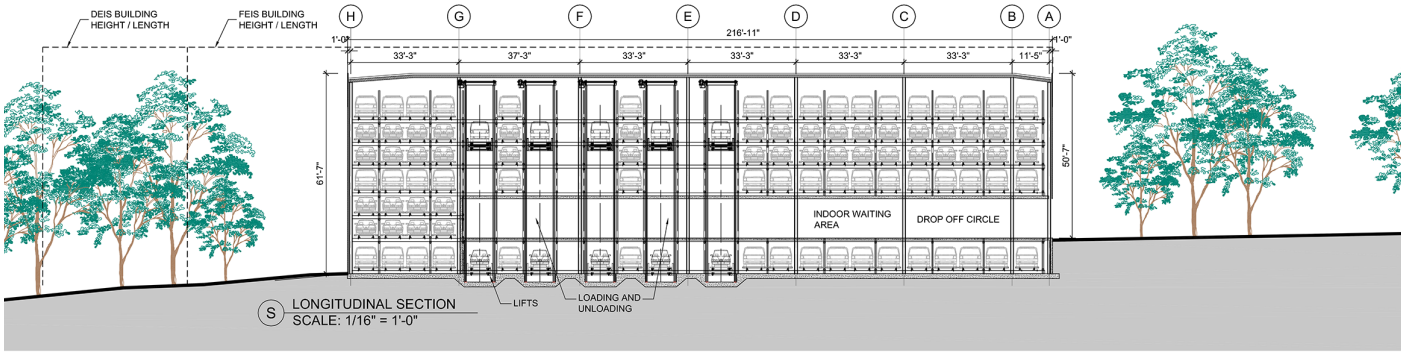
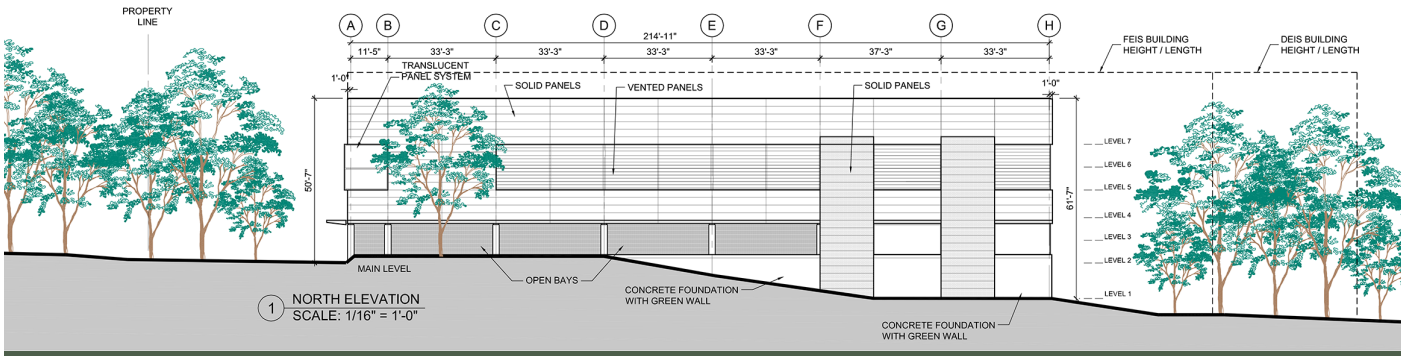
PARK PLACE AT WESTCHESTER AIRPORT

11 New King Street
Town of North Castle, New York





Draft Supplemental Environmental Impact Statement

Prepared by:

AKRF

Project Sponsor:
11 New King Street, LLC

Lead Agency:
Town of North Castle Planning Board
17 Bedford Road
Armonk, NY 10504

MARCH 2016

PARK PLACE AT WESTCHESTER AIRPORT

DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

March 22, 2016

Lead Agency: Town of North Castle Planning Board, North Castle, New York

Applicant: 11 New King Street, LLC
11 New King Street
White Plains, New York 10604

