

CITY OF LAS VEGAS INTER-OFFICE MEMORANDUM		DATE: February 23, 2022
TO: Land Development Services Department of Building & Safety		FROM: Albert Sung, P.E. Flood Control Project Engineer Department of Public Works
SUBJECT:	Drainage Study for:	COPIES TO:
Skye Canyon Parcel 2.30		H2OFlow Engineering, LLC
Cross Streets:	NWC of Shaumber Rd. & Eagle Canyon Ave.	Century Communities Nevada, LLC
File Number:	F:\Depot\DSMemos\DS5540A.doc	Bart Anderson, P.E., DevCo
Parcel Number:	126-12-315-002 and 126-12-313-028	CCRFCD
Zoning Action:	21-0472-TMP1 & 21-0662-VAC1	
FEMA Flood Zone	YES	NO X
Proposed Storm Drain	YES	NO X

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Payment Trn #
1 st Submittal	1/25/2022	2/23/2022	See Comments Below	\$400.00	4618622: \$400
TOTAL FEES (LDDRS):				\$400.00	----

REMARKS:

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

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

1. Provide a copy of the zoning/planning conditions associated with this site (**21-0472-TMP1 & 21-0662-VAC1**) with the next submittal to verify compliance with conditions. *Flood Control* will not issue conditional approval of the drainage study without the associated zoning/planning conditions (issued by the *City Council*). Any associated conditions of approval that revise the site drainage parameters will require that the drainage study be revised and resubmitted.
2. Sites with a grade difference of 2 feet above or below existing grades are required to have approval from the City of Las Vegas Planning and Development Department. The engineer must submit copies of the grading plans and detail sheet with a letter justifying the grade difference to the City Planning Department (229-6301). The engineer must provide City Planning approval with the next submittal.
3. 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>

4. The grading plan indicates offsite grading and construction. Secure a notarized letter of permission from the adjacent property owner allowing the grading. This letter is required prior to final acceptance of the drainage study.
5. **Figure 3:** Provide elevation values to the contours shown on the exhibit. Differentiate between existing and proposed contours.
6. **Figure 3:** Provide a table with flow depth and velocity of ditches on the exhibit.
7. In the open spaces in all pertinent grading sheets, provide distinct swale design with flow line elevations. In sheet flow area, provide proposed contour lines to present a clear picture of how the open areas drain.
8. The proposed residential project consists of lots with 5'-long driveway leading into the individual garage and finished floor.

In comparison to the traditional residential lots, normally with 20'-long driveway leading to the garage will provide a minimum of 0.5' freeboard from the garage elevation to the adjacent top of curb.

In the next submittal, label all adjacent high side TC to verify that a minimum of 0.5' freeboard is provided with relation to the Garage Finished Floor (GFF).

9. **Sheet 4:** It appears that the perimeter screen wall along the west property line discontinue for the last 200' to the north. According to the contour lines in the Sheep Mountain Parkway area, portion of the offsite drains to the subject development which contradicts the subbasin (ON1-G) delineation as shown in **Figure 3**. Address and resolve in the next submittal.
10. **Sheet 4:** The *Regional Flood Control District Manual* requires 1% minimum slope around the bulb of a cul-de-sac where storm water is drained through per Section 1602. Provide the required slope in *Millholm* cul-de-sacs.
11. **Sheet 6:** End of onsite roadways *Millholm* and *Hartmont*, need to be constructed with L curb at the end of the roadway and at least 20 ft upstream of the end of the roadway to optimally collect the onsite flow. Roll curb will not contain the flow and the 100-year flow will jump the curb, provide L-curb as needed.
12. **Sheet 6:** Per the grading design, it appears that the drainage at the end of *Millholm* will make two 90-degree turns to the proposed DI #2 on the west side of the street. This will create turbulence and inefficient capture of surface flows at the end of the roadway. Provide an inlet at the far end of the roadway to improve the flow condition.
13. **Sheet 6:** The flow that is intended to be guided through the 0" curb at the end of *Hartmont* and turn into the U-Channel onto *Millholm* appears to not capture the 100-year flow effectively. It is recommended to widen the entrance at the end of *Hartmont* to the proposed 3'-channel to capture the flow efficiently.

Post sign at the end of *Hartmont* to stop vehicles from going over the 0" curb.
14. Dedicate a minimum 10'-wide public drainage easement (privately maintained by the HOA) for the U-Channel.
15. **Sheet 6:** It appears that the northeast corner open space may have utilities such as sanitary sewer and water lines running through. If that is the case, *Detail Section N/9* must be revised to provide concrete top instead of Type 2 aggregate for utilities maintenance purposes.

Provide pertinent utilities plan in the next submittal.
16. **Sheet 6:** Provide sections where the double retaining walls cross an existing 24"-stormdrain. Provide a profile to show the clearance between the wall footings and the storm drain.

17. **Sheet 7:** Show the existing drainage easement within OFF1 encompassing the existing regional outfall storm drain. Show the width of the easement and label with recorded document number on the plan.
18. **Sheet 8:** Address whether there are any public drainage easement containing the existing 30"-RCP storm drain within the subject property.
19. **Sheet 4, Sheet 5 & Sheet 7:** An existing *40'-Roadway Slope Easement* (per OR:20180412:01041) is shown along the west boundary of the subject site. However it is not clear where this easement terminates and it appears that some of the lots such as Lot 24, Lot 41 and Lot 42 encroach into the said easement. Clarify and resolve in the next submittal.
20. **Sheet 11:** A Type 1 manhole for SDMH#3 is not adequate for it is a drop structure as shown in the profile. All special structures and mainline storm drain connection require details and structural calculations to be reviewed by the *City of Las Vegas Building & Safety Department*. Approval by the *Building Department* must be obtained prior to the final approval of the subject drainage study.
21. The locations that have storm drain running through the backyard of adjacent lots (running through private property) or locations where storm water flow will surface run between private lots is to be designated a Public Drainage Easement. For example, all locations that show a storm drain with small grate inlets on private residences and locations where block wall openings allowing flow between private residences will require a Public Drainage Easement.

Provide an overall plan that delineates all the required public drainage easements (privately maintained) across the site in the next submittal.
22. All 5'-wide public drainage easements must be concrete lined.
23. Label all drainage easements on the grading plans and provide a note that state "public drainage easement to be privately maintained by the HOA"
24. Provide a note on all grading plans: All onsite storm drains and the associated facilities are privately owned and to be privately maintained by the HOA.
25. Private streets must be public drainage easements. Provide a note on the grading plans "Note: All private streets are P.U.E., Public Sewer Easements, and Public Drainage Easements to be privately maintained by HOA."
26. Add a note in all pertinent sheets for the construction of all storm drain drop inlets per a newly adopted USDCCA Drawing No. 421 (Stormwater Quality Management Stamp and Sign Detail).

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

END OF REMARKS
HDR/AYS

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