





## PROGRESS MEETING AGENDA AND MINUTES

**Project Name:** Lafayette-Louisville Boundary OSP  
**Project No.:** 08-07.01A  
**Date:** July 31, 2009  
**Time:** 1:30 p.m.  
**Location:** City of Lafayette

1. Attendance: (see attached list)
2. Project Participants: UDFCD, City of Lafayette, and City of Louisville, Boulder County
3. Project Schedule and Milestones: **The Final Hydrology Report has been accepted. We expect the draft Phase A Alternatives Evaluations Report to be submitted in early September.**
5. Alternatives: MWE conducted a preliminary evaluation of three alternative scenarios, 100-year conveyance, 10-year conveyance, and detention options. With guidance from the District, only detention and 100-year conveyance alternatives will be evaluated for this project.
6. 100-Year Conveyance Alternative: 100-year design flowrates and preliminary conveyance options including channel sections, storm sewer sizes, and alignment options were summarized for each drainageway. Key system deficiencies and potential alternatives were discussed at the meeting.
  - a. **Drainageway A:** The land between the railroad and Highway 42 is a revitalization area, and includes the planned RTD station. There is an existing 60" pipe and an existing 48" pipe at the railroad crossing with a combined capacity approximately 90 cfs less than the 100-year design flow. After the railroad crossing, the 48" pipe ties into the 60" storm sewer, which continues through the Highway 42 crossing. Currently, the 60" storm sewer is very deep and ends after Highway 42 below the existing ground at a concrete bubbler. The reach between the railroad and Highway 42 is densely developed, so a surface channel is not feasible. A new parallel 60" storm sewer would provide 100-year capacity. The existing pipe and the new parallel pipe will need to daylight to an open channel after the Highway 42 crossing. The minimum required channel width after Highway 42 is 58 feet, using the District's guidelines of a maximum normal depth of 5 feet and 4:1 side slopes, but the required right-of-way would be approximately 100 feet due to the depth of the 60" pipe at the outlet. The Drainageway A channel alignment will need to consider the soccer fields proposed in the Harney Lastoka Open Space east of Highway 42. Peter will provide a conceptual layout of the soccer fields.
  - b. **Drainageway A-2:** The existing inlet grate just upstream of the railroad crossing is only about 4 inches below the finished floor of Old Louisville Inn. The inlet grate should be lowered to provide freeboard to the buildings. A key challenge with the Drainageway A-2 railroad crossing is the minimal headwater depth. To keep the pipe depth reasonable, we recommend parallel 60" pipes to continue through Highway 42. We will look at using the existing 30" culvert and a minor channel between the railroad and Highway 42 to alleviate some demand on the underground storm system. The piped drainageway would transition to an open channel east of Highway 42. The alignment of the channel will need to consider both the planned soccer fields and the Mayhoffer private ditch. The required depth on the parallel 60" pipes makes any combination of Drainageway A-2 and Drainageway B difficult. MWE will look into the possibility of shallower box culverts at the railroad crossing.
  - c. **Drainageway 7-1:** The existing 20"x30" CMP culvert at Highway 42 will need to be replaced with approximately 2-3'x6' box culverts to handle the 100-year design flow. There are two small detention ponds to the east of Highway 42 that currently accept runoff, but the overflow goes to the community gardens. This area currently floods during small nuisance storms. The proposed channel east of Highway 42 would have a minimum top width of 46 feet. David will provide a layout of the historic buildings and the community gardens to be added to the maps for this project. MWE will take a look at an alignment of Drainageway 7-1 that will have minimal impact on the historic buildings and the community gardens. Also, MWE will look into detention in the vacant parcel just upstream from the Highway 42 crossing.

- d. **Drainageway 7-2:** The undetained 100-year peak runoff from this mixed commercial and residential basin is high, approximately 520 cfs at S. Boulder Road. The S. Boulder Road crossing would require 2-4'x7' box culverts. The channel downstream of South Boulder Road would have a minimum required width of 51 feet. Detention will be an alternative for this basin, as discussed in further detail below.
  - e. **Drainageway 7:** The design 100-year flowrate for the outfall to Coal Creek is approximately 2,100 cfs when Drainageway A-2 is conveyed to Drainageway A/Drainageway 7. A channel with a minimum top width of 125 feet would be required. According to Peter, the existing drainage easement is only 40 feet.
  - f. **Drainageway B:** There is an existing 60" storm sewer from west of the railroad to east of Highway 42. The storm sewer outlets into a concrete channel. The existing system was designed for the 5-year storm, but assuming that no overflow from Drainageway A-2 is conveyed the Drainageway B the existing system has capacity for approximately the 10-year storm. Proposed culvert crossings at the railroad and Highway 42 and an open channel with a minimum top width of 30 feet in between would provide enough capacity when combined with the existing 60" pipe.
7. **Detention Alternatives:** Several detention alternatives have been evaluated to reduce the 100-year peak flowrates. Expansion of the existing Parcel R Pond on Drainageway A would be feasible, but the detention is located too far upstream to significantly impact Drainageway A flowrates at the railroad crossing and further downstream. A new detention pond located along Drainageway A-1 on the property of the First Baptist Church of Louisville would have a more significant impact on the Drainageway A flows, but David expressed that obtaining the land may be difficult. Detention for Drainageway A-2 at the baseball field located just west of Highway 42 would have significant impacts on Drainageway A flowrates, and would alleviate any alignment issues for Drainageway A-2 and the soccer fields. However, David stated that the baseball field is historical, and is not a feasible detention option. The baseball detention will not be included in the Phase A Report. The last detention option evaluated was a regional detention pond for the North End Development. The North End detention would minimize the required Drainageway 7-2 S. Boulder Road crossing and also lessen the flows in the Drainageway 7 outfall to Coal Creek. Another option discussed for the North End basin would be to bring all five existing and proposed ponds up to the District's standards, rather than constructing one regional pond. MWE will evaluate expanding the existing Middle School Detention and Lake Park Pond located along Drainageway A. The drainageway reaches will be checked for erosion and sediment build-up. Water quality control features may need to be added to the existing detention facilities.
8. **Next Progress meeting:** The next meeting date has not been set. We anticipate that the next meeting will take place after the Project Sponsor's have reviewed the draft submittal of the Phase A Alternatives Evaluation Report.
9. **Please contact Aaron Asquith or Brooke Sullivan at McLaughlin Water Engineers in the event these progress meeting minutes need to be amended in any way at (303) 964-3333.**