Prepared by: AKRF, Inc.
34 South Broadway Suite 401
White Plains, New York 10601

PARK PLACE AT WESTCHESTER AIRPORT
DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

Project Name:	Park Place
Project Location:	11 New King Street, Town of North Castle, NY 10604 Section 3, Block 4, Lot 14B Section 3, Block 4, Lot 13A (partial)
Lead Agency:	Town of North Castle Planning Board Town of North Castle 17 Bedford Road Armonk, NY 10504 Contact: Adam R. Kaufman, AICP, Director of Planning Contact Phone Number: (914) 273-3542
Applicant/Sponsor:	11 New King Street, LLC 11 New King Street White Plains, NY 10604 Contact: Bill Null Contact Phone Number: (914) 761-1300
DSEIS Acceptance Date:	March 21, 2016

A public hearing is scheduled at the Town of North Castle Town Hall, 15 Bedford Road, Armonk, NY 10504 on Monday, April 11, 2016, at 7:00 PM. Written comments on the DSEIS will be accepted until 15 days after the close of the public hearing and should be addressed to the Planning Board, Town of North Castle Town Hall Annex, 17 Bedford Road, Armonk, NY 10504.

This document is the Draft Environmental Impact Statement (DEIS) for the above-referenced project. Copies are available for review at the office of the Lead Agency, the North Castle Public Library, and the North White Plains Public Library. A copy of this document has also been made available on the Internet at the following address: http://www.northcastleny.com/hall_department_planning.php.

DEIS Preparer/Civil Engineer:	AKRF, Inc. 34 South Broadway, Suite 401 White Plains, NY 10601 Contact: Nanette Bourne Telephone: (914) 922-2350 AKRF Engineering, P.C. 440 Park Avenue South 7th Floor New York, NY 10016 Contact: Andrew Malek, P.E. Telephone: (646) 388-9746
Architect:	KG&D Architects PC 285 Main Street Mount Kisco, NY 10549
Structural Engineer:	Nachman Engineering 610 Quaker Road Chappaqua, NY 10514
Systems Engineer:	O'Dea, Lynch & Abbattista 50 Broadway Hawthorne, NY 10532
Geotechnical Engineer:	Melick-Tully and Associates, PC 117 Canal Road South Bound Brook, NJ 08880
Groundwater Engineer:	Leggette, Brashears & Graham Inc. 4 Research Drive, Suite 301 Shelton, CT 06484
Survey:	Control Point Associations, Inc. 35 Technology Drive Warren, NJ 07059
Legal Counsel:	Cuddy & Feder, LLP 445 Hamilton Avenue, 14th Floor White Plains, NY 10601

Table of Contents

A. INTRODUCTION

11 New King Street, LLC (the "Applicant") proposes to construct a multi-level automated parking structure (the "proposed project") at 11 New King Street (the "project site") in the Town of North Castle, Westchester County. This project would address an existing demand for a convenient and assured parking facility for travelers who fly from Westchester County Airport. Currently, the lack of convenient and assured parking has created a situation where many passengers arrange to be driven to and picked up from the airport rather than risk that parking would be unavailable. This existing condition doubles the number of trips per passenger per flight from two to four, thus increasing the vehicle miles associated per passenger, and the attendant adverse environmental impacts from these additional vehicle trips. Accordingly, the proposed project could reduce the number of vehicle trips per flight by providing parking in a convenient location proximate to the airport.

Another notable feature of the proposed project is a plan to manage stormwater by collecting runoff from the project site as well as a portion of the adjacent site (that is, Lot 13A). Stormwater would be conveyed to multiple treatment mechanisms in a series, including catch basins with deep sumps, a sedimentation basin, a sand filter, and a pocket wetland. In contrast, the current condition of the project site, as well as other developed sites along New King Street, provides **no stormwater quality treatment to runoff going into the Kensico Reservoir**. Currently, stormwater runs off the site(s) and across/under I-684 and then into the Kensico Reservoir. Minimal water quality infiltration is provided from a wetland along NYS Route 120 west of the project site, which would be preserved. The proposed project would capture and treat stormwater from the project site and a portion of the abutting site prior to stormwater entering the Reservoir - a first along New King Street.

