



TECHNICAL DRAINAGE STUDY UPDATE

Iron Mountain

SEPTEMBER 2022

PREPARED FOR:

Tri Pointe Homes, Nevada, Inc.

Las Vegas, Nevada

PREPARED BY:

Westwood

Iron Mountain

Technical Drainage Study Update

City of Las Vegas, NV

Prepared For:

Tri Pointe Homes Nevada, Inc.
4675 W. Teco Ave, Suite 115
Las Vegas, NV 89118

Prepared By:

Westwood Professional Services
5725 W. Badura Avenue, Suite 100
Las Vegas, NV 89118
Phone: (702) 284-5300

Project Number: TRI2101.000
Date: September 2022



Mark Failla, P.E., CFM
NV Professional Engineer No. 14566

Assisted by: Jonathan S. Rocha

HYDROLOGIC CRITERIA AND DRAINAGE DESIGN MANUAL

DRAINAGE STUDY INFORMATION FORM

Name of Development: Iron Mountain (Update) Date: August 2022
 Location of Development: a) Descriptive (Cross Streets): North/South: Alpine Ridge Way / Shaumber Road
East/West: Iron Mountain Road
 b) Section: 1 Township: 19 South Range: 19 East
 c) APN: 126-01-801-010, -011, -012, -013, -014, -015, -016

Name of Owner: Tri Pointe Homes Nevada, Inc.
 Telephone No.: 702-614-1400 Fax No.: 873-6881 E-mail Address: Jim.Jordano@TriPointeHomes.com
 Address: 4675 W. Teco Ave, Suite 115 Las Vegas NV 89118

Contact Person – Name: Mark Failla, P.E. Telephone No.: (702) 284-5300
 *E-mail Address: mark.failla@westwoodps.com Fax No.: (702) 284-5399
 Firm: Westwood Professional Services
 Address: 5725 W. Badura Ave, #100 Las Vegas NV 89118

Type of Land Development/Land Disturbance Process:

☐ Rezoning	☐ Subdivision Map	☐ Clearing and grading Only
☐ Parcel Map	☒ Planned Unit Development	☐ Other (Please specify below)
☐ Large Parcel Map	☐ Building Permit	☐

1. Total Owned Land Area: At Site: +/- 25.0 ac Being Developed/Disturbed: +/- 25.0 ac

2. Is a portion or all of the subject property located in a 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

5. Approximate upstream land area which drains to the subject site: +/- 9.5 acres

6. Has the site drainage been evaluated in the past? ☒ Yes** ☐ No If yes, please identify documentation: Technical Drainage Study for Skye Canyon Phases 3B & 3C Infrastructure & Updates (DS-4953)

Technical Drainage Study for Skye Canyon Phases 3B & 3C Infrastructure & Updates (DS-4953)

7. If known, please briefly identify the proposed discharge point(s) of runoff from the site: north and northeasterly into Radley Street as storm drain flow

8. Briefly describe your proposed schedule for the subject project: Unit 1 ASAP, Unit 2 ASAP upon receipt of BLM grant.



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.

***Newly Required Field**

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

Revision	Date

Local Entity File No. _____

REFERENCE:

STANDARD FORM 1

Updated 05/01/2008

TRI2101.000

September 7, 2022

Albert Sung, P.E.
City of Las Vegas
495 S. Main Street
Las Vegas, NV 89101

Subject: Technical Drainage Study Update for Iron Mountain

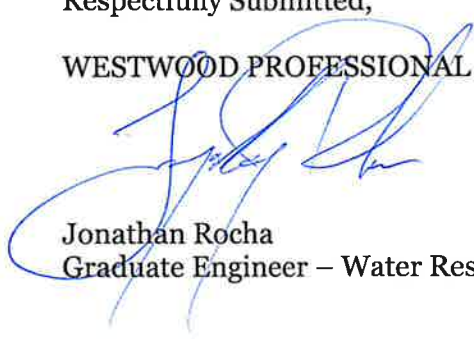
Dear Mr. Sung

This letter certifies that all items provided on the electronic submittal CD matches the Technical Drainage Study Update for Iron Mountain bound paper version.

Please contact me if you have any questions.

Respectfully Submitted,

WESTWOOD PROFESSIONAL SERVICES



Jonathan Rocha
Graduate Engineer – Water Resources Department

TRI2101.000

September 7, 2022

City of Las Vegas
495 S. Main Street
1st Floor
Las Vegas, Nevada 89101

**Subject: Technical Drainage Study Update for
Iron Mountain (DS 5508)**

Submitted for your review is this Technical Drainage Study Update for *Iron Mountain (Unit 1 & Unit 2)* (hereinafter known as Unit 1 and Unit 2, respectively). The Iron Mountain site is located north of Iron Mountain Road and east of Alpine Ridge Way. The original Technical Drainage Study and applicable addenda for Iron Mountain was approved by City of Las Vegas (CLV) on July 16, 2022 and approved by Clark County Regional Flood Control District (CCRFCD) on August 25, 2022. Refer to Appendix A for the approval letters.

Purpose: This Update has been prepared to support the following changes:

- Unit 1 & Unit 2 – Radley Avenue curblin shifted by 2-feet to the south. Right-of-way for Radley has not been revised, attached-landscape width updated from 5-feet to 3-feet.
- Unit 1 & Unit 2 – Finished floors, garage finished floors and high side top of curb elevations revised for townhomes with garage finished floors, generally west half of project site.
- Unit 1 interim storm drain Facility A2 - sump depth and open inlet revised to 24" RCP. Located north of Lot 25.
- Unit 1 grading – detailed grading has been updated for the pool area near the entryway, south of Lots 78 & 79. Two buildings with proposed finished floors are updated within the pool area. Note that the pool finished floor is not analyzed.

Relevant reference material from the TDS submittal has been provided in Appendix A.

Hydrologic Analysis: No hydrologic changes are being presented with this update. As such, no revised hydrologic computations are required nor provided. The hydrology presented in the previously approved studies remain valid for continued use.

Hydraulic Analysis: The curblin for Radley Avenue has been shifted by 2-feet to the south. The street section for Radley Avenue has been revised for the curblin shift and included in Appendix C. A revised hydraulic section was prepared to evaluate the updated street section and for use in determining flood protection along the perimeter street for Radley Avenue.

Storm Drain Analysis: The proposed open inlet located north of Lot 25 during the interim Unit 1 condition has been changed from an 18"RCP to a 24" RCP. The sump depth at the open inlet has been updated to match required headwater depth per nomograph computations. The revision is to provide additional separation from the water utility to the proposed open inlet by decreasing

the depth of the pipe. A lateral loss computation spreadsheet was utilized for the analysis of the hydraulic grade line (HGL) of the open sump. The nomograph and lateral loss computations have been included in Appendix C. Relevant reference material for the downstream HGL of the Radley interim storm drain mainline was utilized for the lateral loss computations and included in Appendix A. Note that not all of the surface flows impacting the interim trapezoid channel is intended to be collected by the open sump inlet and remainder of the surface runoff drains north into the existing natural channel as previously analyzed by the approved TDS.

Finished Floor Analysis: Driveway analyses for the townhome products have been revised and several townhomes have updated finished floor, garage finished floor (GFF) elevations and top-of-curb (TC) elevations along the high side of the garages. For the townhomes, the high side of the garages was utilized for the finished floor analysis and an exhibit (EX-1) has been included in Appendix D to illustrate and lists the TC elevations along high side of the garages for verification of finished floor checks. The finished floor analyses have been revised for the proposed lots and included in Appendix D.

All finished floors meet criteria of flood protected to twice the depth of flow in adjacent street, and finished floors above centerline TC+6". The townhomes with GFF meet criteria of twice the depth of flow in adjacent street, but townhomes do not meet being elevated above centerline TC+6"; this criteria for the GFF was discussed in the approved study due to the limited length of driveways for the townhomes and meeting applicable maximum driveway slopes, and therefore is acceptable.

Additional finished floor checks have been provided for adjacent perimeter street sections and emergency overflow.

The grading area for the pool located south of lots 78 & 79 is proposed with the Unit 1 improvements. The pool area proposes three buildings and have been flood protected to twice the depth of flow in adjacent flowline. Note that adjacent street section G2-2 has been provided with the prorated flowrate impacting the street section. A swale flowline is proposed adjacent to the pool buildings to collect any surface runoff from the roadway due to the roadway being elevated higher than the proposed buildings. The prorated surface flow was utilized within the swale flowline to show the pool buildings are sufficiently elevated to twice the depth of flow in adjacent flowline.

Conclusions: The updated and newly provided hydraulic analyses show that the proposed storm drain systems and grading is in compliance with CCRFCD Manual criteria and shows no adverse impacts. The improvement plans included in the last appendix supports the conclusions and recommendations detailed in this Update. If you have any questions or require additional information, please do not hesitate to contact us at (702) 284-5300.

Respectfully Submitted,
WESTWOOD PROFESSIONAL SERVICES

A handwritten signature in black ink, appearing to read 'Jonathan Rocha', with a stylized, cursive script.

Jonathan Rocha,
Graduate Engineer – Water Resources Services

CC: Mark Failla, P.E., CFM
Dan Poll, P.E.
Oscar Quiroz, P.E.

List of Appendices

Appendix A	Reference Material for Technical Drainage Study for Iron Mountain (DS 5508) • Approval Letters • Referenced Drainage Exhibits (with Clouded Revisions) • Referenced Improvement Plans (with Clouded Revisions)
Appendix B	Drainage Exhibits • Exhibit F – Unit 1 Interim Condition Drainage Map • Exhibit G – Unit 2 Proposed Condition Drainage Map
Appendix C	Hydraulic Analyses • Radley Street Section • Sections for Pool Building Finished Floor Analysis • Nomograph Computation - Facility A2 • Lateral Loss Computations
Appendix D	Finished Floor Analyses • Exhibit EX-1 Driveway TC Analysis • Finished Floor Computations
Appendix E	Revised Improvement Plans

APPENDIX A

Reference Material

*Technical Drainage Study for Iron Mountain
(DS 5508)*

Approval Letters

CITY OF LAS VEGAS			DATE:	
INTER-OFFICE MEMORANDUM			July 16, 2022	
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:	
	Iron Mountain		Westwood Professional Services	
Cross Streets:	NEC Iron Mountain Rd. & Alpine Ridge Way		Tri Pointe Homes Nevada, Inc.	
File Number:	F:\Depot\DSMemos\DS5508D.doc		Bart Anderson, P.E., DevCo	
Parcel Number:	126-01-801-010, 011, 012, 013, 014, 015, 016		CCRFCD	
Zoning Action:	21-0315-TMP1			
FEMA Flood Zone	YES	NO X		
Proposed Storm Drain	YES X	NO		

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Payment Trn #
1 st Submittal	10/14/2021	11/22/2021	Not Approved	\$400.00	4492234: \$400
2 nd Submittal & Supplement	12/28/2021 & 2/23/2022	3/18/2022	Not Approved	\$400.00	4586659: \$400
3 rd Submittal	5/9/2022	5/26/2022	Not Approved	\$400.00	4778909: \$400
4 th Submittal & Supplement	6/14/2022 & 7/5/2022	7/16/2022	See Comments Below	\$400.00	4828575: \$400
			TOTAL FEES (LDDRS):	\$1,600.00	----

REMARKS:

2nd Submittal with Supplemental drainage.

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 shows that the site will be developed in two Phases/Units. The off-site improvements may be phased, however the requirements of Title 19.02.130.2 & 19.02.130.3 shall be met. Paraphrasing – *“All building permits beyond 50% will be withheld until all required off-site improvements are guaranteed (bonded). When 75% of the development is complete, 100% of the off-sites shall be complete.”* Coordinate the proposed Unit Boundaries and off-site Improvements with Devco for compliance with the Title 19 requirements prior to final approval of the Drainage Study and/or final approval of any Final Map.

2. Coordinate the required improvements within the west half of Alpine Ridge with City of Las Vegas Right-of-Way (Nancy Logan 229-6545) and submit appropriate information to support BLM reservation on the Future Officer Soldo Memorial Park. No improvements may be constructed prior to BLM Grant.
3. **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 March 15, 2019, the CCRFCD adopted new requirements for drainage study concurrence submittal. Follow the link below for specific guidance.

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

4. The project proposes to build a temporary drainage facilities. Prior to final plan approval the developer must complete a maintenance and liability agreement for the interim drainage improvements (off-site berms or 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.

The following are comments pertaining to the subject site specific drainage study and grading plans:

5. This Study has addressed the Existing, Proposed, and Potential Conditions needed for this development to be adequately protected and therefore meet the intent of the MPU. It is understood that the flows are conveyed within the wash system north of the site (between Radley St. and Kyle Canyon Rd). The recognized flow conditions from the Supplemental HEC-1 submittal at Concentration CP8 are:

Existing – 889 cfs, Proposed – 896 cfs, and Potential – 907 cfs

6. **Unit 1 Sheet G-5 to Sheet G-8:** The plans showed that *Iron Mountain Road* is to be improved during Unit 1 construction. Include plan & profile sheet for the street improvement of *Iron Mountain Road* in the improvement plans submittal to *City Land Development*.
7. Continue to coordinate offsite efforts with the proposed commercial development to the east by Lochsa Engineers.
8. Continue to coordinate offsite efforts with the proposed development to the north "Alpine Ridge" by Westwood.

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/JKS

T/R/S: T19S/R59E/01
AREA F-01



Steven C. Parrish, P.E.
General Manager/Chief
Engineer

BOARD OF DIRECTORS

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Clark County

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City of Boulder City

August 25, 2022

Mr. Oh Sang Kwon, P.E.
City of Las Vegas Department of Public Works
333 North Rancho Drive
Las Vegas, NV 89106

DISTRICT CONCURRENCE: IRON MOUNTAIN
(DS5508D) (RFCD No. 22-14150)

Dear Mr. Kwon:

Clark County Regional Flood Control District (District) reviewed Conceptual Drainage Study dated October 14, 2021, Addendum No. 1 dated December 28, 2021, Addendum No. 2 dated May 9, 2022, Addendum No. 3 dated June 14, 2022, Supplement No. 1 dated February 23, 2022, and Supplement No. 2 dated July 5, 2022, for above-mentioned project as submitted by WESTWOOD PROFESSIONAL SERVICES. In addition, District is in receipt of the Conditional Letter of Acceptance from City of Las Vegas Department of Public Works dated July 16, 2022.

District concurs with acceptance of this Technical Drainage Study by City of Las Vegas Department of Public Works.

District's review of this project was limited to issues of Regional Flood Control Significance as defined in *Uniform Regulations for the Control of Drainage*.

Please be aware that as additional information becomes available and/or restudies of Flood Insurance Studies are performed, information submitted by WESTWOOD PROFESSIONAL SERVICES may be superseded. Compliance with regulatory elements and design standards specified in *Uniform Regulations for the Control of Drainage* does not imply a guarantee that properties will be free from flooding or flood damage. The District, its officials, or employees assume no liability for information, data, or conclusions presented by consulting engineers. We, therefore, make no warranties, either expressed or implied, in conducting this review.

STEVEN C. PARRISH, P.E.
General Manager/Chief Engineer

BY: *Ching C. Wang*
Ching C. Wang (Aug 25, 2022 13:35 PDT)

Ching C. Wang, P.E.
Principal Civil Engineer

CCW:kb

c: MARK FAILLA, P.E., CFM, WESTWOOD PROFESSIONAL SERVICES

P:\Letters and Memos\Local Drainage\Land Development & Drainage\2022\L-22-14150.doc

Referenced Drainage Exhibit
(with Clouded Revisions)

\\h2101-000 Iron Mountain\Drawings\Technical\Drawings\Add3\Add3 Unit 1 Int. Condition drainage map.dwg 6/9/2022 10:17 AM Jonathan Rocha

Unit 1 Interim Condition Flow Rate Summary					
Basin/Concentration Point ID	Area (ac)	Area (sq. mi)	Q ₁₀₀ (cfs)	Q ₁₀ (cfs)	
OFF1-E	302.5	0.47	325	98	
OFF2-E	62.7	0.09	103	39	
OFF3-E	11.7	0.02	29	11	
OFF4-E	28.7	0.04	65	24	
OFF5-E	17.4	0.03	30	8	
AR1-E	3.8	0.01	7	2	
AR2-E	3.9	0.01	10	4	
AR3-E	2.2	<0.01	6	2	
AR4-E	0.9	<0.01	2	1	
OFF3	1013.8	1.58	755	225	
IRON1	10.1	0.02	33	15	
IRON2-I	5.9	0.01	17	7	
IRON3-I	7.2	0.01	25	12	
OF2-E	8.6	0.01	23	9	
ARW1	0.7	<0.01	3	1	
IMR1	1.9	<0.01	7	4	
RS1	1.4	<0.01	5	3	
Concentration Point ID	Area (ac)	Area (sq. mi)	Q ₁₀₀ (cfs)	Q ₁₀ (cfs)	
CP1					
Q = OFF3 + OFF1-E + AR1-E + OFF2-E	N/A	2.14	863	282	
CP2					
Q = OFF3-E + AR2-E	N/A	0.02	39	15	
CP3					
Q = OFF4-E + AR3-E + OF2-E	N/A	0.06	93	35	
CP4					
Q = CP1 + CP2 + CP3	N/A	2.23	879	293	
CP7					
Q = IRON1 + IRON2 + ARW1 + RS1	N/A	0.04	82	38	
CP8					
Q = CP4 + CP7 + AR4-E + OFF5-E	N/A	2.30	896	302	

Subbasin Prorated Flow Rate Summary					
Unit 1 Interim Condition					
Basin ID	Q ₁₀₀ (cfs)	Q ₁₀ (cfs)	Area (acres)	100-yr Unit Flow (cfs/acre)	10-yr Unit Flow (cfs/acre)
IRON1	33	17	10.1	3.3	1.7
IRON2-I	17	7	5.9	2.9	1.2
IRON3-I	25	12	7.2	3.5	1.7
IMR1	7	4	1.9	3.7	2.1
Subbasin ID	Q ₁₀₀ (cfs)	Q ₁₀ (cfs)	Area (acres)	100-yr Unit Flow (cfs/acre)	10-yr Unit Flow (cfs/acre)
IRON1(A2)	2.5	1	0.8	3.3	1.7
IRON1(A3)	3	1.5	0.9	3.3	1.7
IRON1(D1)	3	1.5	0.8	3.3	1.7
IRON1(D2)	1.5	1	0.5	3.3	1.7
IRON1(F1)	6	3	1.9	3.3	1.7
IRON1(F2)	9.5	5	2.9	3.3	1.7
IRON1(F3)	6	3	1.9	3.3	1.7
IRON1(F4)	1.5	1	0.4	3.3	1.7
TOTAL	33	17	10.1		
IRON2-I(B)	3	1.5	1.1	2.9	1.2
IRON2-I(C)	3	1	1.0	2.9	1.2
IRON2-I(D3)	1	0.5	0.4	2.9	1.2
IRON2-I(E)	6.5	2.5	2.2	2.9	1.2
IRON2-I(G1)	3.5	1.5	1.1	2.9	1.2
TOTAL	17	7	5.9		
IRON3-I(A1)	6	2.5	1.8	2.9	1.2
IRON3-I(G2)	5	2	1.8	2.9	1.2
IRON3-I(G3)	5	2	1.7	2.9	1.2
IRON3-I(G4)	5	2	1.8	2.9	1.2
TOTAL	21	9	7.2		
IMR1(A)	5	3	1.4	3.7	2.1
IMR1(B)	2	1	0.5	3.7	2.1
TOTAL	7	4	1.9		

Unit 1 Interim Condition 100-Year Street Flow Summary Interior Streets						
Section ID	Description	Q ₁₀₀ (cfs)	Slope (%)	Depth (ft)	Velocity (fps)	DxV
B	Q = IRON2-I(B) + 11 CFS (Overtop from Section C)					
14	0.70	0.68	3.32	2.3		
C	Q = Q = IRON1(A2 + A3) + IRON3-I(A1+C)					
14	0.70	0.57	3.13	1.8		
D2	Q = Capacity					
3	0.70	0.38	1.95	0.7		
D3	Q = IRON1(D2)					
1.5	3.20	0.27	2.98	0.8		
D3	Q = IRON1(D2) + IRON2-I(D3) + 3 CFS (Overtop from Section E4)					
5.5	3.20	0.36	4.02	1.4		
D4	Q = IRON1(F2+F3)					
15.5	3.20	0.48	5.14	2.5		
E1	Q = D#2 Bypass + IRON1(A2+A3) + IRON2-I(B+C) + IRON3-I(A1)					
46.0	0.88	0.64	3.84	2.5		
E2	Q = IRON1(D2+F2+F3+F4) + IRON2-I(E+D3+G1) + IRON3-I(G2+G3+G4)					
44.5	4.11	0.51	6.32	3.2		
E3	Q = IRON1(D2+F2+F3+F4) + IRON2-I(D3+G1) + IRON3-I(G2)					
28	4.11	0.45	5.49	2.5		
E4	Q = IRON1(F2+F3) + IRON2-I(G1)					
19	3.20	0.51	5.47	2.8		
E4	Q = Capacity					
16	3.20	0.48	5.20	2.5		
G1	Q = IRON1(F4) + IRON2-I(G1)					
5	1.07	0.35	2.16	0.8		
F3	Q = IRON1(F3)					
6	0.64	0.39	1.84	0.7		

Onsite Hydraulic Section Summary Unit 1 Interim Condition					
Section ID	Q ₁₀₀ (cfs)	Section Description	Slope (%)	Depth (ft)	Velocity (fps)
Section V1	26	Earthen V-Ditch, 3:1 SS	1.00	1.39	4.50
Q = OF2-E + ARW1					
Section T1	37	Riprap Lined Trap Chnl, 3:1 SS, 2' BW D50=8", Th=16"	4.33	1.11	6.29
Q = OF2-E + ARW1 + IRON (F1+D1) + (1/3)RS1					
Section T2	40	Riprap Lined Trap Chnl, 3:1 SS, 2' BW D50=8", Th=16"	3.73	1.19	6.08
Q = OF2-E + ARW1 + IRON (F1+D1) + RS1			2.68	1.28	5.37
			1.42	1.47	4.24

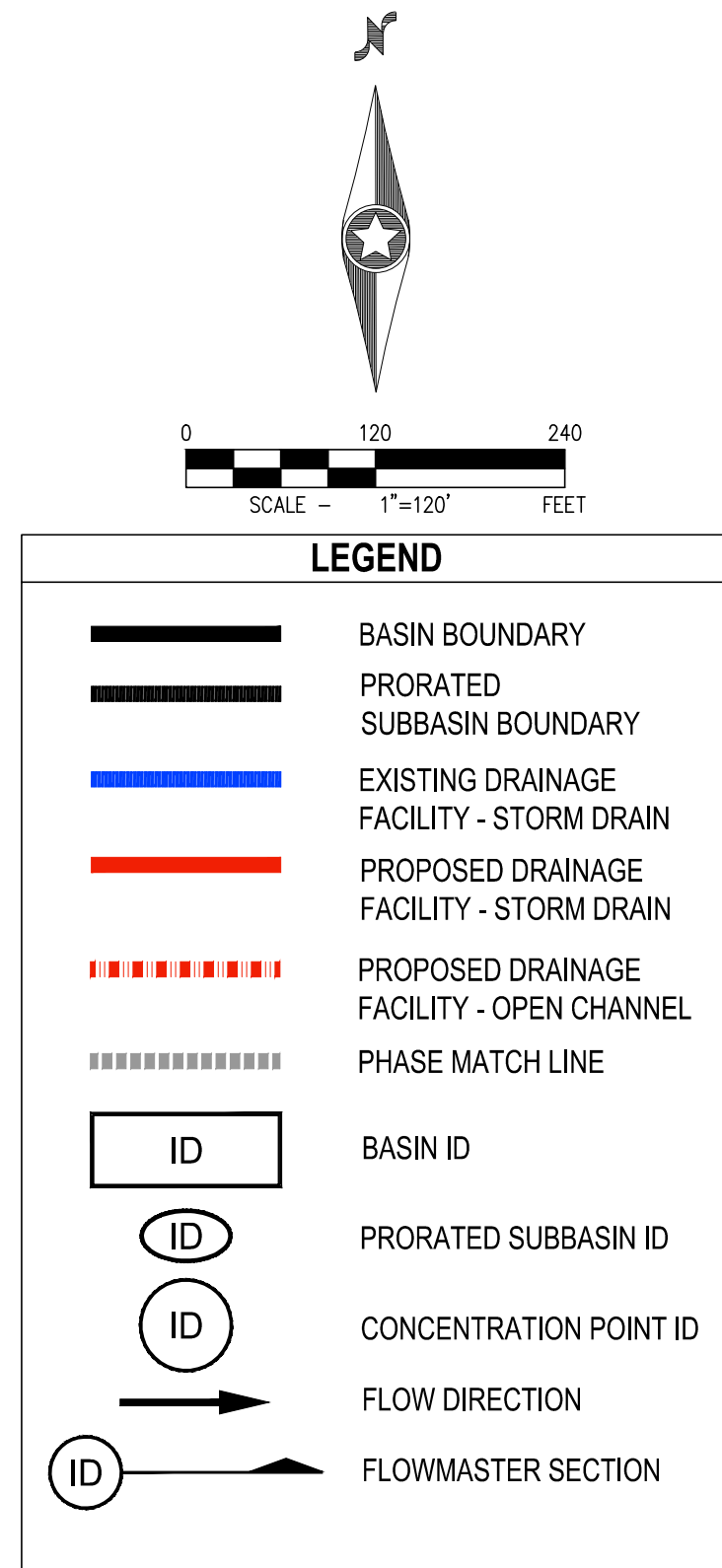
Recommended Mainline Facilities Summary Unit 1 Interim Condition			
Facility ID	Facility Description	Q _{Design} (cfs)	Notes
RADLEY SD SYSTEM			
A0	Proposed 48" RCP	-	Capped in proposed condition. To be extended for future SD extension, east in Radley Street.
A1	Proposed 48" RCP	81.5	To be removed for future SD extension, east in Radley Street.
A2	Proposed 24" RCP	19.5	
ONSITE SD SYSTEM			
B1	Proposed 42" RCP	62	

Recommended Drop Inlet Facility Summary Unit 1 Interim Condition					
Facility ID	Facility Description	Total/Approaching Flow (cfs) Q ₁₀₀	Facility Flow (cfs) Q ₁₀₀	Surface/Bypass Flow (cfs) Q ₁₀₀	Flow Description
ONSITE FACILITIES					
DI#1	Proposed 20.0" Type CM D.I. & 36" RCP Lateral	46	46	0	= D#2 Bypass + IRON1(A2+A3) + IRON2-I(B+C) + IRON3-I(A1) = 28.5 + (2.5 + 3) + (3 + 3) + 6
DI#2	Proposed 20.0" Type CM D.I. & 18" RCP Lateral	44.5	16	28.5	= IRON1(D2+F2+F3+F4) + IRON2-I(D3+E+G1) + IRON3-I(G2+G3+G4) = (1.5 + 9.5 + 6 + 1.5) + (1 + 6.5 + 3.5) + (5 + 5 + 5)

NOTES:
HYDRAULIC STREET SECTIONS & FACILITIES HAVE BEEN ANALYZED WITH FLOWS FROM UNIT 1 INTERIM.

WORST-CASE FLOWS AND FLOW DEPTHS ARE GENERATED BETWEEN UNIT 1 INTERIM AND UNIT 2 PROPOSED CONDITION.

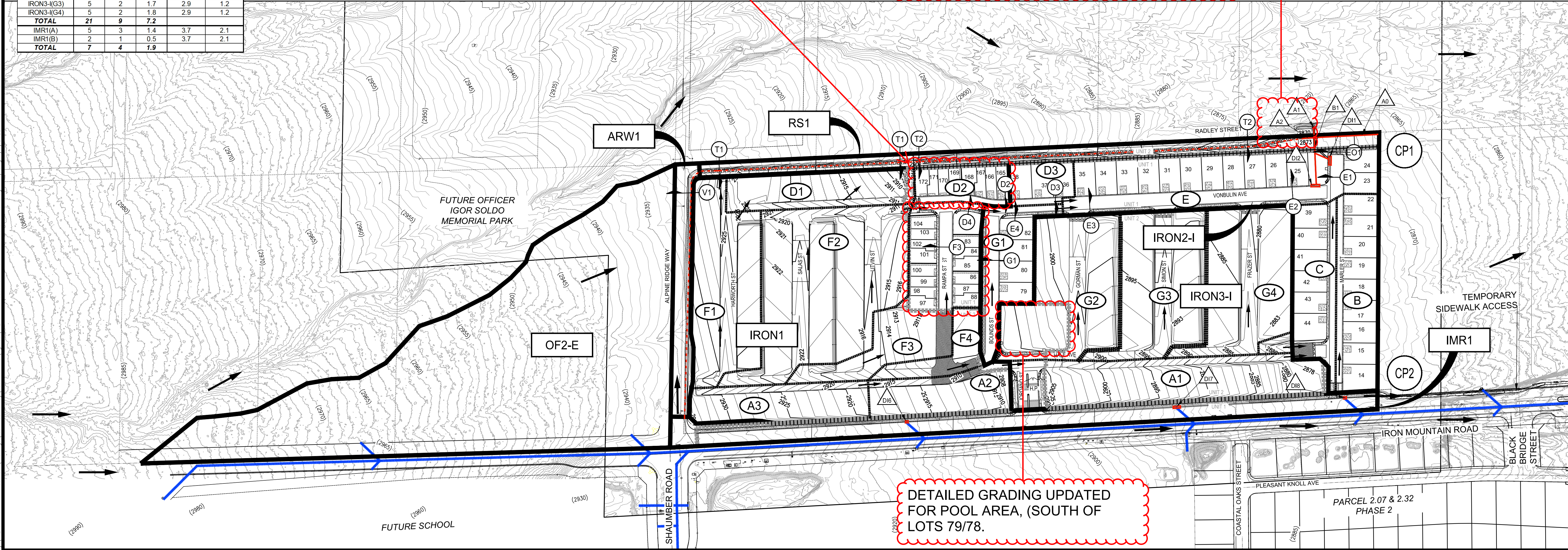
REFER TO EXHIBIT G OR H FOR FULL LIST OF HYDRAULIC/FACILITY TABLES FOR UNIT 2 PROPOSED OR ULTIMATE CONDITION. REFER TO EXHIBIT J3 FOR OFFSITE EXTENTS OF UPSTREAM WATERSHED.



FINISHED FLOOR, GARAGE FINISHED FLOOR AND TC REVISED FOR LOTS 83-88, 97-104, 165-172

FACILITY A2 UPDATED FOR REVISED SUMP DEPTH AND LATERAL STUB UPSIZED TO 24" FOR TEMPORARY INLET (24" INLET TO BE REMOVED & REPLACED WITH UNIT 2 IMPROVEMENTS TO RADLEY STREET)

DETAILED GRADING UPDATED FOR POOL AREA, (SOUTH OF LOTS 79/78.



Westwood
5725 W. Badura Ave.
Suite 100
Las Vegas, NV 89118
Phone (702) 284-5300
Fax (702) 284-5399
westwoodps.com

Westwood Professional Services, Inc.

DATE: JUNE 2022

DRAFTER: PK

DESIGNER: JSR

CHECKED: MF

PROJECT NO. TRI2101.000

EXHIBIT F

SHEET 1 OF 1

TRI POINTE HOMES

IRON MOUNTAIN

UNIT 1 INTERIM CONDITION DRAINAGE MAP

DS 5508 TDS ADD3 MAPS - REFERENCED FOR UPDATED CHANGES

Referenced Hydraulic Analyses

Inteirm Condition WSPG Summary

MAIN-DI1_INT MODEL

WSPG Station	Equivalent Roadway Station	Improvement Plan Sheet	Storm Drain Dimension	Invert Elevation (ft)	Q₁₀₀ (cfs)	WSE (ft)	Velocity (ft/s)	FG Elevation	Facility Description	HGL Check¹
1 - 'HGL Check' reflects the minimum 1-ft below finished grade.										
1000.00	N/A	Unit 1 SD-1	48" RCP	2865.46	81.50	2869.59	6.49	N/A	Outlet to wash	N/A
1012.83	10+76.63	Unit 1 SD-1	48" RCP	2865.56	81.50	2869.63	6.49	2873.52	SDMH 1 /	OK
1017.83	10+76.63	Unit 1 SD-1	42" RCP	2865.56	62.00	2870.01	6.44	2873.52	Connection to RAD model	OK
1034.57	10+49.88	Unit 1 SD-1	42" RCP	2865.66	62.00	2870.11	6.44	2873.66	SDMH 2 / Connection to SDDI2	OK
1036.24	10+49.88	Unit 1 SD-1	42" RCP	2865.69	62.00	2870.14	6.44	2873.66		OK
1037.91	10+49.88	Unit 1 SD-1	42" RCP	2865.70	62.00	2870.18	6.44	2873.66		OK
1039.58	10+49.88	Unit 1 SD-1	36" RCP	2866.20	46.00	2870.56	6.51	2873.66		OK
1089.46	10+00.	Unit 1 SD-1	36" RCP	2866.45	46.00	2870.80	6.51	2872.30	SDDI 1	OK

MAIN-DI1_INT.WSW

T1 TRI2101 IRON MOUNTAIN TDS ADD2
T2 MAIN STORM DRAIN SYSTEM
T3 FROM PROPOSED SDDI#1 TO WASH

SO	1000.00	02865.460	48						2869.590	
R	1012.83	02865.560	48	.013						
JX	1017.83	02865.560	42 18	.013	19.5			2867.560	-90.0	
R	1034.57	02865.660	42	.013					15.0	
R	1036.24	02865.690	42	.013					15.0	
R	1037.91	02865.700	42	.013					15.0	
JX	1039.58	02866.200	36 18	.013	16.0			2867.700	-90.0	
R	1089.46	02866.450	36	.013						
SH	1089.46	02866.450	36							
CD	18	4	1	0.000	1.500	0.000	0.000	0.000	0.0000.00	0.00
CD	24	4	1	.000	2.000	.000	.000	.000	.00	
CD	30	4	1	0.000	2.500	0.000	0.000	0.000	0.0000.00	0.00
CD	36	4	1	0.000	3.000	0.000	0.000	0.000	0.0000.00	0.00
CD	42	4	1	0.000	3.500	0.000	0.000	0.000	0.0000.00	0.00
CD	48	4	1	0.000	4.000	0.000	0.000	0.000	0.0000.00	0.00
Q				46.000	.0					

Lateral updated to 24" RCP

FILE: MAIN-DI1_INT.WSW

W S P G W - EDIT LISTING - Version 14.10

Date: 4- 6-2022 Time: 9:53:10

WATER SURFACE PROFILE - CHANNEL DEFINITION LISTING

PAGE 1

CARD CODE	SECT NO	CHN TYPE	NO OF PIER/PIP	AVE PIER WIDTH	HEIGHT 1 DIAMETER	BASE WIDTH	ZL	ZR	INV DROP	Y(1)	Y(2)	Y(3)	Y(4)	Y(5)	Y(6)	Y(7)	Y(8)	Y(9)	Y(10)
CD	18	4	1		1.500														
CD	24	4	1		2.000														
CD	30	4	1		2.500														
CD	36	4	1		3.000														
CD	42	4	1		3.500														
CD	48	4	1		4.000														

