



ADDENDUM TO THE TECHNICAL DRAINAGE STUDY

Skye Canyon Parcel 5.06

Phase 2

MARCH 2023

PREPARED FOR:

Century Communities of Nevada, LLC.

City of Las Vegas, NV

PREPARED BY:

Westwood

Skye Canyon Parcel 5.06

Phase 2

Technical Drainage Study Addendum

City of Las Vegas, NV

Prepared For:

Century Communities of Nevada, LLC.
6345 South Jones Boulevard, Suite 400
Las Vegas, NV 89118
Phone: 702-873-5338

Prepared By:

Westwood Professional Services
5725 W. Badura Avenue, Suite 100
Las Vegas, NV 89118
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3/28/23

Project Number: CEN2104.000
Date: March 2023

Stanley Okey Amadi, P.E. CFM
NV Professional Engineer No. 21724
Assisted by: Jonathan S. Rocha, E.I.

HYDROLOGIC CRITERIA AND DRAINAGE DESIGN MANUAL
DRAINAGE STUDY INFORMATION FORM

Name of Development: Skye Canyon Parcel 5.06 Phase 2 (Addendum) Date: March 2023
Location of Development: a) Descriptive (Cross Streets): North/South: Sheep Mountain Parkway
East/West: Iron Mountain Road
b) Section: 12 Township: 19 South Range: 59 East
c) APN: 126-12-101-004

Name of Owner: Century Communities of Nevada, LLC
Telephone No.: 702-873-5338 Fax No.: _____ E-mail Address: Paulo.Chavez@CenturyCommunities.com
Address: 6345 South Jones Boulevard, Suite 400 Las Vegas NV 89118

Contact Person – Name: Stanley Okey Amadi, P.E., CFM Telephone No.: (702) 284-5300
*E-mail Address: Stanley.Amadi@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: +/- 59.2 ac Being Developed/Disturbed: +/- 25.8 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: 0 ac. existing detention basin cuts offsite watershed

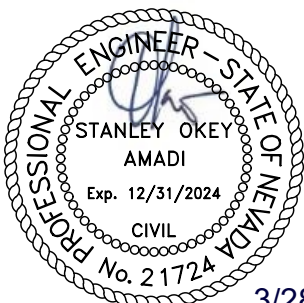
6. Has the site drainage been evaluated in the past? ☒ Yes** ☐ No If yes, please identify documentation: _____

Technical Drainage Study for Skye Canyon Parcel 5.06 Phase 1 & Mass Grade (DS 5623)

Master Drainage Study Update #7 for Skye Canyon (DS 4420), Technical Drainage Study for Sheep Mountain Parkway at Skye Canyon (DS 4952)

7. If known, please briefly identify the proposed discharge point(s) of runoff from the site: North as storm drain in Iron Mountain, and
East as storm drain crossing Sheep Mountain Parkway

8. Briefly describe your proposed schedule for the subject project: Completed in Phases 1 thru 4. This study proposes the Phase 2
improvements.



Engineer's Seal

3/28/23

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**

Local Entity File No.	Revision	Date

REFERENCE:

STANDARD FORM 1

Updated 05/01/2008

CEN2104.000

March 28, 2023

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

Subject: Addendum to the Technical Drainage Study for Skye Canyon Parcel 5.06 Phase 2 (DS 5649)

This letter is submitted in response to the comments contained in the March 3, 2023, review memorandum, regarding the above referenced project. A copy of the City of Las Vegas Public Works comment letter has been provided in Appendix A. The comments in the review memorandum have been individually addressed as follows:

1. **Comment:** *No permits shall be issued for this site and no Final Maps for this site shall record until all remaining Master Developer infrastructure identified in the Skye Canyon Development Agreement is constructed or guaranteed to the satisfaction of the Director of Public Works.*

Response: Acknowledged.

2. **Comment:** *Update #5 to DS4813 (Skye Canyon Detention Basin #2) sets the parameters for the required Buffer between the Existing Detention Basins (DB #1 & DB #2) and Parcel 5.06. The Buffer is required to be constructed with any development of Parcel 5.06. The Grading and Improvement Plans for Parcel 5.06, Phase 1 shows the included construction of the 25-foot Buffer adjacent to both Detention Basins. Include the TY-1 Section as part of the Detail Sheets. Grading and Improvement Plans for Parcel 5.06, Phase 2 and other future Phases within Parcel 5.06 need to include the construction of the Buffer area improvements and show these improvements as existing.*

Response: Acknowledged.

3. **Comment:** *This drainage study states that the 5.06 - Phase 2 project will be constructed in multiple Sub- Phases (2A, 2B, and 2C). The Plans submitted with the drainage study show multiple improvement plans to break the project into separate sub-phases. A drainage study update will be required for each sub-phase that addresses the interim condition based upon the sub-phase construction sequence. Any required improvements necessary for the construction of sub-phase 2A, 2B and 2C from an adjacent sub-phase needs to be addressed as part of the interim conditions as each sub-phase must stand alone.*

Response: The proposed Phase 1 improvements were modified to extend the street improvements along Prindle Brook Avenue and Vernon Woods Avenue to the west. The

revised phase boundary disconnects the Phase 2 areas such that the subphases will now convey through the Phase 1 improvement as addressed in the updated Phase 1 interim analysis. Therefore, subphase interim condition analyses will no longer be necessary and has not been provided. Note that there is a high point in Grabill Spruce Street just south of Vernon Woods Avenue; thus, only the flow from Lot 300 which is considered insignificant in quantity, will convey north from Phase 2A to Phase 2C,

4. **Comment:** *No Mass Grading Permits are Approved until Condition #1 is satisfied. Coordinate the mass grading requirements with Land Development and identify any required BMP's for the site. Update the overall phasing plan (Exhibit A2) for the development of Parcel 5.06 to show that the required Buffer bench improvements are required with the Phase 1 Plans. Update the Phasing Exhibit A2 to show the sequence of Phase 2 sub-phases, 2A, 2b, and 2C. The Phase 1 Plans shall complete the permanent fencing adjacent to the detention basins prior to approval of Improvement Plans for the overall Phase 2 improvements and any other Future Phases.*

Response: Acknowledged. Coordination with Land Development is on-going and will continue thru improvement plans submittal are approval. The Mass grade plans will be submitted to Department of Community Development for review upon approval of the TDS. See updated Exhibit A2 in the appendix.

5. **Comment:** *The provided Exhibit F does not match the Exhibit F in the Phase 1 study (DS5623). Any changes to the Phase 1 study shall be rectified prior to Conditional Approval of Phase 2. Review and revise accordingly.*

Response: Exhibit F has been revised and included in Appendix B.

6. **Comment:** *Exhibit F, Ultimate Condition Map: Show referenced Sections 1-6*, 3-1* and 3-2* on the ultimate condition drainage map or remove the sections from the 'Ultimate Condition 100-Year Street Flow Summary' table of the provided map.*

Response: Referenced hydraulic Section 1-6*, 3-1* and 3-2* have been shown on Exhibit F. Note that Section 1-6 is located adjacent to Lot 79/80; Section 3-1 near Lot 229; Section 3-2 near Lot 241.

7. **Comment:** *Exhibit F, Ultimate Condition Map: The 'Recommended Flood Control Facility (Inlets & Laterals)' summary table is inconsistent. The flow listed in the 'Approaching Flow' column for Facilities DI#1, DI#2, and DI#5 does not match the added flow listed in the 'Source of Flows' column. Review and revise accordingly.*

Response: The summary table for drop inlet facilities has been updated on Exhibit F.

8. **Comment:** *Exhibit F, Ultimate Condition Map: In the 'Subbasin Prorated Flow Rate Summary' table the area of Basin ON3 does not match the summation of prorated areas, nor does it match the total Q100 and Q10.*

Response: The summary table for prorated subbasin area has been updated on Exhibit F.

9. **Comment:** *Rename the Cross Section calculation V1 (14.24%) it represents a different section then Section V1. Also list the section on the 'Ultimate Condition Onsite Hydraulic Section Summary' table on Exhibit F.*

Response: Section V1 (14.24%) has been renamed to Section V1-1 and illustrated on Exhibit F. The hydraulic section computations have been provided in Appendix C.

10. **Comment:** *Provide additional existing design elevations at the Buffer based upon the Phase 1 improvements for all Grading Plans adjacent to the Buffer area.*

Response: Additional labels have been provided for the Buffer area per Phase 1 improvements.

11. **Comment:** *The existing 40-foot Drainage Easement that encumbers Parcel 5.06 adjacent to the Detention Basins is not eligible for Vacation until the required Buffer area modifications and the Detention Basin boundary improvements are complete.*

Response: Acknowledged.

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

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>

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

Response: Acknowledged.

13. **Comment:** *The drainage discharge points of the Buffer areas into the on-site Phase 2 improvements needs to include a rip-rap swale prior to discharging into the adjacent private streets. Include a Detail and reference the Detail # on the Construction Note. Review and revise the plans accordingly.*

Response: Riprap has been provided at locations where proposed swale discharges into Phase 2 roadway improvements. Construction Notes have been labeled for the proposed riprap with referenced detail. Locations where existing riprap to remain per Phase 1 improvements has been labeled accordingly.

14. **Comment:** *Extend Phase 2A, Common Element F into the end of the Alamino Ave stub street adjacent to Lots 310 & 311. The drainage from the Common Element areas should drain into the street, not thru individual lots.*

Response: The Phase 2A plans have been revised to show the Common Element extended thru to the end of Alamino Avenue. Note that the Common Element has been renamed to C.E. OO.

15. **Comment:** *This study addresses the development of Phase 2 and shows Mass Grading. A separate study is required to address the full development of future phases.*

Response: Acknowledged.

16. **Comment:** *The study assumes the storm drain infrastructure proposed by the Technical Drainage Study for Iron Mountain is in place. Substantial completion of the Iron Mountain infrastructure facilities is required prior to approval of the improvement plans for this study.*

Response: Acknowledged.

17. **Comment:** *The study assumes the storm drain infrastructure proposed by the Technical Drainage Studies for Skye Canyon Parcel 5.06 Phase 1 are in place and functioning. Substantial completion of the Skye Canyon Parcel 5.06 Phase 1 Infrastructure facilities is required prior to residential occupancy permits.*

Response: Acknowledged.

18. **Comment:** *Conditional approval of this drainage study is not applicable until Parcel 5.06 Phase 1 receives conditional approval from the City of Las Vegas. Any comments listed in the Phase 1 drainage study comment letter must also be applied to the Phase 2 development. An update is required to address the full development of Parcel 5.06 and future phases.*

Response: Acknowledged.

19. **Comment:** *Provide complete design information for the stepped retaining walls on the Grading Plans for Phase 2B.*

Response: Additional design labels have been provided for the stepped retaining walls for Phase 2B plans.

20. **Comment:** *It is noted that this development proposes a 6-foot tubular steel fence to secure the development from the existing Detention Basin facilities. This boundary facility is the maintenance responsibility of the development. Provide a Note on the Grading Plans.*

Response: A Chain Link Fence Note has been provided on the plans for HOA maintenance responsibility.

21. **Comment:** *Provide the hydraulic section calculations for Section U1 so we may verify the adjacent finished floors. Lots 24 and 25 have to meet the criteria of being above the specific energy flow depth and Lots 181 and 228 have to meet the criteria of 18-inches above the flow depth.*

Response: Refer to Response to Comment 28 for revised Section V4 (previously identified as U1). The finished floor computations have been revised and included in Appendix D.

22. **Comment:** *The hydraulic calculation for the 3" PVC pipe that is located at the sidewalk underdrain of the townhome cross-lot drainage detail shows that the pipe is pressurized. Additionally, a flowmaster calculation for this type of culvert pipe is not an adequate calculation considering the open end conditions of the pipe. Provide a calculation that considers these items such as an HY-8 to provide verification that flow is not overtopping the sidewalk.*

Response: HY-8 culvert computations have been provided for the 3" PVC pipe for the cross-lot drainage swales. Although, the 3" PVC pipe culvert computation shows inlet control condition, the flow does not overtop the sidewalk with the worst-case design flowrate of 0.12 cfs for the 4-lot townhome drainage area.

23. **Comment:** *Section 2-1* is over the curb and approaching the drainage easement north of Grabill Spruce Street. Justify the section and how it will prevent overflow into common element F and turn ninety degrees for the modified roll curb at the end of Grabill Spruce Street. Revise the grading and curb to adequately convey the flows into the drainage swale.*

Response: Refer to Response to Comment 28 for revised Section V4 (previously Section U1) that discharges Grabill Spruce Street into Prindle Brooke Avenue. The u-gutter has been replaced by a concrete lined flowline and has been widened to allow accommodate surface runoff to drain across the Common Element (renamed to CE NN).

24. **Comment:** *Provide a quality check on the finished floor tables. For example, Section 3-3* is not considered acceptable for analyzing finished floors of Lots 411-416 and Lots 440-447 as it applies less flow than the subbasin ON3(D3) and the approaching flow, Section 3-6*, but also Section 3-3* flow depth is not correct. The highest flow depth per the 'Ultimate Condition 100-Year Street Flow Summary' table on Exhibit F is 0.46-ft, but the finished floor table states that the depth of the section is 0.51-ft.*

Response: Noted. The finished floor computations have been revised for hydraulic street locations and utilized hydraulic section flow depth. Refer to Appendix D for revised finished floor computations.

25. **Comment:** *All garage finished floors must be above twice the depth of flow up to 18 inches to meet criteria for garage finished floors.*

Response: Acknowledged. Please refer to the revised finished floor computations in Appendix D.

26. **Comment:** *In Phase 2B, lots that have a driveway off Rimerton Street, are assumed to be addressed to Rimerton Street and adjacent to the hammer head street to the north/south, Section A. Revise finished floor computations so that we may determine which street is the addressed street and which is adjacent.*

Response: The finished floor computations have been revised to correctly address Rimerton Street for fronting driveways and adjacent street check per hammerhead streets. Revised finished floor computations have been included in Appendix D.

27. **Comment:** *The finished floor should be protected against twice the depth of flow. Three courses of solid grouting is required whenever the finished floor is below the adjacent top-of-curb. The high point is not considered adequate protection for the finished floor from adjacent flow. Revise plans to provide adequate protection for finished floors lower than adjacent finished floors.*

Response: Solid grouting has been recommended for lots where finished floors are lower than adjacent top-of-curb or below twice the depth of flow. Refer to Appendix D for revised finished floor computations.

28. **Comment:** *Revise the construction notes of the Phase 2C improvement plans. Construction note 10 refers to a U-channel and Construction note 12 refers to a depressed curb, and both refer to Detail 16 for completely different structures.*

Response: The u-gutter has been replaced by a concrete lined flowline at the northern terminus of Grabill Spruce Street. Computations for revised Section V4 has been provided in Appendix C. The construction notes have been updated accordingly.

29. **Comment:** *Provide additional detail clarification on the cross lot detail (Phase 2B, Sheet D-2, Lot Grading) on how flow is conveyed lot to lot. There is a flowline, however it is not clear if there is a fence, or block wall between lots and how the flow is conveyed.*

Response: The Phase 2B lots drain as Typical Type A drainage with wall separating flowlines between the Lots. The Phase 2C lots drain as cross-lot drainage pattern with no walls or obstructions between lot-to-lot flowlines within the public drainage easements. Additional PVC drains are provided for positive drainage where sidewalk paths are provided for the access of each lot.

30. **Comment:** *Phase 2C, Sheet D-2, Section 1: The lot flowline is supposed to direct flow away from the finish floor. Revise the section to slope towards the flowline and not toward the pads and finished floors.*

Response: The detail has been revised as noted.

31. **Comment:** *Phase 2C, Sheet D-2, Section 2: For all drainage easement sections, show what the drainage easement looks like realistically and include maximum and minimum slopes to sure it is constructible and safe.*

Response: The details have been revised to label maximum and minimum slopes within the drainage easement sections.

32. **Comment:** *The proposed retaining walls east of the Detention Basin boundary requires that the proposed development boundary fence be offset from the retaining wall be located at the development boundary. The City will not maintain the no-man's area shown on the Detail Sections shown on Phase 2B and 2C.*

Response: Acknowledged. The fence line has been moved to the boundary line and the details for Phase 2B & 2C for the proposed retaining wall east of the Detention Basin has been revised.

