



REPAIR METHOD 1A  
NO DITCHING

**Local Road - Asphalt Pavt Reconstruction PASER = 1, 2 (POOR)**

GW NO.: Promotional  
DATE: June 20, 2020

## PRELIMINARY CONSTRUCTION COST ESTIMATE

Assume 1 mile of roads at 20' wide. Includes pavt removal, earth excavation, 10" aggregate base, and 5" of new asphalt and drainage improvements

| ITEM                                 | WORK ACTIVITY                           | QUANTITY | UNIT | UNIT PRICE | TOTAL            | COMMENTS                          |
|--------------------------------------|---|----------|------|------------|------------------|-----------------------------------|
| <b>DEMOLITION</b>                    |   |          |      |            |                  |                                   |
|                                      | Rem conc. sidewalk                      | 100      | SY   | \$13.00    | \$1,300.00       | Estimate 18 ea x 50 sft           |
|                                      | Rem HMA driveways                       | 220      | SY   | \$13.00    | \$2,860.00       | 33 drives x 15' wide x 4' deep    |
|                                      | Rem concrete driveways                  | 330      | SY   | \$17.00    | \$5,610.00       | 33 drives x 15' wide x 6' deep    |
|                                      | Cold mill HMA surf. (2"-4")             | 5870     | SY   | \$4.00     | \$23,480.00      | 5280 ft x 20' wide x 50%          |
|                                      | Cold mill HMA surf. (4"-6")             | 5870     | SY   | \$5.00     | \$29,350.00      | 5280 ft x 20' wide x 50%          |
|                                      | <b>SUBTOTAL - DEMOLITION</b>            |          |      |            | <b>\$62,600</b>  |                                   |
| <b>PAVEMENT CONDITIONING</b>         |   |          |      |            |                  |                                   |
|                                      | Rem HMA patches                         |          | SY   | \$15.00    | \$0.00           |                                   |
|                                      | Longitudinal joint repair, MDOT Det 7   |          | LF   | \$7.00     | \$0.00           |                                   |
|                                      | <b>SUBTOTAL - PAVEMENT CONDITIONING</b> |          |      |            | <b>\$0</b>       |                                   |
| <b>EARTHWORK</b>                     |   |          |      |            |                  |                                   |
|                                      | Earth excavation                        | 3260     | CY   | \$32.00    | \$104,320.00     | 5280 x 20' wide x 10" deep x 1/27 |
|                                      | Subgrade undercutting Type II           | 130      | CY   | \$40.00    | \$5,200.00       | estimate 5% of road x 8" deep     |
|                                      | Stabilizing filter fabric (geoblanet)   | 11700    | SY   | \$2.50     | \$29,250.00      | 5280 x 20' wide x 1/9             |
|                                      | Machine grading                         |          | STA  | \$600.00   | \$0.00           |                                   |
|                                      | <b>SUBTOTAL - EARTHWORK</b>             |          |      |            | <b>\$138,770</b> |                                   |
| <b>SOIL EROSION SEDIMENT CONTROL</b> |   |          |      |            |                  |                                   |
|                                      | Inlet/CB filter                         | 40       | EA   | \$125.00   | \$5,000.00       | estimate 40 per mile              |
|                                      | <b>SUBTOTAL - EROSION CONTROL</b>       |          |      |            | <b>\$5,000</b>   |                                   |
| <b>SANITARY SEWER</b>                |   |          |      |            |                  |                                   |
|                                      | Adjust san structure cover, case I      | 5        | EA   | \$650.00   | \$3,250.00       | estimate 5 per mile               |
|                                      | <b>SUBTOTAL - SANITARY SEWER</b>        |          |      |            | <b>\$3,250</b>   |                                   |
| <b>WATER DISTRIBUTION</b>            |   |          |      |            |                  |                                   |
|                                      | Adjust GV&W structure cover, case I     | 5        | EA   | \$650.00   | \$3,250.00       | estimate 5 per mile               |
|                                      | Adjust water shutoff                    | 2        | EA   | \$400.00   | \$800.00         | estimate 2 per mile               |
|                                      | <b>SUBTOTAL - WATER DISTRIBUTION</b>    |          |      |            | <b>\$4,050</b>   |                                   |
| <b>STORM SEWER</b>                   |   |          |      |            |                  |                                   |
|                                      | Adjust stm structure cover, case I      | 5        | EA   | \$650.00   | \$3,250.00       | estimate 5 per mile               |
|                                      | <b>SUBTOTAL - STORM SEWER</b>           |          |      |            | <b>\$3,250</b>   |                                   |
| <b>UNDERDRAIN</b>                    |   |          |      |            |                  |                                   |
|                                      | Edgedrain, 6"                           | 400      | LF   | \$12.00    | \$4,800.00       | estimate 20' per CB ( 40 x 10)    |
|                                      | Dr Structure Tap, 6"                    | 40       | EA   | \$200.00   | \$8,000.00       |                                   |
|                                      | <b>SUBTOTAL - UNDERDRAIN</b>            |          |      |            | <b>\$12,800</b>  |                                   |
| <b>CURB AND SIDEWALKS</b>            |   |          |      |            |                  |                                   |
|                                      | 6" Sidewalk ramp                        | 900      | SF   | \$6.50     | \$5,850.00       | 18 ea x 50 sft                    |
|                                      | 4" Conc. sidewalk                       | 900      | SF   | \$5.00     | \$4,500.00       | 18 ea x 50 sft                    |
|                                      | ADA Detectable Warnings                 | 90       | FT   | \$45.00    | \$4,050.00       | 18 ea x 5 ft                      |
|                                      | <b>SUBTOTAL - CURBS AND SIDEWALKS</b>   |          |      |            | <b>\$14,400</b>  |                                   |
| <b>AGGREGATES AND SAND</b>           |   |          |      |            |                  |                                   |
|                                      | 10" aggr. Base                          | 11700    | SY   | \$15.00    | \$175,500.00     | 5280 x 20' wide x 1/9             |
|                                      | <b>SUBTOTAL - AGGREGATES AND SAND</b>   |          |      |            | <b>\$175,500</b> |                                   |
| <b>HOT MIX ASPHALT PAVEMENT</b>      |   |          |      |            |                  |                                   |
|                                      | HMA, 3C (leveling)                      | 1950     | TN   | \$95.00    | \$185,250.00     | 3" thick                          |

| ITEM  | WORK ACTIVITY  | QUANTITY | UNIT | UNIT PRICE | TOTAL              | COMMENTS                    |
|---|--|----------|------|------------|--------------------|-----------------------------|
|   | HMA, 5E1   | 1300     | TN   | \$100.00   | \$130,000.00       | 2" thick                    |
|   | HMA, 36A (driveways, approaches)                         | 50       | TN   | \$150.00   | \$7,500.00         | 33 ea x 15' x 4' x 4" thick |
|   | Handpatching, 0 - 20 tons                                | 0        | TN   | \$175.00   | \$0.00             |                             |
|   | <b>SUBTOTAL - HOT MIX ASPHALT</b>                        |          |      |            | <b>\$322,750</b>   |                             |
| <b>CONCRETE PAVEMENTS</b>                     |  |          |      |            |                    |                             |
|   | 6" nonreinf Conc. driveway                               | 330      | SY   | \$50.00    | \$16,500.00        | 33 ea x 15' x 6' x 1/9      |
|   | <b>SUBTOTAL - CONCRETE PAVEMENT</b>                      |          |      |            | <b>\$16,500</b>    |                             |
| <b>TRAFFIC CONTROL AND STRIPING</b>           |  |          |      |            |                    |                             |
|   | Sign, Type , temp  | 100      | SFT  | \$5.00     | \$500.00           | Budget                      |
|   | Drum barrel, Lighted                                     | 175      | EA   | \$25.00    | \$4,375.00         | 1 per 50' + 1 per drive     |
|   | Barricade, type III, Lighted                             | 10       | EA   | \$150.00   | \$1,500.00         | 2 per block, estimate 10    |
|   | Arrow Board, Lighted                                     | 1        | EA   | \$1,000.00 | \$1,000.00         | Budget                      |
|   | <b>SUBTOTAL TRAFFIC CONTROL AND STRIPING</b>             |          |      |            | <b>\$7,375</b>     |                             |
| <b>LANDSCAPING</b>                            |  |          |      |            |                    |                             |
|   | Topsoil surf., furnish, 2"                               | 3520     | SY   | \$4.00     | \$14,080.00        | 3' wide each side of road   |
|   | Class "A" seeding  | 160      | LB   | \$20.00    | \$3,200.00         | 220 lbs / acre              |
|   | Mulch Blanket  | 3520     | SY   | \$4.00     | \$14,080.00        | 3' wide each side of road   |
|   | <b>SUBTOTAL - LANDSCAPING</b>                            |          |      |            | <b>\$31,360</b>    |                             |
| <b>MOBILIZATION AND MINOR TRAFFIC CONTROL</b> |  |          |      |            |                    |                             |
|   | Mobilization, Max 3%                                     | 1        | LS   | \$23,928   | \$23,928           |                             |
|   | Minor Traffic Control Devices, Max 3%                    | 1        | LS   | \$23,928   | \$23,928           |                             |
|   | <b>SUBTOTAL - MOBILIZATION AND MINOR TRAFFIC CONTROL</b> |          |      |            | <b>\$47,856</b>    |                             |
|   | <b>SUBTOTAL CONSTRUCTION COST</b>                        |          |      |            | <b>\$845,461</b>   |                             |
|   | <b>SUBTOTAL CONSTRUCTION COST</b>                        |          |      |            | <b>\$845,461</b>   |                             |
|   | <b>CONSTRUCTION CONTINGENCY</b>                          |          |      | <b>15%</b> | <b>\$126,819</b>   |                             |
|   | <b>SUBTOTAL ENGINEERING, BIDDING, INSPECTION</b>         |          |      | <b>17%</b> | <b>\$165,288</b>   |                             |
|   | <b>TOTAL ESTIMATED COST</b>                              |          |      |            | <b>\$1,137,568</b> |                             |

Specific work items that ARE NOT included in this estimate include:

It should be pointed out that since we have no control over the Contractor's method of determining prices, competitive bidding or market conditions, our opinion of the probable construction cost as provided for herein is made on the basis of experience and represents our best judgment as design professionals. We cannot guarantee that the final construction cost will not vary from this estimate.

Respectfully,  
GIFELS-WEBSTER ENGINEERS, INC.

