THE TOWN OF FARMINGTON

INCORPORATED 1645

TOWN HALL
1 MONTEITH DRIVE
FARMINGTON, CONNECTICUT 06032-1053

INFORMATION (860) 675-2300
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December 30, 2015

State of Connecticut
Department of Environmental Protection
Bureau of Water Management
79 Elm Street
Hartford, CT 06106-5127
Attn: Stormwater Permit Coordinator

RE: **Annual Report on Municipal Storm Sewers for 2015**
Town of Farmington

Sir or Madame:

Enclosed with this letter, we are transmitting the Annual Report on Municipal Storm Sewers covering our activities performed during the calendar year 2015 as required under subsection 6(i)(2) of the *General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4 General Permit)*. As noted previously, I am currently the primary contact for departmental correspondence and inquires. The stormwater monitoring data and sample locations for 2015 have been obtained based on the alternative sampling plan that the Commissioner approved in February 2007, the results of which can be found in Attachment A.

I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in this document or its attachments may be punishable as a criminal offense, in accordance with Section 22a-6 of the Connecticut General Statutes, pursuant to Section 53a-157b of the Connecticut General Statutes, and in accordance with any other applicable statute.

Sincerely,

MATTHEW C. BLUNE, P.E.

FOR Russell M. Arnold, Jr., P.E.
Director/Town Engineer
Department of Public Works
Town of Farmington

enclosures

2015 ANNUAL REPORT

Municipal Separate Storm Sewer System

FARMINGTON, CT

Prepared by

TOWN OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
Engineering Division
1 Monteith Drive
Farmington, CT 06032
(860.675.2305)

December 2015

1. PURPOSE AND SCOPE

This Annual Report is required by subsection 6(i)(2) of the *General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4 General Permit)*. The *MS4 General Permit* was issued by the Connecticut Department of Energy and Environmental Protection (CTDEEP) on January 9, 2004 and it is applicable to storm sewer facilities owned or operated by the Town of Farmington. The permit was extended "as-is" until January 8, 2016. The municipal storm sewer facilities owned by the Town of Farmington were registered by the filing of Part A and Part B of the required registration forms. This report is the vehicle by which the Town of Farmington is required to annually report to the CTDEEP Stormwater Permit Coordinator on the status of compliance with the *MS4 General Permit* and to submit the stormwater monitoring data collected and analyzed during the year.

The Stormwater Monitoring Report Forms and Tunxis Laboratories LLC data results can be found in Attachment A. The mapping of the locations where the stormwater discharge samples were collected can be found in Attachment B.

The Town of Farmington alternative sampling plan that was filed as part of the 2006 Annual Report was approved by the Department of Environmental Protection Stormwater Permit Coordinator on February 27, 2007.

The certification required under subsection 7(e) of the *MS4 General Permit* is presented in Section 3 of this report.

2. BEST MANAGEMENT PRACTICES

2.1 Public Education

The Town of Farmington publishes a bi-annual newsletter entitled "Farmington Town Letter", which is distributed to all postal customers, i.e., residences and businesses with mailing addresses within the Town. It is also posted on the Town's website. The articles published in the newsletter during 2015 were notifications and general information for the public.

The April issue included notices for "Clean Up the Town Day" held on April 25, 2015 and a "Clean-Up your House Day" held on May 9, 2015. These two events are further detailed in Section 2.2. The Newsletter also included information regarding a year-round "Med-Return" drug collection box located in the lobby of the Police Department.

The second issue was published in the Fall/Winter, which included notices for a "Bulky Waste Collection" the week of October 19, 2015. It also included information regarding where unacceptable items such as paint, batteries, hazardous waste, and electronics can be recycled.

In addition to the *Farmington Town Letter*, the Town has a Green Efforts Committee that is tasked with promoting the value and protection of wetlands, the environment, natural resources, energy efficiency, clean energy sources, stormwater, and recycling. The Committee consists of residents, students, Town staff, Board of Education members, as well as Town Council members. The Committee has created a "Green Initiatives" webpage on the Town of Farmington Website, which includes a Stormwater Runoff link, where the article "Stormwater Runoff Pollution: What You Can Do to Help", is presented. In 2016 the Town of Farmington will be rolling out a new website and additional information will be posted to the webpage bringing awareness to the effects of stormwater pollution.

The Town of Farmington Board of Education provides science education for students from Elementary School through High School, studying many aspects related to environmental problems, weather, and interactions between land and water. Elementary students observe weather patterns, collect and analyze data, and collaborate to make decisions. In addition, students learn about organisms, study models of land and water habitats, and what plants and animals are needed to survive. The Middle School students are taught how landforms are the result of the interaction of constructive and destructive forces over time, and how science and technology affect the quality of our lives. High School students learn the science behind environmental problems and issues facing society.

The Farmington River Watershed Association (FRWA) is a non-profit organization that provides information and programs to educate the public regarding the importance of the Farmington River Watershed and how it plays a vital role to our drinking water supply.

As a member Town, we provide financial funding to the FRWA to assist with their education efforts, programs, and studies of the watershed. The FRWA provides education on how to reduce contamination to the watershed, programs including cleanup days and educational seminars, and studies such as water quality and aquatic sampling to measure the state of the river and any changes to the quality and function of the river. The FRWA is also in the process of developing a Watershed Based Plan for the Pequabuck River, which Farmington also contributes to through a large watershed.

Contact continues to be maintained with other organizations involved with the Town's stormwater program. These include the Department of Energy and Environmental Protection (CTDEEP), the Department of Transportation (CTDOT), the Pequabuck River Watershed Association, and the University of Connecticut education program known as the Nonpoint Education for Municipal Officials program.

2.2 Public Participation

The Town of Farmington has collaborated with other local non-profit organizations in an attempt to involve the public in environmentally friendly projects. While the events were planned to perform certain tasks, one of the key goals was to involve the public to educate them of the surrounding environment and the possible negative effects of their everyday lifestyles. It is the hope of these organizations that the public becomes aware of the environment and works to change their ways and encourage them to educate their friends and families.

On April 25, 2015 the Town of Farmington Green Efforts Committee sponsored a "Clean-Up the Town Day". This event is sponsored each year by local organizations and businesses in an effort to clean many areas around Town, promote the importance of protecting the environment, and educate the public of the importance of being environmentally conscience. Organizations including local school groups, Cub Scouts, Civic Organizations, families, and businesses took part in the Annual Heaviest Haul Competition. Awards were presented to School/Youth Groups, individual families, businesses and civic organizations for the most trash collected. A total of 2,302 pounds of trash was collected by volunteers who picked up trash and litter from throughout the Town. As noted above, the public was made aware of these activities through the "Farmington Town Letter", Town of Farmington website, several Farmington Patch online newspaper articles, the Town's Everbridge notification system, and notices distributed to school age children. The Everbridge system provides an opportunity for residents and business owners

to voluntarily take part in an email distribution list to be notified of emergencies as well as local community and government issues and events.

On May 9, 2015 the Town of Farmington Conservation Commission and Green Efforts Committee sponsored, with the support of The Metropolitan District Commission, a "Clean-Up Your House Day". The event included electronics recycling and household hazardous waste collection. The event resulted in the collection of waste from 583 households. The public was made aware of these activities through the "Farmington Town Letter", Town of Farmington website, several Farmington Patch online newspaper articles, as well as through the Town's Everbridge notification system.

On September 26, 2015 the FRWA and several local Businesses sponsored a Farmington River Clean-Up Day. This effort involved the public in cleaning up the banks of the Farmington River. The events are usually attended by adults, youth organizations, and school children which helps educate them about the effects of pollution and the importance of the keeping the environment clean

The Irving A. Robbins Middle School in Farmington has a created a "Green Team", whereby children in grades seven and eight learn about the environment and become involved in a variety of environmental projects. The students work on projects such as battery-inkjets-cell phone recycling, bottle-can recycling, and litter abatement, in an effort for children to become aware of their environmental surroundings. The Green Team had assisted with the Farmington River Clean-Up Day, Clean-Up your House Day, and the Clean-Up the Town Day.

2.3 Illicit Discharge Detection & Elimination

The mapping of municipal storm sewer outfalls within the Town of Farmington has been completed, and continues to be updated as necessary. The Town of Farmington continues to map all known public, institutional and private storm sewers and outfalls as they are installed or modified. This mapping is used to assist with determining any non-point or point source discharges that directly affect surface water quality and discharges conveyed by storm sewers or other types of stormwater conveyance. The Town relies heavily on the use of the State Building Code and the Town Planning review process to establish and enforce a required local review and approval of new storm sewer connections to municipal, institutional, private and state-owned storm sewers, and the construction of new privately owned storm sewer outfalls.

An Illicit Discharge and Connection Ordinance was approved by the Farmington Town Council, on July 12, 2011. The ordinance was developed to forbid illicit discharges or connections, and

gives the Town authority to inspect any possible illicit discharge or connections, and allows for the Town to issue citations and fines if deemed necessary.

2.4 Construction Site Runoff

Article IV, Section 11, of the Farmington Regulations for Zoning, requires the submission and approval of an erosion and sediment control plan whenever more than one half acre of land will be disturbed. The regulations also reference the *Connecticut Guidelines for Soil Erosion and Sediment Control*, as amended. In addition, the regulations establish enforceable performance standards for construction activities that do not require the submission of an erosion and sediment control plan, including projects disturbing less than one half acre of land. These regulatory requirements continue to be regularly monitored and strictly enforced.

On November 26, 2007 the Town had updated the Farmington Inland Wetland and Watercourse Agency regulations that now require all landowners to obtain a permit for activities listed in Section 2.1 of the permit, conducted within 150ft of a designated wetland or watercourse.

In 2012 the Town of Farmington's combined Plan & Zoning/Inland Wetlands & Watercourse Commission, was separated into two commissions, the "Town Plan and Zoning Commission" and the "Conservation and Inland Wetlands Commission" (CIWC). The CIWC is responsible for promoting the development and conservation of natural and water resources. The Commission is also responsible for reviewing applications involving activities within wetlands or watercourses, and activities conducted within 150ft of a designated wetland or watercourse. The Commission also reviews land use applications to provide advisory recommendations to the Town Plan and Zoning Commission on environmental and conservation related elements of these applications. The Commission is also responsible for the permitting of all regulated activities conducted upon or upland of an inland wetland or watercourse within the Town of Farmington, as those terms are defined in the Inland Wetlands and Watercourses Act of the State of Connecticut and in the Farmington Regulations for Inland Wetlands.

In conjunction with Town Plan and Zoning Commission and CIWC applications, the Public Works Department reviews plans for conformance with local regulations. The Engineering Division of the Public Works Department reviews applications for both erosion control measures and stormwater design. Plans were also reviewed for methods of Low Impact Development Practices and conformance with the CTDEEP Stormwater Quality Manual. Methods such as infiltration, deep sumps, hoods, ponds, and Oil/Particle Separators are utilized as practical, to ensure the water quality and recharge volumes are achieved.

As a condition of the issuance of all new construction permit applications, the following Public Works Divisions (Planning, Engineering, and Building), are required to sign off on all new construction permits. As a condition of this signoff, building permits are not issued until erosion control measures are installed, inspected, and approved by the Town's Planning Division. A list of permits is maintained, and regular inspections are made throughout construction and prior to storm events. Developers and/or Contractors are notified whether regular maintenance or additional improvements are required. In addition to these inspections, the Building Division works closely with the Planning Division to identify any concerns they may have observed during their inspections.

2.5 Post Construction Runoff Control

A post construction best management strategy has been developed and is being implemented for all new Town of Farmington Plan & Zoning Commission and CIWC approved construction projects. It is based on the enforcement of Section 25 of Article IV of the existing Farmington Regulations for Zoning. It has been determined that these regulations are sufficient and no revisions or new ordinances are planned.

Where post construction maintenance of storm sewer systems by private owner(s) is necessary, the Farmington Plan & Zoning Commission or CIWC requires the submission of Storm Drainage Operation and Maintenance Plans, as a condition of the approval process, to ensure the systems function as designed indefinitely with respect to the stormwater flow and quality. In many cases, these programs are included in the Homeowners Association Documents and on approved plans. A few sample Storm Drainage Operation and Maintenance Plans, typical of approved projects, have been included in Attachment C. The Town has also developed a "Declaration of Covenants for Maintenance of Storm and Surface Water Facility" document, which is signed by the Town and the property owners as part of the project approval process. The document requires the owners to maintain the stormwater management system as approved by the Town. It also grants the Town the right to access the property for inspection purposes, to insure that the system is being properly maintained and is continuing to perform in an adequate manner. Should the owners fail to maintain or correct any deficiencies, the Town is authorized to enter the property and make the required maintenance or improvements, and assess the property owner for all costs associated with the work.

In 2007 the Town of Farmington had created an Aquifer Protection Commission (APC). The Town Plan & Zoning Commission acts as the governing board for the APC. The CTDEEP is responsible for establishing critical water supply aquifers and to protect them from pollution by managing land use. Once these areas were designated by CTDEEP, the Town of Farmington

through the APC adopted these critical areas, incorporated them into the Town Zoning Maps, and regulates them through the Towns Aquifer Protection Regulations. The APC is tasked with administering and enforcing these regulations. New regulated activities such as storage of hazardous materials, metal processing, repair and maintenance of internal combustion engines, and non-domestic waste water discharges to other than public sanitary sewers are all prohibited. Existing regulated activities can continue only if properly permitted or registered through the Town. As a condition of these approvals, owners/operators are required to adhere to particular Best Management Practices. The Town has been actively monitoring these uses and through the issuance of Notice of Violations can suspend or revoke registrations and permits. The CTDEEP and Town of Farmington have recently expanded the area to encompass additional well fields. The Town works closely with the Connecticut Water Company during the permitting review process for new construction, to ensure the Aquifers are being protected.

2.6 Good Housekeeping

Stormwater training of Town employees is through on-the-job instruction and training by supervisors, consultants, and through employee's attending University of Connecticut Technology Transfer training programs. The primary focus of the training continues to be the cross training of existing employees within the divisions that make up the Department of Public Works, aimed at ensuring a broader understanding of the roles of each member of the staff assigned specific stormwater management responsibilities, and how those activities are integrated to minimize the Towns impact to the environment and to meet the obligations of the stormwater general permit.

The practice of sweeping paved streets as soon as practical after snowmelt has been implemented. The Town had ceased the use of the typical sand/salt mixture as ice control during the 2006/2007 winter season, and now utilizes a commercially available treated salt for deicing operations. This operational change has significantly reduced the volume of sand that is collected by street sweeping and catch basin cleaning. The elimination of sand has also improved the environmental health of the small and medium sized streams and ponds within the Town of Farmington, which no longer develop abnormal bottom deposits that were typical when sand was utilized. CTDOT adopted a similar program in 2005 opting to use a liquid mixture in lieu of sand and salt.

