


Project Prioritization Cover Sheet

Transportation Improvement Program



CONTACT	Contact Information		
	Agency/Organization	Providence and Worcester Railroad Co.	
	Contact Person	Bernard Cartier	Title Director of Engineering
	Mailling Address	75 Hammond St.	
	City	Worcester, MA	Zip Code 01610
Phone	508-755-4000 Ext. 380	Email	Bernie@PWRR.com

PROJECT PRIORITIZATION	Project Prioritization <i>please use an additional sheet if necessary</i>			
	Priority	Listed in TIP 2013-2016		Project Name
		Yes	No	
	attached		no	Railroad At- Grade Crossings- Highway Safety Improvement-See Attached

CERTIFICATION	Applicant Certification	
	The information provided on this application is in accordance with local regulations and ordinances.	
	Bernard Cartier	Director of Engineering
	Applicant 	Title 1-8-2016
Signature	Date	

New Project Application

Transportation Improvement Program



CONTACT	Contact Information	
	Agency/Organization <u>Providence and Worcester Railroad Co.</u>	
	Contact Person <u>Bernard Cartier</u> Title <u>Director of Engineering</u>	
	Mailing Address <u>75 Hammond St.</u>	
	City <u>Worcester, MA</u> Zip Code <u>01610</u>	
	Phone <u>508-755-4000 Ext. 380</u> Email <u>Bernie@PWRR.com</u>	

PROJECT INFORMATION	Type of Project <i>select all that apply</i>			
	<input type="checkbox"/> Bridge	<input type="checkbox"/> Pavement	<input type="checkbox"/> Drainage	<input type="checkbox"/> Planning
	<input type="checkbox"/> Traffic	<input type="checkbox"/> Transit	<input type="checkbox"/> Bicycle	<input type="checkbox"/> Pedestrian
	<input type="checkbox"/> Transportation Enhancement	<input checked="" type="checkbox"/> Other <u>at-grade railroad crossings</u>		
	Project Description			
	Project Title <u>At-Grade Railroad Crossing Highway Safety Improvements</u>			
Location by Street Name <u>various locations- see attached</u>				
Project Limits - From <u>various locations- see attached</u> To _____				
<i>Please include an 8.5" x 11" map of the site, indicating project limits.</i>				
Provide a brief description of the proposed project:				
<p>Enclosed are a list, estimates (for ten), and maps of highway at-grade railroad crossings proposed to be rehabilitated and upgraded to full depth rubber crossing material, new 136 lb. rail, and updated crossing signals and gates as part of a highway safety improvement program. Included as part of the projects is removal of siltation in the road, brush cutting to improve site distance for trains and drivers, ditching for improved drainage of water runoff, and new asphalt to meet the rubber rail crossing.</p>				

Describe need for proposed project:

Railroad at-grade crossings in streets deteriorate from road salt, snowplows, and constant hammering of heavy trucks and cars over the crossing. The base of the rail corrodes and holes develop in the asphalt approaches to the railroad crossing. Over time, this results in diminishing safety conditions for the Public traveling over the crossing. Updated signals and gates provide the most up to date and safe warning system for drivers approaching the crossings. As part of any crossing rehabilitation project, drainage is improved during excavation and sight distance for both drivers and train engineers is increased as brush is cut away from the four corners of a crossing. Sidewalks and handicap ramps at the sides of crossings are always replaced or improved as part of the project. Overall safety for drivers, pedestrians, and trains is greatly improved after all rail crossing rehabilitations.

Describe anticipated municipal or state transportation network or economic development benefits:

All crossings listed for rehabilitation have been evaluated and prioritized by; frequency and type of use of the road, deteriorating condition, safety, and ease of travel over the crossing by school buses, trucks, and cars. The list includes crossings of Municipal and State roads of varying widths and grades, but, all crossings listed are in need of improvement because of traffic volumes and the need for access to schools, shopping areas, businesses, and connection to major highways. Roads that are in good condition attract business and prevent accidents and property damage to the public. Safe railroad crossings include updated rail for trains, signals, a smooth ride, and an unobstructed view for drivers. Public transportation and municipal vehicles, such as fire, police, and ambulances benefit from safe grade crossings that keep their vehicles in good order and allow them to safely navigate the streets. The railroad has experienced railroad personnel doing all of the construction of the tracks and rubber surface and uses a contractor to pave. This make the project cost effective and minimizes the time needed to close the road to under a week per crossing. Sites are cleaned up after the construction leaving the community with a cleaner, safer, and more inviting environment and street. Freight railroads often traverse more industrial and sometimes depressed areas of a community. The improvements and clean up the railroad performs as part of these grade crossing projects makes the areas more attractive and convenient for residents and businesses.

Is the project consistent with the local Comprehensive Plan? Yes No

Is the project on the Federal Aid System? Yes No

Is the project on the National Highway System? Yes No

Evaluation Criteria

Please address the following topics as they relate to the project. Refer to "An Overview of TIP Guiding Principles" for more information. Submission must not exceed 2 pages, single-spaced, 12-point font.

1. Mobility Benefits
2. Cost Effectiveness
3. Economic Development
4. Environmental Impact
5. Supports Local and State Goals
6. Safety and Security
7. Equity

Project Estimates

	ROW	Study	Design	Construction	Total
Estimated Project Costs	CROSSING	1-10 ONLY		4,503,843.38	4,503,843.38
				Total Cost	4,503,843.38
				Amount Requested through TIP Process	4,503,843.38

Is there funding from other sources committed to this project? Yes No


Source	Amount
Total	

Estimated date of construction 2016-2026

Applicant Certification

I attest that the information provided on this application is in true and accurate.


 Applicant's Signature _____ Date 1-8-2016

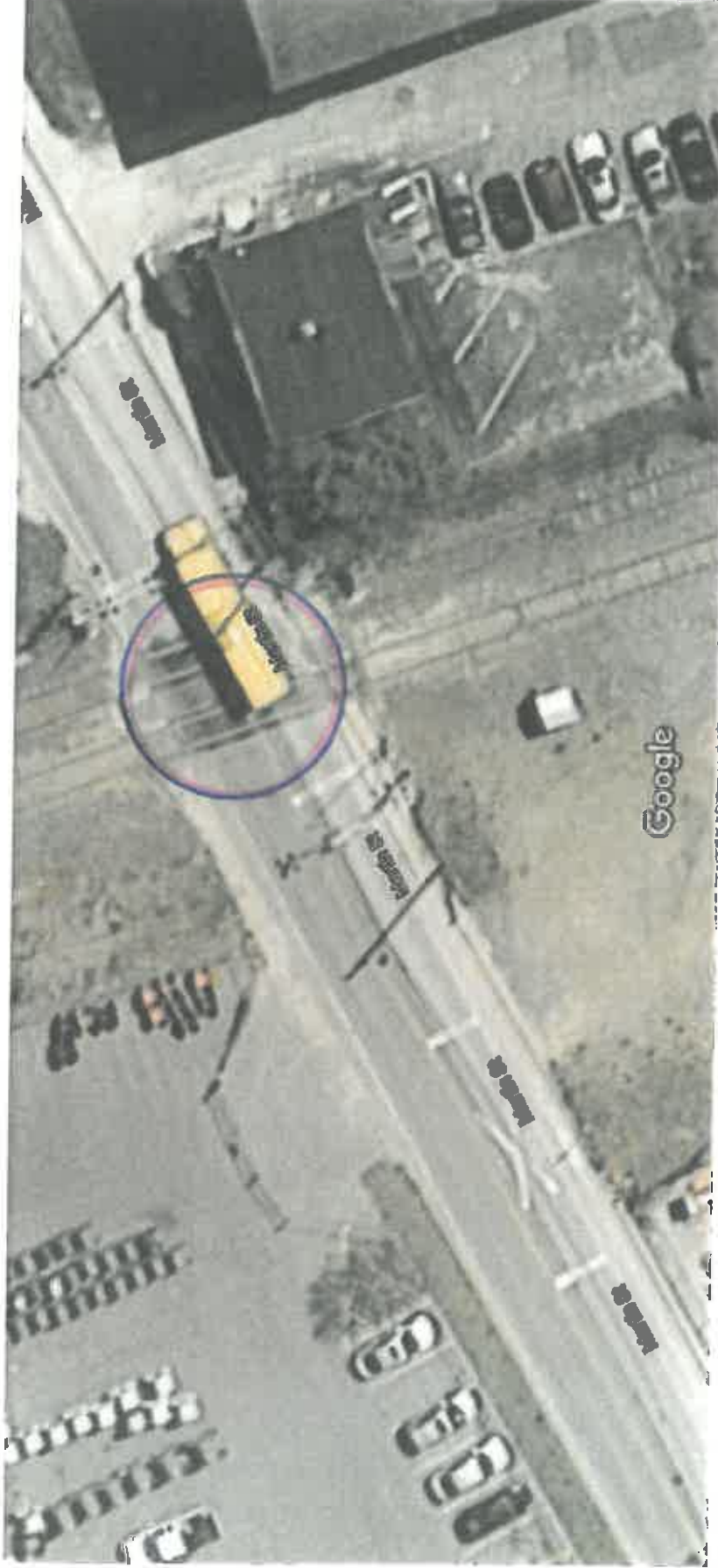

 Chief Executive Officer's Signature _____ Date January 8, 2016

ALL APPLICATIONS ARE DUE BY 3:00PM ON FRIDAY, JANUARY 8, 2016

	Grade Crossing Name	DOT #	MILEPOST	City/Town	Scheduled Rehab	Surface Estimate	Signal Estimate	Cost by Location	Total Cost
1)	Martin St	861-563D	8.73	Cumberland	2016	\$285,639.11	\$296,655.96	\$582,295.07	
2)	Roosevelt Ave	861-593V	0.94	Pawtucket	2016	\$216,661.51	\$85,092.98	\$301,754.49	
3)	Mendon Rd	861-562W	7.21	Cumberland	2017	\$331,125.99	\$309,379.96	\$640,505.95	
4)	Terminal Road	914-470J		Providence	2017	\$360,094.48	\$153,163.65	\$513,258.13	
5)	Beverage Hill Ave	861-543s	3.4	Pawtucket	2017	\$194,444.34	\$85,092.98	\$279,537.32	
6)	Harborside Blvd	914-470J		Providence	2018	\$407,630.91	\$25,000.00	\$432,630.91	
7)	Fields Point Drive	914-470J		Providence	2018	\$282,767.37	\$25,000.00	\$307,767.37	
8)	School St	861-570N	11.3	Lincoln	2018	\$192,444.34	\$280,645.96	\$473,090.30	
9)	River St. (Slatersville)	537-049V	1.3	Woonsocket	2018	\$218,147.91	\$279,385.96	\$497,533.87	
10)	Ralco Way	861-533L	0.26	Cumberland	2019	\$196,884.01	\$278,585.96	\$475,469.97	
TOTAL						\$2,685,839.97	\$1,818,003.41	\$4,503,843.38	

	Grade Crossing Name	DOT #	MILEPOST	City/Town	Scheduled Rehab	Surface Estimate	Signal Estimate	Cost by Location	Total Cost
11)	John St	861-546M	1.18	Pawtucket					
12)	Coyle Ave	861-589F	1.24	Pawtucket					
13)	Webster St	861-590A	1.3	Pawtucket					
14)	Cottage St	861-547U	1.61	Pawtucket					
15)	Central Ave	861-551J	1.69	Pawtucket					
16)	Armistice Blvd	861-588Y	2.03	Pawtucket					
17)	Walcott St	861-587S	2.17	Pawtucket					
18)	Walcott/Division	909-966G	2.29	Pawtucket					
19)	Division St	861-550C	2.42	Pawtucket					
20)	Division/Columbus	909-965A	2.65	Pawtucket					
21)	Columbus Ave	861-549H	2.73	Pawtucket					
22)	Monticello Rd	861-548B	3	Pawtucket					
23)	Campbell St	861-544Y	3.13	Pawtucket					

Google Maps Martin St



Map data ©2016 Google 20 ft

Martin St
Cumberland, RI 02864

Google Maps Martin St



Imagery ©2016 DigitalGlobe, MassGIS, Commonwealth of Massachusetts EOE, RIGIS, USDA Farm Service Agency, Map data ©2016 Google 200 ft

Martin St
Cumberland, RI 02864

PROVIDENCE AND WORCESTER RAILROAD COMPANY
75 HAMMOND STREET
WORCESTER, MA 01610
TRACK AND STRUCTURES

RAILROAD FORCE ACCOUNT ESTIMATE:

P & W PROJECT NO:

R. R. I. D. #:

D. O. T. #:

Line:

M.P. 8.73

661-563D

Main Line

Street:

City:

Martin St.