Estimate Prepared By: Scott A. Ringler, PE  
Date: June 20, 2020

|   |   |   |
|---|---|---|
| 1025 E Maple, Suite 1200<br>Birmingham, MI 48009-6426<br>(248) 852-3100 Fax: (248) 852-6372 | 28 W. Adams, Suite 1200<br>Detroit, MI 48226-1609<br>(313) 962-4442 Fax: (313) 962-5068 | 6303 26 Mile Road, Suite 100<br>Washington Twp, MI 48094-3819<br>(586) 781-8950 Fax: (586) 781-8951 |
|---|---|---|



REPAIR METHOD 1B  
NO DITCHING

Local Road - Asphalt Pavt Reconstruction PASER = 1, 2 (POOR)  
MACHINE GRADING WITH EXISTING AGGREGATE BASE

GW NO.: Promotional  
DATE: June 20, 2020

## PRELIMINARY CONSTRUCTION COST ESTIMATE

Assume 1 mile of roads at 20' wide. Includes pavt removal, machine grading, and 5" of new asphalt

| ITEM                                 | WORK ACTIVITY                           | QUANTITY | UNIT | UNIT PRICE | TOTAL           | COMMENTS                         |
|--------------------------------------|---|----------|------|------------|-----------------|----------------------------------|
| <b>DEMOLITION</b>                    |   |          |      |            |                 |                                  |
|                                      | Rem conc. sidewalk                      | 100      | SY   | \$13.00    | \$1,300.00      | Estimate 18' ea x 50 sft         |
|                                      | Rem HMA driveways                       | 220      | SY   | \$13.00    | \$2,860.00      | 33 drives x 15' wide x 4' deep   |
|                                      | Rem concrete driveways                  | 330      | SY   | \$17.00    | \$5,610.00      | 33 drives x 15' wide x 6' deep   |
|                                      | Cold mill HMA surf. (2"-4")             | 5870     | SY   | \$4.00     | \$23,480.00     | 5280 ft x 20' wide x 50%         |
|                                      | Cold mill HMA surf. (4"-6")             | 5870     | SY   | \$5.00     | \$29,350.00     | 5280 ft x 20' wide x 50%         |
|                                      | <b>SUBTOTAL - DEMOLITION</b>            |          |      |            | <b>\$62,600</b> |                                  |
| <b>PAVEMENT CONDITIONING</b>         |   |          |      |            |                 |                                  |
|                                      | Rem HMA patches                         |          | SY   | \$15.00    | \$0.00          |                                  |
|                                      | Longitudinal joint repair, MDOT Det 7   |          | LF   | \$7.00     | \$0.00          |                                  |
|                                      | <b>SUBTOTAL - PAVEMENT CONDITIONING</b> |          |      |            | <b>\$0</b>      |                                  |
| <b>EARTHWORK</b>                     |   |          |      |            |                 |                                  |
|                                      | Earth excavation                        | 650      | CY   | \$32.00    | \$20,800.00     | 5280 x 20' wide x 2" deep budget |
|                                      | Subgrade undercutting Type II           | 130      | CY   | \$40.00    | \$5,200.00      | estimate 5% of road x 8" deep    |
|                                      | Stabilizing filter fabric (geoblanket)  |          | SY   | \$2.50     | \$0.00          |                                  |
|                                      | Machine grading                         | 52       | STA  | \$600.00   | \$31,200.00     |                                  |
|                                      | <b>SUBTOTAL - EARTHWORK</b>             |          |      |            | <b>\$57,200</b> |                                  |
| <b>SOIL EROSION SEDIMENT CONTROL</b> |   |          |      |            |                 |                                  |
|                                      | Inlet/CB filter                         | 40       | EA   | \$125.00   | \$5,000.00      | estimate 40 per mile             |
|                                      | <b>SUBTOTAL - EROSION CONTROL</b>       |          |      |            | <b>\$5,000</b>  |                                  |
| <b>SANITARY SEWER</b>                |   |          |      |            |                 |                                  |
|                                      | Adjust san structure cover, case I      | 5        | EA   | \$650.00   | \$3,250.00      | estimate 5 per mile              |
|                                      | <b>SUBTOTAL - SANITARY SEWER</b>        |          |      |            | <b>\$3,250</b>  |                                  |
| <b>WATER DISTRIBUTION</b>            |   |          |      |            |                 |                                  |
|                                      | Adjust GV&W structure cover, case I     | 5        | EA   | \$650.00   | \$3,250.00      | estimate 5 per mile              |
|                                      | Adjust water shutoff                    | 2        | EA   | \$400.00   | \$800.00        | estimate 2 per mile              |
|                                      | <b>SUBTOTAL - WATER DISTRIBUTION</b>    |          |      |            | <b>\$4,050</b>  |                                  |
| <b>STORM SEWER</b>                   |   |          |      |            |                 |                                  |
|                                      | Adjust stm structure cover, case I      | 5        | EA   | \$650.00   | \$3,250.00      | estimate 5 per mile              |
|                                      | <b>SUBTOTAL - STORM SEWER</b>           |          |      |            | <b>\$3,250</b>  |                                  |
| <b>UNDERDRAIN</b>                    |   |          |      |            |                 |                                  |
|                                      | Edgedrain, 6"                           | 400      | LF   | \$12.00    | \$4,800.00      | estimate 10' per CB (40 x 10)    |
|                                      | Dr Structure Tap, 6"                    | 40       | EA   | \$200.00   | \$8,000.00      |                                  |
|                                      | <b>SUBTOTAL - UNDERDRAIN</b>            |          |      |            | <b>\$12,800</b> |                                  |
| <b>CURB AND SIDEWALKS</b>            |   |          |      |            |                 |                                  |
|                                      | 6" Sidewalk ramp                        | 900      | SF   | \$6.50     | \$5,850.00      | 18' ea x 50 sft                  |
|                                      | 4" Conc. sidewalk                       | 900      | SF   | \$5.00     | \$4,500.00      | 18' ea x 50 sft                  |
|                                      | ADA Detectable Warnings                 | 90       | FT   | \$45.00    | \$4,050.00      | 18' ea x 5 ft                    |
|                                      | <b>SUBTOTAL - CURBS AND SIDEWALKS</b>   |          |      |            | <b>\$14,400</b> |                                  |

| ITEM   | WORK ACTIVITY                         | QUANTITY | UNIT | UNIT PRICE | TOTAL            | COMMENTS                     |
|--|---------------------------------------|----------|------|------------|------------------|------------------------------|
| <b>AGGREGATES AND SAND</b>                               |                                       |          |      |            |                  |                              |
|  | Supplemental aggr. Base, 2" average   | 1200     | Ton  | \$35.00    | \$42,000.00      | 5280 x 20' wide x 2" average |
| <b>SUBTOTAL - AGGREGATES AND SAND</b>                    |                                       |          |      |            | <b>\$42,000</b>  |                              |
| <b>HOT MIX ASPHALT PAVEMENT</b>                          |                                       |          |      |            |                  |                              |
|  | HMA, 3C (leveling)                    | 1950     | TN   | \$95.00    | \$185,250.00     | 3" thick                     |
|  | HMA, 5E1                              | 1300     | TN   | \$100.00   | \$130,000.00     | 2" thick                     |
|  | HMA, 36A (driveways, approaches)      | 50       | TN   | \$150.00   | \$7,500.00       | 33 ea x 15' x 4' x 4" thick  |
|  | Handpatching, 0 - 20 tons             | 0        | TN   | \$175.00   | \$0.00           |                              |
| <b>SUBTOTAL - HOT MIX ASPHALT</b>                        |                                       |          |      |            | <b>\$322,750</b> |                              |
| <b>CONCRETE PAVEMENTS</b>                                |                                       |          |      |            |                  |                              |
|  | 6" nonreinf Conc. driveway            | 330      | SY   | \$50.00    | \$16,500.00      | 33 ea x 15' x 6' x 1/9       |
| <b>SUBTOTAL - CONCRETE PAVEMENT</b>                      |                                       |          |      |            | <b>\$16,500</b>  |                              |
| <b>TRAFFIC CONTROL AND STRIPING</b>                      |                                       |          |      |            |                  |                              |
|  | Sign, Type , temp                     | 100      | SFT  | \$5.00     | \$500.00         | Budget                       |
|  | Drum barrel, Lighted                  | 175      | EA   | \$25.00    | \$4,375.00       | 1 per 50' + 1 per drive      |
|  | Barricade, type III, Lighted          | 10       | EA   | \$150.00   | \$1,500.00       | 2 per block, estimate 10     |
|  | Arrow Board, Lighted                  | 1        | EA   | \$1,000.00 | \$1,000.00       | Budget                       |
| <b>SUBTOTAL TRAFFIC CONTROL AND STRIPING</b>             |                                       |          |      |            | <b>\$7,375</b>   |                              |
| <b>LANDSCAPING</b>                                       |                                       |          |      |            |                  |                              |
|  | Topsoil surf., furnish, 2"            | 3520     | SY   | \$4.00     | \$14,080.00      | 3' wide each side of road    |
|  | Class "A" seeding                     | 160      | LB   | \$20.00    | \$3,200.00       | 220 lbs / acre               |
|  | Mulch Blanket                         | 3520     | SY   | \$4.00     | \$14,080.00      | 3' wide each side of road    |
| <b>SUBTOTAL - LANDSCAPING</b>                            |                                       |          |      |            | <b>\$31,360</b>  |                              |
| <b>MOBILIZATION AND MINOR TRAFFIC CONTROL</b>            |                                       |          |      |            |                  |                              |
|  | Mobilization, Max 3%                  | 1        | LS   | \$17,476   | \$17,476         |                              |
|  | Minor Traffic Control Devices, Max 3% | 1        | LS   | \$17,476   | \$17,476         |                              |
| <b>SUBTOTAL - MOBILIZATION AND MINOR TRAFFIC CONTROL</b> |                                       |          |      |            | <b>\$34,952</b>  |                              |
| <b>SUBTOTAL CONSTRUCTION COST</b>                        |                                       |          |      |            | <b>\$617,487</b> |                              |
| <b>SUBTOTAL CONSTRUCTION COST</b>                        |                                       |          |      |            | <b>\$617,487</b> |                              |
| <b>CONSTRUCTION CONTINGENCY</b>                          |                                       |          |      | <b>15%</b> | <b>\$92,623</b>  |                              |
| <b>SUBTOTAL ENGINEERING, BIDDING, INSPECTION</b>         |                                       |          |      | <b>17%</b> | <b>\$120,719</b> |                              |
| <b>TOTAL ESTIMATED COST</b>                              |                                       |          |      |            | <b>\$830,829</b> |                              |

Specific work items that ARE NOT included in this estimate include:

It should be pointed out that since we have no control over the Contractor's method of determining prices, competitive bidding or market conditions, our opinion of the probable construction cost as provided for herein is made on the basis of experience and represents our best judgment as design professionals. We cannot guarantee that the final construction cost will not vary from this estimate.