Each year the Town employs a sub-contractor to clean a significant number of Town-Owned catch basins throughout Town. Between July 2014 and July 2015, the Town had performed a large scale cleaning of all 5,104 Town owned catch basin structures. In the future, the Town will make every effort to duplicate this large scale cleaning each year. The evaluation and cleaning

of stormwater structures and the evaluation and prioritization of the need to upgrade and repair stormwater structures, have always been routine activities within the Department of Public Works. These activities will be continued and the effectiveness of the effort can be expected to improve as a result of the focus created by the stormwater general permit and stormwater training. The elimination of the use of sand for skid control is a manifestation of this focus.

The Town has had a town-wide leaf collection program for many years. Leaves are picked up curbside by the Town in late fall, providing residents a minimum of two pickups. Some of the leaves are composted at the Town's composting facility, located at the former Tunxis Mead Landfill, where they are offered for free to Town residents. The remaining leaves are sent to a local company where the leaves are composted to create topsoil for sale to the public.

The Town is currently in the process of a $57.5 million dollar upgrade to the Town of Farmington Water Pollution Control Facility. The Town currently serves the majority of homes and businesses in Farmington, as well as portions of Avon, Burlington, and Canton. The comprehensive upgrade will increase the facility's capacity for a useful life of 25 years, repair and replace the aging infrastructure, improve energy efficiency, and enable the Town to meet current State of Connecticut DEEP requirements as they relate to public health and Farmington River water quality.

2.7 Monitoring

The monitoring of six stormwater outfalls was planned and completed during the fall of 2015. The analytical results are presented on the laboratory examination reports and on the CTDEEP Stormwater Monitoring Report Forms contained in Attachment A. The sample site locations are identified on maps presented in Attachment B. The individual sample analysis results can be correlated with the mapped monitoring site locations by reference to the following table. The sampling data is presented in the same order as the site location identifiers listed below.

Sample R-35 10-28-15 (Meadow Road)

- Laboratory Number 15102902-006
- New sampling location
- Collects surface runoff from neighboring residential areas
- Discharges to the Pequabuck River Basin

Sample R-36 10-28-15 (Oakridge)

- Laboratory Number 15102902-005
- New sampling location
- Collects surface runoff from neighboring residential areas
- Discharges to the Farmington River Basin

Sample R-37_10-28-15 (New Britain Avenue)

- Laboratory Number 15102902-004
- New sampling location
- Collects surface runoff from neighboring residential and commercial areas. Sample location R-36 drains to this area.
- Discharges to the Farmington River Basin

Sample R-38_10-28-15 (Bridgehampton Crossing)

- Laboratory Number 15102902-003
- New sampling location
- Collects surface runoff from neighboring residential
- Discharges to the Farmington River Basin

Sample R-39_10-28-15 (Lydia Way)

- Laboratory Number 15102902-002
- New sampling location
- Collects surface runoff from neighboring residential areas
- Discharges to the Farmington River Basin

Sample C-8_10-28-15 (Mill Street)

- Laboratory Number 15102902-001
- New sampling location
- Collects surface runoff from neighboring commercial areas
- Discharges to the Farmington River Basin

All six of the 2015 stormwater samples were collected during a rainstorm event that commenced during the 1400hr on the afternoon of October 28, 2015. The samples were collected from the identified outfalls between 1655hrs and 1815hrs, commencing after it was determined that sufficient flow would be discharging from the selected outfalls, based on data transmitted from a local rainfall monitoring station. The total rainfall produced by the storm was measured at 2.44 inches. The event was a qualifying event as the preceding rainfall event occurred on October 3, 2015.

The following is a summary of the test results for each of the six sample locations. The sample results were compared to the CTDEEP Water Quality Standards, as well as the benchmarks identified in the CTDEEP Industrial Stormwater Permit.

Outlet R-35 is a new sampling location that discharges to the Pequabuck River Basin on the south side of Meadow Road, south of Judson Lane. The drainage area is comprised of Residential properties zoned R-40 (40,000 ft^2) and Town Open Space. The Open Space area is Town owned and comprises roughly half of the drainage area to this outlet. The outlet

discharges into a small basin area and then to a watercourse meandering in a southerly direction. The watercourse flows through private properties and eventually discharges into the State of Connecticut owned Shade Swamp Sanctuary property. Test results indicated an elevated level of Escherichia Coliform. The most likely cause could have been from the large area of Open Space which is relatively flat, and along with the wildlife and recent dry conditions, could have resulted in the elevated level of Escherichia Coliform. The area is serviced with both public water and sanitary sewer.

Outlet R-36 is a new sampling location that discharges to the Farmington River Basin along the north side of Oakridge, to the rear of 130 and 132 Oakridge. The drainage area is comprised of Residential properties zoned R-30 (30,000 ft^2). The outlet discharges into a wetland area that eventually drains into sample location R-37, and then into the Farmington River. Test results indicated an elevated level of Escherichia Coliform. Since the entire drainage area is serviced with both public water and sanitary sewer, and installed in conjunction with the development, it is rather unlikely the coliform is attributed to a human component. As indicated earlier, this area has been experiencing a below average level of precipitation during the preceding months. The reduction in precipitation could have played a role in the elevated level of Escherichia Coliform.

Outlet R-37 is a new sampling location that discharges to the Farmington River Basin along the north side of New Britain Avenue, to the rear of 301 New Britain Avenue. The drainage area is relatively large, and is comprised of mostly residential properties zoned R-30 (30,000 ft^2) with some commercial properties along New Britain Avenue. The drainage discharges approximately 50 feet upland of the Farmington River. The current sampling indicated elevated levels of Escherichia Coliform. As indicated earlier, this area has been experiencing a below average level of precipitation during the preceding months. The reduction in precipitation and upstream wetland area could have played a role in the elevated level of Escherichia Coliform. The area is serviced with both public water and sanitary sewer.

Outlet R-38 is a new sampling location, and discharges along the north side of Bridgehampton Crossing into the Farmington River Basin, approximately 250 feet west of the River Road intersection. The drainage area is relatively small, and is comprised of Residential properties zoned R-40 (40,000 ft^2). The drainage discharges approximately 75 feet upland of a watercourse. The sample location was chosen because of the unique design of the stormwater system. Due to the downstream wetland being classified as a cold-water wetland, the residential development was approved by the Plan & Zoning Commission and Inland Wetlands Commission with infiltration systems along the route at each catch basin as well as the outlet, to treat the first one inch of rainfall, as a way to prevent drastic temperature fluctuations due to the drainage discharge. The construction within the entire area associated with this drainage area has been

completed. The area is serviced with both public water and sanitary sewer, and installed in conjunction with the development. The sampling results did not indicate any levels of concern. All sampling parameters were within conventional levels.

Sampling location R-39 is a new sampling location, and is located in the catch basin at the south end of the cul-de-sac at Lydia Way. The drainage area is relatively small, and is comprised of Residential properties zoned R-20 (20,000 ft^2). The catch basin is connected to a storm drainage system discharging to a retention basin that eventually flows into the Farmington River Basin. Similar to sample location R-38, this storm drainage system was designed with infiltration systems along the route at each catch basin to collect the first one inch of rainfall. At the time of sampling, there was no flow at the outlet, and therefore sampling was conducted at the last catch basin in the system. Surface flow from the upland contributing catch basins was flowing into the catch basin sample location. The results indicated a slightly elevated level of Total Phosphorus and an elevated level of Oil & Grease. The slightly elevated levels of phosphorus could be a result of the manicured lawns adjacent to the roadway. With regards to the elevated levels of Oil & Grease, the sample did not appear to have any discoloring or sheen and was extremely clear with no discoloration. A post storm inspection was performed on December 4, 2015, and signs of contaminates and/or potential sources were not evident. In addition, catch basin staining or sheens on the water surface in the catch basin's sump was not evident. It is important to note this catch basin contains a hooded outlet, which should have trapped floatables, including oils and grease, and a sheen or staining would have been expected during this post storm inspection if oils and grease were entering the stormwater system. The Town will perform further investigation of the area in an attempt to determine the source including additional sampling, if this was not a sampling anomaly. Any follow-up testing results will be documented in the 2016 MS4 Annual Report. The area is serviced with both public water and sanitary sewer, and installed in conjunction with the development.

Outlet C-8 is a new sampling location, and discharges to the Farmington River Basin, to the rear of 5 Mill Street. The drainage area is relatively small, and is comprised of mostly Commercial Properties with large impervious areas and very little "green space". The drainage discharges approximately 20 feet upland of the Farmington River. The drainage system was recently retrofitted with an underground infiltration system north of the outlet sample location. The sampling results did not indicate any levels of concern. All sampling parameters were within conventional levels. The area is serviced with both public water and sanitary sewer.

The Town is currently reviewing the possibility of follow-up testing the sample locations with elevated levels of Escherichia Coliform (R-35, R-36, and R-37), to narrow down whether the

cause could be human or animal based. Any follow-up testing results will be documented in the 2016 MS4 Annual Report.

3. CERTIFICATION

I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in this document or its attachments may be punishable as a criminal offense, in accordance with Section 22a-6 of the Connecticut General Statutes, pursuant to Section 53a-157b of the Connecticut General Statutes, and in accordance with any other applicable statute.

Russell M. Arnold, Jr., P.E.
Director/Town Engineer
Department of Public Works

ATTACHMENT A

Stormwater Monitoring Report Forms

and

Laboratory Data Results

General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

Stormwater Monitoring Report Form

PERMITTEE INFORMATION

Town: Town of Farmington

Mailing Address: 1 Monteith Drive, Farmington CT 06032

Contact Person: Russell M. Arnold, Jr. P.E. Title: DPW Director Phone: 860-675-2305

Permit Registration #GSM000090

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): (2015) R35: Lat 41-43-7.8, Long 72-52-31.3

Sample taken from outlet on the south side of Meadow Road, east of Judson Lane

Please circle the appropriate area description: Industrial, Commercial, or (Residential)

Receiving Water (name, basin): Pequabuck River, 4315-14-1-L1

Time of Start of Discharge: 1400hrs

Date/Time Collected: October 28, 2015/1655hrs Water Temperature: 53°F

Person Collecting Sample: Bruce Cyr

Storm Magnitude (inches): 2.44 Storm Duration (hours): 17 (approx)

Date of Previous Storm Event: October 3, 2015

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	SM19 4500H+B	7.0	Tunxis Laboratories #15102902-006
Rain pH	SM19 4500H+B	6.7	Tunxis Laboratories #15102902-006
Hardness	SM 2340 B	21.6 mg/L CaO3	Tunxis Laboratories #15102902-006
Conductivity	SM19 2510B	73 micromhos/cm	Tunxis Laboratories #15102902-006
Oil & Grease	EPA 1664A	<1.8 mg/L	Tunxis Laboratories #15102902-006
COD	EPA 410.4	36 mg/L	Tunxis Laboratories #15102902-006
Turbidity	EPA 180.1	8.3 NTU	Tunxis Laboratories #15102902-006
TSS	SM19 2540D	14.0 mg/L	Tunxis Laboratories #15102902-006
TP	SM19 4500PE	0.175 mg/L as P	Tunxis Laboratories #15102902-006
Ammonia	SM19 4500NHD	<0.83 mg/L	Tunxis Laboratories #15102902-006
TKN	SM194500NH3F	1.3 mg/L	Tunxis Laboratories #15102902-006
NO_3+NO_2	EPA 300.0	<0.46 mg/L	Tunxis Laboratories #15102902-006
E. coli	SM 9222 B	4900 per 100 mL	Tunxis Laboratories #15102902-006

STATEMENT OF ACKNOWLEDGMENT

I certify that the data reported on this document were prepared under my direction or supervision in accordance with the MS4 General Permit. The information submitted is, to the best of my knowledge and belief, true, accurate and complete.

Authorized Official: Russell M. Arnold, Jr., P.E., Director of Public Works/Town Engineer

Signature: Russell M. Arnold Jr. Date: December 23, 2015

General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

Stormwater Monitoring Report Form

PERMITTEE INFORMATION

Town: Town of Farmington

Mailing Address: 1 Monteith Drive, Farmington CT 06032

Contact Person: Russell M. Arnold, Jr. P.E. Title: DPW Director Phone: 860-675-2305

Permit Registration #GSM000090

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): (2015) R36: Lat 41-44-58.78, Long 72-52-45.99

Sample taken from outlet on the north side of Oakridge, to the rear of #130 & #132 Oakridge

Please circle the appropriate area description: Industrial, Commercial, or (Residential)

Receiving Water (name, basin): Farmington River, 4300-00-4+R16

Time of Start of Discharge: 1400hrs

Date/Time Collected: October 28, 2015/1710hrs Water Temperature: 53°F

Person Collecting Sample: Bruce Cyr

Storm Magnitude (inches): 2.44 Storm Duration (hours): 17 (approx)

Date of Previous Storm Event: October 3, 2015

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	SM19 4500H+B	7.1	Tunxis Laboratories #15102902-005
Rain pH	SM19 4500H+B	6.7	Tunxis Laboratories #15102902-005
Hardness	SM 2340 B	10.6 mg/L CaO3	Tunxis Laboratories #15102902-005
Conductivity	SM19 2510B	60 micromhos/cm	Tunxis Laboratories #15102902-005
Oil & Grease	EPA 1664A	<1.9 mg/L	Tunxis Laboratories #15102902-005
COD	EPA 410.4	43 mg/L	Tunxis Laboratories #15102902-005
Turbidity	EPA 180.1	9.3 NTU	Tunxis Laboratories #15102902-005
TSS	SM19 2540D	9.0 mg/L	Tunxis Laboratories #15102902-005
TP	SM19 4500PE	0.275 mg/L as P	Tunxis Laboratories #15102902-005
Ammonia	SM19 4500NHD	<0.83 mg/L	Tunxis Laboratories #15102902-005
TKN	SM194500NH3F	1.5 mg/L	Tunxis Laboratories #15102902-005
NO_3+NO_2	EPA 300.0	<0.46 mg/L	Tunxis Laboratories #15102902-005
E. coli	SM 9222 B	3800 per 100 mL	Tunxis Laboratories #15102902-005

STATEMENT OF ACKNOWLEDGMENT

I certify that the data reported on this document were prepared under my direction or supervision in accordance with the MS4 General Permit. The information submitted is, to the best of my knowledge and belief, true, accurate and complete.

