

CITY OF LAS VEGAS		DATE:	
INTER-OFFICE MEMORANDUM		November 7, 2023	
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 Village 29 Parcel AB - Alton		Westwood Professional Services	
Cross Streets:	NWC of Grand Park Blvd. & Far Hills Ave.	KB Home	
File Number:	F:\Depot\DSMemos\DS5710A.doc	Bart Anderson, P.E., DevCo	
Parcel Number:	137-21-812-001,-812-002;137-22-426-001; 137-28-510-001,-510-002; 137-27-117-001	CCRFCFCD	
Zoning Action:	23-0360-TMP1		
FEMA Flood Zone	YES	NO	X
Proposed Storm Drain	YES	X	NO

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Payment Trn #
1 st Submittal	10/12/2023	11/7/2023	See Comments Below	\$400.00	5478874: \$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 (**23-0360-TMP1**) 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 site is adjacent to or crosses an existing or proposed *Clark County Regional Flood Control District* (CCRFCFCD) master planned facility. Therefore, CCRFCFCD concurrence is required prior to final approval of the drainage study.

Please note that effective March 15, 2019, the CCRFCFCD adopted new requirements for drainage study concurrence submittal. Follow the link below for specific guidance.

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

3. The proposed project is premised on the flood protection provided by the perimeter streets and the associated storm facilities (*Far Hills Avenue, Grand Park Boulevard, Sandstone Rice Drive and Park Drift Trail*). The subject drainage study will not be approved prior to the posting of construction bonds of the stated perimeter street improvements and the storm facilities.

4. During the mass grading condition, the project proposes to build temporary drainage swales. Prior to final plan 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 constructing the facility and an exhibit that adequately shows the location and limits of the drainage facility to *City of Las Vegas Flood Control* for approval. Once the drainage study is conditionally approved, the engineer should contact the City's Land Development Section (229-6371) to begin the agreement process.

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

5. 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.
6. **Exhibit E – Developed Condition Drainage Map:** Show hydraulic *Section 15-1* and *Section 15-2* in the map. It is summarized in the *Developed Condition 100-Year Street Flow Summary* table but is not shown in the map.
7. **Exhibit E - Developed Condition Drainage Map:** Hydraulic *Section 2-1* values do not match with Flow master calculations.
8. **Exhibit E - Developed Condition Drainage Map - Developed Condition Drainage Easement Hydraulic Summary:** EO5 shows 1% slope, however Flowmaster uses 4.20%. Revise accordingly.
9. **Exhibit H – Facility Map:** Label all the storm drain systems with the accurate nomenclature.
10. Ultimate Condition WSPG Summary - Lateral North Model: shows 16 cfs, however WSPG model utilize 17 cfs. Revise accordingly.

Mass Grading Plans:

11. On the "*Las Vegas Valley Construction Site BMP Guidelines*": Replace the whole set of notes with the latest *City of Las Vegas* BMP guideline notes.
12. **Sheet D-2:** Wall Sections 16, 17, 18, 19, 22, 23, 24, and 25: Provide a minimum of two courses of solid grouted 8"-thickness CMU blocks at the high side of the retaining walls for onsite flood protection.

Unit 1 Improvement Plans:

13. **Sheet G-1:** Extend the L-curb from SDDI #4 to as close to the driveway of Lot 175 (with transition from modified roll curb to L-curb) and to the same extent on the other side of SDDI #4.
Provide a profile from SDDI #4 through CE T to *Grand Park Boulevard*.
14. **Sheet G-2:** Extend the L-curb from SDDI #3 to as close to the driveway of Lot 184 and to the same extent on the other side of SDDI #3.
Provide a profile from SDDI #3 through CE U to *Grand Park Boulevard*.
15. **Sheet G-2:** Same requirements for SDDI #5 in *Weather Ridge Place*.

16. **Sheet G-3:** Extend the L-curb from SDDI #6 to as close to the driveway of Lot 15 and to the same extent on the other side of SDDI #6.

Provide a profile from SDDI #6 through CE C to *Grand Park Boulevard*.

17. The extended areas behind each of SDDIs #3 to #6 must be identified and labeled on the grading plans as “Public Drainage Easement to be privately maintained by the HOA” and dedicated and recorded as such on the Final Map prior to the final approval of the improvement plans.