Respectfully,  
GIFELS-WEBSTER ENGINEERS, INC.

Estimate Prepared By: Scott A. Ringler, PE  
Date: June 20, 2020

|                                    |                                    |                                    |
|------------------------------------|------------------------------------|------------------------------------|
| 1025 E Maple, Suite 1200           | 28 W. Adams, Suite 1200            | 6303 26 Mile Road, Suite 100       |
| Birmingham, MI 48009-6426          | Detroit, MI 48226-1609             | Washington Twp, MI 48094-3819      |
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REPAIR METHOD 1C NO  
DITCHING

Local Road - Asphalt Pavt Rehabilitation PASER = 3, 4, 5 (POOR - FAIR)

GW NO.: Promotional  
DATE: June 20, 2020

## PRELIMINARY CONSTRUCTION COST ESTIMATE

Assume 1 mile of roads at 20' wide. Includes cold milling 3", patching, and placing 3.5" of new asphalt and drainage improvements.

| ITEM                                 | WORK ACTIVITY                           | QUANTITY | UNIT | UNIT PRICE | TOTAL           | COMMENTS                       |
|--------------------------------------|---|----------|------|------------|-----------------|--------------------------------|
| <b>DEMOLITION</b>                    |   |          |      |            |                 |                                |
|                                      | Rem conc. sidewalk                      | 100      | SY   | \$13.00    | \$1,300.00      | Estimate 18 ea x 50 sft        |
|                                      | Rem HMA driveways                       | 220      | SY   | \$13.00    | \$2,860.00      | 33 drives x 15' wide x 4' deep |
|                                      | Rem concrete driveways                  | 330      | SY   | \$17.00    | \$5,610.00      | 33 drives x 15' wide x 6' deep |
|                                      | Cold mill HMA surf. (2"-4")             | 11700    | SY   | \$4.00     | \$46,800.00     | 5280 ft x 20' wide             |
|                                      | Cold mill HMA surf. (4"-6")             |          | SY   | \$5.00     |                 |                                |
|                                      | <b>SUBTOTAL - DEMOLITION</b>            |          |      |            | <b>\$56,570</b> |                                |
| <b>PAVEMENT CONDITIONING</b>         |   |          |      |            |                 |                                |
|                                      | Rem HMA patches                         | 350      | SY   | \$20.00    | \$7,000.00      | Estimate 3% of pavt area       |
|                                      | <b>SUBTOTAL - PAVEMENT CONDITIONING</b> |          |      |            | <b>\$7,000</b>  |                                |
| <b>EARTHWORK</b>                     |   |          |      |            |                 |                                |
|                                      | Earth excavation                        |          | CY   | \$32.00    | \$0.00          |                                |
|                                      | Subgrade undercutting Type II           | 200      | CY   | \$40.00    | \$8,000.00      | estimate 5% of road x 12" deep |
|                                      | Stabilizing filter fabric (geoblanke)   |          | SY   | \$2.50     | \$0.00          |                                |
|                                      | Machine grading                         |          | STA  | \$600.00   | \$0.00          |                                |
|                                      | <b>SUBTOTAL - EARTHWORK</b>             |          |      |            | <b>\$8,000</b>  |                                |
| <b>SOIL EROSION SEDIMENT CONTROL</b> |   |          |      |            |                 |                                |
|                                      | Inlet/CB filter                         | 40       | EA   | \$125.00   | \$5,000.00      | estimate 40 per mile           |
|                                      | <b>SUBTOTAL - EROSION CONTROL</b>       |          |      |            | <b>\$5,000</b>  |                                |
| <b>SANITARY SEWER</b>                |   |          |      |            |                 |                                |
|                                      | Adjust san structure cover, case I      | 5        | EA   | \$650.00   | \$3,250.00      | estimate 5 per mile            |
|                                      | <b>SUBTOTAL - SANITARY SEWER</b>        |          |      |            | <b>\$3,250</b>  |                                |
| <b>WATER DISTRIBUTION</b>            |   |          |      |            |                 |                                |
|                                      | Adjust GV&W structure cover, case I     | 5        | EA   | \$650.00   | \$3,250.00      | estimate 5 per mile            |
|                                      | Adjust water shutoff                    | 2        | EA   | \$400.00   | \$800.00        | estimate 2 per mile            |
|                                      | <b>SUBTOTAL - WATER DISTRIBUTION</b>    |          |      |            | <b>\$4,050</b>  |                                |
| <b>STORM SEWER</b>                   |   |          |      |            |                 |                                |
|                                      | Adjust stm structure cover, case I      | 5        | EA   | \$650.00   | \$3,250.00      | estimate 5 per mile            |
|                                      | <b>SUBTOTAL - STORM SEWER</b>           |          |      |            | <b>\$3,250</b>  |                                |
| <b>UNDERDRAIN</b>                    |   |          |      |            |                 |                                |
|                                      | Edgedrain, 6"                           | 400      | LF   | \$12.00    | \$4,800.00      | estimate 10' per CB ( 40 x 10) |
|                                      | Dr Structure Tap, 6"                    | 40       | EA   | \$200.00   | \$8,000.00      |                                |
|                                      | <b>SUBTOTAL - UNDERDRAIN</b>            |          |      |            | <b>\$12,800</b> |                                |
| <b>CURB AND SIDEWALKS</b>            |   |          |      |            |                 |                                |
|                                      | 6" Sidewalk ramp                        | 900      | SF   | \$6.50     | \$5,850.00      | 18 ea x 50 sft                 |
|                                      | 4" Conc. sidewalk                       | 900      | SF   | \$5.00     | \$4,500.00      | 18 ea x 50 sft                 |
|                                      | ADA Detectable Warnings                 | 90       | FT   | \$42.00    | \$3,780.00      | 18 ea x 5 ft                   |
|                                      | <b>SUBTOTAL - CURBS AND SIDEWALKS</b>   |          |      |            | <b>\$14,130</b> |                                |
| <b>AGGREGATES AND SAND</b>           |   |          |      |            |                 |                                |
|                                      | 10" aggr. Base                          |          | SY   | \$15.00    | \$0.00          |                                |
|                                      | <b>SUBTOTAL - AGGREGATES AND SAND</b>   |          |      |            | <b>\$0</b>      |                                |

| ITEM  | WORK ACTIVITY  | QUANTITY | UNIT | UNIT PRICE | TOTAL            | COMMENTS                    |
|---|--|----------|------|------------|------------------|-----------------------------|
| <b>HOT MIX ASPHALT PAVEMENT</b>               |  |          |      |            |                  |                             |
|   | HMA, 3C (leveling)                                       | 1300     | TN   | \$95.00    | \$123,500.00     | 2" thick                    |
|   | HMA, 5E1   | 965      | TN   | \$100.00   | \$96,500.00      | 1.5" thick                  |
|   | HMA, 36A (driveways, approaches)                         | 50       | TN   | \$150.00   | \$7,500.00       | 33 ea x 15' x 4' x 4" thick |
|   | Handpatching, 0 - 20 tons                                | 20       | TN   | \$175.00   | \$3,500.00       | Budget                      |
|   | <b>SUBTOTAL - HOT MIX ASPHALT</b>                        |          |      |            | <b>\$231,000</b> |                             |
| <b>CONCRETE PAVEMENTS</b>                     |  |          |      |            |                  |                             |
|   | 6" nonreinf Conc. driveway                               | 330      | SY   | \$50.00    | \$16,500.00      | 33 ea x 15' x 6' x 1/9      |
|   | <b>SUBTOTAL - CONCRETE PAVEMENT</b>                      |          |      |            | <b>\$16,500</b>  |                             |
| <b>TRAFFIC CONTROL AND STRIPING</b>           |  |          |      |            |                  |                             |
|   | Sign, Type_, temp  | 100      | SFT  | \$5.00     | \$500.00         | Budget                      |
|   | Drum barrel, Lighted                                     | 120      | EA   | \$25.00    | \$3,000.00       | 1 per 100' + 1 per drive    |
|   | Barricade, type III, Lighted                             | 10       | EA   | \$150.00   | \$1,500.00       | 2 per block, estimate 10    |
|   | Arrow Board, Lighted                                     | 0        | EA   | \$1,000.00 | \$0.00           |                             |
|   | <b>SUBTOTAL TRAFFIC CONTROL AND STRIPING</b>             |          |      |            | <b>\$5,000</b>   |                             |
| <b>LANDSCAPING</b>                            |  |          |      |            |                  |                             |
|   | Topsoil surf., furnish, 2"                               | 1170     | SY   | \$4.00     | \$4,680.00       | 1' wide each side of road   |
|   | Class "A" seeding  | 50       | LB   | \$20.00    | \$1,000.00       | 220 lbs / acre              |
|   | Mulch Blanket  | 1170     | SY   | \$4.00     | \$4,680.00       | 1' wide each side of road   |
|   | <b>SUBTOTAL - LANDSCAPING</b>                            |          |      |            | <b>\$10,360</b>  |                             |
| <b>MOBILIZATION AND MINOR TRAFFIC CONTROL</b> |  |          |      |            |                  |                             |
|   | Mobilization, Max 3%                                     | 1        | LS   | \$11,307   | \$11,307         |                             |
|   | Minor Traffic Control Devices, Max 3%                    | 1        | LS   | \$11,307   | \$11,307         |                             |
|   | <b>SUBTOTAL - MOBILIZATION AND MINOR TRAFFIC CONTROL</b> |          |      |            | <b>\$22,615</b>  |                             |
|   | <b>SUBTOTAL CONSTRUCTION COST</b>                        |          |      |            | <b>\$399,525</b> |                             |
|   | <b>SUBTOTAL CONSTRUCTION COST</b>                        |          |      |            | <b>\$399,525</b> |                             |
|   | <b>CONSTRUCTION CONTINGENCY</b>                          |          |      | <b>15%</b> | <b>\$59,929</b>  |                             |
|   | <b>SUBTOTAL ENGINEERING, BIDDING, INSPECTION</b>         |          |      | <b>15%</b> | <b>\$68,918</b>  |                             |
|   | <b>TOTAL ESTIMATED COST</b>                              |          |      |            | <b>\$528,371</b> |                             |

Specific work items that ARE NOT included in this estimate include:

It should be pointed out that since we have no control over the Contractor's method of determining prices, competitive bidding or market conditions, our opinion of the probable construction cost as provided for herein is made on the basis of experience and represents our best judgment as design professionals. We cannot guarantee that the final construction cost will not vary from this estimate.