Authorized Official: Russell M. Arnold, Jr., P.E., Director of Public Works/Town Engineer

Signature: Russell M. Arnold Date: December 23, 2015

General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

Stormwater Monitoring Report Form

PERMITTEE INFORMATION

Town: Town of Farmington

Mailing Address: 1 Monteith Drive, Farmington CT 06032

Contact Person: Russell M. Arnold, Jr. P.E. Title: DPW Director Phone: 860-675-2305

Permit Registration #GSM000090

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): (2015) R37: Lat 41-45-3.71, Long 72-52-29.99

Sample taken from 36in outlet on north side of New Britain Ave, in the rear of #301 New Britain Ave

Please circle the appropriate area description: Industrial, Commercial, or (Residential)

Receiving Water (name, basin): Farmington River, 4300-00-4+R16

Time of Start of Discharge: 1400hrs

Date/Time Collected: October 28, 2015/1720hrs Water Temperature: 53°F

Person Collecting Sample: Bruce Cyr

Storm Magnitude (inches): 2.44 Storm Duration (hours): 17 (approx)

Date of Previous Storm Event: October 3, 2015

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	SM19 4500H+B	6.8	Tunxis Laboratories #15102902-004
Rain pH	SM19 4500H+B	6.7	Tunxis Laboratories #15102902-004
Hardness	SM 2340 B	16.2 mg/L CaO3	Tunxis Laboratories #15102902-004
Conductivity	SM19 2510B	69 micromhos/cm	Tunxis Laboratories #15102902-004
Oil & Grease	EPA 1664A	2.4 mg/L	Tunxis Laboratories #15102902-004
COD	EPA 410.4	<20 mg/L	Tunxis Laboratories #15102902-004
Turbidity	EPA 180.1	6.7 NTU	Tunxis Laboratories #15102902-004
TSS	SM19 2540D	6.0 mg/L	Tunxis Laboratories #15102902-004
TP	SM19 4500PE	0.103 mg/L as P	Tunxis Laboratories #15102902-004
Ammonia	SM19 4500NHD	<0.83 mg/L	Tunxis Laboratories #15102902-004
TKN	SM194500NH3F	<1.4 mg/L	Tunxis Laboratories #15102902-004
NO_3+NO_2	EPA 300.0	<0.46 mg/L	Tunxis Laboratories #15102902-004
E. coli	SM 9222 B	1100 per 100 mL	Tunxis Laboratories #15102902-004

STATEMENT OF ACKNOWLEDGMENT

I certify that the data reported on this document were prepared under my direction or supervision in accordance with the MS4 General Permit. The information submitted is, to the best of my knowledge and belief, true, accurate and complete.

Authorized Official: Russell M. Arnold, Jr., P.E., Director of Public Works/Town Engineer

Signature: Russell M Arnold Jr Date: December 23, 2015

General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

Stormwater Monitoring Report Form

PERMITTEE INFORMATION

Town: Town of Farmington

Mailing Address: 1 Monteith Drive, Farmington CT 06032

Contact Person: Russell M. Arnold, Jr. P.E. Title: DPW Director Phone: 860-675-2305

Permit Registration #GSM000090

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): (2015) R38: Lat 41-45-6.34, Long 72-53-46.12

Sample from outlet on the north side of Bridgehampton Crossing, approx. 250lf west of River Road

Please circle the appropriate area description: Industrial, Commercial, or (Residential)

Receiving Water (name, basin): Farmington River, 4300-20-2-R1

Time of Start of Discharge: 1400hrs

Date/Time Collected: October 28, 2015/1735hrs Water Temperature: 53°F

Person Collecting Sample: Bruce Cyr

Storm Magnitude (inches): 2.44 Storm Duration (hours): 17 (approx)

Date of Previous Storm Event: October 3, 2015

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	SM19 4500H+B	6.7	Tunxis Laboratories #15102902-003
Rain pH	SM19 4500H+B	6.7	Tunxis Laboratories #15102902-003
Hardness	SM 2340 B	7.2 mg/L CaO3	Tunxis Laboratories #15102902-003
Conductivity	SM19 2510B	50 micromhos/cm	Tunxis Laboratories #15102902-003
Oil & Grease	EPA 1664A	2.9 mg/L	Tunxis Laboratories #15102902-003
COD	EPA 410.4	<20 mg/L	Tunxis Laboratories #15102902-003
Turbidity	EPA 180.1	2.9 NTU	Tunxis Laboratories #15102902-003
TSS	SM19 2540D	5.0 mg/L	Tunxis Laboratories #15102902-003
TP	SM19 4500PE	0.048 mg/L as P	Tunxis Laboratories #15102902-003
Ammonia	SM19 4500NHD	<0.83 mg/L	Tunxis Laboratories #15102902-003
TKN	SM194500NH3F	<1.5 mg/L	Tunxis Laboratories #15102902-003
NO_3+NO_2	EPA 300.0	<0.46 mg/L	Tunxis Laboratories #15102902-003
E. coli	SM 9222 B	<50 per 100 mL	Tunxis Laboratories #15102902-003

STATEMENT OF ACKNOWLEDGMENT

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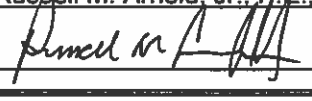
Authorized Official: Russell M. Arnold, Jr., P.E., Director of Public Works/Town Engineer

Signature:  Date: December 23, 2015

General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

Stormwater Monitoring Report Form

PERMITTEE INFORMATION

Town: Town of Farmington

Mailing Address: 1 Monteith Drive, Farmington CT 06032

Contact Person: Russell M. Arnold, Jr. P.E. Title: DPW Director Phone: 860-675-2305

Permit Registration #GSM000090

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): (2015) R39: Lat 41-45-51.11, Long 72-53-16.51

Sample taken from CB at the south end of the cul-de-sac, prior to the outlet

Please circle the appropriate area description: Industrial, Commercial, or (Residential)

Receiving Water (name, basin): Farmington River, 4300-00-4+R14

Time of Start of Discharge: 1400hrs

Date/Time Collected: October 28, 2015/1745hrs Water Temperature: 53°F

Person Collecting Sample: Bruce Cyr

Storm Magnitude (inches): 2.44 Storm Duration (hours): 17 (approx)

Date of Previous Storm Event: October 3, 2015

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	SM19 4500H+B	6.7	Tunxis Laboratories #15102902-002
Rain pH	SM19 4500H+B	6.7	Tunxis Laboratories #15102902-002
Hardness	SM 2340 B	2.8 mg/L CaO3	Tunxis Laboratories #15102902-002
Conductivity	SM19 2510B	12 micromhos/cm	Tunxis Laboratories #15102902-002
Oil & Grease	EPA 1664A	12.8 mg/L	Tunxis Laboratories #15102902-002
COD	EPA 410.4	<20 mg/L	Tunxis Laboratories #15102902-002
Turbidity	EPA 180.1	2.5 NTU	Tunxis Laboratories #15102902-002
TSS	SM19 2540D	9.0 mg/L	Tunxis Laboratories #15102902-002
TP	SM19 4500PE	0.034 mg/L as P	Tunxis Laboratories #15102902-002
Ammonia	SM19 4500NHD	<0.83 mg/L	Tunxis Laboratories #15102902-002
TKN	SM194500NH3F	<1.4 mg/L	Tunxis Laboratories #15102902-002
NO_3+NO_2	EPA 300.0	<0.46 mg/L	Tunxis Laboratories #15102902-002
E. coli	SM 9222 B	<50 per 100 mL	Tunxis Laboratories #15102902-002

STATEMENT OF ACKNOWLEDGMENT

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Authorized Official: Russell M. Arnold, Jr., P.E., Director of Public Works/Town Engineer

Signature: Russell M Arnold Jr Date: December 23, 2015

General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

Stormwater Monitoring Report Form

PERMITTEE INFORMATION

Town: Town of Farmington

Mailing Address: 1 Monteith Drive, Farmington CT 06032

Contact Person: Russell M. Arnold, Jr. P.E. Title: DPW Director Phone: 860-675-2305

Permit Registration #GSM000090

SAMPLING INFORMATION

Discharge Location (Lat/Long or other description): (2015) C8: Lat 41-45-21.85, Long 72-53-18.15

Outlet pipe to the rear of 5 Mill Street (UNVL)

Please circle the appropriate area description: Industrial, (Commercial), or Residential

Receiving Water (name, basin): Farmington River, 4300-00-4+R15

Time of Start of Discharge: 1400hrs

Date/Time Collected: October 28, 2015/1745hrs Water Temperature: 53°F

Person Collecting Sample: Bruce Cyr

Storm Magnitude (inches): 2.44 Storm Duration (hours): 17 (approx)

Date of Previous Storm Event: October 3, 2015

MONITORING RESULTS

Parameter	Method	Results (units)	Laboratory
Sample pH	SM19 4500H+B	6.6	Tunxis Laboratories #15102902-001
Rain pH	SM19 4500H+B	6.7	Tunxis Laboratories #15102902-001
Hardness	SM 2340 B	3.1 mg/L CaO3	Tunxis Laboratories #15102902-001
Conductivity	SM19 2510B	20 micromhos/cm	Tunxis Laboratories #15102902-001
Oil & Grease	EPA 1664A	4.0 mg/L	Tunxis Laboratories #15102902-001
COD	EPA 410.4	21 mg/L	Tunxis Laboratories #15102902-001
Turbidity	EPA 180.1	11 NTU	Tunxis Laboratories #15102902-001
TSS	SM19 2540D	8.5 mg/L	Tunxis Laboratories #15102902-001
TP	SM19 4500PE	0.118 mg/L as P	Tunxis Laboratories #15102902-001
Ammonia	SM19 4500NHD	<0.83 mg/L	Tunxis Laboratories #15102902-001
TKN	SM194500NH3F	<1.4 mg/L	Tunxis Laboratories #15102902-001
NO_3+NO_2	EPA 300.0	0.58 mg/L	Tunxis Laboratories #15102902-001
E. coli	SM 9222 B	<50 MPN per 100 mL	Tunxis Laboratories #15102902-001

STATEMENT OF ACKNOWLEDGMENT

I certify that the data reported on this document were prepared under my direction or supervision in accordance with the MS4 General Permit. The information submitted is, to the best of my knowledge and belief, true, accurate and complete.

Authorized Official: Russell M. Arnold, Jr./ P.E., Director of Public Works/Town Engineer

Signature: Russell M. Arnold Jr. Date: December 23, 2013

TUNXIS | Laboratories, LLC
100 Northwest Drive, Plainville, Connecticut 06062
(860) 793-8866 Fax: (860) 793-8867
Alan G. Jacobs - Director CT Laboratory ID No. PH-0513

REPORT ON LABORATORY EXAMINATIONS

To Client: Town of Farmington
1 Monteith Drive
Farmington, CT 06034-0948

Report No: TL1524581.0
Report Date: Thursday, November 12, 2015
ATTN: Bruce Cyr
Collected By: Bruce Cyr

Source: Town of Farmington, Farmington, CT

Sample Matrix: Surface Water

Sample ID: Stormwater Discharge Sample

Collect Date: 10/28/2015

Lab#: 15102902-006 **Client Sample ID#:** R35-10-28-15

Received Date: 10/29/2015

Test	Result	Units	Analyst	Analysis Date	Analysis Method
Total Suspended Solids	14.0	mg/L	AGJ/KHL	10/29/2015	SM19 2540D
Nitrite - Nitrate as N	<0.46	mg/L	JF	10/30/2015	EPA 300.0
pH of Rain	6.7	units	JF	10/28/2015	SM19 4500H+B
pH	7.0	units	JF	10/29/2015	SM19 4500H+B
Specific Conductivity	73	micromhos/cm	AGJ/KHL	10/29/2015	SM19 2510B
Hardness, Calculated	21.6	mg/L CaCO3	JM	10/30/2015	SM 2340 B
Chemical Oxygen Demand	36	mg/L	JF	11/10/2015	EPA 410.4
Ammonia Nitrogen as N	<0.83	mg/L	MAP	11/6/2015	SM19 4500NHD
Phosphorus, Total as P	0.175	mg/L as P	JM	10/29/2015	SM19 4500PE
E. Coli	4900	MPN/100 mL	JF	10/29/2015	SM 9222 B
Total Kjeldahl Nitrogen	<1.3	mg/L	MAP	11/11/2015	SM194500NH3F
Turbidity	8.3	NTU	JF	10/29/2015	EPA 180.1
Calcium	6.95	mg/L	JM	10/30/2015	EPA 200.7
Magnesium	1.02	mg/L	JM	10/30/2015	EPA 200.7
Oil & Grease, Hexane Ext. Material	<1.8	mg/L	RB	11/6/2015	EPA 1664A

The results recorded in this report relate only to the samples as received on the date and time noted.

TUNXIS | Laboratories, LLC
100 Northwest Drive, Plainville, Connecticut 06062
(860) 793-8666 Fax: (860) 793-8867
Alan G. Jacobs - Director CT Laboratory ID No. PH-0513

REPORT ON LABORATORY EXAMINATIONS

To Client: Town of Farmington
1 Monteith Drive
Farmington, CT 06034-0948

Report No: TL1524581.0
Report Date: Thursday, November 12, 2015
ATTN: Bruce Cyr
Collected By: Bruce Cyr

Source: Town of Farmington, Farmington, CT

Sample Matrix: Surface Water

Sample ID: Stormwater Discharge Sample

Collect Date: 10/28/2015

Lab#: 15102902-005 **Client Sample ID#:** R36-10-28-15

Received Date: 10/29/2015

Test	Result	Units	Analyst	Analysis Date	Analysis Method
Total Suspended Solids	9.0	mg/L	AGJ/KHL	10/29/2015	SM19 2540D
Nitrite - Nitrate as N	<0.46	mg/L	JF	10/30/2015	EPA 300.0
pH of Rain	6.7	units	JF	10/28/2015	SM19 4500H+B
pH	7.1	units	JF	10/29/2015	SM19 4500H+B
Specific Conductivity	60	micromhos/cm	AGJ/KHL	10/29/2015	SM19 2510B
Hardness, Calculated	10.6	mg/L CaCO3	JM	10/30/2015	SM 2340 B
Chemical Oxygen Demand	43	mg/L	JF	11/10/2015	EPA 410.4
Ammonia Nitrogen as N	<0.83	mg/L	MAP	11/6/2015	SM19 4500NHD
Phosphorus, Total as P	0.275	mg/L as P	JM	10/29/2015	SM19 4500PE
E. Coli	3800	MPN/100 mL	JF	10/29/2015	SM 9222 B
Total Kjeldahl Nitrogen	1.5	mg/L	MAP	11/6/2015	SM194500NH3F
Turbidity	9.3	NTU	JF	10/29/2015	EPA 180.1
Calcium	3.13	mg/L	JM	10/30/2015	EPA 200.7
Magnesium	0.66	mg/L	JM	10/30/2015	EPA 200.7
Oil & Grease, Hexane Ext. Material	<1.9	mg/L	RB	11/6/2015	EPA 1664A

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(860) 793-8866 Fax: (860) 793-8867
Alan G. Jacobs - Director CT Laboratory ID No. PH-0513

REPORT ON LABORATORY EXAMINATIONS

To Client: Town of Farmington
1 Monteith Drive
Farmington, CT 06034-0948

Report No: TL1524581.0
Report Date: Thursday, November 12, 2015
ATTN: Bruce Cyr
Collected By: Bruce Cyr

