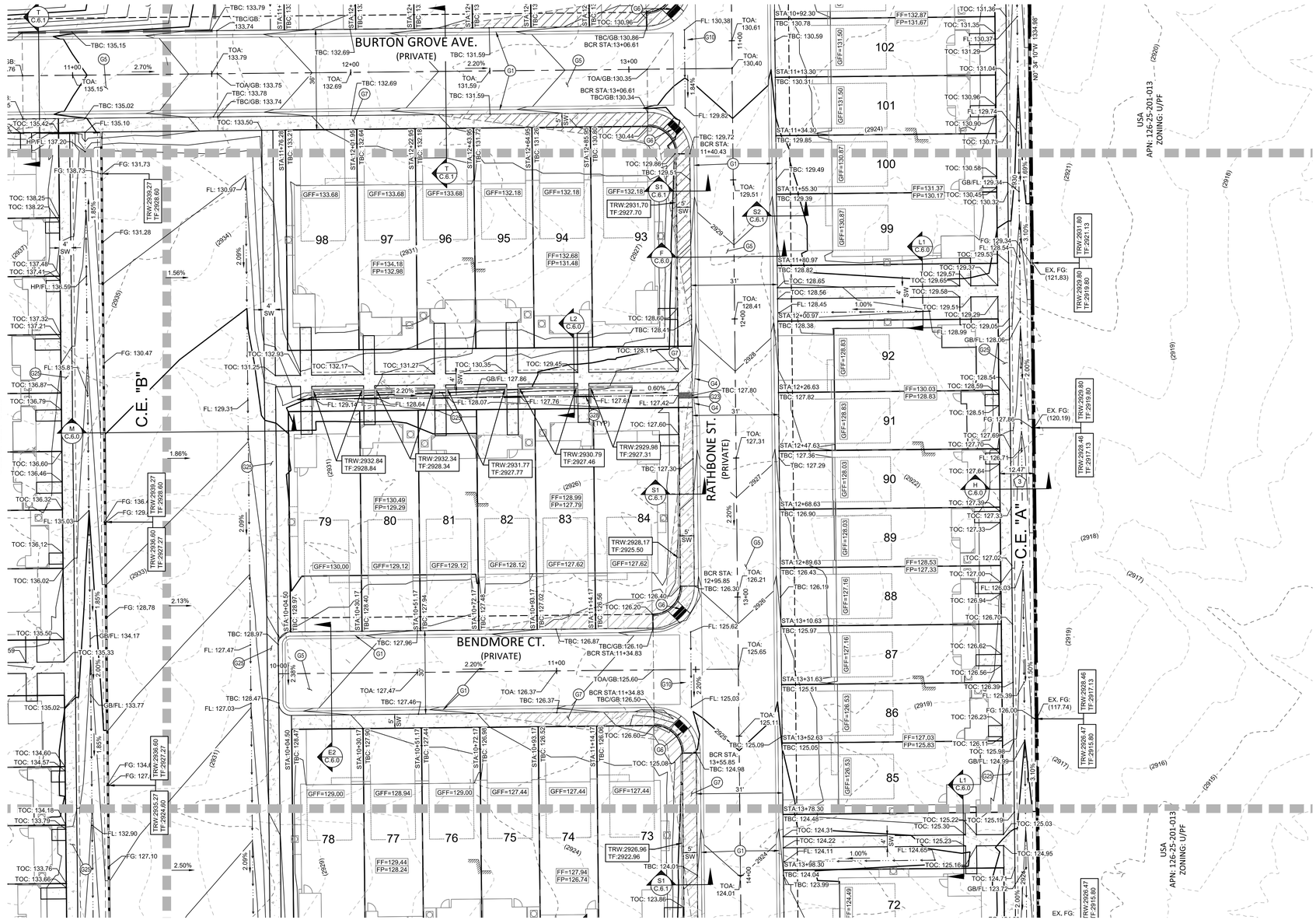
DRAWING INFO	
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DESIGNED	SS
DRAWN	PMP
CHECKED	AD
PROJECT	NV-1949-1909

PROFESSIONAL ENGINEER-STATE OF NEVADA LARRY M. BITTON EXP. 12-31-20 CIVIL No. 010159 9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 1
CITY OF LAS VEGAS, NEVADA
GRADING PLAN 9

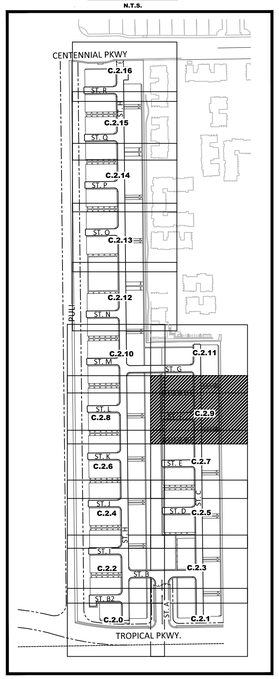
C.2.8

H:\!2019\NV-1949-1909 Centennial Heights Townhomes\Project Data\02 CAD\2.03 Sheet Files\Phase 1\NV-1949-1909_C.2.0_PH1_GRD.dwg - C.2.8 - 9/15/2020 02:02pm, shayans



KEY MAP

N.T.S.



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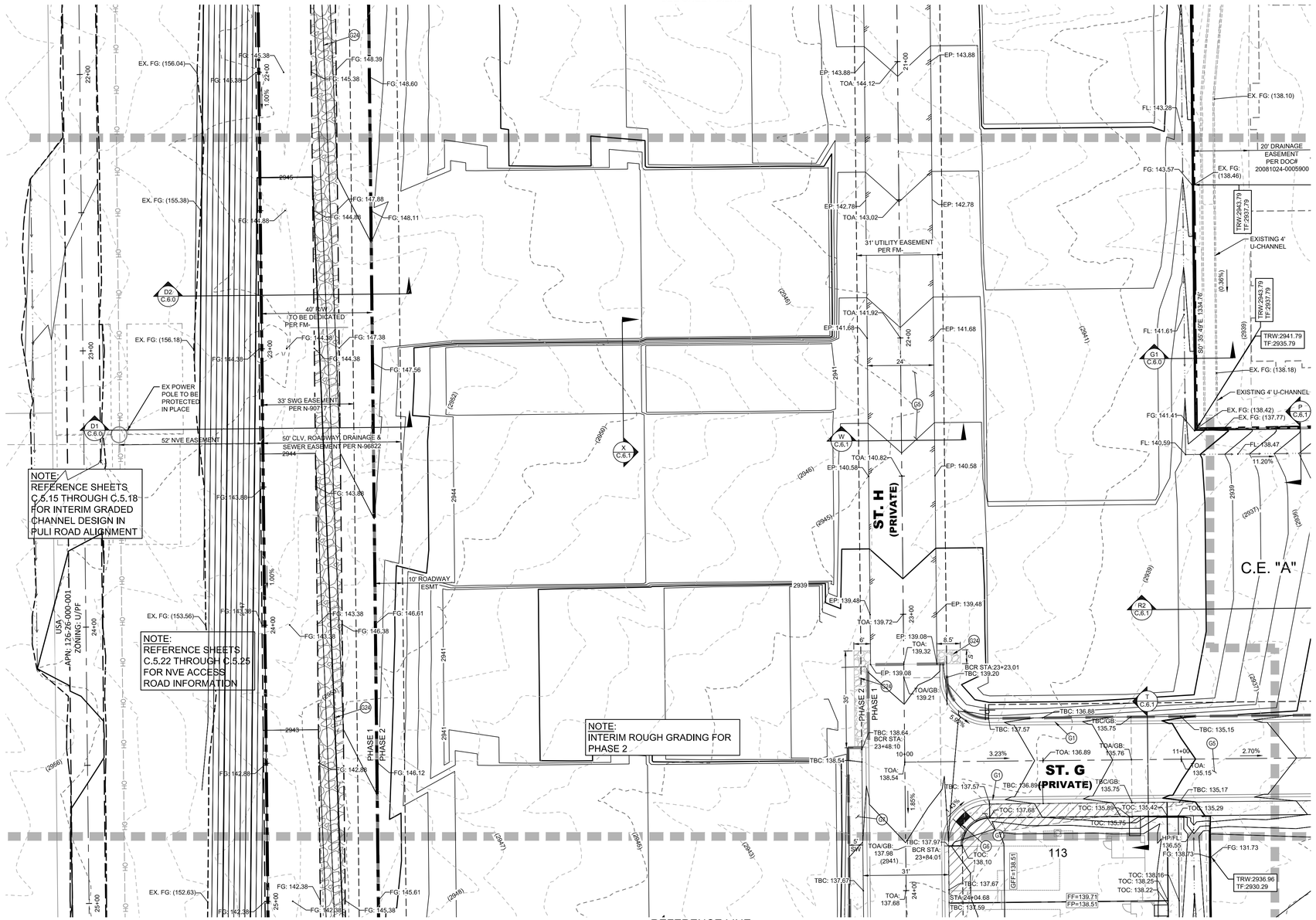
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DATE	9/15/2020
DESIGNED	SS
DRAWN	PMP
CHECKED	AD
PROJECT	NV-1949-1909

PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
NO. 010159
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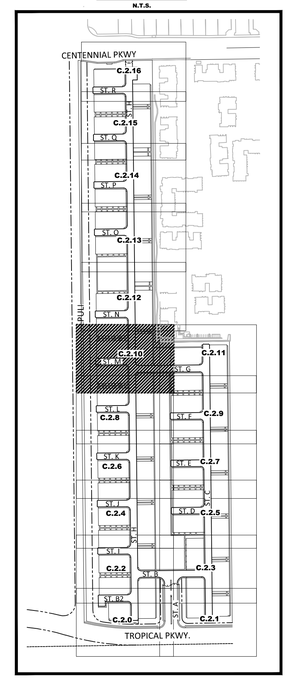
CENTENNIAL HEIGHTS TOWNHOMES PHASE 1
CITY OF LAS VEGAS, NEVADA
GRADING PLAN 10

C.2.9



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REVISIONS
REV # | DATE
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DRAWING INFO
DATE 9/15/2020
DESIGNED SS
DRAWN PMP
CHECKED AD
PROJECT NV-1949-1909

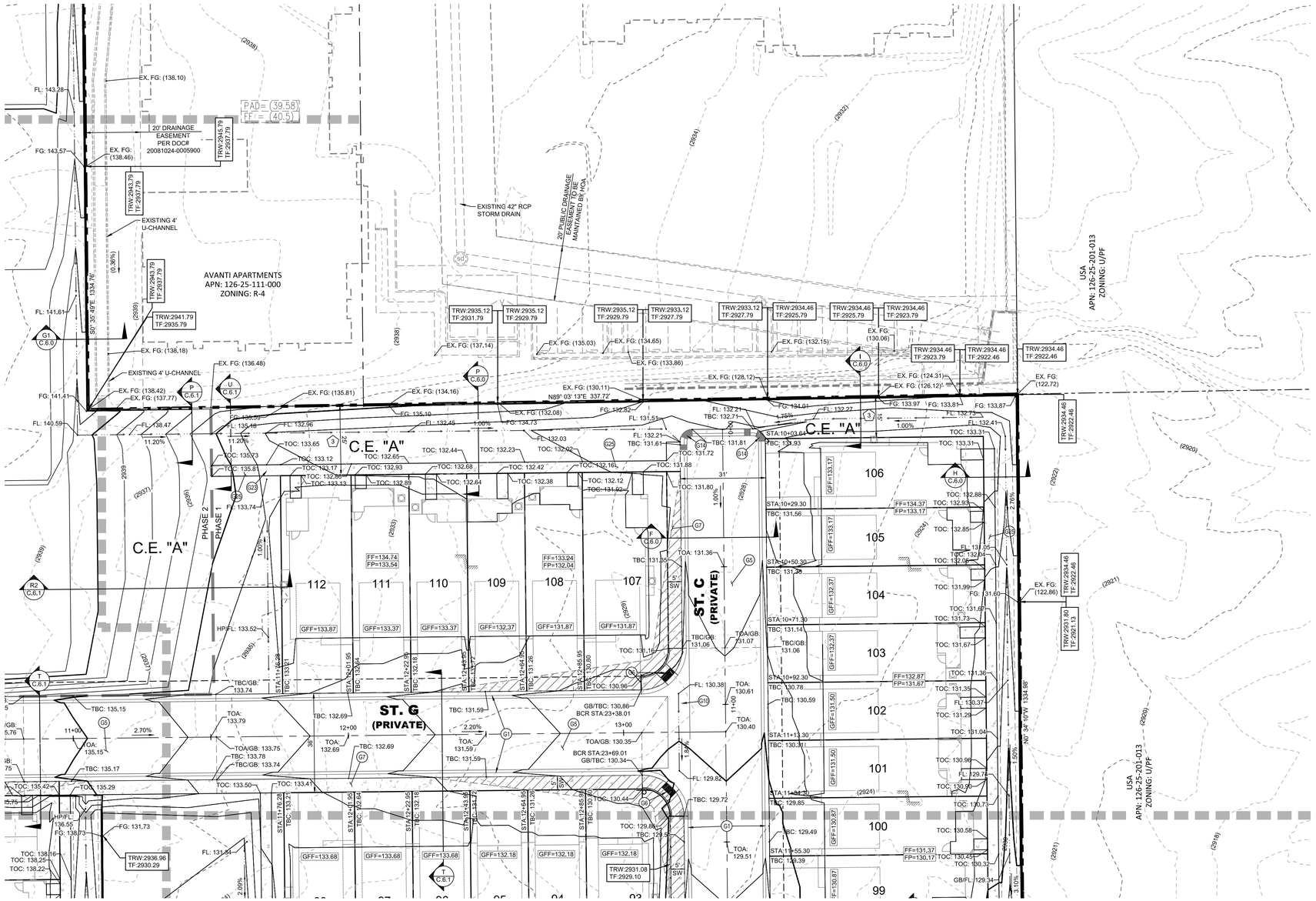
PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
No. 010159
9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 1

CITY OF LAS VEGAS, NEVADA

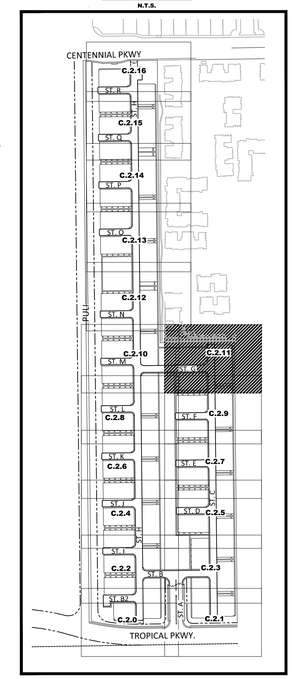
GRADING PLAN 11

C.2.10



KEY MAP

N.T.S.



GRADING KEY NOTES:

- G1 CONSTRUCT 30" ROLL CURB PER CCAUSD #217.2.S1
- G2 CONSTRUCT "L" TYPE CURB PER CCAUSD #216
- G3 CONSTRUCT "A" TYPE CURB PER CCAUSD #219
- G4 CONSTRUCT 10' TRANSITION FROM "L" TYPE CURB TO ROLL CURB PER DETAIL "1" ON SHEET C.6.1
- G5 CONSTRUCT 2" AC PAVEMENT OVER 4" TYPE II AGG BASE
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- S11 SAWCUT, TRENCH, BACKFILL, AND ASPHALT PATCH PER CCAUSD 500.3, 500.4, 500.5 & 503 (PATCH DIMENSIONS TO BE DETERMINED IN THE FIELD) PROPOSED SAWCUT TO BE AT LANE LINE
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- S13 INSTALL 60" TYPE II-SD STORM DRAIN MANHOLE PER CCAUSD #401 & 405.2
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- S32 CONSTRUCT 6" CONCRETE PAVEMENT OVER 4" TYPE II AGG BASE

EASEMENT KEY NOTES:

1. 32.5' PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.
2. 24' PUBLIC EMERGENCY ACCESS EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.
3. PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY HOA. PER FINAL MAP.

LEGAL DESCRIPTION:

A PORTION OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.D., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE WEST HALF (W 1/2) OF THE WEST HALF (W 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., TOGETHER WITH:

THE WEST HALF (W 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.

BASIS OF BEARING

NORTH 00°37'29" WEST, BEING THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.,CLARK COUNTY, NEVADA, AS SHOWN ON THE PLAT OF CONSTELLATION ESTATES, RECORDED IN BOOK 102, PAGE 92, OFFICIAL RECORDS, CLARK COUNTY, NEVADA.

BENCHMARK

RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

ELEVATION (meters) 901.13
ELEVATION (feet) 2,956.44
NAVD 88

FLOOD ZONE:

THIS SITE IS LOCATED IN A ZONE 'X', AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN AND PARTIALLY IN A SHADED ZONE 'X', AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE OF FLOOD PER THE FLOOD INSURANCE RATE MAP COMMUNITY PANEL 32003C1750E, CLARK COUNTY, NEVADA DATED NOVEMBER 16, 2011, REVISED TO REFLECT LOMR DATED OCTOBER 18, 2018.

SIGHT VISIBILITY ZONE PER CCAUSD# 201.2 (TYP)

SIGHT VISIBILITY ZONE NOTE:

NO WALLS, FENCES, SHRUBS, UTILITY APPURTENANCES OR ANY OTHER OBJECT, OTHER THAN TRAFFIC CONTROL DEVICES, FIRE HYDRANTS, TREES, AND STREET LIGHT POLES, MAY BE CONSTRUCTED OR INSTALLED WITHIN THE SIGHT VISIBILITY ZONE UNLESS SAID OBJECT IS MAINTAINED AT LESS THAN 24 INCHES IN HEIGHT, MEASURED FROM TOP OF CURB, OR WHERE NO CURB EXISTS, A HEIGHT OF 27 INCHES MEASURED FROM THE TOP OF ADJACENT ASPHALT, GRAVEL OR PAVEMENT STREET SURFACE. THIS RESTRICTION EXTENDS ALONG THE SIGHT VISIBILITY LINE THROUGH LANDSCAPED MEDIANS.

NOTE: ALL COMMON ELEMENTS ARE PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY THE HOA.

NOTE: ALL PRIVATE STREETS ARE P.U.E., PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY THE HOA.

NOTE: ADD 2900' TO GRADING ELEVATIONS SHOWN HEREON TO ADJUST THEM TO THE ASSOCIATED DATUM. FINISHED GRADE CONTOURS ARE APPROXIMATE. REFER TO SPOT ELEVATION GRADE TAGS FOR CONSTRUCTION STAKING PURPOSES.

ENGINEER'S NOTES:

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2. SEE HORIZONTAL CONTROL PLAN FOR EXACT PROPERTY LINE DIMENSIONS
3. ENGINEER TO BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES BETWEEN THESE PLANS AND FIELD CONDITIONS.
4. THESE PLANS SHALL NOT IN PART, OR IN WHOLE, BE USED FOR CONSTRUCTION UNTIL APPROVED AND SIGNED BY GOVERNING AGENCIES.
5. ALL GRADING SHALL CONFORM TO SOILS REPORT RECOMMENDATIONS.
6. DURING CONSTRUCTION, SURVEYORS AND CONTRACTORS MUST VERIFY THAT ALL STREETS AND LOTS HAVE POSITIVE DRAINAGE. SAME MUST UTILIZE AT LEAST THREE GRADES ON VERTICAL TANGENTS TO VERIFY SLOPES.
7. SOILS REPORT NOTE:
   GRADING SHALL BE IN ACCORDANCE WITH SOILS REPORT
   PREPARED BY: GEOTEK, INC.
   PROJECT NO.: 15256-LV
   DATE: JANUARY 9, 2020
8. CUT/FILL ESTIMATES (PUBLIC AND PRIVATE):
   FROM EXISTING TO FINISH GRADE ELEVATIONS
   NET CUT: 67,671 CY
   NET FILL: 108,494 CY
   TOTAL: 40,823 CY (FILL)
9. FLOOR SECTION ASSUMES 1.2' PAD SECTION. CONTRACTOR TO VERIFY WITH STRUCTURAL PLANS AND GEOTECHNICAL ENGINEER.

AREA OF DISTURBANCE

ONSITE: 29.85 AC.
OFFSITE: 6.97 AC.

DRAINAGE CERTIFICATION:

THIS SET OF IMPROVEMENT PLANS IS CERTIFIED TO CONFORM TO THE REQUIREMENTS OF THE APPROVED DRAINAGE STUDY.
DS# 5232

LARRY BITTON, P.E. NO. 010159 DATE

Call before you dig
AVOID CUTTING UNDERGROUND UTILITY LINES, IT'S COSTLY
Call 811 or 1-800-227-2600

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

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(702) 966-4063
www.horrocks.com

WARNING
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE

REVISIONS		
REV #	DATE	
1		

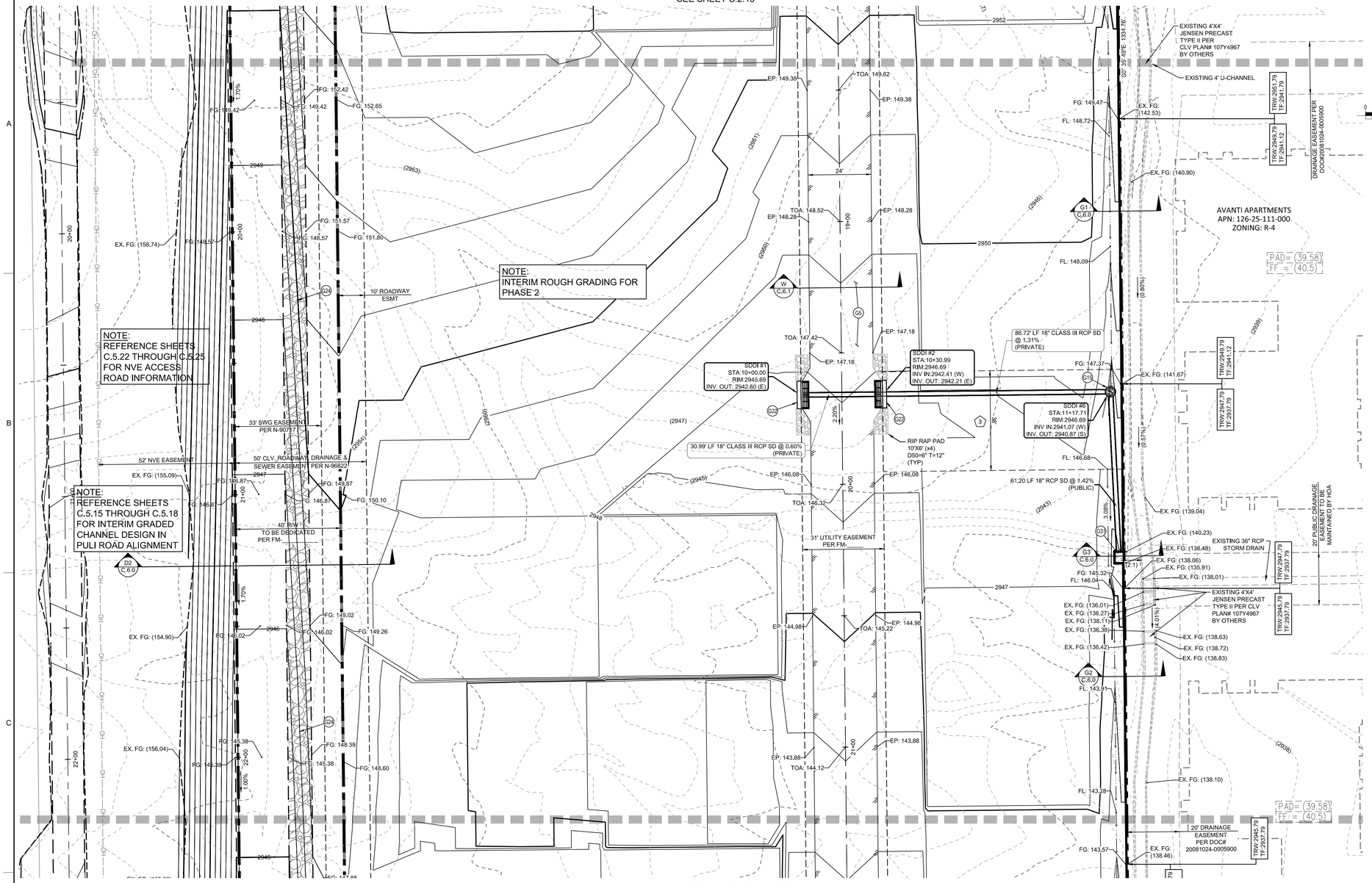
*SEE GENERAL NOTES SHEET

DRAWING INFO	
DATE	9/15/2020
DESIGNED	SS
DRAWN	PMP
CHECKED	AD
PROJECT	NV-1949-1909

PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
NO. 010159
9/15/2020

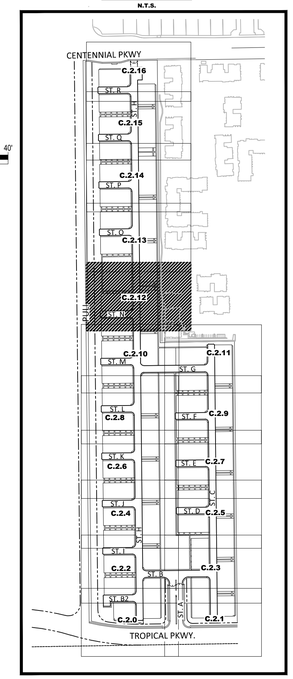
CENTENNIAL HEIGHTS TOWNHOMES PHASE 1
CITY OF LAS VEGAS, NEVADA
GRADING PLAN 12

C.2.11



KEY MAP

N.T.S.



SCALE: 1" = 20'

GRADING KEY NOTES:

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ELEVATION (meters) 901.13
ELEVATION (feet) 2,956.44
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   PROJECT NO.: 15256-LV
   DATE: JANUARY 9, 2020
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OFFSITE:	6.97 AC.

DRAINAGE CERTIFICATION:

THIS SET OF IMPROVEMENT PLANS IS CERTIFIED TO CONFORM TO THE REQUIREMENTS OF THE APPROVED DRAINAGE STUDY.
DS# 5232

LARRY BITTON, P.E. NO. 010159 DATE

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy., Suite 160
Henderson, NV 89074
(702) 966-4063
www.horrocks.com

WARNING
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE
0 1 2

REVISIONS
REV # | DATE
*SEE GENERAL NOTES SHEET

DRAWING INFO
DATE 9/15/2020
DESIGNED SS
DRAWN PMP
CHECKED AD
PROJECT NV-1949-1909

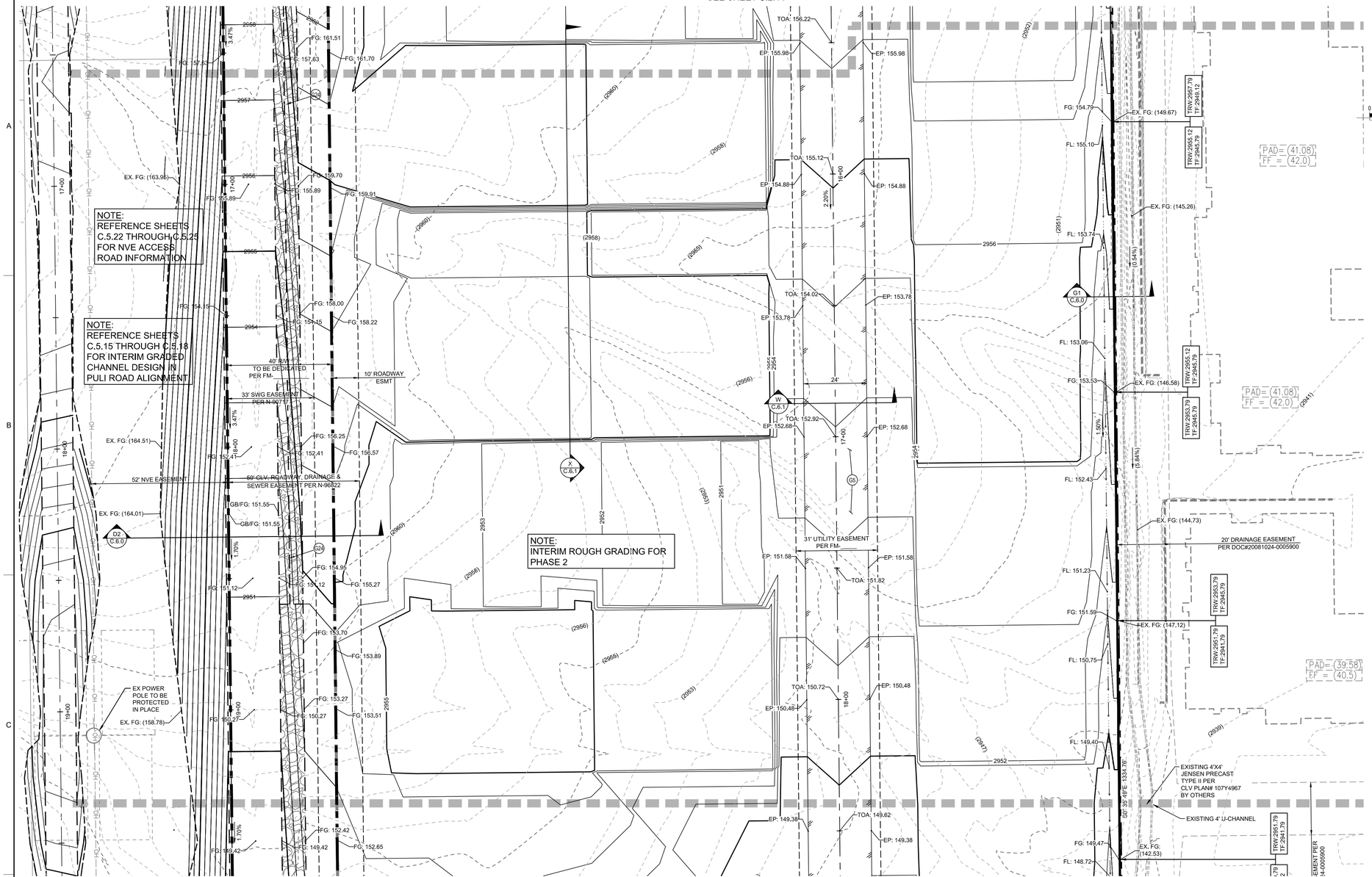
PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
NO. 010159
9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 1
CITY OF LAS VEGAS, NEVADA
GRADING PLAN 13

C.2.12

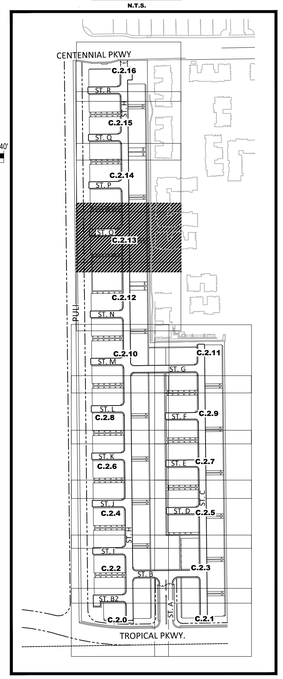
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REFERENCE LINE
SEE SHEET C.2.14



KEY MAP

N.T.S.



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BASIS OF BEARING

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BENCHMARK

RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

ELEVATION (meters) 901.13
ELEVATION (feet) 2,956.44
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SIGHT VISIBILITY ZONE PER CCAUSD# 201.2 (TYP)

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   PROJECT NO.: 15256-LV
   DATE: JANUARY 9, 2020
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DS# 5232

LARRY BITTON, P.E. NO. 010159 DATE

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1401 N. Green Valley Pkwy., Suite 160
Henderson, NV 89074
(702) 966-4063
www.horrocks.com

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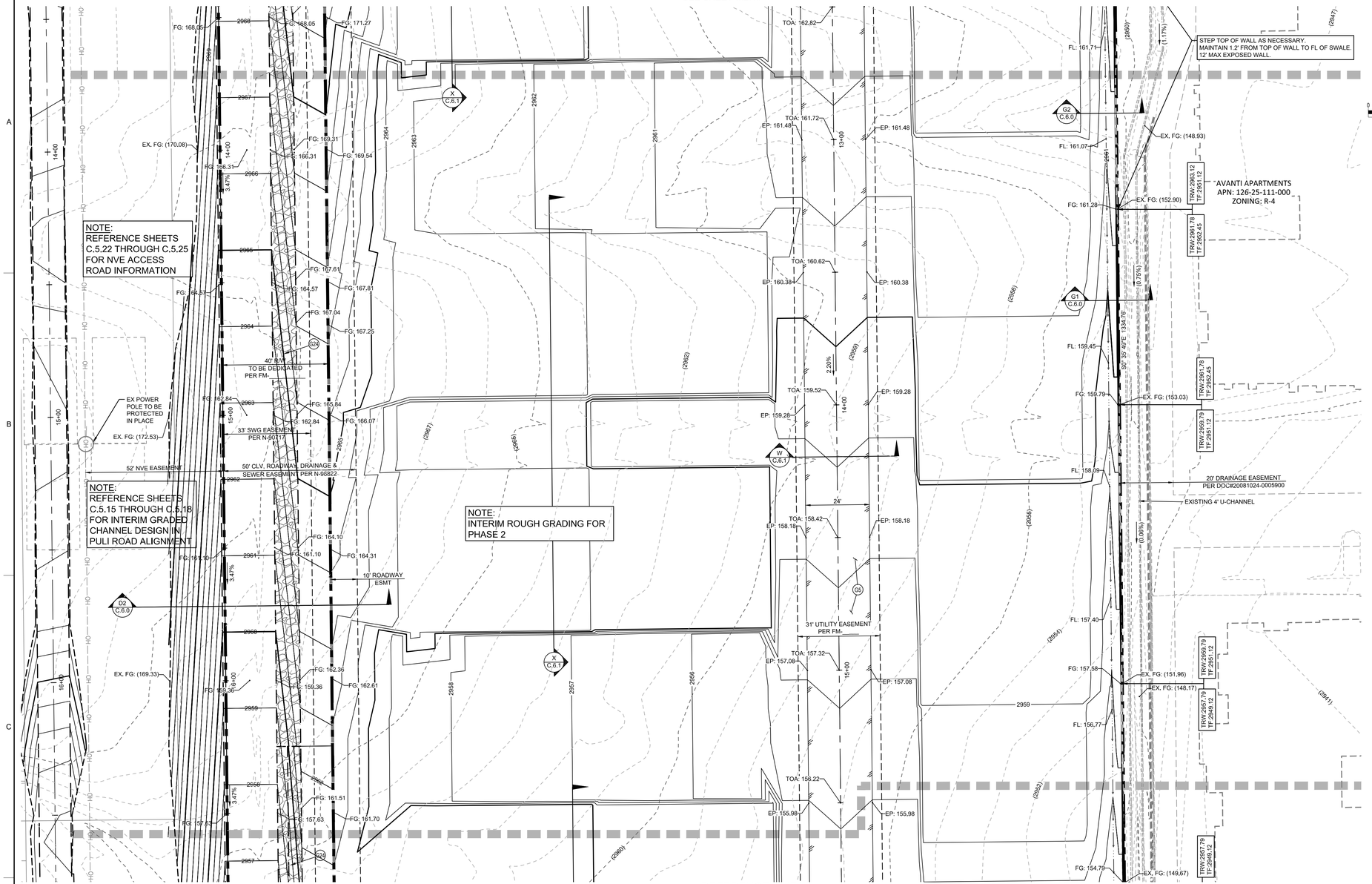
DRAWING INFO
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PROJECT NV-1949-1909

PROFESSIONAL ENGINEER-STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
No. 010159
9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 1
CITY OF LAS VEGAS, NEVADA
GRADING PLAN 14

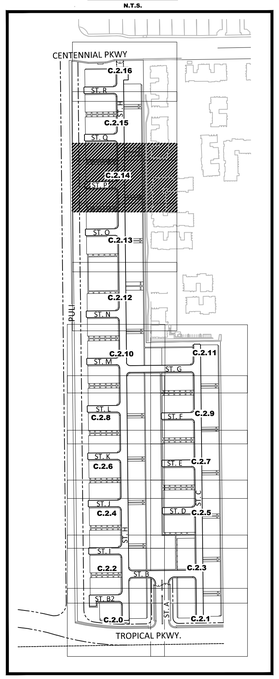
C.2.13

PAGE 18



KEY MAP

N.T.S.



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- (G11) SAWCUT, TRENCH, BACKFILL, AND ASPHALT PATCH PER CCAUSD 500.3, 500.4, 500.5 & 503 (PATCH DIMENSIONS TO BE DETERMINED IN THE FIELD) PROPOSED SAWCUT TO BE AT LANE LINE
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LARRY BITTON, P.E. NO. 010159 DATE

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REVISIONS
REV # | DATE
*SEE GENERAL NOTES SHEET

DRAWING INFO
DATE 9/15/2020
DESIGNED SS
DRAWN PMP
CHECKED AD
PROJECT NV-1949-1909

PROFESSIONAL ENGINEER-STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
NO. 010159
9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 1

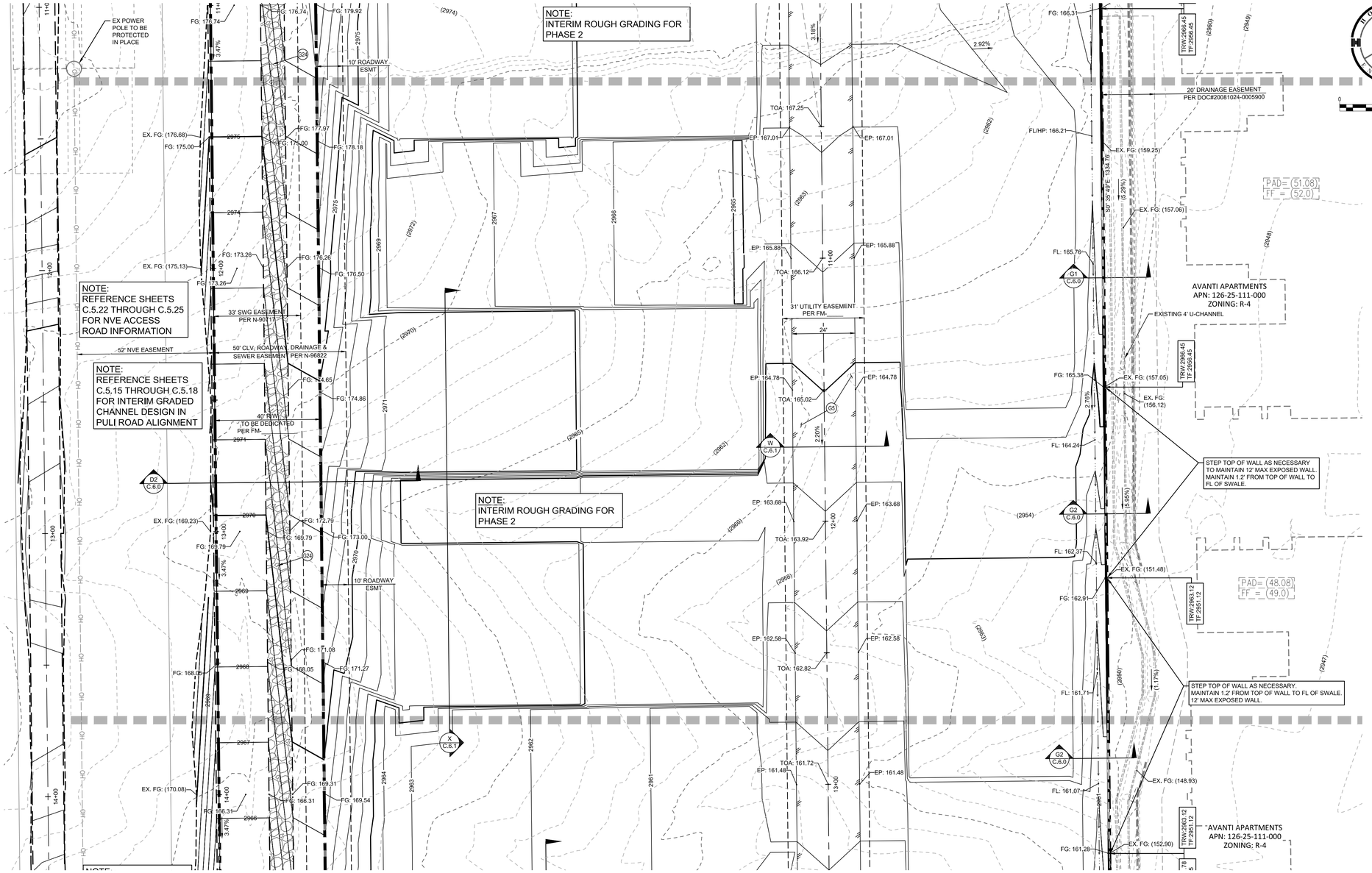
CITY OF LAS VEGAS, NEVADA

GRADING PLAN 15

C.2.14

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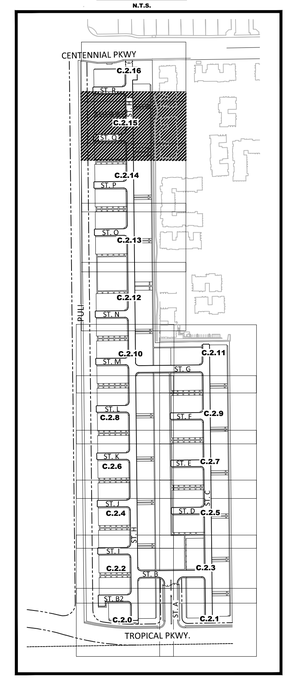
REFERENCE LINE
SEE SHEET C.2.16



REFERENCE LINE
SEE SHEET C.2.14

KEY MAP

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3. PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY HOA. PER FINAL MAP.

AREA OF DISTURBANCE

ONSITE:	29.85 AC.
OFFSITE:	6.97 AC.

DRAINAGE CERTIFICATION:

THIS SET OF IMPROVEMENT PLANS IS CERTIFIED TO CONFORM TO THE REQUIREMENTS OF THE APPROVED DRAINAGE STUDY.
DS# 5232

LARRY BITTON, P.E. NO. 010159 DATE

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy., Suite 160
Henderson, NV 89074
(702) 966-4063
www.horrocks.com

WARNING
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE
0 1 2

REVISIONS
REV # | DATE
*SEE GENERAL NOTES SHEET

DRAWING INFO
DATE 9/15/2020
DESIGNED SS
DRAWN PMP
CHECKED AD
PROJECT NV-1949-1909

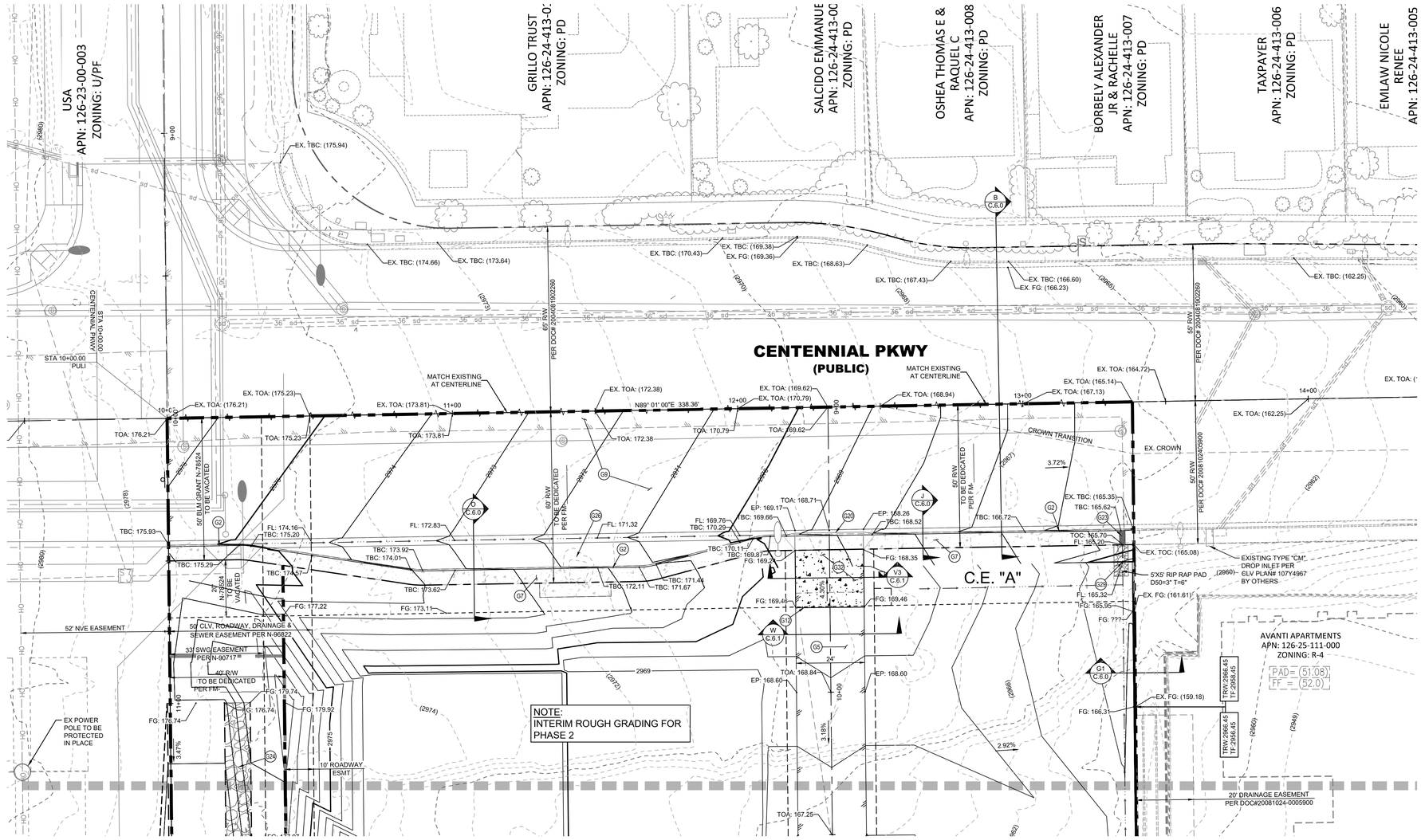
PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
No. 010159
9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 1

CITY OF LAS VEGAS, NEVADA

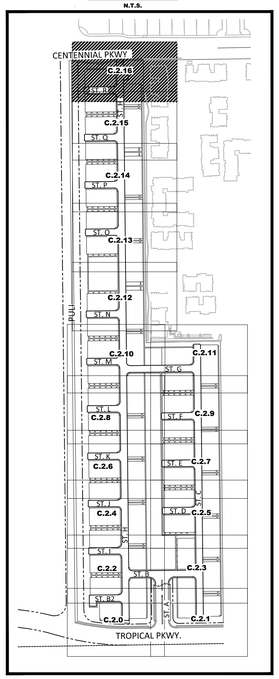
GRADING PLAN 16

C.2.15



KEY MAP

N.T.S.



GRADING KEY NOTES:

(G1) CONSTRUCT 30" ROLL CURB PER CCAUSD #217.2,S1

(G2) CONSTRUCT "L" TYPE CURB PER CCAUSD #216

(G3) CONSTRUCT "A" TYPE CURB PER CCAUSD #219

(G4) CONSTRUCT 10' TRANSITION FROM "L" TYPE CURB TO ROLL CURB PER DETAIL "1" ON SHEET C.6.1

(G5) CONSTRUCT 2" AC PAVEMENT OVER 4" TYPE II AGG BASE

(G6) CONSTRUCT SIDEWALK RAMP "CASE I" PER CCAUSD #235

(G7) CONSTRUCT 5" CONCRETE SIDEWALK PER CCAUSD #234

(G8) CONSTRUCT 4" AC PAVEMENT OVER 4" TYPE II AGG BASE

(G9) CONSTRUCT 5.5" AC PAVEMENT OVER 6" TYPE II AGG BASE

(G10) CONSTRUCT 8' CONCRETE VALLEY GUTTER PER CCAUSD #228

(G11) SAWCUT, TRENCH, BACKFILL, AND ASPHALT PATCH PER CCAUSD 500.3, 500.4, 500.5 & 503 (PATCH DIMENSIONS TO BE DETERMINED IN THE FIELD) PROPOSED SAWCUT TO BE AT LANE LINE

(G12) INSTALL WROUGHT IRON GATE PER CCAUSD #425.S1

(G13) INSTALL 60" TYPE II-SD STORM DRAIN MANHOLE PER CCAUSD #401 & 405.2

(G14) CONSTRUCT CURB OPENING PER DETAIL "2" OF SHEET C.6.1

(G15) INSTALL TYPE I-SD STORM DRAIN MANHOLE PER CCAUSD #403 WITH NEENAH 2501-G GRATED LID PER DETAIL "8" ON C.6.1

(G16) INSTALL STORM DRAIN JUNCTION STRUCTURE PER STRUCTURAL DRAWINGS ON SHEETS S1.0-S3.0.

(G17) EXISTING TO REMAIN. PROTECT IN PLACE.

(G18) INSTALL LANDSCAPING PER LANDSCAPE PLAN BY OTHERS

(G19) CONSTRUCT 5'X5' CONCRETE SIDEWALK PAD PER CCAUSD #234 FOR ADA TURNAROUND

(G20) CONSTRUCT DRIVEWAY PER CCAUSD #223

(G21) CONSTRUCT DROP INLET TYPE "CM2" PER CCAUSD #412.1 & 421. L=15', D=8.20'

(G22) CONSTRUCT DROP INLET TYPE "CM2" PER CCAUSD #412.1 & 421. L=10', D=7.95'

(G23) CONSTRUCT SIDEWALK UNDER DRAIN PER CCAUSD #236

(G24) INSTALL RIP-RAP D50=6",T=12" SUBGRADE @ 90% COMPACTION LENGTH AND WIDTH SPECIFIED ON PLAN

(G25) CONSTRUCT 4" CONCRETE SIDEWALK PER CCAUSD #234

(G26) CONSTRUCT BUS TURNOUT PER CCAUSD #234.1 & DETAIL "O" ON C.6.0

(G27) CONSTRUCT 3' CONCRETE VALLEY GUTTER PER CCAUSD #228

(G28) INSTALL 4" SIDEWALK DRAIN PIPE PER DETAIL "7" ON SHEET C.6.1

(G29) CONSTRUCT BLOCK WALL OPENING PER DETAIL "3" ON SHEET C.6.1

(G30) CONSTRUCT 24" WIDE CONCRETE FLUME PER DETAIL "5" ON SHEET C.6.1

(G31) CONSTRUCT 24"X36" BUBBLER STRUCTURE PER DETAIL "4" ON SHEET C.6.1

(G32) CONSTRUCT 6" CONCRETE PAVEMENT OVER 4" TYPE II AGG BASE

EASEMENT KEY NOTES:

(1) 32.5' PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.

(2) 24' PUBLIC EMERGENCY ACCESS EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.

(3) PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY HOA. PER FINAL MAP.

LEGAL DESCRIPTION:

A PORTION OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.D., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE WEST HALF (W 1/2) OF THE WEST HALF (W 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., TOGETHER WITH:

THE WEST HALF (W 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.

BASIS OF BEARING

NORTH 00°37'29" WEST, BEING THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.,CLARK COUNTY, NEVADA, AS SHOWN ON THE PLAT OF CONSTELLATION ESTATES, RECORDED IN BOOK 102, PAGE 92, OFFICIAL RECORDS, CLARK COUNTY, NEVADA.

BENCHMARK

RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

ELEVATION (meters) 901.13
ELEVATION (feet) 2,956.44
NAVD 88

FLOOD ZONE:

THIS SITE IS LOCATED IN A ZONE 'X', AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN AND PARTIALLY IN A SHADED ZONE 'X', AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE OF FLOOD PER THE FLOOD INSURANCE RATE MAP COMMUNITY PANEL 32003C1750E, CLARK COUNTY, NEVADA DATED NOVEMBER 16, 2011, REVISED TO REFLECT LOMR DATED OCTOBER 18, 2018.

SIGHT VISIBILITY ZONE PER CCAUSD# 201.2 (TYP)

SIGHT VISIBILITY ZONE NOTE:

NO WALLS, FENCES, SHRUBS, UTILITY APPURTENANCES OR ANY OTHER OBJECT, OTHER THAN TRAFFIC CONTROL DEVICES, FIRE HYDRANTS, TREES, AND STREET LIGHT POLES, MAY BE CONSTRUCTED OR INSTALLED WITHIN THE SIGHT VISIBILITY ZONE UNLESS SAID OBJECT IS MAINTAINED AT LESS THAN 24 INCHES IN HEIGHT, MEASURED FROM TOP OF CURB, OR WHERE NO CURB EXISTS, A HEIGHT OF 27 INCHES MEASURED FROM THE TOP OF ADJACENT ASPHALT, GRAVEL OR PAVEMENT STREET SURFACE. THIS RESTRICTION EXTENDS ALONG THE SIGHT VISIBILITY LINE THROUGH LANDSCAPED MEDIANS.

NOTE:
ALL COMMON ELEMENTS ARE PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY THE HOA.

NOTE:
ALL PRIVATE STREETS ARE P.U.E., PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY THE HOA.

NOTE:
ADD 2900' TO GRADING ELEVATIONS SHOWN HEREON TO ADJUST THEM TO THE ASSOCIATED DATUM. FINISHED GRADE CONTOURS ARE APPROXIMATE. REFER TO SPOT ELEVATION GRADE TAGS FOR CONSTRUCTION STAKING PURPOSES.

ENGINEER'S NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR EROSION AND DUST CONTROL, AND STORMWATER MANAGEMENT DURING CONSTRUCTION.
2. SEE HORIZONTAL CONTROL PLAN FOR EXACT PROPERTY LINE DIMENSIONS
3. ENGINEER TO BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES BETWEEN THESE PLANS AND FIELD CONDITIONS.
4. THESE PLANS SHALL NOT IN PART, OR IN WHOLE, BE USED FOR CONSTRUCTION UNTIL APPROVED AND SIGNED BY GOVERNING AGENCIES.
5. ALL GRADING SHALL CONFORM TO SOILS REPORT RECOMMENDATIONS.
6. DURING CONSTRUCTION, SURVEYORS AND CONTRACTORS MUST VERIFY THAT ALL STREETS AND LOTS HAVE POSITIVE DRAINAGE. SAME MUST UTILIZE AT LEAST THREE GRADES ON VERTICAL TANGENTS TO VERIFY SLOPES.
7. SOILS REPORT NOTE:
   GRADING SHALL BE IN ACCORDANCE WITH SOILS REPORT
   PREPARED BY: GEOTEK, INC.
   PROJECT NO.: 15256-LV
   DATE: JANUARY 9, 2020
8. CUT/FILL ESTIMATES (PUBLIC AND PRIVATE):
   FROM EXISTING TO FINISH GRADE ELEVATIONS
   NET CUT: 67,671 CY
   NET FILL: 108,494 CY
   TOTAL: 40,823 CY (FILL)
9. FLOOR SECTION ASSUMES 1.2' PAD SECTION. CONTRACTOR TO VERIFY WITH STRUCTURAL PLANS AND GEOTECHNICAL ENGINEER.

AREA OF DISTURBANCE

ONSITE: 29.85 AC.
OFFSITE: 6.97 AC.

DRAINAGE CERTIFICATION:

THIS SET OF IMPROVEMENT PLANS IS CERTIFIED TO CONFORM TO THE REQUIREMENTS OF THE APPROVED DRAINAGE STUDY.
DS# 5232

LARRY BITTON, P.E. NO. 010159 DATE

Call before you dig
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call 811 OR 1-800-227-2600

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

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

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0 1 2

REVISIONS		
REV #	DATE	
1		

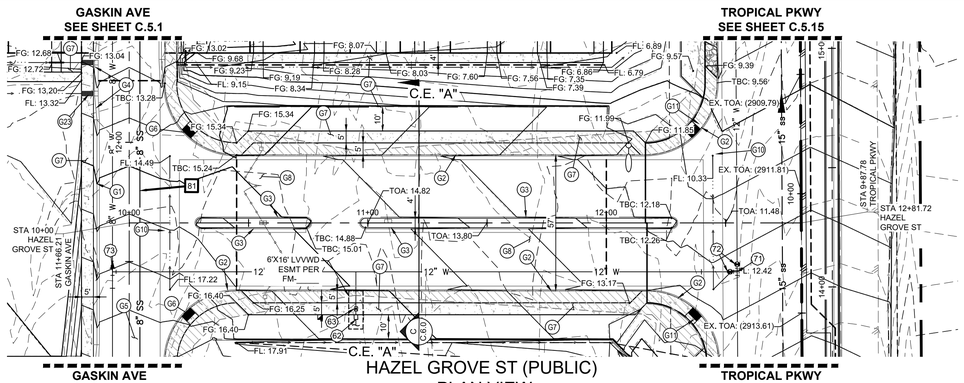
*SEE GENERAL NOTES SHEET

DRAWING INFO	
DATE	9/15/2020
DESIGNED	SS
DRAWN	PMP
CHECKED	AD
PROJECT	NV-1949-1909

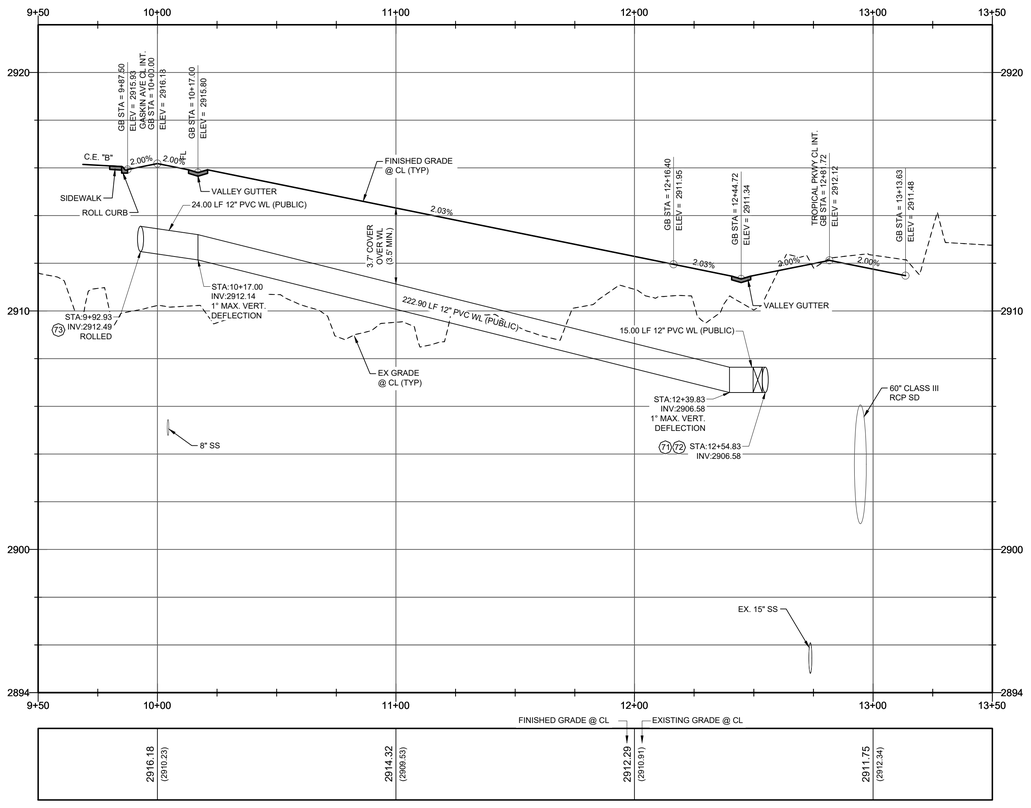
PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
No. 010159
9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 1
CITY OF LAS VEGAS, NEVADA
GRADING PLAN 17

C.2.16



HAZEL GROVE ST (PUBLIC)
PLAN VIEW
(STA. 9+50 TO 13+50)



HAZEL GROVE ST (PUBLIC)
PROFILE VIEW
(STA. 9+50 TO 13+50)

SCALE: 1" = 30' H
SCALE: 1" = 3' V

SEWER CONNECTION NOTE:
ONE OR MORE SEGMENTS OF THE DOWNSTREAM SEWER SYSTEM THAT WILL SERVE THIS PROJECT HAS NOT BEEN COMPLETED AND/OR ACCEPTED FOR MAINTENANCE BY THE CITY OF LAS VEGAS. ANY WORK DONE ON THIS PROJECT PRIOR TO THE COMPLETION AND/OR ACCEPTANCE OF THE DOWNSTREAM SEWER SYSTEM(S) SHALL BE DONE AT THE DEVELOPER'S OWN RISK. THE CITY OF LAS VEGAS RESERVES THE RIGHT TO PREVENT THE PHYSICAL CONNECTION OF THIS PROJECT INTO THE DOWNSTREAM SEWER SYSTEM UNTIL ALL SEGMENTS HAVE BEEN COMPLETED AND ACCEPTED FOR MAINTENANCE, OR UNTIL SUCH TIME AS THEY ARE DEEMED AVAILABLE FOR SERVICE.