Respectfully,  
GIFELS-WEBSTER ENGINEERS, INC.

Estimate Prepared By: Scott A. Ringler, PE  
Date: June 20, 2020

|   |   |   |
|---|---|---|
| 1025 E Maple, Suite 1200<br>Birmingham, MI 48009-6426<br>(248) 852-3100 Fax: (248) 852-6372 | 28 W. Adams, Suite 1200<br>Detroit, MI 48226-1609<br>(313) 962-4442 Fax: (313) 962-5068 | 6303 26 Mile Road, Suite 100<br>Washington Twp, MI 48094-3819<br>(586) 781-8950 Fax: (586) 781-8951 |
|---|---|---|



REPAIR METHOD 1D  
WITH NO DITCHING

Local Road - Asphalt Pavt Rehabilitation PASER = 6,7,8 (GOOD)

GW NO.: Promotional  
DATE: June 20, 2020

## PRELIMINARY CONSTRUCTION COST ESTIMATE

Assume 1 mile of roads at 20' wide. Includes cold milling 2", patching, and placing 2" of new asphalt and drainage improvements

| ITEM                                 | WORK ACTIVITY                           | QUANTITY | UNIT | UNIT PRICE | TOTAL           | COMMENTS                       |
|--------------------------------------|---|----------|------|------------|-----------------|--------------------------------|
| <b>DEMOLITION</b>                    |   |          |      |            |                 |                                |
|                                      | Rem conc. sidewalk                      | 100      | SY   | \$13.00    | \$1,300.00      | Estimate 18 ea x 50 sft        |
|                                      | Rem HMA driveways                       | 220      | SY   | \$13.00    | \$2,860.00      | 33 drives x 15' wide x 4' deep |
|                                      | Rem concrete driveways                  | 330      | SY   | \$17.00    | \$5,610.00      | 33 drives x 15' wide x 6' deep |
|                                      | Cold mill HMA surf. (2"-4")             | 11700    | SY   | \$4.00     | \$46,800.00     | 5280 ft x 20' wide             |
|                                      | Cold mill HMA surf. (4"-6")             |          | SY   | \$5.00     |                 |                                |
|                                      | <b>SUBTOTAL - DEMOLITION</b>            |          |      |            | <b>\$56,570</b> |                                |
| <b>PAVEMENT CONDITIONING</b>         |   |          |      |            |                 |                                |
|                                      | Rem HMA patches                         | 220      | SY   | \$20.00    | \$4,400.00      | Estimate 2% of pavt area       |
|                                      | <b>SUBTOTAL - PAVEMENT CONDITIONING</b> |          |      |            | <b>\$4,400</b>  |                                |
| <b>EARTHWORK</b>                     |   |          |      |            |                 |                                |
|                                      | Earth excavation                        |          | CY   | \$32.00    | \$0.00          |                                |
|                                      | Subgrade undercutting Type II           | 80       | CY   | \$40.00    | \$3,200.00      | estimate 2% of road x 12" deep |
|                                      | Stabilizing filter fabric (geoblanke)   |          | SY   | \$2.50     | \$0.00          |                                |
|                                      | Machine grading                         |          | STA  | \$600.00   | \$0.00          |                                |
|                                      | <b>SUBTOTAL - EARTHWORK</b>             |          |      |            | <b>\$3,200</b>  |                                |
| <b>SOIL EROSION SEDIMENT CONTROL</b> |   |          |      |            |                 |                                |
|                                      | Inlet/CB filter                         | 40       | EA   | \$125.00   | \$5,000.00      | estimate 40 per mile           |
|                                      | <b>SUBTOTAL - EROSION CONTROL</b>       |          |      |            | <b>\$5,000</b>  |                                |
| <b>SANITARY SEWER</b>                |   |          |      |            |                 |                                |
|                                      | Adjust san structure cover, case I      | 5        | EA   | \$650.00   | \$3,250.00      | estimate 5 per mile            |
|                                      | <b>SUBTOTAL - SANITARY SEWER</b>        |          |      |            | <b>\$3,250</b>  |                                |
| <b>WATER DISTRIBUTION</b>            |   |          |      |            |                 |                                |
|                                      | Adjust GV&W structure cover, case I     | 5        | EA   | \$650.00   | \$3,250.00      | estimate 5 per mile            |
|                                      | Adjust water shutoff                    | 2        | EA   | \$400.00   | \$800.00        | estimate 2 per mile            |
|                                      | <b>SUBTOTAL - WATER DISTRIBUTION</b>    |          |      |            | <b>\$4,050</b>  |                                |
| <b>STORM SEWER</b>                   |   |          |      |            |                 |                                |
|                                      | Adjust stm structure cover, case I      | 5        | EA   | \$650.00   | \$3,250.00      | estimate 5 per mile            |
|                                      | <b>SUBTOTAL - STORM SEWER</b>           |          |      |            | <b>\$3,250</b>  |                                |
| <b>UNDERDRAIN</b>                    |   |          |      |            |                 |                                |
|                                      | Edgedrain, 6"                           | 400      | LF   | \$12.00    | \$4,800.00      | estimate 20' per CB ( 40 x 20) |
|                                      | Dr Structure Tap, 6"                    | 40       | EA   | \$200.00   | \$8,000.00      |                                |
|                                      | <b>SUBTOTAL - UNDERDRAIN</b>            |          |      |            | <b>\$12,800</b> |                                |
| <b>CURB AND SIDEWALKS</b>            |   |          |      |            |                 |                                |
|                                      | 6" Sidewalk ramp                        | 900      | SF   | \$6.50     | \$5,850.00      | 18 ea x 50 sft                 |
|                                      | 4" Conc. sidewalk                       | 900      | SF   | \$5.00     | \$4,500.00      | 18 ea x 50 sft                 |
|                                      | ADA Detectable Warnings                 | 90       | FT   | \$42.00    | \$3,780.00      | 18 ea x 5 ft                   |
|                                      | <b>SUBTOTAL - CURBS AND SIDEWALKS</b>   |          |      |            | <b>\$14,130</b> |                                |

| ITEM   | WORK ACTIVITY                         | QUANTITY | UNIT | UNIT PRICE | TOTAL            | COMMENTS                       |
|--|---------------------------------------|----------|------|------------|------------------|--------------------------------|
| <b>AGGREGATES AND SAND</b>                               |                                       |          |      |            |                  |                                |
|  | 10" aggr. Base                        |          | SY   | \$15.00    | \$0.00           |                                |
| <b>SUBTOTAL - AGGREGATES AND SAND</b>                    |                                       |          |      |            | <b>\$0</b>       |                                |
| <b>HOT MIX ASPHALT PAVEMENT</b>                          |                                       |          |      |            |                  |                                |
|  | HMA, 3C (leveling)                    |          | TN   | \$95.00    | \$0.00           |                                |
|  | HMA, 5E1                              | 1355     | TN   | \$105.00   | \$142,275.00     | 2" thick + 5%                  |
|  | HMA, 36A (driveways, approaches)      | 50       | TN   | \$150.00   | \$7,500.00       | 33 drives x 15' wide x 4' deep |
|  | Handpatching, 0 - 20 tons             | 10       | TN   | \$175.00   | \$1,750.00       | Budget                         |
| <b>SUBTOTAL - HOT MIX ASPHALT</b>                        |                                       |          |      |            | <b>\$151,525</b> |                                |
| <b>CONCRETE PAVEMENTS</b>                                |                                       |          |      |            |                  |                                |
|  | 6" nonreinf Conc. driveway            | 330      | SY   | \$50.00    | \$16,500.00      | 33 drives x 15' wide x 6' deep |
| <b>SUBTOTAL - CONCRETE PAVEMENT</b>                      |                                       |          |      |            | <b>\$16,500</b>  |                                |
| <b>TRAFFIC CONTROL AND STRIPING</b>                      |                                       |          |      |            |                  |                                |
|  | Sign, Type , temp                     | 100      | SFT  | \$5.00     | \$500.00         | Budget                         |
|  | Drum barrel, Lighted                  | 50       | EA   | \$25.00    | \$1,250.00       | 1 per 100'                     |
|  | Barricade, type III, Lighted          | 10       | EA   | \$150.00   | \$1,500.00       | 2 per block, estimate 10       |
|  | Arrow Board, Lighted                  | 0        | EA   | \$1,000.00 | \$0.00           |                                |
| <b>SUBTOTAL TRAFFIC CONTROL AND STRIPING</b>             |                                       |          |      |            | <b>\$3,250</b>   |                                |
| <b>LANDSCAPING</b>                                       |                                       |          |      |            |                  |                                |
|  | Topsoil surf., furnish, 2"            | 0        | SY   | \$4.00     | \$0.00           | No repairs needed              |
|  | Class "A" seeding                     | 0        | LB   | \$20.00    | \$0.00           | No repairs needed              |
|  | Mulch Blanket                         | 0        | SY   | \$4.00     | \$0.00           | No repairs needed              |
| <b>SUBTOTAL - LANDSCAPING</b>                            |                                       |          |      |            | <b>\$0</b>       |                                |
| <b>MOBILIZATION AND MINOR TRAFFIC CONTROL</b>            |                                       |          |      |            |                  |                                |
|  | Mobilization, Max 3%                  | 1        | LS   | \$8,338    | \$8,338          |                                |
|  | Minor Traffic Control Devices, Max 3% | 1        | LS   | \$8,338    | \$8,338          |                                |
| <b>SUBTOTAL - MOBILIZATION AND MINOR TRAFFIC CONTROL</b> |                                       |          |      |            | <b>\$16,676</b>  |                                |
| <b>SUBTOTAL CONSTRUCTION COST</b>                        |                                       |          |      |            | <b>\$294,601</b> |                                |
| <b>SUBTOTAL CONSTRUCTION COST</b>                        |                                       |          |      |            | <b>\$294,601</b> |                                |
| <b>CONSTRUCTION CONTINGENCY</b>                          |                                       |          |      | <b>15%</b> | <b>\$44,190</b>  |                                |
| <b>SUBTOTAL ENGINEERING, BIDDING, INSPECTION</b>         |                                       |          |      | <b>15%</b> | <b>\$50,819</b>  |                                |
| <b>TOTAL ESTIMATED COST</b>                              |                                       |          |      |            | <b>\$389,609</b> |                                |

Specific work items that ARE NOT included in this estimate include:

It should be pointed out that since we have no control over the Contractor's method of determining prices, competitive bidding or market conditions, our opinion of the probable construction cost as provided for herein is made on the basis of experience and represents our best judgment as design professionals. We cannot guarantee that the final construction cost will not vary from this estimate.