W S P G W

PAGE NO 1

WATER SURFACE PROFILE - TITLE CARD LISTING

HEADING LINE NO 1 IS -

TRI2101 IRON MOUNTAIN TDS ADD2

HEADING LINE NO 2 IS -

MAIN STORM DRAIN SYSTEM

HEADING LINE NO 3 IS -

FROM PROPOSED SDDI#1 TO WASH

W S P G W

PAGE NO 2

WATER SURFACE PROFILE - ELEMENT CARD LISTING

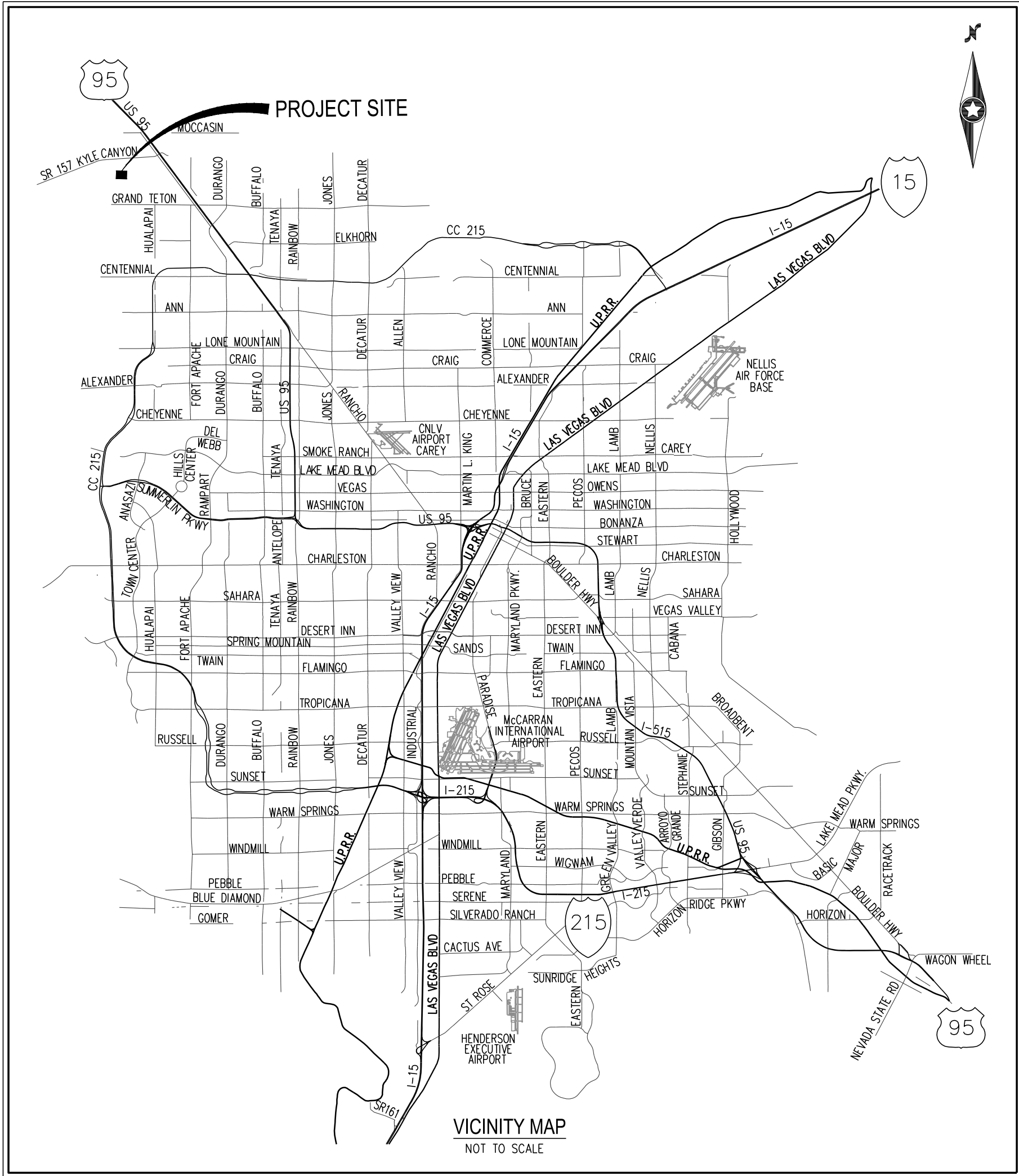
ELEMENT NO	1 IS A SYSTEM OUTLET	U/S DATA	STATION	INVERT	SECT	W S ELEV													
			1000.000	2865.460	48	2869.590													
ELEMENT NO	2 IS A REACH	U/S DATA	STATION	INVERT	SECT		RADIUS	ANGLE	ANG PT	MAN H									
			1012.830	2865.560	48		.013	.000	.000	.000	0								
ELEMENT NO	3 IS A JUNCTION	U/S DATA	STATION	INVERT	SECT	LAT-1	LAT-2	N	Q3	Q4	INVERT-3	INVERT-4	PHI 3	PHI 4					
			1017.830	2865.560	42	18	0	.013	19.500	.000	2867.560	.000	-90.000	.000					
											RADIUS	ANGLE							
											.000	.000							
THE ABOVE ELEMENT CONTAINED AN INVERT ELEV WHICH WAS NOT GREATER THAN THE PREVIOUS INVERT ELEV -WARNING																			
THE ABOVE ELEMENT CONTAINED AN INVERT ELEV WHICH WAS NOT GREATER THAN THE PREVIOUS INVERT ELEV -WARNING																			
ELEMENT NO	4 IS A REACH	U/S DATA	STATION	INVERT	SECT			N			RADIUS	ANGLE	ANG PT	MAN H					
			1034.570	2865.660	42			.013			.000	.000	15.000	0					
ELEMENT NO	5 IS A REACH	U/S DATA	STATION	INVERT	SECT			N			RADIUS	ANGLE	ANG PT	MAN H					
			1036.240	2865.690	42			.013			.000	.000	15.000	0					
ELEMENT NO	6 IS A REACH	U/S DATA	STATION	INVERT	SECT			N			RADIUS	ANGLE	ANG PT	MAN H					
			1037.910	2865.700	42			.013			.000	.000	15.000	0					
ELEMENT NO	7 IS A JUNCTION	U/S DATA	STATION	INVERT	SECT	LAT-1	LAT-2	N	Q3	Q4	INVERT-3	INVERT-4	PHI 3	PHI 4					
			1039.580	2866.200	36	18	0	.013	16.000	.000	2867.700	.000	-90.000	.000					
											RADIUS	ANGLE							
											.000	.000							

					MAIN-DI1_INT.EDT				
ELEMENT NO	8 IS A REACH		*	*	*				
	U/S DATA	STATION	INVERT	SECT	N	RADIUS	ANGLE	ANG PT	MAN H
		1089.460	2866.450	36	.013	.000	.000	.000	0
ELEMENT NO	9 IS A SYSTEM HEADWORKS				*				
	U/S DATA	STATION	INVERT	SECT		W S ELEV			
		1089.460	2866.450	36		.000			

Station	Invert Elev	Depth (FT)	Water Elev	Q (CFS)	Vel (FPS)	Vel Head	Energy Grd.El.	Super Elev	Critical Depth	Flow Top Width	Height/Dia.-FT	Base Wt or I.D.	ZL	No Wth Prs/Pip
L/Elem	Ch Slope					SF Ave	HF	SE Dpth	Froude N	Norm Dp	"N"	X-Fall	ZR	Type Ch
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
1000.000	2865.460	4.130	2869.590	81.50	6.49	.65	2870.24	.00	2.73	.00	4.000	.000	.00	1 .0
- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	-
12.830	.0078					.0032	.04	4.13	.00	2.33	.013	.00	.00	PIPE
1012.830	2865.560	4.071	2869.631	81.50	6.49	.65	2870.28	.00	2.73	.00	4.000	.000	.00	1 .0
- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	-
JUNCT STR	.0000					.0035	.02	4.07	.00		.013	.00	.00	PIPE
1017.830	2865.560	4.450	2870.010	62.00	6.44	.64	2870.66	.00	2.47	.00	3.500	.000	.00	1 .0
- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	-
16.740	.0060					.0038	.06	4.45	.00	2.36	.013	.00	.00	PIPE
1034.570	2865.660	4.446	2870.106	62.00	6.44	.64	2870.75	.00	2.47	.00	3.500	.000	.00	1 .0
- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	-
1.670	.0180					.0038	.01	4.45	.00	1.67	.013	.00	.00	PIPE
1036.240	2865.690	4.454	2870.144	62.00	6.44	.64	2870.79	.00	2.47	.00	3.500	.000	.00	1 .0
- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	-
1.670	.0060					.0038	.01	4.45	.00	2.36	.013	.00	.00	PIPE
1037.910	2865.700	4.482	2870.182	62.00	6.44	.64	2870.83	.00	2.47	.00	3.500	.000	.00	1 .0
- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	-
JUNCT STR	.2994					.0043	.01	4.48	.00		.013	.00	.00	PIPE
1039.580	2866.200	4.362	2870.562	46.00	6.51	.66	2871.22	.00	2.21	.00	3.000	.000	.00	1 .0
- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	-
49.880	.0050					.0048	.24	4.36	.00	2.39	.013	.00	.00	PIPE
1089.460	2866.450	4.350	2870.800	46.00	6.51	.66	2871.46	.00	2.21	.00	3.000	.000	.00	1 .0
- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	-

HGL utilized for lateral loss computations for 24" RCP open inlet.

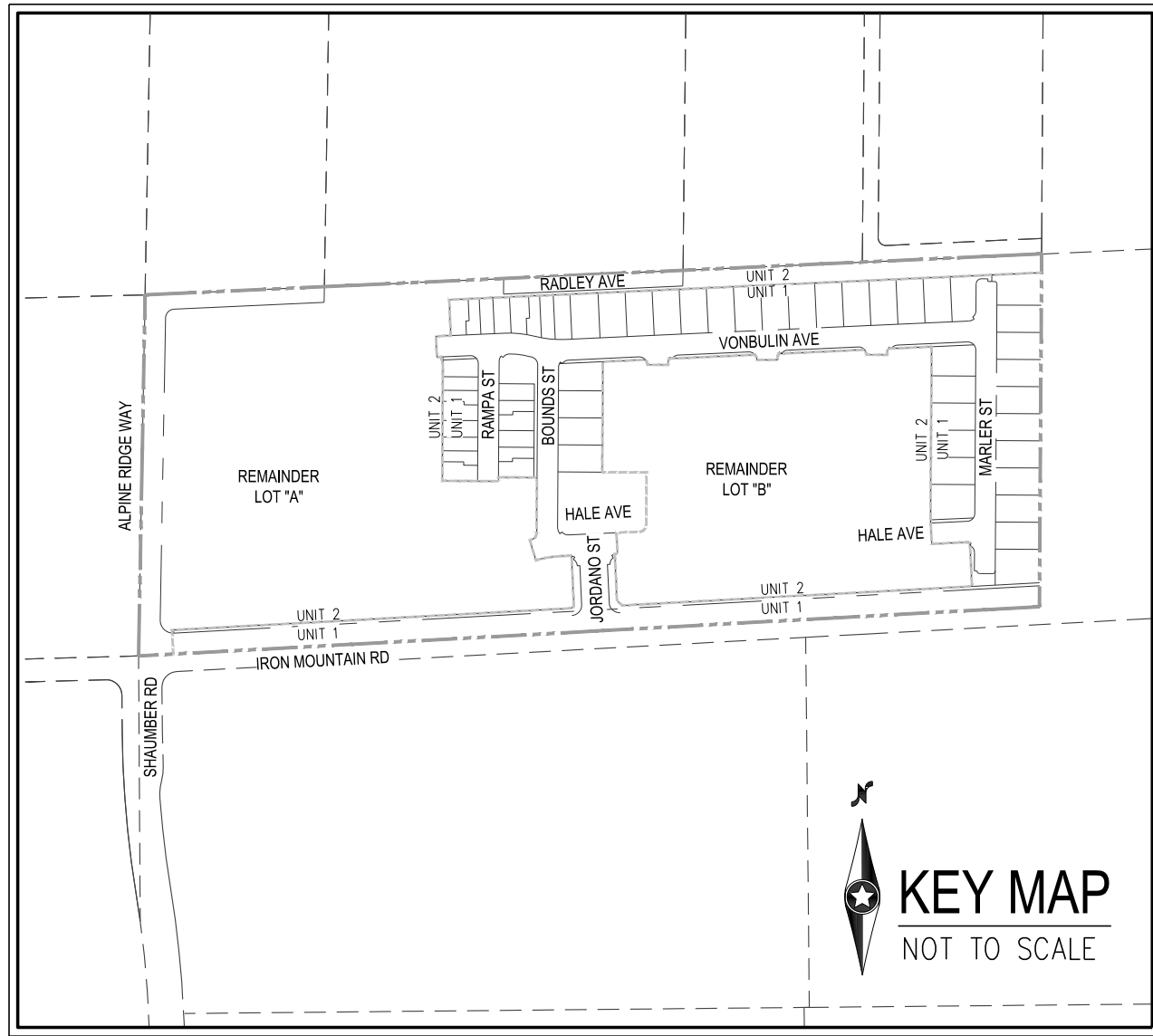
Referenced Improvement Plans
(with Clouded Revisions)



tri pointe HOMES

IMPROVEMENT PLANS FOR IRON MOUNTAIN UNIT 1

CITY OF LAS VEGAS, NEVADA
RESIDENTIAL SUBDIVISION
APN: 126-01-801-010, 126-01-801-011, 126-01-801-012, 126-01-801-013,
126-01-801-014, 126-01-801-015, 126-01-801-016



LEGAL DESCRIPTION

(APN: 126-01-801-010):
THE NORTHWEST QUARTER (NW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 1, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA;
EXCEPTING THEREFROM THAT PORTION AS CONVEYED TO CLARK COUNTY BY DEED RECORDED JUNE 5, 1979, IN BOOK 1066 AS DOCUMENT NO. 1025476, OF OFFICIAL RECORDS.
ALSO KNOWN AS LOT ONE (1), AS DELINEATED ON THAT CERTAIN CERTIFICATE OF LAND DIVISION 54-79, RECORDED JUNE 5, 1979, IN BOOK 1066 AS DOCUMENT NO. 1025475, OF OFFICIAL RECORDS.
TOGETHER WITH;
(APN: 126-01-801-011):
THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 1, TOWNSHIP 19 SOUTH, RANGE 59, EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA;
EXCEPTING THEREFROM THOSE PORTIONS AS CONVEYED TO CLARK COUNTY, BY A DEED RECORDED JUNE 5, 1979 IN BOOK 1066 AS DOCUMENT NO. 1025476, OF OFFICIAL RECORDS, CLARK COUNTY, NEVADA.
ALSO KNOWN AS LOT TWO (2), OF THAT CERTAIN CERTIFICATE OF LAND DIVISION RECORDED JUNE 5, 1979 AS DOCUMENT NO. 1025475, OF OFFICIAL RECORDS.
TOGETHER WITH;
(APN: 126-01-801-012):
THE EAST HALF (E 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 1, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA;
TOGETHER WITH;
(APN: 126-01-801-013):
THE NORTHWEST QUARTER (NW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 1, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA;
EXCEPTING THEREFROM THAT PORTION AS CONVEYED TO CLARK COUNTY BY THAT CERTAIN GRANT, BARGAIN, SALE DEED RECORDED AUGUST 1, 1979 IN BOOK 1095 AS INSTRUMENT NO. 1054704, OFFICIAL RECORDS.
ALSO KNOWN AS LOT ONE (1) 1 OF THAT CERTAIN CERTIFICATE OF LAND DIVISION RECORDED JULY 25, 1979 AS DOCUMENT NO. 1050600 OF OFFICIAL RECORDS, CLARK COUNTY, NEVADA.
TOGETHER WITH;
(APN: 126-01-801-014):
THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 1, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA;
EXCEPTING THEREFROM THAT PORTION CONVEYED TO CLARK COUNTY BY THAT CERTAIN GRANT, BARGAIN, SALE DEED RECORDED AUGUST 1, 1979, IN BOOK 1095, AS INSTRUMENT NO. 1054704, IN THE OFFICE OF THE COUNTY RECORDER OF CLARK COUNTY, NEVADA.
TOGETHER WITH;
(APN: 126-01-801-015):
THE EAST HALF (E 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 1, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA;
TOGETHER WITH;
(APN: 126-01-801-016):
THE WEST HALF (W 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 1, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.

M.O.U. ITEMS

- 21-0315-TMP1, 8/19/2021
- MINIMUM STREET WIDTH OF 13' WITH PARKING FOR PARKING ON BOTH SIDES MEASURED TO FACE OF CURB
- SIDEWALK REQUIRED ON ONE SIDE OF INTERIOR PRIVATE GATED STREETS
- STREET LIGHTS ON PRIVATE STREETS WITHIN SINGLE FAMILY SUBDIVISIONS SHALL NOT BE REQUIRED
- DRIVEABLE EMERGENCY ACCESS REDUCED TO 18'

DEVIATIONS FROM STANDARDS

- VARIANCES PER 21-0315 AND 21-0657:
 - R-TH SETBACKS FOR ATTACHED PRODUCTS (LOTS 83-226):
 - ALLOW 3' FRONT SETBACK
 - ALLOW STUB STREET WHERE CUL-DE-SACS ARE REQUIRED
 - ALLOW MAX. WALL HEIGHT OF 18' WHERE 12' IS ALLOWED
- ALLOW OFFSET ROAD CROWN

SWPPP NOTE

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

TOTAL DISTURBED AREA

25.37 ACRES

PROJECT INFORMATION

ACREAGE (GROSS): = 25.37 AC
ACREAGE (NET): = 8.0 AC
ACREAGE (NET-NET): = 8.0 AC
DENSITY (LOTS/NET ACRE): = 7.13 DU/NET AC
ZONING: = R-TH
TOTAL NO. OF RESIDENTIAL LOTS = 57
TOTAL NO. OF COMMON ELEMENTS = 12
MINIMUM LOT SIZE = 1,607 SF±
MAXIMUM LOT SIZE = 5,646 SF±
PROVIDED OPEN SPACE = 47,474 SF±

EARTHWORK SUMMARY (UNADJUSTED)

CUT = 28,551 CY.
FILL = 114,244 CY.
NET (FILL) = 85,693 CY.

GEOTECHNICAL ENGINEER

PREPARED BY: GEOTEK RESIDENTIAL, LLC
ADDRESS: 6835 S. ESCONDIDO ST., STE. B LAS VEGAS, NV 89119
PHONE: (702) 897-1424
PROJECT NO. 16100-LVR
DATED: 09/17/2021

SHEET INDEX

NO.	SHEET	TITLE
1	C-1	COVER SHEET
2	C-2	GENERAL NOTES
3	C-3	LEGEND, ABBREVIATIONS, & QUANTITIES
4	G-1	GRADING PLAN I
5	G-2	GRADING PLAN II
6	G-3	GRADING PLAN III
7	G-4	GRADING PLAN IV
8	G-5	GRADING PLAN V
9	G-6	GRADING PLAN VI
10	G-7	GRADING PLAN VII
11	G-8	GRADING PLAN VIII
12	G-9	GRADING PLAN IX - TEMPORARY AC SIDEWALK
13	D-1	DETAIL SHEET I
14	D-2	DETAIL SHEET II
15	SD-1	STORM DRAIN PLAN AND PROFILE - SDDI 1 & 2
16	SD-2	STORM DRAIN PLAN AND PROFILE - SDDI 6, 7 & 8
17	PP-1	PLAN AND PROFILE - RADLEY AVE. STA 33+50 TO 37+50

APPROVALS

CLV ENGINEERING OFFICE

CLV FIRE & RESCUE

CLV PLANNING DEPARTMENT

CENTRAL TELEPHONE CO. DBA CENTURYLINK DATE
THE AFFIXED CENTURYLINK APPROVAL DOES NOT ASSUME OR GUARANTEE LIABILITY FOR KNOWN OR UNKNOWN CONFLICTS WITH EXISTING OR PROPOSED IMPROVEMENTS. RESOLUTION OF ANY CONFLICT WILL BE ACCOMPLISHED PURSUANT TO LOCAL ORDINANCES, NEVADA REVISED STATUTES AND / OR PUBLIC UTILITY COMMISSION RULES AND REGULATIONS.
APPROVED FOR CONSTRUCTION
LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES
PROJECT NO. 139879 FIRST APPROVED DATE:
LVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM
SHEETS: C-1 THRU C-3, D-2, SD-1 THRU PP-11, MU-1, U-1 THRU U-5

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

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 0C99156
RIVET AND 2" ROUND ALUMINUM DISK IN CONCRETE
CYLINDER AT THE SW CORNER OF ALPINE RIDGE WAY & KYLE CANYON RD
ELEVATION=2928.24 US FEET, 892.53 METERS NAVD88 DATUM

BASIS OF BEARINGS

NORTH 86°52'17" EAST BEING THE BEARING OF THE SOUTH LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 1, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE IN BOOK 160, PAGE 72 OF PLATS.

OWNER/DEVELOPER

TRI POINTE HOMES NEVADA, INC.
4675 W. TECO AVE., SUITE 115
LAS VEGAS, NV 89118
PH: (702) 814-1400
FX: (702) 873-6881
CONTACT: JIM JORDANO

ENGINEER

WESTWOOD PROFESSIONAL SERVICES
5725 W. BADURA AVE., SUITE 100
LAS VEGAS, NV 89118
PH: (702) 284-5300
FX: (702) 284-5399
CONTACT: DAN POLL

FEMA FLOOD ZONE INFORMATION

PER THE FEMA FIRM PANEL MAP 32003C1750E, DATED SEPTEMBER 27, 2002, THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED UNSHADED ZONE 'X'. AN UNSHADED ZONE 'X' IS LOCATED OUTSIDE THE 0.20% ANNUAL CHANCE FLOODPLAIN.

Digitally signed
by Daniel S.
Poll, P.E.
Date:
2022.06.29
15:29:11-07'00'



Digitally signed
by Daniel S.
Poll, P.E.
Date:
2022.06.09
15:17:24-07'00'

Westwood

5725 W. Badura Ave.
Suite 100
Las Vegas, NV 89118
Phone (702) 284-5300
westwoodps.com

CITY OF LAS VEGAS, NV

tri pointe
HOMES

IRON MOUNTAIN UNIT 1
COVER SHEET

51
19
19

DATE: 06/06/2022

DRAFTER: ND

DESIGNER: ND

CHECKED: IOQ

PROJECT NO.
TRI2101-000

PROFESSIONAL ENGINEER - STATE OF NEVADA

DANIEL S. POLL

Exp. 12/31/2023

CIVIL

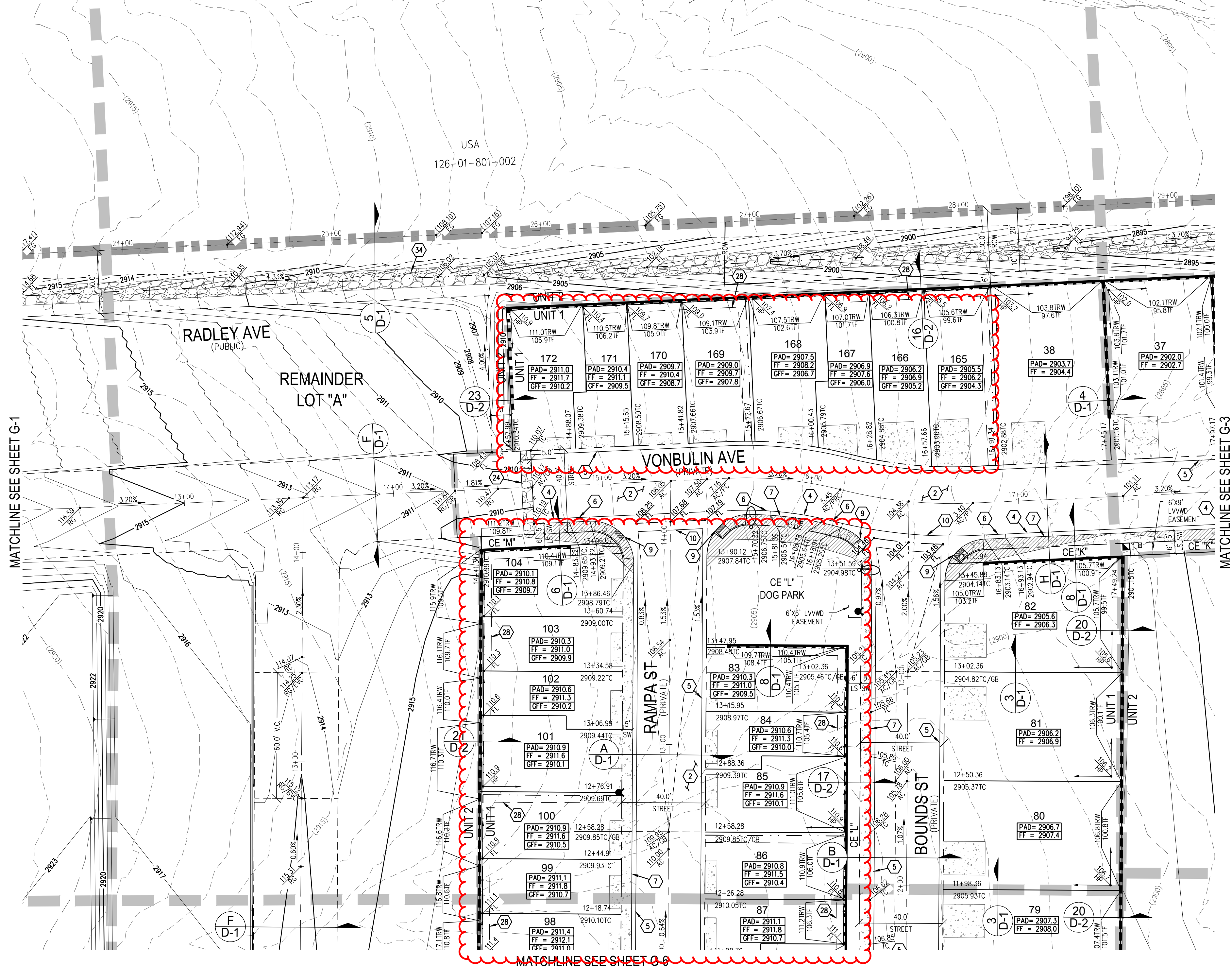
No. 28179

06/09/2022

C-1

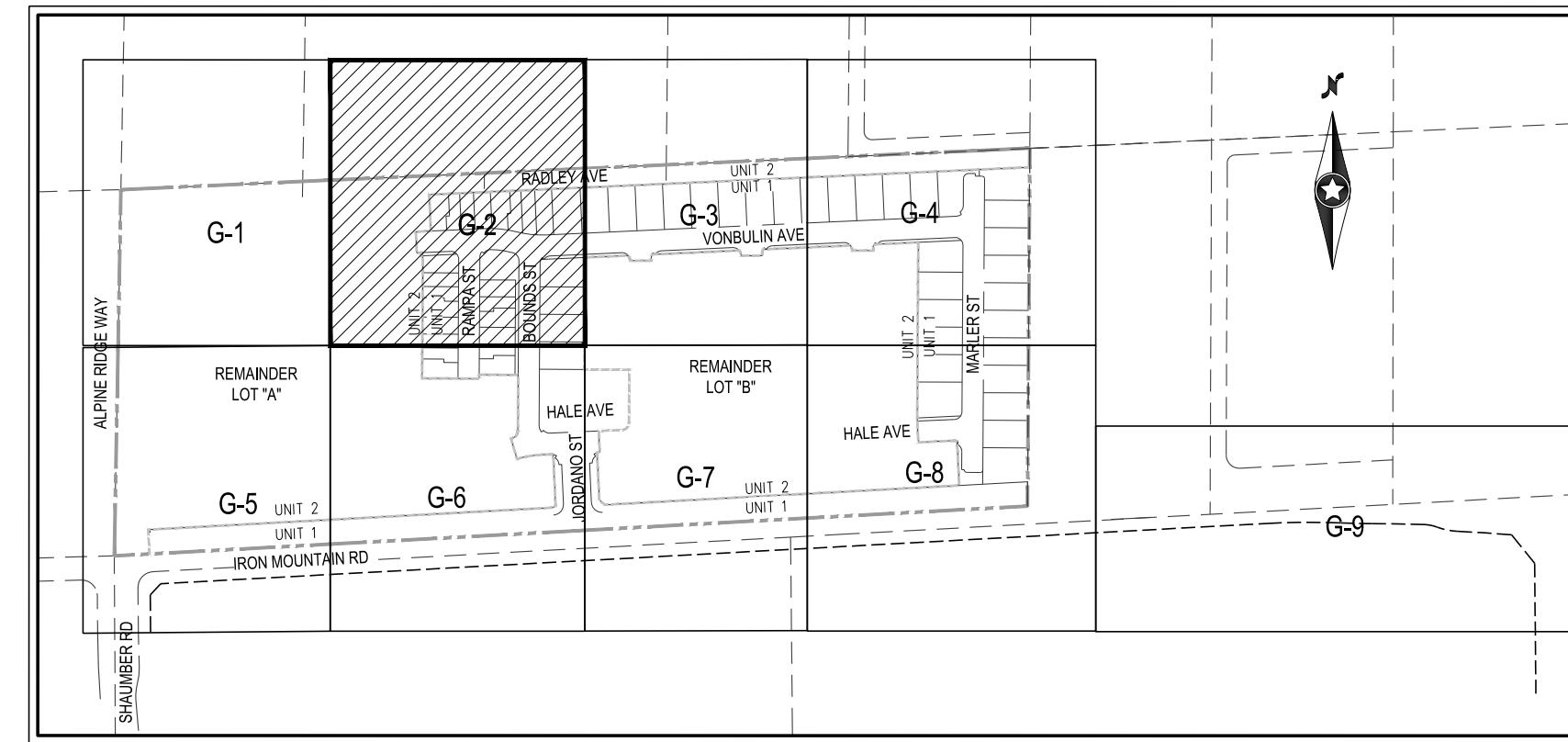
SHEET 1 OF 43

I:\202101-000 Iron Mountain\Draw\Iron Mountain Unit 1\202101_000.dwg 6/9/2022 2:55 PM Kevin Basses



FINISHED FLOORS, GARAGE
FINISHED FLOORS AND TC REVISED
FOR HIGHLIGHTED LOTS

0 30 60
SCALE = 1"=30' FEET



HOA NOTE

ALL ONSITE STORM DRAIN FACILITIES WITHIN THIS DEVELOPMENT SHALL BE PRIVATELY MAINTAINED BY THE HOA. ALL PRIVATE STREETS ARE P.U.E., PUBLIC SEWER EASEMENT AND PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY HOA.

SURVEY NOTE

OWNER RESPONSIBLE TO PROVIDE SURVEY MONUMENTATION AS SHOWN AND TO REPLACE ALL SURVEY MONUMENTATION DAMAGED, DISTURBED, DESTROYED, OR OBLISCURED DURING CONSTRUCTION.

ELEVATION NOTE

ADD 2800 TO ALL SPOT GRADES WHERE THE HUNDREDS AND THOUSANDS PLACES ARE OMITTED FOR ACTUAL ELEVATION (I.E. 01.00 REPRESENTS 2801.00)

DISCLAIMER NOTE

- EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.
- FOR ROADWAY WIDENING AND HALF STREET IMPROVEMENTS THE CONTRACTOR SHALL VERIFY CROSS SLOPES FROM EXISTING PAVEMENT SLOPE LINE TO PROPOSED EDGE OF PAVEMENT OR PROJECTED UP OF CURB PRIOR TO SUBGRADE PREPARATION AND CONSTRUCTION OF PROPOSED CURB LINE. IF MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET AGENCY STANDARDS THE CONTRACTOR SHALL NOTIFY THE ENGINEER.

GRADING NOTES

- THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER.
- ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SWPPP.
- MAXIMUM/MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
- SEE DETAIL SHEET FOR STREET SECTIONS AND DETAILS.
- ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED.
- CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CITY OF LAS VEGAS BUILDING DEPARTMENT.
- CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITY STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. CONTRACTOR TO PROTECT IN PLACE DURING CONSTRUCTION. ENGINEER/OWNER SHALL BE NOTIFIED OF PRIOR DAMAGE TO EXISTING FACILITIES PRIOR TO CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR/REPLACING FACILITIES IF ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION COMMENCING.
- NO STRUCTURE, VEGETATION, OR OBJECTS OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF THE ADJACENT CURB IF CURB EXIST) WITHIN THE SIGHT VISIBILITY ZONES.

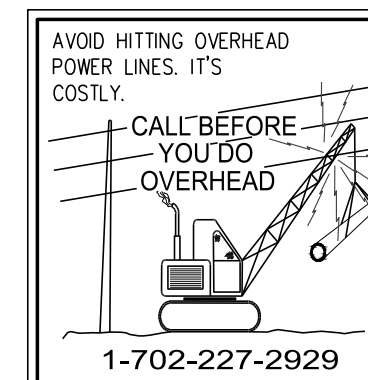
LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDELINES

(REQUIRED FOR ALL SITES GREATER THAN 1 ACRE (43,560 SQ.FT.))

- 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.
- ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN CLARK COUNTY TITLE 24.40 AND IN THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
- 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 NVRI00000, SECTION III.A.5.
- AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS, AND ALL BMPs WEEKLY, AND WITHIN 24 HOURS AFTER 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 NVRI00000, SECTION III.A.12.
- ACCUMULATED SEDIMENT IN BMPs SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.

POST-CONSTRUCTION BMP'S NOTE

POST-CONSTRUCTION BMP'S (PCBMP'S)/CONTROL MEASURES NOTED ON THE GRADING PLANS ARE MANDATORY PERMANENT REGULATORY STORMWATER POLLUTION CONTROLS. THESE PCBMP'S MUST BE INSTALLED PER THE APPROVED PLANS AND MUST BE PERMANENTLY MAINTAINED.



GRADING NOTES

- MATCH EXISTING IMPROVEMENTS PER CCAUSD NO. 503, 500.4 & 500.5
- INSTALL ASPHALT PAVEMENT WITH TYPE II AGGREGATE BASE PER STREET
- INSTALL A TYPE CURB PER CCAUSD NO. 219
- INSTALL L TYPE CURB PER CCAUSD NO. 216
- INSTALL R TYPE CURB PER CCAUSD NO. 217.3.51
- CONSTRUCT 10' L-CURB TO R-CURB TRANSITION PER DETAIL ON SHEET D-1
- CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD NO. 234 (5" THICK W/ 5" TYPE II AGGREGATE BASE)
- INSTALL NON-EROSIVE LANDSCAPE
- CONSTRUCT ADA SIDEWALK RAMP USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER CCAUSD NO. 235, CASE 1 A=B=8.0'
- CONSTRUCT MODIFIED 8" WIDE CROSS GUTTER PER CCAUSD NO. 228
- INSTALL PAVERS WITH SOLDIER COURSE BANDING
- INSTALL 2" WIDE CONCRETE STRIP
- INSTALL WROUGHT IRON FENCE WITH PEDESTRIAN ACCESS GATE
- INSTALL 48" TYPE II SDMM PER CCAUSD NO. 401 & 405.2 (PUBLIC)
- INSTALL 4" THICK TYPE II AGGREGATE TO ROUGH GRADE
- INSTALL 5.0" TYPE "CM2" DROP INLET PER CCAUSD NO. 412.1 AND STORM DRAIN WATER QUALITY MANAGEMENT STAMP PER CCAUSD NO. 421 (PRIVATE)
- INSTALL 17.5" TYPE "CM2" DROP INLET PER CCAUSD NO. 412.1 AND STORM DRAIN WATER QUALITY MANAGEMENT STAMP PER CCAUSD NO. 421 (PRIVATE)
- INSTALL 20.0" TYPE "CM2" DROP INLET PER CCAUSD NO. 412.1 AND STORM DRAIN WATER QUALITY MANAGEMENT STAMP PER CCAUSD NO. 421 (PRIVATE)
- INSTALL 18" CLASS III RCP STORM DRAIN (PUBLIC)
- INSTALL 36" CLASS III RCP STORM DRAIN (PUBLIC)
- INSTALL 42" CLASS III RCP STORM DRAIN (PUBLIC)
- INSTALL 48" CLASS III RCP STORM DRAIN (PUBLIC)
- INSTALL RIP RAP OVER 12" TYPE II AGGREGATE BASE D50=6", T=12"
- CONSTRUCT COMMERCIAL DRIVEWAY PER CCAUSD NO. 224
- CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD NO. 234 (4" THICK W/ 5" TYPE II AGGREGATE BASE)
- CONSTRUCT 5' WIDE TEMPORARY ASPHALT PAVEMENT SIDEWALK
- 5' PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY HOMEOWNER
- INSTALL 48" RCP NDOT END SECTION PER NDOT DETAIL R-2.3.1 (PUBLIC)
- INSTALL 6" THICK COMPACTED DECOMPOSED GRANITE
- CONSTRUCT 6" CONCRETE OVER 6" TYPE II PATH FOR EMERGENCY VEHICLE ACCESS
- INSTALL 18" CLASS III RCP STORM DRAIN (PRIVATE)
- INSTALL 36" CLASS III RCP STORM DRAIN (PRIVATE)
- INSTALL RIP RAP OVER 12" TYPE II AGGREGATE BASE D50=8", T=16"
- INSTALL TEMPORARY FENCE FOR PEDESTRIAN FALL PROTECTION

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 0C99156

RIVET AND 2" ROUND ALUMINUM DISK IN CONCRETE CYLINDER AT THE SW CORNER OF ALPINE RIDGE WAY & KYLE CANYON RD
ELEVATION=2928.24 US FEET, 892.53 METERS NAVD88 DATUM

BASIS OF BEARINGS

NORTH 86°52'17" EAST BEING THE BEARING OF THE SOUTH LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 1, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE IN BOOK 169, PAGE 72 OF PLATS.

FLOOD ZONE

PER THE FEMA FIRM PANEL MAP 32003C1750E, DATED SEPTEMBER 27, 2002, THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED UNSHADED ZONE "X", AN UNSHADED ZONE "X" IS LOCATED OUTSIDE THE 0.20% ANNUAL CHANCE FLOODPLAIN.

FLOOD CERTIFICATION

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY ON FILE AT CITY OF LAS VEGAS FOR THIS SUBJECT PROJECT (0555008).

DANIEL S. POLL, P.E. 28179 06/09/2022

CALL SOUTHWEST GAS AT 702-651-2111 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES

SOILS REPORT

SOILS REPORT BY: GEOTECH RESIDENTIAL, LLC
ADDRESS: 6835 S. ESCONDIDO ST. STE. B LAS VEGAS, NV 89119
PHONE: (702) 897-1424
PROJECT NO: 16100-LVR DATED 09/17/2021

EARTHWORKS

EARTHWORK QUANTITIES (RAW):
CUT= 28,551 CU YDS
FILL= 114,244 CU YDS

EXPORTED MATERIAL TO BE DISPOSED OF AT AN APPROVED LICENSED DISPOSAL FACILITY OR AT A SITE WITH AN APPROVED AND ACTIVE GRADING PERMIT.

