



Town of Easton, Connecticut
Easton Crossing Development – P&Z and Conservation Commission Applications
Technical Review and Presentation of Findings
October 17, 2014

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Application documentation received:

- Proposed development drawings prepared by Milone & MacBroom, Inc. dated August 4, 2014:
 - Site Plan – Existing Conditions (EX1-EX2)
 - Zone Change Map (ZC)
 - Site Plan – Layout, Grading & Utilities (SD1-SD2)
 - Roadway Drainage Plan and Profile (SD-3)
 - Site Plan – Landscaping (LA-1)
 - Site Plan – Regulated Activities (RA-1)
 - Site Plan – Sediment and Erosion Controls (SE-1)
 - Site Plan – Phasing Plan (PH-1)
 - Roadway Plan and Profile (RP1-RP7)
 - Erosion Control Specification and Details (D-1)
 - Site Details (D2-D4)
 - Septic Design Information (D5-D6)
 - Site Signage Plan (S-1)
 - Subdivision Map (1 of 2, 2 of 2)
 - Property Survey (1 of 2, 2 of 2)
- Petition for text amendment, map text amendment, subdivision approval, and site plan approval of Saddle Ridge Developer for property located at Sport Hill Road, Silver Hill Road, Cedar Hill Road, and Westport Road (Route 136) dated August 7, 2014
- Request for determination of no regulated activity or, in the alternative, required for approval/modification to conduct regulated activities related to a 48 lot subdivision at Sport Hill Road, Silver Hill Road, Cedar Hill Road, and Westport Road (Route 136)
- Engineering Report prepared by Milone & MacBroom, Inc. dated August 4, 2014.
- Supplemental application materials dated August 29, 2014 including soil test results conducted by Milone & MacBroom; Environmental Assessment Report dated August 20, 2014 prepared by Soil Science and Environmental Services, Inc.; and Regulated Activity Comparison Plan prepared by Milone & MacBroom dated August 4, 2014.
- Letters dated September 8, 2014 to Planning & Zoning Commission and dated September 22, 2014 to Conservation Commission from Aquarion Water Company.
- Letter to Planning & Zoning Commission dated September 11, 2014 from Greater Bridgeport Regional Council.
- Memorandum from Easton Health Department to Planning & Zoning Commission dated September 16, 2014.

Responses to Questions Submitted by GHD to Applicant via Email on October 9, 2014:

1. GHD Question - Total property area subject to application for proposed development (designated as project area) as shown on "Project Data" table on drawing set cover sheet is 110.6 acres. Is this number correct for the total property (lot) area subject to the proposed development? Applicant's Response - *The entire property (including Parcel A) is 124.7 acres. The project area (i.e., the area of the site on which the 48 homes are proposed but not including Parcel A on which we are not proposing development) is 110.6 acres.*
2. GHD Question - Is Parcel A currently a separate lot? Applicant's Response - *No, it is not.*



3. GHD Question - Total area of wetlands of the project area subject to application for the proposed development as shown on "Project Data" table on drawing set cover sheet is 28.2 acres. Is this number correct for the total area of wetlands within the 110.6 acre project area? *Applicant's Response - No, 28.2 acres is the total wetlands for the 124.7 acre site; the wetlands within the 110 acre project area is 27.5. The label on the cover sheet should have indicated 27.5 acres for the project area and then had a separate line for wetlands on the Property at 28.2.*

4. GHD Question - According to the applicant's drawing D-5, the "Septic System Design Chart" lists each lot and the "Number of Bedrooms within Building". According to this chart, the total number of proposed 5 bedroom homes is 32 and the total number of proposed four bedroom homes is 16. This is clearly represented on this table. Accordingly, the total number of bedrooms associated with the 32 five bedroom homes and 16 four bedroom homes 224. If this chart does not represent the quantities of four and five bedroom homes being proposed, then for clarity please provide a reference to where in the application materials it states that 20 five bedroom and 28 four bedroom homes are being proposed. *Applicant's Response - The chart shows the maximum number of bedrooms that each lot could accommodate based on septic. The only homes specified (and the only floor plans submitted) at five bedrooms are the 20 homes with AAA. However, there are 12 other lots that could accommodate 5 bedroom homes. Thus as we have it with only 20 AAAs there would be 212 bedrooms but the maximum that could be approved based septic system that fit on the proposed lots (if all lots are maximized at 5 bedrooms and at 4 bedrooms) its 224.*

