

CITY OF LAS VEGAS INTER-OFFICE MEMORANDUM			DATE: May 14, 2025
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 Detention Basin #5 Modifications – Update #4			GCW
Cross Streets:	NWC of Sky Vista Drive & Alta Drive		Howard Hughes Company LLC
File Number:	F:\Depot\DSMemos\DS5225K.doc		Bart Anderson, P.E., DevCo
Parcel Number:	137-28-810-001, 137-33-512-003		State of Nevada Division of Water Resources (Dam Safety)
Zoning Action:	N/A		CCRFCD
FEMA Flood Zone	YES	X	NO
Proposed Storm Drain	YES	X	NO

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Payment Trn #
1 st Submittal	12/2/2019	1/2/2020	Not Approved	\$400.00	3652617: \$400
2 nd Submittal & Supplemental	5/7/2020 & 6/24/2020	7/2/2020	Not Approved	\$400.00	1465751: \$400
3 rd Submittal & Supplemental	7/26/2020 & 9/15/2020	9/21/2020	Not Approved	\$400.00	3927468: \$400
4 th Submittal Update #1	1/19/2021	2/10/2021	Conditional Approval	\$100.00	4136329: \$100
5 th Submittal Update #2	6/3/2021	6/23/2021	Conditional Approval	\$100.00	4319407: \$100
CCRFCD & State Dam Safety (J-770)	8/12/2021	8/26/2021	Concurrence Recv'd	N/C	N/C
6 th Submittal Update #3	9/20/2021	10/13/2021	Approval	\$100.00	4456969: \$100
7 th Submittal Update #3	12/27/2021	1/25/2022	Approval	\$400.00	4585854: \$400
8 th Submittal Update #4	3/3/2025	4/3/2025	Not Approved	\$100.00	6138735: \$100
9 th Submittal Update #4	4/15/2025	5/14/2025	See Comments Below	\$400.00	6197083: \$400
TOTAL FEES (LDDRS):				\$2,400.00	----

REMARKS:

8th & 9th Submittals: Update #4 to add an inflow facility (Inlet 4) at the southwest corner of the detention basin while Existing Inlet 3 will no longer receive any flow

The Update #3 Submittals cover the proposed modifications to the existing Summerlin Detention Basin #5. The detention basin modifications are changing the basin parameters for flow, required storage and improved inlet structures. This detention basin is no longer proposed as a multi-use facility. The ultimate goal is to make this a publicly owned and maintained facility. Currently, this facility is privately maintained.

7th Submittal: Update #3 – Response to Comments; minor Volume & Flow changes to DB5.

6th Submittal: Update #3 for minor change of flows to DB5

5th Submittal: Update #2 – Modify Detention Basin Storage Volume

4th Submittal: Update #1 – Addressed State Dam Safety Approval.

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:
	Provide Clark County Regional Flood Control District concurrence based upon State Dam Safety Approval.
	is conditionally approved subject to State of Nevada, Division of Water Resources – Dam Safety.

1. Modifications are proposed to a *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>

2. Modifications proposed to the *Summerlin Detention Basin #5* require *State of Nevada Division of Water Resources (Dam Safety)* concurrence prior to final approval of the drainage study.
3. The engineer must submit the drainage study to FEMA for a Conditional Letter of Map Revision (CLOMR). A favorable CLOMR must be obtained prior to the issuance of any permits. This site is located in a FEMA Zone AE. *Clark County Regional Flood Control District (CCRFCD)* review and approval is required prior to recordation of final map or issuance of building/grading permits. The Engineer must send a copy of the report to the CCRFCD for review. The developer/engineer must also obtain a Letter of Map Revision (LOMR) using the approved drainage study as technical support to inform FEMA of the modifications within the flood zone. The approved LOMR must be submitted to the *City of Las Vegas* prior to the release of the bond.
4. In referencing the study for *Summerlin V28 Phase 1 Rough Grading*, the peak flow to *DB5 Inlet #3* has been changed from 1,418 cfs to 498 cfs during the interim condition while the peak flow to *DB5 Inlet #2* has been changed from 1,418 cfs to 1,819 cfs also during the interim condition. Revise the subject **FIGURE 5** flow parameters to match the other study.
5. **Previous Comment:** *Provide addition WSPG model using a Manning's coefficient of 0.015 for reinforced concrete box to determine the impacts to water surface profile.*

