

## Memo

**To:** Addressees

**From:** Nancy Sannes  
Estimates Engineer

**Date:** August 2, 2018

### **RE: Highway Construction Cost Index – 1st Quarter 2017**

---

The Minnesota Highway Construction Composite Cost Index for the 1st Quarter 2017 was 276.14.

- The average Excavation cost was \$4.30/CY, down \$2.72/CY from the 1st Quarter of 2016. Eleven (11) projects were considered this quarter.
- The average Reinforcing Steel cost was \$1.18/lb, down \$0.08/lb from the 1st Quarter of 2016. Fifteen (15) projects were considered this quarter.
- The average Structural Steel cost was \$1.44/lb. One (1) project were considered this quarter.
- The average Structural Concrete cost was \$681.37/CY, up \$33.75/CY from the 1st Quarter of 2016. Fourteen (14) projects were considered this quarter.
- The average Concrete Pavement cost was \$146.48/CY, up \$7.69/CY from the 1st Quarter of 2016. Three (3) projects were considered this quarter.
- The average Plant Mixed Bituminous cost was \$49.66/ton, up \$3.38/ton from the 1st Quarter of 2016. Twenty two (22) projects were considered this quarter. Oil prices in the 1<sup>st</sup> Quarter of 2017 have increased. *Poten & Partners* reports a 21% cost increase between January and March of 2017.

The average number of bidders per project was 3.93 for 1st Quarter of 2016. In comparison, the average number of bidders in the 1st Quarter of 2017 was 4.73.

1st Quarter 2017 project information is compared to 1st Quarter 2016 below.

**Table 1: Indicator Costs**

Item	1st Quarter 2016			1st Quarter 2017		
	Quantity	Cost *	Unit Cost	Quantity	Cost *	Unit Cost
<b>Excavation</b>	607,972 CY	\$4.27	\$7.02/CY	1,869,023CY	\$8.03	\$4.30/CY
<b>Reinforcing Steel</b>	1,633,449 lb	\$2.06	\$1.26/lb	2,913,291 lb	\$3.44	\$1.18/lb
<b>Structural Steel</b>	**	**	**	5,553,410 lb	\$7.99	\$1.44/lb
<b>Structural Concrete</b>	9,266 CY	\$6.00	\$647.62/CY	23,531 CY	\$16.03	\$681.37/CY
<b>Concrete Pavement</b>	240,791 CY	\$33.42	\$138.79/CY	36,983 CY	\$5.42	\$146.48/CY
<b>Plant-Mixed Bituminous</b>	671,274 ton	\$31.06	\$46.28/ton	743,541 ton	\$36.93	\$49.66/ton
<b>Total</b>		\$76.81			\$77.85	

\* Millions of dollars

\*\* Not computed due to absent data.

**Table 2: Minnesota Highway Construction Project Summary**

	1st Quarter 2016	1st Quarter 2017
<b>Number of Projects Awarded</b>	72	58
<b>Awarded Amount (\$ million)</b>	\$270.49	\$277.21
<b>Total Number of Bidders</b>	283	253
<b>Average Number of Bidders</b>	3.93	4.36
<b>Number of Cost Index Projects</b>	31	32
<b>Cost Index Amount (\$ million)</b>	\$76.81	\$77.85
<b>Excavation Index</b>	350.11	214.30
<b>Structures Index</b>	**	294.02
<b>Surfacing Index</b>	263.93	282.33
<b>Composite Cost Index (CI)</b>	**	276.14

\*\* Not computed due to the absence of data for associated indicator items.

