

CITY OF LAS VEGAS INTER-OFFICE MEMORANDUM			DATE: 3/22/2022		
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:	
		Durango & Juliano		Taney Engineering	
Cross Streets:		Juliano Rd and Durango Dr		StorAmerica	
File Number:		F:\Depot\DSMemos\DS5550A.doc		Bart Anderson, P.E., DevCo	
Parcel Number:		125-29-502-032, -020, -025			
Zoning Action:					
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	3/9/2022	3/22/2022	See Comments Below	\$400	4674805: \$400
TOTAL FEES (LDDRS):				\$400	----

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.

The following are comments pertaining to the subject site specific drainage study and grading plans:

1. Provide a copy of the zoning/planning conditions associated with this site 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. Provide City of Las Vegas Minimum Drainage Study Criteria Standard Form 2 Checklist Supplement.
3. The Public Drainage Easement for 36-inch RCP must be at a minimum of 20-ft wide since Q100 is greater than 20-cfs.
4. The engineer must provide a table on the grading plans that shows a quantity estimate of all drainage improvements within Public Drainage Easements. All drainage improvements within Public Drainage Easements must be bonded and inspected.
5. In the existing condition, 60-cfs from the existing culver west of the project site on N Durango Drive drains to XCP3 per reference study and low point located just south of Regena Avenue on Juliano Road. Revise and reflect changes accordingly.

6. Provide a water spread calculation just upstream of proposed 5-ft by 5-ft area inlet. It appears that additional grading is needed upstream of 5-ft by 5-ft area inlet to direct flow into proposed drop inlet.
7. The provided calculations and Plan Profile sheet show that the HGL for the proposed Storm Drain capturing 60-cfs within *W Regina Avenue* does not meet the requirement of 1' below the Finished Ground. Consider connecting proposed storm to the existing 36-inch RCP at SDMH #EX1.
8. Regarding best management practices, fine, close-growing, water resistant grasses in the proposed landscape swale areas are preferred. Clearly identify as such on all pertinent plans.

Provide a note on all grading plans: 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.

9. The entrance driveway at the west entrance along *N Juliano Road* does not appear to have an adequate hump for onsite flood protection. Provide a hump of 6" minimum freeboard in the next submittal.
10. Provide a swale along eastern boundary to direct flow to the north or south. Do not drain flow the existing property to east.
11. Change storm drain manhole callout to Type III with 30-inch ring and cover.
12. Provide a cross-section of the riprap pad at the southeast corner. Callout base material for riprap.
13. 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.

BUILDING	FF SHOWN	FL SHOWN	MIN FF
Western Building	121.92	121.48	121.98
North Building	122.60	122.16	122.64
North Building	122.31	122.03	122.51
North Building	121.89	121.51	122.99
North Building	121.38	121.17	121.65
North Building	120.86	120.62	121.1
East Building	121.02	120.62	121.1
East Building	120.77	120.53	121.01
East Building	120.47	120.23	120.71
East Building	120.22	119.95	120.43
East Building	119.62	119.27	119.75
East Building	119.02	118.69	119.17
East Building	118.52	118.69	119.17
East Building	118.11	117.82	118.3
Center Building (North)	121.87	121.51	121.99
Center Building (North)	121.49	121.17	121.65
Center Building (North)	121.38	121.17	121.65
Center Building (North)	121.12	120.76	121.24
Center Building (East)	120.97	120.53	121.01
Center Building (East)	120.67	120.23	120.71
Center Building (East)	120.42	119.95	120.43
Center Building (East)	119.72	119.27	119.75

Center Building (East)	119.11	118.69	119.17
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14. **Figure 6 and 8:** The 10-yr and 100-yr slope for Juliano Street for the Existing and Ultimate Condition calculations do not match those shown on the exhibit.
15. **Figure 7 and 8:** The flowmasters provided that match the Regina Street values are titled "VACATE" not "REGENA" for the Dev 10-yr, DEV 100-yr, ULT 10-yr and the ULT 100-yr. Confirm that these are the correct calculations and update titles to match the exhibits.

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

T/R/S: T19S/R60E/S23
 AREA G-29