DRAINAGE IMPROVEMENT QUANTITIES

	PRIVATE	PUBLIC
1. 48" TYPE II STORM DRAIN MANHOLE	EA -	2
2. 5' TYPE "CM2" DROP INLET	EA -	2
3. 17.5' TYPE "CM2" DROP INLET	EA -	1
4. 20.0' TYPE "CM2" DROP INLET	EA 2	-
5. 18" RCP CLASS III STORM DRAIN	LF 96	20
6. 36" RCP CLASS III STORM DRAIN	LF 50	-
7. 42" RCP CLASS III STORM DRAIN	LF -	27
8. 48" RCP CLASS III STORM DRAIN	LF -	174
9. RIPRAP D50=6", THK=12"	CY -	95
10. RIPRAP D50=8", THK=18"	CY -	733
11. 8' WIDE CONCRETE VALLEY GUTTER	SF 4,810	750
12. 48" RCP NDOT END SECTION	EA -	1

Westwood

5725 W. Badura Ave.
Suite 100
Las Vegas, NV 89118
Phone (702) 284-5300
Westwood Professional Services, Inc.

CITY OF LAS VEGAS, NV

tri pointe HOMES
IRON MOUNTAIN UNIT 1
GRADING PLAN II

Sheet 5 of 43

DATE: 06/06/2022

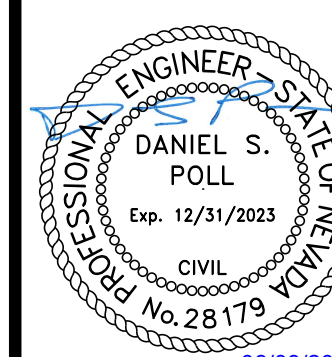
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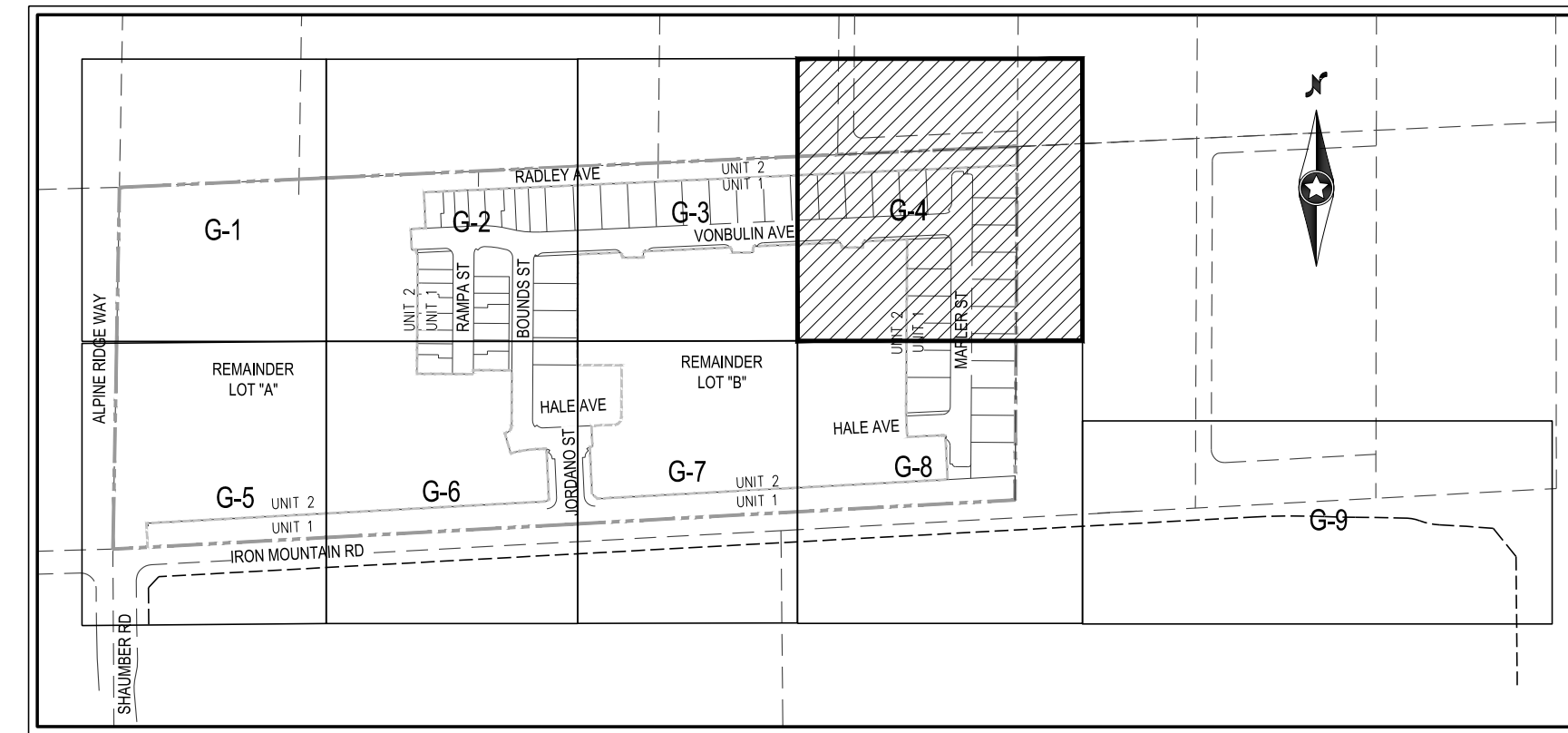
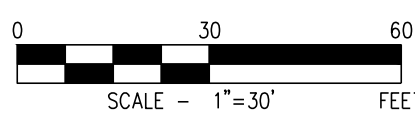
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SHEET 5 OF 43

SUMP DEPTH AND OPEN INLET
REVISED TO 24" RCP.



HOA NOTE

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- 2) FOR ROADWAY WIDENING AND HALF-SECTION IMPROVEMENTS THE CONTRACTOR SHALL VERIFY CROSS SLOPES FROM EXISTING PAVEMENT EDGES TO PROPOSED EDGE OF PAVEMENT OR PROTECTED CURB LINE PRIOR TO SUBGRADE PREPARATION AND CONSTRUCTION OF PROPOSED CURB LINE. MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET AGENCY STANDARDS THE CONTRACTOR SHALL NOTIFY THE ENGINEER.

GRADING NOTES

- | | | |
|---|----|---|
| 1. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER. | 27 | CONSTRUCT 5' WIDE TEMPORARY ASPHALT PAVEMENT SIDEWALK |
| 2. ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SWPPP. | 28 | 5" PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY HOMEOWNER |
| 3. MAXIMUM/MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT. | 29 | INSTALL 48" RCP NDOT END SECTION PER NDOT DETAIL R-2.3.1 (PUBLIC) |
| 4. SEE DETAIL SHEET FOR STREET SECTIONS AND DETAILS. | 30 | INSTALL 6" THICK COMPACTED DECOMPOSED GRANITE |
| 5. ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED. | 31 | CONSTRUCT 6" CONCRETE OVER 6" TYPE II PATH FOR EMERGENCY VEHICLE ACCESS |
| 6. CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CITY OF LAS VEGAS BUILDING DEPARTMENT. | 32 | INSTALL 18" CLASS III RCP STORM DRAIN (PRIVATE) |
| 7. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITY STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. CONTRACTOR TO PROTECT IN PLACE DURING CONSTRUCTION. ENGINEER/OWNER SHALL BE NOTIFIED OF PRIOR DAMAGE TO EXISTING FACILITIES PRIOR TO CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR/REPLEFING FACILITIES IF ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION COMMENCING. | 33 | INSTALL 36" CLASS III RCP STORM DRAIN (PRIVATE) |
| 8. NO CONSTRUCTION, VEGETATION, OR OBJECTS OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF THE ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONE. | 34 | INSTALL RIP RAP OVER 12" TYPE II AGGREGATE BASE 050=8, T=16" |
| | 35 | INSTALL TEMPORARY FENCE FOR PEDESTRIAN FALL PROTECTION |
- ## BENCHMARK

CITY OF LAS VEGAS BENCHMARK OC99156

RIVET AND 2" ROUND ALUMINUM DISK IN CONCRETE CYLINDER AT THE SW CORNER OF ALPINE RIDGE WAY & KYLE CANYON RD

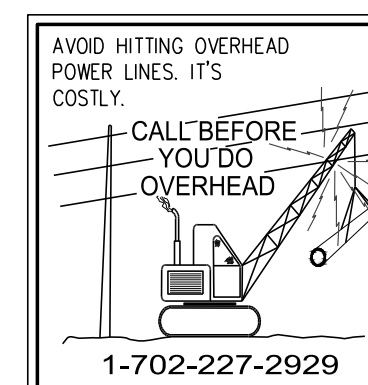
LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDELINES

(REQUIRED FOR ALL SITES GREATER THAN 1 ACRE (43,560 SQ.FT.))

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2. ADDITIONAL CONSTRUCTION SITE DESIGN BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS TO UNFORESSEEN EROSION PROBLEMS. ANY SUCH SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN CLARK COUNTY TITLE 24.40 AND IN THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
3. TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SUCH EXCEPTION MAY APPLY. WE REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NV1900000, SECTION III.A.5.
4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE TRAFFIC, OR EXHAUST DURING AND 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. SUCH EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY. WE REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NV1900000, SECTION III.A.12.
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POST-CONSTRUCTION BMP'S NOTE

POST-CONSTRUCTION BMP'S (PCBMP'S)/CONTROL MEASURES NOTED ON THE GRADING PLANS ARE MANDATORY PERMANENT REGULATORY STORMWATER POLLUTION CONTROLS. THESE PCBMP'S MUST BE INSTALLED PER THE APPROVED PLANS AND MUST BE PERMANENTLY MAINTAINED.



SOILS REPORT

SOILS REPORT BY GEOTEK RESIDENTIAL, LLC
ADDRESS: 6835 S. ESCONDIDO ST., STE. B LAS VEGAS, NV 89119
PHONE: (702) 897-1424
PROJECT NO. 16100-LVR DATED 09/17/2021

EARTHWORKS

EARTHWORK QUANTITIES (RAW):
CUT= 28,551 CU YDS
FILL= 114,244 CU YDS

EXPORTED MATERIAL TO BE DISPOSED OF AT AN APPROVED
LICENSED DISPOSAL FACILITY OR AT A SITE WITH AN APPROVED
AND ACTIVE GRADING PERMIT.

DRAINAGE IMPROVEMENT QUANTITIES

		PRIVATE	PUBLIC
1.	48" TYPE II STORM DRAIN MANHOLE	EA	2
2.	5' TYPE "CM2" DROP INLET	EA	2
3.	17.5' TYPE "CM2" DROP INLET	EA	1
4.	20.0' TYPE "CM2" DROP INLET	EA	2
5.	18" RCP CLASS III STORM DRAIN	LF	96
6.	36" RCP CLASS III STORM DRAIN	LF	50
7.	42" RCP CLASS III STORM DRAIN	LF	27
8.	48" RCP CLASS III STORM DRAIN	LF	174
9.	RIPRAP D50=8", THK=12"	CY	95
10.	RIPRAP D50=8", THK=18"	CY	733
11.	8" WIDE CONCRETE VALLEY GUTTER	SF	4,810
12.	48" RCP NOT DRAIN END SECTION	EA	1

MATCHLINE SEE SHEET G-3

MATCHLINE SEE SHEET G-8

Westwood

Phone (702) 284-5300
5725 W. Badura Ave.
Suite 100
Las Vegas, NV 89118
westwoodps.com
Westwood Professional Services, Inc.

CITY OF LAS VEGAS, NV

tri pointe®
HOMES

RON MOUNTAIN UNIT 1
GRADING PLAN IV

STR 195E

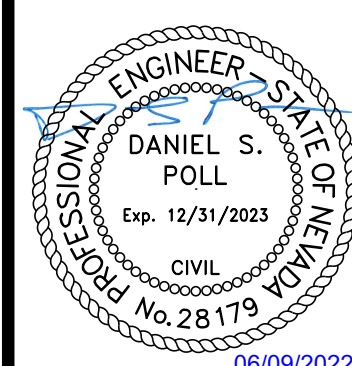
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DESIGNER: ND

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PROJECT NO.
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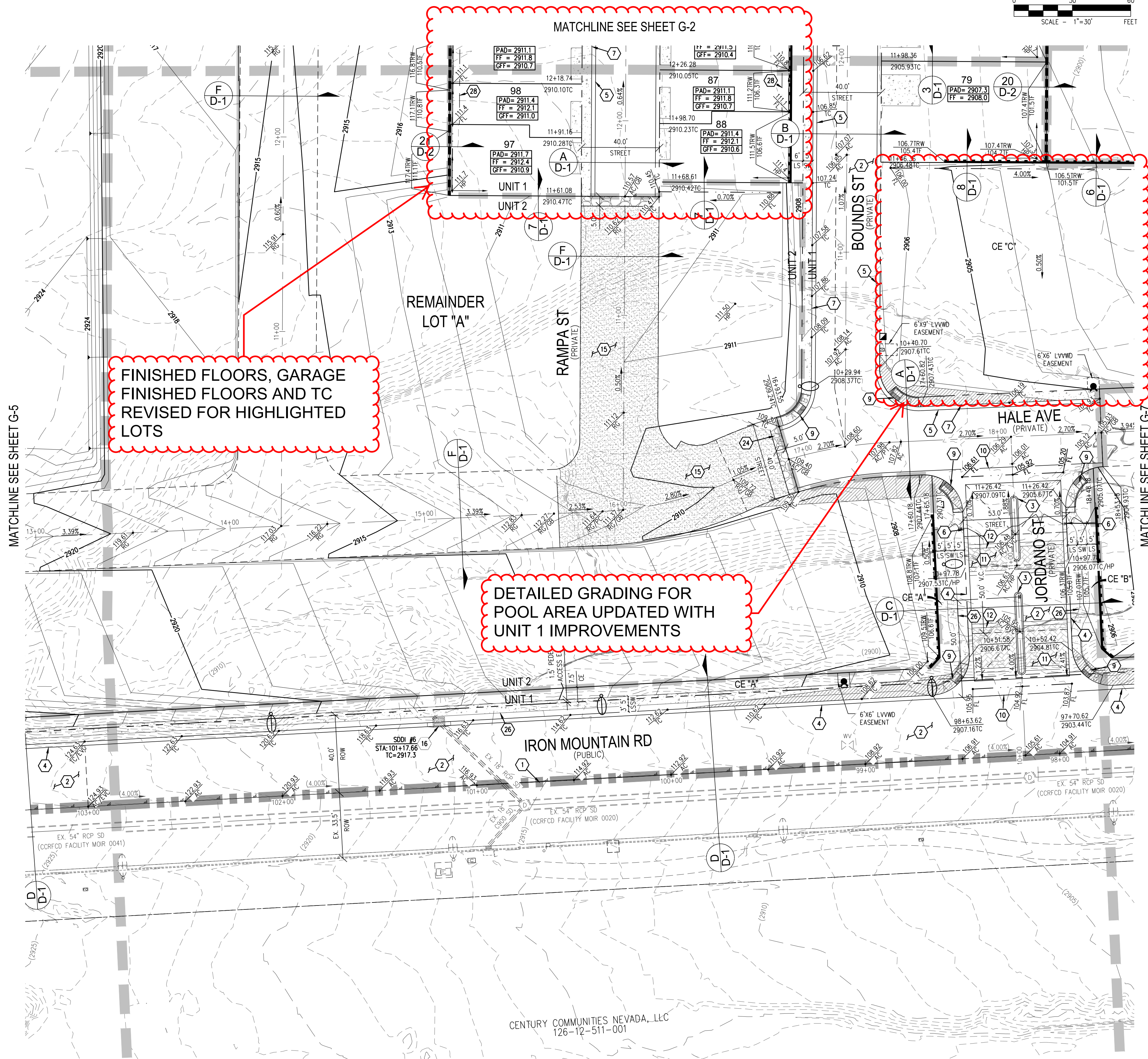
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SHEET 7 OF 43

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MATCHLINE SEE SHEET G-7



SOILS REPORT	
SOILS REPORT BY: GEOTEK RESIDENTIAL, LLC ADDRESS: 6835 S. ESCONDIDO ST. STE. B LAS VEGAS, NV 89119 PHONE: (702) 897-1424 PROJECT NO: 16100-LVR DATED 09/17/2021	
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EARTHWORK QUANTITIES (RAW): CUT= 28,551 CU YDS FILL= 114,244 CU YDS EXPORTED MATERIAL TO BE DISPOSED OF AT AN APPROVED LICENSED DISPOSAL FACILITY OR AT A SITE WITH AN APPROVED AND ACTIVE GRADING PERMIT.	

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12. 48" RCP NDOT END SECTION	EA -	1

HOA NOTE
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ELEVATION NOTE
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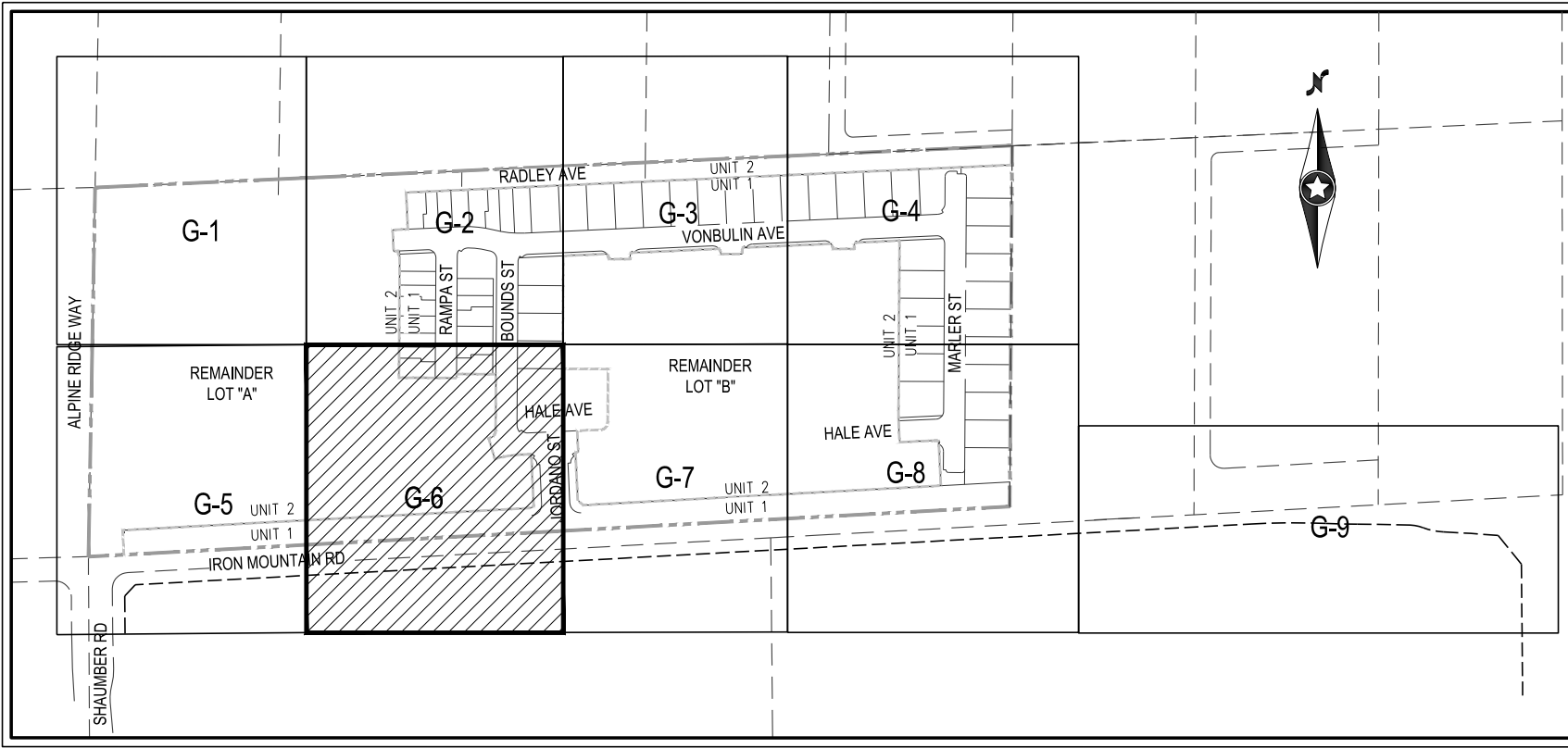
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5. ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED.
6. CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CITY OF LAS VEGAS BUILDING DEPARTMENT.
7. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITY STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. CONTRACTOR TO PROTECT IN PLACE DURING CONSTRUCTION. ENGINEER/OWNER SHALL BE NOTIFIED OF PRIOR DAMAGE TO EXISTING FACILITIES PRIOR TO CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR/REPLACING FACILITIES IF ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION COMMENCING.
8. NO STRUCTURE, VEGETATION, OR OBJECTS OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF THE ADJACENT CURB IF CURB EXIST) WITHIN THE SIGHT VISIBILITY ZONES.

LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDELINES

(REQUIRED FOR ALL SITES GREATER THAN 1 ACRE (43,560 SQ.FT.))
1. THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, THE PUBLIC RIGHTS OF WAY OF CLARK COUNTY AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
2. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN CLARK COUNTY TITLE 24.40 AND IN THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
3. TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY; REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVRI00000, SECTION III.A.5.
4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS, AND ALL BMPs WEEKLY, AND WITHIN 24 HOURS AFTER 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 NVRI00000, SECTION III.A.12.
5. ACCUMULATED SEDIMENT IN BMPs SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.

POST-CONSTRUCTION BMP'S NOTE
POST-CONSTRUCTION BMP'S (PCBMP'S)/CONTROL MEASURES NOTED ON THE GRADING PLANS ARE MANDATORY PERMANENT REGULATORY STORMWATER POLLUTION CONTROLS. THESE PCBMP'S MUST BE INSTALLED PER THE APPROVED PLANS AND MUST BE PERMANENTLY MAINTAINED.



GRADING NOTES
1) MATCH EXISTING IMPROVEMENTS PER CCAUSD NO. 503, 500.4 & 500.5
2) INSTALL ASPHALT PAVEMENT WITH TYPE II AGGREGATE BASE PER STREET DETAILS ON SHEET G-1
3) INSTALL A TYPE CURB PER CCAUSD NO. 219
4) INSTALL L TYPE CURB PER CCAUSD NO. 216
5) INSTALL R TYPE CURB PER CCAUSD NO. 217.3.51
6) CONSTRUCT 10' L-CURB TO R-CURB TRANSITION PER DETAIL ON SHEET D-1
7) CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD NO. 234 (5" THICK W/ 5" TYPE II AGGREGATE BASE)
8) INSTALL NON-EROSIVE LANDSCAPE
9) CONSTRUCT ADA SIDEWALK RAMP USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER CCAUSD NO. 235, CASE 1 A=B=8.0'
10) CONSTRUCT MODIFIED 8" WIDE CROSS GUTTER PER CCAUSD NO. 228
11) INSTALL PAVERS WITH SOLDIER COURSE BANDING
12) INSTALL 2" WIDE CONCRETE STRIP
13) INSTALL WROUGHT IRON FENCE WITH PEDESTRIAN ACCESS GATE
14) INSTALL 48" TYPE II SDMH PER CCAUSD NO. 401 & 405.2 (PUBLIC)
15) INSTALL 4" THICK TYPE II AGGREGATE TO ROUGH GRADE
16) INSTALL 5.0" TYPE "CM2" DROP INLET PER CCAUSD NO. 412.1 AND STORM DRAIN WATER QUALITY MANAGEMENT STAMP PER CCAUSD NO. 421 (PRIVATE)
17) INSTALL 6" THICK COMPACTED DECOMPOSED GRANITE
18) CONSTRUCT 5' WIDE TEMPORARY ASPHALT PAVEMENT SIDEWALK
19) INSTALL 17.5" TYPE "CM2" DROP INLET PER CCAUSD NO. 412.1 AND STORM DRAIN WATER QUALITY MANAGEMENT STAMP PER CCAUSD NO. 421 (PRIVATE)
20) INSTALL 20.0" TYPE "CM2" DROP INLET PER CCAUSD NO. 412.1 AND STORM DRAIN WATER QUALITY MANAGEMENT STAMP PER CCAUSD NO. 421 (PRIVATE)
21) INSTALL 18" CLASS III RCP STORM DRAIN (PUBLIC)
22) INSTALL 36" CLASS III RCP STORM DRAIN (PUBLIC)
23) INSTALL 42" CLASS III RCP STORM DRAIN (PUBLIC)
24) INSTALL 48" CLASS III RCP STORM DRAIN (PUBLIC)
25) INSTALL RIP RAP OVER 12" TYPE II AGGREGATE BASE D50=6", T=12"
26) CONSTRUCT COMMERCIAL DRIVEWAY PER CCAUSD NO. 224
27) CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD NO. 234 (4" THICK W/ 5" TYPE II AGGREGATE BASE)
28) CONSTRUCT 5' WIDE TEMPORARY ASPHALT PAVEMENT SIDEWALK
29) INSTALL 6" PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY HOMEOWNER
30) INSTALL 48" RCP NDOT END SECTION PER NDOT DETAIL R-2.3.1 (PUBLIC)
31) CONSTRUCT 6" THICK COMPACTED DECOMPOSED GRANITE
32) CONSTRUCT 6" CONCRETE OVER 6" TYPE II PATH FOR EMERGENCY VEHICLE ACCESS
33) INSTALL 18" CLASS III RCP STORM DRAIN (PRIVATE)
34) INSTALL 36" CLASS III RCP STORM DRAIN (PRIVATE)
35) INSTALL RIP RAP OVER 12" TYPE II AGGREGATE BASE D50=8", T=16"
36) INSTALL TEMPORARY FENCE FOR PEDESTRIAN FALL PROTECTION

BENCHMARK
CITY OF LAS VEGAS BENCHMARK 0C99156
RIVET AND 2" ROUND ALUMINUM DISK IN CONCRETE CYLINDER AT THE SW CORNER OF ALPINE RIDGE WAY & KYLE CANYON RD
ELEVATION=2928.24 US FEET, 892.53 METERS NAVD83 DATUM

BASIS OF BEARINGS
NORTH 86°52'17" EAST BEING THE BEARING OF THE SOUTH LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF THE SOUTHWEST QUARTER (SE 1/4) OF SECTION 1, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE IN BOOK 169, PAGE 72 OF PLATS.

FLOOD ZONE
PER THE FEMA FIRM PANEL MAP 32003C1750E, DATED SEPTEMBER 27, 2002, THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED UNSHADED ZONE "X". AN UNSHADED ZONE "X" IS LOCATED OUTSIDE THE 0.20% ANNUAL CHANCE FLOODPLAIN.

FLOOD CERTIFICATION
I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY ON FILE AT CITY OF LAS VEGAS FOR THIS SUBJECT PROJECT (0555008).
DANIEL S. POLL, P.E. 28179 06/09/2022 DATE

CALL SOUTHWEST GAS AT 702-651-2111 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES

Westwood
5725 W. Badura Ave.
Suite 100
Las Vegas, NV 89118
Phone (702) 284-5300
westwoodps.com
Westwood Professional Services, Inc.

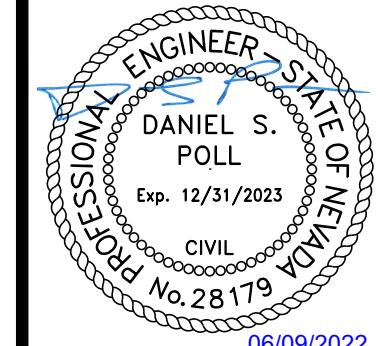
DATE	BY	APP.
DESCRIPTION	NO.	

CITY OF LAS VEGAS, NV

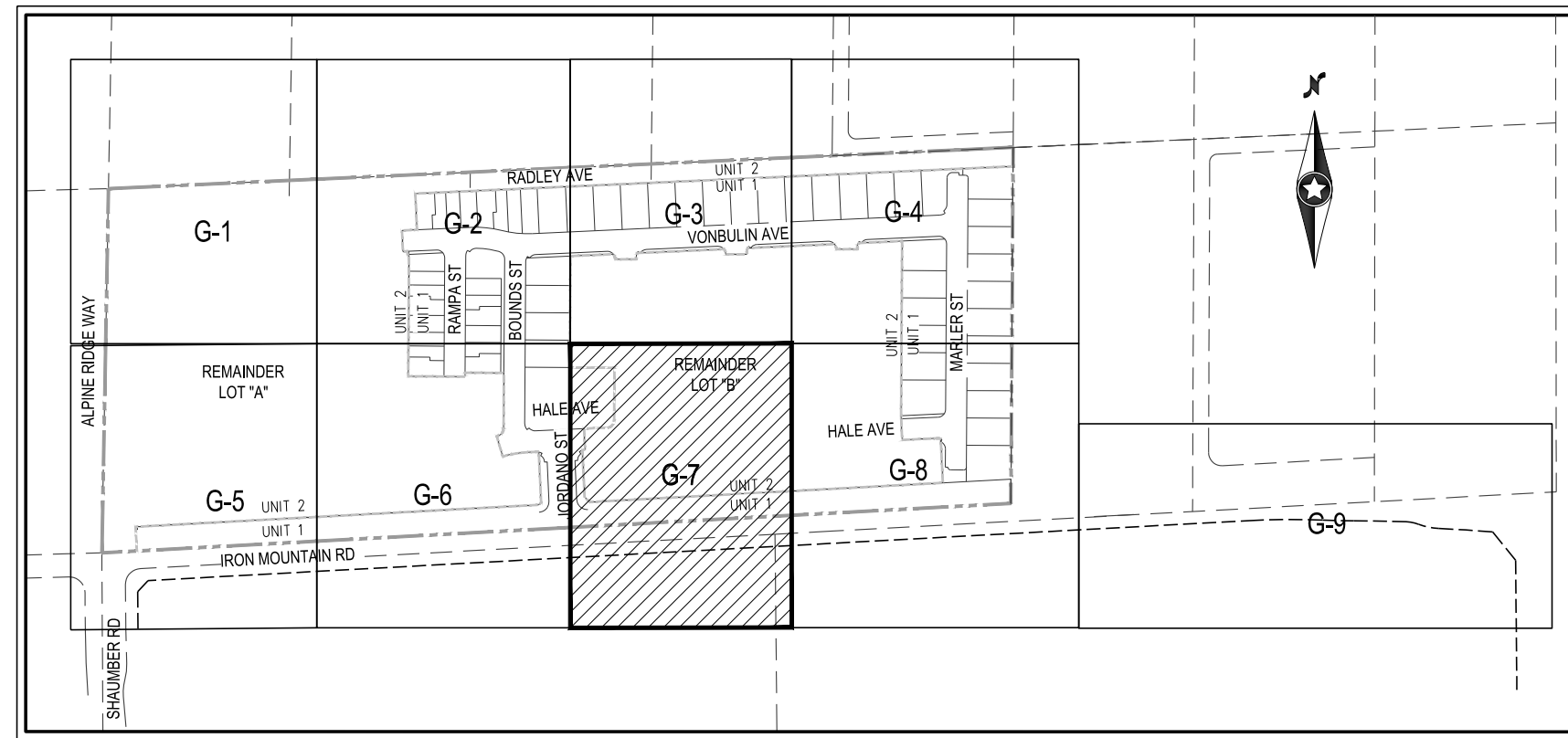
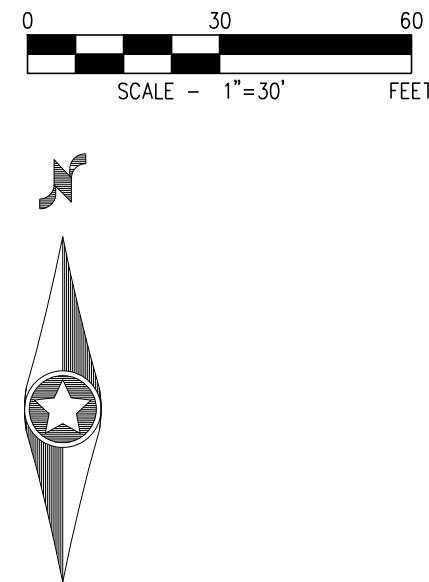
tri pointe HOMES
IRON MOUNTAIN UNIT 1
GRADING PLAN VI

DATE: 06/06/2022

DRAFTER: ND
DESIGNER: ND
CHECKED: OIO
PROJECT NO. TRI2101-000



G-6
SHEET 9 OF 43



ALL ONSITE STORM DRAIN FACILITIES WITHIN THIS DEVELOPMENT SHALL BE PRIVATELY MAINTAINED BY THE HOA. ALL PRIVATE STREETS ARE P.U.E., PUBLIC SEWER EASEMENT AND PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY HOA.

OWNER RESPONSIBLE TO PROVIDE SURVEY MONUMENTATION AS SHOWN AND TO REPLACE ALL SURVEY MONUMENTATION DAMAGED, DISTURBED, DESTROYED, OR OBSCURED DURING CONSTRUCTION.

ADD 2800 TO ALL SPOT GRADES WHERE THE HUNDREDS AND THOUSANDS PLACES ARE OMITTED FOR ACTUAL ELEVATION (I.E. 01.00 REPRESENTS 2801.00)

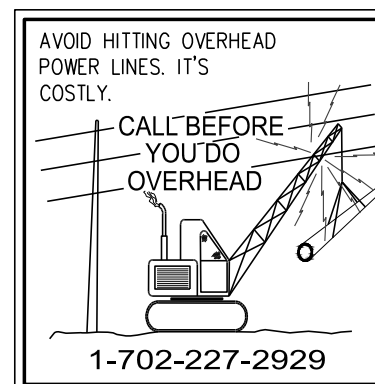
- 1) EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN IN THEIR PROPOSED LOCATION.
- 2) FOR ROADWAY WIDENING AND HALF STREET IMPROVEMENTS THE CONTRACTOR SHALL VERIFY CROSS SLOPES FROM EXISTING PAVEMENT SWALLOW LINE TO PROPOSED EDGE OF PAVEMENT OR PROTECTED CURB LINE PRIOR TO SUBGRADE PREPARATION AND CONSTRUCTION OF PROPOSED CURB LINE. IF MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET AGENCY STANDARDS THE CONTRACTOR SHALL NOTIFY THE ENGINEER.

1. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER.
2. ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SWPPP.
3. MAXIMUM/MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
4. SEE DETAIL SHEET FOR STREET SECTIONS AND DETAILS.
5. ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED.
6. CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CITY OF LAS VEGAS BUILDING DEPARTMENT.
7. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITY STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. CONTRACTOR TO PROTECT IN PLACE DURING CONSTRUCTION. ENGINEER/OWNER SHALL BE NOTIFIED OF PRIOR DAMAGE TO EXISTING FACILITIES PRIOR TO CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR/REPLENISHING FACILITIES. ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION COMMENCING.
8. NO STRUCTURE, VEGETATION, OR OBJECTS OF ANY KIND IS CURBED OVER TWENTY-FOUR (24) INCHES HEIGHT MEASURED FROM THE TOP OF THE ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.

(REQUIRED FOR ALL SITES GREATER THAN 1 ACRE (43,560 SQ.FT.))

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3. TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRAGMATIC TO PREVENT EROSION. WHEN CONSTRUCTION OF ANY 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 NVRI00000, SECTION III.A.5.
4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, VEGETATION, 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 STABILIZATION PRACTICES AS NECESSARY TO PREVENT EROSION. INSPECTIONS MAY APPLY, SUCH AS SUSPENSION OF LAND DISTURBANCE ACTIVITIES, REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVRI00000, SECTION III.A.12.
5. ACCUMULATED SEDIMENT IN BMPs SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.

POST-CONSTRUCTION BMP'S (PCBMP'S)/CONTROL MEASURES NOTED ON THE GRADING PLANS ARE MANDATORY PERMANENT REGULATORY STORMWATER POLLUTION CONTROLS. THESE PCBMP'S MUST BE INSTALLED PER THE APPROVED PLANS AND MUST BE PERMANENTLY MAINTAINED.



Call before you Dig
AVOID CUTTING UNDERGROUND
UTILITY LINES. IT'S COSTLY.
Call

OR
1-800-642-2444

- 3 MATCH EXISTING IMPROVEMENTS PER CAUSD NO. 503, 504 & 500.5
- 4 INSTALL ASPHALT PAVEMENT WITH TYPE I AGGREGATE BASE PER STREET
- 5 DETAILS ON SHEET D-1
- 6
- 7 INSTALL A TYPE CURB PER CAUSD NO. 219
- 8
- 9 INSTALL L TYPE CURB PER CAUSD NO. 216
- 10
- 11 INSTALL R TYPE CURB PER CAUSD NO. 217, 213.51
- 12
- 13 CONSTRUCT 10' L-CURB TO R-CURB TRANSITION PER DETAIL ON SHEET D-1
- 14 CONSTRUCT 5' SIDEWALK PER CAUSD NO. 234 (5" THICK W/ 5" TYPE
- 15 I AGGREGATE BASE)
- 16
- 17 NON-EROSIVE LANDSCAPE
- 18 CONSTRUCT SIDEWALK RAISING ABOVE THE TRUNCATED DOMES OR
- 19 EQUIVALENT PER CAUSD NO. 235, CASE 1: A+B=8.0
- 20 CONSTRUCT MODIFIED B' 6" WIDE CROSS GUTTER PER CAUSD NO. 228
- 21
- 22 INSTALL PAVERS WITH SOLDIER COURSE BANDING
- 23
- 24 INSTALL 2" WIDE CONCRETE STRIP
- 25
- 26 INSTALL WROUGHT IRON FENCE WITH PEDESTRIAN ACCESS GATE
- 27
- 28 INSTALL 48" TYPE I SDHM PER CAUSD NO. 401 & 405.2 (PUBLIC)
- 29
- 30 INSTALL 4" THICK TYPE II AGGREGATE TO ROUGH GRADE
- 31
- 32 INSTALL 5.0" TYPE "CM2" DROP INLET PER CAUSD NO. 412.1 AND STORM DRAIN
- 33 WATER QUALITY MANAGEMENT STAMP PER CAUSD NO. 421 (PRIVATE)
- 34
- 35 INSTALL 18" CLASS III RCP STORM DRAIN PER CAUSD NO. 425.51
- 36
- 37 INSTALL 17.5" TYPE "CM2" DROP INLET PER CAUSD NO. 412.1 AND STORM DRAIN
- 38 WATER QUALITY MANAGEMENT STAMP PER CAUSD NO. 421 (PRIVATE)
- 39
- 40 INSTALL 20.0" TYPE "CM2" DROP INLET PER CAUSD NO. 412.1 AND STORM DRAIN
- 41 WATER QUALITY MANAGEMENT STAMP PER CAUSD NO. 421 (PRIVATE)
- 42
- 43 INSTALL 18" CLASS III RCP STORM DRAIN (PUBLIC)
- 44
- 45 INSTALL 36" CLASS III RCP STORM DRAIN (PUBLIC)
- 46
- 47 INSTALL 42" CLASS III RCP STORM DRAIN (PUBLIC)
- 48
- 49 INSTALL 48" CLASS III RCP STORM DRAIN (PUBLIC)
- 50
- 51 INSTALL RIP RAP OVER 12" TYPE I AGGREGATE BASE D50=6", T=12"
- 52
- 53 CONSTRUCT COMMERCIAL DRIVEWAY PER CAUSD NO. 224
- 54
- 55 CONSTRUCT 5" WIDE SIDEWALK PER CAUSD NO. 234 (4" THICK W/ 5" TYPE
- 56 I AGGREGATE BASE)
- 57 CONSTRUCT 5" TEMPORARY ASPHALT PAVEMENT SIDEWALK
- 58 5" PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY
- 59 HOMEOWNER
- 60
- 61 INSTALL 48" RCP NOTOD END SECTION PER NOTOD DETAIL R-2.31 (PUBLIC)
- 62
- 63 INSTALL 6" RCP COMPACTED DECOMPOSED GRASS
- 64
- 65 CONSTRUCT 6" CONCRETE OVER 6" TYPE I PATH FOR EMERGENCY
- 66 VEHICLE ACCESS
- 67
- 68 INSTALL 36" CLASS III RCP STORM DRAIN (PRIVATE)
- 69
- 70 INSTALL 18" CLASS III RCP STORM DRAIN (PRIVATE)
- 71
- 72 INSTALL RIP RAP OVER 12" TYPE I AGGREGATE BASE D50=8", T=16"
- 73
- 74 INSTALL TEMPORARY FENCE FOR PEDESTRIAN FALL PROTECTION

CITY OF LAS VEGAS BENCHMARK OC99156

RIVET AND 2" ROUND ALUMINUM DISK IN CONCRETE CYLINDER AT THE SW CORNER OF
ALPINE RIDGE WAY & KYLE CANYON RD

ELEVATION=2928.24 US FEET, 892.53 METERS NAVD'88 DATUM

NORTH 86°52'17" EAST BEING THE BEARING OF THE SOUTH LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 1, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE IN BOOK 160, PAGE 72 OF PLATS.

