



City of **Summit**

City Wide Drainage Assessment Report

Dept. of Community Services
Division of Engineering
Revised - July 2020

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Table of Contents

INTRODUCTION	3
SUMMARY	5
CATEGORY I – DRAINAGE LOCATIONS	
1. Golf Course Pond (Permitting Phase)	7
2. Salt Brook	8
3. West End Avenue Erosion	9
4. Railroad Culverts	10
5. Middle Avenue Culvert	11
6. Beekman Road Culvert	12
CATEGORY II – DRAINAGE LOCATIONS	
7. Briant Parkway, Easements near Springfield Avenue intersection	14
8. Portland Road – At Dorchester Road	15
9. Tulip Street – Oakland Place to Linden Place	16
10. Kenneth Court and Crest Acre Court	17
11. Morris Avenue at Elm Street Condo Driveway	18
12. Martins Brook	19
CATEGORY III – DRAINAGE LOCATIONS	
13. Huntley Road (Under Construction)	21
14. Gloucester Road (Design Complete – Awaiting Construction)	22
15. Wade Drive	23
16. Sweet Briar Road / Plymouth Road (Under Construction - Phased)	24
17. Dorset Lane Icing	25
18. Club Drive	26
19. Ox Bow Lane	27
20. Princeton Street	28
21. Division Avenue Bridge (Part of #2)	29
22. Beverly Road & Sheridan Road	30

COMPLETED PROJECTS (Pages 31-37)

1. 236 Springfield Avenue "The Dell" (Designed Completed-work not to be completed)
2. Whittredge Road/Dogwood Drive (Completed Fall 2007)
3. New Providence Avenue (Completed 2007)
4. Sheffield Road (Completed Fall 2008)
5. Memorial Field Basketball Courts (Completed 2008)
6. 8 & 12 Sweet Briar Road (Completed – Fall 2009)
7. Springfield Avenue and Summit Avenue (Completed – Fall 2009)
8. Laurel Avenue (Completed – Fall 2009)
9. Myrtle Avenue – Larned Road to Tulip Street (Completed – Fall 2009)
10. Evergreen Road near Madison Avenue (Completed – Winter 2010)
11. Parkview Terrace (Completed – Winter 2010)
12. Beverly Road and Fremont Road (Completed – Summer 2010)
13. New England Avenue – Springfield Avenue to High Street (Completed – Fall 2010)
14. Oakland Place at Salt Brook Culvert (Completed – Fall 2010)
15. Fay Place (Completed Summer - 2010)
16. Broad Street and Cedar Avenue (Completed - Fall 2010)
17. Family Aquatic Center (Completed 2010)
18. 2 Plymouth Road (Completed 2010)
19. 61 Edgewood Road (Completed – Spring 2012)
20. Dunnder Drive at West End Avenue (Completed – Spring 2012)
21. Oak Ridge Avenue (Completed – Spring 2012)
22. Blackburn Road – Pine Grove Avenue to Oak Knoll School (Completed – Spring 2012)
23. Canoe Brook Parkway thru easement at #125 and #129 (Completed – Fall 2012)
24. Edgar Street (Completed 2012)
25. Ashland Road. Tulip Street to Elm Place (Completed – Spring 2012)
26. Waldron Avenue System (Completed fall 2013)
27. Bellevue Avenue (Completed Summer 2013)
28. Bedford Road (Completed Spring 2013)
29. Valemont Way (Completed – Winter 2014)
30. Montview Road (Completed – Spring 2014)
31. Fairview Avenue (Completed – Summer 2015)
32. Myrtle Avenue (Completed – Fall 2015)
33. Downtown Storm Sewer (Completed 2016)
34. Tulip Street - Mountain Avenue to Laurel Avenue (Completed 2016)
35. Fremont Road & Hartley Road (Completed 2016)
36. Iris Road (Completed 2016)

37. Colt Road (between #54 and 42) (Completed 2016)
38. Prospect Hill Avenue – South of Glendale Road (Completed 2016)
39. Tulip Street and New England Avenue (Completed 2016)
40. Edgemont Avenue (Completed 2017)
41. Maple Street at the Library (Completed 2017)
42. Library (Completed 2017)
43. Ashwood Court (Completed 2017)
44. Glendale Road (Completed 2018)
45. Lenox Road (Completed 2018)
46. Crestwood Lane (Completed 2018)
47. Harvard Street (Completed 2018)
48. Wallace Road (Completed 2020)
49. Laurel Avenue (Completed 2019)
50. Morris Avenue & Kent Place Boulevard (2019)
51. Linden Place (2019)
52. West End Avenue Head Wall (2019)

INTRODUCTION

This report serves as an active list of the various drainage problems throughout the City. The list is a working or “living” document and shall be revised on an annual basis. The locations are grouped by both the severity of the problem and magnitude of the solution into three main categories:

Category I locations include flooding of streets, private property and structures that require a significant engineering study and design to develop solutions. Typically, Category I locations would involve multi-phase projects with complex solutions, challenging permitting and design.

Category II locations include flooding of streets and private property and other drainage related issues. Construction projects are typically single contract projects.

Category III locations include minor drainage issues or issues on streets with construction remedies occurring as part of a larger project like a road improvement.

Criteria considered:

- Flooding of private structures
- Flooding of private land
- Street flooding
- Ice hazards
- Continuously wet pavement conditions

What follows is some general discussion for each location in no particular order other than the category grouping.

This report was originally completed in August 2007. The report has been revised to reflect the completed projects, project updates, and new projects as of July 2020.

SUMMARY

Since the creation of this report in June 2007, the Engineering Division has identified seventy four (74) locations throughout the City that are in need of a drainage improvement project. The projects vary significantly in size, cost, and type. At some locations, a cost cannot be calculated until further studies are performed and analyzed. Most of these studies have begun and will be utilized as a tool to incorporate drainage projects into the Capital budget for future years. Other projects will be combined and completed under the Capital budget line item "Various Drainage Improvements" which is requested each year.

The following is a summary of the seventy two (74) locations listed in this report:

- 74 Total locations and or projects
- 52 Projects completed
- 2 Projects ready for construction or awaiting permit approval
- 2 Project currently under construction
- 2 Projects under preliminary design or investigation

The remaining projects will be evaluated over the next year and determined if they will become part of the next drainage improvement project, if a design/study is necessary or if they can be combined with the capital improvement road project. Additionally, the list will be given to Public Works for their verification and insight as to other locations that should be analyzed, and to determine if they are able to complete some of the projects in-house. All projects shall be updated in the Citywide Drainage Assessment Report on an annual basis. The following policy has been implemented for new drainage issues that are presented to the Engineering Division:

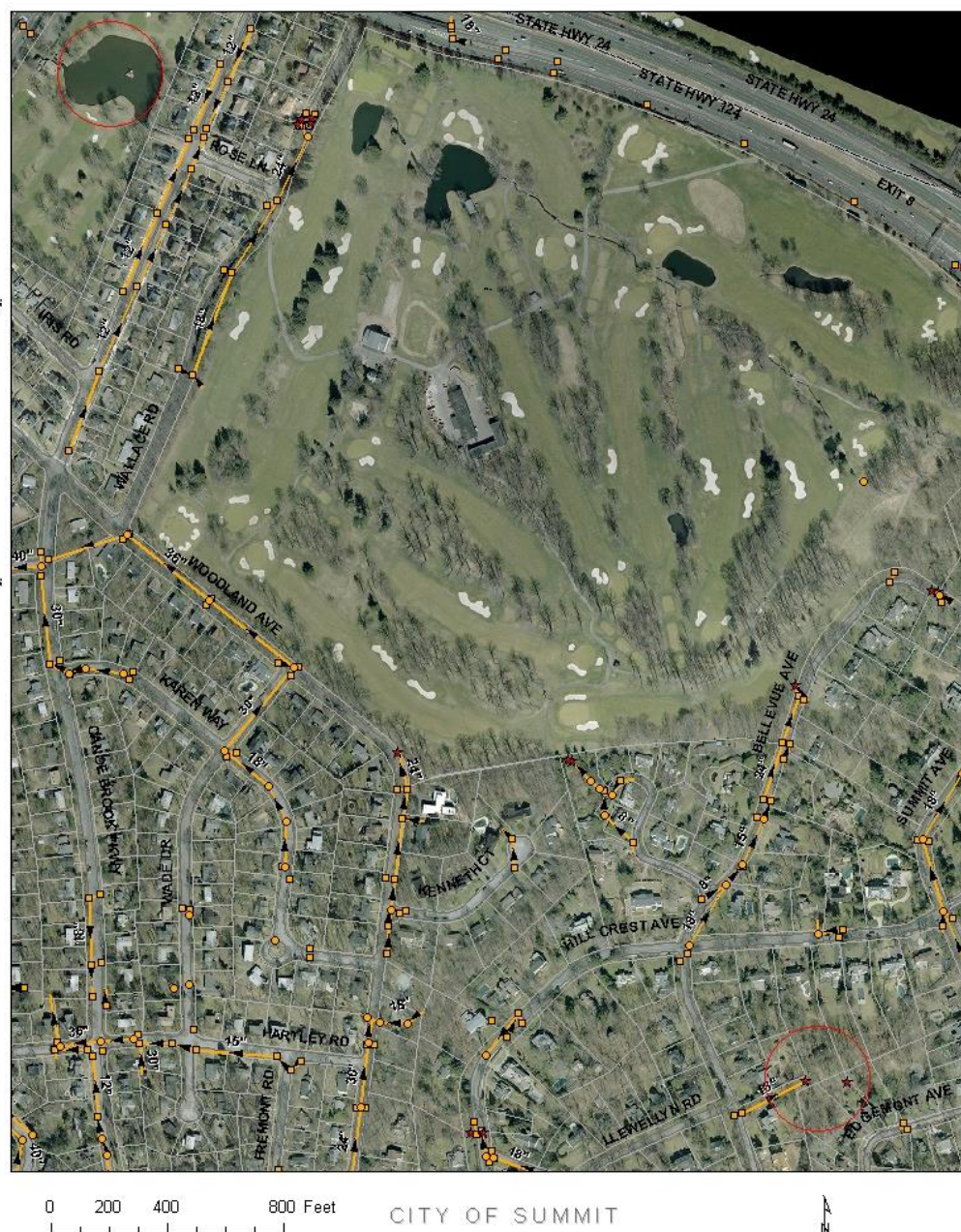
1. Drainage problems reported to the Division will be logged into our work order management system (SeeClickFix).
2. The Engineering Division will investigate whether the issue requires an improvement project, if it can be handled by Public Works, or if it is the responsibility of the resident.
3. If it cannot be quickly repaired or addressed by Public Works, the project will be added to the list of projects in the Citywide Drainage Assessment Report.

Category I

1. Golf Course Pond

Residents that live along the stream on Canoe Brook Parkway and Wallace Road experience flooding during very intense rain events. In order to reduce the occurrence of flooding in this area, the spillway for Golf Course Pond at the Municipal Golf Course must be redesigned. By increasing the size of the weir and raising the low chord of the pedestrian bridge at the Golf Course pond there will be an increase in flow capacity that can alleviate upstream flooding. Both contribute to flow restrictions. Permitting is currently at NJDEP to proceed with this project.