LEGAL DESCRIPTION:

A PORTION OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.D., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

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Call before you UnderGround
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FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

BASIS OF BEARING

NORTH 00°37'29" WEST, BEING THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.,CLARK COUNTY, NEVADA, AS SHOWN ON THE PLAT OF CONSTELLATION ESTATES, RECORDED IN BOOK 102, PAGE 92, OFFICIAL RECORDS, CLARK COUNTY, NEVADA.

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DEPTH OF COVER DURING CONSTRUCTION:

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

NOTE:
ADD 2800' TO GRADING ELEVATIONS SHOWN HEREON TO ADJUST THEM TO THE ASSOCIATED DATUM.
FINISHED GRADE CONTOURS ARE APPROXIMATE. REFER TO SPOT ELEVATION GRADE TAGS FOR CONSTRUCTION STAKING PURPOSES.

BENCHMARK

RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

ELEVATION (meters) 901.13
ELEVATION (feet) 2,956.44
NAVD 88

UTILITY DISCLAIMER NOTE:

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

GRADING KEY NOTES:

- G1 CONSTRUCT 30" ROLL CURB PER CCAUSD #217.2.S1
- G2 CONSTRUCT "L" TYPE CURB PER CCAUSD #216
- G3 CONSTRUCT "A" TYPE CURB PER CCAUSD #219
- G4 CONSTRUCT 10' TRANSITION FROM "L" TYPE CURB TO ROLL CURB PER DETAIL "1" ON SHEET C.6.1
- G5 CONSTRUCT 2" AC PAVEMENT OVER 4" TYPE II AGG BASE
- G6 CONSTRUCT SIDEWALK RAMP "CASE I" PER CCAUSD #235
- G7 CONSTRUCT 5" CONCRETE SIDEWALK PER CCAUSD #234
- G8 CONSTRUCT 4" AC PAVEMENT OVER 4" TYPE II AGG BASE
- G9 CONSTRUCT 5.5" AC PAVEMENT OVER 6" TYPE II AGG BASE
- G10 CONSTRUCT 8' CONCRETE VALLEY GUTTER PER CCAUSD #228
- G11 SAWCUT, TRENCH, BACKFILL, AND ASPHALT PATCH PER CCAUSD 500.3, 500.4, 500.5 & 503 (PATCH DIMENSIONS TO BE DETERMINED IN THE FIELD) PROPOSED SAWCUT TO BE AT LANE LINE
- G12 INSTALL WROUGHT IRON GATE PER CCAUSD #425.S1
- G13 INSTALL 60" TYPE II-SD STORM DRAIN MANHOLE PER CCAUSD #401 & 405.2
- G14 CONSTRUCT CURB OPENING PER DETAIL "2" OF SHEET C.6.1
- G15 INSTALL TYPE I-SD STORM DRAIN MANHOLE PER CCAUSD #403 WITH NEENAH 2501-G GRATED LID PER DETAIL "B" ON C.6.1
- G16 INSTALL STORM DRAIN JUNCTION STRUCTURE PER STRUCTURAL DRAWINGS ON SHEETS S1.0-S3.0.
- G17 EXISTING TO REMAIN. PROTECT IN PLACE.
- G18 INSTALL LANDSCAPING PER LANDSCAPE PLAN BY OTHERS
- G19 CONSTRUCT 5'X5' CONCRETE SIDEWALK PAD PER CCAUSD #234 FOR ADA TURNAROUND
- G20 CONSTRUCT DRIVEWAY PER CCAUSD #223
- G21 CONSTRUCT DROP INLET TYPE "CM2" PER CCAUSD #412.1 & 421. L=15', D=8.20'
- G22 CONSTRUCT DROP INLET TYPE "CM2" PER CCAUSD #412.1 & 421. L=10', D=7.95'
- G23 CONSTRUCT SIDEWALK UNDER DRAIN PER CCAUSD #236
- G24 INSTALL RIP-RAP D50=6",T=12" SUBGRADE @ 90% COMPACTION LENGTH AND WIDTH SPECIFIED ON PLAN
- G25 CONSTRUCT 4" CONCRETE SIDEWALK PER CCAUSD #234
- G26 CONSTRUCT BUS TURNOUT PER CCAUSD #234.1 & DETAIL "O" ON C.6.0
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- G29 CONSTRUCT BLOCK WALL OPENING PER DETAIL "3" ON SHEET C.6.1
- G30 CONSTRUCT 24" WIDE CONCRETE FLUME PER DETAIL "5" ON SHEET C.6.1
- G31 CONSTRUCT 24"X36" BUBBLER STRUCTURE PER DETAIL "4" ON SHEET C.6.1
- G32 CONSTRUCT 6" CONCRETE PAVEMENT OVER 4" TYPE II AGG BASE

WATER KEY NOTES:

- W50 INSTALL 8" X 6" TEE & THRUST BLOCK PER UDACS PLATE #31
- W51 INSTALL 8" X 8" TEE & THRUST BLOCK PER UDACS PLATE #31
- W52 INSTALL 8" GATE VALVE & VALVE BOX PER UDACS PLATES #30 & #39
- W53 INSTALL 6" GATE VALVE & VALVE BOX PER UDACS PLATES #30 & #39
- W55 SAWCUT, TRENCH, BACKFILL, AND ASPHALT PATCH PER CCAUSD 500.3, 500.4, 500.5 & 503 (PATCH DIMENSIONS TO BE DETERMINED IN THE FIELD) PROPOSED SAWCUT TO BE AT LANE LINE
- W56 INSTALL CAP & 2" BLOWOFF ASSEMBLY PER UDACS PLATE #36
- W57 INSTALL 8" 90° BEND & THRUST BLOCK PER UDACS PLATE #31
- W58 INSTALL 8" 45° BEND & THRUST BLOCK PER UDACS PLATE #31
- W59 INSTALL 8" 22.5° BEND & THRUST BLOCK PER UDACS PLATE #31
- W60 INSTALL 12" 11.25° BEND & THRUST BLOCK PER UDACS PLATE #31
- W61 CONSTRUCT WATER MAIN CROSSING PER UDACS PLATE #22 & #23
- W62 INSTALL 1" RPPA (PRIVATE) PER UDACS PLATE #8 (IRRIGATION), (STA LABEL REPRESENTS METER LOCATION) AND DETAIL PROVIDED
- W63 INSTALL 1" SERVICE SADDLE, 1" SERVICE LATERAL, & 3/4" WATER METER (PUBLIC) PER UDACS PLATE #7 (STATION LABEL REPRESENTS METER LOCATION)
- W64 INSTALL 1" SERVICE SADDLE, 1" SERVICE LATERAL, & 3/4" WATER METER (PUBLIC) PER UDACS PLATE #4 (STATION LABEL REPRESENTS METER LOCATION)
- W65 REMOVE CAP AND B.O., CONNECT TO EXISTING
- W66 INSTALL 8"X6" REDUCER PER UDACS PLATE 30
- W67 INSTALL 6" 90° BEND & THRUST BLOCK PER UDACS PLATE #31
- W68 CONNECT TO EX. WATER USING MECHANICAL JOINT OR STEEL FABRICATED TAPPING SLEEVE. PER UDACS SECTION 2.24
- W69 INSTALL 12"X8" TEE & TRUST BLOCK PER UDACS PLATE #31
- W70 INSTALL 12" 45° BEND & THRUST BLOCK PER UDACS PLATE #31
- W71 INSTALL 12"X12" TEE & TRUST BLOCK PER UDACS PLATE #31
- W72 INSTALL 12" GATE VALVE & VALVE BOX PER UDACS PLATES #30 & #39
- W73 INSTALL 12" 90° BEND & THRUST BLOCK PER UDACS PLATE #31
- W74 INSTALL 12"X6" TEE & THRUST BLOCK PER UDACS PLATE #31
- W75 INSTALL 12"X8" REDUCER PER UDACS PLATE 30
- W76 INSTALL 12" 45° VERT. BEND & THRUST BLOCK PER UDACS PLATE #22

SEWER KEY NOTES:

- S80 INSTALL 48" STANDARD SEWER MANHOLE WITH WATERTIGHT JOINTS PER DCSWCS SD-1, SD-3 & SD-4 WITH SINGLE 24" LID
- S81 INSTALL 8" SDR-35 SEWER MAIN PER DCSWCS SD-17
- S82 NOT USED
- S83 INSTALL 4" SDR-35 PVC SEWER LATERAL PER DCSWCS SD-17, SD-20, SD-21, SD-23 AND SECTION 3.17.1. INSTALL CLEANOUT W/TRAFFIC RATED LID IN DRIVEWAY MORE THAN 5' FROM BACK OF CURB.
- S84 REMOVE PLUG & CAP, CONNECT TO EXISTING
- S85 NOT USED
- S86 INSTALL 8" C-900 SEWER MAIN PER DCSWCS SD-17
- S87 INSTALL CORROSION PROTECTION PER DCSWCS SEC 3.16.8
- S88 INSTALL STUB-OUT & CAP PER DCSWCS SEC 2.3.5

EASEMENT KEY NOTES:

- 1 32.5' PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.
- 2 24' PUBLIC EMERGENCY ACCESS EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.
- 3 PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY HOA. PER FINAL MAP.

SITE KEY MAP NOTE:
REFERENCE SHEET C.0.3 FOR SITE KEY MAP.

ENGINEER'S NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR EROSION AND DUST CONTROL, AND STORMWATER MANAGEMENT DURING CONSTRUCTION.
2. SEE HORIZONTAL CONTROL PLAN FOR EXACT PROPERTY LINE DIMENSIONS
3. ENGINEER TO BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES BETWEEN THESE PLANS AND FIELD CONDITIONS.
4. THESE PLANS SHALL NOT IN PART, OR IN WHOLE, BE USED FOR CONSTRUCTION UNTIL APPROVED AND SIGNED BY GOVERNING AGENCIES.
5. ALL GRADING SHALL CONFORM TO SOILS REPORT RECOMMENDATIONS.
6. DURING CONSTRUCTION, SURVEYORS AND CONTRACTORS MUST VERIFY THAT ALL STREETS AND LOTS HAVE POSITIVE DRAINAGE. SAME MUST UTILIZE AT LEAST THREE GRADES ON VERTICAL TANGENTS TO VERIFY SLOPES.
7. FLOOR SECTION ASSUMES 5" SLAB OVER MIN. 8.5" TYPE II. CONTRACTOR TO VERIFY WITH STRUCTURAL PLANS AND GEOTECHNICAL ENGINEER.

APPROVED FOR CONSTRUCTION

SOUTHWEST GAS CORPORATION DATE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING & ENGINEERING SERVICES

PROJECT NO. 137504 FIRST APPROVAL DATE: _____
LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDENTIAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy., Suite 160
Henderson, NV 89074
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SCALE: 1" = 30'

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IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE

REVISIONS
REV # | DATE
*SEE GENERAL NOTES SHEET

DRAWING INFO
DATE 9/15/2020
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PROJECT NV-1949-1909

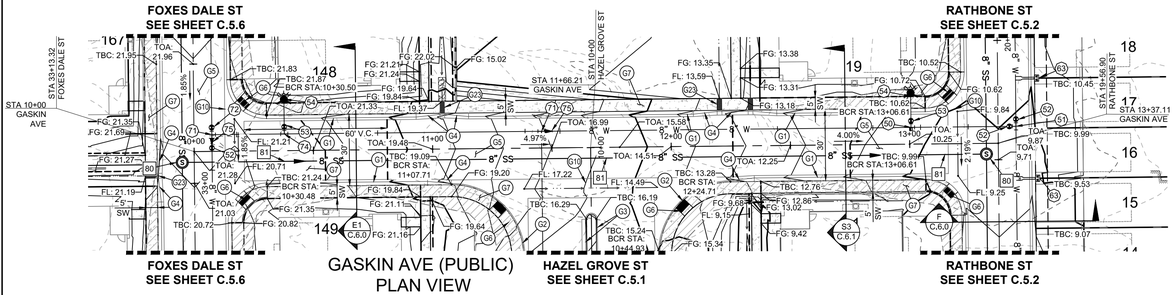
PROFESSIONAL ENGINEER-STATE OF NEVADA
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EXP. 12-31-20
CIVIL
NO. 009169
9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 1
TECHNICAL DRAINAGE STUDY
CITY OF LAS VEGAS, NEVADA

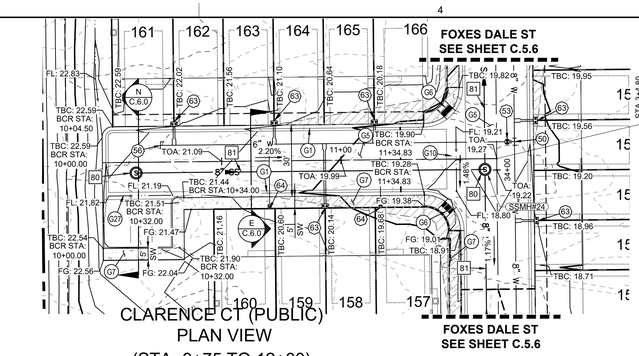
HAZEL GROVE ST PLAN & PROFILE (STA 9+50 TO STA 13+50)

C.5.0

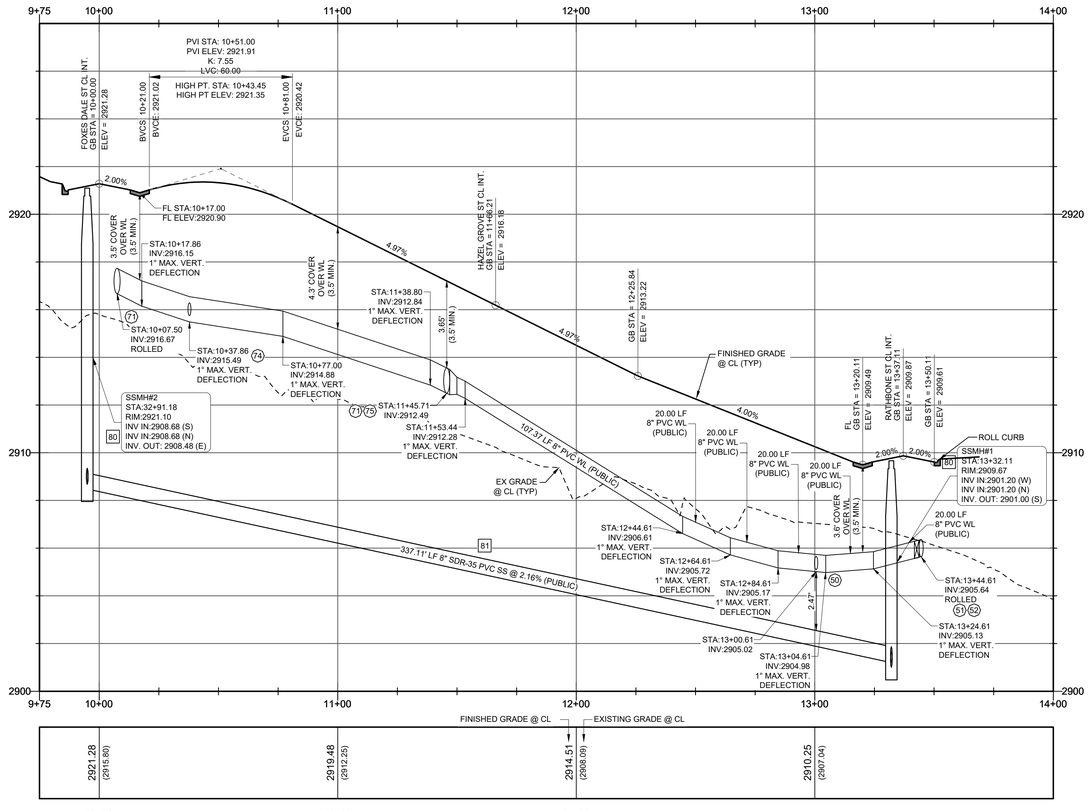
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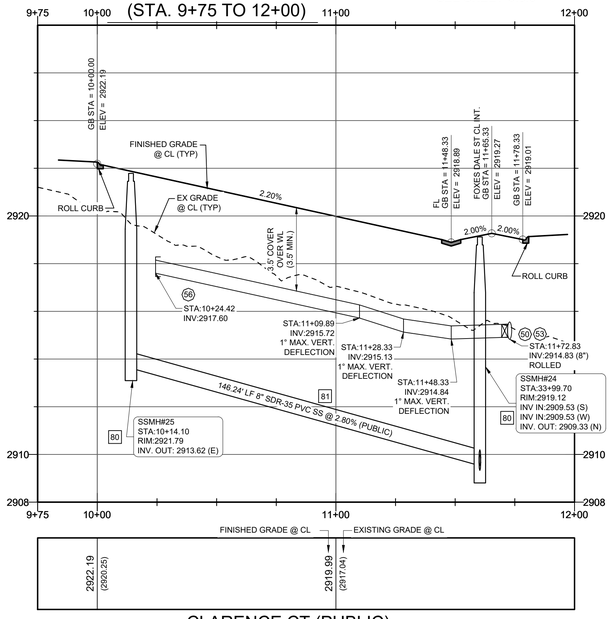
GASKIN AVE (PUBLIC)
PLAN VIEW
(STA. 9+75 TO 14+00)



CLARENCE CT (PUBLIC)
PLAN VIEW
(STA. 9+75 TO 12+00)



GASKIN AVE (PUBLIC)
PROFILE VIEW
(STA. 9+75 TO 14+00)
SCALE: 1" = 30' H
SCALE: 1" = 3' V



CLARENCE CT (PUBLIC)
PROFILE VIEW
(STA. 9+75 TO 12+00)
SCALE: 1" = 30' H
SCALE: 1" = 3' V

LEGAL DESCRIPTION:

A PORTION OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.D., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE WEST HALF (W 1/2) OF THE WEST HALF (W 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., TOGETHER WITH:

THE WEST HALF (W 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.

BASIS OF BEARING

NORTH 00°37'29" WEST, BEING THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.,CLARK COUNTY, NEVADA, AS SHOWN ON THE PLAT OF CONSTELLATION ESTATES, RECORDED IN BOOK 102, PAGE 92, OFFICIAL RECORDS, CLARK COUNTY, NEVADA.

FLOOD ZONE:

THIS SITE IS LOCATED IN A ZONE 'X', AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN AND PARTIALLY IN A SHADED ZONE 'X', AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE OF FLOOD PER THE FLOOD INSURANCE RATE MAP COMMUNITY PANEL 32003C1750E, CLARK COUNTY, NEVADA DATED NOVEMBER 16, 2011, REVISED TO REFLECT LOMR DATED OCTOBER 18, 2018.

Call before you dig
AVOID CUTTING UNDERGROUND UTILITY LINES, IT'S COSTLY.
Call 811 or 1-800-227-2600

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

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

SEWER CONNECTION NOTE:
ONE OR MORE SEGMENTS OF THE DOWNSTREAM SEWER SYSTEM THAT WILL SERVE THIS PROJECT HAS NOT BEEN COMPLETED AND/OR ACCEPTED FOR MAINTENANCE BY THE CITY OF LAS VEGAS. ANY WORK DONE ON THIS PROJECT PRIOR TO THE COMPLETION AND/OR ACCEPTANCE OF THE DOWNSTREAM SEWER SYSTEM(S) SHALL BE DONE AT THE DEVELOPER'S OWN RISK. THE CITY OF LAS VEGAS RESERVES THE RIGHT TO PREVENT THE PHYSICAL CONNECTION OF THIS PROJECT INTO THE DOWNSTREAM SEWER SYSTEM UNTIL ALL SEGMENTS HAVE BEEN COMPLETED AND ACCEPTED FOR MAINTENANCE, OR UNTIL SUCH TIME AS THEY ARE DEEMED AVAILABLE FOR SERVICE.

DEPTH OF COVER DURING CONSTRUCTION:

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

NOTE:
ADD 2800' TO GRADING ELEVATIONS SHOWN HEREON TO ADJUST THEM TO THE ASSOCIATED DATUM.
FINISHED GRADE CONTOURS ARE APPROXIMATE. REFER TO SPOT ELEVATION GRADE TAGS FOR CONSTRUCTION STAKING PURPOSES.

BENCHMARK

RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

ELEVATION (meters) 901.13
ELEVATION (feet) 2,956.44
NAVD 88

UTILITY DISCLAIMER NOTE:

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

SITE KEY MAP NOTE:
REFERENCE SHEET C.0.3 FOR SITE KEY MAP.

ENGINEER'S NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR EROSION AND DUST CONTROL, AND STORMWATER MANAGEMENT DURING CONSTRUCTION.
2. SEE HORIZONTAL CONTROL PLAN FOR EXACT PROPERTY LINE DIMENSIONS
3. ENGINEER TO BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES BETWEEN THESE PLANS AND FIELD CONDITIONS.
4. THESE PLANS SHALL NOT IN PART, OR IN WHOLE, BE USED FOR CONSTRUCTION UNTIL APPROVED AND SIGNED BY GOVERNING AGENCIES.
5. ALL GRADING SHALL CONFORM TO SOILS REPORT RECOMMENDATIONS.
6. DURING CONSTRUCTION, SURVEYORS AND CONTRACTORS MUST VERIFY THAT ALL STREETS AND LOTS HAVE POSITIVE DRAINAGE. SAME MUST UTILIZE AT LEAST THREE GRADES ON VERTICAL TANGENTS TO VERIFY SLOPES.
7. FLOOR SECTION ASSUMES 5" SLAB OVER MIN. 8.5" TYPE II. CONTRACTOR TO VERIFY WITH STRUCTURAL PLANS AND GEOTECHNICAL ENGINEER.

GRADING KEY NOTES:

- (G1) CONSTRUCT 30" ROLL CURB PER CCAUSD #217.2.S1
- (G2) CONSTRUCT "L" TYPE CURB PER CCAUSD #216
- (G3) CONSTRUCT "A" TYPE CURB PER CCAUSD #219
- (G4) CONSTRUCT 10' TRANSITION FROM "L" TYPE CURB TO ROLL CURB PER DETAIL "1" ON SHEET C.6.1
- (G5) CONSTRUCT 2" AC PAVEMENT OVER 4" TYPE II AGG BASE
- (G6) CONSTRUCT SIDEWALK RAMP "CASE I" PER CCAUSD #235
- (G7) CONSTRUCT 5" CONCRETE SIDEWALK PER CCAUSD #234
- (G8) CONSTRUCT 4" AC PAVEMENT OVER 4" TYPE II AGG BASE
- (G9) CONSTRUCT 5.5" AC PAVEMENT OVER 6" TYPE II AGG BASE
- (G10) CONSTRUCT 8' CONCRETE VALLEY GUTTER PER CCAUSD #228
- (G11) SAWCUT, TRENCH, BACKFILL, AND ASPHALT PATCH PER CCAUSD 500.3, 500.4, 500.5 & 503 (PATCH DIMENSIONS TO BE DETERMINED IN THE FIELD) PROPOSED SAWCUT TO BE AT LANE LINE
- (G12) INSTALL WROUGHT IRON GATE PER CCAUSD #425.S1
- (G13) INSTALL 60" TYPE II-SD STORM DRAIN MANHOLE PER CCAUSD #401 & 405.2
- (G14) CONSTRUCT CURB OPENING PER DETAIL "2" OF SHEET C.6.1
- (G15) INSTALL TYPE I-SD STORM DRAIN MANHOLE PER CCAUSD #403 WITH NEENAH 2501-G GRATED LID PER DETAIL "8" ON C.6.1
- (G16) INSTALL STORM DRAIN JUNCTION STRUCTURE PER STRUCTURAL DRAWINGS ON SHEETS S1.0-S3.0.
- (G17) EXISTING TO REMAIN. PROTECT IN PLACE.
- (G18) INSTALL LANDSCAPING PER LANDSCAPE PLAN BY OTHERS
- (G19) CONSTRUCT 5'X5' CONCRETE SIDEWALK PAD PER CCAUSD #234 FOR ADA TURNAROUND
- (G20) CONSTRUCT DRIVEWAY PER CCAUSD #223
- (G21) CONSTRUCT DROP INLET TYPE "CM2" PER CCAUSD #412.1 & 421. L=15', D=8.20'
- (G22) CONSTRUCT DROP INLET TYPE "CM2" PER CCAUSD #412.1 & 421. L=10', D=7.95'
- (G23) CONSTRUCT SIDEWALK UNDER DRAIN PER CCAUSD #236
- (G24) INSTALL RIP-RAP D50=6",T=12" SUBGRADE @ 90% COMPACTION LENGTH AND WIDTH SPECIFIED ON PLAN
- (G25) CONSTRUCT 4" CONCRETE SIDEWALK PER CCAUSD #234
- (G26) CONSTRUCT BUS TURNOUT PER CCAUSD #234.1 & DETAIL "O" ON C.6.0
- (G27) CONSTRUCT 3' CONCRETE VALLEY GUTTER PER CCAUSD #228
- (G28) INSTALL 4" SIDEWALK DRAIN PIPE PER DETAIL "7" ON SHEET C.6.1
- (G29) CONSTRUCT BLOCK WALL OPENING PER DETAIL "3" ON SHEET C.6.1
- (G30) CONSTRUCT 24" WIDE CONCRETE FLUME PER DETAIL "5" ON SHEET C.6.1
- (G31) CONSTRUCT 24"X36" BUBBLER STRUCTURE PER DETAIL "4" ON SHEET C.6.1
- (G32) CONSTRUCT 6" CONCRETE PAVEMENT OVER 4" TYPE II AGG BASE

WATER KEY NOTES:

- (50) INSTALL 8" X 6" TEE & THRUST BLOCK PER UDACS PLATE #31
- (51) INSTALL 8" X 8" TEE & THRUST BLOCK PER UDACS PLATE #31
- (52) INSTALL 8" GATE VALVE & VALVE BOX PER UDACS PLATES #30 & #39
- (53) INSTALL 6" GATE VALVE & VALVE BOX PER UDACS PLATES #30 & #39
- (55) SAWCUT, TRENCH, BACKFILL, AND ASPHALT PATCH PER CCAUSD 500.3, 500.4, 500.5 & 503 (PATCH DIMENSIONS TO BE DETERMINED IN THE FIELD) PROPOSED SAWCUT TO BE AT LANE LINE
- (56) INSTALL CAP & 2" BLOWOFF ASSEMBLY PER UDACS PLATE #36
- (57) INSTALL 8" 90° BEND & THRUST BLOCK PER UDACS PLATE #31
- (58) INSTALL 8" 45° BEND & THRUST BLOCK PER UDACS PLATE #31
- (59) INSTALL 8" 22.5° BEND & THRUST BLOCK PER UDACS PLATE #31
- (60) INSTALL 12" 11.25° BEND & THRUST BLOCK PER UDACS PLATE #31
- (61) CONSTRUCT WATER MAIN CROSSING PER UDACS PLATE #22 & #23
- (62) INSTALL 1" RPPA (PRIVATE) PER UDACS PLATE #8 (IRRIGATION). (STA LABEL REPRESENTS METER LOCATION) AND DETAIL PROVIDED
- (63) INSTALL 1" SERVICE SADDLE, 1" SERVICE LATERAL, & 3/4" WATER METER (PUBLIC) PER UDACS PLATE #7 (STATION LABEL REPRESENTS METER LOCATION)
- (64) METER (PUBLIC) PER UDACS PLATE #4 (STATION LABEL REPRESENTS METER LOCATION)
- (65) REMOVE CAP AND B.O., CONNECT TO EXISTING
- (66) INSTALL 8"X6" REDUCER PER UDACS PLATE 30
- (67) INSTALL 6" 90° BEND & THRUST BLOCK PER UDACS PLATE #31
- (68) CONNECT TO EX. WATER USING MECHANICAL JOINT OR STEEL FABRICATED TAPPING SLEEVE. PER UDACS SECTION 2.24
- (69) INSTALL 12"X8" TEE & TRUST BLOCK PER UDACS PLATE #31
- (70) INSTALL 12" 45° BEND & THRUST BLOCK PER UDACS PLATE #31
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- (73) INSTALL 12" 90° BEND & THRUST BLOCK PER UDACS PLATE #31
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- (76) INSTALL 12" 45° VERT. BEND & THRUST BLOCK PER UDACS PLATE #22

SEWER KEY NOTES:

- [80] INSTALL 48" STANDARD SEWER MANHOLE WITH WATERTIGHT JOINTS PER DCSWCS SD-1, SD-3 & SD-4 WITH SINGLE 24" LID
- [81] INSTALL 8" SDR-35 SEWER MAIN PER DCSWCS SD-17
- [82] NOT USED
- [83] INSTALL 4" SDR-35 PVC SEWER LATERAL PER DCSWCS SD-17, SD-20, SD-21, SD-23 AND SECTION 3.17.1. INSTALL CLEANOUT W/TRAFFIC RATED LID IN DRIVEWAY MORE THAN 5' FROM BACK OF CURB.
- [84] REMOVE PLUG & CAP, CONNECT TO EXISTING
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- [86] INSTALL 8" C-900 SEWER MAIN PER DCSWCS SD-17
- [87] INSTALL CORROSION PROTECTION PER DCSWCS SEC 3.16.8
- [88] INSTALL STUB-OUT & CAP PER DCSWCS SEC 2.3.5

EASEMENT KEY NOTES:

- (1) 32.5' PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.
- (2) 24' PUBLIC EMERGENCY ACCESS EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.
- (3) PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY HOA. PER FINAL MAP.

APPROVED FOR CONSTRUCTION

SOUTHWEST GAS CORPORATION DATE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING & ENGINEERING SERVICES

PROJECT NO. 137504 FIRST APPROVAL DATE:
LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDENTIAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy., Suite 160
Henderson, NV 89074
(702) 966-4063
www.horrocks.com

HORROCKS ENGINEERING

SCALE: 1" = 30'

WARNING
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE

REVISIONS		
REV #	DATE	
1		

*SEE GENERAL NOTES SHEET

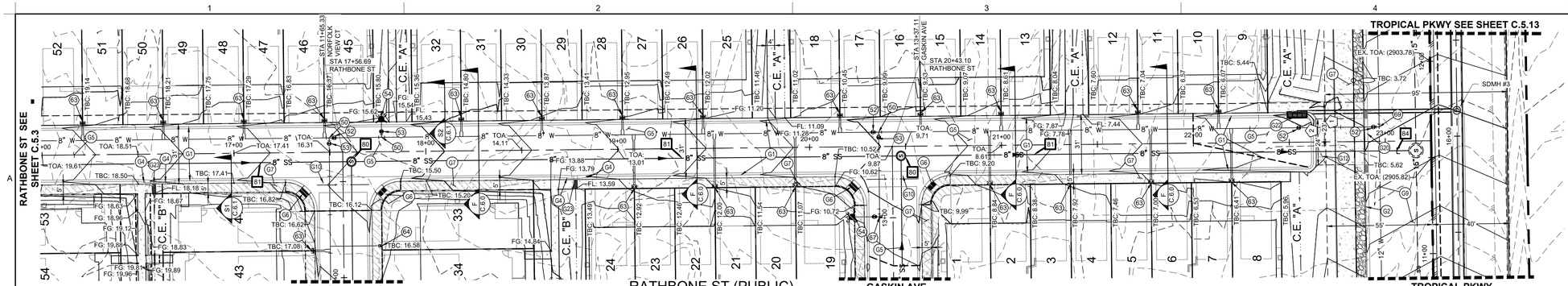
DRAWING INFO	
DATE	9/15/2020
DESIGNED	SS
DRAWN	PMP
CHECKED	AD
PROJECT	NV-1949-1909

PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
NO. 009169
9/15/2020

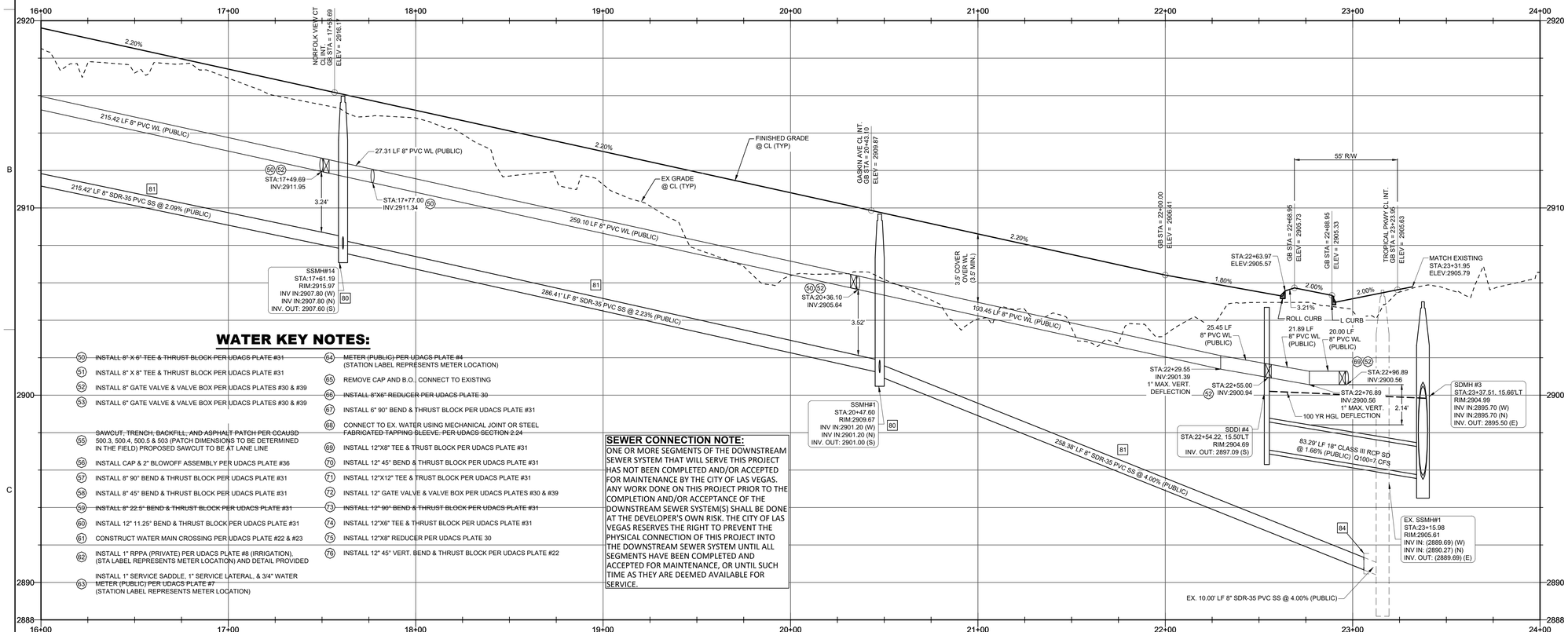
CENTENNIAL HEIGHTS TOWNHOMES PHASE 1
CITY OF LAS VEGAS, NEVADA
GASKIN AVE PLAN & PROFILE (STA 9+75 TO STA 14+00)
CLARENCE CT PLAN & PROFILE (STA 9+75 TO 12+00)

C.5.1

H:\!2019\NV-1949-1909 Centennial Heights Townhomes\Project Data\02 CAD\2.03 Sheet Files\Phase 1\NV-1949-1909_C.5.0_PH1_PNP_EW.dwg - C.5.1 - 9/15/2020 02:15pm, shayans



RATHBONE ST (PUBLIC)
PLAN VIEW
(STA. 16+00 TO 23+50)





RATHBONE ST (PUBLIC)
PROFILE VIEW
(STA. 16+00 TO 23+50)
SCALE: 1" = 30' H
SCALE: 1" = 3' V

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- (84) REMOVE PLUG & CAP, CONNECT TO EXISTING
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- (86) INSTALL 8" C-900 SEWER MAIN PER DCSWCS SD-17
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- (88) INSTALL STUB-OUT & CAP PER DCSWCS SEC 2.3.5

EASEMENT KEY NOTES:

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- (2) 24' PUBLIC EMERGENCY ACCESS EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.
- (3) PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY HOA. PER FINAL MAP.

SEWER CONNECTION NOTE:
ONE OR MORE SEGMENTS OF THE DOWNSTREAM SEWER SYSTEM THAT WILL SERVE THIS PROJECT HAS NOT BEEN COMPLETED AND/OR ACCEPTED FOR MAINTENANCE BY THE CITY OF LAS VEGAS. ANY WORK DONE ON THIS PROJECT PRIOR TO THE COMPLETION AND/OR ACCEPTANCE OF THE DOWNSTREAM SEWER SYSTEM(S) SHALL BE DONE AT THE DEVELOPER'S OWN RISK. THE CITY OF LAS VEGAS RESERVES THE RIGHT TO PREVENT THE PHYSICAL CONNECTION OF THIS PROJECT INTO THE DOWNSTREAM SEWER SYSTEM UNTIL ALL SEGMENTS HAVE BEEN COMPLETED AND ACCEPTED FOR MAINTENANCE, OR UNTIL SUCH TIME AS THEY ARE DEEMED AVAILABLE FOR SERVICE.

LEGAL DESCRIPTION:

A PORTION OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.B., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE WEST HALF (W 1/2) OF THE WEST HALF (W 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., TOGETHER WITH:

THE WEST HALF (W 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.

BASIS OF BEARING

NORTH 00°37'29" WEST, BEING THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.,CLARK COUNTY, NEVADA, AS SHOWN ON THE PLAT OF CONSTELLATION ESTATES, RECORDED IN BOOK 102, PAGE 92, OFFICIAL RECORDS, CLARK COUNTY, NEVADA.

FLOOD ZONE:

THIS SITE IS LOCATED IN A ZONE 'X', AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN AND PARTIALLY IN A SHADED ZONE 'X', AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE OF FLOOD PER THE FLOOD INSURANCE RATE MAP COMMUNITY PANEL 32003C1750E, CLARK COUNTY, NEVADA DATED NOVEMBER 16, 2011, REVISED TO REFLECT LOMR DATED OCTOBER 18, 2018.

DEPTH OF COVER DURING CONSTRUCTION:

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

NOTE:
ADD 2800' TO GRADING ELEVATIONS SHOWN HEREON TO ADJUST THEM TO THE ASSOCIATED DATUM.
FINISHED GRADE CONTOURS ARE APPROXIMATE. REFER TO SPOT ELEVATION GRADE TAGS FOR CONSTRUCTION STAKING PURPOSES.

BENCHMARK

RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

ELEVATION (meters) 901.13
ELEVATION (feet) 2,956.44
NAVD 88

UTILITY DISCLAIMER NOTE:

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

SITE KEY MAP NOTE:
REFERENCE SHEET C.0.3 FOR SITE KEY MAP.

ENGINEER'S NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR EROSION AND DUST CONTROL, AND STORMWATER MANAGEMENT DURING CONSTRUCTION.
2. SEE HORIZONTAL CONTROL PLAN FOR EXACT PROPERTY LINE DIMENSIONS
3. ENGINEER TO BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES BETWEEN THESE PLANS AND FIELD CONDITIONS.
4. THESE PLANS SHALL NOT IN PART, OR IN WHOLE, BE USED FOR CONSTRUCTION UNTIL APPROVED AND SIGNED BY GOVERNING AGENCIES.
5. ALL GRADING SHALL CONFORM TO SOILS REPORT RECOMMENDATIONS.
6. DURING CONSTRUCTION, SURVEYORS AND CONTRACTORS MUST VERIFY THAT ALL STREETS AND LOTS HAVE POSITIVE DRAINAGE. SAME MUST UTILIZE AT LEAST THREE GRADES ON VERTICAL TANGENTS TO VERIFY SLOPES.
7. FLOOR SECTION ASSUMES 5" SLAB OVER MIN. 8.5" TYPE II. CONTRACTOR TO VERIFY WITH STRUCTURAL PLANS AND GEOTECHNICAL ENGINEER.

APPROVED FOR CONSTRUCTION

SOUTHWEST GAS CORPORATION DATE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING & ENGINEERING SERVICES

PROJECT NO. 137504 FIRST APPROVAL DATE: _____
LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDENTIAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

Call before you DIG
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call 811
811
1-800-227-2600

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

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

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy., Suite 160
Henderson, NV 89074
(702) 966-4063
www.horrocks.com

WARNING
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE
0 1 2

REVISIONS
REV #	DATE
1	

*SEE GENERAL NOTES SHEET

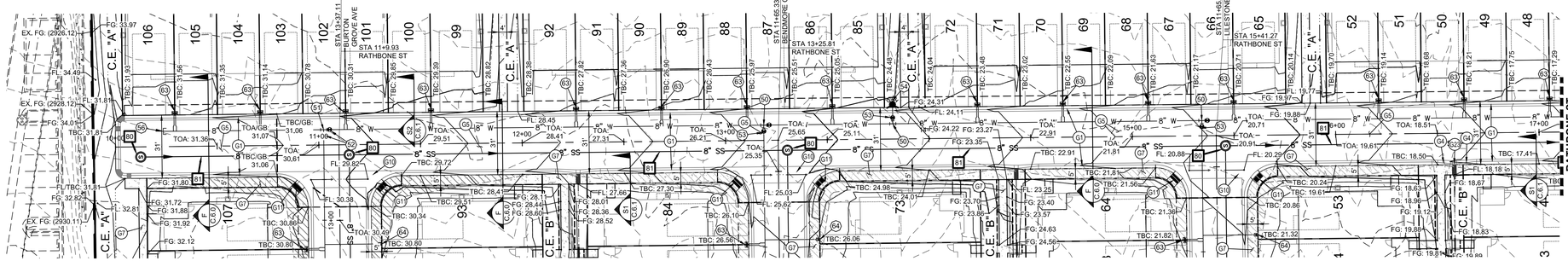
DRAWING INFO
DATE 9/15/2020
DESIGNED SS
DRAWN PMP
CHECKED AD
PROJECT NV-1949-1909

PROFESSIONAL ENGINEER-STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
NO. 009169
9/15/2020

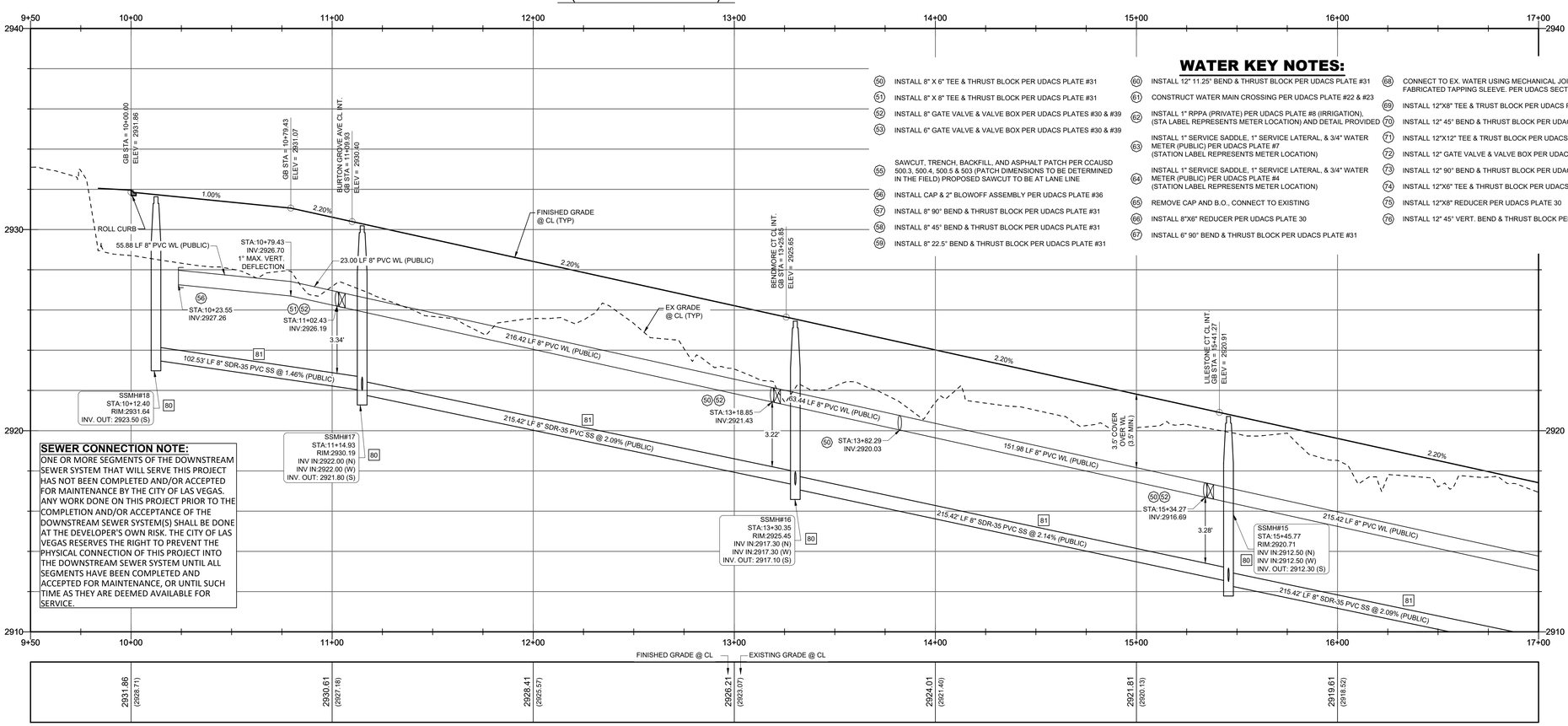
CENTENNIAL HEIGHTS TOWNHOMES PHASE 1
TECHNICAL DRAINAGE STUDY
CITY OF LAS VEGAS, NEVADA

RATHBONE ST PLAN & PROFILE (STA 16+00 TO STA 23+50)

C.5.2



RATHBONE ST (PUBLIC)
PLAN VIEW
(STA. 9+50 TO 17+00)



RATHBONE ST (PUBLIC)
PROFILE VIEW
(STA. 9+50 TO 17+00)

SCALE: 1" = 30' H
SCALE: 1" = 3' V

SEWER CONNECTION NOTE:
ONE OR MORE SEGMENTS OF THE DOWNSTREAM SEWER SYSTEM THAT WILL SERVE THIS PROJECT HAS NOT BEEN COMPLETED AND/OR ACCEPTED FOR MAINTENANCE BY THE CITY OF LAS VEGAS. ANY WORK DONE ON THIS PROJECT PRIOR TO THE COMPLETION AND/OR ACCEPTANCE OF THE DOWNSTREAM SEWER SYSTEM(S) SHALL BE DONE AT THE DEVELOPER'S OWN RISK. THE CITY OF LAS VEGAS RESERVES THE RIGHT TO PREVENT THE PHYSICAL CONNECTION OF THIS PROJECT INTO THE DOWNSTREAM SEWER SYSTEM UNTIL ALL SEGMENTS HAVE BEEN COMPLETED AND ACCEPTED FOR MAINTENANCE, OR UNTIL SUCH TIME AS THEY ARE DEEMED AVAILABLE FOR SERVICE.

GRADING KEY NOTES:

(G1) CONSTRUCT 30" ROLL CURB PER CCAUSD #217.2.S1
(G2) CONSTRUCT "L" TYPE CURB PER CCAUSD #216
(G3) CONSTRUCT "A" TYPE CURB PER CCAUSD #219
(G4) CONSTRUCT 10' TRANSITION FROM "L" TYPE CURB TO ROLL CURB PER DETAIL "1" ON SHEET C.6.1
(G5) CONSTRUCT 2" AC PAVEMENT OVER 4" TYPE II AGG BASE
(G6) CONSTRUCT SIDEWALK RAMP "CASE I" PER CCAUSD #235
(G7) CONSTRUCT 5" CONCRETE SIDEWALK PER CCAUSD #234
(G8) CONSTRUCT 4" AC PAVEMENT OVER 4" TYPE II AGG BASE
(G9) CONSTRUCT 5.5" AC PAVEMENT OVER 6" TYPE II AGG BASE
(G10) CONSTRUCT 8' CONCRETE VALLEY GUTTER PER CCAUSD #228
(G11) SAWCUT, TRENCH, BACKFILL, AND ASPHALT PATCH PER CCAUSD 500.3, 500.4, 500.5 & 503 (PATCH DIMENSIONS TO BE DETERMINED IN THE FIELD) PROPOSED SAWCUT TO BE AT LANE LINE
(G12) INSTALL WROUGHT IRON GATE PER CCAUSD #425.S1
(G13) INSTALL 60" TYPE II-SD STORM DRAIN MANHOLE PER CCAUSD #401 & 405.2
(G14) CONSTRUCT CURB OPENING PER DETAIL "2" OF SHEET C.6.1
(G15) INSTALL TYPE I-SD STORM DRAIN MANHOLE PER CCAUSD #403 WITH NEENAH 2501-G GRATED LID PER DETAIL "B" OM C.6.1
(G16) INSTALL STORM DRAIN JUNCTION STRUCTURE PER STRUCTURAL DRAWINGS ON SHEETS S1.0-S3.0.
(G17) EXISTING TO REMAIN. PROTECT IN PLACE.
(G18) INSTALL LANDSCAPING PER LANDSCAPE PLAN BY OTHERS
(G19) CONSTRUCT 5'X5' CONCRETE SIDEWALK PAD PER CCAUSD #234 FOR ADA TURNAROUND
(G20) CONSTRUCT DRIVEWAY PER CCAUSD #223
(G21) CONSTRUCT DROP INLET TYPE "CM2" PER CCAUSD #412.1 & 421. L=15', D=8.20'
(G22) CONSTRUCT DROP INLET TYPE "CM2" PER CCAUSD #412.1 & 421. L=10', D=7.95'
(G23) CONSTRUCT SIDEWALK UNDER DRAIN PER CCAUSD #236
(G24) INSTALL RIP-RAP D50=6",T=12" SUBGRADE @ 90% COMPACTION LENGTH AND WIDTH SPECIFIED ON PLAN
(G25) CONSTRUCT 4" CONCRETE SIDEWALK PER CCAUSD #234
(G26) CONSTRUCT BUS TURNOUT PER CCAUSD #234.1 & DETAIL "O" ON C.6.0
(G27) CONSTRUCT 3' CONCRETE VALLEY GUTTER PER CCAUSD #228
(G28) INSTALL 4" SIDEWALK DRAIN PIPE PER DETAIL "7" ON SHEET C.6.1
(G29) CONSTRUCT BLOCK WALL OPENING PER DETAIL "3" ON SHEET C.6.1
(G30) CONSTRUCT 24" WIDE CONCRETE FLUME PER DETAIL "5" ON SHEET C.6.1
(G31) CONSTRUCT 24"X36" BUBBLER STRUCTURE PER DETAIL "4" ON SHEET C.6.1
(G32) CONSTRUCT 6" CONCRETE PAVEMENT OVER 4" TYPE II AGG BASE

WATER KEY NOTES:

(W50) INSTALL 8" X 6" TEE & THRUST BLOCK PER UDACS PLATE #31
(W51) INSTALL 8" X 8" TEE & THRUST BLOCK PER UDACS PLATE #31
(W52) INSTALL 8" GATE VALVE & VALVE BOX PER UDACS PLATES #30 & #39
(W53) INSTALL 6" GATE VALVE & VALVE BOX PER UDACS PLATES #30 & #39
(W55) SAWCUT, TRENCH, BACKFILL, AND ASPHALT PATCH PER CCAUSD 500.3, 500.4, 500.5 & 503 (PATCH DIMENSIONS TO BE DETERMINED IN THE FIELD) PROPOSED SAWCUT TO BE AT LANE LINE
(W56) INSTALL CAP & 2" BLOWOFF ASSEMBLY PER UDACS PLATE #36
(W57) INSTALL 8" 90° BEND & THRUST BLOCK PER UDACS PLATE #31
(W58) INSTALL 8" 45° BEND & THRUST BLOCK PER UDACS PLATE #31
(W59) INSTALL 8" 22.5° BEND & THRUST BLOCK PER UDACS PLATE #31
(W60) INSTALL 12" 11.25° BEND & THRUST BLOCK PER UDACS PLATE #31
(W61) CONSTRUCT WATER MAIN CROSSING PER UDACS PLATE #22 & #23
(W62) INSTALL 1" RPPA (PRIVATE) PER UDACS PLATE #8 (IRRIGATION), (STA LABEL REPRESENTS METER LOCATION) AND DETAIL PROVIDED
(W63) INSTALL 1" SERVICE SADDLE, 1" SERVICE LATERAL, & 3/4" WATER METER (PUBLIC) PER UDACS PLATE #7 (STATION LABEL REPRESENTS METER LOCATION)
(W64) INSTALL 1" SERVICE SADDLE, 1" SERVICE LATERAL, & 3/4" WATER METER (PUBLIC) PER UDACS PLATE #4 (STATION LABEL REPRESENTS METER LOCATION)
(W65) REMOVE CAP AND B.O., CONNECT TO EXISTING
(W66) INSTALL 8"X6" REDUCER PER UDACS PLATE 30
(W67) INSTALL 6" 90° BEND & THRUST BLOCK PER UDACS PLATE #31
(W68) CONNECT TO EX. WATER USING MECHANICAL JOINT OR STEEL FABRICATED TAPPING SLEEVE. PER UDACS SECTION 2.24
(W69) INSTALL 12"X8" TEE & TRUST BLOCK PER UDACS PLATE #31
(W70) INSTALL 12" 45° BEND & THRUST BLOCK PER UDACS PLATE #31
(W71) INSTALL 12"X12" TEE & TRUST BLOCK PER UDACS PLATE #31
(W72) INSTALL 12" GATE VALVE & VALVE BOX PER UDACS PLATES #30 & #39
(W73) INSTALL 12" 90° BEND & THRUST BLOCK PER UDACS PLATE #31
(W74) INSTALL 12"X6" TEE & THRUST BLOCK PER UDACS PLATE #31
(W75) INSTALL 12"X8" REDUCER PER UDACS PLATE 30
(W76) INSTALL 12" 45° VERT. BEND & THRUST BLOCK PER UDACS PLATE #22

SEWER KEY NOTES:

(80) INSTALL 48" STANDARD SEWER MANHOLE WITH WATERTIGHT JOINTS PER DCSWCS SD-1, SD-3 & SD-4 WITH SINGLE 24" LID
(81) INSTALL 8" SDR-35 SEWER MAIN PER DCSWCS SD-17
(82) NOT USED
(83) INSTALL 4" SDR-35 PVC SEWER LATERAL PER DCSWCS SD-17, SD-20, SD-21, SD-23 AND SECTION 3.17.1. INSTALL CLEANOUT W/TRAFFIC RATED LID IN DRIVEWAY MORE THAN 5' FROM BACK OF CURB.
(84) REMOVE PLUG & CAP, CONNECT TO EXISTING
(85) NOT USED
(86) INSTALL 8" C-900 SEWER MAIN PER DCSWCS SD-17
(87) INSTALL CORROSION PROTECTION PER DCSWCS SEC 3.16.8
(88) INSTALL STUB-OUT & CAP PER DCSWCS SEC 2.3.5

EASEMENT KEY NOTES:

(1) 32.5' PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.
(2) 24' PUBLIC EMERGENCY ACCESS EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.
(3) PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY HOA. PER FINAL MAP.

LEGAL DESCRIPTION:

A PORTION OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE WEST HALF (W 1/2) OF THE WEST HALF (W 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., TOGETHER WITH:

THE WEST HALF (W 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.

Call before you AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S EASY!
Call 811
1-800-227-2600

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

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

BASIS OF BEARING

NORTH 00°37'29" WEST, BEING THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.,CLARK COUNTY, NEVADA, AS SHOWN ON THE PLAT OF CONSTELLATION ESTATES, RECORDED IN BOOK 102, PAGE 92, OFFICIAL RECORDS, CLARK COUNTY, NEVADA.

FLOOD ZONE:

THIS SITE IS LOCATED IN A ZONE 'X', AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN AND PARTIALLY IN A SHADED ZONE 'X', AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE OF FLOOD PER THE FLOOD INSURANCE RATE MAP COMMUNITY PANEL 32003C1750E, CLARK COUNTY, NEVADA DATED NOVEMBER 16, 2011, REVISED TO REFLECT LOMR DATED OCTOBER 18, 2018.

DEPTH OF COVER DURING CONSTRUCTION:

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NOTE:
ADD 2800' TO GRADING ELEVATIONS SHOWN HEREON TO ADJUST THEM TO THE ASSOCIATED DATUM.
FINISHED GRADE CONTOURS ARE APPROXIMATE. REFER TO SPOT ELEVATION GRADE TAGS FOR CONSTRUCTION STAKING PURPOSES.

BENCHMARK

RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

ELEVATION (meters) 901.13
ELEVATION (feet) 2,956.44
NAVD 88

UTILITY DISCLAIMER NOTE:

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SITE KEY MAP NOTE:
REFERENCE SHEET C.0.3 FOR SITE KEY MAP.

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7. FLOOR SECTION ASSUMES 5" SLAB OVER MIN. 8.5" TYPE II. CONTRACTOR TO VERIFY WITH STRUCTURAL PLANS AND GEOTECHNICAL ENGINEER.

