

**CLARK PATTERSON ASSOCIATES**  
 186 NORTH WATER STREET, ROCHESTER, NEW YORK

**CONCEPTUAL ESTIMATE - COST SUMMARY**

**Project Number:** 9341.00  
**Project:** Canandaigua Regional Transportation Study  
**Location:** Canandaigua, New York  
**Engineer:** Clark Patterson Associates

Intersection No.	Intersection Name	Subtotal Cost	Contingency (25%)	Total <sup>1</sup>
1	Routes 5&20 @ Cooley Rd.	\$256,000	\$64,000	\$320,000
2	SR 21 @ SR 488/Schutt Rd.	\$90,000	\$22,500	\$112,500
3	CR 10 @ CR 46	\$256,000	\$64,000	\$320,000
4	Routes 5&20 @ CR 10	\$46,000	\$11,500	\$57,500
5	SR 332 @ Routes 5&20	\$1,172,000	\$293,000	\$1,465,000
6A	CR 4 @ CR 10	\$450,000	\$0 <sup>2</sup>	\$450,000
6B	CR 4 @ CR 10	\$403,000	\$100,750	\$503,750
7A	CR 4 @ CR 22	\$450,000	\$0 <sup>2</sup>	\$450,000
7B	CR 4 @ CR 22	\$230,000	\$57,500	\$287,500

**Grand Total: \$3,966,250**

<sup>1</sup> Some figures are rounded to the nearest thousand

<sup>2</sup> Contingencies for roundabouts are figured into the estimated lump sum costs

Estimates are based on 2005 NYSDOT Average Weighted Unit Bid Price, except for roundabout estimates, which were based on similar NYSDOT projects.

**CONCEPTUAL ESTIMATE - INTERSECTION NO. 1**

**Project Number:** 9341.00  
**Project:** Canandaigua Regional Transportation Study  
**Location:** Canandaigua, New York  
**Engineer:** Clark Patterson Associates

**Intersection 1:** Routes 5&20 @ Cooley Rd.  
**Improvement:** Add WB Right-Turn Lane (on 5&20); SB left-turn lane on Cooley; Add new signal  
**Design Speed:** 55 mph / 89 kmh

<b>ESTIMATE OF QUANTITIES</b>					
<b>ITEM NUMBER</b>	<b>Description</b>	<b>Unit</b>	<b>UNIT PRICE</b>	<b>QUANTITY</b>	<b>COST</b>
203.xx M	UNCLASSIFIED EXCAVATION AND DISPOSAL	CM	\$15	1214	\$18,000
203.xx M	STRUCTURE FILL	CM	\$27	202	\$6,000
304.xx M	SUBBASE (LOOSE MEASURE)	CM	\$22	809	\$18,000
403.xx M	ASPHALT PAVING	MT	\$102	1216	\$125,000
680.xx	TRAFFIC SIGNAL SYSTEM	EA	\$90,000	1	\$90,000
				Subtotal	\$256,000
				Contingency	25%
<b>TOTAL COST:</b>					<b>\$320,000</b>

**CONCEPTUAL ESTIMATE - INTERSECTION NO. 2**

**Project Number:** 9341.00  
**Project:** Canandaigua Regional Transportation Study  
**Location:** Canandaigua, New York  
**Engineer:** Clark Patterson Associates

**Intersection 9:** SR 21 @ SR 488/Schutt Rd  
**Improvement:** Add Signal  
**Design Speed:** 55 mph / 89 kmh

<b>ESTIMATE OF QUANTITIES</b>					
<b>ITEM NUMBER</b>	<b>Description</b>	<b>Unit</b>	<b>UNIT PRICE</b>	<b>QUANTITY</b>	<b>COST</b>
680.xx	TRAFFIC SIGNAL SYSTEM	EA	\$90,000	1	\$90,000
				Subtotal	\$90,000
				Contingency	25%
				<b>TOTAL COST:</b>	<b>\$112,500</b>

**CONCEPTUAL ESTIMATE - INTERSECTION NO. 3**

**Project Number:** 9341.00  
**Project:** Canandaigua Regional Transportation Study  
**Location:** Canandaigua, New York  
**Engineer:** Clark Patterson Associates

**Intersection 3:** CR 10 @ CR 46  
**Improvement:** Add NB and SB left-turn lanes (on CR 10) and signal  
**Design Speed:** 55 mph / 89 kmh