Executive Summary

GHD Inc. has been retained and authorized by the Town of Easton Planning & Zoning and Conservation Commissions to provide an independent third-party review of the application materials submitted to the Town for the proposed Easton Crossing development located on property located adjacent to Sport Hill Road, Silver Hill Road, Cedar Hill Road and Westport Road in the town of Easton, Connecticut. This review was based on the application materials received by GHD as listed at the beginning of this report.

The focus of GHD's review was to determine whether there are issues related to the proposed development that may result in adverse impacts to public health, safety or the environment. In general, based on our review of the application materials, it is GHD's professional opinion that the proposed 48-lot residential subdivision with 48 individual dwellings is a significantly improved development proposal as compared to the prior 99 unit and 105 unit townhouse development proposals for the property, which were previously reviewed by GHD in 2010 and 2011.

The following Summary of Findings includes a total of seven (7) items that we consider as issues of significance related to public health, safety or the environment for the current proposed development application. For each of these issues we provide our assessment of the relevant application materials and facts and provide GHD's professional opinion and recommendations associated with each issue.

GHD strongly urges the Town of Easton Planning & Zoning (P&Z) and Conservation Commissions to not only consider whether the applicant's proposal is consistent with acceptable development standards (based on local and state guidelines), but to also consider whether the proposed temporary and permanent site development infrastructure (i.e. water supply wells, storm drains, stormwater detention/water quality basins, temporary sediment basins) are properly sited and designed (based on field testing data and supporting documentation) to function properly and with a high degree of confidence to provide for maximum protection of public health and safety as well as protection of sensitive watershed resources.



Summary of Findings:

1. Private Wells

The proposed site development plans show that the proposed 48 lots will be served by potable water supply from individual wells located on each of the new residential properties. A total of 48 water supply wells will be constructed for the proposed development. The following is a summary of the proposed minimum distances between these wells as represented by the site plans.

- 6 wells are within 50' of each other
- 4 wells are within 75' of each other
- 20 wells are within 100' of each other
- 10 wells are within 125' of each other
- 3 wells are within 150' of each other
- 3 wells are within 175' of each other
- 2 wells are within 200' of each other

Based on this information, a majority of the wells are being proposed at relatively close distances (within 50 feet to 100 feet) of an adjacent well. When establishing well locations for water supply or irrigation, it is important to locate the proposed wells far enough apart to avoid intersecting cones of depression, which will minimize drawdown in the aquifer. GHD recommends that the P&Z and/or Conservation Commission request that the applicant provides a report from a certified professional geologist which includes a review of the proposed well locations, anticipated depths, pumping rates, etc. along with a professional determination of whether there is a potential for adverse impacts to the aquifer or to adjacent wells.

Water treatment systems will likely be required for the proposed individual wells due to characteristic mineral content and hardness of water in local wells. Per the Connecticut Department of Public Health (DPH), well water treatment system backwash cannot be discharged to a septic system and requires a permit for the discharge of low flow water treatment wastewater (LFWTW) to a separate subsurface effluent dispersal system. Minimum separating distance from a LFWTW dispersal structure to a private well is 75 feet and minimum separating distance to a subsurface sewage disposal system is 10-50 feet (depending on the applicable technical criteria of the CT DPH code). LFWTW systems are not shown for any of the residential lots on the current site development plans. GHD recommends that the P&Z and/or Conservation Commission request that the applicant provide site plans showing the locations for potential LFWTW dispersal systems on each residential lot.