PER THE FEMA FIRM PANEL MAP 32003C1750E, DATED SEPTEMBER 27, 2002. THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED UNSHADED ZONE 'X'. AN UNSHADED ZONE 'X' IS LOCATED OUTSIDE THE 0.20% ANNUAL CHANCE FLOODPLAIN.

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED
DRAINAGE STUDY ON FILE AT CITY OF LAS VEGAS FOR THIS SUBJECT PROJECT
(D55508).

DANIEL S. POLL, P.E. 28179	06/09/2022
DATE	

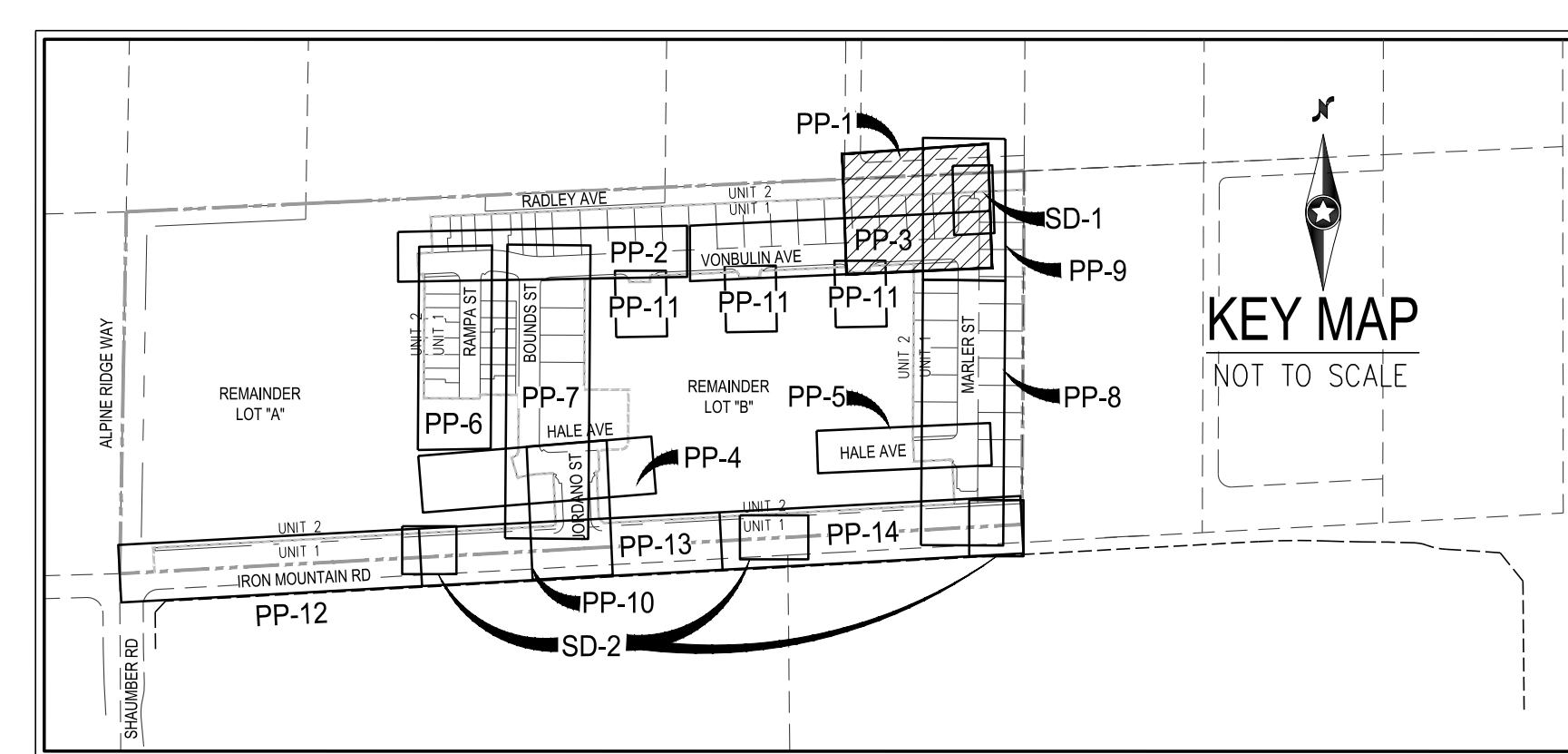
CALL SOUTHWEST GAS AT 702-651-2111 FOR
STANDBY WHEN EXCAVATING OVER OR NEAR HIGH
PRESSURE GAS LINES

SOILS REPORT BY: GEOTEK RESIDENTIAL, LLC
ADDRESS: 6835 S. ESCONDIDO ST., STE. B LAS VEGAS, NV 89119
PHONE: (702) 897-1424
PROJECT NO. 16100-LVR DATED 09/17/2021

EARTHWORK QUANTITIES (RAW):
CUT= 28,551 CU YDS
FILL= 114,244 CU YDS

EXPORTED MATERIAL TO BE DISPOSED OF AT AN APPROVED
LICENSED DISPOSAL FACILITY OR AT A SITE WITH AN APPROVED
AND ACTIVE GRADING PERMIT.

		PRIVATE	PUBLIC
1.	48" TYPE II STORM DRAIN MANHOLE	EA	2
2.	5' TYPE "CM2" DROP INLET	EA	2
3.	17.5' TYPE "CM2" DROP INLET	EA	1
4.	20.0' TYPE "CM2" DROP INLET	EA	2
5.	18" RCP CLASS III STORM DRAIN	LF	96
6.	36" RCP CLASS III STORM DRAIN	LF	50
7.	42" RCP CLASS III STORM DRAIN	LF	27
8.	48" RCP CLASS III STORM DRAIN	LF	174
9.	RIPRAP D50=6", THK=12"	CY	95
10.	RIPRAP D50=8", THK=18"	CY	733
11.	8" WIDE CONCRETE VALLEY GUTTER	SF	4,810
12.	48" RCP NDOT END SECTION	EA	1



SURVEY NOTE
OWNER RESPONSIBLE TO PROVIDE SURVEY MONUMENTATION AS SHOWN AND TO REPLACE ALL SURVEY MONUMENTATION DAMAGED, DISTURBED, DESTROYED, OR OBSCURED DURING CONSTRUCTION.

1	EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL UTILITIES SHOWN ARE CORRECT. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.	15	INSTALL 50" TYPE "CM2" DROP INLET PER CAUSD NO. 4121 AND STORM DRAIN WATER QUALITY MANAGEMENT STAMP PER CAUSD NO. 421 (PRIVATE)
2	FOR ROADWAY WIDENING AND HALF STREET IMPROVEMENTS THE CONTRACTOR SHALL VERIFY CROSS SLOPES FROM EXISTING PAVEMENT SAWCUT LINE TO PROPOSED EDGE OF PAVEMENT OR PROJECTED CURB PRIOR TO SUBGRADE PREPARATION AND CONSTRUCTION OF PROPOSED CURB LINE. IF MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET AGENCY STANDARDS THE CONTRACTOR SHALL NOTIFY THE ENGINEER.	16	INSTALL 50" TYPE "CM2" DROP INLET PER CAUSD NO. 4121 AND STORM DRAIN WATER QUALITY MANAGEMENT STAMP PER CAUSD NO. 421 (PRIVATE)
		17	INSTALL WROUGHT IRON FENCE WITH 200' ACCESS GATE PER CAUSD NO. 425.5(S)
		18	INSTALL 7.5" TYPE "CM2" DROP INLET PER CAUSD NO. 4121 AND STORM DRAIN WATER QUALITY MANAGEMENT STAMP PER CAUSD NO. 421 (PRIVATE)
		19	INSTALL 20" TYPE "CM2" DROP INLET PER CAUSD NO. 4121 AND STORM DRAIN WATER QUALITY MANAGEMENT STAMP PER CAUSD NO. 421 (PRIVATE)
		20	INSTALL 18" CLASS III RCP STORM DRAIN (PUBLIC)
		21	INSTALL 36" CLASS III RCP STORM DRAIN (PUBLIC)
		22	INSTALL 48" CLASS III RCP STORM DRAIN (PUBLIC)
		23	INSTALL 42" CLASS III RCP STORM DRAIN (PUBLIC)

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

27) CONSTRUCT 3" WIDE TEMPORARY ASPHALT PAVEMENT SIDEWALK
28) PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY HOMEOWNER
29) INSTALL 48" RCP NODD END SECTION PER NODD DETAIL R-2.31 (PUBLIC)
30) INSTALL 6" THICK COMPACTED CEMENTED PORTLAND CEMENT GRANITE
31) CONSTRUCT 6" CONCRETE OVER 6" TYPE II PATH FOR EMERGENCY VEHICLE ACCESS

1. THE LJVWD CANNOT GUARANTEE A WATERTIGHT SHUTDOWN WHERE CONNECTIONS OR REPAIRS TO EXISTING FACILITIES ARE REQUIRED. THE CONTRACTOR SHALL ENSURE ALL LABOR AND EQUIPMENT IS AVAILABLE TO REMOVE REMAINING WATER. COORDINATION WITH INSPECTION DIVISION MUST TAKE PLACE PRIOR TO ANY TIAL SHUTDOWN. CONTRACTOR TO INSTALL TEMPORARY SERVICE TO ENSURE PROPER SHUTDOWN. IN EVENT NO OTHER APPOINTMENTANCES ARE AVAILABLE.

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

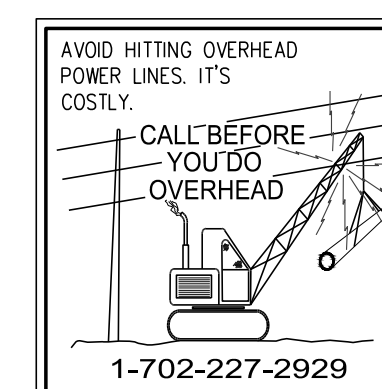
BENCHMARK
CITY OF LAS VEGAS BENCHMARK 0C91956

1	FIELD VERIFY INVERT, SAWCUT & CONNECT TO EXISTING SEWER LINE	BASIS OF BEARINGS NORTH 88°52' EAST BEING THE BEARING OF THE SOUTH LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 1, TOWNSHIP 19 SOUTH, RANGE 50 EAST, M.D., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE IN BOOK 160, PAGE 72 OF PLATS.
2	INSTALL WATERIGHT 48" STANDARD MANHOLE PER DCSWCS 50-10, 50-3, 50-4, 50-5 WITH SINGLE 24" x 24" x 24" MANHOLE	
3	INSTALL 8" PVC SANITARY SEWER PIPE (PUBLIC)	
4	INSTALL 4" SDR35 PVC SEWER LATERAL PER DCSWCS 50-20, 50-21, AND 50-23	
5	INSTALL SANITARY SEWER CLEANOUT WITH TRAFFIC RATED UO IN DRIVEWAY PER DCSWCS 50-24	
6	MANHOLE SHALL BE CORROSION PROTECTED WITH FIELD APPLIED COATING PER DCSWCS SECTION 3.16.08	
7	INSTALL 4" SDR35 PVC SEWER LATERAL TO FUTURE LOT PER DCSWCS 50-20 & 50-23	
8	INSTALL 8" SANITARY SEWER CAP	

RAMP NUMBER	GRADE (%) "B" TO "A"	"A" (FT) MIN.	"B" (FT) MIN.
1	-6 TO -5	4.5	21.5
2	-5 TO -4.01	4.5	15.0
3	-4 TO -3.01	4.5	12.0
4	-3 TO -2.01	4.5	9.5
5	-2 TO 2	8.0	8.0
6	2.01 TO 3	9.5	4.5
7	3.01 TO 4	12.0	4.5
8	4.01 TO 5	15.0	4.5
9	5.01 TO 6	21.5	4.5

CURVE TABLE				
CURVE	LENGTH	RADIUS	DELTA	TANGENT
C14	7.85'	5.00'	90°00'00"	5.00'
C17	7.85'	5.00'	90°00'00"	5.00'
C19	30.39'	20.00'	87°02'49"	18.99'
C91	32.45'	20.00'	92°57'11"	21.06'
C97	30.39'	20.00'	87°02'49"	18.99'
C100	32.45'	20.00'	92°57'11"	21.06'

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICE
PROJECT NO. 139879 FIRST APPROVED DATE: _____



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& D O O

OR
1-800-642-2444

Phone (702) 284-5300
5725 W. Badura Ave.
Suite 100
Las Vegas, NV 89118
westwoodps.com
Westwood Professional Services, Inc.

[illegible]

CITY OF LAS VEGAS, NV

tri pointe[®]
HOMES

IRON MOUNTAIN UNIT 1

PLAN AND PROFILE - RADLEY AVE STA 33+50 TO 37+50

STR 19 SE

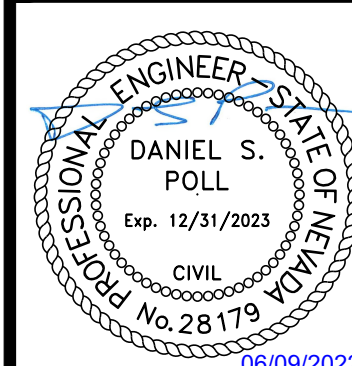
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DESIGNER: ND

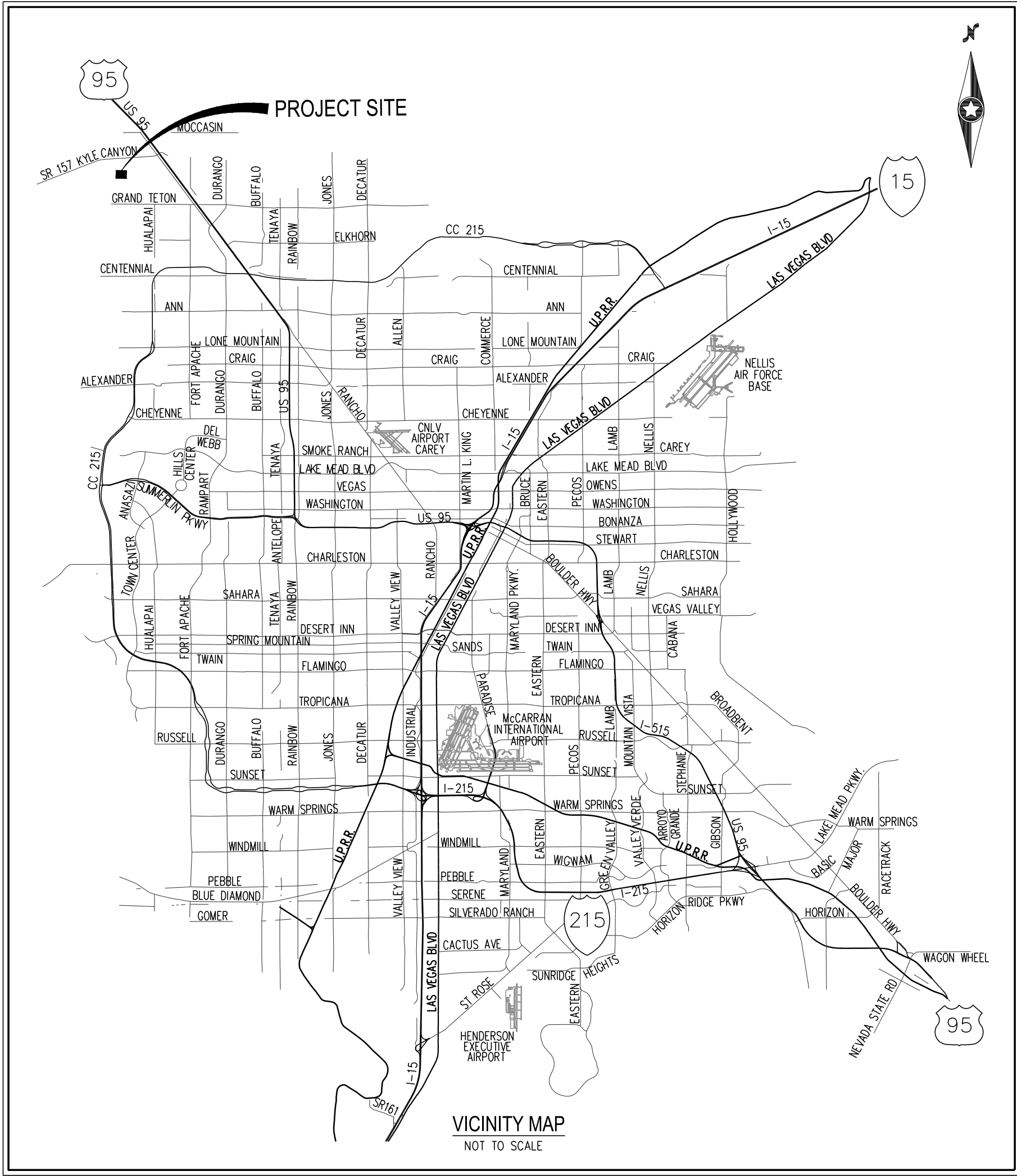
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PROJECT NO.
TRI2101-000



PP-1

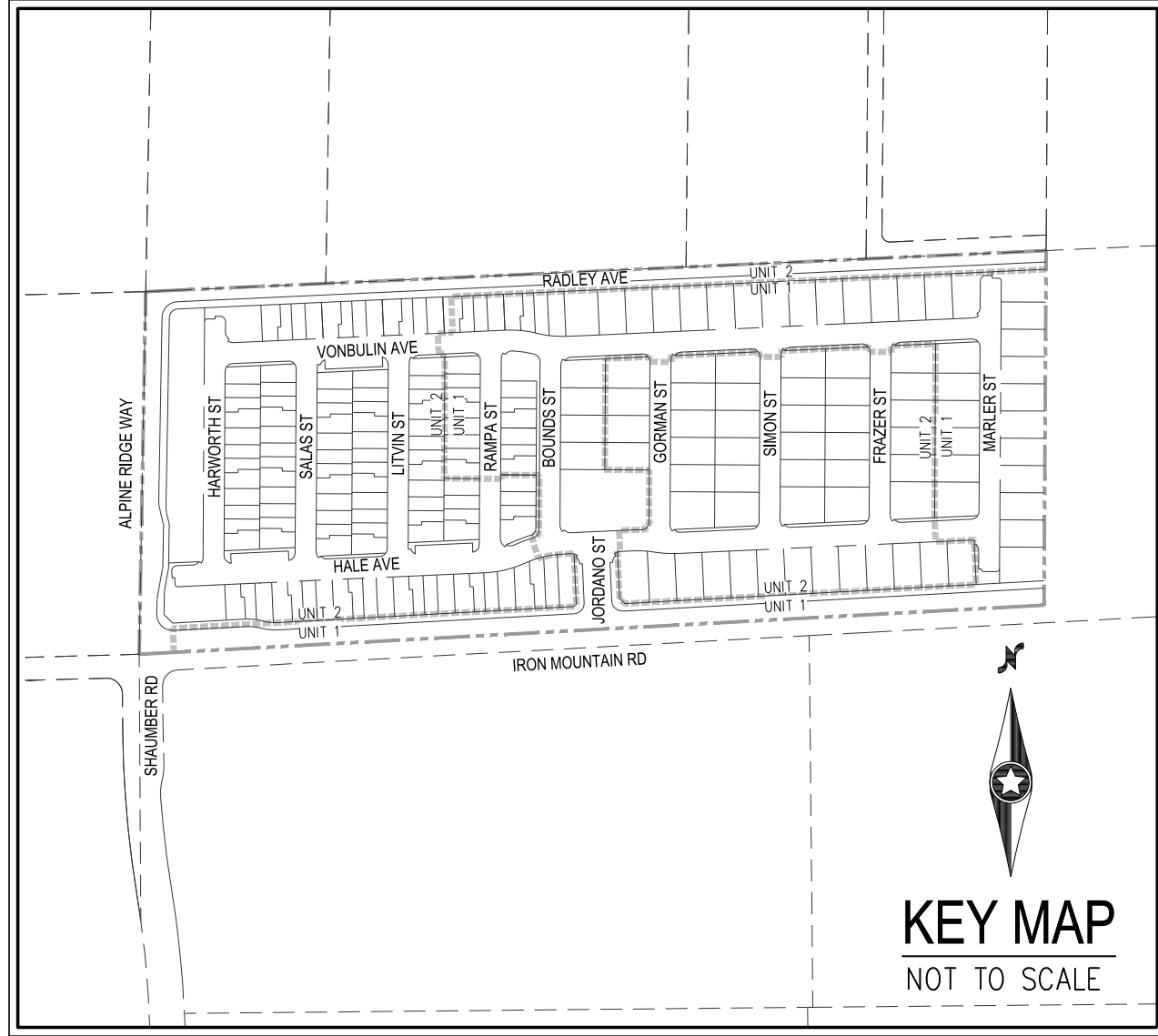
SHEET 17 OF 43



tri pointe HOMES

IMPROVEMENT PLANS FOR IRON MOUNTAIN UNIT 2

CITY OF LAS VEGAS, NEVADA
RESIDENTIAL SUBDIVISION
APN: 126-01-801-010, 126-01-801-011, 126-01-801-012, 126-01-801-013,
126-01-801-014, 126-01-801-015, 126-01-801-016



LEGAL DESCRIPTION

(APN: 126-01-801-010):
THE NORTHWEST QUARTER (NW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 1, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.

EXCEPTING THEREFROM THAT PORTION AS CONVEYED TO CLARK COUNTY BY DEED RECORDED JUNE 5, 1979, IN BOOK 1066 AS DOCUMENT NO. 1025476, OF OFFICIAL RECORDS.

ALSO KNOWN AS LOT ONE (1), AS DELINEATED ON THAT CERTAIN CERTIFICATE OF LAND DIVISION 54-79, RECORDED JUNE 5, 1979, IN BOOK 1066 AS DOCUMENT NO. 1025475, OF OFFICIAL RECORDS.

TOGETHER WITH:

(APN: 126-01-801-011):
THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 1, TOWNSHIP 19 SOUTH, RANGE 59, EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.

EXCEPTING THEREFROM THOSE PORTIONS AS CONVEYED TO CLARK COUNTY, BY A DEED RECORDED JUNE 5, 1979 IN BOOK 1066 AS DOCUMENT NO. 1025476, OF OFFICIAL RECORDS, CLARK COUNTY, NEVADA.

ALSO KNOWN AS LOT TWO (2), OF THAT CERTAIN CERTIFICATE OF LAND DIVISION RECORDED JUNE 5, 1979 AS DOCUMENT NO. 1025475, OF OFFICIAL RECORDS.

TOGETHER WITH:

(APN: 126-01-801-012):
THE EAST HALF (E 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 1, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.

EXCEPTING THEREFROM THAT PORTION CONVEYED TO CLARK COUNTY BY THAT CERTAIN GRANT, BARGAIN, SALE DEED RECORDED AUGUST 1, 1979, IN BOOK 1095, AS INSTRUMENT NO. 1054704, IN THE OFFICE OF THE COUNTY RECORDER OF CLARK COUNTY, NEVADA.

TOGETHER WITH:

(APN: 126-01-801-013):
THE NORTHWEST QUARTER (NW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 1, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.

EXCEPTING THEREFROM THAT PORTION AS CONVEYED TO CLARK COUNTY BY THAT CERTAIN GRANT, BARGAIN, SALE DEED RECORDED AUGUST 1, 1979 IN BOOK 1095 AS INSTRUMENT NO. 1054704, OFFICIAL RECORDS.

ALSO KNOWN AS LOT ONE (1) 1 OF THAT CERTAIN CERTIFICATE OF LAND DIVISION RECORDED JULY 25, 1979 AS DOCUMENT NO. 1050600 OF OFFICIAL RECORDS, CLARK COUNTY, NEVADA.

TOGETHER WITH:

(APN: 126-01-801-014):
THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 1, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.

EXCEPTING THEREFROM THAT PORTION CONVEYED TO CLARK COUNTY BY THAT CERTAIN GRANT, BARGAIN, SALE DEED RECORDED AUGUST 1, 1979, IN BOOK 1095, AS INSTRUMENT NO. 1054704, IN THE OFFICE OF THE COUNTY RECORDER OF CLARK COUNTY, NEVADA.

TOGETHER WITH:

(APN: 126-01-801-015):
THE EAST HALF (E 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 1, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.

EXCEPTING THEREFROM THAT PORTION CONVEYED TO CLARK COUNTY BY THAT CERTAIN GRANT, BARGAIN, SALE DEED RECORDED AUGUST 1, 1979, IN BOOK 1095, AS INSTRUMENT NO. 1054704, IN THE OFFICE OF THE COUNTY RECORDER OF CLARK COUNTY, NEVADA.

TOGETHER WITH:

(APN: 126-01-801-016):
THE WEST HALF (W 1/2) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 1, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.

M.O.U. ITEMS

- 21-0315-TMP1, 8/19/2021
- MINIMUM STREET WIDTH OF 13' WITH PARKING FOR PARKING ON BOTH SIDES MEASURED TO FACE OF CURB
- SIDEWALK REQUIRED ON ONE SIDE OF INTERIOR PRIVATE GATED STREETS
- STREET LIGHTS ON PRIVATE STREETS WITHIN SINGLE FAMILY SUBDIVISIONS SHALL NOT BE REQUIRED
- DRIVEABLE EMERGENCY ACCESS REDUCED TO 18'

DEVIATIONS FROM STANDARDS

- VARIANCES PER 21-0315 AND 21-0657:
 - R-TH SETBACKS FOR ATTACHED PRODUCTS (LOTS 83-226):
 - ALLOW 3' FRONT SETBACK
 - ALLOW STUB STREET WHERE CUL-DE-SACS ARE REQUIRED
 - ALLOW MAX. WALL HEIGHT OF 18' WHERE 12' IS ALLOWED
- ALLOW OFFSET ROAD CROWN

SWPPP NOTE

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

TOTAL DISTURBED AREA

25.37 ACRES

PROJECT INFORMATION

ACREAGE (GROSS): = 25.37 AC
ACREAGE (NET): = 23.2 AC
ACREAGE (NET-NET): = 23.2 AC
DENSITY (LOTS/NET ACRE): = 9.74 DU/NET AC
ZONING: = R-TH
TOTAL NO. OF RESIDENTIAL LOTS = 226
TOTAL NO. OF COMMON ELEMENTS = 23
MINIMUM LOT SIZE = 1,607 SF±
MAXIMUM LOT SIZE = 5,970 SF±
PROVIDED OPEN SPACE = 75,903 SF±

EARTHWORK SUMMARY (UNADJUSTED)

CUT = 27,878 CY.
FILL = 127,295 CY.
NET (FILL) = 99,417 CY.

GEOTECHNICAL ENGINEER

PREPARED BY: GEOTEK RESIDENTIAL, LLC
ADDRESS: 6835 S. ESCONDIDO ST., STE. B LAS VEGAS, NV 89119
PHONE: (702) 897-1424
PROJECT NO: 16100-LVR
DATED: 09/17/2021

SHEET INDEX

NO.	Sheet Number	Sheet Title
1	C-1	COVER SHEET
2	C-2	GENERAL NOTES
3	C-3	LEGEND, ABBREVIATIONS, & QUANTITIES
4	G-1	GRADING PLAN I
5	G-2	GRADING PLAN II
6	G-3	GRADING PLAN III
7	G-4	GRADING PLAN IV
8	G-5	GRADING PLAN V
9	G-6	GRADING PLAN VI
10	G-7	GRADING PLAN VII
11	G-8	GRADING PLAN VIII
12	G-9	GRADING PLAN IX - TEMPORARY AC SIDEWALK
13	D-1	DETAIL SHEET I
14	D-2	DETAIL SHEET II
15	PP-1	PLAN AND PROFILE - SDDI 1 & 2
16	PP-2	PLAN AND PROFILE - SDDI 3, 4 & 5
17	PP-3	PLAN AND PROFILE - SDDI 6, 7 & 8
18	PP-4	PLAN AND PROFILE - RADLEY AVE STA 19+00 TO 25+00
19	PP-5	PLAN AND PROFILE - RADLEY AVE STA 25+00 TO 30+50
20	PP-6	PLAN AND PROFILE - RADLEY AVE STA 30+50 TO 34+00
21	PP-7	PLAN AND PROFILE - RADLEY AVE STA 34+00 TO 37+50

APPROVALS

CLV ENGINEERING OFFICE

CLV FIRE & RESCUE

CLV PLANNING DEPARTMENT

CENTRAL TELEPHONE CO. DBA CENTURYLINK DATE

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

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PLANNING AND ENGINEERING SERVICES
PROJECT NO. 139879 FIRST APPROVED DATE:
LVWD APPROVED FIRE FLOW 1,500 GPM AT 20 PSI RESIDUAL
MAXIMUM AVAILABLE FIRE SPRINKLER FLOW 30 GPM

SHEETS: C-1 THRU C-3, D-2, PP-1 THRU PP-7

NV ENERGY DATE

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

SOUTHWEST GAS CORPORATION SWG UID DATE

COX COMMUNICATIONS LAS VEGAS, INC. DATE

BENCHMARK

CITY OF LAS VEGAS BENCHMARK 0C99156

RIVET AND 2" ROUND ALUMINUM DISK IN CONCRETE
CYLINDER AT THE SW CORNER OF ALPINE RIDGE WAY & KYLE CANYON RD
ELEVATION=2928.24 US FEET, 892.53 METERS NAVD'83 DATUM

BASIS OF BEARINGS

NORTH 86°52'17" EAST BEING THE BEARING OF THE SOUTH LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 1, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE IN BOOK 160, PAGE 72 OF PLATS.

OWNER/DEVELOPER

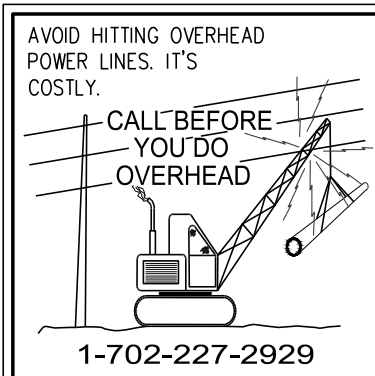
TRI POINTE HOMES NEVADA, INC.
4675 W. TECO AVE., SUITE 115
LAS VEGAS, NV 89118
PH: (702) 614-1400
FX: (702) 873-6881
CONTACT: JIM JORDANO

ENGINEER

WESTWOOD PROFESSIONAL SERVICES
5725 W. BADURA AVE., SUITE 100
LAS VEGAS, NV 89118
PH: (702) 284-5300
FX: (702) 284-5399
CONTACT: DAN POLL

FEMA FLOOD ZONE INFORMATION

PER THE FEMA FIRM PANEL MAP 32003C1750E, DATED SEPTEMBER 27, 2002, THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED UNSHADED ZONE 'X'. AN UNSHADED ZONE 'X' IS LOCATED OUTSIDE THE 0.20% ANNUAL CHANCE FLOODPLAIN.



Digitally signed
by Daniel S. Poll,
P.E.
Date: 2022.06.09
15:14:15-07'00'

Westwood

5725 W. Badura Ave.
Suite 100
Las Vegas, NV 89118
Phone (702) 284-5300
westwoodps.com
Westwood Professional Services, Inc.

CITY OF LAS VEGAS, NV

tri pointe
HOMES
IRON MOUNTAIN UNIT 2
COVER SHEET

51
119
199

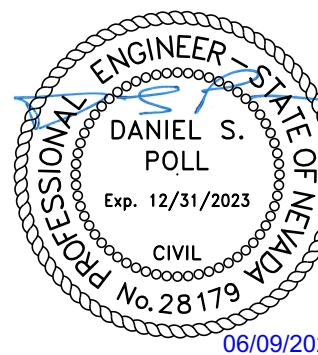
DATE: 04/20/2022

DRAFTER: ND

DESIGNER: ND

CHECKED: IOQ

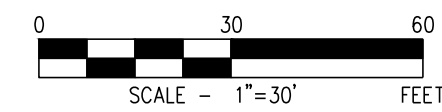
PROJECT NO.
TRI2101-000



C-1

SHEET 1 OF 21

CURBLINE SHIFTED FOR
RADLEY AVENUE



ALL ONSITE STORM DRAIN FACILITIES WITHIN THIS DEVELOPMENT SHALL BE PRIVATELY MAINTAINED BY THE HOA. ALL PRIVATE STREETS ARE P.U.E., PUBLIC SEWER EASEMENT AND PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY HOA.

OWNER RESPONSIBLE TO PROVIDE SURVEY MONUMENTATION AS SHOWN AND TO REPLACE ALL SURVEY MONUMENTATION DAMAGED, DISTURBED, DESTROYED, OR OBSCURED DURING CONSTRUCTION.

ADD 2800 TO ALL SPOT GRADES WHERE THE HUNDREDS AND THOUSANDS PLACES ARE OMITTED FOR ACTUAL ELEVATION (I.E. 01.00 REPRESENTS 2801.00)

NORTH 86°52'17" EAST BEING THE BEARING OF THE SOUTH LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 19 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA AS SHOWN BY MAP THEREOF ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE IN BOOK 160, PAGE 72 OF PLATS.

CITY OF LAS VEGAS BENCHMARK OC99156

RIVET AND 2" ROUND ALUMINUM DISK IN CONCRETE CYLINDER
THE SW CORNER OF ALPINE RIDGE WAY & KYLE CANYON RD

ELEVATION=2928.24 US FEET, 892.53 METERS NAVD'88 DATUM

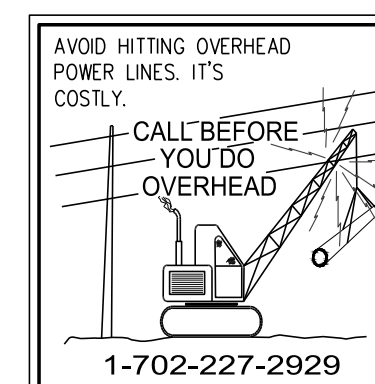
- 1) EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.
- 2) FOR ROADWAY WIDENING AND HALF STREET IMPROVEMENTS THE CONTRACTOR SHALL VERIFY CROSS SLOPES FROM EXISTING PAVEMENT SAWCUT LINE TO PROPOSED EDGE OF PAVEMENT OR PROPOSED SLOPE OF CURB PRIOR TO SUBGRADE PREPARATION AND CONSTRUCTION OF PROPOSED CURB LINE. IF MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET AGENCY STANDARDS THE CONTRACTOR SHALL NOTIFY THE ENGINEER.

1. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER.
2. ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SWPPP.
3. MAXIMUM/MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
4. SEE DETAIL SHEET FOR STREET SECTIONS AND DETAILS.
5. ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED.
6. CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CITY OF LAS VEGAS BUILDING DEPARTMENT.
7. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITY STRUCTURES AND FACILITIES, AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION; CONTRACTOR TO PROTECT IN PLACE DURING CONSTRUCTION. ENGINEER/OWNER SHALL BE NOTIFIED OF PRIOR DAMAGE TO EXISTING FACILITIES PRIOR TO CONSTRUCTION; CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR/REPLENISHING. IF ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION, CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR/REPLENISHING.
8. NO STRUCTURE, VEGETATION, OR OBJECTS OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF THE ADJACENT CURB IF CURB EXIST) WITHIN THE SIGHT VISION ZONES.

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.

