

WCP0902.004

May 10, 2013

Kevin Eubanks, P.E., CFM – Assistant General Manager
Clark County Regional Flood Control District
600 S. Grand Central Parkway, Suite 300
Las Vegas, NV 89106-4511

**Subject: Executive Summary for the Kyle Canyon Amendment to the
2008 Las Vegas Valley Flood Control Master Plan Update**

Mr. Eubanks:

Submitted for your review is this *Kyle Canyon Amendment to the 2008 Las Vegas Valley Flood Control Master Plan Update*, prepared to address addition, removal and realignment of regional flood control facilities resulting from the development of the Kyle Canyon master planned community. A conceptual study entitled, *Master Drainage Study for Kyle Canyon* prepared by Slater Hanifan Group (SHG), has received approval from City of Las Vegas Public Works (CLV) with condition of processing an Amendment to the 2008 Las Vegas Valley Flood Control Master Plan Update (2008 MPU). The existing 2008 MPU has proposed flood control facilities and routing schemes based on an outdated land plan for the Kyle Canyon area, and this Amendment addresses the required revisions to the 2008 MPU to conform to the current land plan. The drainage patterns and necessary regional facilities were presented in the approved *Master Drainage Study* that has received CCRFCD concurrence.

The chief differences presented in this Amendment that have modified the hydrologic patterns and regional facilities from the 2008 MPU are identified as the following:

- Sheep Mountain Parkway formerly traversed the western edge of the Kyle Canyon property, crossing US-95 north of Kyle Canyon Road and extending directly into the LVMO alignment at approx. Hualapai Way. A regional facility was proposed in the former Sheep Mountain Parkway alignment that acted as a hydrologic cut-off boundary for all storm flow generated to the west. However, the current Sheep Mountain Parkway alignment now bisects the Kyle Canyon property in a southwest to northeast direction, crosses US-95 at the Kyle Canyon interchange and extends to match into the LVMO alignment at approx. Tee Pee Lane. The offsite storm flows generated to the west are now routed thru Kyle Canyon to the realigned Sheep Mountain Parkway.
- Permanent detention has been proposed along the western edge of the Kyle Canyon property, and its outfall facilities route flow internally toward Moccasin Road. Offsite storm flows generated to the west are routed into the detention areas.
- The Kyle Canyon property has proposed a less dense product than previously assumed.
- Flow splits have been re-quantified along Fort Apache Road to conform more closely to the CLV Northwest Neighborhood – Phase 2 Flood Control Master Plan.

In total, the estimated costs for flood control facilities required for flood protection of the Kyle Canyon property has been summarized below. The below table demonstrates that the cost to the public to construct Category A flood control facilities, in addition to the overall cost of flood control facilities required by the Kyle Canyon property, is less than planned for in the 2008 MPU. It is acknowledged that the estimated cost to construct Category B flood control facilities is

greater than anticipated in the 2008 MPU, because the conveyance of the flows in the Sheep Mountain Parkway alignment have been transferred from a Category A cost to a Category B cost. The increase to Category B cost is considered the responsibility of the private developer and it is assumed that no additional public funding will incur to construct the required addition of these facilities. Furthermore, the overall cost of flood control facilities has been reduced due to the usage of regional detention and accounting for a less dense residential community on the Kyle Canyon property.

Total Cost Comparison for Kyle Canyon Amendment Facilities		
Type	2013 Kyle Canyon Amendment Cost (\$ x 1000)	2008 CCRFCD MPU Cost (\$ x 1000)
Category A	\$51,270	\$92,565
Category B	\$42,852	\$31,122
Grand Total	\$94,122	\$123,687

This Master Plan Amendment sets forth the most effective structural and regulatory means for correcting existing problems of flooding in the area and dealing with the probable effects of future development (NRS 543.590[3]). All hydrologic and hydraulic analyses prepared by this Amendment are in conformance with CCRFCD criteria outlined when preparing the 2008 MPU. Adoption of this Amendment conforms to the District's mission to *"...improve the protection of life and property for existing residents, future residents, and visitors from the impacts of flooding."*

If you have any questions or require additional information, please do not hesitate to contact us at 284-5300.

Respectfully Submitted,

SLATER HANIFAN GROUP

Steve Jones, P.E.
Project Manager – Flood Control Division

pc: Todd Steadham, P.E., LEED-AP – SHG
Michael Ross, P.E. – Carwin Advisors
Mark Failla, P.E., CFM - SHG