2. Development Density

The development maxim of *one dwelling unit per two acres of buildable area* is recommended by the State of Connecticut Department of Environmental Protection, Water Compliance Unit May 1989 "Report for the Blue Ribbon Commission on Housing, on the Land Required to Support Residential Development in Connecticut" and is also recommended by the publication Carrying Capacity of Public Water Supply Watersheds: A Literature Review of Impacts on Water Quality from Residential Development, by James M. Doenges, 1990. The DEP report is a thoughtful and heavily researched document that discusses criteria for land development that will minimize degradation considering their analysis of pollutant impacts, septic system reliability, availability of potable water, stormwater runoff, short and long term construction impacts, and the availability of regulatory resources to ensure that environmental and health standards are met. This development maxim was also included in the Conservation and Development Policies Plan (CDPP) for Connecticut 2005-2010, however, it was subsequently removed from the Conservation & Development Policies Plan for Connecticut 2013-2018.

Although the *one dwelling unit per two acres of buildable area* criteria is not part of the current state CDPP plan as a development threshold standard, it is GHD's professional opinion that this standard remains a reasonable goal for development density within a watershed area (where practicable) for the purpose of minimizing the potential for both short-term and long-term adverse impacts to sensitive environmental features of the watershed. However, since this criterion is not currently a state or local regulatory policy or standard, the exact standard for acceptable development density within drinking water



watershed areas should retain some flexibility and the commission members are urged to consider the project as a whole, along with the other issues presented in this report, when evaluating the merits of the applicant's development proposal.

The following is a summary of the proposed development densities for the property associated with the current 48 building lot development proposal for calculation scenarios with Parcel A included and without Parcel A included. In general, the proposed 48-lot subdivision application will meet the development density criteria of 1 dwelling per 2 acres with Parcel A included in the application; however, under this application Parcel A is to be subdivided from the project area and is not proposed to have future development restrictions. Thus, it is GHD's professional opinion that the proposed development density is more accurately reflected when the Parcel A property area is excluded from the development density calculations. With Parcel A excluded, the development density will be approximately 1 dwelling per 1.7 acres, which is significantly closer to a density goal of 1 dwelling per 2 acres than the previous 105 unit and 99 unit townhouse applications proposed by the applicant, each with development densities of approximately 1 dwelling unit per 1 acre.

Current Development Proposal – Including Parcel A:

Total property area subject to application: 124.7 acres
Total area of wetlands of the project area: 28.2 acres
Total buildable property area (excluding wetlands): 96.5 acres

Proposed development density in buildable property area: 1 dwelling per 2.01 acres
(48 dwellings on 96.5 buildable acres within property)

*Note: This calculation includes Parcel A and assumes that there will be no dwellings on Parcel A, however, according to the applicant, Parcel A will become a subdivided property that will not be restricted for future development.

Current Development Proposal – Excluding Parcel A:

Total property area subject to application: 110.6 acres
Total area of wetlands of the project area: 27.5 acres
Total buildable property area (excluding wetlands): 83.1 acres

Proposed development density in buildable property area: 1 dwelling per 1.73 acres
(48 dwellings on 83.1 buildable acres within property)

**Note: This calculation excludes Parcel A and is based on only the total residential lot areas and open space areas within the project area that is subject to the applicant's development application.

3. Sewage Flows and Septic Systems

According to the applicant, the current proposal includes 48 dwellings on 48 individual lots with 28 four-bedroom homes and 20 five-bedroom homes for a total of 212 bedrooms, which is 2 more bedrooms than the previously approved 21 lot subdivision proposal and also the previously submitted 105 unit townhouse development proposal – each with 210 bedrooms. These 48 dwellings, along with the accessory apartment designs for the five bedroom homes (20 of the 48 dwellings), will result in a total estimated average daily sewage flow of approximately 17,250 gallons per day, versus a comparable total average daily sewage flow from the previous 105 unit townhouse development proposal of 15,582 gallons per day and the 99 unit townhouse development of approximately 14,690 gallons per day. This increase in sewage generated and discharged into the ground equates to an increase of nitrogen discharged into the environment of 0.5 pounds per day over the 99 unit townhouse proposal; approximately 0.3 pounds per day over the 105 unit townhouse proposal; and approximately 2.2 pounds per day over the previously approved 21-lot subdivision. See summary of sewage flows and nitrogen loadings on following Table 1.