The engineer provided an additional WSPG model using 0.015 Manning's coefficient in the last submittal. However, a table or an executive summary comparing the resulting parameters from the two models with Manning's coefficient of 0.013 and 0.015, ie, a discussion of the sensitivity of the system must be provided.

6. The proposed improvements (8'x6' RCB and the associated storm drain manholes) 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. *Streets & Sanitation* approval must be secured prior to drainage study approval.
7. Structural plans for the storm drain improvements must be submitted for review. Provide a soils report, structural calculations and specifications, two wet stamped structural sets, and a grading plan to the *Building Department* for processing. The engineer must provide a copy of *Building Department* approval of the structures to *Flood Control* prior to final acceptance of the drainage study.

Flood Control takes no exception to the minor changes to the overall Hydrology. The resultant changes to Detention Basin #5 are not significant as the 100-year flows and the 100-year storage volume are slightly reduced based upon the refinements to the upstream development within Summerlin.

1. The modifications to Summerlin Detention Basin #5 with Update #4 slightly decrease the storage volume from 415 acre-feet to **390 acre-feet**. This decreases the Q₁₀₀ Water Surface Elevation (WSE) from 3560.25 to **3559.25 feet**. These changes still show the Q₁₀₀ WSE below the existing spillway elevation of 3563.00 feet.
2. Detention Basin #5 in the Ultimate Condition has three major inlet structures. The proposed modifications to DB #5 - Update #4 include the ultimate facility (concrete inlet structures) for the three major inlet structures. Inlet Structure #1 is designed to accommodate the interim 5,333 cfs flow rate, the ultimate flow rate is 4,347 cfs. Inlet Structure #2 is designed to accommodate the ultimate 2,705 cfs flow rate. Inlet Structure #3 will no longer accept any flows. The proposed Inlet Structure #4 (8'x6' RCB) in this Update #4 is the new inflow point accepting 1,229 cfs in the Ultimate Condition.
3. The proposed Summerlin Detention Basin #5 Modifications (J-770, NV10499) has been approved by the *State of Nevada, Division of Water Resources, Dam Safety (DWR)*. Comply with Dam Safety Permit requirements. **Update the Dam Safety Permit based upon the "As-Built" conditions and Note the Detention Basin changes and the reasons why as part of the "Proof of Completion" when filed.**
4. Provide Revised Plans for Building Department approval that incorporate the Update #4 Revisions.

The following projects addressed the overall flow impacts to the Summerlin West Planning Area.

Summerlin West Grand Park Detention Basin (GPDB)
 Summerlin West Grand Park Detention Basin – Inlet Pipe
 Summerlin Detention Basin #5 Modifications (DB #5)
 Summerlin Detention Basin #5 Temporary Diversion Berm (DS 5357)
 Summerlin West Planning Area Master Plan
 Summerlin West Planning Area V27 Regional Facilities (V27 RF)
 Summerlin West WOTUS-5 Diversion Facility

The following comments are carried over until they are complete:

1. Summerlin Detention Basin #5 is within the FEMA Special Flood Hazard Area, Zone AE. The detention basin modifications are changing the basin parameters for flow and required storage. The Adopted FEMA Flood Zone Elevation shows an increase in the BFE of 0.75-feet based upon Update #3. While this is still below the existing spillway elevation, this site is within an AE Flood Zone and therefore requires a LOMR submittal once the proposed construction is complete. The LOMR shall be based upon the Ultimate Flow Rates and using the "as-built" information to verify the new BFE for Summerlin Detention Basin #5. The LOMR shall be approved prior to release of the bonds. The bond shall include a line item to cover the LOMR in the amount of \$50,000.

