cityofnovi.org

CITY of NOVI CITY COUNCIL

Agenda Item 1
August 11, 2008

SUBJECT: Consideration of a request from the Vista Hills Homeowners Association for the City to accept Vista Hills streets contingent on City's receipt of Association's $190,000 payment for the City to make required pavement and storm structure repairs.

SUBMITTING DEPARTMENT: Engineering RJH

CITY MANAGER APPROVAL:

BACKGROUND INFORMATION:

In late 2004, City Council indicated it would accept Vista Hills streets once the Vista Hills Homeowners Association repaired them to meet the City's standards. In 2005, the City retained (at the Association's cost) a consulting engineer to document the extent of required repairs (Ayres Lewis Norris & May's May 2005 report, attached).

Since 2005, the Association has solicited bids for making street repairs twice, and each time had concerns regarding budget and the scope of repairs needed. As reported in the attached memorandum, City staff recently discovered several storm structures that had deteriorated significantly since the original punchlist was prepared. This prompted the Association to request the City to take on the repairs, using a payment of $190,000 from the Association. The $190,000 amount would cover the original scope of repairs (estimated to be $147,900 based on lowest bid price the Association received) plus a contingency to cover the repair of the deteriorated storm structures. Based on the revised scope of the project, the $190,000 amount appears to be adequate.

City Council may wish to consider accepting payment from the Association and use the payment to retain a City contractor to make the repairs this construction season. The streets could be made public either at an upcoming City Council meeting or once they are repaired and meet City standards. Alternatively, Council may wish to continue to require the Association to make the repairs and then dedicate the streets to the City.

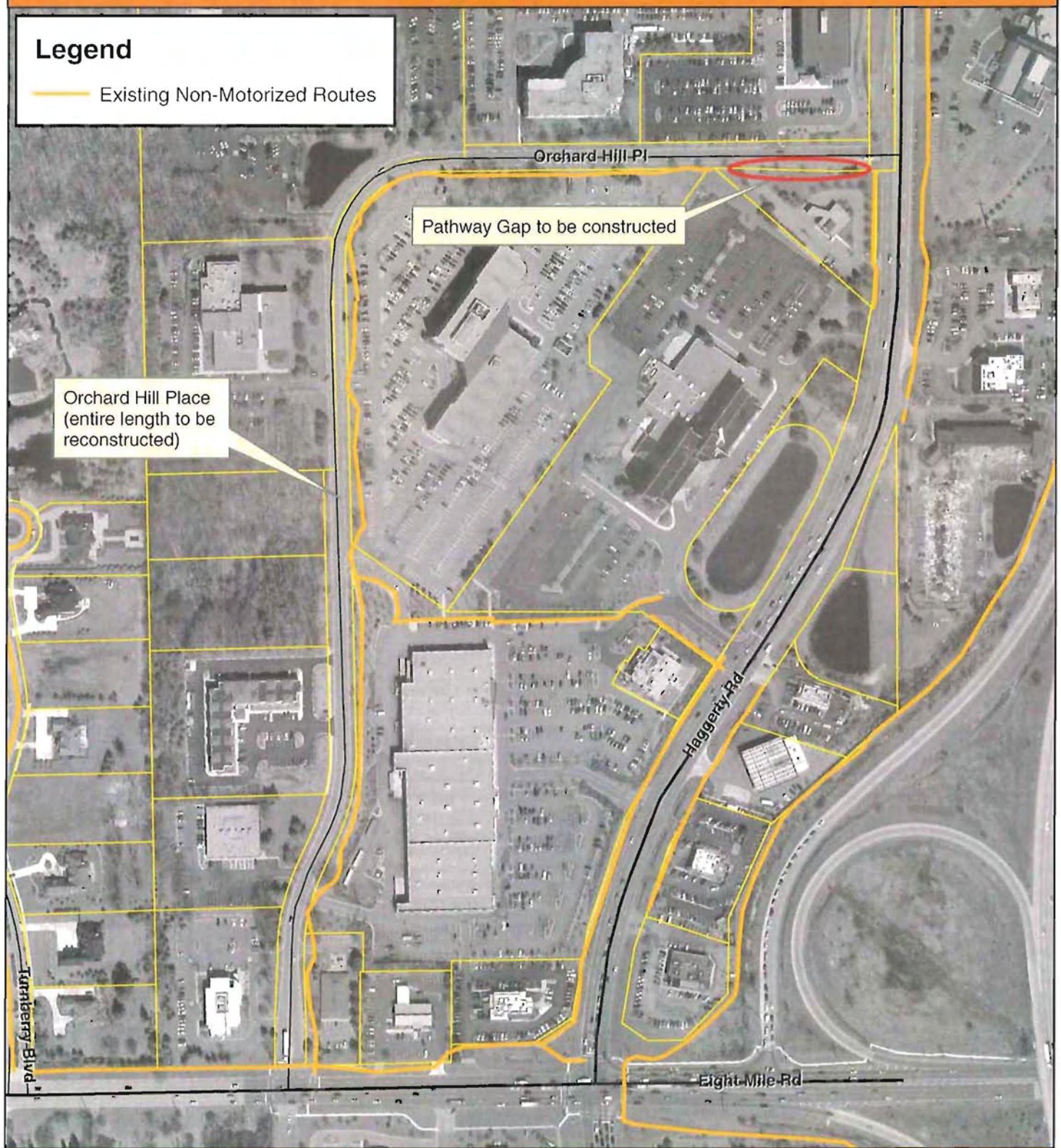
RECOMMENDED ACTION: Consideration of a request from the Vista Hills Homeowners Association for the City to accept Vista Hills streets contingent on City's receipt of Association's $190,000 payment for the City to make required pavement and storm structure repairs.

	1	2	Y	N
Mayor Landry				
Mayor Pro Tem Capello				
Council Member Crawford				
Council Member Gatt				

	1	2	Y	N
Council Member Margolis				
Council Member Mutch				
Council Member Staudt				

LOCATION MAP

Orchard Hill Place Reconstruction



CITY OF NOVI
ENGINEERING DIVISION
45175 W. TEN MILE ROAD
NOVI, MI 48375-3024
(248) 347-0454
MAP AUTHOR: BRIAN COBURN, P.E.