The increased discharge of nitrogen into the environment is of concern due to its potential for impact on the biology within a wetland environment and on the ability of it to enter drinking water reservoirs and pose a health concern. However, nitrogen discharges in sewage effluent are only regulated per the Connecticut Department of Public Health when the density of development exceeds one bedroom per 0.167 acre (i.e. 6 bedrooms per acre) on an individual parcel (DPH Circular Letter January 13, 2000); and per the Department of Energy and Environmental Protection (DEEP), when the subsurface sewage discharge on an individual property exceeds 5,000 gallons per day. It is GHD's professional opinion that the proposed 48-lot subdivision application does not fit the DPH and DEEP criteria requiring nitrogen analysis and therefore a nitrogen analysis is not warranted for the current development application.

Table 1 - Sewage Flow Summary
History of development proposals for property by Saddle Ridge Developers

Development Proposal	Total Dwellings	Total Bedrooms	People per Home or Unit [no. in brackets is mid-range used for calculation]	Total Daily Avg Sewage Flow at 70 gallons per day per person	Nitrogen Load pounds per day
Previous Proposals					
21 Lot & Dwelling Subdivision (2009 Approved Application)	21	210	4 to 4.5 [4.25]	6,247 gpd	1.25
105 Unit Townhouse Development (2010 Application)	105	210	1.75 to 2.5 [2.12]	15,582 gpd	3.11
99 Unit Townhouse Development (2010 Amended Application)	99	198	1.75 to 2.5 [2.12]	14,692 gpd	2.93
Current Proposal (48 dwellings)					
48 Lot & Dwelling Subdivision Non- Accessory Apartment Homes (Current Application)	28 4 BR Ea.	112	4 to 4.5 [4.25]	8,330 gpd	1.67
48 Lot & Dwelling Subdivision Accessory Apartment Homes (Current Application)	20 5 BR Ea.	100	5.75 to 7.0 [6.37]	8,918 gpd	1.78
Total Current Application	48	212		17,248 gpd	3.45

Note: [] indicates average value used for calculations

4. Impervious Coverage

GHD has reviewed the proposed impervious coverage areas on the project plans and confirmed that the total proposed impervious coverage within the project area is approximately 7.1%. According to the Conservation & Development Policies Plan for Connecticut 2013-2018, the state's goal is to limit impervious surface coverage to a maximum of 10% for development within drinking water source areas. The applicant has achieved this goal for the proposed development, however, the question remains whether the 10% threshold will be approached and exceeded in the future with final build-out and future alterations on the individual properties to include common residential amenities such as decks, patios, terraces, pools, sheds, sport courts, etc. To effectively keep the build-out of the lots from cumulatively exceeding a total of 10% impervious coverage for the subdivision, it is GHD's recommendation that the P&Z and/or Conservation Commission require that an impervious coverage limit of 10% (maximum) be placed as a deed restriction for each building lot so that the total impervious area of the subdivision will not exceed the 10% limit in perpetuity.



5. Wetland and Upland Area Impacts

The total direct wetland impact area for the proposed 48-lot and dwelling subdivision is 4,960 square feet and remains the same as previous applications for the property. These direct impacts are limited to the box culvert construction and permanent roadway crossing along the proposed subdivision access road from Sport Hill Road. Disturbance in the Upland Review Area located within 100 feet from wetlands has been reduced by approximately 3 acres from +/- 8.3 acres (for the approved 21-lot conventional subdivision) to +/- 5.30 acres for the current proposed 48-lot subdivision development.