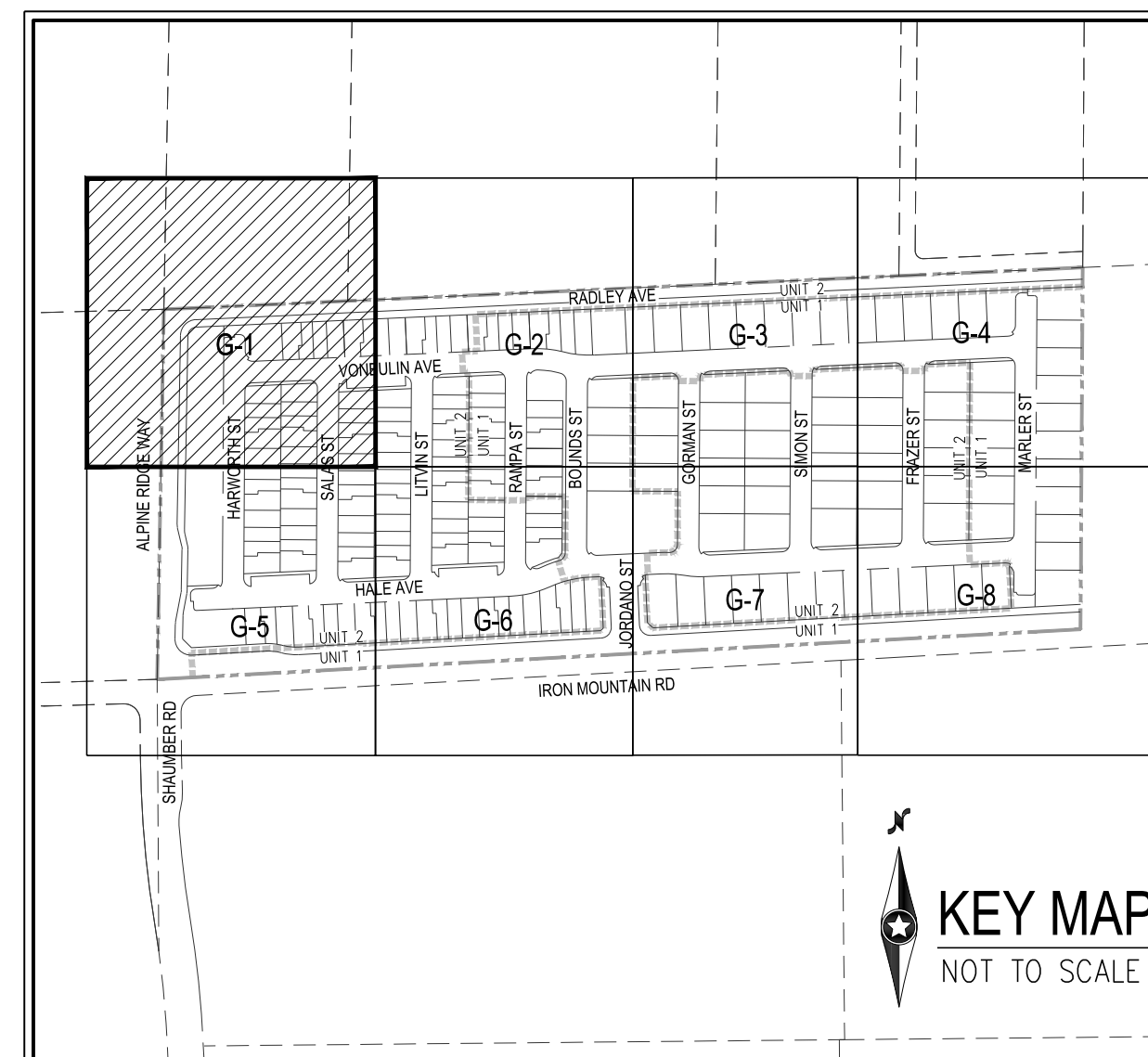
4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS, AND ALL BMPs WEEKLY, AND WITHIN 24 HOURS AFTER A RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR 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 ACTION NVRI000000, SECTION III.12.

POST-CONSTRUCTION BMP'S (PCBMP'S)/CONTROL MEASURES NOTED ON THE GRADING PLANS ARE MANDATORY PERMANENT REGULATORY STORMWATER POLLUTION CONTROLS. THESE PCBMP'S MUST BE INSTALLED PER THE APPROVED PLANS AND MUST BE PERMANENTLY MAINTAINED.



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AVOID CUTTING UNDERGROUND
UTILITY LINES. IT'S COSTLY.

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OR
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- (1) MATCH EXISTING IMPROVEMENTS PER CCAUSD NO. 503, 500.4 & 500.5
- (2) INSTALL ASPHALT PAVEMENT WITH TYPE II AGGREGATE BASE PER STREET DESIGN SHEET D-1
- (3) INSTALL A TYPE CURB PER CCAUSD NO. 219
- (4) INSTALL L TYPE CURB PER CCAUSD NO. 216
- (5) INSTALL R TYPE CURB PER CCAUSD NO. 217.3.51
- (6) CONSTRUCT 10' L-CURB TO R-CURB TRANSITION PER DETAIL ON SHEET D-2
- (7) CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD NO. 234 (5" THICK W/ 5" TYPE II AGGREGATE BASE)
- (8) INSTALL 18" C900 STORM DRAIN (PUBLIC)
- (9) CONSTRUCT ADA SIDEWALK RAMP USING ARMOR TILE TRUNCATED DOMES OR EQUIVALENT PER CCAUSD NO. 235, CASE 1 A+B=8.0
- (10) CONSTRUCT MODIFIED 8" WIDE CROSS GUTTER PER CCAUSD NO. 228
- (11) INSTALL PAVERS WITH SOLDIER COURSE BANDING
- (12) INSTALL 2' WIDE CONCRETE STRIP
- (13) INSTALL WROUGHT IRON FENCE WITH PEDESTRIAN ACCESS GATE
- (14) INSTALL 48" TYPE II SDMM PER CCAUSD NO. 401 & 405.2 (PUBLIC)
- (15) INSTALL 48" TYPE I SDMM PER CCAUSD NO. 403 & 403.3 (PUBLIC)
- (16) INSTALL 10.0" TYPE "DMZ" DROP INLET PER CCAUSD NO. 4121 & STORM DRAIN QUALITY MANAGEMENT STAMP PER CCAUSD NO. 421 (PRIVATE)
- (17) INSTALL 15.0" TYPE "DMZ" DROP INLET PER CCAUSD NO. 4121 & STORM DRAIN WATER QUALITY MANAGEMENT STAMP PER CCAUSD NO. 421 (PRIVATE)
- (18) INSTALL 18" TYPE "DMZ" DROP INLET PER CCAUSD NO. 4121 & STORM DRAIN WATER QUALITY MANAGEMENT STAMP PER CCAUSD NO. 421 (PRIVATE)
- (19) INSTALL 20.0" TYPE "DMZ" DROP INLET PER CCAUSD NO. 4121 & STORM DRAIN WATER QUALITY MANAGEMENT STAMP PER CCAUSD NO. 421 (PRIVATE)
- (20) INSTALL 18" CLASS III ROP STORM DRAIN (PUBLIC)
- (21) INSTALL 36" CLASS III ROP STORM DRAIN (PUBLIC)
- (22) INSTALL 42" CLASS III ROP STORM DRAIN (PUBLIC)
- (23) INSTALL 48" CLASS III ROP STORM DRAIN (PUBLIC)
- (24) INSTALL RIP RAP OVER 12" TYPE II AGGREGATE BASE D50=6", T=12"
- (25) CONSTRUCT COMMERCIAL DRIVEWAY PER CCAUSD NO. 224
- (26) CONSTRUCT 5' WIDE SIDEWALK PER CCAUSD NO. 234 (4" THICK W/ 5" TYPE II AGGREGATE BASE)
- (27) CONSTRUCT 5' WIDE TEMPORARY ASPHALT PAVEMENT SIDEWALK
- (28) PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY HOMEOWNER
- (29) INSTALL 48" RCP NOTED END SECTION PER NOTED DETAIL R-2.31 (PUBLIC)
- (30) INSTALL NON-EROSIVE LANDSCAPE
- (31) CONSTRUCT 6" CONCRETE OVER 6" TYPE II PATH FOR EMERGENCY VEHICLE ACCESS
- (32) INSTALL 4" THICK COMPACTED DECOMPOSED GRASS
- (33) INSTALL WROUGHT IRON FENCE WITH 20.0' ACCESS GATE PER CCAUSD NO. 425.51
- (34) INSTALL 18" CLASS III ROP STORM DRAIN (PRIVATE)
- (35) INSTALL 36" CLASS III ROP STORM DRAIN (PRIVATE)

PER THE FEMA FIRM PANEL MAP 32003C1750E, DATED SEPTEMBER 27, 2002.
PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED UNSHADED ZONE 'X'.
UNSHADED ZONE 'X' IS LOCATED OUTSIDE THE 0.20% ANNUAL CHANCE FLOODPLAIN

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY ON FILE AT CITY OF LAS VEGAS FOR THIS SUBJECT PROJECT (DS5508).

DANIEL S. POLL, P.E. 28179

CALL SOUTHWEST GAS AT 702-651-2111 FOR
STANDBY WHEN EXCAVATING OVER OR NEAR HIGH
PRESSURE GAS LINES

SOILS REPORT BY GEOTEK RESIDENTIAL, LLC
ADDRESS: 6835 S. ESCONDIDO ST, STE. B LAS VEGAS, NV 89119
PHONE: (702) 897-1424
PROJECT NO. 16100-LVR DATED 09/17/2021

EARTHWORK QUANTITIES (RAW):
CUT= 28,551 CU YDS
FILL= 114,244 CU YDS

EXPORTED MATERIAL TO BE DISPOSED OF AT AN APPROVED
LICENSED DISPOSAL FACILITY OR AT A SITE WITH AN APPROVED
AND ACTIVE GRADING PERMIT.

		PRIVATE	PUBLIC
1	48" TYPE I STORM DRAIN MANHOLE	EA	8
2	48" TYPE II STORM DRAIN MANHOLE	EA	2
3	5.0' TYPE "CM2" DROP INLET	EA	2
4	10.0' TYPE "CM2" DROP INLET	EA	0
5	17.5' TYPE "CM2" DROP INLET	EA	1
6	20.0' TYPE "CM2" DROP INLET	EA	2
7	18" RCP CLASS III STORM DRAIN	LF	285
8	36" RCP CLASS III STORM DRAIN	LF	50
9	42" RCP CLASS III STORM DRAIN	LF	27
10	48" RCP CLASS III STORM DRAIN	LF	174
11	RIPRAP D50=6", THK=12"	CY	95
12	8" WIDE CEMENT VALLEY GUTTER	SF	5,965
13	48" RCP NOTED END SECTION	EA	1

PRIVATE	PUBLIC
-	8
-	2
2	2
1	0
-	1
2	-
285	1,58
50	-
-	27
-	174
-	95
5,965	756
-	1

[illegible]

CITY OF LAS VEGAS, NV	
-----------------------	--

tri pointe[®]
HOMES

IRON MOUNTAIN UNIT 2

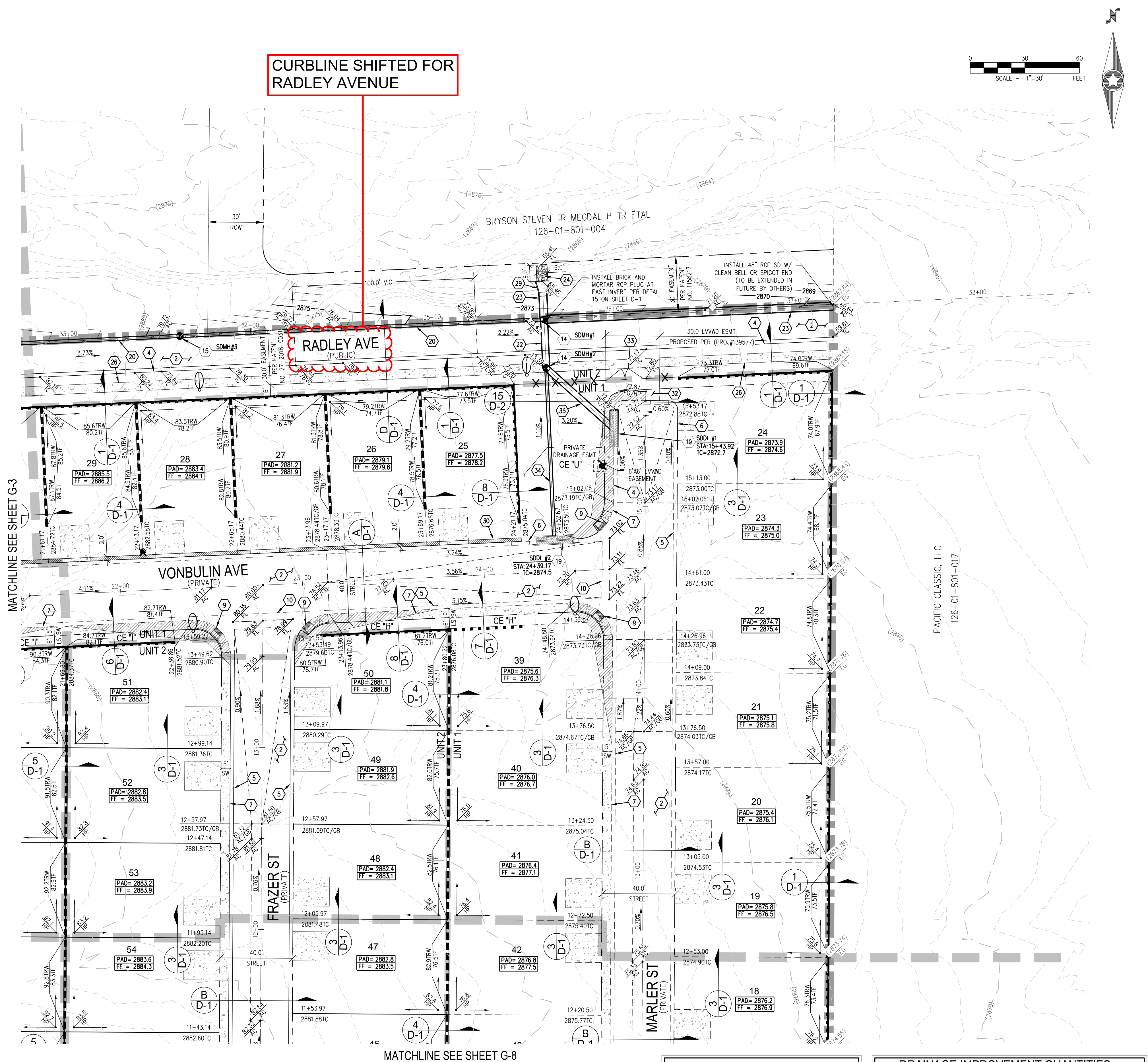
GRADING PLAN I

S1 T19S R59E	
DATE:	04/20/2022

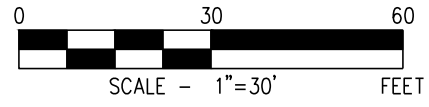
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DESIGNER: ND
CHECKED: OIQ
PROJECT NO. TRI2101-000

G-1
SHEET 4 OF 21

J:\Vr2101-000 Iron Mountain\Draw\IronMountain\Grading\Gr2101.dwg, 6/9/2022, 2:37 PM, Kevin Boss



CURLINE SHIFTED FOR
RADLEY AVENUE



HOA NOTE

ALL ONSITE STORM DRAIN FACILITIES WITHIN THIS DEVELOPMENT SHALL BE PRIVATELY MAINTAINED BY THE HOA. ALL PRIVATE STREETS ARE P.U.E. PUBLIC SEWER EASEMENT AND PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY HOA.

SURVEY NOTE

OWNER RESPONSIBLE TO PROVIDE SURVEY MONUMENTATION AS SHOWN AND TO REPLACE ALL SURVEY MONUMENTATION DAMAGED, DISTURBED, DESTROYED, OR OBLISCURED DURING CONSTRUCTION.

ELEVATION NOTE

ADD 2800 TO ALL SPOT GRADES WHERE THE HUNDREDS AND THOUSANDS PLACES ARE OMITTED FOR ACTUAL ELEVATION (I.E. 01.00 REPRESENTS 2801.00)

BASIS OF BEARINGS

NORTH 86°52'17" EAST BEING THE BEARING OF THE SOUTH LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 1, TOWNSHIP 19 SOUTH, RANGE 59 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA AS SHOWN BY MAP THEREON ON FILE IN THE CLARK COUNTY RECORDER'S OFFICE IN BOOK 160, PAGE 72 OF PLATS.

BENCHMARK

CITY OF LAS VEGAS BENCHMARK OC99156

RIVET AND 2" ROUND ALUMINUM DISK IN CONCRETE CYLINDER AT THE SW CORNER OF ALPINE RIDGE WAY & KYLE CANYON RD
ELEVATION=2928.24 US FEET, 892.53 METERS NAVD83 DATUM

DISCLAIMER NOTE

- EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.
- FOR ROADWAY WIDENING AND HALF STREET IMPROVEMENTS THE CONTRACTOR SHALL VERIFY CROSS SLOPES FROM EXISTING PAVEMENT SAWCUT LINE TO PROPOSED EDGE OF PAVEMENT OR PROJECTED UP OF CURB PRIOR TO SUBGRADE PREPARATION AND CONSTRUCTION OF PROPOSED CURB LINE. IF MINIMUM OR MAXIMUM CROSS SLOPES DO NOT MEET AGENCY STANDARDS THE CONTRACTOR SHALL NOTIFY THE ENGINEER.

GRADING NOTES

- THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND REPORT ALL DISCREPANCIES TO THE ENGINEER.
- ALL IMPROVEMENTS TO BE PROTECTED FROM EROSION BY SWPPP.
- MAXIMUM/MINIMUM SLOPES AND MINIMUM STREET SECTIONS NOT TO EXCEED THAT SHOWN ON GEOTECH REPORT.
- SEE DETAIL SHEET FOR STREET SECTIONS AND DETAILS.
- ALL PUBLIC AND PRIVATE DRAINAGE IMPROVEMENTS TO BE BONDED FOR AND INSPECTED.
- CONSTRUCTION OF BLOCK WALLS REQUIRES A SEPARATE BUILDING PERMIT AND APPROVAL BY THE CITY OF LAS VEGAS BUILDING DEPARTMENT.
- CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF EXISTING UTILITY STRUCTURES AND FACILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. CONTRACTOR TO PROTECT IN PLACE DURING CONSTRUCTION. ENGINEER/OWNER SHALL BE NOTIFIED OF PRIOR DAMAGE TO EXISTING FACILITIES PRIOR TO CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR REPAIR/REPLENISHING IF ENGINEER/OWNER IS NOT NOTIFIED OF EXISTING DAMAGE PRIOR TO CONSTRUCTION COMMENCING.
- NO STRUCTURE, VEGETATION, OR OBJECTS OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF THE ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.

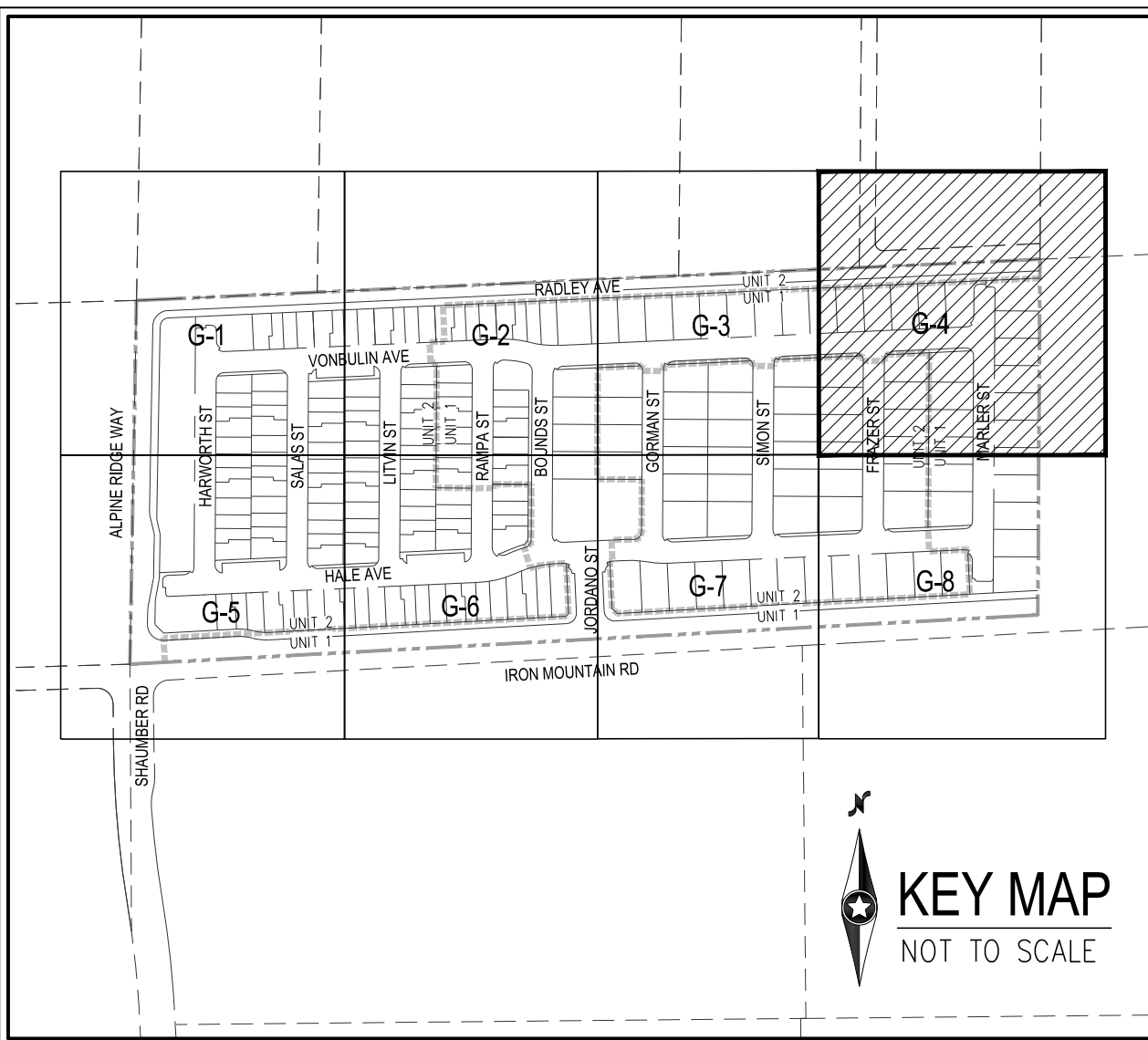
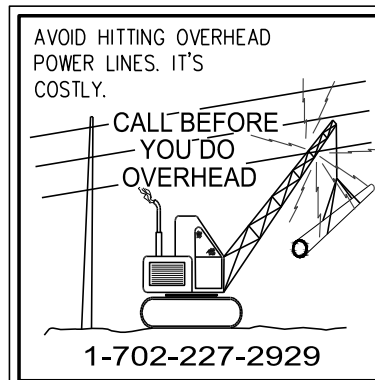
LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDELINES

(REQUIRED FOR ALL SITES GREATER THAN 1 ACRE (43,560 SQ.FT.))

- 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.
- ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN CLARK COUNTY TITLE 24.40 AND IN THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
- 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 NV100000, SECTION III.A.5.
- AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL EXPOSE 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 NV100000, SECTION III.A.12.
- ACCUMULATED SEDIMENT IN BMPs SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.

POST-CONSTRUCTION BMP'S NOTE

POST-CONSTRUCTION BMP'S (PCBMP'S)/CONTROL MEASURES NOTED ON THE GRADING PLANS ARE MANDATORY PERMANENT REGULATORY STORMWATER POLLUTION CONTROLS. THESE PCBMP'S MUST BE INSTALLED PER THE APPROVED PLANS AND MUST BE PERMANENTLY MAINTAINED.



GRADING NOTES

- MATCH EXISTING IMPROVEMENTS PER CCASUD NO. 503, 500.4 & 500.5
- INSTALL ASPHALT PAVEMENT WITH TYPE II AGGREGATE BASE PER STREET DETAILS ON SHEET G-1
- INSTALL A TYPE CURB PER CCASUD NO. 219
- INSTALL L TYPE CURB PER CCASUD NO. 216
- INSTALL R TYPE CURB PER CCASUD NO. 217.3.51
- CONSTRUCT 10' L-CURB TO R-CURB TRANSITION PER DETAIL ON SHEET D-1
- CONSTRUCT 5' WIDE SIDEWALK PER CCASUD NO. 234 (5" THICK W/ 5" TYPE II AGGREGATE BASE)
- INSTALL 18" C900 STORM DRAIN (PUBLIC)
- CONSTRUCT ADA SIDEWALK RAMP USING ARMOR TILE, TRUNCATED DOMES OR EQUIVALENT PER CCASUD NO. 235, CASE I A+B=8.0'
- CONSTRUCT MODIFIED 8' WIDE CROSS GUTTER PER CCASUD NO. 228
- INSTALL PAVERS WITH SOLDIER COURSE BANDING
- INSTALL 2" WIDE CONCRETE STRIP
- INSTALL WROUGHT IRON FENCE WITH PEDESTRIAN ACCESS GATE
- INSTALL 48" TYPE II SDMH PER CCASUD NO. 401 & 405.2 (PUBLIC)
- INSTALL 48" TYPE I SDMH PER CCASUD NO. 403 & 403.1 (PUBLIC)
- INSTALL 5.0' TYPE "CM2" DROP INLET PER CCASUD NO. 412.1 AND STORM DRAIN WATER QUALITY MANAGEMENT STAMP PER CCASUD NO. 421 (PRIVATE)
- INSTALL 10.0' TYPE "CM2" DROP INLET PER CCASUD NO. 412.1 AND STORM DRAIN WATER QUALITY MANAGEMENT STAMP PER CCASUD NO. 421 (PRIVATE)
- INSTALL 17.5' TYPE "CM2" DROP INLET PER CCASUD NO. 412.1 AND STORM DRAIN WATER QUALITY MANAGEMENT STAMP PER CCASUD NO. 421 (PRIVATE)
- INSTALL 20.0' TYPE "CM2" DROP INLET PER CCASUD NO. 412.1 AND STORM DRAIN WATER QUALITY MANAGEMENT STAMP PER CCASUD NO. 421 (PRIVATE)
- INSTALL 18" CLASS III RCP STORM DRAIN (PUBLIC)
- INSTALL 36" CLASS III RCP STORM DRAIN (PUBLIC)
- INSTALL 42" CLASS III RCP STORM DRAIN (PUBLIC)
- INSTALL 48" CLASS III RCP STORM DRAIN (PUBLIC)
- INSTALL 48" RCP RAMP OVER 12" TYPE II AGGREGATE BASE D50=6", T=12"
- CONSTRUCT COMMERCIAL DRIVEWAY PER CCASUD NO. 224
- CONSTRUCT 5' WIDE SIDEWALK PER CCASUD NO. 234 (4" THICK W/ 5" TYPE II AGGREGATE BASE)
- CONSTRUCT 5' WIDE TEMPORARY ASPHALT PAVEMENT SIDEWALK
- 5' PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY HOMEOWNER
- INSTALL 48" RCP NDOT END SECTION PER NDOT DETAIL R-2.3.1 (PUBLIC)
- INSTALL NON-EROSIVE LANDSCAPE
- CONSTRUCT 6" THICK COMPACTED DECOMPOSED GRANITE
- INSTALL WROUGHT IRON FENCE WITH 20.0' ACCESS GATE PER CCASUD NO. 425.51
- INSTALL 18" CLASS III RCP STORM DRAIN (PRIVATE)
- INSTALL 36" CLASS III RCP STORM DRAIN (PRIVATE)

FLOOD ZONE

PER THE FEMA FIRM PANEL MAP 32003C1750E, DATED SEPTEMBER 27, 2002, THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED UNSHADED ZONE 'X'. AN UNSHADED ZONE 'X' IS LOCATED OUTSIDE THE 0.20% ANNUAL CHANCE FLOODPLAIN.

FLOOD CERTIFICATION

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY ON FILE AT CITY OF LAS VEGAS FOR THIS SUBJECT PROJECT (055508).

DANIEL S. POLL, P.E. 28179

06/09/2022 DATE

CALL SOUTHWEST GAS AT 702-651-2111 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES

SOILS REPORT

SOILS REPORT BY GEOTEK RESIDENTIAL, LLC
ADDRESS: 6835 S. ESCUNDOO ST., STE B LAS VEGAS, NV 89119
PHONE: (702) 897-1424
PROJECT NO. 16100-LVR DATED 09/17/2021

EARTHWORKS

EARTHWORK QUANTITIES (RAW):
CUT= 28,551 CU YDS
FILL= 114,244 CU YDS
EXPORTED MATERIAL TO BE DISPOSED OF AT AN APPROVED LICENSED DISPOSAL FACILITY OR AT A SITE WITH AN APPROVED AND ACTIVE GRADING PERMIT.

DRAINAGE IMPROVEMENT QUANTITIES

	PRIVATE	PUBLIC
1. 48" TYPE I STORM DRAIN MANHOLE	EA -	8
2. 48" TYPE II STORM DRAIN MANHOLE	EA -	2
3. 5.0' TYPE "CM2" DROP INLET	EA 2	2
4. 10.0' TYPE "CM2" DROP INLET	EA 1	0
5. 17.5' TYPE "CM2" DROP INLET	EA -	1
6. 20.0' TYPE "CM2" DROP INLET	EA 2	-
7. 18" RCP CLASS III STORM DRAIN	LF 285	1,585
8. 36" RCP CLASS III STORM DRAIN	LF 50	-
9. 42" RCP CLASS III STORM DRAIN	LF -	27
10. 48" RCP CLASS III STORM DRAIN	LF -	174
11. RIPRAP D50=6", THK=12"	CY -	95
12. 8" WIDE CONCRETE VALLEY GUTTER	SF 5,965	750
13. 48" RCP NDOT END SECTION	EA -	1

Westwood

5725 W. Badura Ave.
Suite 100
Las Vegas, NV 89118
Phone (702) 284-5300
westwoodps.com
Westwood Professional Services, Inc.

CITY OF LAS VEGAS, NV

tri pointe
HOMES
IRON MOUNTAIN UNIT 2
GRADING PLAN IV

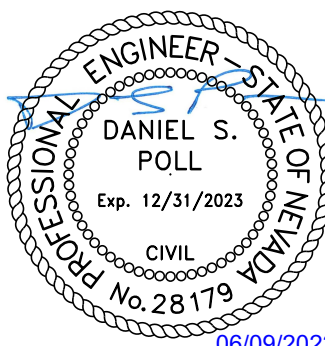
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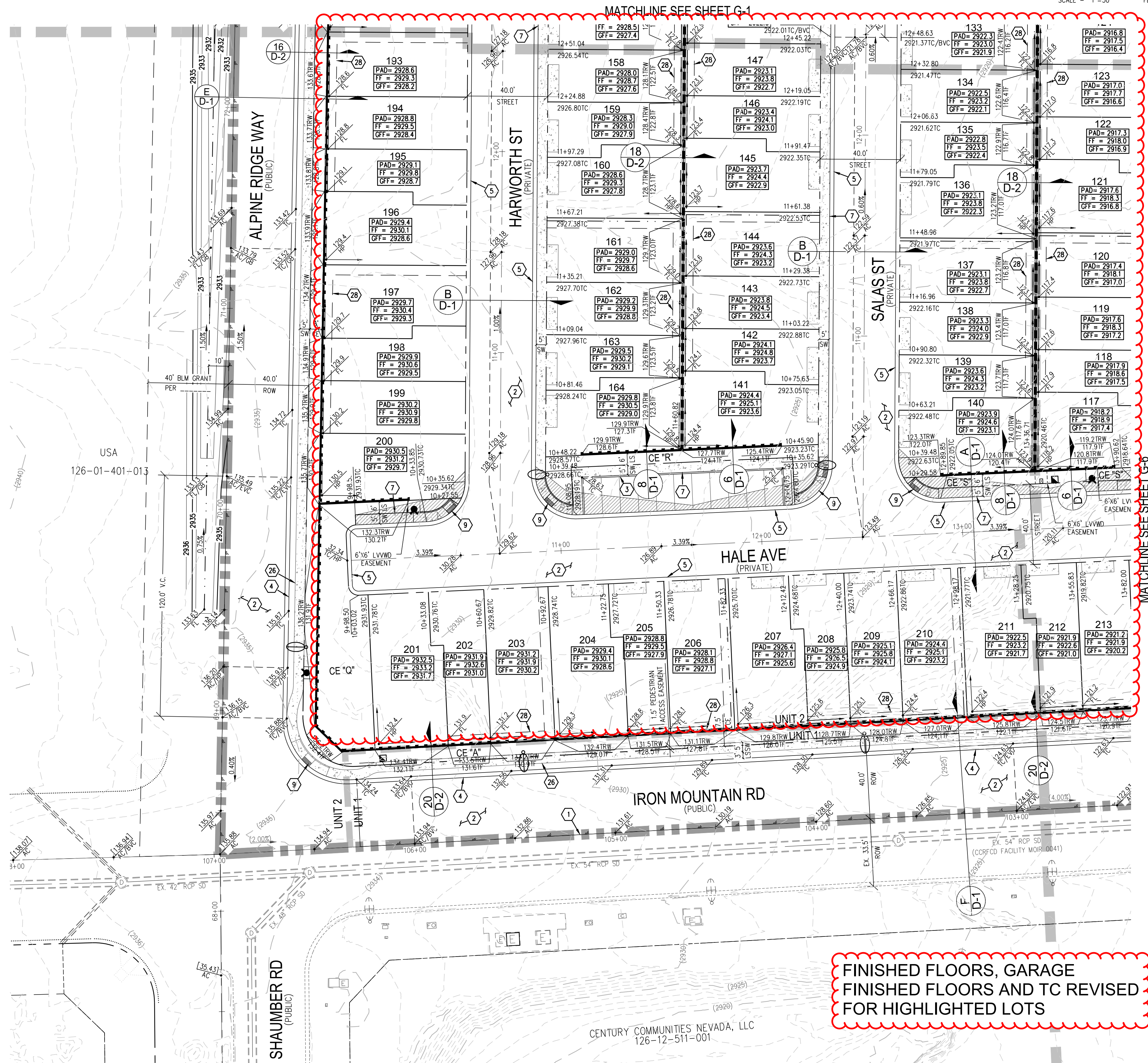
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PROJECT NO.
TRI2101-000



G-4
SHEET 7 OF 21

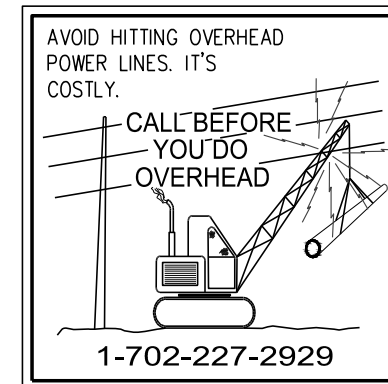
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SOILS REPORT
SOILS REPORT BY GEOTEK RESIDENTIAL, LLC
ADDRESS: 8835 S. ESCUENADO ST., STE. B LAS VEGAS, NV 89119
PHONE: (702) 897-1424
PROJECT NO. 16100-LVR DATED 09/17/2021

EARTHWORKS
EARTHWORK QUANTITIES (RAW):
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FILL= 114,244 CU YDS
EXPORTED MATERIAL TO BE DISPOSED OF AT AN APPROVED LICENSED DISPOSAL FACILITY OR AT A SITE WITH AN APPROVED AND ACTIVE GRADING PERMIT.

DRAINAGE IMPROVEMENT QUANTITIES			
		PRIVATE	PUBLIC
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2. 48" TYPE II STORM DRAIN MANHOLE	EA	-	2
3. 5.0' TYPE "CM2" DROP INLET	EA	2	2
4. 10.0' TYPE "CM2" DROP INLET	EA	1	0
5. 17.5' TYPE "CM2" DROP INLET	EA	-	1
6. 20.0' TYPE "CM2" DROP INLET	EA	2	-
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12. 8" WIDE CONCRETE VALLEY GUTTER	SF	5,965	750
13. 48" RCP NDOT END SECTION	EA	-	1



- GRADING NOTES**
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 - INSTALL A TYPE CURB PER CCASUD NO. 219
 - INSTALL L TYPE CURB PER CCASUD NO. 216
 - INSTALL R TYPE CURB PER CCASUD NO. 217.3.51
 - CONSTRUCT 10' L-CURB TO R-CURB TRANSITION PER DETAIL ON SHEET D-1
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 - CONSTRUCT ADA SIDEWALK RAMP USING ARMOR TILE, TRUNCATED DOMES OR EQUIVALENT PER CCASUD NO. 235, CASE I A+B=8'0"
 - CONSTRUCT MODIFIED 8" WIDE CROSS GUTTER PER CCASUD NO. 228
 - INSTALL PAVERS WITH SOLDIER COURSE BANDING
 - INSTALL 2" WIDE CONCRETE STRIP
 - INSTALL WROUGHT IRON FENCE WITH PEDESTRIAN ACCESS GATE
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 - INSTALL 10.0' TYPE "CM2" DROP INLET PER CCASUD NO. 412.1 AND STORM DRAIN WATER QUALITY MANAGEMENT STAMP PER CCASUD NO. 421 (PRIVATE)
 - INSTALL 17.5' TYPE "CM2" DROP INLET PER CCASUD NO. 412.1 AND STORM DRAIN WATER QUALITY MANAGEMENT STAMP PER CCASUD NO. 421 (PRIVATE)
 - INSTALL 20.0' TYPE "CM2" DROP INLET PER CCASUD NO. 412.1 AND STORM DRAIN WATER QUALITY MANAGEMENT STAMP PER CCASUD NO. 421 (PRIVATE)
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 - INSTALL 42" CLASS III RCP STORM DRAIN (PUBLIC)
 - INSTALL 48" CLASS III RCP STORM DRAIN (PUBLIC)
 - INSTALL RIP RAP OVER 12" TYPE II AGGREGATE BASE D50=6", T=12"
 - CONSTRUCT COMMERCIAL DRIVEWAY PER CCASUD NO. 224
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 - CONSTRUCT 6" CONCRETE OVER 6" TYPE II PATH FOR EMERGENCY VEHICLE ACCESS
 - INSTALL 6" THICK COMPACTED DECOMPOSED GRANITE
 - INSTALL WROUGHT IRON FENCE WITH 20' ACCESS GATE PER CCASUD NO. 234.51
 - INSTALL 18" CLASS III RCP STORM DRAIN (PRIVATE)
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PER THE FEMA FIRM PANEL MAP 32003C1750E, DATED SEPTEMBER 27, 2002, THE PROJECT SITE IS LOCATED WITHIN A FEMA DESIGNATED UNSHADED ZONE "X". AN UNSHADED ZONE "X" IS LOCATED OUTSIDE THE 0.20% ANNUAL CHANCE FLOODPLAIN.

FLOOD CERTIFICATION
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DANIEL S. POLL, P.E. 28179 DATE 06/09/2022

CALL SOUTHWEST GAS AT 702-651-2111 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE GAS LINES

Westwood
5725 W. Badura Ave.
Suite 100
Las Vegas, NV 89118
Phone (702) 284-5300
westwoodps.com
Westwood Professional Services, Inc.