33. **Comment:** *It is still unclear how flow is conveyed between the townhomes via the proposed "Public Drainage Easement" shown on the Grading Plans for Phase 2C. The 3-inch drain Detail on Sheet D-2 at the sidewalk is shown as 6-inches below the sidewalk grade, yet the grading plans do not allow for this design. Include revised grading details for each of the building types & sizes 3-plex and 4-plex. Review and revise the Grading Plans accordingly.*

Response: A flowline grading detail has been provided for the townhome 3-plex and 4-plex lots for the Phase 2C Plans to clarify the easement design. The 3" PVC pipe and sidewalk detail has been revised accordingly.

34. **Comment:** *Provide greater detail on Phase 2C for the townhome grading (3-plex, 4-plex) and show how the typical townhome will drain. Include grading tags for the flowline as it exits the lots and the finished floor and garage finished floor.*

Response: Additional labels have been provided for the detailed grading of the townhome lots. Refer to the revised Phase 2C plans for updated townhome details.

35. **Comment:** *All drainage easements must be "Public Drainage Easements to be Privately Maintained" and shall be labeled as such on the grading plans and dedicated on the Final Map. Identify the Common Lots that are also Drainage Easements.*

Response: A Drainage Easement Note has been provided on the grading plans indicating that all drainage easements and common lots are Public Drainage Easements to be Privately Maintained. Common lots which are drainage easements have been labelled with an asterisk to denote as such.

36. **Comment:** *The following comments refer to the improvement plans in their entirety:*

- a. *All Grading Plans adjacent to the existing Detention Basins need to label the Detention Basins (Skye Canyon Detention Basin #1 or Skye Canyon Detention Basin #2).*
- b. *Revise all of the Details that show the Buffer Sections to correctly show the Detention Basins.*

Response: The plan comments have been addressed as follow:

- a. All Grading Plans have been revised to label the existing Detention Basins where shown adjacent to the proposed improvements.
- b. Details have been revised to show the Buffer Sections for the Detention Basins.

We believe the above responses and revisions provided on the amended improvement plans have adequately satisfied the concerns in the subject review memorandum. The revised improvement plan sheets adopting the revisions addressed in this letter have been included in the last appendix of this addendum. If you have any questions or require additional information, please do not hesitate to contact our office at (702) 284-5300.

Respectfully Submitted,
WESTWOOD PROFESSIONAL SERVICES



Jonathan S. Rocha
Graduate Engineer – Water Resources Services

CC: Stanley Okey Amadi, P.E., CFM
Mark Failla, P.E., CFM
Emily Hoy, P.E.

List of Appendices

Appendix A	City of Las Vegas Comment Letter
Appendix B	Drainage Exhibits • Exhibit E – Phase 1 Interim Condition Drainage Map • Exhibit F – Ultimate Condition Drainage Map
Appendix C	Street & Hydraulic Sections • Interior Street Flow Computations – 100-Yr • Hydraulic Sizing Computations • Cross Lot Drainage Culvert Computations
Appendix D	Finished Floor Analyses
Appendix E	Revised Improvement Plans

APPENDIX A

City of Las Vegas Comment Letter

CITY OF LAS VEGAS		DATE:
INTER-OFFICE MEMORANDUM		March 3, 2023
TO: Land Development Services Department of Community Development - Building & Safety Division		FROM: Peter Jackson, CFM Senior Engineering Associate City Engineering Division, Department of Public Works
SUBJECT:	Drainage Study for:	COPIES TO:
Skye Canyon Parcel 5.06 Phase 2		Westwood Professional Services
Cross Streets:	Sheep Mountain Pkwy & Iron Mountain Rd	Century Communities of Nevada, LLC.
File Number:	F:\Depot\DSMemos\DS05649A.doc	Bart Anderson, P.E.; DevCo
Parcel Number:	126-12-101-004	
Zoning Action:	22-0412-VAC1, 22-0412-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	1/26/2023	2/22/2023 & 3/3/2023	See Comments Below	\$400	5116027: \$400
			TOTAL FEES (LDDRS):	\$400	----

REMARKS: 1st Submittal shows that Phase 2 is divided into 3 sub-phases. Each sub-phase needs the improvements to stand alone regardless of the proposed construction sequence.

Per 22-0412-TMP1: No permits shall be issued for this site and no Final Maps for this site shall record until all remaining Master Developer Infrastructure identified in the Skye Canyon Development Agreement is constructed or guaranteed to the satisfaction of the Director of Public Works.

No Mass Grading Permit is allowed on this site. Permit Hold is requested.

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

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

1. No permits shall be issued for this site and no Final Maps for this site shall record until all remaining Master Developer infrastructure identified in the Skye Canyon Development Agreement is constructed or guaranteed to the satisfaction of the Director of Public Works.
2. Update #5 to DS4813 (Skye Canyon Detention Basin #2) sets the parameters for the required Buffer between the Existing Detention Basins (DB #1 & DB #2) and Parcel 5.06. The Buffer is required to be constructed with any development of Parcel 5.06. The Grading and Improvement Plans for Parcel 5.06, Phase 1 shows the included construction of the 25-foot Buffer adjacent to both Detention Basins. Include the TY-1 Section as part of the Detail Sheets. Grading and

Improvement Plans for Parcel 5.06, Phase 2 and other future Phases within Parcel 5.06 need to include the construction of the Buffer area improvements and show these improvements as existing.

3. This drainage study states that the 5.06 - Phase 2 project will be constructed in multiple Sub-Phases (2A, 2B, and 2C). The Plans submitted with the drainage study show multiple improvement plans to break the project into separate sub-phases. A drainage study update will be required for each sub-phase that addresses the interim condition based upon the sub-phase construction sequence. Any required improvements necessary for the construction of sub-phase 2A, 2B and 2C from an adjacent sub-phase needs to be addressed as part of the interim conditions as each sub-phase must stand alone.
4. **No Mass Grading Permits are Approved until Condition #1 is satisfied.** Coordinate the mass grading requirements with Land Development and identify any required BMP's for the site. Update the overall phasing plan (**Exhibit A2**) for the development of Parcel 5.06 to show that the required Buffer bench improvements are required with the Phase 1 Plans. Update the Phasing Exhibit A2 to show the sequence of Phase 2 sub-phases, 2A, 2b, and 2C. The Phase 1 Plans shall complete the permanent fencing adjacent to the detention basins prior to approval of Improvement Plans for the overall Phase 2 improvements and any other Future Phases.
5. The provided **Exhibit F** does not match the **Exhibit F** in the Phase 1 study (DS5623). Any changes to the Phase 1 study shall be rectified prior to Conditional Approval of Phase 2. Review and revise accordingly.
6. **Exhibit F, Ultimate Condition Map:** Show referenced Sections 1-6*, 3-1* and 3-2* on the ultimate condition drainage map or remove the sections from the 'Ultimate Condition 100-Year Street Flow Summary' table of the provided map.
7. **Exhibit F, Ultimate Condition Map:** The 'Recommended Flood Control Facility (Inlets & Laterals)' summary table is inconsistent. The flow listed in the 'Approaching Flow' column for Facilities DI#1, DI#2, and DI#5 does not match the added flow listed in the 'Source of Flows' column. Review and revise accordingly.
8. **Exhibit F, Ultimate Condition Map:** In the 'Subbasin Prorated Flow Rate Summary' table the area of Basin ON3 does not match the summation of prorated areas, nor does it match the total Q_{100} and Q_{10} .
9. Rename the Cross Section calculation V1 (14.24%) it represents a different section than Section V1. Also list the section on the 'Ultimate Condition Onsite Hydraulic Section Summary' table on Exhibit F.
10. Provide additional existing design elevations at the Buffer based upon the Phase 1 improvements for all Grading Plans adjacent to the Buffer area.
11. The existing 40-foot Drainage Easement that encumbers Parcel 5.06 adjacent to the Detention Basins is not eligible for Vacation until the required Buffer area modifications and the Detention Basin boundary improvements are complete.
12. The site is adjacent to or crosses an existing or proposed Clark County Regional Flood Control District (CCRFCD) master planned facility. Therefore, CCRFCD concurrence is required prior to final approval of the drainage study.

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>

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

13. The drainage discharge points of the Buffer areas into the on-site Phase 2 improvements needs to include a rip-rap swale prior to discharging into the adjacent private streets. Include a Detail and reference the Detail # on the Construction Note. Review and revise the plans accordingly.

14. Extend Phase 2A, Common Element F into the end of the Alamino Ave stub street adjacent to Lots 310 & 311. The drainage from the Common Element areas should drain into the street, not thru individual lots.
15. This study addresses the development of Phase 2 and shows Mass Grading. A separate study is required to address the full development of future phases.
16. The study assumes the storm drain infrastructure proposed by the Technical Drainage Study for Iron Mountain is in place. Substantial completion of the Iron Mountain infrastructure facilities is required prior to approval of the improvement plans for this study.
17. The study assumes the storm drain infrastructure proposed by the Technical Drainage Studies for Skye Canyon Parcel 5.06 Phase 1 are in place and functioning. Substantial completion of the Skye Canyon Parcel 5.06 Phase 1 Infrastructure facilities is required prior to residential occupancy permits.
18. Conditional approval of this drainage study is not applicable until Parcel 5.06 Phase 1 receives conditional approval from the City of Las Vegas. Any comments listed in the Phase 1 drainage study comment letter must also be applied to the Phase 2 development. An update is required to address the full development of Parcel 5.06 and future phases.
19. Provide complete design information for the stepped retaining walls on the Grading Plans for Phase 2B.
20. It is noted that this development proposes a 6-foot tubular steel fence to secure the development from the existing Detention Basin facilities. This boundary facility is the maintenance responsibility of the development. Provide a Note on the Grading Plans
21. Provide the hydraulic section calculations for Section U1 so we may verify the adjacent finished floors. Lots 24 and 25 have to meet the criteria of being above the specific energy flow depth and Lots 181 and 228 have to meet the criteria of 18-inches above the flow depth.
22. The hydraulic calculation for the 3" PVC pipe that is located at the sidewalk underdrain of the townhome cross-lot drainage detail shows that the pipe is pressurized. Additionally, a flowmaster calculation for this type of culvert pipe is not an adequate calculation considering the open end conditions of the pipe. Provide a calculation that considers these items such as an HY-8 to provide verification that flow is not overtopping the sidewalk.
23. Section 2-1* is over the curb and approaching the drainage easement north of Grabill Spruce Street. Justify the section and how it will prevent overflow into common element F and turn ninety degrees for the modified roll curb at the end of Grabill Spruce Street. Revise the grading and curb to adequately convey the flows into the drainage swale.
24. Provide a quality check on the finished floor tables. For example, Section 3-3* is not considered acceptable for analyzing finished floors of Lots 411-416 and Lots 440-447 as it applies less flow than the subbasin ON3(D3) and the approaching flow, Section 3-6*, but also Section 3-3* flow depth is not correct. The highest flow depth per the 'Ultimate Condition 100-Year Street Flow Summary' table on Exhibit F is 0.46-ft, but the finished floor table states that the depth of the section is 0.51-ft.
25. All garage finished floors must be above twice the depth of flow up to 18 inches to meet criteria for garage finished floors.
26. In Phase 2B, lots that have a driveway off Rimerton Street, are assumed to be addressed to Rimerton Street and adjacent to the hammer head street to the north/south, Section A. Revise finished floor computations so that we may determine which street is the addressed street and which is adjacent.
27. The finished floor should be protected against twice the depth of flow. Three courses of solid grouting is required whenever the finished floor is below the adjacent top-of-curb. The high point is not considered adequate protection for the finished floor from adjacent flow. Revise plans to provide adequate protection for finished floors lower than adjacent finished floors.

28. Revise the construction notes of the Phase 2C improvement plans. Construction note 10 refers to a U-channel and Construction note 12 refers to a depressed curb, and both refer to Detail 16 for completely different structures.
29. Provide additional detail clarification on the cross lot detail (Phase 2B, Sheet D-2, Lot Grading) on how flow is conveyed lot to lot. There is a flowline, however it is not clear if there is a fence, or block wall between lots and how the flow is conveyed.
30. **Phase 2C, Sheet D-2, Section 1:** The lot flowline is supposed to direct flow away from the finish floor. Revise the section to slope towards the flowline and not toward the pads and finished floors.
31. **Phase 2C, Sheet D-2, Section 2:** For all drainage easement sections, show what the drainage easement looks like realistically and include maximum and minimum slopes to sure it is constructible and safe.
32. The proposed retaining walls east of the Detention Basin boundary requires that the proposed development boundary fence be offset from the retaining wall be located at the development boundary. The City will not maintain the no-man's area shown on the Detail Sections shown on Phase 2B and 2C.
33. It is still unclear how flow is conveyed between the townhomes via the proposed "*Public Drainage Easement*" shown on the Grading Plans for Phase 2C. The 3-inch drain Detail on Sheet D-2 at the sidewalk is shown as 6-inches below the sidewalk grade, yet the grading plans do not allow for this design. Include revised grading details for each of the building types & sizes 3-plex and 4-plex. Review and revise the Grading Plans accordingly.
34. Provide greater detail on Phase 2C for the townhome grading (3-plex, 4-plex) and show how the typical townhome will drain. Include grading tags for the flowline as it exits the lots and the finished floor and garage finished floor.
35. All drainage easements must be "*Public Drainage Easements to be Privately Maintained*" and shall be labeled as such on the grading plans and dedicated on the Final Map. Identify the Common Lots that are also Drainage Easements.
36. **The following comments refer to the improvement plans in their entirety:**
 - a. All Grading Plans adjacent to the existing Detention Basins need to label the Detention Basins (Skye Canyon Detention Basin #1 or Skye Canyon Detention Basin #2).
 - b. Revise the all of the Details that show the Buffer Sections to correctly show the Detention Basins.

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.

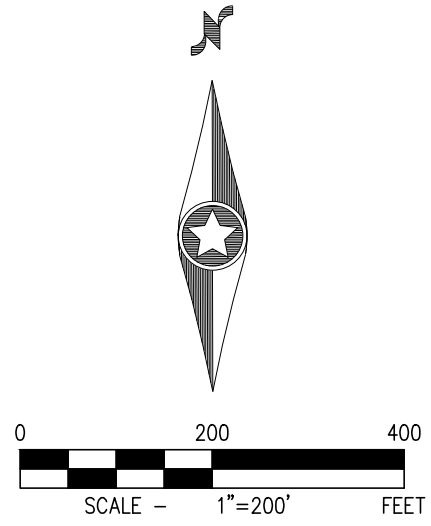
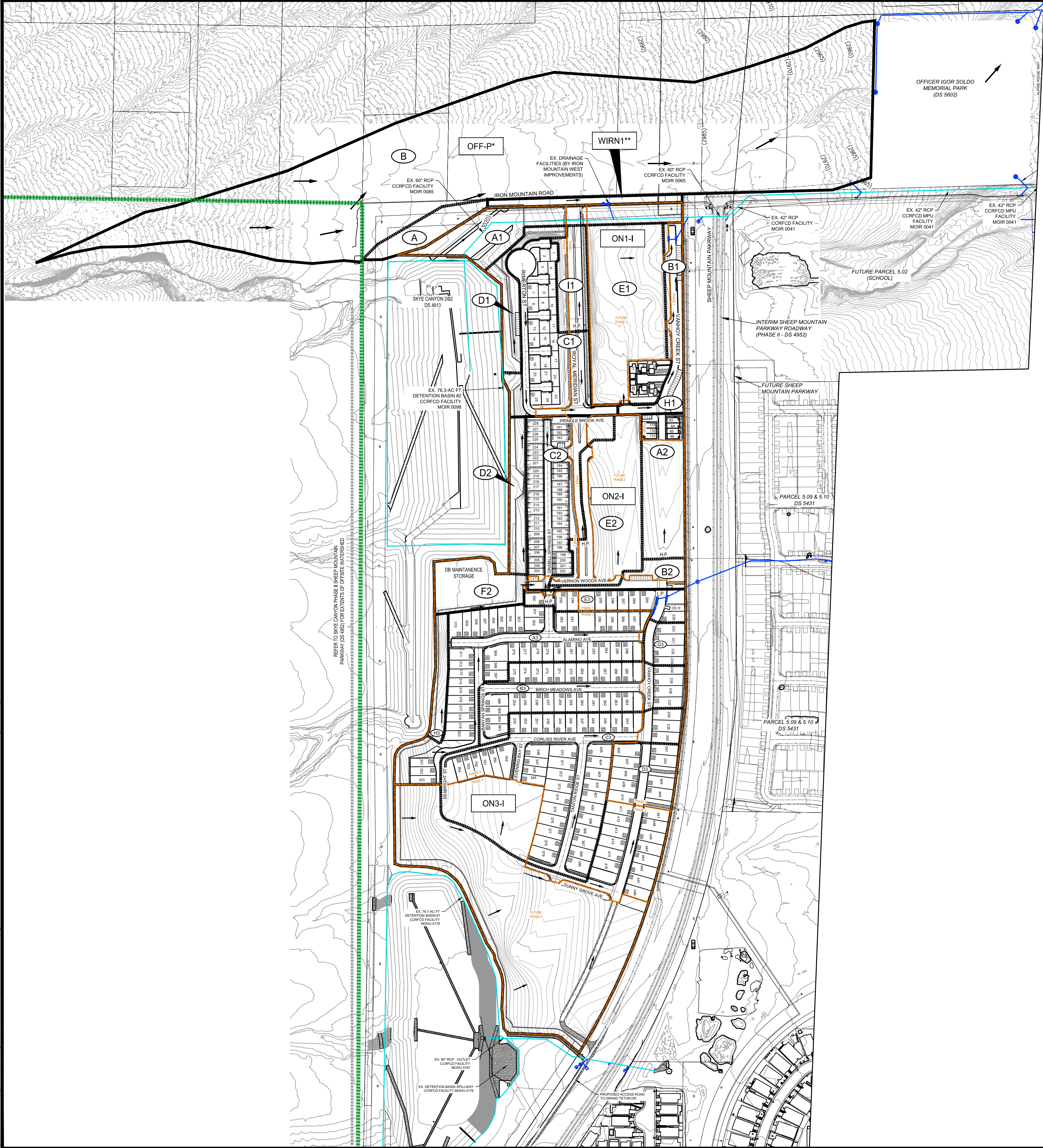
END OF REMARKS
HDR/CAA/PBJ