GHD recommends that the P&Z and/or Conservation Commission require that the applicant provide updated site plans to show a "Limit of Disturbance" boundary line for review and approval by the Town which will serve as delineation (for record) of permitted areas for clearing, grading and construction. GHD also recommends that the Limit of Disturbance line be field staked on each lot prior to the start of construction so that no site disturbance (including tree clearing) or construction activity takes place in regulated areas, which have not been previously approved by the Town.

6. Stormwater Management Design

6.1 Stormwater Basins

It is our understanding that under the current proposal the applicant's engineer has altered the functional design of the stormwater basins that had been previously approved for the 21-lot conventional subdivision. The proposed stormwater basins are essentially in the same locations, layouts and sizes that were included on the previously approved plans for the 21-lot subdivision. However, the previously approved basins were designed as dry detention basins, with underdrains to facilitate emptying the basins of accumulated stormwater runoff between storms. The stormwater basins shown on the current development plans do not have this underdrain feature to facilitate the emptying of the basins between storms.

On Page 9 of the Milone & MacBroom engineering report, it states:

"The detention basin/water quality basins have been designed in accordance with the CT DEEP 2004 Stormwater Quality Manual and will enhance water quality by providing additional storage volume in the bottom of the basins to treat the Water Quality Volume (WQV) and provide retention volume, thus creating a water quality feature within the basins. This serves several purposes including stormwater renovation, first flush retention, and infiltration."

It was GHD's professional opinion in the previous application, and remains our professional opinion for the current application, that the stormwater basins have not been designed in accordance with the guidelines and standards of the CT DEEP 2004 Stormwater Quality Manual. Of critical importance is the fact that the current design of these basins relies upon the basin being completely empty of standing water, by means of infiltration into the ground, prior to each storm event in order to capture and infiltrate the required water quality volume for each storm and to provide adequate flow control for all of the design storms analyzed by the applicant's engineer. Infiltration of the retained stormwater into the ground is the only manner by which the basins are designed to completely drain between storms. According to the CT DEEP 2004 Stormwater Quality Manual Table II-P3-2, the design criteria for infiltration practices (including combined infiltration/flood control facilities) states that these facilities must drain the entire Water Quality Volume (WQV) within 48 to 72 hours after a storm event and the existing subsoil must have a minimum infiltration rate of 0.3 inches per hour based on field measurements. The purpose of the basin being completely drained within this timeframe is to allow for capture of the full water quality volume of each storm for subsequent treatment by the basin and to minimize the potential for mosquito and vector breeding due to prolonged standing water.



To date, the applicant's engineer has not submitted data relative to field infiltration testing at the locations of the 5 proposed stormwater basins and has not included discussion (or calculations) regarding whether the basins will drain within the maximum draining time of 48 to 72 hours. Without the field testing to determine the field infiltration rates at these locations and subsequent calculations of the draining times for each basin, GHD cannot determine whether the basins will adequately function as they are designed and intended to and we cannot conclude that the basin designs are in compliance with the design criteria included in the CT DEEP 2004 Stormwater Quality Manual (as claimed by the applicant's engineer). It is our concern that the high groundwater levels observed in many locations on the property will inhibit the ability of these basins to drain via infiltration. High groundwater is characteristic in locations close to wetlands and all of the proposed stormwater basins are within 100 feet of wetlands. According to the DEEP Manual, the bottom of infiltration facilities should be at least 3 feet above the seasonally high water table or bedrock, as documented by onsite soil testing, which includes a minimum of three field tests and test pits per basin. To date, the applicants engineer has only conducted one test pit at each basin and no infiltration testing for any of the basins. Without the necessary data to support the design of these basins there is a high risk that these basins will fail to provide the stormwater runoff rate control and stormwater quality treatment that are critical to environment and watershed resource protection. GHD recommends that the P&Z and/or Conservation Commission require that the applicant address the stormwater quality basin design and design data deficiencies discussed in this report.

