



CLIENT City of Parma Heights
 PROJECT CUY Independence Blvd Bridge
 SUBJECT Roadway Estimated Quantities

PROJECT NO. 1124 - Independence Blvd Bridge
 COMP. BY SRW DATE 7/18/2021
 CHECKED BY BPS DATE 8/19/2021

ROADWAY

ITEM 201 - CLEARING AND GRUBBING

This item is paid for Lump Sum.

ITEM 202 - PAVEMENT REMOVED

Note: Existing section is 9" reinforced concrete pavement

Station	to	Station	Length (ft)	Width 1 (ft)	+	Width 2 (ft)	) / 2	=	Area (sf)	/		=	
27+30.00	to	27+54.35 CL	24.35	x (28.00	+	28.00	) / 2	=	681.80	/	9	=	75.76 SY
28+53.90	to	28+80.00 CL	26.10	x (28.00	+	28.00	) / 2	=	730.80	/	9	=	81.20 SY
Total:												156.96 SY	
Total for General:												Say: <u>157</u> SY	
Total for ITEM 202 - PAVEMENT REMOVED:												<u>157</u> SY	

ITEM 202 - WALK REMOVED

	Number	x	CAD Area (sf)	/		=	
Left Rear Sidewalk:	1	x	280.00	/	1	=	280.00 SF
Right Rear Sidewalk:	1	x	244.00	/	1	=	244.00 SF
Left Forward Sidewalk:	1	x	240.00	/	1	=	240.00 SF
Right Forward Sidewalk:	1	x	312.00	/	1	=	312.00 SF
Total:							<u>1076.00</u> SF
Total for General:							Say: <u>1076</u> SF
Total for ITEM 202 - WALK REMOVED:							<u>1076</u> SF

ITEM 202 - CURB REMOVED

Station	to	Station	Number	x	Length (ft)	=	
27+30.00	to	27+86.32 LT	1	x	56.32	=	56.32 FT
27+30.00	to	27+76.83 RT	1	x	46.83	=	46.83 FT
28+30.42	to	28+80.00 LT	1	x	49.58	=	49.58 FT
28+20.88	to	28+80.00 RT	1	x	59.12	=	59.12 FT
Total:							211.85 FT
Total for General:							Say: <u>212</u> FT
Total for ITEM 202 - CURB REMOVED:							<u>212</u> FT

ITEM 202 - FENCED REMOVED

Left Rear Fence:	=	14.00	FT
Right Rear Fence:	=	14.00	FT
Left Forward Fence:	=	14.00	FT
Right Forward Fence:	=	22.00	FT
Total:			64.00 FT
Total for General:			Say: <u>64</u> FT
Total for ITEM 202 - FENCED REMOVED:			<u>64</u> FT

ITEM 203 - EXCAVATION

Total Calculated using End Area Method:	=	120.00	CY
Total:		120.00	CY
Total for General:	Say: <u>120</u>		CY
Total for ITEM 203 - EXCAVATION:			<u>120</u> CY



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ITEM 203 - EMBANKMENT

Total Calculated using End Area Method: = 6.00 CY
 Total: 6.00 CY
 Total for General: Say: 6 CY
Total for ITEM 203 - EMBANKMENT: 6 CY

ITEM 204 - SUBGRADE COMPACTION

Station	to	Station	Length (ft)	Width 1 (ft)	Width 2 (ft)	Area (sf)		
27+30.00	to	27+71.13 CL	41.13	x (31.00	+ 45.00) / 2	= 1562.94	/	9 = 173.66 SY
28+36.23	to	28+80.00 CL	43.77	x (31.00	+ 45.00) / 2	= 1663.26	/	9 = 184.81 SY
Total:								358.47 SY
Total for General:								Say: <u>359</u> SY
Total for ITEM 204 - SUBGRADE COMPACTION:								<u>359</u> SY

