

# 2015



## *ANNUAL REPORT*

*Washington County  
Department of Public Works*

*Steven D. Haskins  
County Superintendent of Public Works*



# Department of Public Works

## Highways • Engineering

**Steven D. Haskins, Superintendent**

March, 2016

The Honorable Board of Supervisors  
Washington County Municipal Center  
383 Broadway  
Fort Edward, NY 12828

Members of the Board:

It is with great pleasure that I present you with the 2015 Department of Public Works Annual Report.

This report summarizes the operations of the department, and associated financial data. A variety of other information is included for your reference.

Thank you for your continued support of the Department of Public Works.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Steve Haskins".

Steve Haskins  
Superintendent

SH:lp

**2015  
EXPENDITURES OVERSEEN BY DPW**



**2015 EXPENDITURES  
(OVERSEEN BY THE DPW)**

<b>ACCOUNT NAME</b>	<b>EXPENDITURES</b>	<b>% OF TOTAL</b>
CAR POOL	\$284,593.40	1.78%
HIGHWAY	\$15,384,299.41	95.98%
SOLID WASTE	\$28,717.60	0.18%
CAPITAL PROJECTS	\$216,625.02	1.35%
ADMINISTRATION	\$114,345.16	0.71%
<b>TOTAL</b>	<b>\$16,028,580.59</b>	<b>100.00%</b>

**2015 EXPENDITURES  
ALL FUNDS**

<u>ACCOUNT NUMBER</u>	<u>ACCOUNT NAME</u>	<u>EXPENDITURE</u>	<u>% OF TOTAL</u>
A1490	DPW - ADMINISTRATION	\$114,345.16	0.88%
	<i>SUB-TOTAL</i>	\$114,345.16	0.88%
CM5135	POOL CAR	\$257,831.00	2.75%
	BENEFITS (CM)	\$26,762.40	0.26%
	<i>SUB-TOTAL</i>	\$284,593.40	3.01%
D3310	TRAFFIC CONTROL	\$287,457.49	1.88%
D5010	ADMINISTRATION	\$129,400.31	0.85%
D5020	ENGINEERING	\$247,496.10	1.32%
D5110	MAINTENANCE OF HIGHWAYS & BRIDGES	\$3,310,422.69	22.87%
D5142	COUNTY SNOW & ICE CONTROL	\$1,880,785.87	9.11%
D5144	STATE SNOW & ICE CONTROL	\$685,010.64	4.76%
D5149	WORK FOR OTHER DEPARTMENTS	\$89.27	0.03%
D5112	HIGHWAY PROJECTS (CHIPS)	\$3,990,581.83	15.31%
D5120	BRIDGE PROJECTS	\$453,092.67	4.13%
DM5130	ROAD MACHINERY	\$2,754,231.04	19.63%
	BENEFITS (D,DM)	\$1,645,731.50	11.46%
	<i>SUB-TOTAL DIV. OF HIGHWAYS</i>	\$15,384,299.41	91.36%
CLB8160	DPW - SOLID WASTE MANAGEMENT	\$28,717.60	3.27%
	BENEFITS (CLB)	\$0.00	1.49%
	DEBT SERVICE (CLB)	\$0.00	0.00%
	<i>SUB-TOTAL DIV. OF SOLID WASTE</i>	\$28,717.60	4.76%
	<b>TOTAL EXPENDITURES FOR 2015</b>	<b>\$15,811,955.57</b>	<b>100.00%</b>

\*Figures may vary slightly from County Treasurer's final reconciliation.

**2015 DPW GENERAL FUND**

	<b>APPROPRIATIONS</b>	<b>EXPENDED</b>	<b>BALANCE</b>
<b>A1490</b>			
<b>DPW ADMINISTRATION</b>			
<b>PERSONAL SERVICES</b>	\$112,907.00	\$105,310.27	\$7,596.73
<b>EQUIPMENT</b>	\$0.00	\$0.00	\$0.00
<b>CONTRACTUAL SERVICES</b>	\$16,500.00	\$9,034.89	\$7,465.11
	<b>\$129,407.00</b>	<b>\$114,345.16</b>	<b>\$15,061.84</b>

*\*\*Figures may vary slightly from County Treasurer's final reconciliation*

## 2015 POOL CAR FUND

	APPROPRIATIONS	EXPENDED	BALANCE
<b>CM5135 POOL CAR</b>			
<b>PERSONAL SERVICES</b>	\$79,750.00	\$77,745.27	\$2,004.73
<b>EQUIPMENT</b>	\$48,500.00	\$45,176.00	\$3,324.00
<b>CONTRACTUAL SERVICES</b>	\$214,750.00	\$134,909.73	\$79,840.27
	<b>\$343,000.00</b>	<b>\$257,831.00</b>	<b>\$85,169.00</b>
<b>CM9010-CM9060</b>			
<b>BENEFITS</b>	<b>\$29,911.00</b>	<b>\$26,762.40</b>	<b>\$3,148.60</b>
<b>POOL CAR FUND</b>			
<b>Cash Balance as of 12/31/15:</b>	<b>Cash 200</b>		<b>\$534,523.23</b>