T/R/S: T19S/R59E/S12
AREA F-12

APPENDIX B

Drainage Exhibits

I:\env2104-200\skye 5.06\drainage\2 technical study\unit 2\addendum\figures\env2104-200\tds add ext.e unit 2 proposed condition drainage map.dwg 3/28/2023 10:08 AM Jonathan Rocha



LEGEND	
	BASIN BOUNDARY
	PRORATED SUBBASIN BOUNDARY
	PHASE BOUNDARY
	ULTIMATE DEVELOPMENT BOUNDARY
	EXISTING RFCD DRAINAGE FACILITY
	EXISTING LOCAL DRAINAGE FACILITY
	BASIN ID
	PRORATED SUBBASIN ID
	CONCENTRATION POINT ID
	FLOW DIRECTION
	FLOWMASTER SECTION

Phase 2 Interim Condition Flow Rate Summary			
Basin/Concentration Point ID	Area (ac)	Q ₁₀₀ (cfs)	Q ₁₀ (cfs)
ON1-I	14.8	43	21
ON2-I	11.9	38	18
ON3-I	35.1	102	49
OFF-P*	28.8	67	26
WIRN1*	0.6	2	1

Subbasin Prorated Flow Rate Summary					
Basin ID	Q ₁₀₀ (cfs)	Q ₁₀ (cfs)	Area (acres)	100-yr Unit Flow (cfs/acre)	10-yr Unit Flow (cfs/acre)
ON1-I	43	21	14.8	2.9	1.4
ON2-I	38	18	11.9	3.2	1.5
ON3-I	102	49	35.1	2.9	1.4
OFF-P	67	26	28.8	2.3	0.9
Subbasin ID	Q ₁₀₀ (cfs)	Q ₁₀ (cfs)	Area (acres)	100-yr Unit Flow (cfs/acre)	10-yr Unit Flow (cfs/acre)
ON1-I(A1)	7	3.5	2.5	2.9	1.4
ON1-I(B1)	1.5	1	0.5	2.9	1.4
ON1-I(C1)	11	5	3.8	2.9	1.4
ON1-I(D1)	3	1.5	1.0	2.9	1.4
ON1-I(E1)	14	7	4.8	2.9	1.4
ON1-I(H1)	3.5	1.5	1.1	2.9	1.4
ON1-I(I1)	3.5	1.5	1.1	2.9	1.4
TOTAL	44	21	14.8		
ON2-I(A2)	7	3.4	2.3	3.2	1.5
ON2-I(B2)	2.5	1.1	0.7	3.2	1.5
ON2-I(C2)	11	5.3	3.5	3.2	1.5
ON2-I(D2)	3	1.5	1.0	3.2	1.5
ON2-I(E2)	9.5	4.4	2.9	3.2	1.5
ON2-I(F2)	5	2.3	1.5	3.2	1.5
TOTAL	38	18	11.9		
ON3-I(A3)	16.5	8	5.7	2.9	1.4
ON3-I(B3)	10.5	5	3.6	2.9	1.4
ON3-I(C3)	25	12	8.7	2.9	1.4
ON3-I(D3)	42.0	20	14.5	2.9	1.4
ON3-I(E3)	4	2	1.3	2.9	1.4
ON3-I(G3)	2	1	0.7	2.9	1.4
ON3-I(H3)	2	1	0.6	2.9	1.4
TOTAL	102	49	35.1		
OFF-P(A)	2	1	0.9	2.3	0.9
OFF-P(B)	65	25	27.9	2.3	0.9
TOTAL	67	26	28.8		

NOTES:

* REFERENCED FROM PARCEL 5.06 PHASE 1 STUDY (DS 5623)

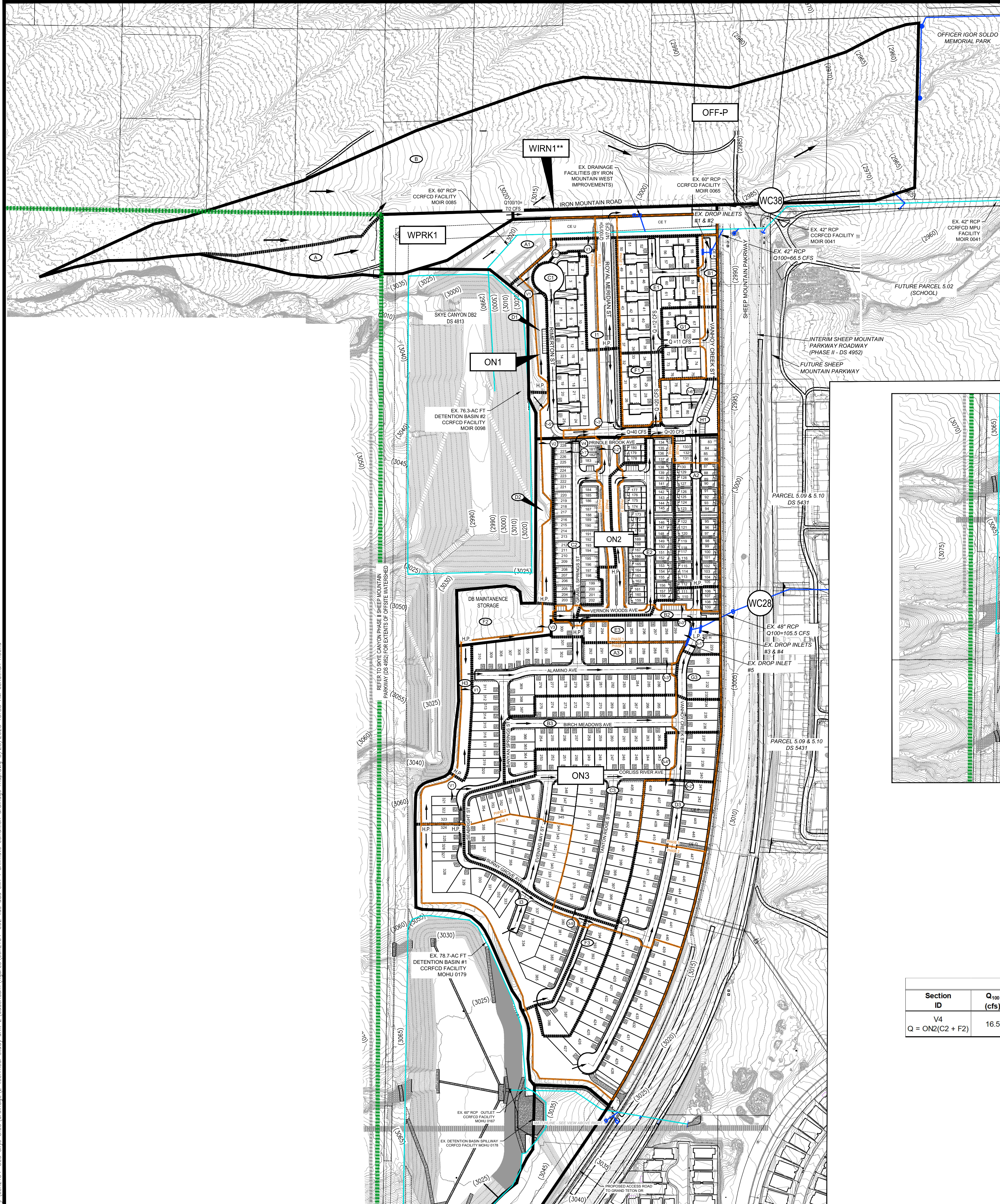
-OFF-P(A) IS COMPUTED FROM UNIT FLOWRATE OF BASIN OFF-P REFERENCED FROM SOLD0 PARK STUDY. SEE REFERENCE MATERIAL FOR FULL EXTENTS OF BASIN OFF-P.

-REFER TO EXHIBIT F FOR ANALYSIS OF STREET SECTIONS AND DRAINAGE FACILITY.

NO.	DESCRIPTION	DATE	BY	APP.	DATE

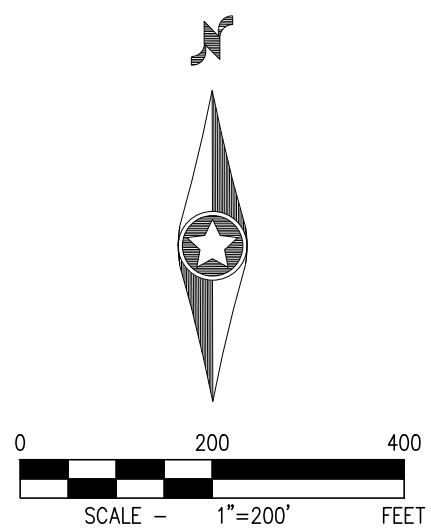
DATE:	MAR 2023
DRAFTER:	JSR
DESIGNER:	JSR
CHECKED:	SOA
PROJECT NO.	CEN2104.000

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NOTES:

- * REFERENCED FROM SKYE CANYON PARCEL 5.06 UNIT 1 & MASS GRADE (DS 5623)
- **REFERENCED FROM SKYE CANYON MDS UPDATE #7 (DS 4220)
- *** REFERENCED FROM SHEEP MOUNTAIN PARKWAY STUDY (DS 4952)
- OFF-P(A) IS COMPUTED FROM UNIT FLOWRATE OF BASIN OFF-P REFERENCED FROM SOLD0 PARK STUDY. SEE REFERENCE MATERIAL FOR FULL EXTENTS OF BASIN OFF-P.



Ultimate Condition Flow Rate Summary				
Basin/Concentration Point ID	Area (ac)	Q ₁₀₀ (cfs)	Q ₁₀ (cfs)	
ON1*	14.8	44	21	
ON2*	11.9	39	19	
ON3*	35.1	103	50	
OF4*	4.3	13	6	
WPRK1*	1.8	4	1	
WRN1*	0.6	2	1	
OFF-P*	28.8	67	26	
WC28	N/A	130	63	
WC38	N/A	134	85	
Q = REF*				

LEGEND	
	BASIN BOUNDARY
	PRORATED SUBBASIN BOUNDARY
	PHASE BOUNDARY
	ULTIMATE DEVELOPMENT BOUNDARY
	EXISTING RFCD DRAINAGE FACILITY
	EXISTING LOCAL DRAINAGE FACILITY
	BASIN ID
	PRORATED SUBBASIN ID
	CONCENTRATION POINT ID
	FLOW DIRECTION
	FLOWMASTER SECTION

Subbasin Prorated Flow Rate Summary					
Basin ID	Q ₁₀₀ (cfs)	Q ₁₀ (cfs)	Area (acres)	100-yr Unit Flow (cfs/acre)	10-yr Unit Flow (cfs/acre)
ON1	44	21	14.8	3.0	1.4
ON2	39	19	11.9	3.3	1.6
ON3	103	50	35.1	2.9	1.4
OFF-P	67	26	28.8	2.3	0.9
Subbasin ID					
ON1(A1)	7.5	4	2.5	3.0	1.4
ON1(B1)	1.5	0.5	0.5	3.0	1.4
ON1(C1)	11	5	3.8	3.0	1.4
ON1(D1)	3	1.5	1.0	3.0	1.4
ON1(E1)	7	3	2.4	3.0	1.4
ON1(F1)	3	2	1.1	3.0	1.4
ON1(G1)	4	2	1.3	3.0	1.4
ON1(H1)	3.5	1.5	1.1	3.0	1.4
ON1(I1)	3.5	1.5	1.1	3.0	1.4
TOTAL	44	21	14.8		
ON2(A2)	7.5	3.5	2.3	3.3	1.6
ON2(B2)	2.5	1	0.7	3.3	1.6
ON2(C2)	11.5	5.5	3.5	3.3	1.6
ON2(D2)	3	2.0	1.0	3.3	1.6
ON2(E2)	9.5	4.5	2.9	3.3	1.6
ON2(F2)	5.0	2.5	1.5	3.3	1.6
TOTAL	39	19	11.9		
ON3(A3)	17	8	5.7	2.9	1.4
ON3(B3)	10.5	5	3.6	2.9	1.4
ON3(C3)	25.5	12.5	8.7	2.9	1.4
ON3(D3)	23.5	11.5	8.0	2.9	1.4
ON3(E3)	4	2	1.3	2.9	1.4
ON3(F3)	5	2.5	1.9	2.9	1.4
ON3(G3)	2	1	0.7	2.9	1.4
ON3(H3)	2	1	0.6	2.9	1.4
ON3(I3)	14	6.5	4.6	2.9	1.4
TOTAL	103	50	35.1		
OFF-P(A)	3	1	1.5	2.3	0.9
OFF-P(B)	64	25	27.4	2.3	0.9
TOTAL	67	26	28.8		

Ultimate Condition 100-Year Street Flow Summary					
Section ID	Q ₁₀₀ (cfs)	Slope (%)	Depth (ft)	Velocity (fps)	DxV
1-3" (Half Street) Q = ON1(C1)	11	1.15	0.51	3.18	1.6
1-5" Q = ON1(C1)	11	0.60	0.44	2.18	1.0
1-6" Q = 1 CFS	1	0.60	0.24	1.24	0.3
2-1 Q = ON2(C2 + F2)	16.5	1.56	0.22	1.88	0.4
2-2" (Half Street) Q = ON2(C2 + F2)	16.5	0.60	0.49	2.56	1.3
2-3" Q = ON2(B2) + ON3(E3)	6.5	1.87	0.53	4.23	2.2
3-1" Q = DI#5 Bypass + ON2(B2) + ON3(E3)	76	2.43	0.51	4.65	2.4
3-2" Q = ON3(D3 + F3 + I3)	42.5	4.28	0.30	3.95	1.2
3-3" Q = ON3(A3)	18.5	2.45	0.61	6.28	3.8
3-4" Q = ON3(C3)	25.5	0.82	0.61	3.60	2.2
3-6" Q = ON3(F3 + I3)	19	1.74	0.56	4.52	2.5
3-9 Q = ON3(I3)	14	1.50	0.46	3.23	1.5

Section 3-3 utilizes a higher flowrate from prorated ON3(A3) from Phase 1 Study. Subbasin ON3(A3) has been reduced in prorated area in Phase 2 Study.