Cumberland, Ri

Labor:

Number of Personnel	Personnel Category	Rate per Hour (Including Fringe Benefits)	Number of Hours	Extension
	Chief Engineer	\$ 120.00	20.0	\$ 2,400.00
	Project Engineer	\$ 100.00	40.0	\$ 4,000.00
	M.O.W. Laborers	\$ 65.00	800.0	\$ 52,000.00
				58,400.00
Labor insurance @ 18.118%:				10,580.91
Labor subtotal:				\$ 68,980.91

Equipment:

Equipment Item	Rate per Hour	Number of Hours	Extension
Loader	\$ 70.00	40.0	\$ 2,800.00
Backhoe	\$ 55.00	40.0	2,200.00
Boom/Dump truck	\$ 130.00	60.0	7,800.00
Dump Trucks	\$ 150.00	30.0	4,500.00
Tamper	\$ 290.00	40.0	11,600.00
Regulator	\$ 150.00	40.0	6,000.00
Compressor	\$ 15.00	20.0	300.00
Small Machines	\$ 20.00	80.0	1,600.00
Crew Cabs/ Pickups	\$ 25.00	200.0	5,000.00
10 Ton Vlb. Compactor	\$ 150.00	16.0	2,400.00
Equipment subtotal:			\$ 44,200.00

Material:

Material Item	Unit Price	Number of Units	Extension
42 ft 136 lb. full depth rubber crossing	\$ 350.00	42.0	\$ 14,700.00
136# lb. Rail	\$ 1,000.00	7.3	7,300.00
7"X 9" Cross ties (#5 Oak)Pandrol	\$ 85.00	35.0	2,975.00
7"X 9" Cross ties (#5 Oak)	\$ 50.00	300.0	15,000.00
1 1/2" Ballast / ton	\$ 16.00	100.0	1,600.00
Field welds	\$ 200.00	2.0	400.00
Pandrol Clips	\$ 3.50	140.0	490.00
14" Pandrol Plates	\$ 20.00	70.0	1,400.00
14" Double Shoulder Plates	\$ 12.00	160.0	1,920.00
136# rail anchors	\$ 3.00	170.0	510.00
Screw Lags	\$ 2.00	280.0	560.00
136/115 Compromise Joints	\$ 400.00	4.0	1,600.00
Spikes/ keg	\$ 180.00	10.0	1,800.00
O.T.M.	\$ 1,000.00	1.0	1,000.00
			51,255.00
Material Handling @ 5%:			2,562.75
Material Subtotal:			\$ 53,817.75

Other:

			Extension
Purchased Services			
Paving	\$ 13,000.00	1.0	13,000.00
Ditching	\$ 5,000.00	1.0	5,000.00
Removal of Debris	\$ 5,000.00	1.0	7,500.00
18" in. RCP Pipe Installed	\$ 100.00	0.0	-
Signs, Barrels for Detour	\$ 500.00	1.0	500.00
Police Protection	\$ 75.00	48.0	7,500.00
Clear Brush on line of Sight	\$ 3,000.00	1.0	3,000.00
Other Subtotal:			\$ 38,500.00

TOTAL ESTIMATE

\$ 203,498.66

Estimate by: M. Murphy

Date: 7/13/2015

PROVIDENCE AND WORCESTER RAILROAD COMPANY
75 HAMMOND STREET
WORCESTER, MA 01610
OFFICE OF CHIEF ENGINEER - COMMUNICATIONS & SIGNALS

RAILROAD FORCE ACCOUNT ESTIMATE:

P & W PROJECT NO:
N/A

R. R. I. D. #:
M.P. 8.73

D. O. T. #:
861-583D

Line:
MAIN LINE

Street:
MARTIN

City:
CUMBERLAND, RI

Labor:

Number of Personnel	Personnel Category	Rate per Hour (including Fringe Benefits)	Number of Hours	Extension
1	C & S Chief Engineer	\$ 100.00	20.0	\$ 2,000.00
4	C & S Technicians	\$ 65.00	640.0	41,800.00
				43,800.00
Labor Insurance @ 18.11%:				7,895.98
Labor subtotal:				\$ 51,495.98

Equipment:

Equipment Item	Rate per Hour	Number of Hours	Extension
Cable Trencher	\$ 38.00	0.0	\$ -
Crane Truck	\$ 110.00	80.0	8,800.00
Back Hoe	\$ 55.00	100.0	5,500.00
Small Tool Truck	\$ 25.00	120.0	3,000.00
Crew & Tool Truck	\$ 50.00	140.0	7,000.00
Bucket Truck	\$ 55.00	20.0	1,100.00
Small Tools & Equipment			1,000.00
Equipment subtotal:			\$ 26,400.00

Material:

Material Item	Unit Price	Number of Units	Extension
4x6 Equip.Sheiter/Walkout Cant/Gates/12" LED	\$ 175,000.00	1.0	\$ 175,000.00
Batteries 2 Banks	\$ 5,200.00	1.0	5,200.00
Signal Wire	\$ 500.00	1.0	500.00
Cable Signal and Gate	\$ 7,500.00	1.0	7,500.00
Cable Track Circuit	\$ 1,400.00	1.0	1,400.00
Conduit PVC	\$ 400.00	1.0	400.00
Solar Panel Kit	\$ 3,500.00	1.0	3,500.00
Switch Rod Insulation	\$ 800.00	3.0	2,400.00
Insulated Joints	\$ 3,800.00	1.0	3,800.00
Miscellaneous Items Rail Joint Bonding	\$ 1,500.00	1.0	1,500.00
			201,200.00
Material Handling @ 5%:			10,080.00
Material Subtotal:			\$ 211,280.00

Other:

Other Item	Extension
A.C. Service	\$ 3,000.00
Construction Engineering	
Pavment Markings	1,500.00
Traffic Control	3,000.00
Brush Cutting	
Accounting	
Other; Re-establish Green Area	
Other	
Other Subtotal:	\$ 7,500.00

Total Estimate: \$ 296,655.98

Estimate by: Ron Kingsbury

Date: July 14, 2016

Google Maps Roosevelt Ave



Roosevelt Ave
Pawtucket, RI

Google Maps Roosevelt Ave



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Roosevelt Ave
Pawtucket, RI

PROVIDENCE AND WORCESTER RAILROAD COMPANY
75 HAMMOND STREET
WORCESTER, MA 01610
TRACK AND STRUCTURES

RAILROAD FORCE ACCOUNT ESTIMATE:

P & W PROJECT NO:

R. R. I. D. #:

D. O. T. #:

Line:

M.P..88

861-583V

East Providence Br.

Street:

City:

Roosevelt Ave.

Pawtucket, RI

Labor:

Number of Personnel	Personnel Category	Rate per Hour (Including Fringe Benefits)	Number of Hours	Extension
	Chief Engineer	\$ 120.00	8.0	\$ 960.00
	Project Engineer	\$ 100.00	40.0	\$ 4,000.00
	M.O.W. Laborers	\$ 65.00	800.0	\$ 52,000.00
				<u>56,960.00</u>
Labor Insurance @ 18.12%:				<u>10,320.01</u>
Labor subtotal:				<u>\$ 67,280.01</u>

Equipment:

Equipment Item	Rate per Hour	Number of Hours	Extension
Loader	\$ 70.00	40.0	\$ 2,800.00
Backhoe	\$ 55.00	40.0	2,200.00
Boom/Dump truck	\$ 130.00	60.0	7,800.00
Dump Trucks	\$ 150.00	16.0	2,400.00
Tamper	\$ 290.00	40.0	11,600.00
Regulator	\$ 150.00	40.0	6,000.00
Compressor	\$ 15.00	20.0	300.00
Small Machines	\$ 20.00	160.0	3,200.00
Crew Cabs/ Pickups	\$ 25.00	200.0	5,000.00
10 Ton Vib. Compactor	\$ 150.00	16.0	2,400.00
Equipment subtotal:			<u>\$ 43,700.00</u>

Material:

Material Item	Unit Price	Number of Units	Extension
Rubber Surface	\$ 350.00	50.0	\$ 17,500.00
136# lb. Rail	\$ 1,100.00	7.3	8,030.00
136# lb. Ins. plug Rail	\$ 1,600.00	4.0	6,400.00
7"X 9" Cross ties (#5 Oak)	\$ 85.00	40.0	3,400.00
7"X 9" Cross ties (#5 Oak)	\$ 50.00	300.0	15,000.00
Field Welds	\$ 200.00	6.0	1,200.00
1 1/2" Ballast / ton	\$ 16.00	100.0	1,600.00
Pandrol Clips	\$ 3.50	160.0	560.00
14" double shoulder Plates	\$ 12.00	200.0	2,400.00
14" Pandrol Plates	\$ 20.00	80.0	1,600.00
136# rail anchors	\$ 3.00	200.0	600.00
Screw Lags	\$ 2.00	320.0	640.00
136/115 Compromise Joints	\$ 400.00	4.0	1,600.00
Spikes/ keg	\$ 100.00	15.0	1,500.00
O.T.M.	\$ 1,000.00	1.0	1,000.00
			<u>63,030.00</u>
Material Handling @ 5%:			<u>3,151.50</u>
Material Subtotal:			<u>\$ 66,181.50</u>

Other:

Other Item	Extension
Purchased Services	
Paving	\$ 15,000.00 1.0 15,000.00
Ditching	\$ 4,500.00 1.0 4,500.00
Removal of debris	\$ 5,000.00 1.0 5,000.00
Clear brush, line of sight	\$ 5,000.00 1.0 5,000.00
Signs, Barrels for Detour	\$ 2,000.00 1.0 2,000.00
Police Protection	\$ 100.00 80.0 8,000.00
Other Subtotal:	
	<u>\$ 39,500.00</u>

TOTAL ESTIMATE

\$ 216,881.51

Estimate by: M.Murphy

Date: 07/13/2015

PROVIDENCE AND WORCESTER RAILROAD COMPANY
75 HAMMOND STREET
WORCESTER, MA 01610
OFFICE OF CHIEF ENGINEER - COMMUNICATIONS & SIGNALS

RAILROAD FORCE ACCOUNT ESTIMATE:

P & W PROJECT NO:
N/A

R. R. I. D. #:
M.P. 0.98

D. O. T. #:
861-593V

Line:
EAST PROVIDENCE RT

Street:
ROOSEVELT

City:
PAWTUCKET, RI

Labor:

Number of Personnel	Personnel Category	Rate per Hour (Including Fringe Benefits)	Number of Hours	Extension
1	C & S Chief Engineer	\$ 100.00	10.0	\$ 1,000.00
4	C & S Technicians	\$ 65.00	320.0	20,800.00
				21,800.00
Labor insurance @ 18.11%:				3,947.98
Labor subtotal:				\$ 25,747.98

Equipment:

Equipment Item	Rate per Hour	Number of Hours	Extension
Cable Trencher	\$ 38.00	0.0	\$ -
Crane Truck	\$ 110.00	20.0	2,200.00
Back Hoe	\$ 55.00	60.0	3,300.00
Small Tool Truck	\$ 25.00	60.0	1,500.00
Crew & Tool Truck	\$ 50.00	80.0	4,000.00
Bucket Truck	\$ 55.00	0.0	-
Small Tools & Equipment			1,000.00
Equipment subtotal:			\$ 12,000.00

Material:

Material Item	Unit Price	Number of Units	Extension
4x6 Equip. Shelter - Preemtion Control	\$ 30,000.00	1.0	\$ 30,000.00
Batteries 1 Bank	\$ 2,600.00	1.0	2,600.00
Signal Wire	\$ 250.00	1.0	250.00
Cable Signal and Gate	\$ 7,500.00	0.0	-
Cable Track Circuit	\$ 1,400.00	1.0	1,400.00
Conduit PVC	\$ 400.00	1.0	400.00
Solar Panel Kit	\$ 3,500.00	1.0	3,500.00
Switch Rod Insulation	\$ 800.00	0.0	-
Insulated Joints	\$ 3,800.00	0.0	-
Miscellaneous Items Rail Joint Bonding	\$ 750.00	1.0	750.00
			38,900.00
Material Handling @ 5%:			1,945.00
Material Subtotal:			\$ 40,845.00

Other:

Other Item	Extension
A.C. Service	\$ 3,000.00
Construction Engineering	
Pavment Markings	1,500.00
Traffic Control	2,000.00
Brush Cutting	
Accounting	
Other; Re-establish Green Area	
Other	
Other Subtotal:	\$ 6,500.00

Total Estimate: \$ 85,092.98

Estimate by: Ron Kingsbury

Date: July 14, 2015

Google Maps Mendon Rd



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Mendon Rd
Cumberland, RI 02864

Google Maps Mendon Rd



Imagery ©2016 Cnes/Spot Image, DigitalGlobe, Landsat, MeseGIS, Commonwealth of Massachusetts EOEA, RIGIS, USDA Farm Service Agency, Map data ©2016 Google 2000 ft

Mendon Rd
Cumberland, RI 02864

PROVIDENCE AND WORCESTER RAILROAD COMPANY
75 HAMMOND STREET
WORCESTER, MA 01610
TRACK AND STRUCTURES

RAILROAD FORCE ACCOUNT ESTIMATE:

P & W PROJECT NO:

R. R. I. D. #:

D. O. T. #:

M.P. 7.21

861-582W

Line:

Street:

City:

Main Line

Mendon Rd.

Cumberland, RI

Labor:

Number of Personnel	Personnel Category	Rate per Hour (Including Fringe Benefits)	Number of Hours	Extension
	Chief Engineer	\$ 120.00	40.0	\$ 4,800.00
	Project Engineer	\$ 100.00	160.0	\$ 16,000.00
	M.O.W. Laborers	\$ 65.00	1,000.0	\$ 65,000.00
				85,800.00
Labor Insurance @ 18.118%:				15,545.24
Labor subtotal:				\$ 101,345.24

Equipment:

Equipment Item	Rate per Hour	Number of Hours	Extension
Loader	\$ 65.00	120.0	\$ 7,800.00
Backhoe	\$ 55.00	120.0	6,600.00
Boom/Dump truck	\$ 75.00	100.0	7,500.00
Dump Trucks	\$ 50.00	30.0	1,500.00
Tamper	\$ 250.00	40.0	10,000.00
Regulator	\$ 150.00	40.0	6,000.00
Compressor	\$ 15.00	20.0	300.00
Small Machines	\$ 20.00	80.0	1,600.00
Crew Cabs/ Pickups	\$ 25.00	700.0	17,500.00
10 Ton Vib. Compactor	\$ 80.00	16.0	1,280.00
Equipment subtotal:			\$ 60,080.00

Material:

Material Item	Unit Price	Number of Units	Extension
105 lf 136 lb. ful depth rubber crossing	\$ 350.00	105.0	\$ 36,750.00
136# lb. Rail	\$ 1,000.00	10.9	10,880.00
7"X 9" Cross ties (#5 Oak)	\$ 50.00	300.0	15,000.00
7"X 9" Cross ties (#5 Oak) Pandrol	\$ 85.00	75.0	6,375.00
1 1/2" Ballast / ton	\$ 16.00	200.0	3,200.00
136 lb field welds	\$ 200.00	6.0	1,200.00
Pandrol Clips	\$ 3.50	300.0	1,050.00
14" Pandrol Plates	\$ 20.00	150.0	3,000.00
14" Double Shoulder Plates	\$ 12.00	270.0	3,240.00
136# rail anchors	\$ 3.00	540.0	1,620.00
Screw Lags	\$ 2.00	600.0	1,200.00
136/115 Compromise Joints	\$ 400.00	4.0	1,600.00
Spikes/ keg	\$ 180.00	20.0	3,600.00
O.T.M.	\$ 1,000.00	1.0	1,000.00
			89,715.00
Material Handling @ 5%:			4,485.75
Material Subtotal:			\$ 94,200.75

Other:

Purchased Services			Extension
Paving	\$ 8,000.00	1.0	25,000.00
Ditching	\$ 5,000.00	1.0	5,000.00
Removal of Debris	\$ 5,000.00	1.0	7,500.00
18" in. RCP Pipe Installed	\$ 100.00	0.0	-
Signs, Barrels for Detour	\$ 10,000.00	1.0	10,000.00
Police Protection	\$ 75.00	48.0	25,000.00
Clear Brush on line of Sight	\$ 3,000.00	1.0	3,000.00
Other Subtotal:			\$ 75,500.00

TOTAL ESTIMATE

\$ 331,125.99

Estimate by: M. Murphy

Date: 7/13/2015

PROVIDENCE AND WORCESTER RAILROAD COMPANY
75 HAMMOND STREET
WORCESTER, MA 01610
OFFICE OF CHIEF ENGINEER - COMMUNICATIONS & SIGNALS

RAILROAD FORCE ACCOUNT ESTIMATE:

P & W PROJECT NO:
N/A

R. R. I. D. #:
M.P. 7.21

D. O. T. #:
861-562W

Line:
MAIN LINE

Street:
MENDON RD.

City:
CUMBERLAND, RI

Labor:

Number of Personnel	Personnel Category	Rate per Hour (Including Fringe Benefits)	Number of Hours	Extension
1	C & S Chief Engineer	\$ 100.00	20.0	\$ 2,000.00
4	C & S Technicians	\$ 65.00	640.0	41,600.00
				43,800.00
Labor Insurance @ 18.11%:				7,895.96
Labor subtotal:				\$ 51,495.96

Equipment:

Equipment Item	Rate per Hour	Number of Hours	Extension
Cable Trencher	\$ 38.00	0.0	\$ -
Crane Truck	\$ 110.00	80.0	8,800.00
Back Hoe	\$ 55.00	100.0	5,500.00
Small Tool Truck	\$ 25.00	140.0	3,500.00
Crew & Tool Truck	\$ 50.00	150.0	7,500.00
Bucket Truck	\$ 55.00	20.0	1,100.00
Small Tools & Equipment			1,000.00
Equipment subtotal:			\$ 27,400.00

Material:

Material Item	Unit Price	Number of Units	Extension
Prewired Shelter/Walkout Cant/Gates/12" LED	\$ 180,000.00	1.0	\$ 180,000.00
Batteries 2 Banks	\$ 5,200.00	1.0	5,200.00
Signal Wire	\$ 500.00	1.0	500.00
Cable Signal and Gate	\$ 13,280.00	1.0	13,280.00
Cable Track Circuit	\$ 1,600.00	1.0	1,600.00
Conduit PVC	\$ 500.00	1.0	500.00
Solar Panel Kit	\$ 3,500.00	1.0	3,500.00
Switch Rod Insulation	\$ 800.00	1.0	800.00
Insulated Joints	\$ 1,200.00	1.0	1,200.00
Miscellaneous Items Rail Joint Bonding	\$ 1,500.00	1.0	1,500.00
			208,080.00
Material Handling @ 5%:			10,404.00
Material Subtotal:			\$ 218,484.00

Other:

Other Item	Extension
A.C. Service	\$ 3,000.00
Construction Engineering	
Pavment Markings	3,000.00
Traffic Control	6,000.00
Brush Cutting	
Accounting	
Other; Re-establish Green Area	
Other	
Other Subtotal:	\$ 12,000.00

Total Estimate: \$ 309,379.96

Estimate by: Ron Kingsbury

Date: July 15, 2015

Google Maps Terminal Rd



Imagery ©2016 DigitalGlobe, MassGIS, Commonwealth of Massachusetts EOEA, Map data ©2016 Google 50 ft

Terminal Rd
Providence, RI 02905

Google Maps Terminal Rd



Imagery ©2016 Cnes/Spot Image, DigitalGlobe, GeoEye, Earthstar (United States), CNES/Airbus DS, USDA, USDA Farm Service Agency, Map data ©2016 Google 500 ft

Terminal Rd

Providence, RI 02905

PROVIDENCE AND WORCESTER RAILROAD COMPANY
75 HAMMOND STREET
WORCESTER, MA 01610
TRACK AND STRUCTURES

RAILROAD FORCE ACCOUNT ESTIMATE:

P & W PROJECT NO:

R. R. I. D. #:

D. O. T. #:

Line:

N/A

914-470j

Port of Providence

Street:

City:

Terminal Rd.

Providence, RI

Labor:

Number of Personnel	Personnel Category	Rate per Hour (Including Fringe Benefits)	Number of Hours	Extension
	Chief Engineer	\$ 120.00	8.0	\$ 960.00
	Project Engineer	\$ 100.00	80.0	\$ 8,000.00
	M.O.W. Laborers	\$ 65.00	1,300.0	\$ 84,600.00
				93,460.00
Labor Insurance @ 16.12%:				16,933.08
Labor subtotal:				\$ 110,393.08

Equipment:

Equipment Item	Rate per Hour	Number of Hours	Extension
Loader	\$ 70.00	60.0	\$ 4,200.00
Backhoe	\$ 55.00	80.0	4,400.00
Boom/Dump truck	\$ 130.00	80.0	10,400.00
Dump Trucks	\$ 150.00	16.0	2,400.00
Tamper	\$ 290.00	60.0	17,400.00
Regulator	\$ 150.00	60.0	9,000.00
Compressor	\$ 15.00	30.0	450.00
Small Machines	\$ 20.00	160.0	3,200.00
Crew Cabs/ Pickups	\$ 25.00	500.0	12,500.00
10 Ton Vlb. Compactor	\$ 150.00	16.0	2,400.00
Equipment subtotal:			\$ 66,350.00

Material:

Material Item	Unit Price	Number of Units	Extension
Rubber Surface	\$ 350.00	170.0	\$ 59,500.00
136# lb. Rail	\$ 1,100.00	10.9	11,968.00
136# lb. Ins. plug Rail	\$ 1,600.00	4.0	6,400.00
7"X 8" Cross ties (#5 Oak)	\$ 85.00	120.0	10,200.00
7"X 8" Cross ties (#5 Oak)	\$ 50.00	300.0	15,000.00
Field Welds	\$ 200.00	6.0	1,200.00
1 1/2" Ballast / ton	\$ 18.00	200.0	3,200.00
Pandrol Clips	\$ 3.50	480.0	1,680.00
14" double shoulder Plates	\$ 12.00	150.0	1,800.00
14" Pandrol Plates	\$ 20.00	240.0	4,800.00
136# rail anchors	\$ 3.00	100.0	300.00
Screw Legs	\$ 2.00	960.0	1,920.00
115/107 Compromise Joints	\$ 400.00	4.0	1,600.00
136/115 Compromise Joints	\$ 400.00	4.0	1,600.00
Spikes/ keg	\$ 100.00	15.0	1,500.00
O.T.M.	\$ 1,000.00	1.0	1,000.00
			123,668.00
Material Handling @ 5%:			6,183.40
Material Subtotal:			\$ 129,851.40

Other:

Other Item	Extension
Purchased Services	
Paving	\$ 25,000.00
Ditching	\$ 4,500.00
Removal of debris	\$ 5,000.00
Clear brush, line of sight	\$ 5,000.00
Signs, Barrels for Detour	\$ 2,000.00
Police Protection	\$ 100.00
Other Subtotal:	
\$ 53,500.00	

TOTAL ESTIMATE

\$ 360,094.48

Estimate by: M.Murphy

Date: 07/13/2015

PROVIDENCE AND WORCESTER RAILROAD COMPANY
75 HAMMOND STREET
WORCESTER, MA 01610
OFFICE OF CHIEF ENGINEER - COMMUNICATIONS & SIGNALS

RAILROAD FORCE ACCOUNT ESTIMATE:

P & W PROJECT NO:
N/A

R. R. I. D. #:
M.P. 1.64

D. O. T. #:
914-470J

Line:
HARBOR JUNCTION

Street:
TERMINAL RD.