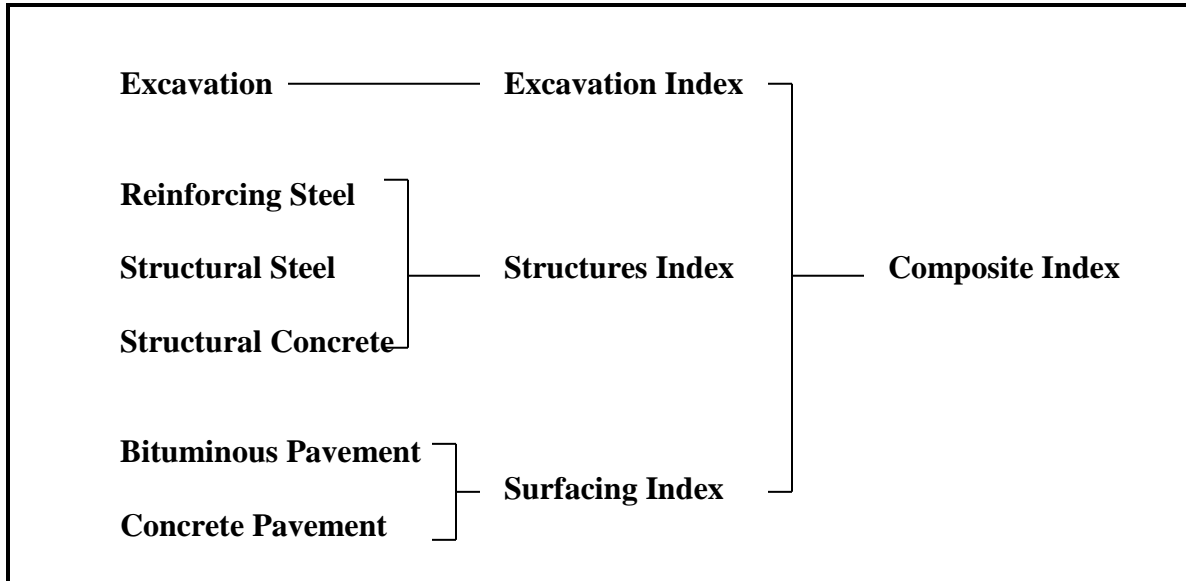
Attached is an explanation of how the Minnesota Cost index is computed, as well as charts of quarterly and annual Minnesota highway construction cost trends.

Attachments

# Minnesota Construction Cost Index

The Minnesota Construction Cost Index is an indicator of price trends for highway construction.

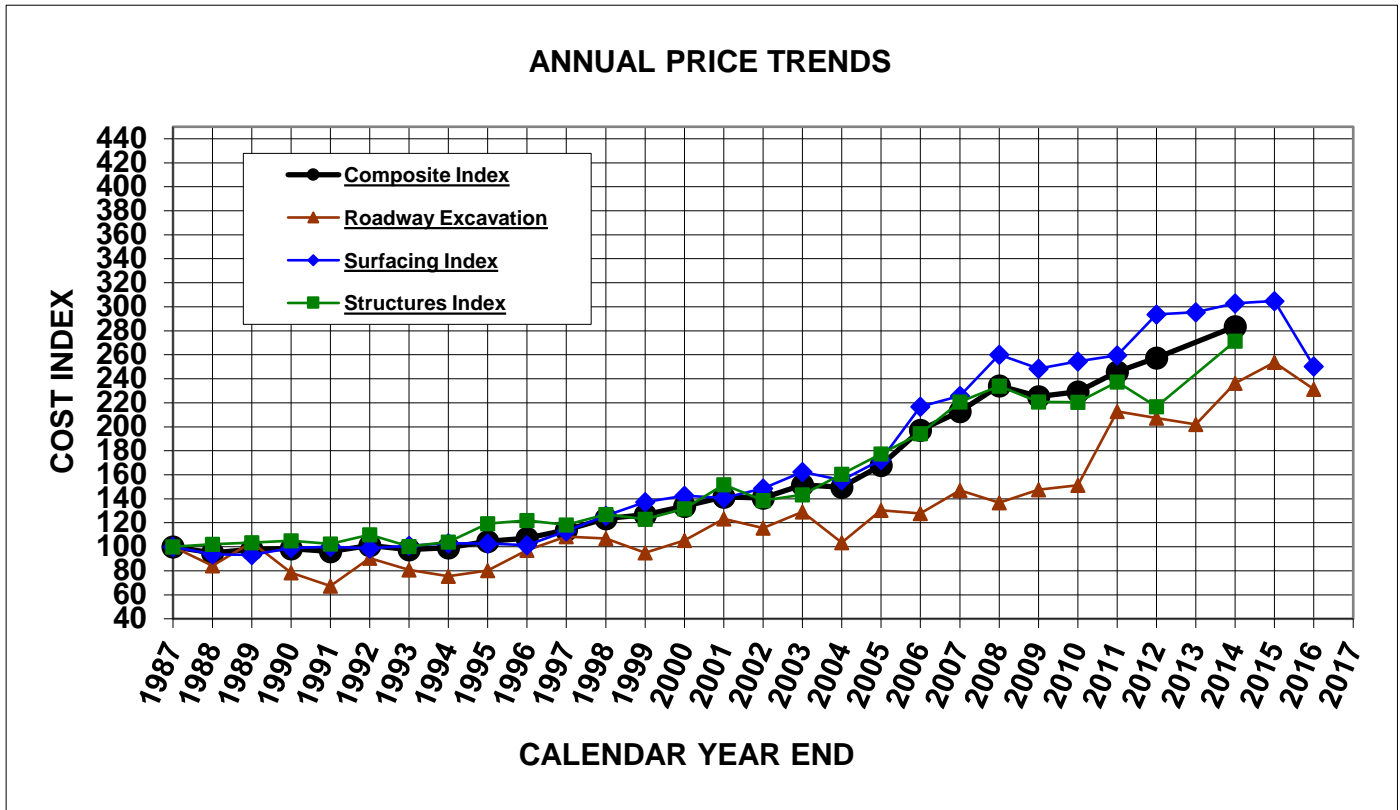
It is composed of six indicator items: roadway excavation, to indicate the price trends for all roadway excavation; concrete pavement and plant-mixed bituminous, to indicate the price trend for all surfacing types; and reinforcing steel, structural steel, and structural concrete, to indicate the price trend for structures.



