



ADDENDUM TO TECHNICAL DRAINAGE STUDY UPDATE NO. 4

Skye Canyon Phase 3B/3C Infrastructure – Egan Crest Drive

JANUARY 2022

PREPARED FOR:

Century Communities of Nevada, LLC.
6345 South Jones Boulevard
Las Vegas, NV 89118

PREPARED BY:

Westwood

Skye Canyon Phase 3B/3C Infrastructure – Egan Crest

Technical Drainage Study Update No. 4 Addendum

City of Las Vegas, Nevada

Prepared For:

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

Prepared By:

Westwood Professional Services
5725 W. Badura Avenue, Suite 100
Las Vegas, NV 89118
Phone: (702) 284-5300
Fax: (702) 284-5339



Project Number: CEN2001.002
Date: January 2022

Lant Leavitt, P.E.
NV Professional Engineer No. 18287
Assisted by: Jonathan S. Rocha

1/11/22

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

**Re: Addendum to Technical Drainage Study Update No. 4 for
Skye Canyon 3B/3C Infrastructure – Egan Crest Drive**

Mr. Sung:

This letter certifies that all items provided on the Addendum to Technical Drainage Study Update No. 4 for Skye Canyon Phase 3B/3C Infrastructure – Egan Crest Drive submittal CD match the paper version bound into the study.

Please contact me if you have any questions.

Respectfully Submitted,

WESTWOOD PROFESSIONAL SERVICES



Lant Leavitt
Project Manager – Water Resource Service

HYDROLOGIC CRITERIA AND DRAINAGE DESIGN MANUAL
DRAINAGE STUDY INFORMATION FORM

Name of Development: Skye Canyon - Phase 3B/3C Infrastructure (Update #4) ADDENDUM Date: January 2022
 Location of Development: a) Descriptive (Cross Streets): North/South: Egan Crest Drive
East/West: Skye Canyon Park Drive
 b) Section: 12 Township: 19 South Range: 59 East
 c) APN: 126-12-699-003, 126-12-799-003, 126-12-799-001

Name of Owner: Century Communities Nevada, LLC
 Telephone No.: 702-220-6565 Fax No.: 702-220-6566 E-mail Address Joe.Genovese@centurycommunities.com
 Address: 6345 South Jones Boulevard, Suite 400 Las Vegas NV 89118

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

Type of Land Development/Land Disturbance Process:

<input type="checkbox"/>	Rezoning	<input type="checkbox"/>	Subdivision Map	<input type="checkbox"/>	Clearing and grading Only
<input type="checkbox"/>	Parcel Map	<input checked="" type="checkbox"/>	Planned Unit Development	<input type="checkbox"/>	Other (Please specify below)
<input type="checkbox"/>	Large Parcel Map	<input type="checkbox"/>	Building Permit	<input type="checkbox"/>	Storm Drain Infrastructure

1. Total Owned Land Area: At Site: +/- 17.2 AC Being Developed/Disturbed: +/- 17.2 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.): Roadway and Storm Drain Infrastructure

5. Approximate upstream land area which drains to the subject site: Approx 1 sqmi

6. Has the site drainage been evaluated in the past? Yes** No If yes, please identify documentation: Master Drainage Study Update #7 for Skye Canyon (DS 4420) & Technical Drainage Study for Skye Canyon Infrastructure Phase 3B/3C (DS 4953) Technical Drainage Study for South Arroyo Storm Drain (DS 5418)

7. If known, please briefly identify the proposed discharge point(s) of runoff from the site: east as storm drain flows into South Arroyo SD system

8. Briefly describe your proposed schedule for the subject project: ASAP



Engineer's Seal

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

*Newly Required Field

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

Revision	Date

Local Entity File No.

REFERENCE:

STANDARD FORM 1

CEN2001.002

January 11, 2022

Albert Sung, P.E.
Project Engineer
City of Las Vegas
495 S. Main Street
Las Vegas, Nevada 89101

**Subject: Addendum to Technical Drainage Study Update No. 4 for
Skye Canyon Phase 3B/3C Infrastructure – Egan Crest Drive
(DS 4953)**

This letter is submitted in response to the comments contained in the December 21, 2021 review memorandum, regarding the above referenced project. A copy of the City of Las Vegas – Department of Public Works (CLV) comment letter has been provided in Appendix A. The comments in the review memorandum have been individually addressed as follows:

1. **Comment:** *The City takes no exception to the Technical aspects of the Drainage Study Update # 4. However, the provided Plans require Supplemental Information and resubmittal before Conditional Approval of the Update.*

Response: Noted. Improvement plans are revised to include the required supplemental information as described in the responses below.