Recommended Flood Control Facility (Inlets & Laterals) Summary						
Facility ID	Facility Description	Source of Flows	Approaching Flow (cfs) Q ₁₀₀	Facility Flow (cfs) Q ₁₀₀	Surface/Bypass Flow (cfs) Q ₁₀₀	Notes
DI#1 & DI#2	Ex. (2) 20.0-ft CM2	ON1 + ON2 - ON1(A1+D1-I1) - ON2(B2)	66.5	66.5	0	In Sump
DI#3 & DI#4	Ex. (2) 20.0-ft CM2	SDDI#5 Bypass + ON2(B2) + ON3(E3)	76	76	0	In Sump
DI#5	Ex. 20.0-ft CM2 & 36" RCP Lateral	ON3 - ON3(E3)	99	29.5	69.5	

Ultimate Condition Onsite Hydraulic Section Summary					
Section ID	Q ₁₀₀ (cfs)	Section Description	Slope (%)	Depth (ft)	Velocity (fps)
Section V1 Q = ON1(D1)	3	V-Ditch Swale, 3:1 SS, Earthen Lined	0.50	0.70	2.02
Section V1-1 Q = ON1(D1)	3	Trap channel, 6" BW, 3:1 SS, Earthen Lined	4.98	0.46	4.79
Section V2 Q = ON2(D2)	3	V-Ditch Swale, 3:1 SS, Earthen Lined	14.24	0.10	4.71
Section V3 Q = ON2(F2)	5	V-Ditch Swale, 3:1 SS, Earthen Lined	0.75	0.65	2.35
			1.65	0.56	3.16
			3.83	0.58	4.93

Ultimate Condition Onsite Hydraulic Summary					
Section ID	Q ₁₀₀ (cfs)	Description	Slope (%)	Depth (ft)	Velocity (fps)
V4 Q = ON2(C2 + F2)	16.5	Concrete lined valley gutter, 2% SS, 40" Width w/ 5" Width Curb Depression	16.29	0.19	9.50
				Weir	1.05
					-

Westwood
7025 W. Badura Ave.
Suite 100
Las Vegas, NV 89118
Phone (702) 284-5300
Fax (702) 284-5399
westwoodps.com
Westwood Professional Services, Inc.

DATE: MAR 2023
DRAFTER: JSR
DESIGNER: JSR
CHECKED: SOA
PROJECT NO. CEN2104.000

EXHIBIT F
SHEET 1 OF 1

CITY OF LAS VEGAS, NV
CENTURY COMMUNITIES OF NEVADA, LLC.
SKYE CANYON PARCEL 5.06 PHASE 2
ULTIMATE CONDITION DRAINAGE MAP

912
R 339

APPENDIX C

Street & Hydraulic Sections

Interior Street Flow Computations – 100-Yr

Worksheet for 2-1 30' ROW

Project Description	
Friction Method	Manning
Solve For	Formula
	Normal Depth
Input Data	
Channel Slope	0.60 %
Discharge	16.50 cfs

Section Definitions

Station (ft)	Elevation (ft)
0+00.00	0.38
0+00.36	0.38
0+01.33	0.06
0+01.33	0.00
0+02.50	0.13
0+02.50	0.17
0+15.00	0.42
0+27.50	0.17
0+27.50	0.13
0+28.67	0.00
0+28.67	0.06
0+29.64	0.38
0+30.00	0.38

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00.00, 0.38)	(0+30.00, 0.38)	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	0.49 ft
Roughness Coefficient	0.016
Elevation	0.49 ft
Elevation Range	0.00 to 0.42 ft
Flow Area	6.5 ft ²
Wetted Perimeter	30.54 ft
Hydraulic Radius	0.21 ft
Top Width	30.00 ft

Worksheet for 2-1 30' ROW

Results

Normal Depth	0.49 ft
Critical Depth	0.49 ft
Critical Slope	0.64 %
Velocity	2.56 ft/s
Velocity Head	0.10 ft
Specific Energy	0.59 ft
Froude Number	0.971
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	0.49 ft
Critical Depth	0.49 ft
Channel Slope	0.60 %
Critical Slope	0.64 %

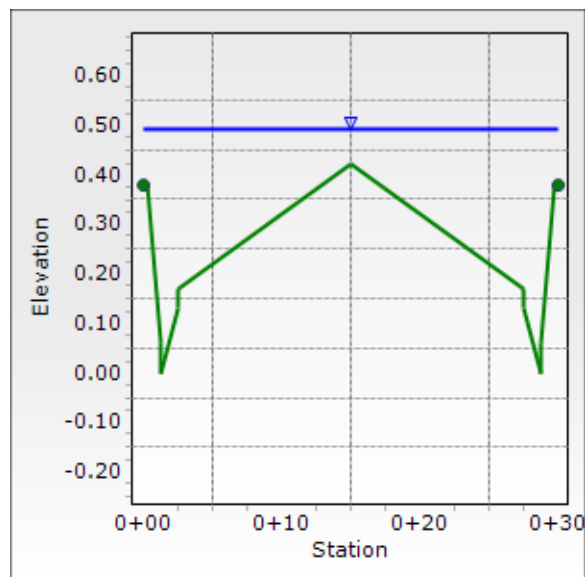
Worksheet for 2-1 30' ROW

Messages:

Water Surface Elevation exceeds lowest end station by 0.109505760669085ft.

Cross Section for 2-1 30' ROW

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Channel Slope	0.60 %
Normal Depth	0.49 ft
Discharge	16.50 cfs



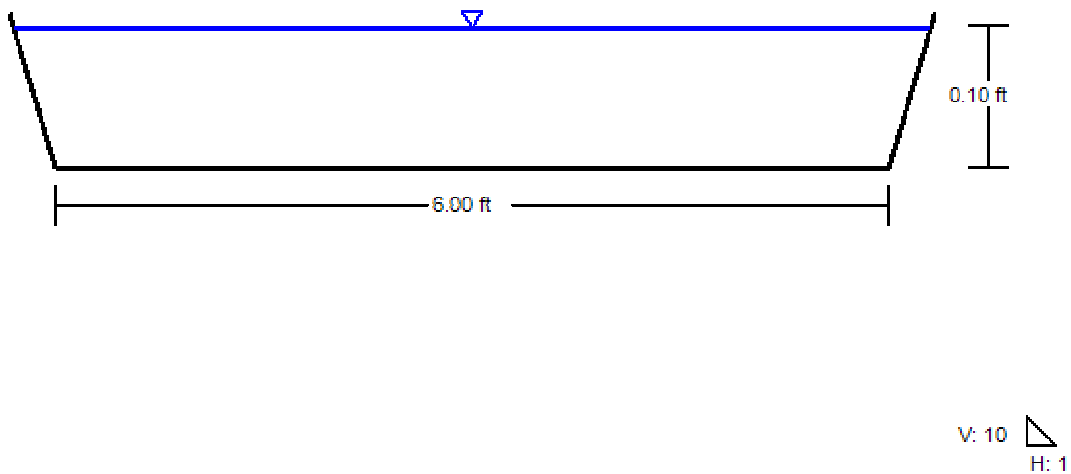
Hydraulic Sizing Computations

Worksheet for V1-1 (14.24%)

Project Description	
Friction Method	Manning
Solve For	Formula Normal Depth
Input Data	
Roughness Coefficient	0.025
Channel Slope	14.24 %
Left Side Slope	3.0 H:V
Right Side Slope	3.0 H:V
Bottom Width	6.00 ft
Discharge	3.00 cfs
Results	
Normal Depth	0.10 ft
Flow Area	0.6 ft ²
Wetted Perimeter	6.64 ft
Hydraulic Radius	0.10 ft
Top Width	6.61 ft
Critical Depth	0.19 ft
Critical Slope	1.64 %
Velocity	4.71 ft/s
Velocity Head	0.35 ft
Specific Energy	0.45 ft
Froude Number	2.676
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	0.10 ft
Critical Depth	0.19 ft
Channel Slope	14.24 %
Critical Slope	1.64 %

Cross Section for V1-1 (14.24%)

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Roughness Coefficient	0.025
Channel Slope	14.24 %
Normal Depth	0.10 ft
Left Side Slope	3.0 H:V
Right Side Slope	3.0 H:V
Bottom Width	6.00 ft
Discharge	3.00 cfs



Worksheet for V4

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth
Input Data	
Channel Slope	16.29 %
Discharge	16.50 cfs

Section Definitions

Station (ft)	Elevation (ft)
0+00.00	0.40
0+20.00	0.00
0+40.00	0.40

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(0+00.00, 0.40)	(0+40.00, 0.40)	0.013

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

Results	
Normal Depth	0.19 ft
Roughness Coefficient	0.013
Elevation	0.19 ft
Elevation Range	0.00 to 0.40 ft
Flow Area	1.7 ft ²
Wetted Perimeter	18.65 ft
Hydraulic Radius	0.09 ft
Top Width	18.64 ft
Normal Depth	0.19 ft
Critical Depth	0.37 ft
Critical Slope	0.43 %
Velocity	9.50 ft/s
Velocity Head	1.40 ft
Specific Energy	1.59 ft
Froude Number	5.484
Flow Type	Supercritical

GVF Input Data

Worksheet for V4

GVF Input Data

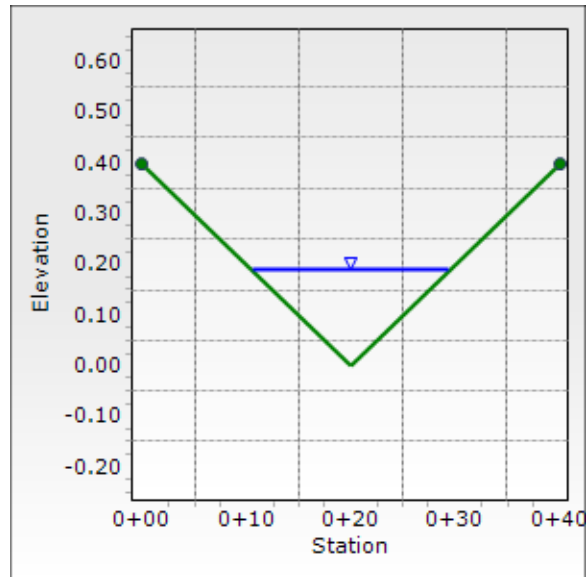
Downstream Depth	0.00 ft
Length	0.00 ft
Number Of Steps	0

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	0.37 ft
Channel Slope	16.29 %
Critical Slope	0.43 %

Cross Section for V4

Project Description	
Friction Method	Manning
	Formula
Solve For	Normal Depth
Input Data	
Channel Slope	16.29 %
Normal Depth	0.19 ft
Discharge	16.50 cfs

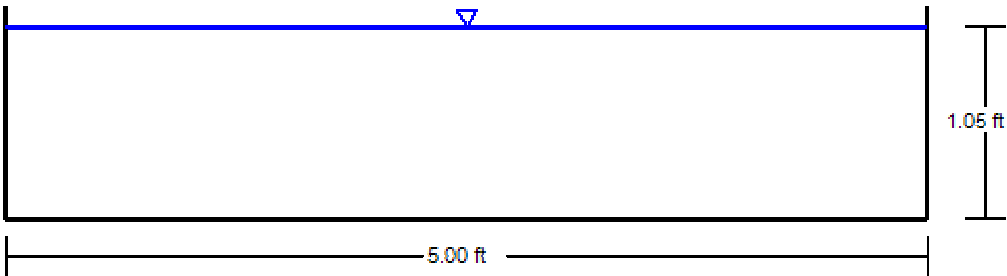


Worksheet for V4 (Weir)

Project Description	
Solve For	Headwater Elevation
Input Data	
Discharge	16.50 cfs
Crest Elevation	0.00 ft
Tailwater Elevation	0.19 ft
Crest Surface Type	Paved
Crest Breadth	5.00 ft
Crest Length	5.00 ft
Results	
Headwater Elevation	1.05 ft
Headwater Height Above Crest	1.05 ft
Tailwater Height Above Crest	0.19 ft
Weir Coefficient	$3.07 \text{ ft}^{(1/2)}/\text{s}$
Submergence Factor	1.000
Adjusted Weir Coefficient	$3.07 \text{ ft}^{(1/2)}/\text{s}$
Flow Area	5.2 ft ²
Velocity	3.14 ft/s
Wetted Perimeter	7.10 ft
Top Width	5.00 ft

Cross Section for V4 (Weir)

Project Description	
Solve For	Headwater Elevation
Input Data	
Discharge	16.50 cfs
Headwater Elevation	1.05 ft
Crest Elevation	0.00 ft
Tailwater Elevation	0.19 ft
Crest Surface Type	Paved
Crest Breadth	5.00 ft
Crest Length	5.00 ft



V: 1
H: 1

Cross-Lot Drainage Culvert Computations

HY-8 Culvert Analysis Report

Crossing Discharge Data

Discharge Selection Method: Specify Minimum, Design, and Maximum Flow

Minimum Flow: 0.10 cfs

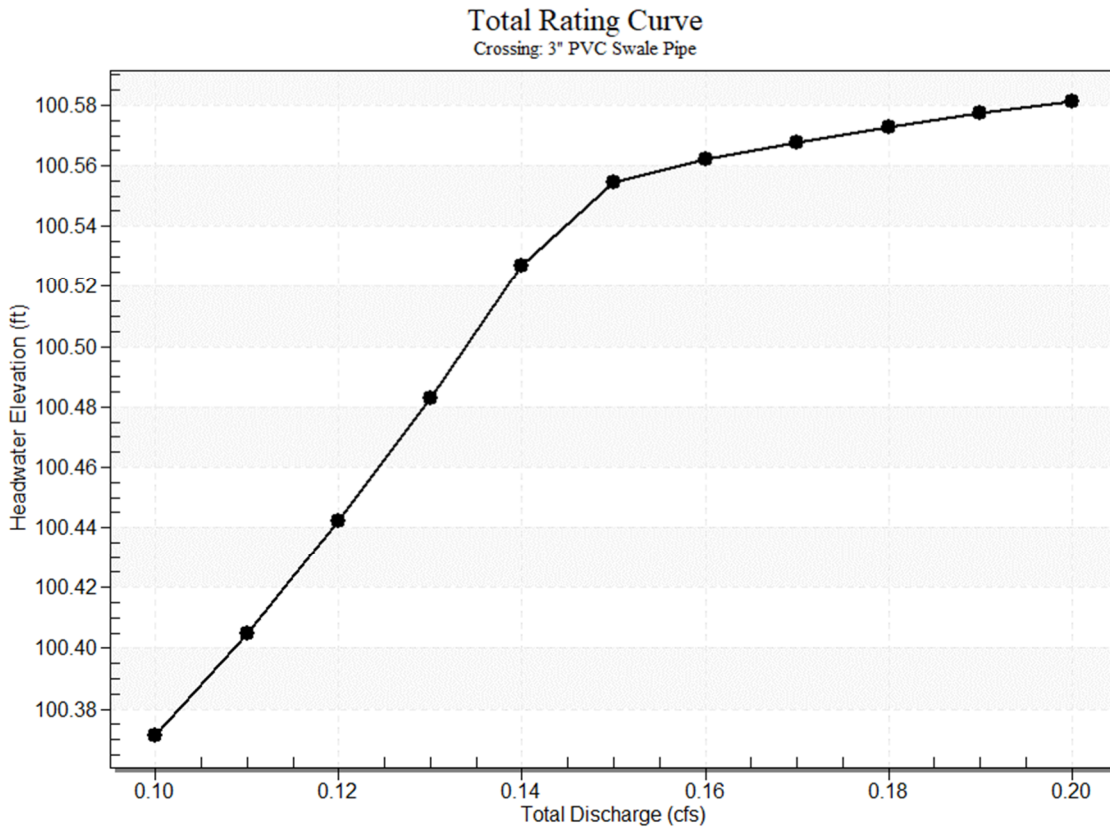
Design Flow: 0.12 cfs

Maximum Flow: 0.20 cfs

Table 1 - Summary of Culvert Flows at Crossing: 3" PVC Swale Pipe

Headwater Elevation (ft)	Total Discharge (cfs)	Culvert 1 Discharge (cfs)	Roadway Discharge (cfs)	Iterations
100.37	0.10	0.10	0.00	1
100.40	0.11	0.11	0.00	1
100.44	0.12	0.12	0.00	1
100.48	0.13	0.13	0.00	1
100.53	0.14	0.14	0.00	1
100.55	0.15	0.15	0.00	12
100.56	0.16	0.15	0.01	5
100.57	0.17	0.15	0.02	4
100.57	0.18	0.15	0.03	4
100.58	0.19	0.15	0.04	4
100.58	0.20	0.15	0.05	3
100.55	0.14	0.14	0.00	Overtopping

Rating Curve Plot for Crossing: 3" PVC Swale Pipe



Culvert Data: Culvert 1

Table 1 - Culvert Summary Table: Culvert 1

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
0.10 cfs	0.10 cfs	100.37	0.33	0.302	5-S2n	0.17	0.19	0.17	0.17	2.79	1.12
0.11 cfs	0.11 cfs	100.40	0.36	0.332	5-S2n	0.18	0.20	0.18	0.18	2.86	1.15
0.12 cfs	0.12 cfs	100.44	0.40	0.363	5-S2n	0.19	0.21	0.19	0.18	2.92	1.17
0.13 cfs	0.13 cfs	100.48	0.44	0.397	5-S2n	0.21	0.22	0.21	0.19	2.96	1.20
0.14 cfs	0.14 cfs	100.53	0.49	0.434	7-M2c	0.25	0.22	0.22	0.20	3.05	1.22
0.15 cfs	0.15 cfs	100.55	0.51	0.452	7-M2c	0.25	0.22	0.22	0.20	3.14	1.24
0.16 cfs	0.15 cfs	100.56	0.52	0.458	7-M2c	0.25	0.23	0.23	0.21	3.17	1.26
0.17 cfs	0.15 cfs	100.57	0.53	0.462	7-M2c	0.25	0.23	0.23	0.21	3.18	1.28
0.18 cfs	0.15 cfs	100.57	0.53	0.466	7-M2c	0.25	0.23	0.23	0.22	3.20	1.30
0.19 cfs	0.15 cfs	100.58	0.54	0.470	7-M2c	0.25	0.23	0.23	0.22	3.22	1.32
0.20 cfs	0.15 cfs	100.58	0.54	0.474	7-M2c	0.25	0.23	0.23	0.22	3.23	1.33