CITY OF LAS VEGAS, NV

trí pointe
HOMES

IRON MOUNTAIN UNIT 2
GRADING PLAN V

DATE: 04/20/2022

DRAFTER: ND

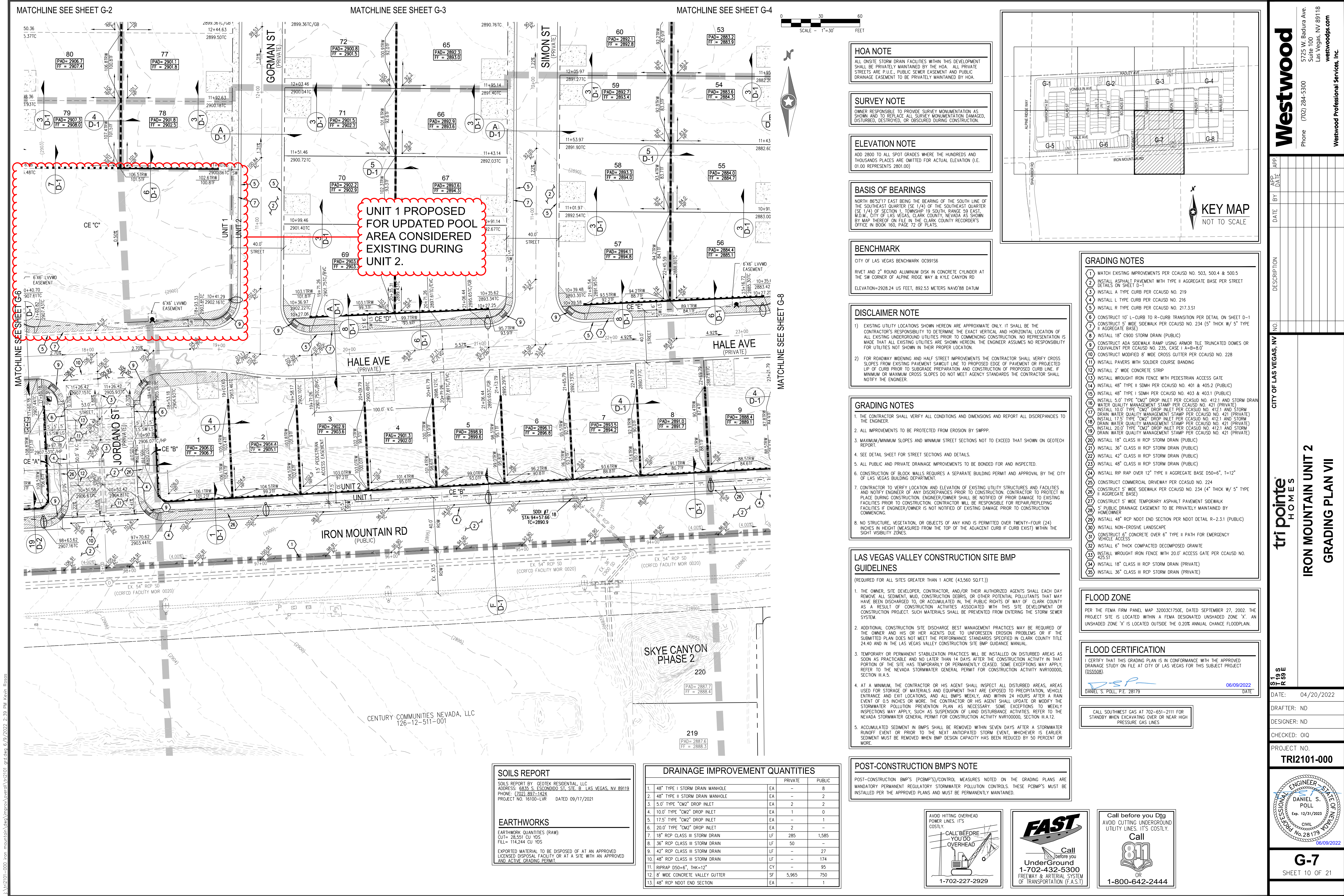
DESIGNER: ND

CHECKED: IOQ

PROJECT NO.
TRI2101-000

PROFESSIONAL ENGINEER - STATE OF NEVADA
DANIEL S. POLL
Exp. 12/31/2023
No. 28179
06/09/2022

G-5
SHEET 8 OF 21



APPENDIX B

Drainage Exhibits

\\h2101-000 Iron Mountain\drainage\update study\figures\unit1\unit_1_interim_condition_drainage_map.dwg, 9/12/2022 1:53 PM, Jonathan Rocha

Unit 1 Interim Condition Flow Rate Summary					
Basin/Concentration Point ID	Area (ac)	Area (sq. mi)	Q ₁₀₀ (cfs)	Q ₁₀ (cfs)	
OFF1-E	302.5	0.47	325	98	
OFF2-E	62.7	0.09	103	39	
OFF3-E	11.7	0.02	29	11	
OFF4-E	28.7	0.04	65	24	
OFF5-E	17.4	0.03	30	8	
AR1-E	3.8	0.01	7	2	
AR2-E	3.9	0.01	10	4	
AR3-E	2.2	<0.01	6	2	
AR4-E	0.9	<0.01	2	1	
OFF3	1013.8	1.58	755	225	
IRON1	10.1	0.02	33	15	
IRON2-I	5.9	0.01	17	7	
IRON3-I	7.2	0.01	25	12	
OF2-E	8.6	0.01	23	9	
ARW1	0.7	<0.01	3	1	
IMR1	1.9	<0.01	7	4	
RS1	1.4	<0.01	5	3	
Concentration Point ID	Area (ac)	Area (sq. mi)	Q ₁₀₀ (cfs)	Q ₁₀ (cfs)	
CP1					
Q = OFF3 + OFF1-E + AR1-E + OFF2-E	N/A	2.14	863	282	
CP2					
Q = OFF3-E + AR2-E	N/A	0.02	39	15	
CP3					
Q = OFF4-E + AR3-E + OF2-E	N/A	0.06	93	35	
CP4					
Q = CP1 + CP2 + CP3	N/A	2.23	879	293	
CP7					
Q = IRON1 + IRON2 + ARW1 + RS1	N/A	0.04	82	38	
CP8					
Q = CP4 + CP7 + AR4-E + OFF5-E	N/A	2.30	896	302	

Subbasin Prorated Flow Rate Summary					
Unit 1 Interim Condition					
Basin ID	Q ₁₀₀ (cfs)	Q ₁₀ (cfs)	Area (acres)	100-yr Unit Flow (cfs/acre)	10-yr Unit Flow (cfs/acre)
IRON1	33	17	10.1	3.3	1.7
IRON2-I	17	7	5.9	2.9	1.2
IRON3-I	25	12	7.2	3.5	1.7
IMR1	7	4	1.9	3.7	2.1
Subbasin ID	Q ₁₀₀ (cfs)	Q ₁₀ (cfs)	Area (acres)	100-yr Unit Flow (cfs/acre)	10-yr Unit Flow (cfs/acre)
IRON1(A2)	2.5	1	0.8	3.3	1.7
IRON1(A3)	3	1.5	0.9	3.3	1.7
IRON1(D1)	3	1.5	0.8	3.3	1.7
IRON1(D2)	1.5	1	0.5	3.3	1.7
IRON1(F1)	6	3	1.9	3.3	1.7
IRON1(F2)	9.5	5	2.9	3.3	1.7
IRON1(F3)	6	3	1.9	3.3	1.7
IRON1(F4)	1.5	1	0.4	3.3	1.7
TOTAL	33	17	10.1		
IRON2-I(B)	3	1.5	1.1	2.9	1.2
IRON2-I(C)	3	1	1.0	2.9	1.2
IRON2-I(D3)	1	0.5	0.4	2.9	1.2
IRON2-I(E)	6.5	2.5	2.2	2.9	1.2
IRON2-I(G1)	3.5	1.5	1.1	2.9	1.2
TOTAL	17	7	5.9		
IRON3-I(A1)	6	2.5	1.8	2.9	1.2
IRON3-I(G2)	5	2	1.8	2.9	1.2
IRON3-I(G3)	5	2	1.7	2.9	1.2
IRON3-I(G4)	5	2	1.8	2.9	1.2
TOTAL	21	9	7.2		
IMR1(A)	5	3	1.4	3.7	2.1
IMR1(B)	2	1	0.5	3.7	2.1
TOTAL	7	4	1.9		

Unit 1 Interim Condition 100-Year Street Flow Summary Interior Streets						
Section ID	Description	Q ₁₀₀ (cfs)	Slope (%)	Depth (ft)	Velocity (fps)	DxV
B	Q = IRON2-I(B) + 11 CFS (Overtop from Section C)					
C	Q = Q = IRON1(A2 + A3) + IRON3-I(A1+C)					
C (Capacity)	Q = Capacity					
D2	Q = IRON1(D2)					
D3	Q = IRON1(D2) + IRON2-I(D3) + 3 CFS (Overtop from Section E4)					
D4	Q = IRON1(F2+F3)					
E1	Q = D#2 Bypass + IRON1(A2+A3) + IRON2-I(B+C) + IRON3-I(A1)					
E2	Q = IRON1(D2+F2+F3+F4) + IRON2-I(E+D3+G1) + IRON3-I(G2+G3+G4)					
E3	Q = IRON1(D2+F2+F3+F4) + IRON2-I(D3+G1) + IRON3-I(G2)					
E4	Q = IRON1(F2+F3) + IRON2-I(G1)					
G1	Q = Capacity					
G1	Q = IRON1(F4) + IRON2-I(G1)					
F3	Q = IRON1(F3)					

Onsite Hydraulic Section Summary Unit 1 Interim Condition					
Section ID	Q ₁₀₀ (cfs)	Section Description	Slope (%)	Depth (ft)	Velocity (fps)
Section V1	26	Earthen V-Ditch, 3:1 SS	1.00	1.39	4.50
Section T1					
Q = OF2-E + ARW1 + IRON (F1+D1) + (1/3)RS1	37	Riprap Lined Trap Chnl, 3:1 SS, 2' BW D50=8", Th=16"	4.33	1.11	6.29
Section T2					
Q = OF2-E + ARW1 + IRON (F1+D1) + RS1	40	Riprap Lined Trap Chnl, 3:1 SS, 2' BW D50=8", Th=16"	3.73 2.68 1.42	1.19 1.28 1.47	6.08 5.37 4.24

Recommended Mainline Facilities Summary Unit 1 Interim Condition			
Facility ID	Facility Description	Q _{Design} (cfs)	Notes
RADLEY SD SYSTEM			
A0	Proposed 48" RCP	-	Capped in proposed condition. To be extended for future SD extension, east in Radley Street.
A1	Proposed 48" RCP	81.5	To be removed for future SD extension, east in Radley Street.
A2	Proposed 24" RCP	19.5	
ONSITE SD SYSTEM			
B1	Proposed 42" RCP	62	

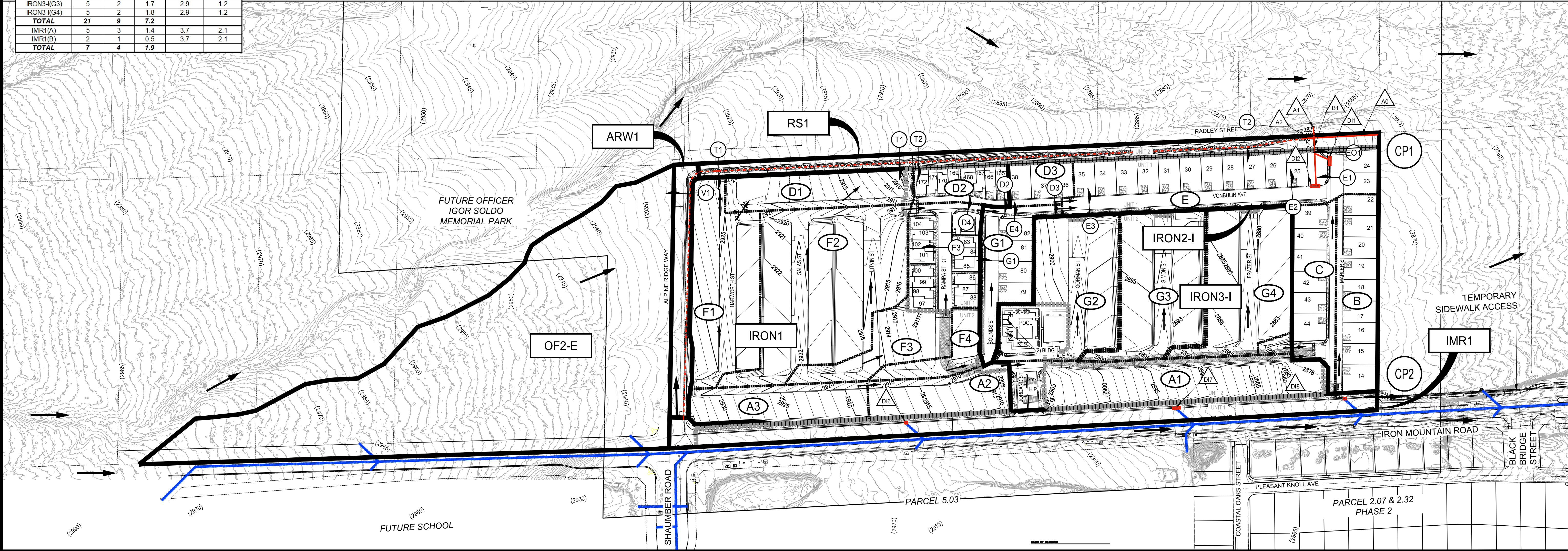
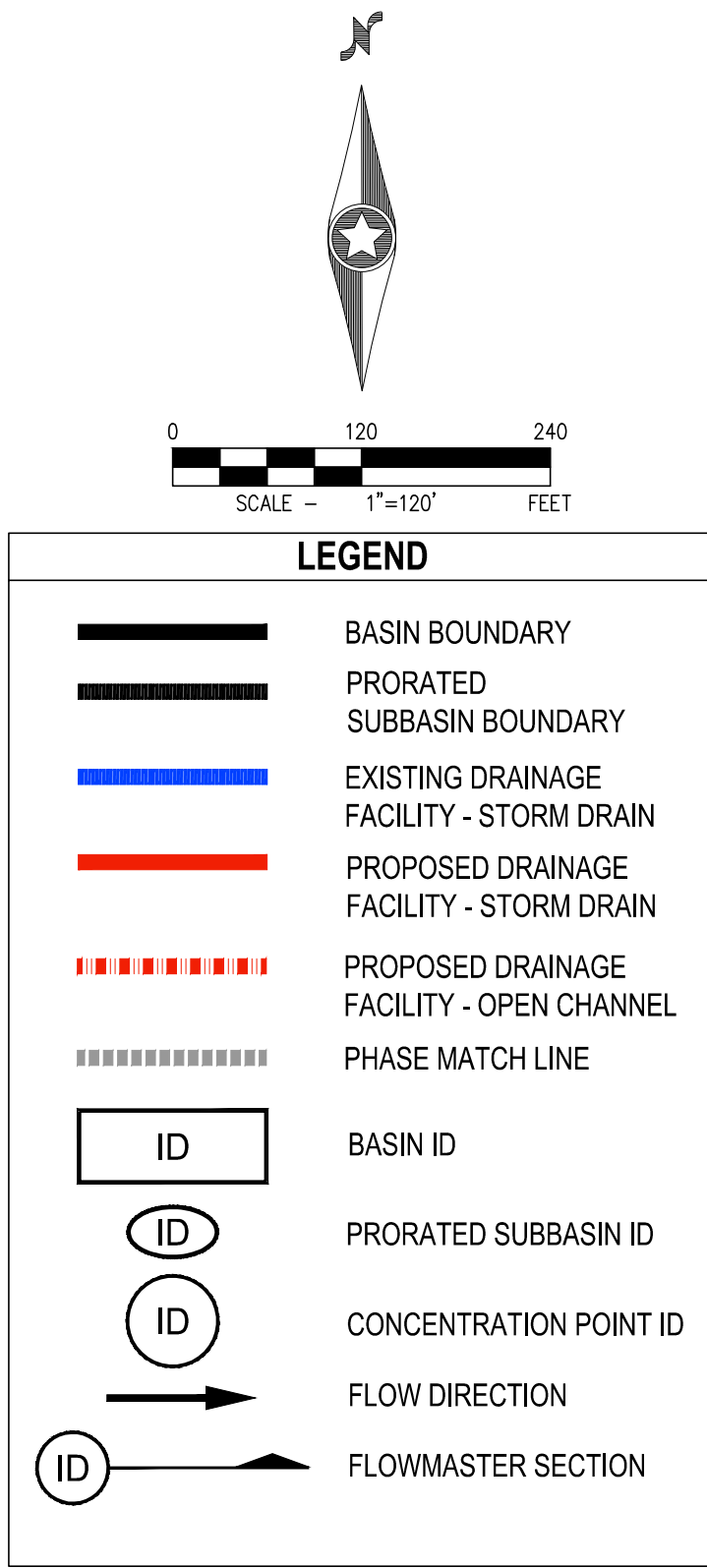
Recommended Drop Inlet Facility Summary Unit 1 Interim Condition					
Facility ID	Facility Description	Total/Approaching Flow (cfs) Q ₁₀₀	Facility Flow (cfs) Q ₁₀₀	Surface/Bypass Flow (cfs) Q ₁₀₀	Flow Description
ONSITE FACILITIES					
DI#1	Proposed 20.0" Type CM D.I. & 36" RCP Lateral	46	46	0	= D#2 Bypass + IRON1(A2+A3) + IRON2-I(B+C) + IRON3-I(A1) = 28.5 + (2.5 + 3) + (3 + 3) + 6
DI#2	Proposed 20.0" Type CM D.I. & 18" RCP Lateral	44.5	16	28.5	= IRON1(D2+F2+F3+F4) + IRON2-I(D3+E+G1) + IRON3-I(G2+G3+G4) = (1.5 + 9.5 + 6 + 1.5) + (1 + 6.5 + 3.5) + (5 + 5 + 5)

NOTES:

HYDRAULIC STREET SECTIONS & FACILITIES HAVE BEEN ANALYZED WITH FLOWS FROM UNIT 1 INTERIM.

WORST-CASE FLOWS AND FLOW DEPTHS ARE GENERATED BETWEEN UNIT 1 INTERIM AND UNIT 2 PROPOSED CONDITION.

REFER TO EXHIBIT G OR H FOR FULL LIST OF HYDRAULIC/FACILITY TABLES FOR UNIT 2 PROPOSED OR ULTIMATE CONDITION. REFER TO EXHIBIT J3 FOR OFFSITE EXTENTS OF UPSTREAM WATERSHED.



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Westwood Professional Services, Inc.

CITY OF LAS VEGAS, NV

TRI POINTE HOMES

IRON MOUNTAIN

UNIT 1 INTERIM CONDITION DRAINAGE MAP

01
9/19/22
R 59E

DATE: SEPT 2022

DRAFTER: PK

DESIGNER: JSR

CHECKED: MF

PROJECT NO.
TRI2101.000

EXHIBIT F

SHEET 1 OF 1

Basin ID	Q ₁₀₀ (cfs)	Q ₁₀ (cfs)	Area (acres)	100-yr Unit Flow (cfs/ac)	10-yr Unit Flow (cfs/ac)
IRON1	33	17	10.1	3.3	1.7
IRON2	37	18	13.0	2.8	1.4
IMR1	7	4	1.9	3.7	2.1
Subbasin ID	Q ₁₀₀ (cfs)	Q ₁₀ (cfs)	Area (acres)	100-yr Unit Flow (cfs/ac)	10-yr Unit Flow (cfs/ac)
IRON1(A2)	2.5	1	0.8	3.3	1.7
IRON1(A3)	3	1.5	0.9	3.3	1.7
IRON1(D1)	3	1.5	0.8	3.3	1.7
IRON1(D2)	1.5	1	0.5	3.3	1.7
IRON1(F1)	3	2	1.0	3.3	1.7
IRON1(F2)	3	1	0.9	3.3	1.7
IRON1(F3)	5.5	3	1.8	3.3	1.7
IRON1(F4)	5.5	3	1.7	3.3	1.7
IRON1(F5)	6	3	1.8	3.3	1.7
TOTAL	33	17	10.1		
IRON2(A1)	5.5	2.5	1.9	2.8	1.4
IRON2(B)	3	1.5	1.1	2.8	1.4
IRON2(C)	3	1.5	1.0	2.8	1.4
IRON2(D3)	1	0.5	0.4	2.8	1.4
IRON2(E)	6.5	3	2.2	2.8	1.4
IRON2(G1)	2.5	1.5	0.9	2.8	1.4
IRON2(G2)	5.5	2.5	1.9	2.8	1.4
IRON2(G3)	5	2.5	1.7	2.8	1.4
IRON2(G4)	5	2.5	1.8	2.8	1.4
TOTAL	37	18	13.0		
IMR1(A)	5	3	1.4	3.7	2.1
IMR1(B)	2	1	0.5	3.7	2.1
TOTAL	7	4	1.9		

100-Year Street Flow Summary							
Interior Streets (Emergency Overflow)							
Section ID	Description	Q ₁₀₀ (cfs)	Slope (%)	Depth (ft)	Velocity (fps)	Dx/V	
D1 Q = DI#3 + IRON1(D1)	Half Street, Normal Crowned, R-curb	6	3.20	0.38	4.04	1.5	
D2 Q = DI#3 + Bypass DI#4 + IRON1(D2)	Half Street, Normal Crowned, R-curb	5.5	3.20	0.37	3.95	1.5	
E1 Q = DI#3 + Bypass (DI#2) + IRON1(A2 + A3) + IRON2(A1 + B + C)	Full Street, Normal Crowned, R-curb	47	0.88	0.64	3.87	2.5	
E2 Q = DI#3 + Bypass (DI#4 + #5) + IRON1(D2 + F5) + IRON2(D3 + E + G1 + G2 + G3 + G4)	Full Street, Normal Crowned, R-curb	44.5	4.11	0.51	6.32	3.2	
E3 Q = DI#3 + Bypass (DI#4 + #5) + IRON1(D2 + F5) + IRON2(D3+G1+G2)	Full Street, Normal Crowned, R-curb	28	4.11	0.45	5.49	2.5	

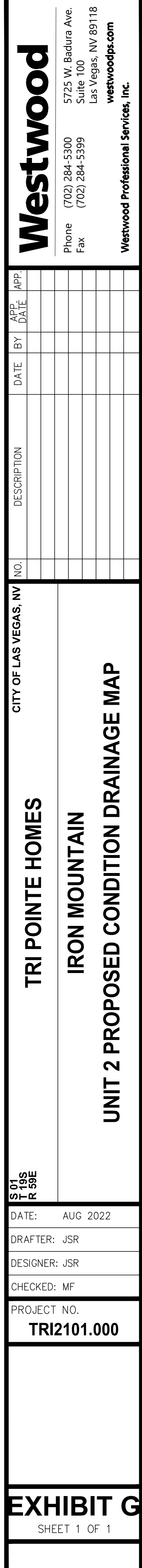
Recommended Drop Inlet Facility Summary					
Facility ID	Facility Description	Total/Approaching Flow (cfs) Q_{100}	Facility Flow (cfs) Q_{100}	Surface/Bypass Flow (cfs) Q_{100}	Flow Description
ONSITE FACILITIES					
D#1	Proposed 20.0' Type CM D.I. & 36" RCP Lateral	43.5	43.5	0	= (IRON1 + IRON2) - Drop Inlet Collection (#2 + #3 + #4 + #5) = (33 + 37) - (15 - 3 - 2 - 6.5)
D#2	Proposed 20.0' Type CM D.I. & 18" RCP Lateral	20.75	15	5.75	= (1/2)*[Bypass (D#4 + D#5) + IRON1(D2 + F5) + IRON2(D3 + E + G1 + G2 + G3 + G4)] = (1/2) * [(2 + 6.5)+(1.5+6)+(1+6.5+2.5+5.5+5+5)]
D#3	Proposed 5.0' Type CM D.I. & 18" RCP Lateral	3	3	0	IRON(F1)
D#4	Proposed 5.0' Type CM D.I. & 18" RCP Lateral	3	2	1	IRON(D1)
D#5	Proposed 10.0' Type CM D.I. & 18" RCP Lateral	14	6.5	7.5	IRON1(F2+F3+F4)
IRON MOUNTAIN FACILITIES					
D#6	Proposed 5.0' Type CM2 D.I. & Ex. 18" C900 Lateral	0	N/A	N/A	Nuisance Only
D#7	Proposed 5.0' Type CM2 D.I. & Ex. 18" RCP Lateral	5	3	2	IMR1(a)
D#8	Proposed 5.0' Type CM2 D.I. & Ex. 18" RCP Lateral	0	N/A	N/A	Nuisance Only

10-Year Street Flow Summary						
Perimeter Streets						
Section ID	Q ₁₀ (cfs)	Slope (%)	Depth (ft)	Velocity (fps)	DxV	Dry Lane (ft)
IM10 Q = IMR1	4	4.00	0.32	4.08	1.3	22.5
AW1 Q = ARW1	1	0.55	0.29	1.38	0.4	24.0

Offsite Hydraulic Section Summary					
Section ID	Q ₁₀₀ (cfs)	Section Description	Slope (%)	Depth (ft)	Velocity (fps)
Section V2 Q = OF2-E	23.0	Earthen V-Ditch, 3:1 SS	0.50	1.51	3.36

LEGEND

	BASIN BOUNDARY
	PRORATED
	SUBBASIN BOUNDARY
	EXISTING DRAINAGE FACILITY
	PROPOSED DRAINAGE FACILITY
	PROPOSED DRAINAGE FACILITY - OPEN CHANNEL
	PHASE MATCH LINE
	BASIN ID
	PRORATED SUBBASIN ID
	CONCENTRATION POINT ID
	FLOW DIRECTION
	FLOWMASTER SECTION
	FACILITY ID



APPENDIX C

Hydraulic Analyses

Radley Street Section

Worksheet for R1 60' ROW - MIN% 100-YR

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Channel Slope	4.55 %
Discharge	31.0 cfs

Section Definitions

Station (ft)	Elevation (ft)
0+00.00	0.57
0+20.00	0.17
0+20.00	0.13
0+21.50	0.00
0+21.50	0.48
0+22.00	0.50
0+22.00	0.50
0+30.00	0.66

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00.00, 0.57)	(0+30.00, 0.66)	0.016

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	0.56 ft
Roughness Coefficient	0.016
Elevation	0.56 ft
Elevation Range	0.00 to 0.66 ft
Flow Area	4.77 ft ²
Wetted Perimeter	25.43 ft
Hydraulic Radius	0.19 ft
Top Width	24.90 ft
Normal Depth	0.56 ft
Critical Depth	0.73 ft
Critical Slope	0.56 %
Velocity	6.50 ft/s
Velocity Head	0.66 ft

Worksheet for R1 60' ROW - MIN% 100-YR

Results

Specific Energy	1.22 ft
Froude Number	2.618
Flow Type	Supercritical

GVF Input Data

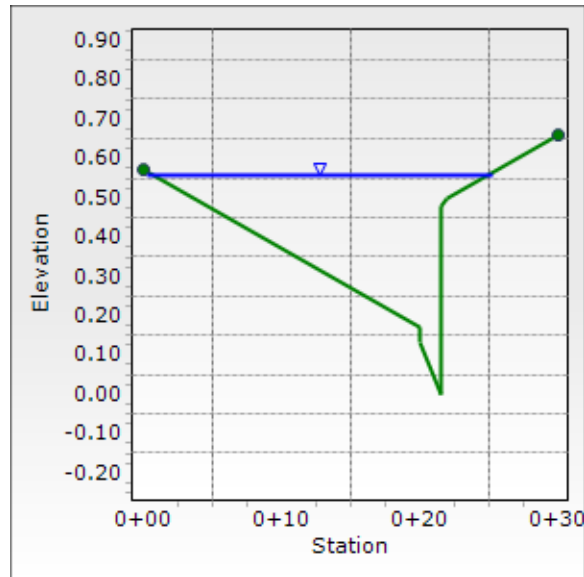
Downstream Depth	0.00 ft
Length	0.00 ft
Number Of Steps	0

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	0.56 ft
Critical Depth	0.73 ft
Channel Slope	4.55 %
Critical Slope	0.56 %

Cross Section for R1 60' ROW - MIN% 100-YR

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Channel Slope	4.55 %
Normal Depth	0.56 ft
Discharge	31.0 cfs



Worksheet for R1 60' ROW - MAX% 100-YR

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Channel Slope	2.22 %
Discharge	31.0 cfs

Section Definitions

Station (ft)	Elevation (ft)
0+00.00	0.57
0+20.00	0.17
0+20.00	0.13
0+21.50	0.00
0+21.50	0.48
0+22.00	0.50
0+22.00	0.50
0+30.00	0.66

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00.00, 0.57)	(0+30.00, 0.66)	0.016

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	0.62 ft
Roughness Coefficient	0.016
Elevation	0.62 ft
Elevation Range	0.00 to 0.66 ft
Flow Area	6.19 ft ²
Wetted Perimeter	28.46 ft
Hydraulic Radius	0.22 ft
Top Width	27.88 ft
Normal Depth	0.62 ft
Critical Depth	0.73 ft
Critical Slope	0.56 %
Velocity	5.01 ft/s
Velocity Head	0.39 ft

Worksheet for R1 60' ROW - MAX% 100-YR

Results

Specific Energy	1.01 ft
Froude Number	1.874
Flow Type	Supercritical

GVF Input Data

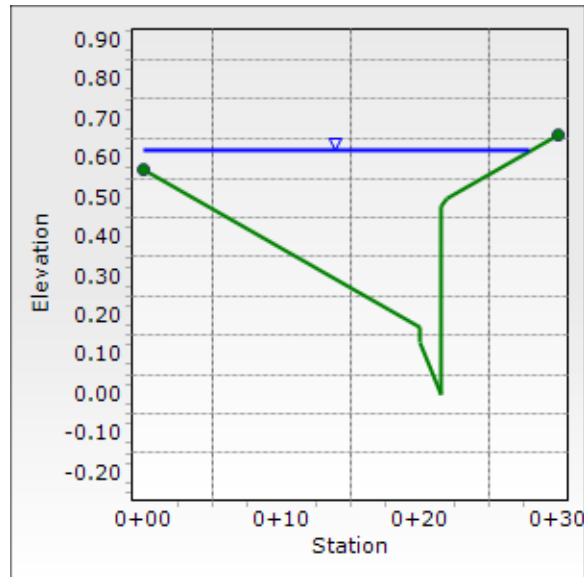
Downstream Depth	0.00 ft
Length	0.00 ft
Number Of Steps	0

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	0.62 ft
Critical Depth	0.73 ft
Channel Slope	2.22 %
Critical Slope	0.56 %

Cross Section for R1 60' ROW - MAX% 100-YR

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Channel Slope	2.22 %
Normal Depth	0.62 ft
Discharge	31.0 cfs



Sections for Pool Building Finished Floor Analysis

Worksheet for Pool Bldg Section G2-2 - 100-yr (HALF offset crown)

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Channel Slope	0.60 %
Discharge	0.2 cfs

Section Definitions

Station (ft)	Elevation (ft)
0+00.00	0.38
0+00.49	0.30
0+00.98	0.08
0+01.00	0.00
0+02.00	0.13
0+02.00	0.17
0+23.00	1.01

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00.00, 0.38)	(0+23.00, 1.01)	0.016

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	0.21 ft
Roughness Coefficient	0.016
Elevation	0.21 ft
Elevation Range	0.00 to 1.01 ft
Flow Area	0.18 ft ²
Wetted Perimeter	2.34 ft
Hydraulic Radius	0.08 ft
Top Width	2.20 ft
Normal Depth	0.21 ft
Critical Depth	0.19 ft
Critical Slope	0.94 %
Velocity	1.29 ft/s
Velocity Head	0.03 ft
Specific Energy	0.23 ft

Worksheet for Pool Bldg Section G2-2 - 100-yr (HALF offset crown)

Results	
Froude Number	0.801
Flow Type	Subcritical
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	N/A
Profile Headloss	0.00 ft
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	0.21 ft
Critical Depth	0.19 ft
Channel Slope	0.60 %
Critical Slope	0.94 %

Worksheet for Pool Bldg Section G2-2 - 100-yr (HALF offset crown)

Notes:

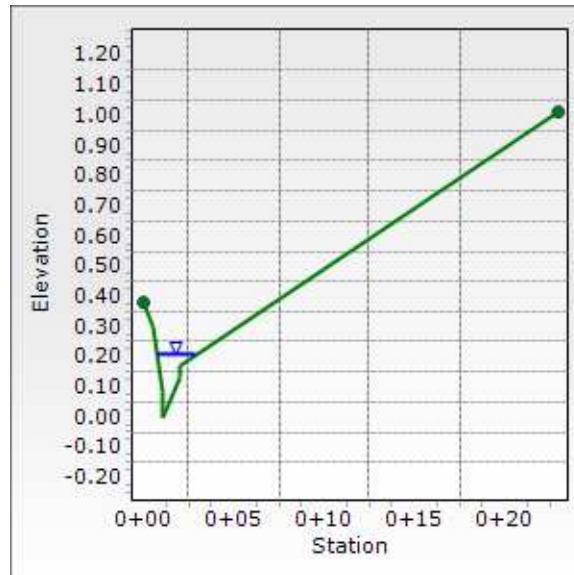
Drainage area fronting Lot 176 = 0.07 acres

Unit flow rate = 3.3 cfs/acre

Flow rate = 0.23 cfs

Cross Section for Pool Bldg Section G2-2 - 100-yr (HALF offset crown)

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Channel Slope	0.60 %
Normal Depth	0.21 ft
Discharge	0.2 cfs



Worksheet for Pool Swale Min%

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.025
Channel Slope	0.60 %
Left Side Slope	3.000 H:V
Right Side Slope	3.000 H:V
Discharge	0.2 cfs
Results	
Normal Depth	0.26 ft
Flow Area	0.20 ft ²
Wetted Perimeter	1.64 ft
Hydraulic Radius	0.12 ft
Top Width	1.56 ft
Critical Depth	0.21 ft
Critical Slope	2.09 %
Velocity	1.14 ft/s
Velocity Head	0.02 ft
Specific Energy	0.28 ft
Froude Number	0.558
Flow Type	Subcritical
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	N/A
Profile Headloss	0.00 ft
Downstream Velocity	0.00 ft/s
Upstream Velocity	0.00 ft/s
Normal Depth	0.26 ft
Critical Depth	0.21 ft
Channel Slope	0.60 %
Critical Slope	2.09 %

Worksheet for Pool Swale Min%

Notes:

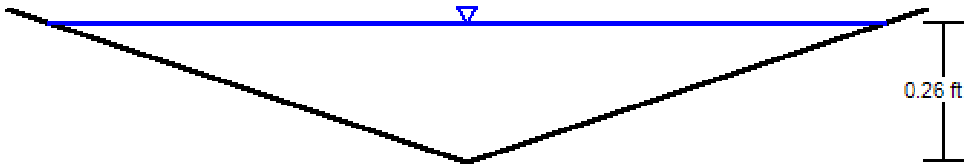
Drainage area fronting Lot 176 = 0.07 acres

Unit flow rate = 3.3 cfs/acre

Flow rate = 0.23 cfs

Cross Section for Pool Swale Min%

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.025
Channel Slope	0.60 %
Normal Depth	0.26 ft
Left Side Slope	3.000 H:V
Right Side Slope	3.000 H:V
Discharge	0.2 cfs



V: 1
H: 1

Worksheet for Pool Swale Max%

Project Description	
Friction Method	Manning
Solve For	Formula
	Normal Depth
Input Data	
Roughness Coefficient	0.025
Channel Slope	2.77 %
Left Side Slope	3.000 H:V
Right Side Slope	3.000 H:V
Discharge	0.2 cfs
Results	
Normal Depth	0.19 ft
Flow Area	0.11 ft ²
Wetted Perimeter	1.23 ft
Hydraulic Radius	0.09 ft
Top Width	1.17 ft
Critical Depth	0.21 ft
Critical Slope	2.09 %
Velocity	2.02 ft/s
Velocity Head	0.06 ft
Specific Energy	0.26 ft
Froude Number	1.142
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	N/A
Profile Headloss	0.00 ft
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	0.19 ft
Critical Depth	0.21 ft
Channel Slope	2.77 %
Critical Slope	2.09 %

Worksheet for Pool Swale Max%

Notes:

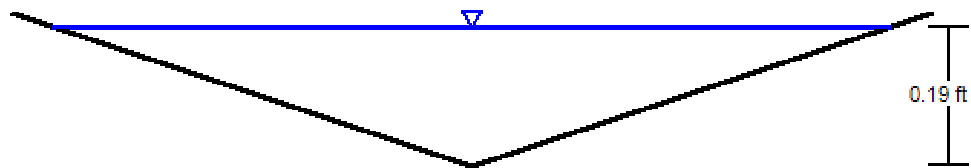
Drainage area fronting Lot 176 = 0.07 acres

Unit flow rate = 3.3 cfs/acre

Flow rate = 0.23 cfs

Cross Section for Pool Swale Max%

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.025
Channel Slope	2.77 %
Normal Depth	0.19 ft
Left Side Slope	3.000 H:V
Right Side Slope	3.000 H:V
Discharge	0.2 cfs