APPROVED FOR CONSTRUCTION
SOUTHWEST GAS CORPORATION DATE

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT PLANNING & ENGINEERING SERVICES

PROJECT NO. 137504 FIRST APPROVAL DATE: _____
LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDENTIAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy., Suite 160
Henderson, NV 89074
(702) 966-4063
www.horrocks.com

SCALE: 1" = 30'

WARNING
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE

REVISIONS
REV # | DATE

*SEE GENERAL NOTES SHEET

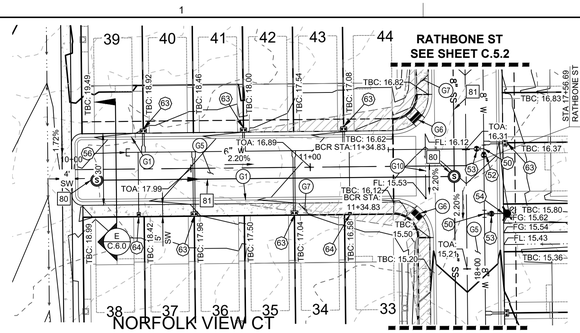
DRAWING INFO
DATE 9/15/2020
DESIGNED SS
DRAWN PMP
CHECKED AD
PROJECT NV-1949-1909

PROFESSIONAL ENGINEER-STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
No. 010159
9/15/2020

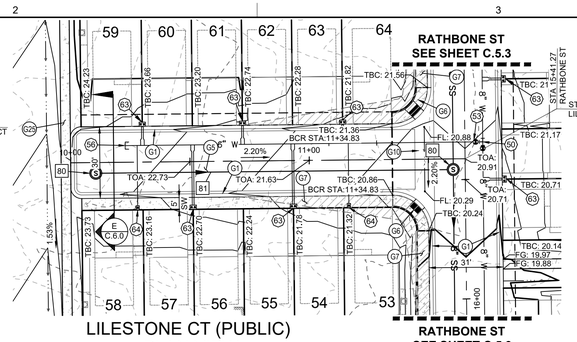
CENTENNIAL HEIGHTS TOWNHOMES PHASE 1
TECHNICAL DRAINAGE STUDY
CITY OF LAS VEGAS, NEVADA

RATHBONE ST PLAN & PROFILE (STA 9+50 TO STA 17+00)

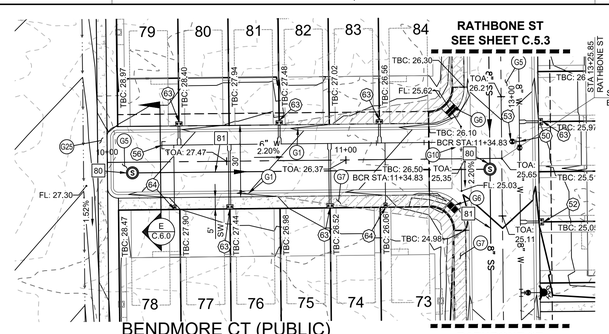
C.5.3



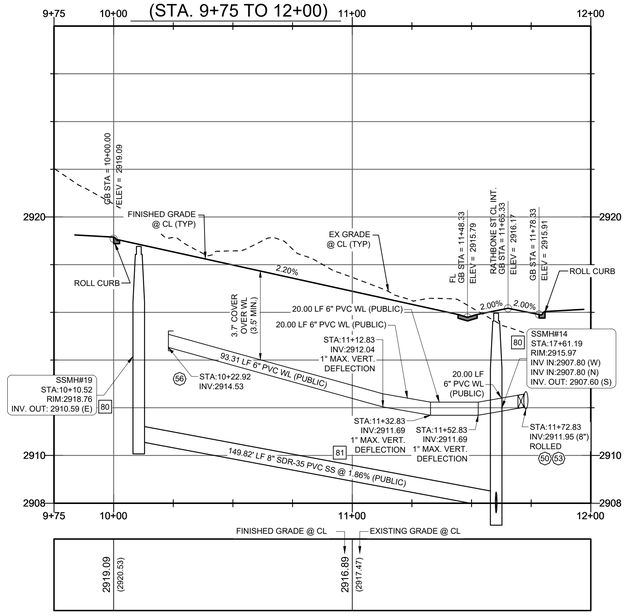
NORFOLK VIEW CT (PUBLIC)
PLAN VIEW
(STA. 9+75 TO 12+00)



LILESTONE CT (PUBLIC)
PLAN VIEW
(STA. 9+75 TO 12+00)

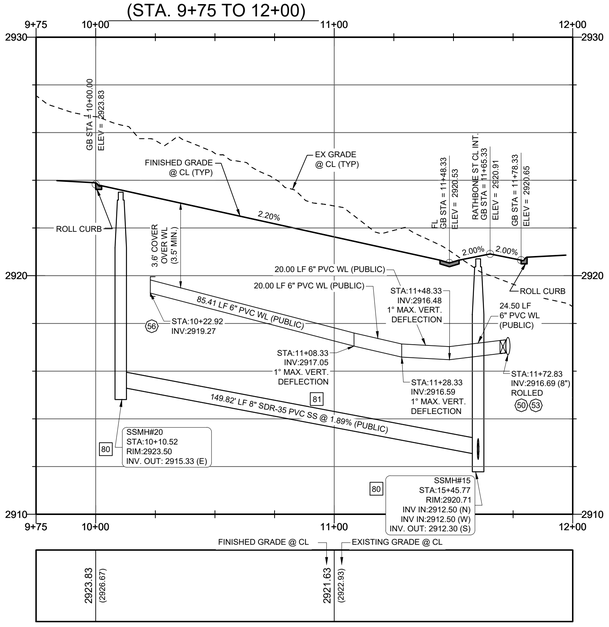


BENDMORE CT (PUBLIC)
PLAN VIEW
(STA. 9+75 TO 12+00)



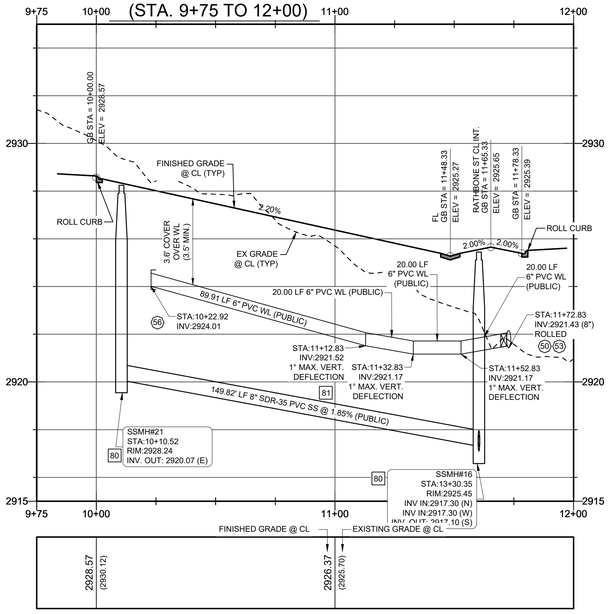
NORFOLK VIEW CT (PUBLIC)
PROFILE VIEW
(STA. 9+75 TO 12+00)

SCALE: 1" = 30' H
SCALE: 1" = 3' V



LILESTONE CT (PUBLIC)
PROFILE VIEW
(STA. 9+75 TO 12+00)

SCALE: 1" = 30' H
SCALE: 1" = 3' V



BENDMORE CT (PUBLIC)
PROFILE VIEW
(STA. 9+75 TO 12+00)

SCALE: 1" = 30' H
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GRADING KEY NOTES:

- G1 CONSTRUCT 30" ROLL CURB PER CCAUSD #217.2.S1
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- G3 CONSTRUCT "A" TYPE CURB PER CCAUSD #219
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- G32 CONSTRUCT 6" CONCRETE PAVEMENT OVER 4" TYPE II AGG BASE

SEWER KEY NOTES:

- 80 INSTALL 48" STANDARD SEWER MANHOLE WITH WATERTIGHT JOINTS PER DCSWCS SD-1, SD-3 & SD-4 WITH SINGLE 24" LID
- 81 INSTALL 8" SDR-35 SEWER MAIN PER DCSWCS SD-17
- 82 NOT USED
- 83 INSTALL 4" SDR-35 PVC SEWER LATERAL PER DCSWCS SD-17, SD-20, SD-21, SD-23 AND SECTION 3.17.1. INSTALL CLEANOUT W/TRAFFIC RATED LID IN DRIVEWAY MORE THAN 5' FROM BACK OF CURB.
- 84 REMOVE PLUG & CAP, CONNECT TO EXISTING
- 85 NOT USED
- 86 INSTALL 8" C-900 SEWER MAIN PER DCSWCS SD-17
- 87 INSTALL CORROSION PROTECTION PER DCSWCS SEC 3.16.8
- 88 INSTALL STUB-OUT & CAP PER DCSWCS SEC 2.3.5

EASEMENT KEY NOTES:

- 1 32.5' PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.
- 2 24' PUBLIC EMERGENCY ACCESS EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.
- 3 PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY HOA. PER FINAL MAP.

WATER KEY NOTES:

- 50 INSTALL 8" X 6" TEE & THRUST BLOCK PER UDACS PLATE #31
- 51 INSTALL 8" X 8" TEE & THRUST BLOCK PER UDACS PLATE #31
- 52 INSTALL 8" GATE VALVE & VALVE BOX PER UDACS PLATES #30 & #39
- 53 INSTALL 6" GATE VALVE & VALVE BOX PER UDACS PLATES #30 & #39
- 55 SAWCUT, TRENCH, BACKFILL, AND ASPHALT PATCH PER CCAUSD 500.3, 500.4, 500.5 & 503 (PATCH DIMENSIONS TO BE DETERMINED IN THE FIELD) PROPOSED SAWCUT TO BE AT LANE LINE
- 56 INSTALL CAP & 2" BLOWOFF ASSEMBLY PER UDACS PLATE #36
- 57 INSTALL 8" 90° BEND & THRUST BLOCK PER UDACS PLATE #31
- 58 INSTALL 8" 45° BEND & THRUST BLOCK PER UDACS PLATE #31
- 59 INSTALL 8" 22.5° BEND & THRUST BLOCK PER UDACS PLATE #31
- 60 INSTALL 12" 11.25° BEND & THRUST BLOCK PER UDACS PLATE #31
- 61 CONSTRUCT WATER MAIN CROSSING PER UDACS PLATE #22 & #23
- 62 INSTALL 1" RPPA (PRIVATE) PER UDACS PLATE #8 (IRRIGATION), (STA LABEL REPRESENTS METER LOCATION) AND DETAIL PROVIDED
- 63 INSTALL 1" SERVICE SADDLE, 1" SERVICE LATERAL, & 3/4" WATER METER (PUBLIC) PER UDACS PLATE #7 (STATION LABEL REPRESENTS METER LOCATION)
- 64 METER (PUBLIC) PER UDACS PLATE #4 (STATION LABEL REPRESENTS METER LOCATION)
- 65 REMOVE CAP AND B.O., CONNECT TO EXISTING
- 66 INSTALL 8"X6" REDUCER PER UDACS PLATE 30
- 67 INSTALL 6" 90° BEND & THRUST BLOCK PER UDACS PLATE #31
- 68 CONNECT TO EX. WATER USING MECHANICAL JOINT OR STEEL FABRICATED TAPPING SLEEVE. PER UDACS SECTION 2.24
- 69 INSTALL 12"X8" TEE & TRUST BLOCK PER UDACS PLATE #31
- 70 INSTALL 12" 45° BEND & THRUST BLOCK PER UDACS PLATE #31
- 71 INSTALL 12"X12" TEE & TRUST BLOCK PER UDACS PLATE #31
- 72 INSTALL 12" GATE VALVE & VALVE BOX PER UDACS PLATES #30 & #39
- 73 INSTALL 12" 90° BEND & THRUST BLOCK PER UDACS PLATE #31
- 74 INSTALL 12"X6" TEE & THRUST BLOCK PER UDACS PLATE #31
- 75 INSTALL 12"X8" REDUCER PER UDACS PLATE 30
- 76 INSTALL 12" 45° VERT. BEND & THRUST BLOCK PER UDACS PLATE #22

SEWER CONNECTION NOTE:
ONE OR MORE SEGMENTS OF THE DOWNSTREAM SEWER SYSTEM THAT WILL SERVE THIS PROJECT HAS NOT BEEN COMPLETED AND/OR ACCEPTED FOR MAINTENANCE BY THE CITY OF LAS VEGAS. ANY WORK DONE ON THIS PROJECT PRIOR TO THE COMPLETION AND/OR ACCEPTANCE OF THE DOWNSTREAM SEWER SYSTEM(S) SHALL BE DONE AT THE DEVELOPER'S OWN RISK. THE CITY OF LAS VEGAS RESERVES THE RIGHT TO PREVENT THE PHYSICAL CONNECTION OF THIS PROJECT INTO THE DOWNSTREAM SEWER SYSTEM UNTIL ALL SEGMENTS HAVE BEEN COMPLETED AND ACCEPTED FOR MAINTENANCE, OR UNTIL SUCH TIME AS THEY ARE DEEMED AVAILABLE FOR SERVICE.

LEGAL DESCRIPTION:

A PORTION OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.D., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE WEST HALF (W 1/2) OF THE WEST HALF (W 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., TOGETHER WITH:

THE WEST HALF (W 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.

BASIS OF BEARING

NORTH 00°37'29" WEST, BEING THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.,CLARK COUNTY, NEVADA, AS SHOWN ON THE PLAT OF CONSTELLATION ESTATES, RECORDED IN BOOK 102, PAGE 92, OFFICIAL RECORDS, CLARK COUNTY, NEVADA.

FLOOD ZONE:

THIS SITE IS LOCATED IN A ZONE 'X', AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN AND PARTIALLY IN A SHADED ZONE 'X', AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE OF FLOOD PER THE FLOOD INSURANCE RATE MAP COMMUNITY PANEL 32003C1750E, CLARK COUNTY, NEVADA DATED NOVEMBER 16, 2011, REVISED TO REFLECT LOMR DATED OCTOBER 18, 2018.

DEPTH OF COVER DURING CONSTRUCTION:

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

NOTE:
ADD 2800' TO GRADING ELEVATIONS SHOWN HEREON TO ADJUST THEM TO THE ASSOCIATED DATUM.
FINISHED GRADE CONTOURS ARE APPROXIMATE. REFER TO SPOT ELEVATION GRADE TAGS FOR CONSTRUCTION STAKING PURPOSES.

BENCHMARK

RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

ELEVATION (meters) 901.13
ELEVATION (feet) 2,956.44
NAVD 88

UTILITY DISCLAIMER NOTE:

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

SITE KEY MAP NOTE:
REFERENCE SHEET C.0.3 FOR SITE KEY MAP.

ENGINEER'S NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR EROSION AND DUST CONTROL, AND STORMWATER MANAGEMENT DURING CONSTRUCTION.
2. SEE HORIZONTAL CONTROL PLAN FOR EXACT PROPERTY LINE DIMENSIONS
3. ENGINEER TO BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES BETWEEN THESE PLANS AND FIELD CONDITIONS.
4. THESE PLANS SHALL NOT IN PART, OR IN WHOLE, BE USED FOR CONSTRUCTION UNTIL APPROVED AND SIGNED BY GOVERNING AGENCIES.
5. ALL GRADING SHALL CONFORM TO SOILS REPORT RECOMMENDATIONS.
6. DURING CONSTRUCTION, SURVEYORS AND CONTRACTORS MUST VERIFY THAT ALL STREETS AND LOTS HAVE POSITIVE DRAINAGE. SAME MUST UTILIZE AT LEAST THREE GRADES ON VERTICAL TANGENTS TO VERIFY SLOPES.
7. FLOOR SECTION ASSUMES 5" SLAB OVER MIN. 8.5" TYPE II. CONTRACTOR TO VERIFY WITH STRUCTURAL PLANS AND GEOTECHNICAL ENGINEER.

APPROVED FOR CONSTRUCTION

SOUTHWEST GAS CORPORATION DATE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING & ENGINEERING SERVICES

PROJECT NO. 137504 FIRST APPROVAL DATE: _____
LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDENTIAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

Call before you dig
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call 811 or 1-800-227-2600

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

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

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy., Suite 160
Henderson, NV 89074
(702) 966-4063
www.horrocks.com

SCALE: 1" = 30'

WARNING
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE

REVISIONS		
REV #	DATE	
1		

*SEE GENERAL NOTES SHEET

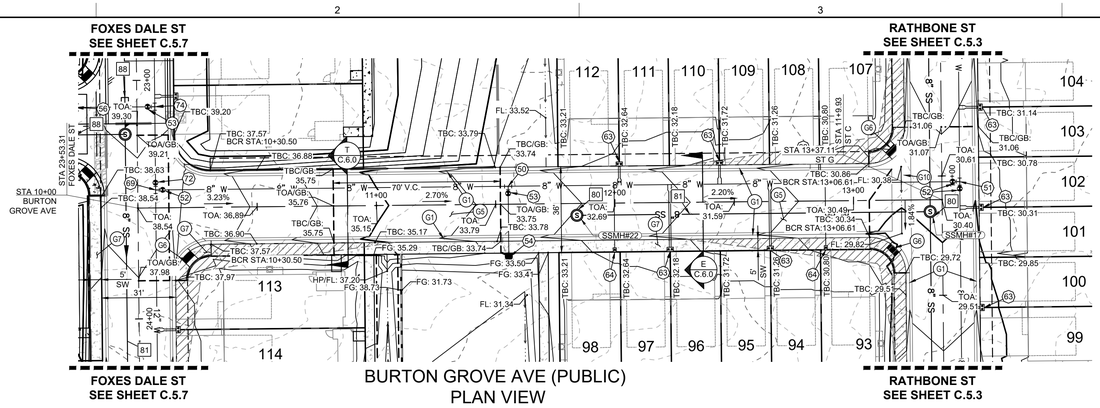
DRAWING INFO	
DATE	9/15/2020
DESIGNED	SS
DRAWN	PMP
CHECKED	AD
PROJECT	NV-1949-1909

PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
NO. 009169
9/15/2020

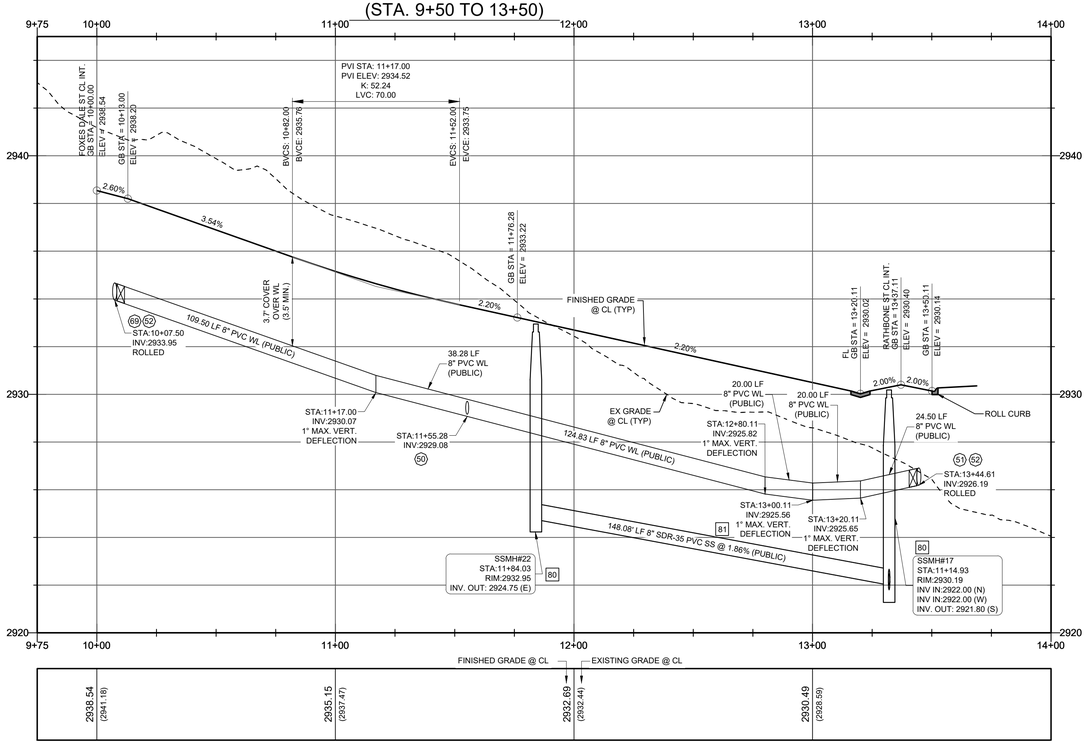
CENTENNIAL HEIGHTS TOWNHOMES PHASE 1
TECHNICAL DRAINAGE STUDY
CITY OF LAS VEGAS, NEVADA

NORFOLK VIEW CT, LILESTONE CT, & BENDMORE CT
PLAN & PROFILE (STA 9+75 TO STA 12+00)

C.5.4



BURTON GROVE AVE (PUBLIC)
PLAN VIEW
(STA. 9+50 TO 13+50)



BURTON GROVE AVE (PUBLIC)
PROFILE VIEW
(STA. 9+50 TO 13+50)
SCALE: 1" = 30' H
SCALE: 1" = 3' V

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BENCHMARK

RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

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WATER KEY NOTES:

(50) INSTALL 8" X 6" TEE & THRUST BLOCK PER UDACS PLATE #31
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(55) SAWCUT, TRENCH, BACKFILL, AND ASPHALT PATCH PER CCAUSD 500.3, 500.4, 500.5 & 503 (PATCH DIMENSIONS TO BE DETERMINED IN THE FIELD) PROPOSED SAWCUT TO BE AT LANE LINE
(56) INSTALL CAP & 2" BLOWOFF ASSEMBLY PER UDACS PLATE #36
(57) INSTALL 8" 90° BEND & THRUST BLOCK PER UDACS PLATE #31
(58) INSTALL 8" 45° BEND & THRUST BLOCK PER UDACS PLATE #31
(59) INSTALL 8" 22.5° BEND & THRUST BLOCK PER UDACS PLATE #31
(60) INSTALL 12" 11.25° BEND & THRUST BLOCK PER UDACS PLATE #31
(61) CONSTRUCT WATER MAIN CROSSING PER UDACS PLATE #22 & #23
(62) INSTALL 1" RPPA (PRIVATE) PER UDACS PLATE #8 (IRRIGATION), (STA LABEL REPRESENTS METER LOCATION) AND DETAIL PROVIDED
(63) INSTALL 1" SERVICE SADDLE, 1" SERVICE LATERAL, & 3/4" WATER METER (PUBLIC) PER UDACS PLATE #7 (STATION LABEL REPRESENTS METER LOCATION)
(64) INSTALL 1" SERVICE SADDLE, 1" SERVICE LATERAL, & 3/4" WATER METER (PUBLIC) PER UDACS PLATE #4 (STATION LABEL REPRESENTS METER LOCATION)
(65) REMOVE CAP AND B.O., CONNECT TO EXISTING
(66) INSTALL 8"X6" REDUCER PER UDACS PLATE 30
(67) INSTALL 6" 90° BEND & THRUST BLOCK PER UDACS PLATE #31
(68) CONNECT TO EX. WATER USING MECHANICAL JOINT OR STEEL FABRICATED TAPPING SLEEVE. PER UDACS SECTION 2.24
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(75) INSTALL 12"X8" REDUCER PER UDACS PLATE 30
(76) INSTALL 12" 45° VERT. BEND & THRUST BLOCK PER UDACS PLATE #22

GRADING KEY NOTES:

(G1) CONSTRUCT 30" ROLL CURB PER CCAUSD #217.2.S1
(G2) CONSTRUCT "L" TYPE CURB PER CCAUSD #216
(G3) CONSTRUCT "A" TYPE CURB PER CCAUSD #219
(G4) CONSTRUCT 10' TRANSITION FROM "L" TYPE CURB TO ROLL CURB PER DETAIL "1" ON SHEET C.6.1
(G5) CONSTRUCT 2" AC PAVEMENT OVER 4" TYPE II AGG BASE
(G6) CONSTRUCT SIDEWALK RAMP "CASE I" PER CCAUSD #235
(G7) CONSTRUCT 5" CONCRETE SIDEWALK PER CCAUSD #234
(G8) CONSTRUCT 4" AC PAVEMENT OVER 4" TYPE II AGG BASE
(G9) CONSTRUCT 5.5" AC PAVEMENT OVER 6" TYPE II AGG BASE
(G10) CONSTRUCT 8' CONCRETE VALLEY GUTTER PER CCAUSD #228
(G11) SAWCUT, TRENCH, BACKFILL, AND ASPHALT PATCH PER CCAUSD 500.3, 500.4, 500.5 & 503 (PATCH DIMENSIONS TO BE DETERMINED IN THE FIELD) PROPOSED SAWCUT TO BE AT LANE LINE
(G12) INSTALL WROUGHT IRON GATE PER CCAUSD #425.S1
(G13) INSTALL 60" TYPE II-SD STORM DRAIN MANHOLE PER CCAUSD #401 & 405.2
(G14) CONSTRUCT CURB OPENING PER DETAIL "2" OF SHEET C.6.1
(G15) INSTALL TYPE I-SD STORM DRAIN MANHOLE PER CCAUSD #403 WITH NEENAH 2501-G GRATED LID PER DETAIL "B" ON C.6.1
(G16) INSTALL STORM DRAIN JUNCTION STRUCTURE PER STRUCTURAL DRAWINGS ON SHEETS S1.0-S3.0.
(G17) EXISTING TO REMAIN. PROTECT IN PLACE.
(G18) INSTALL LANDSCAPING PER LANDSCAPE PLAN BY OTHERS
(G19) CONSTRUCT 5'X5' CONCRETE SIDEWALK PAD PER CCAUSD #234 FOR ADA TURNAROUND
(G20) CONSTRUCT DRIVEWAY PER CCAUSD #223
(G21) CONSTRUCT DROP INLET TYPE "CM2" PER CCAUSD #412.1 & 421. L=15', D=8.20'
(G22) CONSTRUCT DROP INLET TYPE "CM2" PER CCAUSD #412.1 & 421. L=10', D=7.95'
(G23) CONSTRUCT SIDEWALK UNDER DRAIN PER CCAUSD #236
(G24) INSTALL RIP-RAP D50=6", T=12" SUBGRADE @ 90% COMPACTION LENGTH AND WIDTH SPECIFIED ON PLAN
(G25) CONSTRUCT 4" CONCRETE SIDEWALK PER CCAUSD #234
(G26) CONSTRUCT BUS TURNOUT PER CCAUSD #234.1 & DETAIL "O" ON C.6.0
(G27) CONSTRUCT 3' CONCRETE VALLEY GUTTER PER CCAUSD #228
(G28) INSTALL 4" SIDEWALK DRAIN PIPE PER DETAIL "7" ON SHEET C.6.1
(G29) CONSTRUCT BLOCK WALL OPENING PER DETAIL "3" ON SHEET C.6.1
(G30) CONSTRUCT 24" WIDE CONCRETE FLUME PER DETAIL "5" ON SHEET C.6.1
(G33) CONSTRUCT 24"X36" BUBBLER STRUCTURE PER DETAIL "4" ON SHEET C.6.1
(G32) CONSTRUCT 6" CONCRETE PAVEMENT OVER 4" TYPE II AGG BASE

SEWER KEY NOTES:

(80) INSTALL 48" STANDARD SEWER MANHOLE WITH WATERTIGHT JOINTS PER DCSWCS SD-1, SD-3 & SD-4 WITH SINGLE 24" LID
(81) INSTALL 8" SDR-35 SEWER MAIN PER DCSWCS SD-17
(82) NOT USED
(83) INSTALL 4" SDR-35 PVC SEWER LATERAL PER DCSWCS SD-17, SD-20, SD-21, SD-23 AND SECTION 3.17.1. INSTALL CLEANOUT W/TRAFFIC RATED LID IN DRIVEWAY MORE THAN 5' FROM BACK OF CURB.
(84) REMOVE PLUG & CAP, CONNECT TO EXISTING
(85) NOT USED
(86) INSTALL 8" C-900 SEWER MAIN PER DCSWCS SD-17
(87) INSTALL CORROSION PROTECTION PER DCSWCS SEC 3.16.8
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EASEMENT KEY NOTES:

(1) 32.5' PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.
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SITE KEY MAP NOTE:
REFERENCE SHEET C.0.3 FOR SITE KEY MAP.

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APPROVED FOR CONSTRUCTION
SOUTHWEST GAS CORPORATION DATE

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT PLANNING & ENGINEERING SERVICES
PROJECT NO. 137504 FIRST APPROVAL DATE:
LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDENTIAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy., Suite 160
Henderson, NV 89074
(702) 966-4063
www.horrocks.com

SCALE: 1" = 30'

WARNING
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE

REVISIONS
REV # | DATE

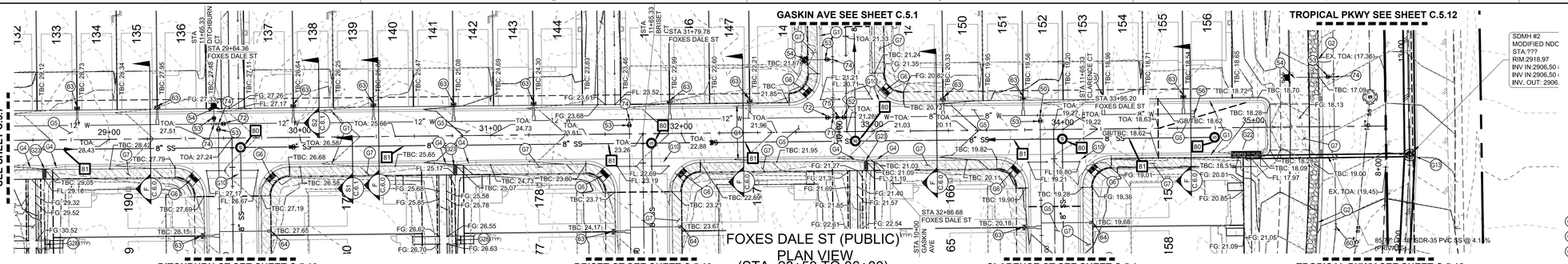
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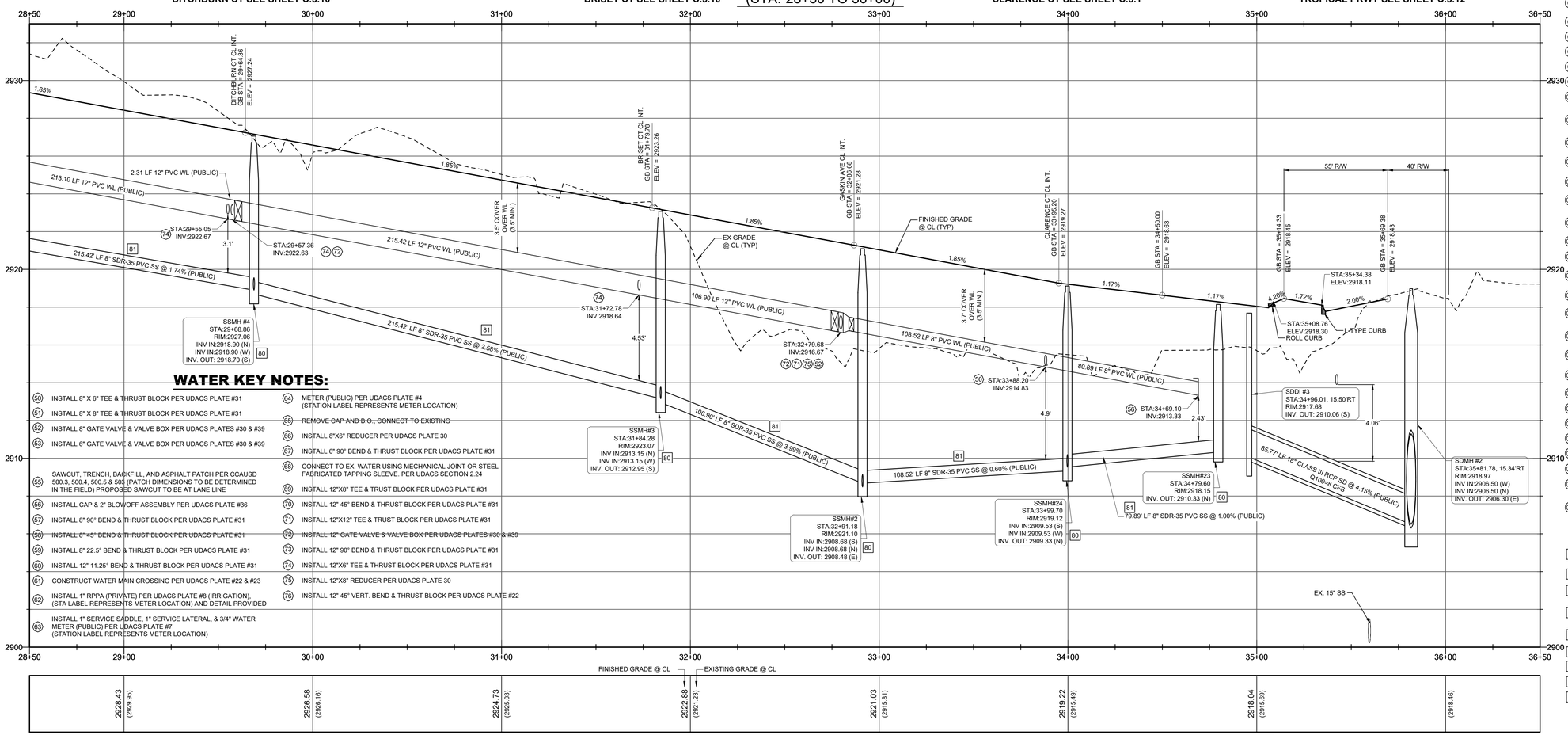
DRAWING INFO
DATE 9/15/2020
DESIGNED SS
DRAWN PMP
CHECKED AD
PROJECT NV-1949-1909

PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
NO. 009169
9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 1
TECHNICAL DRAINAGE STUDY
CITY OF LAS VEGAS, NEVADA
BURTON GROVE AVE PLAN & PROFILE (STA 9+50 TO STA 13+50)

C.5.5





FOXES DALE ST (PUBLIC)
PROFILE VIEW
(STA. 28+50 TO 36+00)
SCALE: 1" = 30' H
SCALE: 1" = 3' V

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- (G6) CONSTRUCT SIDEWALK RAMP "CASE I" PER CCAUSD #235
- (G7) CONSTRUCT 5" CONCRETE SIDEWALK PER CCAUSD #234
- (G8) CONSTRUCT 4" AC PAVEMENT OVER 4" TYPE II AGG BASE
- (G9) CONSTRUCT 5.5" AC PAVEMENT OVER 6" TYPE II AGG BASE
- (G10) CONSTRUCT 8' CONCRETE VALLEY GUTTER PER CCAUSD #228
- (G11) SAWCUT, TRENCH, BACKFILL, AND ASPHALT PATCH PER CCAUSD 500.3, 500.4, 500.5 & 503 (PATCH DIMENSIONS TO BE DETERMINED IN THE FIELD) PROPOSED SAWCUT TO BE AT LANE LINE
- (G12) INSTALL WROUGHT IRON GATE PER CCAUSD #425.S1
- (G13) INSTALL 60" TYPE II-SD STORM DRAIN MANHOLE PER CCAUSD #401 & 405.2
- (G14) CONSTRUCT CURB OPENING PER DETAIL "2" OF SHEET C.6.1
- (G15) INSTALL TYPE I-SD STORM DRAIN MANHOLE PER CCAUSD #403 WITH NEENAH 2501-G GRATED LID PER DETAIL "8" ON C.6.1
- (G16) INSTALL STORM DRAIN JUNCTION STRUCTURE PER STRUCTURAL DRAWINGS ON SHEETS S1.0-S3.0.
- (G17) EXISTING TO REMAIN. PROTECT IN PLACE.
- (G18) INSTALL LANDSCAPING PER LANDSCAPE PLAN BY OTHERS
- (G19) CONSTRUCT 5'X5' CONCRETE SIDEWALK PAD PER CCAUSD #234 FOR ADA TURNAROUND
- (G20) CONSTRUCT DRIVEWAY PER CCAUSD #223
- (G21) CONSTRUCT DROP INLET TYPE "CM2" PER CCAUSD #412.1 & 421. L=15', D=8.20'
- (G22) CONSTRUCT DROP INLET TYPE "CM2" PER CCAUSD #412.1 & 421. L=10', D=7.95'
- (G23) CONSTRUCT SIDEWALK UNDER DRAIN PER CCAUSD #236
- (G24) INSTALL RIP-RAP D50=6",T=12" SUBGRADE @ 90% COMPACTION LENGTH AND WIDTH SPECIFIED ON PLAN
- (G25) CONSTRUCT 4" CONCRETE SIDEWALK PER CCAUSD #234
- (G26) CONSTRUCT BUS TURNOUT PER CCAUSD #234.1 & DETAIL "O" ON C.6.0
- (G27) CONSTRUCT 3' CONCRETE VALLEY GUTTER PER CCAUSD #228
- (G28) INSTALL 4" SIDEWALK DRAIN PIPE PER DETAIL "7" ON SHEET C.6.1
- (G29) CONSTRUCT BLOCK WALL OPENING PER DETAIL "3" ON SHEET C.6.1
- (G30) CONSTRUCT 24" WIDE CONCRETE FLUME PER DETAIL "5" ON SHEET C.6.1
- (G31) CONSTRUCT 24"X36" BUBBLER STRUCTURE PER DETAIL "4" ON SHEET C.6.1
- (G32) CONSTRUCT 6" CONCRETE PAVEMENT OVER 4" TYPE II AGG BASE

WATER KEY NOTES:

- (50) INSTALL 8" X 6" TEE & THRUST BLOCK PER UDACS PLATE #31
- (51) INSTALL 8" X 8" TEE & THRUST BLOCK PER UDACS PLATE #31
- (52) INSTALL 8" GATE VALVE & VALVE BOX PER UDACS PLATES #30 & #39
- (53) INSTALL 6" GATE VALVE & VALVE BOX PER UDACS PLATES #30 & #39
- (55) SAWCUT, TRENCH, BACKFILL, AND ASPHALT PATCH PER CCAUSD 500.3, 500.4, 500.5 & 503 (PATCH DIMENSIONS TO BE DETERMINED IN THE FIELD) PROPOSED SAWCUT TO BE AT LANE LINE
- (56) INSTALL CAP & 2" BLOWOFF ASSEMBLY PER UDACS PLATE #36
- (57) INSTALL 8" 90° BEND & THRUST BLOCK PER UDACS PLATE #31
- (58) INSTALL 8" 45° BEND & THRUST BLOCK PER UDACS PLATE #31
- (59) INSTALL 8" 22.5° BEND & THRUST BLOCK PER UDACS PLATE #31
- (60) INSTALL 12" 11.25° BEND & THRUST BLOCK PER UDACS PLATE #31
- (61) CONSTRUCT WATER MAIN CROSSING PER UDACS PLATE #22 & #23
- (62) INSTALL 1" RPPA (PRIVATE) PER UDACS PLATE #8 (IRRIGATION), (STA LABEL REPRESENTS METER LOCATION) AND DETAIL PROVIDED
- (63) INSTALL 1" SERVICE SADDLE, 1" SERVICE LATERAL, & 3/4" WATER METER (PUBLIC) PER UDACS PLATE #7 (STATION LABEL REPRESENTS METER LOCATION)
- (64) METER (PUBLIC) PER UDACS PLATE #4 (STATION LABEL REPRESENTS METER LOCATION)
- (65) REMOVE CAP AND B.O., CONNECT TO EXISTING
- (66) INSTALL 8"X6" REDUCER PER UDACS PLATE 30
- (67) INSTALL 6" 90° BEND & THRUST BLOCK PER UDACS PLATE #31
- (68) CONNECT TO EX. WATER USING MECHANICAL JOINT OR STEEL FABRICATED TAPPING SLEEVE. PER UDACS SECTION 2.24
- (69) INSTALL 12"X8" TEE & TRUST BLOCK PER UDACS PLATE #31
- (70) INSTALL 12" 45° BEND & THRUST BLOCK PER UDACS PLATE #31
- (71) INSTALL 12"X12" TEE & TRUST BLOCK PER UDACS PLATE #31
- (72) INSTALL 12" GATE VALVE & VALVE BOX PER UDACS PLATES #30 & #39
- (73) INSTALL 12" 90° BEND & THRUST BLOCK PER UDACS PLATE #31
- (74) INSTALL 12"X6" TEE & THRUST BLOCK PER UDACS PLATE #31
- (75) INSTALL 12"X8" REDUCER PER UDACS PLATE 30
- (76) INSTALL 12" 45° VERT. BEND & THRUST BLOCK PER UDACS PLATE #22

SEWER KEY NOTES:

- (80) INSTALL 48" STANDARD SEWER MANHOLE WITH WATERTIGHT JOINTS PER DCSWCS SD-1, SD-3 & SD-4 WITH SINGLE 24" LID
- (81) INSTALL 8" SDR-35 SEWER MAIN PER DCSWCS SD-17
- (82) NOT USED
- (83) INSTALL 4" SDR-35 PVC SEWER LATERAL PER DCSWCS SD-17, SD-20, SD-21, SD-23 AND SECTION 3.17.1. INSTALL CLEANOUT W/TRAFFIC RATED LID IN DRIVEWAY MORE THAN 5' FROM BACK OF CURB.
- (84) REMOVE PLUG & CAP, CONNECT TO EXISTING
- (85) NOT USED
- (86) INSTALL 8" C-900 SEWER MAIN PER DCSWCS SD-17
- (87) INSTALL CORROSION PROTECTION PER DCSWCS SEC 3.16.8
- (88) INSTALL STUB-OUT & CAP PER DCSWCS SEC 2.3.5

EASEMENT KEY NOTES:

- (1) 32.5' PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.
- (2) 24' PUBLIC EMERGENCY ACCESS EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.
- (3) PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY HOA. PER FINAL MAP.

SEWER CONNECTION NOTE:
ONE OR MORE SEGMENTS OF THE DOWNSTREAM SEWER SYSTEM THAT WILL SERVE THIS PROJECT HAS NOT BEEN COMPLETED AND/OR ACCEPTED FOR MAINTENANCE BY THE CITY OF LAS VEGAS. ANY WORK DONE ON THIS PROJECT PRIOR TO THE COMPLETION AND/OR ACCEPTANCE OF THE DOWNSTREAM SEWER SYSTEM(S) SHALL BE DONE AT THE DEVELOPER'S OWN RISK. THE CITY OF LAS VEGAS RESERVES THE RIGHT TO PREVENT THE PHYSICAL CONNECTION OF THIS PROJECT INTO THE DOWNSTREAM SEWER SYSTEM UNTIL ALL SEGMENTS HAVE BEEN COMPLETED AND ACCEPTED FOR MAINTENANCE, OR UNTIL SUCH TIME AS THEY ARE DEEMED AVAILABLE FOR SERVICE.

LEGAL DESCRIPTION:

A PORTION OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.D., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE WEST HALF (W 1/2) OF THE WEST HALF (W 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., TOGETHER WITH:

THE WEST HALF (W 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.

BASIS OF BEARING

NORTH 00°37'29" WEST, BEING THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.,CLARK COUNTY, NEVADA, AS SHOWN ON THE PLAT OF CONSTELLATION ESTATES, RECORDED IN BOOK 102, PAGE 92, OFFICIAL RECORDS, CLARK COUNTY, NEVADA.

FLOOD ZONE:

THIS SITE IS LOCATED IN A ZONE 'X', AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN AND PARTIALLY IN A SHADED ZONE 'X', AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE OF FLOOD PER THE FLOOD INSURANCE RATE MAP COMMUNITY PANEL 32003C1750E, CLARK COUNTY, NEVADA DATED NOVEMBER 16, 2011, REVISED TO REFLECT LOMR DATED OCTOBER 18, 2018.

DEPTH OF COVER DURING CONSTRUCTION:

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

NOTE:
ADD 2800' TO GRADING ELEVATIONS SHOWN HEREON TO ADJUST THEM TO THE ASSOCIATED DATUM.
FINISHED GRADE CONTOURS ARE APPROXIMATE. REFER TO SPOT ELEVATION GRADE TAGS FOR CONSTRUCTION STAKING PURPOSES.

BENCHMARK

RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

ELEVATION (meters) 901.13
ELEVATION (feet) 2,956.44
NAVD 88

UTILITY DISCLAIMER NOTE:

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

SITE KEY MAP NOTE:
REFERENCE SHEET C.0.3 FOR SITE KEY MAP.

ENGINEER'S NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR EROSION AND DUST CONTROL, AND STORMWATER MANAGEMENT DURING CONSTRUCTION.
2. SEE HORIZONTAL CONTROL PLAN FOR EXACT PROPERTY LINE DIMENSIONS
3. ENGINEER TO BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES BETWEEN THESE PLANS AND FIELD CONDITIONS.
4. THESE PLANS SHALL NOT IN PART, OR IN WHOLE, BE USED FOR CONSTRUCTION UNTIL APPROVED AND SIGNED BY GOVERNING AGENCIES.
5. ALL GRADING SHALL CONFORM TO SOILS REPORT RECOMMENDATIONS.
6. DURING CONSTRUCTION, SURVEYORS AND CONTRACTORS MUST VERIFY THAT ALL STREETS AND LOTS HAVE POSITIVE DRAINAGE. SAME MUST UTILIZE AT LEAST THREE GRADES ON VERTICAL TANGENTS TO VERIFY SLOPES.
7. FLOOR SECTION ASSUMES 5" SLAB OVER MIN. 8.5" TYPE II. CONTRACTOR TO VERIFY WITH STRUCTURAL PLANS AND GEOTECHNICAL ENGINEER.

APPROVED FOR CONSTRUCTION
SOUTHWEST GAS CORPORATION DATE

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT PLANNING & ENGINEERING SERVICES
PROJECT NO. 137504 FIRST APPROVAL DATE:
LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDENTIAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

Call before you dig
AVOID CUTTING UNDERGROUND UTILITY LINES. CALL FIRST.
Call 811 or 1-800-227-2600

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

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

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy., Suite 160
Henderson, NV 89074
(702) 966-4063
www.horrocks.com

SCALE: 1" = 30'

WARNING
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE

REVISIONS		
REV #	DATE	

*SEE GENERAL NOTES SHEET

DRAWING INFO	
DATE	9/15/2020
DESIGNED	SS
DRAWN	PMP
CHECKED	AD
PROJECT	NV-1949-1909

PROFESSIONAL ENGINEER-STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
No. 01059
9/15/2020

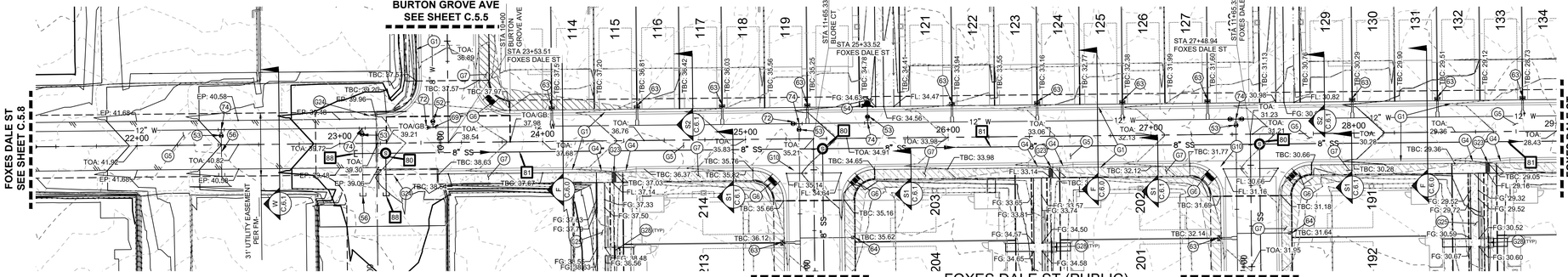
CENTENNIAL HEIGHTS TOWNHOMES PHASE 1
IMPROVEMENT PLANS
CITY OF LAS VEGAS, NEVADA

FOXES DALE ST PLAN & PROFILE (STA 28+50 TO STA 36.00)

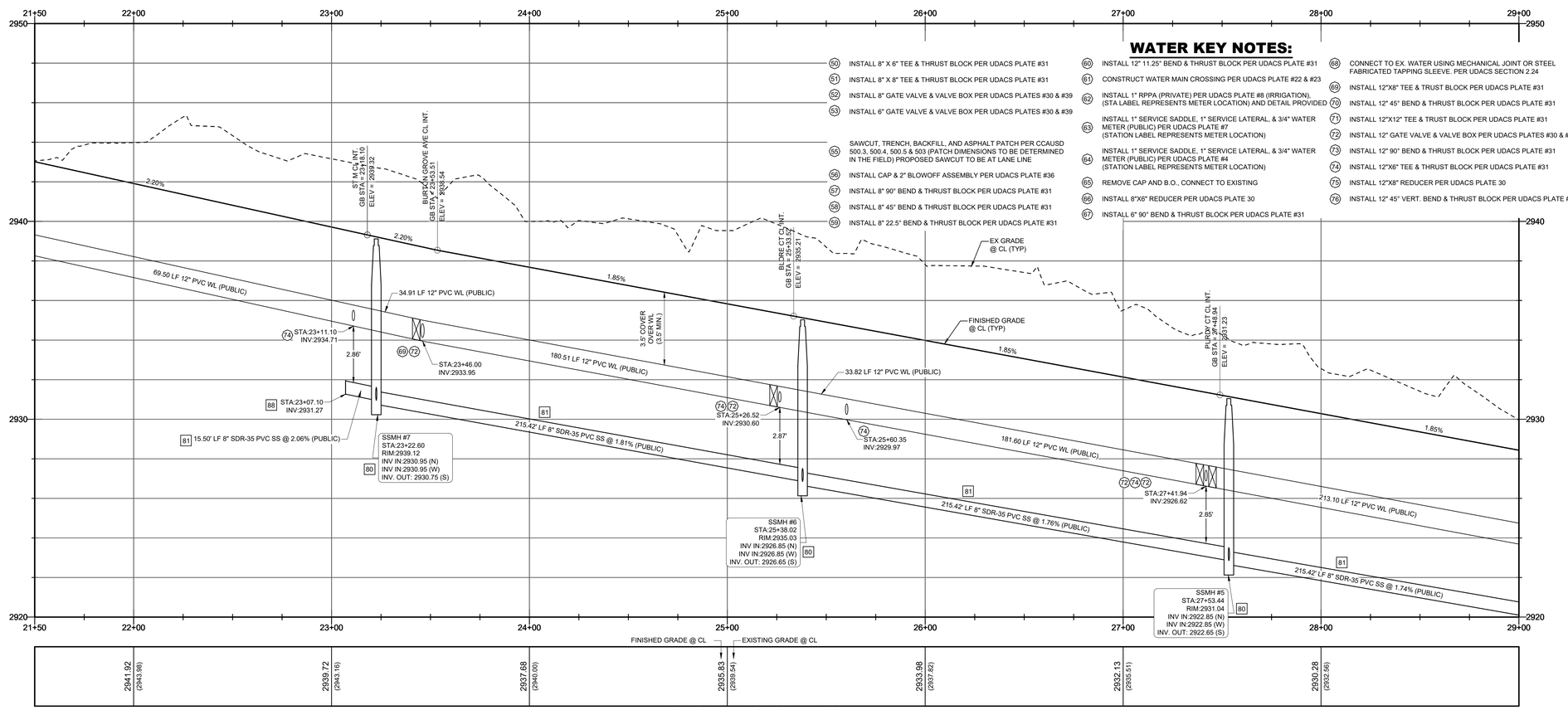
C.5.6

PAGE 28

H:\!2019\NV-1949-1909 Centennial Heights Townhomes\Project Data\02 CAD\2.03 Sheet Files\Phase 1\NV-1949-1909_C.5.0_PH1_PNP_NS2.dwg - C.5.6 - 9/15/2020 02:35pm, shayans



FOXES DALE ST (PUBLIC)
PLAN VIEW
(STA. 21+50 TO 29+00)



FOXES DALE ST (PUBLIC)
PROFILE VIEW
(STA. 21+50 TO 29+00)
SCALE: 1" = 30' H
SCALE: 1" = 3' V

WATER KEY NOTES:

50 INSTALL 8" X 6" TEE & THRUST BLOCK PER UDACS PLATE #31
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52 INSTALL 8" GATE VALVE & VALVE BOX PER UDACS PLATES #30 & #39
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65 REMOVE CAP AND B.O., CONNECT TO EXISTING
66 INSTALL 8"X6" REDUCER PER UDACS PLATE 30
67 INSTALL 6" 90° BEND & THRUST BLOCK PER UDACS PLATE #31
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76 INSTALL 12" 45° VERT. BEND & THRUST BLOCK PER UDACS PLATE #22

GRADING KEY NOTES:

G1 CONSTRUCT 30" ROLL CURB PER CCAUSD #217.2.S1
G2 CONSTRUCT "L" TYPE CURB PER CCAUSD #216
G3 CONSTRUCT "A" TYPE CURB PER CCAUSD #219
G4 CONSTRUCT 10' TRANSITION FROM "L" TYPE CURB TO ROLL CURB PER DETAIL "1" ON SHEET C.6.1
G5 CONSTRUCT 2" AC PAVEMENT OVER 4" TYPE II AGG BASE
G6 CONSTRUCT SIDEWALK RAMP "CASE I" PER CCAUSD #235
G7 CONSTRUCT 5" CONCRETE SIDEWALK PER CCAUSD #234
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SEWER KEY NOTES:

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88 INSTALL STUB-OUT & CAP PER DCSWCS SEC 2.3.5

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1 32.5' PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.
2 24' PUBLIC EMERGENCY ACCESS EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.
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REFERENCE SHEET C.0.3 FOR SITE KEY MAP.

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THE WEST HALF (W 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.

BASIS OF BEARING

NORTH 00°37'29" WEST, BEING THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.,CLARK COUNTY, NEVADA, AS SHOWN ON THE PLAT OF CONSTELLATION ESTATES, RECORDED IN BOOK 102, PAGE 92, OFFICIAL RECORDS, CLARK COUNTY, NEVADA.

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THIS SITE IS LOCATED IN A ZONE 'X', AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN AND PARTIALLY IN A SHADED ZONE 'X', AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE OF FLOOD PER THE FLOOD INSURANCE RATE MAP COMMUNITY PANEL 32003C1750E, CLARK COUNTY, NEVADA DATED NOVEMBER 16, 2011, REVISED TO REFLECT LOMR DATED OCTOBER 18, 2018.

DEPTH OF COVER DURING CONSTRUCTION:

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NOTE:
ADD 2800' TO GRADING ELEVATIONS SHOWN HEREON TO ADJUST THEM TO THE ASSOCIATED DATUM.
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BENCHMARK

RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

ELEVATION (meters) 901.13
ELEVATION (feet) 2,956.44
NAVD 88

UTILITY DISCLAIMER NOTE:

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ENGINEER'S NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR EROSION AND DUST CONTROL, AND STORMWATER MANAGEMENT DURING CONSTRUCTION.
2. SEE HORIZONTAL CONTROL PLAN FOR EXACT PROPERTY LINE DIMENSIONS
3. ENGINEER TO BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES BETWEEN THESE PLANS AND FIELD CONDITIONS.
4. THESE PLANS SHALL NOT IN PART, OR IN WHOLE, BE USED FOR CONSTRUCTION UNTIL APPROVED AND SIGNED BY GOVERNING AGENCIES.
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7. FLOOR SECTION ASSUMES 5" SLAB OVER MIN. 8.5" TYPE II. CONTRACTOR TO VERIFY WITH STRUCTURAL PLANS AND GEOTECHNICAL ENGINEER.

APPROVED FOR CONSTRUCTION
SOUTHWEST GAS CORPORATION DATE

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT PLANNING & ENGINEERING SERVICES
PROJECT NO. 137504 FIRST APPROVAL DATE: _____
LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDENTIAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

Call before you AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY. Call 811 or 1-800-227-2600

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

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

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy., Suite 160
Henderson, NV 89074
(702) 966-4063
www.horrocks.com

HORROCKS ENGINEERS

0 30' 60'
SCALE: 1" = 30'

WARNING
0 1 2
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE

REVISIONS
REV # | DATE
*SEE GENERAL NOTES SHEET

DRAWING INFO
DATE 9/15/2020
DESIGNED SS
DRAWN PMP
CHECKED AD
PROJECT NV-1949-1909

PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
No. 017659
9/15/2020

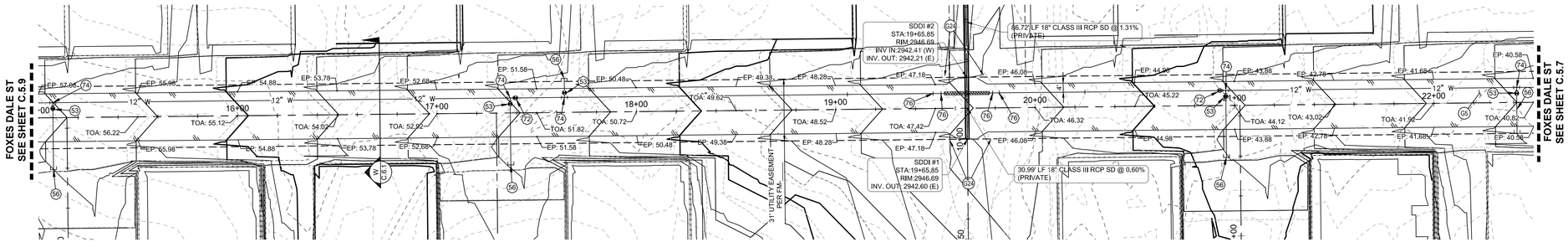
CENTENNIAL HEIGHTS TOWNHOMES PHASE 1
IMPROVEMENT PLANS
CITY OF LAS VEGAS, NEVADA

FOXES DALE ST PLAN & PROFILE (STA 21+50 TO STA 29+00)

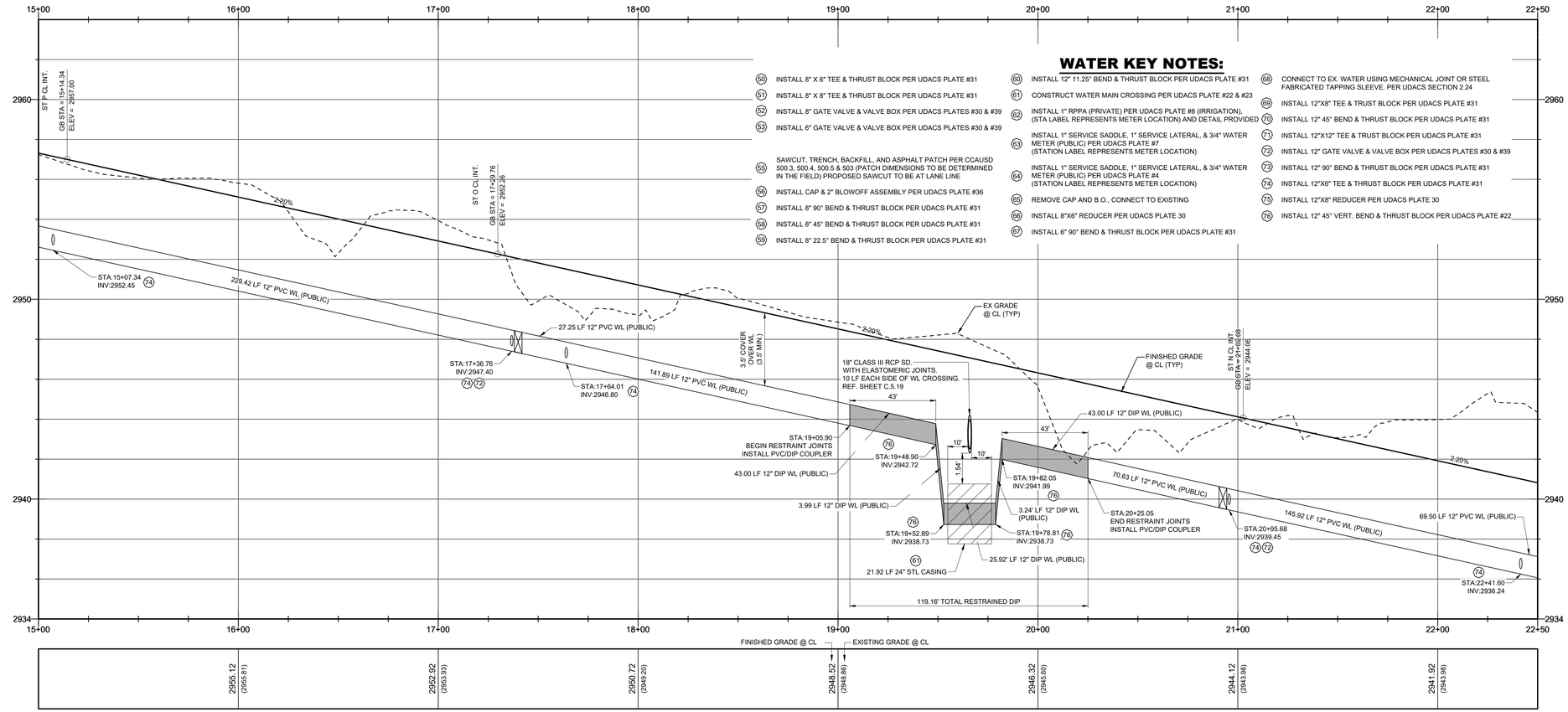
C.5.7

PAGE 29

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FOXES DALE ST (PUBLIC)
PLAN VIEW
(STA. 15+00 TO 22+50)



FOXES DALE ST (PUBLIC)
PROFILE VIEW
(STA. 15+00 TO 22+50)
SCALE: 1" = 30' H
SCALE: 1" = 3' V

WATER KEY NOTES:

50 INSTALL 8" X 6" TEE & THRUST BLOCK PER UDACS PLATE #31
51 INSTALL 8" X 8" TEE & THRUST BLOCK PER UDACS PLATE #31
52 INSTALL 8" GATE VALVE & VALVE BOX PER UDACS PLATES #30 & #39
53 INSTALL 6" GATE VALVE & VALVE BOX PER UDACS PLATES #30 & #39
55 SAWCUT, TRENCH, BACKFILL, AND ASPHALT PATCH PER CCAUSD 500.3, 500.4, 500.5 & 503 (PATCH DIMENSIONS TO BE DETERMINED IN THE FIELD) PROPOSED SAWCUT TO BE AT LANE LINE
56 INSTALL CAP & 2" BLOWOFF ASSEMBLY PER UDACS PLATE #36
57 INSTALL 8" 90° BEND & THRUST BLOCK PER UDACS PLATE #31
58 INSTALL 8" 45° BEND & THRUST BLOCK PER UDACS PLATE #31
59 INSTALL 8" 22.5° BEND & THRUST BLOCK PER UDACS PLATE #31
60 INSTALL 12" 11.25° BEND & THRUST BLOCK PER UDACS PLATE #31
61 CONSTRUCT WATER MAIN CROSSING PER UDACS PLATE #22 & #23
62 INSTALL 1" RPPA (PRIVATE) PER UDACS PLATE #8 (IRRIGATION), (STA LABEL REPRESENTS METER LOCATION) AND DETAIL PROVIDED
63 INSTALL 1" SERVICE SADDLE, 1" SERVICE LATERAL, & 3/4" WATER METER (PUBLIC) PER UDACS PLATE #7 (STATION LABEL REPRESENTS METER LOCATION)
64 INSTALL 1" SERVICE SADDLE, 1" SERVICE LATERAL, & 3/4" WATER METER (PUBLIC) PER UDACS PLATE #4 (STATION LABEL REPRESENTS METER LOCATION)
65 REMOVE CAP AND B.O., CONNECT TO EXISTING
66 INSTALL 8"X6" REDUCER PER UDACS PLATE 30
67 INSTALL 6" 90° BEND & THRUST BLOCK PER UDACS PLATE #31
68 CONNECT TO EX. WATER USING MECHANICAL JOINT OR STEEL FABRICATED TAPPING SLEEVE. PER UDACS SECTION 2.24
69 INSTALL 12"X8" TEE & TRUST BLOCK PER UDACS PLATE #31
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75 INSTALL 12"X8" REDUCER PER UDACS PLATE 30
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GRADING KEY NOTES:

G1 CONSTRUCT 30" ROLL CURB PER CCAUSD #217.2.S1
G2 CONSTRUCT "L" TYPE CURB PER CCAUSD #216
G3 CONSTRUCT "A" TYPE CURB PER CCAUSD #219
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G18 INSTALL LANDSCAPING PER LANDSCAPE PLAN BY OTHERS
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G31 CONSTRUCT 24"X36" BUBBLER STRUCTURE PER DETAIL "4" ON SHEET C.6.1
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SEWER KEY NOTES:

80 INSTALL 48" STANDARD SEWER MANHOLE WITH WATERTIGHT JOINTS PER DCSWCS SD-1, SD-3 & SD-4 WITH SINGLE 24" LID
81 INSTALL 8" SDR-35 SEWER MAIN PER DCSWCS SD-17
82 NOT USED
83 INSTALL 4" SDR-35 PVC SEWER LATERAL PER DCSWCS SD-17, SD-20, SD-21, SD-23 AND SECTION 3.17.1. INSTALL CLEANOUT W/TRAFFIC RATED LID IN DRIVEWAY MORE THAN 5' FROM BACK OF CURB.
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87 INSTALL CORROSION PROTECTION PER DCSWCS SEC 3.16.8
88 INSTALL STUB-OUT & CAP PER DCSWCS SEC 2.3.5

EASEMENT KEY NOTES:

1 32.5' PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.
2 24' PUBLIC EMERGENCY ACCESS EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.
3 PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY HOA. PER FINAL MAP.