*\*\*Figures may vary slightly from County Treasurer's final reconciliation*

## 2015 COUNTY ROAD FUND

	APPROPRIATIONS	EXPENDED	BALANCE	<i>ENCUMBERED to 2016</i>
<b>D3310 TRAFFIC</b>				
PERSONAL SERVICES	\$50,636.00	\$49,175.46	\$1,460.54	
CONTRACTUAL SERVICES	\$262,143.90	\$238,282.03	\$23,861.87	\$ 3,892.00
	<b>\$312,779.90</b>	<b>\$287,457.49</b>	<b>\$25,322.41</b>	
<b>D5010 ADMINISTRATION</b>				
PERSONAL SERVICES	\$114,505.00	\$115,363.32	(\$858.32)	
EQUIPMENT	\$600.00	\$513.11	\$86.89	
CONTRACTUAL SERVICES	\$17,500.00	\$13,523.88	\$3,976.12	
	<b>\$132,605.00</b>	<b>\$129,400.31</b>	<b>\$3,204.69</b>	
<b>D5020 ENGINEERING</b>				
PERSONAL SERVICES	\$201,720.00	\$198,959.55	\$2,760.45	
EQUIPMENT	\$30,000.00	\$25,563.97	\$4,436.03	
CONTRACTUAL SERVICES	\$25,000.00	\$22,972.58	\$2,027.42	
	<b>\$256,720.00</b>	<b>\$247,496.10</b>	<b>\$9,223.90</b>	
<b>D5110 MAINTENANCE HIGHWAYS &amp; BRIDGES</b>				
PERSONAL SERVICES	\$1,579,001.00	\$1,638,360.29	(\$59,359.29)	
EQUIPMENT	\$400.00	\$135.23	\$264.77	
CONTRACTUAL SERVICES	\$1,691,886.00	\$1,671,927.17	\$19,958.83	
	<b>\$3,271,287.00</b>	<b>\$3,310,422.69</b>	<b>(\$39,135.69)</b>	

*\*\*Figures may vary slightly from County Treasurer's final reconciliation*

## 2015 COUNTY ROAD FUND

	APPROPRIATIONS	EXPENDED	BALANCE	ENCUMBERED TO 2016
<b>D5142 COUNTY SNOW</b>				
<b>PERSONAL SERVICES</b>	\$412,605.00	\$340,207.96	\$72,397.04	
<b>CONTRACTUAL SERVICES</b>	\$1,575,000.00	\$1,540,577.91	\$34,422.09	
	<b>\$1,987,605.00</b>	<b>\$1,880,785.87</b>	<b>\$106,819.13</b>	
<b>D5144 STATE SNOW</b>				
<b>PERSONAL SERVICES</b>	\$123,325.00	\$101,360.96	\$21,964.04	
<b>CONTRACTUAL SERVICES</b>	\$812,000.00	\$583,649.68	\$228,350.32	
	<b>\$935,325.00</b>	<b>\$685,010.64</b>	<b>\$250,314.36</b>	
<b>D5149 WORK-OTHER DEPTS.</b>				
<b>PERSONAL SERVICES</b>	(\$1,900.00)	\$53.68	(\$1,953.68)	
<b>CONTRACTUAL SERVICES</b>	\$2,000.00	\$35.59	\$1,964.41	
	<b>\$100.00</b>	<b>\$89.27</b>	<b>\$10.73</b>	
<b>D5112 - CONSTRUCTION &amp; CHIPS PROJECTS</b>	\$3,989,009.00	\$3,990,581.83	(\$1,572.83)	
<b>D5120 - BRIDGE PROJECTS</b>	\$533,433.00	\$453,092.67	\$80,340.33	
	<b>\$4,522,442.00</b>	<b>\$4,443,674.50</b>	<b>\$78,767.50</b>	<b>\$42,934.35</b>
<b>D9010-D9060 BENEFITS</b>	\$1,487,965.00	\$1,462,004.15	\$25,960.85	
<b>GRAND TOTAL-ROAD FUND</b>	<b>\$12,906,828.90</b>	<b>\$12,446,341.02</b>	<b>\$460,487.88</b>	
<b>COUNTY ROAD</b>				
Cash Balance as of 12/31/15:	D200		\$2,508,436.30	

*\*\*Figures may vary slightly from County Treasurer's final reconciliation*

**2015 COUNTY ROAD MACHINERY FUND**

	<b>APPROPRIATIONS</b>	<b>EXPENDED</b>	<b>BALANCE</b>	<b>ENCUMBERED to 2015</b>
<b>DM5130 ROAD MACHINERY</b>				
<b>PERSONAL SERVICES</b>	\$422,100.00	\$408,649.43	\$13,450.57	
<b>EQUIPMENT</b>	\$906,430.56	\$608,491.52	\$297,939.04	\$ 106,600.00
<b>CONTRACTUAL SERVICES</b>	\$2,429,357.00	\$1,737,090.09	\$692,266.91	\$ 1,158.78
	<b>\$3,757,887.56</b>	<b>\$2,754,231.04</b>	<b>\$1,003,656.52</b>	<b>\$ 107,758.78</b>
<b>DM9010-DM9060</b>				
<b>BENEFITS</b>	\$198,199.00	\$183,727.35	\$14,471.65	
<b>CO. ROAD. MACH.</b>				
Cash Balance as of 12/31/15: <b>DM200</b>			<b>\$1,308,068.17</b>	

*\*\*Figures may vary slightly from County Treasurer's final reconciliation*

<b>2015 SOLID WASTE MGMT. FUND</b>
------------------------------------

	APPROPRIATIONS	EXPENDED	BALANCE
<b>CLB8160</b>			
<b>DPW SOLID WASTE</b>			
<b>PERSONAL SERVICES</b>	\$0.00	\$0.00	\$0.00
<b>EQUIPMENT</b>	\$0.00	\$0.00	\$0.00
<b>CONTRACTUAL SERVICES</b>	\$28,850.00	\$28,717.60	\$132.40
	<b>\$28,850.00</b>	<b>\$28,717.60</b>	<b>\$132.40</b>
<b>CLB9010-CLB9060</b>			
<b>BENEFITS</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>SOLID WASTE MGMT.</b>			
<b>Cash Balance as of 12/31/15:</b>	<b>Cash 200</b>		<b>\$425,204.26</b>

*\*Figures may vary slightly from County Treasurer's final reconciliation*

2015

## HIGHWAY & BRIDGE

### CONSTRUCTION & MAINTENANCE

The highway department is responsible for the maintenance of 284 miles of County highways and 123 County bridges. By contract, an additional 100 miles of State highways are maintained during the winter months for snow and ice control. In the winter, the combination of County and State force maintenance provides an overall balance that effectively and efficiently keeps the public safe.