ITEM 607 - FENCE, TYPE CLT

Left Rear Fence: = 8.00 ft
 Right Rear Fence: = 10.00 ft
 Left Forward Fence: = 9.00 ft
 Right Forward Fence: = 15.00 ft
 Total: 42.00 ft
 Total for General: Say: 42 ft
Total for ITEM 607 - FENCE, TYPE CLT: 42 FT

ITEM 608 - 4" CONCRETE WALK, AS PER PLAN MEASURED IN CAD

	Area (SF)		
Left Rear Sidewalk:	174	=	173.95 SF
Right Rear Sidewalk:	125	=	124.66 SF
Left Forward Sidewalk:	136	=	136.48 SF
Right Forward Sidewalk:	85	=	195.87 SF
Total:	630.96 SF		
Total for General:	Say: <u>631</u> SF		
Total for ITEM 608 - 4" CONCRETE WALK, AS PER PLAN: <u>631</u> SF			

ITEM 609 - CURB, TYPE 6

Station	to	Station	Number	Length (ft)		
27+30.00	to	27+60.00 LT	1	x 30.00	=	30.00 ft
27+30.00	to	27+52.00 RT	1	x 22.00	=	22.00 ft
28+55.00	to	28+80.00 LT	1	x 25.00	=	25.00 ft
28+47.33	to	28+80.00 RT	1	x 32.67	=	32.67 ft
Total:						109.67 ft
Total for General:						Say: <u>110</u> ft
Total for ITEM 609 - CURB, TYPE 6:						<u>110</u> ft

ITEM 625 - GROUND ROD

Left Rear Fence:	=	1.00	EACH
Right Rear Fence:	=	1.00	EACH
Left Forward Fence:	=	1.00	EACH
Right Forward Fence:	=	1.00	EACH
Total:		4.00	EACH
Total for General:	Say:	<u>4</u>	EACH
Total for ITEM 625 - GROUND ROD:		<u>4</u>	EACH

EROSION CONTROL

ITEM 659 - SOIL ANALYSIS TEST

If specified, minimum of two tests.

Soil Analysis Test:	=	2.00	EACH
Total:		2.00	EACH
Total for General:	Say:	<u>2</u>	EACH
Total for ITEM 659 - SOIL ANALYSIS TEST:		<u>2</u>	EACH

ITEM 659 - TOPSOIL

Estimated at 111 CY per 1000 SY of permanent seeded area.

Top Soil:	Top Soil (CY)	x	Area (SY)	/	1000	=	18.98	CY
	111		171					
Total:							18.98	CY
Total for General:						Say:	<u>19</u>	CY
Total for ITEM 659 - TOPSOIL:							<u>19</u>	CY

ITEM 659 - SEEDING AND MULCHING

Total Calculated using End Area Method:	=	171.00	SY
Total:		<u>171.00</u>	SY
Total for General:	Say:	<u>171</u>	SY
Total for ITEM 659 - SEEDING AND MULCHING:		<u>171</u>	SY

ITEM 659 - REPAIR SEEDING AND MULCHING

Estimated at 5% of the permanent seeding and mulching area.

Repair Seeding and Mulching:	Area (SY)	x	Rate	=	8.55	SY
	171		0.05			
Total:					8.55	SY
Total for General:				Say:	<u>9</u>	SY
Total for ITEM 659 - REPAIR SEEDING AND MULCHING:					<u>9</u>	SY



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ITEM 659 - INTER-SEEDING

Estimated at 5% of the permanent seeding and mulching area.

Inter-seeding:	Area (SY)		Rate	=		
	171	x	0.05	=	8.55	SY
Total:					8.55	SY
Total for General:				Say:	<u>9</u>	SY
Total for ITEM 659 - INTER-SEEDING:					<u>9</u>	SY

ITEM 659 - COMMERCIAL FERTILIZER

Estimated at 30 LBS per 1000 SF of permanent seeded area. If inter-seeding is provided, use an additional 20 LBS per 1000 SF for the inter-seeded area.