Culvert Barrel Data

Culvert Barrel Type Straight Culvert

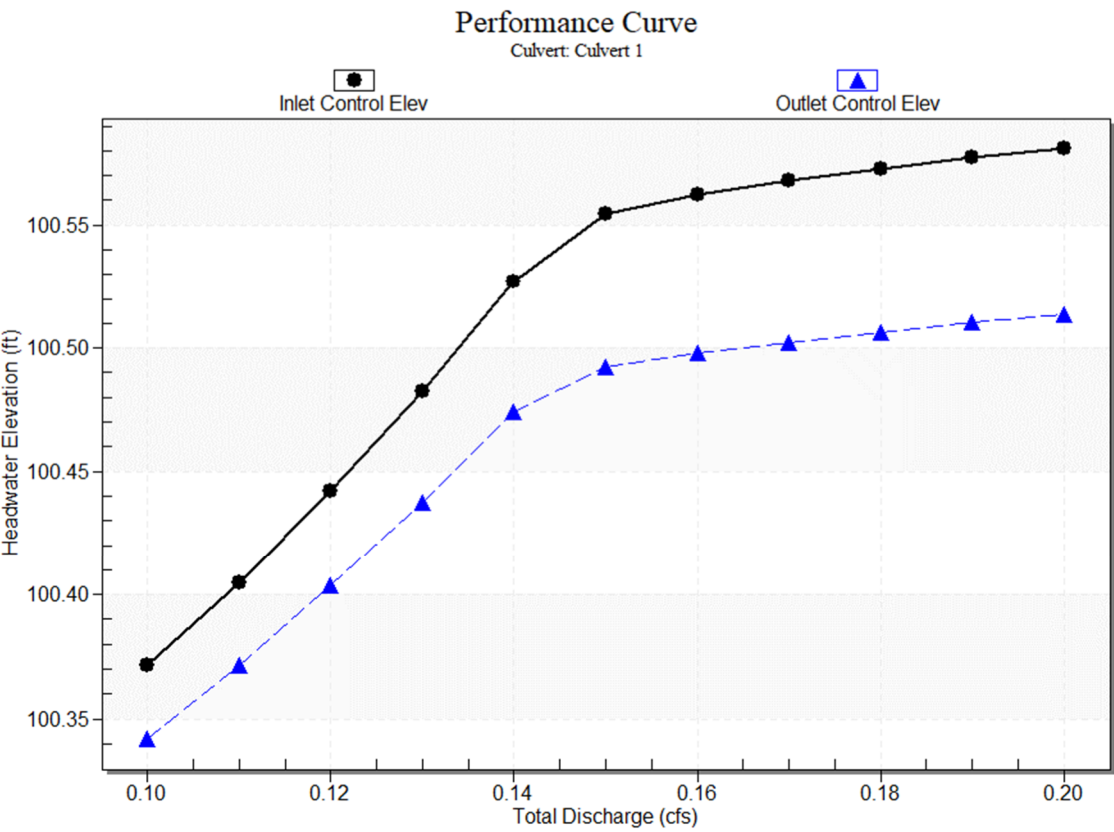
Inlet Elevation (invert): 100.04 ft,

Outlet Elevation (invert): 100.00 ft

Culvert Length: 4.00 ft,

Culvert Slope: 0.0100

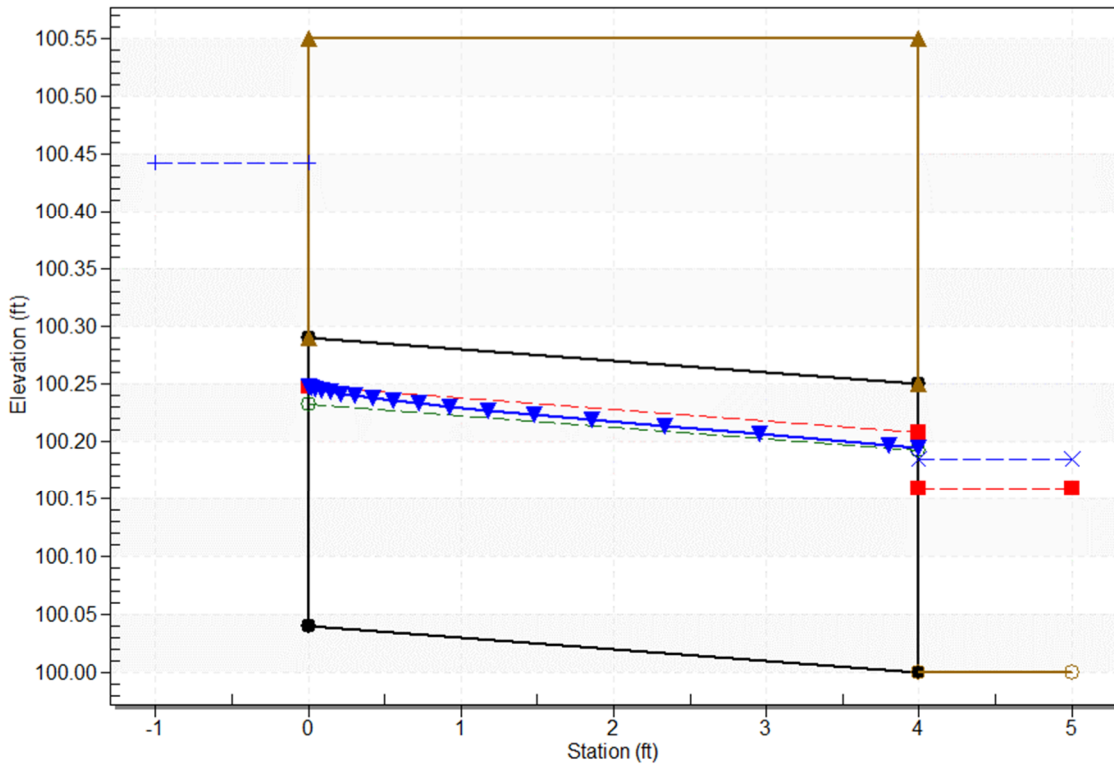
Culvert Performance Curve Plot: Culvert 1



Water Surface Profile Plot for Culvert: Culvert 1

Crossing - 3" PVC Swale Pipe, Design Discharge - 0.12 cfs

Culvert - Culvert 1, Culvert Discharge - 0.12 cfs



Site Data - Culvert 1

Site Data Option: Culvert Invert Data

Inlet Station: 0.00 ft

Inlet Elevation: 100.04 ft

Outlet Station: 4.00 ft

Outlet Elevation: 100.00 ft

Number of Barrels: 1

Culvert Data Summary - Culvert 1

Barrel Shape: Circular

Barrel Diameter: 0.25 ft

Barrel Material: PVC

Embedment: 0.00 in

Barrel Manning's n: 0.0090

Culvert Type: Straight

Inlet Configuration: Square Edge with Headwall (Ke=0.5)

Inlet Depression: None

Tailwater Data for Crossing: 3" PVC Swale Pipe

Table 2 - Downstream Channel Rating Curve (Crossing: 3" PVC Swale Pipe)

Flow (cfs)	Water Surface Elev (ft)	Velocity (ft/s)	Depth (ft)	Shear (psf)	Froude Number
0.10	100.17	0.17	1.12	0.11	0.67
0.11	100.18	0.18	1.15	0.11	0.68
0.12	100.18	0.18	1.17	0.12	0.68
0.13	100.19	0.19	1.20	0.12	0.68
0.14	100.20	0.20	1.22	0.12	0.69
0.15	100.20	0.20	1.24	0.13	0.69
0.16	100.21	0.21	1.26	0.13	0.69
0.17	100.21	0.21	1.28	0.13	0.69
0.18	100.22	0.22	1.30	0.13	0.70
0.19	100.22	0.22	1.32	0.14	0.70
0.20	100.22	0.22	1.33	0.14	0.70

Tailwater Channel Data - 3" PVC Swale Pipe

Tailwater Channel Option: Triangular Channel

Side Slope (H:V): 3.00 (:1)

Channel Slope: 0.0100

Channel Manning's n: 0.0250

Channel Invert Elevation: 100.00 ft

Roadway Data for Crossing: 3" PVC Swale Pipe

Roadway Profile Shape: Constant Roadway Elevation

Crest Length: 3.00 ft

Crest Elevation: 100.55 ft

Roadway Surface: Paved

Roadway Top Width: 4.00 ft

APPENDIX E

Finished Floor Analysis

Skye Canyon Parcel 5.06 Phase 2 TDS ADD 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	1-6*	3025.87	3025.49	0.24	3025.97	3026.37	3027.6	OK	OK	
2	1-6*	3025.54	3025.16	0.24	3025.64	3026.04	3026.8	OK	OK	
3	1-6*	3023.89	3023.51	0.24	3023.99	3024.39	3025.3	OK	OK	
4	1-6*	3024.09	3023.71	0.24	3024.19	3024.59	3025.8	OK	OK	
5	1-6*	3024.09	3023.71	0.24	3024.19	3024.59	3025.8	OK	OK	
6	1-6*	3023.82	3023.44	0.24	3023.92	3024.32	3025.2	OK	OK	
7	1-5	3023.55	3023.17	0.44	3024.05	3024.05	3024.6	OK	OK	
8	1-5	3022.73	3022.35	0.44	3023.23	3023.23	3024.1	OK	OK	
9	1-6*	3022.92	3022.54	0.24	3023.02	3023.42	3024.3	OK	OK	
10	1-6*	3023.12	3022.74	0.24	3023.22	3023.62	3024.8	OK	OK	
11	1-6*	3023.12	3022.74	0.24	3023.22	3023.62	3024.8	OK	OK	
12	1-6*	3022.88	3022.50	0.24	3022.98	3023.38	3024.2	OK	OK	
13	1-5	3022.64	3022.26	0.44	3023.14	3023.14	3023.5	OK	OK	
14	1-5	3021.73	3021.35	0.44	3022.23	3022.23	3023.1	OK	OK	
15	1-6*	3021.92	3021.54	0.24	3022.02	3022.42	3023.3	OK	OK	
16	1-6*	3022.13	3021.75	0.24	3022.23	3022.63	3023.8	OK	OK	
17	1-6*	3022.13	3021.75	0.24	3022.23	3022.63	3023.8	OK	OK	
18	1-6*	3021.85	3021.47	0.24	3021.95	3022.35	3023.2	OK	OK	
19	1-5	3021.57	3021.19	0.44	3022.07	3022.07	3022.1	OK	OK	
20	1-5	3019.13	3018.75	0.44	3019.63	3019.63	3021.0	OK	OK	
21	1-6*	3019.32	3018.94	0.24	3019.42	3019.82	3020.7	OK	OK	
22	1-6*	3019.52	3019.14	0.24	3019.62	3020.02	3021.2	OK	OK	
23	1-6*	3019.52	3019.14	0.24	3019.62	3020.02	3021.4	OK	OK	
24	1-6*	3019.19	3018.81	0.24	3019.29	3019.69	3020.7	OK	OK	
25	1-5	3018.85	3018.47	0.44	3019.35	3019.35	3019.4	OK	OK	
181	2-1	3018.13	3017.75	0.49	3018.73	3018.63	3020.0	OK	OK	
182	2-1	3018.26	3017.88	0.49	3018.86	3018.76	3020.0	OK	OK	
183	2-1	3018.41	3018.03	0.49	3019.01	3018.91	3020.0	OK	OK	
184	2-1	3019.05	3018.67	0.49	3019.65	3019.55	3020.9	OK	OK	
185	2-1	3019.18	3018.80	0.49	3019.78	3019.68	3020.9	OK	OK	
186	2-1	3019.33	3018.95	0.49	3019.93	3019.83	3020.9	OK	OK	
187	2-1	3019.49	3019.11	0.49	3020.09	3019.99	3021.6	OK	OK	
188	2-1	3019.62	3019.24	0.49	3020.22	3020.12	3021.6	OK	OK	
189	2-1	3019.74	3019.36	0.49	3020.34	3020.24	3021.6	OK	OK	
190	2-1	3019.90	3019.52	0.49	3020.50	3020.40	3021.6	OK	OK	
191	2-1	3020.05	3019.67	0.49	3020.65	3020.55	3022.2	OK	OK	
192	2-1	3020.18	3019.80	0.49	3020.78	3020.68	3022.2	OK	OK	
193	2-1	3020.31	3019.93	0.49	3020.91	3020.81	3022.2	OK	OK	
194	2-1	3020.46	3020.08	0.49	3021.06	3020.96	3022.2	OK	OK	

Skye Canyon Parcel 5.06 Phase 2 TDS ADD 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
195	2-1	3020.62	3020.24	0.49	3021.22	3021.12	3022.8	OK	OK	
196	2-1	3020.74	3020.36	0.49	3021.34	3021.24	3022.8	OK	OK	
197	2-1	3020.87	3020.49	0.49	3021.47	3021.37	3022.8	OK	OK	
198	2-1	3021.03	3020.65	0.49	3021.63	3021.53	3022.8	OK	OK	
199	2-1	3021.18	3020.80	0.49	3021.78	3021.68	3023.4	OK	OK	
200	2-1	3021.31	3020.93	0.49	3021.91	3021.81	3023.4	OK	OK	
201	2-1	3021.43	3021.05	0.49	3022.03	3021.93	3023.4	OK	OK	
202	2-1	3021.59	3021.21	0.49	3022.19	3022.09	3023.4	OK	OK	
203	2-1	3021.53	3021.15	0.49	3022.13	3022.03	3023.2	OK	OK	
204	2-1	3021.42	3021.04	0.49	3022.02	3021.92	3023.2	OK	OK	
205	2-1	3021.30	3020.92	0.49	3021.90	3021.80	3023.2	OK	OK	
206	2-1	3021.14	3020.76	0.49	3021.74	3021.64	3022.7	OK	OK	
207	2-1	3020.98	3020.60	0.49	3021.58	3021.48	3022.7	OK	OK	
208	2-1	3020.86	3020.48	0.49	3021.46	3021.36	3022.7	OK	OK	
209	2-1	3020.70	3020.32	0.49	3021.30	3021.20	3022.4	OK	OK	
210	2-1	3020.55	3020.17	0.49	3021.15	3021.05	3022.4	OK	OK	
211	2-1	3020.42	3020.04	0.49	3021.02	3020.92	3022.4	OK	OK	
212	2-1	3020.29	3019.91	0.49	3020.89	3020.79	3022.4	OK	OK	
213	2-1	3020.14	3019.76	0.49	3020.74	3020.64	3021.9	OK	OK	
214	2-1	3019.98	3019.60	0.49	3020.58	3020.48	3021.9	OK	OK	
215	2-1	3019.86	3019.48	0.49	3020.46	3020.36	3021.9	OK	OK	
216	2-1	3019.73	3019.35	0.49	3020.33	3020.23	3021.9	OK	OK	
217	2-1	3019.57	3019.19	0.49	3020.17	3020.07	3021.3	OK	OK	
218	2-1	3019.42	3019.04	0.49	3020.02	3019.92	3021.3	OK	OK	
219	2-1	3019.29	3018.91	0.49	3019.89	3019.79	3021.3	OK	OK	
220	2-1	3019.17	3018.79	0.49	3019.77	3019.67	3021.3	OK	OK	
221	2-1	3019.01	3018.63	0.49	3019.61	3019.51	3020.7	OK	OK	
222	2-1	3018.85	3018.47	0.49	3019.45	3019.35	3020.7	OK	OK	
223	2-1	3018.73	3018.35	0.49	3019.33	3019.23	3020.7	OK	OK	
224	2-1	3018.60	3018.22	0.49	3019.20	3019.10	3020.7	OK	OK	
225	2-1	3018.45	3018.07	0.49	3019.05	3018.95	3020.2	OK	OK	
226	2-1	3018.29	3017.91	0.49	3018.89	3018.79	3020.2	OK	OK	
227	2-1	3018.17	3017.79	0.49	3018.77	3018.67	3020.2	OK	OK	
228	2-1	3018.04	3017.66	0.49	3018.64	3018.54	3020.2	OK	OK	
243	3-4*	3019.06	3018.68	0.51	3019.70	3019.56	3020.6	OK	OK	
244	3-4*	3020.59	3020.21	0.51	3021.23	3021.09	3022.1	OK	OK	
245	3-4*	3022.12	3021.74	0.51	3022.76	3022.62	3023.6	OK	OK	
246	3-4*	3023.65	3023.27	0.51	3024.29	3024.15	3025.2	OK	OK	
247	3-4*	3025.18	3024.80	0.51	3025.82	3025.68	3026.7	OK	OK	