In addition to normal highway and bridge maintenance, brush cutting, ditching, tree removals, and pothole patching, our crews also completed a variety of other tasks:

Our sign shop is responsible for signing and overseeing the pavement marking of our County highway system. During 2015, 284 miles of center lines were striped, along with over 300 miles of edge lines by contract. Our subcontractor also painted several miles for various Towns, at their request. In order to stay compliant with the MUTCD (Manual of Uniform Traffic Control Devices), the sign shop manufactures signs in-house. The Sign shop manufactured numerous signs for various Towns and Villages, at their request. This in-house manufacturing saves the taxpayers money. The Sign shop was also responsible for setting up detours and road closures on various road and bridge projects. Due to vandalism, motor vehicle accidents, changing requirements, and the elements, it is a never ending task to keep up with the maintenance of our 6,800± highway guide signs.

During 2015, one of our bridge crews constructed a new 19'-6" span bridge on CR 46 in the Town of Fort Edward. Our second bridge crew took on a significant phased rehabilitation project on the Church Street Bridge in the Village of Granville, completing Phase 1. We also repaired a bridge deck that was damaged on CR 113 in the Town of Easton, and assisted the Town of Dresden with the bridge replacement on Pike Brook Road, damaged during Hurricane Irene. We also repaired guiderail for the County and some Towns.

Our construction crews utilized our 2 Gradalls, our 2 tractor backhoes, and the rental of 2 track excavators, to install over 3600 lineal feet of cross culverts of various diameters. This work was primarily done on this year's paving projects. Our goal was to also complete the installation of the cross culverts for 2016 paving projects, but we came up short of our goal by one section of roadway. We also attempted a process called slip lining, which allows us to slide a new culvert into the existing culvert without having to dig up the road and put our people

potentially in harm's way. Using this process, we would not interrupt the traffic flow. In the case of deep cross culverts, it reduces our equipment and labor costs.

The asphalt paving crew paved over 20.61 miles of County highway and bridge projects. We hauled and placed approximately 34,000 tons of asphalt with our employees, with assistance from several towns through in-kind service, and also outside contractors. Not only did we complete traditional hot mix overlays, we also paved using cold mix asphalt as it was intended for roads with little, no, or compromised base course material, a significant problem within our system of roads. We completed six and one half miles of the traditional hot mix overlay. In addition, we completed seven and one half miles full depth reclamation with a calcium stabilizing additive, with a binder course to restore a base course under these roads. We will place a top course asphalt on these roads in 2016. We also completed five and one quarter miles of cold mix asphalt with a fiber reinforced chip seal wear course. Lastly, we completed one and one quarter miles of traditional hot mix overlay after milling some of the existing asphalt to preserve lawn and driveway grades on CR23/Main Street in Hartford.

After repaving our roads, we were able to back the pavement up with our own shoulder machine and one we borrowed from the Town of Kingsbury, when ours broke down. We used screened gravel, topsoil, or millings that we were able to get from the milling project. All shoulder work was done with our own work force, with the help of the Town of Kingsbury on several miles.

When not assigned to construction projects, our crews were busy maintaining the highways with roadside pickup, brush cutting, road sign straightening, and other related work. The two road side mowers (grass/weeds) were out from early May to late November. Our two over the rail mowers were out all year, mowing grass/saplings in spring, summer, and fall, and brush in the winter. Throughout the year, the crews patched potholes, cut trees, and took care of any "request for service" that was called or emailed into the DPW office. They also maintained the equipment and facilities they were responsible for.

In the winter months, in addition to providing snow and ice control for approximately 384 miles of roadway, we performed needed repairs to our "satellite buildings". This ranged from repairing rusted-out beams, to insulating ceilings and walls, to sealing up doors and holes, and building break rooms in accordance with safety requirements.

Our maintenance garage performed critical repairs and preventive maintenance on our fleet of trucks, large equipment and small equipment. The welding/fabricating shop was repairing and building our satellite building salt screens for winter operations, fabricating in some cases door frames for front end loaders at considerable savings to the taxpayers, and

rebuilding our snow plows and wings for the trucks. Mechanics were also swapping and repairing our steel dump boxes as we prepared for the new stainless dump boxes.

The 2015 season brought a jurisdictional transfer with the Town of Hartford. We were able to swap 1.3 miles of road for 1.7 miles, this action benefitted both parties. We were also able to share services and equipment with the Towns and villages throughout the County. It was a benefit to the County D.P.W., the Town Highway Departments, and the Village D.P.W's.

**2015  
MILES OF HIGHWAYS IN TOWNS\***

TOWN	STATE MILEAGE	COUNTY MILEAGE OUTSIDE VILLAGE	COUNTY MILEAGE INSIDE VILLAGE	TOWN MILEAGE	VILLAGE** MILEAGE	TOTAL MILEAGE
ARGYLE	14.13	23.47		95.16	0.95	133.71
CAMBRIDGE	5.34	19.38	0.14	62.87	1.79	89.52
DRESDEN	10.51	9.04		34.27		53.82
EASTON	16.70	23.67	0.68	85.93	0.73	127.71
FORT ANN	18.14	14.49	0.54	73.54	1.82	108.53
FORT EDWARD	13.04	13.65	0.37	34.53	13.74	75.33
GRANVILLE	25.82	18.64	1.77	68.82	9.98	125.03
GREENWICH	17.13	15.95		76.58	7.09	116.75
HAMPTON	7.40	8.51		17.64		33.55
HARTFORD	20.26	10.34		49.38		79.98
HEBRON	9.06	21.26		68.19		98.51
JACKSON	13.70	11.91		56.96		82.57
KINGSBURY	21.39	19.16	2.28	52.57	21.57	116.97
PUTNAM	8.36	10.34		32.74		51.44
SALEM	10.35	17.57	2.40	66.63	5.12	102.07
WHITE CREEK	9.74	10.78	0.62	53.65	8.49	83.28
WHITEHALL	13.08	26.74	0.36	35.29	13.35	88.82
<b>TOTAL</b>	<b>234.15</b>	<b>274.90</b>	<b>9.16</b>	<b>964.75</b>	<b>84.63</b>	<b>1567.59</b>