Source: Town of Farmington, Farmington, CT

Sample Matrix: Surface Water

Sample ID: Stormwater Discharge Sample

Collect Date: 10/28/2015

Lab#: 15102902-004 **Client Sample ID#:** R37-10-28-15

Received Date: 10/29/2015

Test	Result	Units	Analyst	Analysis Date	Analysis Method
Total Suspended Solids	6.0	mg/L	AGJ/KHL	10/29/2015	SM19 2540D
Nitrite - Nitrate as N	<0.46	mg/L	JF	10/30/2015	EPA 300.0
pH of Rain	6.7	units	JF	10/28/2015	SM19 4500H+B
pH	6.8	units	JF	10/29/2015	SM19 4500H+B
Specific Conductivity	69	micromhos/cm	AGJ/KHL	10/29/2015	SM19 2510B
Hardness, Calculated	16.2	mg/L CaCO3	JM	10/30/2015	SM 2340 B
Chemical Oxygen Demand	<20	mg/L	JF	11/10/2015	EPA 410.4
Ammonia Nitrogen as N	<0.83	mg/L	MAP	11/6/2015	SM19 4500NHD
Phosphorus, Total as P	0.103	mg/L as P	JM	10/29/2015	SM19 4500PE
E. Coli	1100	MPN/100 mL	JF	10/29/2015	SM 9222 B
Total Kjeldahl Nitrogen	<1.4	mg/L	MAP	11/6/2015	SM194500NH3F
Turbidity	6.7	NTU	JF	10/29/2015	EPA 180.1
Calcium	4.77	mg/L	JM	10/30/2015	EPA 200.7
Magnesium	1.04	mg/L	JM	10/30/2015	EPA 200.7
Oil & Grease, Hexane Ext. Material	2.4	mg/L	RB	11/6/2015	EPA 1664A

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Alan G. Jacobs - Director CT Laboratory ID No. PH-0513

REPORT ON LABORATORY EXAMINATIONS

To Client: Town of Farmington
1 Monteith Drive
Farmington, CT 06034-0948

Report No: TL1524581.0
Report Date: Thursday, November 12, 2015
ATTN: Bruce Cyr
Collected By: Bruce Cyr

Source: Town of Farmington, Farmington, CT

Sample Matrix: Surface Water

Sample ID: Stormwater Discharge Sample

Collect Date: 10/28/2015

Lab#: 15102902-003 **Client Sample ID#:** R38-10-28-15

Received Date: 10/29/2015

Test	Result	Units	Analyst	Analysis Date	Analysis Method
Total Suspended Solids	5.0	mg/L	AGJ/KHL	10/29/2015	SM19 2540D
Nitrite - Nitrate as N	<0.46	mg/L	JF	10/30/2015	EPA 300.0
pH of Rain	6.7	units	JF	10/28/2015	SM19 4500H+B
pH	6.7	units	JF	10/29/2015	SM19 4500H+B
Specific Conductivity	50	micromhos/cm	AGJ/KHL	10/29/2015	SM19 2510B
Hardness, Calculated	7.2	mg/L CaCO3	JM	10/30/2015	SM 2340 B
Chemical Oxygen Demand	<20	mg/L	JF	11/10/2015	EPA 410.4
Ammonia Nitrogen as N	<0.83	mg/L	MAP	11/6/2015	SM19 4500NHD
Phosphorus, Total as P	0.048	mg/L as P	JM	10/29/2015	SM19 4500PE
E. Coli	<50	MPN/100 mL	JF	10/29/2015	SM 9222 B
Total Kjeldahl Nitrogen	1.5	mg/L	MAP	11/6/2015	SM194500NH3F
Turbidity	2.9	NTU	JF	10/29/2015	EPA 180.1
Calcium	2.59	mg/L	JM	10/30/2015	EPA 200.7
Magnesium	0.19	mg/L	JM	10/30/2015	EPA 200.7
Oil & Grease, Hexane Ext. Material	2.9	mg/L	RB	11/6/2015	EPA 1664A

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REPORT ON LABORATORY EXAMINATIONS

To Client: Town of Farmington
1 Monteith Drive
Farmington, CT 06034-0948

Report No: TL1524581.0
Report Date: Thursday, November 12, 2015
ATTN: Bruce Cyr
Collected By: Bruce Cyr

Source: Town of Farmington, Farmington, CT

Sample Matrix: Surface Water

Sample ID: Stormwater Discharge Sample

Collect Date: 10/28/2015

Lab#: 15102902-002 **Client Sample ID#:** R39-10-28-15

Received Date: 10/29/2015

Test	Result	Units	Analyst	Analysis Date	Analysis Method
Total Suspended Solids	9.0	mg/L	AGJ/KHL	10/29/2015	SM19 2540D
Nitrite - Nitrate as N	<0.46	mg/L	JF	10/30/2015	EPA 300.0
pH of Rain	6.7	units	JF	10/28/2015	SM19 4500H+B
pH	6.7	units	JF	10/29/2015	SM19 4500H+B
Specific Conductivity	12	micromhos/cm	AGJ/KHL	10/29/2015	SM19 2510B
Hardness, Calculated	2.8	mg/L CaCO3	JM	10/30/2015	SM 2340 B
Chemical Oxygen Demand	<20	mg/L	JF	11/10/2015	EPA 410.4
Ammonia Nitrogen as N	<0.83	mg/L	MAP	11/6/2015	SM19 4500NHD
Phosphorus, Total as P	0.034	mg/L as P	JM	10/29/2015	SM19 4500PE
E. Coli	<50	MPN/100 mL	JF	10/29/2015	SM 9222 B
Total Kjeldahl Nitrogen	<1.4	mg/L	MAP	11/6/2015	SM194500NH3F
Turbidity	2.5	NTU	JF	10/29/2015	EPA 180.1
Calcium	0.94	mg/L	JM	10/30/2015	EPA 200.7
Magnesium	0.12	mg/L	JM	10/30/2015	EPA 200.7
Oil & Grease, Hexane Ext. Material	12.8	mg/L	RB	11/6/2015	EPA 1664A

The results recorded in this report relate only to the samples as received on the date and time noted.

TUNXIS | Laboratories, LLC

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(860) 793-8666 Fax: (860) 793-8867
Alan G. Jacobs - Director CT Laboratory ID No. PH-0513

REPORT ON LABORATORY EXAMINATIONS

To Client: Town of Farmington
1 Monteith Drive
Farmington, CT 06034-0948

Report No: TL1524581.0
Report Date: Thursday, November 12, 2015
ATTN: Bruce Cyr
Collected By: Bruce Cyr

Source: Town of Farmington, Farmington, CT

Sample Matrix: Surface Water

Sample ID: Stormwater Discharge Sample

Collect Date: 10/28/2015

Lab#: 15102902-001 **Client Sample ID#:** C8-10-28-15

Received Date: 10/29/2015

Test	Result	Units	Analyst	Analysis Date	Analysis Method
Total Suspended Solids	8.5	mg/L	AGJ/KHL	10/29/2015	SM19 2540D
Nitrite - Nitrate as N	0.58	mg/L	JF	10/30/2015	EPA 300.0
pH	6.6	units	JF	10/29/2015	SM19 4500H+B
pH of Rain	6.7	units	JF	10/28/2015	SM19 4500H+B
Specific Conductivity	20	micromhos/cm	AGJ/KHL	10/29/2015	SM19 2510B
Hardness, Calculated	3.1	mg/L CaCO3	JM	10/30/2015	SM 2340 B
Chemical Oxygen Demand	21	mg/L	JF	11/10/2015	EPA 410.4
Ammonia Nitrogen as N	<0.83	mg/L	MAP	11/6/2015	SM19 4500NHD
Phosphorus, Total as P	0.118	mg/L as P	JM	10/29/2015	SM19 4500PE
E. Coli	<50	MPN/100 mL	JF	10/29/2015	SM 9222 B
Total Kjeldahl Nitrogen	<1.4	mg/L	MAP	11/6/2015	SM194500NH3F
Turbidity	11	NTU	JF	10/29/2015	EPA 180.1
Calcium	0.88	mg/L	JM	10/30/2015	EPA 200.7
Magnesium	0.22	mg/L	JM	10/30/2015	EPA 200.7
Oil & Grease, Hexane Ext. Material	4.0	mg/L	RB	11/6/2015	EPA 1664A

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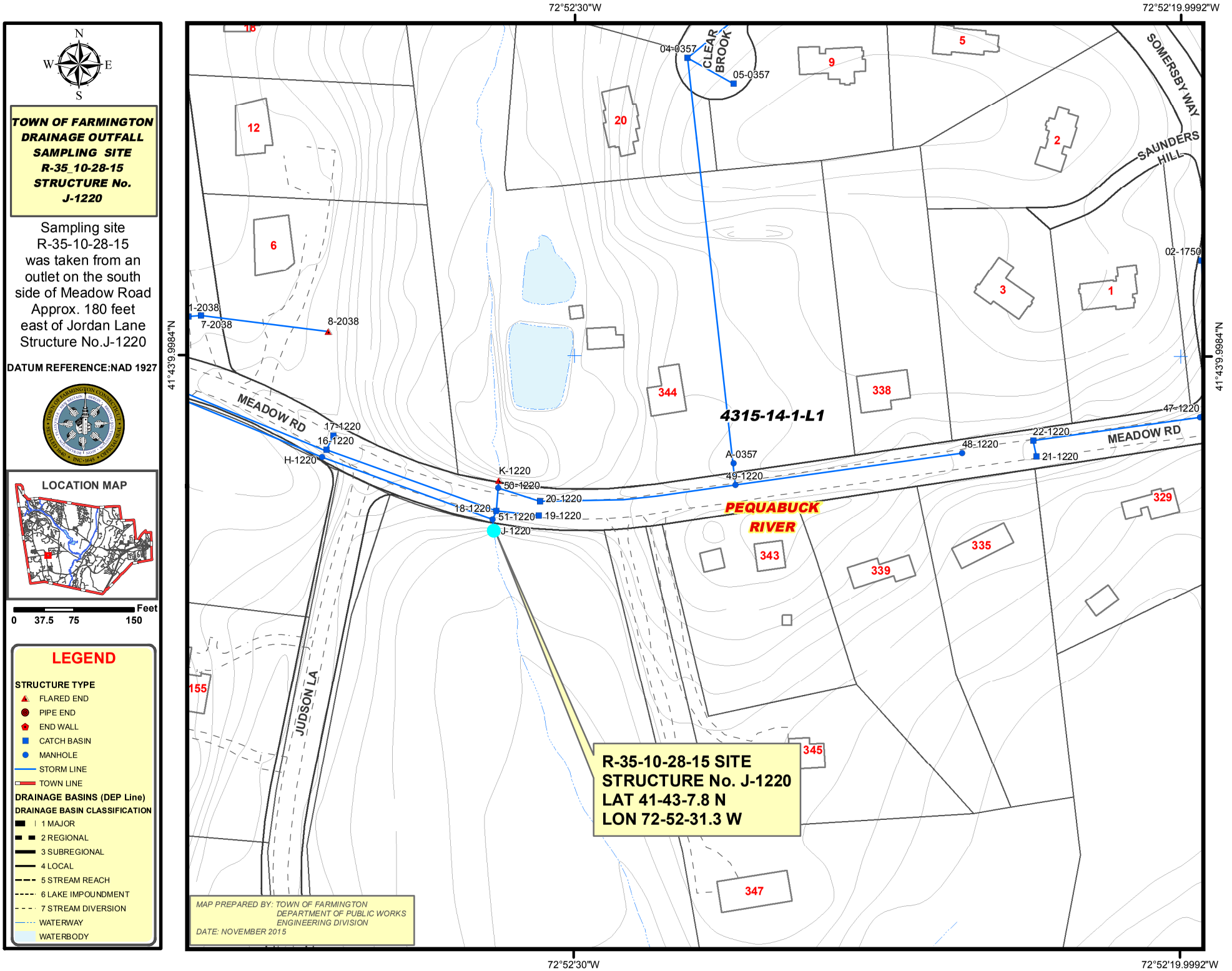
ATTACHMENT B

