

# T. G. MILLER, P. C.

ENGINEERS AND SURVEYORS

## LUDLOWVILLE ROAD REPAIRS - OPINION OF PROBABLE COST

TOWN OF LANSING, NY

11/8/2023

### OPTION 1 - REOPEN ROAD TO VEHICULAR TRAFFIC

#### **NYS DOT**

<b>ITEM #</b>	<b>DESCRIPTION</b>	<b>QTY</b>	<b>UNIT</b>	<b>UNIT COST</b>	<b>SUBTOTAL</b>
<b>REPLACE SHEETING AND REPAIR WASHOUT AREAS (STA 7+17 TO 12+20)</b>					
552.11	PERMANENT STEEL SHEETING - CASE 100 (PZ55)	1,230	SF	\$95.00	\$116,850
551.10	SOLDIER PILES AND LAGGING - CASE 8+13 (W18X97)	790	SF	\$100.00	\$79,000
551.10	SOLDIER PILES AND LAGGING - CASE 10+20 (W24X146)	450	SF	\$100.00	\$45,000
620.03	STONE FILLING (LIGHT)	700	CY	\$116.47	\$81,529
203.07	SELECT GRANULAR FILL	800	CY	\$63.15	\$50,520
207.20	GEOTEXTILE BEDDING	300	SY	\$7.34	\$2,202
203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	250	CY	\$36.70	\$9,175
204.01	CONTROLLED LOW STRENGTH MATERIAL (CLSM)	100	CY	\$296.90	\$29,690
-	INSTALL DIP WEEPS	20	EA	\$200.00	\$4,000
-	PARTIAL REMOVAL OF NORTH CONC. WALL	1	LS	\$8,000.00	\$8,000
589.01	PARTIAL REMOVAL OF EXISTING STEEL SHEETING	7,000	LB	\$3.25	\$22,750
					<b>\$448,716</b>
<b>STORM PIPING AND UNDERDRAIN (STA 5+50 TO 10+50)</b>					
203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	550	CY	\$36.70	\$20,185
203.07	SELECT GRANULAR FILL	361	CY	\$63.15	\$22,804
620.03	STONE FILLING (LIGHT)	50	CY	\$116.47	\$5,824
623.12	CRUSHED STONE (IN-PLACE MEASURE)	350	CY	\$105.48	\$36,918
-	12" HDPE CULVERT PIPE	500	LF	\$37.00	\$18,500
-	24" HDPE CULVERT PIPE	75	LF	\$43.00	\$3,225
-	PRECAST CONCRETE DRAIN INLET	6	EA	\$2,000.00	\$12,000
-	REMOVE EXISTING 18" CMP STORM	3	EA	\$1,500.00	\$4,500
605.1502	PERFORATED CORRUGATED PE UNDERDRAIN, 6IN DIA	500	LF	\$25.04	\$12,520
621.5100002	GRADING CLEANING AND RESHAPING DITCHES	250	LF	\$7.06	\$1,765
					<b>\$138,241</b>
<b>UPSIZE AND REPLACE EXISTING 72" STEEL CULVERT (STA 1+65)</b>					
203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	250	CY	\$36.70	\$9,175
-	84" CMP WITH 2 GALV. END SECTIONS	50	LF	\$525.00	\$26,250
203.07	SELECT GRANULAR FILL	175	CY	\$63.15	\$11,051
620.05	STONE FILLING (HEAVY)	20	CY	\$125.48	\$2,510
					<b>\$48,986</b>
<b>STABILIZE EXISTING DITCH (STA 2+25 TO STA 5+50)</b>					
621.5100002	GRADING CLEANING AND RESHAPING DITCHES	425	LF	\$7.06	\$3,001
207.20	GEOTEXTILE BEDDING	283	SY	\$7.34	\$2,080
620.03	STONE FILLING (LIGHT)	94	CY	\$116.47	\$11,000
					<b>\$16,080</b>

# T. G. MILLER, P. C.

ENGINEERS AND SURVEYORS

## UPGRADE CHANNEL TO CREEK

203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	350 CY	\$36.70	\$12,845
610.16	TURF ESTABLISHMENT - PERFORMANCE	500 SY	\$5.00	\$2,500
620.03	STONE FILLING (LIGHT)	40 CY	\$116.47	\$4,659

**\$20,004**

## GUIDERAIL REMOVAL AND REPLACEMENT

606.66	REMOVING & STORING HPBO CORRUGATED BEAM GR	750 LF	\$5.50	\$4,125
606.58	RESETTING HPBO CORRUGATED BEAM GUIDE RAIL	750 LF	\$44.00	\$33,000