Each quarter, an average unit price is computed for each indicator item. The unit price is based upon the actual bids from projects **excluding Design Build projects**, costing more than \$100,000, and let during that quarter. These unit prices include the cost of material, labor, equipment, overhead and profit.

These unit prices along with the 1987 base unit prices and quantities are used to compute the Excavation, Surfacing, Structures and Composite Index.

## Minnesota Highway Construction Cost Trends



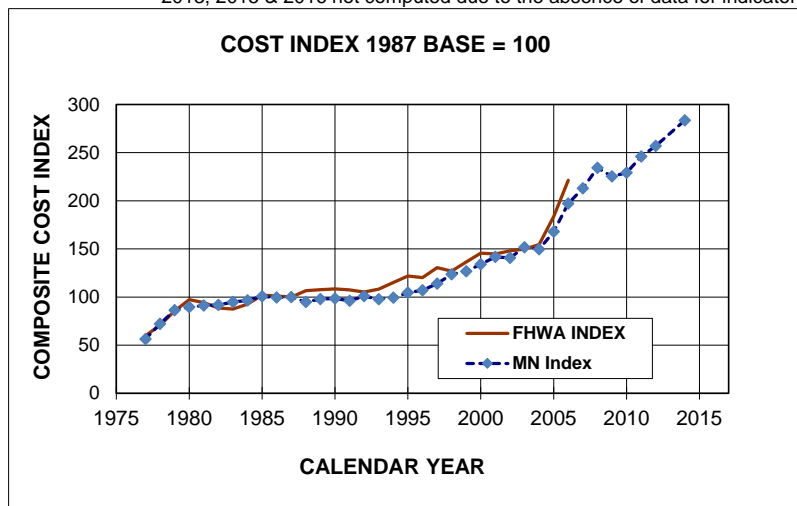
(Year end price trend line corrected 2007-2015)

**NOTE: In 2007, the FHWA stopped collecting Price Trend data, and no longer provide the reports necessary to complete the comparison graphs.**

**HIGHWAY CONSTRUCTION COST INDEX 1987 BASE-100**

<u>Year End</u>	<u>FHWA Index</u>	<u>MN Index</u>
1975		
1976		
1977	59.80	56.40
1978	70.70	72.10
1979	85.50	86.30
1980	97.20	89.60
1981	94.20	91.20
1982	88.50	91.80
1983	87.60	94.80
1984	92.60	96.40
1985	102.00	100.70
1986	101.10	99.60
<b>1987</b>	<b>100.00</b>	<b>100.00</b>
1988	106.60	94.90
1989	107.70	97.90
1990	108.50	98.40
1991	107.50	96.00
1992	105.10	101.00
1993	108.30	97.70
1994	115.10	99.30
1995	121.90	104.60
1996	120.20	107.10
1997	130.60	114.00
1998	126.90	123.58
1999	136.50	126.75
2000	145.60	133.91
2001	144.80	141.61
2002	147.90	140.73
2003	149.80	151.60
2004	154.40	149.61
2005	183.60	167.97
2006	221.30	197.10
2007		212.88
2008		234.22
2009		225.32
2010		229.17
2011		245.95
2012		256.94
2013		
2014		283.58
2015		
2016		
2017		

\*\*2013, 2015 & 2016 not computed due to the absence of data for indicator item(s).



1987 Base Year = 100  
 FHWA Index includes projects > \$500,000  
 Mn/DOT Index includes projects > \$100,000



