



**Sidney B. Bowne
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235 East Jericho Turnpike
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August 29, 2016

The Honorable Nora Haagenson
Village Mayor
Inc. Village of Baxter Estates
315 Main Street
Port Washington, NY 11050

Re: Village Road Pavement Evaluation

Dear Mayor Haagenson:

Pursuant to our agreement with the Village, we have completed our evaluation of the condition of the pavement on the Village roads. We have performed a local street condition survey by slowly driving and walking each road in the Village and assigning a rating value. The rating values are in conformance with the New York State Department of Transportation (NYSDOT) *Pavement Condition Rating Manual*. We have evaluated the entire Village 2.3 mile street network based on the NYSDOT scale of one (1) to ten (10). A rating of one (1) is a pavement in extremely poor condition and a rating of ten (10) is a pavement in excellent (new) condition. The rating values were assigned to road segments, defined by each intersection within the Village.

Overall, the Village roads are in good shape, relative to certain standards set forth by the NYSDOT, and based on our municipal experience. None of the roads in the Village are rated below 7. Attached is a color coded map of all Village Roads indicating their pavement rating, as well as spread sheets which list the roads, their segment lengths, each width and their ratings in alphabetical order, by pavement condition, and by road name to document the results of the investigation.

Courses of action for road repairs vary, and include the following, listed in order from least expensive to most expensive:

- Do nothing (monitoring)
- Crack treatment
- Patching
- Area repair
- Resurfacing
- Resurfacing with base repair
- Mix-in-place recycling
- Road reclamation
- Total reconstruction

Once the road condition reach a certain point (for example, where reconstruction of the entire road is necessary), the cost of repair increases geometrically, compared to ordinary repairs such as resurfacing. Based on our evaluation, none of the roads in the Village warrant replacement (such as mix-in place recycling, reclamation or reconstruction).

The generally accepted action level for road repairs is a rating of 6 or lower. Although no roads within the village are rated 6 or lower, the Village should consider road resurfacing for the roads which rated 7-, which includes Harborview Road, a portion of Overlook Drive, Shoreview Road and Tianderah Road. We recommend monitoring each of the other roads in the Village.

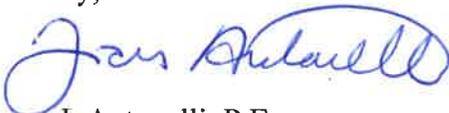
We have considered the cost of construction based on bid prices which we have received recently for similar work in Villages nearby. Based on this, we estimate the probable construction cost of road repair work recommended for the roads which are rated 7- to be approximately \$130,000.

Additionally, we have noted local distressed areas on Hilltop Road, Hillside Avenue and Overlook Drive, for which I recommend full width patching. Our estimate of probable construction cost of full width patching for these areas (approximately 550 linear feet of road), is \$70,000.

Rather than add a typical percentage cost for engineering fees, and since there are a variety of types of repairs recommended, I thought it would be fairer to the Village if we would provide a separate engineering fee proposal for planning, design, plans, specifications, bidding and construction phase services once the scope of work is finalized.

Please contact me to discuss this, and I will make myself available at your convenience.

Sincerely,



James J. Antonelli, P.E.

cc: Chrissy Kiernan, Village Clerk

VILLAGE OF BAXTER ESTATES, NEW YORK
2016 Street Inventory, Condition Assessment and Pavement Management Program
Summary of Town Owned Street Segments by Pavement Score

	NUMBER OF SEGMENTS	INVENTORY			Average Rating	7.32
		LENGTH (ft.)	WIDTH (ft.)	AREA (sq. ft.)		
Pavement Score = 8	8	5,010		90,373		
Pavement Score = 7	7	8,368		190,218		
Total for All	32	13,368		280,591		
	Total Miles of Road	2.5				

