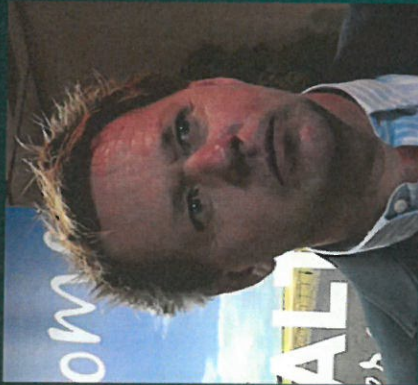


# City Projects – Concepts, Costing & Construction



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NDLC Annual Conference, Fargo – Sept 29, 2017

**NDSU**

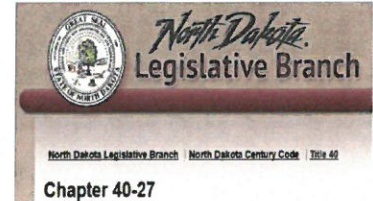
UPPER GREAT PLAINS  
TRANSPORTATION INSTITUTE  
NORTH DAKOTA LOCAL TECHNICAL ASSISTANCE PROGRAM





## IMPROVEMENTS BY SPECIAL ASSESSMENT – PROCESS CHECKLIST

- ☐ Create the improvement district by resolution (40-22-08)
- ☐ Direct the engineer to prepare the Engineer's Report (40-22-10)
- ☐ Approve the Engineer's Report (40-22-11)
- ☐ Adopt a Resolution of Necessity (except water or sewer or petition of majority) (40-22-15)
- ☐ Publish Resolution of Necessity 1 per week for 2 weeks
- ☐ 30 days to file protests after date of first publication
- ☐ Hearing at next meeting to determine sufficiency of protests and a majority of area protesting is bar to proceeding
- ☐ Direct engineer to prepare detailed plans and specifications (40-22-11)
- ☐ Approve plans and specifications and file with city auditor (40-22-11 and 14)
- ☐ Direct city auditor to advertise for bids (40-22-19 and 48-10.1-03) in official newspaper and in a trade publication
- ☐ Publish ad for bids 1 per week for 2 weeks (40-22-19 and 48-01.1-03)
- ☐ Bid opening not less than 14 days after first publication (49-01.1-03)
- ☐ Determination as to type of paving if applicable (40-22-28)
- ☐ Bidders bond (5%) and contractor's license required (48-01.1-05)
- ☐ Bids entered on minutes and referred to engineer for statement of estimates costs (40-22-29)
- ☐ Accept bid and award contract (unless more than 40% over estimate) or reject all bids (48-01.1-07)
- ☐ Bond required for performance and payment (48-02-06.2)
- ☐ Construction Contract (40-22-35 and 36)
- ☐ Issue improvement warrants/bonds (40-24-19)



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**Americans with Disabilities Act**

# **ADA Guide for Small Towns**



**A guide for small local governments  
including towns, townships, and rural counties.**

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## ROUGH - City Estimating Info\*

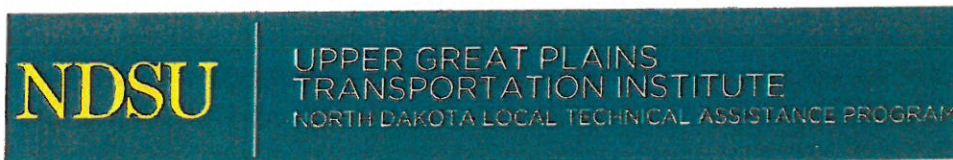
Crack Seal – \$1,000/block (range \$500 - \$1,500/block)  
Chip Seal - \$6,000/block  
Edge Mill & Asphalt Overlay - \$20,000/block  
Thin Lift Overlay - \$12,000/ block  
Curb & Gutter - \$25,000/block  
Full Depth Asphalt - \$80,000/block  
Full Depth Concrete - \$140,000/block  
Aggregate Base - \$10,000/block  
Sanitary Sewer - \$35,000/block  
Water Main - \$30,000/block  
Storm Sewer - \$50,000/block  
Subgrade Earthwork - \$8,000/block  
Geogrid – \$7,000/block

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\*Costs are offered to evaluate system general costs and are not meant to provide project development data.  
Costs are highly variable and dependent on factors such as width of street, type of street, quantities, size of project, timing of bids/work, location and competition between contractors! Data is a culmination of UGPTI, NDLTAP, Moore Engineering and Advanced Engineering data sets.

Budget estimates assume city block = 400 ft (5,280 ft/mile => 13 blocks per mile).

**Contact your consulting engineer for project development estimates.**



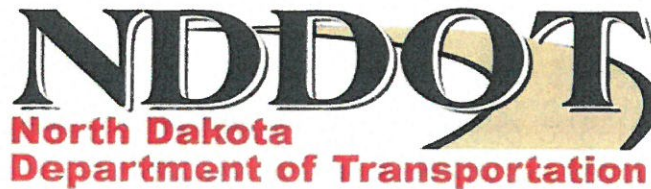
09-26-17

## **Average Construction Costs - 2016**

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<b>Improvement</b>	<b>Total Dollars/Mile</b>
Non-Interstate seal coat (by contract) . . . . .	\$ 35,000
Interstate seal coat (by contract) . . . . .	\$ 55,000
Thin lift overlay . . . . .	\$ 180,000
3" asphalt overlay . . . . .	\$ 320,000
Asphalt surfacing reconstruction . . . . . (includes subgrade repair and resurfacing)	\$1,100,000
Total reconstruction . . . . . (includes grading and asphalt surfacing)	\$2,000,000
Interstate concrete paving . . . . . (two lanes in one direction)	\$2,400,000

North Dakota DOT 2016 Data



# FLEXIBLE PAVEMENT CONDITION SURVEY RATING FORM (URBAN)



City: \_\_\_\_\_ County: \_\_\_\_\_ Date: \_\_\_\_\_  
 Street ID: \_\_\_\_\_ Location From: \_\_\_\_\_ to \_\_\_\_\_

RIDE CONDITION RATING	10 (Excellent)	9	8 (Good)	7	6 (Fair)	5	4 (Poor)	3	2	1	0
						X					

Deduct Value  
-3.0

PAVEMENT DISTRESS CONDITIONS		SEVERITY OF DISTRESS				DENSITY OF DISTRESS (Percent)		
		SLIGHT	MODERATE	SEVERE	LOW 0-10%	INTERMEDIATE 10-25%	FREQUENT 25-50%	EXTENSIVE >50%
SURFACE DEFECTS	RAVELING/WEATHERING	X				X		
	FLUSHING/BLEEDING		X				X	
	POTHOLE/PATCHING	X			X			
SURFACE DEFORMATIONS	SHOVING/GRUTTING	X					X	
	DISTORTIONS	X			X			
	UTILITY TRENCHES		X					
CRACKING	ALLIGATOR		X					X
	LONGITUDINAL	X					X	
	TRANSVERSE	X						X
	BLOCK	X			X			
	EDGE PMT. / C & G	X						X

-1.0
-3.5
-1.0
-3.0
-1.0
-8.0
-7.0
-2.0
-2.0
-0.5
-1.0

Chad Petersen - 701-845-9446  
[chad.petersen@kljeng.com](mailto:chad.petersen@kljeng.com)

Final Surface Condition Rating =

66.0