

CITY OF LAS VEGAS			DATE:
INTER-OFFICE MEMORANDUM			May 12, 2022
TO: Land Development Services Department of Building & Safety		FROM: Albert Sung, P.E. <i>AS</i> for Flood Control Project Engineer Department of Public Works	
SUBJECT:		COPIES TO:	
Drainage Study for:		Impulse Civil Engineering & Planning	
Summerlin West Village 22 - Nighthawk		WLB Group	
Cross Streets:	SWC Kettle Ridge Drive & Fleet Wing Ave.	Howard Hughes Company LLC	
File Number:	F:\Depot\DSMemos\DS5535D.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	Not Approved	\$400.00	4575121: \$400
2 nd Submittal	2/23/2022 <small>(Paid on 3/16/2022)</small>	3/17/2022	Not Approved	\$400.00	4692663: \$400
Supplement	3/17/2022	3/17/2022	See Comments Below	N/C	N/C
4 th Submittal	4/26/2022	5/11/2022	See Comments Below	\$100.00	1706305: \$100
TOTAL FEES (LDDRS):				\$900.00	----

REMARKS: 4th Submittal, Update #1 to address Plan comments. Flood Control requires that Updated Plans be provided as Supplemental Information.

The Drainage Study for the subject project has been reviewed and:

	is approved subject to conformance to all City standards and the following conditions:
XX	must be resubmitted or supplemented including the following:
	is conditionally approved subject to Clark County Regional Flood Control District concurrence.

Supplemental Plans need to be provided such that Comments #1 thru #5 are addressed prior to Drainage Study Approval. Flood Control noticed that the latest Land Development Submittal L22-00473-Civil-V02 has begun to address some of the comments and the Plans need to match the Drainage Study submittal.

- Update #1 identifies velocities above 25 fps. For segments of pipe with velocities between 25 and 35 feet per second, 6000-psi concrete with 2-inch additional (sacrificial) thickness is required. A Special Construction Note must be added to the Grading Plans and the Plan and Profile Sheet that calls out the special construction requirement for the minimum 6,000 psi concrete with 2" additional sacrificial concrete. Specify the RCP Class of pipe being used. The Update #1 mentions either Class IV or V. See Sheets PP-01 and PP-07.
- The Storm Drain Manholes need to call out the Size and Type to be used at each location. Revise the Plan and Profiles accordingly. The Provided Construction Note lists ALL Manholes. SD Manhole #35 shall be a 72" Manhole.

3. Sheet SD-01: Storm Drain Laterals "B and G" show separation from the water line crossings that do not meet the minimum 18" separation required per UDACS. Review and revise accordingly.
4. Sheet GR-02. The drop inlets are called out as L=20'. The plans show that some of the drop inlets scale differently and appear to be measured including the transitions. Review and revise and adjust such that there is 20' clear between the drop inlets. The 33.49 feet between DI #7 and DI #8 does not provide the 20' clear distance. The storm drain inlet stationing does not match the street centerline info. Clearly indicate that the pipe length between inlets is shown from center of inlet to center of the next inlet. The actual pipe length will be shorter when measured using the 20' inlet opening.
5. The drop inlets show an Inlet Elevation. Call out if this is a TC Elevation. Verify the elevations relative to the nearby TC Elevations for all DI's. As examples, on Sheet GR-06. DI #1 has an elevation of 3452.0 while the adjacent TC elevations are 3451.83 and 3451.57 respectively, which makes the inlet higher than the adjacent TC Elevations. On Sheet GR-02. DI #6 has an elevation of 3439.982.0 while the adjacent TC elevations are 3439.9 and 3439.74 respectively, which makes the inlet higher than the adjacent TC Elevations. Verify the Inlet Invert In vs. the Invert Out call-outs.
6. Flood Control has received a letter of concurrence from the *Clark County Regional Flood Control District (CCRFCD)* dated May 11, 2022. With these Plan comments, a new concurrence from CCRFCD is not required.
7. 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.
8. The response to previous Comment #9 was that all drop inlets were reduced to a depth of less than 10' so that no special structural review will be necessary.

However, the plans currently show that SDMH #35 has a depth of more than 22' which exceeds the standard maximum of 18'. All storm drain 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. The submitted Structural Calcs show that Manhole #35 is identified as a 72-inch diameter manhole. Review and revise the Plans accordingly.
9. Where storm drain pipe and/or inlets are located within Common Lots, Common Lots shall be *Public Drainage Easements to be Privately Maintained (PDEPM)*. Show PDEPM on the Grading Plans and on the Final Map. Where drop inlets are located behind the private street section, a 5-foot wide PDEPM needs to be shown on the Grading Plans and on the Final Map. Extend the easement 5' past each side of the inlets. Flood Control recommends that the PDEPM also be shown on the HC-Sheets for clarity.
10. Reference SD Lateral "G" from Sheet SD-01 on Sheet PP-06.
11. Sheet PP-09 needs to show the storm drain pipe crossing at the intersection of Nightengale Call & Black Canary.
12. The Storm Drain Construction Note call-outs on the GR-Sheets and the PP-Sheets are not labeled correctly to match the Construction Note #'s. Review and revise accordingly.
13. Provide the RCP Pipe Class for all storm drain pipe segments. See PP and SD Sheets.
14. DT-Sheets: For the solid grouted walls, Call out "*8-inch CMU solid grouted with all joints mortared.*"

15. GR-Sheets: Provide a note on all grading plans (Standard Note No. 6): *"Post-Construction BMPs (PCBMPs) / Control Measures noted on the Grading Plans are mandatory permanent regulatory stormwater pollution controls. These PCBMPs must be installed per the approved plans and must be permanently maintained."*
16. GR-Sheets: Revise the Grading Plan Certification Note to show **DS5535** without the letter designation included.
17. GR-Sheets: Clean up the Flood Zone Information Note to remove the double description.

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