SCORE SUMMARY

Pavement and Shoulder Condition Key (range 1-10)
 Not Rated
 1.30 Fine (macadam-low type)
 1.40 Fine (asphalt) (AC) plant mix
 1.50 Rigid Concrete (PCC) (bit/bk)
 1.60 Overlaid (AC on PCC)
 1 Extremely Poor
 10 Excellent
 [not applicable or observed]



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VILLAGE OF BAXTER ESTATES, NEW YORK

2016 Street Inventory, Condition Assessment and Pavement Management Program

Alphabetic Listing of Village Owned Street Segments

ID CODES		SEGMENT IDENTIFICATION		INVENTORY			PAVEMENT		
LOCAL	STREET NAME	FROM	TO	LENGTH (ft.)	WIDTH (ft.)	AREA (sq. ft.)	TYPE	SCORE	ROAD DESIGNATION NYS Urban Functional Class
18604	BAYSIDE AVE	SHORE RD	DEAD END	1,084	24	26,028	1.4	8-	19
18846	COLUMBIA PL	SHORE RD	HIGH ST	424	30	12,735	1.4	7+	19
97514	GREEN HAYS	N WASHINGTON ST	DEAD END	135	18.5	2,496	1.4	8	19
19809	HARBORVIEW RD	OVERLOOK DR	SHOREVIEW RD	537	21	11,276	1.4	7-	19
19215	HIGH ST	MAIN ST	COLUMBIA PL	238	25	5,962	1.4	7+	19
19228	HIGH ST	COLUMBIA PL	DEAD END	254	20	5,070	1.4	7+	19
19399	HILLSIDE AVE	CENTRAL DR	SHOREVIEW RD	426	22	9,371	1.4	7+	19
19706	HILLSIDE AVE	SHOREVIEW RD	OVERLOOK DR	772	21	16,211	1.4	7+	19
20277	HILLTOP RD	OVERLOOK DR	OVERLOOK DR	1,523	18	27,417	1.4	7	19
19563	LIBRARY DR	MAIN ST	LOCUST AVE	288	24	6,922	1.4	8	19
19354	LOCUST AVE	N WASHINGTON ST	LIBRARY DR	334	31	10,353	1.4	7+	19
19605	LOCUST AVE	LIBRARY DR	TIANDERAH RD	477	31	14,775	1.4	7+	19
98553	LOCUST AVE	TIANDERAH RD	CENTRAL DR	577	31	17,884	1.4	7+	19
98881	N WASHINGTON ST	LOCUST AVE	GREEN HAYS	232	22	5,110	1.4	7+	19
98882	N WASHINGTON ST	GREEN HAYS	DEAD END	59	18	1,058	1.4	7+	19
20420	OVERLOOK DR	CENTRAL DR	HILLTOP RD	161	22	3,540	1.4	7	19
20297	OVERLOOK DR	HILLTOP RD	WOODCLEFT AVE	603	22	13,262	1.4	7-	19
20291	OVERLOOK DR	WOODCLEFT AVE	HARBORVIEW RD	198	22	4,354	1.4	7	19
20278	OVERLOOK DR	HARBORVIEW RD	HILLTOP RD	150	22	3,304	1.4	7	19
20257	OVERLOOK DR	HILLTOP RD	HILLSIDE AVE	74	22	1,625	1.4	7	19
20237	OVERLOOK DR	HILLSIDE AVE	DEAD END	164	17	2,782	1.4	8	19
19051	RIDGEWAY RD	CENTRAL DR	DEAD END	897	26	23,331	1.4	8-	19
20392	SANDY HOLLOW LA	SANDY HOLLOW RD	DEAD END	357	*	*	1.4	8-	19
19145	SANDY HOLLOW RD	HARBOR RD	SHELL RD	750	12	9,006	1.4	8	17
19786	SANDY HOLLOW RD	SHELL RD	GLEN LA	188	12	2,261	1.4	8	17
19949	SANDY HOLLOW RD	GLEN LA	SANDY HOLLOW LA	477	12	5,729	1.4	8	17
20393	SANDY HOLLOW RD	SANDY HOLLOW LA	HOUSE #54	288	12	3,451	1.4	8	17
19705	SHOREVIEW RD	HILLSIDE AVE	HARBORVIEW RD	191	19.5	3,734	1.4	7-	19
19808	SHOREVIEW RD	HARBORVIEW RD	WOODCLEFT AVE	488	19.5	9,509	1.4	7-	19
98552	TIANDERAH RD	LOCUST AVE	WOODCLEFT AVE & CENTRAL DR	419	21	8,798	1.4	7-	19
20104	WOODCLEFT AVE	SHOREVIEW RD	OVERLOOK DR	380	22	8,367	1.4	8-	19
19930	WOODCLEFT AVE	CENTRAL DR	SHOREVIEW RD	221	22	4,870	1.4	7+	19