Monitoring Site Location Mapping


72°52'30"W
72°52'19.9992"W
41°43'9.9984"N
TOWN OF FARMINGTON
DRAINAGE OUTFALL
SAMPLING SITE
R-35_10-28-15
STRUCTURE No.
J-1220
Sampling site
R-35-10-28-15
was taken from an
outlet on the south
side of Meadow Road
Approx. 180 feet
east of Jordan Lane
Structure No.J-1220
DATUM REFERENCE:NAD 1927
LOCATION MAP
Feet
0 37.5 75 150
LEGEND
STRUCTURE TYPE
FLARED END
PIPE END
END WALL
CATCH BASIN
MANHOLE
STORM LINE
TOWN LINE
DRAINAGE BASINS (DEP Line)
DRAINAGE BASIN CLASSIFICATION
1 MAJOR
2 REGIONAL
3 SUBREGIONAL
4 LOCAL
5 STREAM REACH
6 LAKE IMPOUNDMENT
7 STREAM DIVERSION
WATERWAY
WATERBODY
CLEAR BROOK
04-0357
05-0357
SOMERSBY WAY
SAUNDERS HILL
MEADOW RD
PEQUABUCK RIVER
JUDSON LA
4315-14-1-L1
A-0357
02-1750
1-2038
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K-1220
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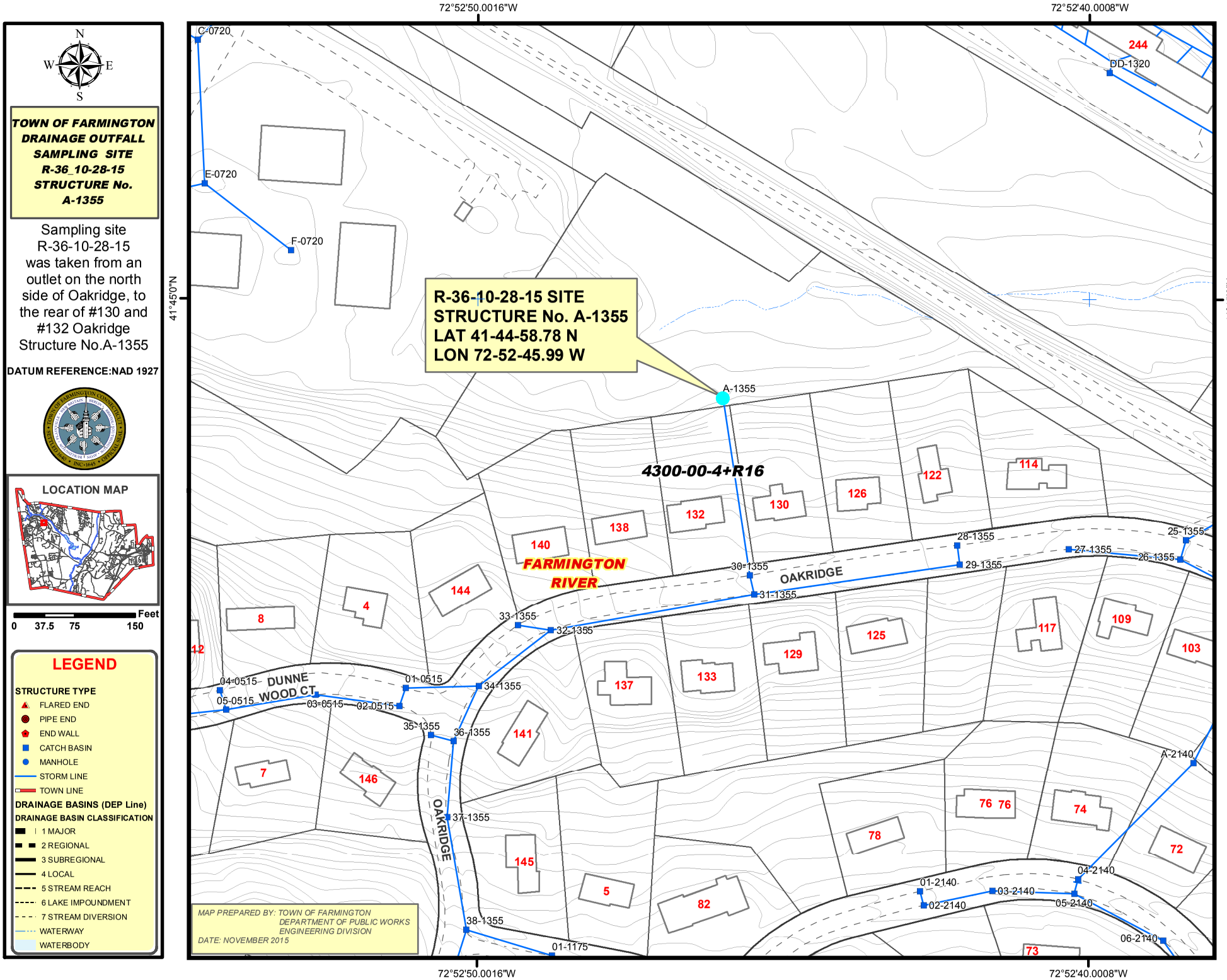
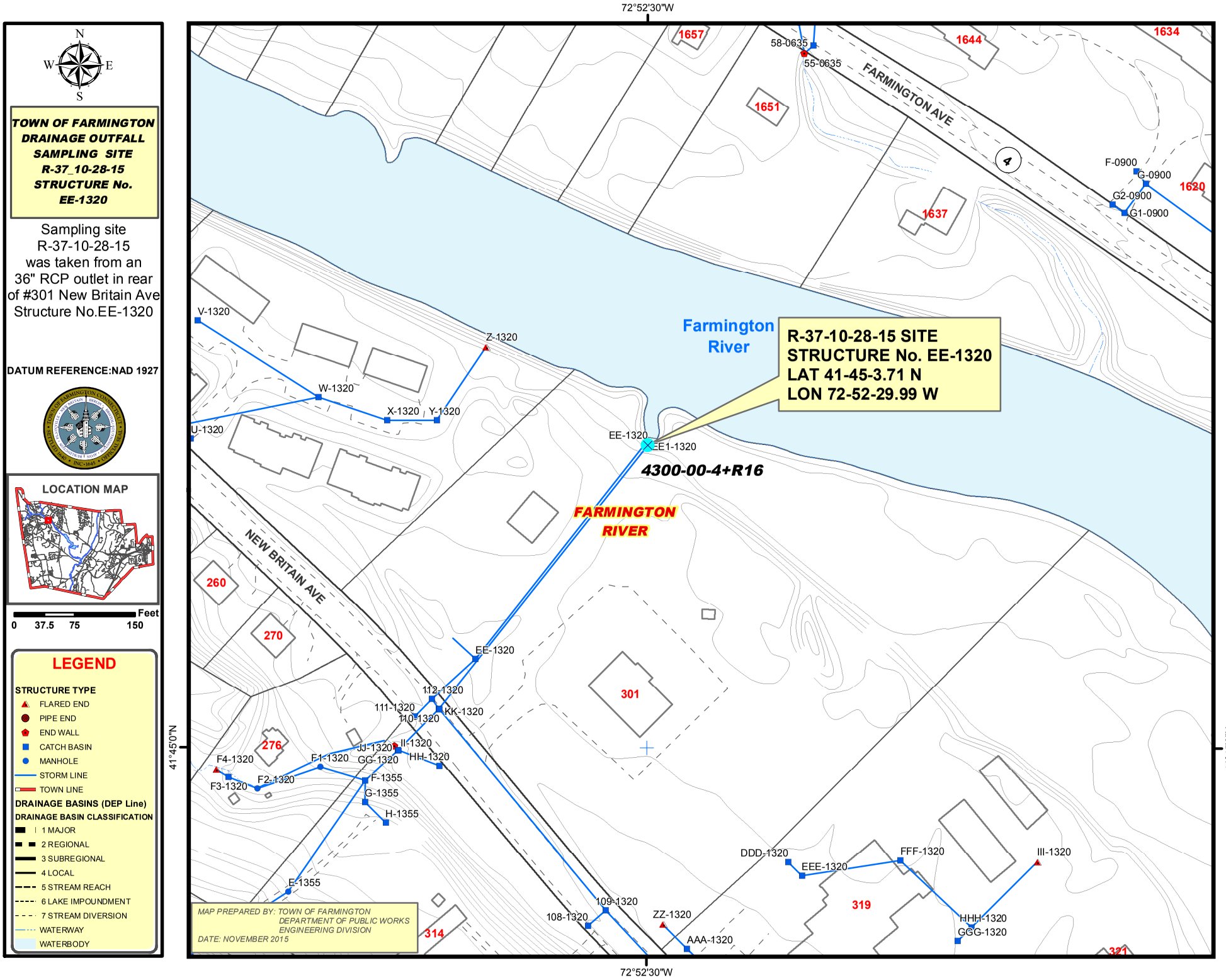
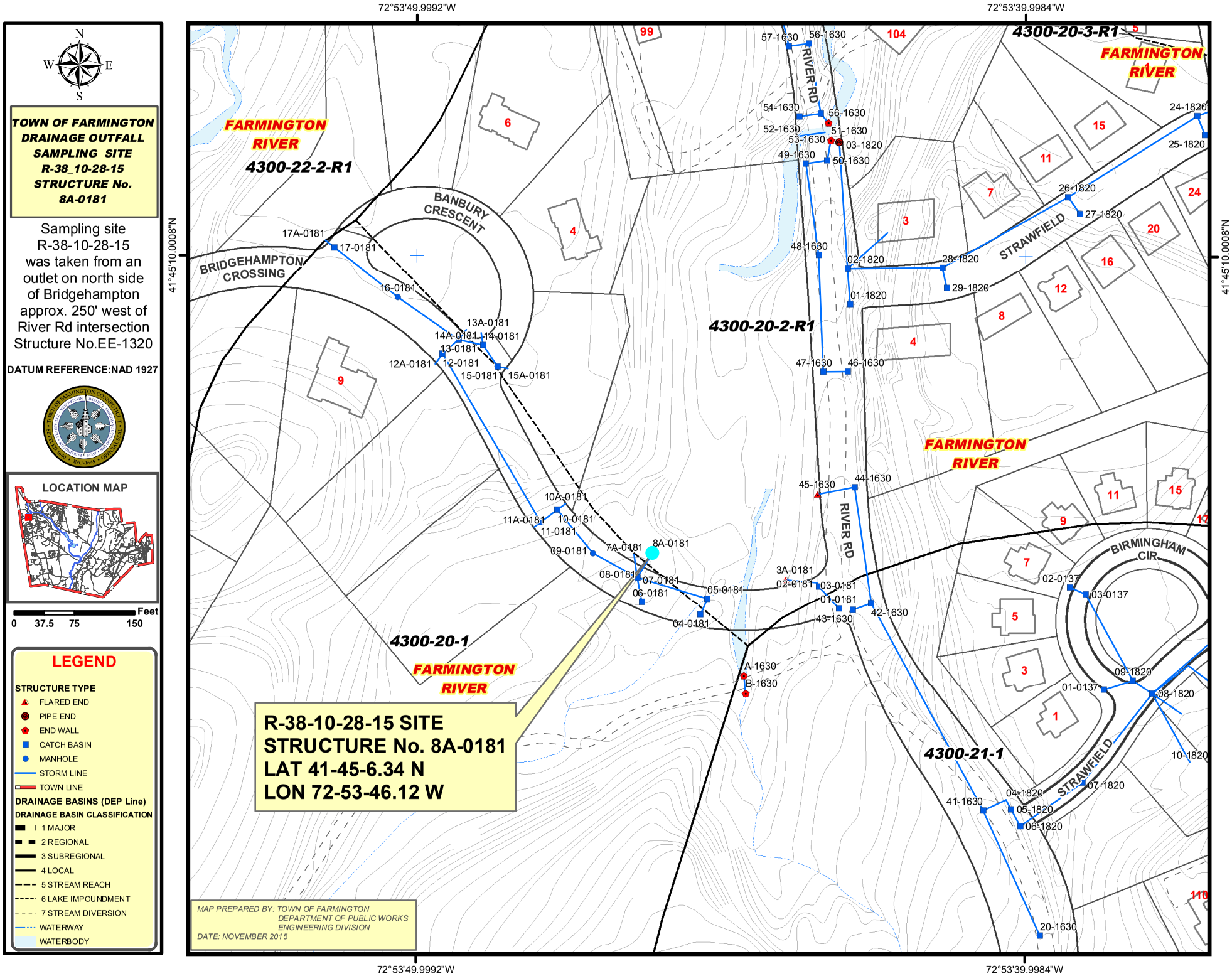
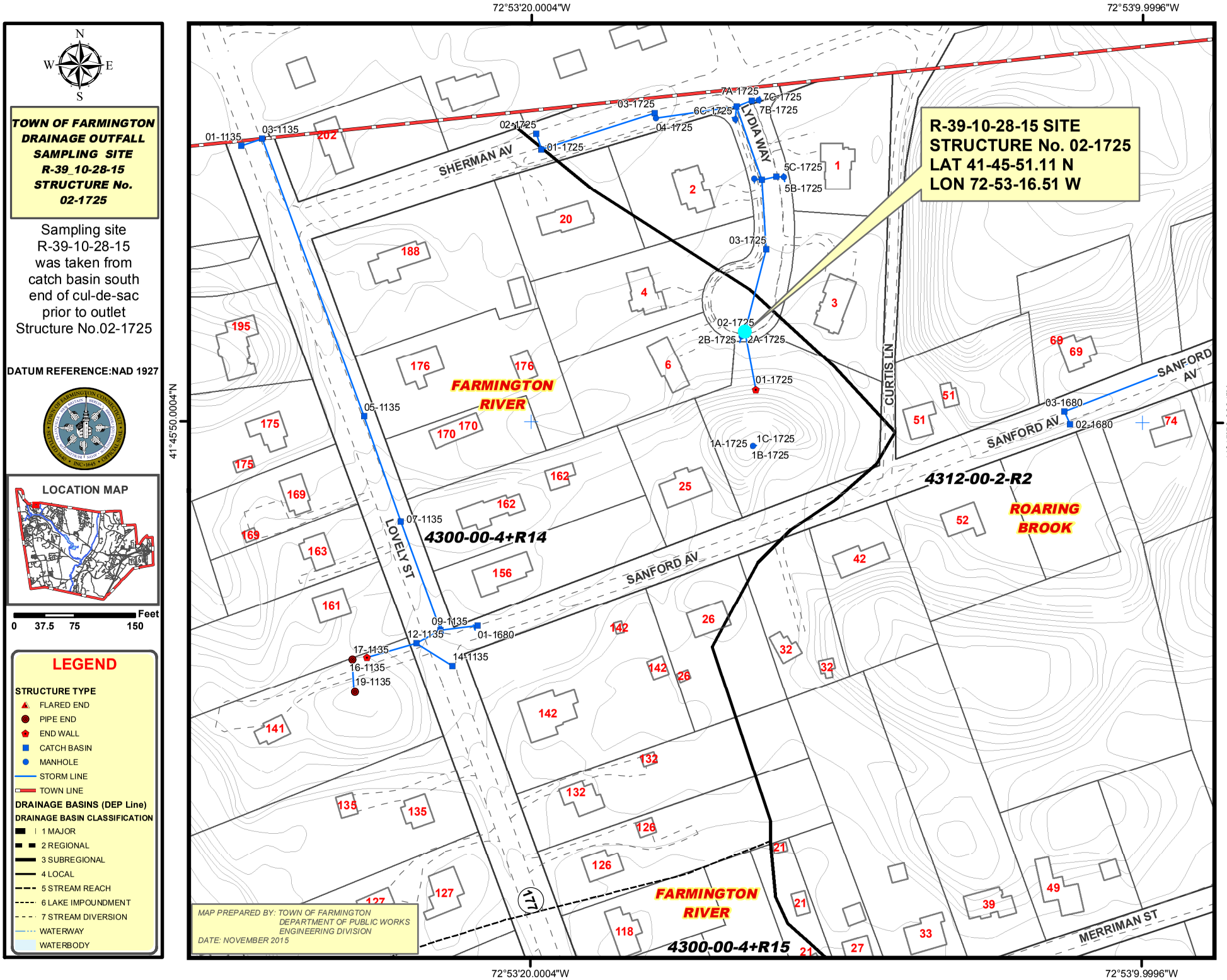
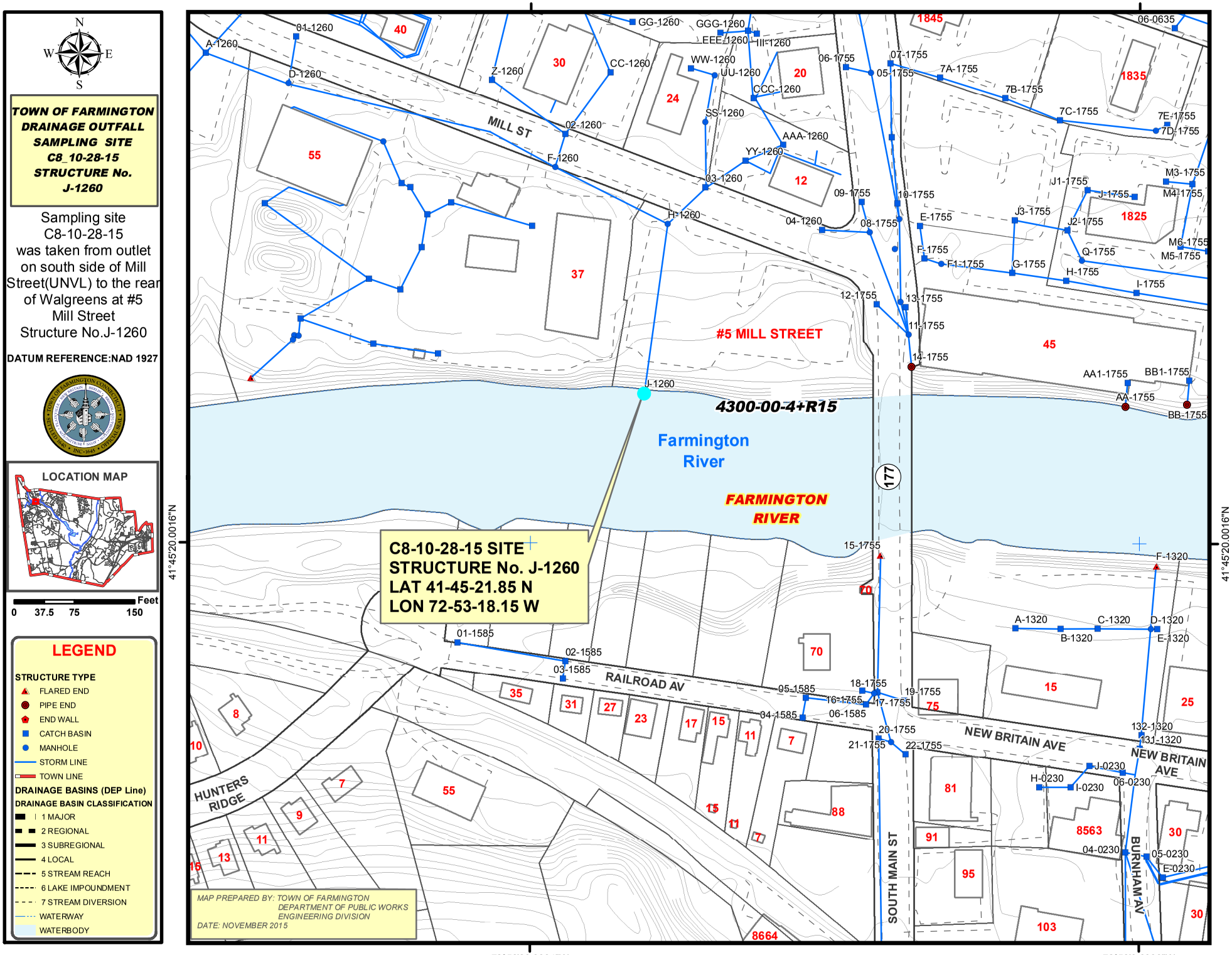
20-1220
18-1220
51-1220
19-1220
J-1220
49-1220
48-1220
22-1220
21-1220
47-1220
R-35-10-28-15 SITE
STRUCTURE No. J-1220
LAT 41-43-7.8 N
LON 72-52-31.3 W
MAP PREPARED BY: TOWN OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION
DATE: NOVEMBER 2015