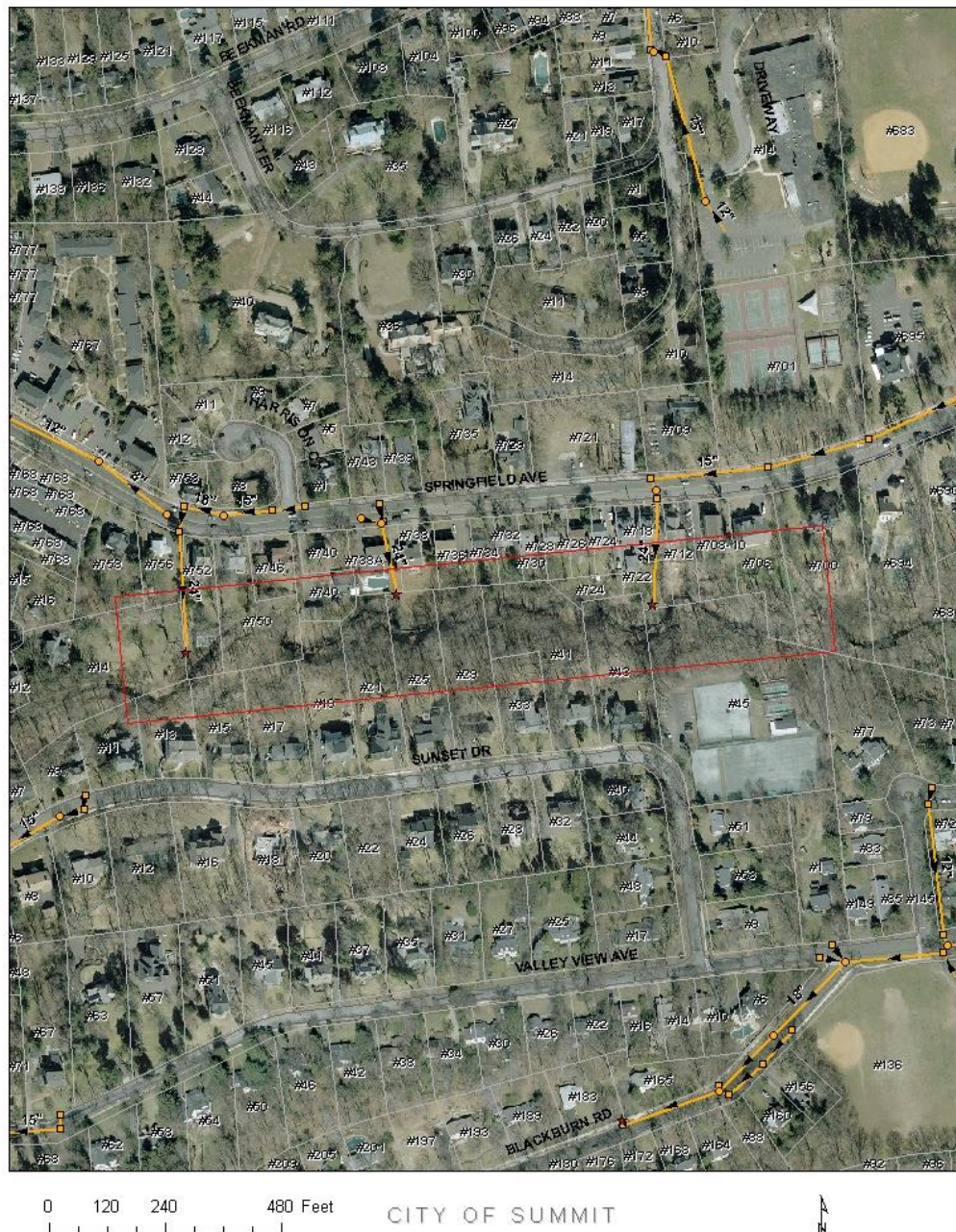
55 BELLEVUE & GOLF COURSE POND



2. Salt Brook Erosion

Erosion is evident along the banks of the Salt Brook and private properties flood during heavy storms. The Division has begun discussions with the most affected residents and a consulting Engineer was hired by a private resident for private improvements. The City oversaw and project managed a grant obtained by the Consulting Engineer for the Private resident from the NRCS. City staff continues to monitor the area.

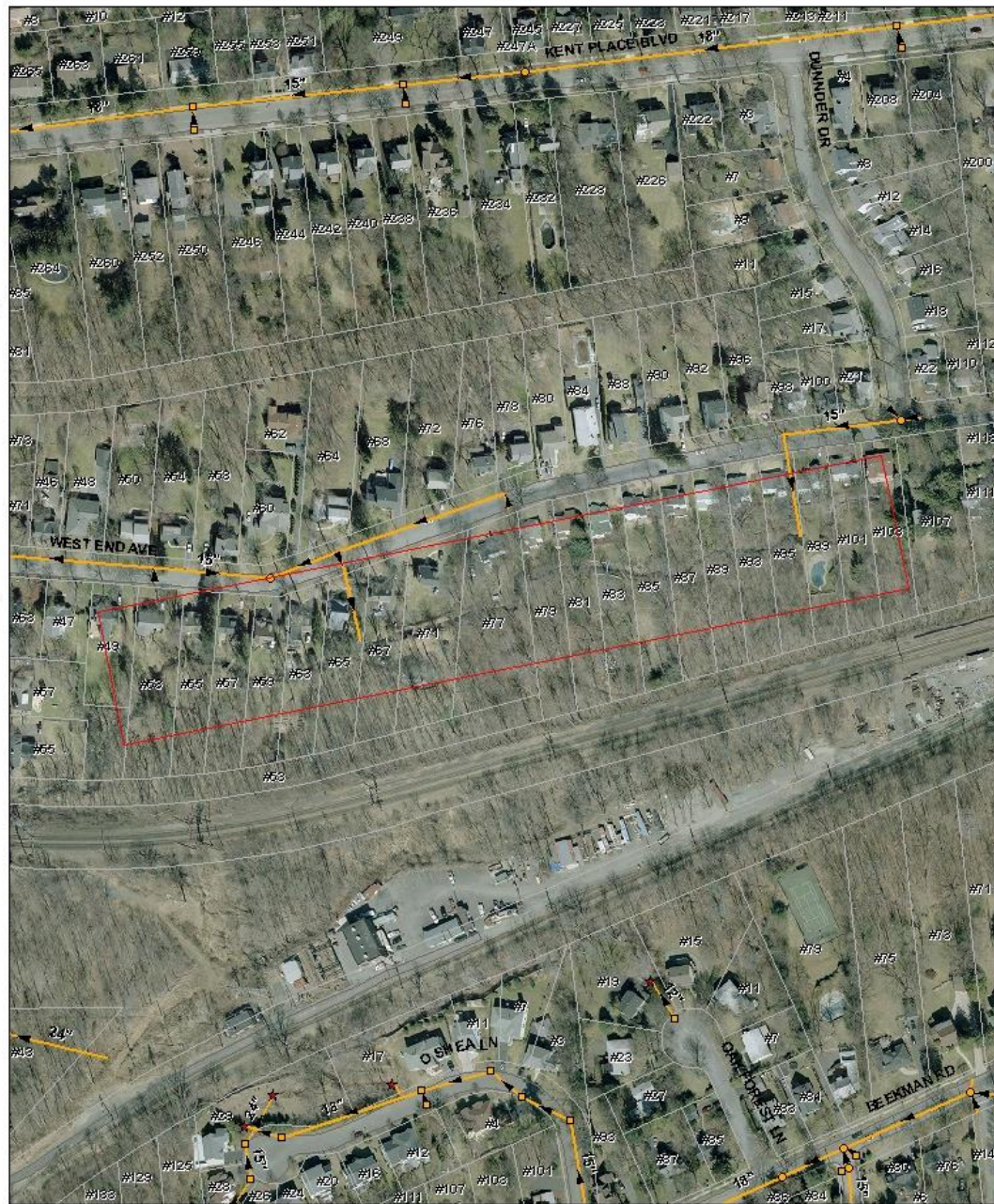
SALT BROOK EROSION



3. West End Avenue

Erosion is evident along the banks of the brook and private properties flood during heavy storms. The brook is located entirely on private properties. Significant erosion has occurred during heavy rain events along West End Avenue and the Cul-de-Sac portions of Colonial Road. City staff continues to monitor the area