City:
PROVIDENCE, RI

Labor:

Number of Personnel	Personnel Category	Rate per Hour (Including Fringe Benefits)	Number of Hours	Extension
1	C & S Chief Engineer	\$ 100.00	20.0	\$ 2,000.00
4	C & S Technicians	\$ 65.00	300.0	19,500.00
				21,500.00
Labor insurance @ 18.11%:				3,893.65
Labor subtotal:				\$ 25,393.65

Equipment:

Equipment Item	Rate per Hour	Number of Hours	Extension
Cable Trencher	\$ 38.00	0.0	\$ -
Crane Truck	\$ 110.00	40.0	4,400.00
Back Hoe	\$ 55.00	20.0	1,100.00
Small Tool Truck	\$ 25.00	75.0	1,875.00
Crew & Tool Truck	\$ 50.00	75.0	3,750.00
Bucket Truck	\$ 55.00	40.0	2,200.00
Small Tools & Equipment			1,000.00
Equipment subtotal:			\$ 14,325.00

Material:

Material Item	Unit Price	Number of Units	Extension
House Upgrade, LED Signal Lights	\$ 90,000.00	1.0	\$ 90,000.00
Batteries 2 Banks	\$ 5,400.00	1.0	5,400.00
Signal Wire	\$ 400.00	1.0	400.00
Cable Signal and Gate	\$ 5,000.00	0.0	-
Cable Track Circuit	\$ 1,000.00	0.0	-
Conduit PVC	\$ 300.00	0.0	-
Solar Panel Kit	\$ 3,600.00	1.0	3,600.00
Switch Rod Insulation	\$ -	0.0	-
Insulated Joints	\$ -	0.0	-
Miscellaneous Items: Rail Joint Bonding	\$ 1,500.00	1.0	1,500.00
			100,900.00
Material Handling @ 5%:			5,045.00
Material Subtotal:			\$ 105,945.00

Other:

Other Item	Extension
A.C. Service	\$ 3,000.00
Construction Engineering	
Pavment Markings	1,500.00
Traffic Control	3,000.00
Brush Cutting	-
Accounting	
Other; Re-establish Green Area	
Other	
Other Subtotal:	\$ 7,500.00

Total Estimate: \$ 153,183.65

Estimate by: Ron Kingsbury

Date: July 15, 2015

Google Maps Beverage Hill Ave



Map data ©2016 Google 20 ft

Beverage Hill Ave
Pawtucket, RI

Google Maps Beverage Hill Ave



Imagery ©2016 DigitalGlobe, MassGIS, Commonwealth of Massachusetts EOE, RIGIS, Map data ©2016 Google 100 ft

Beverage Hill Ave
Pawtucket, RI

PROVIDENCE AND WORCESTER RAILROAD COMPANY
75 HAMMOND STREET
WORCESTER, MA 01610
TRACK AND STRUCTURES

RAILROAD FORCE ACCOUNT ESTIMATE:

P & W PROJECT NO:

R. R. I. D. #:

D. O. T. #:

Line:

M.P.3.40

681-543S

East Providence Br.

Street:

City:

Beverage Hill Rd.

Pawtucket, RI

Labor:

Number of Personnel	Personnel Category	Rate per Hour (Including Fringe Benefits)	Number of Hours	Extension
	Chief Engineer	\$ 120.00	8.0	\$ 960.00
	Project Engineer	\$ 100.00	40.0	\$ 4,000.00
	M.O.W. Laborers	\$ 65.00	700.0	\$ 45,500.00
				50,460.00
Labor Insurance @ 18.12%:				9,142.34
Labor subtotal:				\$ 59,602.34

Equipment:

Equipment Item	Rate per Hour	Number of Hours	Extension
Loader	\$ 70.00	40.0	\$ 2,800.00
Backhoe	\$ 55.00	60.0	3,300.00
Boom/Dump truck	\$ 130.00	80.0	10,400.00
Dump Trucks	\$ 150.00	16.0	2,400.00
Tamper	\$ 290.00	40.0	11,600.00
Regulator	\$ 150.00	40.0	6,000.00
Compressor	\$ 15.00	20.0	300.00
Small Machines	\$ 20.00	160.0	3,200.00
Crew Cabs/ Pickups	\$ 25.00	300.0	7,500.00
10 Ton Vib. Compactor	\$ 150.00	16.0	2,400.00
Equipment subtotal:			\$ 49,900.00

Material:

Material Item	Unit Price	Number of Units	Extension
Rubber Surface	\$ 350.00	36.0	\$ 12,600.00
136# lb. Rail	\$ 1,100.00	7.3	8,030.00
7"X 9" Cross ties (#5 Oak)	\$ 85.00	30.0	2,550.00
7"X 9" Cross ties (#5 Oak)	\$ 50.00	300.0	15,000.00
Field Welds	\$ 200.00	2.0	400.00
1 1/2" Ballast / ton	\$ 16.00	100.0	1,600.00
Pandrol Clips	\$ 3.50	120.0	420.00
14" double shoulder Plates	\$ 12.00	120.0	1,440.00
14" Pandrol Plates	\$ 20.00	60.0	1,200.00
136# rail anchors	\$ 3.00	240.0	720.00
Screw Legs	\$ 2.00	240.0	480.00
136/115 Compromise Joints	\$ 400.00	4.0	1,600.00
Spikes/ keg	\$ 100.00	10.0	1,000.00
O.T.M.	\$ 1,000.00	1.0	1,000.00
			48,040.00
Material Handling @ 5%:			2,402.00
Material Subtotal:			\$ 50,442.00

Other:

Other Item	Extension
Purchased Services	
Paving	\$ 12,000.00 1.0 12,000.00
Ditching	\$ 4,500.00 1.0 4,500.00
Removal of debris	\$ 5,000.00 1.0 5,000.00
Clear brush, line of sight	\$ 5,000.00 1.0 5,000.00
Signs, Barrels for Detour	\$ 2,000.00 1.0 2,000.00
Police Protection	\$ 100.00 60.0 6,000.00
Other Subtotal:	\$ 34,500.00

TOTAL ESTIMATE

\$ 194,444.34

Estimate by: M.Murphy

Date: 07/13/2015

PROVIDENCE AND WORCESTER RAILROAD COMPANY
75 HAMMOND STREET
WORCESTER, MA 01610
OFFICE OF CHIEF ENGINEER - COMMUNICATIONS & SIGNALS

RAILROAD FORCE ACCOUNT ESTIMATE:

P & W PROJECT NO:
N/A

R. R. I. D. #:
M.P. 3.40

D. O. T. #:
881-543S

Line:
EAST PROVIDENCE RT

Street:
BEVERAGE HILL AVE.

City:
PAWTUCKET, RI

Labor:

Number of Personnel	Personnel Category	Rate per Hour (Including Fringe Benefits)	Number of Hours	Extension
1	C & S Chief Engineer	\$ 100.00	10.0	\$ 1,000.00
4	C & S Technicians	\$ 65.00	320.0	20,800.00
				21,800.00
Labor Insurance @ 18.11%:				3,847.98
Labor subtotal:				\$ 25,747.98

Equipment:

Equipment Item	Rate per Hour	Number of Hours	Extension
Cable Trencher	\$ 38.00	0.0	\$ -
Crane Truck	\$ 110.00	20.0	2,200.00
Back Hoe	\$ 55.00	60.0	3,300.00
Small Tool Truck	\$ 25.00	60.0	1,500.00
Crew & Tool Truck	\$ 50.00	80.0	4,000.00
Bucket Truck	\$ 55.00	0.0	-
Small Tools & Equipment			1,000.00
Equipment subtotal:			\$ 12,000.00

Material:

Material Item	Unit Price	Number of Units	Extension
4x8 Equip. Shelter - Preemflon Control	\$ 30,000.00	1.0	\$ 30,000.00
Batteries 1 Bank	\$ 2,800.00	1.0	2,800.00
Signal Wire	\$ 250.00	1.0	250.00
Cable Signal and Gate	\$ 7,500.00	0.0	-
Cable Track Circuit	\$ 1,400.00	1.0	1,400.00
Conduit PVC	\$ 400.00	1.0	400.00
Solar Panel Kit	\$ 3,500.00	1.0	3,500.00
Switch Rod Insulation	\$ 800.00	0.0	-
Insulated Joints	\$ 3,800.00	0.0	-
Miscellaneous Items Rail Joint Bonding	\$ 750.00	1.0	750.00
			38,900.00
Material Handling @ 5%:			1,945.00
Material Subtotal:			\$ 40,845.00

Other:

Other Item	Extension
A.C. Service	\$ 3,000.00
Construction Engineering	
Pavment Markings	1,500.00
Traffic Control	2,000.00
Brush Cutting	-
Accounting	
Other; Re-establish Green Area	
Other	
Other Subtotal:	
	\$ 6,500.00

Total Estimate: \$ 85,092.98

Estimate by: Ron Kingsbury

Date: July 15, 2015

Google Maps Harbourside Blvd



Map data ©2016 Google 20 ft

Harbourside Blvd
Providence, RI 02905

Google Maps Harbourside Blvd



Imagery ©2016 Cnes/Spot Image, DigitalGlobe, GeoEye, Earthstar (United States), CNES-Airbus DS, USDA Farm Service Agency, Map data ©2016 Google 1000 ft

Harbourside Blvd

Providence, RI 02905

PROVIDENCE AND WORCESTER RAILROAD COMPANY
75 HAMMOND STREET
WORCESTER, MA 01610
TRACK AND STRUCTURES

RAILROAD FORCE ACCOUNT ESTIMATE:

P & W PROJECT NO:

R. R. I. D. #:

D. O. T. #:

N/A

N/A

Line:

Street:

City:

Port of Providence

Harborside Blvd.