72°52'50.0016"W
72°52'40.0008"W
41°45'0"N
N
W
E
S
TOWN OF FARMINGTON
DRAINAGE OUTFALL
SAMPLING SITE
R-36_10-28-15
STRUCTURE No.
A-1355
Sampling site R-36-10-28-15 was taken from an outlet on the north side of Oakridge, to the rear of #130 and #132 Oakridge Structure No.A-1355
DATUM REFERENCE:NAD 1927
LOCATION MAP
Feet
0 37.5 75 150
LEGEND
STRUCTURE TYPE
FLARED END
PIPE END
END WALL
CATCH BASIN
MANHOLE
STORM LINE
TOWN LINE
DRAINAGE BASINS (DEP Line)
DRAINAGE BASIN CLASSIFICATION
1 MAJOR
2 REGIONAL
3 SUBREGIONAL
4 LOCAL
5 STREAM REACH
6 LAKE IMPOUNDMENT
7 STREAM DIVERSION
WATERWAY
WATERBODY
R-36-10-28-15 SITE
STRUCTURE No. A-1355
LAT 41-44-58.78 N
LON 72-52-45.99 W
A-1355
4300-00-4+R16
FARMINGTON RIVER
OAKRIDGE
DUNNE WOOD CT
C-0720
E-0720
F-0720
DD-1320
244
122
114
126
130
132
138
140
144
4
8
12
28-1355
27-1355
26-1355
25-1355
30-1355
29-1355
31-1355
33-1355
32-1355
125
129
117
109
103
137
133
04-0515
05-0515
03-0515
02-0515
01-0515
34-1355
35-1355
36-1355
141
7
146
37-1355
145
5
82
78
76 76
74
72
A-2140
01-2140
02-2140
03-2140
04-2140
05-2140
06-2140
38-1355
01-1175
73
MAP PREPARED BY: TOWN OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION
DATE: NOVEMBER 2015


72°52'30"W
41°45'0"N
TOWN OF FARMINGTON
DRAINAGE OUTFALL
SAMPLING SITE
R-37_10-28-15
STRUCTURE No.
EE-1320
Sampling site
R-37-10-28-15
was taken from an
36" RCP outlet in rear
of #301 New Britain Ave
Structure No.EE-1320
DATUM REFERENCE:NAD 1927
LOCATION MAP
Feet
0 37.5 75 150
LEGEND
STRUCTURE TYPE
FLARED END
PIPE END
END WALL
CATCH BASIN
MANHOLE
STORM LINE
TOWN LINE
DRAINAGE BASINS (DEP Line)
DRAINAGE BASIN CLASSIFICATION
1 MAJOR
2 REGIONAL
3 SUBREGIONAL
4 LOCAL
5 STREAM REACH
6 LAKE IMPOUNDMENT
7 STREAM DIVERSION
WATERWAY
WATERBODY
MAP PREPARED BY: TOWN OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION
DATE: NOVEMBER 2015
Farmington River
R-37-10-28-15 SITE
STRUCTURE No. EE-1320
LAT 41-45-3.71 N
LON 72-52-29.99 W
4300-00-4+R16
FARMINGTON RIVER
FARMINGTON AVE
NEW BRITAIN AVE
58-0635
55-0635
F-0900
G-0900
G2-0900
G1-0900
V-1320
W-1320
X-1320
Y-1320
Z-1320
U-1320
EE-1320
EE1-1320
112-1320
111-1320
110-1320
KK-1320
II-1320
JJ-1320
HH-1320
GG-1320
F1-1320
F2-1320
F3-1320
F4-1320
F-1355
G-1355
H-1355
E-1355
109-1320
108-1320
ZZ-1320
AAA-1320
DDD-1320
EEE-1320
FFF-1320
III-1320
HHH-1320
GGG-1320
1657
1644
1634
1651
1637
1620
260
270
276
301
319
314
321


72°53'49.9992"W
72°53'39.9984"W
41°45'10.0008"N
TOWN OF FARMINGTON
DRAINAGE OUTFALL
SAMPLING SITE
R-38_10-28-15
STRUCTURE No.
8A-0181
Sampling site R-38-10-28-15 was taken from an outlet on north side of Bridgehampton approx. 250' west of River Rd intersection Structure No.EE-1320
DATUM REFERENCE:NAD 1927
LOCATION MAP
Feet
0 37.5 75 150
LEGEND
STRUCTURE TYPE
FLARED END
PIPE END
END WALL
CATCH BASIN
MANHOLE
STORM LINE
TOWN LINE
DRAINAGE BASINS (DEP Line)
DRAINAGE BASIN CLASSIFICATION
1 MAJOR
2 REGIONAL
3 SUBREGIONAL
4 LOCAL
5 STREAM REACH
6 LAKE IMPOUNDMENT
7 STREAM DIVERSION
WATERWAY
WATERBODY
FARMINGTON RIVER
4300-22-2-R1
4300-20-3-R1
4300-20-2-R1
4300-20-1
4300-21-1
BANBURY CRESCENT
BRIDGEHAMPTON CROSSING
RIVER RD
STRAWFIELD
BIRMINGHAM CIR
R-38-10-28-15 SITE
STRUCTURE No. 8A-0181
LAT 41-45-6.34 N
LON 72-53-46.12 W
MAP PREPARED BY: TOWN OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION
DATE: NOVEMBER 2015


72°53'20.0004"W
72°53'9.9996"W
41°45'50.0004"N
TOWN OF FARMINGTON
DRAINAGE OUTFALL
SAMPLING SITE
R-39_10-28-15
STRUCTURE No.
02-1725
Sampling site
R-39-10-28-15
was taken from
catch basin south
end of cul-de-sac
prior to outlet
Structure No.02-1725
DATUM REFERENCE:NAD 1927
LOCATION MAP
Feet
0 37.5 75 150
LEGEND
STRUCTURE TYPE
FLARED END
PIPE END
END WALL
CATCH BASIN
MANHOLE
STORM LINE
TOWN LINE
DRAINAGE BASINS (DEP Line)
DRAINAGE BASIN CLASSIFICATION
1 MAJOR
2 REGIONAL
3 SUBREGIONAL
4 LOCAL
5 STREAM REACH
6 LAKE IMPOUNDMENT
7 STREAM DIVERSION
WATERWAY
WATERBODY
R-39-10-28-15 SITE
STRUCTURE No. 02-1725
LAT 41-45-51.11 N
LON 72-53-16.51 W
SHERMAN AV
LYDIA WAY
CURTIS LN
SANFORD AV
LOVELY ST
MERRIMAN ST
FARMINGTON RIVER
ROARING BROOK
4312-00-2-R2
4300-00-4+R14
4300-00-4+R15
01-1135
03-1135
02-1725
01-1725
03-1725
04-1725
6C-1725
7A-1725
7C-1725
7B-1725
5C-1725
5B-1725
2B-1725
2A-1725
1A-1725
1C-1725
1B-1725
05-1135
07-1135
09-1135
12-1135
01-1680
14-1135
16-1135
17-1135
19-1135
03-1680
02-1680
MAP PREPARED BY: TOWN OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION
DATE: NOVEMBER 2015


72°53'20.0004"W
72°53'9.9996"W
41°45'20.0016"N
TOWN OF FARMINGTON
DRAINAGE OUTFALL
SAMPLING SITE
C8_10-28-15
STRUCTURE No.
J-1260
Sampling site
C8-10-28-15
was taken from outlet
on south side of Mill
Street(UNVL) to the rear
of Walgreens at #5
Mill Street
Structure No.J-1260
DATUM REFERENCE:NAD 1927
LOCATION MAP
Feet
0 37.5 75 150
LEGEND
STRUCTURE TYPE
FLARED END
PIPE END
END WALL
CATCH BASIN
MANHOLE
STORM LINE
TOWN LINE
DRAINAGE BASINS (DEP Line)
DRAINAGE BASIN CLASSIFICATION
1 MAJOR
2 REGIONAL
3 SUBREGIONAL
4 LOCAL
5 STREAM REACH
6 LAKE IMPOUNDMENT
7 STREAM DIVERSION
WATERWAY
WATERBODY
MILL ST
#5 MILL STREET
4300-00-4+R15
Farmington
River
FARMINGTON
RIVER
C8-10-28-15 SITE
STRUCTURE No. J-1260
LAT 41-45-21.85 N
LON 72-53-18.15 W
RAILROAD AV
NEW BRITAIN AVE
SOUTH MAIN ST
HUNTERS
RIDGE
BURNHAM AV
MAP PREPARED BY: TOWN OF FARMINGTON
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION
DATE: NOVEMBER 2015

ATTACHMENT C

Sample Storm Drainage Operation and Maintenance Plans

Maintenance Plan
PROPOSED RETAIL DEVELOPMET

CHARLES HOUSE COMMONS
19 PERRY STREET
UNIONVILLE, CONNECTICUT

Owner:

19 Perry Street LLC
44 Abrams Road
Cheshire, CT 06410

Applicant:

Old Mill Commons
Co Jason Rudnick
185 Asylum Street, 6th floor
Hartford, CT 06103

Date:

August 14, 2015

PREPARED BY:

CENTER DESIGN LLC
10 Main Street Suite D Middletown, CT 06457
Ph 860-398-5390 - Fax 860-398-5423

I. Site Overview

This proposed project is for a modification to the previously approved multifamily residential community on this site several years ago. The current site falls on a parcel of land that totals approximately 21 acres of land. The previous project consisted of 24 acres with 3 acres deeded to the Town of Farmington as part of the previous approvals. This new proposed development area will reside on approximately 10.14 acres of land with the remaining 10.59 placed into a conservation easement. The new proposed community will consist of 268 units with a product mix of 15 studio units; 174 1 bedroom units; 74 2 bedroom units and 15 2 bedroom condo units with 439 parking spaces accordingly.

The current parcel falls within the UC/UV Unionville Center, Unionville Village District Zone where Multi Family Residential condominiums and apartments are permitted with special permit. A parking lot, buildings, and other site improvements will be constructed according to the requirements of the Farmington Zoning Regulations. Direct access to the parcel is provided by two full access driveway off of Perry Street and one Full access at the rear of the site that meets up with Mill Street. The Mill Street access is not needed for this projects traffic to work, but provides an opportunity to the Town to help in a drop off pickup issue with the Unionville School. The drive has been schematically laid out and will be fully designed if approved in this location.

In addition to the UC/UV zones, the site also falls within the Flood Protection zone and Flood perimeter Overlay zones.

The topography of the site slopes from front to back and falls approximately 37 feet from Perry Street to the bottom along the Farmington River. There are wetlands abutting the lower portions of this property along the Farmington River, and based on DEEP mapping, the site is within an aquifer protection zone. The site is located in a Federal Emergency Management Agency (FEMA) Zone AE and X, which is defined as areas with defined base flood elevations determined (AE) and areas of minimal flooding (X). The base flood elevation within the vicinity of our project ranges elev. 199 to 200. All building have been designed to be constructed above these elevations by several feet.

Utilities for the buildings will be supplied from services located along the site frontage. All utilities are present at the site frontage within Perry Street. The project will need to install new laterals from Perry Street to the site to accommodate the utility needs. The site has public sewers and water available for serving the project. The sanitary sewer will be conveyed by a gravity system to the bottom of the site and then utilizing an onsite pump station where a force main will send the flows out into the existing sanitary system located within Perry Street.

Storm water management system for the project have been designed to match pre and post flows, and to provide water quality to storm runoff prior to discharging to the on-site wetland and then to the Farmington River. The systems are made up of catch basins with sumps and hooded

outlets, oil water separators and vegetated storm water basins and along with vegetated swales and landscape strips around the site. The design also includes a full operations and maintenance plan for when the project is built to assure the proper operation of all these storm water best management practices throughout the project life.