SEWER CONNECTION NOTE:
ONE OR MORE SEGMENTS OF THE DOWNSTREAM SEWER SYSTEM THAT WILL SERVE THIS PROJECT HAS NOT BEEN COMPLETED AND/OR ACCEPTED FOR MAINTENANCE BY THE CITY OF LAS VEGAS. ANY WORK DONE ON THIS PROJECT PRIOR TO THE COMPLETION AND/OR ACCEPTANCE OF THE DOWNSTREAM SEWER SYSTEM(S) SHALL BE DONE AT THE DEVELOPER'S OWN RISK. THE CITY OF LAS VEGAS RESERVES THE RIGHT TO PREVENT THE PHYSICAL CONNECTION OF THIS PROJECT INTO THE DOWNSTREAM SEWER SYSTEM UNTIL ALL SEGMENTS HAVE BEEN COMPLETED AND ACCEPTED FOR MAINTENANCE, OR UNTIL SUCH TIME AS THEY ARE DEEMED AVAILABLE FOR SERVICE.

SITE KEY MAP NOTE:
REFERENCE SHEET C.0.3 FOR SITE KEY MAP.

ENGINEER'S NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR EROSION AND DUST CONTROL, AND STORMWATER MANAGEMENT DURING CONSTRUCTION.
2. SEE HORIZONTAL CONTROL PLAN FOR EXACT PROPERTY LINE DIMENSIONS
3. ENGINEER TO BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES BETWEEN THESE PLANS AND FIELD CONDITIONS.
4. THESE PLANS SHALL NOT IN PART, OR IN WHOLE, BE USED FOR CONSTRUCTION UNTIL APPROVED AND SIGNED BY GOVERNING AGENCIES.
5. ALL GRADING SHALL CONFORM TO SOILS REPORT RECOMMENDATIONS.
6. DURING CONSTRUCTION, SURVEYORS AND CONTRACTORS MUST VERIFY THAT ALL STREETS AND LOTS HAVE POSITIVE DRAINAGE. SAME MUST UTILIZE AT LEAST THREE GRADES ON VERTICAL TANGENTS TO VERIFY SLOPES.
7. FLOOR SECTION ASSUMES 5" SLAB OVER MIN. 8.5" TYPE II. CONTRACTOR TO VERIFY WITH STRUCTURAL PLANS AND GEOTECHNICAL ENGINEER.

LEGAL DESCRIPTION:

A PORTION OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.D., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

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THE WEST HALF (W 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.

BASIS OF BEARING

NORTH 00°37'29" WEST, BEING THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.,CLARK COUNTY, NEVADA, AS SHOWN ON THE PLAT OF CONSTELLATION ESTATES, RECORDED IN BOOK 102, PAGE 92, OFFICIAL RECORDS, CLARK COUNTY, NEVADA.

FLOOD ZONE:

THIS SITE IS LOCATED IN A ZONE 'X', AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN AND PARTIALLY IN A SHADED ZONE 'X', AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE OF FLOOD PER THE FLOOD INSURANCE RATE MAP COMMUNITY PANEL 32003C1750E, CLARK COUNTY, NEVADA DATED NOVEMBER 16, 2011, REVISED TO REFLECT LOMR DATED OCTOBER 18, 2018.

DEPTH OF COVER DURING CONSTRUCTION:

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

NOTE:
ADD 2800' TO GRADING ELEVATIONS SHOWN HEREON TO ADJUST THEM TO THE ASSOCIATED DATUM.
FINISHED GRADE CONTOURS ARE APPROXIMATE. REFER TO SPOT ELEVATION GRADE TAGS FOR CONSTRUCTION STAKING PURPOSES.

BENCHMARK

RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

ELEVATION (meters) 901.13
ELEVATION (feet) 2,956.44
NAVD 88

UTILITY DISCLAIMER NOTE:

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

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FAST
Call before you UnderGround
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FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

APPROVED FOR CONSTRUCTION
SOUTHWEST GAS CORPORATION DATE

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT PLANNING & ENGINEERING SERVICES
PROJECT NO. 137504 FIRST APPROVAL DATE:
LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDENTIAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy., Suite 160
Henderson, NV 89074
(702) 966-4063
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SCALE: 1" = 30'

WARNING
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REVISIONS
REV # | DATE

*SEE GENERAL NOTES SHEET

DRAWING INFO
DATE 9/15/2020
DESIGNED SS
DRAWN PMP
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PROJECT NV-1949-1909

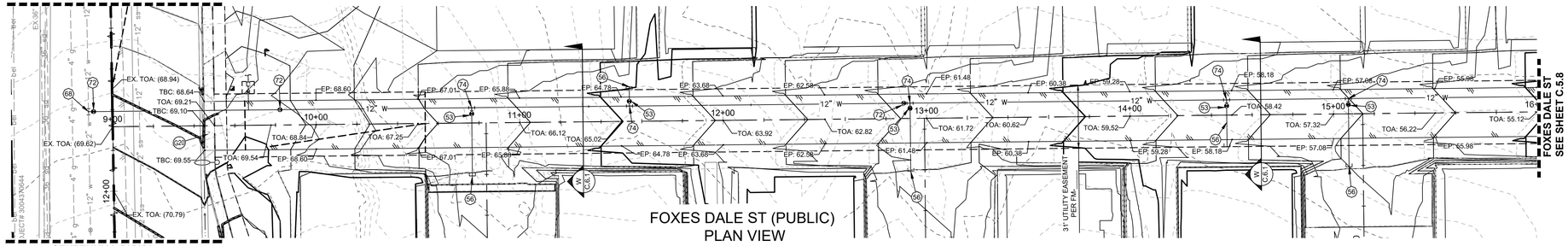
PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
No. 0059
9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 1
IMPROVEMENT PLANS
CITY OF LAS VEGAS, NEVADA

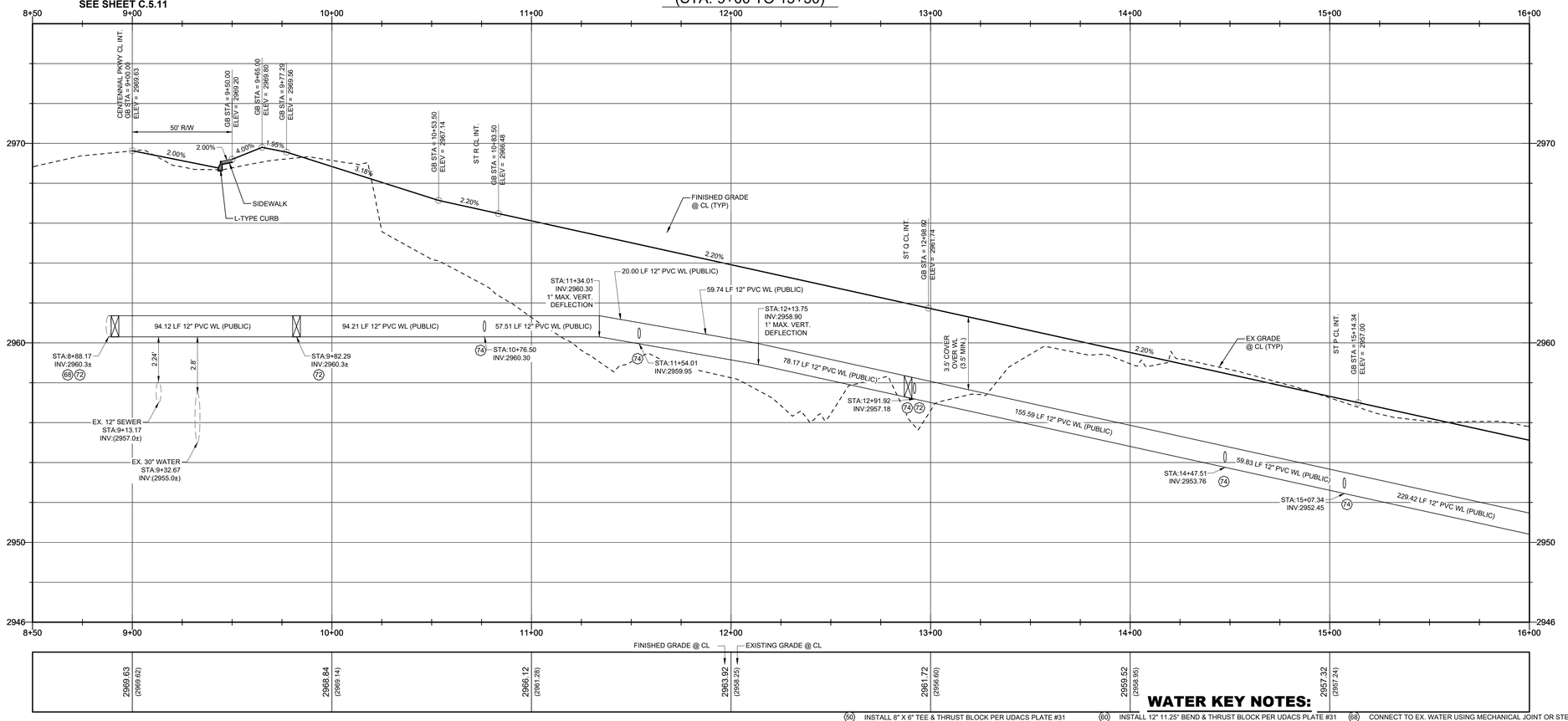
FOXES DALE ST PLAN & PROFILE (STA 15+00 TO STA 22+50)

C.5.8

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FOXES DALE ST (PUBLIC)
PLAN VIEW
(STA. 9+00 TO 15+50)



FOXES DALE ST (PUBLIC)
PROFILE VIEW
(STA. 9+00 TO 15+50)

SCALE: 1" = 30' H
SCALE: 1" = 3' V

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NORTH 00°37'29" WEST, BEING THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.,CLARK COUNTY, NEVADA, AS SHOWN ON THE PLAT OF CONSTELLATION ESTATES, RECORDED IN BOOK 102, PAGE 92, OFFICIAL RECORDS, CLARK COUNTY, NEVADA.

FLOOD ZONE:

THIS SITE IS LOCATED IN A ZONE 'X', AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN AND PARTIALLY IN A SHADED ZONE 'X', AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE OF FLOOD PER THE FLOOD INSURANCE RATE MAP COMMUNITY PANEL 32003C1750E, CLARK COUNTY, NEVADA DATED NOVEMBER 16, 2011, REVISED TO REFLECT LOMR DATED OCTOBER 18, 2018.

DEPTH OF COVER DURING CONSTRUCTION:

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

NOTE:
ADD 2800' TO GRADING ELEVATIONS SHOWN HEREON TO ADJUST THEM TO THE ASSOCIATED DATUM.
FINISHED GRADE CONTOURS ARE APPROXIMATE. REFER TO SPOT ELEVATION GRADE TAGS FOR CONSTRUCTION STAKING PURPOSES.

BENCHMARK

RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

ELEVATION (meters) 901.13
ELEVATION (feet) 2,956.44
NAVD 88

UTILITY DISCLAIMER NOTE:

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SITE KEY MAP NOTE:
REFERENCE SHEET C.0.3 FOR SITE KEY MAP.

ENGINEER'S NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR EROSION AND DUST CONTROL, AND STORMWATER MANAGEMENT DURING CONSTRUCTION.
2. SEE HORIZONTAL CONTROL PLAN FOR EXACT PROPERTY LINE DIMENSIONS
3. ENGINEER TO BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES BETWEEN THESE PLANS AND FIELD CONDITIONS.
4. THESE PLANS SHALL NOT IN PART, OR IN WHOLE, BE USED FOR CONSTRUCTION UNTIL APPROVED AND SIGNED BY GOVERNING AGENCIES.
5. ALL GRADING SHALL CONFORM TO SOILS REPORT RECOMMENDATIONS.
6. DURING CONSTRUCTION, SURVEYORS AND CONTRACTORS MUST VERIFY THAT ALL STREETS AND LOTS HAVE POSITIVE DRAINAGE. SAME MUST UTILIZE AT LEAST THREE GRADES ON VERTICAL TANGENTS TO VERIFY SLOPES.
7. FLOOR SECTION ASSUMES 5" SLAB OVER MIN. 8.5" TYPE II. CONTRACTOR TO VERIFY WITH STRUCTURAL PLANS AND GEOTECHNICAL ENGINEER.

APPROVED FOR CONSTRUCTION

SOUTHWEST GAS CORPORATION DATE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING & ENGINEERING SERVICES

PROJECT NO. 137504 FIRST APPROVAL DATE:
LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDENTIAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy., Suite 160
Henderson, NV 89074
(702) 966-4063
www.horrocks.com

SCALE: 1" = 30'

WARNING
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE

REVISIONS
REV # | DATE
*SEE GENERAL NOTES SHEET

DRAWING INFO
DATE 9/15/2020
DESIGNED SS
DRAWN PMP
CHECKED AD
PROJECT NV-1949-1909

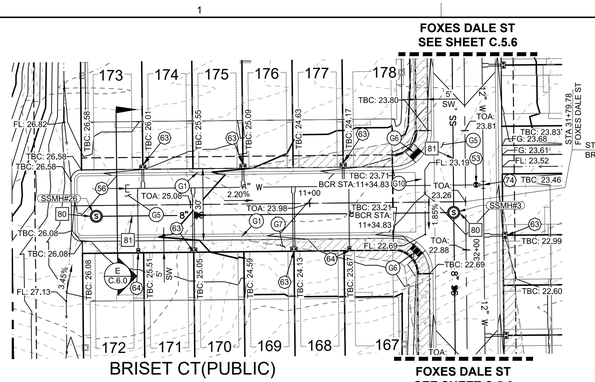
PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
No. 0159
9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 1
IMPROVEMENT PLANS
CITY OF LAS VEGAS, NEVADA

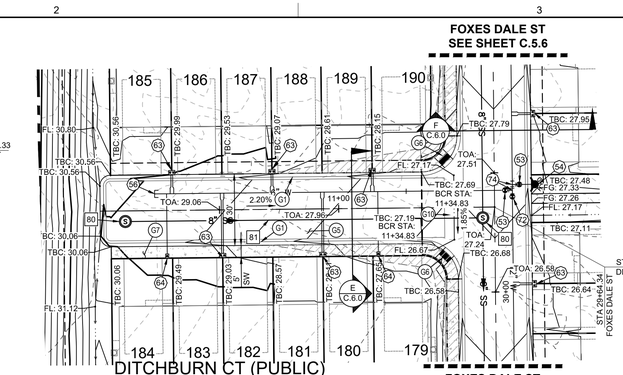
FOXES DALE ST PLAN & PROFILE (STA 9+00 TO STA 15+50)

C.5.9

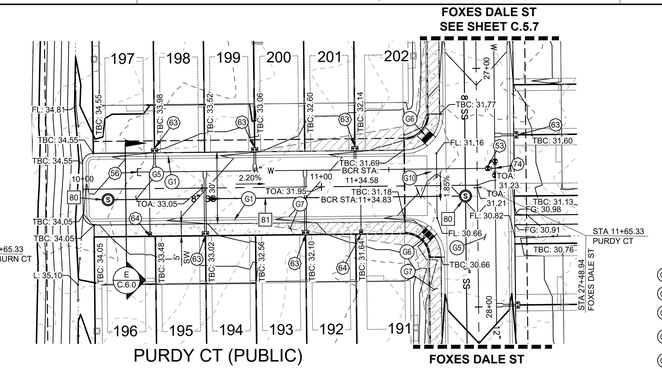
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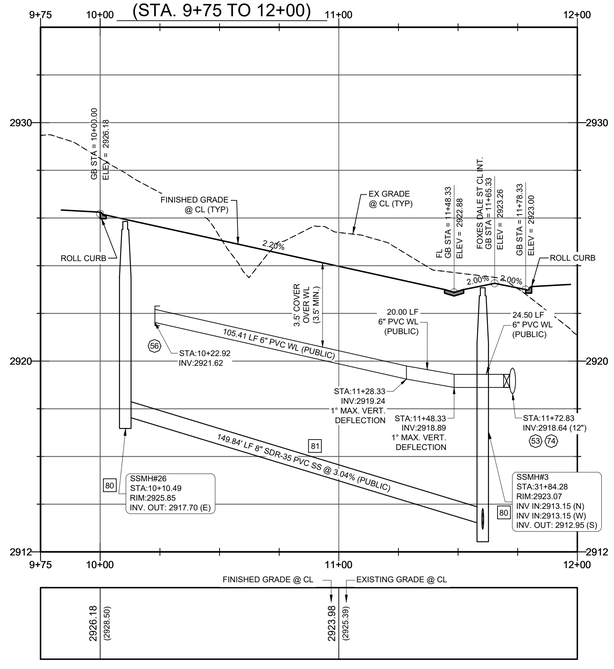
BRISET CT(PUBLIC)
PLAN VIEW



DITCHBURN CT (PUBLIC)
PLAN VIEW

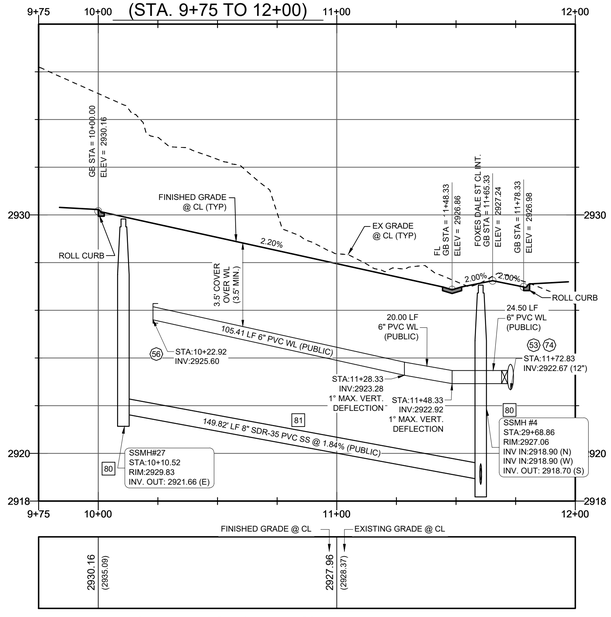


PURDY CT (PUBLIC)
PLAN VIEW



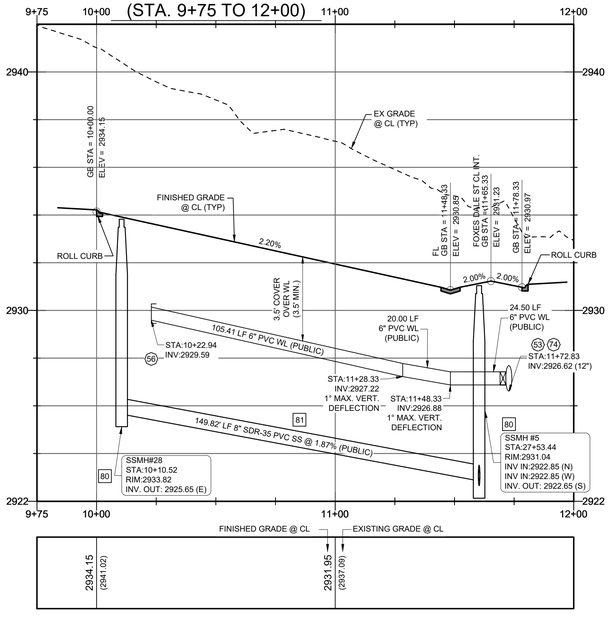
BRISET CT (PUBLIC)
PPROFILE VIEW
(STA. 9+75 TO 12+00)

SCALE: 1" = 30' H
SCALE: 1" = 3' V



DITCHBURN CT (PUBLIC)
PPROFILE VIEW
(STA. 9+75 TO 12+00)

SCALE: 1" = 30' H
SCALE: 1" = 3' V



PURDY CT (PUBLIC)
PPROFILE VIEW
(STA. 9+75 TO 12+00)

SCALE: 1" = 30' H
SCALE: 1" = 3' V

SEWER CONNECTION NOTE:

ONE OR MORE SEGMENTS OF THE DOWNSTREAM SEWER SYSTEM THAT WILL SERVE THIS PROJECT HAS NOT BEEN COMPLETED AND/OR ACCEPTED FOR MAINTENANCE BY THE CITY OF LAS VEGAS. ANY WORK DONE ON THIS PROJECT PRIOR TO THE COMPLETION AND/OR ACCEPTANCE OF THE DOWNSTREAM SEWER SYSTEM(S) SHALL BE DONE AT THE DEVELOPER'S OWN RISK. THE CITY OF LAS VEGAS RESERVES THE RIGHT TO PREVENT THE PHYSICAL CONNECTION OF THIS PROJECT INTO THE DOWNSTREAM SEWER SYSTEM UNTIL ALL SEGMENTS HAVE BEEN COMPLETED AND ACCEPTED FOR MAINTENANCE, OR UNTIL SUCH TIME AS THEY ARE DEEMED AVAILABLE FOR SERVICE.

LEGAL DESCRIPTION:

A PORTION OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.D., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE WEST HALF (W 1/2) OF THE WEST HALF (W 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., TOGETHER WITH:

THE WEST HALF (W 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.

Call before you DIG
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call 811 or 1-800-227-2600

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

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

BASIS OF BEARING

NORTH 00°37'29" WEST, BEING THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.,CLARK COUNTY, NEVADA, AS SHOWN ON THE PLAT OF CONSTELLATION ESTATES, RECORDED IN BOOK 102, PAGE 92, OFFICIAL RECORDS, CLARK COUNTY, NEVADA.

FLOOD ZONE:

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DEPTH OF COVER DURING CONSTRUCTION:

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NOTE:
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FINISHED GRADE CONTOURS ARE APPROXIMATE. REFER TO SPOT ELEVATION GRADE TAGS FOR CONSTRUCTION STAKING PURPOSES.

BENCHMARK

RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

ELEVATION (meters) 901.13
ELEVATION (feet) 2,956.44
NAVD 88

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WATER KEY NOTES:

(50) INSTALL 8" X 6" TEE & THRUST BLOCK PER UDACS PLATE #31
(51) INSTALL 8" X 8" TEE & THRUST BLOCK PER UDACS PLATE #31
(52) INSTALL 8" GATE VALVE & VALVE BOX PER UDACS PLATES #30 & #39
(53) INSTALL 6" GATE VALVE & VALVE BOX PER UDACS PLATES #30 & #39
(55) SAWCUT, TRENCH, BACKFILL, AND ASPHALT PATCH PER CCAUSD 500.3, 500.4, 500.5 & 503 (PATCH DIMENSIONS TO BE DETERMINED IN THE FIELD) PROPOSED SAWCUT TO BE AT LANE LINE
(56) INSTALL CAP & 2" BLOWOFF ASSEMBLY PER UDACS PLATE #36
(57) INSTALL 8" 90° BEND & THRUST BLOCK PER UDACS PLATE #31
(58) INSTALL 8" 45° BEND & THRUST BLOCK PER UDACS PLATE #31
(59) INSTALL 8" 22.5° BEND & THRUST BLOCK PER UDACS PLATE #31
(60) INSTALL 12" 11.25° BEND & THRUST BLOCK PER UDACS PLATE #31
(61) CONSTRUCT WATER MAIN CROSSING PER UDACS PLATE #22 & #23
(62) INSTALL 1" RPPA (PRIVATE) PER UDACS PLATE #8 (IRRIGATION), (STA LABEL REPRESENTS METER LOCATION) AND DETAIL PROVIDED
(63) INSTALL 1" SERVICE SADDLE, 1" SERVICE LATERAL, & 3/4" WATER METER (PUBLIC) PER UDACS PLATE #7 (STATION LABEL REPRESENTS METER LOCATION)
(64) METER (PUBLIC) PER UDACS PLATE #4 (STATION LABEL REPRESENTS METER LOCATION)
(65) REMOVE CAP AND B.O., CONNECT TO EXISTING
(66) INSTALL 8"X6" REDUCER PER UDACS PLATE 30
(67) INSTALL 6" 90° BEND & THRUST BLOCK PER UDACS PLATE #31
(68) CONNECT TO EX. WATER USING MECHANICAL JOINT OR STEEL FABRICATED TAPPING SLEEVE, PER UDACS SECTION 2.24
(69) INSTALL 12"X8" TEE & TRUST BLOCK PER UDACS PLATE #31
(70) INSTALL 12" 45° BEND & THRUST BLOCK PER UDACS PLATE #31
(71) INSTALL 12"X12" TEE & TRUST BLOCK PER UDACS PLATE #31
(72) INSTALL 12" GATE VALVE & VALVE BOX PER UDACS PLATES #30 & #39
(73) INSTALL 12" 90° BEND & THRUST BLOCK PER UDACS PLATE #31
(74) INSTALL 12"X6" TEE & THRUST BLOCK PER UDACS PLATE #31
(75) INSTALL 12"X8" REDUCER PER UDACS PLATE 30
(76) INSTALL 12" 45° VERT. BEND & THRUST BLOCK PER UDACS PLATE #22

GRADING KEY NOTES:

(G1) CONSTRUCT 30" ROLL CURB PER CCAUSD #217.2.S1
(G2) CONSTRUCT "L" TYPE CURB PER CCAUSD #216
(G3) CONSTRUCT "A" TYPE CURB PER CCAUSD #219
(G4) CONSTRUCT 10' TRANSITION FROM "L" TYPE CURB TO ROLL CURB PER DETAIL "1" ON SHEET C.6.1
(G5) CONSTRUCT 2" AC PAVEMENT OVER 4" TYPE II AGG BASE
(G6) CONSTRUCT SIDEWALK RAMP "CASE I" PER CCAUSD #235
(G7) CONSTRUCT 5" CONCRETE SIDEWALK PER CCAUSD #234
(G8) CONSTRUCT 4" AC PAVEMENT OVER 4" TYPE II AGG BASE
(G9) CONSTRUCT 5.5" AC PAVEMENT OVER 6" TYPE II AGG BASE
(G10) CONSTRUCT 8' CONCRETE VALLEY GUTTER PER CCAUSD #228
(G11) SAWCUT, TRENCH, BACKFILL, AND ASPHALT PATCH PER CCAUSD 500.3, 500.4, 500.5 & 503 (PATCH DIMENSIONS TO BE DETERMINED IN THE FIELD) PROPOSED SAWCUT TO BE AT LANE LINE
(G12) INSTALL WROUGHT IRON GATE PER CCAUSD #425.S1
(G13) INSTALL 60" TYPE II-SD STORM DRAIN MANHOLE PER CCAUSD #401 & 405.2
(G14) CONSTRUCT CURB OPENING PER DETAIL "2" OF SHEET C.6.1
(G15) INSTALL TYPE I-SD STORM DRAIN MANHOLE PER CCAUSD #403 WITH NEENAH 2501-G GRATED LID PER DETAIL "8" ON C.6.1
(G16) INSTALL STORM DRAIN JUNCTION STRUCTURE PER STRUCTURAL DRAWINGS ON SHEETS S1.0-S3.0.
(G17) EXISTING TO REMAIN. PROTECT IN PLACE.
(G18) INSTALL LANDSCAPING PER LANDSCAPE PLAN BY OTHERS
(G19) CONSTRUCT 5'X5' CONCRETE SIDEWALK PAD PER CCAUSD #234 FOR ADA TURNAROUND
(G20) CONSTRUCT DRIVEWAY PER CCAUSD #223
(G21) CONSTRUCT DROP INLET TYPE "CM2" PER CCAUSD #412.1 & 421. L=15', D=8.20'
(G22) CONSTRUCT DROP INLET TYPE "CM2" PER CCAUSD #412.1 & 421. L=10', D=7.95'
(G23) CONSTRUCT SIDEWALK UNDER DRAIN PER CCAUSD #236
(G24) INSTALL RIP-RAP D50=6",T=12" SUBGRADE @ 90% COMPACTION LENGTH AND WIDTH SPECIFIED ON PLAN
(G25) CONSTRUCT 4" CONCRETE SIDEWALK PER CCAUSD #234
(G26) CONSTRUCT BUS TURNOUT PER CCAUSD #234.1 & DETAIL "O" ON C.6.0
(G27) CONSTRUCT 3' CONCRETE VALLEY GUTTER PER CCAUSD #228
(G28) INSTALL 4" SIDEWALK DRAIN PIPE PER DETAIL "7" ON SHEET C.6.1
(G29) CONSTRUCT BLOCK WALL OPENING PER DETAIL "3" ON SHEET C.6.1
(G30) CONSTRUCT 24" WIDE CONCRETE FLUME PER DETAIL "5" ON SHEET C.6.1
(G31) CONSTRUCT 24"X36" BUBBLER STRUCTURE PER DETAIL "4" ON SHEET C.6.1
(G32) CONSTRUCT 6" CONCRETE PAVEMENT OVER 4" TYPE II AGG BASE

SEWER KEY NOTES:

(80) INSTALL 48" STANDARD SEWER MANHOLE WITH WATERTIGHT JOINTS PER DCSWCS SD-1, SD-3 & SD-4 WITH SINGLE 24" LID
(81) INSTALL 8" SDR-35 SEWER MAIN PER DCSWCS SD-17
(82) NOT USED
(83) INSTALL 4" SDR-35 PVC SEWER LATERAL PER DCSWCS SD-17, SD-20, SD-21, SD-23 AND SECTION 3.17.1. INSTALL CLEANOUT W/TRAFFIC RATED LID IN DRIVEWAY MORE THAN 5' FROM BACK OF CURB.
(84) REMOVE PLUG & CAP, CONNECT TO EXISTING
(85) NOT USED
(86) INSTALL 8" C-900 SEWER MAIN PER DCSWCS SD-17
(87) INSTALL CORROSION PROTECTION PER DCSWCS SEC 3.16.8
(88) INSTALL STUB-OUT & CAP PER DCSWCS SEC 2.3.5

EASEMENT KEY NOTES:

(1) 32.5' PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.
(2) 24' PUBLIC EMERGENCY ACCESS EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.
(3) PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY HOA. PER FINAL MAP.

SITE KEY MAP NOTE:
REFERENCE SHEET C.0.3 FOR SITE KEY MAP.

ENGINEER'S NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR EROSION AND DUST CONTROL, AND STORMWATER MANAGEMENT DURING CONSTRUCTION.
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7. FLOOR SECTION ASSUMES 5" SLAB OVER MIN. 8.5" TYPE II. CONTRACTOR TO VERIFY WITH STRUCTURAL PLANS AND GEOTECHNICAL ENGINEER.

APPROVED FOR CONSTRUCTION

SOUTHWEST GAS CORPORATION DATE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING & ENGINEERING SERVICES

PROJECT NO. 137504 FIRST APPROVAL DATE:
LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDENTIAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy., Suite 160
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SCALE: 1" = 30'

WARNING
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REVISIONS		
REV #	DATE	
1		

*SEE GENERAL NOTES SHEET

DRAWING INFO	
DATE	9/15/2020
DESIGNED	SS
DRAWN	PMP
CHECKED	AD
PROJECT	NV-1949-1909

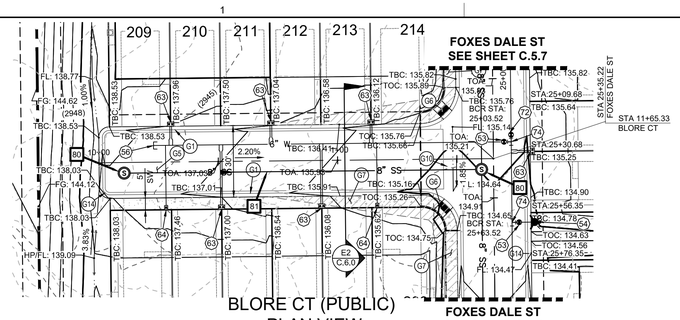
PROFESSIONAL ENGINEER-STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
No. 010159
9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 1
TECHNICAL DRAINAGE STUDY
CITY OF LAS VEGAS, NEVADA

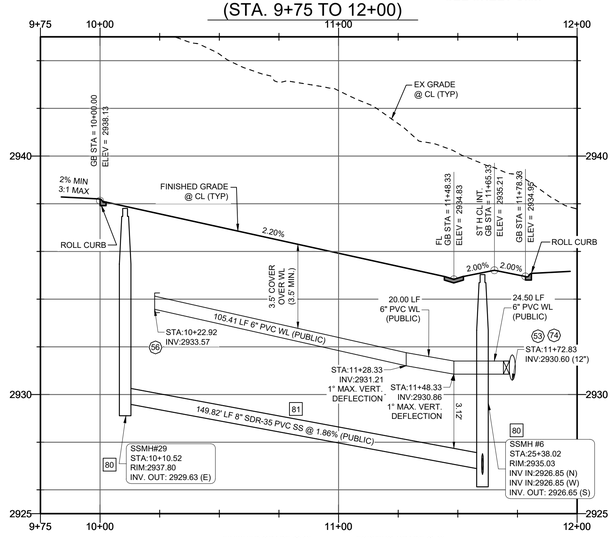
BRISET CT, DITCHBURN CT, & PURDY CT
PLAN & PROFILE (STA 9+75 TO STA 12+00)

C.5.10

H:\!2019\NV-1949-1909 Centennial Heights Townhomes\Project Data\02 CAD\2.03 Sheet Files\Phase 1\NV-1949-1909_C.5.0_PH1_PNP_EW.dwg - C.5.10 - 9/15/2020 02:46pm, shayans

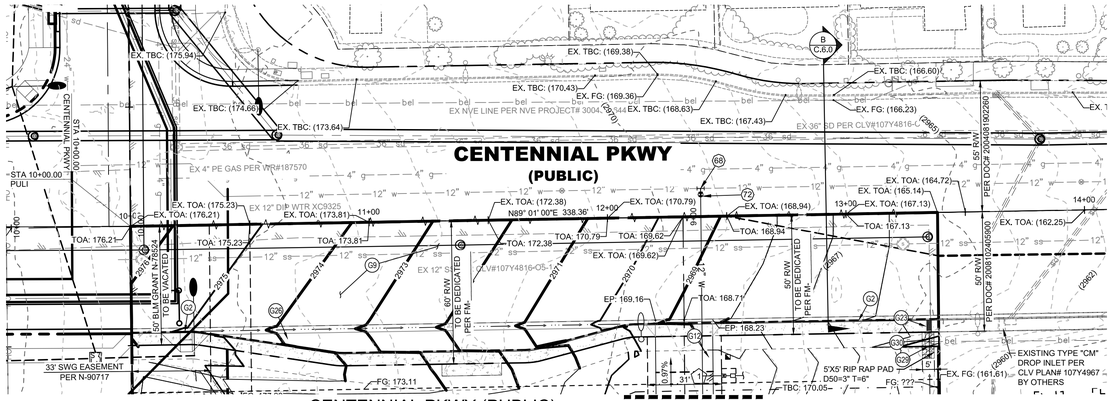


BLORE CT (PUBLIC)
PLAN VIEW
(STA. 9+75 TO 12+00)

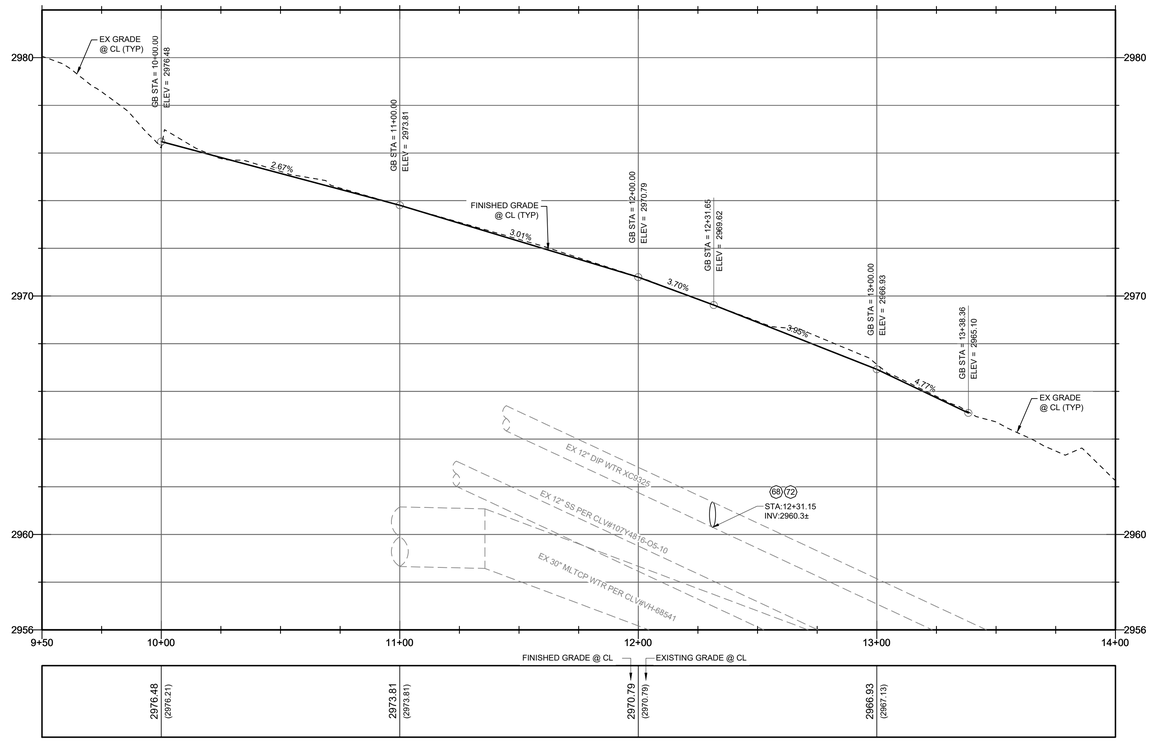


BLORE CT (PUBLIC)
PPROFILE VIEW
(STA. 9+75 TO 12+00)

SCALE: 1" = 30' H
SCALE: 1" = 3' V



CENTENNIAL PKWY (PUBLIC)
PLAN VIEW
(STA. 9+50 TO 14+00)



CENTENNIAL PKWY(PUBLIC)
PLAN VIEW
(STA. 10+50 TO 13+50)

SCALE: 1" = 30' H
SCALE: 1" = 3' V

GRADING KEY NOTES:

- (G1) CONSTRUCT 30" ROLL CURB PER CCAUSD #217.2.S1
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- (G3) CONSTRUCT "A" TYPE CURB PER CCAUSD #219
- (G4) CONSTRUCT 10' TRANSITION FROM "L" TYPE CURB TO ROLL CURB PER DETAIL "1" ON SHEET C.6.1
- (G5) CONSTRUCT 2" AC PAVEMENT OVER 4" TYPE II AGG BASE
- (G6) CONSTRUCT SIDEWALK RAMP "CASE I" PER CCAUSD #235
- (G7) CONSTRUCT 5" CONCRETE SIDEWALK PER CCAUSD #234
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- (G12) INSTALL WROUGHT IRON GATE PER CCAUSD #425.S1
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- (G20) CONSTRUCT DRIVEWAY PER CCAUSD #223
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- (G22) CONSTRUCT DROP INLET TYPE "CM2" PER CCAUSD #412.1 & 421. L=10', D=7.95'
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- (G24) INSTALL RIP-RAP D50=6",T=12" SUBGRADE @ 90% COMPACTION LENGTH AND WIDTH SPECIFIED ON PLAN
- (G25) CONSTRUCT 4" CONCRETE SIDEWALK PER CCAUSD #234
- (G26) CONSTRUCT BUS TURNOUT PER CCAUSD #234.1 & DETAIL "O" ON C.6.0
- (G27) CONSTRUCT 3' CONCRETE VALLEY GUTTER PER CCAUSD #228
- (G28) INSTALL 4" SIDEWALK DRAIN PIPE PER DETAIL "7" ON SHEET C.6.1
- (G29) CONSTRUCT BLOCK WALL OPENING PER DETAIL "3" ON SHEET C.6.1
- (G30) CONSTRUCT 24" WIDE CONCRETE FLUME PER DETAIL "5" ON SHEET C.6.1
- (G31) CONSTRUCT 24"X36" BUBBLER STRUCTURE PER DETAIL "4" ON SHEET C.6.1
- (G32) CONSTRUCT 6" CONCRETE PAVEMENT OVER 4" TYPE II AGG BASE

SEWER KEY NOTES:

- (80) INSTALL 48" STANDARD SEWER MANHOLE WITH WATERTIGHT JOINTS PER DCSWCS SD-1, SD-3 & SD-4 WITH SINGLE 24" LID
- (81) INSTALL 8" SDR-35 SEWER MAIN PER DCSWCS SD-17
- (82) NOT USED
- (83) INSTALL 4" SDR-35 PVC SEWER LATERAL PER DCSWCS SD-17, SD-20, SD-21, SD-23 AND SECTION 3.17.1. INSTALL CLEANOUT W/TRAFFIC RATED LID IN DRIVEWAY MORE THAN 5' FROM BACK OF CURB.
- (84) REMOVE PLUG & CAP, CONNECT TO EXISTING
- (85) NOT USED
- (86) INSTALL 8" C-900 SEWER MAIN PER DCSWCS SD-17
- (87) INSTALL CORROSION PROTECTION PER DCSWCS SEC 3.16.8
- (88) INSTALL STUB-OUT & CAP PER DCSWCS SEC 2.3.5

EASEMENT KEY NOTES:

- (1) 32.5' PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.
- (2) 24' PUBLIC EMERGENCY ACCESS EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.
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WATER KEY NOTES:

- (50) INSTALL 8" X 6" TEE & THRUST BLOCK PER UDACS PLATE #31
- (51) INSTALL 8" X 8" TEE & THRUST BLOCK PER UDACS PLATE #31
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- (60) INSTALL 12" 11.25° BEND & THRUST BLOCK PER UDACS PLATE #31
- (61) CONSTRUCT WATER MAIN CROSSING PER UDACS PLATE #22 & #23
- (62) INSTALL 1" RPPA (PRIVATE) PER UDACS PLATE #8 (IRRIGATION), (STA LABEL REPRESENTS METER LOCATION) AND DETAIL PROVIDED
- (63) INSTALL 1" SERVICE SADDLE, 1" SERVICE LATERAL, & 3/4" WATER METER (PUBLIC) PER UDACS PLATE #7 (STATION LABEL REPRESENTS METER LOCATION)
- (64) METER (PUBLIC) PER UDACS PLATE #4 (STATION LABEL REPRESENTS METER LOCATION)
- (65) REMOVE CAP AND B.O., CONNECT TO EXISTING
- (66) INSTALL 8"X6" REDUCER PER UDACS PLATE 30
- (67) INSTALL 6" 90° BEND & THRUST BLOCK PER UDACS PLATE #31
- (68) CONNECT TO EX. WATER USING MECHANICAL JOINT OR STEEL FABRICATED TAPPING SLEEVE. PER UDACS SECTION 2.24
- (69) INSTALL 12"X8" TEE & TRUST BLOCK PER UDACS PLATE #31
- (70) INSTALL 12" 45° BEND & THRUST BLOCK PER UDACS PLATE #31
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- (75) INSTALL 12"X8" REDUCER PER UDACS PLATE 30
- (76) INSTALL 12" 45° VERT. BEND & THRUST BLOCK PER UDACS PLATE #22

LEGAL DESCRIPTION:

A PORTION OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.D., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE WEST HALF (W 1/2) OF THE WEST HALF (W 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., TOGETHER WITH:

THE WEST HALF (W 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.

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

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

BASIS OF BEARING

NORTH 00°37'29" WEST, BEING THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.,CLARK COUNTY, NEVADA, AS SHOWN ON THE PLAT OF CONSTELLATION ESTATES, RECORDED IN BOOK 102, PAGE 92, OFFICIAL RECORDS, CLARK COUNTY, NEVADA.

FLOOD ZONE:

THIS SITE IS LOCATED IN A ZONE 'X', AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN AND PARTIALLY IN A SHADED ZONE 'X', AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE OF FLOOD PER THE FLOOD INSURANCE RATE MAP COMMUNITY PANEL 32003C1750E, CLARK COUNTY, NEVADA DATED NOVEMBER 16, 2011, REVISED TO REFLECT LOMR DATED OCTOBER 18, 2018.

DEPTH OF COVER DURING CONSTRUCTION:

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

NOTE:
ADD 2800' TO GRADING ELEVATIONS SHOWN HEREON TO ADJUST THEM TO THE ASSOCIATED DATUM.
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BENCHMARK

RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

ELEVATION (meters) 901.13
ELEVATION (feet) 2,956.44
NAVD 88

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SEWER CONNECTION NOTE:

ONE OR MORE SEGMENTS OF THE DOWNSTREAM SEWER SYSTEM THAT WILL SERVE THIS PROJECT HAS NOT BEEN COMPLETED AND/OR ACCEPTED FOR MAINTENANCE BY THE CITY OF LAS VEGAS. ANY WORK DONE ON THIS PROJECT PRIOR TO THE COMPLETION AND/OR ACCEPTANCE OF THE DOWNSTREAM SEWER SYSTEM(S) SHALL BE DONE AT THE DEVELOPER'S OWN RISK. THE CITY OF LAS VEGAS RESERVES THE RIGHT TO PREVENT THE PHYSICAL CONNECTION OF THIS PROJECT INTO THE DOWNSTREAM SEWER SYSTEM UNTIL ALL SEGMENTS HAVE BEEN COMPLETED AND ACCEPTED FOR MAINTENANCE, OR UNTIL SUCH TIME AS THEY ARE DEEMED AVAILABLE FOR SERVICE.

SITE KEY MAP NOTE:
REFERENCE SHEET C.0.3 FOR SITE KEY MAP.

ENGINEER'S NOTES:

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7. FLOOR SECTION ASSUMES 5" SLAB OVER MIN. 8.5" TYPE II. CONTRACTOR TO VERIFY WITH STRUCTURAL PLANS AND GEOTECHNICAL ENGINEER.

APPROVED FOR CONSTRUCTION

SOUTHWEST GAS CORPORATION DATE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING & ENGINEERING SERVICES

PROJECT NO. 137504 FIRST APPROVAL DATE: _____
LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDENTIAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy., Suite 160
Henderson, NV 89074
(702) 966-4063
www.horrocks.com

SCALE: 1" = 30'

WARNING
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE

REVISIONS
REV # | DATE

*SEE GENERAL NOTES SHEET

DRAWING INFO
DATE 9/15/2020
DESIGNED SS
DRAWN PMP
CHECKED AD
PROJECT NV-1949-1909

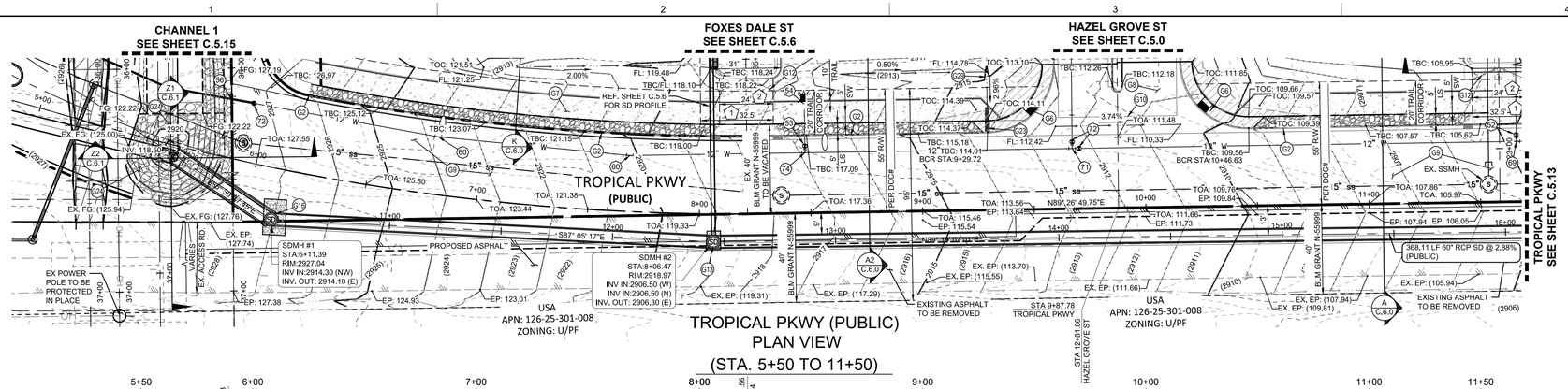
PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
NO. 00059
9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 1
TECHNICAL DRAINAGE STUDY
CITY OF LAS VEGAS, NEVADA

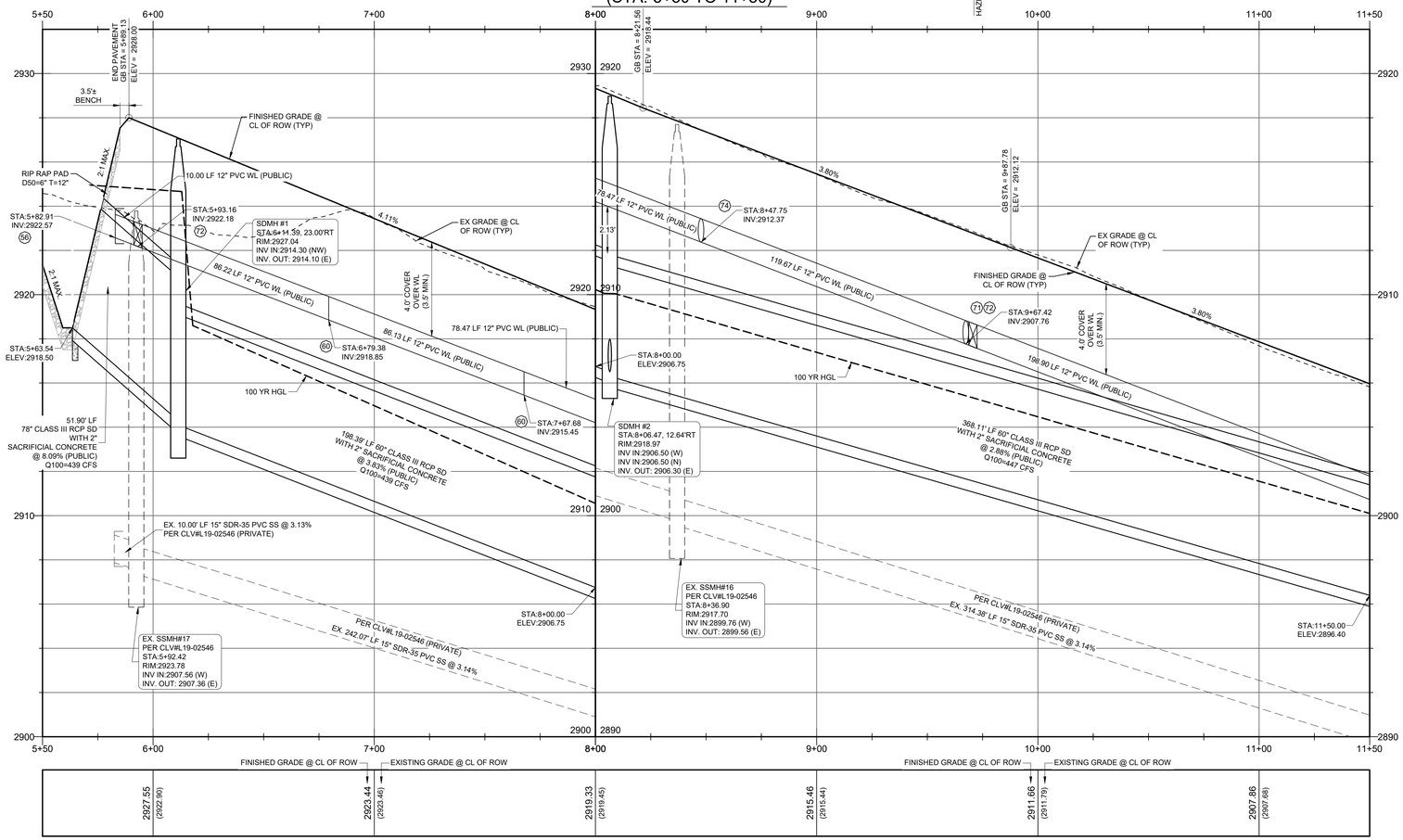
BLORE CT PLAN & PROFILE (STA 9+75 TO STA 12+00)
CENTENNIAL PKWY PLAN & PROFILE (STA 9+50 TO STA 14+00)

C.5.11

H:\I2019\NV-1949-1909 Centennial Heights Townhomes\Project Data\02 CAD\2.03 Sheet Files\Phase 1\NV-1949-1909_C.5.0_PH1_PNP_EW3.dwg - C.5.11 - 9/15/2020 02:50pm, shayans



TROPICAL PKWY (PUBLIC)
PLAN VIEW
(STA. 5+50 TO 11+50)



TROPICAL PKWY (PUBLIC)
PLAN VIEW
(STA. 5+50 TO 11+50)
SCALE: 1" = 30' H
SCALE: 1" = 3' V

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SITE KEY MAP NOTE:
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GRADING KEY NOTES:

(G1) CONSTRUCT 30" ROLL CURB PER CCAUSD #217.2.S1
(G2) CONSTRUCT "L" TYPE CURB PER CCAUSD #216
(G3) CONSTRUCT "A" TYPE CURB PER CCAUSD #219
(G4) CONSTRUCT 10' TRANSITION FROM "L" TYPE CURB TO ROLL CURB PER DETAIL "1" ON SHEET C.6.1
(G5) CONSTRUCT 2" AC PAVEMENT OVER 4" TYPE II AGG BASE
(G6) CONSTRUCT SIDEWALK RAMP "CASE I" PER CCAUSD #235
(G7) CONSTRUCT 5" CONCRETE SIDEWALK PER CCAUSD #234
(G8) CONSTRUCT 4" AC PAVEMENT OVER 4" TYPE II AGG BASE
(G9) CONSTRUCT 5.5" AC PAVEMENT OVER 6" TYPE II AGG BASE
(G10) CONSTRUCT 8' CONCRETE VALLEY GUTTER PER CCAUSD #228
(G11) SAWCUT, TRENCH, BACKFILL, AND ASPHALT PATCH PER CCAUSD 500.3, 500.4, 500.5 & 503 (PATCH DIMENSIONS TO BE DETERMINED IN THE FIELD) PROPOSED SAWCUT TO BE AT LANE LINE
(G12) INSTALL WROUGHT IRON GATE PER CCAUSD #425.S1
(G13) INSTALL 60" TYPE II-SD STORM DRAIN MANHOLE PER CCAUSD #401 & 405.2
(G14) CONSTRUCT CURB OPENING PER DETAIL "2" OF SHEET C.6.1
(G15) INSTALL TYPE I-SD STORM DRAIN MANHOLE PER CCAUSD #403 WITH NEENAH 2501-G GRATED LID PER DETAIL "8" ON C.6.1
(G16) INSTALL STORM DRAIN JUNCTION STRUCTURE PER STRUCTURAL DRAWINGS ON SHEETS S1.0-S3.0.
(G17) EXISTING TO REMAIN. PROTECT IN PLACE.
(G18) INSTALL LANDSCAPING PER LANDSCAPE PLAN BY OTHERS
(G19) CONSTRUCT 5'X5' CONCRETE SIDEWALK PAD PER CCAUSD #234 FOR ADA TURNAROUND
(G20) CONSTRUCT DRIVEWAY PER CCAUSD #223
(G21) CONSTRUCT DROP INLET TYPE "CM2" PER CCAUSD #412.1 & 421. L=15', D=8.20'
(G22) CONSTRUCT DROP INLET TYPE "CM2" PER CCAUSD #412.1 & 421. L=10', D=7.95'
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SOUTHWEST GAS CORPORATION DATE

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT PLANNING & ENGINEERING SERVICES
PROJECT NO. 137504 FIRST APPROVAL DATE:
LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDENTIAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

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SCALE: 1" = 30'

WARNING
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REVISIONS
REV # | DATE
1 | 9/15/2020

DRAWING INFO
DATE 9/15/2020
DESIGNED SS
DRAWN PMP
CHECKED AD
PROJECT NV-1949-1909

*SEE GENERAL NOTES SHEET

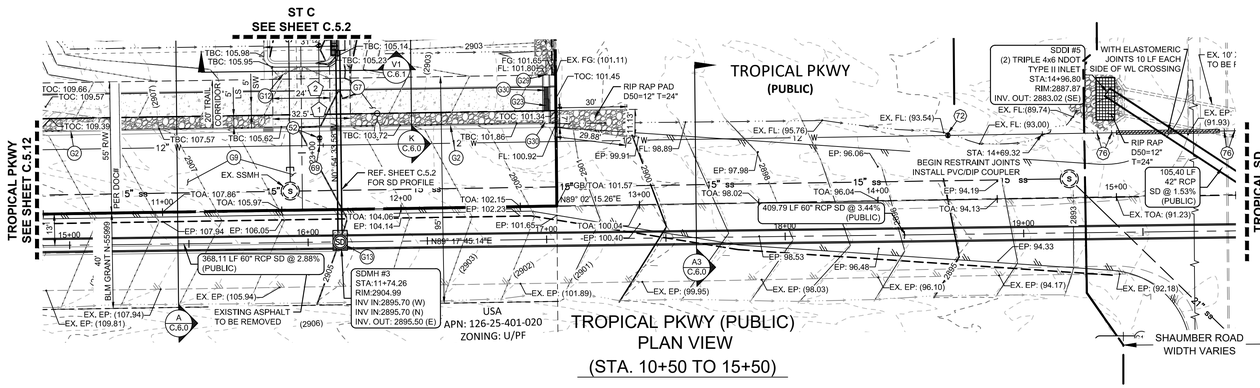
PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
No. 010159
9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 1
TECHNICAL DRAINAGE STUDY
CITY OF LAS VEGAS, NEVADA

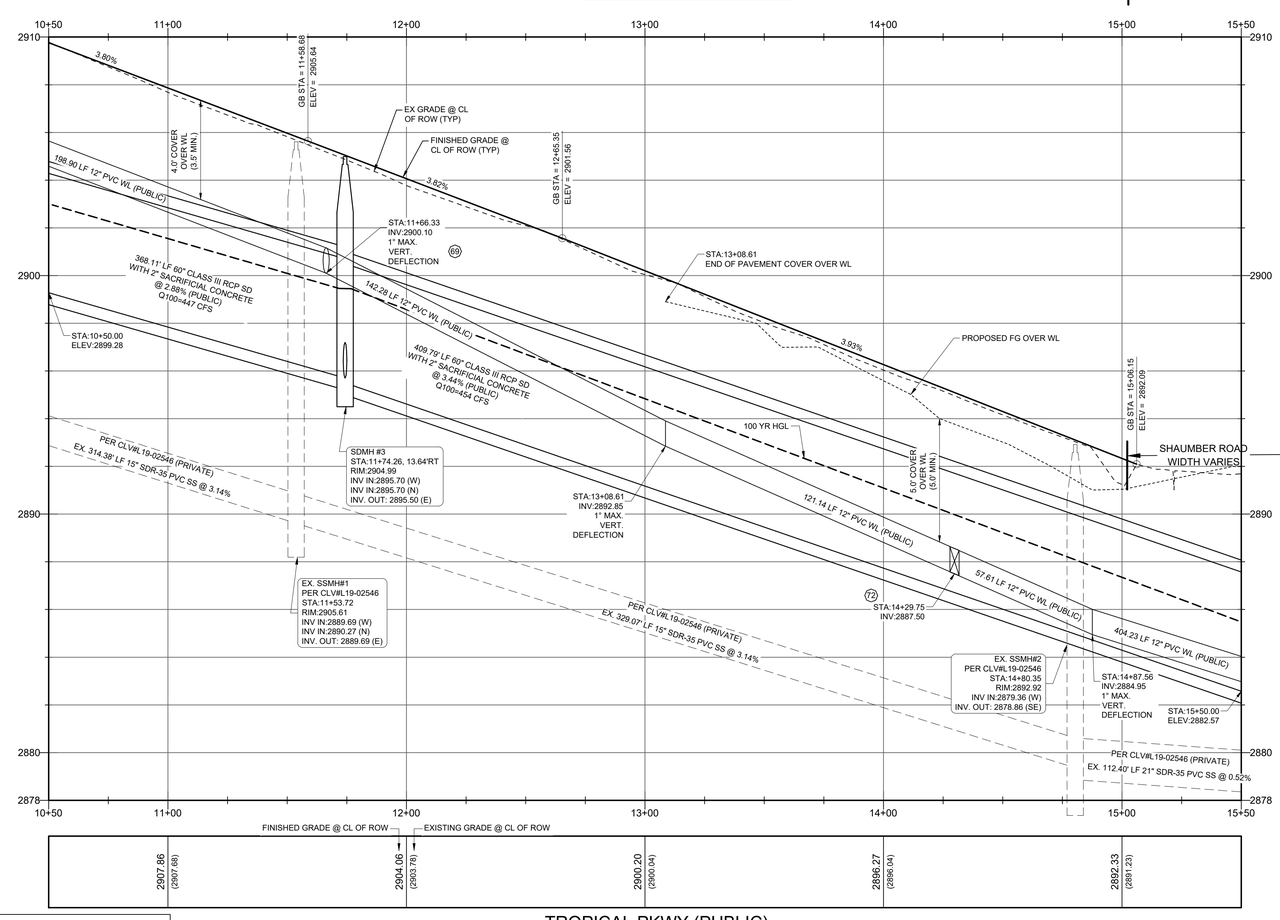
TROPICAL PKWY PLAN & PROFILE (STA 5+50 TO STA 11+50)

C.5.12

H:\1\2019\NV-1949-1909 Centennial Heights Townhomes\Project Data\02 CAD\2.03 Sheet Files\Phase 1\NV-1949-1909_C.5.0_PH1_PNP_EW2.dwg - C.5.12 - 9/15/2020 02:55pm, shayans



TROPICAL PKWY (PUBLIC)
PLAN VIEW
(STA. 10+50 TO 15+50)



TROPICAL PKWY (PUBLIC)
PLAN VIEW
(STA. 10+50 TO 15+50)

SCALE: 1" = 30' H
SCALE: 1" = 3' V

SEWER CONNECTION NOTE:
ONE OR MORE SEGMENTS OF THE DOWNSTREAM SEWER SYSTEM THAT WILL SERVE THIS PROJECT HAS NOT BEEN COMPLETED AND/OR ACCEPTED FOR MAINTENANCE BY THE CITY OF LAS VEGAS. ANY WORK DONE ON THIS PROJECT PRIOR TO THE COMPLETION AND/OR ACCEPTANCE OF THE DOWNSTREAM SEWER SYSTEM(S) SHALL BE DONE AT THE DEVELOPER'S OWN RISK. THE CITY OF LAS VEGAS RESERVES THE RIGHT TO PREVENT THE PHYSICAL CONNECTION OF THIS PROJECT INTO THE DOWNSTREAM SEWER SYSTEM UNTIL ALL SEGMENTS HAVE BEEN COMPLETED AND ACCEPTED FOR MAINTENANCE, OR UNTIL SUCH TIME AS THEY ARE DEEMED AVAILABLE FOR SERVICE.