Respectfully,  
GIFELS-WEBSTER ENGINEERS, INC.

Estimate Prepared By: Scott A. Ringler, PE  
Date: June 20, 2020

|   |   |   |
|---|---|---|
| 1025 E Maple, Suite 1200<br>Birmingham, MI 48009-6426<br>(248) 852-3100 Fax: (248) 852-6372 | 28 W. Adams, Suite 1200<br>Detroit, MI 48226-1609<br>(313) 962-4442 Fax: (313) 962-5068 | 6303 26 Mile Road, Suite 100<br>Washington Twp, MI 48094-3819<br>(586) 781-8950 Fax: (586) 781-8951 |
|---|---|---|





REPAIR METHOD 2A  
WITH NO DITCHING

**Local Road - Concrete Pavt Reconstruction PASER = 1, 2, 3 (POOR)**

GW NO.: Promotional  
DATE: June 20, 2020

## PRELIMINARY CONSTRUCTION COST ESTIMATE

Assume 1 mile of roads at 20' wide. Includes pavt removal, earth excavation, 10" aggregate base, and 5" of new asphalt and drainage improvements

| ITEM                                 | WORK ACTIVITY                           | QUANTITY | UNIT | UNIT PRICE | TOTAL            | COMMENTS                          |
|--------------------------------------|---|----------|------|------------|------------------|-----------------------------------|
| <b>DEMOLITION</b>                    |   |          |      |            |                  |                                   |
|                                      | Rem conc. sidewalk                      | 100      | SY   | \$13.00    | \$1,300.00       | Estimate 18 ea x 50 sft           |
|                                      | Rem HMA surface                         | 220      | SY   | \$13.00    | \$2,860.00       | 33 drives x 15' wide x 4' deep    |
|                                      | Rem concrete driveways                  | 330      | SY   | \$17.00    | \$5,610.00       | 33 drives x 15' wide x 6' deep    |
|                                      | Remove Concrete Road                    | 11700    | SY   | \$12.00    | \$140,400.00     | 5280 ft x 20' wide                |
|                                      | <b>SUBTOTAL - DEMOLITION</b>            |          |      |            | <b>\$150,170</b> |                                   |
| <b>PAVEMENT CONDITIONING</b>         |   |          |      |            |                  |                                   |
|                                      | Rem HMA patches                         |          | SY   | \$15.00    | \$0.00           |                                   |
|                                      | Longitudinal joint repair, MDOT Det 7   |          | LF   | \$7.00     | \$0.00           |                                   |
|                                      | <b>SUBTOTAL - PAVEMENT CONDITIONING</b> |          |      |            | <b>\$0</b>       |                                   |
| <b>EARTHWORK</b>                     |   |          |      |            |                  |                                   |
|                                      | Earth excavation                        | 3260     | CY   | \$32.00    | \$104,320.00     | 5280 x 20' wide x 10" deep x 1/27 |
|                                      | Subgrade undercutting Type II           | 130      | CY   | \$40.00    | \$5,200.00       | estimate 5% of road x 8" deep     |
|                                      | Stabilizing filter fabric (geoblanket)  | 11700    | SY   | \$2.50     | \$29,250.00      | 5280 x 20' wide x 1/9             |
|                                      | <b>SUBTOTAL - EARTHWORK</b>             |          |      |            | <b>\$138,770</b> |                                   |
| <b>SOIL EROSION SEDIMENT CONTROL</b> |   |          |      |            |                  |                                   |
|                                      | Inlet/CB filter                         | 40       | EA   | \$125.00   | \$5,000.00       | estimate 40 per mile              |
|                                      | <b>SUBTOTAL - EROSION CONTROL</b>       |          |      |            | <b>\$5,000</b>   |                                   |
| <b>SANITARY SEWER</b>                |   |          |      |            |                  |                                   |
|                                      | Adjust san structure cover, case I      | 5        | EA   | \$650.00   | \$3,250.00       | estimate 5 per mile               |
|                                      | <b>SUBTOTAL - SANITARY SEWER</b>        |          |      |            | <b>\$3,250</b>   |                                   |
| <b>WATER DISTRIBUTION</b>            |   |          |      |            |                  |                                   |
|                                      | Adjust GV&W structure cover, case I     | 5        | EA   | \$650.00   | \$3,250.00       | estimate 5 per mile               |
|                                      | Adjust water shutoff                    | 2        | EA   | \$400.00   | \$800.00         | estimate 2 per mile               |
|                                      | <b>SUBTOTAL - WATER DISTRIBUTION</b>    |          |      |            | <b>\$4,050</b>   |                                   |
| <b>STORM SEWER</b>                   |   |          |      |            |                  |                                   |
|                                      | Adjust stm structure cover, case I      | 5        | EA   | \$650.00   | \$3,250.00       | estimate 5 per mile               |
|                                      | <b>SUBTOTAL - STORM SEWER</b>           |          |      |            | <b>\$3,250</b>   |                                   |
| <b>UNDERDRAIN</b>                    |   |          |      |            |                  |                                   |
|                                      | Edgedrain, 6"                           | 400      | LF   | \$12.00    | \$4,800.00       | estimate 20' per CB ( 40 x 20)    |
|                                      | Dr Structure Tap, 6"                    | 40       | EA   | \$200.00   | \$8,000.00       |                                   |
|                                      | <b>SUBTOTAL - UNDERDRAIN</b>            |          |      |            | <b>\$12,800</b>  |                                   |
| <b>CURB AND SIDEWALKS</b>            |   |          |      |            |                  |                                   |
|                                      | 6" Sidewalk ramp                        | 900      | SF   | \$6.50     | \$5,850.00       | 18 ea x 50 sft                    |
|                                      | 4" Conc. sidewalk                       | 900      | 5    | \$5.00     | \$4,500.00       | 18 ea x 50 sft                    |
|                                      | ADA Detectable Warnings                 | 90       | FT   | \$45.00    | \$4,050.00       | 18 ea x 5 ft                      |
|                                      | <b>SUBTOTAL - CURBS AND SIDEWALKS</b>   |          |      |            | <b>\$14,400</b>  |                                   |

| ITEM   | WORK ACTIVITY                         | QUANTITY | UNIT | UNIT PRICE | TOTAL              | COMMENTS                    |
|--|---------------------------------------|----------|------|------------|--------------------|-----------------------------|
| <b>AGGREGATES AND SAND</b>                               |                                       |          |      |            |                    |                             |
|  | 10" aggr. Base                        | 11700    | SY   | \$15.00    | \$175,500.00       | 5280 x 20' wide x 1/9       |
| <b>SUBTOTAL - AGGREGATES AND SAND</b>                    |                                       |          |      |            | <b>\$175,500</b>   |                             |
| <b>HOT MIX ASPHALT PAVEMENT</b>                          |                                       |          |      |            |                    |                             |
|  | HMA, 3C (leveling)                    | 1950     | TN   | \$95.00    | \$185,250.00       | 3" thick                    |
|  | HMA, 5E1                              | 1300     | TN   | \$100.00   | \$130,000.00       | 2" thick                    |
|  | HMA, 36A (driveways, approaches)      | 50       | TN   | \$150.00   | \$7,500.00         | 33 ea x 15' x 4' x 4" thick |
|  | Handpatching, 0 - 20 tons             | 0        | TN   | \$175.00   | \$0.00             |                             |
| <b>SUBTOTAL - HOT MIX ASPHALT</b>                        |                                       |          |      |            | <b>\$322,750</b>   |                             |
| <b>CONCRETE PAVEMENTS</b>                                |                                       |          |      |            |                    |                             |
|  | 6" nonreinf Conc. driveway            | 330      | SY   | \$50.00    | \$16,500.00        | 33 ea x 15' x 6' x 1/9      |
| <b>SUBTOTAL - CONCRETE PAVEMENT</b>                      |                                       |          |      |            | <b>\$16,500</b>    |                             |
| <b>TRAFFIC CONTROL AND STRIPING</b>                      |                                       |          |      |            |                    |                             |
|  | Sign, Type , temp                     | 100      | SFT  | \$5.00     | \$500.00           | Budget                      |
|  | Drum barrel, Lighted                  | 175      | EA   | \$25.00    | \$4,375.00         | 1 per 50' + 1 per drive     |
|  | Barricade, type III, Lighted          | 10       | EA   | \$150.00   | \$1,500.00         | 2 per block, estimate 10    |
|  | Arrow Board, Lighted                  | 1        | EA   | \$1,000.00 | \$1,000.00         | Budget                      |
| <b>SUBTOTAL TRAFFIC CONTROL AND STRIPING</b>             |                                       |          |      |            | <b>\$7,375</b>     |                             |
| <b>LANDSCAPING</b>                                       |                                       |          |      |            |                    |                             |
|  | Topsoil surf., furnish, 2"            | 3520     | SY   | \$4.00     | \$14,080.00        | 3' wide each side of road   |
|  | Class "A" seeding                     | 160      | LB   | \$20.00    | \$3,200.00         | 220 lbs / acre              |
|  | Mulch Blanket                         | 3520     | SY   | \$4.00     | \$14,080.00        | 3' wide each side of road   |
| <b>SUBTOTAL - LANDSCAPING</b>                            |                                       |          |      |            | <b>\$31,360</b>    |                             |
| <b>MOBILIZATION AND MINOR TRAFFIC CONTROL</b>            |                                       |          |      |            |                    |                             |
|  | Mobilization, Max 3%                  | 1        | LS   | \$26,555   | \$26,555           |                             |
|  | Minor Traffic Control Devices, Max 3% | 1        | LS   | \$26,555   | \$26,555           |                             |
| <b>SUBTOTAL - MOBILIZATION AND MINOR TRAFFIC CONTROL</b> |                                       |          |      |            | <b>\$53,111</b>    |                             |
| <b>SUBTOTAL CONSTRUCTION COST</b>                        |                                       |          |      |            | <b>\$938,286</b>   |                             |
| <b>SUBTOTAL CONSTRUCTION COST</b>                        |                                       |          |      |            | <b>\$938,286</b>   |                             |
| <b>CONSTRUCTION CONTINGENCY</b>                          |                                       |          |      | <b>15%</b> | <b>\$140,743</b>   |                             |
| <b>SUBTOTAL ENGINEERING, BIDDING, INSPECTION</b>         |                                       |          |      | <b>17%</b> | <b>\$183,435</b>   |                             |
| <b>TOTAL ESTIMATED COST</b>                              |                                       |          |      |            | <b>\$1,262,463</b> |                             |

Specific work items that ARE NOT included in this estimate include:

It should be pointed out that since we have no control over the Contractor's method of determining prices, competitive bidding or market conditions, our opinion of the probable construction cost as provided for herein is made on the basis of experience and represents our best judgment as design professionals. We cannot guarantee that the final construction cost will not vary from this estimate.

