



DATE: November 2, 2017

TO: City/County Subdivision Storm Drainage Board

FROM: Brian Kelley, Stormwater Programs Manager

SUBJECT: 2018 FEE STUDY

Following is a summary of research on drainage construction costs with a recommendation regarding the annual review of the Drainage, Bridge and Detention Pond fees in 2018 to adjust for inflationary costs.

Background. The City's Drainage Code includes the following paragraph about annual fee adjustments:

City Code:

7.7.902: STUDIES OF DRAINAGE BASINS:

Prior to January 1 of each year the unit drainage fee and the unit detention reservoir land fee shall be reviewed by the Drainage Board who shall make a recommendation to the City Council as to any adjustment to the fees. *Upon such recommendation the City Council shall establish by resolution the unit drainage fee and the unit detention reservoir land fee in each drainage basin to be effective January 1 of each year.* Said fees will be reestablished in accord with changes in construction and other costs or revisions suggested by additional studies or other information obtained. (Ord. 96-44; Ord. 01-42; Ord. 02-130; Ord. 08-44) (Emphasis added)

Drainage Basin fees shall be reviewed and adjusted annually in order to comply with City Code and to stay current with reimbursement costs. The purpose is to ensure consistent, fair, and equitable reimbursements for the costs of constructing public stormwater infrastructure.

No adjustments to the overall basin were made in 2014 and 2015, therefore the drainage basin fees were increased by 4.8% in June of 2016, and 3.5% in February of 2017 with the adoption by City Council at the recommendation of the City/County Drainage Board. There was no adjustment based upon a forecast for 2017.

Data Sources:

As was done in past years, this analysis looks back at actual construction cost increases for the past year and current full year (2016 and 2017) and includes a forecast for 2018.

The research for this year's survey includes data from:

- Colorado Department of Transportation (CDOT) Colorado Construction cost index data;
- Denver-Boulder-Greeley consumer price index (CPI-U);
- Cost data per Engineering News Record (ENR); and
- Local developers, contractors, consultants, and providers of construction materials.

Colorado Department of Transportation (CDOT) Colorado Construction Index Report (“CCI”):

For specific construction items (Earthwork, Structural Concrete, and Reinforcing Steel) the average cost increased by 1.31% from the second quarter of 2016 to the second quarter of 2017. If the 1st and 2nd Quarters are near the average of the previous four quarters, then the overall change during 2017 will likely be around 1%. The CCI is difficult to rely on as the projects that CDOT completes vary widely in location, size, scope, and CDOT’s own materials availability. As is evidenced below, the cost of structural concrete is the highest increase, consistent with what we have seen with the local construction industry.

<u>Item</u>	<u>2nd Quarter. 2016 Index</u>	<u>2nd Quarter. 2017 Index</u>	<u>% Change (averaged over year)</u>
Earthwork (Price (\$/CY))	12.7	13.35	5.12%
Structural Concrete Price (\$/CY)	623.45	632.98	1.53%
Reinforcing Steel Price (\$/LB)	1.11	1.08	-2.70%
			1.31%

Consumer Price Index (CPI-U): Denver-Boulder-Greeley CPI-U information for 2016 indicates all items less food and energy index advanced 3.5%. In addition, CPI-U from the first half of 2016 to the first half of 2017 shows a 2.7% increase.

Excerpt from Table 1. Consumer Price Index for All Urban Consumers (CPI-U): Indexes for semiannual averages and percent changes for selected periods Denver-Boulder-Greeley				
	Semiannual average indexes			Percentage change to 1st half of 2017 from 1st half 2016
Item and Group	1st Half 2016	2 nd half 2016	1 st half 2017	
Denver Boulder CPI - All Items less Energy	254.50	256.663	261.265	2.7
Denver Boulder CPI (less Food and Energy)	260.025	262.726	267.10	2.7

Engineering News Record (ENR): From July 2016 to July 2017, the 20-City Construction Cost Index indicates an increase of +4.0% and the Denver Construction Cost Index (from ENR) at +3.9% indicating a market increase in line with the national average.

Calculations were based upon the following commodities: Concrete, 4000 psi; Reinforced Concrete Pipe (average of 24", 36" and 48"); Rebar, Grade 60, #4; Common Labor and Skilled Labor, comparing July 2016 to July 2017.

Materials & Labor (ENR, July 2016 to July 2017, for Denver)			
Item	July 2016 Index	July 2017 Index	% Change (averaged over year)
Concrete, 4000psi	119.38	122	2.19%
Pipe (avg. of 3 sizes)	65.06	66.49	2.20%
Rebar, Grade 60, #4	52.5	52.95	0.86%
Common Labor	786.97	818.18	3.97%
Skilled Labor	742.35	755.64	1.79%
			2.20%

Based on these ENR statistics for the Denver area and a normal mix of labor and materials, a typical drainage project likely saw an increase of approximately 2.2%.

Local Construction Costs (compiled by contacting local drainage construction contractors, consultants, materials providers, and developers):

City staff studied local project costs including concrete, rock, pipe and labor from 2016 to 2017, as well as developer constructed in place costs, and reported an average increase of approximately 8% in industries that support drainage projects. Of those providing a projection for 2018, the increase was anticipated to be equivalent for 2018.

Much of the local cost increases cited were attributed to the extremely high demand for construction services for the combination of local land development growth, the 2C ballot measure, dedicated stormwater funding, and high increases by cement suppliers, along with an increase in skilled labor costs.

Summary:

2017 Overall: Using weighted averages based on the impact of local contractor and consultant data for 2016 and 2017 and ENR (Denver), CDOT and the CPI, for the same time period, it is estimated that overall drainage construction costs have increased an average of 5.7% from the second quarter of 2016 to the second quarter of 2017.

2018 Forecast: **The Governor’s Office of State Planning and Budgeting** has forecast an increase to the Consumer Price Index of 2.9% for 2017 and an increase of 2.6% for 2018.

Recommendation:

With an adjustment based on actual data from July 2016 compared to July 2017 of 5.7%, **staff recommends an increase of 5.7%** over the 2017 drainage, bridge and detention pond facility fees, to include the Miscellaneous Basin fee, and approval of the attached fee schedule effective upon City Council approval.

There has been no adjustment to the Park Land Dedication Fee (\$76,602 per acre); therefore the Detention Pond Land fee will remain the same as 2017.