
Harding Township

Township Committee Meeting

May 11, 2015

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Harding Township

Department of Public Works

- **4 EMPLOYEES:**
 - 1- Superintendent

 - 2- Operators/drivers/ laborers (down 1 employee due to retirement)
 - Road Department
 - Building and Grounds
 - Recycling

 - 1- Mechanic
 - Vehicle Maintenance

- **OPERATING BUDGET**
 - \$441.950 (incl. ice and snow-salt)

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Road Improvement Program

Harding road program responsibilities:

- ❑ **Nearly 30 miles of publicly maintained roads**
- ❑ **Over 3 million square feet of asphalt roadways** (350,000 square yards of asphalt roadways)
- ❑ **461 catch basins** (side of the road grates for storm water)
- ❑ **243 cross over pipes** (underground pipes cross under the road)
- ❑ **Over 5 miles of connecting pipes** (pipes connecting basin to basin)
- ❑ **Over 500 street signs** (stop, speed limit, street name, etc.)
- ❑ **Stop lines and basin lines**
- ❑ **Guard rails** (on public roads- deep culvert safety)
- ❑ **Roadside mowing** (all road sides not maintained by home owner)
- ❑ **Water management** (culverts/ditches and basins)

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Roads – Identify and Prioritize

- ❑ **Survey:**
 - ❑ Drive every road in spring
 - ❑ Walk roads having severe deteriorated areas
 - ❑ Rate road conditions utilizing the Asphalt Institute Pavement Rating System
- ❑ **Prioritize:**
 - ❑ Using the corresponding number from the rating system
 - ❑ Assemble roads into a list
- **Plan:**
 - ❑ Determine order of work for efficiency and traffic safety
 - ❑ Identify work to be performed

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ASPHALT INSTITUTE RATING SYSTEM

STREET: _____ DATE: _____

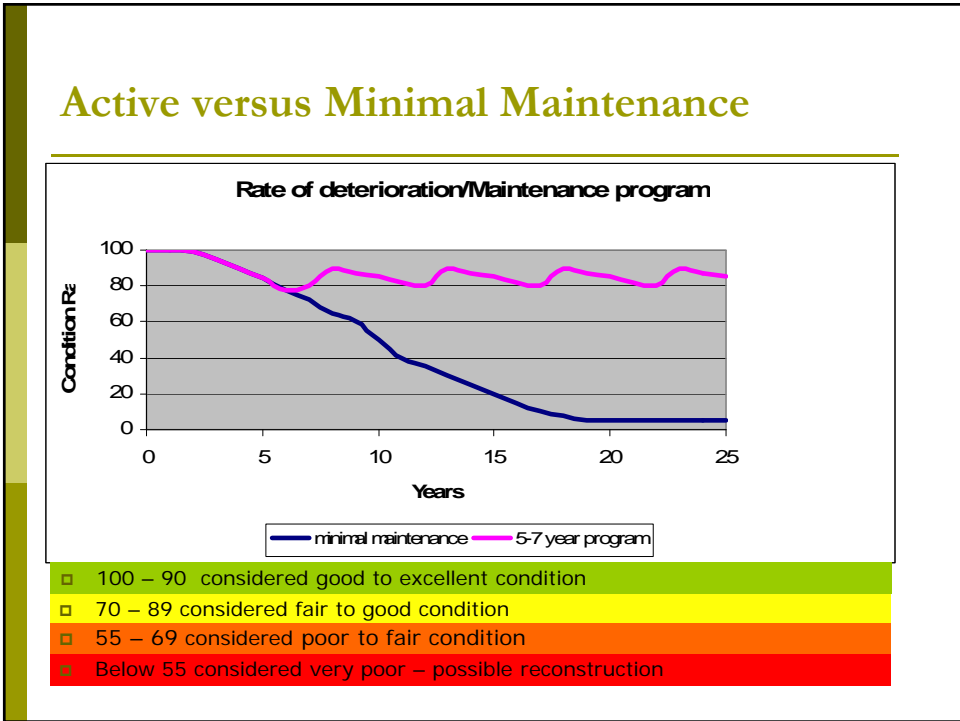
LENGTH OF PROJECT _____

PAVEMENT TYPE _____

Defect	Description	Scale	Rating
Transverse Cracks	across width of road, partial or full	0 - 10	
Longitudinal Cracks	run parallel with road, usually along seam	0 - 10	
Alligator Cracks	many close together, re: alligator skin	0 - 10	
Shrinkage Cracks	all other cracks	0 - 10	
Rutting	depression usually in tire lane	0 - 10	
Corrugations	rumble strip similarity	0 - 5	
Raveling	pavement lifting away from lower level, rolling	0 - 5	
Shoving and Pushing	usually around turns, heavy traffic forcing lifting	0 - 5	
Pot Holes	depression in or missing pavement	0 - 5	
Excess Pavement	bump, utility connection, lip in compaction	0 - 5	
Polished Asphalt	too much emulsion, road appears glass-like	0 - 5	
Deficient Drainage	low spot, sediment build up, standing water	0 - 10	
Overall Ride Quality	0 is excellent; 10 is very poor	0 - 10	
		sum of defects	

Condition Rating equals 100 minus the sum of defects: _____

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Road Survey Results

CONDITION OF ALL TOWNSHIP ROADS (S.Y.)