Skye Canyon Parcel 5.06 Phase 2 TDS ADD 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
248	3-4*	3026.71	3026.33	0.51	3027.35	3027.21	3028.2	OK	OK	
249	3-4*	3028.24	3027.86	0.51	3028.88	3028.74	3029.7	OK	OK	
250	3-4*	3029.77	3029.39	0.51	3030.41	3030.27	3031.3	OK	OK	
251	3-4*	3031.30	3030.92	0.51	3031.94	3031.80	3032.8	OK	OK	
252	3-4*	3032.83	3032.45	0.51	3033.47	3033.33	3034.3	OK	OK	
253	3-4*	3034.28	3033.90	0.51	3034.92	3034.78	3035.8	OK	OK	
254	3-3*	3031.15	3030.77	0.46	3031.69	3031.65	3032.7	OK	OK	
255	3-3*	3029.90	3029.52	0.46	3030.44	3030.40	3031.4	OK	OK	
256	3-3*	3028.65	3028.27	0.46	3029.19	3029.15	3030.2	OK	OK	
257	3-3*	3027.40	3027.02	0.46	3027.94	3027.90	3028.9	OK	OK	
258	3-3*	3026.15	3025.77	0.46	3026.69	3026.65	3027.7	OK	OK	
259	3-3*	3024.90	3024.52	0.46	3025.44	3025.40	3026.4	OK	OK	
260	3-3*	3023.64	3023.26	0.46	3024.18	3024.14	3025.1	OK	OK	
261	3-3*	3022.39	3022.01	0.46	3022.93	3022.89	3023.9	OK	OK	
262	3-3*	3021.14	3020.76	0.46	3021.68	3021.64	3022.6	OK	OK	
263	3-3*	3019.89	3019.51	0.46	3020.43	3020.39	3021.4	OK	OK	
264	3-3*	3018.49	3018.11	0.46	3019.03	3018.99	3020.0	OK	OK	
265	3-3*	3018.49	3018.11	0.46	3019.03	3018.99	3020.1	OK	OK	
266	3-3*	3019.89	3019.51	0.46	3020.43	3020.39	3021.5	OK	OK	
267	3-3*	3021.14	3020.76	0.46	3021.68	3021.64	3022.7	OK	OK	
268	3-3*	3022.39	3022.01	0.46	3022.93	3022.89	3024.0	OK	OK	
269	3-3*	3023.64	3023.26	0.46	3024.18	3024.14	3025.2	OK	OK	
270	3-3*	3024.90	3024.52	0.46	3025.44	3025.40	3026.5	OK	OK	
271	3-3*	3026.15	3025.77	0.46	3026.69	3026.65	3027.8	OK	OK	
272	3-3*	3027.40	3027.02	0.46	3027.94	3027.90	3029.0	OK	OK	
273	3-3*	3028.65	3028.27	0.46	3029.19	3029.15	3030.3	OK	OK	
274	3-3*	3029.90	3029.52	0.46	3030.44	3030.40	3031.5	OK	OK	
275	3-3*	3031.15	3030.77	0.46	3031.69	3031.65	3032.8	OK	OK	
276	3-3*	3027.48	3027.10	0.46	3028.02	3027.98	3029.0	OK	OK	
277	3-3*	3025.77	3025.39	0.46	3026.31	3026.27	3027.3	OK	OK	
278	3-3*	3024.05	3023.67	0.46	3024.59	3024.55	3025.6	OK	OK	
279	3-3*	3022.34	3021.96	0.46	3022.88	3022.84	3023.8	OK	OK	
280	3-3*	3020.62	3020.24	0.46	3021.16	3021.12	3022.1	OK	OK	
281	3-3*	3018.96	3018.58	0.46	3019.50	3019.46	3020.5	OK	OK	
282	3-3*	3017.58	3017.20	0.46	3018.12	3018.08	3019.1	OK	OK	
283	3-3*	3016.52	3016.14	0.46	3017.06	3017.02	3018.0	OK	OK	
284	3-3*	3015.53	3015.15	0.46	3016.07	3016.03	3017.0	OK	OK	
285	3-3*	3014.54	3014.16	0.46	3015.08	3015.04	3016.0	OK	OK	
286	3-3*	3013.55	3013.17	0.46	3014.09	3014.05	3015.1	OK	OK	

Skye Canyon Parcel 5.06 Phase 2 TDS ADD 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
287	3-3*	3013.05	3012.67	0.46	3013.59	3013.55	3014.7	OK	OK	
288	3-3*	3013.88	3013.50	0.46	3014.42	3014.38	3015.5	OK	OK	
289	3-3*	3014.87	3014.49	0.46	3015.41	3015.37	3016.5	OK	OK	
290	3-3*	3015.86	3015.48	0.46	3016.40	3016.36	3017.5	OK	OK	
291	3-3*	3018.61	3018.23	0.46	3019.15	3019.11	3020.2	OK	OK	
292	3-3*	3019.85	3019.47	0.46	3020.39	3020.35	3021.5	OK	OK	
293	2-3*	3021.25	3020.87	0.30	3021.47	3021.75	3023.1	OK	OK	
294	2-3*	3020.88	3020.50	0.30	3021.10	3021.38	3022.5	OK	OK	
295	2-3*	3018.74	3018.36	0.30	3018.96	3019.24	3020.3	OK	OK	
296	2-3*	3016.90	3016.52	0.30	3017.12	3017.40	3018.5	OK	OK	
297	2-3*	3014.97	3014.59	0.30	3015.19	3015.47	3016.6	OK	OK	
298	2-3*	3013.04	3012.66	0.30	3013.26	3013.54	3014.6	OK	OK	
299	2-3*	3011.56	3011.18	0.30	3011.78	3012.06	3013.2	OK	OK	
300	2-3*	3022.63	3022.25	0.30	3022.85	3023.13	3024.1	OK	OK	
301	3-3*	3022.63	3022.25	0.46	3023.17	3023.13	3024.4	OK	OK	
302	3-3*	3022.49	3022.11	0.46	3023.03	3022.99	3024.1	OK	OK	
303	3-3*	3026.36	3025.98	0.46	3026.90	3026.86	3028.1	OK	OK	
304	3-3*	3027.68	3027.30	0.46	3028.22	3028.18	3029.4	OK	OK	
305	3-3*	3028.86	3028.48	0.46	3029.40	3029.36	3030.6	OK	OK	
306	3-3*	3030.20	3029.82	0.46	3030.74	3030.70	3031.9	OK	OK	
307	3-3*	3031.78	3031.40	0.46	3032.32	3032.28	3033.5	OK	OK	
308	3-3*	3033.11	3032.73	0.46	3033.65	3033.61	3034.8	OK	OK	
309	3-3*	3034.21	3033.83	0.46	3034.75	3034.71	3035.9	OK	OK	
310	3-3*	3035.78	3035.40	0.46	3036.32	3036.28	3037.3	OK	OK	
311	3-3*	3033.16	3032.78	0.46	3033.70	3033.66	3034.8	OK	OK	
312	3-3*	3033.42	3033.04	0.46	3033.96	3033.92	3035.1	OK	OK	
313	3-3*	3033.67	3033.29	0.46	3034.21	3034.17	3035.4	OK	OK	
314	3-3*	3034.01	3033.63	0.46	3034.55	3034.51	3035.6	OK	OK	
315	3-3*	3034.53	3034.15	0.46	3035.07	3035.03	3036.1	OK	OK	
316	3-3*	3035.17	3034.79	0.46	3035.71	3035.67	3036.8	OK	OK	
317	3-3*	3035.87	3035.49	0.46	3036.41	3036.37	3037.5	OK	OK	
318	3-3*	3036.57	3036.19	0.46	3037.11	3037.07	3038.2	OK	OK	
319	3-3*	3037.27	3036.89	0.46	3037.81	3037.77	3038.9	OK	OK	
320	3-3*	3038.38	3038.00	0.46	3038.92	3038.88	3040.0	OK	OK	
321	3-3*	3043.62	3043.24	0.46	3044.16	3044.12	3045.2	OK	OK	
322	3-3*	3044.32	3043.94	0.46	3044.86	3044.82	3045.9	OK	OK	
323	3-3*	3044.92	3044.54	0.46	3045.46	3045.42	3046.5	OK	OK	
345	3-4*	3034.03	3033.65	0.51	3034.67	3034.53	3035.6	OK	OK	
346	3-4*	3033.63	3033.25	0.51	3034.27	3034.13	3035.2	OK	OK	

Skye Canyon Parcel 5.06 Phase 2 TDS ADD 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
347	3-4*	3033.23	3032.85	0.51	3033.87	3033.73	3034.8	OK	OK	
348	3-4*	3032.83	3032.45	0.51	3033.47	3033.33	3034.4	OK	OK	
349	3-4*	3036.36	3035.98	0.51	3037.00	3036.86	3038.1	OK	OK	
350	3-4*	3037.55	3037.17	0.51	3038.19	3038.05	3039.3	OK	OK	
351	3-4*	3038.74	3038.36	0.51	3039.38	3039.24	3040.4	OK	OK	
352	3-4*	3039.81	3039.43	0.51	3040.45	3040.31	3041.5	OK	OK	
353	3-4*	3040.67	3040.29	0.51	3041.31	3041.17	3042.4	OK	OK	
354	3-4*	3041.65	3041.27	0.51	3042.29	3042.15	3043.4	OK	OK	
363	3-3*	3037.52	3037.14	0.46	3038.06	3038.02	3039.2	OK	OK	
364	3-3*	3036.76	3036.38	0.46	3037.30	3037.26	3038.5	OK	OK	
365	3-3*	3036.06	3035.68	0.46	3036.60	3036.56	3037.8	OK	OK	
366	3-3*	3035.36	3034.98	0.46	3035.90	3035.86	3037.1	OK	OK	
367	3-3*	3033.51	3033.13	0.46	3034.05	3034.01	3035.2	OK	OK	
368	3-3*	3033.05	3032.67	0.46	3033.59	3033.55	3034.8	OK	OK	
369	3-3*	3032.49	3032.11	0.46	3033.03	3032.99	3034.2	OK	OK	
370	3-4*	3025.48	3025.10	0.51	3026.12	3025.98	3027.3	OK	OK	
371	3-4*	3025.84	3025.46	0.51	3026.48	3026.34	3027.7	OK	OK	
372	3-4*	3026.18	3025.80	0.51	3026.82	3026.68	3028.0	OK	OK	
373	3-4*	3026.68	3026.30	0.51	3027.32	3027.18	3028.5	OK	OK	
374	3-4*	3027.29	3026.91	0.51	3027.93	3027.79	3029.1	OK	OK	
375	3-4*	3027.90	3027.52	0.51	3028.54	3028.40	3029.7	OK	OK	
376	3-4*	3028.51	3028.13	0.51	3029.15	3029.01	3030.3	OK	OK	
377	3-4*	3029.12	3028.74	0.51	3029.76	3029.62	3030.9	OK	OK	
378	3-4*	3029.73	3029.35	0.51	3030.37	3030.23	3031.5	OK	OK	
379	3-4*	3030.26	3029.88	0.51	3030.90	3030.76	3032.6	OK	OK	
395	3-4*	3030.28	3029.90	0.51	3030.92	3030.78	3031.9	OK	OK	
396	3-4*	3029.76	3029.38	0.51	3030.40	3030.26	3031.5	OK	OK	
397	3-4*	3029.19	3028.81	0.51	3029.83	3029.69	3030.9	OK	OK	
398	3-4*	3028.62	3028.24	0.51	3029.26	3029.12	3030.3	OK	OK	
399	3-4*	3028.05	3027.67	0.51	3028.69	3028.55	3029.8	OK	OK	
400	3-4*	3027.48	3027.10	0.51	3028.12	3027.98	3029.2	OK	OK	
401	3-4*	3026.91	3026.53	0.51	3027.55	3027.41	3028.6	OK	OK	
402	3-4*	3026.34	3025.96	0.51	3026.98	3026.84	3028.0	OK	OK	
403	3-4*	3025.75	3025.37	0.51	3026.39	3026.25	3027.5	OK	OK	
404	3-4*	3025.16	3024.78	0.51	3025.80	3025.66	3026.9	OK	OK	
405	3-4*	3024.56	3024.18	0.51	3025.20	3025.06	3026.3	OK	OK	
411	3-2*	3021.14	3020.76	0.61	3021.98	3021.64	3022.9	OK	OK	
412	3-2*	3021.80	3021.42	0.61	3022.64	3022.30	3023.6	OK	OK	
413	3-2*	3022.47	3022.09	0.61	3023.31	3022.97	3024.3	OK	OK	

Skye Canyon Parcel 5.06 Phase 2 TDS ADD 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
414	3-2*	3023.13	3022.75	0.61	3023.97	3023.63	3024.9	OK	OK	
415	3-2*	3023.80	3023.42	0.61	3024.64	3024.30	3025.6	OK	OK	
416	3-2*	3024.46	3024.08	0.61	3025.30	3024.96	3026.3	OK	OK	
440	3-2*	3025.45	3025.07	0.61	3026.29	3025.95	3027.2	OK	OK	
441	3-2*	3024.82	3024.44	0.61	3025.66	3025.32	3026.5	OK	OK	
442	3-2*	3024.20	3023.82	0.61	3025.04	3024.70	3025.9	OK	OK	
443	3-2*	3023.57	3023.19	0.61	3024.41	3024.07	3025.3	OK	OK	
444	3-2*	3022.94	3022.56	0.61	3023.78	3023.44	3024.6	OK	OK	
445	3-2*	3022.32	3021.94	0.61	3023.16	3022.82	3024.0	OK	OK	
446	3-2*	3021.69	3021.31	0.61	3022.53	3022.19	3023.4	OK	OK	
447	3-2*	3021.07	3020.69	0.61	3021.91	3021.57	3022.8	OK	OK	
Where: 1: Top of Curb at High Side of Lot 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.										