STATE MILEAGE	<b>234.15</b>
COUNTY MILEAGE	<b>284.06</b>
TOWN MILEAGE	<b>964.75</b>
VILLAGE MILEAGE	<b>84.63</b>
<b>TOTAL MILEAGE IN COUNTY</b>	<b>1567.59</b>

\*Figures based on reported mileages as of 12/31/2015, and in many cases are reflective of adjustments to Local (County, Town, & Village mileages made by New York State Department of Transportation (NYSDoT) using Global Positioning System (GPS) technology

\*\* Village mileage figures do not include State & County mileages inside villages

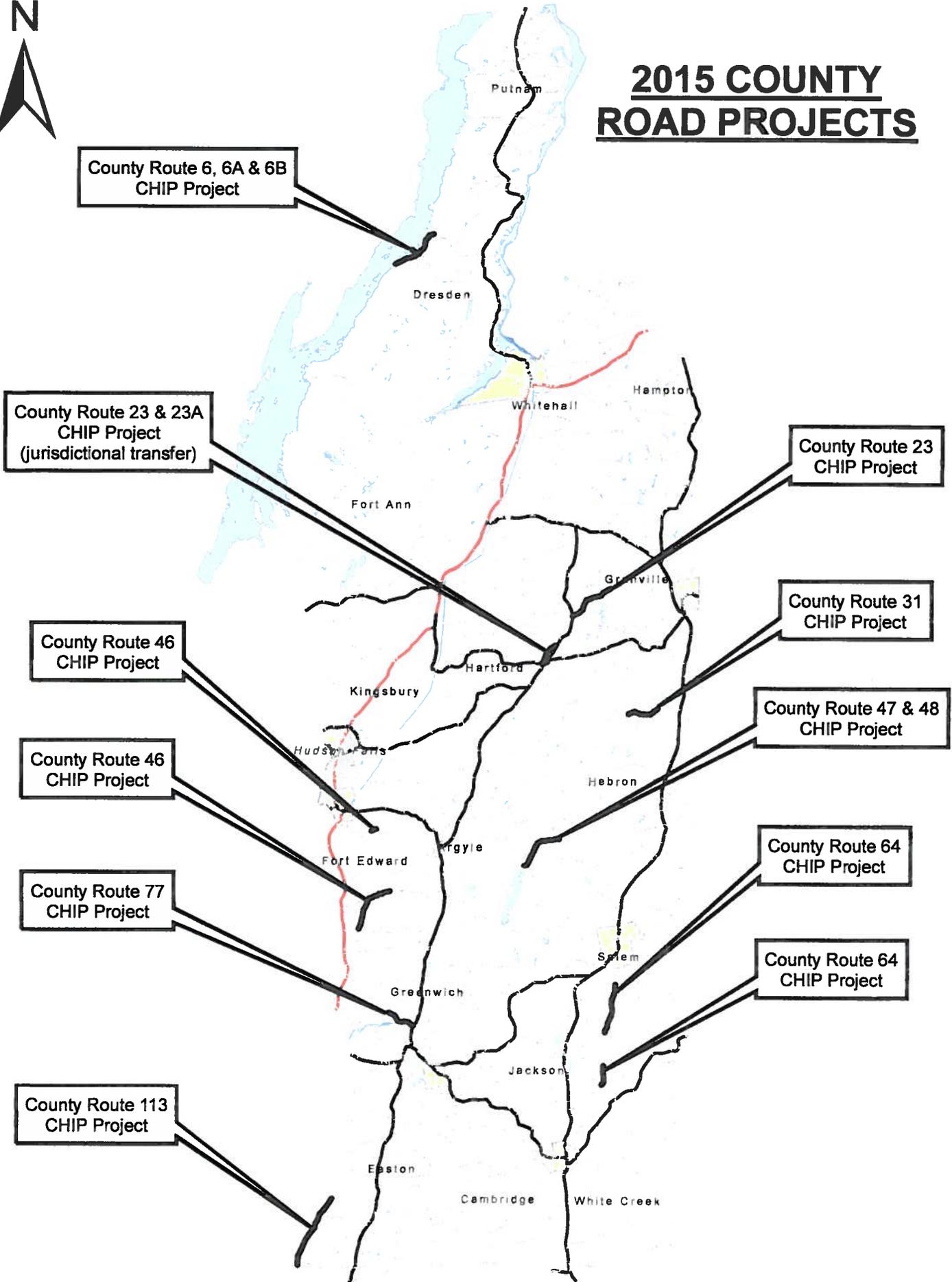
**WASHINGTON COUNTY DEPARTMENT OF PUBLIC WORKS  
2015 COUNTY ROAD PROJECTS**

- 1. County Route 6, 6A & 6B** **Town of Dresden**  
CR6; Dead End @ Lake George east to CR 6B (0.5 miles), CR6A; Dead End north to CR6 (1.03 miles), & CR6B; from CR6 north to Bluff Head Rd (1.09 miles) Roadway trued and leveled, then repaved with 2" type 6-HMA (Hot Mixed Asphalt) overlay x 21'± wide. Installed crushed stone shoulder stone 3'- 4' wide. Work performed by County Forces. CHIP Project.  
**2.62 miles** **\$426,529.94** (\$162,798/mi)
  