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0 115 230 460 690
FEET

1 INCH EQUALS 300 FEET

MAP PRINT DATE: 7/1/08

MEMORANDUM

cityofnovi.org

TO: CLAY PEARSON, CITY MANAGER

FROM: ROB HAYES, CITY ENGINEER

SUBJECT: VISTA HILLS STREET ACCEPTANCE - UPDATE

DATE: JULY 17, 2008

7/17/08
To: Mayor and City Council Members
For future discussion

You may recall that in December 2004, City Council originally directed Administration to evaluate the condition of the 1.5 miles of Vista Hills streets to determine the needed repairs to bring them to City standards for subsequent dedication and acceptance. In July 2005, a punchlist of deficient items was prepared by the City.

In August 2006, the Vista Hills Homeowners Association received bids for street rehabilitation work at a price of $163,605. This was roughly double the amount the Association had anticipated; therefore the Association decided to re-bid the work over the winter. In May 2007 the Association re-bid the project and awarded the work to Andrews Construction at a price of $147,900. In August 2007, the Association decided to defer the project because of ongoing budget concerns.

Earlier this month, Engineering staff met on-site with the contractor and the Association's engineer and noted that several of the storm sewer structures had significant more deterioration than what was first observed back in 2005. Because Mr. Bill Osip (Association President) is concerned that these and possibly other unforeseen site conditions may increase the project cost, he has requested that the City accept $190,000 as payment to make all repairs as part of a City-led project (Bill Osip's July 14, 2008 letter is attached).

I would have no objection to taking on this project if Council agrees with Mr. Osip's proposal. We could add this to the scope of an existing asphalt road project to be completed this construction season.

cc: Pam Antil, Assistant City Manager
Brian Coburn, Civil Engineer

July 14, 2008

To: Mr. Rob Hayes, City Engineer

Subject: Dedication of the Streets in Vista Hills Subdivision to the City of Novi

Dear Mr. Hayes,

In 2004, the City Council voted and agreed to accept the streets in the Vista Hills Subdivision. As part of the agreement at that time, we have had inspections performed on the road surface and storm drainage system (paid by Vista Hills) as performed by the City's engineering consultant and the repairs were agreed to by the City Engineering department. The Engineering department is requesting to amend and expand the project scope. Over the past couple of years, we have raised approximately $190,000 to perform the upgrades as requested. The current low bid from our recent round of bidding is approximately $148,000, not including construction contingencies or expanded scope of pavement removals or structure repair.

In a site meeting on July 3 with City Engineer Aaron Staup, Stantec Consulting and Spalding DeDecker, we had discussed that sometime in the future, a complete resurface will be required or at least would be the optimal way to rehabilitate the road instead of patching. I asked if the current plan is truly the best way to spend the $190,000 or if the City would consider accepting the funds we have on hand, perform very minor immediate repairs, and then put our subdivision on the schedule for full resurface when the City deems it necessary. There are also a number of reasons to consider the acceptance of the Vista Hills funds:

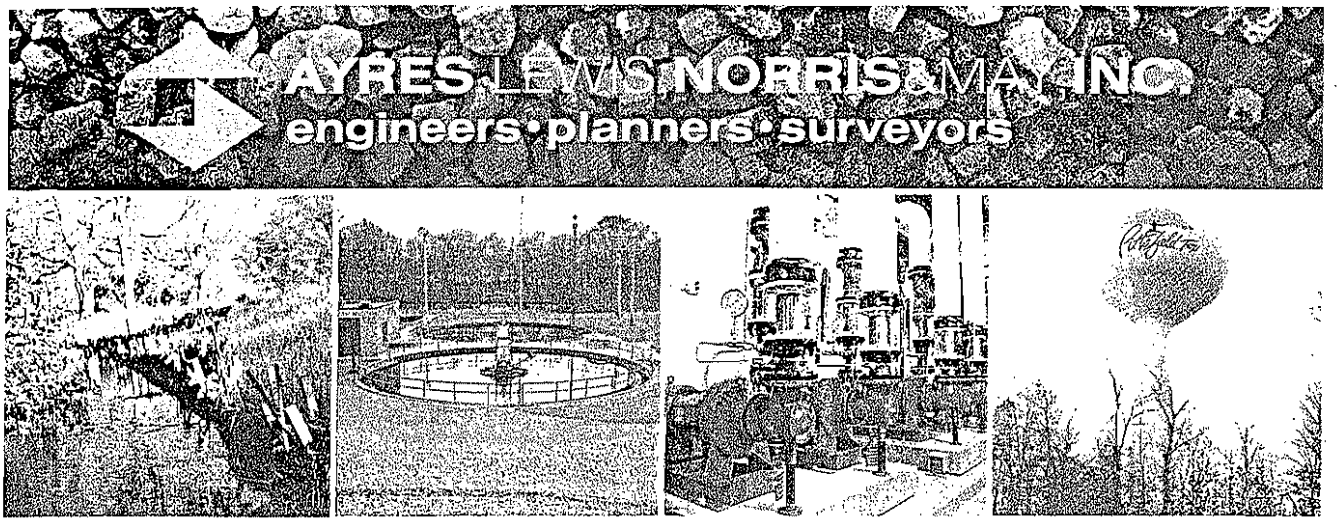
- City is the expert in roadwork
- City has complete control over repairs
- City can choose to perform future repairs themselves or with their chosen contractor
- City will get better contract terms than a subdivision will
- City can spend the allotted funds in a manner they choose

The City of Novi is the expert in this type of construction matter and certainly would manage this type of project better than our subdivision would. At the end of this project, we want to make sure all parties are pleased with the product and that the funds have been spent in the most efficient manor. We cannot complete the recommended repairs and then second guess ourselves on what should have been done.

