

CITY OF LAS VEGAS			DATE:
INTER-OFFICE MEMORANDUM			February 7, 2019
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:
	Edwards Elementary School		Poggemeyer Design Group
Cross Streets:	SEQ of Bonanza Road & Lamb Boulevard		Clark County School District / Simpson Coulter Studios
File Number:	F:\Depot\DSMemos\DS5092A.doc		Bart Anderson, P.E., DevCo
Parcel Number:	140-32-104-001		CCRFCFCD
Zoning Action:	SDR-75118 & VAR-75116		
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	1/23/2019	2/7/2019	See Comments Below	\$400.00	502631: \$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 (**SDR-75118 & VAR-75116**) 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 re vised and resubmitted.
2. The site is adjacent to or crosses an existing or proposed *Clark County Regional Flood Control District* (CCRFCFCD) master planned facility. Therefore, CCRFCFCD concurrence is required prior to final approval of the drainage study.
3. The CN value calculated for OFF5 is incorrect and was used to calculate the Tlag value for the basin, which was used in the exiting condition HEC-1.
4. The areas used to calculate the CN value for OFF4 and OFF5 do not match the *Standard Form 4*, or the drainage condition map.
5. Provide contour on the existing condition map to confirm the drainage pattern that is shown.
6. **Developed Condition HEC-1:** The basin area, curve number, and Tlag values for ON3 do not match those provided on *Standard Form 4*.

7. **Developed Condition HEC-1:** The Tlag value used for ON6 does not match the one provided on *Standard Form 4*.
8. **Developed Condition HEC-1:** It appears that ON5 is missing in the model.
9. **Developed Condition HEC-1:** It appears that Tlag values less than 0.05 are used in the model. Review and revise accordingly.
10. **Figure 7:** Basin PAGE1 is labeled incorrectly as PAGE 2 and shows the wrong basin area.
11. **Figure 7:** Show the flow split SF1S.
12. **Sheets C3.03 & C3.04:** Label the base flood elevation (BFE) in the regional channel at regular intervals on the grading plans.
13. At the southeast corner of the site, it is proposed to replace an existing 8"-PVC with a box type under sidewalk drain. Should a note to remove an existing pipe headwall be revised to replace with a new headwall for structural integrity? Provide structural detail in the next submittal.
14. The finished ground slopes toward the mechanic building enclosure at 1.57%, revise the grading so that flow is not directed toward the mechanical building enclosure.
15. The following finish floors do not meet the Regional Flood Control District minimum criteria of twice the Q_{100} depth of flow up to 18-inches above the water surface (CCRFCD Manual Section 304.4.E.1) or 6-inch minimum above the highest adjacent top of curb (CCRFCD Manual Section 1602 304.4.E.1). The following finish floors should be revised or alternate flood protection provided.

TC	FF shown	Min FF
1769.14'	1769.45'	1769.52'
1769.15'	1769.45	1769.53'
1768.24'	1767.99'	1768.62'
1769.28'	1769.45'	1770.16'

16. Provide Finished Floor Elevations for all adjacent properties.
17. *City of Las Vegas* does not allow HDPE pipe in public right-of-ways or public drainage easements. Note that *City of Las Vegas* only allows the use of HDPE storm drain pipes for privately owned and privately maintained storm drain systems which serve and are located exclusively on private properties. Any proposed HDPE storm drain pipes must also meet all design criteria established by the *Clark County Regional Flood Control District* and must be installed per *Clark County Regional Transportation Commission Uniform Standard Drawings and Specifications*.
18. The overall parking lot improvement area is larger than 1 acre. Per **Section 1500** of the *Clark County Regional Flood Control District's Hydrologic Criteria and Drainage Design Manual*, the subject improvements must provide for Low Impact Development (LID) measures. Review and address the issue in the next submittal.

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
WSP/AYS

T/R/S: T20S/R62E/32
AREA N-32