<b>ESTIMATE OF QUANTITIES</b>					
<b>ITEM NUMBER</b>	<b>Description</b>	<b>Unit</b>	<b>UNIT PRICE</b>	<b>QUANTITY</b>	<b>COST</b>
203.xx M	UNCLASSIFIED EXCAVATION AND DISPOSAL	CM	\$15	1214	\$18,000
203.xx M	STRUCTURE FILL	CM	\$27	202	\$6,000
304.xx M	SUBBASE (LOOSE MEASURE)	CM	\$22	809	\$18,000
403.xx M	ASPHALT PAVING	MT	\$102	1216	\$124,000
680.xx	TRAFFIC SIGNAL SYSTEM	EA	\$90,000	1	\$90,000
Subtotal					\$256,000
Contingency					25%
<b>TOTAL COST:</b>					<b>\$320,000</b>

**CONCEPTUAL ESTIMATE - INTERSECTION NO. 4**

**Project Number:** 9341.00  
**Project:** Canandaigua Regional Transportation Study  
**Location:** Canandaigua, New York  
**Engineer:** Clark Patterson Associates

**Intersection 4:** Routes 5&20 @ CR 10  
**Improvement:** Add WB right-turn lane (on 5&20)  
**Design Speed:** 40 mph / 65 kmh

<b>ESTIMATE OF QUANTITIES</b>					
<b>ITEM NUMBER</b>	<b>Description</b>	<b>Unit</b>	<b>UNIT PRICE</b>	<b>QUANTITY</b>	<b>COST</b>
203.xx M	UNCLASSIFIED EXCAVATION AND DISPOSAL	CM	\$15	375	\$6,000
203.xx M	STRUCTURE FILL	CM	\$27	63	\$2,000
304.xx M	SUBBASE (LOOSE MEASURE)	CM	\$22	250	\$6,000
403.xx M	ASPHALT PAVING	MT	\$102	324	\$34,000
				Subtotal	\$46,000
				Contingency	25%
<b>TOTAL COST:</b>					<b>\$58,000</b>

**CONCEPTUAL ESTIMATE - INTERSECTION NO. 5**

**Project Number:** 9341.00  
**Project:** Canandaigua Regional Transportation Study  
**Location:** Canandaigua, New York  
**Engineer:** Clark Patterson Associates

**Intersection 5:** SR 332 @ Routes 5&20  
**Improvement:** Reconfigure intersection for operational and pedestrian improvement - Sections 1 - 6  
**Design Speed:** 30 mph / 49 kmh

Section 1 - Shift all 5 lanes of Routes 5&20 west to intersect SR 332 approx. 114.3m north of existing intersection, maintain existing turnlane layout w/ 1 NB turn lane and 2 SB turn lanes. Approx. 121.92m of full depth reconstruction

<b>ESTIMATE OF QUANTITIES</b>					
<b>ITEM NUMBER</b>	<b>Description</b>	<b>Unit</b>	<b>UNIT PRICE</b>	<b>QUANTITY</b>	<b>COST</b>
203.xx M	UNCLASSIFIED EXCAVATION AND DISPOSAL	CM	\$15	2717	\$41,000
203.xx M	STRUCTURE FILL	CM	\$27	453	\$12,000
304.xx M	SUBBASE (LOOSE MEASURE)	CM	\$22	1811	\$40,000
403.xx M	ASPHALT PAVING	MT	\$102	1057	\$110,000
Subtotal					\$200,000
Contingency					25%
<b>TOTAL COST:</b>					<b>\$251,000</b>

Section 2 - SR 332, eliminate WB turn lane and 1 SB through lane, replace with 1 WB turn lane. Approx. 88.392m of full depth reconstruction

<b>ESTIMATE OF QUANTITIES</b>					
<b>ITEM NUMBER</b>	<b>Description</b>	<b>Unit</b>	<b>UNIT PRICE</b>	<b>QUANTITY</b>	<b>COST</b>
203.xx M	UNCLASSIFIED EXCAVATION AND DISPOSAL	CM	\$15	1332	\$20,000
203.xx M	STRUCTURE FILL	CM	\$27	222	\$5,900
304.xx M	SUBBASE (LOOSE MEASURE)	CM	\$22	888	\$20,000
403.xx M	ASPHALT PAVING - (includes adjacent & immediate inter.cold milling)	MT	\$102	2795	\$290,000
Subtotal					\$330,000
Contingency					25%
<b>TOTAL COST:</b>					<b>\$414,000</b>

Section 3 - Routes 5&20 E, add 4 SB lanes and 4 NB lanes. Approx 114.3m of full depth reconstruction