SCALE: 1" = 30'

GRADING KEY NOTES:

(G1) CONSTRUCT 30" ROLL CURB PER CCAUSD #217.2.S1
(G2) CONSTRUCT "L" TYPE CURB PER CCAUSD #216
(G3) CONSTRUCT "A" TYPE CURB PER CCAUSD #219
(G4) CONSTRUCT 10' TRANSITION FROM "L" TYPE CURB TO ROLL CURB PER DETAIL "1" ON SHEET C.6.1
(G5) CONSTRUCT 2" AC PAVEMENT OVER 4" TYPE II AGG BASE
(G6) CONSTRUCT SIDEWALK RAMP "CASE I" PER CCAUSD #235
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(G10) CONSTRUCT 8' CONCRETE VALLEY GUTTER PER CCAUSD #228
(G11) SAWCUT, TRENCH, BACKFILL, AND ASPHALT PATCH PER CCAUSD 500.3, 500.4, 500.5 & 503 (PATCH DIMENSIONS TO BE DETERMINED IN THE FIELD) PROPOSED SAWCUT TO BE AT LANE LINE
(G12) INSTALL WROUGHT IRON GATE PER CCAUSD #425.S1
(G13) INSTALL 60" TYPE II-SD STORM DRAIN MANHOLE PER CCAUSD #401 & 405.2
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(G23) CONSTRUCT SIDEWALK UNDER DRAIN PER CCAUSD #236
(G24) INSTALL RIP-RAP D50=6",T=12" SUBGRADE @ 90% COMPACTION LENGTH AND WIDTH SPECIFIED ON PLAN
(G25) CONSTRUCT 4" CONCRETE SIDEWALK PER CCAUSD #234
(G26) CONSTRUCT BUS TURNOUT PER CCAUSD #234.1 & DETAIL "O" ON C.6.0
(G27) CONSTRUCT 3' CONCRETE VALLEY GUTTER PER CCAUSD #228
(G28) INSTALL 4" SIDEWALK DRAIN PIPE PER DETAIL "7" ON SHEET C.6.1
(G29) CONSTRUCT BLOCK WALL OPENING PER DETAIL "3" ON SHEET C.6.1
(G30) CONSTRUCT 24" WIDE CONCRETE FLUME PER DETAIL "5" ON SHEET C.6.1
(G31) CONSTRUCT 24"X36" BUBBLER STRUCTURE PER DETAIL "4" ON SHEET C.6.1
(G32) CONSTRUCT 6" CONCRETE PAVEMENT OVER 4" TYPE II AGG BASE

WATER KEY NOTES:

(50) INSTALL 8" X 6" TEE & THRUST BLOCK PER UDACS PLATE #31
(51) INSTALL 8" X 8" TEE & THRUST BLOCK PER UDACS PLATE #31
(52) INSTALL 8" GATE VALVE & VALVE BOX PER UDACS PLATES #30 & #39
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(62) INSTALL 1" RPPA (PRIVATE) PER UDACS PLATE #8 (IRRIGATION), (STA LABEL REPRESENTS METER LOCATION) AND DETAIL PROVIDED
(63) INSTALL 1" SERVICE SADDLE, 1" SERVICE LATERAL, & 3/4" WATER METER (PUBLIC) PER UDACS PLATE #7 (STATION LABEL REPRESENTS METER LOCATION)
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(67) INSTALL 6" 90° BEND & THRUST BLOCK PER UDACS PLATE #31
(68) CONNECT TO EX. WATER USING MECHANICAL JOINT OR STEEL FABRICATED TAPPING SLEEVE. PER UDACS SECTION 2.24
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(76) INSTALL 12" 45° VERT. BEND & THRUST BLOCK PER UDACS PLATE #22

SEWER KEY NOTES:

(80) INSTALL 48" STANDARD SEWER MANHOLE WITH WATERTIGHT JOINTS PER DCSWCS SD-1, SD-3 & SD-4 WITH SINGLE 24" LID
(81) INSTALL 8" SDR-35 SEWER MAIN PER DCSWCS SD-17
(82) NOT USED
(83) INSTALL 4" SDR-35 PVC SEWER LATERAL PER DCSWCS SD-17, SD-20, SD-21, SD-23 AND SECTION 3.17.1. INSTALL CLEANOUT W/TRAFFIC RATED LID IN DRIVEWAY MORE THAN 5' FROM BACK OF CURB.
(84) REMOVE PLUG & CAP, CONNECT TO EXISTING
(85) NOT USED
(86) INSTALL 8" C-900 SEWER MAIN PER DCSWCS SD-17
(87) INSTALL CORROSION PROTECTION PER DCSWCS SEC 3.16.8
(88) INSTALL STUB-OUT & CAP PER DCSWCS SEC 2.3.5

EASEMENT KEY NOTES:

(1) 32.5' PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.
(2) 24' PUBLIC EMERGENCY ACCESS EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.
(3) PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY HOA. PER FINAL MAP.

LEGAL DESCRIPTION:

A PORTION OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.D., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE WEST HALF (W 1/2) OF THE WEST HALF (W 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., TOGETHER WITH:

THE WEST HALF (W 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.

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FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

BASIS OF BEARING

NORTH 00°37'29" WEST, BEING THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.,CLARK COUNTY, NEVADA, AS SHOWN ON THE PLAT OF CONSTELLATION ESTATES, RECORDED IN BOOK 102, PAGE 92, OFFICIAL RECORDS, CLARK COUNTY, NEVADA.

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THIS SITE IS LOCATED IN A ZONE 'X', AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN AND PARTIALLY IN A SHADED ZONE 'X', AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE OF FLOOD PER THE FLOOD INSURANCE RATE MAP COMMUNITY PANEL 32003C1750E, CLARK COUNTY, NEVADA DATED NOVEMBER 16, 2011, REVISED TO REFLECT LOMR DATED OCTOBER 18, 2018.

DEPTH OF COVER DURING CONSTRUCTION:

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

NOTE:
ADD 2800' TO GRADING ELEVATIONS SHOWN HEREON TO ADJUST THEM TO THE ASSOCIATED DATUM.
FINISHED GRADE CONTOURS ARE APPROXIMATE. REFER TO SPOT ELEVATION GRADE TAGS FOR CONSTRUCTION STAKING PURPOSES.

BENCHMARK

RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

ELEVATION (meters) 901.13
ELEVATION (feet) 2,956.44
NAVD 88

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SITE KEY MAP NOTE:
REFERENCE SHEET C.0.3 FOR SITE KEY MAP.

ENGINEER'S NOTES:

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APPROVED FOR CONSTRUCTION

SOUTHWEST GAS CORPORATION DATE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING & ENGINEERING SERVICES

PROJECT NO. 137504 FIRST APPROVAL DATE: _____
LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDENTIAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy., Suite 160
Henderson, NV 89074
(702) 966-4063
www.horrocks.com

WARNING
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE
0 1 2

REVISIONS
REV # | DATE
1 |

*SEE GENERAL NOTES SHEET

DRAWING INFO
DATE 9/15/2020
DESIGNED SS
DRAWN PMP
CHECKED AD
PROJECT NV-1949-1909

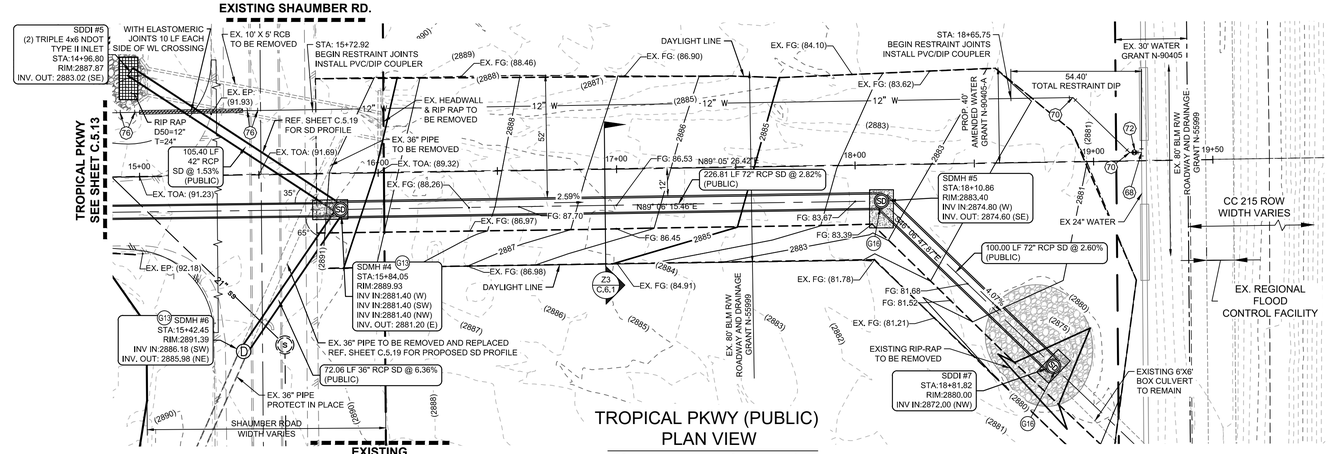
PROFESSIONAL ENGINEER-STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
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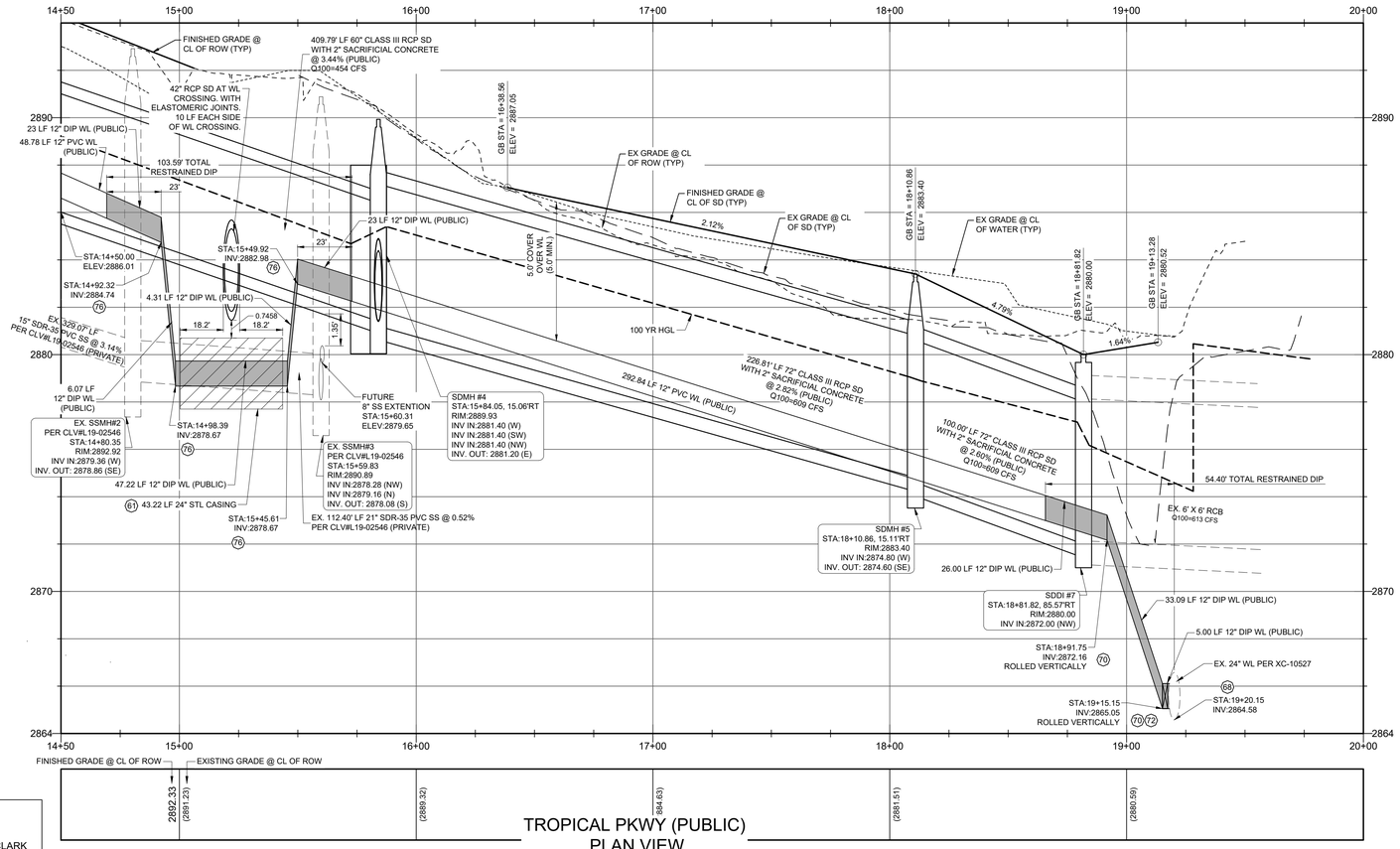
CENTENNIAL HEIGHTS TOWNHOMES PHASE 1
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CITY OF LAS VEGAS, NEVADA

TROPICAL PKWY PLAN & PROFILE (STA 10+50 TO STA 15+50)

C.5.13

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(G24) INSTALL RIP-RAP D50=6",T=12" SUBGRADE @ 90% COMPACTION LENGTH AND WIDTH SPECIFIED ON PLAN
(G25) CONSTRUCT 4" CONCRETE SIDEWALK PER CCAUSD #234
(G26) CONSTRUCT BUS TURNOUT PER CCAUSD #234.1 & DETAIL "O" ON C.6.0
(G27) CONSTRUCT 3' CONCRETE VALLEY GUTTER PER CCAUSD #228
(G29) INSTALL 4" SIDEWALK DRAIN PIPE PER DETAIL "7" ON SHEET C.6.1
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(G30) CONSTRUCT 24" WIDE CONCRETE FLUME PER DETAIL "5" ON SHEET C.6.1
(G33) CONSTRUCT 24"X36" BUBBLER STRUCTURE PER DETAIL "4" ON SHEET C.6.1
(G32) CONSTRUCT 6" CONCRETE PAVEMENT OVER 4" TYPE II AGG BASE

SEWER KEY NOTES:

(80) INSTALL 48" STANDARD SEWER MANHOLE WITH WATERTIGHT JOINTS PER DCSWCS SD-1, SD-3 & SD-4 WITH SINGLE 24" LID
(81) INSTALL 8" SDR-35 SEWER MAIN PER DCSWCS SD-17
(82) NOT USED
(83) INSTALL 4" SDR-35 PVC SEWER LATERAL PER DCSWCS SD-17, SD-20, SD-21, SD-23 AND SECTION 3.17.1. INSTALL CLEANOUT W/TRAFFIC RATED LID IN DRIVEWAY MORE THAN 5' FROM BACK OF CURB.
(84) REMOVE PLUG & CAP, CONNECT TO EXISTING
(85) NOT USED
(86) INSTALL 8" C-900 SEWER MAIN PER DCSWCS SD-17
(87) INSTALL CORROSION PROTECTION PER DCSWCS SEC 3.16.8
(88) INSTALL STUB-OUT & CAP PER DCSWCS SEC 2.3.5

EASEMENT KEY NOTES:

(1) 32.5' PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.
(2) 24' PUBLIC EMERGENCY ACCESS EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.
(3) PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY HOA. PER FINAL MAP.

APPROVED FOR CONSTRUCTION
SOUTHWEST GAS CORPORATION DATE

APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT PLANNING & ENGINEERING SERVICES
PROJECT NO. 137504 FIRST APPROVAL DATE:
LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDENTIAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

HORROCKS ENGINEERS
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(702) 966-4063
www.horrocks.com

SCALE: 1" = 30'

WARNING
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE

REVISIONS		
REV #	DATE	
1		

*SEE GENERAL NOTES SHEET

DRAWING INFO	
DATE	9/15/2020
DESIGNED	SS
DRAWN	PMP
CHECKED	AD
PROJECT	NV-1949-1909

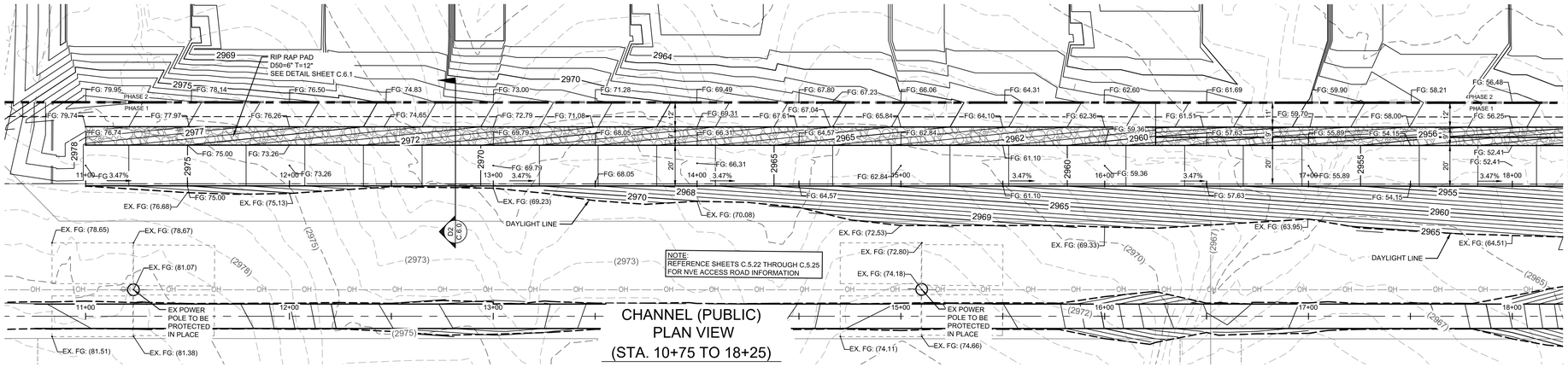
PROFESSIONAL ENGINEER-STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
NO. 009169
9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 1
TECHNICAL DRAINAGE STUDY
CITY OF LAS VEGAS, NEVADA

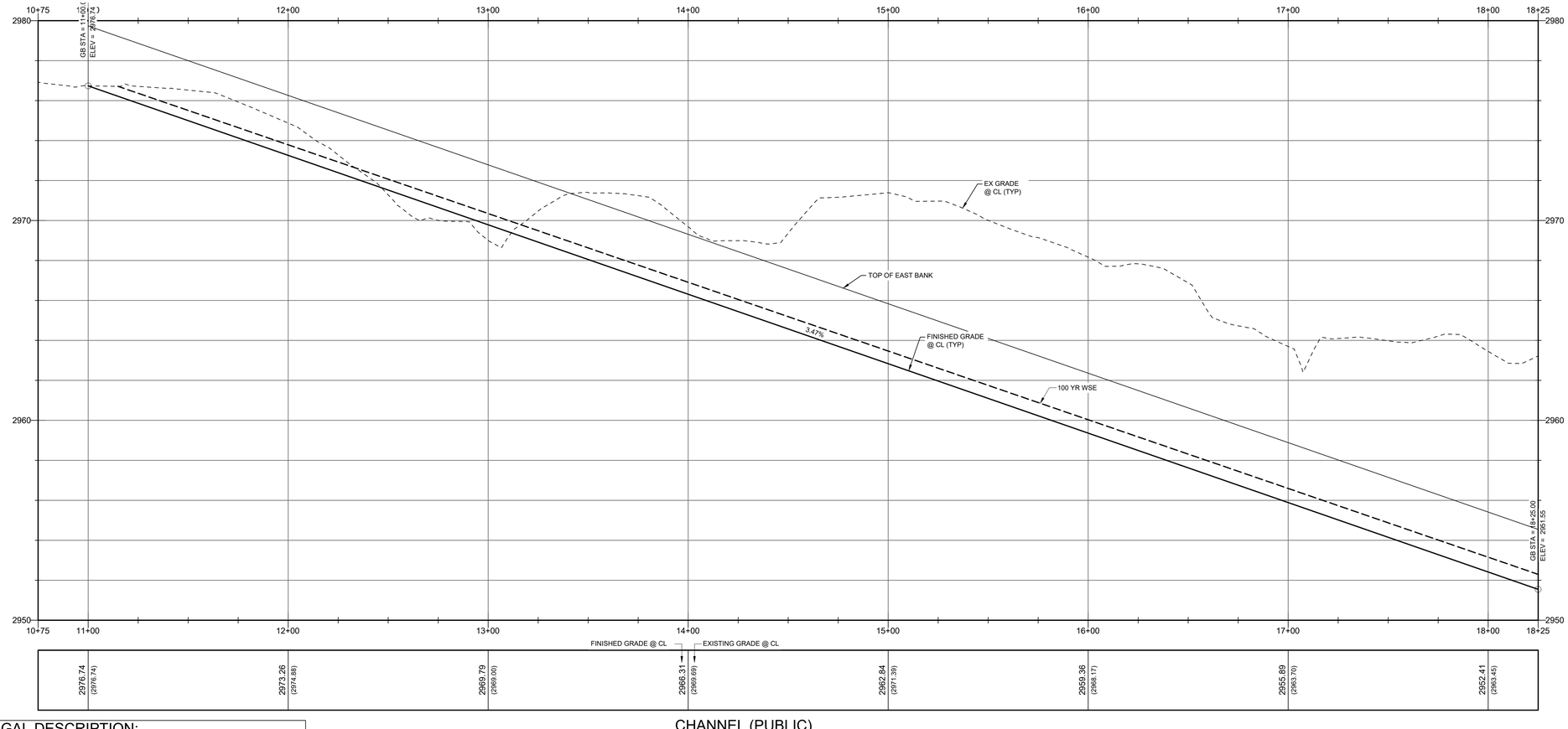
TROPICAL PKWY PLAN & PROFILE (STA 15+00 TO STA 19+50))

C.5.14

H:\!2019\NV-1949-1909 Centennial Heights Townhomes\Project Data\02 CAD\2.03 Sheet Files\Phase 1\NV-1949-1909_C.5.0_PH1_PNP_EW2.dwg - C.5.14 - 9/15/2020 02:57pm, shayans



CHANNEL (PUBLIC) PLAN VIEW (STA. 10+75 TO 18+25)



CHANNEL (PUBLIC) PROFILE VIEW (STA. 10+75 TO 18+25)

SCALE: 1" = 30' H
SCALE: 1" = 3' V

LEGAL DESCRIPTION:

A PORTION OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.D., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE WEST HALF (W 1/2) OF THE WEST HALF (W 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., TOGETHER WITH:

THE WEST HALF (W 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.

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

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

BASIS OF BEARING

NORTH 00°37'29" WEST, BEING THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.,CLARK COUNTY, NEVADA, AS SHOWN ON THE PLAT OF CONSTELLATION ESTATES, RECORDED IN BOOK 102, PAGE 92, OFFICIAL RECORDS, CLARK COUNTY, NEVADA.

FLOOD ZONE:

THIS SITE IS LOCATED IN A ZONE 'X', AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN AND PARTIALLY IN A SHADED ZONE 'X', AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE OF FLOOD PER THE FLOOD INSURANCE RATE MAP COMMUNITY PANEL 32003C1750E, CLARK COUNTY, NEVADA DATED NOVEMBER 16, 2011, REVISED TO REFLECT LOMR DATED OCTOBER 18, 2018.

DEPTH OF COVER DURING CONSTRUCTION:

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NOTE:
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FINISHED GRADE CONTOURS ARE APPROXIMATE. REFER TO SPOT ELEVATION GRADE TAGS FOR CONSTRUCTION STAKING PURPOSES.

BENCHMARK

RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

ELEVATION (meters) 901.13
ELEVATION (feet) 2,956.44
NAVD 88

UTILITY DISCLAIMER NOTE:

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SITE KEY MAP NOTE:
REFERENCE SHEET C.0.3 FOR SITE KEY MAP.

ENGINEER'S NOTES:

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2. SEE HORIZONTAL CONTROL PLAN FOR EXACT PROPERTY LINE DIMENSIONS
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7. FLOOR SECTION ASSUMES 5" SLAB OVER MIN. 8.5" TYPE II. CONTRACTOR TO VERIFY WITH STRUCTURAL PLANS AND GEOTECHNICAL ENGINEER.

APPROVED FOR CONSTRUCTION

SOUTHWEST GAS CORPORATION DATE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING & ENGINEERING SERVICES

PROJECT NO. 137504 FIRST APPROVAL DATE: _____
LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDENTIAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

GRADING KEY NOTES:

- G1 CONSTRUCT 30" ROLL CURB PER CCAUSD #217.2.S1
- G2 CONSTRUCT "L" TYPE CURB PER CCAUSD #216
- G3 CONSTRUCT "A" TYPE CURB PER CCAUSD #219
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- G5 CONSTRUCT 2" AC PAVEMENT OVER 4" TYPE II AGG BASE
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- G11 SAWCUT, TRENCH, BACKFILL, AND ASPHALT PATCH PER CCAUSD 500.3, 500.4, 500.5 & 503 (PATCH DIMENSIONS TO BE DETERMINED IN THE FIELD) PROPOSED SAWCUT TO BE AT LANE LINE
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- G16 INSTALL STORM DRAIN JUNCTION STRUCTURE PER STRUCTURAL DRAWINGS ON SHEETS S1.0-S3.0.
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REVISIONS
REV # | DATE

*SEE GENERAL NOTES SHEET

DRAWING INFO
DATE 9/15/2020
DESIGNED SS
DRAWN PMP
CHECKED AD
PROJECT NV-1949-1909

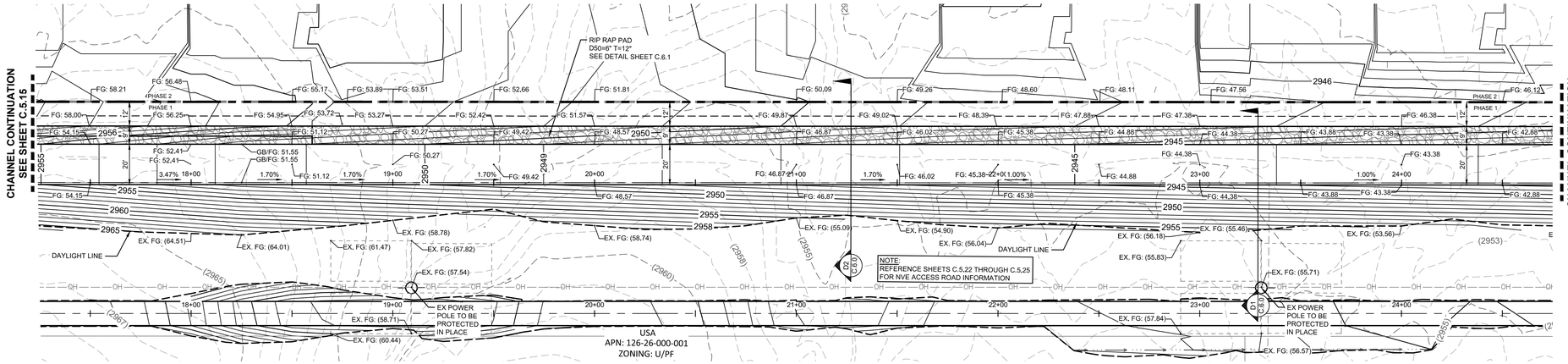
PROFESSIONAL ENGINEER-STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
No. 00169
9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 1
TECHNICAL DRAINAGE STUDY
CITY OF LAS VEGAS, NEVADA

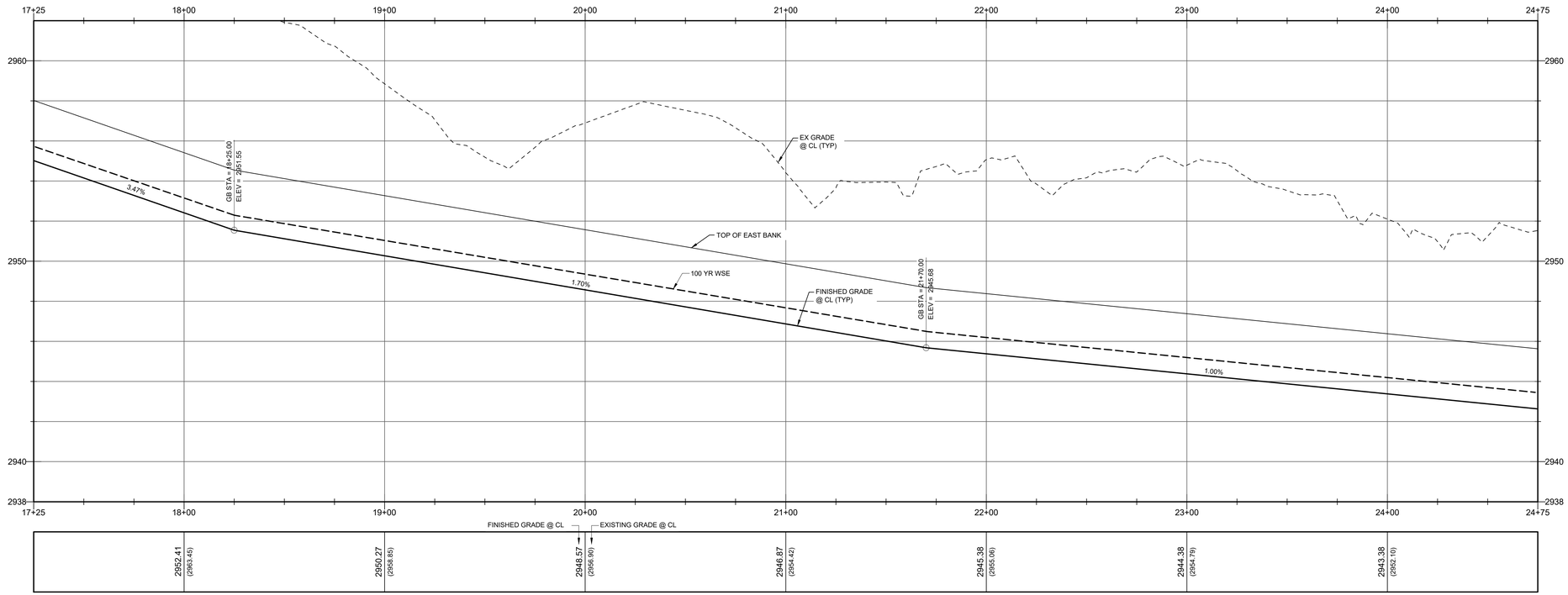
CHANNEL PLAN & PROFILE (STA 11+00 TO STA 18+50)

C.5.15

H:\!2019\NV-1949-1909 Centennial Heights Townhomes\Project Data\02 CAD\2.03 Sheet Files\Phase 1\NV-1949-1909_C.5.0_PH1_PNP_SD.dwg - C.5.15 - 9/15/2020 02:59pm, shayans



CHANNEL (PUBLIC)
PLAN VIEW
(STA. 17+25 TO 24+75)



CHANNEL (PUBLIC)
PROFILE VIEW
(STA. 17+25 TO 24+75)

SCALE: 1" = 30' H
SCALE: 1" = 3' V

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ELEVATION (feet) 2,956.44
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APPROVED FOR CONSTRUCTION

SOUTHWEST GAS CORPORATION DATE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING & ENGINEERING SERVICES

PROJECT NO. 137504 FIRST APPROVAL DATE: _____
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REVISIONS		
REV #	DATE	
1		

*SEE GENERAL NOTES SHEET

DRAWING INFO	
DATE	9/15/2020
DESIGNED	SS
DRAWN	PMP
CHECKED	AD
PROJECT	NV-1949-1909

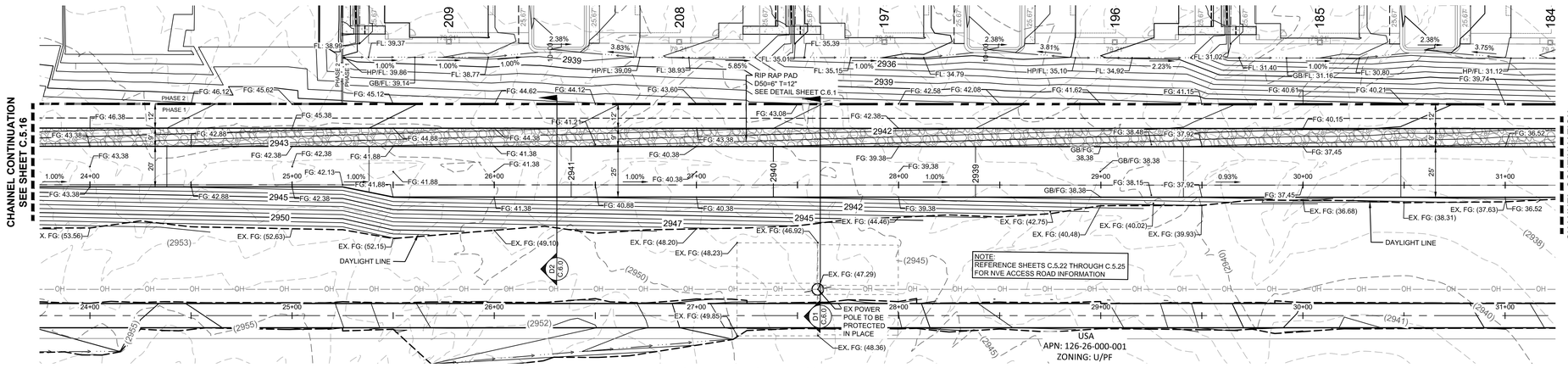
PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
NO. 0089
9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 1
TECHNICAL DRAINAGE STUDY
CITY OF LAS VEGAS, NEVADA

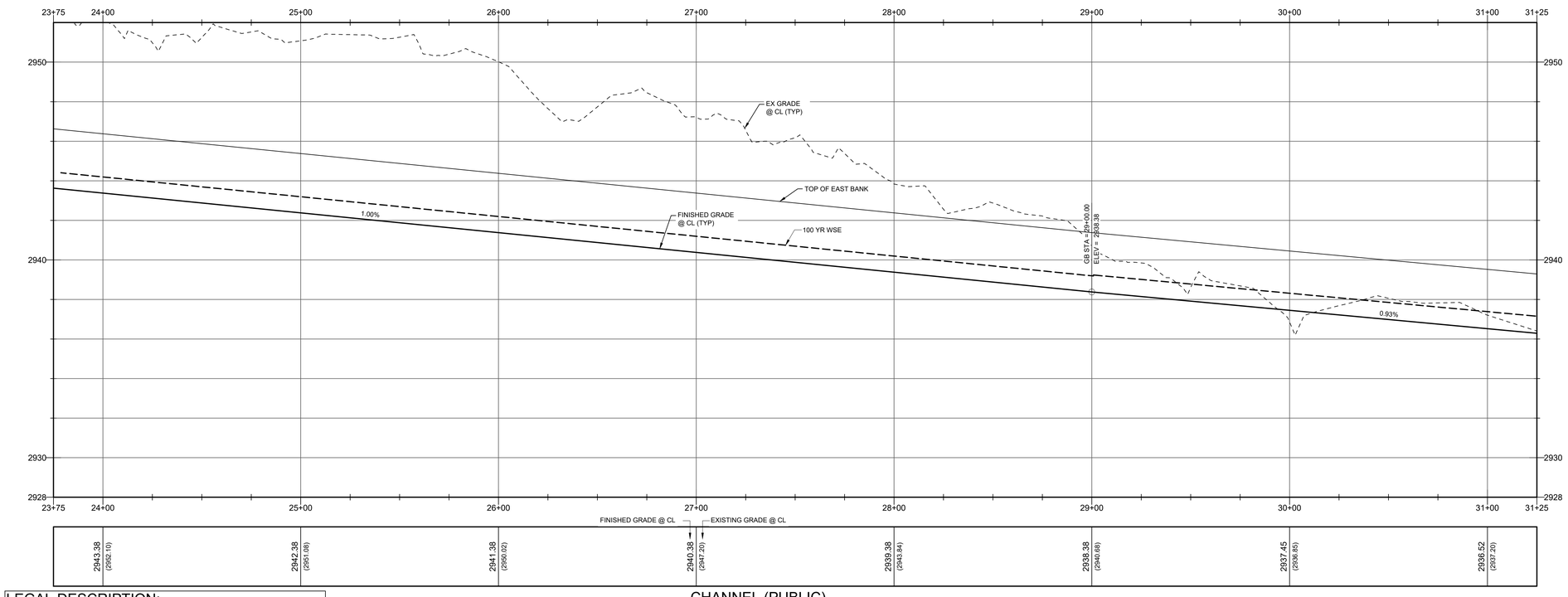
CHANNEL PLAN & PROFILE (STA 17+50 TO STA 25+00)

C.5.16

H:\!2019\NV-1949-1909 Centennial Heights Townhomes\Project Data\02 CAD\2.03 Sheet Files\Phase 1\NV-1949-1909_C.5.0_PH1_PNP_SD.dwg - C.5.16 - 9/15/2020 03:00pm, shayans



CHANNEL (PUBLIC)
PLAN VIEW
(STA. 23+75 TO 31+25)



CHANNEL (PUBLIC)
PROFILE VIEW
(STA. 23+75 TO 31+25)
SCALE: 1" = 30' H
SCALE: 1" = 3' V

LEGAL DESCRIPTION:

A PORTION OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.D., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE WEST HALF (W 1/2) OF THE WEST HALF (W 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., TOGETHER WITH:

THE WEST HALF (W 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.

Call before you dig
AVOID CUTTING UNDERGROUND UTILITY LINES, IT'S COSTLY
Call 811 or 1-800-227-2600

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

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

BASIS OF BEARING

NORTH 00°37'29" WEST, BEING THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.,CLARK COUNTY, NEVADA, AS SHOWN ON THE PLAT OF CONSTELLATION ESTATES, RECORDED IN BOOK 102, PAGE 92, OFFICIAL RECORDS, CLARK COUNTY, NEVADA.

FLOOD ZONE:

THIS SITE IS LOCATED IN A ZONE 'X', AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN AND PARTIALLY IN A SHADED ZONE 'X', AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE OF FLOOD PER THE FLOOD INSURANCE RATE MAP COMMUNITY PANEL 32003C1750E, CLARK COUNTY, NEVADA DATED NOVEMBER 16, 2011, REVISED TO REFLECT LOMR DATED OCTOBER 18, 2018.

DEPTH OF COVER DURING CONSTRUCTION:

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

NOTE:
ADD 2900' TO GRADING ELEVATIONS SHOWN HEREON TO ADJUST THEM TO THE ASSOCIATED DATUM.
FINISHED GRADE CONTOURS ARE APPROXIMATE. REFER TO SPOT ELEVATION GRADE TAGS FOR CONSTRUCTION STAKING PURPOSES.

BENCHMARK

RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

ELEVATION (meters) 901.13
ELEVATION (feet) 2,956.44
NAVD 88

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SITE KEY MAP NOTE:
REFERENCE SHEET C.0.3 FOR SITE KEY MAP.

ENGINEER'S NOTES:

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7. FLOOR SECTION ASSUMES 5" SLAB OVER MIN. 8.5" TYPE II. CONTRACTOR TO VERIFY WITH STRUCTURAL PLANS AND GEOTECHNICAL ENGINEER.

GRADING KEY NOTES:

- G1 CONSTRUCT 30" ROLL CURB PER CCAUSD #217.2.S1
- G2 CONSTRUCT "L" TYPE CURB PER CCAUSD #216
- G3 CONSTRUCT "A" TYPE CURB PER CCAUSD #219
- G4 CONSTRUCT 10' TRANSITION FROM "L" TYPE CURB TO ROLL CURB PER DETAIL "1" ON SHEET C.6.1
- G5 CONSTRUCT 2" AC PAVEMENT OVER 4" TYPE II AGG BASE
- G6 CONSTRUCT SIDEWALK RAMP "CASE I" PER CCAUSD #235
- G7 CONSTRUCT 5" CONCRETE SIDEWALK PER CCAUSD #234
- G8 CONSTRUCT 4" AC PAVEMENT OVER 4" TYPE II AGG BASE
- G9 CONSTRUCT 5.5" AC PAVEMENT OVER 6" TYPE II AGG BASE
- G10 CONSTRUCT 8' CONCRETE VALLEY GUTTER PER CCAUSD #228
- G11 SAWCUT, TRENCH, BACKFILL, AND ASPHALT PATCH PER CCAUSD 500.3, 500.4, 500.5 & 503 (PATCH DIMENSIONS TO BE DETERMINED IN THE FIELD) PROPOSED SAWCUT TO BE AT LANE LINE
- G12 INSTALL WROUGHT IRON GATE PER CCAUSD #425.S1
- G13 INSTALL 60" TYPE II-SD STORM DRAIN MANHOLE PER CCAUSD #401 & 405.2
- G14 CONSTRUCT CURB OPENING PER DETAIL "2" OF SHEET C.6.1
- G15 INSTALL TYPE I-SD STORM DRAIN MANHOLE PER CCAUSD #403 WITH NEENAH 2501-G GRATED LID PER DETAIL "B" ON C.6.1
- G16 INSTALL STORM DRAIN JUNCTION STRUCTURE PER STRUCTURAL DRAWINGS ON SHEETS S1.0-S3.0.
- G17 EXISTING TO REMAIN. PROTECT IN PLACE.
- G18 INSTALL LANDSCAPING PER LANDSCAPE PLAN BY OTHERS
- G19 CONSTRUCT 5'X5' CONCRETE SIDEWALK PAD PER CCAUSD #234 FOR ADA TURNAROUND
- G20 CONSTRUCT DRIVEWAY PER CCAUSD #223
- G21 CONSTRUCT DROP INLET TYPE "CM2" PER CCAUSD #412.1 & 421. L=15', D=8.20'
- G22 CONSTRUCT DROP INLET TYPE "CM2" PER CCAUSD #412.1 & 421. L=10', D=7.95'
- G23 CONSTRUCT SIDEWALK UNDER DRAIN PER CCAUSD #236
- G24 INSTALL RIP-RAP D50=6",T=12" SUBGRADE @ 90% COMPACTION LENGTH AND WIDTH SPECIFIED ON PLAN
- G25 CONSTRUCT 4" CONCRETE SIDEWALK PER CCAUSD #234
- G26 CONSTRUCT BUS TURNOUT PER CCAUSD #234.1 & DETAIL "O" ON C.6.0
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- G31 CONSTRUCT 24"X36" BUBBLER STRUCTURE PER DETAIL "4" ON SHEET C.6.1
- G32 CONSTRUCT 6" CONCRETE PAVEMENT OVER 4" TYPE II AGG BASE

EASEMENT KEY NOTES:

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APPROVED FOR CONSTRUCTION

SOUTHWEST GAS CORPORATION DATE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING & ENGINEERING SERVICES

PROJECT NO. 137504 FIRST APPROVAL DATE: _____
LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDENTIAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy., Suite 160
Henderson, NV 89074
(702) 966-4063
www.horrocks.com

SCALE: 1" = 30'

WARNING
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE

REVISIONS
REV # | DATE

*SEE GENERAL NOTES SHEET

DRAWING INFO
DATE 9/15/2020
DESIGNED SS
DRAWN PMP
CHECKED AD
PROJECT NV-1949-1909

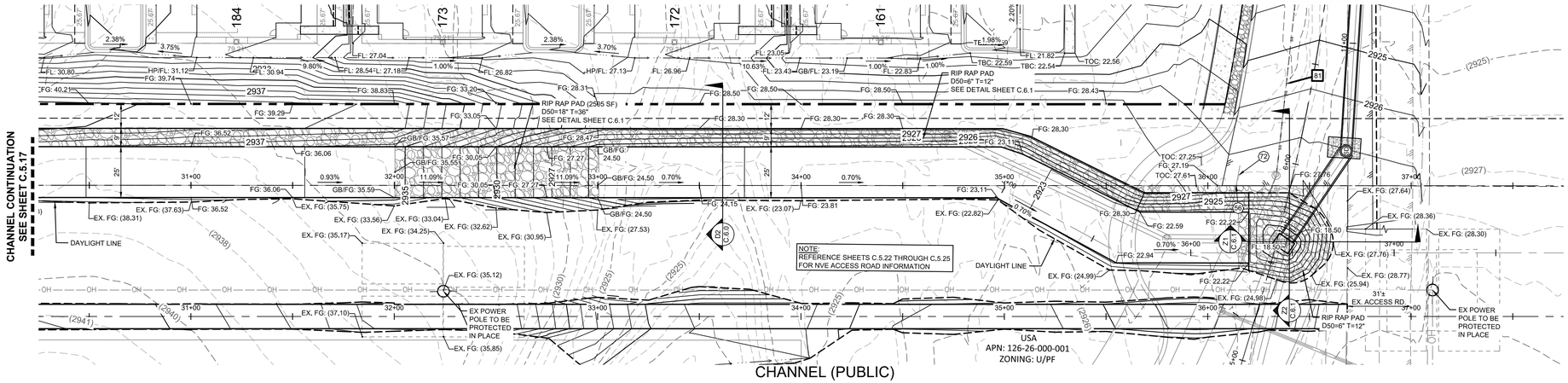
PROFESSIONAL ENGINEER-STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
NO. 0016
9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 1
TECHNICAL DRAINAGE STUDY
CITY OF LAS VEGAS, NEVADA

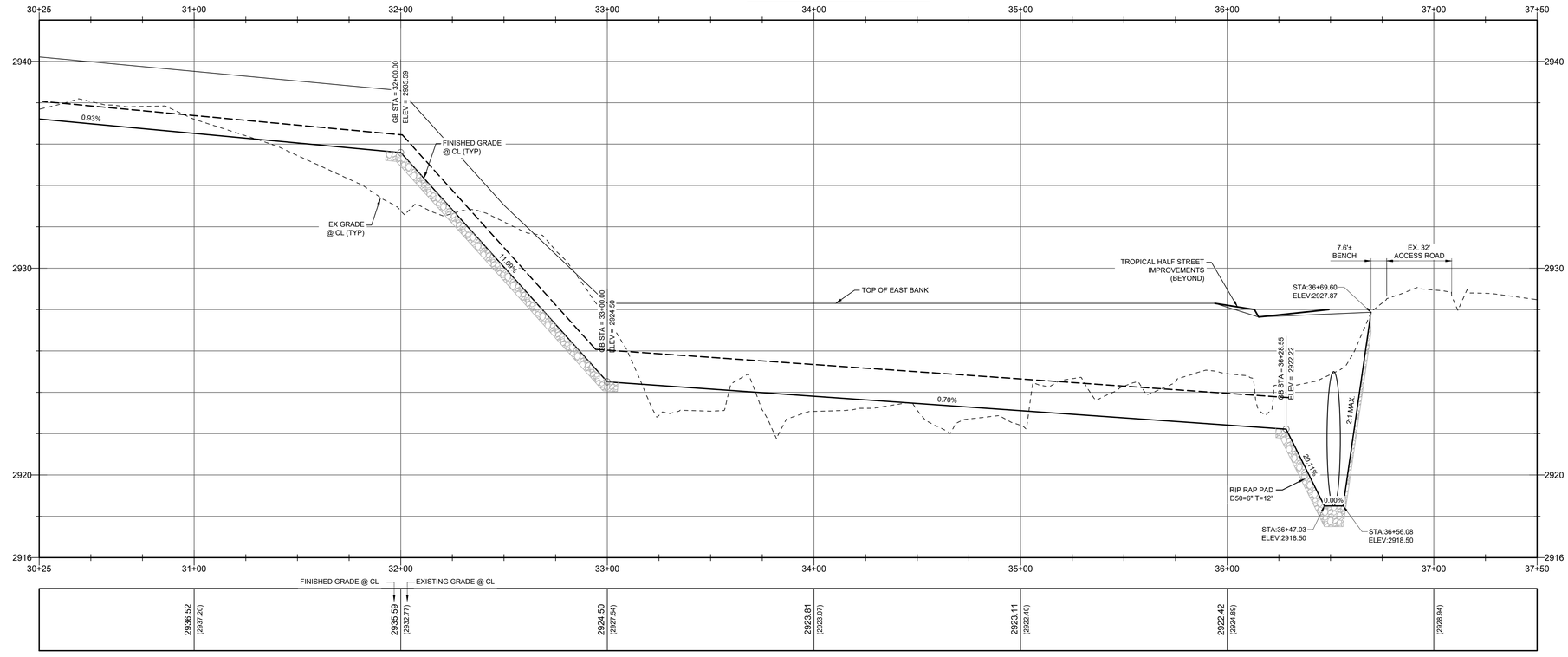
CHANNEL PLAN & PROFILE (STA 24+50 TO 32.00)

C.5.17

H:\!2019\NV-1949-1909 Centennial Heights Townhomes\Project Data\02 CAD\2.03 Sheet Files\Phase 1\NV-1949-1909_C.5.0_PH1_PNP_SD.dwg - C.5.17 - 9/15/2020 03:00pm, shayans



CHANNEL (PUBLIC)
PLAN VIEW
(STA. 30+25 TO 37+50)



CHANNEL (PUBLIC)
PROFILE VIEW
(STA. 30+25 TO 37+50)
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SCALE: 1" = 3' V

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SEWER KEY NOTES:

- 80 INSTALL 48" STANDARD SEWER MANHOLE WITH WATERTIGHT JOINTS PER DCSWCS SD-1, SD-3 & SD-4 WITH SINGLE 24" LID
- 81 INSTALL 8" SDR-35 SEWER MAIN PER DCSWCS SD-17
- 82 NOT USED
- 83 INSTALL 4" SDR-35 PVC SEWER LATERAL PER DCSWCS SD-17, SD-20, SD-21, SD-23 AND SECTION 3.17.1. INSTALL CLEANOUT W/TRAFFIC RATED LID IN DRIVEWAY MORE THAN 5' FROM BACK OF CURB.
- 84 REMOVE PLUG & CAP, CONNECT TO EXISTING
- 85 NOT USED
- 86 INSTALL 8" C-900 SEWER MAIN PER DCSWCS SD-17
- 87 INSTALL CORROSION PROTECTION PER DCSWCS SEC 3.16.8
- 88 INSTALL STUB-OUT & CAP PER DCSWCS SEC 2.3.5

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NOTE:
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BENCHMARK

RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

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APPROVED FOR CONSTRUCTION

SOUTHWEST GAS CORPORATION DATE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING & ENGINEERING SERVICES

PROJECT NO. 137504 FIRST APPROVAL DATE: _____
LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDENTIAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy., Suite 160
Henderson, NV 89074
(702) 966-4063
www.horrocks.com

SCALE: 1" = 30'

WARNING
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE

REVISIONS
REV # | DATE
*SEE GENERAL NOTES SHEET

DRAWING INFO
DATE 9/15/2020
DESIGNED SS
DRAWN PMP
CHECKED AD
PROJECT NV-1949-1909

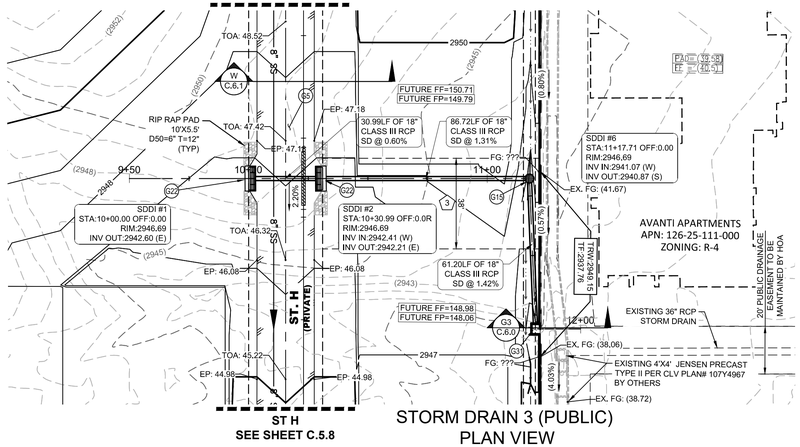
PROFESSIONAL ENGINEER-STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
NO. 0069
9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 1
TECHNICAL DRAINAGE STUDY
CITY OF LAS VEGAS, NEVADA

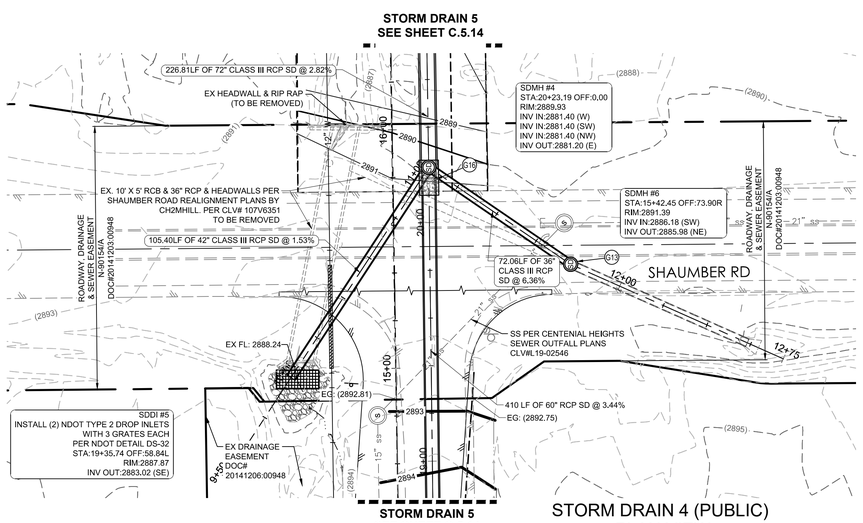
CHANNEL PLAN & PROFILE (STA 31+00 TO STA 38+00)

C.5.18

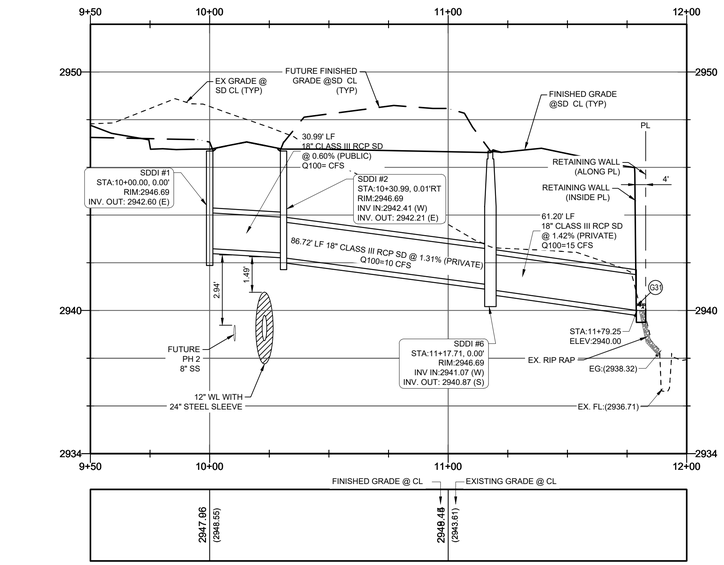
PAGE 40



STORM DRAIN 3 (PUBLIC)
PLAN VIEW
(STA. 9+50 TO 12+00)



STORM DRAIN 4 (PUBLIC)
PLAN VIEW
(STA. 9+50 TO 12+50)



STORM DRAIN 3 (PUBLIC)
PROFILE VIEW
(STA. 9+50 TO 12+00)

SCALE: 1" = 30' H
SCALE: 1" = 3' V

STORM DRAIN 4 (PUBLIC)
PROFILE VIEW
(STA. 9+50 TO 12+50)

SCALE: 1" = 30' H
SCALE: 1" = 3' V

DROP INLET NOTE

WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE:

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

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SITE KEY MAP NOTE:
REFERENCE SHEET C.5.26 FOR SITE KEY MAP.