2. **Comment:** *The Roadway Plan & Profile Sheets and the Storm Drain Profile do not show any of the existing utilities within the street. The referenced plans show extensive utilities that may impact the proposed drainage improvements. The Storm Drain Profile must show the utility crossings in the profile with the separation requirements provided. Sewer and Water crossings need to show required mitigation.*

Response: Plans are revised to include utilities. Profile 2 on Sheet SD-1 shows and provides required clearance/provisions to address crossings with 8-inch, 16-inch and 36-inch water lines.

3. **Comment:** *The roadway grading at the southwest corner of Egan Crest Dr. and Skye Canyon Park Dr. is currently a Deviation from Standards that needs to be revised to eliminate the cross fall sheet drainage to the median and then sheet flowing back to the normal crown.*

Response: Grading revised to maintain cross fall sloping from median back to curb line.

4. **Comment:** *The improvement plans also include improvements to Skye Canyon Park Dr. these plans were inadvertently omitted from the submittal. Provide the street plans.*

Response: Improvements plan sheets for Skye Canyon Park Drive were not included in areas where no changes are proposed with this update. They have been added to this addendum for reference purposes.

5. **Comment:** *Clarify why SDMH #77 needs adjustment to grade when the proposed street improvements end before the SDMH.*

Response: Due to SDMH #77 being outside the proposed street improvement, the callout for it to be adjusted has been removed.

Comments from the subject review memorandum are addressed per the above responses. Revised improvement plan sheets adopting these revisions are 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.

Sincerely,

WESTWOOD PROFESSIONAL SERVICES



Lant Leavitt, P.E.
Project Manager – Water Resources Department

CC: Jonathan S. Rocha
Michael Fang, P.E.
Mark Failla, P.E., CFM

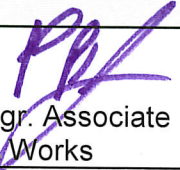
List of Appendices

Appendix A **City of Las Vegas Comment Letter**

Appendix B **Improvement Plans**

APPENDIX A

City of Las Vegas Comment Letter

CITY OF LAS VEGAS INTER-OFFICE MEMORANDUM		DATE: December 21, 2021
TO: Land Development Services Department of Building & Safety		FROM: Peter Jackson, CFM Flood Control, Sr. Engr. Associate Department of Public Works 
SUBJECT:	Drainage Study for:	
	Skye Canyon – Phases 3B & 3C Infrastructure – Update # 4	
Cross Streets:	NWC of Skye Village Road & Skye Canyon Park Drive	
File Number:	F:\Depot\DSMemos\DS4953I.doc	
Parcel Number:	126-12-101-002	
Zoning Action:		
FEMA Flood Zone	YES	NO X
Proposed Storm Drain	YES X	NO
COPIES TO:		Westwood Professional Services M F Land LLC / Ninety-Five Management LLC Bart Anderson, P.E., DevCo CCRFCD

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Payment Trn #
1 st Submittal	2/8/2017	3/9/2018 & 5/15/2018	Not Approved	\$400.00	493315: \$400
2 nd Submittal	9/11/2018	10/10/2018	Conditional Approval	\$400.00	498970: \$400
3 rd Submittal	5/30/2019	6/13/2019 & Revised 9/26/2019	See Comments Below	\$100.00	3151006: \$100
4 th Submittal	2/20/2020	2/20/2020	Approved	N/C	N/C
5 th Submittal	3/11/2020	4/9/2020	Conditional Approval	\$100.00	3776980: \$100
6 th Submittal	4/30/2020	5/5/2020	Conditional Approval	N/C	N/C
7 th Submittal	7/2/2020	7/2/2020	Approved	N/C	N/C
8 th Submittal	4/21/2021	5/6/2021	Approved	\$100.00	4257244: \$100
9 th Submittal	11/24/2021	12/20/2021	Not Approved	\$100.00	
TOTAL FEES (LDDRS):				\$1100.00	----

REMARKS: 9th Submittal: Update # 4 to build full street improvements for Egan Crest Drive approximately 660-feet south of Skye Canyon Park Drive. Supplemental Information needed.

8th Submittal: Update #3 to build full street improvements in Shaumber Road (Eagle Canyon Avenue to Skye Canyon park Drive) and Skye Canyon Park Drive (Shaumber Road to Egan Crest Drive), and half street in Shaumber (Skye canyon Park Drive to Iron Mountain Road).