- 2. County Route 23 & 23A** **Town of Hartford**  
CR23; NYS Rte 149 north to NYS Rte 40 (1.17 miles), CR23A; CR23 east to NYS Rte 40 (0.14 miles). Roadway cold milled to depth of 2" by Peckham Industries. Roadway repaved with 2" type 6 HMA (Hot Mixed Asphalt) overlay x varying widths of 21'- 33' wide. Installed asphalt millings on shoulders 3'- 4' wide. Work performed by County Forces. CHIP Project  
*Roadway part of Jurisdictional Transfer with Shine Hill Rd, Town of Hartford*  
**1.31 miles** **\$244,318.52** (\$186,503/mi)
  
- 3. County Route 23** **Town of Granville**  
NYS Rte 40 east to Guilder Hollow Rd/Hicks Rd Intersection (2.32 miles) Roadway FDR (Full Depth Reclamation) at a depth of 8"-12" with calcium added, work performed by The Gorman Group. Roadway re-graded, then repaved with 1½"-3" type 3 HMA (Hot Mixed Asphalt) binder course x 22'± wide. Installed asphalt millings & screened gravel (topsoil & compost mix in front of residence) 3'- 4' wide. Work performed by County Forces. CHIP Project.  
**2.32 miles** **\$408,391.45** (\$176,031/mi)
  
- 4. County Route 31** **Town of Hebron**  
Big Birch Rd northeast to Button Rd (1.45 miles) Roadway FDR (Full Depth Reclamation) at a depth of 8"-12" with calcium added, work performed by The Gorman Group. Roadway re-graded, then repaved with 3" type 3 HMA (Hot Mixed Asphalt) binder course x 22'± wide. Installed asphalt millings & screened gravel (topsoil & compost mix in front of residence) 3'- 4' wide. Work performed by County Forces. CHIP project.  
**1.45 miles** **\$262,705.06** (\$181,176/mi)

- 5. County Route 46** **Town of Fort Edward**  
 2 sections: CR46; west approach to Br C119 to Plum Rd, approximately 1200'± of roadway reconstructed and superelevation reintroduced on east approach, CR46. Process included FDR (Full Depth Reclamation) work performed by The Gorman Group, and regrading approaches which included the addition of select fill material work performed by County forces.; Glen Rd north to West Valley Rd (2.51 miles), Roadway trued and leveled, then repaved with 2" type 6 HMA (Hot Mixed Asphalt) overlay x 21'± wide. Installed screened gravel (topsoil & compost mix in front of residence) 3'- 4' wide. Work performed by County Forces. CHIP Project.  
**2.51 miles** **\$385,995.15** (\$153,793/mi)
- 6. County Route 47 & 48** **Town of Hebron**  
 CR47; CR48 east to CR30 (1.05 miles), CR48; East Lake Rd to CR47 (1.39 miles). Roadway trued and leveled, 1000'± reconstruction portion paved with 3" Type 1 HMA (Hot Mixed Asphalt) base course x 21.5'± wide, work performed by County Forces. Roadway paved with 3" CMA (Cold Mix Asphalt) work performed by Peckham Industries and County forces. Roadway fog sealed and fiber mat coursed applied by The Gorman Group. Installed screened gravel (topsoil & compost mix in front of residence) 3'- 4' wide. Work performed by County Forces. CHIP Project.  
**2.44 miles** **\$555,484.37** (\$227,658/mi)
- 7. County Route 64** **Town of Hebron**  
 2 sections: CR64; Jackson/Salem townline north to CR61 (0.97 miles), CR64; 1 mi north of Woodcock Ln to 0.4 mi past Cross Rd(1.78 miles). Roadway trued and leveled, work performed by County Forces. Roadway paved with 3" CMA (Cold Mix Asphalt) work performed by Peckham Industries and County forces. Roadway fog sealed and fiber mat coursed applied by The Gorman Group. Installed screened gravel (topsoil & compost mix in front of residence) 3'- 4' wide. Work performed by County Forces. CHIP Project.  
**2.75 miles** **\$713,783.92** (\$259,558/mi)
- 8. County Route 77** **Town of Greenwich**  
 Anthony Rd east to NYS Rte 40 (1.40 miles), Roadway trued and leveled, then repaved with 2" type 6 HMA (Hot Mixed Asphalt) overlay x 24'± wide. Installed screened gravel (topsoil & compost mix in front of residence) 3'- 4' wide. Work performed by County Forces. CHIP Project.  
**1.40 miles** **\$203,931.25** (\$145,665/mi)
- 9. County Route 113** **Town of Easton**  
 CR59 north to Ferry Lane (3.28 miles) Roadway FDR (Full Depth Reclamation) at a depth of 8"-12" with calcium added, work performed by The Gorman Group. Roadway re-graded, then repaved with 3" type 3 HMA (Hot Mixed Asphalt) binder course x 22'± wide. Installed asphalt millings & screened gravel (topsoil & compost mix in front of residence) 3'- 4' wide. Work performed by County Forces. CHIP project.  
**3.28 miles** **\$615,163.14** (\$187,550/mi)