ENGINEER'S NOTES:

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7. FLOOR SECTION ASSUMES 5" SLAB OVER MIN. 8.5" TYPE II. CONTRACTOR TO VERIFY WITH STRUCTURAL PLANS AND GEOTECHNICAL ENGINEER.

APPROVED FOR CONSTRUCTION

SOUTHWEST GAS CORPORATION DATE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING & ENGINEERING SERVICES

PROJECT NO. 137504 FIRST APPROVAL DATE:
LVVWD APPROVED FIRE FLOW 1500 GPM AT 20 PSI RESIDENTIAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

GRADING KEY NOTES:

- G1 CONSTRUCT 30" ROLL CURB PER CCAUSD #217.2.S1
- G2 CONSTRUCT "L" TYPE CURB PER CCAUSD #216
- G3 CONSTRUCT "A" TYPE CURB PER CCAUSD #219
- G4 CONSTRUCT 10' TRANSITION FROM "L" TYPE CURB TO ROLL CURB PER DETAIL "1" ON SHEET C.6.1
- G5 CONSTRUCT 2" AC PAVEMENT OVER 4" TYPE II AGG BASE
- G6 CONSTRUCT SIDEWALK RAMP "CASE I" PER CCAUSD #235
- G7 CONSTRUCT 5" CONCRETE SIDEWALK PER CCAUSD #234
- G8 CONSTRUCT 4" AC PAVEMENT OVER 4" TYPE II AGG BASE
- G9 CONSTRUCT 5.5" AC PAVEMENT OVER 6" TYPE II AGG BASE
- G10 CONSTRUCT 8' CONCRETE VALLEY GUTTER PER CCAUSD #228
- G11 SAWCUT, TRENCH, BACKFILL, AND ASPHALT PATCH PER CCAUSD 500.3, 500.4, 500.5 & 503 (PATCH DIMENSIONS TO BE DETERMINED IN THE FIELD) PROPOSED SAWCUT TO BE AT LANE LINE
- G12 INSTALL WROUGHT IRON GATE PER CCAUSD #425.S1
- G13 INSTALL 60" TYPE II-SD STORM DRAIN MANHOLE PER CCAUSD #401 & 405.2
- G14 CONSTRUCT CURB OPENING PER DETAIL "2" OF SHEET C.6.1
- G15 INSTALL TYPE I-SD STORM DRAIN MANHOLE PER CCAUSD #403 WITH NEENAH 2501-G GRATED LID PER DETAIL "B" ON C.6.1
- G16 INSTALL STORM DRAIN JUNCTION STRUCTURE PER STRUCTURAL DRAWINGS ON SHEETS S1.0-S3.0.
- G17 EXISTING TO REMAIN. PROTECT IN PLACE.
- G18 INSTALL LANDSCAPING PER LANDSCAPE PLAN BY OTHERS
- G19 CONSTRUCT 5'X5' CONCRETE SIDEWALK PAD PER CCAUSD #234 FOR ADA TURNAROUND
- G20 CONSTRUCT DRIVEWAY PER CCAUSD #223
- G21 CONSTRUCT DROP INLET TYPE "CM2" PER CCAUSD #412.1 & 421. L=15', D=8.20'
- G22 CONSTRUCT DROP INLET TYPE "CM2" PER CCAUSD #412.1 & 421. L=10', D=7.95'
- G23 CONSTRUCT SIDEWALK UNDER DRAIN PER CCAUSD #236
- G24 INSTALL RIP-RAP D50=6",T=12" SUBGRADE @ 90% COMPACTION LENGTH AND WIDTH SPECIFIED ON PLAN
- G25 CONSTRUCT 4" CONCRETE SIDEWALK PER CCAUSD #234
- G26 CONSTRUCT BUS TURNOUT PER CCAUSD #234.1 & DETAIL "O" ON C.6.0
- G27 CONSTRUCT 3' CONCRETE VALLEY GUTTER PER CCAUSD #228
- G28 INSTALL 4" SIDEWALK DRAIN PIPE PER DETAIL "7" ON SHEET C.6.1
- G29 CONSTRUCT BLOCK WALL OPENING PER DETAIL "3" ON SHEET C.6.1
- G30 CONSTRUCT 24" WIDE CONCRETE FLUME PER DETAIL "5" ON SHEET C.6.1
- G31 CONSTRUCT 24"X36" BUBBLER STRUCTURE PER DETAIL "4" ON SHEET C.6.1
- G32 CONSTRUCT 6" CONCRETE PAVEMENT OVER 4" TYPE II AGG BASE

SEWER KEY NOTES:

- 80 INSTALL 48" STANDARD SEWER MANHOLE WITH WATERTIGHT JOINTS PER DCSWCS SD-1, SD-3 & SD-4 WITH SINGLE 24" LID
- 81 INSTALL 8" SDR-35 SEWER MAIN PER DCSWCS SD-17
- 82 NOT USED
- 83 INSTALL 4" SDR-35 PVC SEWER LATERAL PER DCSWCS SD-17, SD-20, SD-21, SD-23 AND SECTION 3.17.1. INSTALL CLEANOUT W/TRAFFIC RATED LID IN DRIVEWAY MORE THAN 5' FROM BACK OF CURB.
- 84 REMOVE PLUG & CAP. CONNECT TO EXISTING
- 85 NOT USED
- 86 INSTALL 8" C-900 SEWER MAIN PER DCSWCS SD-17
- 87 INSTALL CORROSION PROTECTION PER DCSWCS SEC 3.16.8
- 88 INSTALL STUB-OUT & CAP PER DCSWCS SEC 2.3.5

EASEMENT KEY NOTES:

- 1 32.5' PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.
- 2 24' PUBLIC EMERGENCY ACCESS EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.
- 3 PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY HOA. PER FINAL MAP.

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy., Suite 160
Henderson, NV 89074
(702) 966-4063
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SCALE: 1" = 30'

WARNING
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE

REVISIONS		
REV #	DATE	
1		

*SEE GENERAL NOTES SHEET

DRAWING INFO	
DATE	9/16/2020
DESIGNED	SS
DRAWN	PMP
CHECKED	AD
PROJECT	NV-1949-1909

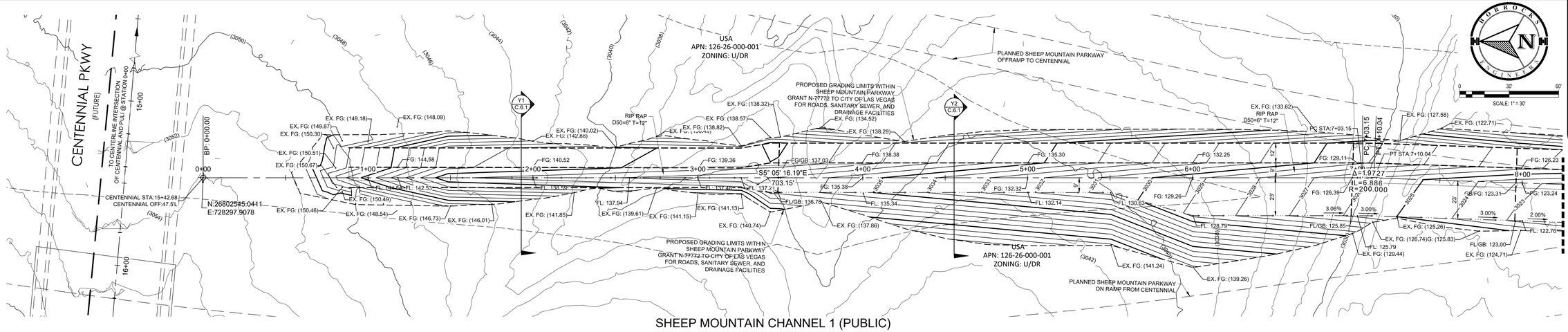
PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
No. 010169
9/16/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 1
TECHNICAL DRAINAGE STUDY
CITY OF LAS VEGAS, NEVADA

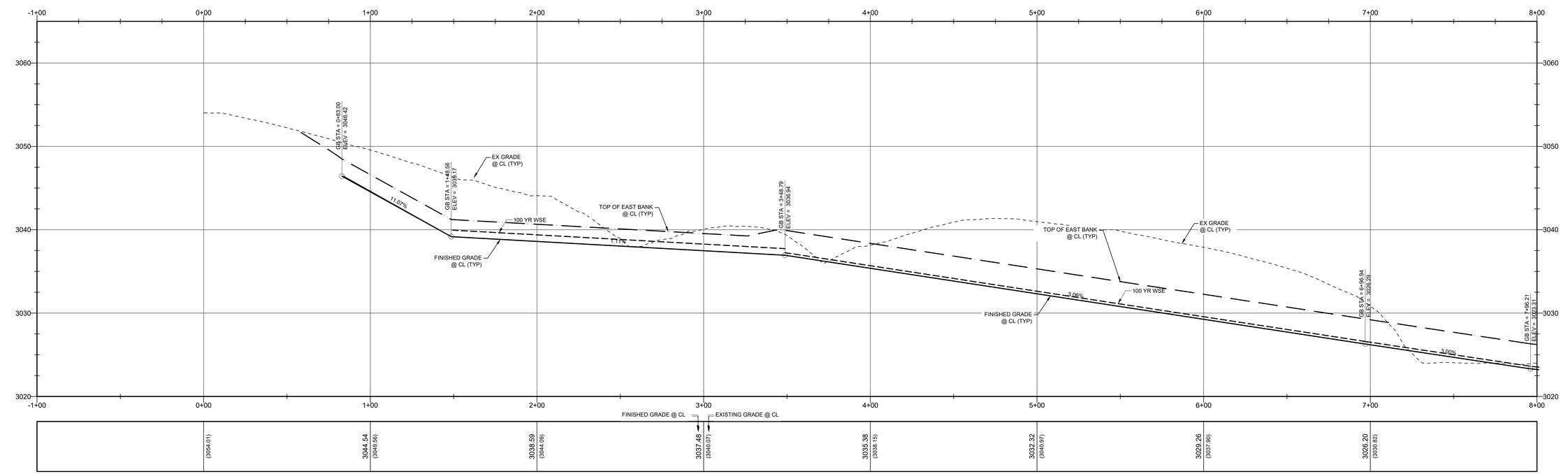
STORM DRAIN 3 PLAN & PROFILE (STA 9+50 TO STA 12+00)
STORM DRAIN 4 PLAN & PROFILE (STA 9+50 TO STA 12+50)

C.5.19

H:\!2019\NV-1949-1909 Centennial Heights Townhomes\Project Data\02 CAD\2.03 Sheet Files\Phase 1\NV-1949-1909_C.5.0_PH1_PNP_SD2.dwg - C.5.19 - 9/16/2020 10:19am, shayans



SHEEP MOUNTAIN CHANNEL 1 (PUBLIC)
PLAN VIEW
(STA. 0+00 TO 8+00)



SHEEP MOUNTAIN CHANNEL 1 (PUBLIC)
PROFILE VIEW
(STA. 0+00 TO 8+00)

SCALE: 1" = 30' H
SCALE: 1" = 3' V

LEGAL DESCRIPTION:

A PORTION OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.D., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE WEST HALF (W 1/2) OF THE WEST HALF (W 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., TOGETHER WITH:

THE WEST HALF (W 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.

Call before you AVOID CUTTING UNDERGROUND UTILITY LINES, IT'S COSTLY. Call 811 1-800-227-2600

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

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

BASIS OF BEARING

NORTH 00°37'29" WEST, BEING THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.,CLARK COUNTY, NEVADA, AS SHOWN ON THE PLAT OF CONSTELLATION ESTATES, RECORDED IN BOOK 102, PAGE 92, OFFICIAL RECORDS, CLARK COUNTY, NEVADA.

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NOTE:

NOTARIZED PERMISSION TO GRADE REQUIRED.

DEPTH OF COVER DURING CONSTRUCTION:

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

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BENCHMARK

RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

ELEVATION (meters) 901.13
ELEVATION (feet) 2,956.44
NAVD 88

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APPROVED FOR CONSTRUCTION

SOUTHWEST GAS CORPORATION DATE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

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REVISIONS
REV # | DATE

*SEE GENERAL NOTES SHEET

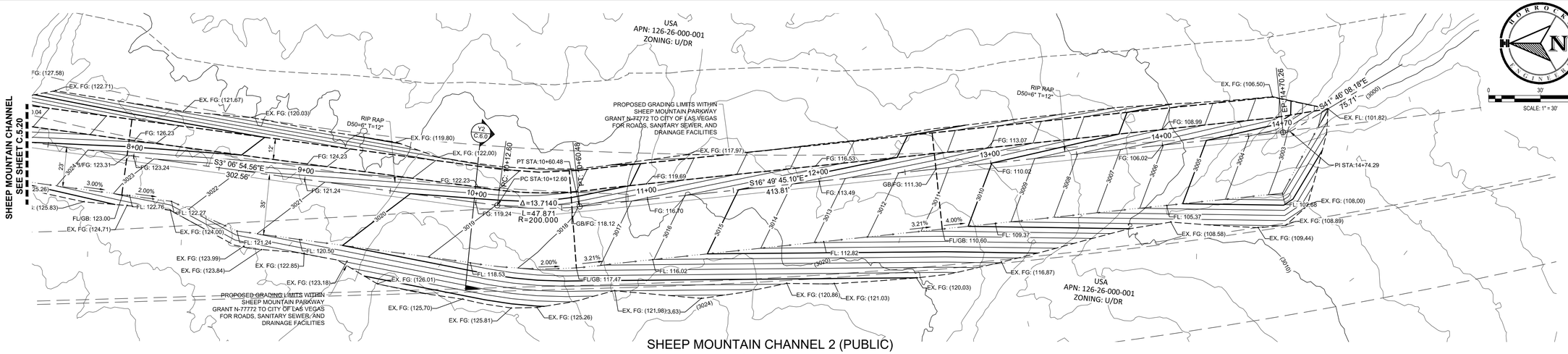
DRAWING INFO
DATE 9/15/2020
DESIGNED SS
DRAWN PMP
CHECKED AD
PROJECT NV-1949-1909

PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
No. 010159
9/15/2020

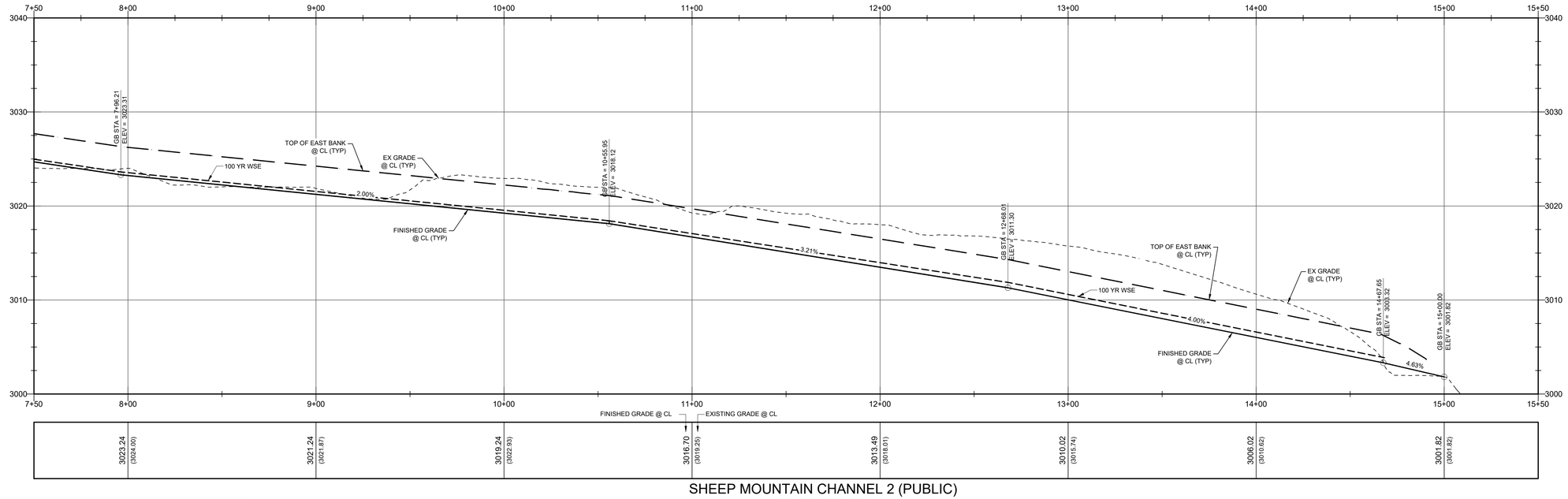
CENTENNIAL HEIGHTS TOWNHOMES PHASE 1
TECHNICAL DRAINAGE STUDY
CITY OF LAS VEGAS, NEVADA

SHEET 1
SHEEP MOUNTAIN CHANNEL 1 (STA 0+00 TO STA 7+75)

C.5.20



SHEEP MOUNTAIN CHANNEL 2 (PUBLIC)
PLAN VIEW
(STA. 7+50 TO 15+00)



SHEEP MOUNTAIN CHANNEL 2 (PUBLIC)
PROFILE VIEW
(STA. 7+50 TO 15+00)

SCALE: 1" = 30' H
SCALE: 1" = 3' V

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SOUTHWEST GAS CORPORATION DATE

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LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

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REVISIONS
REV # | DATE

*SEE GENERAL NOTES SHEET

DRAWING INFO
DATE 9/15/2020
DESIGNED SS
DRAWN PMP
CHECKED AD
PROJECT NV-1949-1909

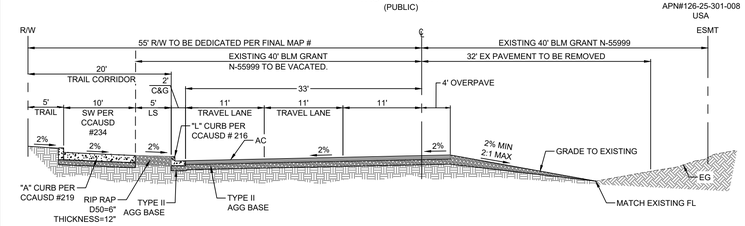
PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
NO. 0069
9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 1
TECHNICAL DRAINAGE STUDY
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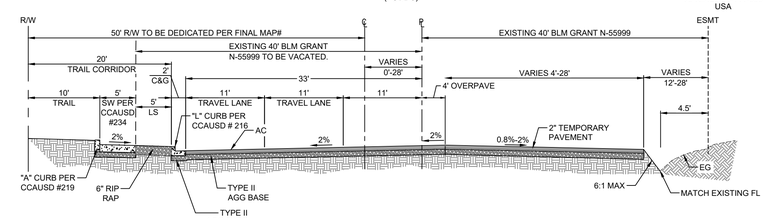
SHEEP MOUNTAIN CHANNEL 2 (STA 7+75 TO STA 15+00)

C.5.21

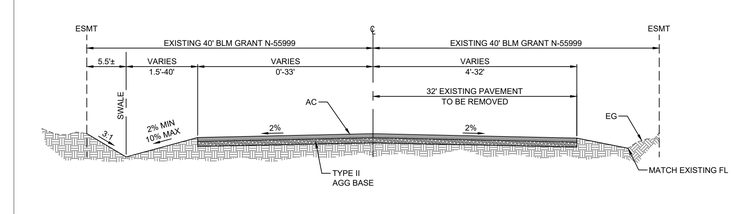
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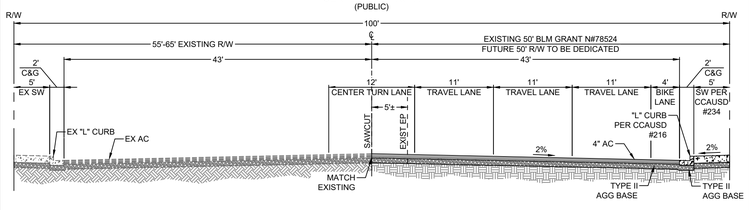
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(REFERENCE CCAUSD #205 & 208)



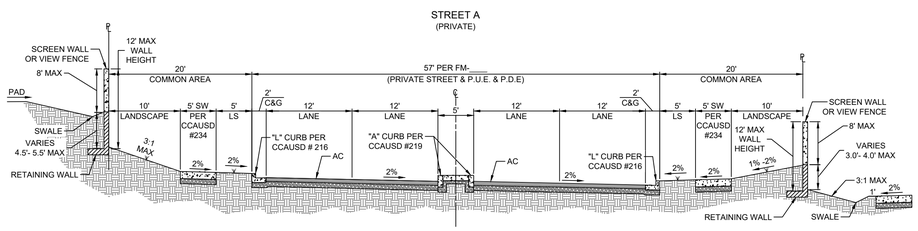
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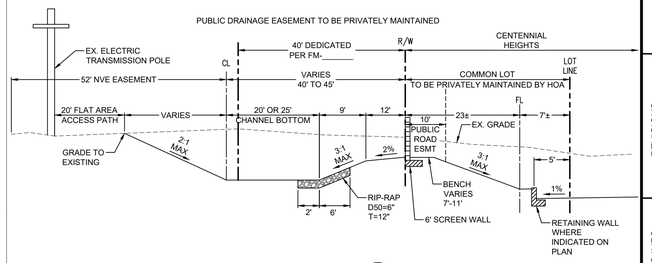
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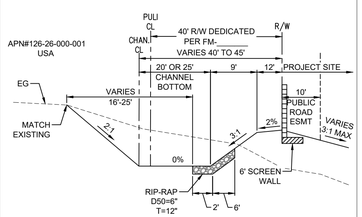
CENTENNIAL PARKWAY SECTION B
SCALE: NTS
(REFERENCE CCAUSD #202 & 208)



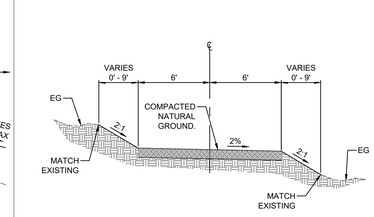
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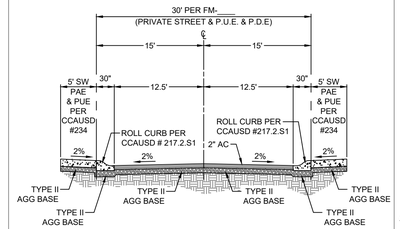
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SCALE: NTS



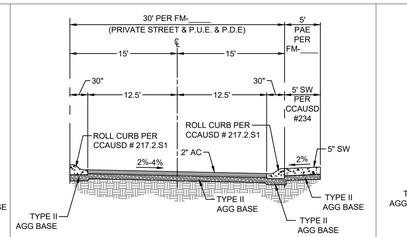
PULI CHANNEL SECTION
(STA:16+25.00-18+75.00) D2
SCALE: NTS



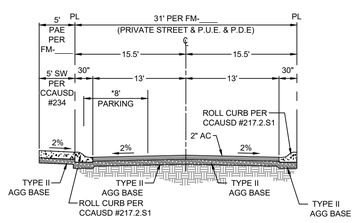
NVE ACC. RD. SECTION D3
SCALE: NTS



PRIVATE STREET SECTION
NO PARKING (CROWN) E1
SCALE: NTS

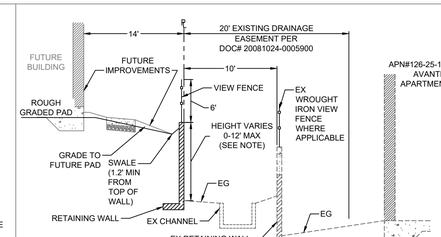


PRIVATE STREET SECTION
NO PARKING (X-SLOPE) E2
SCALE: NTS

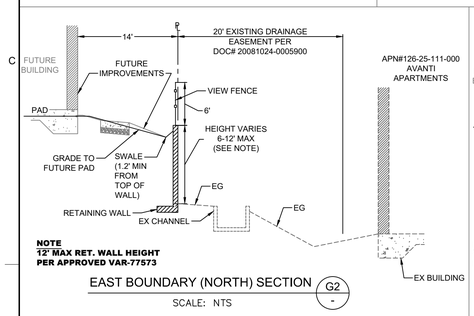


*NOTE:
NO PARKING IN FRONT OF DRIVEWAYS

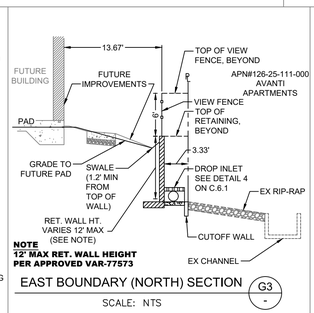
PRIVATE STREET SECTION WITH PARKING F
SCALE: NTS



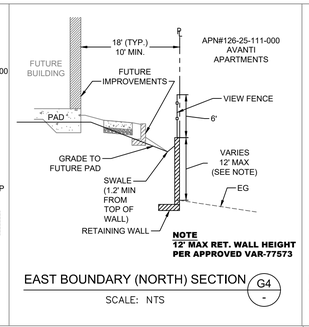
EAST BOUNDARY (NORTH) SECTION G1
SCALE: NTS



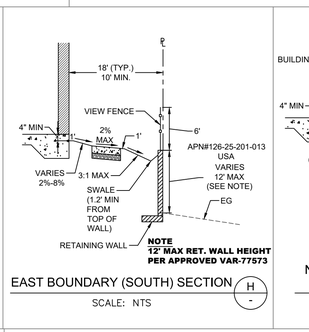
EAST BOUNDARY (NORTH) SECTION G2
SCALE: NTS



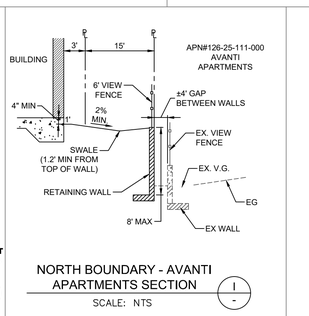
EAST BOUNDARY (NORTH) SECTION G3
SCALE: NTS



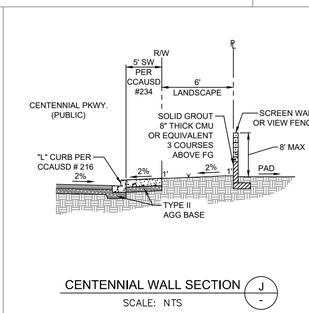
EAST BOUNDARY (NORTH) SECTION G4
SCALE: NTS



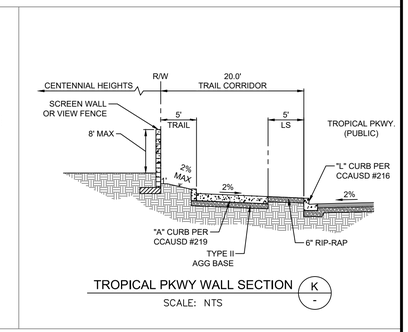
EAST BOUNDARY (SOUTH) SECTION H
SCALE: NTS



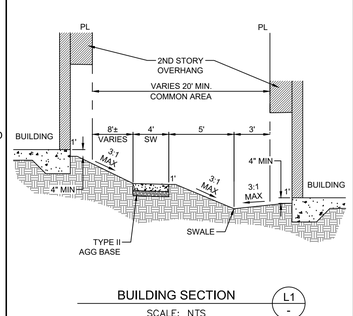
NORTH BOUNDARY - AVANTI APARTMENTS SECTION I
SCALE: NTS



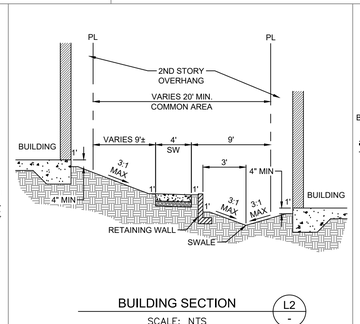
CENTENNIAL WALL SECTION J
SCALE: NTS



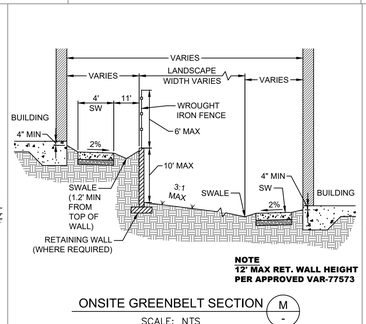
TROPICAL PKWY WALL SECTION K
SCALE: NTS



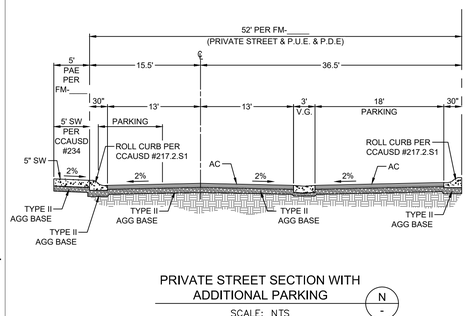
BUILDING SECTION L1
SCALE: NTS



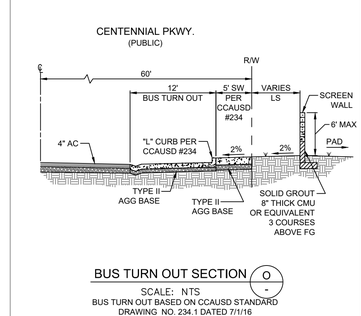
BUILDING SECTION L2
SCALE: NTS



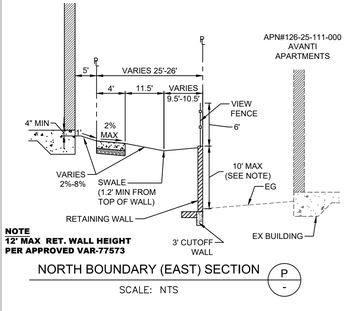
ONSITE GREENBELT SECTION M
SCALE: NTS



PRIVATE STREET SECTION WITH ADDITIONAL PARKING N
SCALE: NTS



BUS TURN OUT SECTION O
SCALE: NTS
BUS TURN OUT BASED ON CCAUSD STANDARD DRAWING NO. 234.1 DATED 7/1/16



NORTH BOUNDARY (EAST) SECTION P
SCALE: NTS

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy., Suite 160
Henderson, NV 89074
(702) 966-4063
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WARNING
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE
0 1 2

REVISIONS		
REV #	DATE	

*SEE GENERAL NOTES SHEET

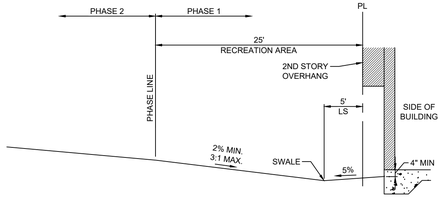
DRAWING INFO	
DATE	9/15/2020
DESIGNED	SS
DRAWN	PMP
CHECKED	AD
PROJECT	NV-1949-1909

PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
No. 010159
9/15/2020

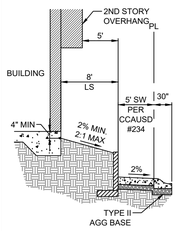
CENTENNIAL HEIGHTS TOWNHOMES PHASE 1
TECHNICAL DRAINAGE STUDY
CITY OF LAS VEGAS, NEVADA

DETAIL SHEET 1

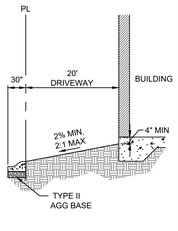
C.6.0



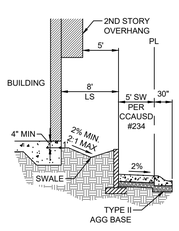
COMMON AREA ADJACENT BUILDINGS (R2)
SCALE: NTS



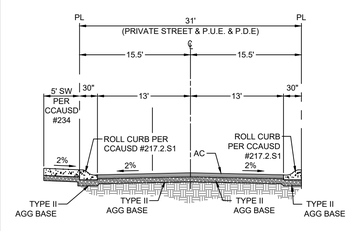
PRIVATE STREET EDGE SECTION (S1)
SCALE: NTS



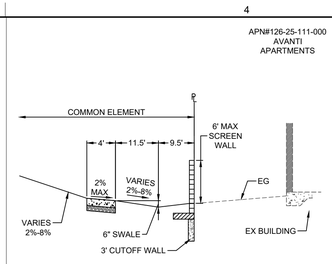
PRIVATE STREET EDGE SECTION (S2)
SCALE: NTS



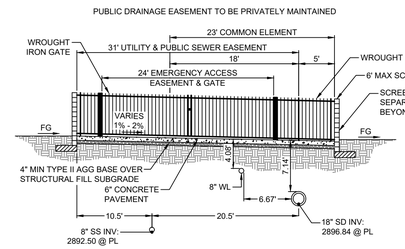
PRIVATE STREET EDGE SECTION (S3)
SCALE: NTS



PRIVATE STREET SECTION WITH PARKING (T)
SCALE: NTS

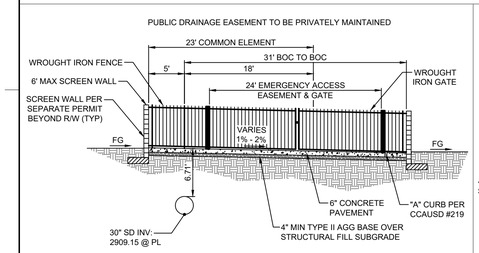


NORTH BOUNDARY (EAST) SECTION
WITHOUT RETAINING WALL (U)
SCALE: NTS

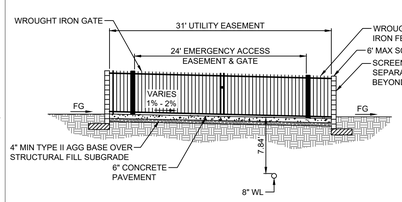


PUBLIC DRAINAGE EASEMENT (V1)
SCALE: NTS

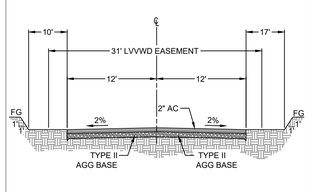
NOTE:
NO TREES OR LANDSCAPE TALLER THAN 3' ALLOWED IN SEWER EASEMENT.



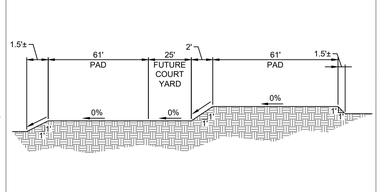
PUBLIC DRAINAGE EASEMENT (V2)
SCALE: NTS



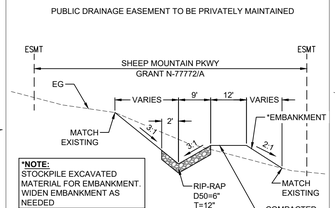
PRIVATE DRAINAGE EASEMENT (V3)
SCALE: NTS



PRIVATE STREET ACCESS ROAD (W)
SCALE: NTS

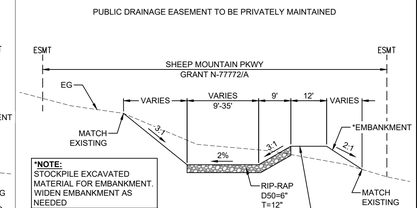


ROUGH GRADING (X)
SCALE: NTS



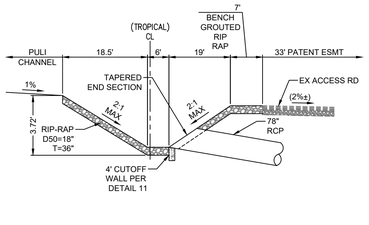
NOTE:
STOCKPILE EXCAVATED MATERIAL FOR EMBANKMENT. WIDEN EMBANKMENT AS NEEDED

SHEEP MOUNTAIN PARKWAY
V-DITCH SECTION
(STA:1+17.59-3+48.79)
SCALE: NTS (Y1)

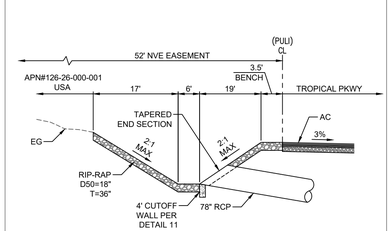


NOTE:
STOCKPILE EXCAVATED MATERIAL FOR EMBANKMENT. WIDEN EMBANKMENT AS NEEDED

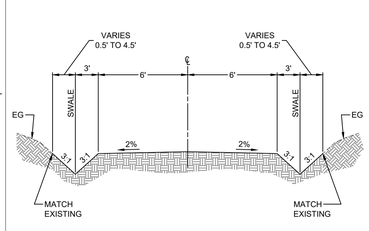
SHEEP MOUNTAIN PARKWAY
CHANNEL SECTION
(STA:3+48.79-14+70.00)
SCALE: NTS (Y2)



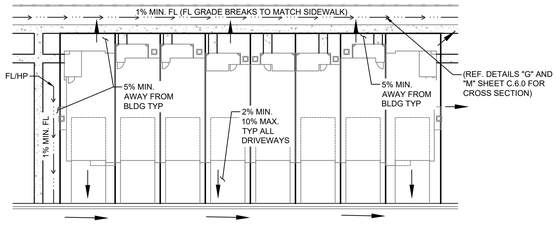
PULI CHANNEL INLET SECTION (Z1)
SCALE: NTS



PULI CHANNEL INLET SECTION (Z2)
SCALE: NTS



SD-5 COVER SECTION (Z3)
SCALE: NTS

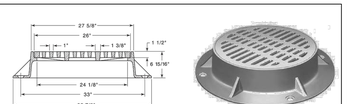


BUILDING GRADING DETAIL
(SIDE TO SIDE) (9)
SCALE: NTS

R-2501
Inlet Frame, Grate

Heavy Duty

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-2501	G	1.1	6.8
R-2501	A	1.1	6.8
R-2501	C	1.2	6.8
R-2501	F	1.4	6.8



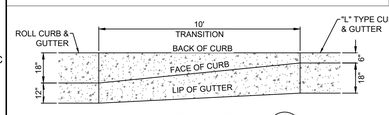
Furnished with four 1" anchor holes on 33" diameter bolt circle.

Standard Grate (shown): Type G
Alternate Grate(s):

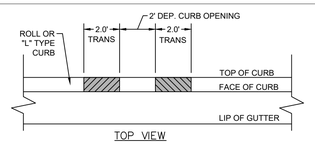


Available Lid: **R-1642**

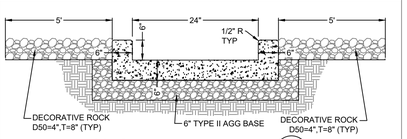
R-2501 G NEENAH GRATE (8)
SCALE: NTS



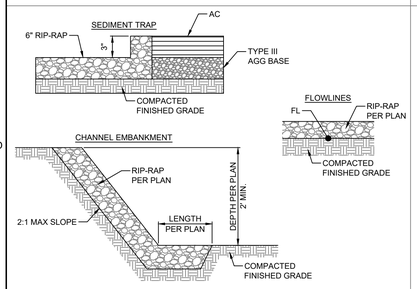
10' CURB TRANSITION (1)
SCALE: NTS



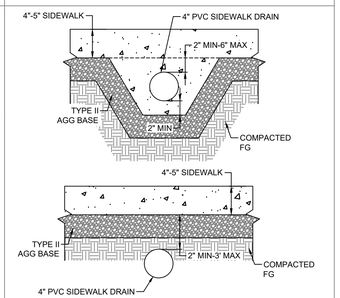
CURB OPENING DETAIL (2)
SCALE: NTS



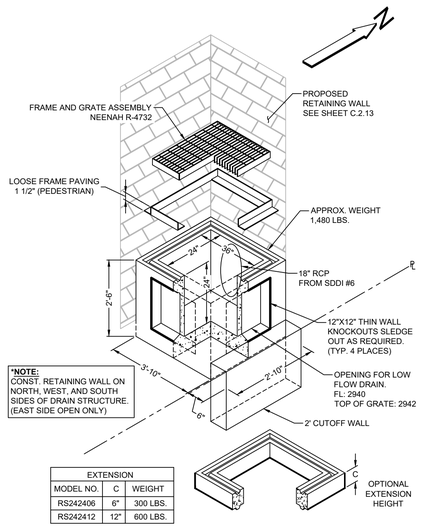
CONCRETE FLUME DETAIL (5)
SCALE: NTS



RIP-RAP DETAILS (6)
SCALE: NTS



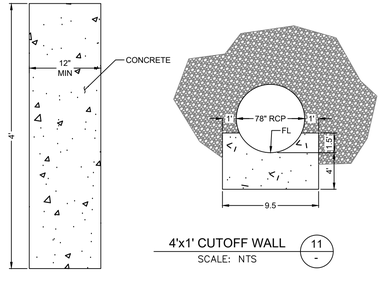
PVC SIDEWALK DRAIN DETAIL (7)
SCALE: NTS



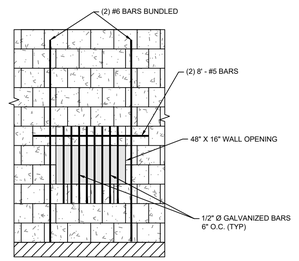
NOTE:
CONST. RETAINING WALL ON NORTH, WEST, AND SOUTH SIDES OF DRAIN STRUCTURE. (EAST SIDE OPEN ONLY)

EXTENSION		
MODEL NO.	C	WEIGHT
RS242406	6"	300 LBS.
RS242412	12"	600 LBS.

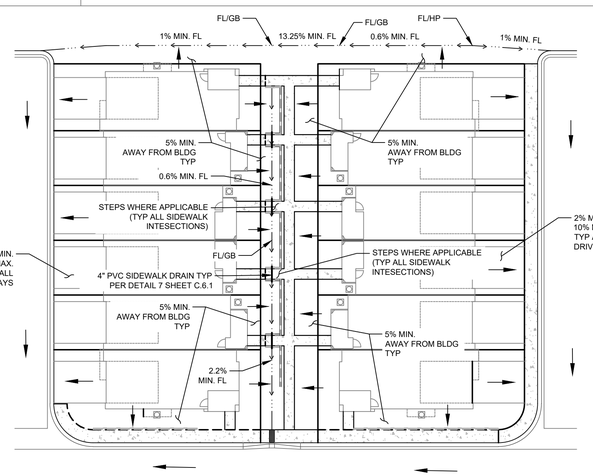
24"x36" BUBBLER DETAIL (4)
SCALE: NTS



4'x1' CUTOFF WALL (11)
SCALE: NTS



48" X 16" SCREEN WALL OPENING (3)
SCALE: NTS



BUILDING GRADING DETAIL
(BACK TO BACK) (10)
SCALE: NTS

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy., Suite 160
Henderson, NV 89074
(702) 966-4063
www.horrocks.com

WARNING
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE
0 1 2

REVISIONS		
REV #	DATE	

*SEE GENERAL NOTES SHEET

DRAWING INFO	
DATE	9/15/2020
DESIGNED	SS
DRAWN	PMP
CHECKED	AD
PROJECT	NV-1949-1909

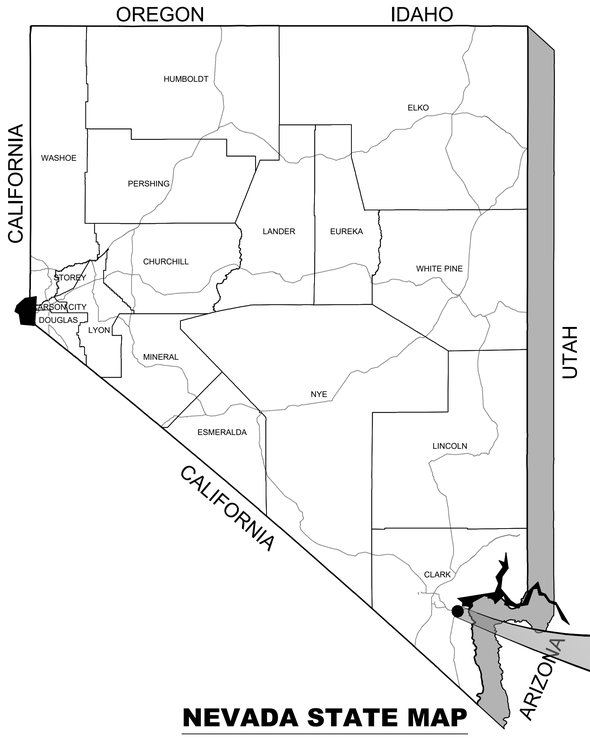
PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
No. 010159
9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 1
TECHNICAL DRAINAGE STUDY
CITY OF LAS VEGAS, NEVADA
DETAIL SHEET 2

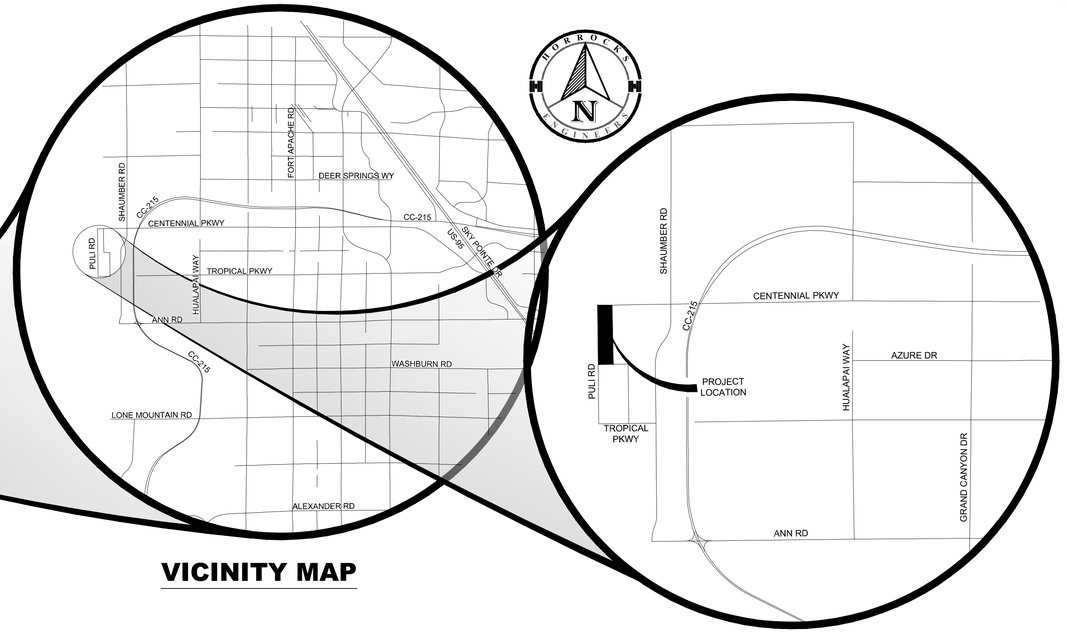
C.6.1

CENTENNIAL HEIGHTS TOWNHOMES
PHASE 2

located in
CITY OF LAS VEGAS
APN # 126-25-201-010



NEVADA STATE MAP



VICINITY MAP

PROJECT SITE

OWNER:
HARMONY HOMES
8912 SPANISH RIDGE AVE, STE 200
LAS VEGAS, NV 89148
PHONE: (702)570-7213
CONTACT: MATT ROSENBERG
EMAIL: MROSENBERG@HARMONYHOMES.COM

DEVELOPER:
HARMONY HOMES
8912 SPANISH RIDGE AVE, STE 200
LAS VEGAS, NV 89148
PHONE: (702)570-7213
CONTACT: MATT ROSENBERG
EMAIL: MROSENBERG@HARMONYHOMES.COM

ENGINEER:
HORROCKS ENGINEERS
1401 N. GREEN VALLEY PKWY., STE 160
HENDERSON, NV 89074
PHONE: (702)966-4063
CONTACT: LARRY BITTON, P.E.
EMAIL: LARRYB@HORROCKS.COM

UTILITY CONTACTS

WATER
LAS VEGAS VALLEY WATER DISTRICT
1001 S. VALLEY VIEW BLVD.
LAS VEGAS, NV 89107
(702) 870-2011

POWER
NEVADA ENERGY
7155 LINDELL RD.
LAS VEGAS, NV 89118
(702) 402-8400

NATURAL GAS
SOUTHWEST GAS CORPORATION
6355 SHATZ ST.
LAS VEGAS, NV 89115
(877) 860-6020

SEWER
CITY OF LAS VEGAS
333 N. RANCHO DR.
LAS VEGAS, NV 89106
(702) 229-6301

TELEPHONE
CENTURY LINK
2340 E. TROPICANA AVE.
LAS VEGAS, NV 89119
(877) 862-9343

CATV SERVICE
COX COMMUNICATIONS
1700 VEGAS DRIVE
LAS VEGAS, NV 89106
(702) 883-4000

EARTHWORKS
CUT: 1,184 CY
FILL: 12,130 CY
NET: 10,946 (FILL)

ESTIMATED QUANTITY FROM EXISTING TO FINISHED GRADES.
PER SOILS REPORT BY GEOTEK INC., PROJECT #15256-LV, DATED JAN 9, 2020

AREA OF DISTURBANCE:
16.8 AC. ONSITE (PRIVATE)
N/A OFFSITE (PUBLIC)

FLOOD ZONE:
THIS SITE IS LOCATED IN A ZONE 'X', AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN AND PARTIALLY IN A SHADED ZONE 'X', AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE OF FLOOD PER THE FLOOD INSURANCE RATE MAP COMMUNITY PANEL 32003C2565F, CLARK COUNTY, NEVADA DATED NOVEMBER 16, 2011, REVISED TO REFLECT LOMR DATED OCTOBER 18, 2018.

BENCHMARK
RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

ELEVATION (meters) 901.13
ELEVATION (feet) 2,956.44
NAVD 88

BASIS OF BEARING
NORTH 00°37'29" WEST, BEING THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.,CLARK COUNTY, NEVADA, AS SHOWN ON THE PLAT OF CONSTELLATION ESTATES, RECORDED IN BOOK 102, PAGE 92, OFFICIAL RECORDS, CLARK COUNTY, NEVADA.

LEGAL DESCRIPTION:
A PORTION OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.D., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE WEST HALF (W 1/2) OF THE WEST HALF (W 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., TOGETHER WITH:

THE WEST HALF (W 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.

Call before you dig
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call 811 or 1-800-227-2600

AVOID LETTING OVERHEAD POWER LINES ETS COSTLY.
CALL BEFORE YOU DO OVERHEAD
1-702-227-2929

FAST
Call before you UnderGround
1-702-432-5300
PRESERVE AND IMPROVE SYSTEM OF TRANSPORTATION

Sheet List Table

Sheet Number	Sheet Description	Sheet Title
01	C.0.0	COVER SHEET
02	C.0.1	NOTES
03	C.0.2	LEGEND & ABBREVIATIONS
04	C.2.0	GRADING PLAN 1
05	C.2.1	GRADING PLAN 2
06	C.2.2	GRADING PLAN 3
07	C.2.3	GRADING PLAN 4
08	C.2.4	GRADING PLAN 5
09	C.2.5	GRADING PLAN 6
10	C.5.0	ST H PLAN & PROFILE (STA 18+50 TO STA 24+00)
11	C.5.1	ST H PLAN & PROFILE (STA 13+50 TO STA 19+00)
12	C.5.2	ST H PLAN & PROFILE (STA 9+00 TO STA 14+00)
13	C.5.3	ST M, N, & O PLAN & PROFILE (STA 9+75 TO STA 12+00
14	C.5.4	ST P, Q, & R PLAN & PROFILE (STA 9+75 TO STA 12+00)
15	C.6.0	DETAIL SHEET 1

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

NOTE:
FOR ALL REFERENCES TO FINAL MAP #_____ SHOWN THROUGHOUT THIS SET OF PLANS, SEE PLAT BOOK ___ PAGE ___.

SITE DATA

APN NUMBER:	124-25-201-010
GROSS AREA:	10.4± ACRES
ZONING:	R-TH
TOTAL COMMON LOT COUNT:	2 LOTS
TOTAL RESIDENTIAL LOT COUNT:	114 LOTS
TOTAL DENSITY:	10.96 DU/AC

APPROVALS

CITY OF LAS VEGAS FIRE DEPARTMENT DATE

MIKE JANSEN DATE
CITY ENGINEER - CITY OF LAS VEGAS
APPROVAL OF THESE PLANS BY THE CITY ENGINEER IS LIMITED TO THOSE IMPROVEMENTS CONSTRUCTED IN THE DEDICATED RIGHT-OF-WAY, AND/OR DEDICATED EASEMENTS. THIS APPROVAL DOES NOT AUTHORIZE CONSTRUCTION OF ANY IMPROVEMENTS THAT DEVIATE FROM ADOPTED STANDARDS AND/OR SPECIFICATIONS EXCEPT THOSE SPECIFICALLY LISTED UNDER DEVIATIONS FROM STANDARDS. THE ENGINEER SHALL RESOLVE ANY DEVIATION OTHER THAN THOSE LISTED IN DEVIATIONS FROM STANDARD IN FAVOR OF THE UNIFORM STANDARD DRAWINGS AND SPECIFICATIONS, CLARK COUNTY AREA, NEVADA.

SOUTHWEST GAS CORPORATION DATE

COX COMMUNICATIONS LAS VEGAS, INC DATE

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

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

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER DATE
(PROJECT# _____), SHEETS: _____

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy., Suite 160
Henderson, NV 89074
(702) 966-4063
www.horrocks.com

WARNING
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE
0 1 2

REVISIONS
REV # | DATE
*SEE GENERAL NOTES SHEET

DRAWING INFO
DATE 9/15/2020
DESIGNED SS
DRAWN PMP
CHECKED AD
PROJECT NV-1949-1909

PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
No. 010159
9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 2
CITY OF LAS VEGAS, NEVADA
COVER SHEET

C.0.0
PAGE

CITY OF LAS VEGAS GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA NEVADA", LATEST ISSUE; THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA NEVADA", LATEST REVISED EDITION; THE "SUMMERLIN IMPROVEMENT STANDARDS" FOR WORK IN THE SUMMERLIN AREA; AND OTHER APPLICABLE APPROVED STANDARDS ISSUED BY THE CONTROLLING AGENCY; THE UNIFORM BUILDING CODE; AND ALL LOCAL CITY CODES AND ORDINANCES APPLICABLE, EXCEPT AS NOTED ON THIS SHEET AS "DEVIATIONS FROM STANDARDS".

2. THE EXISTENCE AND LOCATION OF ANY OVERHEAD OR UNDERGROUND UTILITY LINES, PIPES, OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A RESEARCH OF THE AVAILABLE RECORDS. EXISTING UTILITIES AS SHOWN FROM CLV PLANS LIBRARY ARE APPROXIMATE AND FOR RECORD PURPOSES. EXISTING UTILITIES ARE LOCATED ON PLANS ONLY FOR THE CONVENIENCE OF THE CONTRACTOR. EXISTING UTILITY SERVICE LATERALS MAY NOT BE SHOWN ON THE PLANS. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, LOCATE ALL UNDERGROUND AND OVERHEAD INTERFERENCE'S WHICH MAY AFFECT HIS OPERATION DURING CONSTRUCTION AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO SAME. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING NEAR OVERHEAD UTILITIES SO AS TO SAFELY PROTECT ALL PERSONNEL AND EQUIPMENT, AND SHALL BE RESPONSIBLE FOR ALL COST AND LIABILITY IN CONNECTION THEREWITH.

3. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING UTILITY LINES, STRUCTURES AND STREET IMPROVEMENTS WHICH ARE TO REMAIN IN PLACE, FROM DAMAGE, AND ALL SUCH IMPROVEMENTS OR STRUCTURES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED SATISFACTORY TO THE CITY ENGINEER AND OWNING UTILITY COMPANY AT THE EXPENSE OF THE CONTRACTOR.

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

5. TYPE V CEMENT SHALL BE USED IN ALL OFF-SITE CONCRETE WORK. CONCRETE TO BE 3000 P.S.I. MINIMUM @ 28 DAYS. MIX DESIGNS TO BE APPROVED BY THE CITY, PRIOR TO THE USE ON THE PROJECT.

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

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

8. AC PAVEMENT TO BE ONE-HALF INCH (½") ABOVE LIP OF ALL GUTTERS AFTER COMPACTION, EXCEPT AT SIDEWALK RAMPS AND CROSS GUTTERS.

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

10. SIDEWALK RAMPS SHALL BE CONSTRUCTED IN EACH QUADRANT OF AN INTERSECTION PER STANDARD DRAWING 235. EXACT LOCATION OF RAMPS MAY BE ADJUSTED IN THE FIELD BY A CITY INSPECTOR.

11. CONTRACTOR SHALL PROVIDE ALL NECESSARY HORIZONTAL AND VERTICAL TRANSITIONS BETWEEN NEW CONSTRUCTION AND EXISTING SURFACES TO PROVIDE FOR PROPER DRAINAGE AND FOR INGRESS AND EGRESS TO NEW CONSTRUCTION. THE EXTENT OF THE TRANSITIONS TO BE AS SHOWN ON PLANS.

12. ALL GRADING WORK SHALL CONFORM TO THE SOILS REPORT AS PREPARED BY THE (COMPANY , REPORT #, DATE) APPROVED BY THE CITY ENGINEER, AND AS SHOWN ON THESE PLANS.

13. EXACT LOCATION OF ALL SAWCUT LINES MAY BE ADJUSTED OR DETERMINED IN THE FIELD BY A CITY OF LAS VEGAS ENGINEER IF LOCATION ON PLANS IS NOT CLEARLY SHOWN, OR EXISTING PAVEMENT CONDITION REQUIRES RELOCATIONS.

14. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT EXISTING PERMANENT SURVEY MONUMENTS. ANY MONUMENTS DISTURBED SHALL BE REPLACED AND ADJUSTED PER AVAILABLE RECORDS IN ACCORDANCE WITH N.R.S. STATUTE NO. 625.380 & CITY OF LAS VEGAS TITLE 18, APPENDIX D.

15. UTILITY COMPANY METER BOXES, MANHOLE LIDS, VALVE COVERS, ETC., SHALL BE LOCATED OUT OF DRIVEWAYS, DRIVEWAY APRONS, FLOWLINES, AND CROSS GUTTERS UNLESS WRITTEN APPROVAL IS GRANTED BY THE UTILITY COMPANY AND THE CITY ENGINEER.

WALL NOTES:

16. ALL WALLS, NEW OR EXISTING, ARE ONLY SHOWN ON CIVIL PLANS FOR THE PURPOSE OF REVIEWING GRADING RELATIONSHIPS; FLOOD CONTROL AND SIGHT DISTANCE AT INTERSECTIONS. NEW WALLS REQUIRE A SEPARATE PERMIT AND INSPECTION BY THE BUILDING DEPARTMENT.

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

18. CONTRACTOR SHALL ADJUST ALL NEW AND EXISTING INLETS, VALVE BOXES, MANHOLE RIMS, AND SEWER CLEAN OUTS, ETC. TO FINISH GRADE AS APPLICABLE WHETHER OR NOT THEY ARE SHOWN ON THE PLANS.

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

20. WHEN INSTALLING UNDERGROUND FACILITIES THAT REQUIRE UNDERGROUND LOCATING DEVICES SUCH AS MARKER BALLS, LOCATING RIBBON, ETC., THE CONTRACTOR SHALL PROVIDE WRITTEN DOCUMENTATION TO OFFSITE INSPECTION AND TESTING CERTIFYING THAT ALL DEVICES HAVE BEEN PLACED AND VERIFIED TO BE IN GOOD WORKING CONDITION PRIOR TO THE CONSTRUCTION OF ANY ROAD BASE.