In conclusion, I am requesting this issue be placed on the Matters for Action at a future City Council Meeting to allow the Council to act upon this request. I would appreciate a quick response as this project needs to be completed this summer/early fall if Vista Hills is going to complete the repairs ourselves. Thank you for your time and I look forward to hearing from you. If you need anything in the meantime, feel free to contact me at the numbers below.

Sincerely,

Bill Osip
President – Vista Hills Subdivision
42879 Brookstone Drive
Novi, MI 48377
(248) 960-8977 (Home – evenings)
(313) 845-6097 (Day – work)



Report

Vista Hills Subdivision
Pavement and Drainage Structure Evaluation

City of Novi

May, 2005

VISTA HILLS SUBDIVISION
PAVEMENT AND DRAINAGE STRUCTURE EVALUATION
PREPARED FOR THE
CITY OF NOVI

May, 2005

Project No. 230799.00.000

Ayres, Lewis, Norris & May, Inc.

Engineers • Planners • Surveyors

3959 Research Park Drive

Ann Arbor, Michigan 48108-2219

(734) 761-1010

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APPENDICES

I

PURPOSE

The homeowner's association for the Vista Hills subdivision in the City of Novi has petitioned the City to assume ownership of the roadway and drainage system within the subdivision. In order to assist the City staff in their decision making process, we have prepared a summary of the existing conditions of the pavement and drainage structures within the subdivision.

II

PAVEMENT CONDITION

The existing condition of the pavement within the subdivision was determined utilizing pavement cores and visual assessments. The approved engineering plans for the subdivision include a detail depicting the proposed typical pavement section that was to be constructed. In order to determine whether this typical was actually constructed, a soil testing company was retained to perform pavement cores to a depth of approximately 5 feet. The results of the pavement cores performed by PSI are appended to this report as Appendix C.

The pavement cores reveal that the material composition of the roadway has generally been constructed in accordance with the typical section shown on the approved plans.

- Ledgeview Drive meets or exceeds the typical pavement section for both surfacing material and base material.
- Hearthstone Drive meets or exceeds the surfacing requirements with the exception of the intersection with Brookstone Drive which is anywhere from 1 inch to 4 inches short of the base material requirements.
- Clay Court meets or exceeds the typical pavement section for both surfacing material and base material.
- Brookstone Drive surfacing materials are 0.5 inches short on 2 of the 3 cores and the base materials meet or exceed the requirements on 2 of the 3 cores, with the third core indicating the base materials are 1 inch less than the requirements.
- Sandstone Drive surfacing materials are 0.5 inches short of the requirements for half of the sampling locations and the base material meets or exceeds the requirements in 3 of the 4 core locations. The fourth core indicates that the base is short of the requirements by 2 inches.
- Stonewall Court meets or exceeds the surfacing requirements and falls short of the base material requirements by 1 inch.
- Quarry Court meets or exceeds the surfacing requirements and the base material is 1 inch less than the required depth.

A visual inspection of the pavement within the subdivision reveals several problem areas. One particular problem that is persistent and consistent throughout the subdivision is cracking at the junction of the curbing and the bituminous pavement. Edge cracking is often the result of water seeping into the base material at the curb and pavement interface, which heaves the pavement during freeze/thaw cycles. There are several locations where "birdbaths" or depressions are observable after a rain event on the paving surface. Depressions in the surface are often caused by uneven placement of surfacing materials, uneven compaction of surface materials or uneven compaction of base materials. In a few locations the pavement has heaved at a utility line crossing. This failure may be the result of improper compaction of utility trench backfill material. Digital photographs of representative problem areas are appended to this report as Appendix A.

III

STORM SEWER SYSTEM CONDITION

The storm sewer system was visually inspected to determine the existing condition of the system. An attempt was made to locate and evaluate each structure in the system. A tabulation of each structure and any needed repairs is appended to this report as Appendix B. It should be noted that a small number of structures could not be located from the surface. Most of the structures that could not be located on the surface are composed of PVC and therefore cannot be located by magnetic means either. One manhole structure, number 46, may be located under a bush. The only other manhole structure that could not be located is number 16, which is apparently buried as the manhole cover is not visible at the surface.