Pavement and Shoulder

- Not Rated
- 1.30 Flex (macadam-low type)
- 1.40 Flex (asphalt (AC) plant mix)
- 1.50 Rigid (Concrete [PCC] blk/brk)
- 1.60 Overlaid (AC on PCC)

Condition Key (range 1-10)

- 1 Extremely Poor
- 10 Excellent
- [not applicable or observed]

ROAD DESIGNATION

- 19 Local Residential
- 18 Minor Collector
- 17 Major Collector
- 16 Minor Arterial

* Road width variable



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VILLAGE OF BAXTER ESTATES, NEW YORK

2016 Street Inventory, Condition Assessment and Pavement Management Program

Alphabetic Listing of Village Owned Street Segments

ID CODES		SEGMENT IDENTIFICATION			INVENTORY			PAVEMENT		
LOCAL	STREET NAME	FROM	TO	LENGTH (ft.)	WIDTH (ft.)	AREA (sq. ft.)	TYPE	SCORE	ROAD DESIGNATION NYS Urban Functional Class	
Total for All Segments =		Segments	32	13,368		280,591				
		Total Miles of Road		2.5						

<u>Pavement and Shoulder</u>	<u>Condition Key (range 1-10)</u>	<u>ROAD DESIGNATION</u>
Not Rated	1 Extremely Poor	19 Local Residential
1.30 Flex (macadam-low type)	10 Excellent	18 Minor Collector
1.40 Flex (asphalt (AC) plant mix)	[not applicable or observed]	17 Major Collector
1.50 Rigid (Concrete [PCC] blk/brk)		16 Minor Arterial
1.60 Overlay (AC on PCC)		

* Road width variable



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Street Segments Sorted by Pavement Score