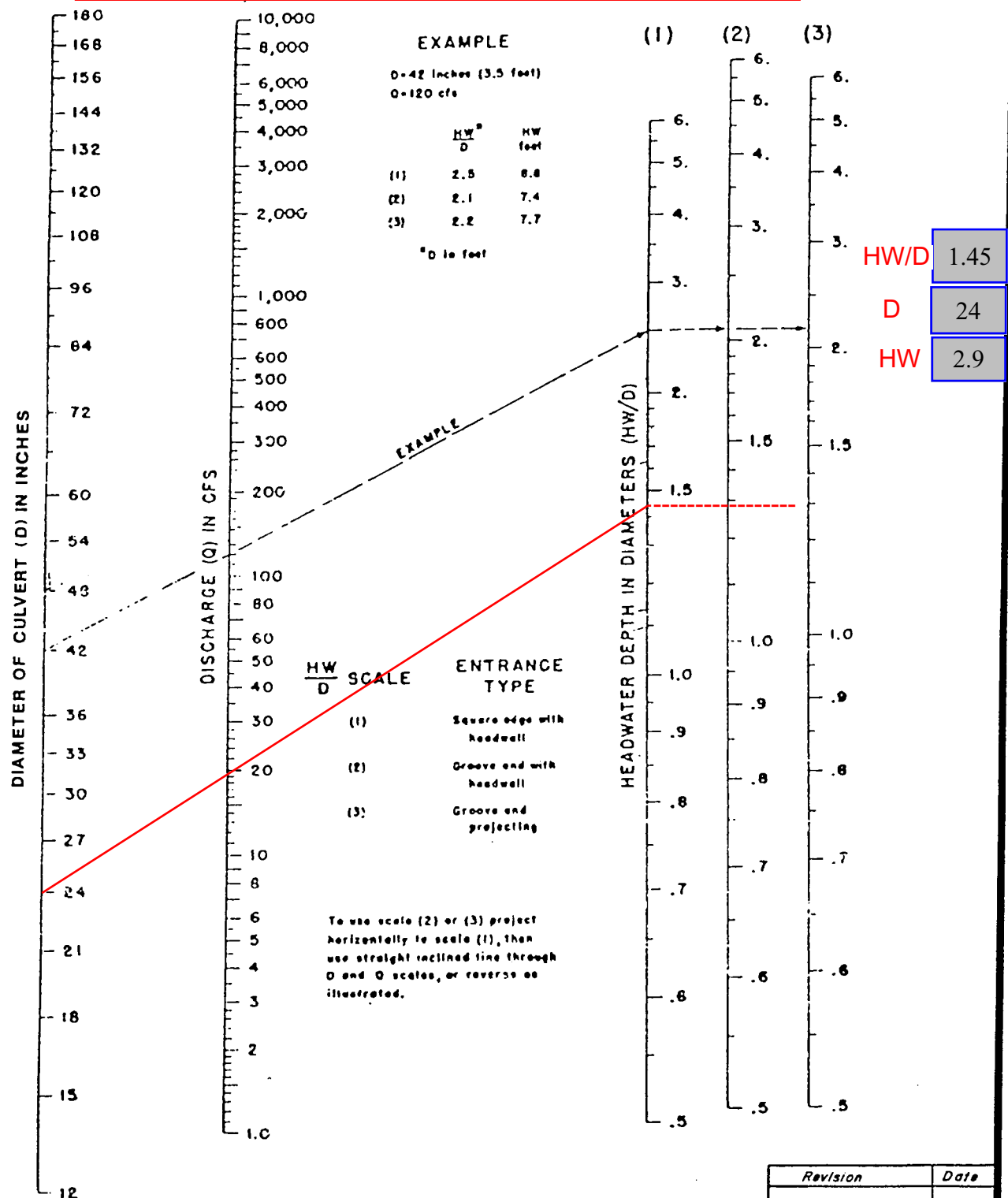
V: 1 H: 1

Nomograph Computation – Facility A2

HYDROLOGIC CRITERIA AND DRAINAGE DESIGN MANUAL

NOMOGRAPH - INLET CONTROL RCP

Inlet A2: Q = 19.5 CFS (Interim)



Revision	Date

WRC
ENGINEERING

REFERENCE:

USDOT, FHWA, HDS, No. 5, 1985

FIGURE 1005

Lateral Loss Computations

Project Name: Iron Mountain - Update
 Project Number: TRI2101
 Date: August 2022
 By: JSR

Westwood

STORM DRAIN HYDRAULIC CALCULATIONS

CONDUIT DATA							FLOW DATA							LOSS	HGL		COMMENTS	
STATION		SIZE / TYPE	n Manning's Roughness	INVERTS		LENGTH	A (FT ²)	R (FT)	Φ	Q (CFS)	V (FPS)	H _v = V ² /2g (FT)	S _f (FT/FT)	PIPE	PIPE		PRESS. FLOW?	OTHER
FROM	TO			D / S ELEV.	U / S ELEV.									H _f (FT)	D/S HGL ELEV.	U/S HGL ELEV.		
1000	1020.00	ROUND 24" RCP	0.013	2667.56	2869.7	20	3.142	0.5	0.004925	19.5	6.21	0.598251	0.007407	0.148	2870.01	2870.16	No	SDMH1 TO Open Sump (Radley Street)
$S_f = \Phi H_v / R^{1.33}$ $\Phi = 2g (n^2) / 2.21$ 1 - Where pipes are not under pressure, assume U/S HGL is at top of pipe																		

APPENDIX D

Finished Floor Analyses

Exhibit EX -1 Driveway TC Analysis

Finished Floor Computations

TRI2101 Iron Mountain - Update
FINISHED FLOOR - CITY OF LAS VEGAS JURISDICTION

INPUT INFORMATION					FINISHED FLOORS					NOTES
Lot Number	Hydraulic Section Utilized	T/C ¹ (ft)	F/L ² (ft)	D ₁₀₀ (ft)	Flowline F.F. _{min} ³ (ft)	T/C + 6" F.F. _{min} ⁴ (ft)	F.F. _{Design} (ft)	Flowline Check	T/C + 6" Check	See References on Last Sheet
1	A1	2905.07	2904.69	0.45	2905.59	2905.57	2906.7	OK	OK	
2	A1	2903.46	2903.08	0.45	2903.98	2903.96	2905.1	OK	OK	
3	A1	2902.10	2901.72	0.45	2902.62	2902.60	2903.6	OK	OK	
4	A1	2900.49	2900.11	0.45	2901.01	2900.99	2902.0	OK	OK	
5	A1	2898.12	2897.74	0.45	2898.64	2898.62	2899.6	OK	OK	
6	A1	2895.29	2894.91	0.45	2895.81	2895.79	2896.8	OK	OK	
7	A1	2892.73	2892.35	0.45	2893.25	2893.23	2894.2	OK	OK	
8	A1	2890.17	2889.79	0.45	2890.69	2890.67	2891.7	OK	OK	
9	A1	2887.61	2887.23	0.45	2888.13	2888.11	2889.1	OK	OK	
10	A1	2885.05	2884.67	0.45	2885.57	2885.55	2886.6	OK	OK	
11	A1	2882.50	2882.12	0.45	2883.02	2883.00	2884.0	OK	OK	
12	A1	2880.05	2879.67	0.45	2880.57	2880.55	2881.6	OK	OK	
13	A1	2878.12	2877.74	0.45	2878.64	2878.62	2879.6	OK	OK	
14	B	2877.29	2876.91	0.68	2878.27	2877.79	2878.2	CHECK	OK	Lot is located near a high point and flow depth considered negligible. Therefore, finished floor is considered adequately elevated.
15	B	2876.35	2875.97	0.68	2877.33	2876.85	2878.0	OK	OK	
16	B	2875.99	2875.61	0.68	2876.97	2876.49	2877.6	OK	OK	
17	B	2875.63	2875.25	0.68	2876.61	2876.13	2877.2	OK	OK	
18	B	2875.26	2874.88	0.68	2876.24	2875.76	2876.9	OK	OK	
19	B	2874.90	2874.52	0.68	2875.88	2875.40	2876.5	OK	OK	
20	B	2874.53	2874.15	0.68	2875.51	2875.03	2876.1	OK	OK	
21	B	2874.17	2873.79	0.68	2875.15	2874.67	2875.8	OK	OK	
22	B	2873.70	2873.32	0.68	2874.68	2874.20	2875.3	OK	OK	
23	E1 (Interim)	2873.12	2872.74	0.63	2874.00	2873.62	2874.7	OK	OK	
24	E1 (Interim)	2872.80	2872.42	0.63	2873.68	2873.30	2874.4	OK	OK	
25	E2 (Interim)	2876.65	2876.27	0.51	2877.29	2877.15	2878.2	OK	OK	
26	E2 (Interim)	2878.33	2877.95	0.51	2878.97	2878.83	2879.8	OK	OK	
27	E2 (Interim)	2880.44	2880.06	0.51	2881.08	2880.94	2881.9	OK	OK	
28	E2 (Interim)	2882.58	2882.20	0.51	2883.22	2883.08	2884.1	OK	OK	
29	E2 (Interim)	2884.72	2884.34	0.51	2885.36	2885.22	2886.2	OK	OK	
30	E2 (Interim)	2886.86	2886.48	0.51	2887.50	2887.36	2888.4	OK	OK	

TRI2101 Iron Mountain - Update
FINISHED FLOOR - CITY OF LAS VEGAS JURISDICTION

INPUT INFORMATION					FINISHED FLOORS					NOTES
Lot Number	Hydraulic Section Utilized	T/C ¹ (ft)	F/L ² (ft)	D ₁₀₀ (ft)	Flowline F.F. _{min} ³ (ft)	T/C + 6" F.F. _{min} ⁴ (ft)	F.F. _{Design} (ft)	Flowline Check	T/C + 6" Check	See References on Last Sheet
31	E2 (Interim)	2889.00	2888.62	0.51	2889.64	2889.50	2890.5	OK	OK	
32	E2 (Interim)	2891.14	2890.76	0.51	2891.78	2891.64	2892.6	OK	OK	
33	E2 (Interim)	2893.28	2892.90	0.51	2893.92	2893.78	2894.8	OK	OK	
34	E2 (Interim)	2895.42	2895.04	0.51	2896.06	2895.92	2896.9	OK	OK	
35	E2 (Interim)	2897.55	2897.17	0.51	2898.19	2898.05	2899.1	OK	OK	
36	D2	2899.50	2899.12	0.33	2899.78	2900.00	2901.0	OK	OK	
37	D2	2901.16	2900.78	0.33	2901.44	2901.66	2902.7	OK	OK	
38	D2	2902.88	2902.50	0.33	2903.16	2903.38	2904.4	OK	OK	
39	C	2874.67	2874.29	0.57	2875.43	2875.17	2876.3	OK	OK	
40	C	2875.04	2874.66	0.57	2875.80	2875.54	2876.7	OK	OK	
41	C	2875.40	2875.02	0.57	2876.16	2875.90	2877.1	OK	OK	
42	C	2875.77	2875.39	0.57	2876.53	2876.27	2877.5	OK	OK	
43	C	2876.13	2875.75	0.57	2876.89	2876.63	2877.9	OK	OK	
44	C	2876.52	2876.14	0.57	2877.28	2877.02	2878.4	OK	OK	
45	G2	2882.75	2882.37	0.4	2883.17	2883.25	2884.4	OK	OK	
46	G2	2882.27	2881.89	0.4	2882.69	2882.77	2883.9	OK	OK	
47	G2	2881.88	2881.50	0.4	2882.30	2882.38	2883.5	OK	OK	
48	G2	2881.48	2881.10	0.4	2881.90	2881.98	2883.1	OK	OK	
49	G2	2881.09	2880.71	0.4	2881.51	2881.59	2882.6	OK	OK	
50	G2	2880.29	2879.91	0.4	2880.71	2880.79	2881.8	OK	OK	
51	G3	2881.52	2881.14	0.36	2881.86	2882.02	2883.1	OK	OK	
52	G3	2881.81	2881.43	0.36	2882.15	2882.31	2883.5	OK	OK	
53	G3	2882.20	2881.82	0.36	2882.54	2882.70	2883.9	OK	OK	
54	G3	2882.60	2882.22	0.36	2882.94	2883.10	2884.3	OK	OK	
55	G3	2883.00	2882.62	0.36	2883.34	2883.50	2884.7	OK	OK	
56	G3	2883.42	2883.04	0.36	2883.76	2883.92	2885.1	OK	OK	
57	G1	2893.30	2892.92	0.36	2893.64	2893.80	2894.8	OK	OK	
58	G1	2892.54	2892.16	0.36	2892.88	2893.04	2894.0	OK	OK	
59	G1	2891.90	2891.52	0.36	2892.24	2892.40	2893.4	OK	OK	
60	G1	2891.27	2890.89	0.36	2891.61	2891.77	2892.8	OK	OK	
61	G1	2890.63	2890.25	0.36	2890.97	2891.13	2892.1	OK	OK	
62	G1	2889.42	2889.04	0.36	2889.76	2889.92	2890.9	OK	OK	

TRI2101 Iron Mountain - Update
FINISHED FLOOR - CITY OF LAS VEGAS JURISDICTION

INPUT INFORMATION					FINISHED FLOORS					NOTES
Lot Number	Hydraulic Section Utilized	T/C ¹ (ft)	F/L ² (ft)	D ₁₀₀ (ft)	Flowline F.F. _{min} ³ (ft)	T/C + 6" F.F. _{min} ⁴ (ft)	F.F. _{Design} (ft)	Flowline Check	T/C + 6" Check	See References on Last Sheet
63	G1	2890.17	2889.79	0.36	2890.51	2890.67	2891.8	OK	OK	
64	G1	2890.76	2890.38	0.36	2891.10	2891.26	2892.4	OK	OK	
65	G1	2891.40	2891.02	0.36	2891.74	2891.90	2893.0	OK	OK	
66	G1	2892.03	2891.65	0.36	2892.37	2892.53	2893.6	OK	OK	
67	G1	2892.67	2892.29	0.36	2893.01	2893.17	2894.3	OK	OK	
68	G1	2893.34	2892.96	0.36	2893.68	2893.84	2894.9	OK	OK	
69	G1	2902.22	2901.84	0.36	2902.56	2902.72	2903.7	OK	OK	
70	G1	2901.40	2901.02	0.36	2901.74	2901.90	2902.9	OK	OK	
71	G1	2900.72	2900.34	0.36	2901.06	2901.22	2902.2	OK	OK	
72	G1	2900.04	2899.66	0.36	2900.38	2900.54	2901.5	OK	OK	
73	G1	2899.36	2898.98	0.36	2899.70	2899.86	2900.9	OK	OK	
74	G1	2898.11	2897.73	0.36	2898.45	2898.61	2899.6	OK	OK	
75	G1	2898.82	2898.44	0.36	2899.16	2899.32	2900.5	OK	OK	
76	G1	2899.50	2899.12	0.36	2899.84	2900.00	2901.1	OK	OK	
77	G1	2900.18	2899.80	0.36	2900.52	2900.68	2901.8	OK	OK	
78	G1	2900.86	2900.48	0.36	2901.20	2901.36	2902.5	OK	OK	
79	G1	2906.48	2906.10	0.36	2906.82	2906.98	2908.0	OK	OK	
80	G1	2905.93	2905.55	0.36	2906.27	2906.43	2907.4	OK	OK	
81	G1	2905.37	2904.99	0.36	2905.71	2905.87	2906.9	OK	OK	
82	G1	2904.82	2904.44	0.36	2905.16	2905.32	2906.3	OK	OK	
TOWNHOME LOTS										
83	G1	2908.93	2908.55	0.36	2909.27	2909.43	2911.0	OK	OK	
84	G1	2909.35	2908.97	0.36	2909.69	2909.85	2911.3	OK	OK	
85	G1	2909.67	2909.29	0.36	2910.01	2910.17	2911.6	OK	OK	
86	G1	2910.04	2909.66	0.36	2910.38	2910.54	2911.5	OK	OK	
87	G1	2910.21	2909.83	0.36	2910.55	2910.71	2911.8	OK	OK	
88	G1	2910.35	2909.97	0.36	2910.69	2910.85	2912.1	OK	OK	
89	G1	2910.61	2910.23	0.36	2910.95	2911.11	2912.2	OK	OK	
90	G1	2910.78	2910.40	0.36	2911.12	2911.28	2912.4	OK	OK	
91	G1	2910.95	2910.57	0.36	2911.29	2911.45	2912.7	OK	OK	
92	G1	2911.09	2910.71	0.36	2911.43	2911.59	2913.0	OK	OK	
93	G1	2911.14	2910.76	0.36	2911.48	2911.64	2913.1	OK	OK	

TRI2101 Iron Mountain - Update
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INPUT INFORMATION					FINISHED FLOORS					NOTES
Lot Number	Hydraulic Section Utilized	T/C ¹ (ft)	F/L ² (ft)	D ₁₀₀ (ft)	Flowline F.F. _{min} ³ (ft)	T/C + 6" F.F. _{min} ⁴ (ft)	F.F. _{Design} (ft)	Flowline Check	T/C + 6" Check	See References on Last Sheet
94	G1	2911.00	2910.62	0.36	2911.34	2911.50	2912.8	OK	OK	
95	G1	2910.82	2910.44	0.36	2911.16	2911.32	2912.5	OK	OK	
96	G1	2910.66	2910.28	0.36	2911.00	2911.16	2912.3	OK	OK	
97	G1	2910.40	2910.02	0.36	2910.74	2910.90	2912.4	OK	OK	
98	G1	2910.26	2909.88	0.36	2910.60	2910.76	2912.1	OK	OK	
99	G1	2910.08	2909.70	0.36	2910.42	2910.58	2911.8	OK	OK	
100	G1	2909.92	2909.54	0.36	2910.26	2910.42	2911.6	OK	OK	
101	G1	2909.60	2909.22	0.36	2909.94	2910.10	2911.6	OK	OK	
102	G1	2909.42	2909.04	0.36	2909.76	2909.92	2911.3	OK	OK	
103	G1	2909.20	2908.82	0.36	2909.54	2909.70	2911.0	OK	OK	
104	G1	2908.98	2908.60	0.36	2909.32	2909.48	2910.8	OK	OK	
105	G1	2914.05	2913.67	0.36	2914.39	2914.55	2916.5	OK	OK	
106	G1	2914.65	2914.27	0.36	2914.99	2915.15	2916.7	OK	OK	
107	G1	2915.17	2914.79	0.36	2915.51	2915.67	2917.0	OK	OK	
108	G1	2915.43	2915.05	0.36	2915.77	2915.93	2917.3	OK	OK	
109	G1	2915.69	2915.31	0.36	2916.03	2916.19	2917.2	OK	OK	
110	G1	2915.85	2915.47	0.36	2916.19	2916.35	2917.4	OK	OK	
111	G1	2916.01	2915.63	0.36	2916.35	2916.51	2917.7	OK	OK	
112	G1	2916.14	2915.76	0.36	2916.48	2916.64	2918.0	OK	OK	
113	G1	2916.39	2916.01	0.36	2916.73	2916.89	2917.9	OK	OK	
114	G1	2916.54	2916.16	0.36	2916.88	2917.04	2918.1	OK	OK	
115	G1	2916.71	2916.33	0.36	2917.05	2917.21	2918.4	OK	OK	
116	G1	2916.84	2916.46	0.36	2917.18	2917.34	2918.7	OK	OK	
117	G1	2916.98	2916.60	0.36	2917.32	2917.48	2918.9	OK	OK	
118	G1	2916.85	2916.47	0.36	2917.19	2917.35	2918.6	OK	OK	
119	G1	2916.69	2916.31	0.36	2917.03	2917.19	2918.3	OK	OK	
120	G1	2916.53	2916.15	0.36	2916.87	2917.03	2918.1	OK	OK	
121	G1	2916.29	2915.91	0.36	2916.63	2916.79	2918.3	OK	OK	
122	G1	2916.16	2915.78	0.36	2916.50	2916.66	2918.0	OK	OK	
123	G1	2915.99	2915.61	0.36	2916.33	2916.49	2917.7	OK	OK	
124	G1	2915.84	2915.46	0.36	2916.18	2916.34	2917.5	OK	OK	
125	G1	2915.59	2915.21	0.36	2915.93	2916.09	2917.6	OK	OK	

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FINISHED FLOOR - CITY OF LAS VEGAS JURISDICTION

INPUT INFORMATION					FINISHED FLOORS					NOTES
Lot Number	Hydraulic Section Utilized	T/C ¹ (ft)	F/L ² (ft)	D ₁₀₀ (ft)	Flowline F.F. _{min} ³ (ft)	T/C + 6" F.F. _{min} ⁴ (ft)	F.F. _{Design} (ft)	Flowline Check	T/C + 6" Check	See References on Last Sheet
126	G1	2915.45	2915.07	0.36	2915.79	2915.95	2917.3	OK	OK	
127	G1	2915.11	2914.73	0.36	2915.45	2915.61	2917.0	OK	OK	
128	G1	2914.63	2914.25	0.36	2914.97	2915.13	2916.8	OK	OK	
129	G2	2919.82	2919.44	0.4	2920.24	2920.32	2922.3	OK	OK	
130	G2	2920.39	2920.01	0.4	2920.81	2920.89	2922.5	OK	OK	
131	G2	2920.86	2920.48	0.4	2921.28	2921.36	2922.8	OK	OK	
132	G2	2921.14	2920.76	0.4	2921.56	2921.64	2923.1	OK	OK	
133	G2	2921.45	2921.07	0.4	2921.87	2921.95	2923.0	OK	OK	
134	G2	2921.61	2921.23	0.4	2922.03	2922.11	2923.2	OK	OK	
135	G2	2921.77	2921.39	0.4	2922.19	2922.27	2923.5	OK	OK	
136	G2	2921.90	2921.52	0.4	2922.32	2922.40	2923.8	OK	OK	
137	G2	2922.15	2921.77	0.4	2922.57	2922.65	2923.8	OK	OK	
138	G2	2922.30	2921.92	0.4	2922.72	2922.80	2924.0	OK	OK	
139	G2	2922.47	2922.09	0.4	2922.89	2922.97	2924.3	OK	OK	
140	G2	2922.60	2922.22	0.4	2923.02	2923.10	2924.6	OK	OK	
141	G3	2923.16	2922.78	0.36	2923.50	2923.66	2925.1	OK	OK	
142	G3	2923.03	2922.65	0.36	2923.37	2923.53	2924.8	OK	OK	
143	G3	2922.87	2922.49	0.36	2923.21	2923.37	2924.5	OK	OK	
144	G3	2922.71	2922.33	0.36	2923.05	2923.21	2924.3	OK	OK	
145	G3	2922.47	2922.09	0.36	2922.81	2922.97	2924.4	OK	OK	
146	G3	2922.34	2921.96	0.36	2922.68	2922.84	2924.1	OK	OK	
147	G3	2922.17	2921.79	0.36	2922.51	2922.67	2923.8	OK	OK	
148	G3	2922.02	2921.64	0.36	2922.36	2922.52	2923.6	OK	OK	
149	G3	2921.63	2921.25	0.36	2921.97	2922.13	2923.7	OK	OK	
150	G3	2921.30	2920.92	0.36	2921.64	2921.80	2923.4	OK	OK	
151	G3	2920.77	2920.39	0.36	2921.11	2921.27	2923.1	OK	OK	
152	G3	2920.34	2919.96	0.36	2920.68	2920.84	2922.9	OK	OK	
153	G3	2925.36	2924.98	0.36	2925.70	2925.86	2927.3	OK	OK	
154	G3	2925.62	2925.24	0.36	2925.96	2926.12	2927.5	OK	OK	
155	G3	2925.90	2925.52	0.36	2926.24	2926.40	2927.8	OK	OK	
156	G3	2926.11	2925.73	0.36	2926.45	2926.61	2928.1	OK	OK	
157	G3	2926.52	2926.14	0.36	2926.86	2927.02	2928.5	OK	OK	

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INPUT INFORMATION					FINISHED FLOORS					NOTES
Lot Number	Hydraulic Section Utilized	T/C ¹ (ft)	F/L ² (ft)	D ₁₀₀ (ft)	Flowline F.F. _{min} ³ (ft)	T/C + 6" F.F. _{min} ⁴ (ft)	F.F. _{Design} (ft)	Flowline Check	T/C + 6" Check	See References on Last Sheet
158	G3	2926.78	2926.40	0.36	2927.12	2927.28	2928.7	OK	OK	
159	G3	2927.05	2926.67	0.36	2927.39	2927.55	2929.0	OK	OK	
160	G3	2927.27	2926.89	0.36	2927.61	2927.77	2929.3	OK	OK	
161	G3	2927.68	2927.30	0.36	2928.02	2928.18	2929.7	OK	OK	
162	G3	2927.94	2927.56	0.36	2928.28	2928.44	2929.9	OK	OK	
163	G3	2928.21	2927.83	0.36	2928.55	2928.71	2930.2	OK	OK	
164	G3	2928.43	2928.05	0.36	2928.77	2928.93	2930.5	OK	OK	
165	D2	2903.87	2903.49	0.33	2904.15	2904.37	2906.2	OK	OK	
166	D2	2904.79	2904.41	0.33	2905.07	2905.29	2906.9	OK	OK	
167	D2	2905.71	2905.33	0.33	2905.99	2906.21	2907.6	OK	OK	
168	D2	2906.34	2905.96	0.33	2906.62	2906.84	2908.2	OK	OK	
169	D2	2907.58	2907.20	0.33	2907.86	2908.08	2909.7	OK	OK	
170	D2	2908.41	2908.03	0.33	2908.69	2908.91	2910.4	OK	OK	
171	D2	2909.29	2908.91	0.33	2909.57	2909.79	2911.1	OK	OK	
172	D2	2909.97	2909.59	0.33	2910.25	2910.47	2911.7	OK	OK	
173	D1	2911.92	2911.54	0.32	2912.18	2912.42	2914.1	OK	OK	
174	D1	2912.75	2912.37	0.32	2913.01	2913.25	2914.8	OK	OK	
175	D1	2913.63	2913.25	0.32	2913.89	2914.13	2915.5	OK	OK	
176	D1	2914.31	2913.93	0.32	2914.57	2914.81	2916.1	OK	OK	
177	D1	2915.62	2915.24	0.32	2915.88	2916.12	2917.8	OK	OK	
178	D1	2916.46	2916.08	0.32	2916.72	2916.96	2918.5	OK	OK	
179	D1	2917.33	2916.95	0.32	2917.59	2917.83	2919.2	OK	OK	
180	D1	2918.01	2917.63	0.32	2918.27	2918.51	2919.8	OK	OK	
181	D1	2919.32	2918.94	0.32	2919.58	2919.82	2921.5	OK	OK	
182	D1	2920.16	2919.78	0.32	2920.42	2920.66	2922.2	OK	OK	
183	D1	2921.04	2920.66	0.32	2921.30	2921.54	2922.9	OK	OK	
184	D1	2921.72	2921.34	0.32	2921.98	2922.22	2923.5	OK	OK	
185	F1	2925.08	2924.70	0.4	2925.50	2925.58	2926.9	OK	OK	
186	F1	2925.34	2924.96	0.4	2925.76	2925.84	2927.1	OK	OK	
187	F1	2925.62	2925.24	0.4	2926.04	2926.12	2927.4	OK	OK	
188	F1	2925.83	2925.45	0.4	2926.25	2926.33	2927.7	OK	OK	
189	F1	2926.50	2926.12	0.4	2926.92	2927.00	2928.1	OK	OK	

TRI2101 Iron Mountain - Update
FINISHED FLOOR - CITY OF LAS VEGAS JURISDICTION

INPUT INFORMATION					FINISHED FLOORS					NOTES
Lot Number	Hydraulic Section Utilized	T/C ¹ (ft)	F/L ² (ft)	D ₁₀₀ (ft)	Flowline F.F. _{min} ³ (ft)	T/C + 6" F.F. _{min} ⁴ (ft)	F.F. _{Design} (ft)	Flowline Check	T/C + 6" Check	See References on Last Sheet
190	F1	2926.78	2926.40	0.4	2927.20	2927.28	2928.3	OK	OK	
191	F1	2926.78	2926.40	0.4	2927.20	2927.28	2928.6	OK	OK	
192	F1	2926.99	2926.61	0.4	2927.41	2927.49	2928.9	OK	OK	
193	F1	2927.40	2927.02	0.4	2927.82	2927.90	2929.3	OK	OK	
194	F1	2927.66	2927.28	0.4	2928.08	2928.16	2929.5	OK	OK	
195	F1	2927.93	2927.55	0.4	2928.35	2928.43	2929.8	OK	OK	
196	F1	2928.15	2927.77	0.4	2928.57	2928.65	2930.1	OK	OK	
197	F1	2928.54	2928.16	0.4	2928.96	2929.04	2930.4	OK	OK	
198	F1	2928.75	2928.37	0.4	2929.17	2929.25	2930.6	OK	OK	
199	F1	2929.03	2928.65	0.4	2929.45	2929.53	2930.9	OK	OK	
200	F1	2929.29	2928.91	0.4	2929.71	2929.79	2931.2	OK	OK	
201	A3	2931.39	2931.01	0.32	2931.65	2931.89	2933.2	OK	OK	
202	A3	2930.67	2930.29	0.32	2930.93	2931.17	2932.6	OK	OK	
203	A3	2929.73	2929.35	0.32	2929.99	2930.23	2931.9	OK	OK	
204	A3	2928.35	2927.97	0.32	2928.61	2928.85	2930.1	OK	OK	
205	A3	2927.63	2927.25	0.32	2927.89	2928.13	2929.5	OK	OK	
206	A3	2926.69	2926.31	0.32	2926.95	2927.19	2928.8	OK	OK	
207	A3	2925.31	2924.93	0.32	2925.57	2925.81	2927.1	OK	OK	
208	A3	2924.59	2924.21	0.32	2924.85	2925.09	2926.5	OK	OK	
209	A3	2923.65	2923.27	0.32	2923.91	2924.15	2925.8	OK	OK	
210	A3	2922.77	2922.39	0.32	2923.03	2923.27	2925.1	OK	OK	
211	A3	2921.38	2921.00	0.32	2921.64	2921.88	2923.2	OK	OK	
212	A3	2920.66	2920.28	0.32	2920.92	2921.16	2922.6	OK	OK	
213	A3	2919.73	2919.35	0.32	2919.99	2920.23	2921.9	OK	OK	
214	A3	2918.84	2918.46	0.32	2919.10	2919.34	2921.2	OK	OK	
215	A2	2917.45	2917.07	0.38	2917.83	2917.95	2919.3	OK	OK	
216	A2	2916.73	2916.35	0.38	2917.11	2917.23	2918.7	OK	OK	
217	A2	2915.80	2915.42	0.38	2916.18	2916.30	2918.0	OK	OK	
218	A2	2914.91	2914.53	0.38	2915.29	2915.41	2917.3	OK	OK	
219	A2	2913.53	2913.15	0.38	2913.91	2914.03	2915.6	OK	OK	

TRI2101 Iron Mountain - Update
FINISHED FLOOR - CITY OF LAS VEGAS JURISDICTION

INPUT INFORMATION					FINISHED FLOORS					NOTES
Lot Number	Hydraulic Section Utilized	T/C ¹ (ft)	F/L ² (ft)	D ₁₀₀ (ft)	Flowline F.F. _{min} ³ (ft)	T/C + 6" F.F. _{min} ⁴ (ft)	F.F. _{Design} (ft)	Flowline Check	T/C + 6" Check	See References on Last Sheet
220	A2	2912.81	2912.43	0.38	2913.19	2913.31	2915.0	OK	OK	
221	A2	2912.04	2911.66	0.38	2912.42	2912.54	2914.3	OK	OK	
222	A2	2911.39	2911.01	0.38	2911.77	2911.89	2913.6	OK	OK	
223	A2	2910.35	2909.97	0.38	2910.73	2910.85	2912.4	OK	OK	
224	A2	2909.73	2909.35	0.38	2910.11	2910.23	2911.8	OK	OK	
225	A2	2908.90	2908.52	0.38	2909.28	2909.40	2911.1	OK	OK	
226	A2	2908.12	2907.74	0.38	2908.50	2908.62	2910.4	OK	OK	

Where:

- 1: Top of Curb at High Side of Lot, or for townhomes at top of driveway TC.
- 2: TC-0.38 (For Roll Curb), TC-0.5 (For L Curb)
- 3: Minimum Allowable Finished Floor Elevation above flowline elevation @ high side of lot = (2 x D₁₀₀) + F/L
- 4: City of Las Vegas minimum allowable finished floor elevation = T.C. @ high side of lot + 6-inches
- 5: These lots have an adjacent solid grouted wall that protects the FF.

City of Las Vegas Finished Floor Criteria:

- The finished floor shall be set a vertical 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 WSEL in the street. Per HCDDM, Section 304.4.
- The finished floor shall be set a vertical distance of at least 6-inches above the highest adjacent top of curb. Per HCDDM, Section 1602.