Respectfully,  
GIFELS-WEBSTER ENGINEERS, INC.

Estimate Prepared By: Scott A. Ringler, PE  
Date: June 20, 2020

|   |   |   |
|---|---|---|
| 1025 E Maple, Suite 1200<br>Birmingham, MI 48009-6426<br>(248) 852-3100 Fax: (248) 852-6372 | 28 W. Adams, Suite 1200<br>Detroit, MI 48226-1609<br>(313) 962-4442 Fax: (313) 962-5068 | 6303 26 Mile Road, Suite 100<br>Washington Twp, MI 48094-3819<br>(586) 781-8950 Fax: (586) 781-8951 |
|---|---|---|



REPAIR METHOD 2B  
WITH NO DITCHING

**Local Road - Concrete Pavt Reconstruction PASER = 1, 2, 3 (POOR)**  
**MACHINE GRADING WITH EXISTING AGGREGATE BASE**

GW NO.: Promotional  
DATE: June 20, 2020

## PRELIMINARY CONSTRUCTION COST ESTIMATE

Assume 1 mile of roads at 20' wide. Includes pavt removal, machine grading, and **5" of new asphalt** and drainage improvements

| ITEM                                 | WORK ACTIVITY                           | QUANTITY | UNIT | UNIT PRICE | TOTAL            | COMMENTS                       |
|--------------------------------------|---|----------|------|------------|------------------|--------------------------------|
| <b>DEMOLITION</b>                    |   |          |      |            |                  |                                |
|                                      | Rem conc. sidewalk                      | 100      | SY   | \$13.00    | \$1,300.00       | Estimate 18 ea x 50 sft        |
|                                      | Rem HMA surface                         | 220      | SY   | \$13.00    | \$2,860.00       | 33 drives x 15' wide x 4' deep |
|                                      | Rem concrete driveways                  | 330      | SY   | \$17.00    | \$5,610.00       | 33 drives x 15' wide x 6' deep |
|                                      | Remove Concrete Road                    | 11700    | SY   | \$12.00    | \$140,400.00     | 5280 ft x 20' wide             |
|                                      | <b>SUBTOTAL - DEMOLITION</b>            |          |      |            | <b>\$150,170</b> |                                |
| <b>PAVEMENT CONDITIONING</b>         |   |          |      |            |                  |                                |
|                                      | Rem HMA patches                         |          | SY   | \$15.00    | \$0.00           |                                |
|                                      | Longitudinal joint repair, MDOT Det 7   |          | LF   | \$7.00     | \$0.00           |                                |
|                                      | <b>SUBTOTAL - PAVEMENT CONDITIONING</b> |          |      |            | <b>\$0</b>       |                                |
| <b>EARTHWORK</b>                     |   |          |      |            |                  |                                |
|                                      | Earth excavation                        | 650      | CY   | \$32.00    | \$20,800.00      | 5280 x 20' wide x 2" average   |
|                                      | Subgrade undercutting Type II           | 130      | CY   | \$40.00    | \$5,200.00       | estimate 5% of road x 8" deep  |
|                                      | Stabilizing filter fabric (geoblanket)  | 0        | SY   | \$2.50     | \$0.00           |                                |
|                                      | Machine grading                         | 52       | STA  | \$600.00   | \$31,200.00      |                                |
|                                      | <b>SUBTOTAL - EARTHWORK</b>             |          |      |            | <b>\$57,200</b>  |                                |
| <b>SOIL EROSION SEDIMENT CONTROL</b> |   |          |      |            |                  |                                |
|                                      | Inlet/CB filter                         | 40       | EA   | \$125.00   | \$5,000.00       | estimate 40 per mile           |
|                                      | <b>SUBTOTAL - EROSION CONTROL</b>       |          |      |            | <b>\$5,000</b>   |                                |
| <b>SANITARY SEWER</b>                |   |          |      |            |                  |                                |
|                                      | Adjust san structure cover, case I      | 5        | EA   | \$650.00   | \$3,250.00       | estimate 5 per mile            |
|                                      | <b>SUBTOTAL - SANITARY SEWER</b>        |          |      |            | <b>\$3,250</b>   |                                |
| <b>WATER DISTRIBUTION</b>            |   |          |      |            |                  |                                |
|                                      | Adjust GV&W structure cover, case I     | 5        | EA   | \$650.00   | \$3,250.00       | estimate 5 per mile            |
|                                      | Adjust water shutoff                    | 2        | EA   | \$400.00   | \$800.00         | estimate 2 per mile            |
|                                      | <b>SUBTOTAL - WATER DISTRIBUTION</b>    |          |      |            | <b>\$4,050</b>   |                                |
| <b>STORM SEWER</b>                   |   |          |      |            |                  |                                |
|                                      | Adjust stm structure cover, case I      | 5        | EA   | \$650.00   | \$3,250.00       | estimate 5 per mile            |
|                                      | <b>SUBTOTAL - STORM SEWER</b>           |          |      |            | <b>\$3,250</b>   |                                |
| <b>UNDERDRAIN</b>                    |   |          |      |            |                  |                                |
|                                      | Edgedrain, 6"                           | 400      | LF   | \$12.00    | \$4,800.00       | estimate 20' per CB ( 40 x 20) |
|                                      | Dr Structure Tap, 6"                    | 40       | EA   | \$200.00   | \$8,000.00       |                                |
|                                      | <b>SUBTOTAL - UNDERDRAIN</b>            |          |      |            | <b>\$12,800</b>  |                                |
| <b>CURB AND SIDEWALKS</b>            |   |          |      |            |                  |                                |
|                                      | 6" Sidewalk ramp                        | 900      | SF   | \$6.50     | \$5,850.00       | 18 ea x 50 sft                 |
|                                      | 4" Conc. sidewalk                       | 900      | SF   | \$5.00     | \$4,500.00       | 18 ea x 50 sft                 |
|                                      | ADA Detectable Warnings                 | 90       | FT   | \$45.00    | \$4,050.00       | 18 ea x 5 ft                   |
|                                      | <b>SUBTOTAL - CURBS AND SIDEWALKS</b>   |          |      |            | <b>\$14,400</b>  |                                |
| <b>AGGREGATES AND SAND</b>           |   |          |      |            |                  |                                |
|                                      | Supplemental aggr. Base, 2"             | 1240     | Ton  | \$35.00    | \$43,400.00      | 5280 x 20' wide x 2" average   |
|                                      | <b>SUBTOTAL - AGGREGATES AND SAND</b>   |          |      |            | <b>\$43,400</b>  |                                |

| ITEM   | WORK ACTIVITY  | QUANTITY | UNIT | UNIT PRICE | TOTAL            | COMMENTS                    |
|--|--|----------|------|------------|------------------|-----------------------------|
| <b>HOT MIX ASPHALT PAVEMENT</b>                  |  |          |      |            |                  |                             |
|  | HMA, 3C (leveling)                                       | 1950     | TN   | \$95.00    | \$185,250.00     | 3" thick                    |
|  | HMA, 5E1   | 1300     | TN   | \$100.00   | \$130,000.00     | 2" thick                    |
|  | HMA, 36A (driveways, approaches)                         | 50       | TN   | \$150.00   | \$7,500.00       | 33 ea x 15' x 4' x 4" thick |
|  | Handpatching, 0 - 20 tons                                | 0        | TN   | \$175.00   | \$0.00           |                             |
|  | <b>SUBTOTAL - HOT MIX ASPHALT</b>                        |          |      |            | <b>\$322,750</b> |                             |
| <b>CONCRETE PAVEMENTS</b>                        |  |          |      |            |                  |                             |
|  | 6" nonreinf Conc. driveway                               | 330      | SY   | \$50.00    | \$16,500.00      | 33 ea x 15' x 6' x 1/9      |
|  | <b>SUBTOTAL - CONCRETE PAVEMENT</b>                      |          |      |            | <b>\$16,500</b>  |                             |
| <b>TRAFFIC CONTROL AND STRIPING</b>              |  |          |      |            |                  |                             |
|  | Sign, Type , temp  | 100      | SFT  | \$5.00     | \$500.00         | Budget                      |
|  | Drum barrel, Lighted                                     | 175      | EA   | \$25.00    | \$4,375.00       | 1 per 50' + 1 per drive     |
|  | Barricade, type III, Lighted                             | 10       | EA   | \$150.00   | \$1,500.00       | 2 per block, estimate 10    |
|  | Arrow Board, Lighted                                     | 1        | EA   | \$1,000.00 | \$1,000.00       | Budget                      |
|  | <b>SUBTOTAL TRAFFIC CONTROL AND STRIPING</b>             |          |      |            | <b>\$7,375</b>   |                             |
| <b>LANDSCAPING</b>                               |  |          |      |            |                  |                             |
|  | Topsoil surf., furnish, 2"                               | 3520     | SY   | \$4.00     | \$14,080.00      | 3' wide each side of road   |
|  | Class "A" seeding  | 160      | LB   | \$20.00    | \$3,200.00       | 220 lbs / acre              |
|  | Mulch Blanket  | 3520     | SY   | \$4.00     | \$14,080.00      | 3' wide each side of road   |
|  | <b>SUBTOTAL - LANDSCAPING</b>                            |          |      |            | <b>\$31,360</b>  |                             |
| <b>MOBILIZATION AND MINOR TRAFFIC CONTROL</b>    |  |          |      |            |                  |                             |
|  | Mobilization, Max 3%                                     | 1        | LS   | \$20,145   | \$20,145         |                             |
|  | Minor Traffic Control Devices, Max 3%                    | 1        | LS   | \$20,145   | \$20,145         |                             |
|  | <b>SUBTOTAL - MOBILIZATION AND MINOR TRAFFIC CONTROL</b> |          |      |            | <b>\$40,290</b>  |                             |
| <b>SUBTOTAL CONSTRUCTION COST</b>                |  |          |      |            | <b>\$711,795</b> |                             |
| <b>SUBTOTAL CONSTRUCTION COST</b>                |  |          |      |            | <b>\$711,795</b> |                             |
| <b>CONSTRUCTION CONTINGENCY</b>                  |  |          |      | <b>15%</b> | <b>\$106,769</b> |                             |
| <b>SUBTOTAL ENGINEERING, BIDDING, INSPECTION</b> |  |          |      | <b>17%</b> | <b>\$139,156</b> |                             |
| <b>TOTAL ESTIMATED COST</b>                      |  |          |      |            | <b>\$957,721</b> |                             |

Specific work items that ARE NOT included in this estimate include:

It should be pointed out that since we have no control over the Contractor's method of determining prices, competitive bidding or market conditions, our opinion of the probable construction cost as provided for herein is made on the basis of experience and represents our best judgment as design professionals. We cannot guarantee that the final construction cost will not vary from this estimate.