ID CODES		SEGMENT IDENTIFICATION			INVENTORY			PAVEMENT		
LOCAL	STREET NAME	FROM	TO	LENGTH (ft.)	WIDTH (ft.)	AREA (sq. ft.)	TYPE	SCORE	ROAD DESIGNATION NYS Urban Functional Class	
Segments with a Pavement Score =		7								
18846	COLUMBIA PL	SHORE RD	HIGH ST	424	30	12,735	1.4	7+	19	
19215	HIGH ST	MAIN ST	COLUMBIA PL	238	25	5,962	1.4	7+	19	
19228	HIGH ST	COLUMBIA PL	DEAD END	254	20	5,070	1.4	7+	19	
19399	HILLSIDE AVE	CENTRAL DR	SHOREVIEW RD	426	22	9,371	1.4	7+	19	
19706	HILLSIDE AVE	SHOREVIEW RD	OVERLOOK DR	772	21	16,211	1.4	7+	19	
19354	LOCUST AVE	N WASHINGTON ST	LIBRARY DR	334	31	10,353	1.4	7+	19	
19605	LOCUST AVE	LIBRARY DR	TIANDERAH RD	477	31	14,775	1.4	7+	19	
98553	LOCUST AVE	TIANDERAH RD	CENTRAL DR	577	31	17,884	1.4	7+	19	
98881	N WASHINGTON ST	LOCUST AVE	GREEN HAYS	232	22	5,110	1.4	7+	19	
98882	N WASHINGTON ST	GREEN HAYS	DEAD END	59	18	1,058	1.4	7+	19	
19930	WOODCLEFT AVE	CENTRAL DR	SHOREVIEW RD	221	22	4,870	1.4	7+	19	
20277	HILLTOP RD	OVERLOOK DR	OVERLOOK DR	1,523	18	27,417	1.4	7	19	
20420	OVERLOOK DR	CENTRAL DR	HILLTOP RD	161	22	3,540	1.4	7	19	
20291	OVERLOOK DR	WOODCLEFT AVE	HARBORVIEW RD	198	22	4,354	1.4	7	19	
20278	OVERLOOK DR	HARBORVIEW RD	HILLTOP RD	150	22	3,304	1.4	7	19	
20257	OVERLOOK DR	HILLTOP RD	HILLSIDE AVE	74	22	1,625	1.4	7	19	
19809	HARBORVIEW RD	OVERLOOK DR	SHOREVIEW RD	537	21	11,276	1.4	7-	19	
20297	OVERLOOK DR	HILLTOP RD	WOODCLEFT AVE	603	22	13,262	1.4	7-	19	
19705	SHOREVIEW RD	HILLSIDE AVE	HARBORVIEW RD	191	19.5	3,734	1.4	7-	19	
19808	SHOREVIEW RD	HARBORVIEW RD	WOODCLEFT AVE	488	19.5	9,509	1.4	7-	19	
98552	TIANDERAH RD	LOCUST AVE	WOODCLEFT AVE & CENTRAL DR	419	21	8,798	1.4	7-	19	
Total for Segments with a Pavement Score =		7	Segments 21	8,358		190,218				

Segments with a Pavement Score =		8								
97514	GREEN HAYS	N WASHINGTON ST	DEAD END	135	18.5	2,496	1.4	8	19	
19563	LIBRARY DR	MAIN ST	LOCUST AVE	288	24	6,922	1.4	8	19	
20237	OVERLOOK DR	HILLSIDE AVE	DEAD END	164	17	2,782	1.4	8	19	
19145	SANDY HOLLOW RD	HARBOR RD	SHELL RD	750	12	9,006	1.4	8	17	
19786	SANDY HOLLOW RD	SHELL RD	GLEN LA	188	12	2,261	1.4	8	17	
19949	SANDY HOLLOW RD	GLEN LA	SANDY HOLLOW LA	477	12	5,729	1.4	8	17	

Pavement and Shoulder Not Rated 1.30 Flex (macadam-low type) 1.40 Flex (asphalt (AC) plant mix) 1.50 Rigid (Concrete [PCC] blk/brk) 1.60 Overlaid (AC on PCC)	Condition Key (range 1-10) 1 Extremely Poor 10 Excellent [not applicable or observed]	ROAD DESIGNATION 19 Local Residential 18 Minor Collector 17 Major Collector 16 Minor Arterial
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* Road width variable



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LOCAL	STREET NAME	FROM	TO	LENGTH (ft.)	WIDTH (ft.)	AREA (sq. ft.)	TYPE	SCORE	ROAD DESIGNATION NYS Urban Functional Class	
20393	SANDY HOLLOW RD	SANDY HOLLOW LA	HOUSE #54	288	12	3,451	1.4	8	17	
18604	BAYSIDE AVE	SHORE RD	DEAD END	1,084	24	26,028	1.4	8-	19	
19051	RIDGEWAY RD	CENTRAL DR	DEAD END	897	26	23,331	1.4	8-	19	
20392	SANDY HOLLOW LA	SANDY HOLLOW RD	DEAD END	357	*	*	1.4	8-	19	
20104	WOODCLEFT AVE	SHOREVIEW RD	OVERLOOK DR	380	22	8,367	1.4	8-	19	
Total for Segments with a Pavement Score =		8	Segments	11	5,010	90,373				
Total for All Segments =			Segments	32	13,368	280,591				
			Total Miles of Road		2.5					