**\$37,125**

## ASPHALT ROAD RESTORATION

520.09000010	SAW CUTTING ASPHALT CONCRETE	240 LF	\$3.61	\$866
402.198904	19 F9 BINDER COURSE HMA, 80 SERIES COMPACTION	1,600 TON	\$128.00	\$204,800
402.098203	9.5 F2 TOP COURSE HMA, 80 SERIES COMPACTION	800 TON	\$130.00	\$104,000

**\$309,666**

## STABILIZE SOUTH RETAINING WALL BUTTRESS (STA 12+50)

552.11	PERMANENT STEEL SHEETING (PZ55)	480 SF	\$95.00	\$45,600
203.07	SELECT GRANULAR FILL	200 CY	\$63.15	\$12,630
620.03	STONE FILLING (LIGHT)	300 CY	\$116.47	\$34,941
204.01	CONTROLLED LOW STRENGTH MATERIAL	20 CY	\$296.90	\$5,938
-	INSTALL DIP WEEPS	10 EA	\$200.00	\$2,000

**\$101,109**

## OPINION OF TOTAL PROBABLE CONSTRUCTION COST

**\$1,119,927**

## CONTINGENCY

**30%**

**\$335,978**

## ENGINEERING, DESIGN, PERMITTING

**15%**

**\$167,989**

## CONSTRUCTION ADMIN/INSPECTION

**3%**

**\$33,598**

## ROW/EASEMENTS/LEGAL

**4%**

**\$44,797**

## OPINION OF TOTAL PROBABLE PROJECT COST

**\$1,657,492**

# T. G. MILLER, P. C.

E N G I N E E R S   A N D   S U R V E Y O R S

## LUDLOWVILLE ROAD REPAIRS - OPINION OF PROBABLE COST

TOWN OF LANSING, NY

11/8/2023

### OPTION 2 - CONVERT TO TRAIL (ONE LANE)

#### **NYS DOT**

<b>ITEM #</b>	<b>DESCRIPTION</b>	<b>QTY</b>	<b>UNIT</b>	<b>UNIT COST</b>	<b>SUBTOTAL</b>
<b>REPLACE SHEETING AND REPAIR WASHOUT AREAS (STA 7+17 TO 12+20)</b>					
552.11	PERMANENT STEEL SHEETING - CASE 100T (PZ40)	200	SF	\$90.00	\$18,000
551.10	PERMANENT STEEL SHEETING - CASE 8+13T (PZ40)	460	SF	\$90.00	\$41,400
551.10	PERMANENT STEEL SHEETING - CASE 10+20T (PZ40)	153	SF	\$90.00	\$13,770
620.03	STONE FILLING (LIGHT)	500	CY	\$116.47	\$58,235
203.07	SELECT GRANULAR FILL	400	CY	\$63.15	\$25,260
207.20	GEOTEXTILE BEDDING	150	SY	\$7.34	\$1,101
203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	1,300	CY	\$36.70	\$47,710
204.01	CONTROLLED LOW STRENGTH MATERIAL (CLSM)	20	CY	\$296.90	\$5,938
-	INSTALL DIP WEEPS	23	EA	\$200.00	\$4,600
-	REMOVAL OF NORTH CONC. WALL	1	LS	\$20,000.00	\$20,000
589.01	CUT AND REMOVE EXISTING EXPOSED STEEL SHEETING	54,000	LB	\$1.20	\$64,800
					<b>\$300,814</b>
<b>STORM PIPING AND UNDERDRAIN (STA 5+50 TO 10+50)</b>					
203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	550	CY	\$36.70	\$20,185
203.07	SELECT GRANULAR FILL	361	CY	\$63.15	\$22,804
620.03	STONE FILLING (LIGHT)	50	CY	\$116.47	\$5,824
623.12	CRUSHED STONE (IN-PLACE MEASURE)	350	CY	\$105.48	\$36,918
-	12" HDPE CULVERT PIPE	500	LF	\$37.00	\$18,500
-	24" HDPE CULVERT PIPE	75	LF	\$43.00	\$3,225
-	PRECAST CONCRETE DRAIN INLET	6	EA	\$2,000.00	\$12,000
-	REMOVE EXISTING 18" CMP STORM	3	EA	\$1,500.00	\$4,500
605.1502	PERFORATED CORRUGATED PE UNDERDRAIN, 6IN DIA	500	LF	\$25.04	\$12,520
621.5100002	GRADING CLEANING AND RESHAPING DITCHES	250	LF	\$7.06	\$1,765
					<b>\$138,241</b>
<b>UPSIZE AND REPLACE EXISTING 72" STEEL CULVERT (STA 1+65)</b>					
203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	250	CY	\$36.70	\$9,175
-	84" CMP WITH 2 GALV. END SECTIONS	50	LF	\$525.00	\$26,250
203.07	SELECT GRANULAR FILL	175	CY	\$63.15	\$11,051
620.05	STONE FILLING (HEAVY)	20	CY	\$125.48	\$2,510
					<b>\$48,986</b>
<b>STABILIZE EXISTING DITCH (STA 2+25 TO STA 5+50)</b>					
621.5100002	GRADING CLEANING AND RESHAPING DITCHES	425	LF	\$7.06	\$3,001
207.20	GEOTEXTILE BEDDING	283	SY	\$7.34	\$2,080
620.03	STONE FILLING (LIGHT)	94	CY	\$116.47	\$11,000
					<b>\$16,080</b>