Year	Good to Excellent		Fair to Good		Poor to Fair	
2007	313,655	88.5%	40,685	11.5%	0	0.0%
2009	221,988	62.6%	132,352	37.4%	0	0.0%
2011	107,365	30.3%	246,975	69.7%	0	0.0%
2012	106,720	30.1%	247,620	69.9%	0	0.0%
2014	51,520	14.5%	302,820	85.5%	0	0.0%
2015	72,922	20.6%	245,690	69.3%	35,728	10.1%

STATUS OF ROADS IN GOOD TO EXCELLENT CONDITION



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2015 Road Analysis (34 Out of 44 Roads)

ROADS	Rating 2015	POT HOLE REPAIRS	MILLING	PAVING WORK	OIL/STONE COATING	CRACK SEALING	DRAINAGE WORK
1 Meyersville Road	69	X	X	X	X	X	X
2 Kitchell Road	69	X	X	X	X	X	X
3 Woodland Avenue	69	X	X	X	X	X	X
4 Anthony-Wayne Road	72	X	X	X	X	X	X
5 St. Clair Road	72	X	X	X	X	X	X
6 Fawn Hill Drive	74	X	X	X	X	X	X
7 Post House Road	74	X	X	X	X	X	X
8 Red Gate Road	75	X	X	X	X	X	X
9 Peachcroft Road	75	X	X	X	X	X	X
10 Blue Mill Road (James - Bridge)	76	X	X	X	X	X	X
11 Youngs Road	76	X	X	X	X	X	X
12 Jenks Road	76	X	X	X	X	X	X
13 Lindsley Road	76	X	X	X	X	X	X
14 Pleasant Plains Road	76	X	X	X	X	X	X
15 Dicksons Mill Road	77	X	X	X	X	X	X
16 Blackwell Avenue	77	X	X	X	X	X	X
17 Baileys Mill Road (Lees Hill - Youngs)	77	X	X	X	X	X	X
18 Baileys Mill Road (Youngs - 202)	78	X	X	X	X	X	X
19 Stark Drive	78	X	X	X	X	X	X
20 Bockhoven Lane	78	X	X	X	X	X	X
21 Featherbed Lane	79	X	X	X	X	X	X
22 Jenks Court	79	X	X	X	X	X	X
23 White Deer Lane	80	X	X	X	X	X	X
24 Woodland Road	81	X	X	X	X	X	X
25 Spencer Place	81	X	X	X	X	X	X
26 Hunter Drive	82	X	X	X	X	X	X
27 Douglas Drive	83	X	X	X	X	X	X
28 Shalebrook Drive	84	X	X	X	X	X	X
29 Loantaka North	84	X	X	X	X	X	X
30 Millbrook Road (Village - Pleasantville)	86	X	X	X	X	X	X
31 Van Bueren	87	X	X	X	X	X	X
32 Tigerlily Lane	87	X	X	X	X	X	X
33 Brook Drive North	87	X	X	X	X	X	X
34 Orchard Drive	88	X	X	X	X	X	X

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2015 – Road Work Scheduled To Be Performed by DPW & Contractor

1. Meyersville Rd. – mill / pave, crack seal, drainage work, oil / stone
2. Kitchell Rd. – mill / pave, drainage work
3. Woodland Ave. – mill / pave
4. Anthony-Wayne Rd. – mill / pave, crack seal, oil / stone
5. St. Clair Rd. – mill / pave, crack seal, oil / stone
6. Fawn Hill Dr. – mill / pave, crack seal, oil / stone
7. Post House Rd. – mill / pave
8. Red Gate Rd. – mill / pave, crack seal, oil / stone
9. Peachcroft Rd. – mill / pave, crack seal, oil / stone
10. Blue Mill Rd. (James St. – bridge) – mill / pave, crack seal, oil / stone
11. Youngs Rd. – mill / pave
12. Jenks Rd. – mill / pave, oil / stone
13. Lindsley Rd. – mill / pave
14. Pleasant Plains Rd. – mill / pave
15. Dicksons Mill Rd. – mill / pave, drainage work
16. Blackwell Ave. – mill / pave, oil / stone
17. Baileys Mill Rd. (Lees Hill Rd–Youngs Rd) – mill / pave, crack seal, oil / stone
18. Baileys Mill Rd. (Youngs Rd –Rt. 202) – mill / pave

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Asphalt Repairs Performed by DPW