6.2 Stormwater Runoff Conveyance

According to the Milone & MacBroom engineering report, the proposed storm drainage systems were designed according to the town's standards to provide pipe capacity to convey the 10-year storm, and the proposed detention basins were sized with adequate capacity to provide controlled discharges (by way of outlet structure orifice and weir controls) for the 2, 10, 25, 50 and 100 year storms so that no increases in peak rates of runoff result on adjacent properties or into wetlands.

Based on these design criteria, there appears to be a significant discrepancy between the design of the stormwater runoff conveyance system (storm drain pipes) and the stormwater detention basins. With the storm drains sized for capacity only up to a 10-year storm, that means during the 25, 50 and 100-year design storms 1) the storm drains will not have capacity to convey the stormwater runoff flows that the detention basins have been designed for; and 2) inundation of the storm drains during these storm events will likely cause surcharging of the drainage system and result in uncontrolled overflows at various locations on the property.

Based on the proposed roadway plan and profile drawings (RP-1 through RP-8) it is GHD's professional opinion that there are several locations of concern where overflows could occur from the storm drainage system during the 25, 50 and 100-year storms, which will exceed the design capacity of the storm drainage system and could cause adverse impacts to adjacent properties and wetlands. These locations are as follows:

- Shared driveway for Lots 32 through 38 – Catch basins CLCB 46 and CLCB 47 are located at a low point in the roadway prior to the storm drain discharge to Detention Basin 230. During the 25, 50 and 100-year storms, which are in excess of the storm drain design capacity, this location will likely become inundated with water where the water will rise over the curb and flow north as a concentrated stream of water onto Open Space Parcel 2 through the 100-foot upland area and into wetlands. This uncontrolled and concentrated overflow could cause erosion into and within the open space parcel.
- Stonegate Lane Catch Basins CCB 33 and CCB 34 – These catch basins are located at a low point in the roadway prior to the storm drain discharge to Detention Basin 220. During the 25, 50 and 100-year storms, which are in excess of the storm drain design capacity, this location will likely become inundated with water where the water will rise over the curb and flow north as a concentrated stream of water onto Lots 40 and 39 through the 100-foot upland area and into wetlands. This uncontrolled and concentrated overflow could cause erosion and related private property damage.



- Stonegate Lane Catch Basins CCB 3, CCB 4, CCB 4A - These catch basins are located at a low point in the roadway prior to the storm drain discharge to Detention Basin 140 and just prior to the intersection of Stonegate Lane and Sport Hill Road. During the 25, 50 and 100-year storms, which are in excess of the storm drain design capacity, this location will likely become inundated with stormwater that will either flow upwards from the catch basin grates or flow past the surcharged catch basins. The concentrated overflow/bypass flow will then travel on the surface easterly onto Sport Hill Road, into the gutter line of the street, which could cause adverse impacts to the road structurally and also create a momentary water hazard for vehicle passage.
- Stonegate Lane Yard Drains 8A, 8B, 8C, 8D - These yard drains are located along sloped grass areas prior to the storm drain discharge to Detention Basin 150. During the 25, 50 and 100-year storms, which are in excess of the storm drain design capacity, these locations may become inundated with stormwater that will either flow upwards from the yard drain grates or flow past the surcharged yard drains basins. The concentrated overflow/bypass flow will then travel on the surface easterly through the 100-foot upland area and into wetlands. This uncontrolled and concentrated overflow could cause erosion and related private property damage.

7. Erosion and Sediment Controls

The CT DEEP Manual states on page II-P3-9 that “infiltration practices should not be used as temporary sediment basins during construction.” As discussed in the previous section, in the current application the applicant’s engineer is proposing to rely on infiltration into existing subsoil as a means of emptying the captured water quality volume of stormwater runoff from the proposed detention basin/water quality basins thereby classifying the stormwater basins as infiltration practices according to the DEEP Manual.