WEST END AVENUE



0 100 200 400 Feet

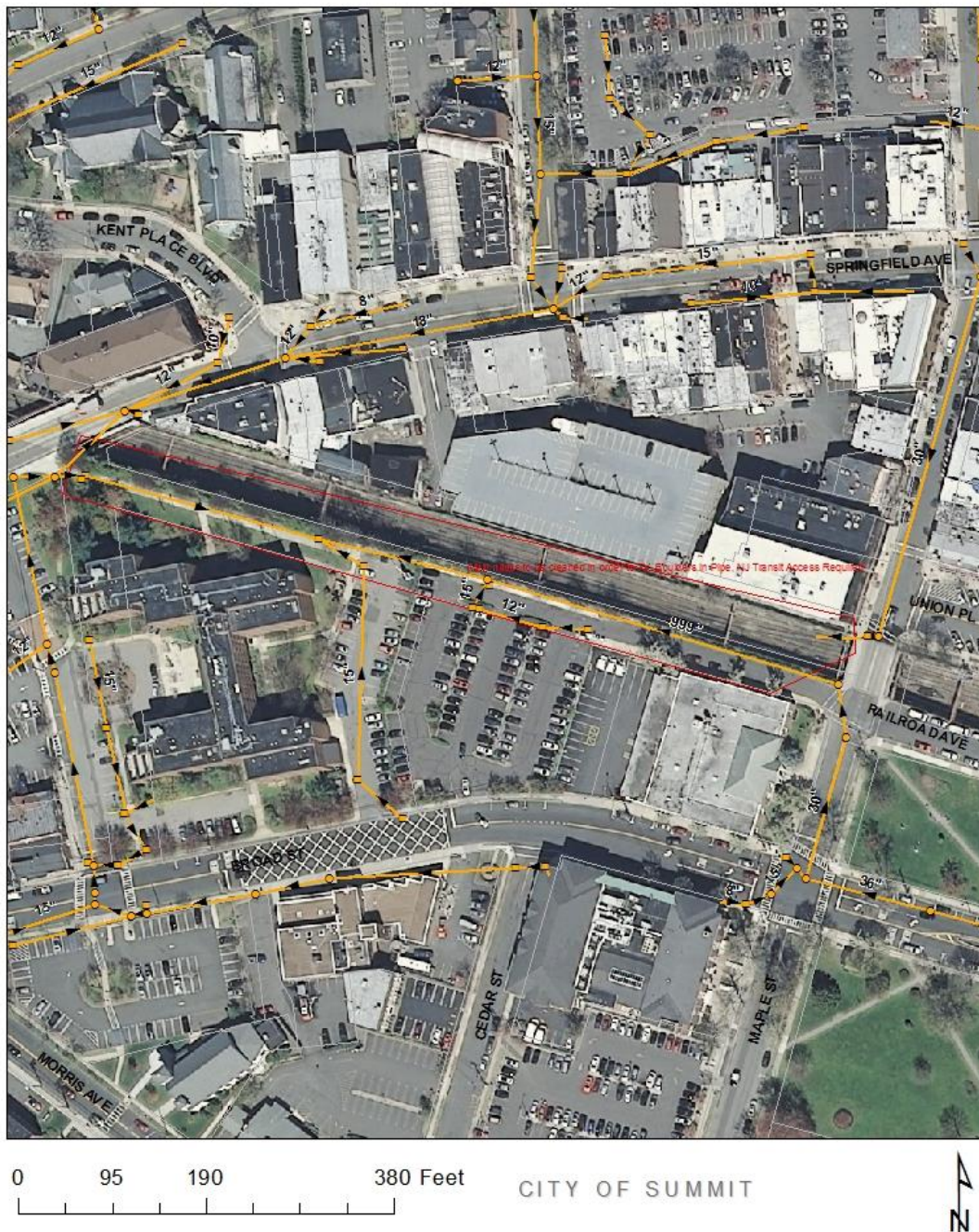
CITY OF SUMMIT



4. Railroad Culvert

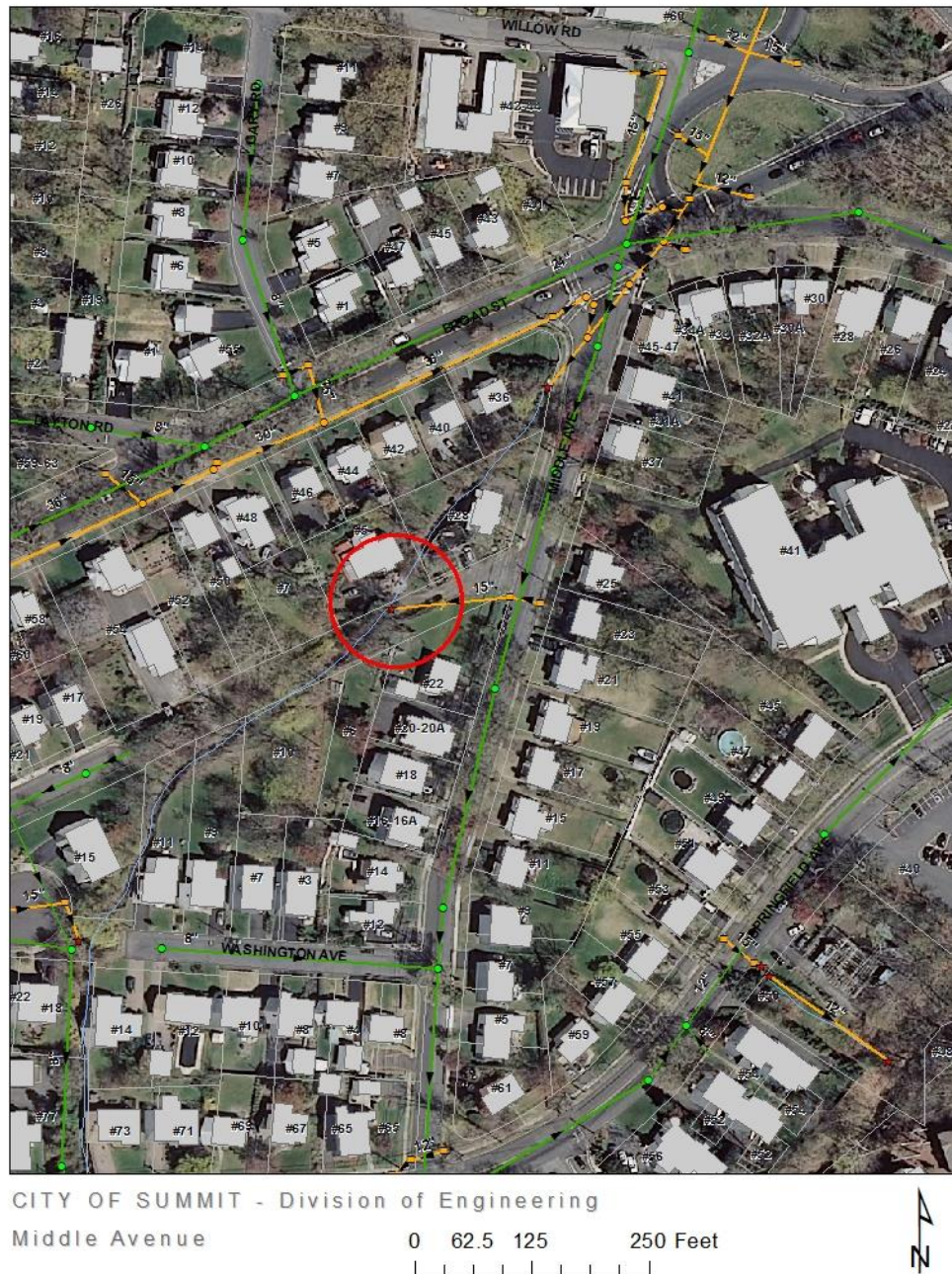
The entire downtown storm sewer system and parts surrounding the downtown drain to a large size culvert constructed into the railway retaining wall below grade. The culvert begins under the train tracks at Maple Street and discharges near Colonial Road. This Culvert is owned by NJ Transit as it lies within their jurisdiction. The Engineering division is working closely with them to confirm proper inspection, maintenance and operation. Any damage or obstructions within these culverts may result in drainage problems in the downtown area.

RAILROAD CULVERT



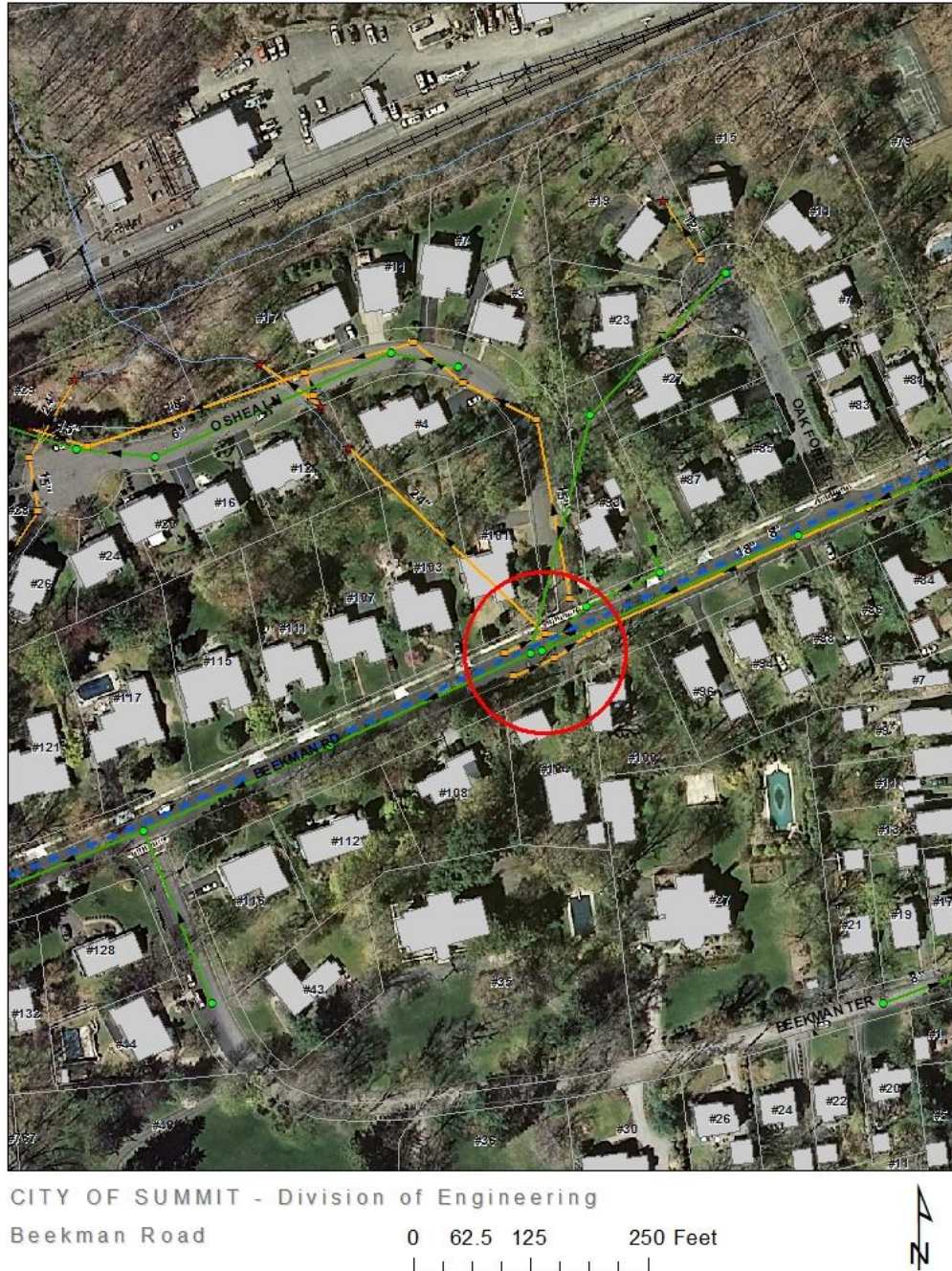
5. Middle Avenue Culvert

A culvert located along the rear of the properties on Middle Avenue, crossing the dead end portion of Grove Street, discharges large volumes of storm water into the Bryant Pond. An informal visual inspection of this culvert revealed some damage to the top of the culvert. Further investigation must be made as to the ownership of this culvert prior to the re-inspection, design and construction of any repairs.



6. Beekman Road Culvert

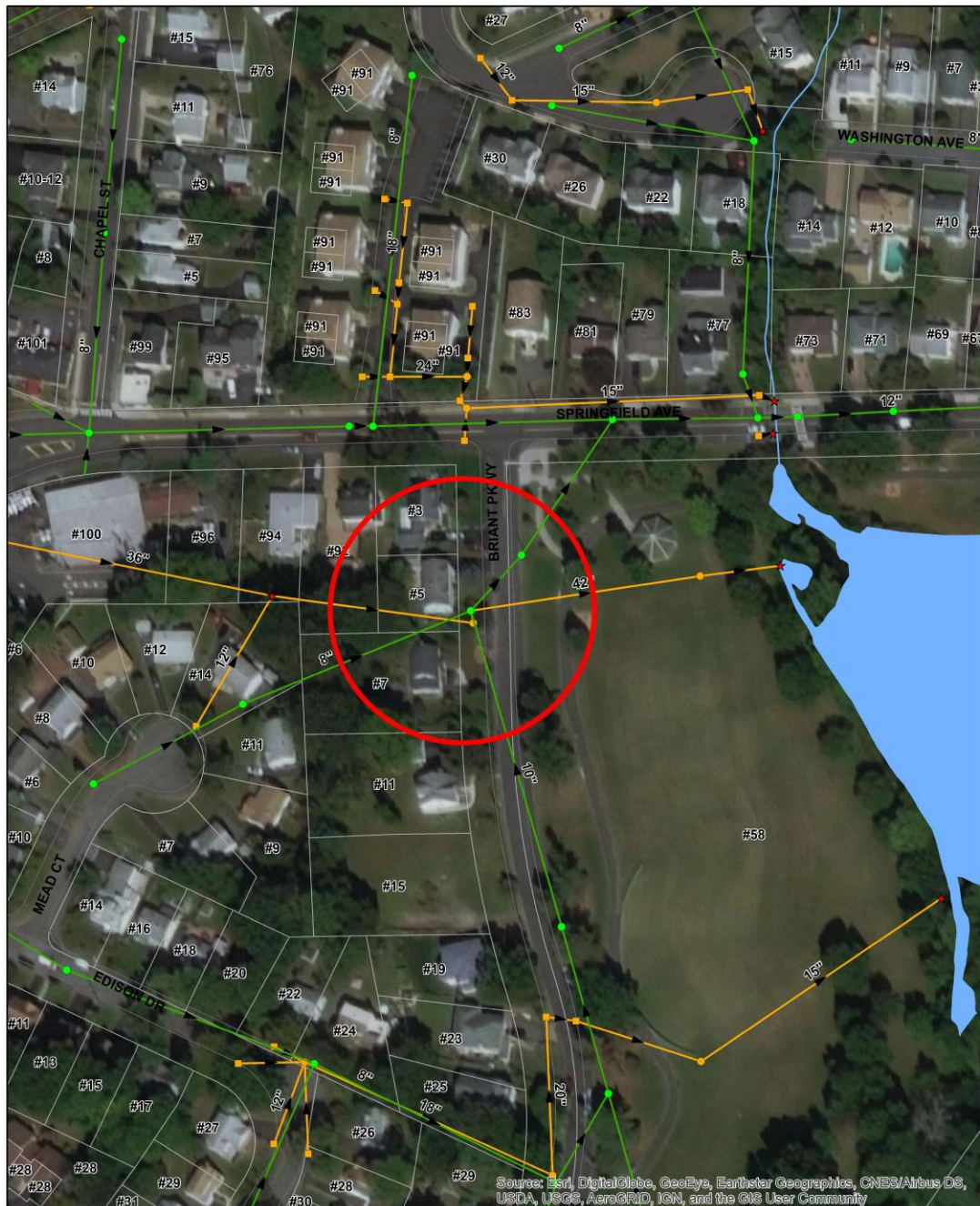
An old box culvert consisting of river stones and steel exists at the corner of Beekman Road and O'Shea Lane carrying drainage from the surrounding area to the West End Avenue Stream. The box culvert is believed to be well over a hundred years old by inspection of its construction and lack of records. The culvert is beginning to fail and portions have been repair by the City's public works department. The culvert will need to be fully replaced.