# T. G. MILLER, P. C.

ENGINEERS AND SURVEYORS

## UPGRADE CHANNEL TO CREEK

203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	350 CY	\$36.70	\$12,845
610.16	TURF ESTABLISHMENT - PERFORMANCE	500 SY	\$5.00	\$2,500
620.03	STONE FILLING (LIGHT)	40 CY	\$116.47	\$4,659

**\$20,004**

## GUIDERAIL REMOVAL AND REPLACEMENT

606.66	REMOVING & STORING HPBO CORRUGATED BEAM GR	750 LF	\$5.50	\$4,125
606.58	RESETTING HPBO CORRUGATED BEAM GUIDE RAIL	750 LF	\$44.00	\$33,000

**\$37,125**

## ASPHALT ROAD RESTORATION

520.09000010	SAW CUTTING ASPHALT CONCRETE	600 LF	\$3.61	\$2,166
402.198904	19 F9 BINDER COURSE HMA, 80 SERIES COMPACTION	1,250 TON	\$128.00	\$160,000
402.098203	9.5 F2 TOP COURSE HMA, 80 SERIES COMPACTION	625 TON	\$130.00	\$81,250

**\$243,416**

## ALLOWANCE FOR EMERGENCY TURNAROUND

-	EASEMENT/ROW ACQUISITION, PAVING, SIGNAGE	1 LS	\$30,000.00	\$30,000
---	---	------	-------------	----------

**\$30,000**

## STABILIZE SOUTH RETAINING WALL BUTTRESS (STA 12+50)

552.11	PERMANENT STEEL SHEETING (PZ55)	480 SF	\$95.00	\$45,600
203.07	SELECT GRANULAR FILL	200 CY	\$63.15	\$12,630
620.03	STONE FILLING (LIGHT)	300 CY	\$116.47	\$34,941
204.01	CONTROLLED LOW STRENGTH MATERIAL	20 CY	\$296.90	\$5,938
-	INSTALL DIP WEEPS	10 EA	\$200.00	\$2,000