Providence, RI

Labor:

Number of Personnel	Personnel Category	Rate per Hour (Including Fringe Benefits)	Number of Hours	Extension
	Chief Engineer	\$ 120.00	8.0	\$ 960.00
	Project Engineer	\$ 100.00	80.0	\$ 8,000.00
	M.O.W. Laborers	\$ 65.00	1,200.0	\$ 78,000.00
				86,960.00
Labor Insurance @ 18.12%:				15,755.41
Labor subtotal:				\$ 102,715.41

Equipment:

Equipment Item	Rate per Hour	Number of Hours	Extension
Loader	\$ 70.00	60.0	\$ 4,200.00
Backhoe	\$ 55.00	80.0	4,400.00
Boom/Dump truck	\$ 130.00	80.0	10,400.00
Dump Trucks	\$ 150.00	16.0	2,400.00
Tamper	\$ 290.00	60.0	17,400.00
Regulator	\$ 150.00	60.0	9,000.00
Compressor	\$ 15.00	30.0	450.00
Small Machines	\$ 20.00	160.0	3,200.00
Crew Cabs/ Pickups	\$ 25.00	400.0	10,000.00
10 Ton Vib. Compactor	\$ 150.00	16.0	2,400.00
Equipment subtotal:			\$ 63,850.00

Material:

Material Item	Unit Price	Number of Units	Extension
Rubber Surface	\$ 350.00	190.0	\$ 66,500.00
115# lb. Rail	\$ 1,100.00	7.3	8,030.00
7"X 9" Cross ties (#5 Oak) Pandrol	\$ 85.00	130.0	11,050.00
7"X 9" Cross ties (#5 Oak)	\$ 50.00	300.0	15,000.00
Field Welds	\$ 200.00	4.0	800.00
1 1/2" Ballast / ton	\$ 16.00	150.0	2,400.00
Pandrol Clips	\$ 3.50	520.0	1,820.00
14" double shoulder Plates	\$ 12.00	140.0	1,680.00
14" Pandrol Plates	\$ 20.00	260.0	5,200.00
138# rail anchors	\$ 3.00	150.0	450.00
Screw Legs	\$ 2.00	1,040.0	2,080.00
115/107 Compromise Joints	\$ 400.00	4.0	1,600.00
Spikes/ keg	\$ 100.00	15.0	1,500.00
O.T.M.	\$ 1,000.00	1.0	1,000.00
			119,110.00
Material Handling @ 5%:			5,955.50
Material Subtotal:			\$ 125,065.50

Other:

Other Item	Extension
Purchased Services	
Paving	\$ 20,000.00 1.0 20,000.00
Ditching	\$ 4,500.00 1.0 4,500.00
Removal of debris	\$ 5,000.00 1.0 5,000.00
Clear brush, line of sight	\$ 5,000.00 1.0 5,000.00
Signs, Barrels for Detour	\$ 2,000.00 1.0 2,000.00
Police Protection	\$ 100.00 60.0 6,000.00
Other Subtotal:	\$ 42,500.00

TOTAL ESTIMATE

\$ 334,130.91

Estimate by: M.Murphy

Date: 07/13/2015

Google Maps Fields Point Dr



Map data ©2016 Google 20 ft

Fields Point Dr
Providence, RI 02905

Google Maps Fields Point Dr



Imagery ©2016 Cnes/Spot Image, DigitalGlobe, GeoEye, Earthstar (United States), CNRS/Airbus DS, USDA, USDA Farm Service Agency, Map data ©2016 Google 500 ft

Fields Point Dr
Providence, RI 02905

PROVIDENCE AND WORCESTER RAILROAD COMPANY
75 HAMMOND STREET
WORCESTER, MA 01610
TRACK AND STRUCTURES

RAILROAD FORCE ACCOUNT ESTIMATE:

P & W PROJECT NO:

R. R. I. D. #:

D. O. T. #:

N/A

N/A

Line:

Street:

City:

Port of Providence

Fields Point Rd.

Providence, RI

Labor:

Number of Personnel	Personnel Category	Rate per Hour (Including Fringe Benefits)	Number of Hours	Extension
	Chief Engineer	\$ 120.00	8.0	\$ 960.00
	Project Engineer	\$ 100.00	60.0	\$ 6,000.00
	M.O.W. Laborers	\$ 65.00	800.0	\$ 52,000.00
				58,960.00
Labor Insurance @ 18.12%:				10,882.37
Labor subtotal:				\$ 69,842.37

Equipment:

Equipment Item	Rate per Hour	Number of Hours	Extension
Loader	\$ 70.00	40.0	\$ 2,800.00
Backhoe	\$ 55.00	60.0	\$ 3,300.00
Boom/Dump truck	\$ 130.00	40.0	\$ 5,200.00
Dump Trucks	\$ 150.00	16.0	\$ 2,400.00
Tamper	\$ 290.00	40.0	\$ 11,600.00
Regulator	\$ 150.00	40.0	\$ 6,000.00
Compressor	\$ 15.00	20.0	\$ 300.00
Small Machines	\$ 20.00	120.0	\$ 2,400.00
Crew Cabs/ Pickups	\$ 25.00	300.0	\$ 7,500.00
10 Ton Vib. Compactor	\$ 150.00	16.0	\$ 2,400.00
Equipment subtotal:			\$ 43,900.00

Material:

Material Item	Unit Price	Number of Units	Extension
Rubber Surface	\$ 350.00	75.0	\$ 26,250.00
115# lb. Rail	\$ 1,100.00	7.3	\$ 8,030.00
7"X 9" Cross ties (#5 Oak) Pandrol	\$ 85.00	50.0	\$ 4,250.00
7"X 9" Cross ties (#5 Oak)	\$ 50.00	300.0	\$ 15,000.00
Field Welds	\$ 200.00	4.0	\$ 800.00
1 1/2" Ballast / ton	\$ 16.00	100.0	\$ 1,600.00
Pandrol Clips	\$ 3.50	200.0	\$ 700.00
14" double shoulder Plates	\$ 12.00	100.0	\$ 1,200.00
14" Pandrol Plates	\$ 20.00	100.0	\$ 2,000.00
136# rail anchors	\$ 3.00	90.0	\$ 270.00
Screw Legs	\$ 2.00	400.0	\$ 800.00
115/107 Compromise Joints	\$ 400.00	4.0	\$ 1,600.00
Spikes/ keg	\$ 100.00	10.0	\$ 1,000.00
O.T.M.	\$ 1,000.00	1.0	\$ 1,000.00
			64,500.00
Material Handling @ 5%:			3,225.00
Material Subtotal:			\$ 67,725.00

Other:

Other Item	Extension
Purchased Services	
Paving	\$ 12,000.00 1.0 12,000.00
Ditching	\$ 4,500.00 1.0 4,500.00
Removal of debris	\$ 5,000.00 1.0 5,000.00
Clear brush, line of sight	\$ 2,000.00 1.0 2,000.00
Signs, Barrels for Detour	\$ 500.00 1.0 500.00
Police Protection	\$ 100.00 40.0 4,000.00
Other Subtotal:	\$ 28,000.00

TOTAL ESTIMATE

\$ 209,267.37

Estimate by: M.Murphy

Date: 07/13/2016

Google Maps School St



Map data ©2016 Google 20 ft

School St
Lincoln, RI

Google Maps School St



Imagery ©2016 Cnes/Spot Image, DigitalGlobe, MissaGIS, Commonwealth of Massachusetts EOEA, RIGIS, USDA Farm Service Agency, Map data ©2016 Google 500 ft

School St
Lincoln, RI

PROVIDENCE AND WORCESTER RAILROAD COMPANY
75 HAMMOND STREET
WORCESTER, MA 01610
TRACK AND STRUCTURES

RAILROAD FORCE ACCOUNT ESTIMATE:

P & W PROJECT NO:

R. R. I. D. #:

D. O. T. #:

Line:
Main Line

M.P.11.30

861-570N

Street:

City:

School St.

Lincoln, RI

Labor:

Number of Personnel	Personnel Category	Rate per Hour (Including Fringe Benefits)	Number of Hours	Extension
	Chief Engineer	\$ 120.00	8.0	\$ 960.00
	Project Engineer	\$ 100.00	40.0	\$ 4,000.00
	M.O.W. Laborers	\$ 65.00	700.0	\$ 45,500.00
				50,460.00
Labor insurance @ 18.12%:				9,142.34
Labor subtotal:				\$ 59,602.34

Equipment:

Equipment Item	Rate per Hour	Number of Hours	Extension
Loader	\$ 70.00	40.0	\$ 2,800.00
Backhoe	\$ 55.00	60.0	3,300.00
Boom/Dump truck	\$ 130.00	80.0	10,400.00
Dump Trucks	\$ 150.00	18.0	2,400.00
Tamper	\$ 290.00	40.0	11,600.00
Regulator	\$ 150.00	40.0	6,000.00
Compressor	\$ 15.00	20.0	300.00
Small Machines	\$ 20.00	160.0	3,200.00
Crew Cabs/ Pickups	\$ 25.00	300.0	7,500.00
10 Ton Vib. Compactor	\$ 150.00	18.0	2,400.00
Equipment subtotal:			\$ 49,900.00

Material:

Material Item	Unit Price	Number of Units	Extension
Rubber Surface	\$ 350.00	36.0	\$ 12,600.00
136# lb. Rail	\$ 1,100.00	7.3	8,030.00
7"X 9" Cross ties (#5 Oak)	\$ 85.00	30.0	2,550.00
7"X 9" Cross ties (#5 Oak)	\$ 50.00	300.0	15,000.00
Field Welds	\$ 200.00	2.0	400.00
1 1/2" Ballast / ton	\$ 16.00	100.0	1,600.00
Pandrol Clips	\$ 3.50	120.0	420.00
14" double shoulder Plates	\$ 12.00	120.0	1,440.00
14" Pandrol Plates	\$ 20.00	60.0	1,200.00
136# rail anchors	\$ 3.00	240.0	720.00
Screw Lags	\$ 2.00	240.0	480.00
136/115 Compromise Joints	\$ 400.00	4.0	1,600.00
Spikes/ keg	\$ 100.00	10.0	1,000.00
O.T.M.	\$ 1,000.00	1.0	1,000.00
			48,040.00

Material handling

Material Handling @ 5%:

Material Subtotal:

2,402.00
\$ 50,442.00

Other:

Other Item	Extension
Purchased Services	
Paving	\$ 12,000.00 1.0 12,000.00
Ditching	\$ 4,500.00 1.0 4,500.00
Removal of debris	\$ 5,000.00 1.0 5,000.00
Clear brush, line of sight	\$ 5,000.00 1.0 5,000.00
Signs, Barrels for Detour	\$ 2,000.00 1.0 2,000.00
Police Protection	\$ 100.00 60.0 4,000.00
Other Subtotal:	
	\$ 32,500.00

TOTAL ESTIMATE

\$ 192,444.34

Estimate by: M.Murphy

Date: 07/13/2015

PROVIDENCE AND WORCESTER RAILROAD COMPANY
75 HAMMOND STREET
WORCESTER, MA 01610
OFFICE OF CHIEF ENGINEER - COMMUNICATIONS & SIGNALS

RAILROAD FORCE ACCOUNT ESTIMATE:

P & W PROJECT NO:
N/A

R. R. I. D. #:
M.P. 11.00

D. O. T. #:
861-570N

Line:
MAIN LINE

Street:
SCHOOL

City:
ALBION, RI

Labor:

Number of Personnel	Personnel Category	Rate per Hour (Including Fringe Benefits)	Number of Hours	Extension
1	C & S Chief Engineer	\$ 100.00	20.0	\$ 2,000.00
4	C & S Technicians	\$ 85.00	640.0	41,800.00
				43,800.00
Labor Insurance @ 18.11%:				7,995.96
Labor subtotal:				\$ 51,495.96

Equipment:

Equipment Item	Rate per Hour	Number of Hours	Extension
Cable Trencher	\$ 38.00	0.0	\$ -
Crane Truck	\$ 110.00	80.0	8,800.00
Back Hoe	\$ 55.00	100.0	5,500.00
Small Tool Truck	\$ 25.00	120.0	3,000.00
Crew & Tool Truck	\$ 50.00	140.0	7,000.00
Bucket Truck	\$ 55.00	20.0	1,100.00
Small Tools & Equipment			1,000.00
Equipment subtotal:			\$ 26,400.00