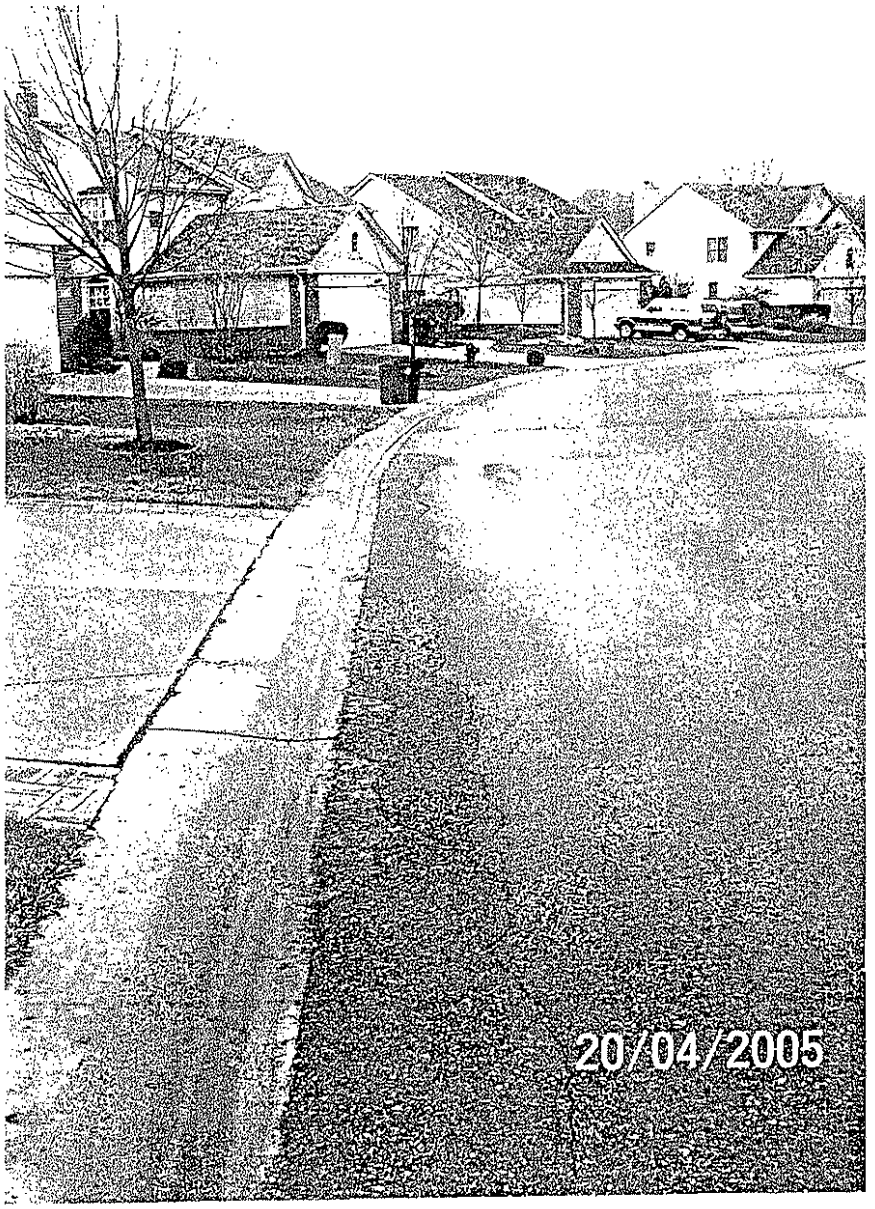
The general condition of the storm sewer structures is good. However, the majority of the structures need to have tuck-pointing performed on the chimney adjustments. A fair number of the structures also need to have the manhole blocks mudded. It appears that the structures were mudded at the time of installation, however many of the mortar joints are visible in the manholes that require mudding. Overall, the system has not built up a lot of sediment within the structures. A good number of structures require cleaning and/or removal of debris. A few structures still contain filter fabric that should have been removed upon establishment of grass growth. In a few instances, structure covers were nearly grown over with sod. In order for the manhole covers to accept drainage, the grass growth should be cut back from the covers. Please note that televising of the storm sewer lines was not performed as a part of this report. Undertaking the expense associated with performing a televised survey is not advisable unless there are known flooding problems within the storm sewer system.

The ultimate outlets for the storm system are wetlands and a lake. The PVC end sections in most locations are exposed with no cover or rip-rap at the outlet of the pipe. A PVC end section located near structure number 111 is buried and is forcing runoff to overflow the top of structure 111. The concrete end sections appear to be in good shape, however, the outlets of the concrete end sections have little to no rip-rap. End section number 65 is nearly buried and has a tree growing in the outlet drainage path.

APPENDIX A
DIGITAL PHOTOGRAPHS

Sandstone west of Hearthstone
Heaved pavement is causing storm water to pond on street surface

Sandstone east of Hearthstone
Heaved pavement is causing storm water to pond on road surface. Surface cracks have formed in location where pavement has heaved and at the catch basins.



Sandstone at house no. 43137

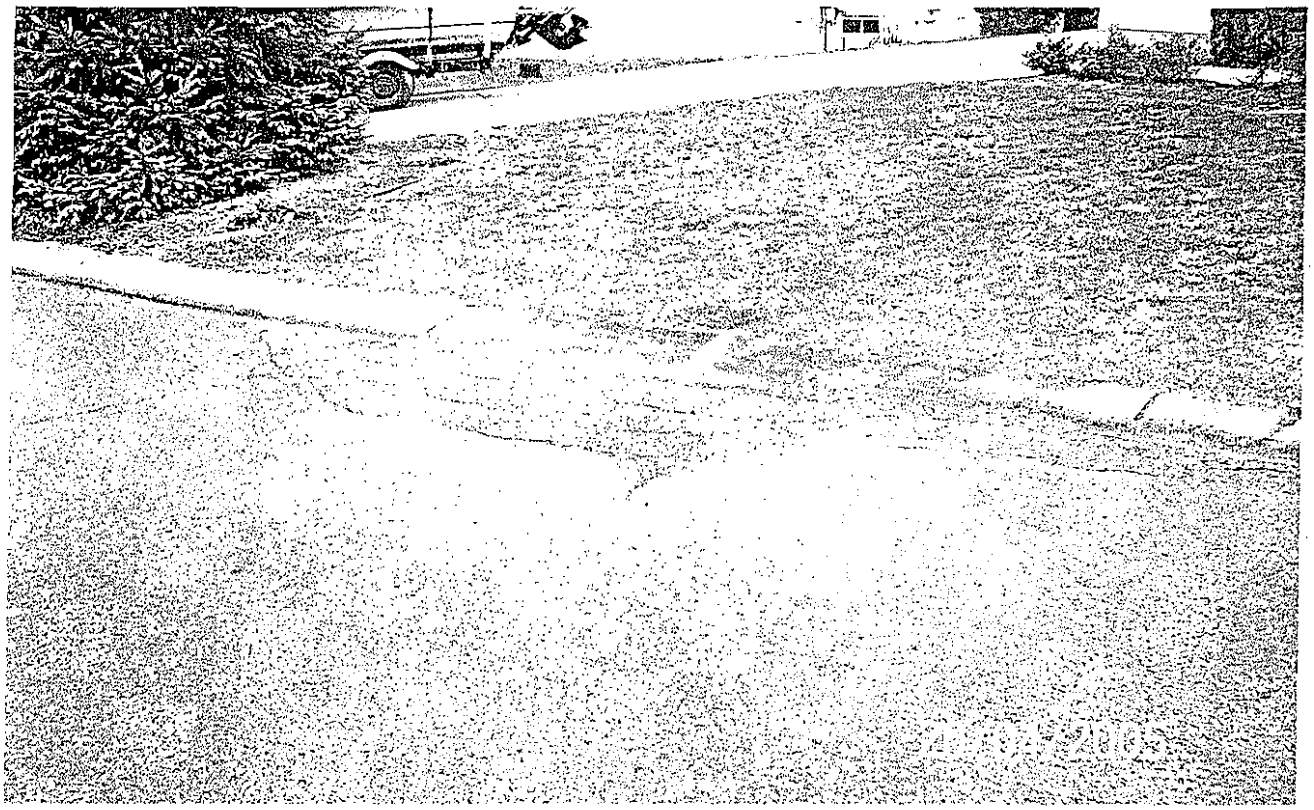
Cracking at edge of metal.