- ❑ **Milling and paving –**
 - Grinding out deteriorated asphalt section, seal edges, repave
 - Milling – 2'- 3' and a 2" minimum depth
 - Paving/rolling – of milled patches
 - Asphalt – 160 square feet/ton at 1" deep (\$50 per ton)
 - Example: 4'x15' patch @ 2"deep = 120 sq./ft.—0.75 ton asphalt
- ❑ **Cold/Hot Patch –**
 - Deficiency cleaned and asphalt shoveled and compacted
- ❑ **Oil and Stone –**
 - Asphalt emulsion sprayed over entire road surface,
 - 1/4" – 3/8" stones applied and rolled into all cracks and voids
- ❑ **Crack Sealing –**
 - Hot liquid emulsion poured directly into crack

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Road Repairs Performed by Contractor

- **Milling and paving –**
 - Grind out deteriorated asphalt section, seal edges, repave
 - Milling – Larger areas – 4' – 12' wide
 - Paving/rolling – of milled patches

- **Crossover pipes/basins –**
 - Replacement of crossover pipes to larger diameter.
 - Repair of basins – concrete work

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Non-Asphalt Repairs Performed by DPW

- **Safety First**
- **Catch basins –**
Cleaning
- **Water management-**
Culverts/Basin/Cross over pipe cleaning
- **Street signs –**
Replacement, installation, cleaning, straightening
- **Road Sweeping –**
As needed, after road work
- **Road side mowing –**
Maintain neat appearance, reduce intersection
visual deterrence
- **Stop/Basin lines –**
Replace as needed

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What Else Beside Roads

- **Buildings:** Maintenance, custodial and repairs
- **Public grounds:** Landscaping (mowing, leaf removal, planting, general maintenance)
- **Vehicle and equipment maintenance:** DPW and Police
- **Recycling:** Depot management and material hauling
- **Respond to calls:** Fire Department and First Aid Squad

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Buildings and Grounds Services Provided by DPW

- **Municipal and DPW Building –**
 - Light janitorial, mail, visual inspections, minor maintenance and repairs
 - Parts and supplies for services or repairs
- **Grounds –**
 - Lawn maintenance (cutting, weeding, edging, mulching of DPW)
- **Parks –**
 - Trash/recycling, driveway grading, general inspections

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Buildings and Grounds

Services Provided by Contractor

- **Municipal Building-**
 - Weekly janitorial cleaning and vacuuming of Offices and Police Dept.

- **Grounds- lawn maintenance by contractor-**
 - Cutting, weeding, edging, mulching, Spring and Fall clean up, etc. of:
 - Bayne Park
 - Barrett Field
 - Memorial Park
 - Showgrounds
 - Town Hall
 - The Farm
 - Glen Alpin
 - Township Intersections

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Recycling

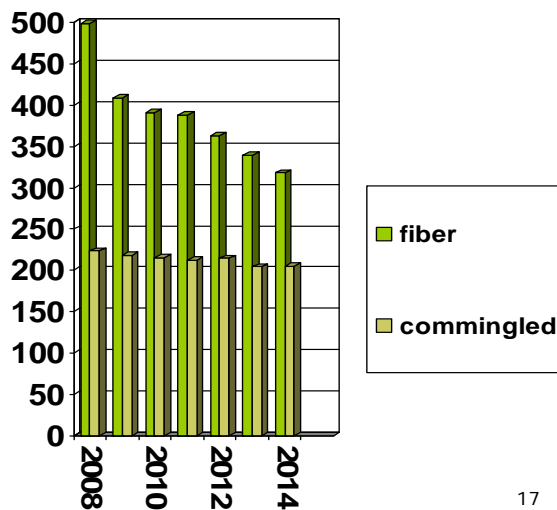
Services Provided by DPW

- All materials are brought to DPW
- Accepted items:
 - Fiber (paper products)
including books, cardboard, newsprint,
office paper
 - Commingled: Glass, tin, aluminum,
plastic #1,2,4,5,7
 - Other items: BBQ size propane tanks,
car & truck tires, E-waste,
re-chargeable batteries, fluorescent bulbs.
- DPW – hauls all materials to vendors
- DPW – owns the Recycling truck and boxes

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Recycling

- 2008 - 722.43 tons
\$35,037.76 revenue
- 2009 - 626.72 tons
\$12,844.01 revenue
- 2010 - 606.46 tons
\$30,421.24 revenue
- 2011 - 600.63 tons
\$43,095.07 revenue
- 2012 - 577.00 tons
\$30,000.89 revenue
- 2013 - 543.94 tons
\$22,590.24 revenue
- 2014 - 522.46 tons
\$17,289.73 revenue



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Vehicle Maintenance Performed by DPW

- Preventative maintenance services, and repairs
- 14 DPW vehicles (large trucks, large equipment and mini vehicles)
- 9 police cars
- 10 pieces of equipment (mowers, tractors)
- Dozens of small engine equipment
- DPW vehicle maintenance is very cost efficient
- Historically, age of DPW vehicle: 8-10 years, then traded in or auctioned
- Today's economy not supportive of this practice. Vehicles need to last 12-15 or more years.
- Harding DPW maintenance program designed to have vehicles last 15-20 years

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Conclusion

- New developments in the DPW:
 - Replacement hire at DPW (retired employee)
- Restructuring of the manpower assignments
- Utilization of contractors