Respectfully,  
GIFELS-WEBSTER ENGINEERS, INC.

Estimate Prepared By: Scott A. Ringler, PE  
Date: June 20, 2020

|   |   |   |
|---|---|---|
| 1025 E Maple, Suite 1200<br>Birmingham, MI 48009-6426<br>(248) 852-3100 Fax: (248) 852-6372 | 28 W. Adams, Suite 1200<br>Detroit, MI 48226-1609<br>(313) 962-4442 Fax: (313) 962-5068 | 6303 26 Mile Road, Suite 100<br>Washington Twp, MI 48094-3819<br>(586) 781-8950 Fax: (586) 781-8951 |
|---|---|---|



REPAIR METHOD 2C  
WITH NO DITCHING

Local Road - Heavy Concrete Pavt Patching PASER = 4.5, (FAIR)

GW NO.: Promotional

DATE: June 20, 2020

## PRELIMINARY CONSTRUCTION COST ESTIMATE

Assume 1 mile of roads at 20' wide. Includes pavt removal, earth excavation, 4" aggregate base, and 8" **thick concrete patch** and drainage improvements

| ITEM                                 | WORK ACTIVITY                          | QUANTITY | UNIT | UNIT PRICE | TOTAL           | COMMENTS                          |
|--------------------------------------|--|----------|------|------------|-----------------|-----------------------------------|
| <b>DEMOLITION</b>                    |  |          |      |            |                 |                                   |
|                                      | Rem conc. sidewalk                     | 100      | SY   | \$13.00    | \$1,300.00      | Estimate 18 ea x 50 sft           |
|                                      | Rem HMA surface                        | 0        | SY   | \$13.00    | \$0.00          |                                   |
|                                      | Rem concrete driveways                 | 0        | SY   | \$17.00    | \$0.00          |                                   |
|                                      | Remove Concrete Road                   | 2925     | SY   | \$25.00    | \$73,125.00     | Estimate 25% of road (5280 x 20') |
|                                      | <b>SUBTOTAL - DEMOLITION</b>           |          |      |            | <b>\$74,425</b> |                                   |
| <b>EARTHWORK</b>                     |  |          |      |            |                 |                                   |
|                                      | Earth excavation                       | 325      | CY   | \$40.00    | \$13,000.00     | 25% of road x 4" deep x 1/27      |
|                                      | Subgrade undercutting Type II          | 0        | CY   | \$40.00    | \$0.00          |                                   |
|                                      | Stabilizing filter fabric (geoblanket) | 0        | SY   | \$2.50     | \$0.00          |                                   |
|                                      | <b>SUBTOTAL - EARTHWORK</b>            |          |      |            | <b>\$13,000</b> |                                   |
| <b>SOIL EROSION SEDIMENT CONTROL</b> |  |          |      |            |                 |                                   |
|                                      | Inlet/CB filter                        | 0        | EA   | \$125.00   | \$0.00          | Not Required                      |
|                                      | <b>SUBTOTAL - EROSION CONTROL</b>      |          |      |            | <b>\$0</b>      |                                   |
| <b>SANITARY SEWER</b>                |  |          |      |            |                 |                                   |
|                                      | Adjust san structure cover, case I     | 0        | EA   | \$650.00   | \$0.00          | Not Required                      |
|                                      | <b>SUBTOTAL - SANITARY SEWER</b>       |          |      |            | <b>\$0</b>      |                                   |
| <b>WATER DISTRIBUTION</b>            |  |          |      |            |                 |                                   |
|                                      | Adjust GV&W structure cover, case I    | 0        | EA   | \$650.00   | \$0.00          | Not required                      |
|                                      | Adjust water shutoff                   | 0        | EA   | \$400.00   | \$0.00          | Not required                      |
|                                      | <b>SUBTOTAL - WATER DISTRIBUTION</b>   |          |      |            | <b>\$0</b>      |                                   |
| <b>STORM SEWER</b>                   |  |          |      |            |                 |                                   |
|                                      | Adjust stm structure cover, case I     | 0        | EA   | \$650.00   | \$0.00          | Not required                      |
|                                      | <b>SUBTOTAL - STORM SEWER</b>          |          |      |            | <b>\$0</b>      |                                   |
| <b>UNDERDRAIN</b>                    |  |          |      |            |                 |                                   |
|                                      | Edgedrain, 6"                          | 400      | LF   | \$12.00    | \$4,800.00      | estimate 20' per CB ( 40 x 20)    |
|                                      | Dr Structure Tap, 6"                   | 40       | EA   | \$200.00   | \$8,000.00      |                                   |
|                                      | <b>SUBTOTAL - UNDERDRAIN</b>           |          |      |            | <b>\$12,800</b> |                                   |
| <b>CURB AND SIDEWALKS</b>            |  |          |      |            |                 |                                   |
|                                      | 6" Sidewalk ramp                       | 900      | SF   | \$6.50     | \$5,850.00      | 18 ea x 50 sft                    |
|                                      | 4" Conc. sidewalk                      | 900      | SF   | \$5.00     | \$4,500.00      | 18 ea x 50 sft                    |
|                                      | ADA Detectable Warnings                | 90       | FT   | \$45.00    | \$4,050.00      | 18 ea x 5 ft                      |
|                                      | <b>SUBTOTAL - CURBS AND SIDEWALKS</b>  |          |      |            | <b>\$14,400</b> |                                   |

| ITEM WORK ACTIVITY                                       | QUANTITY | UNIT | UNIT PRICE | TOTAL            | COMMENTS                   |
|--|----------|------|------------|------------------|----------------------------|
| <b>AGGREGATES AND SAND</b>                               |          |      |            |                  |                            |
| 4" aggr. Base  | 2925     | SY   | \$12.00    | \$35,100.00      | 25% of road                |
| <b>SUBTOTAL - AGGREGATES AND SAND</b>                    |          |      |            | <b>\$35,100</b>  |                            |
| <b>HOT MIX ASPHALT PAVEMENT</b>                          |          |      |            |                  |                            |
| HMA, 3C (leveling)                                       | 0        | TN   | \$100.00   | \$0.00           |                            |
| HMA, 5E1   | 0        | TN   | \$105.00   | \$0.00           |                            |
| HMA, 36A (driveways, approaches)                         | 0        | TN   | \$150.00   | \$0.00           |                            |
| Handpatching, 0 - 20 tons                                | 0        | TN   | \$175.00   | \$0.00           |                            |
| <b>SUBTOTAL - HOT MIX ASPHALT</b>                        |          |      |            | <b>\$0</b>       |                            |
| <b>CONCRETE PAVEMENTS</b>                                |          |      |            |                  |                            |
| Pavt Repr, Conc, 8" non-reinforced                       | 2925     | SY   | \$75.00    | \$219,375.00     | 25% of road                |
| 6" nonreinf Conc. driveway                               |          | SY   | \$56.00    | \$0.00           |                            |
| Lane Ties, Epoxy Coated                                  | 1000     | EA   | \$6.00     | \$6,000.00       | 24" on-center              |
| <b>SUBTOTAL - CONCRETE PAVEMENT</b>                      |          |      |            | <b>\$225,375</b> |                            |
| <b>TRAFFIC CONTROL AND STRIPING</b>                      |          |      |            |                  |                            |
| Sign, Type __, temp                                      | 100      | SFT  | \$5.00     | \$500.00         | Budget                     |
| Drum barrel, Lighted                                     | 200      | EA   | \$25.00    | \$5,000.00       | Estimated 4 to 6 per patch |
| Barricade, type III, Lighted                             | 10       | EA   | \$150.00   | \$1,500.00       | 2 per block, estimate 10   |
| Arrow Board, Lighted                                     |          | EA   | \$1,000.00 | \$0.00           |                            |
| <b>SUBTOTAL TRAFFIC CONTROL AND STRIPING</b>             |          |      |            | <b>\$7,000</b>   |                            |
| <b>LANDSCAPING</b>                                       |          |      |            |                  |                            |
| Topsoil surf., furnish, 2"                               | 300      | SY   | \$4.00     | \$1,200.00       | 1' wide adjacent to patch  |
| Class "A" seeding  | 15       | LB   | \$20.00    | \$300.00         | 220 lbs / acre             |
| Mulch Blanket  | 300      | SY   | \$4.00     | \$1,200.00       | 1' wide each side of road  |
| <b>SUBTOTAL - LANDSCAPING</b>                            |          |      |            | <b>\$2,700</b>   |                            |
| <b>MOBILIZATION AND MINOR TRAFFIC CONTROL</b>            |          |      |            |                  |                            |
| Mobilization, Max 3%                                     | 1        | LS   | \$11,544   | \$11,544         |                            |
| Minor Traffic Control Devices, Max 3%                    | 1        | LS   | \$11,544   | \$11,544         |                            |
| <b>SUBTOTAL - MOBILIZATION AND MINOR TRAFFIC CONTROL</b> |          |      |            | <b>\$23,088</b>  |                            |
| <b>SUBTOTAL CONSTRUCTION COST</b>                        |          |      |            | <b>\$407,888</b> |                            |
| <b>SUBTOTAL CONSTRUCTION COST</b>                        |          |      |            | <b>\$407,888</b> |                            |
| <b>CONSTRUCTION CONTINGENCY</b>                          |          |      | <b>15%</b> | <b>\$61,183</b>  |                            |
| <b>SUBTOTAL ENGINEERING, BIDDING, INSPECTION</b>         |          |      | <b>15%</b> | <b>\$70,361</b>  |                            |
| <b>TOTAL ESTIMATED COST</b>                              |          |      |            | <b>\$539,432</b> |                            |

Specific work items that ARE NOT included in this estimate include:

It should be pointed out that since we have no control over the Contractor's method of determining prices, competitive bidding or market conditions, our opinion of the probable construction cost as provided for herein is made on the basis of experience and represents our best judgment as design professionals. We cannot guarantee that the final construction cost will not vary from this estimate.