Sandstone at house no. 43116
Typical transverse cracking. Occurs frequently on this street at intervals of 100 ft. +/-

Sandstone at house no. 43094
Transverse and longitudinal cracking.

Appendix A

Quary Ct.
Cracks along cul-de-sac island edge of metal.



Quary Ct. at house no. 28738
Apparent low point in curbing. Sediment has built up in this location and edge cracking is evident.

Appendix A

Sandstone at Quary Ct.

Cracking, heaving and ponding on top of storm sewer line.

Quary Ct. at north side of cul-de-sac island
Londitudinal and transverse cracking.

Quary Ct. at Sandstone
Ponding and cracking in front of catch basin.

Stonewall Ct. at cul-de-sac island, looking toward Sandstone
Cracking and multiple areas of surface ponding.

Stonewall Ct.
Variety of surface cracking.

Sandstone near Brookstone
Multiple low points in pavement with surface ponding and cracking.

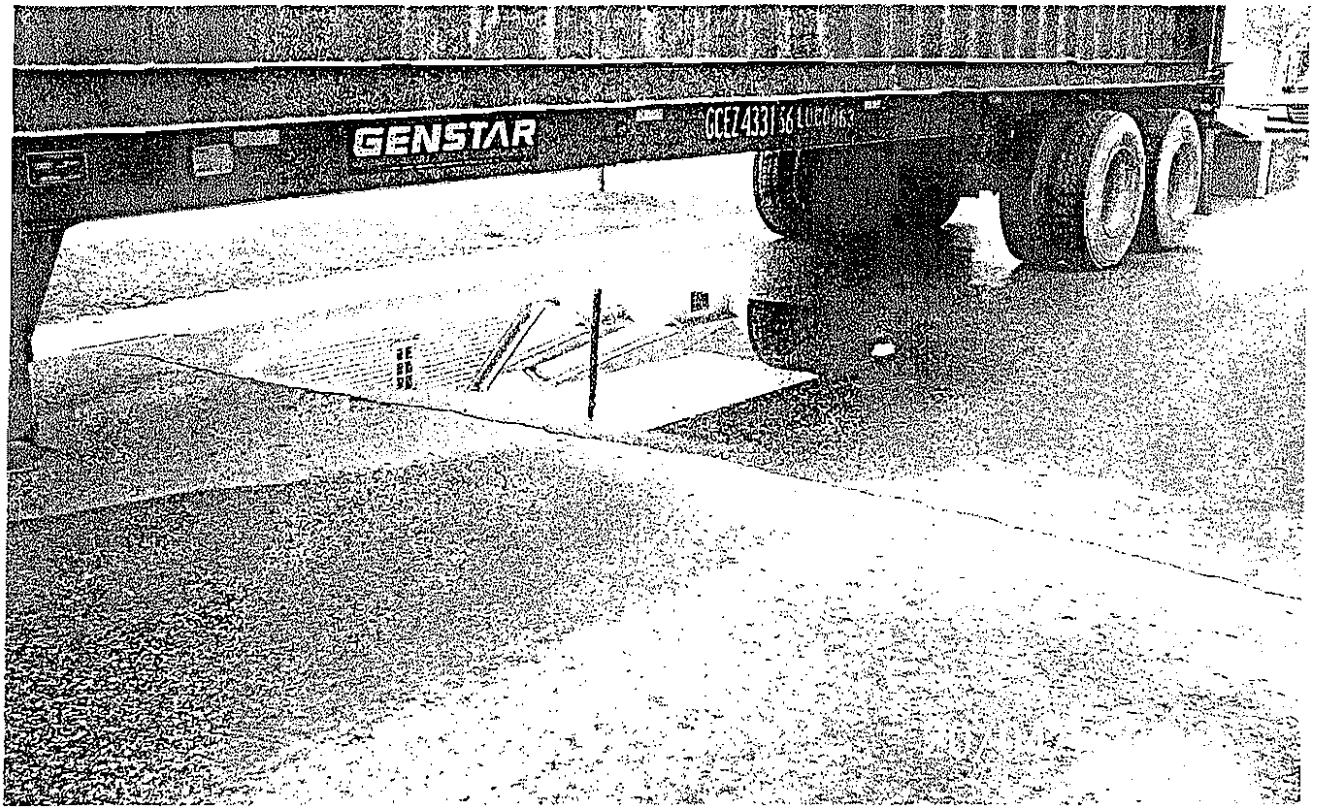
Stonewall Ct.
Apparent low point in curb and edge cracking. Sediment buildup is evident.

End of Sandstone at eyebrow cul-de-sac
Low point on pavement with ponding upstream of catch basin. The crack runs across the length of the intersection.

Brookstone between house no. 42769 and house no. 42797
Low point in pavement surface and transverse crack.

Brookstone at house no. 42813
Minor ponding in front of catch basins and cracks at edge of metal.

Hearthstone at house no. 42989
Ponding upstream of catch basins. Edge cracking is evident. A pot-hole has formed in front of the middle catch basin.