21. SANITARY SEWER AND STORM DRAIN FINAL LOCATION MAP(S) SHALL BE PROVIDED TO THE CITY AND APPROVED PRIOR TO ACCEPTANCE OF FACILITY VIDEO INSPECTION. THE MAP(S) SHALL INCLUDE THE HORIZONTAL AND VERTICAL (INVERT) LOCATION OF PUBLIC SEWER MANHOLES, STORM DRAIN MANHOLES AND TRANSITION STRUCTURES, STORM DRAIN LATERALS AT THE CONNECTION TO THE STORM DRAIN MAIN AND AT THE CONNECTION TO A DROP INLET, THE CONNECTION OF SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERALS EXIT THE PUBLIC RIGHT-OF-WAY, AND STORM DRAIN MAIN ALIGNMENT, INCLUDING DEFLECTION POINTS. THE LOCATION SHALL BE DESCRIBED BY COORDINATES WHICH SHALL BE BASED ON THE OFFICIAL HORIZONTAL AND VERTICAL CONTROL NETWORKS OF THE CITY OF LAS VEGAS. FINAL LOCATION MAPS MUST BE SEALED AND CERTIFIED BY A NEVADA PROFESSIONAL LAND SURVEYOR TO HAVE POSITIONAL CERTAINTIES OF ± 0.09 METERS (± 0.3 FEET) HORIZONTALLY AND VERTICALLY, A SEPARATE ELECTRONIC COMMA DELIMITED FILE FOR THE SANITARY SEWER AND STORM DRAIN COORDINATES SHALL ALSO ACCOMPANY THE SANITARY SEWER AND STORM DRAIN FINAL LOCATION MAP(S).

OR

SANITARY SEWER AND STORM DRAIN FACILITIES SHOWN ON THESE PLANS SHALL BE USED TO MEET THE REQUIREMENTS OF NRS 455 AND SHALL SHOW AT A MINIMUM THE HORIZONTAL AND VERTICAL (INVERT) LOCATION OF PUBLIC SEWER MANHOLES, STORM DRAIN MANHOLES, STORM DRAIN LATERALS AT THE CONNECTION TO THE STORM DRAIN MAIN AND AT THE CONNECTION TO A DROP INLET, AND THE CONNECTION OF SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERALS EXIT THE PUBLIC RIGHT-OF-WAY. ANY DEVIATIONS FROM THE INFORMATION SHOWN SHALL BE NOTED AND SUBMITTED AS A REVISION TO THE PLANS AND APPROVED PRIOR TO ACCEPTANCE OF FACILITY VIDEO INSPECTION.

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

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

CITY OF LAS VEGAS GRADING NOTES

1. IN THE EVENT THAT ANY UNFORESEEN CONDITIONS NOT COVERED BY THESE NOTES ARE ENCOUNTERED DURING GRADING OPERATIONS, THE OWNER/ENGINEER SHALL BE IMMEDIATELY NOTIFIED FOR DIRECTION.

2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM ALL NECESSARY CUTS AND FILLS WITHIN THE LIMITS OF THIS PROJECT AND THE RELATED OFF-SITE WORK, SO AS TO GENERATE THE DESIRED SUBGRADE, FINISH GRADES AND SLOPES SHOWN.

3. CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ALL EXCAVATION. ADEQUATE SHORING SHALL BE DESIGNED AND PROVIDED BY THE CONTRACTOR TO PREVENT UNDERMINING OF ANY ADJACENT FEATURES OR FACILITIES AND/OR CAVING OF THE EXCAVATION.

4. THE CONTRACTOR IS WARNED THAT AN EARTHWORK BALANCE WAS NOT NECESSARILY THE INTENT OF THIS PROJECT. ANY ADDITIONAL MATERIAL REQUIRED OR LEFTOVER MATERIAL FOLLOWING EARTHWORK OPERATIONS BECOMES THE RESPONSIBILITY OF THE CONTRACTOR.

5. THE GRADING CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE OWNER TO PROVIDE FOR THE REQUIREMENTS OF THE PROJECT STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND ASSOCIATED PERMIT.

6. CONTRACTOR SHALL GRADE TO THE LINES AND ELEVATIONS SHOWN ON THE PLANS WITHIN THE FOLLOWING HORIZONTAL AND VERTICAL TOLERANCES AND DEGREES OF COMPACTION, IN THE AREAS INDICATED:

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

COMPACTION TESTING WILL BE PERFORMED BY THE OWNER OR HIS REPRESENTATIVE.

7. ALL CUT AND FILL SLOPES SHALL BE PROTECTED UNTIL EFFECTIVE EROSION CONTROL HAS BEEN ESTABLISHED.

8. THE USE OF POTABLE WATER WITHOUT A SPECIAL PERMIT FOR BUILDING OR CONSTRUCTION PURPOSES INCLUDING CONSOLIDATION OF BACKFILL OR DUST CONTROL IS PROHIBITED. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR CONSTRUCTION WATER.

9. THE CONTRACTOR SHALL MAINTAIN THE STREETS, SIDEWALKS AND ALL OTHER PUBLIC RIGHT-OF-WAY IN A CLEAN, SAFE AND USABLE CONDITION. ALL SPILLS OF SOIL, ROCK OR CONSTRUCTION DEBRIS SHALL BE PROMPTLY REMOVED FROM THE PUBLICLY OWNED PROPERTY DURING CONSTRUCTION AND UPON COMPLETION OF THE PROJECT. ALL ADJACENT PROPERTY, PRIVATE OR PUBLIC SHALL BE MAINTAINED IN A CLEAN, SAFE AND USABLE CONDITION.

10. IN THE EVENT THAT ANY TEMPORARY CONSTRUCTION ITEM IS REQUIRED THAT IS NOT SHOWN ON THESE DRAWINGS, THE OWNER AGREES TO PROVIDE AND INSTALL SUCH ITEM AT HIS OWN EXPENSE AND AT THE DIRECTION OF THE CITY ENGINEER. TEMPORARY CONSTRUCTION INCLUDES DITCHES, BERMS, ROAD SIGNS AND BARRICADES, ETC.

CITY OF LAS VEAGS TRAFFIC NOTES

1. ALL CONSTRUCTION SIGNING, BARRICADING, AND TRAFFIC DELINEATION SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.

2. THE STREET SIGN CONTRACTOR SHALL OBTAIN STREET NAMES AND BLOCK NUMBERING FROM THE PLANNING DEPARTMENT PRIOR TO CONSTRUCTION.

3. BEFORE ANY WORK IS STARTED IN THE RIGHT-OF-WAY, THE CONTRACTOR SHALL INSTALL ALL ADVANCE WARNING SIGNS FOR THE CONSTRUCTION ZONE. THE CONTRACTOR SHALL INSTALL TEMPORARY STOP SIGNS AT ALL NEW STREET ENCROACHMENTS INTO EXISTING CITY STREETS WHERE WARRANTED IMMEDIATELY AFTER FIRST GRADING WORK IS ACCOMPLISHED, AND SHALL MAINTAIN SAID SIGNS UNTIL PERMANENT SIGNS ARE INSTALLED.

4. WHEN A DESIGNATED "SAFE ROUTE TO SCHOOL" IS ENCROACHED UPON BY A CONSTRUCTION WORK ZONE AND PUBLIC WORKS STAFF IDENTIFIES A NEED FOR STUDENTS TO BE ASSISTED IN THE SAFE CROSSING THROUGH THAT WORK ZONE, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE A QUALIFIED "CROSSING GUARD". THE GUARD SHALL BE PRESENT FOR THE FULL DURATION OF TIME THAT CHILDREN ARE LIKELY TO BE PRESENT.

5. IF THE IMPROVEMENTS NECESSITATE THE OBLITERATION, TEMPORARY OBSTRUCTION, TEMPORARY REMOVAL OR RELOCATION OF ANY EXISTING TRAFFIC PAVEMENT MARKING, SUCH PAVEMENT MARKING SHALL BE RESTORED OR REPLACED WITH LIKE MATERIALS TO THE SATISFACTION OF THE CITY TRAFFIC ENGINEER.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL PERMANENT SIGNS SHOWN ON THE PLANS. ALL NEW TRAFFIC SIGNS SHALL BE FABRICATED WITH DIAMOND GRADE VIP CLASS 6 REFLECTIVE SHEETING OR APPROVED EQUAL. ALL NEW TRAFFIC SIGNS, EXCEPT STREETNAME AND SCHOOL SPEED LIMIT SIGNS, SHALL HAVE 3M SERIES 1160 OR APPROVED EQUIVALENT ANTI-GRAFFITI PROTECTIVE OVERLAY FILM; SCHOOL ZONE SIGNS SHALL HAVE 3M SERIES 1150 ANTI-GRAFFITI PROTECTIVE OVERLAY FILM. STREET NAME SIGNS SHALL CONFORM IN THEIR ENTIRETY TO CURRENT CITY STANDARDS. ALL OTHER SIGNS SHALL BE STANDARD SIZE UNLESS OTHERWISE SPECIFIED ON THE PLANS. ALL SIGN POSTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT CITY STANDARDS.

7. WHEN A PROPOSED STREET LIGHT STANDARD IS LOCATED WITHIN FIVE (5') FEET OF ANY PROPOSED SIGN SHOWN ON THE PLANS TO BE MOUNTED ON A SIGNPOST, THE SIGN SHALL BE MOUNTED ON THE STREET LIGHT STANDARD AND THE SIGNPOST SHALL BE ELIMINATED.

8. ALL PERMANENT TRAFFIC CONTROL DEVICES CALLED FOR HEREON SHALL BE IN PLACE AND IN FINAL POSITION PRIOR TO ALLOWING ANY PUBLIC TRAFFIC ONTO THE PORTIONS OF THE ROAD(S) BEING IMPROVED HERE UNDER, REGARDLESS OF THE STATUS OF COMPLETION OF PAVING OR OTHER OFF-SITE IMPROVEMENTS CALLED FOR BY THESE PLANS.

9. STREET SIGNS AND STOPS SIGNS SHALL BE INSTALLED PER CITY STANDARD SPECIFICATIONS FOR PLACEMENT OF STREET NAME SIGNS.

10. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY TRAFFIC CONTROL DEVICES AND FLAGGERS TO INSURE THE SAFETY OF THE PUBLIC IN OR AROUND THE WORK AREA. THE CONTRACTOR SHALL HAVE A CERTIFIED ATSSA TRAFFIC CONTROL TECHNICIAN OR IMSA WORK ZONE SAFETY SPECIALIST SET UP, MAINTAIN AND/OR REMOVE ALL TRAFFIC CONTROL DEVICES IN THE CITY OF LAS VEGAS RIGHT OF WAY.

11. WORK IN PUBLIC STREETS, ONCE BEGUN, SHALL BE EXPEDITED TO COMPLETION SO AS TO PROVIDE MINIMUM INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND TO THE TRAVELING PUBLIC.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING CITIZENS AREA TRANSIT (C.A.T.) IF THE CONSTRUCTION INTERRUPTS OR RELOCATES A BUS STOP OR HAS AN ADVERSE EFFECT ON BUS SERVICE ON THAT STREET TO ARRANGE FOR TEMPORARY RELOCATION OF STOP.

13. GUARDS SHALL BE OBTAINED BY CONTACTING THE METROPOLITAN POLICE DEPARTMENT SPECIAL EVENTS UNIT (PHONE # 828-3442) WHO WILL PROVIDE OFFICERS PROPERLY TRAINED IN TRAFFIC CONTROL. FEES FOR THE USE OF THESE OFFICERS SHALL BE SET BY METRO AND WILL BE PAID BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR ALL ARRANGEMENTS WITH METRO.

14. ANY WORK WITHIN 300' OF A SIGNALIZED INTERSECTION WILL BE NIGHT WORK, UNLESS OTHERWISE DIRECTED BY THE CITY OF LAS VEGAS TRAFFIC ENGINEER.

15. THE CONTRACTOR SHALL CONTACT THE TRAFFIC ENGINEERING DIVISION (TRANSPORTATION SECTION) THROUGH THE PROJECT'S OFFSITE INSPECTOR PRIOR TO INITIATING PAVING TO RECEIVE DIRECTION FOR ANY PERMANENT OR TEMPORARY MODIFICATIONS TO THE APPROVED DRAWINGS REGARDING FINAL PAVEMENT TRANSITIONS, MARKINGS AND SIGNING THAT ARE REQUIRED TO MATCH ADJACENT ROADWAY SEGMENTS. THE CONTRACTOR SHALL PROVIDE A DRAWING FOR APPROVAL BY THE TRAFFIC ENGINEERING DIVISION DEPICTING ANY ADJUSTMENTS TO THE FINAL PAVEMENT MARKINGS AND SIGNAGE, WHICH MAY INCLUDE OMITTING, ADDING OR MODIFYING PAVEMENT MARKINGS AND TRAFFIC CONTROL SIGNS SUCH THAT ADEQUATE TRANSITIONS AND LANE TERMINATIONS BETWEEN ADJACENT ROADWAY SEGMENTS ARE CONSTRUCTED

CITY OF LAS VEGAS STREETLIGHT NOTES

1. ALL STREET LIGHTING INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE STREET LIGHTING PLANS, THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA", LATEST REVISION, AND THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA", LATEST REVISION, AND ANY ADOPTED SPECIAL AREA STANDARDS.

2. NO DEVIATION OF STREET LIGHT, PULL BOX, CONDUITS (ETC.) LOCATIONS SHALL BE PERMITTED WITHOUT WRITTEN APPROVAL OF TRAFFIC ENGINEERING AND THE CITY ENGINEER.

3. ALL EXISTING STREET LIGHTING SHALL REMAIN OPERATIONAL DURING CONSTRUCTION.

4. ALL STREET LIGHTING CONDUITS STUB SHALL HAVE AT LEAST ONE GREEN #8 THW WIRE INSTALLED, AS TRACER WIRE. WHEN "EMPTY" CONDUIT IS COMPLETELY INSTALLED FROM PB TO PB, IT SHALL HAVE MINIMUM OF 2 #4 AND 1 #8 THW WIRE WITH THE ENDS TAPED OR "SAFE OFF" PRIOR TO FINAL INSPECTION.

5. ANY STRUCTURE SUCH AS BLOCK WALLS, CHAIN LINK FENCES, RETAINING WALLS, ETC., SHALL LEAVE A MINIMUM CLEARANCE IN ACCORDANCE WITH THE USD NO. 320A.

6. AS-BUILT DRAWINGS SHALL BE SUPPLIED TO THE TEFO PRIOR TO ANY PRE-FINAL INSPECTION. THE AS- BUILT DRAWING NEEDS TO BE STAMPED AS-BUILT AND SIGNED BY THE PREPARER.

7. SERVICE POINT SHALL BE COORDINATED WITH NV ENERGY COMPANY, AND WHEREVER POSSIBLE, BE LOCATED NEAR THE CENTER OF THE CIRCUIT. SERVICE POINTS SHALL BE SHOWN ON THE CIVIL PLANS.

8. IT SHALL BE ASSUMED THAT IN THE ABSENCE OF AN EXISTING, WORKABLE CIRCUIT TO ATTACH TO, ALL INSTALLATIONS SHALL REQUIRE A NEW SERVICE FOR OPERATION OF THE CIRCUIT.

9. WHEREVER THERE IS AN OVERHEAD UTILITY THAT MAY CONFLICT WITH THE INSTALLATION OF STREET LIGHTING CIRCUITS AND/OR POLES, THESE CONFLICTS MUST BE RESOLVED BETWEEN THE DEVELOPER AND THE UTILITIES INVOLVED, AT NO EXPENSE TO THE CITY OF LAS VEGAS, BEFORE STREETLIGHT BASES ARE INSTALLED.

10. THE CONTRACTOR SHALL FURNISH COMPLETE SERVICE TO TRANSFORMERS AND CONTROL SYSTEMS IF REQUIRED ON PLANS.

11. THE DEVELOPER/OWNER WILL BE REQUIRED TO SUPPLY POWER TO ALL NEW PUBLIC STREET LIGHTS INSTALLED UNDER THIS DESIGN PRIOR TO BOND RELEASE OR PROJECT COMPLETION. THE DEVELOPER/OWNER WILL BE RESPONSIBLE FOR ALL ITEMS ASSOCIATED WITH THE INSTALLATION, CONSTRUCTION, ENERGIZING, MAINTENANCE AND OPERATIONAL COST OF SAID STREET LIGHTS PRIOR TO PROJECT COMPLETION. REFER TO THE PLAN FOR ANY NEW SERVICE REQUIREMENTS. THE TRANSFER OF OWNERSHIP FROM THE DEVELOPER/OWNER TO THE CITY OF LAS VEGAS FOR ALL NEW PUBLIC STREET LIGHTS AND/OR SERVICE/S INSTALLED UNDER THIS PLAN DESIGN WILL BE IN CONJUNCTION WITH THIS PROJECT COMPLETION. COORDINATE ALL MAINTENANCE AND OPERATIONAL TRANSFERS WITH THE CITY OF LAS VEGAS TRAFFIC ENGINEERING DEPARTMENT (TEFO) AT (702) 229-6331.

STORMWATER MANAGEMENT NOTES

1. THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, THE PUBLIC RIGHTS OF WAY OF CLARK COUNTY AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.

2. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN CLARK COUNTY TITLE 24.40 AND THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.

3. TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY, REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR 100000, SECTION III.A.5.

4. AT A MINIMUM, THE CONSTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS AND ALL BMPS WEEKLY, AND WITHIN 24 HOURS AFTER A 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 NVR 100000, SECTION III.A.12.

5. ACCUMULATED SEDIMENT IN BMPS SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.

SOUTHERN NEVADA - SOUTHWEST GAS CORPORATION GENERAL NOTES

1. IN THE EVENT OF A NATURAL GAS EMERGENCIES CALL 911 AND 1-877-860-6020.

2. THERE SHALL BE A MINIMUM HORIZONTAL AND VERTICAL CLEARANCE OF 12-INCHES BETWEEN NATURAL GAS FACILITIES AND ANY UNDERGROUND FACILITIES AND/OR STRUCTURES, INCLUDING BUT NOT LIMITED TO WATER, SEWER, STORM DRAIN, COMMUNICATIONS, AND ELECTRIC.

3. FOR VALVE ADJUSTMENT CONTACT 702-528-7881 14 DAYS PRIOR TO CONSTRUCTION.

4. IN THE EVENT OF A NATURAL GAS CONFLICT WITH PROPOSED UTILITIES AND/OR STRUCTURES CONTACT 702-365-2099.

5. FOR STAND BY CONTACT 702-278-8451

CITY OF LAS VEGAS FIRE PREVENTION NOTES

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE LAS VEGAS FIRE AND RESCUE ADOPTED FIRE CODE ORDINANCE # 6325 FOR HYDRANT SPECIFICATIONS AND HYDRANT INSTALLATION SPECIFICATIONS.

2. ONLY FIRE HYDRANTS THAT ARE ON THE LAS VEGAS VALLEY WATER DISTRICT'S - **APPROVED PRODUCTS LIST** ARE ALLOWED TO BE INSTALLED.

3. A PERMIT IS REQUIRED FROM LAS VEGAS FIRE AND RESCUE FOR THE INSTALLATION OF ON-SITE WATER LINES AND FIRE HYDRANTS. THE PERMIT AND CONTRACTORS MATERIAL TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER *BEFORE* COMMENCEMENT OF WORK. [IFC § 105.7.12]

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 ORDE AND SHALL BE CAPABLE OF DELIVERING THE REQUIRED FIRE FLOW. [IFC § 3310, § 3312]

5. TO IDENTIFY THE FIRE HYDRANT LOCATIONS, THE CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT THE CENTER LINE OF THE STREET ADJACENT TO THE FIRE HYDRANTS. [IFC § 507.5.7.3]

6. ALL UNDERGROUND INSPECTIONS, PRESSURE AND FLUSH VERIFICATIONS OF ALL FIRE HYDRANTS AND FIRE LINES, SHALL BE CONDUCTED ***BEFORE*** COVERING THE LINES. CENTER LOADING IS ACCEPTABLE FOR THE HYDRO TESTS WITH PRIOR FIRE PREVENTION APPROVAL. [IFC § 106.3]

7. ALL ON-SITE UNDERGROUND WATER MAINS AND MATERIALS SHALL BE U.L. LISTED, A.W.W.A APPROVED AND SHALL BE RATED FOR THE APPROPRIATE WORKING PRESSURE. [IFC § 507.2.1, NFPA 24]

8. PAINTING OF CURBS, FIRE HYDRANTS, PADS, PROTECTION OF FIRE HYDRANTS FROM PHYSICAL DAMAGE, AND ALL OTHER WORK NECESSARY PER PLANS SHALL BE COMPLETED BEFORE APPROVAL BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION. [IFC § 507]

9. PRIVATE HYDRANTS SHALL BE PAINTED RED. [IFC § 507.5.7.1]

10. PRIOR TO THE FINAL OCCUPANCY, A FIRE FLOW TEST SHALL BE WITNESSED BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION TO VERIFY AVAILABILITY OF THE REQUIRED FIRE FLOW. [IFC § 507]

11. FIRE HYDRANT SPACING SHALL BE AS FOLLOWS: [IFC § C102]
- RESIDENTIAL - 500 FT UNSPRINKLERED; 600 FT SPRINKLERED.
- COMMERCIAL - 300 FT UNSPRINKLERED; 400 FT SPRINKLERED.

12. WHERE THE WATER MAINS ARE EXTENDED ALONG STREETS OR NEW STREETS ARE INSTALLED WHERE FIRE HYDRANTS ARE NOT NEEDED FOR PROTECTION OF THE STRUCTURES, FIRE HYDRANTS SHALL BE INSTALLED AT A MAXIMUM OF 1000 FT SPACING, TO PROVIDE FOR TRANSPORTATION HAZARDS. WHERE STREETS ARE PROVIDED WITH MEDIAN DIVIDERS OR HAVE FOUR (4) OR MORE TRAFFIC LANES AND HAVE A TRAFFIC COUNT OF MORE THAN 30,000 PER DAY, HYDRANTS ARE REQUIRED ON EACH SIDE OF THE STREET SPACED AT 500 FT ON AN ALTERNATING BASIS. [IFC § C102.8]

13. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN THE RADIUS OF A CUL-DE-SAC OR WITHIN 20 FT OF THE PERIMETER OF THE RADIUS OF THE CUL-DE-SAC.

14. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN 6 FT OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREETLIGHT OR ANY OTHER OBSTRUCTION. [IFC § C102.12]

15. A MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A ONE-TWO FAMILY DWELLING SHALL NOT EXCEED 300 FT, AS MEASURED BY AN APPROVED ROUTE. [IFC § C102.4]

16. THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A FIRE DEPARTMENT CONNECTION (FDC) SHALL NOT EXCEED 100 FT, AS MEASURED BY AN APPROVED ROUTE. [IFC § C102.7]

17. THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL NOT EXCEED 200 FT. [IFC § C102.6]

18. TWO (2) SOURCES OF SUPPLY ARE REQUIRED WHENEVER THERE IS 4 OR MORE FIRE HYDRANTS/SPRINKLER LEAD-INS ARE INSTALLED ON A SINGLE SYSTEM. SECTIONAL CONTROL VALVES SHALL BE INSTALLED SO THAT NO MORE THAN 2 FIRE HYDRANTS CAN BE OUT OF SERVICE DUE TO A BREAK IN A WATER MAIN. [IFC § C104]

19. ALL FIRE APPARATUS ACCESS ROADS SHALL BE PAVED TO PROVIDE ALL-WEATHER DRIVING CAPABILITIES, AND SHALL BE DESIGNED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF THE FIRE APPARATUS. [IFC § 503.2.3]

20. THE GRADIENT FOR THE FIRE APPARATUS ACCESS ROADS SHALL NOT EXCEED 12%. ANGLES OF APPROACH AND ANGLES OF DEPARTURE SHALL NOT EXCEED 6% FOR 25 FT PRIOR TO OR AFTER THE GRADE CHANGE. ADJACENT TO THE STRUCTURES GRADIENT SHALL NOT

SEWER

EXISTING		PROPOSED
— — — — ss — — — — ss —	UNKNOWN	ss
— — — — 4" ss — — — — 4" ss —	4"	4" SS
— — — — 6" ss — — — — 6" ss —	6"	6" SS
— — — — 8" ss — — — — 8" ss —	8"	8" SS
— — — — 10" ss — — — — 10" ss —	10"	10" SS
— — — — 12" ss — — — — 12" ss —	12"	12" SS
— — — — ⟋	LATERAL	

STORM DRAIN

EXISTING		PROPOSED
— — — — sd — — — — sd —	UNKNOWN	SD
— — — — 10" sd — — — — 10" sd —	10"	10" SD
— — — — 12" sd — — — — 12" sd —	12"	12" SD
— — — — 15" sd — — — — 15" sd —	15"	15" SD
— — — — 18" sd — — — — 18" sd —	18"	18" SD
— — — — 24" sd — — — — 24" sd —	24"	24" SD
— — — — 30" sd — — — — 30" sd —	30"	30" SD
— — — — 36" sd — — — — 36" sd —	36"	36" SD
— — — — ld — — — — ld — — — —	LAND	

WATER

EXISTING		PROPOSED
— — — — w — — — — w — — — —	UNKNOWN	w
— — — — 1" w — — — — 1" w —	1"	1" W
— — — — 2" w — — — — 2" w —	2"	2" W
— — — — 4" w — — — — 4" w —	4"	4" W
— — — — 6" w — — — — 6" w —	6"	6" W
— — — — 8" w — — — — 8" w —	8"	8" W
— — — — 10" w — — — — 10" w —	10"	10" W
— — — — 12" w — — — — 12" w —	12"	12" W
— — — — 14" w — — — — 14" w —	14"	14" W

IRRIGATION

EXISTING		PROPOSED
— — — — irr — — — — irr — — — —	UNKNOWN	IRR
— — — — 1" irr — — — — 1" irr —	1"	1" IRR
— — — — 2" irr — — — — 2" irr —	2"	2" IRR
— — — — 4" irr — — — — 4" irr —	4"	4" IRR
— — — — 6" irr — — — — 6" irr —	6"	6" IRR
— — — — 8" irr — — — — 8" irr —	8"	8" IRR

POWER

EXISTING		PROPOSED
— — — — OH — — — — OH — — — —	OVERHEAD	OH OH OH
— — — — ABC — — — — ABC — — — —	3-PHASE	ABC ABC ABC
— — — — AB — — — — AB — — — —	2-PHASE (AB)	AB AB AB
— — — — AC — — — — AC — — — —	2-PHASE (AC)	AC AC AC
— — — — BC — — — — BC — — — —	2-PHASE (BC)	BC BC BC
— — — — A — — — — A — — — — A — — — —	1-PHASE (A)	A A A
— — — — B — — — — B — — — — B — — — —	1-PHASE (B)	B B B
— — — — C — — — — C — — — — C — — — —	1-PHASE (C)	C C C

COMMUNICATIONS

EXISTING		PROPOSED
— — — — t — — — —	TELEPHONE	— — T — —
— — — — TV — — — TV — — — TV — — — —	TV	TV TV TV TV
— — — — — — fo — — — — — —	FIBER	— — FO — —
— — — — fo — — — — fo — — — —	FIBER	FO
— — — — bfo — — — — bfo — — — —	FIBER	BFO
— — — — ctv — — — — ctv — — — —	CABLE TV	BFO
— — — — — — com — — — — — —	COMM	COM

GAS

EXISTING		PROPOSED
— — — — 2" g — — — — 2" g — — — —	GAS	2" G
— — — — HPG — — — — HPG — — — —	HIGH PRESS	HPG HPG HPG
⟋ ⟍	SERVICE "Y"	⟍ ⟋

MISCELLANEOUS

EXISTING		PROPOSED
— — — — — — sig — — — — — —	SIGNAL	SIG

HATCH PATTERNS

- BUILDING / PAD
- CONCRETE SIDEWALK / FLATWORK
- LANDSCAPE AREAS / GRASS
- ADA ACCESS RAMP TRUNCATED DOMES
- RIPRAP
- 3" ASPHALT PAVEMENT OVER 6" TYPE II BASE (ONSITE)
- SIGHT VISIBILITY ZONE

SURFACE FEATURES

- PROPERTY BOUNDARY
- RIGHT OF WAY LINE
- PARCEL LINE
- CURB & GUTTER
- EASEMENT LINE
- 4000 EXISTING MAJOR CONTOURS
- 4002 EXISTING MINOR CONTOURS
- 4000 MAJOR CONTOURS
- 4002 MINOR CONTOURS
- ROCK WALL
- PERIMETER/RETAINING WALL
- CONCRETE WALL
- CONSTRUCTION FENCE
- X X X BARB WIRE FENCE
- CHAIN LINK FENCE
- WROUGHT IRON FENCE
- DECORATIVE FENCE
- EXISTING RAILROAD TRACKS
- EXISTING EDGE OF PAVEMENT
- EDGE OF PAVEMENT
- SAWCUT LINE
- CENTERLINE

STANDARD SYMBOLS

EXISTING		PROPOSED
s	SEWER MANHOLE	S
sd	STORM DRAIN MANHOLE	SD
w	WATER MANHOLE	W
e	ELECTRICAL MANHOLE	E
t	TELEPHONE MANHOLE	T
fo	FIBER OPTIC MANHOLE	FO
ir	IRRIGATION MANHOLE	IR
g	GAS MANHOLE	G
tv	CABLE TV MANHOLE	TV
	STORM DRAIN CATCH BASIN	
ir	IRRIGATION BOX	IR
jb	ELECTRICAL JUNCTION BOX	JB
e	ELECTRICAL BOX	E
t	TELEPHONE BOX	T
tv	CABLE TV BOX	TV
fo	FIBER OPTIC BOX	FO
w	WATER METER	
g	GAS METER	G
	GATE VALVE	
	BUTTERFLY VALVE	
	PRESSURE REDUCING VALVE	
	FIRE HYDRANT	
PIV	POST INDICATOR VALVE	PIV
pp	ELECTRICAL POWER POLE	PP
	STREET LIGHT	
	SIGN (SINGLE POLE)	
	SIGN (2 POLE)	
	SIGN (3 POLE)	

CONSTRUCTION KEYNOTE TAGS

G1	OR	G9 GRADING PLAN
01	OR	35 SITE PLAN
36	OR	50 WATER
51	OR	65 SEWER
66	OR	80 STORM
81	OR	90 DOCUMENT REFERENCE
A	OR	Z STREETLIGHT / SIGNAGE

DETAIL REFERENCE

DETAIL OR SECTION IDENTIFICATION — A #

DETAIL OR SECTION IS TO BE FOUND ON SHEET INDICATED

A — DETAIL OR SECTION IS TO BE FOUND ON THE SAME SHEET

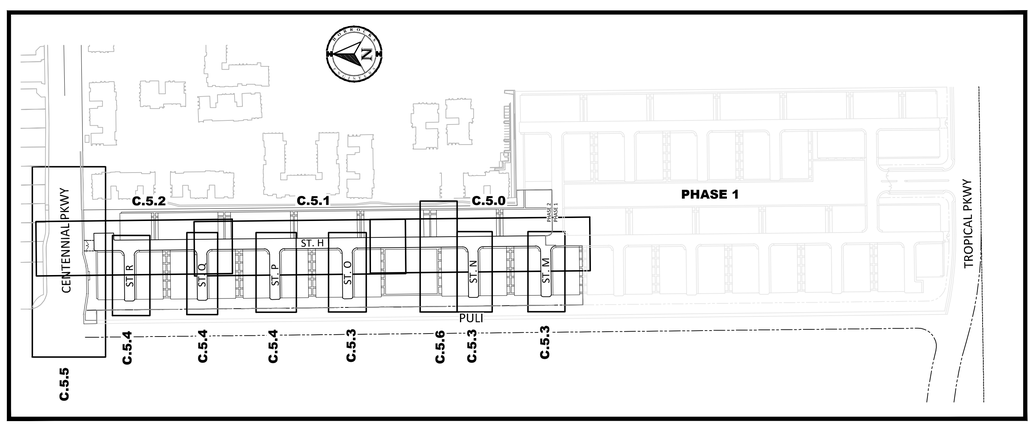
CURVE DATA
Δ = XX°XX'XX"
R = XXX.XXX'
L = XXX.XXX'
T = XXX.XXX
P.I. STA. XX+X.XXX
N = XXXXX.XXXX
E = XXXXX.XXXX

NOTES:
1. XXXXX.
2. XXXXX.
3. XXXXX.

MATCHLINE STA XX+XX.XX
SEE PAGE X.X.X

X - **DETAIL NAME**
SCALE: NTS

KEY MAP
N.T.S.



CALLOUTS

PAD= XX.XX
FF = XX.XX — PROPOSED BUILDING PAD ELEVATION; PROPOSED BUILDING FINISHED FLOOR ELEVATION

FF = — EXISTING BUILDING FINISHED FLOOR ELEVATION

XXX:85.00 — PROPOSED SPOT ELEVATION (@ TBC, TOA, TOC, FG, FL)

XXX:(85.00) — EXISTING SPOT ELEVATION (@ TBC, TOA, TOC, FG, FL)

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 135217 FIRST APPROVAL DATE:
LVVWD APPROVED FIRE FLOW 1750 GPM AT 20 PSI RESIDENTIAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW N/A GPM

ABBREVIATIONS

Aban	- Abandon
AIP	- Abandoned in Place
Agg	- Aggregate
Alt	- Alternate
A	- Anode, Gas
ACP	- Asbestos Cement Pipe
AC	- Asphaltic Concrete
Ave	- Avenue
BC	- Back of Curb
BCR	- Back of Curb Radius
BVC	- Beginning of Vertical Curve
BM	- Bench Mark
Bdry Line	- Boundary Line
CATV	- Cable Television
C-C	- Center to Center
℄	- Centerline
CBC	- City of Boulder City
CLV	- City of Las Vegas
COH	- City of Henderson
CM	- City of Mesquite
CNLV	- City of North Las Vegas
CC	- Clark County
CCSD	- Clark County Sanitation District
CO	- Clean Out, Sewer
Comm	- Commercial
Conc, PCC	- Concrete
Const	- Construction or Construct
Cor	- Corner
CMP	- Corrugated Metal Pipe
CSAP	- Corrugated Steel Arch Pipe
CSP	- Corrugated Steel Pipe
C&G	- Curb and Gutter
CIP	- Cast Iron Pipe
Col	- Column
Cu Yd, CY	- Cubic Yard
Cu Ft, CF	- Cubic Feet
Culv	- Culvert
CF	- Curb Face
Dept	- Department
Dia	- Diameter
Dwy	- Driveway
DI	- Drop Inlet
Esmt	- Easement
E/o	- East of
EP	- Edge of Pavement
EO	- Edge of Oil
E	- Electric
EM	- Electric Meter
Elev	- Elevation
Embk	- Embankment
ECR	- End of Curb Return
EC	- End of Curve
EBS	- Cathode Protection Bond Station
ETS	- Cathode Protection Test Station
EVC	- End of Vertical Curve
Exist	- Existing
Ft	- Feet or Foot
FG	- Finish Grade
FA	- Fire Alarm
FH	- Fire Hydrant
℄	- Flow Line
Galv	- Galvanized
GM	- Gas Meter
GR	- Gas Pressure Regulator
PL-G	- Plastic Gas
S-G	- Steel Gas
GB	- Grade Break
Gut	- Gutter
Hdwl	- Headwall
In	- Inch
INT	- Intersection
INV	- Invert
ISL	- Island
JB	- Junction Box
LOC	- Length of Curb
Lt	- Left
LF	- Linear Feet
LVVWD	- Las Vegas Valley Water District
MH	- Manhole
Max	- Maximum
Min	- Minimum
Mon	- Monolithic
N/o	- North of
NTS	- Not to Scale
OC	- On Center
OG	- Open-Graded Pavement, Original Ground
Pvmt	- Pavement
PI	- Point of Intersection
PRC	- Point of Reverse Curve
PC	- Point of Curve
PT	- Point of Tangency
PCC	- Point of Compound Curve
PCC, Conc	- Portland Cement Concrete
PP	- Power Pole
P	- Power
℄	- Property Line
Prop	- Proposed
PB	- Pull Box
RP	- Radius Point
R	- Radius
RR	- Railroad
Reinf	- Reinforced
RC	- Reinforced Concrete
RCB	- Reinforced Concrete Box
RCP	- Reinforced Concrete Pipe
Reloc	- Relocate
RT	- Right
R/W	- Right-of-way
RD	- Road
SS	- Sanitary Sewer
Sht	- Sheet
S/o	- South of
SW	- Sidewalk
SQ FT, SF	- Square foot
SQ YD, SY	- Square yard
Sta	- Station
SHP	- Steel Highpressure Pipe
SD	- Storm Drain
STD	- Standard
Struct	- Structural or Structure
Surv	- Survey
SL	- Streetlight
T	- Telephone
Temp	- Temporary
TBA	- To Be Adjusted
TBR	- To Be Removed
TC	- Top of Curb
TP	- Top of Pipe
TS	- Traffic Signal
TSI	- Traffic Signal Interconnect
Trans	- Transition
Typ	- Typical
UG	- Underground
Var	- Variable
Vert	- Vertical
VC	- Vertical Curve
VG	- Valley Gutter
VCP	- Vitrified Clay Pipe
W	- Water
WM	- Water Meter
W/o	- West of
Yd	- Yard

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy., Suite 160
Henderson, NV 89074
(702) 966-4063
www.horrocks.com

WARNING — IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE (0, 1, 2)

REVISIONS — REV # | DATE — *SEE GENERAL NOTES SHEET

DRAWING INFO
DATE 9/15/2020
DESIGNED SS
DRAWN PMP
CHECKED AD
PROJECT NV-1949-1909

PROFESSIONAL ENGINEER — STATE OF NEVADA — LARRY M. BITTON — EXP. 12-31-20 — CIVIL — No. 010569 — 9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 2

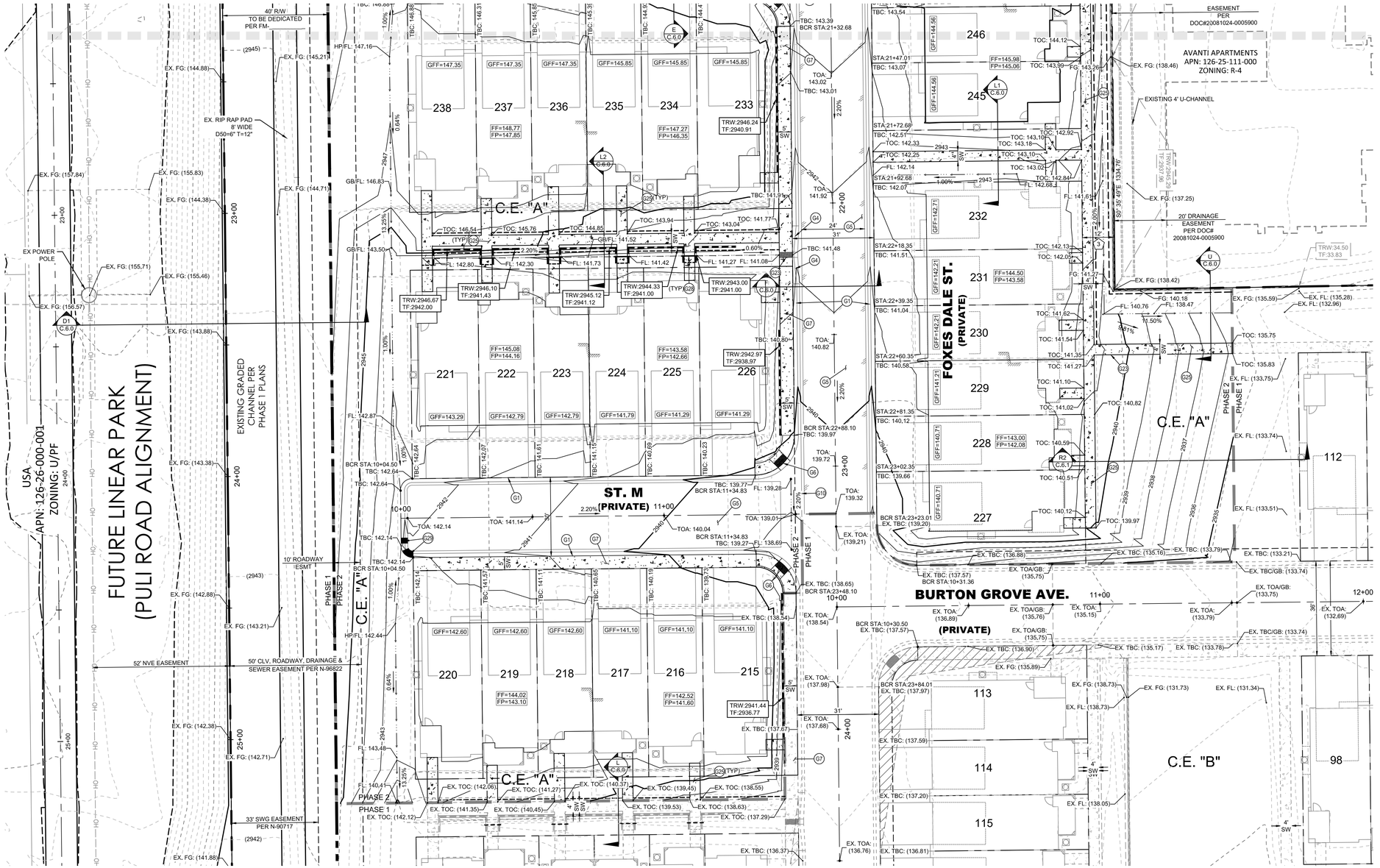
CITY OF LAS VEGAS, NEVADA

LEGEND & ABBREVIATIONS

C.0.2

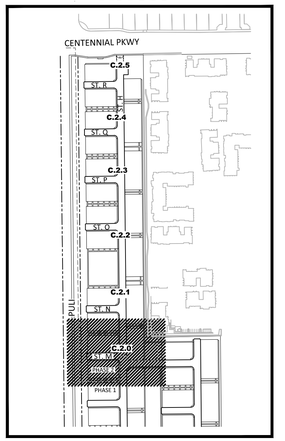
PAGE 03

REFERENCE LINE
SEE SHEET C.2.1





KEY MAP
N.T.S.



EASEMENT KEY NOTES:

1. 31' PUBLIC EMERGENCY ACCESS & UTILITY EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.
2. PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY HOA. PER FINAL MAP.

GRADING KEY NOTES:

G1. CONSTRUCT 30" ROLL CURB PER CCAUSD #217.2.S1
G2. CONSTRUCT "L" TYPE CURB PER CCAUSD #216
G3. CONSTRUCT "A" TYPE CURB PER CCAUSD #219
G4. CONSTRUCT 10' TRANSITION FROM "L" TYPE CURB TO ROLL CURB PER DETAIL "1" ON SHEET C.6.0
G5. CONSTRUCT 2" AC PAVEMENT OVER 4" TYPE II AGG BASE (REMOVE EX. TEMPORARY PAVING INSTALLED DURING PHASE 1)
G6. CONSTRUCT SIDEWALK RAMP "CASE I" PER CCAUSD #235
G7. CONSTRUCT 5" CONCRETE SIDEWALK PER CCAUSD #234
G8. CONSTRUCT 4" AC PAVEMENT OVER 4" TYPE II AGG BASE
G9. CONSTRUCT 5.5" AC PAVEMENT OVER 6" TYPE II AGG BASE
G10. CONSTRUCT 8' CONCRETE VALLEY GUTTER PER CCAUSD #228
G11. SAWCUT, TRENCH, BACKFILL, AND ASPHALT PATCH PER CCAUSD 500.3, 500.4, 500.5 & 503 (PATCH DIMENSIONS TO BE DETERMINED IN THE FIELD) PROPOSED SAWCUT TO BE AT LANE LINE
G12. PROTECT EXISTING WROUGHT IRON GATE
G13. INSTALL BLOCK WALL OPENING PER DETAIL 3 ON SHEET C.6.1
G14. PROTECT EXISTING DROP INLETS INSTALLED WITH PHASE 1.
G15. EXISTING IMPROVEMENTS INSTALLED WITH PHASE 1.
G17. EXISTING TO REMAIN. PROTECT IN PLACE.
G18. INSTALL LANDSCAPING PER LANDSCAPE PLAN BY OTHERS
G19. CONSTRUCT 5'X5' CONCRETE SIDEWALK PAD PER CCAUSD #234 FOR ADA TURNAROUND
G20. CONSTRUCT 24.0' WIDE CURB OPENING PER DETAIL "CC" ON SHEET C.6.0
G21. EXISTING RIP RAP TO BE REMOVED.
G22. NOT USED
G23. CONSTRUCT SIDEWALK DRAIN PER CCAUSD #236
G24. INSTALL RIP-RAP D50=6",T=12" SUBGRADE @ 90% COMPACTION
G25. CONSTRUCT 4" CONCRETE SIDEWALK PER CCAUSD #234
G26. NOT USED
G27. CONSTRUCT 3' CONCRETE VALLEY GUTTER PER CCAUSD #228
G28. INSTALL 4" SIDEWALK DRAIN PIPE PER DETAIL ON SHEET C.6.1
G29. INSTALL DEPRESSED CURB PER DETAIL ON SHEET C.6.1

LEGAL DESCRIPTION:

A PORTION OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.D., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

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THE WEST HALF (W 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.

BASIS OF BEARING

NORTH 00°37'29" WEST, BEING THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.,CLARK COUNTY, NEVADA, AS SHOWN ON THE PLAT OF CONSTELLATION ESTATES, RECORDED IN BOOK 102, PAGE 92, OFFICIAL RECORDS, CLARK COUNTY, NEVADA.

BENCHMARK

RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

ELEVATION (meters) 901.13
ELEVATION (feet) 2,956.44
NAVD 88

FLOOD ZONE:

THIS SITE IS LOCATED IN A ZONE 'X', AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN AND PARTIALLY IN A SHADED ZONE 'X', AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE OF FLOOD PER THE FLOOD INSURANCE RATE MAP COMMUNITY PANEL 32003C1750E, CLARK COUNTY, NEVADA DATED NOVEMBER 16, 2011, REVISED TO REFLECT LOMR DATED OCTOBER 18, 2018.

SIGHT VISIBILITY ZONE PER CCAUSD# 201.2 (TYP)

SIGHT VISIBILITY ZONE NOTE:

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ENGINEER'S NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR EROSION AND DUST CONTROL, AND STORMWATER MANAGEMENT DURING CONSTRUCTION.
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7. SOILS REPORT NOTE:
   GRADING SHALL BE IN ACCORDANCE WITH SOILS REPORT
   PREPARED BY: GEOTEK INC.
   PROJECT NO.: 15256-LV
   DATE: JANUARY 9, 2020
8. CUT/FILL ESTIMATES (PUBLIC AND PRIVATE):
   FROM EXISTING TO FINISH GRADE ELEVATIONS
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   NET FILL: 12,130 CY
   TOTAL: 10,946 CY
9. FLOOR SECTION ASSUMES 5" SLAB OVER MIN. 8.5" TYPE II. CONTRACTOR TO VERIFY WITH STRUCTURAL PLANS AND GEOTECHNICAL ENGINEER.

AREA OF DISTURBANCE

ONSITE: 16.9 AC
OFFSITE: N/A

DRAINAGE CERTIFICATION:

THIS SET OF IMPROVEMENT PLANS IS CERTIFIED TO CONFORM TO THE REQUIREMENTS OF THE APPROVED DRAINAGE STUDY. DS# 5232.

LARRY BITTON, P.E. NO. 010159 DATE

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0 1 2

REVISIONS		
REV #	DATE	

*SEE GENERAL NOTES SHEET

DRAWING INFO	
DATE	9/15/2020
DESIGNED	SS
DRAWN	PMP
CHECKED	AD
PROJECT	NV-1949-1909

PROFESSIONAL ENGINEER-STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
NO. 010159
9/15/2020

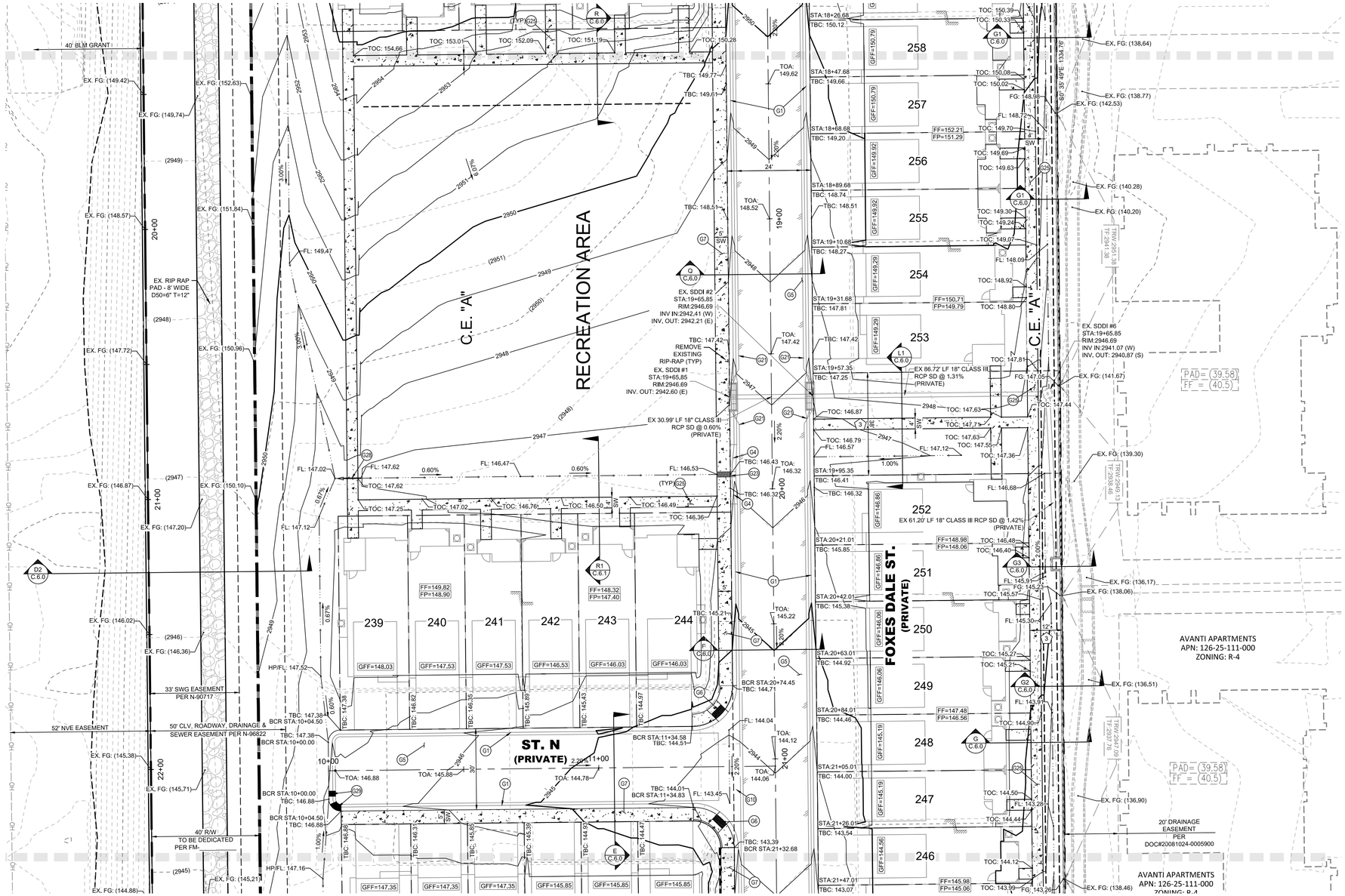
CENTENNIAL HEIGHTS TOWNHOMES PHASE 2

CITY OF LAS VEGAS, NEVADA

GRADING PLAN 1

C.2.0

PAGE



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FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION

SIGHT VISIBILITY ZONE PER CCAUSD# 201.2 (TYP)

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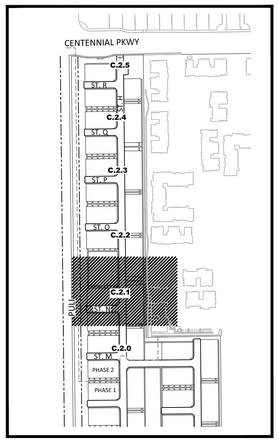
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AREA OF DISTURBANCE

ONSITE: 16.9 AC
OFFSITE: N/A

KEY MAP
N.T.S.



EASEMENT KEY NOTES:

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(G4) CONSTRUCT 10' TRANSITION FROM "L" TYPE CURB TO ROLL CURB PER DETAIL "I" ON SHEET C.6.0
(G5) CONSTRUCT 2" AC PAVEMENT OVER 4" TYPE II AGG BASE (REMOVE EX. TEMPORARY PAVING INSTALLED DURING PHASE 1)
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(G7) CONSTRUCT 5" CONCRETE SIDEWALK PER CCAUSD #234
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(G10) CONSTRUCT 8' CONCRETE VALLEY GUTTER PER CCAUSD #228
(G11) SAWCUT, TRENCH, BACKFILL, AND ASPHALT PATCH PER CCAUSD 500.3, 500.4, 500.5 & 503 (PATCH DIMENSIONS TO BE DETERMINED IN THE FIELD) PROPOSED SAWCUT TO BE AT LANE LINE
(G12) PROTECT EXISTING WROUGHT IRON GATE
(G13) INSTALL BLOCK WALL OPENING PER DETAIL 3 ON SHEET C.6.1
(G14) PROTECT EXISTING DROP INLETS INSTALLED WITH PHASE 1.
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DRAINAGE CERTIFICATION:

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DS# 5232.

LARRY BITTON, P.E. NO. 010159 DATE

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy., Suite 160
Henderson, NV 89074
(702) 966-4063
www.horrocks.com

SCALE: 1" = 20'

WARNING
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE

REVISIONS		
REV #	DATE	
1		

*SEE GENERAL NOTES SHEET

DRAWING INFO	
DATE	9/15/2020
DESIGNED	SS
DRAWN	PMP
CHECKED	AD
PROJECT	NV-1949-1909

PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
NO. 010159
9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 2

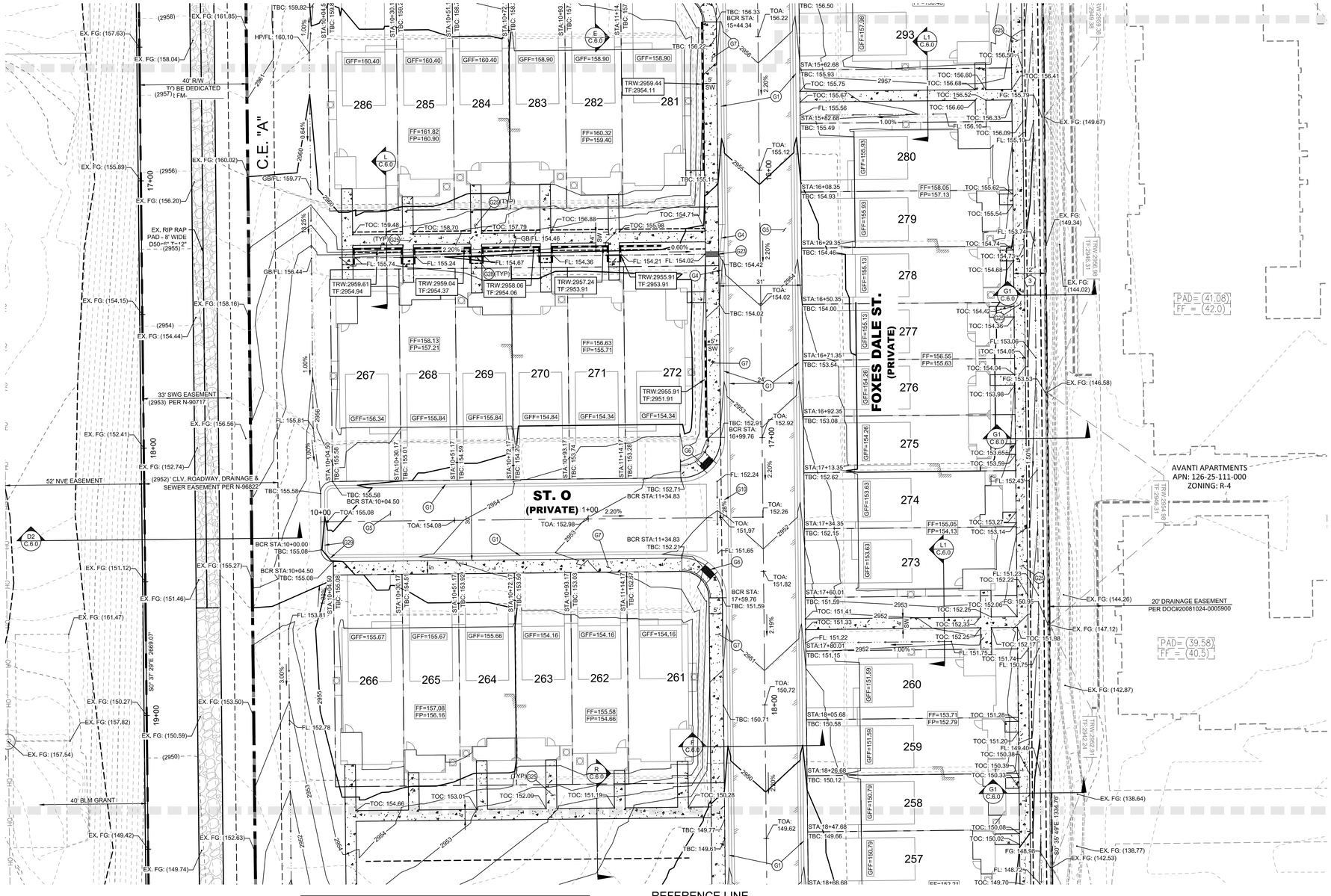
CITY OF LAS VEGAS, NEVADA

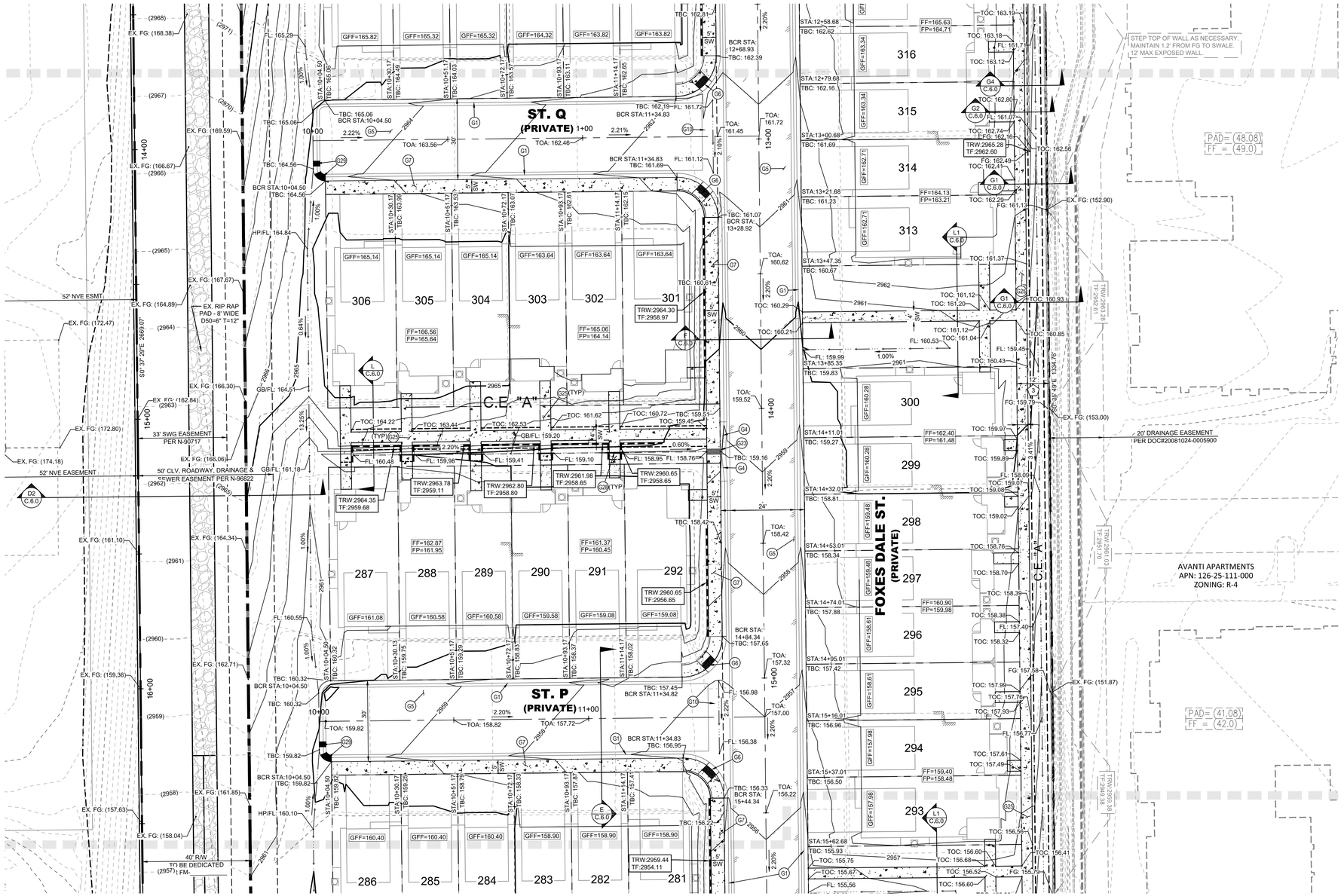
GRADING PLAN 2

C.2.1

PAGE

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REFERENCE LINE
SEE SHEET C.2.3
REFERENCE LINE
SEE SHEET C.2.1
ST. O
(PRIVATE) 1+00
FOXES DALE ST.
(PRIVATE)
C.E. "A"
40' R/W
TO BE DEDICATED
(2957) ± FM-
33' SWG EASEMENT
(2953) PER N-90717
52' NVE EASEMENT
(2952)' CLV, ROADWAY, DRAINAGE &
SEWER EASEMENT PER N-96822
40' BLM GRANT
AVANTI APARTMENTS
APN: 126-25-111-000
ZONING: R-4
20' DRAINAGE EASEMENT
PER DOC#20081024-0005900
EX. RIP RAP
PAD - 8' WIDE
D50=6", T=12"
(2955)
PAD= (41.08)
FF = (42.0)
PAD= (39.58)
FF = (40.5)
PAD= (40.08)
FF = (40.5)
PAD= (41.08)
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PAD=



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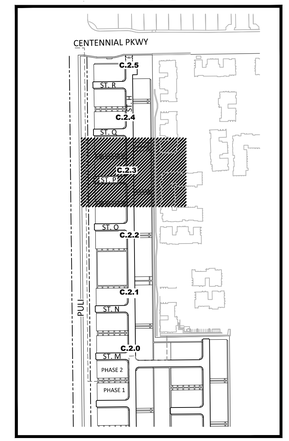
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(G29) INSTALL DEPRESSED CURB PER DETAIL ON SHEET C.6.1

DRAINAGE CERTIFICATION:

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LARRY BITTON, P.E. NO. 010159 DATE

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy., Suite 160
Henderson, NV 89074
(702) 966-4063
www.horrocks.com

WARNING
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE
0 1 2

REVISIONS		
REV #	DATE	
1		

*SEE GENERAL NOTES SHEET

DRAWING INFO	
DATE	9/15/2020
DESIGNED	SS
DRAWN	PMP
CHECKED	AD
PROJECT	NV-1949-1909

PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
NO. 010159
9/15/2020

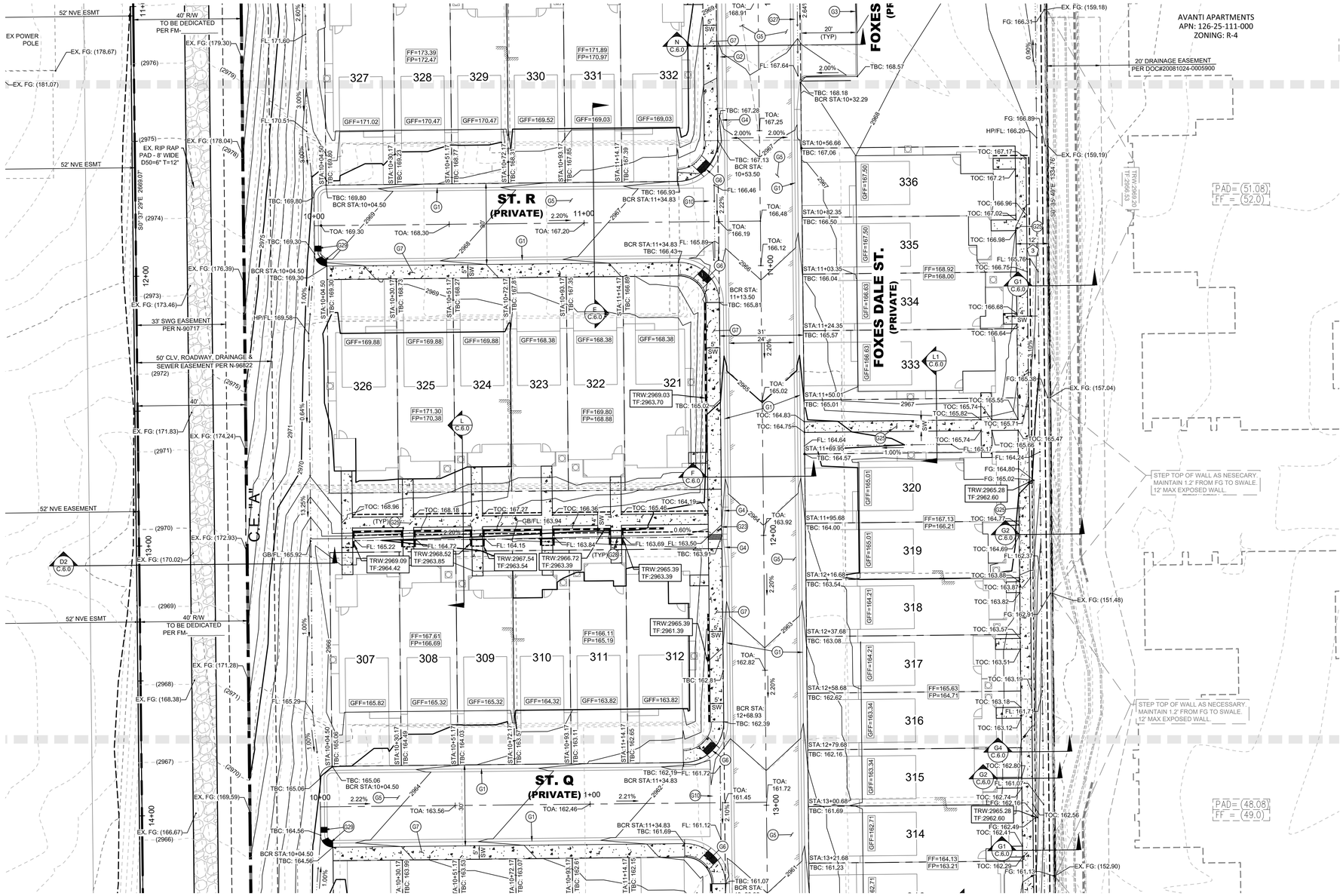
CENTENNIAL HEIGHTS TOWNHOMES PHASE 2

CITY OF LAS VEGAS, NEVADA

GRADING PLAN 4

C.2.3

PAGE



LEGAL DESCRIPTION:

A PORTION OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.D., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

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THE WEST HALF (W 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.

