



DS#

2748

DS INDEX

APN

125-25-302-001


PROJECT

Elementary School at El Campo Grande & Bradley

3rd

SUBMITTAL



<b>CITY OF LAS VEGAS</b>		<b>DATE:</b>	
<b>INTER-OFFICE MEMORANDUM</b>		November 2, 2000	
<b>TO:</b> Land Development Services Department of Public Works		<b>FROM:</b> Randy Fultz, P.E.  Flood Control Project Manager Department of Public Works	
<b>SUBJECT:</b> Drainage Study for: <b>Elementary School at El Campo Grande &amp; Bradley</b>		<b>COPIES TO:</b> Clark County School District Nevada By Design, LLC JMA Architecture Studios Cheri Edelman, P.E., CLV DevCo	
<b>Cross Streets:</b>	NW of El Campo Grande Av. & Bradley Rd.		
<b>FILE NO.:</b>	F:\Depot\DSMEMOS\DS2748C.doc		
<b>Parcel Number:</b>	125-25-302-001		
<b>Zoning Action:</b>			
<b>FEMA Flood Zone</b>	YES	NO	X
<b>Proposed Storm Drain</b>	YES X	NO	

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES
1 <sup>st</sup> Submittal	07/25/2000	08/08/2000	Not Acceptable	N/C
2 <sup>nd</sup> Submittal	09/25/2000	10/05/2000	Not Acceptable	N/C
3 <sup>rd</sup> Submittal	10/25/2000	11/02/2000	See Comments Below	N/C
			<b>TOTAL FEES:</b>	<b>N/C</b>

**REMARKS:**

3<sup>rd</sup> Submittal (Addendum 2)

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

	is acceptable in concept subject to conformance to all City standards and the following conditions.
X	must be resubmitted or supplemented including the following:
	must have Clark County Regional Flood Control District concurrence

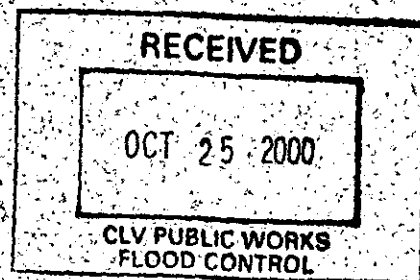
- The engineer indicates the flows from the west of Leon Avenue will drain through sidewalk drains to standard street drop inlets. However, no sidewalk drains were being shown along the west sidewalk and will need to be clearly addressed. A recommended alternate to this is to drain into the back of the catch basins.
- The response to previous Comment 1 also indicates the proposed 18-inch storm-drain is discharging directly into an existing 54-inch storm-drain, while the lateral profiles indicated this 18-inch connected to existing concrete box with solid grout around the joints. A CLV staff field inspection shows a large grate inlet into a box structure that discharges to the 54-inch RCP. This structure must be shown on a detail with the 18-inch RCP connection.
- The outfall details on Sheet C9.01, showing a 21-inch pipe with 48-inch wide outlet that is discharged into a 2-foot sidewalk under-drain. This outlet structure should not be wider than 24-inch. Also, the detail on C9.01 shows a 21-inch storm-drain discharging into this flume, where Sheet C3.01 indicates only an 8-inch PVC drain. Please clarify.
- Notes 11 and 19 (SD) on Sheet C4.01 are for a 2-foot sidewalk under-drain and a matching concrete flume. These notes must be labeled on each location on all plans, where a flume and sidewalk drain are required.

5. The typical section for Leon Avenue on Sheet C5.01 must clearly show and label the extent of the retaining/screen wall at the west back of sidewalk. Multiple block-wall openings must be provided to pass 300cfs identified in the drainage study. Three 20-foot wide block-wall opening with wrought iron gates must be provided to pass this flow. The opening must be centered on the valley gutter at Corbett Street and El Campo Grande Avenue, and behind the inlet in Leon between Corbett and El Campo Grande.

**END OF REMARKS**

ssn

T/R/S: T19S/R60E/25  
AREA G-25



2748

625

AC

**ADDENDUM #2  
TO THE  
TECHNICAL DRAINAGE STUDY  
FOR THE  
ELEMENTARY SCHOOL AT  
EL CAMPO GRANDE AVENUE  
AND BRADLEY ROAD**

**NBD Project CE00041  
CCSD Project 1461  
October 25, 2000**

Prepared by:

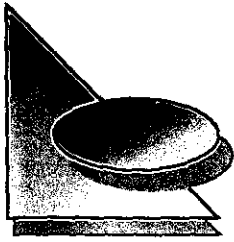
*Nevada By Design*  
3515 E. Harmon Avenue  
Las Vegas, Nevada 89121

**ADDENDUM #2  
TO THE  
TECHNICAL DRAINAGE STUDY  
FOR THE  
ELEMENTARY SCHOOL AT  
EL CAMPO GRANDE AVENUE  
AND BRADLEY ROAD**

**NBD Project CE00041  
CCSD Project 1461  
October 25, 2000**

Prepared by:

*Nevada By Design  
3515 E. Harmon Avenue  
Las Vegas, Nevada 89121*



# Nevada By Design

ENGINEERING CONSULTANTS

3515 E. Harmon Avenue ■ Las Vegas, NV. 89121 ■ Phone 702•938•1525 ■ Fax 702•938•1530

October 25, 2000

City of Las Vegas  
Department of Public Works  
731 South Fourth Street  
Las Vegas, Nevada 89101  
Attn: Mr. Randy Fultz, P.E.

