

DS #: 4784

APN: 138-12-801, 016

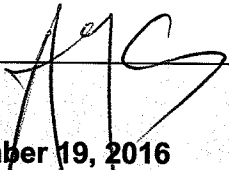
PROJECT: LV Asset Carwash

SUBMITTAL: NDOT & CCRFCO

SCANNED BY/DATE:

CHECKED BY/DATE:



CITY OF LAS VEGAS INTER-OFFICE MEMORANDUM			DATE:  September 19, 2016
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: LV Asset Carwash		COPIES TO: Dwyer Engineering
Cross Streets:	NEC of Cheyenne & Joann		LV Asset Holdings
File Number:	F:\Depot\DSMemos\DS4784C.ZNAE.doc		Bart Anderson, P.E., DevCo
Parcel Number:	138-12-801-016		CCRFC
Zoning Action:	SDR-56167; VAR-56168		NDOT - Hydraulics Section
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	2/24/2016	3/17/2016	Not Approved	\$400.00	425231: \$400
2 nd Submittal & Supplemental	5/3/2016, 6/20/2016, & 7/6/2016	6/6/2016, 6/23/2016, & 7/29/2016	Conditional Approval	\$400.00	442528: \$400
NDOT & CCRFC	7/19/2016 & 9/7/2016	9/19/2016	Concurrence Received	N/C	N/C
			TOTAL FEES (LDDRS):	\$800.00	----

REMARKS: Supplemental information has been provided to complete the review.

This site development is within a FEMA SPECIAL FLOOD HAZARD AREA, Zone AE. No permits of any kind will be issued for this project until a Conditional Letter of Map Revision (CLOMR/CLOMR-F) is received from FEMA.

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

X	is approved subject to conformance to all City standards and the following conditions:
	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 NDOT concurrence.

This site development is located within a FEMA SPECIAL FLOOD HAZARD AREA, Zone AE. No permits will be issued until a Conditional Letter of Map Revision (CLOMR/CLOMR-F) is received from FEMA. Permits may be issued upon the receipt of Conditional Letter of Map Revision (CLOMR or CLOMR-F) from FEMA.

1. A Letter of Map Revision (LOMR/LOMR-F) must be obtained from FEMA after the completion of any project within a FEMA Special Flood Hazard Area, Flood Zone "AE". The bonded improvements shall include a line item of **\$50,000.00** for the LOMR. The bonded improvements will not be released until the LOMR/LOMR-F is obtained from FEMA and filed with the City of Las Vegas.

2. The project proposes to construct facilities and/or increase flows within *Nevada Department of Transportation* (NDOT) right-of-way. The engineer must contact NDOT and obtain an encroachment permit for the proposed project.
3. The provided HEC-RAS models appear to accurately model the impacts. To clarify the flow split in the model at Cheyenne, update the Grading Plan to include a flow split arrow going east (260 cfs) and an arrow going south across Cheyenne (463 cfs). These models will be the basis for the CLOMR submittal once concurrence is provided from CCRFCD and NDOT Hydraulics.
4. The referenced preliminary Structural plans for the proposed storm drain improvements and pertinent flood control facilities have been included with the drainage study submittal. Update the Structural plans to show that the construction joints are 3" minimum above the channel/box invert. 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.
5. Provide a new public drainage easement (privately maintained by the property owner) for the area of the site impacted by the proposed flood zone. The easement shall note that the private drainage improvements are privately maintained and the easement must be dedicated and recorded by separate document prior to the final acceptance of the improvement plans. Provide legal description and an exhibit of the drainage easement to *Mary Wulff* (702-229-2139) of *City of Las Vegas Right of Way Section* for the recordation process after the subject drainage study is conceptually approved.
6. Update the table on the grading plans that shows the quantity estimate of all drainage related improvements. Include the wrought iron fencing necessary for the channel construction. All required drainage improvements within the Public Drainage Easements shall be bonded and inspected. This project shall require Special Inspection. Coordinate the requirements of and the Agreements needed for Special Inspection with the Building Department. The bonded improvements will not be released until the LOMR/LOMR-F is obtained from FEMA and filed with the City of Las Vegas.
7. Provide a detail of the wrought iron fencing connection to the channel and headwalls.
8. The proposed on-site drainage facilities are to be privately maintained. A note has been provided on the grading plan that "*All on-site drainage facilities are to be privately maintained.*"
9. Provide a Construction Note on the Grading Plan for the required wrought iron fencing.
10. A note has been provided on the grading plan: "*Property Owner is responsible to maintain the best management practices such as but not limited to the removal of accumulated sediment and debris and care of the vegetation.*"
11. The provided rip-rap landscape swales have been provided to meet Section 1500 of the HCDDM. Revise the rip-rap detail that includes the Base material and/or Geofabric.
12. The Engineer is to provide addresses for each building in a FEMA Flood Hazard Zone prior to obtaining a grading permit. This information is necessary to insure that the elevation certificates are provided for each address prior to completion of construction.

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: 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. FEMA Elevation Certificates, showing as-built finish floor elevations, must be completed for each building in the FEMA AE Zone. The certificate must be submitted to the *City of Las Vegas Flood Control Section* prior to scheduling a framing inspection.