Skye Canyon Parcel 5.06 Phase 2 TDS ADD GARAGE FINISHED FLOOR - CITY OF LAS VEGAS JURISDICTION										
					GARAGE FINISHED FLOORS					NOTES
Lot Number	Hydraulic Section Utilized	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
1	1-6*	3025.87	3025.49	0.24	3025.97	3026.37	3026.4	OK	OK	
2	1-6*	3025.54	3025.16	0.24	3025.64	3026.04	3026.1	OK	OK	
3	1-6*	3023.89	3023.51	0.24	3023.99	3024.39	3024.4	OK	OK	
4	1-6*	3024.09	3023.71	0.24	3024.19	3024.59	3024.6	OK	OK	
5	1-6*	3024.09	3023.71	0.24	3024.19	3024.59	3024.6	OK	OK	
6	1-6*	3023.82	3023.44	0.24	3023.92	3024.32	3024.4	OK	OK	
7	1-5	3023.52	3023.14	0.44	3024.02	3024.02	3024.1	OK	OK	
8	1-5	3022.80	3022.42	0.44	3023.30	3023.30	3023.6	OK	OK	
9	1-6*	3022.92	3022.54	0.24	3023.02	3023.42	3023.5	OK	OK	
10	1-6*	3023.12	3022.74	0.24	3023.22	3023.62	3023.7	OK	OK	
11	1-6*	3023.12	3022.74	0.24	3023.22	3023.62	3023.7	OK	OK	
12	1-6*	3022.88	3022.50	0.24	3022.98	3023.38	3023.4	OK	OK	
13	1-5	3022.25	3021.87	0.44	3022.75	3022.75	3023.0	OK	OK	
14	1-5	3021.87	3021.49	0.44	3022.37	3022.37	3022.6	OK	OK	
15	1-6*	3021.92	3021.54	0.24	3022.02	3022.42	3022.5	OK	OK	
16	1-6*	3022.13	3021.75	0.24	3022.23	3022.63	3022.7	OK	OK	
17	1-6*	3022.13	3021.75	0.24	3022.23	3022.63	3022.7	OK	OK	
18	1-6*	3021.85	3021.47	0.24	3021.95	3022.35	3022.4	OK	OK	
19	1-5	3020.94	3020.56	0.44	3021.44	3021.44	3021.6	OK	OK	
20	1-5	3019.93	3019.55	0.44	3020.43	3020.43	3020.5	OK	OK	
21	1-6*	3019.32	3018.94	0.24	3019.42	3019.82	3019.9	OK	OK	
22	1-6*	3019.52	3019.14	0.24	3019.62	3020.02	3020.1	OK	OK	
23	1-6*	3019.52	3019.14	0.24	3019.62	3020.02	3020.1	OK	OK	
24	1-6*	3019.19	3018.81	0.24	3019.29	3019.69	3019.7	OK	OK	
25	1-5	3018.08	3017.70	0.44	3018.58	3018.58	3018.9	OK	OK	
181	2-1	3018.13	3017.75	0.49	3018.73	3018.63	3018.9	OK	OK	
182	2-1	3018.26	3017.88	0.49	3018.86	3018.76	3019.0	OK	OK	
183	2-1	3018.41	3018.03	0.49	3019.01	3018.91	3019.2	OK	OK	
184	2-1	3019.04	3018.66	0.49	3019.64	3019.54	3020.1	OK	OK	
185	2-1	3019.16	3018.78	0.49	3019.76	3019.66	3020.2	OK	OK	
186	2-1	3019.29	3018.91	0.49	3019.89	3019.79	3020.4	OK	OK	
187	2-1	3019.47	3019.09	0.49	3020.07	3019.97	3020.1	OK	OK	
188	2-1	3019.60	3019.22	0.49	3020.20	3020.10	3020.2	OK	OK	
189	2-1	3019.73	3019.35	0.49	3020.33	3020.23	3020.4	OK	OK	
190	2-1	3019.85	3019.47	0.49	3020.45	3020.35	3020.5	OK	OK	
191	2-1	3020.04	3019.66	0.49	3020.64	3020.54	3020.7	OK	OK	
192	2-1	3020.16	3019.78	0.49	3020.76	3020.66	3020.8	OK	OK	
193	2-1	3020.29	3019.91	0.49	3020.89	3020.79	3020.9	OK	OK	
194	2-1	3020.42	3020.04	0.49	3021.02	3020.92	3021.1	OK	OK	

Skye Canyon Parcel 5.06 Phase 2 TDS ADD GARAGE FINISHED FLOOR - CITY OF LAS VEGAS JURISDICTION										
					GARAGE FINISHED FLOORS					NOTES
Lot Number	Hydraulic Section Utilized	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
195	2-1	3020.60	3020.22	0.49	3021.20	3021.10	3021.2	OK	OK	
196	2-1	3020.73	3020.35	0.49	3021.33	3021.23	3021.4	OK	OK	
197	2-1	3020.85	3020.47	0.49	3021.45	3021.35	3021.5	OK	OK	
198	2-1	3020.98	3020.60	0.49	3021.58	3021.48	3021.6	OK	OK	
199	2-1	3021.17	3020.79	0.49	3021.77	3021.67	3022.9	OK	OK	
200	2-1	3021.29	3020.91	0.49	3021.89	3021.79	3022.9	OK	OK	
201	2-1	3021.42	3021.04	0.49	3022.02	3021.92	3022.9	OK	OK	
202	2-1	3021.55	3021.17	0.49	3022.15	3022.05	3022.9	OK	OK	
203	2-1	3021.53	3021.15	0.49	3022.13	3022.03	3022.5	OK	OK	
204	2-1	3021.41	3021.03	0.49	3022.01	3021.91	3022.3	OK	OK	
205	2-1	3021.28	3020.90	0.49	3021.88	3021.78	3022.3	OK	OK	
206	2-1	3021.10	3020.72	0.49	3021.70	3021.60	3021.7	OK	OK	
207	2-1	3020.97	3020.59	0.49	3021.57	3021.47	3021.6	OK	OK	
208	2-1	3020.84	3020.46	0.49	3021.44	3021.34	3021.5	OK	OK	
209	2-1	3020.66	3020.28	0.49	3021.26	3021.16	3021.3	OK	OK	
210	2-1	3020.53	3020.15	0.49	3021.13	3021.03	3021.2	OK	OK	
211	2-1	3020.41	3020.03	0.49	3021.01	3020.91	3021.1	OK	OK	
212	2-1	3020.28	3019.90	0.49	3020.88	3020.78	3020.9	OK	OK	
213	2-1	3020.09	3019.71	0.49	3020.69	3020.59	3020.7	OK	OK	
214	2-1	3019.97	3019.59	0.49	3020.57	3020.47	3020.6	OK	OK	
215	2-1	3019.84	3019.46	0.49	3020.44	3020.34	3020.5	OK	OK	
216	2-1	3019.72	3019.34	0.49	3020.32	3020.22	3020.4	OK	OK	
217	2-1	3019.53	3019.15	0.49	3020.13	3020.03	3020.2	OK	OK	
218	2-1	3019.40	3019.02	0.49	3020.00	3019.90	3020.0	OK	OK	
219	2-1	3019.28	3018.90	0.49	3019.88	3019.78	3019.9	OK	OK	
220	2-1	3019.15	3018.77	0.49	3019.75	3019.65	3019.8	OK	OK	
221	2-1	3018.97	3018.59	0.49	3019.57	3019.47	3019.6	OK	OK	
222	2-1	3018.84	3018.46	0.49	3019.44	3019.34	3019.5	OK	OK	
223	2-1	3018.71	3018.33	0.49	3019.31	3019.21	3019.4	OK	OK	
224	2-1	3018.59	3018.21	0.49	3019.19	3019.09	3019.2	OK	OK	
225	2-1	3018.40	3018.02	0.49	3019.00	3018.90	3019.0	OK	OK	
226	2-1	3018.28	3017.90	0.49	3018.88	3018.78	3018.9	OK	OK	
227	2-1	3018.15	3017.77	0.49	3018.75	3018.65	3018.8	OK	OK	
228	2-1	3018.02	3017.64	0.49	3018.62	3018.52	3018.7	OK	OK	
243	3-4*	3019.06	3018.68	0.51	3019.70	3019.56	3020.1	OK	OK	
244	3-4*	3020.59	3020.21	0.51	3021.23	3021.09	3021.6	OK	OK	
245	3-4*	3022.12	3021.74	0.51	3022.76	3022.62	3023.1	OK	OK	
246	3-4*	3023.65	3023.27	0.51	3024.29	3024.15	3024.7	OK	OK	
247	3-4*	3025.18	3024.80	0.51	3025.82	3025.68	3026.2	OK	OK	

Skye Canyon Parcel 5.06 Phase 2 TDS ADD GARAGE FINISHED FLOOR - CITY OF LAS VEGAS JURISDICTION										
					GARAGE FINISHED FLOORS					NOTES
Lot Number	Hydraulic Section Utilized	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
248	3-4*	3026.71	3026.33	0.51	3027.35	3027.21	3027.7	OK	OK	
249	3-4*	3028.24	3027.86	0.51	3028.88	3028.74	3029.2	OK	OK	
250	3-4*	3029.77	3029.39	0.51	3030.41	3030.27	3030.8	OK	OK	
251	3-4*	3031.30	3030.92	0.51	3031.94	3031.80	3032.3	OK	OK	
252	3-4*	3032.83	3032.45	0.51	3033.47	3033.33	3033.8	OK	OK	
253	3-4*	3034.28	3033.90	0.51	3034.92	3034.78	3035.3	OK	OK	
254	3-3*	3031.15	3030.77	0.46	3031.69	3031.65	3032.2	OK	OK	
255	3-3*	3029.90	3029.52	0.46	3030.44	3030.40	3030.9	OK	OK	
256	3-3*	3028.65	3028.27	0.46	3029.19	3029.15	3029.7	OK	OK	
257	3-3*	3027.40	3027.02	0.46	3027.94	3027.90	3028.4	OK	OK	
258	3-3*	3026.15	3025.77	0.46	3026.69	3026.65	3027.2	OK	OK	
259	3-3*	3024.90	3024.52	0.46	3025.44	3025.40	3025.9	OK	OK	
260	3-3*	3023.64	3023.26	0.46	3024.18	3024.14	3024.6	OK	OK	
261	3-3*	3022.39	3022.01	0.46	3022.93	3022.89	3023.4	OK	OK	
262	3-3*	3021.14	3020.76	0.46	3021.68	3021.64	3022.1	OK	OK	
263	3-3*	3019.89	3019.51	0.46	3020.43	3020.39	3020.9	OK	OK	
264	3-3*	3018.49	3018.11	0.46	3019.03	3018.99	3019.5	OK	OK	
265	3-3*	3018.49	3018.11	0.46	3019.03	3018.99	3019.6	OK	OK	
266	3-3*	3019.89	3019.51	0.46	3020.43	3020.39	3021.0	OK	OK	
267	3-3*	3021.14	3020.76	0.46	3021.68	3021.64	3022.2	OK	OK	
268	3-3*	3022.39	3022.01	0.46	3022.93	3022.89	3023.5	OK	OK	
269	3-3*	3023.64	3023.26	0.46	3024.18	3024.14	3024.7	OK	OK	
270	3-3*	3024.90	3024.52	0.46	3025.44	3025.40	3026.0	OK	OK	
271	3-3*	3026.15	3025.77	0.46	3026.69	3026.65	3027.3	OK	OK	
272	3-3*	3027.40	3027.02	0.46	3027.94	3027.90	3028.5	OK	OK	
273	3-3*	3028.65	3028.27	0.46	3029.19	3029.15	3029.8	OK	OK	
274	3-3*	3029.90	3029.52	0.46	3030.44	3030.40	3031.0	OK	OK	
275	3-3*	3031.15	3030.77	0.46	3031.69	3031.65	3032.3	OK	OK	
276	3-3*	3027.48	3027.10	0.46	3028.02	3027.98	3028.5	OK	OK	
277	3-3*	3025.77	3025.39	0.46	3026.31	3026.27	3026.8	OK	OK	
278	3-3*	3024.05	3023.67	0.46	3024.59	3024.55	3025.1	OK	OK	
279	3-3*	3022.34	3021.96	0.46	3022.88	3022.84	3023.3	OK	OK	
280	3-3*	3020.62	3020.24	0.46	3021.16	3021.12	3021.6	OK	OK	
281	3-3*	3018.96	3018.58	0.46	3019.50	3019.46	3020.0	OK	OK	
282	3-3*	3017.58	3017.20	0.46	3018.12	3018.08	3018.6	OK	OK	
283	3-3*	3016.52	3016.14	0.46	3017.06	3017.02	3017.5	OK	OK	
284	3-3*	3015.53	3015.15	0.46	3016.07	3016.03	3016.5	OK	OK	
285	3-3*	3014.54	3014.16	0.46	3015.08	3015.04	3015.5	OK	OK	
286	3-3*	3013.55	3013.17	0.46	3014.09	3014.05	3014.6	OK	OK	

Skye Canyon Parcel 5.06 Phase 2 TDS ADD GARAGE FINISHED FLOOR - CITY OF LAS VEGAS JURISDICTION										
					GARAGE FINISHED FLOORS					NOTES
Lot Number	Hydraulic Section Utilized	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
287	3-3*	3013.05	3012.67	0.46	3013.59	3013.55	3014.2	OK	OK	
288	3-3*	3013.88	3013.50	0.46	3014.42	3014.38	3015.0	OK	OK	
289	3-3*	3014.87	3014.49	0.46	3015.41	3015.37	3016.0	OK	OK	
290	3-3*	3015.86	3015.48	0.46	3016.40	3016.36	3017.0	OK	OK	
291	3-3*	3018.61	3018.23	0.46	3019.15	3019.11	3019.7	OK	OK	
292	3-3*	3019.85	3019.47	0.46	3020.39	3020.35	3021.0	OK	OK	
293	2-3*	3021.25	3020.87	0.3	3021.47	3021.75	3022.6	OK	OK	
294	2-3*	3020.88	3020.50	0.3	3021.10	3021.38	3022.0	OK	OK	
295	2-3*	3018.74	3018.36	0.3	3018.96	3019.24	3019.8	OK	OK	
296	2-3*	3016.90	3016.52	0.3	3017.12	3017.40	3018.0	OK	OK	
297	2-3*	3014.97	3014.59	0.3	3015.19	3015.47	3016.1	OK	OK	
298	2-3*	3013.04	3012.66	0.3	3013.26	3013.54	3014.1	OK	OK	
299	2-3*	3011.56	3011.18	0.3	3011.78	3012.06	3012.7	OK	OK	
300	2-3*	3022.63	3022.25	0.3	3022.85	3023.13	3023.6	OK	OK	
301	3-3*	3022.63	3022.25	0.46	3023.17	3023.13	3023.9	OK	OK	
302	3-3*	3022.49	3022.11	0.46	3023.03	3022.99	3023.6	OK	OK	
303	3-3*	3026.36	3025.98	0.46	3026.90	3026.86	3027.6	OK	OK	
304	3-3*	3027.68	3027.30	0.46	3028.22	3028.18	3028.9	OK	OK	
305	3-3*	3028.86	3028.48	0.46	3029.40	3029.36	3030.1	OK	OK	
306	3-3*	3030.20	3029.82	0.46	3030.74	3030.70	3031.4	OK	OK	
307	3-3*	3031.78	3031.40	0.46	3032.32	3032.28	3033.0	OK	OK	
308	3-3*	3033.11	3032.73	0.46	3033.65	3033.61	3034.3	OK	OK	
309	3-3*	3034.21	3033.83	0.46	3034.75	3034.71	3035.4	OK	OK	
310	3-3*	3035.78	3035.40	0.46	3036.32	3036.28	3036.8	OK	OK	
311	3-3*	3033.16	3032.78	0.46	3033.70	3033.66	3034.3	OK	OK	
312	3-3*	3033.42	3033.04	0.46	3033.96	3033.92	3034.6	OK	OK	
313	3-3*	3033.67	3033.29	0.46	3034.21	3034.17	3034.9	OK	OK	
314	3-3*	3034.01	3033.63	0.46	3034.55	3034.51	3035.1	OK	OK	
315	3-3*	3034.53	3034.15	0.46	3035.07	3035.03	3035.6	OK	OK	
316	3-3*	3035.17	3034.79	0.46	3035.71	3035.67	3036.3	OK	OK	
317	3-3*	3035.87	3035.49	0.46	3036.41	3036.37	3037.0	OK	OK	
318	3-3*	3036.57	3036.19	0.46	3037.11	3037.07	3037.7	OK	OK	
319	3-3*	3037.27	3036.89	0.46	3037.81	3037.77	3038.4	OK	OK	
320	3-3*	3038.38	3038.00	0.46	3038.92	3038.88	3039.5	OK	OK	
321	3-3*	3043.62	3043.24	0.46	3044.16	3044.12	3044.7	OK	OK	
322	3-3*	3044.32	3043.94	0.46	3044.86	3044.82	3045.4	OK	OK	
323	3-3*	3044.92	3044.54	0.46	3045.46	3045.42	3046.0	OK	OK	
345	3-4*	3034.03	3033.65	0.51	3034.67	3034.53	3035.1	OK	OK	
346	3-4*	3033.63	3033.25	0.51	3034.27	3034.13	3034.7	OK	OK	