7th Submittal: CCRFCD concurrence

6th Submittal: Update #2 Supplement to decrease oversized pipe

5th Submittal: Update #2 to address Land Use changes, upsize facilities accordingly, and shifts in SD alignment due to utility conflicts

4th Submittal: CCRFCD Concurrence

3rd Submittal: Update #1 to shift the storm drain alignment in Iron Mountain Road 1-ft to the north from Station "IMR" 107+46.33 to Station "IMR" 83+26.07

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. The City takes no exception to the Technical aspects of the Drainage Study Update # 4. However, the provided Plans require Supplemental Information and resubmittal before Conditional Approval of the Update.
2. The Roadway Plan & Profile Sheets and the Storm Drain Profile do not show any of the existing utilities within the street. The referenced plans show extensive utilities that may impact the proposed drainage improvements. The Storm Drain Profile must show the utility crossings in the profile with the separation requirements provided. Sewer and Water crossings need to show required mitigation.
3. The roadway grading at the southwest corner of Egan Crest Dr. and Skye Canyon Park Dr. is currently a Deviation from Standards that needs to be revised to eliminate the cross fall sheet drainage to the median and then sheet flowing back to the normal crown.
4. The improvement plans also include improvements to Skye Canyon Park Dr. these plans were inadvertently omitted from the submittal. Provide the street plans.
5. Clarify why SDMH #77 needs adjustment to grade when the proposed street improvements end before the SDMH.

The following conditions are repeated until they are complete:

6. Drop inlets SRDI#1A and SRDI#2A are in excess of 10' deep. All storm drain inlets that are more than 10'-deep require a special structural detail and calculations. Submit structural design and calculations to City Building & Safety Department for review and approval prior to the final approval of the drainage study.
7. *Skye Canyon Phases 3B & 3C onsite developments are to be flood protected by Detention Basin 2 and the Skye Canyon Phase 3A Infrastructure. No occupancy permits within onsite Phases 3B & 3C will be issued prior to the substantial completion of Detention Basin 2 with the outfall facility (from Detention Basin 2 in Iron Mountain Road to Skye Village Road) and the substantial completion of the Skye Canyon Phase 3A Infrastructure.*
8. The future MPU facility within Skye Village Road north of the Skye Village/Grand Canyon/Iron Mountain intersection to the proposed MPU facility at the Kyle Canyon interchange area shall be substantially complete before occupancy of residential Units beyond Phases 3A, 3B and 3C. This includes residential development within Phases 4 & 6 and the development of Phase 5 as shown on the *Development Phasing Exhibit* dated 12/4/2017.
9. The implementation of the CCRFCD Master Plan for the Skye Canyon Master Development is being progressed with the current construction of the *Moccasin Rd. CCRFCD Flood Control Facility – US95/Kyle Canyon Rd Interchange to Moccasin Rd. (Skye Canyon Developer Funded)* and the *Moccasin Rd. CCRFCD Flood Control Facility – Moccasin Rd to CCRFCD Facility LVUP 1076/1077(CCRFCD Funded)*. Once building permits are released for 75% of the Skye Canyon Development west of US-95 these critical facilities shall be substantially complete in accordance with the provisions of Title 19.02.130 D.
10. The implementation of the CCRFCD Master Plan is being progressed with the recent bid opening of the NDOT US-95 facilities from the CC-215 interchange north to the Kyle Canyon interchange. Construction of the associated CCRFCD MPU facilities allows for the utilization of the existing MPU

facilities constructed with the Horse Interchange. The development of Phases 3A, 3B and 3C west of US-95 shall maximize the flow collection into this facility prior to allowing flows to cross US-95 using the existing culvert system.

11. *Flood Control* acknowledges that the new *Skye Canyon Master Plan Amendment* (MPA) was included as a part of the 2018 MPU process. Any changes not incorporated in the 2018 MPU must be approved by *City of Las Vegas* and *Clark County Regional Flood Control District* (CCRFCD) and shall be adopted by the *City of Las Vegas City Council* prior to the final approval of the subject improvement plans.
12. The subject *Phases 3B and 3C Infrastructure Drainage Study* addresses the included street improvements of *Iron Mountain Road*, *Skye Canyon Park Drive*, *Shaumber Road*, culvert crossings and storm drain systems with the streets. Technical drainage studies will be required for the future onsite parcels as they develop.
13. Phase 3A, 3B, and 3C include storm drain improvements that will be abandoned in the future. These abandoned facilities will impact the adjoining Phase 3B and 3C development parcels. The individual parcel development shall address the impact and removal of these improvements as well as include the removal of these items in the associated improvements and Bond.
14. The project proposed to build temporary drainage facilities including drainage berms/swales over the *Phases 3B, 3C* site and along the west side of *Shaumber Road*. Prior to the final plans approval the developer must complete a ***Maintenance and Liability Agreement*** for the interim drainage improvements and post a minimum maintenance bond of \$50,000 or 50-percent of the construction cost for the improvements, whichever is greater. The engineer must submit an estimate of the quantities for construction the facility and an exhibit that adequately shows the location and limits of the drainage facilities to *City Flood Control* for approval. Once the drainage study is conditionally approved, the engineer/developer should contact the *City's Land Development Section* (702-229-6371) to begin the agreement process.

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

15. The interim channels adjacent to the infrastructure roadways are the Maintenance responsibility of the Master Developer.

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

END OF REMARKS

Ays/pbj/jks

T/R/S: T19S/R59E/12

AREA: F-12

APPENDIX B
Improvement Plans