**RE: Technical Drainage Study - Addendum #2, Submittal #3 Elementary School at El Campo Grande Avenue and Bradley Road CCSD Project 1461**

Dear Mr. Fultz:

This letter is in response to your comments dated October 6, 2000 and our meeting on October 11, 2000, regarding the above referenced project.

## CITY OF LAS VEGAS COMMENTS

**Comment 1 (Repeated from previous memo) Leon Avenue is designed to be raised approximately 3 ft. at Station 13+30 (Sheet C5.01). Grading to the west must be shown how to tie the proposed fill back to the existing grade in adjacent property. A notarized letter of permission for offsite grading and the proposed fill in Leon Avenue must be obtained from the adjacent property owner prior to final acceptance of this study.**

**(Clarification) per site visit by City of Las Vegas Flood Control Staff on 10/5/00 this site is undergoing mass grading. The resolution of this comment may affect the grading in progress. It appears that an offsite drainage basin will impact the west side of Leon Avenue. The proposed retaining/screen wall on the west R/W line of Leon will block these flows. Address how these flows will be routed. Provide additional information on the grading plans to show positive drainage. Drainage along the back of the lots adjoining Leon will not be allowed without consent from the property owners affected and public drainage easements to be privately maintained.**

*Response 1* Noted. Per our meeting on 10/11/00 with Flood Control Staff at the City of Las Vegas (Randy Fultz), we have redesigned Leon Avenue and El Campo Grande to standard street sections with centerline crowns and 2% cross slope to type "L" curb and gutter. We have redesigned Leon Avenue to 0.4% longitudinal slope and moved

the high point to within 100 ft. of Corbett St. The retaining/screen wall (City Standard Detail B-101) remains at the back of sidewalk as shown on the typical section for Leon Avenue.

Additionally, we have designed an 18" dia. storm drain to pickup the flows from the west of Leon Avenue (existing horse property) with through sidewalk drains to standard street drop inlets and from the north side of El Campo Grande to standard drop inlets and discharge directly into the existing 54" dia. storm drain on the south side of El Campo Grande. The size of the storm drain, 18" dia., was approved by the Las Vegas Flood Control Staff (no capacity calculations required). Enclosed are the revised grading and improvement plans.

**Comment 2** The grading plans show the intersection of Leon and El Campo Grande to be raised approximately one foot blocking offsite flows and the entrance to the existing drainage facility at the same corner. In addition, street plan and profiles in Sheet C5.03 show a low point in El Campo Grande at Station 10+65. Address how these flows will be routed and show existing or proposed inlets for the existing drainage facility.

*Response 2* Noted. Per Response No. 1 above, we have revised El Campo Grande to a standard crown section and designed drop inlets on the north side with an 18" storm drain to discharge into the existing 54" storm drain on the south side of El Campo Grande. The intersection of Leon and El Campo Grande is now designed to tie into the existing pavement. The low points on El Campo Grande is existing and provide positive drainage to the existing concrete lined trapezoidal channels on the south side. We have matched the existing pavement and provided for a minimum 0.4% slope in the gutter to drain to the proposed drop inlets.

**Comment 3** (Repeated from a previous memo) in Sheet C4.03, the proposed drainage intends to sheet flow onto the future parcel to the east adjacent to Bradley Road. As stated in the study, the undeveloped portion will be parceled out; a public drainage easement to be privately maintained must be granted in the future parcel to perpetuate onsite drainage. The parcel map must provide for the drainage easement. The parcel map will not be recorded without the easement.

*Response 3* The Clark County School District (CCSD) has no intention of selling any portion of the property. Although, there are currently some discussions for a park, the CCSD will retain ownership. Subsequently, there is no need for a parcel map or the drainage easement as discussed in this comment.

**Comment 4** Storm drain construction details “Storm drain outlet transitions” and “Connection of PVC storm drain laterals to RCP mainlines” show 18 to 24 inch storm lines while the utility plans show an onsite 8” storm drain line. Correct discrepancy.

*Response 4* Noted. The referenced detail is not applicable and subsequently has been removed from the Detail Plan Sheet C9.01.

**Comment 5** Typical Street section shows 2% minimum street slope from the curb and gutter to the street centerline in Corbett. Street capacity sections in the drainage study show standard street cross sections with normal crown. Correct discrepancy.

*Response 5* Noted. The Street-plan and Profile Sheets C5.05 and C5.06 have been revised to the correct typical section with the standard crown and 2% cross slopes to the type “L” curb and gutters.

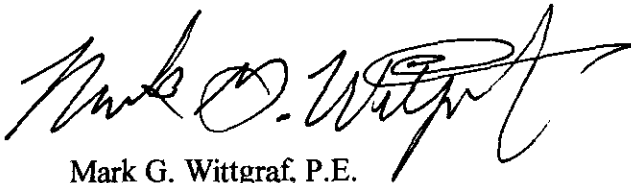
**Comment 6** Depth of flow calculation Section A-A for Corbett shows Q100 water surface elevation above the back of sidewalk. Provide a stem wall six inches above Q100 water surface elevation at back of sidewalk for erosion control.

*Response 6* Noted. As shown in the depth of flow calculations in Addendum No 1 for Corbett Street (Section A-A), the Q100 is 0.08’ above the back of sidewalk. We have revised the Plan and Profile Sheets C5.05 and C5.06 to provide for an eight inch Type “A” curb at the back of sidewalk. This will yield more than the required 6” of freeboard for the Q100 (72 cfs).

If you have any questions or comments, please don’t hesitate to call this office at (702) 938-1525.

Sincerely,

**NEVADA BY DESIGN**



Mark G. Wittgraf, P.E.  
Senior Engineer

DCN: 102301