TRI2101 Iron Mountain - Update GARAGE FINISHED FLOOR - CITY OF LAS VEGAS JURISDICTION										
INPUT INFORMATION					FINISHED FLOORS					NOTES
Lot Number	Hydraulic Section Utilized	Driveway T/C ¹ (ft)	F/L ² (ft)	D ₁₀₀ (ft)	Flowline G.F.F. _{min} ³ (ft)	T/C + 6" G.F.F. _{min} ⁴ (ft)	G.F.F. _{Design} (ft)	Flowline Check	T/C + 6" Check	See References on Last Sheet
83	F3	2908.93	2908.55	0.37	2909.29	2909.43	2909.3	OK	CHECK	
84	F3	2909.35	2908.97	0.37	2909.71	2909.85	2909.8	OK	CHECK	
85	F3	2909.67	2909.29	0.37	2910.03	2910.17	2910.1	OK	CHECK	
86	F3	2910.04	2909.66	0.37	2910.40	2910.54	2910.5	OK	CHECK	
87	F3	2910.21	2909.83	0.37	2910.57	2910.71	2910.7	OK	CHECK	
88	F3-2	2910.35	2909.97	0.31	2910.59	2910.85	2910.9	OK	OK	
89	F3	2910.61	2910.23	0.37	2910.97	2911.11	2911.1	OK	CHECK	
90	F3	2910.78	2910.40	0.37	2911.14	2911.28	2911.3	OK	OK	
91	F3	2910.95	2910.57	0.37	2911.31	2911.45	2911.5	OK	OK	
92	F3	2911.09	2910.71	0.37	2911.45	2911.59	2911.6	OK	OK	
93	F3	2911.14	2910.76	0.37	2911.50	2911.64	2911.8	OK	OK	
94	F3	2911.00	2910.62	0.37	2911.36	2911.50	2911.6	OK	OK	
95	F3	2910.82	2910.44	0.37	2911.18	2911.32	2911.4	OK	OK	
96	F3	2910.66	2910.28	0.37	2911.02	2911.16	2911.3	OK	OK	
97	F3	2910.40	2910.02	0.37	2910.76	2910.90	2911.0	OK	OK	
98	F3	2910.26	2909.88	0.37	2910.62	2910.76	2910.9	OK	OK	
99	F3	2910.08	2909.70	0.37	2910.44	2910.58	2910.7	OK	OK	
100	F3	2909.92	2909.54	0.37	2910.28	2910.42	2910.5	OK	OK	
101	F3	2909.60	2909.22	0.37	2909.96	2910.10	2910.2	OK	OK	
102	F3	2909.42	2909.04	0.37	2909.78	2909.92	2910.0	OK	OK	
103	F3	2909.20	2908.82	0.37	2909.56	2909.70	2909.8	OK	OK	
104	F3	2908.98	2908.60	0.37	2909.34	2909.48	2909.6	OK	OK	
105	F3	2914.05	2913.67	0.37	2914.41	2914.55	2914.5	OK	CHECK	
106	F3	2914.65	2914.27	0.37	2915.01	2915.15	2915.1	OK	CHECK	
107	F3	2915.17	2914.79	0.37	2915.53	2915.67	2915.6	OK	CHECK	
108	F3	2915.43	2915.05	0.37	2915.79	2915.93	2915.9	OK	CHECK	
109	F3	2915.69	2915.31	0.37	2916.05	2916.19	2916.2	OK	OK	
110	F3	2915.85	2915.47	0.37	2916.21	2916.35	2916.4	OK	OK	
111	F3	2916.01	2915.63	0.37	2916.37	2916.51	2916.5	OK	CHECK	
112	F3	2916.14	2915.76	0.37	2916.50	2916.64	2916.7	OK	OK	
113	F3	2916.39	2916.01	0.37	2916.75	2916.89	2916.9	OK	OK	

TRI2101 Iron Mountain - Update GARAGE FINISHED FLOOR - CITY OF LAS VEGAS JURISDICTION										
INPUT INFORMATION					FINISHED FLOORS					NOTES
Lot Number	Hydraulic Section Utilized	Driveway T/C ¹ (ft)	F/L ² (ft)	D ₁₀₀ (ft)	Flowline G.F.F. _{-min} ³ (ft)	T/C + 6" G.F.F. _{-min} ⁴ (ft)	G.F.F. _{-Design} (ft)	Flowline Check	T/C + 6" Check	See References on Last Sheet
114	F3	2916.54	2916.16	0.37	2916.90	2917.04	2917.1	OK	OK	
115	F3	2916.71	2916.33	0.37	2917.07	2917.21	2917.2	OK	CHECK	
116	F3	2916.84	2916.46	0.37	2917.20	2917.34	2917.4	OK	OK	
117	F3	2916.98	2916.60	0.37	2917.34	2917.48	2917.6	OK	OK	
118	F3	2916.85	2916.47	0.37	2917.21	2917.35	2917.5	OK	OK	
119	F3	2916.69	2916.31	0.37	2917.05	2917.19	2917.3	OK	OK	
120	F3	2916.53	2916.15	0.37	2916.89	2917.03	2917.2	OK	OK	
121	F3	2916.29	2915.91	0.37	2916.65	2916.79	2916.9	OK	OK	
122	F3	2916.16	2915.78	0.37	2916.52	2916.66	2916.8	OK	OK	
123	F3	2915.99	2915.61	0.37	2916.35	2916.49	2916.6	OK	OK	
124	F3	2915.84	2915.46	0.37	2916.20	2916.34	2916.5	OK	OK	
125	F3	2915.59	2915.21	0.37	2915.95	2916.09	2916.2	OK	OK	
126	F3	2915.45	2915.07	0.37	2915.81	2915.95	2916.0	OK	OK	
127	F3	2915.11	2914.73	0.37	2915.47	2915.61	2915.5	OK	CHECK	
128	F3	2914.63	2914.25	0.37	2914.99	2915.13	2915.3	OK	OK	
129	F2	2919.82	2919.44	0.39	2920.22	2920.32	2920.3	OK	CHECK	
130	F2	2920.39	2920.01	0.39	2920.79	2920.89	2920.8	OK	CHECK	
131	F2	2920.86	2920.48	0.39	2921.26	2921.36	2921.3	OK	CHECK	
132	F2	2921.14	2920.76	0.39	2921.54	2921.64	2921.6	OK	CHECK	
133	F2	2921.45	2921.07	0.39	2921.85	2921.95	2922.0	OK	OK	
134	F2	2921.61	2921.23	0.39	2922.01	2922.11	2922.1	OK	CHECK	
135	F2	2921.77	2921.39	0.39	2922.17	2922.27	2922.3	OK	OK	
136	F2-2	2921.90	2921.52	0.32	2922.16	2922.40	2922.4	OK	OK	
137	F2	2922.15	2921.77	0.39	2922.55	2922.65	2922.7	OK	OK	
138	F2	2922.30	2921.92	0.39	2922.70	2922.80	2922.8	OK	OK	
139	F2	2922.47	2922.09	0.39	2922.87	2922.97	2923.0	OK	OK	
140	F2	2922.60	2922.22	0.39	2923.00	2923.10	2923.1	OK	OK	Lot is located at high point and flow depth considered negligible. Therefore, finished floor is considered adequately elevated.
141	F1	2923.16	2922.78	0.40	2923.58	2923.66	2923.8	OK	OK	

TRI2101 Iron Mountain - Update GARAGE FINISHED FLOOR - CITY OF LAS VEGAS JURISDICTION										
INPUT INFORMATION					FINISHED FLOORS					NOTES
Lot Number	Hydraulic Section Utilized	Driveway T/C ¹ (ft)	F/L ² (ft)	D ₁₀₀ (ft)	Flowline G.F.F. _{min} ³ (ft)	T/C + 6" G.F.F. _{min} ⁴ (ft)	G.F.F. _{Design} (ft)	Flowline Check	T/C + 6" Check	See References on Last Sheet
142	F1	2923.03	2922.65	0.40	2923.45	2923.53	2923.6	OK	OK	
143	F1	2922.87	2922.49	0.40	2923.29	2923.37	2923.5	OK	OK	
144	F1	2922.71	2922.33	0.40	2923.13	2923.21	2923.3	OK	OK	
145	F1	2922.47	2922.09	0.40	2922.89	2922.97	2923.1	OK	OK	
146	F1	2922.34	2921.96	0.40	2922.76	2922.84	2922.9	OK	OK	
147	F1	2922.17	2921.79	0.40	2922.59	2922.67	2922.8	OK	OK	
148	F1	2922.02	2921.64	0.40	2922.44	2922.52	2922.6	OK	OK	
149	F1	2921.63	2921.25	0.40	2922.05	2922.13	2922.1	OK	CHECK	
150	F1	2921.30	2920.92	0.40	2921.72	2921.80	2921.8	OK	OK	
151	F1	2920.77	2920.39	0.40	2921.19	2921.27	2921.2	OK	CHECK	
152	F1	2920.34	2919.96	0.40	2920.76	2920.84	2920.9	OK	OK	
153	F1	2925.36	2924.98	0.40	2925.78	2925.86	2925.9	OK	OK	
154	F1	2925.62	2925.24	0.40	2926.04	2926.12	2926.2	OK	OK	
155	F1	2925.90	2925.52	0.40	2926.32	2926.40	2926.4	OK	OK	
156	F1	2926.11	2925.73	0.40	2926.53	2926.61	2926.7	OK	OK	
157	F1	2926.52	2926.14	0.40	2926.94	2927.02	2927.1	OK	OK	
158	F1	2926.78	2926.40	0.40	2927.20	2927.28	2927.3	OK	OK	
159	F1	2927.05	2926.67	0.40	2927.47	2927.55	2927.6	OK	OK	
160	F1	2927.27	2926.89	0.40	2927.69	2927.77	2927.8	OK	OK	
161	F1	2927.68	2927.30	0.40	2928.10	2928.18	2928.2	OK	OK	
162	F1	2927.94	2927.56	0.40	2928.36	2928.44	2928.5	OK	OK	
163	F1	2928.21	2927.83	0.40	2928.63	2928.71	2928.8	OK	OK	
164	F1	2928.43	2928.05	0.40	2928.85	2928.93	2929.0	OK	OK	
165	D2-2	2903.87	2903.49	0.30	2904.09	2904.37	2905.7	OK	OK	
166	D2-2	2904.79	2904.41	0.30	2905.01	2905.29	2906.4	OK	OK	
167	D2-2	2905.71	2905.33	0.30	2905.93	2906.21	2906.6	OK	OK	
168	D2-2	2906.34	2905.96	0.30	2906.56	2906.84	2907.0	OK	OK	
169	D2-2	2907.58	2907.20	0.30	2907.80	2908.08	2907.8	OK	CHECK	
170	D2-2	2908.41	2908.03	0.30	2908.63	2908.91	2908.7	OK	CHECK	
171	D2-3	2909.29	2908.91	0.27	2909.45	2909.79	2909.5	OK	CHECK	
172	D2-3	2909.97	2909.59	0.27	2910.13	2910.47	2910.2	OK	CHECK	

TRI2101 Iron Mountain - Update GARAGE FINISHED FLOOR - CITY OF LAS VEGAS JURISDICTION										
INPUT INFORMATION					FINISHED FLOORS					NOTES
Lot Number	Hydraulic Section Utilized	Driveway T/C ¹ (ft)	F/L ² (ft)	D ₁₀₀ (ft)	Flowline G.F.F. _{min} ³ (ft)	T/C + 6" G.F.F. _{min} ⁴ (ft)	G.F.F. _{Design} (ft)	Flowline Check	T/C + 6" Check	See References on Last Sheet
173	D1	2911.92	2911.54	0.32	2912.18	2912.42	2912.2	OK	CHECK	
174	D1	2912.75	2912.37	0.32	2913.01	2913.25	2913.1	OK	CHECK	
175	D1	2913.63	2913.25	0.32	2913.89	2914.13	2913.9	OK	CHECK	
176	D1	2914.31	2913.93	0.32	2914.57	2914.81	2914.6	OK	CHECK	
177	D1	2915.62	2915.24	0.32	2915.88	2916.12	2915.9	OK	CHECK	
178	D1	2916.46	2916.08	0.32	2916.72	2916.96	2916.8	OK	CHECK	
179	D1	2917.33	2916.95	0.32	2917.59	2917.83	2917.6	OK	CHECK	
180	D1	2918.01	2917.63	0.32	2918.27	2918.51	2918.3	OK	CHECK	
181	D1	2919.32	2918.94	0.32	2919.58	2919.82	2919.6	OK	CHECK	
182	D1	2920.16	2919.78	0.32	2920.42	2920.66	2920.5	OK	CHECK	
183	D1	2921.04	2920.66	0.32	2921.30	2921.54	2921.3	OK	CHECK	
184	D1	2921.72	2921.34	0.32	2921.98	2922.22	2922.0	OK	CHECK	
185	F1	2925.08	2924.70	0.40	2925.50	2925.58	2925.6	OK	OK	
186	F1	2925.34	2924.96	0.40	2925.76	2925.84	2925.8	OK	CHECK	
187	F1	2925.62	2925.24	0.40	2926.04	2926.12	2926.1	OK	CHECK	
188	F1-3	2925.83	2925.45	0.38	2926.21	2926.33	2926.3	OK	CHECK	
189	F1	2926.50	2926.12	0.40	2926.92	2927.00	2927.0	OK	OK	
190	F1	2926.78	2926.40	0.40	2927.20	2927.28	2927.2	OK	CHECK	
191	F1	2926.78	2926.40	0.40	2927.20	2927.28	2927.2	OK	CHECK	
192	F1-2	2926.99	2926.61	0.35	2927.31	2927.49	2927.5	OK	OK	
193	F1-2	2927.40	2927.02	0.35	2927.72	2927.90	2927.9	OK	OK	
194	F1	2927.66	2927.28	0.40	2928.08	2928.16	2928.1	OK	CHECK	
195	F1	2927.93	2927.55	0.40	2928.35	2928.43	2928.4	OK	CHECK	
196	F1	2928.15	2927.77	0.40	2928.57	2928.65	2928.6	OK	CHECK	
197	F1	2928.54	2928.16	0.40	2928.96	2929.04	2929.0	OK	CHECK	
198	F1	2928.75	2928.37	0.40	2929.17	2929.25	2929.2	OK	CHECK	
199	F1	2929.03	2928.65	0.40	2929.45	2929.53	2929.5	OK	CHECK	

TRI2101 Iron Mountain - Update GARAGE FINISHED FLOOR - CITY OF LAS VEGAS JURISDICTION										
INPUT INFORMATION					FINISHED FLOORS					NOTES
Lot Number	Hydraulic Section Utilized	Driveway T/C ¹ (ft)	F/L ² (ft)	D ₁₀₀ (ft)	Flowline G.F.F. _{min} ³ (ft)	T/C + 6" G.F.F. _{min} ⁴ (ft)	G.F.F. _{Design} (ft)	Flowline Check	T/C + 6" Check	See References on Last Sheet
200	F1	2929.29	2928.91	0.40	2929.71	2929.79	2929.8	OK	OK	Lot is located near a high point and flow depth considered negligible. Therefore, finished floor is considered adequately elevated.
201	A3	2931.39	2931.01	0.32	2931.65	2931.89	2931.7	OK	CHECK	
202	A3	2930.67	2930.29	0.32	2930.93	2931.17	2931.0	OK	CHECK	
203	A3	2929.73	2929.35	0.32	2929.99	2930.23	2930.0	OK	CHECK	
204	A3-2	2928.35	2927.97	0.24	2928.45	2928.85	2928.5	OK	CHECK	
205	A3	2927.63	2927.25	0.32	2927.89	2928.13	2927.9	OK	CHECK	
206	A3	2926.69	2926.31	0.32	2926.95	2927.19	2927.0	OK	CHECK	
207	A3	2925.31	2924.93	0.32	2925.57	2925.81	2925.6	OK	CHECK	
208	A3	2924.59	2924.21	0.32	2924.85	2925.09	2924.9	OK	CHECK	
209	A3	2923.65	2923.27	0.32	2923.91	2924.15	2924.0	OK	CHECK	
210	A3	2922.77	2922.39	0.32	2923.03	2923.27	2923.1	OK	CHECK	
211	A3	2921.38	2921.00	0.32	2921.64	2921.88	2921.7	OK	CHECK	
212	A3	2920.66	2920.28	0.32	2920.92	2921.16	2921.0	OK	CHECK	
213	A3	2919.73	2919.35	0.32	2919.99	2920.23	2920.0	OK	CHECK	
214	A3	2918.84	2918.46	0.32	2919.10	2919.34	2919.1	OK	CHECK	
215	A2-2 (3.39%)	2917.45	2917.07	0.35	2917.77	2917.95	2917.8	OK	CHECK	
216	A2-2 (3.39%)	2916.73	2916.35	0.35	2917.05	2917.23	2917.1	OK	CHECK	
217	A2-2 (3.39%)	2915.80	2915.42	0.35	2916.12	2916.30	2916.2	OK	CHECK	
218	A2-2 (3.39%)	2914.91	2914.53	0.35	2915.23	2915.41	2915.3	OK	CHECK	
219	A2-2 (3.39%)	2913.53	2913.15	0.35	2913.85	2914.03	2913.9	OK	CHECK	

TRI2101 Iron Mountain - Update GARAGE FINISHED FLOOR - CITY OF LAS VEGAS JURISDICTION										
INPUT INFORMATION					FINISHED FLOORS					NOTES
Lot Number	Hydraulic Section Utilized	Driveway T/C ¹ (ft)	F/L ² (ft)	D ₁₀₀ (ft)	Flowline G.F.F. _{min} ³ (ft)	T/C + 6" G.F.F. _{min} ⁴ (ft)	G.F.F. _{Design} (ft)	Flowline Check	T/C + 6" Check	See References on Last Sheet
220	A2-2 (2.70%)	2912.81	2912.43	0.36	2913.15	2913.31	2913.2	OK	CHECK	
221	A2-2 (2.70%)	2912.04	2911.66	0.36	2912.38	2912.54	2912.4	OK	CHECK	
222	A2-2 (2.70%)	2911.39	2911.01	0.36	2911.73	2911.89	2912.1	OK	OK	
223	A2-2 (2.70%)	2910.35	2909.97	0.36	2910.69	2910.85	2911.9	OK	OK	
224	A2	2909.73	2909.35	0.38	2910.11	2910.23	2911.8	OK	OK	
225	A2	2908.90	2908.52	0.38	2909.28	2909.40	2911.1	OK	OK	
226	A2	2908.12	2907.74	0.38	2908.50	2908.62	2910.4	OK	OK	
Where: 1: Top of Curb at High Side of Driveway 2: TC-0.38 (For Roll Curb), TC-0.5 (For L Curb) 3: Minimum Allowable Finished Floor Elevation above flowline elevation @ high side of lot = (2 x D ₁₀₀) + F/L 4: City of Las Vegas minimum allowable finished floor elevation = T.C. @ high side of lot + 6-inches 5: These lots have an adjacent solid grouted wall that protects the FF.										
City of Las Vegas Finished Floor Criteria: -The finished floor shall be set a vertical 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 WSEL in the street. Per HCDDM, Section 304.4. -The finished floor shall be set a vertical distance of at least 6-inches above the highest adjacent top of curb. Per HCDDM, Section 1602.										

Supplemental Finish Floor Checks

Adjacent/Perimeter Street Check										
Lot Number	Street	High TC ¹	High FL ²	Section	Flow Depth ³	Min FF ⁴	Design FF	Check	Solid Grout	Notes
1	Iron Mountain Rd	2903.44	2902.94	4	0.37	2903.68	2906.7	OK	No	
2	Iron Mountain Rd	2900.61	2900.11	4	0.37	2900.85	2905.1	OK	No	
3	Iron Mountain Rd	2898.61	2898.11	4	0.37	2898.85	2903.6	OK	No	
4	Iron Mountain Rd	2898.60	2898.10	4	0.37	2898.84	2902.0	OK	No	
5	Iron Mountain Rd	2894.60	2894.10	4	0.37	2894.84	2899.6	OK	No	
6	Iron Mountain Rd	2892.60	2892.10	4	0.37	2892.84	2896.8	OK	No	
7	Iron Mountain Rd	2890.60	2890.10	4	0.37	2890.84	2894.2	OK	No	
8	Iron Mountain Rd	2888.60	2888.10	4	0.37	2888.84	2891.7	OK	No	
9	Iron Mountain Rd	2886.59	2886.09	4	0.37	2886.83	2889.1	OK	No	
10	Iron Mountain Rd	2884.62	2884.12	4	0.37	2884.86	2886.6	OK	No	
11	Iron Mountain Rd	2882.59	2882.09	4	0.37	2882.83	2884.0	OK	No	
12	Iron Mountain Rd	2880.59	2880.09	4	0.37	2880.83	2881.6	OK	No	
13	Iron Mountain Rd	2878.59	2878.09	4	0.37	2878.83	2879.6	OK	No	
24	Radley St	2872.17	2871.67	R1	0.62	2872.91	2874.4	OK	No	
25	Radley St	2876.06	2875.56	R1	0.62	2876.80	2878.2	OK	No	
26	Radley St	2876.06	2875.56	R1	0.62	2876.80	2879.8	OK	No	
27	Radley St	2879.74	2879.24	R1	0.62	2880.48	2881.9	OK	No	
28	Radley St	2880.26	2879.76	R1	0.62	2881.00	2884.1	OK	No	
29	Radley St	2882.18	2881.68	R1	0.62	2882.92	2886.2	OK	No	
30	Radley St	2884.21	2883.71	R1	0.62	2884.95	2888.4	OK	No	
31	Radley St	2887.20	2886.70	R1	0.62	2887.94	2890.5	OK	No	
32	Radley St	2888.09	2887.59	R1	0.62	2888.83	2892.6	OK	No	
33	Radley St	2890.93	2890.43	R1	0.62	2891.67	2894.8	OK	No	
34	Radley St	2891.88	2891.38	R1	0.62	2892.62	2896.9	OK	No	
35	Radley St	2894.66	2894.16	R1	0.62	2895.40	2899.1	OK	No	
36	Radley St	2895.76	2895.26	R1	0.62	2896.50	2901.0	OK	No	
37	Radley St	2898.39	2897.89	R1	0.62	2899.13	2902.7	OK	No	
38	Radley St	2899.73	2899.23	R1	0.62	2900.47	2904.4	OK	No	
39	Vonbulin Ave	2875.83	2875.45	E2 (Interim)	0.51	2876.47	2876.3	CHECK	Yes	
44	Havertz Ave	2879.39	2879.01	A1	0.45	2879.91	2878.4	CHECK	Yes	See Note 5
45	Havertz Ave	2881.61	2881.23	A1	0.45	2882.13	2884.4	OK	No	
50	Vonbulin Ave	2878.44	2878.06	E2 (Interim)	0.51	2879.08	2881.8	OK	No	
51	Vonbulin Ave	2884.39	2884.01	E2 (Interim)	0.51	2885.03	2883.1	CHECK	Yes	
56	Havertz Ave	2888.72	2888.34	A1	0.45	2889.24	2885.1	CHECK	Yes	See Note 5

Supplemental Finish Floor Checks										
Lot Number	Street	High TC ¹	High FL ²	Section	Flow Depth ³	Min FF ⁴	Design FF	Check	Solid Grout	Notes
62	Vonbulin Ave	2887.09	2886.71	E2 (Interim)	0.51	2887.73	2890.9	OK	No	
63	Vonbulin Ave	2893.07	2892.69	E2 (Interim)	0.51	2893.71	2891.8	CHECK	Yes	
68	Havertz Ave	2898.91	2898.53	A1	0.45	2899.43	2894.9	CHECK	Yes	See Note 5
69	Havertz Ave	2901.75	2901.37	A1	0.45	2902.27	2903.7	OK	No	
74	Vonbulin Ave	2895.73	2895.35	E2 (Interim)	0.51	2896.37	2899.6	OK	No	
75	Vonbulin Ave	2901.05	2900.67	E3 (Interim)	0.45	2901.57	2900.5	CHECK	Yes	
82	Vonbulin Ave	2903.14	2902.64	D4	0.48	2903.60	2906.3	OK	No	
83 (GFF)	Landin St	2905.66	2905.28	G2	0.40	2906.08	2909.3	OK	No	
84 (GFF)	Landin St	2905.89	2905.51	G2	0.40	2906.31	2909.8	OK	No	
85 (GFF)	Landin St	2906.28	2905.90	G2	0.40	2906.70	2910.1	OK	No	
86 (GFF)	Landin St	2906.62	2906.24	G2	0.40	2907.04	2910.5	OK	No	
87 (GFF)	Landin St	2906.85	2906.47	G2	0.40	2907.27	2910.7	OK	No	
88 (GFF)	Landin St	2907.24	2906.86	G2	0.40	2907.66	2910.9	OK	No	
89 (GFF)	Landin St	2907.58	2907.20	G2	0.40	2908.00	2911.1	OK	No	
90 (GFF)	Landin St	2907.86	2907.48	G2	0.40	2908.28	2911.3	OK	No	
91 (GFF)	Landin St	2908.09	2907.71	G2	0.40	2908.51	2911.5	OK	No	
92 (GFF)	Landin St	2908.37	2907.99	G2	0.40	2908.79	2911.6	OK	No	
104 (GFF)	Vonbulin Ave	2910.88	2910.38	D4	0.48	2911.34	2909.6	CHECK	Yes	
105 (GFF)	Vonbulin Ave	2912.43	2911.93	D4	0.48	2912.89	2914.5	OK	No	
117 (GFF)	Havertz Ave	2920.46	2920.08	A1	0.45	2920.98	2917.6	CHECK	Yes	See Note 5
140 (GFF)	Havertz Ave	2922.05	2921.67	A1	0.45	2922.57	2923.1	OK	No	
152 (GFF)	Vonbulin Ave	2922.13	2921.63	D4	0.48	2922.59	2920.9	CHECK	Yes	See Note 5
153 (GFF)	Vonbulin Ave	2923.84	2923.34	D4	0.48	2924.30	2925.9	OK	No	
165 (GFF)	Radley St	2900.90	2900.40	R1	0.62	2901.64	2905.7	OK	No	
166 (GFF)	Radley St	2902.07	2901.57	R1	0.62	2902.81	2906.4	OK	No	
167 (GFF)	Radley St	2902.66	2902.16	R1	0.62	2903.40	2906.6	OK	No	
168 (GFF)	Radley St	2904.02	2903.52	R1	0.62	2904.76	2907.0	OK	No	
169 (GFF)	Radley St	2905.22	2904.72	R1	0.62	2905.96	2907.8	OK	No	

Supplemental Finish Floor Checks										
Lot Number	Street	High TC ¹	High FL ²	Section	Flow Depth ³	Min FF ⁴	Design FF	Check	Solid Grout	Notes
170 (GFF)	Radley St	2906.19	2905.69	R1	0.62	2906.93	2908.7	OK	No	
171 (GFF)	Radley St	2906.98	2906.48	R1	0.62	2907.72	2909.5	OK	No	
172 (GFF)	Radley St	2908.34	2907.84	R1	0.62	2909.08	2910.2	OK	No	
173 (GFF)	Radley St	2910.28	2909.78	R1	0.62	2911.02	2912.2	OK	No	
174 (GFF)	Radley St	2911.26	2910.76	R1	0.62	2912.00	2913.1	OK	No	
175 (GFF)	Radley St	2912.05	2911.55	R1	0.62	2912.79	2913.9	OK	No	
176 (GFF)	Radley St	2913.26	2912.76	R1	0.62	2914.00	2914.6	OK	No	
177 (GFF)	Radley St	2914.60	2914.10	R1	0.62	2915.34	2915.9	OK	No	
178 (GFF)	Radley St	2915.58	2915.08	R1	0.62	2916.32	2916.8	OK	No	
179 (GFF)	Radley St	2916.37	2915.87	R1	0.62	2917.11	2917.6	OK	No	
180 (GFF)	Radley St	2917.73	2917.23	R1	0.62	2918.47	2918.3	CHECK	Yes	Top of retaining wall = 2919.1, therefore no additional solid grouting required.
181 (GFF)	Radley St	2918.98	2918.48	R1	0.62	2919.72	2919.6	CHECK	Yes	Top of retaining wall = 2920.9, therefore no additional solid grouting required.
182 (GFF)	Radley St	2920.17	2919.67	R1	0.62	2920.91	2920.5	CHECK	Yes	Top of retaining wall = 2921.6, therefore no additional solid grouting required.
183 (GFF)	Radley St	2921.17	2920.67	R1	0.62	2921.91	2921.3	CHECK	Yes	Top of retaining wall = 2922.3, therefore no additional solid grouting required.
184 (GFF)	Radley St	2922.79	2922.29	R1	0.62	2923.53	2922.0	CHECK	Yes	Top of retaining wall = 2923.6, therefore no additional solid grouting required.
185 (GFF)	Alpine Ridge	2931.91	2931.41	AW1	0.71	2932.83	2925.6	CHECK	Yes	
186 (GFF)	Alpine Ridge	2932.41	2931.91	AW1	0.71	2933.33	2925.8	CHECK	Yes	
187 (GFF)	Alpine Ridge	2932.41	2931.91	AW1	0.71	2933.33	2926.1	CHECK	Yes	
188 (GFF)	Alpine Ridge	2932.41	2931.91	AW1	0.71	2933.33	2926.3	CHECK	Yes	
189 (GFF)	Alpine Ridge	2932.91	2932.41	AW1	0.71	2933.83	2927.0	CHECK	Yes	
190 (GFF)	Alpine Ridge	2932.91	2932.41	AW1	0.71	2933.83	2927.2	CHECK	Yes	
191 (GFF)	Alpine Ridge	2932.91	2932.41	AW1	0.71	2933.83	2927.2	CHECK	Yes	
192 (GFF)	Alpine Ridge	2932.91	2932.41	AW1	0.71	2933.83	2927.5	CHECK	Yes	
193 (GFF)	Alpine Ridge	2933.42	2932.92	AW1	0.71	2934.34	2927.9	CHECK	Yes	
194 (GFF)	Alpine Ridge	2933.42	2932.92	AW1	0.71	2934.34	2928.1	CHECK	Yes	
195 (GFF)	Alpine Ridge	2933.42	2932.92	AW1	0.71	2934.34	2928.4	CHECK	Yes	

Supplemental Finish Floor Checks										
Lot Number	Street	High TC ¹	High FL ²	Section	Flow Depth ³	Min FF ⁴	Design FF	Check	Solid Grout	Notes
196 (GFF)	Alpine Ridge	2933.52	2933.02	AW1	0.71	2934.44	2928.6	CHECK	Yes	
197 (GFF)	Alpine Ridge	2933.90	2933.40	AW1	0.71	2934.82	2929.0	CHECK	Yes	
198 (GFF)	Alpine Ridge	2934.72	2934.22	AW1	0.71	2935.64	2929.2	CHECK	Yes	
199 (GFF)	Alpine Ridge	2934.72	2934.22	AW1	0.71	2935.64	2929.5	CHECK	Yes	
200 (GFF)	Alpine Ridge	2935.22	2934.72	4	0.37	2935.46	2929.8	CHECK	Yes	
201 (GFF)	Alpine Ridge	2934.68	2934.18	4	0.37	2934.92	2931.7	CHECK	Yes	
201 (GFF)	Iron Mountain Rd	2934.24	2933.74	4	0.37	2934.48	2931.7	CHECK	Yes	
202 (GFF)	Iron Mountain Rd	2933.64	2933.14	4	0.37	2933.88	2931.0	CHECK	Yes	
203 (GFF)	Iron Mountain Rd	2932.56	2932.06	4	0.37	2932.80	2930.0	CHECK	Yes	
204 (GFF)	Iron Mountain Rd	2932.56	2932.06	4	0.37	2932.80	2928.5	CHECK	Yes	
205 (GFF)	Iron Mountain Rd	2931.31	2930.81	4	0.37	2931.55	2927.9	CHECK	Yes	
206 (GFF)	Iron Mountain Rd	2931.31	2930.81	4	0.37	2931.55	2927.0	CHECK	Yes	
207 (GFF)	Iron Mountain Rd	2929.89	2929.39	4	0.37	2930.13	2925.6	CHECK	Yes	
208 (GFF)	Iron Mountain Rd	2928.30	2927.80	4	0.37	2928.54	2924.9	CHECK	Yes	
209 (GFF)	Iron Mountain Rd	2928.30	2927.80	4	0.37	2928.54	2924.0	CHECK	Yes	
210 (GFF)	Iron Mountain Rd	2926.55	2926.05	4	0.37	2926.79	2923.1	CHECK	Yes	
211 (GFF)	Iron Mountain Rd	2926.55	2926.05	4	0.37	2926.79	2921.7	CHECK	Yes	
212 (GFF)	Iron Mountain Rd	2924.63	2924.13	4	0.37	2924.87	2921.0	CHECK	Yes	
213 (GFF)	Iron Mountain Rd	2922.66	2922.16	4	0.37	2922.90	2920.0	CHECK	Yes	
214 (GFF)	Iron Mountain Rd	2922.63	2922.13	4	0.37	2922.87	2919.1	CHECK	Yes	
215 (GFF)	Iron Mountain Rd	2920.63	2920.13	4	0.37	2920.87	2917.8	CHECK	Yes	
216 (GFF)	Iron Mountain Rd	2920.63	2920.13	4	0.37	2920.87	2917.1	CHECK	Yes	
217 (GFF)	Iron Mountain Rd	2918.63	2918.13	4	0.37	2918.87	2916.2	CHECK	Yes	
218 (GFF)	Iron Mountain Rd	2918.63	2918.13	4	0.37	2918.87	2915.3	CHECK	Yes	
219 (GFF)	Iron Mountain Rd	2916.63	2916.13	4	0.37	2916.87	2913.9	CHECK	Yes	
220 (GFF)	Iron Mountain Rd	2914.62	2914.12	4	0.37	2914.86	2913.2	CHECK	Yes	
221 (GFF)	Iron Mountain Rd	2914.62	2914.12	4	0.37	2914.86	2912.4	CHECK	Yes	
222 (GFF)	Iron Mountain Rd	2912.62	2912.12	4	0.37	2912.86	2912.1	CHECK	Yes	
223 (GFF)	Iron Mountain Rd	2912.62	2912.12	4	0.37	2912.86	2911.9	CHECK	Yes	
224 (GFF)	Iron Mountain Rd	2910.62	2910.12	4	0.37	2910.86	2911.8	OK	No	
225 (GFF)	Iron Mountain Rd	2910.62	2910.12	4	0.37	2910.86	2911.1	OK	No	
226 (GFF)	Iron Mountain Rd	2908.62	2908.12	4	0.37	2908.86	2910.4	OK	No	

1: High TC is the elevation at the high side of the adjacent perimeter street

2: 0.5-ft is subtracted from the High TC to obtain the High FL elevation

3: Flow depth is the normal depth in adjacent perimeter street

4: Min FF is the High FL plus twice the depth of flow.

5: Lot located near high point and flow depth considered negligible. Therefore, lot is adequately flood protected and solid grouting not necessary.

Supplemental Finish Floor Checks

Specific Energy Check							
Lot Number	High TC ¹	High FL ²	Section	Specific Energy ³	Min FF ⁴	Design FF	Check
15	2876.35	2875.97	A1	0.94	2876.91	2878.00	OK
16	2875.99	2875.61	A1	0.94	2876.55	2877.60	OK
22	2873.12	2872.74	E2 (Interim)	1.13	2873.87	2875.30	OK
23	2873.12	2872.74	E2 (Interim)	1.13	2873.87	2874.70	OK
27	2880.44	2880.06	G3	0.42	2880.48	2881.90	OK
28	2880.44	2880.06	G2	0.48	2880.54	2884.10	OK
31	2889.00	2888.62	G1	0.43	2889.05	2890.50	OK
32	2889.00	2888.62	G1	0.43	2889.05	2892.60	OK
35	2897.55	2897.17	G1	0.43	2897.60	2899.10	OK
36	2897.55	2897.17	G1	0.43	2897.60	2901.00	OK
165	2903.96	2903.58	G3	0.42	2904.00	2906.20	OK
166	2904.88	2904.50	G3	0.42	2904.92	2906.90	OK
167	2904.88	2904.50	G2	0.48	2904.98	2907.60	OK
169	2907.66	2907.28	G1	0.43	2907.71	2909.70	OK
170	2908.50	2908.12	G1	0.43	2908.55	2910.40	OK
171	2908.50	2908.12	G1	0.43	2908.55	2911.10	OK
175	2913.72	2913.34	G1	0.43	2913.77	2915.50	OK
176	2913.72	2913.34	G1	0.43	2913.77	2916.10	OK
181	2919.40	2919.02	G3	0.42	2919.44	2921.50	OK
182	2919.40	2919.02	G2	0.48	2919.50	2922.20	OK

1: High TC is the elevation at the high side of the adjacent perimeter street

2: 0.38-ft is subtracted from the High TC to obtain the High FL elevation

3: Specific energy depth is taken from FlowMaster calculation for street directing flow toward lot.

4: Min FF is the High FL plus the specific energy depth.

Emergency Overflow Finish Floor Checks

Drainage Easements Check - Emergency Overflow							
Lot Number	High TC/FL ¹	Section	Flow Depth ²	Min FF ³	Design FF	Check	Solid Grout
24	2872.39	EO1	0.64	2873.03	2874.40	OK	No
25	2872.39	EO1	0.64	2873.03	2878.20	OK	No
184	2823.70	EO2	0.15	2823.85	2923.50	OK	No
185	2823.70	EO2	0.15	2823.85	2926.90	OK	No

1: High TC/FL is at the high side of the drainage easement flowline or the highest TC adjacent to the easement if flow is weiring over the curb.

2: Flow depth is either normal depth or weir depth (whichever is higher) of the emergency overflow.

3: Min FF is the High TC/FL plus the emergency overflow depth.

Emergency Overflow Finish Floor Checks

Specific Energy Check - Emergency Overflow

Lot Number	High TC ¹	High FL ²	Section	Specific Energy ³	Min FF ⁴	Design FF	Check
22	2873.12	2872.74	E2 (Em. Ov.)	1.13	2873.87	2875.30	OK
23	2873.12	2872.74	E2 (Em. Ov.)	1.13	2873.87	2874.70	OK

1: High TC is the elevation at the high side of the adjacent perimeter street

2: 0.38-ft is subtracted from the High TC to obtain the High FL elevation

2: Specific energy depth is taken from FlowMaster calculation for street directing flow toward lot.

3: Min FF is the High FL plus the emergency overflow specific energy depth.

Finished Floor Check - Emergency Overflow

Lot Number	High TC ¹	High FL ²	Section	Flow Depth ³	Min FF ⁴	Design FF	Check
23	2873.12	2872.74	E1 (Em. Ov.)	0.64	2873.38	2874.70	OK
24	2872.80	2872.42	E1 (Em. Ov.)	0.64	2873.06	2874.40	OK
25	2876.65	2876.27	E2 (Em. Ov.)	0.51	2876.78	2878.20	OK
26	2878.33	2877.95	E2 (Em. Ov.)	0.51	2878.46	2879.80	OK
27	2880.44	2880.06	E2 (Em. Ov.)	0.51	2880.57	2881.90	OK
28	2882.58	2882.20	E2 (Em. Ov.)	0.51	2882.71	2884.10	OK
29	2884.72	2884.34	E2 (Em. Ov.)	0.51	2884.85	2886.20	OK
30	2886.86	2886.48	E2 (Em. Ov.)	0.51	2886.99	2888.40	OK
31	2889.00	2888.62	E2 (Em. Ov.)	0.51	2889.13	2890.50	OK
32	2891.14	2890.76	E2 (Em. Ov.)	0.51	2891.27	2892.60	OK
33	2893.28	2892.90	E2 (Em. Ov.)	0.51	2893.41	2894.80	OK
34	2895.42	2895.04	E2 (Em. Ov.)	0.51	2895.55	2896.90	OK
35	2897.55	2897.17	E2 (Em. Ov.)	0.51	2897.68	2899.10	OK
36	2899.50	2899.12	D2 (Em. Ov.)	0.37	2899.49	2901.00	OK
37	2901.16	2900.78	D2 (Em. Ov.)	0.37	2901.15	2902.70	OK
38	2902.88	2902.50	D2 (Em. Ov.)	0.37	2902.87	2904.40	OK
165	2903.96	2903.58	D2 (Em. Ov.)	0.37	2903.95	2906.20	OK
166	2904.88	2904.50	D2 (Em. Ov.)	0.37	2904.87	2906.90	OK
167	2905.79	2905.41	D2 (Em. Ov.)	0.37	2905.78	2907.60	OK
168	2906.67	2906.29	D2 (Em. Ov.)	0.37	2906.66	2908.20	OK
169	2907.66	2907.28	D2 (Em. Ov.)	0.37	2907.65	2909.70	OK

Emergency Overflow Finish Floor Checks

Lot Number	High TC ¹	High FL ²	Section	Flow Depth ³	Min FF ⁴	Design FF	Check
170	2908.50	2908.12	D2 (Em. Ov.)	0.37	2908.49	2910.40	OK
171	2909.38	2909.00	D2 (Em. Ov.)	0.37	2909.37	2911.10	OK
172	2910.34	2909.96	D2 (Em. Ov.)	0.37	2910.33	2911.70	OK
173	2912.00	2911.62	D1 (Em. Ov.)	0.38	2912.00	2914.10	OK
174	2912.84	2912.46	D1 (Em. Ov.)	0.38	2912.84	2914.80	OK
175	2913.72	2913.34	D1 (Em. Ov.)	0.38	2913.72	2915.50	OK
176	2914.68	2914.30	D1 (Em. Ov.)	0.38	2914.68	2916.10	OK
177	2915.70	2915.32	D1 (Em. Ov.)	0.38	2915.70	2917.80	OK
178	2916.54	2916.16	D1 (Em. Ov.)	0.38	2916.54	2918.50	OK
179	2917.42	2917.04	D1 (Em. Ov.)	0.38	2917.42	2919.20	OK
180	2918.38	2918.00	D1 (Em. Ov.)	0.38	2918.38	2919.80	OK
181	2919.40	2919.02	D1 (Em. Ov.)	0.38	2919.40	2921.50	OK
182	2920.24	2919.86	D1 (Em. Ov.)	0.38	2920.24	2922.20	OK
183	2921.12	2920.74	D1 (Em. Ov.)	0.38	2921.12	2922.90	OK
184	2922.08	2921.70	D1 (Em. Ov.)	0.38	2922.08	2923.50	OK

1: High TC is the elevation at the high side of the lot

2: 0.38-ft is subtracted from the High TC to obtain the High FL elevation

3: Flow depth is the normal depth of the emergency overflow in adjacent street.

4: Min FF is the High FL plus the depth of emergency overflow.

TRI2101 Iron Mountain - Update FINISH FLOOR ANALYSIS - 2X Depth of Flow							
INPUT INFORMATION				FINISHED FLOORS			NOTES
Building Number	Hydraulic Section Utilized	F/L ¹ (ft)	D ₁₀₀ (ft)	Flowline F.F. _{min} ² (ft)	F.F. _{Design} (ft)	Flowline Check	See References on Last Sheet
1	Swale	2905.64	0.26	2906.16	2906.20	OK	
Restroom	Swale	2905.64	0.26	2906.16	2906.20	OK	
Pool							Finished floor for pool not analyzed.

Where:
 1: Flowline at High Side of building.
 2: Minimum Allowable Finished Floor Elevation above flowline elevation @ high side of lot = (2 x D₁₀₀) + F/L

City of Henderson Finished Floor Criteria:
-The finished floor shall be set a vertical 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 WSEL in the street.

APPENDIX E

Revised Improvement Plans