Material:

Material Item	Unit Price	Number of Units	Extension
4x8 Equip.Shelter/Walkout Cant/Gates/12" LED	\$ 165,000.00	1.0	\$ 165,000.00
Batteries 2 Banks	\$ 5,200.00	1.0	5,200.00
Signal Wire	\$ 500.00	1.0	500.00
Cable Signal and Gate	\$ 7,500.00	1.0	7,500.00
Cable Track Circuit	\$ 1,400.00	1.0	1,400.00
Conduit PVC	\$ 400.00	1.0	400.00
Solar Panel Kit	\$ 3,500.00	1.0	3,500.00
Switch Rod Insulation	\$ -	0.0	-
Insulated Joints	\$ 3,800.00	0.0	-
Miscellaneous Items RAIL JOINT BONDING	\$ 1,500.00	1.0	1,500.00
			185,000.00
Material Handling @ 5%:			8,250.00
Material Subtotal:			\$ 194,250.00

Other:

Other Item	Extension
A.C. Service	\$ 3,000.00
Construction Engineering	
Pavment Markings	1,500.00
Traffic Control	4,000.00
Brush Cutting	
Accounting	
Other; Re-establish Green Area	
Other	
Other Subtotal:	\$ 8,500.00

Total Estimate: \$ 280,845.96

Estimate by: Ron Kingsbury

Date: July 14, 2015

Google Maps River St



Map data ©2016 Google 20 ft

River St
Woonsocket, RI 02895

Google Maps · River St



River St
Woonsocket, RI 02895

PROVIDENCE AND WORCESTER RAILROAD COMPANY
75 HAMMOND STREET
WORCESTER, MA 01610
TRACK AND STRUCTURES

RAILROAD FORCE ACCOUNT ESTIMATE:

P & W PROJECT NO:

R. R. I. D. #:

D. O. T. #:

M.P. 1.30

537-049V

Line:

Street:

City:

Slatersville

River St.

Woonsocket, RI

Labor:

Number of Personnel	Personnel Category	Rate per Hour (Including Fringe Benefits)	Number of Hours	Extension
	Chief Engineer	\$ 120.00	20.0	\$ 2,400.00
	Project Engineer	\$ 100.00	40.0	\$ 4,000.00
	M.O.W. Laborers	\$ 65.00	800.0	\$ 52,000.00
				58,400.00
Labor Insurance @ 18.118%:				10,580.91
Labor subtotal:				\$ 68,980.91

Equipment:

Equipment Item	Rate per Hour	Number of Hours	Extension
Loader	\$ 70.00	40.0	\$ 2,800.00
Backhoe	\$ 55.00	40.0	2,200.00
Boom/Dump truck	\$ 130.00	60.0	7,800.00
Dump Trucks	\$ 150.00	30.0	4,500.00
Tamper	\$ 290.00	40.0	11,600.00
Regulator	\$ 150.00	40.0	6,000.00
Compressor	\$ 15.00	20.0	300.00
Small Machines	\$ 20.00	80.0	1,600.00
Crew Cabs/ Pickups	\$ 25.00	300.0	7,500.00
10 Ton Vib. Compactor	\$ 150.00	16.0	2,400.00
Equipment subtotal:			\$ 46,700.00

Material:

Material Item	Unit Price	Number of Units	Extension
42 # 136 lb. full depth rubber crossing	\$ 350.00	60.0	\$ 21,000.00
136# lb. Rail	\$ 1,000.00	7.3	7,300.00
7"X 8" Cross ties (#5 Oak) Pandrol	\$ 85.00	40.0	3,400.00
7"X 8" Cross ties (#5 Oak)	\$ 50.00	300.0	15,000.00
1 1/2" Ballast / ton	\$ 18.00	100.0	1,800.00
Field welds	\$ 200.00	2.0	400.00
Pandrol Clips	\$ 3.50	160.0	560.00
14" Pandrol Plates	\$ 20.00	80.0	1,600.00
14" Double Shoulder Plates	\$ 12.00	120.0	1,440.00
136# rail anchors	\$ 3.00	100.0	300.00
Screw Lags	\$ 2.00	320.0	640.00
136/115 Compromise Joints	\$ 400.00	4.0	1,600.00
Spikes/ keg	\$ 180.00	15.0	2,700.00
O.T.M.	\$ 1,000.00	1.0	1,000.00
			58,540.00
Material Handling @ 5%:			2,927.00
Material Subtotal:			\$ 61,467.00

Other:

	Extension
Purchased Services	
Paving	\$ 15,000.00 1.0 15,000.00
Ditching	\$ 5,000.00 1.0 5,000.00
Removal of Debris	\$ 5,000.00 1.0 7,500.00
18" In. RCP Pipe Installed	\$ 100.00 0.0
Signs, Barrels for Detour	\$ 500.00 1.0 500.00
Police Protection	\$ 75.00 48.0 10,000.00
Clear Brush on line of Sight	\$ 3,000.00 1.0 3,000.00
Other Subtotal:	\$ 41,000.00

TOTAL ESTIMATE

\$ 218,147.91

Estimate by: M. Murphy

Date: 7/13/2015

PROVIDENCE AND WORCESTER RAILROAD COMPANY
75 HAMMOND STREET
WORCESTER, MA 01610
OFFICE OF CHIEF ENGINEER - COMMUNICATIONS & SIGNALS

RAILROAD FORCE ACCOUNT ESTIMATE:

P & W PROJECT NO:
N/A

R. R. I. D. #:
M.P. 1.30

D. O. T. #:
537-049V

Line:
SLATERSVILLE

Street:
RIVER

City:
WOONSOCKET, RI

Labor:

Number of Personnel	Personnel Category	Rate per Hour (Including Fringe Benefits)	Number of Hours	Extension
1	C & S Chief Engineer	\$ 100.00	20.0	\$ 2,000.00
4	C & S Technicians	\$ 65.00	640.0	41,800.00
				43,800.00
Labor Insurance @ 18.11%:				7,895.96
Labor subtotal:				\$ 51,495.96

Equipment:

Equipment Item	Rate per Hour	Number of Hours	Extension
Cable Trencher	\$ 38.00	0.0	\$ -
Crane Truck	\$ 110.00	80.0	8,800.00
Back Hoe	\$ 55.00	100.0	5,500.00
Small Tool Truck	\$ 25.00	120.0	3,000.00
Crew & Tool Truck	\$ 50.00	140.0	7,000.00
Bucket Truck	\$ 55.00	20.0	1,100.00
Small Tools & Equipment			1,000.00
Equipment subtotal:			\$ 26,400.00

Material:

Material Item	Unit Price	Number of Units	Extension
4x8 Equip. Shelter/Walkout Cant/Gates/12" LED	\$ 180,000.00	1.0	\$ 180,000.00
Batteries 2 Banks	\$ 5,200.00	1.0	5,200.00
Signal Wire	\$ 500.00	1.0	500.00
Cable Signal and Gate	\$ 7,500.00	1.0	7,500.00
Cable Track Circuit	\$ 1,400.00	1.0	1,400.00
Conduit PVC	\$ 400.00	1.0	400.00
Solar Panel Kit	\$ 3,500.00	1.0	3,500.00
Switch Rod Insulation	\$ 800.00	0.0	-
Insulated Joints	\$ 3,800.00	1.0	3,800.00
Miscellaneous Items Rail Joint Bonding	\$ 1,500.00	1.0	1,500.00
			183,800.00
Material Handling @ 5%:			9,190.00
Material Subtotal:			\$ 192,990.00

Other:

Other Item	Extension
A.C. Service	\$ 3,000.00
Construction Engineering	
Pavment Markings	1,500.00
Traffic Control	4,000.00
Brush Cutting	
Accounting	
Other, Re-establish Green Area	
Other	
Other Subtotal:	\$ 8,500.00

Total Estimate: **\$ 279,385.96**

Estimate by: Ron Kingsbury

Date: July 16, 2015

Google Maps Ralco Way



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Ralco Way
Cumberland, RI 02864

Google Maps Ralco Way



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Ralco Way
Cumberland, RI 02864

PROVIDENCE AND WORCESTER RAILROAD COMPANY
75 HAMMOND STREET
WORCESTER, MA 01610
TRACK AND STRUCTURES

RAILROAD FORCE ACCOUNT ESTIMATE:

P & W PROJECT NO:

R. R. I. D. #:

D. O. T. #:

0.28

861-533L

Line:

Street:

City:

East Providence Br.

Raico Way

Cumberland, RI

Labor:

Number of Personnel	Personnel Category	Rate per Hour (Including Fringe Benefits)	Number of Hours	Extension
	Chief Engineer	\$ 120.00	8.0	\$ 960.00
	Project Engineer	\$ 100.00	40.0	\$ 4,000.00
	M.O.W. Laborers	\$ 65.00	800.0	\$ 52,000.00
				56,960.00
Labor Insurance @ 18.12%:				10,320.01
Labor subtotal:				\$ 67,280.01

Equipment:

Equipment Item	Rate per Hour	Number of Hours	Extension
Loader	\$ 70.00	40.0	\$ 2,800.00
Backhoe	\$ 55.00	40.0	2,200.00
Boom/Dump truck	\$ 130.00	60.0	7,800.00
Dump Trucks	\$ 150.00	16.0	2,400.00
Tamper	\$ 290.00	40.0	11,600.00
Regulator	\$ 150.00	40.0	6,000.00
Compressor	\$ 15.00	20.0	300.00
Small Machines	\$ 20.00	120.0	2,400.00
Crew Cabs/ Pickups	\$ 25.00	250.0	6,250.00
10 Ton Vib. Compactor	\$ 150.00	16.0	2,400.00
Equipment subtotal:			\$ 44,150.00

Material:

Material Item	Unit Price	Number of Units	Extension
Rubber Surface	\$ 350.00	40.0	\$ 14,000.00
136# lb. Rail	\$ 1,100.00	7.3	8,030.00
7"X 9" Cross ties (#5 Oak) Pandrol	\$ 85.00	30.0	2,550.00
7"X 9" Cross ties (#5 Oak)	\$ 50.00	300.0	15,000.00
Field Welds	\$ 200.00	4.0	800.00
1 1/2" Ballast / ton	\$ 18.00	100.0	1,800.00
Pandrol Clips	\$ 3.50	120.0	420.00
14" double shoulder Plates	\$ 12.00	120.0	1,440.00
14" Pandrol Plates	\$ 20.00	60.0	1,200.00
136# rail anchors	\$ 3.00	120.0	360.00
Screw Lags	\$ 2.00	240.0	480.00
136/115 Compromise Joints	\$ 400.00	4.0	1,600.00
Spikes/ keg	\$ 100.00	10.0	1,000.00
O.T.M.	\$ 1,000.00	1.0	1,000.00
			49,480.00
Material Handling @ 5%:			2,474.00
Material Subtotal:			\$ 51,954.00

Other:

Other Item	Extension
Purchased Services	
Paving	\$ 12,000.00 1.0 12,000.00
Ditching	\$ 4,500.00 1.0 4,500.00
Removal of debris	\$ 5,000.00 1.0 5,000.00
Clear brush, line of sight	\$ 5,000.00 1.0 5,000.00
Signs, Barrels for Detour	\$ 2,000.00 1.0 2,000.00
Police Protection	\$ 100.00 50.0 5,000.00
Other Subtotal:	\$ 33,500.00

TOTAL ESTIMATE

\$ 198,884.01

Estimate by: M.Murphy

Date: 07/13/2015

PROVIDENCE AND WORCESTER RAILROAD COMPANY
75 HAMMOND STREET
WORCESTER, MA 01610
OFFICE OF CHIEF ENGINEER - COMMUNICATIONS & SIGNALS