Category II

7. Briant Parkway, Easements near Springfield Avenue Intersection

Easements on private property carry storm sewers that drain into Briant Pond. During heavy rain events the layout of the storm sewers restricts flow and causes manholes to surcharge on private property. The storm sewers and surrounding area need to be investigated to determine if a new configuration is possible.



CITY OF SUMMIT - Division of Engineering
Briant Parkway

0 40 80 160 Feet



8. Portland Road at Dorchester Road

During extreme rain events the storm sewer catch basins cannot handle the flow of rain water coming down Portland Road, Dorchester Road and Winchester Road. Flooding has occurred twice during Hurricane Floyd and Hurricane Irene.

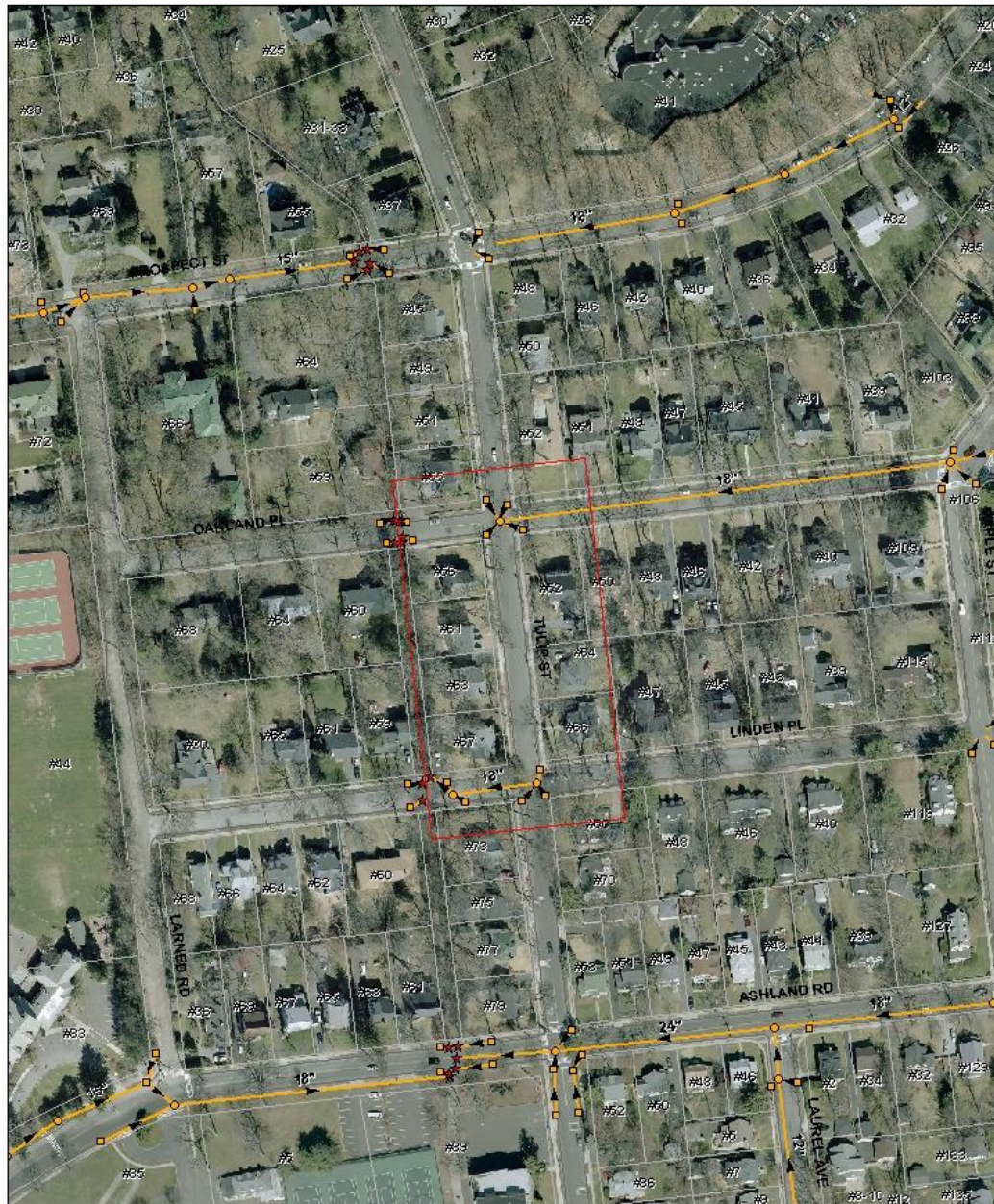
PORTLAND ROAD



9. Tulip Street, Oakland Place to Linden Place

Tulip Street floods during intense rains at the intersections of Oakland Place and Linden Place. This appears to be a localized condition resulting in undersized catch basins and lateral lines. Further investigation is required. A contract was awarded to have these storm sewers inspected and cleaned. The footage has been reviewed and several undersized lines exist along with numerous utility blockages in the system. A final design of repairs is being prepared and shall be completed during the winter of 2014.