Permanent seeded area:	Area (SY)		Rate (SF/SY)		Rate (LB/SF)		Rate (TON/LB)	=		
	171	x	9.0000	x	0.0300	x	0.0005	=	0.023	TONS
Inter-seeded area:	9	x	9.0000	x	0.0300	x	0.0005	=	0.001	TONS
Total:									0.02	TONS
Total for General:								Say:	<u>0.02</u>	TONS
Total for ITEM 659 - COMMERCIAL FERTILIZER:									<u>0.02</u>	TONS

ITEM 659 - LIME

Lime:	Area (SY)		Rate (SF/SY)		Rate (SF/ACRES)	=		
	171	x	9.00	/	43560	=	0.04	ACRES
Total:							0.04	ACRES
Total for General:						Say:	<u>0.04</u>	ACRES
Total for ITEM 659 - LIME:							<u>0.04</u>	ACRES

ITEM 659 - WATER

Estimate at 0.0027 M Gallons per SY per application. Apply two applications for permanent seeded area. Apply an additional application if interseeding is provided.

Permanent seeded area:	Number		Area (SY)		Rate	=		
	2	x	171	x	0.0027	=	0.92	M GAL
Inter-seeded area:	1	x	9	x	0.0027	=	0.02	M GAL
Total:							0.95	M GAL
Total for General:						Say:	<u>0.95</u>	M GAL
Total for ITEM 659 - WATER:							<u>0.95</u>	M GAL

ITEM 832 - EROSION CONTROL

Erosion Control:		=	5000.00	EACH
Total:			5000.00	EACH
Total for General:		Say:	<u>5000</u>	EACH
Total for ITEM 832 - EROSION CONTROL:			<u>5000</u>	EACH

DRAINAGE

ITEM 605 - 6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC

6" Base Pipe:		=	96.00	ft
Total:			96.00	ft
Total for General:		Say:	<u>96</u>	ft
Total for ITEM 605 - 6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC:			<u>96</u>	ft



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ITEM 611 - CATCH BASIN ADJUSTED TO GRADE

Catch Basins: = 2.00 EACH
 Total: 2.00 EACH
 Total for General: Say: 2 EACH
Total for ITEM 611 - CATCH BASIN ADJUSTED TO GRADE: 2 EACH

ITEM 611 - MANHOLE ADJUSTED TO GRADE

Manholes: = 2.00 EACH
 Total: 2.00 EACH
 Total for General: Say: 2 EACH
Total for ITEM 611 - MANHOLE ADJUSTED TO GRADE: 2 EACH

PAVEMENT

ITEM 301 - ASPHALT CONCRETE BASE, PG64-22

Station	to	Station	Length (ft)	Width 1 (ft)	Width 2 (ft)	Area (sf)	Depth (ft)				
27+30.00	to	27+56.13 CL	26.13	x (28.00 + 28.00)/2	=	731.64	x 0.75	/	27	=	20.32 CY
28+51.23	to	28+80.00 CL	28.77	x (28.00 + 28.00)/2	=	805.56	x 0.75	/	27	=	22.38 CY
Total: 42.70 CY											
Total for General: Say: <u>43</u> CY											
Total for ITEM 301 - ASPHALT CONCRETE BASE, PG64-22: <u>43</u> CY											

ITEM 304 - 6" AGGREGATE BASE, AS PER PLAN

Station	to	Station	Length (ft)	Width 1 (ft)	Width 2 (ft)	Area (sf)	Depth (ft)				
27+30.00	to	27+71.13 CL	41.13	x (31.00 + 45.00)/2	=	1562.94	x 0.50	/	27	=	28.94 CY
28+36.23	to	28+80.00 CL	43.77	x (31.00 + 45.00)/2	=	1663.26	x 0.50	/	27	=	30.80 CY
Total: 59.74 CY											
Total for General: Say: <u>60</u> CY											
Total for ITEM 304 - 6" AGGREGATE BASE, AS PER PLAN: <u>60</u> CY											