The applicant’s Sediment and Erosion Control Site Plan (Drawing SE-1) proposes to locate temporary sediment traps within the bottom areas of 4 of the 5 permanent stormwater basins, within the same areas that will be used for infiltration by the basins. GHD recommends that the P&Z and/or Conservation Commission require the applicant comply with the CT DEEP 2004 Stormwater Quality Manual and remove the temporary sediment traps from the basins and specify that the basin areas are not used for temporary sediment control measures.

Summary of Conclusions & Recommendations

It is GHD’s professional opinion that the proposed 48-lot residential subdivision with 48 individual dwellings is a significantly improved development proposal as compared to the prior 99 unit and 105 unit townhouse development proposals for the property, which were previously reviewed by GHD. Although a number of favorable modifications have been made to the proposed development, as reflected in the latest development application and plans, it is our opinion that there are several important issues that still need to be addressed to ensure that potential impacts from the development to public health, safety and environmental protection are minimized.

The following is a summary of GHD’s conclusions and recommendations resulting from our review of the application materials for the proposed 48-lot residential subdivision.

1. GHD recommends that the P&Z and/or Conservation Commission request that the applicant provides a report from a certified professional geologist which includes a review of the proposed well locations, anticipated depths, pumping rates, etc. along with a professional determination of whether there is a potential for adverse impacts to the aquifer or to adjacent wells.
2. GHD recommends that the P&Z and/or Conservation Commission request that the applicant provide site plans showing the locations for potential Low Flow Water Treatment Wastewater (LFWTW) dispersal systems on each residential lot which may be required for disposal of backwash from individual well water treatment systems.



3. It is GHD's professional opinion that the proposed development density is more accurately reflected when the Parcel A property area is excluded from the development density calculations. With Parcel A excluded, the development density will be approximately 1 dwelling per 1.7 acres, which is significantly closer to a density goal of 1 dwelling per 2 acres than the previous 105 unit and 99 unit townhouse applications proposed by the applicant, each with development densities of approximately 1 dwelling unit per 1 acre.
4. It is GHD's professional opinion that the current proposed 48-lot subdivision application does not fit the DPH and DEEP criteria requiring nitrogen analysis and therefore a nitrogen analysis is not warranted for the current development application.
5. It is GHD's recommendation that the P&Z and/or Conservation Commission require that an impervious coverage limit of 10% (maximum) be placed as a deed restriction for each building lot so that the total impervious area of the subdivision will not exceed the 10% limit in perpetuity.
6. It is GHD's recommendation that the P&Z and/or Conservation Commission require that the applicant provide updated site plans to show a "Limit of Disturbance" boundary line for review and approval by the Town which will serve as delineation (for record) of permitted areas for clearing, grading and construction. GHD also recommends that the Limit of Disturbance line be field staked on each lot prior to the start of construction so that no site disturbance (including tree clearing) or construction activity takes place in regulated areas, which have not been previously approved by the Town.
7. It was GHD's professional opinion in the previous application and remains our professional opinion for the current application that the stormwater basins have not been designed in accordance with the guidelines and standards of the CT DEEP 2004 Stormwater Quality Manual. GHD recommends that the P&Z and/or Conservation Commission require that the applicant address the stormwater quality basin design and design data deficiencies discussed in this report.
8. It is GHD's professional opinion that there are several locations of concern where overflows could occur from the storm drainage system during the 25, 50 and 100-year storms, which will exceed the design capacity of the storm drainage system and could cause adverse impacts to adjacent properties and wetlands. GHD recommends that the P&Z and/or Conservation Commission require that the applicant address the storm drain capacity concerns discussed in this report.
9. GHD recommends that the P&Z and/or Conservation Commission require the applicant comply with the CT DEEP 2004 Stormwater Quality Manual and remove the temporary sediment traps from the basins and specify that the basin areas are not used for temporary sediment control measures.