# 2015 COUNTY ROAD PROJECTS



**WASHINGTON COUNTY DEPARTMENT OF PUBLIC WORKS  
2015 COUNTY BRIDGE PROJECTS**

**1. FORT EDWARD - Bridge C119 Co. Route 46 (spans Trib.#3 of Dead Creek) 19.5' span**

Demolished and removed former concrete and steel structure (15'± span) constructed in 1940 and reconstructed/widened in 1962. No adjacent detour provided for traveling public, but a detour using several local & state roads was signed accordingly. With no record plans available, what initially was expected to be separate abutments with footings, proved to be a poured in place concrete bottom buried below stream grade. This discovery added more time and cost than originally expected, however, it had no effect on the proposed new structure. Constructed new reinforced concrete footings 2' thick x 8' wide x 47'± long each, abutments, both 2' thick x 10'± high x 42'± long each including wingwalls 2' thick with varying heights. Installed five (5) ASTM A992 grade 50 W18x97 x 22.5' long galvanized structural steel with bolted ASTM A992 grade 50 C10x20 galvanized diaphragms. Northeastern Stud Welding contracted to furnish and install 300 shear studs on the top flange of each beam. A new reinforced, cast in place NYSDOT Class E 9½" thick concrete deck, 27'-4" wide x 22'-6" long. Constructed two (2) 24' wide x 15' long x 12" thick reinforced, cast in place NYSDOT Class E approach slabs each side to lessen impact of traffic loads on structure. Installed NYSDOT approved steel bridge railing [3-rail curbless – 4 posts each side (8 total) at 6'-6" c.c. 24' between faces of rails] and boxbeam guide rail at approaches. Medium stone bank protection installed on all four corners of structure. The new structure's finished height was determined by the design and correction of a 1200'± long roadway reconstruction (refer to Road Projects) and reintroducing the superelevated horizontal curve on the east approach from Plum Road intersection.

**Total Cost                    \$217,400.39**

**2. VILLAGE OF GRANVILLE - Bridge C245 Church St. (spans Mettawee River) 80'span**

Project was contracted with Greenman-Pedersen Inc (GPI) for Professional Engineering Services. Removal of existing steel 4 rail bridge railing and preserved for reuse. No adjacent detour provided for traveling public, but a detour using several local & state roads was signed accordingly. Demolished concrete sidewalk on west side of south approach and excavated failing travel way to expose existing spandrel wall and buttress. Initially a rehabilitation project with casting a new concrete outside face of the spandrel wall and correct the drainage issues, was quickly determined with the condition of the wall, it would be cost effective to cast in place a new spandrel and extension retaining wall with step footings. Upon starting the project and corresponding storm water runoff, the realization that the improperly installed/repared storm drains would have to be addressed prior to continuation of the project. Installed new 2 new concrete catch basins with heavy duty frame and grates both west and east side of Church St approximately 100'± south of bridge, connected by new 12" dia. HDPE pipe. Install new 12" dia. HDPE plastic pipe approx. 90lf outlet. An agreement with Village of Granville Public Works Department to reimburse costs involved. Work continued

with demolition of the existing spandrel wall down to the existing buttress and existing retaining wall along the west side of south approach. Exposed and cleaned west face below ground level and top of buttress. Work entailed chipping away all loose and deteriorating concrete with hand held jack hammers including some fascia repair and abutment repair on the concrete arch. Drilled and installed anchors in a specified grid pattern to accept reinforcing bars for new facing and new multi- stepped footings along existing buttress. Cast in place concrete facing and step footings with initial pour to receive new spandrel and retaining wall. Cast in place new reinforced concrete spandrel wall on top of step footings in line with new facing of buttress wall. Cast in place new reinforced concrete footing for retaining wall along west side of Church St. Cast in place new reinforced concrete retaining wall on top of footing and installed new underdrain. Backfilled approach with crushed stone and select gravel fill to subbase grade. Backfilled southwest corner of embankment along the river with heavy stone fill. Installed new reinforced concrete sidewalk on top of new spandrel and retaining wall and tied back into existing sidewalks. Re-installed existing bridge approach rail on sidewalk using existing embeds recovered from demolition. Installed keyed concrete block retaining wall extension along adjacent landowner's parking area and existing sidewalk and backfilled with crushed stone. Contracted with Peckham Industries to cold mill asphalt concrete on the arch bridge to a depth of 1½" and to depth of 3" from Morrison Ave to bridge to expose curb reveal and correct stormwater runoff into newly installed catch basins. Repaved with type 6 HMA top course on areas cold milled and restriped centerline and edge line pavement markings. A 2016 construction season return to continue repairs to the concrete arch itself and minor repair to the south east corner of abutment to conclude the project. Total cost of project expected to come in under originally budgeted amount of \$435,000