ITEM 407 - TACK COAT (RATE 0.06 GAL/SY)

Station	to	Station	Length (ft)	Width 1 (ft)	Width 2 (ft)	Area (sf)	Rate (gal/sy)				
27+30.00	to	27+56.13 CL	26.13	x (28.00 + 28.00)/2	=	731.64	x 0.12	/	9	=	9.76 GAL
28+51.23	to	28+80.00 CL	28.77	x (28.00 + 28.00)/2	=	805.56	x 0.12	/	9	=	10.74 GAL
Total: 20.50 GAL											
Total for General: Say: <u>21</u> GAL											
Total for ITEM 407 - TACK COAT (RATE 0.06 GAL/SY): <u>21</u> GAL											

ITEM 441 - 3" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), AS PER PLAN, PG64-22

Station	to	Station	Length (ft)	Width 1 (ft)	Width 2 (ft)	Area (sf)	Depth (ft)				
27+30.00	to	27+56.13 CL	26.13	x (28.00 + 28.00)/2	=	731.64	x 0.25	/	27	=	6.77 CY
28+51.23	to	28+80.00 CL	28.77	x (28.00 + 28.00)/2	=	805.56	x 0.25	/	27	=	7.46 CY
Total: 14.23 CY											
Total for General: Say: <u>14</u> CY											
Total for ITEM 441 - 3" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), AS PER PLAN, PG64-22: <u>14</u> CY											



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Water Work

ITEM 638 - VALVE BOX ADJUSTED TO GRADE

Valve Boxes Adjusted = 1.00 EACH
 Total: 1.00 EACH
 Total for General: Say: 1 EACH
Total for ITEM 638 - VALVE BOX ADJUSTED TO GRADE: 1 EACH

TRAFFIC CONTROL

ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL

Signs: = 4.00 EACH
 Total: 4.00 EACH
 Total for General: Say: 4 EACH
Total for ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL: 4 EACH

ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND DELIVERY

Signs: = 1.00 EACH
 Total: 1.00 EACH
 Total for General: Say: 1 EACH
Total for ITEM 630 - REMOVAL OF GROUND MOUNTED SIGN AND DELIVERY: 1 EACH

ITEM 630 - REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL

Signs: = 4.00 EACH
 Total: 4.00 EACH
 Total for General: Say: 4 EACH
Total for ITEM 630 - REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL: 4 EACH

ITEM 630 - REMOVAL OF GROUND MOUNTED POST SUPPORT AND DELIVERY

Signs: = 1.00 EACH
 Total: 1.00 EACH
 Total for General: Say: 1 EACH
Total for ITEM 630 - REMOVAL OF GROUND MOUNTED POST SUPPORT AND DELIVERY: 1 EACH

ITEM 642 - CENTER LINE, TYPE 1

Station	to	Station		Length (ft)				
27+25.00	to	29+03.00	CL	178.00	/	5280	=	0.03 MI
Total:								0.03 MI
Total for General:								Say: <u>0.03</u> MI
Total for ITEM 642 - CENTER LINE, TYPE 1:								<u>0.03</u> MI



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MAINTENANCE OF TRAFFIC

ITEM 614 - DETOUR SIGNING

This item is paid for Lump Sum.

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE

Law Enforcement Officer with Patrol Car for Assistance: = 24.00 HOUR

Total: 24.00 HOUR

Total for General: Say: 24 HOUR

Total for ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE: 24 HOUR

INCIDENTALS

ITEM 614 - MAINTAINING TRAFFIC, AS PER PLAN

This item is paid for Lump Sum.

ITEM 623 - CONSTRUCTION LAYOUT STAKES AND SURVEYING

This item is paid for Lump Sum.

ITEM 624 - MOBILIZATION

This item is paid for Lump Sum.