Storm water Management Plan Measures

The project owner will be responsible for implementing the Plan on the entire property. The party may retain a management company to oversee the maintenance of the site.

Some utilities located on the site will be owned and maintained by the various utility companies in accordance with their standards. The service connections may be maintained by the property owner.

The following measures shall be identified and maintained as part of the plan and the general permit:

Pollution Prevention Team:

The owner shall designate a pollution prevention team based on their employees and management team. At least one of the members of the team shall be present on the site at all times. Training shall take place to educate how to deal with an issue.

Sweeping:

Parking lots, sidewalks, driveways, concrete pads shall be sweep clean of sand, litter and other possible pollutions at least twice a year, once between November 15 and December 15 and once during the month of April and when needed as necessary.

Outside Storage:

All materials, equipment, and product stored outside shall be covered or moved inside to prevent any residue passing to a storm water discharge point.

Washing:

No water resulting from washing of any materials, products, waste materials, accessories, equipment, parking areas or vehicles shall be discharged to a storm water collection system. It is not anticipated that this site will encounter this, but will make the owner aware in the event that operations changes.

Spill Control:

The owner shall prepare and implement a spill control and response plan of any raw materials, intermediate products, by products, final products, waste materials, accessories or equipment present at the facility which could possibly discharge to the storwater collection system or waters of the state. The plan shall include measures to avoid spills in areas exposed to rainfall and shall include measures to best prevent a spill from being exposed to the storm water system and outlet point.

The spill plan shall include areas where spills can occur, and measures on how to clean up spills. The Owner shall train all employees on the site in the cleanup procedures and notification measures in the event of a spill. The plan shall list the items that will be used in the cleanup and such equipment shall be available on site at all times.

All dumpsters used to store waste or recyclable materials are supplied with attached covers and have drain plugs intact, or are in roofed areas that will keep rain out of the dumpster and will not allow dumpster leakage to enter any storm water drainage system.

Maintenance and Inspection:

The Owner shall implement a facility maintenance plan for this site. The plan shall include good housekeeping measures to ensure that all areas exposed to storm water are kept in such a condition as to minimize the possibility of discharging pollutants into the storm water systems. The plan shall have weekly, monthly and annually inspections scheduled to assure that the systems are free of debris, garbage, oils and sediment making sure operations of the facility remains as designed. All structures of this storm water management system shall be cleaned once a year in April of all sediment and debris to prevent pollutants from leaving the outlet.

Employee Training:

The owner shall train all employees working at this facility, or have a property management that is trained, to ensure protection of the storm water management systems and the discharge leaving the site. These training measures shall take place once a year.

Comprehensive Annual Stormwater Evaluation and Inspection:

Once a year a member of the sites Pollution Prevention Team shall conduct a comprehensive annual storm water evaluation and inspection for this property. The storm water management system shall be inspected to make sure everything is working properly and still in place. A report of the results of this inspection shall be prepared and kept on site. Anything found as a result of this inspection shall be corrected immediately.

Record Keeping:

The owner shall keep site records of all weekly and monthly inspections of the facility. The records shall consist of the sweeping schedules, spill control issues, storwater structure cleaning and employee training, and annual storm water evaluation and inspections. These records shall be kept on site at all times.

Keeping Plan Current:

The plan for this site shall be modified whenever a condition the site changes that will effect runoff from the property, a change in the pollution prevention team, the actions in the storm water management fails to protect against pollutants, and if a commissioner requests modification of the plan. Such a change shall be completed within 60 days of the items listed above changing.

Permits Associated with the Site

The Center will receive a number of permits, which may contain special conditions (outdoor storage, monitoring requirements, record keeping, etc.) that need to be complied with by the owners, tenants, and maintenance contractors. These permits may include the following:

- Town of Farmington Inland Wetlands and Watercourse permit.
- Town of Farmington Planning and Zoning Site Plan and Special Permit Approval.
- Connecticut State DOT Encroachment Permit.
- DEEP Stormwater Permits

Reporting Requirements:

The Owner will keep a record of the stormwater management plan and all maintenance procedures performed, date of inspection/ cleanings, etc. Copies of inspection reports and maintenance records shall be kept on site in the manager's offices once they are established. Maintenance forms shall be filled out and kept on site at all times. The storm water maintenance forms shall consist of Annual Checklist, Quarterly Checklist, and Monthly Checklist.

II. Storm Water Management System

System Components

The storm water management system has several components that are shown on the Grading and and Drainage Plan (GD-1), and they perform various functions in treating storm water runoff:

Catch Basins: CBs are used to convey stormwater and trap road sand and floatable debris prior to draining through the storm sewer system. The catch basins (CB's) are equipped with 2' deep sumps, and hoods over the outlet pipes.

Storm Water Quality Structures: Underground concrete tanks which trap road sand, fine sediment, metals, oils, grease, and floatable debris that wash off the parking lots via storm sewers prior to discharge into the underground recharge galleries, detention basins, or wetlands.

Stormwater Vegetated Detention Basins are aboveground ponds that trap sediment and filter runoff, reduce peak rates of runoff, provides some infiltration, protect downstream properties from increased erosion, provide nutrient uptake in marsh vegetation, and provide wetland habitat.

Catch Basins

The property owner is responsible for cleaning the catch basins, manholes and surface detention basins on the properties. The sumps shall be pumped by a Connecticut-Licensed hauler, and the sand disposed of legally. The road sand may be reused for winter sanding, but may not be stored on-site. As part of the hauling contract, the hauler shall notify the property owner in writing where the material is being disposed.

Each catch basin shall be inspected every four months, with one inspection occurring during the spring. Any debris occurring within one foot from the bottom of each sump shall be removed by Vacuum "Vactor" type of maintenance equipment.

During the inspection of each of the catch basin sumps, the hoods (where provided) on each of the outlet pipes shall also be observed. If the hood is damaged or off its hanger, it shall be reset or repaired.

Water Quality Structure

The tanks will be cleaned periodically during construction, and at the end of construction once the landscaped areas are fully stabilized.

For the first year of operation following construction, inspect each tank once each month for the months of January, February, March and April, and once every four months thereafter. A graduated measuring device (stadia rod) shall be inserted into each grit chamber and measurements of any accumulations shall be recorded. Any debris, which has accumulated to within one foot of the water surface inside the grit chamber portion of each tank, shall be removed by vacuum "Vactor" type of equipment.

After the first year of operation, each tank shall be inspected as a minimum, three times yearly with one inspection occurring in the month of April in the same manner as described above for the first season of operation. Any accumulations found to be occurring within one foot of the water surface shall be removed from the tank and properly disposed off-site. Also, any floating material discovered during inspections shall be removed from the tank.

A detailed maintenance log book shall be kept for each tank. Information is to include, but not be limited to, the date of inspection, record of grit depth, condition of baffles, observation of any floatable, and date of cleaning performed.

Stormwater Vegetated Surface Detention Basin

The Detention basins shall be inspected at six-month intervals. The property owner is responsible for maintaining Stormwater Basins. Regular maintenance includes the following items:

- removing debris and excess sediment from the basin,
- checking that the outlet channel from the basin is clear and not eroding,
- removing paper and debris from inside of basin,
- mowing the crest of the berm for maintenance access,
- removing invasive plant species from wetland marsh in bottom of basin,
- checking berm for any dips or settlement that might indicate seepage,
- checking the berm for any animal boroughs and removing the animals,
- checking the toe of the berm for any abnormal seepage,
- Mowing the berm in the Fall after the first killing frost to remove saplings and woody brush from the berm section.
- Inspect trash racks and make sure they are cleaned and functioning properly.

The bottoms of the stormwater wetland basins are planted as a marsh for additional filtering, and will not normally be mowed. The sides of the berms will be maintained as a meadow. The crest of the berm will be mowed periodically for maintenance access.

III. Site Maintenance

Parking Lots

Parking lots and sidewalks will be swept weekly by each property owner to clean trash and other debris. Each property owner will sweep parking lots on its property in the spring to remove winter accumulations of road sand.

Landscaping

Landscaped areas will be maintained by the property owner. Normally the landscaping maintenance will consist of pruning, mulching, planting, mowing lawns, raking leaves, etc,. Use of fertilizers and pesticides will be controlled and limited to minimal amounts necessary for healthy landscape maintenance.

The lawn areas, once established, will be maintained at a typical height of 3 ½". This will allow the grass to be maintained with minimal impact from weeds and/or pests.

Pesticides will only be used as a control method when a problem has been clearly identified and other natural control methods are not successful. All pesticide applications shall be by licensed applicators, where necessary.

Topsoil, brush, leaves, clippings, woodchips, mulch, equipment, and other material shall be stored off site.

Trash Collection

All trash will be contained in dumpster enclosures or compactors. All dumpster enclosures will be equipped with gates that are typically closed. All dumpsters will be equipped with covers. All trash will be collected on a regular basis and disposed of legally off-site.

Maintaining Native Vegetation

Existing vegetation around the perimeter of the development will be maintained in its native condition. No clearing, grading, stockpiling, storage, or development will occur in these areas without prior approval from the appropriate Farmington agencies.

Outdoor Storage

There will be no outdoor storage of hazardous chemicals, fertilizer, pesticides, or herbicides.

Snow Removal & Storage

Snow shall be shoveled and plowed from sidewalk and parking areas as soon as practical during and after winter storms. Snow shall be piled in outer areas of parking lots where it will not interfere with residents. Snow shall not be piled in wetland buffers or wetlands. In larger storm events, snow may need to be removed from site in order to assure adequate parking.

IV. Utilities

Sanitary Sewer System

On-Site Collection Sewer: The property owner will annually on-site sewer system on the property.

Water System

The on-site mains, mains will be owned and maintained by the local water company. The property owner will be responsible for maintaining the domestic and fire service lines to the buildings.

Electric\Telephone\Cable TV System

The electric system will be owned and maintained up to the transformers by Farmington electrical Co. Each property owner will maintain the secondary lines from the transformers to the buildings. The telephone system will be owned and maintained by Frontier up to the buildings. The cable TV system will be owned and maintained by the cable utility company.

Fuel Storage

The buildings will be heated by natural gas supplied by the Yankee Gas company.

Site Lighting

The property owner is responsible for maintaining the parking lot and building-mounted lights on its property. Lighting shall conform to the Town of Farmington standards and all fixtures shall conform to the dark sky requirements.

LAJCZAK PROPERTY
SAW MILL COURT SUBDIVISION

SANFORD AVENUE (AKA 8985 VICTORIA LANE)
FARMINGTON, CONNECTICUT

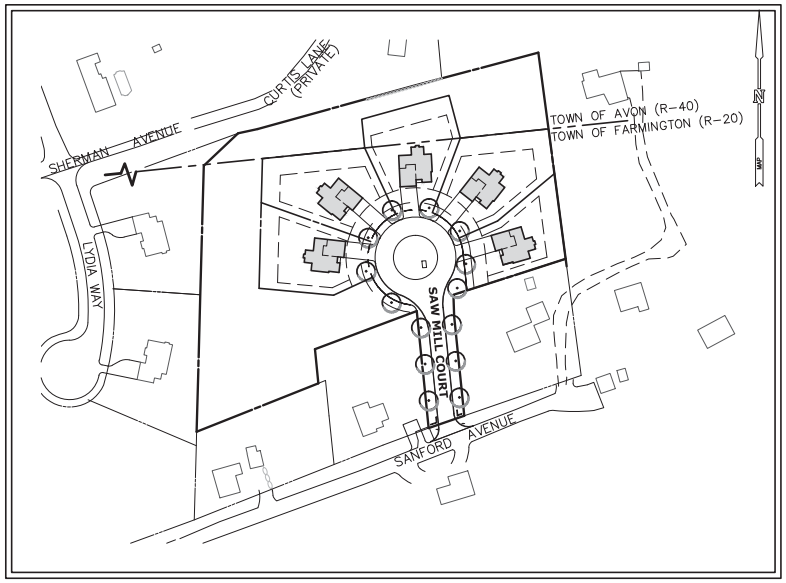
JUNE 28, 2013
REVISED: AUG. 27, 2013
REVISED: OCT. 11, 2013

GENERAL NOTES

1. BOUNDARY INFORMATION IS BASED UPON FIELD SURVEY CONDUCTED BY: ARTHUR F. HOFFMANN, L.S., TAKEN FROM A MAP ENTITLED "PROPERTY SURVEY, LAND OWNED BY ESTATE OF MARY D. LAJCZAK SANFORD AVENUE, FARMINGTON & AVON CONNECTICUT" AT A SCALE OF 1"=40', DATED: AUGUST 1, 2011, PREPARED FOR JFC ENDEAVORS, INC.
2. INFORMATION REGARDING THE LOCATION OF EXISTING UTILITIES HAS BEEN BASED UPON AVAILABLE INFORMATION AND MAY BE INCOMPLETE, AND WHERE SHOWN SHOULD BE CONSIDERED APPROXIMATE. THE LOCATION OF ALL EXISTING UTILITIES SHOULD BE CONFIRMED PRIOR TO BEGINNING CONSTRUCTION. CALL "CALL BEFORE YOU DIG", 1-800-922-4455. ALL UTILITY LOCATIONS THAT DO NOT MATCH THE VERTICAL OR HORIZONTAL CONTROL SHOWN ON THE PLANS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION.
3. MILONE & MACBROOM INC. ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF MAPS AND DATA WHICH HAVE BEEN SUPPLIED BY OTHERS.
4. TOPOGRAPHIC INFORMATION IS BASED UPON TOWN TOPOGRAPHY SUPPLEMENTED BY SURVEY PREPARED BY ARTHUR F. HOFFMAN, L.S. HORIZONTAL DATUM NAD 1927 AND VERTICAL DATUM NGVD 1929.
5. ALL UTILITY SERVICES ARE TO BE UNDERGROUND. THE EXACT LOCATION AND SIZE OF ELECTRIC, TELEPHONE, CABLE TELEVISION AND GAS ARE TO BE DETERMINED BY THE RESPECTIVE UTILITY COMPANIES.
6. ALL DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
7. SEDIMENT AND EROSION CONTROL MEASURES AS DEPICTED ON THESE PLANS AND DESCRIBED WITHIN THE SEDIMENT AND EROSION CONTROL NARRATIVE SHALL BE IMPLEMENTED AND MAINTAINED UNTIL PERMANENT COVER AND STABILIZATION IS ESTABLISHED. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL CONFORM TO THE "GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, CONNECTICUT – 2002, AND IN ALL CASES BEST MANAGEMENT PRACTICES SHALL PREVAIL.
8. ALL DISTURBED AREAS SHALL RECEIVE A MINIMUM OF 4" TOPSOIL, AND BE SEEDED WITH GRASS OR SODDED, AS SHOWN ON THE PLANS.
9. ALL STORM DRAIN PIPE SHALL BE SMOOTH LINED HIGH DENSITY POLYETHYLENE PLASTIC PIPE (HDPE) UNLESS OTHERWISE INDICATED.
10. ALL PROPOSED CONTOURS AND SPOT ELEVATIONS INDICATE FINISHED GRADE.
11. ALL GRAVITY SANITARY SEWER PIPE SHALL BE PVC SDR35 UNLESS OTHERWISE INDICATED.
12. ALL CONSTRUCTION MATERIALS AND METHODS SHALL CONFORM TO THE TOWN OF FARMINGTON REQUIREMENTS AND TO THE APPLICABLE SECTIONS OF THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, AND INCIDENTAL CONSTRUCTION, FORM 816 AND ADDENDUMS
13. THE PLANS REQUIRE A CONTRACTOR'S WORKING KNOWLEDGE OF LOCAL, MUNICIPAL, WATER AUTHORITY, AND STATE CODES FOR UTILITY SYSTEMS. ANY CONFLICTS BETWEEN MATERIALS AND LOCATIONS SHOWN, AND LOCAL REQUIREMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE EXECUTION OF WORK. THE ENGINEER WILL NOT BE HELD LIABLE FOR COSTS INCURRED TO IMPLEMENT OR CORRECT WORK WHICH DOES NOT CONFORM TO LOCAL CODE.
14. ALL FUEL, OIL, PAINT, OR OTHER HAZARDOUS MATERIALS SHOULD BE STORED IN A SECONDARY CONTAINER AND REMOVED TO A LOCKED INDOOR AREA WITH AN IMPERVIOUS FLOOR DURING NON-WORK HOURS.
15. THE PROPOSED BUILDINGS ARE TO BE CONNECTED TO PUBLIC WATER AND SANITARY SEWER.
16. COMPLIANCE WITH THE PERMIT CONDITIONS IS THE RESPONSIBILITY OF BOTH THE CONTRACTOR AND THE PERMITTEE.
17. PERIMETER SWALES AND RESPECTIVE SILTATION BASINS SHALL BE COMPLETED AND RESTORED PRIOR TO PROCEEDING WITH OTHER SITE CONSTRUCTION.ONST
18. THE PROPERTY OWNER MUST MAINTAIN (REPAIR/REPLACE WHEN NECESSARY) THE SILTATION CONTROL UNTIL ALL DEVELOPMENT ACTIVITY IS COMPLETED AND ALL DISTURBED AREAS ARE PERMANENTLY STABILIZED.
19. WETLAND BOUNDARIES WERE DELINEATED BY HENRY T. MUELLER AND SURVEYED BY ARTHUR F. HOFFMAN, L.S.