<b>ESTIMATE OF QUANTITIES</b>					
<b>ITEM NUMBER</b>	<b>Description</b>	<b>Unit</b>	<b>UNIT PRICE</b>	<b>QUANTITY</b>	<b>COST</b>
203.xx M	UNCLASSIFIED EXCAVATION AND DISPOSAL	CM	\$15	3895	\$58,000
203.xx M	STRUCTURE FILL	CM	\$27	649	\$17,000
304.xx M	SUBBASE (LOOSE MEASURE)	CM	\$22	2597	\$57,000
403.xx M	ASPHALT PAVING	MT	\$102	1057	\$108,000
Subtotal					\$240,000
Contingency					25%
<b>TOTAL COST:</b>					<b>\$301,000</b>

Section 4 - Routes 5&20 E, add 2 EB lanes and 2 NB lanes. Approx. 64.01m of full depth reconstruction

**ESTIMATE OF QUANTITIES**

ITEM NUMBER	Description	Unit	UNIT PRICE	QUANTITY	COST	
203.xx M	UNCLASSIFIED EXCAVATION AND DISPOSAL	CM	\$15	1175	\$18,000	
203.xx M	STRUCTURE FILL	CM	\$27	196	\$5,200	
304.xx M	SUBBASE (LOOSE MEASURE)	CM	\$22	783	\$17,000	
403.xx M	ASPHALT PAVING	MT	\$102	1057	\$110,000	
					Subtotal	\$150,000
					Contingency	25%

**TOTAL COST: \$185,000**

Section 5 - SR 332, remove 2 NB lanes, replace with 3 NB lanes shifted Approx. 64.01m to the NE of existing intersection

**ESTIMATE OF QUANTITIES**

ITEM NUMBER	Description	Unit	UNIT PRICE	QUANTITY	COST	
203.xx M	UNCLASSIFIED EXCAVATION AND DISPOSAL	CM	\$15	1230	\$18,000	
203.xx M	STRUCTURE FILL	CM	\$27	205	\$5,500	
304.xx M	SUBBASE (LOOSE MEASURE)	CM	\$22	820	\$18,000	
403.xx M	ASPHALT PAVING	MT	\$102	1302	\$130,000	
					Subtotal	\$175,000
					Contingency	25%

**TOTAL COST: \$220,000**

Section 6 - Removal of existing 5 lanes Routes 5&20 W, and Removal of 2 SR 332 NB lanes, Cold milling SB SR 332 adjacent to removal (SR 332)

**ESTIMATE OF QUANTITIES**

ITEM NUMBER	Description	Unit	UNIT PRICE	QUANTITY	COST	
203.xx M	UNCLASSIFIED EXCAVATION AND DISPOSAL	CM	\$15	3801	\$57,000	
203.xx M	STRUCTURE FILL	CM	\$27	0	\$0	
304.xx M	SUBBASE (LOOSE MEASURE)	CM	\$22	0	\$0	
403.xx M	ASPHALT PAVING	MT	\$102	196	\$20,000	
					Subtotal	\$77,000
					Contingency	25%

**TOTAL COST: \$96,000**

**INTERSECTION TOTAL \$1,467,000**

**CONCEPTUAL ESTIMATE - INTERSECTION NO. 6**

**Project Number:** 9341.00  
**Project:** Canandaigua Regional Transportation Study  
**Location:** Canandaigua, New York  
**Engineer:** Clark Patterson Associates

**Intersection 6:** CR 4 @ CR 10  
**Option A:** Roundabout  
**Design Speed:** 45 mph / 73 kmh

<b>ESTIMATE OF QUANTITIES</b>					
<b>ITEM NUMBER</b>	<b>Description</b>	<b>Unit</b>	<b>UNIT PRICE</b>	<b>QUANTITY</b>	<b>COST</b>
203.xx M	UNCLASSIFIED EXCAVATION AND DISPOSAL	CM	XX	XX	XX
203.xx M	STRUCTURE FILL	CM	XX	XX	XX
304.xx M	SUBBASE (LOOSE MEASURE)	CM	XX	XX	XX
403.xx M	ASPHALT PAVING	MT	XX	XX	XX
				Subtotal	XX
				Contingency	XX

**For Conceptual Cost Estimate a Lump Sum Cost has been quoted to be approximately - **TOTAL COST: \$450,000****

**CONCEPTUAL ESTIMATE - INTERSECTION NO. 6**

**Project Number:** 9341.00  
**Project:** Canandaigua Regional Transportation Study  
**Location:** Canandaigua, New York  
**Engineer:** Clark Patterson Associates