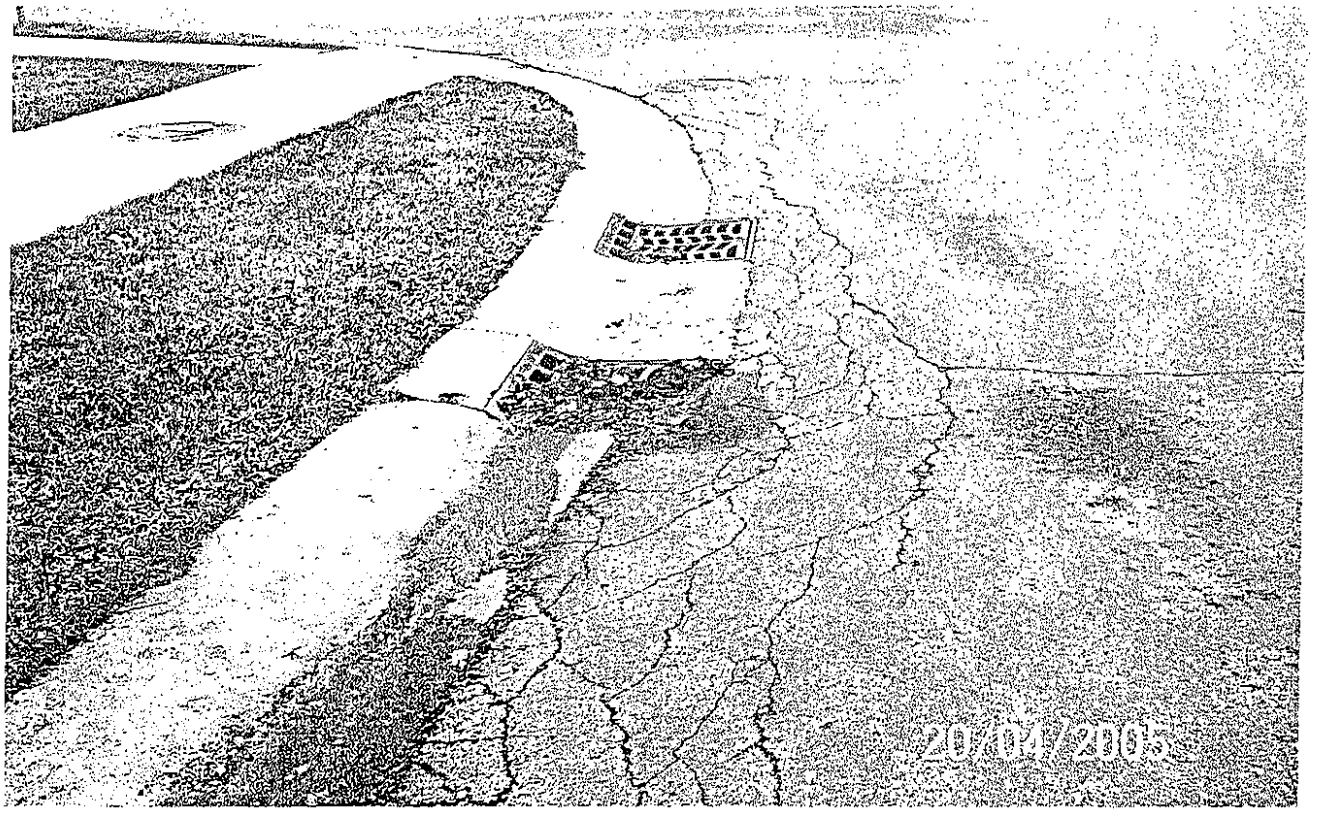


Brookstone at house no. 42989
Large area of ponding on south side of road with transverse crack.

Brookstone at Hearthstone
Low point and ponding in front of catch basin with transverse cracking.

Hearthstone at house no. 28779
Dislocation of curb and gutter have caused a lip between the two sections, sediment has accumulated and the edge is showing signs of cracking.

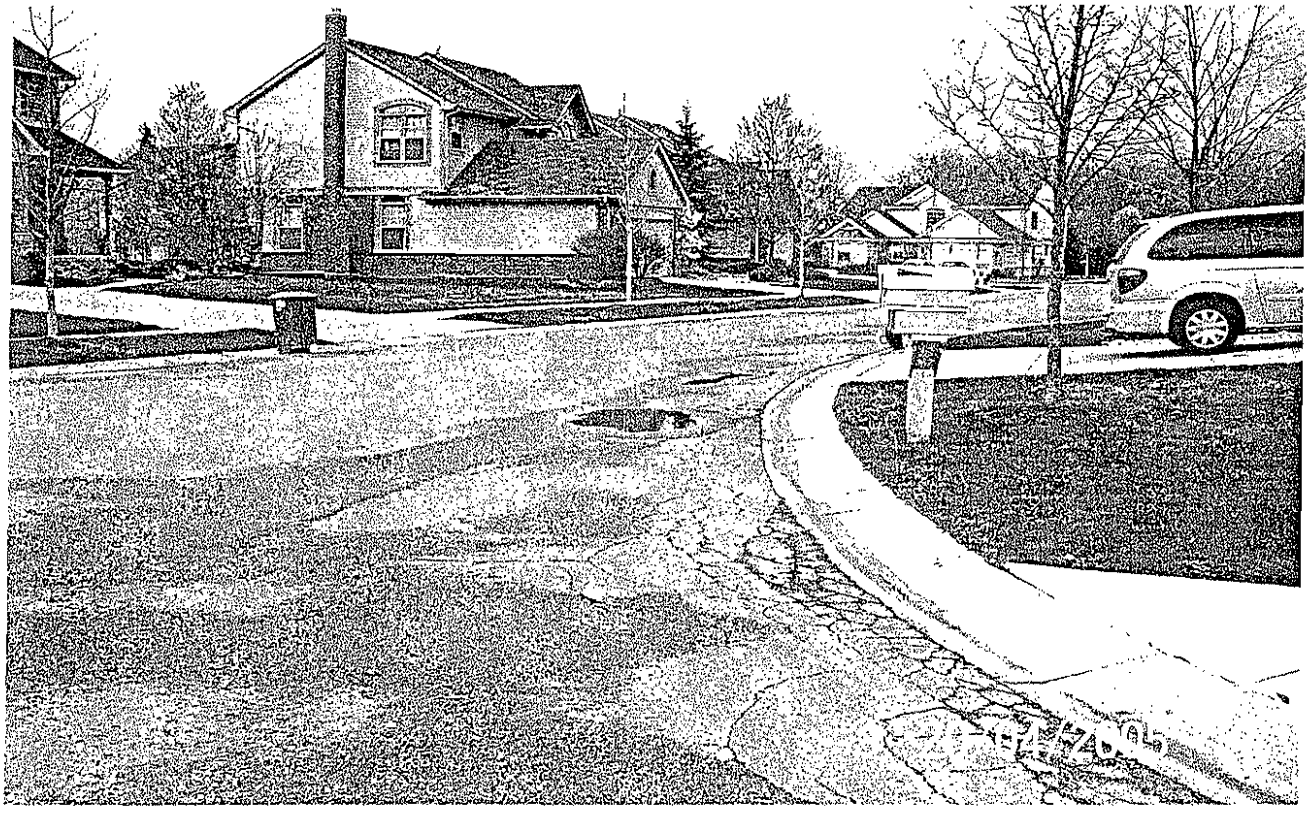
Hearthstone at house no. 28807, looking toward Sandstone
Longitudinal cracking, transverse cracking and cracks at edge of metal.