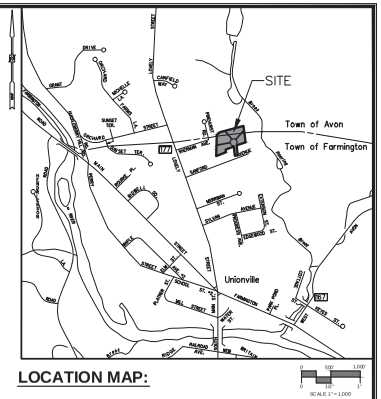
OPERATION AND MAINTENANCE PLAN (POST-CONSTRUCTION)

1. ALL CATCH BASIN SUMPS SHOULD BE INSPECTED TWO TIMES PER YEAR AND SEDIMENT REMOVED WHEN IT EXTENDS TO WITHIN SIX INCHES OF THE OUTLET PIPE INVERT, NOT LESS THAN ONCE PER YEAR. THE SEDIMENT SHALL BE DISPOSED OF IN AN APPROVED LOCATION.
2. THE WATER QUALITY BASINS, THE DRYWELLS, AND ALL SEDIMENT CHAMBERS SHALL BE INSPECTED TWICE ANNUALLY AND AFTER ANY SPILLAGE OF OIL, GAS, OR OTHER CONTAMINANT SPILLS IN THE PARKING AREA. SUBSEQUENT TO CONTAMINANT SPILLS, THE BASINS SHALL BE CLEANED IMMEDIATELY AND THE CONTENTS DISPOSED OF AT AN APPROVED OFF-SITE LOCATION. THE BASINS SHALL BE CLEANED WHEN SEDIMENT IS ONE FOOT DEEP. ALL MATERIAL SHALL BE DISPOSED OF AT AN OFF-SITE LOCATION.
3. THE STREET SHALL BE SWEPT TWICE ANNUALLY. TYPICALLY, SWEEPING SHOULD OCCUR IN THE SPRING, AFTER WINTER SANDING, AND IN THE FALL, AFTER ALL LEAVES HAVE FALLEN.
4. A VEGETATIVE OR IMPROVED COVER SHALL BE MAINTAINED ON ALL EARTH SURFACES TO MINIMIZE SOIL EROSION. USE OF FERTILIZER SHOULD BE MINIMIZED AND APPLIED USING PRUDENT APPLICATION PROCEDURES.
5. A LOG OF ALL INSPECTION AND CLEANING SHALL BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION AND BE AVAILABLE FOR INSPECTION.



PROJECT SITE VICINITY MAP:

SCALE 1" = 80'



LOCATION MAP:

LEGEND

EXISTING		PROPOSED
	TOWN BOUNDARY	
	PROPERTY LINE	
	SETBACK LINE	
	BUILDING	
	DIRT PATH	
	EASEMENT	
70	MAJOR CONTOUR	70
68	MINOR CONTOUR	68
+70.5	SPOT GRADE	+70.5
	WETLANDS	
	WATERCOURSE	
	WETLAND BUFFER LINE	
	TREE LINE	
	TREE/SHRUB	
	EDGE OF PAVEMENT W/CURB	
	SIDEWALK	
	STONEWALL	
	CHAIN LINK FENCE	
	TOP OF WALL	TW
	BOTTOM OF WALL	BW
	RETAINING WALL	
	HYDRANT	
	SANITARY SEWER W/MANHOLE	S
	STORM DRAIN W/CATCH BASIN	
W	WATER MAIN	W
ETC	ELECTRIC, TELEPHONE, CABLE	ETC
	UTILITY POLE	
	TRAFFIC SIGN	
	IRON PIN	
	MONUMENT	

LIST OF DRAWINGS

NO.	TITLE
01	TITLE SHEET
02	SITE PLAN - EXISTING CONDITIONS
03	SITE PLAN - SITE DEVELOPMENT AND EROSION CONTROL PLAN
04	SAW MILL COURT ROADWAY PLAN AND PROFILE
05	SEDIMENT AND EROSION CONTROL SPECIFICATIONS AND DETAILS
06-07	SITE DETAILS
08	RAIN GARDEN DETAILS

LOT DENSITY CALCULATIONS

A=LOT SIZE	165,490 SF (3.8 ACRES) (EXCLUDED LAND TO BE DEEDED TO ADJACENT PROPERTIES)
B=WETLANDS	3,485 SF
C=SLOPES>33%	13,210 SF
DEVELOPABLE LAND	165,490–(.75X3,485+.75X13,210)=152,965 SF
MINUS 10% FOR ROADS AND 20% FOR OPEN SPACE	152,965–15,297–30,593=107,075 SF
LOT YIELD	107,075 SF /20,000 SF=5.35 LOTS
PROPOSED	5 LOTS

PREPARED BY:

MILONE & MACBROOM®
Engineering, Landscape Architecture, and Environmental Science

99 Realty Drive
Cheshire, Connecticut 06410
(203) 271-1773 Fax (203) 272-9733
www.milone&macbroom.com

APPLICANT/OWNER:

JFC ENDEAVORS, INC.
684 SOUTH CANAL STREET
PLAINVILLE, CT 06062

PROJECT DATA

EXISTING ZONE:	R-20 (FARMINGTON) & R-40 (AVON)
PROPOSED USE:	OPEN SPACE SUBDIVISION (5 LOTS)

R20 OPEN SPACE= R12 ZONING

DIMENSIONAL CRITERIA	REQ'D/PERMITTED
LOT AREA	12,000 SF
LOT FRONTAGE	75' MIN.
FRONT YARD	30' MIN.
SIDE YARD	10' MIN.
REAR YARD	25' MIN.
MAXIMUM BUILDING HEIGHT	35'
MINIMUM FLOOR AREA	900 SF

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Site Plans

Issued for	Local Approvals
Date Issued	June 9, 2015
Latest Issue	July 29, 2015

Proposed Retail Building

1593 Southeast Road
Farmington/Newington,
Connecticut

Farmington Owner/Applicant

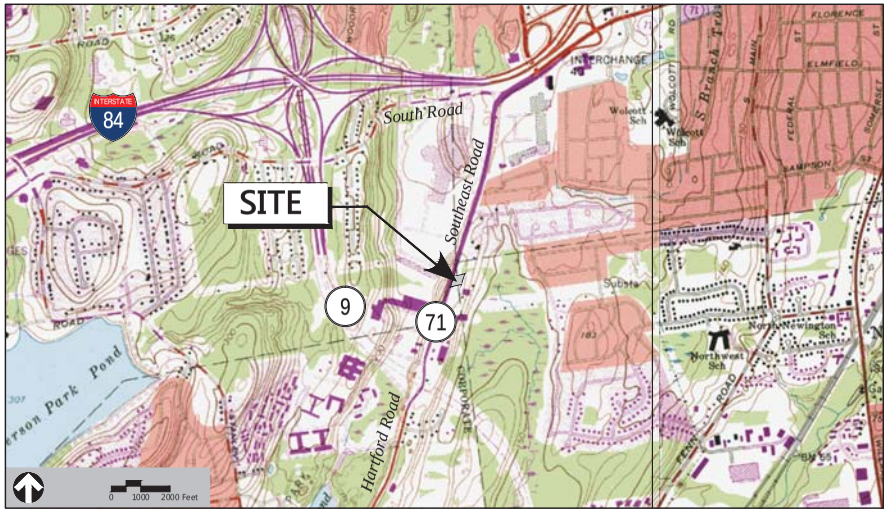
CPD Parent Properties, LLC
536 Main Street
New Paltz, NY 12561

Assessor's Map: 110
Lot: 3B

Newington Owner/Applicant

CPD Properties 1593 New Britain Ave LLC
536 Main Street
New Paltz, NY 12561

Assessor's Map: 01
Lot: 097



Sheet Index

No.	Drawing Title	Latest Issue
C-1	Legend And General Notes	7/29/2015
C-2	Layout and Materials Plan	7/29/2015
C-3	Grading & Drainage and Erosion Control Plan	7/29/2015
C-4	Utility Plan	7/29/2015
C-5	Site Details 1	7/29/2015
C-6	Site Details 2	7/29/2015
C-7	Site Details 3	7/29/2015
L-1	Landscaping Plan	7/29/2015
COA	Conditions of Approval Letters	7/29/2015

Reference Drawings

No.	Drawing Title	Latest Issue
Sv-1	Existing Conditions Plan of Land	7/16/2015
A-1	Architectural Plan	6/9/2015
A-2	Architectural Elevations	6/9/2015
AM	Access Management Plan	6/9/2015
LP-1	Site Lighting Plan	6/5/2015
Z-2	Zone Change Map (For Newington Only)	5/4/2015
CM-1	Context Map (For Newington Only)	7/17/2015

Approved by the Newington Town Plan and Zoning Commission as Petition # _____ at the meeting on _____.

_____ _____
Date Chairman

Pursuant to Section 8-3(i) of the COnnecticut General Statutes all work in connection with this approved Site Plan shall be completed by _____.

vhb.com

100 Great Meadow Road
Suite 200
Wethersfield, CT 06109
860.807.4300

Client
Keen Engineering Inc.
7280 West Palmetto Park Rd
Suite 302
Boca Raton, FL 33433
561.325.6700

Civil Engineering Consultant
Vanasse Hangen Brustlin, Inc.
100 Great Meadow Rd
Suite 200
Wethersfield, CT 06109
860.807.4300

Land Surveyor
Vanasse Hangen Brustlin, Inc.
100 Great Meadow Rd
Suite 200
Wethersfield, CT 06109
860.807.4300

Architect
L&M Associates, Ltd.
10907 Valley View Rd
Eden Prairie, MN 55344
561.325.6700

Site Lighting Consultant
Keen Engineering Inc.
7280 West Palmetto Park Rd
Suite 302
Boca Raton, FL 33433
561.325.6700

VHB Project : 42106.00
Issued for : Local Approvals

Post Construction Stormwater Management

SOURCE CONTROL

A COMPREHENSIVE SOURCE CONTROL PROGRAM WILL BE IMPLEMENTED AT THE SITE, WHICH INCLUDES REGULAR PAVEMENT SWEEPING, CATCH BASIN CLEANING, AND MAINTENANCE OF ALL DUMPSTERS, COMPACTORS, AND LOADING AREAS. DETAILS OF THE ONGOING STORMWATER MANAGEMENT PRACTICES FOR THE DEVELOPED SITE ARE INCLUDED IN THE STORMWATER MANAGEMENT SYSTEM LONG TERM OPERATION AND MAINTENANCE PLAN.

CATCH BASINS WITH SUMPS AND OIL/DEBRIS TRAPS

CATCH BASINS AT THE SITE ARE TO BE CONSTRUCTED WITH SUMPS (MINIMUM 4–FEET) AND HOODED OIL/DEBRIS TRAPS (WHERE APPLICABLE) TO PREVENT THE DISCHARGE OF SEDIMENTS AND FLOATING CONTAMINANTS. CATCH BASINS WILL BE INSPECTED TWICE PER YEAR AND CLEANED A MINIMUM OF ONCE PER YEAR.

HYDRODYNAMIC WATER QUALITY UNIT

THE HYDRODYNAMIC WATER QUALITY UNIT WILL BE MANHOLE–TYPE STRUCTURES WHICH RELIES ON FLOWING STORMWATER TO SWIRL WITHIN THE UNITS, ALLOWING SEDIMENT TO SETTLE BY GRAVITY, REMOVING IT FROM STORMWATER. THE DEVICES WILL ALSO CONTAIN CHAMBERS TO TRAP OIL AND OTHER FLOATABLES. THE UNITS WILL BE INSPECTED A MINIMUM OF TWICE PER YEAR AND CLEANED A MINIMUM OF ONCE PER YEAR, OR WHEN SEDIMENT HAS REACHED A DEPTH OF 6–INCHES WITHIN THE UNIT.

Additional Notes:

1. ALL TRUCK TIRES ARE TO BE WASHED AT AN APPROPRIATE LOCATION ONSITE DURING EXCAVATION TO AVOID SILT FROM WASHING INTO THE STORM DRAINS OR ONTO THE RIGHT–OF–WAYS.
2. NO CEMENT TRUCKS SHALL WASH OR EMPTY OUT INTO THE STORM SEWERS OR INTO ANY WETLAND AREA THAT MIGHT BE IN THE VICINITY OF THE SITE.