TULIP STREET - OAKLAND PLACE TO LINDEN PLACE



0 80 160 320 Feet

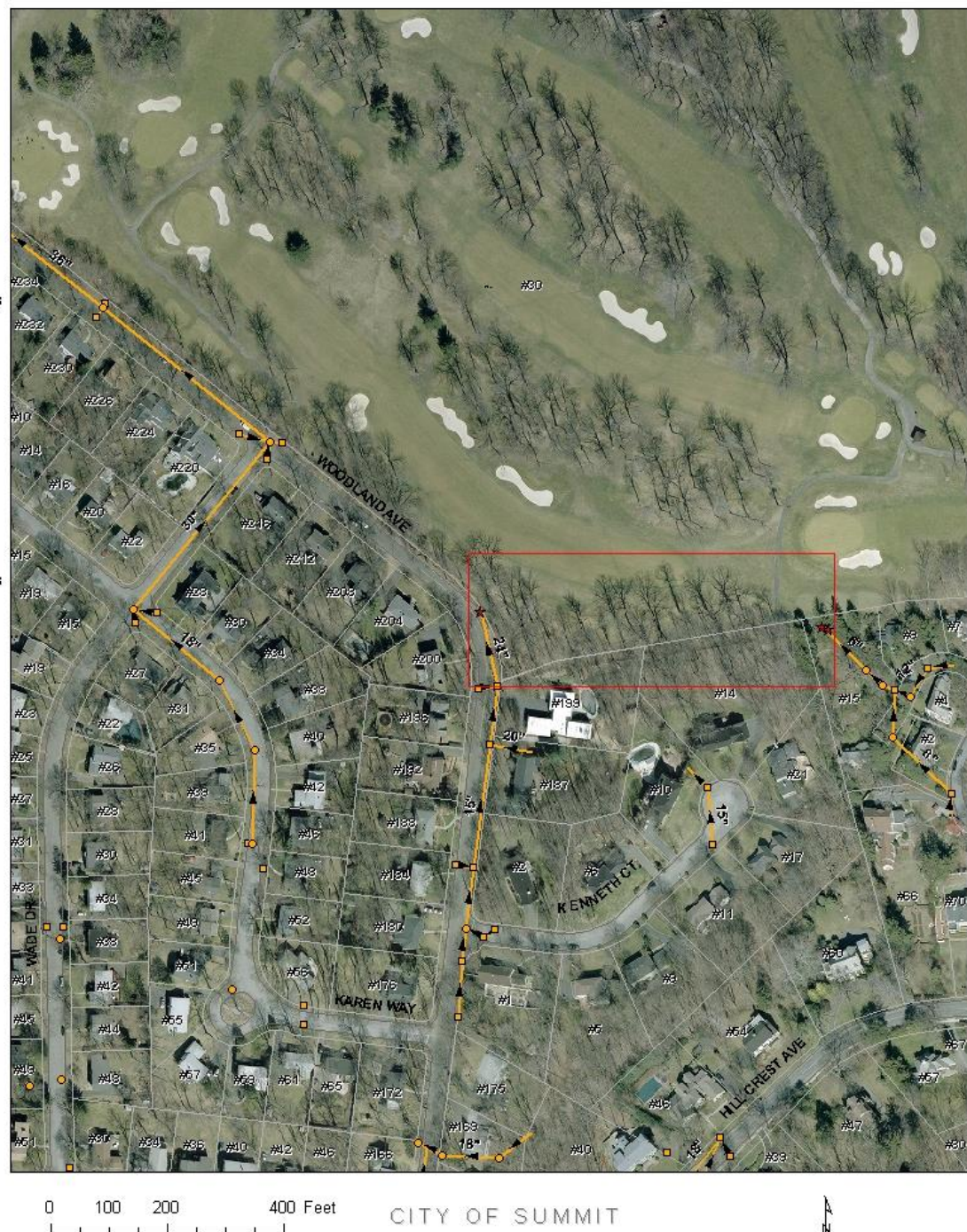
CITY OF SUMMIT



10. Kenneth Court and Crest Acre Court

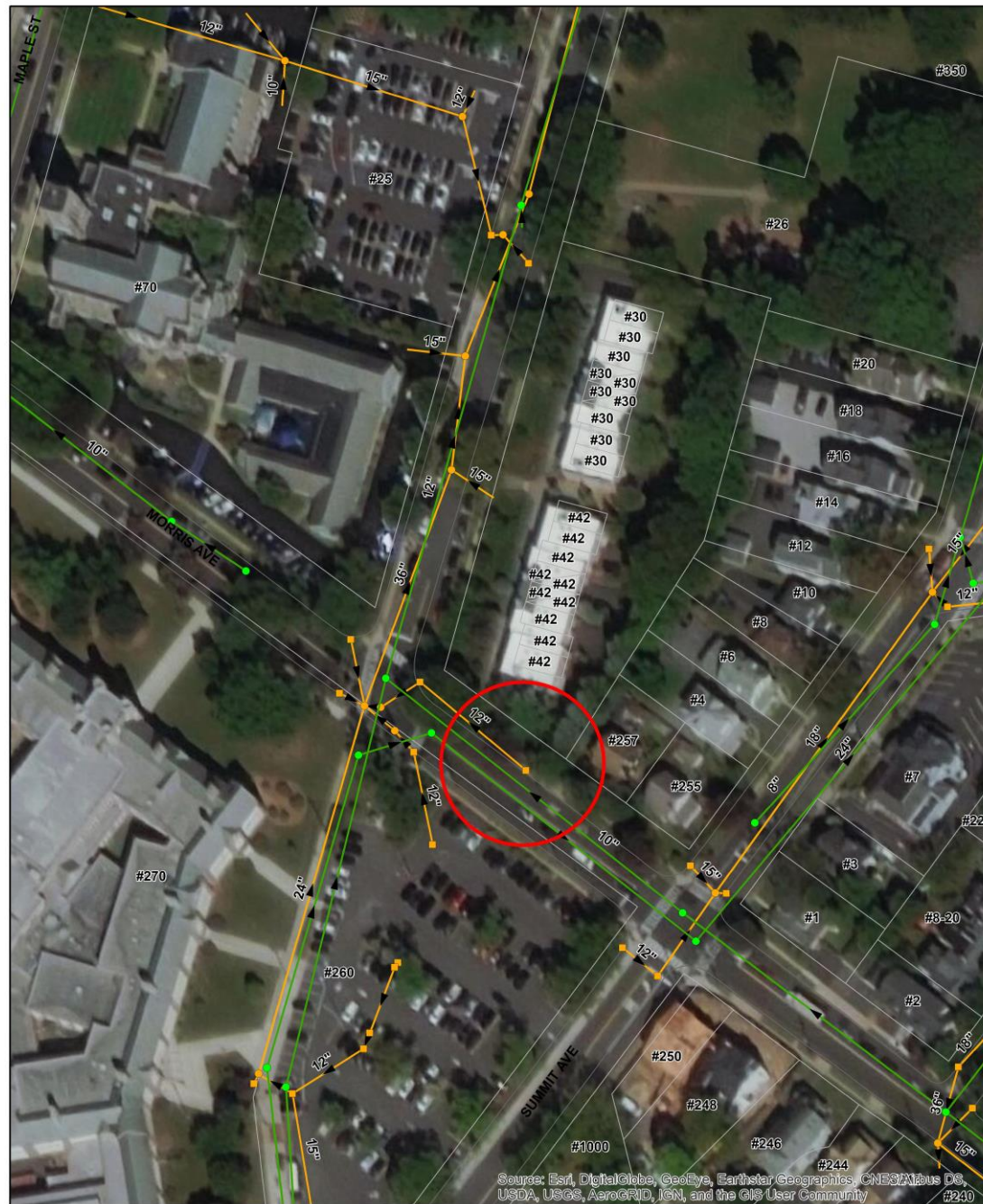
In the area Kenneth Court and Crest Acre Court, the storm sewer from Crest Acre Court discharges into a private system and then a poorly defined ditch behind 14 Kenneth Court. Flow eventually makes its way to the ditch near #199 Woodland Avenue creating a mosquito breeding condition on private property. Unfortunately, no easements exist making any improvements difficult.

KENNETH COURT AND CREST ACRE COURT



11. Morris Avenue at the Elm Street Condo Driveway

An existing Union County operated inlet located on Morris Avenue at the entrance to the Elm Street Condo Driveway has a low profile curb piece. This inlet, per Condo Resident reports, has been clogged with debris during heavy downpours. Flooding in the condo parking lot has raised concerns and residents have requested improvements to the infrastructure as they look to improve their own private drainage.



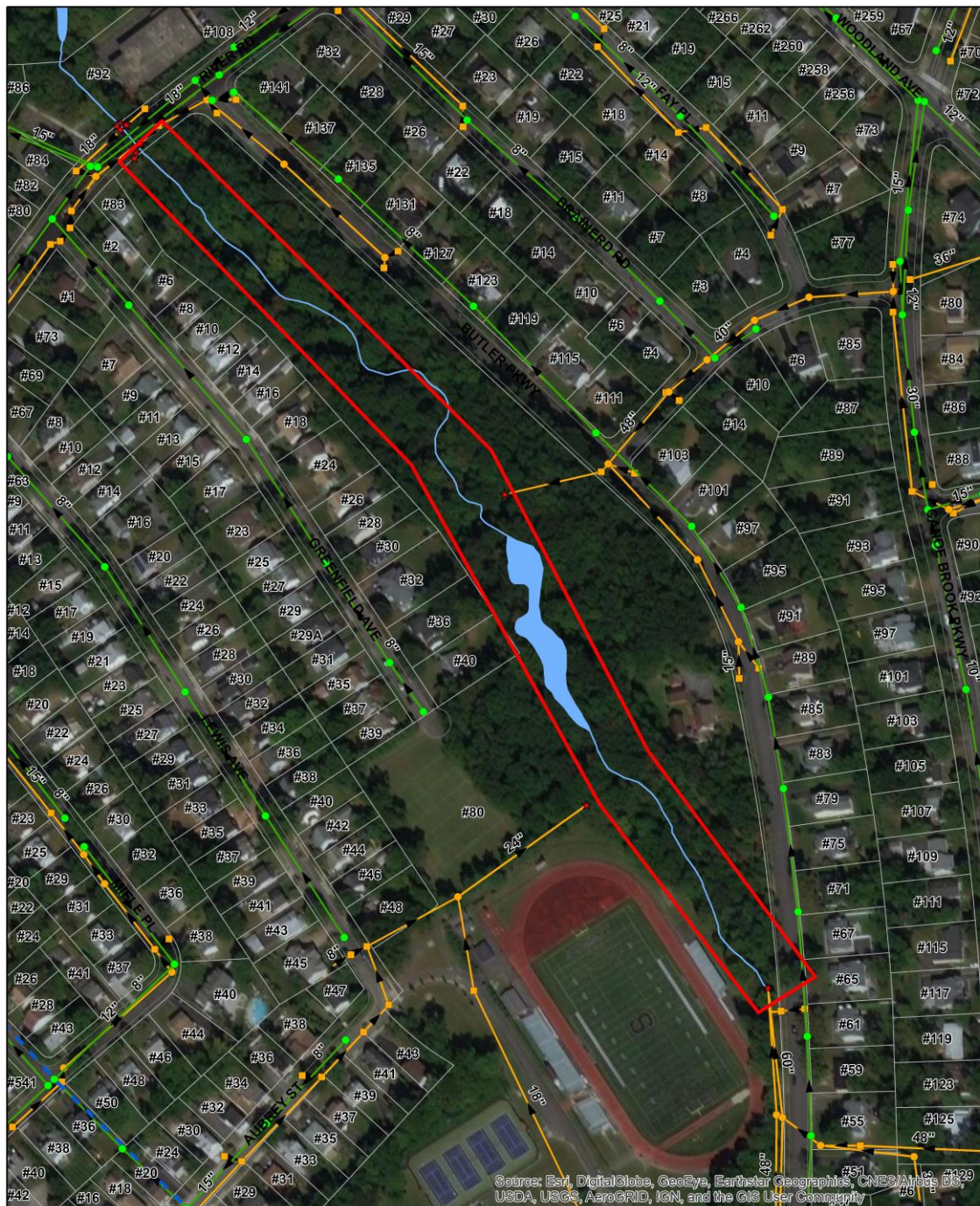
CITY OF SUMMIT - Division of Engineering
Moriss Avenue (at Elm Street Condos)

0 30 60 120 Feet



12. Martins Brook (along Butler Parkway)

The stream known as Martins Brook receives a significant amount of drainage from upstream. It is imperative that the stream have proper flowing capacity to accommodate the flow. A stream cleaning project should be completed. Work can be accomplished by the City with City funds in addition to assistance from nonprofit organizations (i.e. volunteers) to ensure its proper use.