Ledgeview at Hearthstone
Pot-hole has formed in front of catch basin and edge cracking. The cracking continues into cul-de-sac on both sides of roadway.

Ledgeview at house no. 42768
Apparent low point in curbing with sediment buildup and edge cracking.

Ledgeview at house no. 42790
Pronounced low point in curb with ponding and edge cracking.



Ledgeview on north side of road at cul-de-sac curb return
Low points in pavement surface with ponding and edge cracking.

Ledgeview at house no. 42745
Ponding near edge of metal and edge cracking.

APPENDIX B
STRUCTURE CONDITIONS

Drainage Structure Inventory

Structure No.	Location	Material	Cleanliness	Comments on Structure Condition
50	Brookstone	Block w/precast cone	Minor sediment	Needs pointing
51	Brookstone	Block	Clean	Needs pointing
51A	Brookstone	Block	A lot of debris	Needs pointing and cleaning
51B	Brookstone	PVC	n/a	Needs cover. Remove filter fabric in order to inspect
51C	Brookstone	n/a	n/a	Could not locate this structure
52A	Brookstone	Block	A lot of debris	Needs pointing and cleaning
53	Brookstone	Block w/precast cone	Clean	Needs pointing
65	Clay	End section	Buried	A tree is growing in the drainage path. Drainage course needs cleaning and regrading.
66	Clay	Block	A lot of debris	Needs cleaning
66A	Clay	Block	A lot of debris	Needs cleaning
79	Clay	Block	Some debris	Needs pointing and cleaning
80	Clay	Block	Clean	Needs mudding and pointing
81	Clay	Block	Some debris	Needs cleaning
1	Decker	Block	Some sediment	Needs mudding, pointing and cleaning
2	Decker	Block	Some sediment	Needs mudding and cleaning
16	Decker	n/a	n/a	Could not locate this structure
17	Decker	Block	Clean	Excellent condition
17A	Decker	Block	Clean	Incorrect structure cover
18	Decker	Block	Some sediment	Needs mudding and cleaning
67	Decker	Block	Some sediment	Needs mudding and cleaning, remove filter fabric
95	Decker	Block	Some sediment	Needs cleaning
96	Decker	Block	Some sediment	Structure needs cleaning, both inside and surface surrounding.

Drainage Structure Inventory

Structure No.	Location	Material	Cleanliness	Comments on Structure Condition
97	Decker	Block	Some sediment	Casting knocked off center. Needs mudding, pointing and cleaning
98	Decker	Block	Some sediment	Incorrect structure cover, needs cleaning
3	Hearthstone	Block	Clean	Needs mudding and pointing
4	Hearthstone	Block	Clean	Needs pointing
4A	Hearthstone	Block	Some sediment	Needs mudding, pointing and cleaning
4B	Hearthstone	Block	Clean	Very good condition
5	Hearthstone	Block w/precast cone	Clean	Casting knocked off center
6	Hearthstone	Block w/precast cone	Clean	Casting knocked off center
19	Hearthstone	Block	Clean	Very good condition
19A	Hearthstone	Block	Minor sediment	Needs pointing
19B	Hearthstone	Block	A lot of sediment	Needs pointing and cleaning
20	Hearthstone	Block w/precast cone	Clean	Casting knocked off center, sidewalk surrounding is cracked. Needs pointing
21	Hearthstone	Block	Some sediment	Casting knocked off center. Needs pointing and cleaning.
22	Hearthstone	Block w/precast cone	Clean	Needs mudding and pointing
23	Hearthstone	Block w/precast cone	Clean	Casting knocked off center. Cone section is spalling on inside of structure. Needs mudding and pointing.
24	Hearthstone	Block	Minor sediment	Needs cleaning
25	Hearthstone	Block	A lot of sediment	Needs mudding, pointing and cleaning
68	Hearthstone	Block	Clean	Very good condition
69	Hearthstone	Block	Clean	Needs pointing
70	Hearthstone	Block	Clean	Needs pointing
71	Hearthstone	Block	Clean	Casting knocked off center. Needs mudding and pointing