2. The report has identified that the existing MPU Facility APM5 0047 (berm and culvert) does not have the capacity to convey the total flows (neither existing nor ultimate) in its current configuration. Additionally the downstream interim drainage facility within the MPU Facility APM5 0008 alignment does not have the capacity to convey the total flows as well. This impact is addressed within the drainage study for the Summerlin Detention Basin #5 Temporary Diversion Berm (DS 5357). The associated Temporary Diversion Berm improvements are not included with these Detention Basin Modifications.
3. The flows from MPU Basin DB54-1 (Ult. Basin 3-1) route to DB #5 per the Master Plan as addressed in the Summerlin West WOTUS-5 Diversion Facility Drainage Study (DS5250).
4. The intent of Howard Hughes Company is to construct the Summerlin Detention Basin #5 Modifications with the associated collection facilities to update the CCRFCD Master Plan facilities and then dedicate them to the City of Las Vegas upon completion. Summerlin Detention Basin #5 shall be dedicated to the City as *Flood Control Right-of-Way*. The total area of the dedication shall be of sufficient size to meet the public operational needs and address expansion of the facility. The dedication needs to include the entire impact area of the dam construction as well as incorporate access and maintenance activities. The maintenance activities include staging for equipment and a temporary storage area for sediment removal. The recommended staging area is the flat clear area on the detention basin side of the spillway.
5. Provide an Exhibit of the proposed *Flood Control Right-of-Way*. Include the area between the spillway and Alta Drive as *Flood Control Right-of-Way*. This is shown as a Common Lot as part of Village 24. Flood Control understands that Summerlin desires to have landscape enhancements in the area between the Alta Right-of-Way and the spillway. This would require a Maintenance & Liability Agreement through Land Development. Once the Drainage Study is Conditionally Approved, contact Land Development to start the process.
6. Access roads shown for City use located outside of the Flood Control Right-of-Way shall be dedicated access easements. Review and verify access locations for Flood review prior to submittal of easements. The easements shall be dedicated prior to acceptance of the facilities by the City.
7. All proposed improvements associated with Summerlin Detention Basin #5 shall be bonded and inspected. This project, as a MPU facility, shall require that the inspection personnel be approved by the City. This project shall require Special Inspection. Coordinate the requirements of and the Agreements needed for Special Inspection with the Building Department.
8. Prior to the adoption and acceptance of the detention basin as a *City of Las Vegas, Department of Public Works* facility, Summerlin Detention Basin #5 shall remain a private facility owned and maintained by Summerlin.
9. The detention basin will require the submittal and approval of an updated *Emergency Action Plan* (EAP) for this regional facility. The EAP format shall meet the City of Las Vegas submittal requirements for inclusion with our overall EAP. Contact Flood Control for sample format requirements. The EAP must be approved by the *City of Las Vegas* and then submitted and approved by the *State of Nevada, Division of Water Resources - Dam Safety* prior to the release of any improvement bonds for the related detention basin improvements. The bonded improvements shall include a line item for the EAP in the amount of \$50,000.
10. Provide complete *Plans and Project Specifications* for approval by the *City of Las Vegas*. Provide a copy of the Geotechnical Report for the detention basin. The Structural Plans and Details shall be a part of the Civil Improvement Plan set. This project is considered as a *Capital Improvement Project* (CIP) with developer funding.

11. The approved plans shall include the complete Specifications approved by DWR and the Building Department.
12. The proposed improvements have been reviewed by the *City Streets & Sanitation Department* for their concurrence. *Streets & Sanitation Department's* comments have been incorporated.

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, conditional acceptance 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
OSK/AYS/PBJ

T/R/S: T20S/R59E/28 & 33
AREA K-28