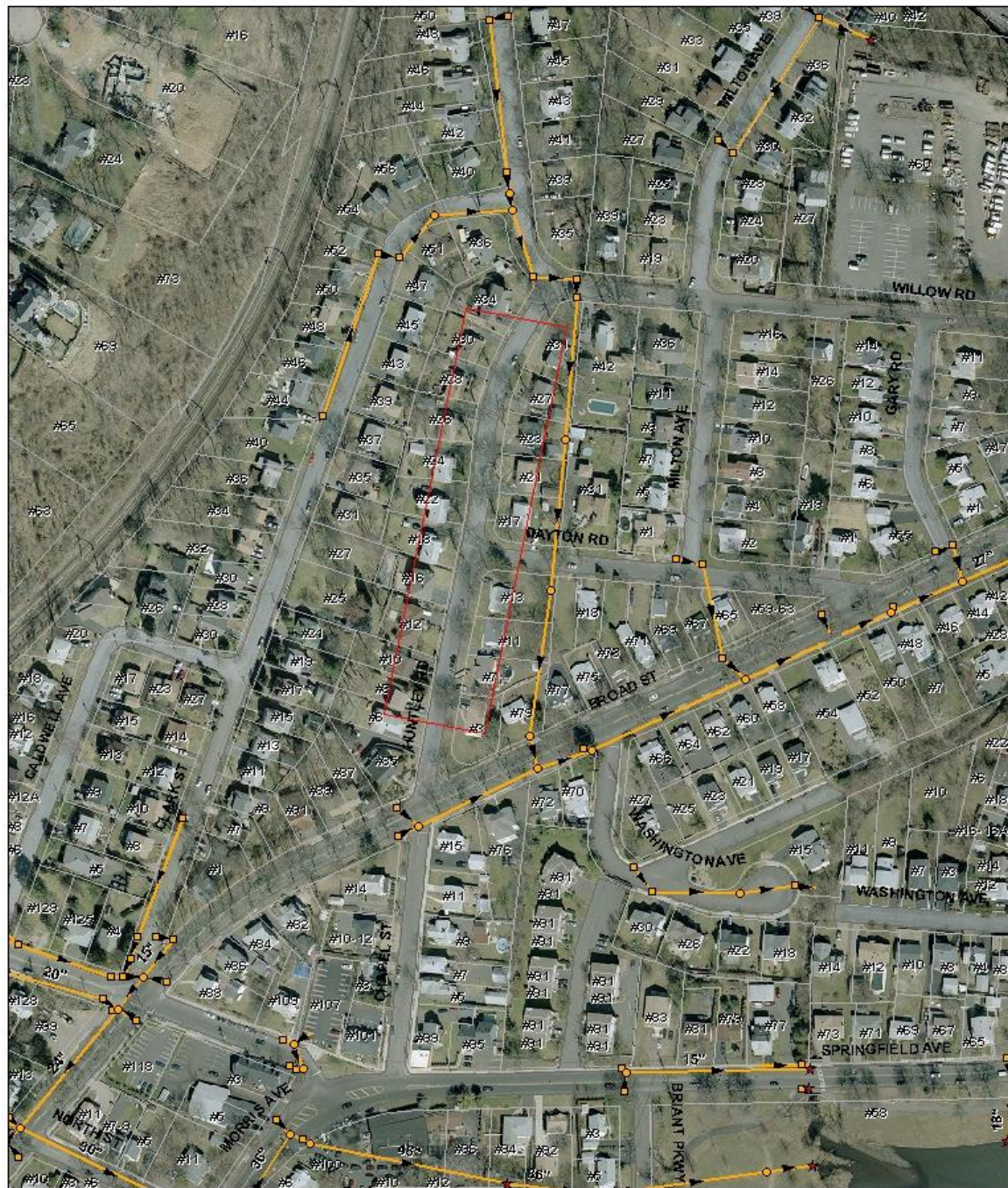


Category III

13. Huntley Road

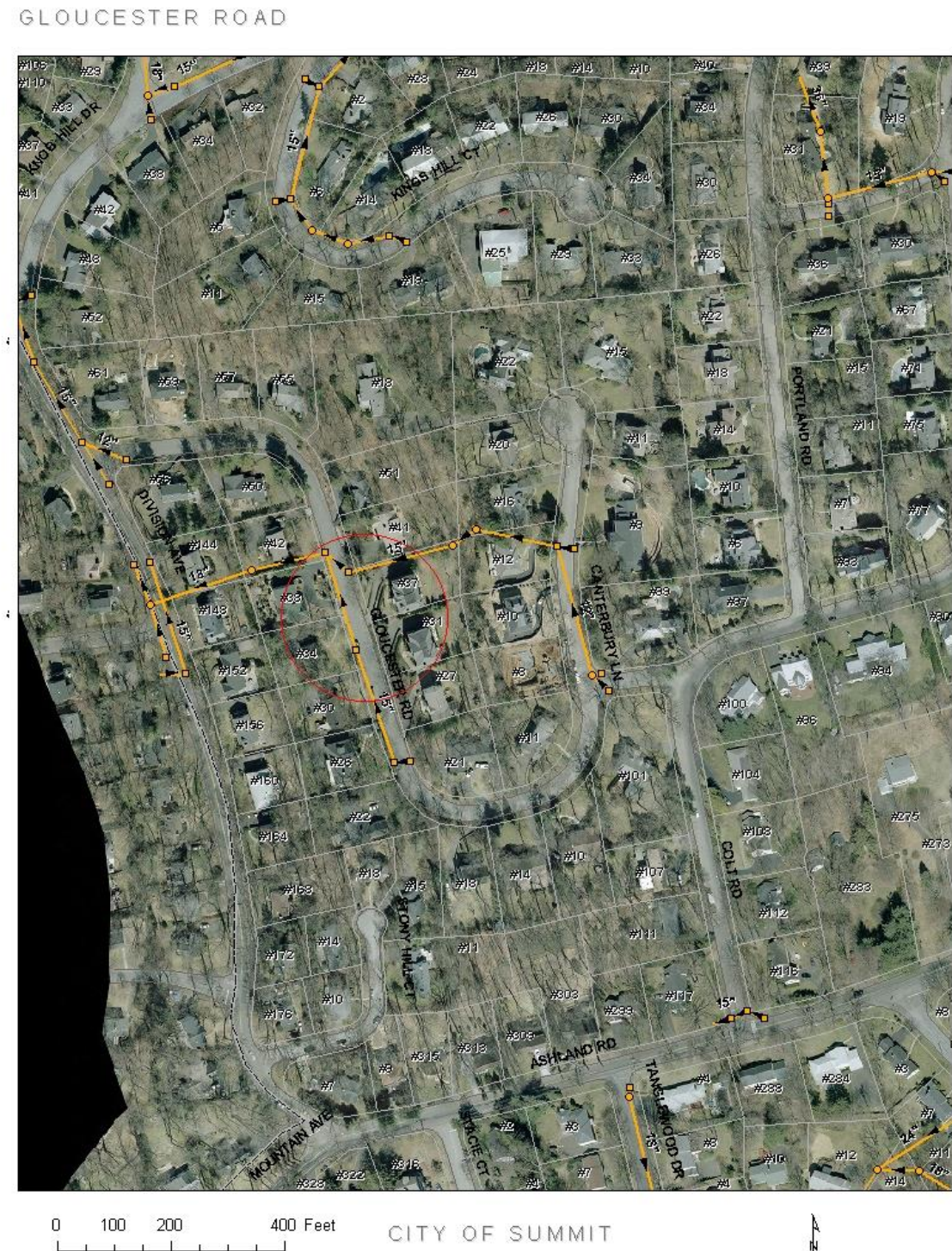
Due to a lack of catch basins on the street, runoff after storm events is discharged into the road and extreme ponding and wet conditions occur, potentially endangering motorists. A storm sewer system can be extended from either end of the street to capture the majority of the runoff.

HUNTLEY ROAD



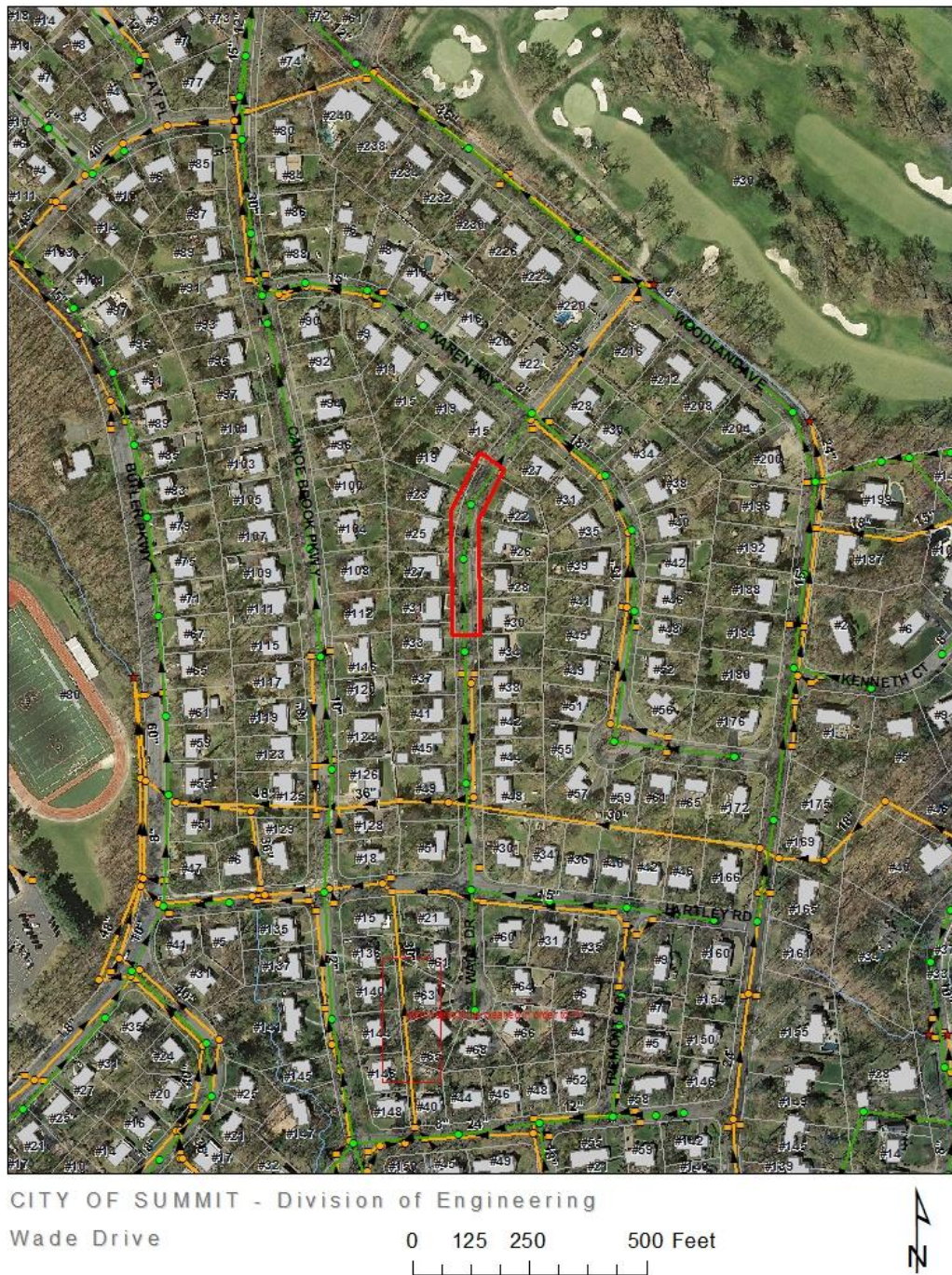
14. Gloucester Road

Groundwater reaches daylight at the bottom of a hill along several private properties causing wet conditions during the summer months and icing during the winter months. Catch basins can be extended to capture the groundwater and direct it into our storm system.



15. Wade Drive

A Large Portion of Wade Drive is low lying and also has a lack of drainage structures which causes street flooding during high intensity storms. Although the street historically has had flash flooding issues related to the nearby Martins Brook, the addition of storm structures would significantly reduce the number of occurrences of flash floods.



16. Sweet Briar Road / Plymouth Road

An old stream/brook used to flow at the rear of the properties between Sweet Briar Road and Plymouth Road. Easements were obtained by the properties along the rear during the subdivision process and a small low flow storm pipe was installed. Previously there has been no maintenance or updates to this storm pipe. The City is working on incrementally upgrading the pipe along the rear.



CITY OF SUMMIT - Division of Engineering

Sweet Briar Road

0 125 250 500 Feet



17. Dorset Lane

Icing conditions along Dorset Lane occur during the winter months. An additional storm sewer inlet to capture water draining from a low lying area may alleviate the condition.



CITY OF SUMMIT - Division of Engineering

Dorset Lane

0 62.5 125 250 Feet



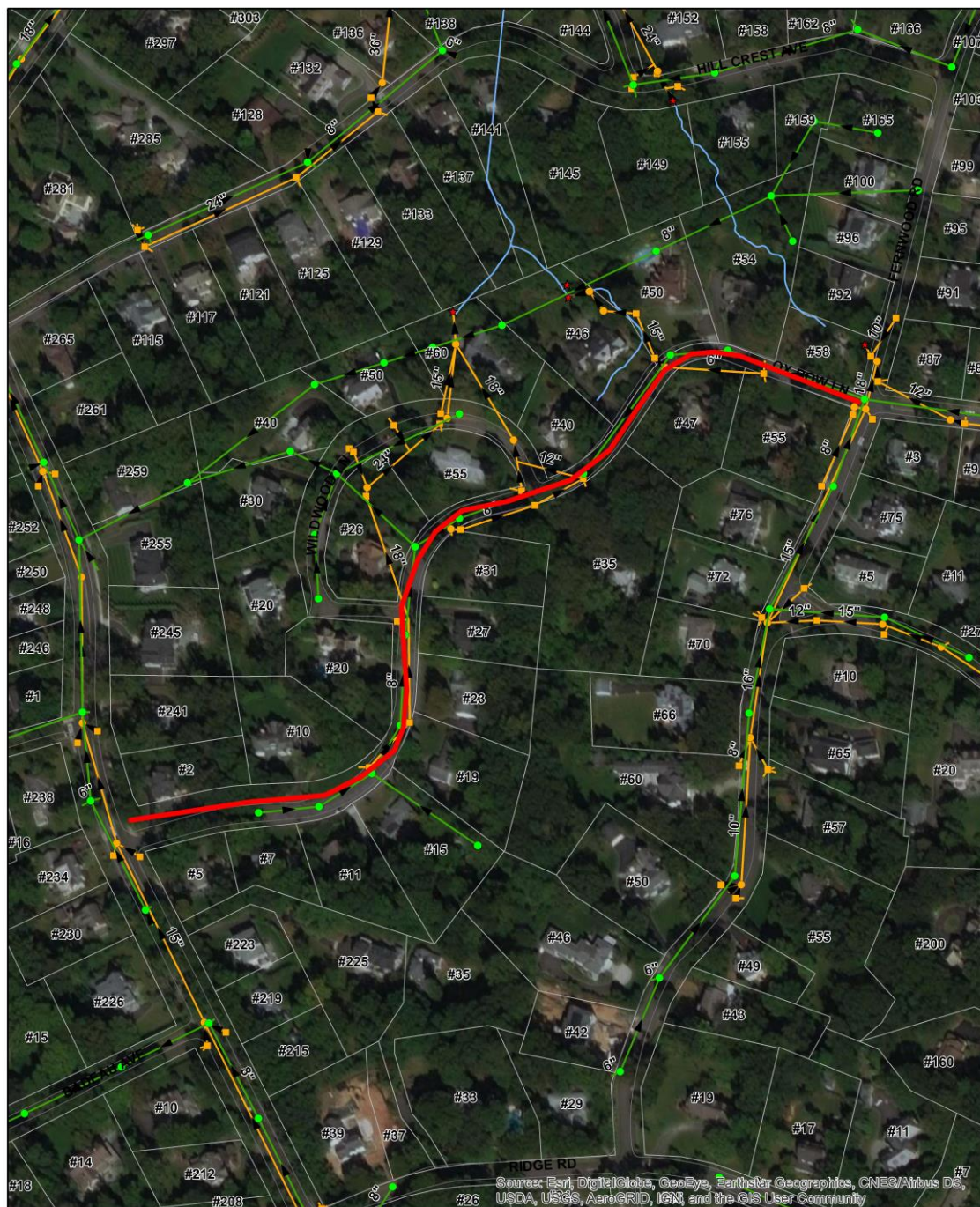
18. Club Drive

Icing conditions along Club Drive are caused by a ground water source. The extension of a storm sewer may prevent the building up of ice along the road.