RAILROAD FORCE ACCOUNT ESTIMATE:

P & W PROJECT NO:
N/A

R. R. I. D. #:
M.P. 0.26

D. O. T. #:
861-533L

Line:
EAST PROVIDENCE RT

Street:
RALCO WAY

City:
CUMBERLAND, RI

Labor:

Number of Personnel	Personnel Category	Rate per Hour (Including Fringe Benefits)	Number of Hours	Extension
1	C & S Chief Engineer	\$ 100.00	20.0	\$ 2,000.00
4	C & S Technicians	\$ 65.00	640.0	41,600.00
				43,800.00
Labor Insurance @ 18.11%:				7,895.96
Labor subtotal:				\$ 51,495.96

Equipment:

Equipment Item	Rate per Hour	Number of Hours	Extension
Cable Trencher	\$ 38.00	0.0	\$ -
Crane Truck	\$ 110.00	80.0	8,800.00
Back Hoe	\$ 55.00	100.0	5,500.00
Small Tool Truck	\$ 25.00	120.0	3,000.00
Crew & Tool Truck	\$ 50.00	140.0	7,000.00
Bucket Truck	\$ 55.00	20.0	1,100.00
Small Tools & Equipment			1,000.00
Equipment subtotal:			\$ 28,400.00

Material:

Material Item	Unit Price	Number of Units	Extension
4x8 Equip. Shelter/Walkout Cant/Gates/12" LED	\$ 160,000.00	1.0	\$ 160,000.00
Batteries 2 Banks	\$ 5,200.00	1.0	5,200.00
Signal Wire	\$ 500.00	1.0	500.00
Cable Signal and Gate	\$ 7,500.00	1.0	7,500.00
Cable Track Circuit	\$ 1,400.00	1.0	1,400.00
Conduit PVC	\$ 400.00	1.0	400.00
Solar Panel Kit	\$ 3,500.00	1.0	3,500.00
Switch Rod Insulation	\$ 800.00	0.0	-
Insulated Joints	\$ 3,800.00	1.0	3,800.00
Miscellaneous Items Rail Joint Bonding	\$ 1,500.00	1.0	1,500.00
			183,800.00
Material Handling @ 5%:			9,190.00
Material Subtotal:			\$ 192,990.00

Other:

Other Item	Extension
A.C. Service	\$ 3,000.00
Construction Engineering	
Pavment Markings	1,500.00
Traffic Control	3,200.00
Brush Cutting	
Accounting	
Other; Re-establish Green Area	
Other	
Other Subtotal:	\$ 7,700.00

Total Estimate: \$ 278,585.96

Estimate by: Ron Kingsbury

Date: July 18, 2015

Google Maps John St



John St
Pawtucket, RI

Google Maps John St



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John St
Pawtucket, RI

Google Maps Coyle Ave



Map data ©2016 Google 20 ft

Coyle Ave
Pawtucket, RI

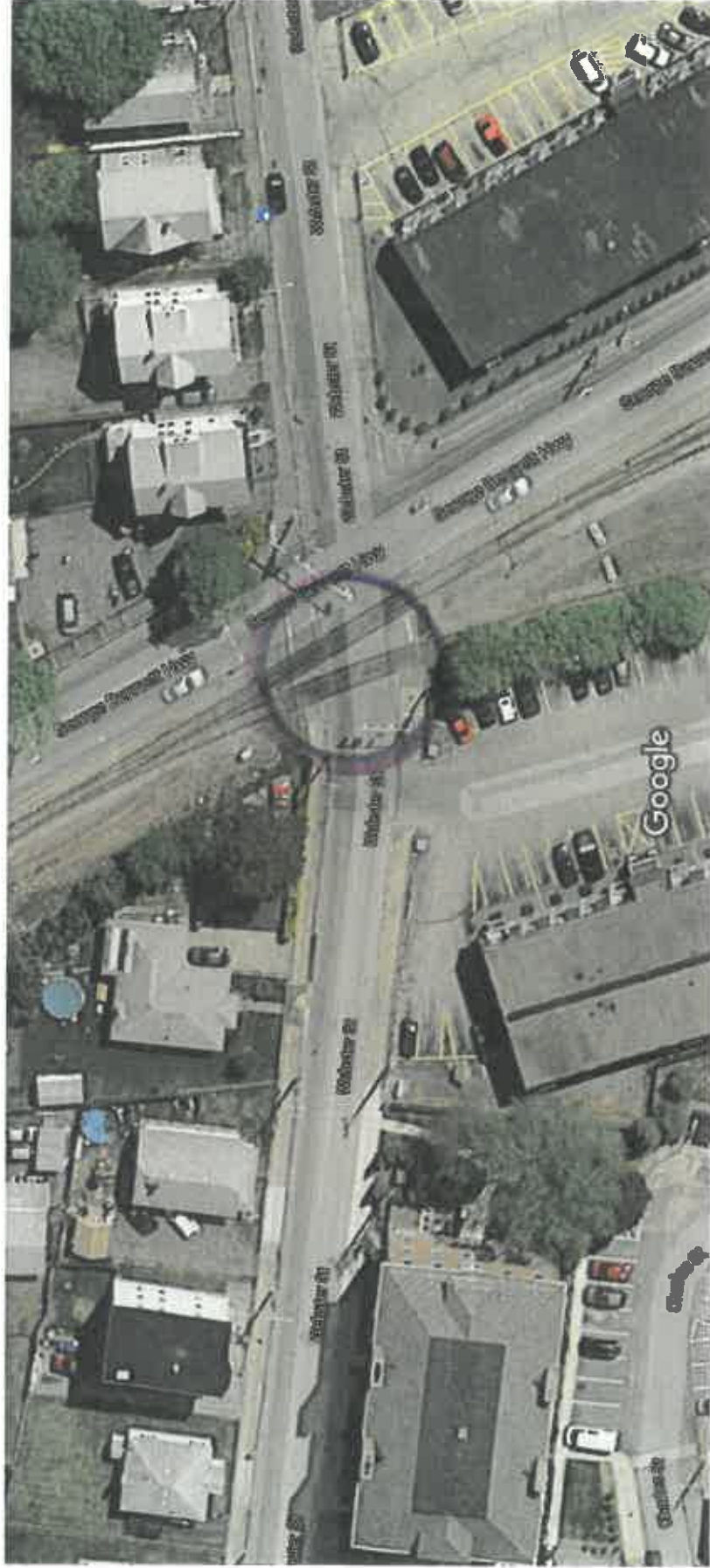
Google Maps Coyle Ave



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Coyle Ave
Pawtucket, RI

Google Maps Webster St



Map data ©2016 Google 20 ft

Webster St
Pawtucket, RI

Google Maps Webster St



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Webster St
Pawtucket, RI

Google Maps Cottage St



Imagery ©2016 DigitalGlobe, MassGIS, Commonwealth of Massachusetts EOEA, Map data ©2016 Google 50 ft

Cottage St
Pawtucket, RI

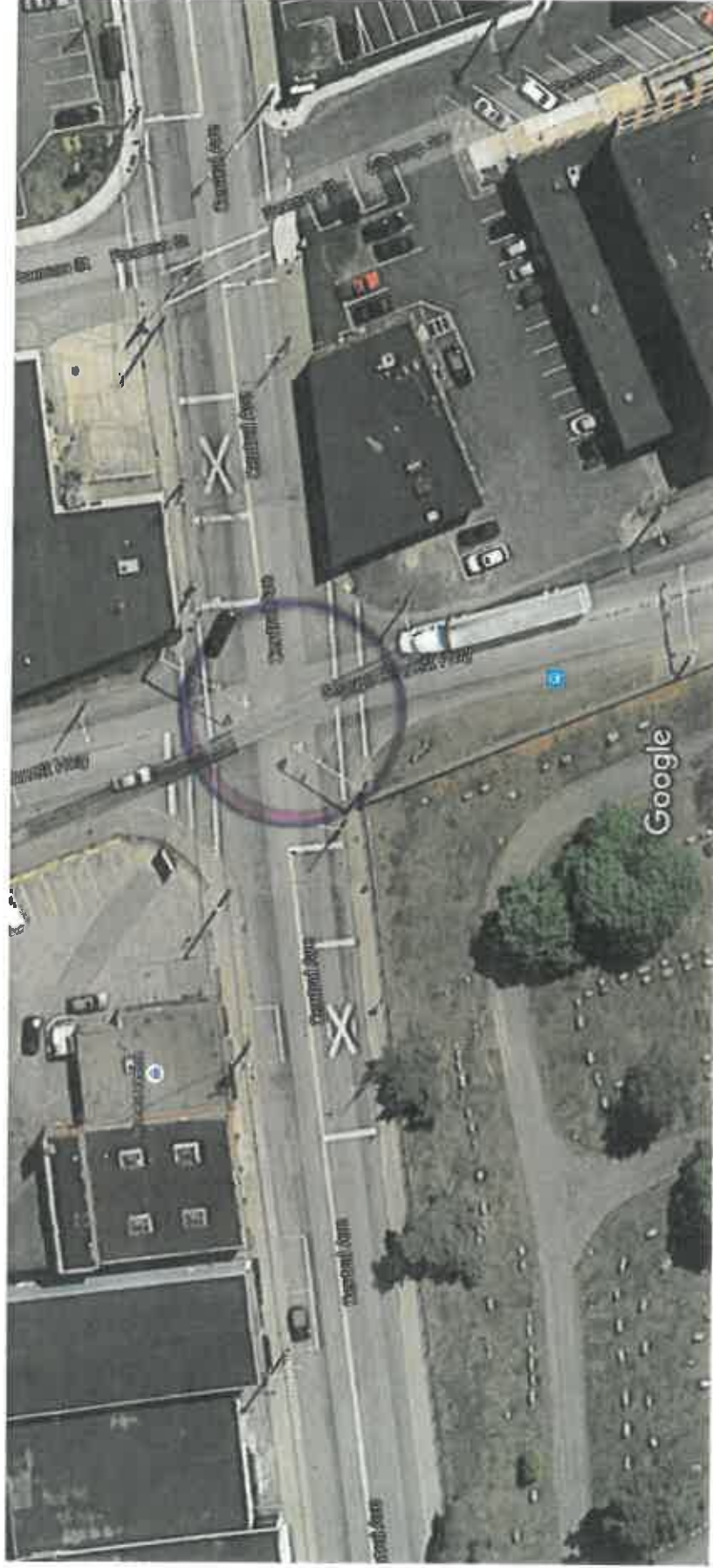
Google Maps Cottage St



Imagery ©2016 Cnes/Spot Image, DigitalGlobe, GeoEye, Earthstar (United States), CNES/Airbus DS, USDA, USDA Farm Service Agency, Map data ©2016 Google 500 ft

Cottage St
Pawtucket, RI

Google Maps Central Ave



Map data ©2016 Google 20 ft

Central Ave
Pawtucket, RI

Google Maps Central Ave



Imagery ©2016 DigitalGlobe, MassGIS, Commonwealth of Massachusetts EOEA, RIGIS, USDA Farm Service Agency, Map data ©2016 Google 200 ft

Central Ave
Pawtucket, RI

Google Maps Armistice Blvd



Imagery ©2016 DigitalGlobe, MassGIS, Commonwealth of Massachusetts EOEA, Map data ©2016 Google 50 ft