**Total Cost (*to date*)**

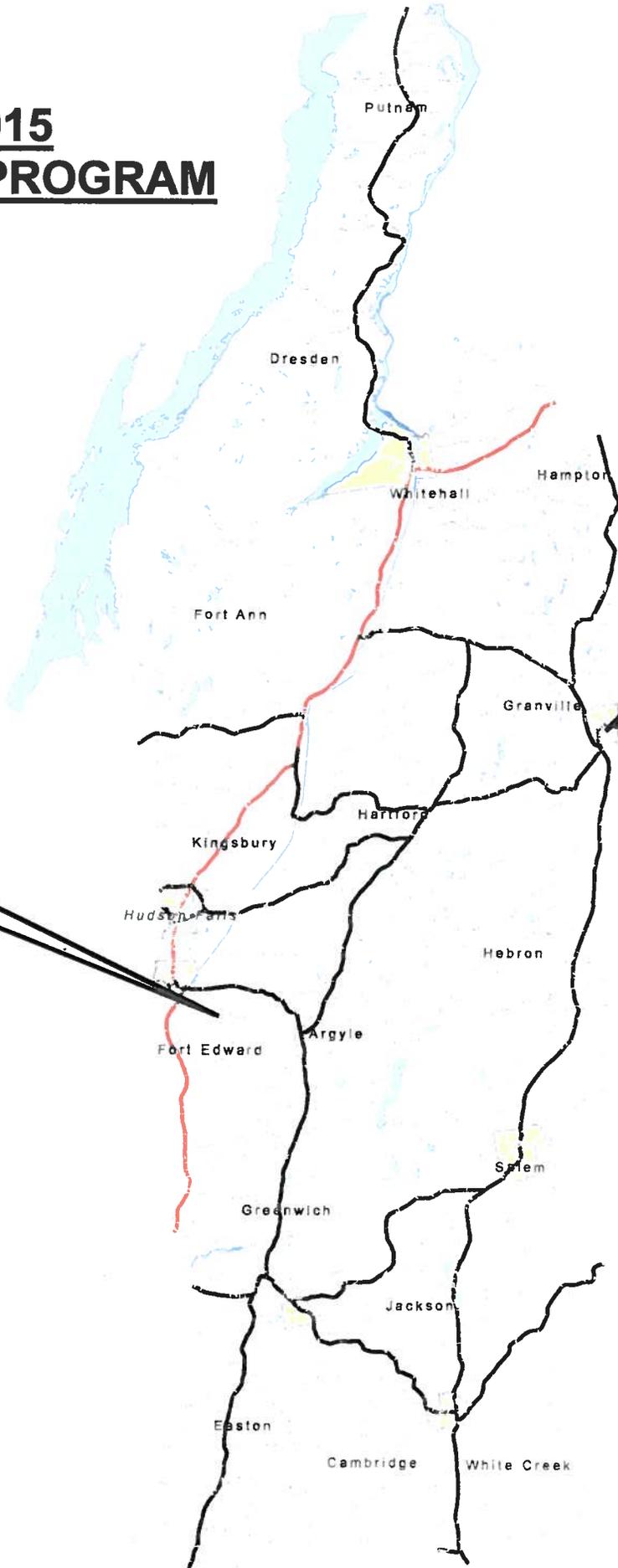
**\$235,692.28**

# 2015 BRIDGE PROGRAM



Bridge C-119  
Co Rte 46  
Fort Edward

Bridge C-245  
(BIN 3203660)  
Church Street  
Vill. of Granville



## WASHINGTON COUNTY DEPARTMENT OF PUBLIC WORKS 2015 ENGINEERING

During 2015, the Engineering section was involved in various activities related to the improvement of highway and bridge infrastructure throughout Washington County.

### Administrative:

- 1) **2014 Annual Report** – summary of expenditures and construction/maintenance-related activities undertaken by the Washington County DPW in 2014.
- 2) **Salt stockpiles** in bins at all 8 DPW substations at end of snow removal season – total 2,489.83 tons (as of June 8, 2015) – for documentation of County-incurred expenditures relative to State Snow and Ice Control for 2014-2015 winter season. The amount of salt that can be safely stored in all 8 bins is approximately 4,500 tons.
- 3) **Underground Facilities Protective Organization (UFPO) requests** – In 2015, most handled by each district foreman.
- 4) **Issued work permits** (under Section 136 of Highway Law) to individuals, businesses, organizations, and other municipalities to perform work on or near County roads inside right-of-way (R-o-W) limits. A total of 43 permits were issued in 2015. These included 21 for National Grid (2 gas service, 15 electrical service & pole-related, 4 utility drive access), 2 fundraisers, 1 bicycle races (Tour of the Battenkill, CFF Cycle for Life), 1 Historic Sign, 17 driveways/field accesses.
- 5) **“Adopt-a-Highway” requests** – one request from organizations and clubs to perform periodic clean-up activities along County highways dealt with in 2015.
- 6) **Assistance to general public** with requests for copies of Town, County, and State (the latter prior to 1946) purchased R-O-W and/or abandonment maps. Our office handled approximately 15 such requests in 2015, the majority from private land surveyors and consulting engineers; and also handled numerous highway-related R-O-W and/or abandonment inquiries from the general public and Office of Real Property (Tax Mapping). We also addressed miscellaneous inquiries from the public, other municipalities, and organizations as well.
- 7) **Phase II of Municipal Separate Storm Sewer Systems (MS4) program** – in 2015, we assisted in the preparation of the 2014-2015 Annual Report (for term from March 10, 2014 to March 9, 2015). We continued to be involved with the inspections of catch basins and quantifying amounts of sediment removed from each at the County Municipal and Law Enforcement complex in Fort Edward (County maintenance crew from Fort Edward substation inspected and cleaned these) and along County Routes 32, 35, & 75. Our office performed annual inspections and took outfall photographs for the two outfall watersheds along County Route 37 (Burgoyne Avenue) at McIntyre Street & Fuller Pond, and the two outfall watersheds behind the Law Enforcement Center.
- 8) **County Highway Inventory** – certification of County highway mileage (284.67 miles) in 2015 along with updated highway related information as required by NYSDOT for Consolidated Highway Improvement Program (CHIP) aid.
- 9) **DPW-related Freedom of Information Law (FOIL) requests** – one handled in 2015.
- 10) **Plan of Action for Scour Critical Bridges** updated as routine. In 2015, bridges C124 and C191 were added. List now includes bridges C5, C22, C37, C41, C43, C63, C73, C124, CL133, C151, C185, C191, and C276.
- 11) **Plan of Action for Fracture Critical Bridges** – Updated - as result of I-5 bridge collapse in Washington state, being mentioned at the Federal level. Candidates include bridges C2, C20, C29, C54, CL78, C80, C132, C149, C150, & CL157.

**12) Assistance with miscellaneous administrative functions** – such as: a) adjustments to snow plowing routes; b) billing procedures for materials and equipment purchases and/or services rendered; c) snow and ice removal/maintenance contracts with Towns; and d) material bid openings – including culvert pipe, underdrain, crushed stone, concrete, blacktop, sign blanks, centerline/edgeline paint, structural steel, reinforcing steel, etc.

**13) Locally Administered Federal Aid (LAFA) Projects** – our office assisted with the administration of current HBRR projects at different levels of development/completion. For status summary, refer to 2015 Bridge Program.

**14) Greenman-Pedersen, Inc, P.E.**, on board as per-diem consultant to sign and stamp engineering plans and drawings as required by state and Federal entities, particularly involving “red flag” structural repairs to bridges cited by NYSDOT contracted inspectors.