Respectfully,  
 GIFFELS-WEBSTER ENGINEERS, INC.

Estimate Prepared By: Scott A. Ringler, PE  
 Date: June 20, 2020

|   |   |   |
|---|---|---|
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|---|---|---|



REPAIR METHOD 2D  
WITH NO DITCHING

Local Road - Light Concrete Pavt Patching PASER = 6,7 (GOOD)

GW NO.: Promotional

DATE: June 20, 2020

## PRELIMINARY CONSTRUCTION COST ESTIMATE

Assume 1 mile of roads at 20' wide. Includes pavt removal, earth excavation, 4" aggregate base, and 8" **thick concrete patch** and drainage improvements

| ITEM                                 | WORK ACTIVITY                           | QUANTITY | UNIT | UNIT PRICE | TOTAL           | COMMENTS                          |
|--------------------------------------|---|----------|------|------------|-----------------|-----------------------------------|
| <b>DEMOLITION</b>                    |   |          |      |            |                 |                                   |
|                                      | Rem conc. sidewalk                      | 100      | SY   | \$13.00    | \$1,300.00      | Estimate 18 ea x 50 sft           |
|                                      | Rem HMA surface                         | 0        | SY   | \$13.00    | \$0.00          |                                   |
|                                      | Rem concrete driveways                  | 0        | SY   | \$17.00    | \$0.00          |                                   |
|                                      | Remove Concrete Road                    | 1760     | SY   | \$30.00    | \$52,800.00     | Estimate 15% of road (5280 x 20') |
|                                      | <b>SUBTOTAL - DEMOLITION</b>            |          |      |            | <b>\$54,100</b> |                                   |
| <b>PAVEMENT CONDITIONING</b>         |   |          |      |            |                 |                                   |
|                                      | Rem HMA patches                         |          | SY   | \$15.00    | \$0.00          |                                   |
|                                      | Longitudinal joint repair, MDOT Det 7   |          | LF   | \$7.00     | \$0.00          |                                   |
|                                      | <b>SUBTOTAL - PAVEMENT CONDITIONING</b> |          |      |            | <b>\$0</b>      |                                   |
| <b>EARTHWORK</b>                     |   |          |      |            |                 |                                   |
|                                      | Earth excavation                        | 200      | CY   | \$45.00    | \$9,000.00      | 15% of road x 4" deep x 1/27      |
|                                      | Subgrade undercutting Type II           | 0        | CY   | \$40.00    | \$0.00          |                                   |
|                                      | Stabilizing filter fabric (geoblanket)  | 0        | SY   | \$2.50     | \$0.00          |                                   |
|                                      | <b>SUBTOTAL - EARTHWORK</b>             |          |      |            | <b>\$9,000</b>  |                                   |
| <b>SOIL EROSION SEDIMENT CONTROL</b> |   |          |      |            |                 |                                   |
|                                      | Inlet/CB filter                         | 0        | EA   | \$125.00   | \$0.00          | Not Required                      |
|                                      | <b>SUBTOTAL - EROSION CONTROL</b>       |          |      |            | <b>\$0</b>      |                                   |
| <b>SANITARY SEWER</b>                |   |          |      |            |                 |                                   |
|                                      | Adjust san structure cover, case I      | 0        | EA   | \$650.00   | \$0.00          | Not Required                      |
|                                      | <b>SUBTOTAL - SANITARY SEWER</b>        |          |      |            | <b>\$0</b>      |                                   |
| <b>WATER DISTRIBUTION</b>            |   |          |      |            |                 |                                   |
|                                      | Adjust GV&W structure cover, case I     | 0        | EA   | \$650.00   | \$0.00          | Not required                      |
|                                      | Adjust water shutoff                    | 0        | EA   | \$400.00   | \$0.00          | Not required                      |
|                                      | <b>SUBTOTAL - WATER DISTRIBUTION</b>    |          |      |            | <b>\$0</b>      |                                   |
| <b>STORM SEWER</b>                   |   |          |      |            |                 |                                   |
|                                      | Adjust stm structure cover, case I      | 0        | EA   | \$650.00   | \$0.00          | Not required                      |
|                                      | <b>SUBTOTAL - STORM SEWER</b>           |          |      |            | <b>\$0</b>      |                                   |
| <b>UNDERDRAIN</b>                    |   |          |      |            |                 |                                   |
|                                      | Edgedrain, 6"                           | 400      | LF   | \$12.00    | \$4,800.00      | estimate 20' per CB ( 40 x 20)    |
|                                      | Dr Structure Tap, 6"                    | 40       | EA   | \$200.00   | \$8,000.00      |                                   |
|                                      | <b>SUBTOTAL - UNDERDRAIN</b>            |          |      |            | <b>\$12,800</b> |                                   |
| <b>CURB AND SIDEWALKS</b>            |   |          |      |            |                 |                                   |
|                                      | 6" Sidewalk ramp                        | 900      | SF   | \$6.50     | \$5,850.00      | 18 ea x 50 sft                    |
|                                      | 4" Conc. sidewalk                       | 900      | SF   | \$5.00     | \$4,500.00      | 18 ea x 50 sft                    |
|                                      | ADA Detectable Warnings                 | 90       | FT   | \$45.00    | \$4,050.00      | 18 ea x 5 ft                      |
|                                      | <b>SUBTOTAL - CURBS AND SIDEWALKS</b>   |          |      |            | <b>\$14,400</b> |                                   |

| ITEM WORK ACTIVITY                                       | QUANTITY | UNIT | UNIT PRICE | TOTAL            | COMMENTS                   |
|--|----------|------|------------|------------------|----------------------------|
| <b>AGGREGATES AND SAND</b>                               |          |      |            |                  |                            |
| 4" aggr. Base  | 1760     | SY   | \$15.00    | \$26,400.00      | 15% of road                |
| <b>SUBTOTAL - AGGREGATES AND SAND</b>                    |          |      |            | <b>\$26,400</b>  |                            |
| <b>HOT MIX ASPHALT PAVEMENT</b>                          |          |      |            |                  |                            |
| HMA, 3C (leveling)                                       | 0        | TN   | \$100.00   | \$0.00           |                            |
| HMA, 5E1   | 0        | TN   | \$105.00   | \$0.00           |                            |
| HMA, 36A (driveways, approaches)                         | 0        | TN   | \$150.00   | \$0.00           |                            |
| Handpatching, 0 - 20 tons                                | 0        | TN   | \$175.00   | \$0.00           |                            |
| <b>SUBTOTAL - HOT MIX ASPHALT</b>                        |          |      |            | <b>\$0</b>       |                            |
| <b>CONCRETE PAVEMENTS</b>                                |          |      |            |                  |                            |
| Pavt Repr, Conc, 8" non-reinforced                       | 1760     | SY   | \$80.00    | \$140,800.00     | 15% of road                |
| 6" nonreinf Conc. driveway                               |          | SY   | \$56.00    | \$0.00           |                            |
| Lane Ties, Epoxy Coated                                  | 700      | EA   | \$6.00     | \$4,200.00       | 24" on-center              |
| <b>SUBTOTAL - CONCRETE PAVEMENT</b>                      |          |      |            | <b>\$145,000</b> |                            |
| <b>TRAFFIC CONTROL AND STRIPING</b>                      |          |      |            |                  |                            |
| Sign, Type __, temp                                      | 100      | SFT  | \$5.00     | \$500.00         | Budget                     |
| Drum barrel, Lighted                                     | 150      | EA   | \$25.00    | \$3,750.00       | Estimated 4 to 6 per patch |
| Barricade, type III, Lighted                             | 10       | EA   | \$150.00   | \$1,500.00       | 2 per block, estimate 10   |
| Arrow Board, Lighted                                     |          | EA   | \$1,000.00 | \$0.00           |                            |
| <b>SUBTOTAL TRAFFIC CONTROL AND STRIPING</b>             |          |      |            | <b>\$5,750</b>   |                            |
| <b>LANDSCAPING</b>                                       |          |      |            |                  |                            |
| Topsoil surf., furnish, 2"                               | 200      | SY   | \$4.00     | \$800.00         | 1' wide adjacent to patch  |
| Class "A" seeding  | 15       | LB   | \$20.00    | \$300.00         | 220 lbs / acre             |
| Mulch Blanket  | 200      | SY   | \$4.00     | \$800.00         | 1' wide each side of road  |
| <b>SUBTOTAL - LANDSCAPING</b>                            |          |      |            | <b>\$1,900</b>   |                            |
| <b>MOBILIZATION AND MINOR TRAFFIC CONTROL</b>            |          |      |            |                  |                            |
| Mobilization, Max 3%                                     | 1        | LS   | \$8,081    | \$8,081          |                            |
| Minor Traffic Control Devices, Max 3%                    | 1        | LS   | \$8,081    | \$8,081          |                            |
| <b>SUBTOTAL - MOBILIZATION AND MINOR TRAFFIC CONTROL</b> |          |      |            | <b>\$16,161</b>  |                            |
| <b>SUBTOTAL CONSTRUCTION COST</b>                        |          |      |            | <b>\$285,511</b> |                            |
| <b>SUBTOTAL CONSTRUCTION COST</b>                        |          |      |            | <b>\$285,511</b> |                            |
| <b>CONSTRUCTION CONTINGENCY</b>                          |          |      | <b>15%</b> | <b>\$42,827</b>  |                            |
| <b>SUBTOTAL ENGINEERING, BIDDING, INSPECTION</b>         |          |      | <b>15%</b> | <b>\$49,251</b>  |                            |
| <b>TOTAL ESTIMATED COST</b>                              |          |      |            | <b>\$377,588</b> |                            |

Specific work items that ARE NOT included in this estimate include:

It should be pointed out that since we have no control over the Contractor's method of determining prices, competitive bidding or market conditions, our opinion of the probable construction cost as provided for herein is made on the basis of experience and represents our best judgment as design professionals. We cannot guarantee that the final construction cost will not vary from this estimate.

Respectfully,  
 GIFFELS-WEBSTER ENGINEERS, INC.

Estimate Prepared By: Scott A. Ringler, PE  
 Date: June 20, 2020

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|---|---|---|
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