19. Ox Bow Lane

Deficient storm sewer infrastructure and poor pavement conditions cause ponding, icing and potholes along Ox Bow Lane. Additionally, existing storm sewer infrastructure runs along easements that need to be inspected and updated. Inlets should be added in various locations. All of the work can be accomplished as part of a road capital improvement.



CITY OF SUMMIT - Division of Engineering
Ox Bow Lane

0 70 140 280 Feet



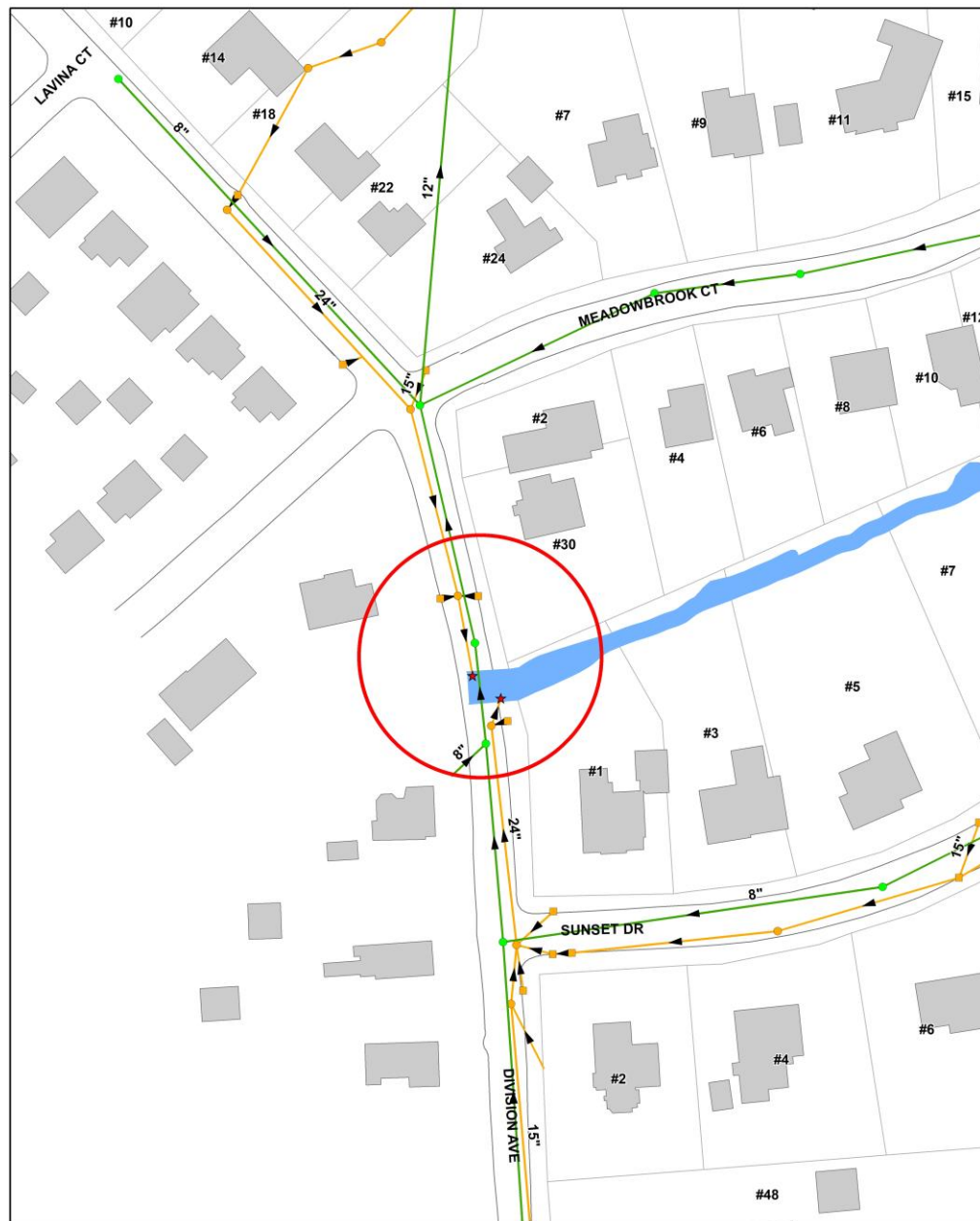
20. Princeton Street

A low lying area towards the center of Princeton Street causes storm water to slowly drain towards to existing inlet. During cold temperatures, the water freezes before it reaches the inlet. During other periods where the water does not evaporate as quickly, the water has been seen ponding for days. An additional inlet, approximately 100 feet east of the existing inlet would alleviate this problem.



21. Division Avenue Bridge

The Division Avenue Bridge is a Union County owned and operated bridge structure located on Division Avenue between Meadowbrook Court and Sunset Drive. Below the bridge at the stream bed lies a City of Summit operated Sanitary Sewer pipe that is slightly below the top of flowing water. This leads to a significant amount of debris that gets trapped at the pipe causing the backup of water onto private property. The Engineering Division is currently working on installing what is known as a trash rack to prevent debris from ever entering the bridge and allows for easier clean up.



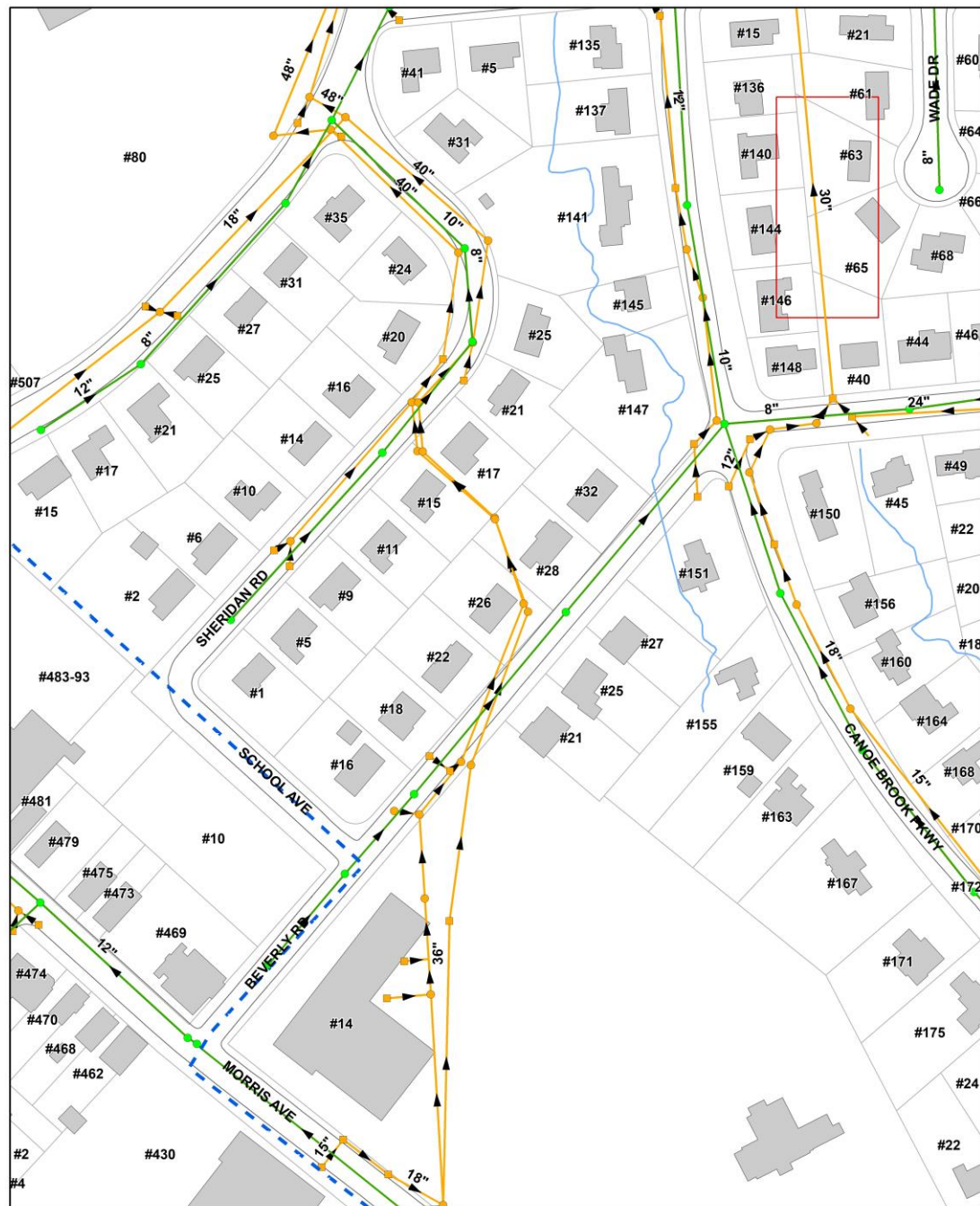
CITY OF SUMMIT - Division of Engineering
Division Avenue

0 30 60 120 Feet



22. Beverly Road and Sheridan Road

The City owns and operates two large diameter storm sewers that run parallel between private property along easements between Beverly Road and Sheridan Drive. During heavy and intense rain fall, the manhole lids pop off the manhole frames and water shoots out under pressure. Water pressure build up through the pipes joints has caused damaged to a private driveway.



CITY OF SUMMIT - Division of Engineering

Beverly & Sheridan

037.575 150 Feet



COMPLETED PROJECTS

To date, the following projects have been fully completed and have since been removed from the list above.

- 1) The Dell – 232 Springfield Avenue
The Engineering Division completed the design for the drainage system along the rear of the properties of Springfield Avenue, Hobart Avenue and Edgewood Road. Unfortunately the easements required to progress with construction were not obtained. All legal channels were pursued to no avail. This project will be considered closed until further notice. Design and easement work was completed in 2010.
- 2) Whittredge Road/Dogwood Drive
In the area Whittredge Road/Dogwood Drive – Street flooding occurs in this intersection where no storm sewer exists. This project was completed in 2007.
- 3) New Providence Avenue
At the railroad overpass flat road grades needed to maintain the bridge clearance create drainage issues at the bridge. This project was completed by the Borough of New Providence as part of the sanitary sewer main replacement in 2007.
- 4) Sheffield Road
In the area Sheffield Road – the storm sewer is at the low point of the system on Sheffield Road and surcharges, flooding private property as it runs through to the highway. This project was completed during the fall of 2008.
- 5) Memorial Field Basketball Courts
In Memorial Field basketball courts – Inadequate drainage facilities is one problem prohibiting the replacement of the courts. This project was completed in 2008.
- 6) 8 & 12 Sweet Briar Road
Ground water is surfacing in numerous locations from #8 to #12 Sweet Briar which then ponds on the street as a result of insufficient road grade, lack of an inlet, and the continuous flow of water. The condition presents an icing hazard in an area of steep driveways and no sidewalks. This project was completed during the fall of 2009.
- 7) Springfield Avenue and Summit Avenue
Ponding on Springfield Avenue occurs due to the flat grade of the road to the inlet on the corner. This project was completed during the fall of 2009.
- 8) Laurel Avenue

In the area Laurel Avenue – Myrtle Avenue to Tulip Street – Almost every home in this stretch has a drain that causes an ice hazard and it is located very close to Brayton School. This project was completed during the fall of 2009.

