CITY OF LAS VEGAS INTER-OFFICE MEMORANDUM				DATE: September 24, 2025
TO: **Land Development Services** Department of Community Development – Building & Safety Division				FROM: Neil Wacaser, P.E. Sr. Engineering Associate Department of Public Works
SUBJECT:	Drainage Study for: **Summerlin West Village 27 – Parcel D Drainage Infrastructure**			**COPIES TO:** Atkins Lucien Paet, P.E., DevCo
Cross Streets:	Park Drift Trail Summerlin Village 27			
File Number:	F:\Depot\DSMemos\DS5771D.doc			
Parcel Number:	137-15-401-003, 137-16-000-001, 137-15-101-001, 137-15-301-002			CCRFCD
Zoning Action:	N/A			
FEMA Flood Zone	YES	NO	X	
Proposed Storm Drain	YES	NO	X	

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Payment Trn #
1st Submittal	5/16/2024	6/14/2024	Not Approved	$400	5763854
2nd Submittal	9/30/2024	10/15/2024	See Comments Below	$400	5946413
3rd Submittal	6/18/2025	7/9/2025	See Comments Below	$400	6206472
4th Submittal	8/8/2025	9/24/2025	See Comments Below	$400.	6351639
			TOTAL FEES (LDDRS):	**$1600**	**----**

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. 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.

2. 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 submittals. Follow the link below for specific guidance.

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

3. The 50FT Transition Structure from 28'x7' RCB to 9'x7' RCB is a special structure. Provide structural details 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.

4. 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.

5. Add the River Stations to the HEC-RAS Profile Plot (pdf pg 19/164).

6. Add the River Station to each of the HEC-RAS Cross Sections (pdf pgs 21-24/164).

7. The cross section data on pdf pg 108/164 should have an "*" for section 145.4 which appears to be an interpolated section.

8. The HEC-RAS data for channel reach lengths all show the same length for left, center, and right. However, many of the sections are on curves and should have different lengths.

9. All the cross sections from river station 2983.86 to 479.15 appear to be incorrect based on the contours on the HEC-RAS Northwall Exhibit (pdf pg 16/164). The left side of the sections should be sloped not a wall based on the contours and detail D on plan sheet 29/31.

10. On sheet 9/31, why not use vertical curves at the low point? There are many other vertical curves used thought the project and there may be constructability challenges in this area with sharp grade breaks.

11. On sheet 14/31, Add End Sill to profile before riprap.

12. On sheet 17/31,

    a. There is 1050 cfs of flow from the 9'x6' RCB with a short riprap pad. Provide calculations to demonstrate that riprap pad length and D50 sizes are adequate.

    b. In the profile, it appears that the wall footing is sitting directly on top of the RCB. Is this correct? Also, according to details on other sheets, the wall footing appears to be 1' tall but the profile appears to show less than 1' from the top of footing to the top of RCB. Is structural detail being provided?

13. On sheet 27/31, the "WEST WALL SURFACE" appears to tie-in below the top of the RCB. Adjust grading.

14. On sheet 29/31,

    a. For all sections, the grading is shown tying in at the property line but the grading on the plans show most of the grading tying in well before the property line.

    b. The wall height on Section B appears to vary, not be a constant 6' tall.

    c. On Section B, the riprap appears to be missing from the outlet area.

15 On sheet 31/31, add north arrows to all grading details.

16 Address the following on sheet 31/31 in regards to the grading of the end of the channel and the end sill area, Detail C:

a. Section K shows that the channel and AC are at the same elevation. However, adjacent to the channel there appears to be a 7' tall wall with the AC being at the top of the wall according to section E. Somehow that AC wraps around the wall and drops 7' to tie-in at the channel tie-in. Regrade the area or add additional grade tags and cross section to show how this grading works.

b. Based on the HEC-RAS sections for this area, the end sill calculation, and the grading, it appears that the all the flow will spread out across the riprap area and the AC access road. If this is the case, add a wall to prevent the flow from breaking out of the riprap area all the way to the end sill. This may cause some challenges with the low flow coming down the maintenance access road in the channel. Consider shifting this into the end sill area and creating a cut through the end sill that would allow for low flow to escape but still cause the hydraulic jump and energy dissipation. Then you can ramp the maintenance access out of the channel. Add a new section on the east side of the end sill to show this wall will prevent flow break out.

c. The cross sections in the middle and right of line two of the cross sections on pdf pg 23/164 appears to have a higher invert than the cross sections to the grading detail on plan sheet 31/31.

***** 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
CAG/NW

T/R/S: T20S/R59E/S15
AREA K-15