Armistice Blvd
Pawtucket, RI

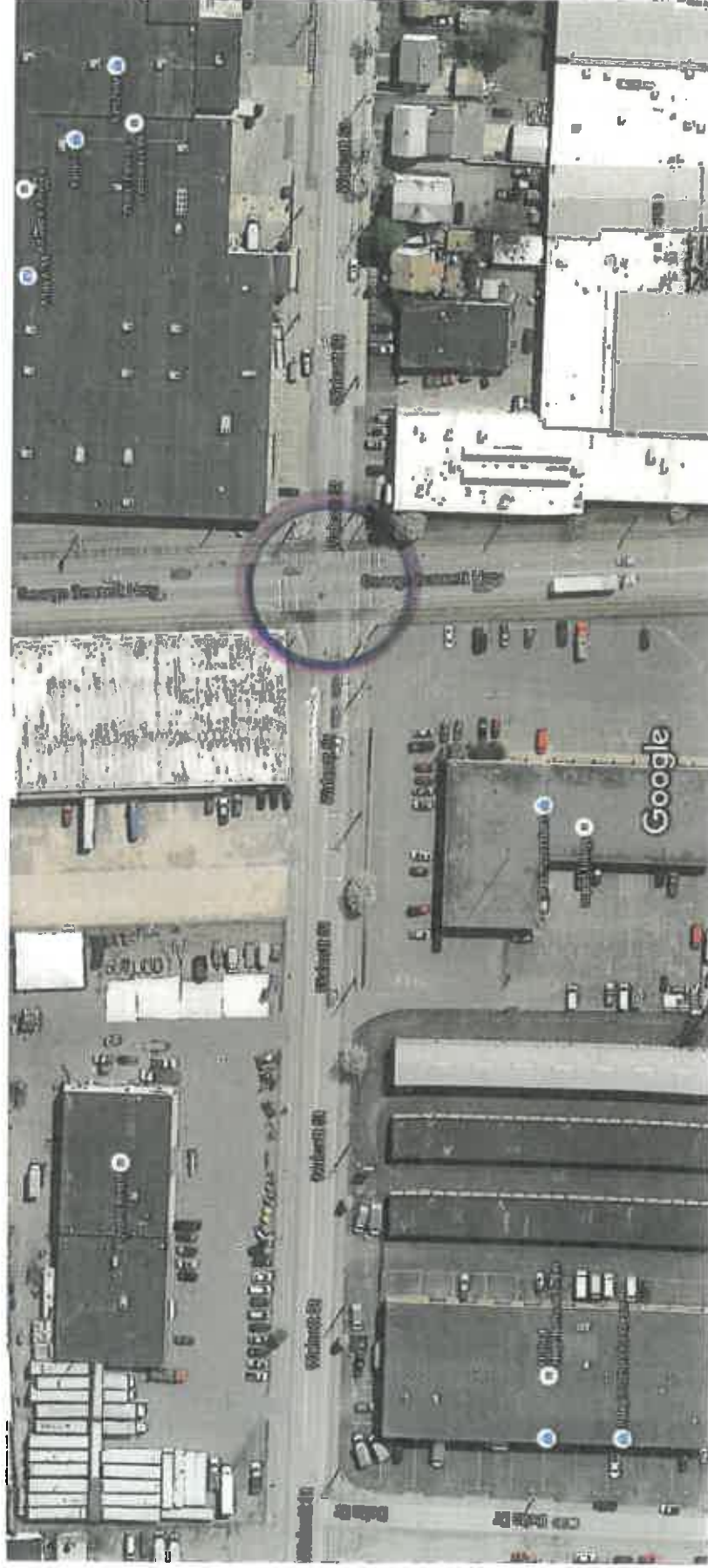
Google Maps Armistice Blvd



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Armistice Blvd
Pawtucket, RI

Google Maps Walcott St



Imagery ©2016 DigitalGlobe, MassGIS, Commonwealth of Massachusetts EOEA, Map data ©2016 Google 50 ft

Walcott St
Pawtucket, RI

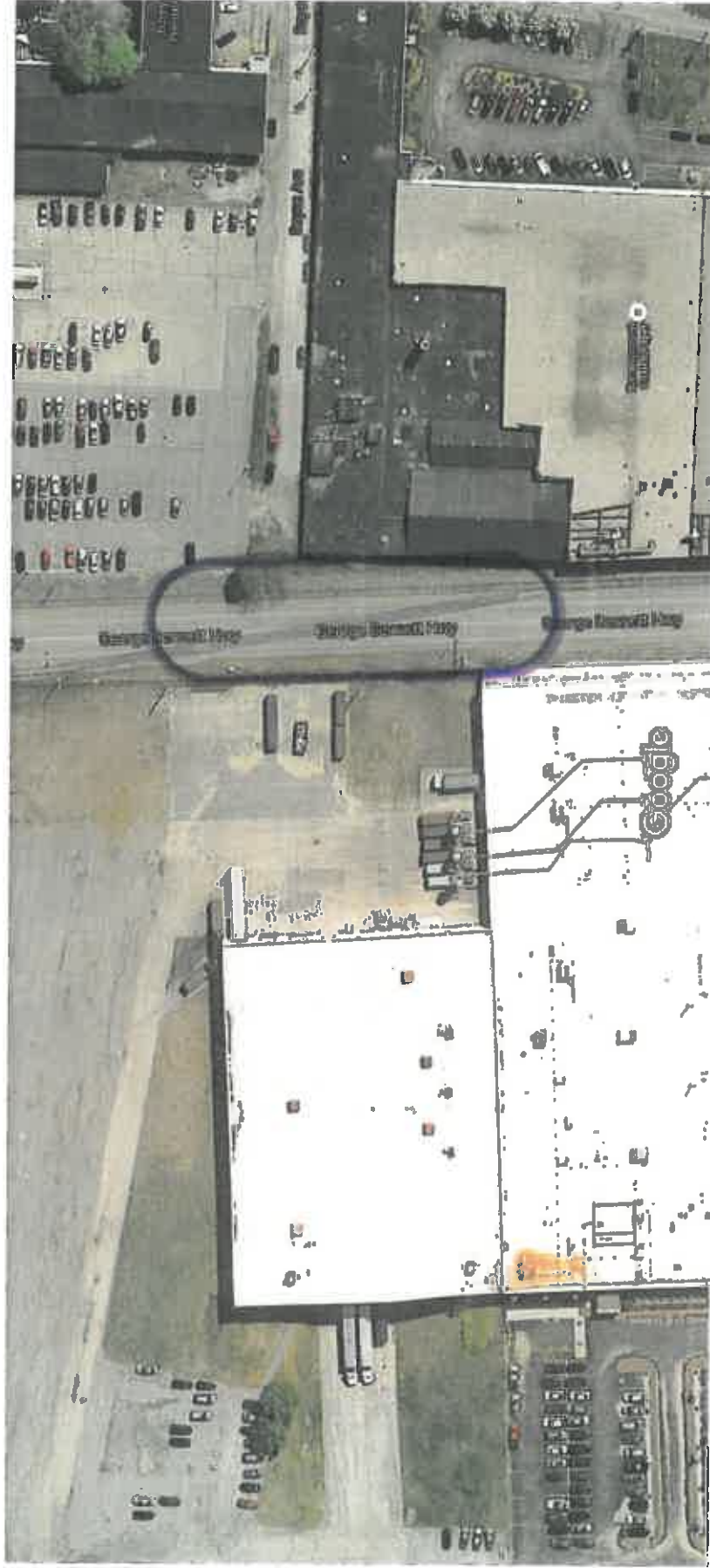
Google Maps Walcott St



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Walcott St
Pawtucket, RI

Google Maps George Bennett Hwy



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George Bennett Hwy
Pawtucket, RI

Google Maps George Bennett Hwy



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George Bennett Hwy
Pawtucket, RI

Google Maps Division St



Map data ©2016 Google 20 ft

Division St
Pawtucket, RI

Google Maps Division St



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Division St
Pawtucket, RI

Google Maps George Bennett Hwy



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George Bennett Hwy
Pawtucket, RI

Google Maps George Bennett Hwy



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George Bennett Hwy
Pawtucket, RI

Google Maps Columbus Ave



Map data ©2016 Google 20 ft

Columbus Ave
Pawtucket, RI

Google Maps Monticello Rd



Map data ©2016 Google 20 ft

Monticello Rd
Pawtucket, RI 02861

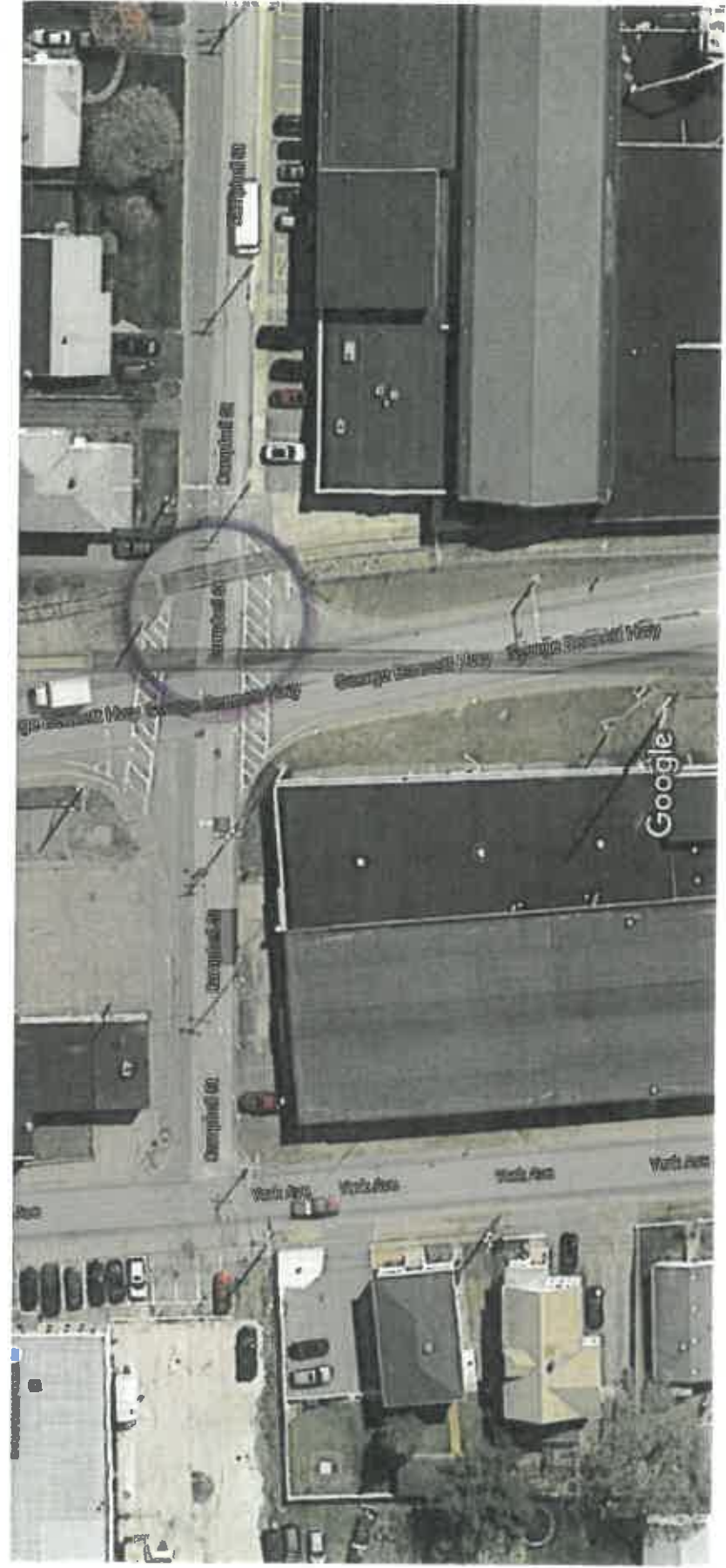
Google Maps Monticello Rd



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Monticello Rd
Pawtucket, RI 02861

Google Maps Campbell St



Campbell St
Pawtucket, RI

Google Maps Campbell St



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Campbell St
Pawtucket, RI