Drainage Structure Inventory

Structure No.	Location	Material	Cleanliness	Comments on Structure Condition
76	Hearthstone	Block w/precast cone	Clean	Needs pointing
77	Hearthstone	Block	Clean	Chimney is composed of house brick. Needs mudding and pointing
78	Hearthstone	Block	Clean	Several manhole blocks are cracked. Needs mudding and pointing
86	Hearthstone	Block	Some debris	Needs pointing and cleaning.
87	Hearthstone	Block	Some sediment	Needs pointing and cleaning
87A	Hearthstone	Block	Some debris	Needs pointing and cleaning
91	Ledgeview	Block	Clean	Needs mudding and pointing
92	Ledgeview	Block	Some debris	Needs mudding and cleaning
92A	Ledgeview	Block	Clean	Needs mudding
93	Ledgeview	Block	Clean	Needs pointing
94	Ledgeview	Block	Some sediment	Needs cleaning
94A	Ledgeview	Block	A lot of sediment	Needs cleaning. Remove filter fabric.
13	Quary	Block w/precast cone	Clean	Needs pointing
14	Quary	Block w/precast cone	Clean	Casing knocked off, cone not centered on block.
37	Quary	Block	Clean	Casting knocked off, needs pointing
15	Rear Yard	Block	Clean	Remove filter fabric
15A	Rear Yard	PVC	Clean	End section has some erosion, place rip-rap
29	Rear Yard	Block	Clean	Remove filter fabric
30	Rear Yard	Block	Some mud	Needs pointing and cleaning, remove filter fabric
31	Rear Yard	PVC	Clean	Sump lead visible in riser
32	Rear Yard	Block	Clean	Needs pointing
33	Rear Yard	Block	Clean	Excellent condition
34	Rear Yard	Block	Some mud	Needs pointing and cleaning
35	Rear Yard	PVC	n/a	Remove above ground pipe and place proper cover
48	Rear Yard	End section	Some debris	Needs cleaning. Place rip-rap
49	Rear Yard	Block w/precast cone	Some sediment	Casting knocked off center. Needs pointing.
54	Rear Yard	Block	Clean	Needs pointing
55	Rear Yard	Block	Clean	Needs pointing

Drainage Structure Inventory

Structure No.	Location	Material	Cleanliness	Comments on Structure Condition
55A	Rear Yard	Block	Clean	Needs pointing, remove filter fabric
56	Rear Yard	Block	Clean	Needs pointing
57	Rear Yard	n/a	n/a	Could not locate this structure
59	Rear Yard	n/a	n/a	Could not locate this structure
60	Rear Yard	End section	n/a	Needs rip-rap. End section pipe is exposed
61	Rear Yard	Block	Some debris	Needs cleaning.
62	Rear Yard	Block	A lot of debris	Needs mudding and cleaning
64	Rear Yard	Block	Some debris	Needs cleaning. Replace the incorrect cover. Roof drainage leads located above ground next to casting are causing some erosion around casting.
72	Rear Yard	Block	Clean	Needs mudding and pointing, remove filter fabric
73	Rear Yard	Block	A lot of sediment	Needs mudding and cleaning
74	Rear Yard	Block	Clean	Needs mudding and pointing
75	Rear Yard	PVC	Clean	Replace cracked cover
82	Rear Yard	Block	Some debris	Needs cleaning, remove filter fabric
83	Rear Yard	Block	Clean	Needs pointing
84	Rear Yard	PVC	Holding water	Line needs cleaning
85	Rear Yard	PVC	Clean	No comment
89	Rear Yard	Block	Minor sediment	Needs mudding and pointing
90	Rear Yard	PVC	Clean	Sump lead visible in riser
100	Rear Yard	PVC	Clean	Top of pipe is broken, no cover on end section pipe
101	Rear Yard	PVC	Some silt	Needs cleaning, water sitting in channel
104	Rear Yard	Block	Much debris	Needs cleaning. Replace the incorrect cover. Roof drainage leads located above ground next to casting are causing some erosion around casting.
105	Rear Yard	PVC	Clean	No comment
106	Rear Yard	PVC	Clean	No comment
107	Rear Yard	n/a	n/a	Could not locate this structure
108	Rear Yard	PVC	Some sediment	Replace cracked cover
109	Rear Yard	PVC	Clean	Two sump leads visible in riser
110	Rear Yard	n/a	n/a	Could not locate this structure
111	Rear Yard	PVC	Holding water	End section is burried, water is overtopping rim

Drainage Structure Inventory

Structure No.	Location	Material	Cleanliness	Comments on Structure Condition
112	Rear Yard	PVC	Holding water	Line needs cleaning
113	Rear Yard	n/a	n/a	Could not locate this structure
7	Sandstone	Block w/precast cone	Clean	Casting knocked off center, one pipe is cracked inside manhole
8	Sandstone	Block w/precast cone	Minor sediment	Very good condition
9	Sandstone	Block w/precast cone	Some debris	Casting knocked off center, needs cleaning
10	Sandstone	Block	Minor debris	Casting knocked off center, needs pointing.
11	Sandstone	Block w/precast cone	Clean	Casting knocked off center, gap between manhole sections. Needs mudding and pointing.
12	Sandstone	Block w/precast cone	Minor sediment	Needs pointing
26	Sandstone	Block w/precast cone	A lot of sediment	Needs cleaning
26A	Sandstone	Block	Clean	Needs pointing, remove filter fabric
27	Sandstone	Block w/precast cone	Clean	Needs pointing
27A	Sandstone	Block	Clean	Needs pointing
28	Sandstone	Block	Minor	Needs pointing
28A	Sandstone	Block	Clean	Needs pointing
38	Sandstone	End section	n/a	Some concrete has broken off the end section, area needs cleaning
39	Sandstone	Block w/precast cone	Some debris	Needs pointing and cleaning
40	Sandstone	Block	Some debris	Needs pointing and cleaning
43	Sandstone	Block	Some debris	Needs pointing and cleaning
43A	Sandstone	Block	Some debris	Casting knocked off center. Needs pointing and cleaning.
44	Sandstone	Block	Some debris	Needs pointing and cleaning, remove filter fabric
45	Sandstone	PVC	Clean	Missing cover
45A	Sandstone	PVC	Clean	Top of pipe is broken
45B	Sandstone	PVC	Clean	No comment
46	Sandstone	n/a	n/a	Could not locate this structure
47	Sandstone	Block	A lot of debris	Needs pointing and cleaning
47A	Sandstone	Block	Minor sediment	Casting knocked off center, needs pointing.

Drainage Structure Inventory

Structure No.	Location	Material	Cleanliness	Comments on Structure Condition
103	Sandstone	Block w/precast cone	Minor debris	Casting knocked off center, needs pointing.
41	Stonewall	Block	Some debris	Needs pointing and cleaning.
41A	Stonewall	PVC	Clean	No comment
42	Stonewall	Block	Some debris	Casting knocked off center, needs pointing and cleaning
42A	Stonewall	PVC	Clean	No comment