END OF REMARKS

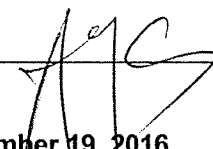
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T/R/S: T20S/R60E/12
AREA L-12

 *** FAX TX REPORT ***

TRANSMISSION OK

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 PSWD/SUBADDRESS
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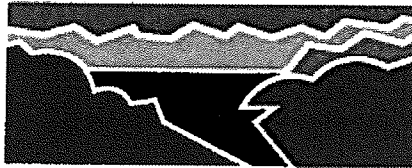
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This site development is located within a FEMA SPECIAL FLOOD HAZARD AREA, Zone AE. No

REGIONAL FLOOD
CONTROL DISTRICT



Rec'd: 9/7/16

n/c

Steven C. Parrish, P.E.
General Manager/Chief
Engineer

BOARD OF DIRECTORS

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Dr. Lois Tarkanian
City of Las Vegas

Mayor Rodney Woodbury
City of Boulder City

August 30, 2016

Mr. Oh Sang Kwon, P.E.
City of Las Vegas Department of Public Works
333 North Rancho Drive
Las Vegas, NV 89106

**DISTRICT CONCURRENCE: LV ASSET CARWASH
(DS 4784B) (RFCD No. 16-9715)**

Dear Mr. Kwon:

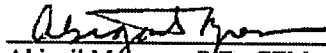
Clark County Regional Flood Control District (District) reviewed Technical Drainage Study dated February 23, 2016, Addendum No. 1 dated April 20, 2016, and Supplement No. 1 dated June 20, 2016 for above-mentioned project as submitted by DWYER ENGINEERING, INC. In addition, District is in receipt of the Conditional Letter of Acceptance from City of Las Vegas Department of Public Works dated July 29, 2016.

District concurs with acceptance of this Technical Drainage Study by City of Las Vegas Department of Public Works.

District's review of this project was limited to issues of Regional Flood Control Significance as defined in *Uniform Regulations for the Control of Drainage*. As noted in study, site resides in a Special Flood Hazard Area (SFHA) designated as "Zone AE" per the effective Flood Insurance Rate Map (FIRM). Therefore, consultant should be advised that this acceptance does not serve to amend the FIRM or remove the SFHA.

Please be aware that as additional information becomes available and/or restudies of Flood Insurance Studies are performed, information submitted by DWYER ENGINEERING, INC. may be superseded. Compliance with regulatory elements and design standards specified in *Uniform Regulations for the Control of Drainage* does not imply a guarantee that properties will be free from flooding or flood damage. The District, its officials, or employees assume no liability for information, data, or conclusions presented by consulting engineers. We, therefore, make no warranties, either expressed or implied, in conducting this review.

STEVEN C. PARRISH, P.E.
General Manager/Chief Engineer

BY: 
Abigail Mayrena, P.E., CFM
Principal Civil Engineer

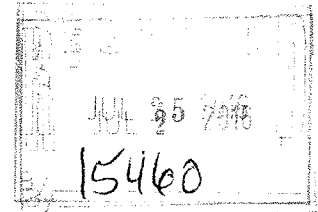
AM:eb
c: David Dwyer, P.E., Dwyer Engineering, Inc.

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BRIAN SANDOVAL
Governor

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
1263 S. Stewart Street
Carson City, Nevada 89712



RUDY Malfabon, P.E., Director

In Reply Refer to:

July 19, 2016

DWYER ENGINEERING
7310 SMOKE RANCH ROAD, SUITE E
LAS VEGAS, NV 89128

SUPPLEMENT #ADDENDUM #1
TECHNICAL DRAINAGE STUDY
LV ASSET CARWASH @ CHEYENNE &
JOANN WAY
CLARK COUNTY

Dear Mr. Dwyer:

The Nevada Department of Transportation (NDOT) Hydraulics Section has received and reviewed the following document(s) for the above-referenced project.

Document:	Dated:
Supplement #1 to Addendum #1 Technical Drainage Study for LV Asset Carwash @ Cheyenne & Joann Way	June 20, 2016

The drainage design information presented in the reviewed document(s):

	is acceptable in concept. Final Hydraulic Section approval will be based on review of final design documents submitted with the NDOT Right-Of-Way Occupancy Permit application that must be submitted for this project.
X	is acceptable in concept. Final Hydraulic Section approval will be based on review of final design documents submitted with the NDOT Right-Of-Way Occupancy Permit application that must be submitted for this project. The following comments should be addressed with the permit application:
	must be supplemented or modified to satisfy the following comment(s) before preliminary Hydraulic Section approval can be granted:

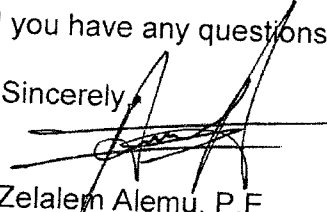
- Please follow up on comments made via email (attached) at time of permit submittal

All submittals regarding this project must be forwarded through (or copied to) the local NDOT District permitting office. All pertinent drainage design documents (including those previously submitted for preliminary review) must be submitted to the local NDOT District permitting office with the Right-Of-Way Occupancy Permit Application. All plans and reports must be signed and stamped by a Nevada registered civil engineer.

No liability is assumed by the Department in performing this review. Verification and acceptance of all background information, design data and conclusions is the responsibility of the consulting engineer.

Please call me at (775) 888-7287 should you have any questions.

Sincerely,



Zelalem Alemu, P.E.
Senior Hydraulic Engineer

Enclosures

c: Charles Molisee, District 1 Permit Coordinator
Charles Pratt, HQ Permit Coordinator