**15) Annual Safety Day @ Lake Lauderdale Park, Town of Jackson.**

**16) 10<sup>th</sup> Annual North Country Regional Stormwater Tradeshow & Conference** – attended @ Great Escape Lodge, Queensbury, NY

**17) 21<sup>st</sup> Statewide Conference on Local Bridges** – attended @ Liverpool, NY – Engineering the Federal Aid Process.

**18) Survey Class for Foremen** – developed and instructed a course in reading grade stakes, transferring grades from benchmarks in regards to road and bridge construction.

**19) Cornell Local Roads Pavement Management** – attended three day course in Ithaca and applied new rating system to county pavement conditions.

**20) 2015 Bid Openings** – reviewed submitted bids for miscellaneous bridge materials including multi-plate pipes, reinforcing rods, bridge rail, etc.

**21) County Standards** – Drywell, Road Section, and Culvert installation drawings.

**22) Microsoft Project - Software** – familiarization and implementation with 2015 pavement projects.

**Township Assistance in 2015** included the following:

**1) annual update of Town Highway Inventory for 2015** – enrollment dates were between October and November, 2014, when Town highway superintendents came to DPW Engineering office to update highway-related information and sign mileage certifications. Inventory updates and mileage certifications were processed and sent along with County inventory and mileage certification to Region 1 headquarters in Albany, NY. In addition, our office maintains a 40+ year old Town road history data base and continually updates addendums in back of certified copies of resolutions that define each Town highway system in effect since 1963. Serves as basis for local highway aid, particularly Consolidated Highway Improvement Plan (CHIP). Emergency Services and Real Property offices are kept informed of the road changes we receive from the towns.

**2) Town of Granville Salt Storage Building** – field survey, plans, material list & layout of building pad and beginning rows of precast concrete blocks. Salt barn to be completed in 2016

**3) Town of Dresden Br T11- Pike Brook Rd** – layout of abutment, wingwalls, deck panels as well as approach asphalt paving and grades. Construction inspection provided during entire construction.

**4) Warren & Wright Roads, Town of Hartford** – survey, design and layout of reconfigured roadway intersection.

**5) Oak Hill Rd & Stage Road, Town of Cambridge and White Creek** – survey, design and layout of reconfigured roadway intersection.

**6) Richards Road, Town of Greenwich** – survey, design and layout of 300’ of new W-Rail guide rail along horizontal curve south of Derby Road intersection.

**7) Br TL-7, Townline Rd, Towns of Argyle and Kingsbury** – applied for and obtained necessary permits, layout and construction inspection for Aluminum Multi-Plate Pipe Arch, 13’-1” x 8’-4” x 70lf

## **Buildings and Grounds in 2015:**

- 1) ***Misc Projects*** – including survey and plans for drainage issues around Annex I, installation of bollards near Sheriff's parking, Lake Lauderdale septic system design questions for NYSDEC questionnaire, catch basin repairs, etc.

## **County Engineering Projects in 2015:**

- 1) ***2015 County Bridge Program*** – for information relative to major bridge projects completed in 2015, see 2015 Bridge Program and map
- 2) ***Br C245 Church St Village of Granville*** – construction inspection, surveys, and layout for rehabilitation project including stormwater drainage issues with south approach.
- 3) ***Br C13 (BIN 3-30584-0) CR113 Town of Easton*** – construction inspection of repairs to SE & SW corners of deck cracked and partially broken, guide rail damage from vehicular traffic.
- 4) ***Br C119 Fort Edward CR 46*** – construction inspection, surveys, layout of new 19'± span structure including 1200'± roadway approaches with reintroduction of superelevation of horizontal curve.
- 5) ***Br C217, CR 113*** – survey, layout and construction inspection of Aluminum Multi-Plate Pipe Arch, 103" x 71" x 70 lf
- 6) ***Br C300, CR 48*** – survey, layout and construction inspection of 60" dia. X 60lf HDPE Pipe including the reconstruction of 1000'± roadway.
- 7) ***Br C263, CR 31*** – survey, layout and construction inspection of Aluminum Pipe Arch, 64" x 43" x 50lf
- 8) ***Br C28, CR 18*** – survey, design w/ construction and installation in 2016, of Aluminum Multi-Plate Pipe Arch, 10'-9" x 6'-10" x 70lf. Project will include 300'± of roadway reconstruction.
- 9) ***Bridge Design for 2016 Bridges*** – inspection, survey design, etc. for Br C50 & Br C141 on CR 31, Town of Hartford, Br C60 on CR6B, Town of Dresden, Br C225 on CR21, Town of Whitehall, Br C81 on CR45, Town of Argyle
- 10) ***Asphalt Coring – 2016 Paving Projects*** – layout, coordinated, and documented core samples for 2016 pavement projects
- 11) ***County Route 6, 6A & 6B Paving Project*** – survey, design, layout and construction inspection of drywell and drainage issues near Huletts Landing Post office.
- 12) ***FDR (Full Depth Reclamation) Paving Projects*** – layout of centerline and superelevation of horizontal curves through project length.
- 13) ***CR23 & Guilder Hollow Rd Intersection*** – survey for sight distance issue pre-construction a post-construction and documented
- 14) ***CR24 Drainage Issue*** – survey, design and layout of intersecting driveway access drainage swale including inspection of pavement milling operation.
- 15) ***Misc Roadway Inspection*** – inspection for possible Pavement Rehabilitation/Restoration Grant Money.
- 16) ***Br C54 (BIN 3-30612-0) Lower Turnpike R, Town of Granville*** – guide rail inspection from vehicle impact, inspection of expansion joint material.
- 17) ***Br C233, CR 41, Town of Kingsbury*** – inspection from vehicle impact with concrete parapet.