Pavement and Shoulder
 Not Rated
 1.30 Flex (macadam-low type)
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Street Segments Sorted by Road Designation

ID CODES		SEGMENT IDENTIFICATION			INVENTORY			PAVEMENT		
LOCAL	STREET NAME	FROM	TO	LENGTH (ft.)	WIDTH (ft.)	AREA (sq. ft.)	TYPE	SCORE	ROAD DESIGNATION NYS Urban Functionals Class	
Segments with a Road Designation of 17										
19145	SANDY HOLLOW RD	HARBOR RD	SHELL RD	750	12	9,006	1.4	8	17	
19786	SANDY HOLLOW RD	SHELL RD	GLEN LA	188	12	2,261	1.4	8	17	
19949	SANDY HOLLOW RD	GLEN LA	SANDY HOLLOW LA	477	12	5,729	1.4	8	17	
20393	SANDY HOLLOW RD	SANDY HOLLOW LA	HOUSE #54	288	12	3,451	1.4	8	17	
Total for Segments with a Road Designation of 17				Segments	4	1,704	20,447			
Segments with a Road Designation of 19										
18604	BAYSIDE AVE	SHORE RD	DEAD END	1,084	24	26,028	1.4	8-	19	
18846	COLUMBIA PL	SHORE RD	HIGH ST	424	30	12,735	1.4	7+	19	
97514	GREEN HAYS	N WASHINGTON ST	DEAD END	135	18.5	2,496	1.4	8	19	
19809	HARBORVIEW RD	OVERLOOK DR	SHOREVIEW RD	537	21	11,276	1.4	7-	19	
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19051	RIDGEWAY RD	CENTRAL DR	DEAD END	897	26	23,331	1.4	8-	19	
20392	SANDY HOLLOW LA	SANDY HOLLOW RD	DEAD END	357	*	*	1.4	8-	19	

