

CITY OF LAS VEGAS INTER-OFFICE MEMORANDUM			DATE: June 15, 2024
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 27 – Parcel D Drainage Infrastructure		Atkins
Cross Streets:	Park Drift Trail in Summerlin Village 27		Howard Hughes Company, LLC
File Number:	F:\Depot\DSMemos\DS5771A.doc		Bart Anderson, P.E., DevCo
Parcel Number:	137-15-401-003, 137-16-000-001, 137-15-101-001, 137-15-301-002		CCRFC
Zoning Action:	N/A		
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	5/16/2024	6/14/2024	See Comments Below	\$400.00	5763854: \$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.

- The future development of Village 27 Parcel D is premised on the protection of the Village 27 Debris Basin, ie, construction bond for the Village 27 Debris Basin must be posted with the City prior to the final approval of the subject Summerlin West Village 27 – Parcel D Drainage Infrastructure.
- The project proposes to build perimeter flood walls around the subject Parcel D. Erosions around the parcel boundaries are anticipated during interim conditions until permanent measures are implemented. 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. If the interim drainage improvements are bonded per phase, each phase must post a minimum maintenance bond of \$50,000 or 50-percent of the construction cost, whichever is greater, for each phase. 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.

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. **Standard Form 1:** Revise the “Township” number from 21S to **20S**.
5. **Sheet 3/30:** General Notes: Replace the “*Las Vegas Valley Construction Site BMP Guidelines*” with the current version.
6. Provide more discussion of the purpose of the “Additional Hydraulic Calculations”. It appears that the pages following *Sub-chapter 3.2 (Additional Hydraulic Calculations)* on Page 10 had been missing?
7. The HY-8 calculations account for 1,050 cfs, but all references show 1,492 cfs at the inlet structure. Review and revise for consistency in the next submittal.
8. Provide hydraulic grade lines (HGLs) on all storm drain profiles, label V_{100} and clearly identify 1” additional sacrificial concrete wherever the 100-year flow velocity is greater than 25 ft/s.
9. **Sheet 6/30:** The *Overall Grading Plan* shows two boundary lines: one appears to be property line (village boundary) and one is a grey broken line adjacent to the outer side of the property line. Address what this grey broken line is and identify it on all the pertinent section details in the next submittal.
10. **Sheet 6/30:** Provide a table with stationing along the perimeter flood wall to include data such as velocity, flow depth, channel heights and freeboard criteria etc. The station spacing may be in 200’ increment.
11. **Sheet 9/30:** Address how to get down to the bottom of the *North Channel*? Provide access and show it in the next submittal.
12. **Sheet 14/30:** The plan shows an “*Existing Village 27 COS-1 Drainage Improvements*” with 4#12’x6-RCB culverts. The reviewer is not aware of this improvement have been processed and approved. Provide the name of the drainage study for that improvements for verification in the next submittal.
13. **Sheet 26/30:** Provide a minimum 40’-wide public drainage easement (privately maintained by the Summerlin Master HOA) containing the proposed 9’x6’ RCB across the northwest corner of the subject Parcel D development. The easement must be granted and recorded prior to the final approval of the improvement plans.
14. **Sheet 26/30:** Provide storm drain manholes at each angle point along the concrete box.
15. **Sheet 28/30:** All the sections on the detail sheet show flows against the cutoff wall. Provide scour calculation to determine the cutoff wall depth.
16. **Sheet 28/30:** *Section Details B, C & E* show channel without distinctive flowline. Provide flowline in the next submittal.
17. **Sheet 28/30:** *Section Details D & H:* It is not acceptable to have flow against a flood wall. Review and revise accordingly.
18. **Sheet 28/30:** Provide fall protection such as wrought iron fencing in all section details.
19. **Sheet 30/30:** *Section Detail A:* Address the flow velocity at the storm drain outlet area and any provision and design of energy dissipators.
20. **Sheet 30/30:** *Section Detail B:* The detail shows some “galvanized pipes” in front of the triple 8’x7’ RCBs but is not seen in Profile 2 on Sheet 27/30. Address the discrepancy.

21. **Sheet 30/30:** *Section Detail C: Construction Note #6* is pointing back to the same detail for the design of energy dissipator. Review and revise accordingly.
22. Clarify after the outflow exits the 50'-opening area, is the flow contained within Parcel D or enters the natural wash in OFF1-5 and reaches Village 27 Debris Basin at CP1.2a. If it is the latter, address erosion protection of the natural washes in the next submittal.
23. The *50FT Transition Structure* from 28'x7' RCB to 9'x7' RCB is a special structure. Provide structural detail and calculations to *City of Las Vegas Building & Safety Department* for review and approval which must be obtained prior to the final approval of the drainage study.
24. The proposed improvement plans show drainage facilities of a size that must be reviewed for maintenance and access concerns. The engineer must submit a separate set of improvement plans to *City of Las Vegas Streets & Sanitation Department* for their review. *CLV Streets & Sanitation* approval must be secured prior to the final approval of the subject drainage study.

***** 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: 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.

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.

END OF REMARKS
HDR/AYS

T/R/S: T20S/R59E/03
AREA K-03