**Intersection 6:** CR 4 @ CR 10  
**Option B:** Shift CR 10 to the East, add EB right-turn, WB left-turn lane (on CR 4), and add'l NB lane (on CR 10)  
**Design Speed:** 45 mph / 73 kmh

**WB left-turn lane (on CR 4) and EB transition**

<b>ESTIMATE OF QUANTITIES</b>					
<b>ITEM NUMBER</b>	<b>Description</b>	<b>Unit</b>	<b>UNIT PRICE</b>	<b>QUANTITY</b>	<b>COST</b>
203.xx M	UNCLASSIFIED EXCAVATION AND DISPOSAL	CM	\$15	1726	\$26,000
203.xx M	STRUCTURE FILL	CM	\$27	288	\$7,800
304.xx M	SUBBASE (LOOSE MEASURE)	CM	\$22	1151	\$26,000
403.xx M	ASPHALT PAVING	MT	\$102	1332	\$140,000
Subtotal					\$195,000

**Shift CR 10 to the East (Add EB right-turn, and add'l NB lane (on CR 10), remove existing road from point of shift to existing intersection**

<b>ESTIMATE OF QUANTITIES</b>					
<b>ITEM NUMBER</b>	<b>Description</b>	<b>Unit</b>	<b>UNIT PRICE</b>	<b>QUANTITY</b>	<b>COST</b>
203.xx M	UNCLASSIFIED EXCAVATION AND DISPOSAL	CM	\$15	1533	\$23,000
203.xx M	STRUCTURE FILL	CM	\$27	256	\$7,000
304.xx M	SUBBASE (LOOSE MEASURE)	CM	\$22	1022	\$23,000
403.xx M	ASPHALT PAVING	MT	\$102	1523	\$160,000
Subtotal					\$208,000

<b>Contingency</b>	<b>25%</b>
<b>TOTAL COST:</b>	<b>\$504,000</b>

**CONCEPTUAL ESTIMATE - INTERSECTION NO. 7**

**Project Number:** 9341.00  
**Project:** Canandaigua Regional Transportation Study  
**Location:** Canandaigua, New York  
**Engineer:** Clark Patterson Associates

**Intersection 7:** CR 4 @ CR 22  
**Option A:** Roundabout  
**Design Speed:** 45 mph / 73 kmh

<b>ESTIMATE OF QUANTITIES</b>					
<b>ITEM NUMBER</b>	<b>Description</b>	<b>Unit</b>	<b>UNIT PRICE</b>	<b>QUANTITY</b>	<b>COST</b>
203.xx M	UNCLASSIFIED EXCAVATION AND DISPOSAL	CM	XX	XX	XX
203.xx M	STRUCTURE FILL	CM	XX	XX	XX
304.xx M	SUBBASE (LOOSE MEASURE)	CM	XX	XX	XX
403.xx M	ASPHALT PAVING	MT	XX	XX	XX
				Subtotal	XX
				Contingency	XX

For Conceptual Cost Estimate a Lump Sum Cost has been quoted to be approximately - **TOTAL COST: \$450,000**

**CONCEPTUAL ESTIMATE - INTERSECTION NO. 7**

**Project Number:** 9341.00  
**Project:** Canandaigua Regional Transportation Study  
**Location:** Canandaigua, New York  
**Engineer:** Clark Patterson Associates

**Intersection 7:** CR 4 @ CR 22  
**Option B:** Add WB right-turn lane (on CR 4), add'l SB lane (on CR 22), and signal  
**Design Speed:** 45 mph / 73 kmh

<b>ESTIMATE OF QUANTITIES</b>					
<b>ITEM NUMBER</b>	<b>Description</b>	<b>Unit</b>	<b>UNIT PRICE</b>	<b>QUANTITY</b>	<b>COST</b>
203.xx M	UNCLASSIFIED EXCAVATION AND DISPOSAL	CM	\$15	1022	\$16,000
203.xx M	STRUCTURE FILL	CM	\$27	170	\$5,000
304.xx M	SUBBASE (LOOSE MEASURE)	CM	\$22	681	\$15,000
403.xx M	ASPHALT PAVING	MT	\$102	1016	\$104,000
680.xx	TRAFFIC SIGNAL SYSTEM	EA	\$90,000	1	\$90,000
				Subtotal	\$230,000
				Contingency	25%
<b>TOTAL COST:</b>					<b>\$286,000</b>