* Road width variable

Pavement and Shoulder Not Rated 1.30 Flex (macadam-low type) 1.40 Flex (asphalt (AC) plant mix) 1.50 Rigid (Concrete [PCC] blk/brk) 1.60 Overlaid (AC on PCC)	Condition Key (range 1-10) 1 Extremely Poor 10 Excellent [not applicable or observed]	ROAD DESIGNATION 19 Local Residential 18 Minor Collector 17 Major Collector 16 Minor Arterial
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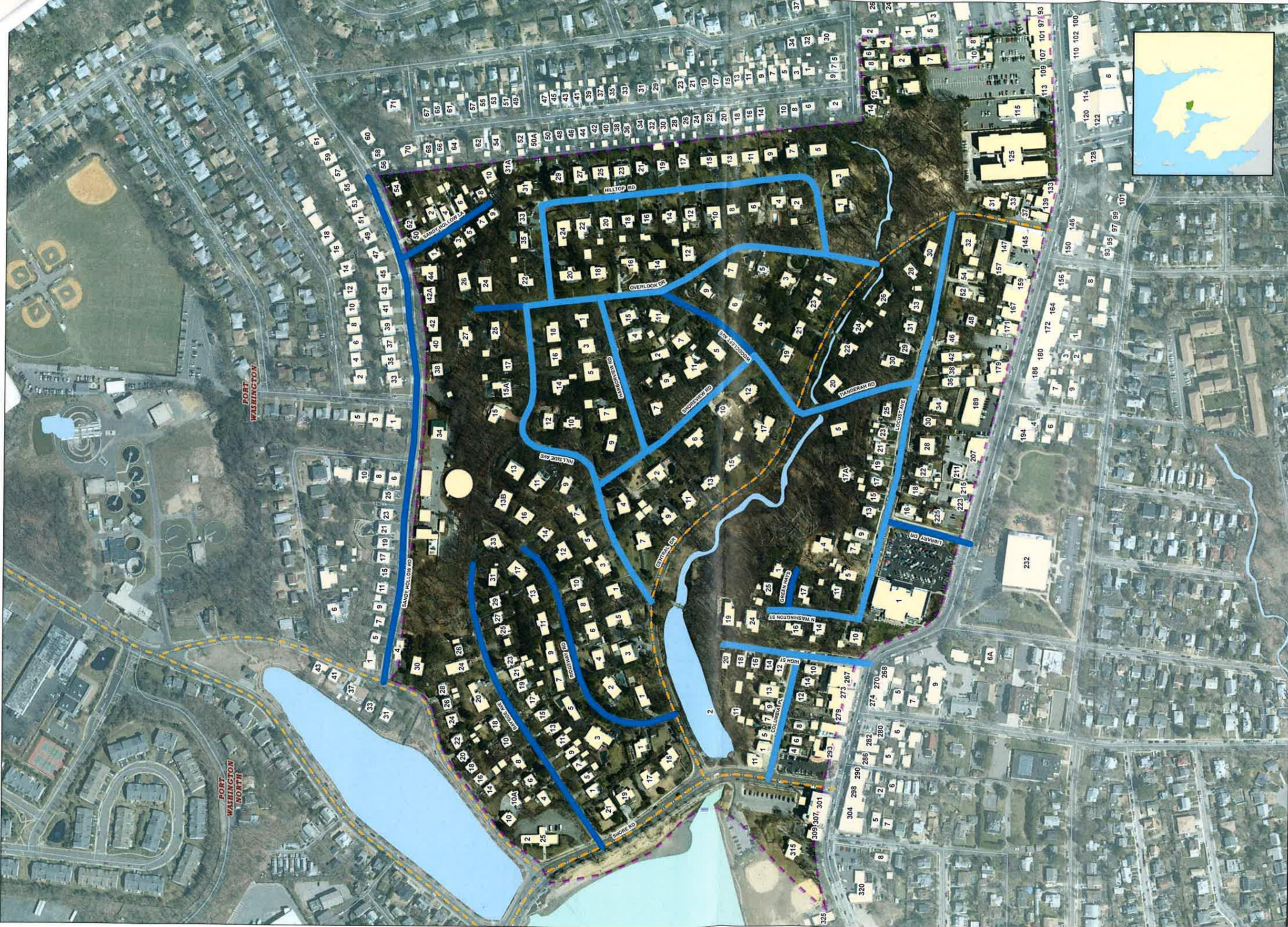
2016 Street Inventory, Condition Assessment and Pavement Management Program

Street Segments Sorted by Road Designation

ID CODES		SEGMENT IDENTIFICATION		INVENTORY			PAVEMENT		
LOCAL	STREET NAME	FROM	TO	LENGTH (ft.)	WIDTH (ft.)	AREA (sq. ft.)	TYPE	SCORE	ROAD DESIGNATION NYS Urban Functionals Class
19705	SHOREVIEW RD	HILLSIDE AVE	HARBORVIEW RD	191	19.5	3,734	1.4	7-	19
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19930	WOODCLEFT AVE	CENTRAL DR	SHOREVIEW RD	221	22	4,870	1.4	7+	19
Total for Segments with a Road Designation of 19		Segments	28	11,664		260,144			
Total for All Segments =		Segments	32	13,368		280,591			
		Total Miles of Road		2.5					

Pavement and Shoulder Not Rated 1.30 Flex (macadam-low type) 1.40 Flex (asphalt (AC) plant mix) 1.50 Rigid (Concrete [PCC] blk/brk) 1.60 Overlaid (AC on PCC)	Condition Key (range 1-10) 1 Extremely Poor 10 Excellent [not applicable or observed]	ROAD DESIGNATION 19 Local Residential 18 Minor Collector 17 Major Collector 16 Minor Arterial
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* Road width variable



Key

- Pavement Score 7 — Not Village Road — Major Roads
- Pavement Score 8 — Village Boundary - - - - - COUNTY

Score 1-10
 1-Extremely Poor 10-Excellent

Pavement Management 2016



*Village of
Baxter Estates*