Skye Canyon Parcel 5.06 Phase 2 TDS ADD GARAGE FINISHED FLOOR - CITY OF LAS VEGAS JURISDICTION										
					GARAGE FINISHED FLOORS					NOTES
Lot Number	Hydraulic Section Utilized	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
347	3-4*	3033.23	3032.85	0.51	3033.87	3033.73	3034.3	OK	OK	
348	3-4*	3032.83	3032.45	0.51	3033.47	3033.33	3033.9	OK	OK	
349	3-4*	3036.36	3035.98	0.51	3037.00	3036.86	3037.6	OK	OK	
350	3-4*	3037.55	3037.17	0.51	3038.19	3038.05	3038.8	OK	OK	
351	3-4*	3038.74	3038.36	0.51	3039.38	3039.24	3039.9	OK	OK	
352	3-4*	3039.81	3039.43	0.51	3040.45	3040.31	3041.0	OK	OK	
353	3-4*	3040.67	3040.29	0.51	3041.31	3041.17	3041.9	OK	OK	
354	3-4*	3041.65	3041.27	0.51	3042.29	3042.15	3042.9	OK	OK	
363	3-3*	3037.52	3037.14	0.46	3038.06	3038.02	3038.7	OK	OK	
364	3-3*	3036.76	3036.38	0.46	3037.30	3037.26	3038.0	OK	OK	
365	3-3*	3036.06	3035.68	0.46	3036.60	3036.56	3037.3	OK	OK	
366	3-3*	3035.36	3034.98	0.46	3035.90	3035.86	3036.6	OK	OK	
367	3-3*	3033.51	3033.13	0.46	3034.05	3034.01	3034.7	OK	OK	
368	3-3*	3033.05	3032.67	0.46	3033.59	3033.55	3034.3	OK	OK	
369	3-3*	3032.49	3032.11	0.46	3033.03	3032.99	3033.7	OK	OK	
370	3-4*	3025.48	3025.10	0.51	3026.12	3025.98	3026.8	OK	OK	
371	3-4*	3025.84	3025.46	0.51	3026.48	3026.34	3027.2	OK	OK	
372	3-4*	3026.18	3025.80	0.51	3026.82	3026.68	3027.5	OK	OK	
373	3-4*	3026.68	3026.30	0.51	3027.32	3027.18	3028.0	OK	OK	
374	3-4*	3027.29	3026.91	0.51	3027.93	3027.79	3028.6	OK	OK	
375	3-4*	3027.90	3027.52	0.51	3028.54	3028.40	3029.2	OK	OK	
376	3-4*	3028.51	3028.13	0.51	3029.15	3029.01	3029.8	OK	OK	
377	3-4*	3029.12	3028.74	0.51	3029.76	3029.62	3030.4	OK	OK	
378	3-4*	3029.73	3029.35	0.51	3030.37	3030.23	3031.0	OK	OK	
379	3-4*	3030.26	3029.88	0.51	3030.90	3030.76	3032.1	OK	OK	
395	3-4*	3030.28	3029.90	0.51	3030.92	3030.78	3031.4	OK	OK	
396	3-4*	3029.76	3029.38	0.51	3030.40	3030.26	3031.0	OK	OK	
397	3-4*	3029.19	3028.81	0.51	3029.83	3029.69	3030.4	OK	OK	
398	3-4*	3028.62	3028.24	0.51	3029.26	3029.12	3029.8	OK	OK	
399	3-4*	3028.05	3027.67	0.51	3028.69	3028.55	3029.3	OK	OK	
400	3-4*	3027.48	3027.10	0.51	3028.12	3027.98	3028.7	OK	OK	
401	3-4*	3026.91	3026.53	0.51	3027.55	3027.41	3028.1	OK	OK	
402	3-4*	3026.34	3025.96	0.51	3026.98	3026.84	3027.5	OK	OK	
403	3-4*	3025.75	3025.37	0.51	3026.39	3026.25	3027.0	OK	OK	
404	3-4*	3025.16	3024.78	0.51	3025.80	3025.66	3026.4	OK	OK	
405	3-4*	3024.56	3024.18	0.51	3025.20	3025.06	3025.8	OK	OK	
411	3-2*	3021.14	3020.76	0.61	3021.98	3021.64	3022.4	OK	OK	
412	3-2*	3021.80	3021.42	0.61	3022.64	3022.30	3023.1	OK	OK	
413	3-2*	3022.47	3022.09	0.61	3023.31	3022.97	3023.8	OK	OK	

Skye Canyon Parcel 5.06 Phase 2 TDS ADD GARAGE FINISHED FLOOR - CITY OF LAS VEGAS JURISDICTION										
					GARAGE FINISHED FLOORS					NOTES
Lot Number	Hydraulic Section Utilized	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
414	3-2*	3023.13	3022.75	0.61	3023.97	3023.63	3024.4	OK	OK	
415	3-2*	3023.80	3023.42	0.61	3024.64	3024.30	3025.1	OK	OK	
416	3-2*	3024.46	3024.08	0.61	3025.30	3024.96	3025.8	OK	OK	
440	3-2*	3025.45	3025.07	0.61	3026.29	3025.95	3026.7	OK	OK	
441	3-2*	3024.82	3024.44	0.61	3025.66	3025.32	3026.0	OK	OK	
442	3-2*	3024.20	3023.82	0.61	3025.04	3024.70	3025.4	OK	OK	
443	3-2*	3023.57	3023.19	0.61	3024.41	3024.07	3024.8	OK	OK	
444	3-2*	3022.94	3022.56	0.61	3023.78	3023.44	3024.1	OK	OK	
445	3-2*	3022.32	3021.94	0.61	3023.16	3022.82	3023.5	OK	OK	
446	3-2*	3021.69	3021.31	0.61	3022.53	3022.19	3022.9	OK	OK	
447	3-2*	3021.07	3020.69	0.61	3021.91	3021.57	3022.3	OK	OK	
Where: 1: Top of Curb at High Side of Lot 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.										
Notes: *: Lot is located near high point in street and therefore flow depth is considered negligible for adjacent finished floor.										

Supplemental Finish Floor Checks

Onsite Swale Check							
Lot Number	High TC/FL ¹	Section	Flow Depth ²	Min FF ³	Design FF	Check	Solid Grout
181	3017.44	V4	1.05	3018.49	3020.00	OK	No
203	3021.80	V2	0.65	3022.45	3023.20	OK	No
204	3021.80	V2	0.65	3022.45	3023.20	OK	No
205	3021.80	V2	0.65	3022.45	3023.20	OK	No
206	3021.20	V2	0.65	3021.85	3022.70	OK	No
207	3021.20	V2	0.65	3021.85	3022.70	OK	No
208	3021.20	V2	0.65	3021.85	3022.70	OK	No
209	3020.70	V2	0.65	3021.35	3022.40	OK	No
210	3020.70	V2	0.65	3021.35	3022.40	OK	No
211	3020.70	V2	0.65	3021.35	3022.40	OK	No
212	3020.70	V2	0.65	3021.35	3022.40	OK	No
213	3020.00	V2	0.65	3020.65	3021.90	OK	No
214	3020.00	V2	0.65	3020.65	3021.90	OK	No
215	3020.00	V2	0.65	3020.65	3021.90	OK	No
216	3019.30	V2	0.65	3019.95	3021.90	OK	No
217	3019.30	V2	0.65	3019.95	3021.30	OK	No
218	3019.30	V2	0.65	3019.95	3021.30	OK	No
219	3018.80	V2	0.65	3019.45	3021.30	OK	No
220	3018.80	V2	0.65	3019.45	3021.30	OK	No
221	3018.60	V2	0.65	3019.25	3020.70	OK	No
222	3018.60	V2	0.65	3019.25	3020.70	OK	No
223	3018.60	V2	0.65	3019.25	3020.70	OK	No
224	3018.60	V2	0.65	3019.25	3020.70	OK	No
225	3017.90	V2	0.65	3018.55	3020.20	OK	No
226	3017.90	V2	0.65	3018.55	3020.20	OK	No
227	3017.90	V2	0.65	3018.55	3020.20	OK	No
228	3017.90	V2	0.65	3018.55	3020.20	OK	No
228	3017.44	V4	1.05	3018.49	3020.20	OK	No
300	3026.89	V3	0.58	3027.47	3024.10	CHECK	Yes
303	3028.10	V3	0.58	3028.68	3028.10	CHECK	Yes
304	3029.45	V3	0.58	3030.03	3029.40	CHECK	Yes
305	3030.80	V3	0.58	3031.38	3030.60	CHECK	Yes

Supplemental Finish Floor Checks

Onsite Swale Check

Lot Number	High TC/FL ¹	Section	Flow Depth ²	Min FF ³	Design FF	Check	Solid Grout
306	3032.15	V3	0.58	3032.73	3031.90	CHECK	Yes
307	3033.49	V3	0.58	3034.07	3033.50	CHECK	Yes
308	3034.84	V3	0.58	3035.42	3034.80	CHECK	Yes
309	3036.19	V3	0.58	3036.77	3035.90	CHECK	Yes
310	3038.50	V3	0.58	3039.08	3037.30	CHECK	Yes
311	3036.25	V1	0.70	3036.95	3034.80	CHECK	Yes
312	3036.46	V1	0.70	3037.16	3035.10	CHECK	Yes
313	3036.67	V1	0.70	3037.37	3035.40	CHECK	Yes
314	3036.88	V1	0.70	3037.58	3035.60	CHECK	Yes
315	3037.09	V1	0.70	3037.79	3036.10	CHECK	Yes
316	3037.30	V1	0.70	3038.00	3036.80	CHECK	Yes
317	3037.52	V1	0.70	3038.22	3037.50	CHECK	Yes
318	3037.73	V1	0.70	3038.43	3038.20	CHECK	Yes
319	3037.93	V1	0.70	3038.63	3038.90	OK	No
320	3038.18	V1	0.70	3038.88	3040.00	OK	No
321	3046.82	V1	0.70	3047.52	3045.20	CHECK	Yes
322	3046.82	V1	0.70	3047.52	3045.90	CHECK	Yes
323	3046.82	V1	0.70	3047.52	3046.50	CHECK	Yes

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.

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	FG ⁵	# of Solid Grout Courses ⁶	Notes
2	RIMERTON	3024.66	3024.28	1-5	0.44	3025.16	3026.8	OK	No		-	
3	RIMERTON	3024.66	3024.28	1-5	0.44	3025.16	3025.3	OK	No		-	
7	CE II	3023.52	3023.14	1-6*	0.24	3023.62	3024.6	OK	No		-	
8	CE HH	3022.71	3022.33	1-6*	0.24	3022.81	3024.1	OK	No		-	
13	CE HH	3022.61	3022.23	1-6*	0.24	3022.71	3023.5	OK	No		-	
14	CE GG	3021.71	3021.33	1-6*	0.24	3021.81	3023.1	OK	No		-	
19	CE GG	3021.54	3021.16	1-6*	0.24	3021.64	3022.1	OK	No		-	
20	CE FF	3019.93	3019.55	1-6*	0.24	3020.03	3021.0	OK	No		-	
23	PRINDLE BROOKE	3015.09	3014.71	1-5	0.44	3015.59	3021.4	OK	No		-	
24	PRINDLE BROOKE	3015.09	3014.71	1-5	0.44	3015.59	3020.7	OK	No		-	
25	PRINDLE BROOKE	3016.02	3015.64	1-5	0.44	3016.52	3019.4	OK	No		-	
25	CE FF	3018.81	3018.43	1-6*	0.24	3018.91	3019.4	OK	No		-	
181	ROYAL MERIDIAN	3014.54	3014.16	2-2*	0.53	3015.22	3020.0	OK	No		-	
182	ROYAL MERIDIAN	3014.54	3014.16	2-2*	0.53	3015.22	3020.0	OK	No		-	
183	ROYAL MERIDIAN	3014.54	3014.16	2-2*	0.53	3015.22	3020.0	OK	No		-	
184	ROYAL MERIDIAN	3017.61	3017.23	2-2*	0.53	3018.29	3020.9	OK	No		-	
185	ROYAL MERIDIAN	3017.61	3017.23	2-2*	0.53	3018.29	3020.9	OK	No		-	
186	ROYAL MERIDIAN	3017.61	3017.23	2-2*	0.53	3018.29	3020.9	OK	No		-	
187	ROYAL MERIDIAN	3019.08	3018.70	2-2*	0.53	3019.76	3021.6	OK	No		-	
188	ROYAL MERIDIAN	3019.08	3018.70	2-2*	0.53	3019.76	3021.6	OK	No		-	
189	ROYAL MERIDIAN	3019.08	3018.70	2-2*	0.53	3019.76	3021.6	OK	No		-	
190	ROYAL MERIDIAN	3019.47	3019.09	2-2*	0.53	3020.15	3021.6	OK	No		-	
191	ROYAL MERIDIAN	3020.79	3020.41	2-2*	0.53	3021.47	3022.2	OK	No		-	
192	ROYAL MERIDIAN	3020.79	3020.41	2-2*	0.53	3021.47	3022.2	OK	No		-	
193	ROYAL MERIDIAN	3020.79	3020.41	2-2*	0.53	3021.47	3022.2	OK	No		-	
194	ROYAL MERIDIAN	3021.34	3020.96	2-2*	0.53	3022.02	3022.2	OK	No		-	
195	ROYAL MERIDIAN	3021.69	3021.31	2-2*	0.53	3022.37	3022.8	OK	No		-	
196	ROYAL MERIDIAN	3022.12	3021.74	2-2*	0.53	3022.80	3022.8	OK	No		-	
197	ROYAL MERIDIAN	3022.09	3021.71	2-2*	0.53	3022.77	3022.8	OK	No		-	
198	ROYAL MERIDIAN	3022.09	3021.71	2-2*	0.53	3022.77	3022.8	OK	No		-	
199	ROYAL MERIDIAN	3022.09	3021.71	2-2*	0.53	3022.77	3023.4	OK	No		-	
200	ROYAL MERIDIAN	3021.85	3021.47	2-2*	0.53	3022.53	3023.4	OK	No		-	
201	ROYAL MERIDIAN	3021.50	3021.12	2-2*	0.53	3022.18	3023.4	OK	No		-	
202	ROYAL MERIDIAN	3021.50	3021.12	2-2*	0.53	3022.18	3023.4	OK	No		-	
243	VANHOY CREEK	3017.18	3016.80	3-1*	0.61	3018.02	3020.6	OK	No		-	
264	VANHOY CREEK	3016.63	3016.25	3-1*	0.61	3017.47	3020.0	OK	No		-	

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	FG ⁵	# of Solid Grout Courses ⁶	Notes
265	VANHOY CREEK	3015.03	3014.65	3-1*	0.61	3015.87	3020.1	OK	No		-	
286	VANHOY CREEK	3014.07	3013.69	3-1*	0.61	3014.91	3015.1	OK	No		-	
287	VANHOY CREEK	3011.54	3011.16	3-1*	0.61	3012.38	3014.7	OK	No		-	
302	BIRCH MEADOWS	3025.03	3024.65	3-1*	0.61	3025.87	3024.1	CHECK	Yes	-	3	See Note*
320	CORLISS RIVER	3041.60	3041.22	3-3*	0.46	3042.14	3040.0	CHECK	Yes	-	3	See Note*
363	CORLISS RIVER	3036.83	3036.45	3-3*	0.46	3037.37	3039.2	OK	No		-	
366	BIRCH MEADOWS	3033.38	3033.00	3-3*	0.46	3033.92	3037.1	OK	No		-	
367	BIRCH MEADOWS	3033.38	3033.00	3-3*	0.46	3033.92	3035.2	OK	No		-	
369	ALAMINO	3030.81	3030.43	3-3*	0.46	3031.35	3034.2	OK	No		-	
348	CORLISS RIVER	3031.45	3031.07	3-4*	0.51	3032.09	3034.4	OK	No		-	
349	EVENING BAY	3034.30	3033.92	3-4*	0.51	3034.94	3038.1	OK	No		-	
370	CORLISS RIVER	3028.84	3028.46	3-4*	0.51	3029.48	3027.3	CHECK	Yes	-	3	See Note*
379	SUNNY GROVE	3034.31	3033.93	3-6*	0.46	3034.85	3032.6	CHECK	Yes	-	3	See Note*
395	SUNNY GROVE	3029.92	3029.54	3-6*	0.46	3030.46	3031.9	OK	No		-	
405	CORLISS RIVER	3023.06	3022.68	3-6*	0.46	3023.60	3026.3	OK	No		-	

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: Flow depth is the normal depth in adjacent perimeter street

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

5: FG = finished grade elevation at top of scarp in landscape/common element.

6: Assumed 8" tall courses.

NOTES:

* 3 course solid grout provided

Supplemental Finish Floor Checks

Specific Energy Check for Fronting Lots								
Lot Number	High TC ¹	High FL ²	Section	Specific Energy ³	Min FF ⁴	Design FF	Check	Notes
24	3015.09	3014.71	V4	1.59	3016.30	3020.90	OK	
25	3015.09	3014.71	V4	1.59	3016.30	3019.40	OK	
246	3023.65	3023.27	3-4	0.80	3024.07	3025.20	OK	
247	3025.18	3024.80	3-4	0.80	3025.60	3026.70	OK	
248	3025.18	3024.80	3-4	0.80	3025.60	3028.20	OK	
252	3032.83	3032.45	3-4	0.80	3033.25	3034.30	OK	
253	3032.83	3032.45	3-4	0.80	3033.25	3035.80	OK	
307	3031.78	3031.40	3-3	0.75	3032.15	3033.50	OK	
308	3033.11	3032.73	3-3	0.75	3033.48	3034.80	OK	
440	3025.45	3025.07	3-6	0.68	3025.75	3027.20	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.

APPENDIX K

Improvement Plans