- 9) Myrtle Avenue – Larned to Tulip
Similar to Laurel Avenue above, this section of Myrtle Avenue is used for drop-off/pickup of students attending Brayton School and is extremely hazardous to the school age pedestrians. This project was completed during the fall of 2009.
- 10) Evergreen Road near Madison Avenue
During heavy rain events, the road becomes inundate and the curbing cannot contain the flooding which then enters private property. A lack of inlets at this location contributes to the problem. This project was completed during the winter 2010.
- 11) Parkview Terrace
In Parkview Terrace – street flooding and ice hazards exist in the block along Memorial Field and near #41/#42. Properties along the south side have groundwater issues. This project was completed during the winter of 2010.
- 12) Beverly Road and Freemont Road
This area was subject to significant icing accumulation and ponding due to the lack of inlets at the low spot where the two roads meet. This problem was completed during the summer of 2010.
- 13) New England Avenue – Springfield Avenue to High Street
In the area New England Avenue – Springfield Avenue to High Street – Numerous drains and a poor pavement cross section contribute to a sustained wet pavement condition. This problem was completed during the New England Avenue Roadway improvement project this fall.
- 14) Oakland Place at Sal Brook Culvert
The culvert was serviced by four (4) undersized, inlets in disrepair. This project was completed during the fall of 2010.
- 15) Fay Place
In Fay Place – Lack of inlets at the south end coupled with many private drains and flat pavement grades result in sustained wet pavement conditions and ice hazards. This project was completed during the summer of 2010.
- 16) Broad Street and Cedar Avenue
Flat road grades create ponding in the intersection. This project was completed as part of the County's Broad Street improvement project.
- 17) Family Aquatic Center

Storms with significant rainfall flood the volleyball court and the pool with silt and debris. In coordination with the Division of Public Works, a storm drain system was installed around the Volleyball Court to capture runoff. This project was completed in 2010.

18) 2 Plymouth Road

A city storm sewer was flooding private property. The City has installed drainage to prevent this from occurring. The project was completed in 2010.

19) 61 Edgewood Road

At 61 Edgewood Road, a clogged condition in the storm line causes street flooding that overtops the curb. An easement does exist and a meeting with the homeowner was held. This project was completed during the 2012 spring.

20) Dunnder Drive at West End Avenue

Due to a lack of catch basins residents' roof leaders and sump pump discharges are creating an icing condition which creates a hazard for pedestrians and vehicular traffic. A system to capture these roof leaders has been designed and is waiting to be bid in conjunction with other work in this report to obtain better, bulk pricing. This project was completed in the 2012 spring

21) Oak Ridge Avenue – Rowan Road to Mountain Avenue

The properties along the south side of Oak Ridge Avenue from Rowan road to Mountain Avenue experience flooding during rain events from storm water traveling down Oak Ridge Avenue along the gutter line, which then overtops the curbing and runs down private property. The Division is currently preparing a drainage design to capture the storm water before it can overtop the curb line. This area is known to have significant amounts of rock in the soil and construction may require rock excavation. This project was completed in the 2012 spring.

22) Blackburn Road (Pine Grove to Oak Knoll School)

At Blackburn Road between Pine Grove Avenue and Oak Knoll School, groundwater at the top of the hill discharges almost continuously during the winter causing an ice hazard. This section of road was improved in 2002 but the rock in this area severely limited options to correct the problem. This project was completed utilizing an alternative design in the 2012 spring.

23) Canoe Brook Parkway at #125 & #129

In the area of Canoe Brook Parkway thru easement at #125 and #129 Canoe Brook Parkway to Martin's Brook, drainage backs-up in the easements and floods private properties. This includes flooding of the system at Hartley Road and Wade Drive. A contract was awarded to have all drainage lines within this system cleaned and inspected. Construction was completed in the October 2012.

24) Edgar Street

Existing storm sewers did not extend to the full depth of the Cul-de-Sac on Edgar Street causing rain water during significant storms to wash down a resident's driveway. The City has now extended an existing storm sewer to prevent this from happening.

25) Ashland Road - Tulip Street to Elm Place

This area is prone to intense flooding for brief periods of time during heavy rainfalls. The drainage system discharges to the Salt Brook. The flooding is a result of a discharge point that becomes inundated with water during rain events. An overflow system has been designed and awarded to the low bid contractor. This project was completed in the spring of 2012 as part of the Ashland Road reconstruction project.

26) Waldron Avenue

An entire new storm sewer system was installed under the road on Waldron Avenue significantly increase the storage capabilities and flow of storm water. Additional inlets were installed along the roadway edge to capture as much water as possible. The road will be curbed and paved in the spring.

27) Bellevue Avenue

A new storm sewer system has been installed along Bellevue Avenue from Bedford Road to Canoe Brook Golf Course. The new system removes dozens of acres of drainage flow into the rear of 55 Bellevue Avenue. The road has also been curbed and paved.

28) Bedford Road

Additional inlets were added and a length of pipe was upgraded to relieve a flooding issue along the edge of the road. The road has since been curbed and paved.

29) Valemont Way

A City Right of Way that is not paved has various underground infrastructures running through it. The area is somewhat low lying and has several drains installed to capture run off. Drains and or pipe capacity are undersized due to the additional water draining from Baltusrol Road. The drains are to be upgraded and properly sized.

30) Montview Road

Currently there is no underground drainage structure on Montview Road. An existing seepage inlet does not handle the full extent of the water along the curb line on the south side of the road. During the winter months, water flows from Montview Road to Mountain Avenue causing severe icing conditions. Drains will be installed and connected to existing storm sewers on Mountain Avenue.

31) Fairview Avenue

Ponding occurs along the roadway edge on the north end of Fairview Avenue caused by leader drains discharging out on to the road. A drainage system was recently extended to the intersection of Fairview Avenue and Beekman Road during the Beekman Road reconstruction project. A new storm sewer

system can now be extended up Fairview Avenue to capture the leader drains. This project is currently being designed and should be completed during the summer 2015.

32) 5 Myrtle Avenue

The open channel in front of the Cornog building floods, overtopping the channel walls and has reached into Brayton School through the door on the west side. The culvert has been cleaned and inspected and no significant deficiencies were discovered. A project to repair the culvert and de-snag the stream is scheduled for the summer of 2015.

33) Downtown Storm Sewer

Upgrade downtown sewers during the downtown improvement project.

34) Tulip Street (Mountain Avenue to Laurel Avenue)

Due to significant ground water, ice accumulates at the curb line on Tulip Street between Mountain Avenue and Laurel Avenue. Existing Storm sewers are on Tulip a few hundred feet away.

35) Fremont Road and Hartley Avenue

Water runs down Fremont Road, which is fairly steep, and makes its way onto the driveway of 6 Fremont Road. The water then runs downhill, over the lawn and into the driveway of 35 Hartley Road adding to the flooding issues the property has on its own. Additional drainage structures on Fremont will alleviate some of the flooding the property experiences which the owner has installed.

36) Iris Road

The intersection of Iris Road and River Road is significantly low lying and flat with no drainage structures. Additional drainage structures at all corners will alleviate flooding during rain storms and relieve the intersection of ice during the winter months. This is a heavily traffic intersection due to the proximity of Route 24 and has been classified as a type 1 drainage issue.

37) Colt Road (Between #54 and 42)

This area of Colt Road has no storm structures due to the present of rock just below the road surface. Unfortunately, many of the private properties are also laden with rock causing water into homeowner's basements. Many homeowners have taken steps to prevent flooding by installing sump pumps. The lack of drainage structures and the presence of rock leaves many homeowners with no choice but to discharge onto the street causing significant icing during the winter months.

38) Prospect Hill Avenue – South of Glenside Road

In the area of Prospect Hill Avenue , south (uphill) of Glendale Road, the slope of the street and bend in the road combined with a lack of inlets cause a runoff problem onto #85 Prospect Hill Avenue and the private common drive adjacent to it. Drainage washes out landscaping and floods the common drive.

39) Tulip Street and New England Avenue

In the area of Tulip Street and New England Avenue the intersection floods during heavy rains. The storm sewer runs through the hotel property to the Salt Brook. A contract was awarded to have all drainage lines within this system cleaned and inspected. A Survey has also been completed of the City's utilities in this area. The Division is currently working on potential options to redirect storm water during rain events.

40) Edgemont Avenue

The grade of the pavement and sidewalk and the lack of adequate drainage inlets allow runoff to flow off the street onto private properties. The driveway of #3 floods and runoff continues through the rear yard of the next house causing erosion around the foundation and deck footings of #15 Edgemont Avenue. This project will be address when Edgemont Avenue is reconstructed which is currently in the Capital Plan for 2015.

41) Maple Street at the Library

The storm sewer has backups that cause street flooding during heavy storms.

42) Municipal Library

During heavy rainfall, the large window well located outside of the administrative offices at the Summit Library fills with water, where it enters the building through the windows causing significant damage to the office area. A drainage system with pumps and a drywell was installed to alleviate the flooding potential and relieve the library of constant repairs and carpet replacement.

43) Ashwood Court

A low lying area within City Right-of-way at the end of the Ashwood Court cul-de-sac experiences flooding that has impacted some of the neighboring properties. A survey has been completed and solutions will be investigated. Vacating this portion of Ashwood Court will also be investigated

44) Glendale Road

Storm Sewer easements exist on private properties between Glendale Road and Whittredge Road that carry significant amounts of storm water. Areas between #4 and #8 Glendale Road surcharge during heavy rain events. The City Engineering Division has designed a storm sewer to be installed along Westminster Road to divert large portions of the flow away from the easement.

45) Lenox Road

A low area at the intersection with Prospect Hill Avenue is subject to flooding during heavy rains. The existing drainage system is outdated and undersized. This will be addressed when the road is reconstructed which is currently in the 2015 Capital Plan. The area shall be monitored to determine if any short term solutions can be completed.

46) Crestwood Lane

Significant icing occurs in the area around 6 Crestwood Lane running out to Ashland Road. Drains are to be installed up Crestwood from Ashland Road. The source of the water is an underground spring which cannot drain as the soils are extremely poor in this area. This issue is to be resolved with the upcoming DPW paving project.

47) Harvard Street

Existing storm sewer outfall has deteriorated due to significant flow and age. Significant erosion has occurred along the stream and near the outfall

48) Wallace Road

Flash flooding occurs during intense rain events in and around the Union County operated culvert on the dead end section of Wallace Road. Previously the Engineering Division had considered this location as part of the Golf Course Pond drainage item (above) but has decided to break off as a separate item because of the Capital Improvement Project slated for 2019. The Engineering Division presented options to improve conditions on Wallace Road that and has completed a combination of feasible work to improve the conditions in the field.

49) Laurel Avenue

The existing damage drainage lines were repaired and the inlets were all replaced. Additional inlets installed along with storm sewer main replacements and upgrades. The Capital improvement Project included the addition of curbing, sidewalk repairs and milling/paving.

50) Morris Avenue and Kent Place Boulevard

At the Morris Avenue and Kent Place Boulevard intersection, the east side of the floods due to an inadequate storm sewer. The existing inlets discharge through a small diameter pipe on Morris Avenue, through the curb, just north of the intersection. The inlets at the corners on the Kent Place School side have been upgraded. The discharge inlet has also been retrofitted with a welded steel plate. A more direct connection solution was designed but was not cost effective.

51) Linden Place

During rain events storm runoff from Larned Road drained down Linden Place causing ponding conditions along the edge of the road in front of private residences. A storm sewer was extended from the culvert on Linden Place up to Larned capture this runoff. Curbing and additional inlets were installed to also mitigate this problem.

52) West End Avenue Headwall

A head wall for a storm sewer outlet near 95 & 99 West End Avenue has deteriorated and was in need of replacement. Preliminary planning had saw a private / public cooperative effort between the City, Residents and a contractor to complete work on private property and the required City work. Permitting through the state was completed last year and the work is now also complete.