

CITY OF LAS VEGAS			DATE:		
INTER-OFFICE MEMORANDUM			January 20, 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:		
		Summerlin West Village 22 - Nighthawk	Impulse Civil Engineering & Planning		
Cross Streets:	SWC Kettle Ridge Drive & Fleet Wing Ave.		Howard Hughes Company LLC c/o WLB Group		
File Number:	F:\Depot\DSMemos\DS5535A.doc		Bart Anderson, P.E., DevCo		
Parcel Number:	A portion of 137-23-211-001		CCRFCD		
Zoning Action:	TMP; CRG				
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	12/16/2021	1/19/2022	See Comments Below	\$400.00	4575121: \$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 (such as **TMP**; **CRG** etc) 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. The subject development is under the premise of flood protection by the improved perimeter streets, *Fleet Wing Avenue*, *Kettle Ridge Drive* and *Scurry Bend Drive* and the downstream regional facilities in *Kettle Ridge Drive* for flood flow perpetuation. No occupancy permit of the houses will be issued prior to the substantial buildout of the perimeter facilities.
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. APN number needs to be updated.
5. **Interim/Ultimate Condition Map:** All the subbasin labels on the map state the same acreage. Revise and update accordingly.
6. **Interim/Ultimate Condition Map:** Street C is shown on the east side of the site on the exhibit, but on the grading plans it is shown on the north side.
7. **Interim/Ultimate Condition Map:** Inlets labels do not match with grading plans. Update for clarity.
8. The grading plans showed that some of the residential lots (for example, Lots 47 to 50 and Lots 188 to 192 on Sheet GR-01) do not have typical Type A drainage pattern, ie, setting a high point in the backyard and draining the whole lot to the street. However, those lots are designed to have Type B drainage which will require dedication of public drainage easements which are not provided.

The *City of Las Vegas*' policy is to minimize public drainage easements. Every attempt should be made by the developer/engineer to eliminate public drainage easements which in this project will be created by the proposed Type B drainage pattern.

Double check all the lots in all grading sheets to provide Type A drainage and provide a *Typical Lot Drainage Detail* in the next submittal.

9. 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.
10. **GR-02:** Street C is a normal crown street, explain why the inlets are only proposed on one side? It is noted that SDDI #5 on the south side is 30'-long which is not allowed. The maximum length of a single drop inlet is limited to 20' for conveyance efficiency.
11. **GR-02:** It is also noted that the length of SDDI #4, #6, #7 and #8 is 6'. Revise all drop inlets to Type "C-D" Modified Drop Inlet per Standard Drawing 412.1 or Neenah Pre-cast inlets. Note that the lengths of "C-D" modified inlets are in the multiple of 2.5'. Revise all pertinent construction notes and callouts accordingly.
12. **GR-03:** Street F is analyzed as superelevated and the grading contours are superelevated. However, *Detail Section T* on DT-01 corresponds to a crown street. Clarify discrepancy.
13. **GR-04:** Street E is analyzed as superelevated and the grading contours are superelevated. However, *Detail Section T* on DT-01 shows it's a crown street. Clarify discrepancy.
14. **GR-04:** Provide emergency overflow ponding depth and weir overflow calculation, over the street crown at SDDI #3 in the event this inlet is clogged.
15. Extend the storm drain system up to the intersection of Street C and Street G to reduce the flow in Street C to be below the street TC.
16. 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 garage elevation (GFF) in all lots with 5'-driveway to verify that a minimum of 0.5' freeboard is provided with relation to the adjacent high side TC.
17. It appears that there are some streets (such as Street F but not limited to) that have a configuration of 20'-driveway lots facing 5'-driveway lots. This kind of streets will be cross-fall street (ie, no normal crown) in order to reduce flow depths in the 5'-driveway lots. However, this sends the majority of the street flow to the other side. Address what's the maximum flow depth in the 20'-driveway side. The 100-year flow cannot inundate into the driveways. Otherwise, provide storm drains for mitigation.

18. The engineer must provide a table on the grading plans that shows a quantity estimate of all drainage improvements within Public Drainage Easements. All drainage improvements within Public Drainage Easements must be bonded and inspected.
19. All drainage easements must be public drainage easements to be privately maintained and common lots to be labeled on the grading plans and to be dedicated as such in the final map.
20. 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".
21. All proposed wrought iron fence must utilize RTC Uniform Standard Drawing 425.S1. Revise all pertinent construction notes and details accordingly.
22. 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: T20S/R59E/23
AREA K-23