18. **Sheet D-2:**

- Wall Section 13: Install 3-course of 8”-thickness CMU or equivalent to be solid grouted above the adjacent high grade.
- Wall Sections 14 and 23: Clearly show that the proposed 3-course of solid grouted portion to be a minimum of 8”-thickness.

19. **Sheet PP-1:** At SDMH #2, the upstream 24”-SD comes in at 3621 while the bottom of the SDMH is at approximately 3617.5, ie, the mainline flow will have sudden drop of 3.5’ which is not acceptable. Either lower the 24” pipe or raise the 54” storm drain at SDMH #2 to facilitate a smooth mainline flow. Review and revise accordingly.

20. **Sheet PP-5 & Sheet PP-6:** SDMH#16 was wrongly labeled as SDMH#15 in Plan View. Revise accordingly.

21. **Sheet PP-8:** SDMH9A was not shown in WSPG models calculations.

22. In all Plan & Profile sheets, the onsite drains are all wrongly labeled as “PUBLIC”. Revise to show “PRIVATE” as they are private storm drains to be privately maintained by the HOA.

23. In all pertinent Plan & Profile sheets, revise the callout for sacrificial concrete from 1” to 2”.

Unit 2 Improvement Plans:

24. **Sheet G-2:** Provide a profile for the surface covering CE W and CE H from *Clover Bar Lane* to *Preston Oak Lane*. This is to check whether there will be an emergency overflow path provided in case SDDI #9 and SDDI #10 are totally clogged.

25. In reference to *Exhibit E (Developed Condition Drainage Map)*, *Hydraulic Section EO5* shows that the 100-year flow depth in the two common elements (CE W and CE H) is 1.15’ with 100-year velocity of 8.12 ft/s. However, isn’t there a 100-year storm drain through the two common elements? Explain the discrepancy in the next submittal. Revise all pertinent data on the exhibits and calculations accordingly.

26. Pertaining to the above two comments, if there truly is much flow on the surface of CE W and CE H, the surface must be concrete lined.

27. Again, in reference to *Exhibit E*, in the *Recommended Flood Control Facility (Inlets & Laterals) Summary* table, DI #7, DI #8 and DI #10 are listed to receive nuisance flow only. However, for example, the source of flow for DI #10 is Portion of (F1 + F2) + ½ of E1 + ½ of E2 + H1 which is assuredly not nuisance. Same for DI #7 and DI #8. Revise all pertinent data on the exhibits and calculations accordingly.

28. When a finished floor is beneath an adjacent street the wall between the source of flow must be solid grouted three courses. Revise the note for all sections showing solid grouting for flood control to indicate “8-inch minimum solid grouted CMU block three courses above finish grade with all joints mortared”.

29. 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.
30. All manholes that are more than 18' 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.
31. 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".
32. 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.
33. 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.
34. Clearly specify all proposed wrought iron fence/gate to be constructed per Uniform Standard Drawing 425.S1.

***** The City of Las Vegas Flood Control is standardizing the file naming of drainage studies and plans during the digitizing process. When saving the project files in the CD or thumb drive, please follow the system below:**

If drainage study only contains one combined file, use the following naming convention in Document Title:

- 1st Submittal DS and Plans (for first and original submittal);**
- 2nd Submittal DS and Plans (for second submittal (addendum #1)) etc.**

If drainage study contains multiple files, use the following naming convention in Document Title:

- 1st Submittal DS (for the report of the drainage study)**
- 1st Submittal Plan 1 (could be the drainage condition maps)**
- 1st Submittal Plan 2 (could be the improvement plans) etc.**

NOTE: Any future changes to the proposed design (or design assumptions) as outlined in the approved drainage study and attached preliminary grading plan which affect drainage must be addressed in a Drainage Study Update and accepted by the *City of Las Vegas Flood Control Section*. Additionally, final approval of a drainage study is valid for a period of one (1) year. If the proposed construction has not been completed in that time period, the *City of Las Vegas* reserves the right to require additional conditions and/or submission and acceptance of a complete drainage study update prior to further construction of a project.

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/21
AREA K-21