

CITY OF LAS VEGAS INTER-OFFICE MEMORANDUM		DATE: August 3, 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:
Garside Middle School Replacement		Lochsa Engineering
Cross Streets:	NWQ of Torrey Pines Drive & Alta Drive	School Board of Trustees - CCSD
File Number:	F:\Depot\DSMemos\DS5688A.doc	Bart Anderson, P.E., DevCo
Parcel Number:	138-35-101-002	
Zoning Action:	23-0301-SDR1; 23-0301-VAR1 & 23-0301-VAR2	
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	7/6/2023	8/3/2023	See Comments Below	\$400.00	5343721: \$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 (**23-0301-SDR1; 23-0301-VAR1 & 23-0301-VAR2**) 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. **Existing HEC-1:** Basin FD6 CN does not match Standard Form 4.
3. **Existing HEC-1:** Basin NX1 lag time does not match Standard Form 4.
4. **DR1 – Existing Conditions:** The 10-YR and 100-YR Street Flows Summary for Hydraulic Cross-Section 2 (*S. Torrey Pines Drive*) do not match FlowMaster calculations.
5. **DR1 – Existing Conditions:** Provide a quality check on the basin flows shown on drainage map vs. Existing Condition Peak Flow Summary table. For example, basin NX3 flows show (7/14) cfs on drainage map however on the DS report and in summary table shows (6/12) cfs.
6. **DR2 – Developed Conditions:** Basin ND2 contours show the flow draining towards east of the site to Torrey Pines Rd; however, the flow arrows show portions of the basin’s flow draining in multiple directions (ex: South towards Celeste Ave and basin ND3). Revise accordingly.

7. **DR1 and DR2:** In the “*Street Flow Summary Tables*”, add a hydraulic section and calculations in *Elton Avenue* to check the 100-year flow depth difference between the existing and developed conditions.
8. **Sheet C1.30.1:** The 100-year flow depth in *Hyde Avenue* is 0.83’ and is erosive. The northwest corner of the site appears will have street flow overspill onsite. Provide a flood wall or raise the site to protect the site from inundation. Provide erosion protection materials in the landscaping area in the next submittal.
9. **Sheet C1.30.1 & Sheet C1.30.2:** The proposed finished floor elevation of **BLDG C** is either not meeting the regional flood criteria or even lower than the adjacent *Newcomer Street*.
 For example, the street grade at the southern end of the building (high side) is at 49.57TC, since the 100-year flow depth in *Newcomer* is 0.67’, therefore the required FF = $49.57' - 0.5' + 2 \times 0.67' = 50.41'$ which is higher than the proposed 49.20’.
 Review and revise accordingly.
10. **Sheet C1.30.1 & Sheet C1.30.2:** Verify how it was determined that 75% of the site is being treated by BMPs. Provide a BMP plan in the next submittal clearly showing the subbasins for each BMP.
11. The BMP on the northeast and southeast side of the site near Torrey Pines are perpendicular to the flow path and do not have low points to promote conveyance through the BMPs. The location and orientation shown for these is not likely to be effective and should be evaluated.
12. **Sheet C2.30.1:** Clean up the contours at the boundary line between the two phases.
13. **Sheet C2.30.2:** The flow depth in *Celeste Avenue*, at the southwestern corner of the site, seems to overtop the curb and sidewalk and spill into the proposed baseball field. Address and resolve in the next submittal.
14. **Sheet C6.02: Section B:** Provide a flowline between the buildings to redirect flow away from the buildings and to prevent wear on the wall of the building. Revise the plan and the section detail accordingly.
15. **Sheet C6.02: Section C & Section D:** Same comment above applies.

***** 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/R60E/35
AREA L-35