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Call 811 or 1-800-227-2600

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

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

BASIS OF BEARING

NORTH 00°37'29" WEST, BEING THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.,CLARK COUNTY, NEVADA, AS SHOWN ON THE PLAT OF CONSTELLATION ESTATES, RECORDED IN BOOK 102, PAGE 92, OFFICIAL RECORDS, CLARK COUNTY, NEVADA.

BENCHMARK

RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

ELEVATION (meters) 901.13
ELEVATION (feet) 2,956.44
NAVD 88

FLOOD ZONE:

THIS SITE IS LOCATED IN A ZONE 'X', AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN AND PARTIALLY IN A SHADED ZONE 'X', AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE OF FLOOD PER THE FLOOD INSURANCE RATE MAP COMMUNITY PANEL 32003C1750E, CLARK COUNTY, NEVADA DATED NOVEMBER 16, 2011, REVISED TO REFLECT LOMR DATED OCTOBER 18, 2018.

SIGHT VISIBILITY ZONE PER CCAUSD# 201.2 (TYP)

SIGHT VISIBILITY ZONE NOTE:

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NOTE: ALL COMMON ELEMENTS ARE PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY THE HOA.

NOTE: ALL PRIVATE STREETS ARE P.U.E., PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY THE HOA.

NOTE: ADD 2900' TO GRADING ELEVATIONS SHOWN HEREON TO ADJUST THEM TO THE ASSOCIATED DATUM. FINISHED GRADE CONTOURS ARE APPROXIMATE. REFER TO SPOT ELEVATION GRADE TAGS FOR CONSTRUCTION STAKING PURPOSES.

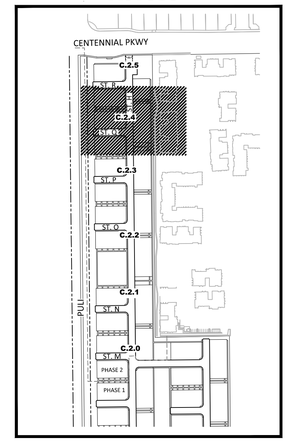
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3. ENGINEER TO BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES BETWEEN THESE PLANS AND FIELD CONDITIONS.
4. THESE PLANS SHALL NOT IN PART, OR IN WHOLE, BE USED FOR CONSTRUCTION UNTIL APPROVED AND SIGNED BY GOVERNING AGENCIES.
5. ALL GRADING SHALL CONFORM TO SOILS REPORT RECOMMENDATIONS.
6. DURING CONSTRUCTION, SURVEYORS AND CONTRACTORS MUST VERIFY THAT ALL STREETS AND LOTS HAVE POSITIVE DRAINAGE. SAME MUST UTILIZE AT LEAST THREE GRADES ON VERTICAL TANGENTS TO VERIFY SLOPES.
7. SOILS REPORT NOTE:
   GRADING SHALL BE IN ACCORDANCE WITH SOILS REPORT
   PREPARED BY: GEOTEK INC.
   PROJECT NO.: 15256-LV
   DATE: JANUARY 9, 2020
8. CUT/FILL ESTIMATES (PUBLIC AND PRIVATE):
   FROM EXISTING TO FINISH GRADE ELEVATIONS
   NET CUT: 1,184 CY
   NET FILL: 12,130 CY
   TOTAL: 10,946 CY
9. FLOOR SECTION ASSUMES 5" SLAB OVER MIN. 8.5" TYPE II. CONTRACTOR TO VERIFY WITH STRUCTURAL PLANS AND GEOTECHNICAL ENGINEER.

AREA OF DISTURBANCE

ONSITE: 16.9 AC
OFFSITE: N/A

KEY MAP
N.T.S.



EASEMENT KEY NOTES:

(1) 31' PUBLIC EMERGENCY ACCESS & UTILITY EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.

(2) PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY HOA. PER FINAL MAP.

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SCALE: 1" = 20'

WARNING
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REVISIONS		
REV #	DATE	

*SEE GENERAL NOTES SHEET

DRAWING INFO	
DATE	9/15/2020
DESIGNED	SS
DRAWN	PMP
CHECKED	AD
PROJECT	NV-1949-1909

PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
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NO. 010159
9/15/2020

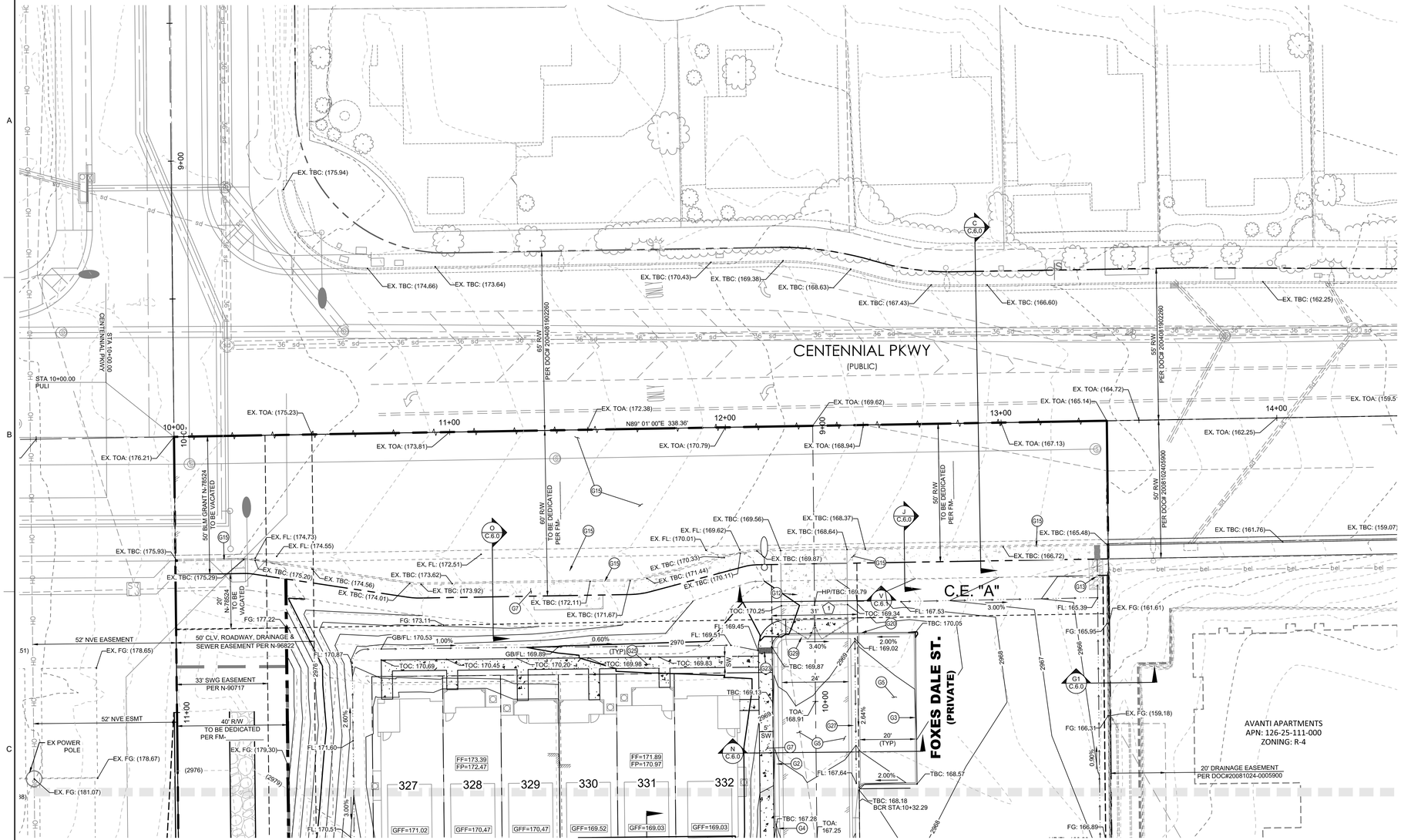
CENTENNIAL HEIGHTS TOWNHOMES PHASE 2

CITY OF LAS VEGAS, NEVADA

GRADING PLAN 5

C.2.4

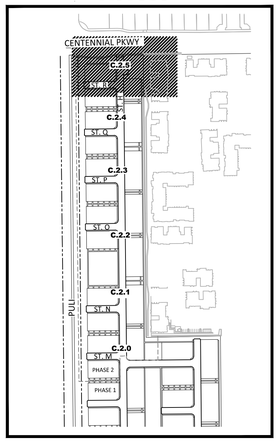
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0 20' 40'

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RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

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ELEVATION (feet) 2,956.44
NAVD 88

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AREA OF DISTURBANCE

ONSITE: 16.9 AC
OFFSITE: N/A

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0 1 2

REVISIONS
REV # | DATE
*SEE GENERAL NOTES SHEET

DRAWING INFO
DATE 9/16/2020
DESIGNED SS
DRAWN PMP
CHECKED AD
PROJECT NV-1949-1909

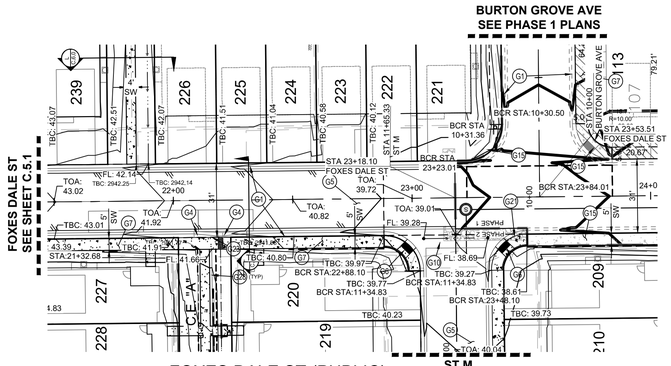
PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
NO. 010159
9/16/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 2
CITY OF LAS VEGAS, NEVADA
GRADING PLAN 6

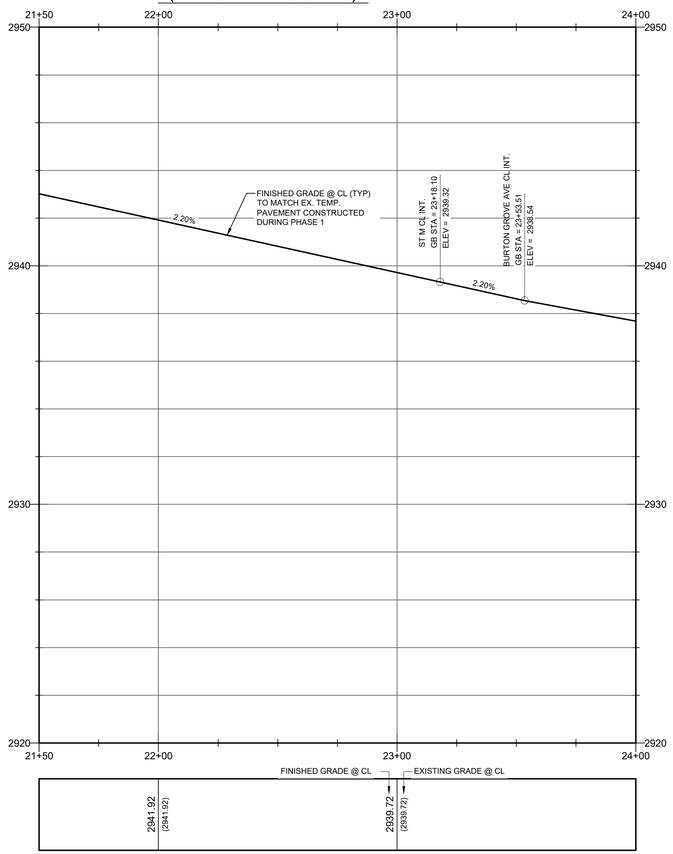
C.2.5

PAGE 09

H:\!2019\NV-1949-1909 Centennial Heights Townhomes\Project Data\02 CAD\2.03 Sheet Files\Phase 2\NV-1949-1909_C.2.0_PH2_GRD.dwg - C.2.5 - 9/16/2020 09:52am, shayans



FOXES DALE ST (PUBLIC)
PLAN VIEW
(STA. 21+50 TO 24+00)



FOXES DALE ST (PUBLIC)
PROFILE VIEW
(STA. 21+50 TO 24+00)

SCALE: 1" = 30' H
SCALE: 1" = 3' V

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RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

ELEVATION (meters) 901.13
ELEVATION (feet) 2,956.44
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APPROVED FOR CONSTRUCTION

SOUTHWEST GAS CORPORATION DATE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 135217 FIRST APPROVAL DATE:
LVVWD APPROVED FIRE FLOW 1750 GPM AT 20 PSI RESIDENTIAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW N/A GPM

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy., Suite 160
Henderson, NV 89074
(702) 966-4063
www.horrocks.com

HORROCKS ENGINEERS

0 30' 60'
SCALE: 1" = 30'

WARNING
0 1 2
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE

REVISIONS
REV # | DATE
*SEE GENERAL NOTES SHEET

DRAWING INFO
DATE 9/15/2020
DESIGNED SS
DRAWN PMP
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PROJECT NV-1949-1909

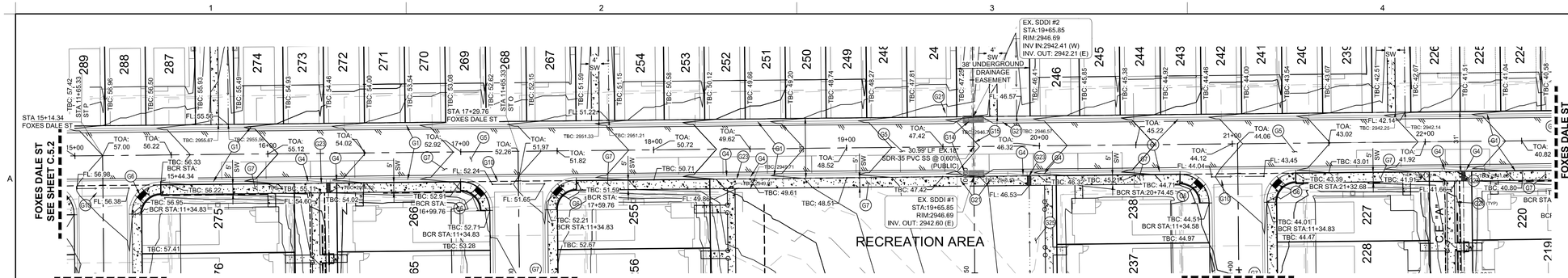
PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
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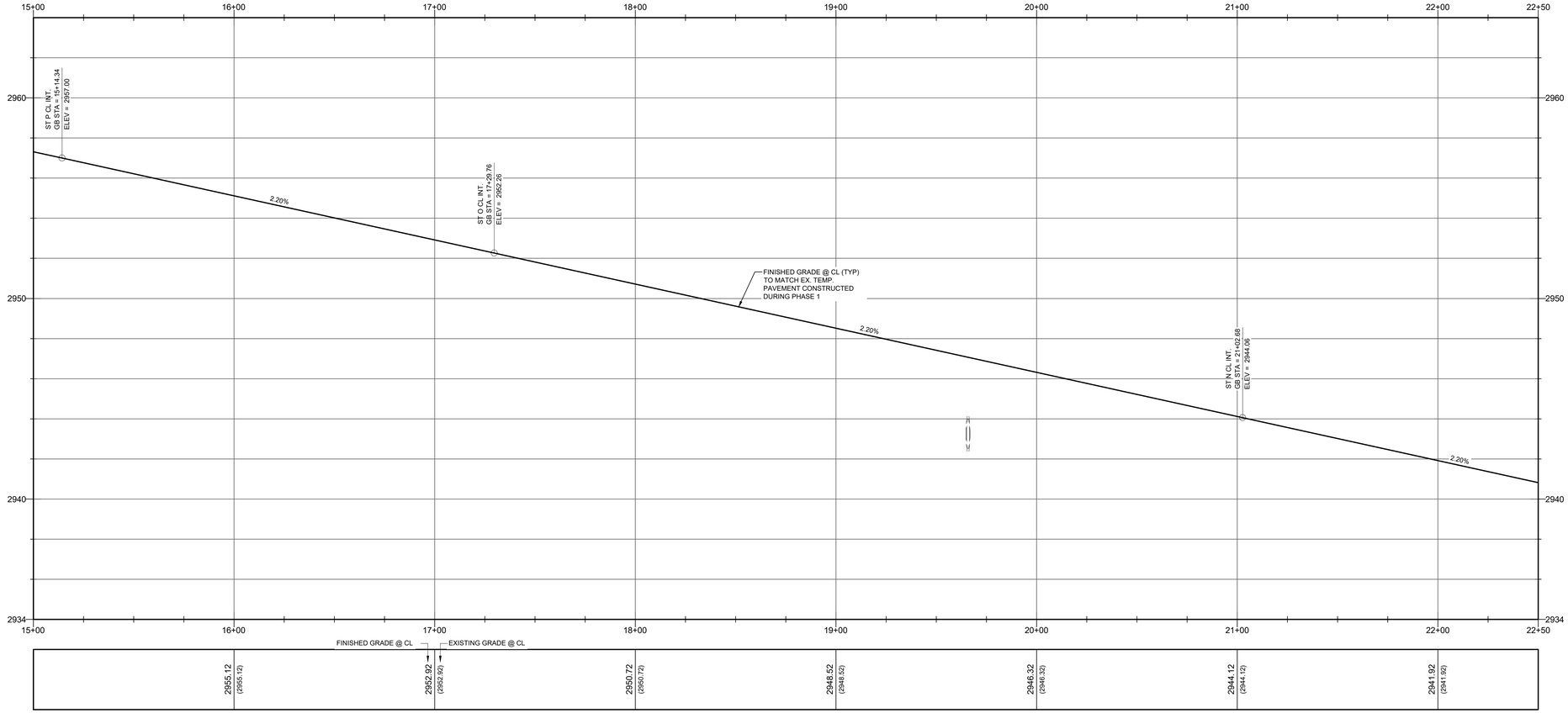
ST H PLAN & PROFILE (STA 18+50 TO STA 24+00)

C.5.0

PAGE 10



FOXES DALE ST (PUBLIC)
PLAN VIEW
(STA. 15+00 TO 22+50)



FOXES DALE ST (PUBLIC)
PROFILE VIEW
(STA. 15+50 TO 22+50)

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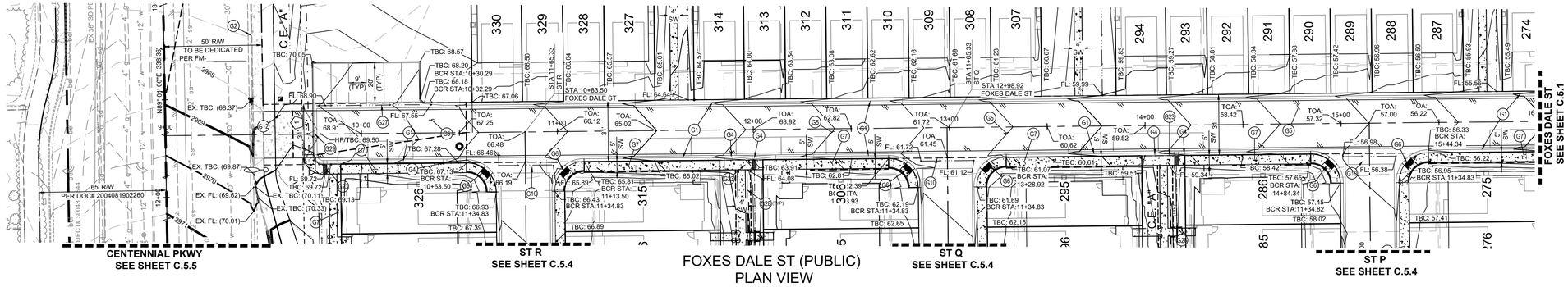
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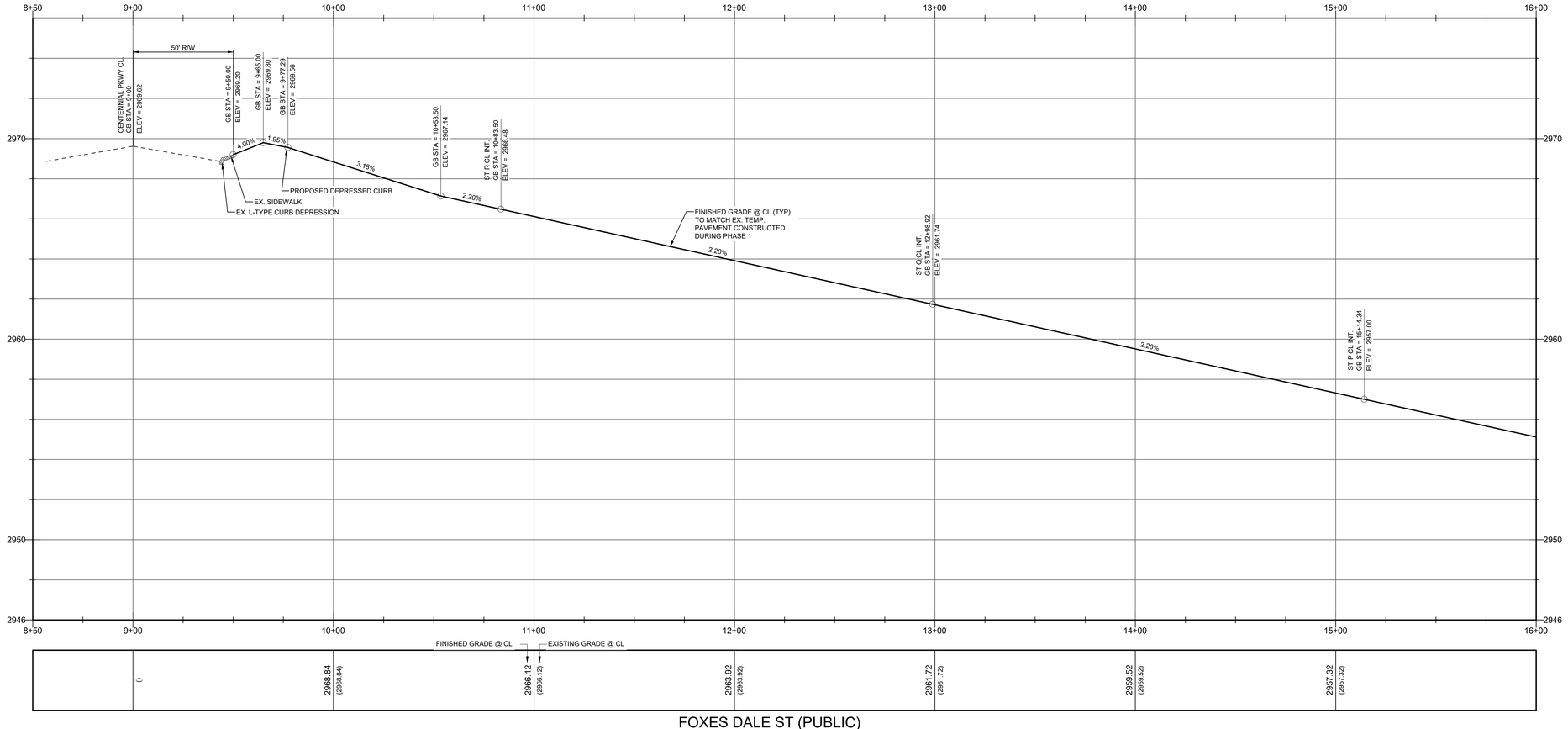
ST H PLAN & PROFILE (STA 13+50 TO STA 19+00)

C.5.1

PAGE 11



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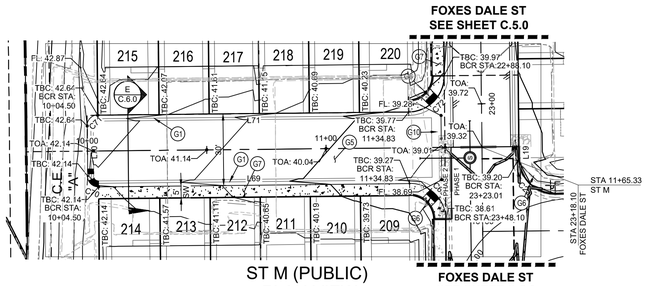
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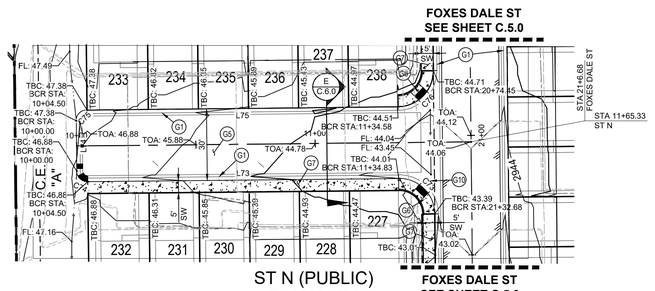
ST H PLAN & PROFILE (STA 9+00 TO STA 14+00)

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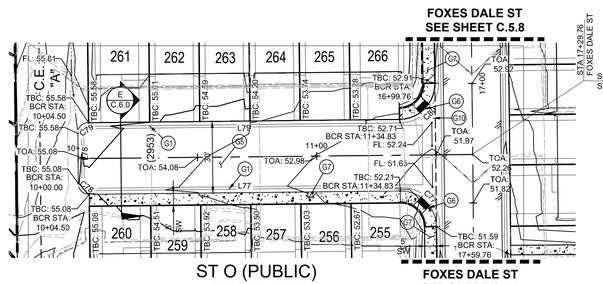
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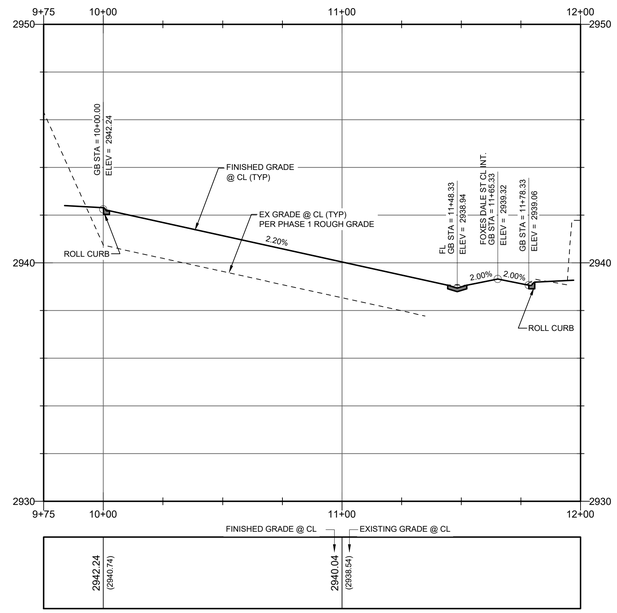
ST M (PUBLIC)
PLAN VIEW
(STA. 9+75 TO 12+00)



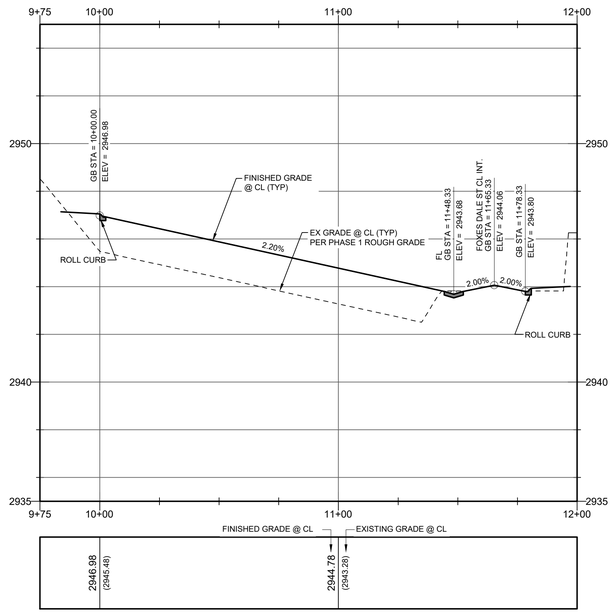
ST N (PUBLIC)
PLAN VIEW
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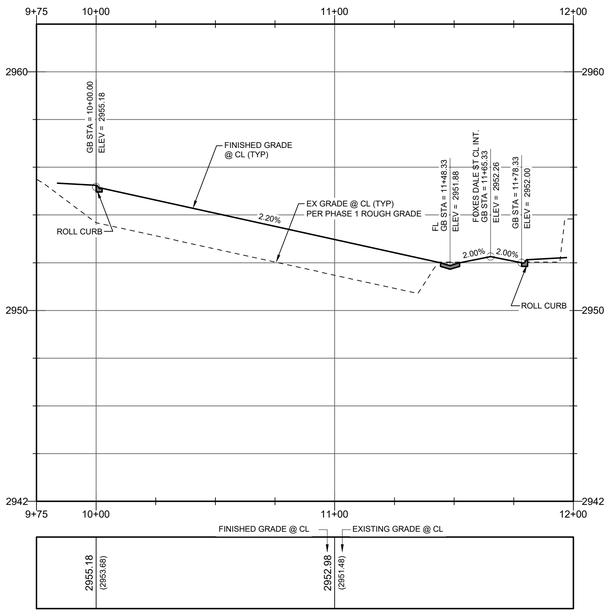
ST O (PUBLIC)
PLAN VIEW
(STA. 9+75 TO 12+00)



ST M (PUBLIC)
PPROFILE VIEW
(STA. 9+75 TO 12+00)
SCALE: 1" = 30' H
SCALE: 1" = 3' V



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PPROFILE VIEW
(STA. 9+75 TO 12+00)
SCALE: 1" = 30' H
SCALE: 1" = 3' V



ST O (PUBLIC)
PPROFILE VIEW
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SCALE: 1" = 30' H
SCALE: 1" = 3' V

GRADING KEY NOTES:

- G1 CONSTRUCT 30" ROLL CURB PER CCAUSD #217.2.S1
- G2 CONSTRUCT "L" TYPE CURB PER CCAUSD #216
- G3 CONSTRUCT "A" TYPE CURB PER CCAUSD #219
- G4 CONSTRUCT 10' TRANSITION FROM "L" TYPE CURB TO ROLL CURB PER DETAIL "1" ON SHEET C.6.0
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- G6 CONSTRUCT SIDEWALK RAMP "CASE I" PER CCAUSD #235
- G7 CONSTRUCT 5" CONCRETE SIDEWALK PER CCAUSD #234
- G8 CONSTRUCT 4" AC PAVEMENT OVER 4" TYPE II AGG BASE
- G9 CONSTRUCT 5.5" AC PAVEMENT OVER 6" TYPE II AGG BASE
- G10 CONSTRUCT 8' CONCRETE VALLEY GUTTER PER CCAUSD #228
- G11 SAWCUT, TRENCH, BACKFILL, AND ASPHALT PATCH PER CCAUSD 500.3, 500.4, 500.5 & 503 (PATCH DIMENSIONS TO BE DETERMINED IN THE FIELD) PROPOSED SAWCUT TO BE AT LANE LINE
- G12 PROTECT EXISTING WROUGHT IRON GATE
- G13 INSTALL BLOCK WALL OPENING PER DETAIL 3 ON SHEET C.6.1
- G14 PROTECT EXISTING DROP INLETS INSTALLED WITH PHASE 1.
- G15 EXISTING IMPROVEMENTS INSTALLED WITH PHASE 1.
- G17 EXISTING TO REMAIN. PROTECT IN PLACE.
- G18 INSTALL LANDSCAPING PER LANDSCAPE PLAN BY OTHERS
- G19 CONSTRUCT 5'X5' CONCRETE SIDEWALK PAD PER CCAUSD #234 FOR ADA TURNAROUND
- G20 CONSTRUCT 24.0' WIDE CURB OPENING PER DETAIL "CC" ON SHEET C.6.0
- G21 EXISTING RIP RAP TO BE REMOVED.
- G22 NOT USED
- G23 CONSTRUCT SIDEWALK DRAIN PER CCAUSD #236
- G24 INSTALL RIP-RAP D50=6",T=12" SUBGRADE @ 90% COMPACTION
- G25 CONSTRUCT 4" CONCRETE SIDEWALK PER CCAUSD #234
- G26 NOT USED
- G27 CONSTRUCT 3' CONCRETE VALLEY GUTTER PER CCAUSD #228
- G28 INSTALL 4" SIDEWALK DRAIN PIPE PER DETAIL ON SHEET C.6.1
- G29 INSTALL DEPRESSED CURB PER DETAIL ON SHEET C.6.1

LEGAL DESCRIPTION:

A PORTION OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.D., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE WEST HALF (W 1/2) OF THE WEST HALF (W 1/2) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., TOGETHER WITH:

THE WEST HALF (W 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.

Call before you dig
AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call 811
OR
1-800-227-2600

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

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

BASIS OF BEARING

NORTH 00°37'29" WEST, BEING THE WEST LINE OF THE NORTHWEST QUARTER (NW1/4) OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M.,CLARK COUNTY, NEVADA, AS SHOWN ON THE PLAT OF CONSTELLATION ESTATES, RECORDED IN BOOK 102, PAGE 92, OFFICIAL RECORDS, CLARK COUNTY, NEVADA.

FLOOD ZONE:

THIS SITE IS LOCATED IN A ZONE 'X', AREAS OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN AND PARTIALLY IN A SHADED ZONE 'X', AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE OF FLOOD PER THE FLOOD INSURANCE RATE MAP COMMUNITY PANEL 32003C1750E, CLARK COUNTY, NEVADA DATED NOVEMBER 16, 2011, REVISED TO REFLECT LOMR DATED OCTOBER 18, 2018.

DEPTH OF COVER DURING CONSTRUCTION:

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

NOTE:
ADD 2900' TO GRADING ELEVATIONS SHOWN HEREON TO ADJUST THEM TO THE ASSOCIATED DATUM.
FINISHED GRADE CONTOURS ARE APPROXIMATE. REFER TO SPOT ELEVATION GRADE TAGS FOR CONSTRUCTION STAKING PURPOSES.

BENCHMARK

RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

ELEVATION (meters) 901.13
ELEVATION (feet) 2,956.44
NAVD 88

UTILITY DISCLAIMER NOTE:

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

EASEMENT KEY NOTES:

1. 31' PUBLIC EMERGENCY ACCESS & UTILITY EASEMENT TO BE PRIVATELY MAINTAINED. PER FINAL MAP.
3. PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY HOA. PER FINAL MAP.

ENGINEER'S NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR EROSION AND DUST CONTROL, AND STORMWATER MANAGEMENT DURING CONSTRUCTION.
2. SEE HORIZONTAL CONTROL PLAN FOR EXACT PROPERTY LINE DIMENSIONS
3. ENGINEER TO BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES BETWEEN THESE PLANS AND FIELD CONDITIONS.
4. THESE PLANS SHALL NOT IN PART, OR IN WHOLE, BE USED FOR CONSTRUCTION UNTIL APPROVED AND SIGNED BY GOVERNING AGENCIES.
5. ALL GRADING SHALL CONFORM TO SOILS REPORT RECOMMENDATIONS.
6. DURING CONSTRUCTION, SURVEYORS AND CONTRACTORS MUST VERIFY THAT ALL STREETS AND LOTS HAVE POSITIVE DRAINAGE. SAME MUST UTILIZE AT LEAST THREE GRADES ON VERTICAL TANGENTS TO VERIFY SLOPES.
7. FLOOR SECTION ASSUMES 5" SLAB OVER MIN. 8.5" TYPE II. CONTRACTOR TO VERIFY WITH STRUCTURAL PLANS AND GEOTECHNICAL ENGINEER.

APPROVED FOR CONSTRUCTION

SOUTHWEST GAS CORPORATION DATE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 135217 FIRST APPROVAL DATE:
LVVWD APPROVED FIRE FLOW 1750 GPM AT 20 PSI RESIDENTIAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW N/A GPM

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy., Suite 160
Henderson, NV 89074
(702) 966-4063
www.horrocks.com

SCALE: 1" = 30'

WARNING
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE

REVISIONS
REV # | DATE
*SEE GENERAL NOTES SHEET

DRAWING INFO
DATE 9/15/2020
DESIGNED SS
DRAWN PMP
CHECKED AD
PROJECT NV-1949-1909

PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
No. 010159
9/15/2020

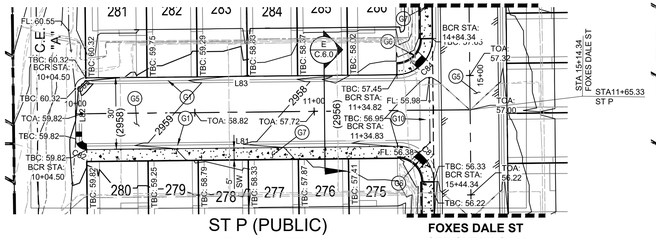
CENTENNIAL HEIGHTS TOWNHOMES PHASE 2
TECHNICAL DRAINAGE STUDY
CITY OF LAS VEGAS, NEVADA

ST M, N, & O PLAN & PROFILE (STA 9+75 TO STA 12+00

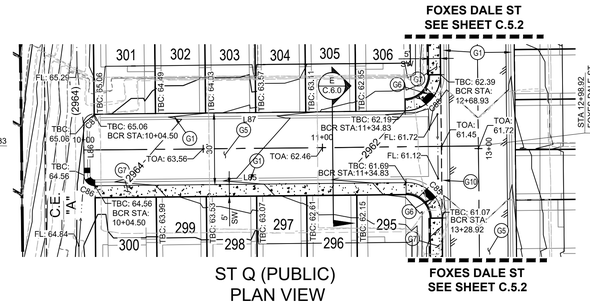
C.5.3

PAGE 13

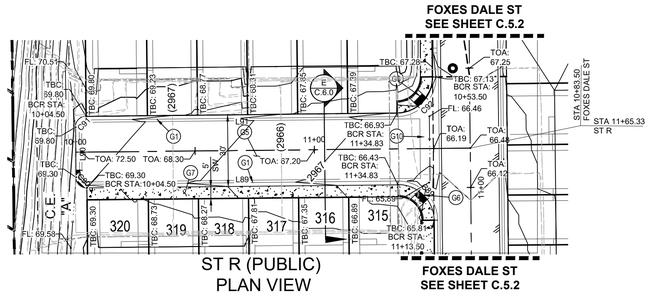
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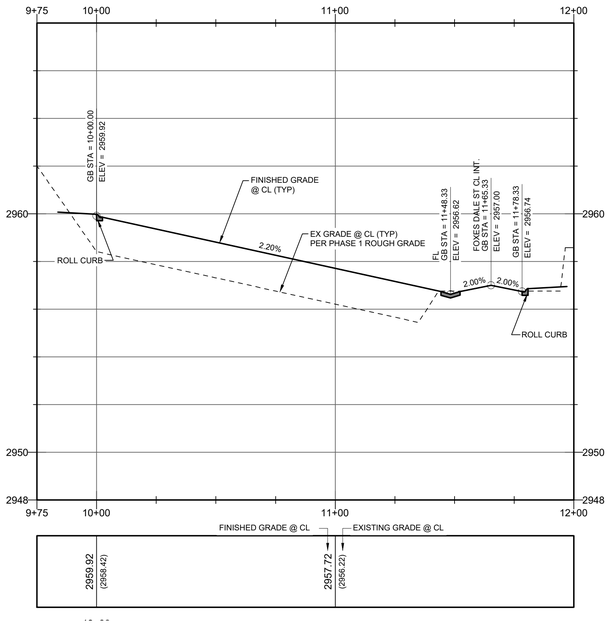
ST P (PUBLIC)
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ST Q (PUBLIC)
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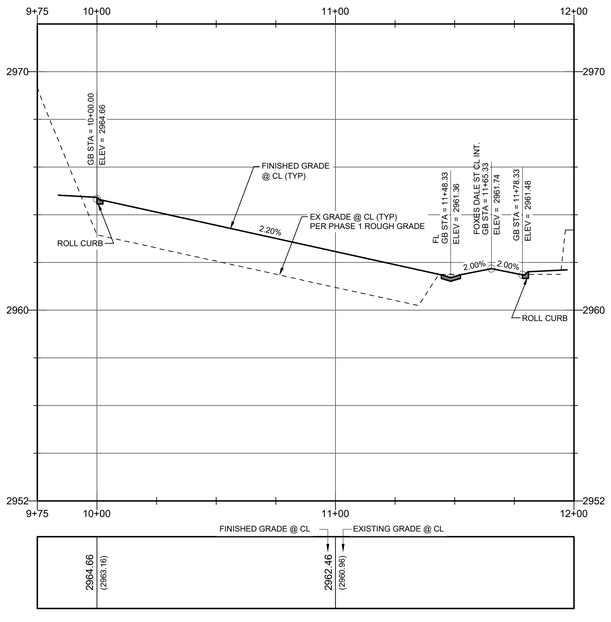


ST R (PUBLIC)
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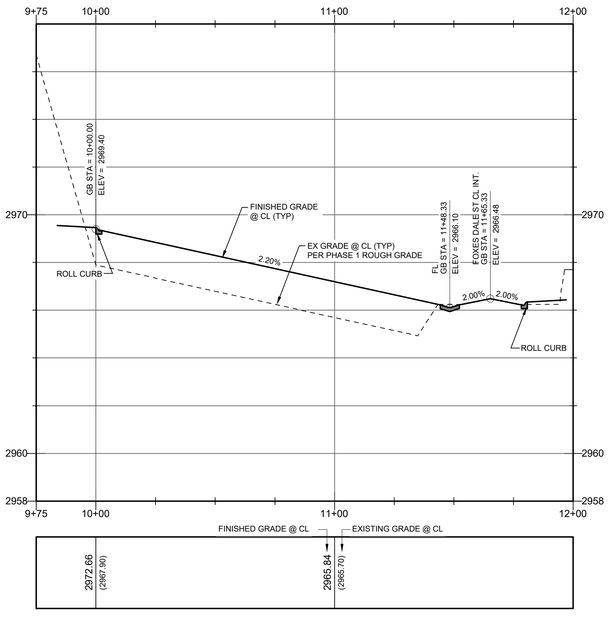
ST P (PUBLIC)
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SCALE: 1" = 30' H
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RIVET & PLATE IN CONCRETE CYLINDER 60 FEET WEST OF MAINWAL AND AZURE

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NAVD 88

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APPROVED FOR CONSTRUCTION

SOUTHWEST GAS CORPORATION DATE

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT NO. 135217 FIRST APPROVAL DATE:
LVVWD APPROVED FIRE FLOW 1750 GPM AT 20 PSI RESIDENTIAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW N/A GPM

HORROCKS ENGINEERS
1401 N. Green Valley Pkwy., Suite 160
Henderson, NV 89074
(702) 966-4063
www.horrocks.com

SCALE: 1" = 30'

WARNING
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REVISIONS
REV # | DATE

*SEE GENERAL NOTES SHEET

DRAWING INFO
DATE 9/15/2020
DESIGNED SS
DRAWN PMP
CHECKED AD
PROJECT NV-1949-1909

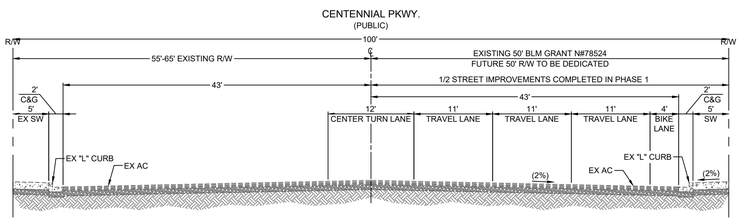
PROFESSIONAL ENGINEER - STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
No. 010159
9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 2
TECHNICAL DRAINAGE STUDY
CITY OF LAS VEGAS, NEVADA

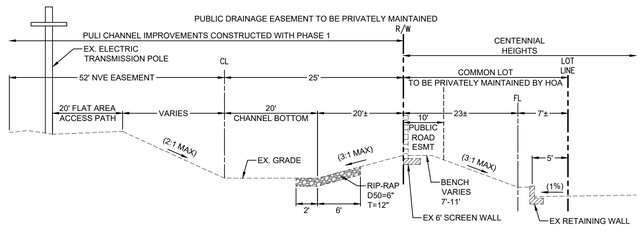
ST P, Q, & R PLAN & PROFILE (STA 9+75 TO STA 12+00)

C.5.4

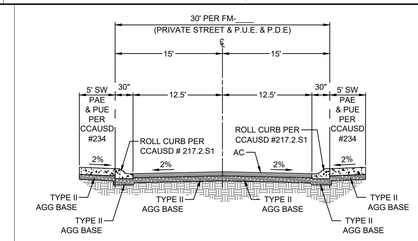
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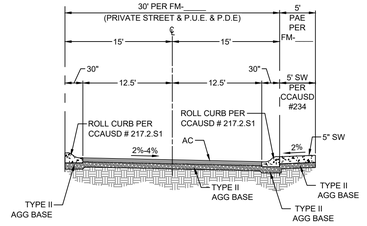
CENTENNIAL PARKWAY SECTION (B)
SCALE: NTS



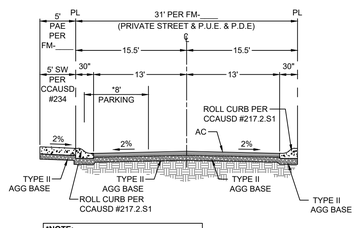
PULI CHANNEL SECTION (D)
SCALE: NTS



PRIVATE STREET SECTION
NO PARKING (CROWN) (E1)
SCALE: NTS

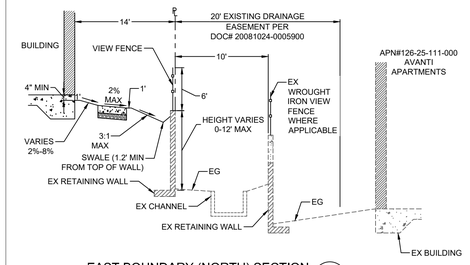


PRIVATE STREET SECTION
NO PARKING (X-SLOPE) (E2)
SCALE: NTS

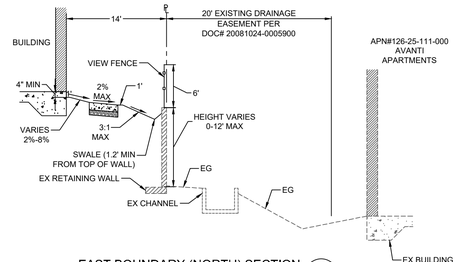


*NOTE:
NO PARKING IN FRONT OF DRIVEWAYS

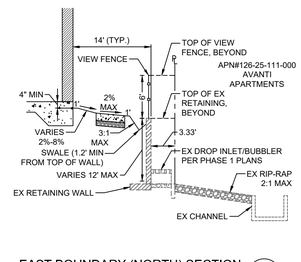
PRIVATE STREET SECTION WITH PARKING (F)
SCALE: NTS



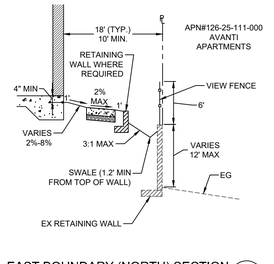
EAST BOUNDARY (NORTH) SECTION (G1)
SCALE: NTS



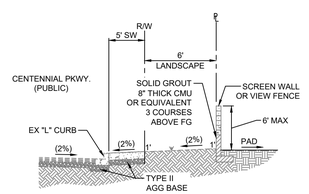
EAST BOUNDARY (NORTH) SECTION (G2)
SCALE: NTS



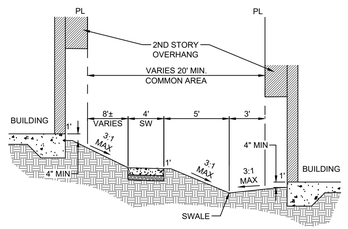
EAST BOUNDARY (NORTH) SECTION (G3)
SCALE: NTS



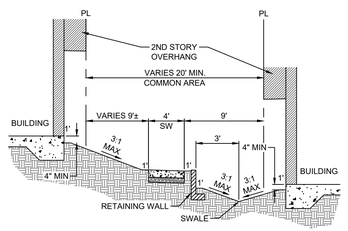
EAST BOUNDARY (NORTH) SECTION (G4)
SCALE: NTS



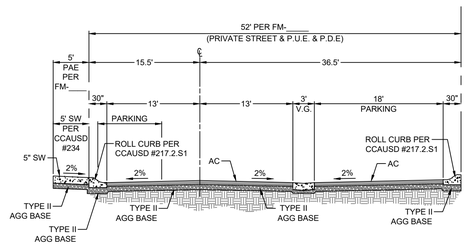
CENTENNIAL WALL SECTION (J)
SCALE: NTS



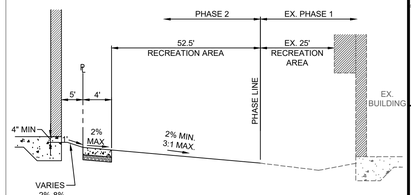
BUILDING SECTION (L1)
SCALE: NTS



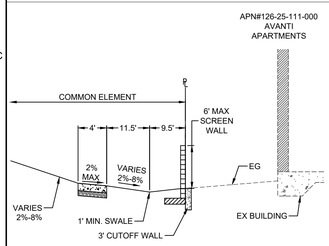
BUILDING SECTION (L2)
SCALE: NTS



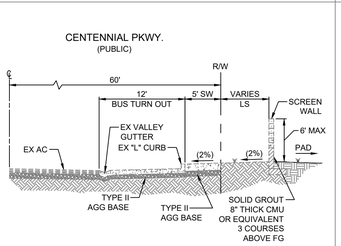
PRIVATE STREET SECTION WITH
ADDITIONAL PARKING (N)
SCALE: NTS



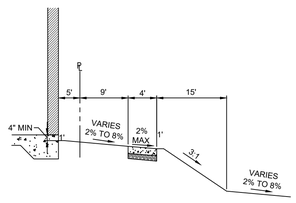
COMMON AREA ADJACENT BUILDINGS (R2)
SCALE: NTS



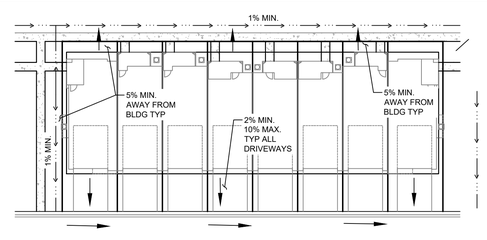
NORTH BOUNDARY (EAST) SECTION
WITHOUT RETAINING WALL (U)
SCALE: NTS



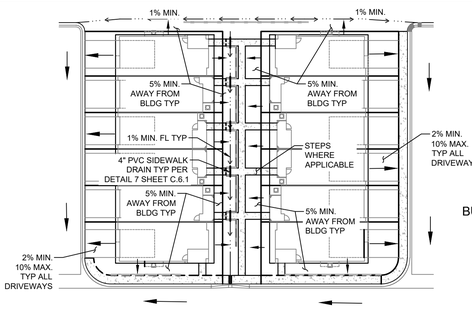
BUS TURN OUT SECTION (O)
SCALE: NTS
BUS TURN OUT BASED ON CCAUSD STANDARD DRAWING NO. 234.1 DATED 7/1/16



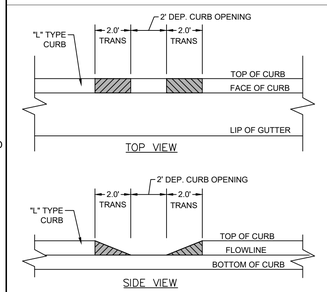
COMMON AREA ADJACENT BUILDINGS (R)
SCALE: NTS



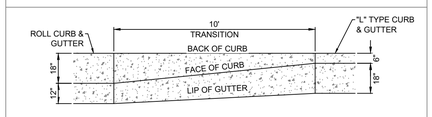
BUILDING GRADING DETIAL
(SIDE TO SIDE) (9)
SCALE: NTS



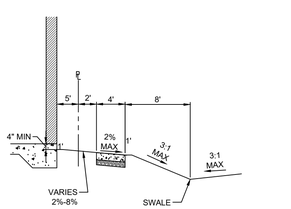
BUILDING GRADING DETIAL
(BACK TO BACK) (9)
SCALE: NTS



CURB OPENING DETAIL (2)
SCALE: NTS



10' CURB TRANSITION (1)
SCALE: NTS



COMMON AREA ADJACENT BUILDINGS (R1)
SCALE: NTS

HORROCKS ENGINEERS
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Henderson, NV 89074
(702) 966-4063
www.horrocks.com

WARNING
0 1 2
IF THIS BAR DOES NOT MEASURE 2" THEN DRAWING IS NOT TO SCALE

REVISIONS
REV # | DATE
*SEE GENERAL NOTES SHEET

DRAWING INFO
DATE 9/15/2020
DESIGNED SS
DRAWN PMP
CHECKED AD
PROJECT NV-1949-1909

PROFESSIONAL ENGINEER-STATE OF NEVADA
LARRY M. BITTON
EXP. 12-31-20
CIVIL
No. 010159
9/15/2020

CENTENNIAL HEIGHTS TOWNHOMES PHASE 2
TECHNICAL DRAINAGE STUDY
CITY OF LAS VEGAS, NEVADA
DETAIL SHEET 1

C.6.0

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H:\\2019\NV-1949-1909 Centennial Heights Townhomes\Project Data\02 CAD\2.03 Sheet Files\Phase 2\NV-1949-1909_C.6.0_PH2_DET.dwg - C.6.0 - 9/15/2020 03:47pm, philipp