**\$101,109**

## OPINION OF TOTAL PROBABLE CONSTRUCTION COST

**\$935,774**

## CONTINGENCY

**30%**

**\$280,732**

## ENGINEERING, DESIGN, PERMITTING

**15%**

**\$140,366**

## CONSTRUCTION ADMIN/INSPECTION

**3%**

**\$28,073**

## ROW/EASEMENTS/LEGAL

**4%**

**\$37,431**

## OPINION OF TOTAL PROBABLE PROJECT COST

**\$1,384,946**

# T.G. MILLER, P.C.

ENGINEERS AND SURVEYORS

## LUDLOWVILLE ROAD REPAIRS - OPINION OF PROBABLE COST

TOWN OF LANSING, NY

11/8/2023

### OPTION #3 - ABANDONMENT

**NYS DOT**

<b>ITEM #</b>	<b>DESCRIPTION</b>	<b>QTY</b>	<b>UNIT</b>	<b>UNIT COST</b>	<b>SUBTOTAL</b>
<b>REMOVE SHEETING AND ROADWAY (STA 7+17 TO 12+20)</b>					
620.03	STONE FILLING (LIGHT)	400	CY	\$116.47	\$46,588
203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	2,860	CY	\$36.70	\$104,962
490.1	MILL ASPHALT FOR REUSE	1,250	SY	\$20.00	\$25,000
-	REMOVAL OF NORTH CONC. WALL	1	LS	\$20,000.00	\$20,000
589.01	CUT AND REMOVE EXISTING EXPOSED STEEL SHEETING	54,000	LB	\$1.20	\$64,800
					<b>\$261,350</b>
<b>GUIDERAIL REMOVAL</b>					
606.66	REMOVING & STORING HPBO CORRUGATED BEAM GR	750	LF	\$5.50	\$4,125
					<b>\$4,125</b>
<b>ALLOWANCE FOR EMERGENCY TURNAROUND</b>					
-	EASEMENT/ROW ACQUISITION, PAVING, SIGNAGE	1	LS	\$30,000.00	\$30,000
					<b>\$30,000</b>
<b>STABILIZE SOUTH RETAINING WALL BUTTRESS (STA 12+50)</b>					
552.11	PERMANENT STEEL SHEETING (PZ55)	480	SF	\$95.00	\$45,600
203.07	SELECT GRANULAR FILL	200	CY	\$63.15	\$12,630
620.03	STONE FILLING (LIGHT)	300	CY	\$116.47	\$34,941
204.01	CONTROLLED LOW STRENGTH MATERIAL	20	CY	\$296.90	\$5,938
-	INSTALL DIP WEEPS	10	EA	\$200.00	\$2,000
					<b>\$101,109</b>
<b>OPINION OF TOTAL PROBABLE CONSTRUCTION COST</b>					<b>\$396,584</b>
<b>CONTINGENCY</b>		<b>30%</b>			<b>\$118,975</b>
<b>ENGINEERING, DESIGN, PERMITTING</b>		<b>15%</b>			<b>\$59,488</b>
<b>CONSTRUCTION ADMIN/INSPECTION</b>		<b>3%</b>			<b>\$11,898</b>
<b>ROW/EASEMENTS/LEGAL</b>		<b>4%</b>			<b>\$15,863</b>
<b>OPINION OF TOTAL PROBABLE PROJECT COST</b>					<b>\$586,944</b>

# T. G. MILLER, P. C.

ENGINEERS AND SURVEYORS

## LUDLOWVILLE ROAD REPAIRS - OPINION OF PROBABLE COST

TOWN OF LANSING, NY

11/8/2023

## REPAIR SOUTH CONCRETE RETAINING WALL (STA 12+50)

**NYSDOT**

<b>ITEM #</b>	<b>DESCRIPTION</b>	<b>QTY</b>	<b>UNIT</b>	<b>UNIT COST</b>	<b>SUBTOTAL</b>
<b>REPAIR EXISTING SOUTH CONCRETE RETAINING WALL</b>					
582.07	REMOVAL OF STRUCTURAL CONCRETE-REPLACEMENT WITH VERTICAL AND OVERHEAD PATCHING MATERIAL	2200	SF	\$145.00	\$319,000
					<b>\$319,000</b>
<b>STORM PIPING THROUGH WALL</b>					
203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	70	CY	\$36.70	\$2,569
203.07	SELECT GRANULAR FILL	30	CY	\$63.15	\$1,895
623.12	CRUSHED STONE (IN-PLACE MEASURE)	12	CY	\$105.48	\$1,266
-	24" HDPE CULVERT PIPE	120	LF	\$43.00	\$5,160
-	PRECAST CONCRETE MANHOLE	1	EA	\$5,000.00	\$5,000
-	REMOVE EXISTING 18" CMP STORM	2	EA	\$1,500.00	\$3,000
					<b>\$18,889</b>
<b>OPINION OF TOTAL PROBABLE CONSTRUCTION COST</b>					<b>\$337,889</b>
<b>CONTINGENCY</b>		<b>30%</b>			<b>\$101,367</b>
<b>ENGINEERING, DESIGN, PERMITTING</b>		<b>15%</b>			<b>\$50,683</b>
<b>CONSTRUCTION ADMIN/INSPECTION</b>		<b>3%</b>			<b>\$10,137</b>
<b>ROW/EASEMENTS/LEGAL</b>		<b>4%</b>			<b>\$13,516</b>
<b>OPINION OF TOTAL PROBABLE PROJECT COST</b>					<b>\$500,076</b>

# T. G. MILLER, P. C.

ENGINEERS AND SURVEYORS

## LUDLOWVILLE ROAD REPAIRS - OPINION OF PROBABLE COST

TOWN OF LANSING, NY

11/8/2023

### SUMMARY OF COSTS

OPTION 1 - REOPEN ROAD TO VEHICULAR TRAFFIC	\$1,657,492
OPTION 2 - CONVERT TO TRAIL (ONE LANE)	\$1,384,946
OPTION #3 - ABANDONMENT	\$586,944
REPAIR SOUTH CONCRETE RETAINING WALL (STA 12+50) (NOT INCLUDED IN OPTIONS 1, 2 OR 3 ABOVE)	\$500,076
DIFFERENCE BETWEEN OPTION 1 AND OPTION 2	\$272,546
DIFFERENCE BETWEEN OPTION 1 AND OPTION 3	\$1,070,547
OPTION 1 PLUS REPAIR SOUTH CONCRETE WALL	\$2,157,568