PROJECT REVIEW HISTORY

For purposes of review under the State Environmental Quality Review Act (SEQRA), the Town of North Castle Planning Board assumed Lead Agency. On March 28, 2011, a Draft Environmental Impact Statement (DEIS) for the project was accepted as complete by the Town of North Castle Planning Board for purposes of commencing public review. The DEIS was circulated to involved and interested agencies, posted on the Town's website, and distributed to other parties requesting a copy. The DEIS is incorporated herein by reference. A public hearing was held on May 2, 2011 at the H.C. Crittenden Middle School in Armonk, New York, with the public comment period extending until June 1, 2011 for written comments. At the public hearing, oral comments were recorded by a stenographer and a transcript was provided to the Lead Agency and the Applicant. The Final Environmental Impact Statement (FEIS) review process was placed on hold pending the filing of a drainage easement for the proposed project. A drainage easement was prepared by the applicant and recorded in the Office of the Westchester County Clerk on May 3, 2013.

The preparation of the Final Environmental Impact Statement (FEIS) resumed in March 2014 and a revised pDFEIS was submitted to the Town in June 2014. The Planning Board accepted the FEIS as complete on January 13, 2015 and circulated the document to involved and interested agencies. Comments were received from the following involved and interested agencies, and are contained in full in Appendix A:

- Charles Philip Bein and Charles Silver, Watershed Inspector General, Office of New York State Attorney General, 2/19/15 and 6/1/11.
- Edward Buroughs, Westchester County Planning Department, 2/11/15
- Cynthia Garcia, New York City Department of Environmental Protection (NYCDEP), 2/12/15
- Michael Sassi, New York State Department of Transportation (NYSDOT), 2/2/15

On March 9, 2015, the Planning Director for the Town of North Castle submitted a memorandum to the Planning Board recommending that a Supplemental Environmental Impact Statement (SEIS) be prepared, stating:

> "While many of the comments received deal with technical issues that can be appropriately addressed at the time of site plan review or within a SEQRA findings statement, some issues contained within the letters represent new information, not previously available, concerning adverse impacts."[1]

Consequently, on March 9, 2015, the Planning Board directed the Applicant to address the following issues which were not addressed, or inadequately addressed, in a draft or final EIS:

1. Obtain a new Federal Aviation Administration (FAA) "Determination of No Hazard" for the project. The previous determination expired, new rules governing development within the Runway Protection Zone (RPZ) have been issued, and the proposed height of the garage has been increased. Note: A new FAA Determination of No Hazard was received and a copy is included herein.
2. Address project elements and airport safety with respect to bird attraction associated with stormwater mitigation practices and sun glare from proposed rooftop-mounted solar panels. Note: Issues concerning bird attraction are addressed herein, and rooftop-mounted solar panels have been eliminated.
3. Correctly identify the 'limiting distance' to the NYCDEP-mapped intermittent stream as 100 feet and potential adverse impacts from construction within this distance. Note: The references to a NYCDEP '100 foot limiting distance' have been corrected and the project has been reduced in size to further minimize potentially adverse impacts.
4. Issues raised in correspondence from Westchester County, NYCDEP, and the Watershed Inspector General. Note: Responses to these issues are included herein.
5. Prepare a new alternative for review where no portion, or a reduced portion, of the proposed garage building is located within the 100-foot limiting distance to the NYCDEP intermittent stream. Note: The project has been reduced in size to further minimize the portion of the building within the 100-foot limiting distance.

[1] Correspondence from Adam R. Kaufman, AICP, Director of Planning to North Castle Planning Board, March 9, 2015.

The DSEIS was reviewed by the Town for completeness and declared completed at the Planning Board Meeting of March 21, 2016.

B. MODIFIED PROPOSED PROJECT DESCRIPTION

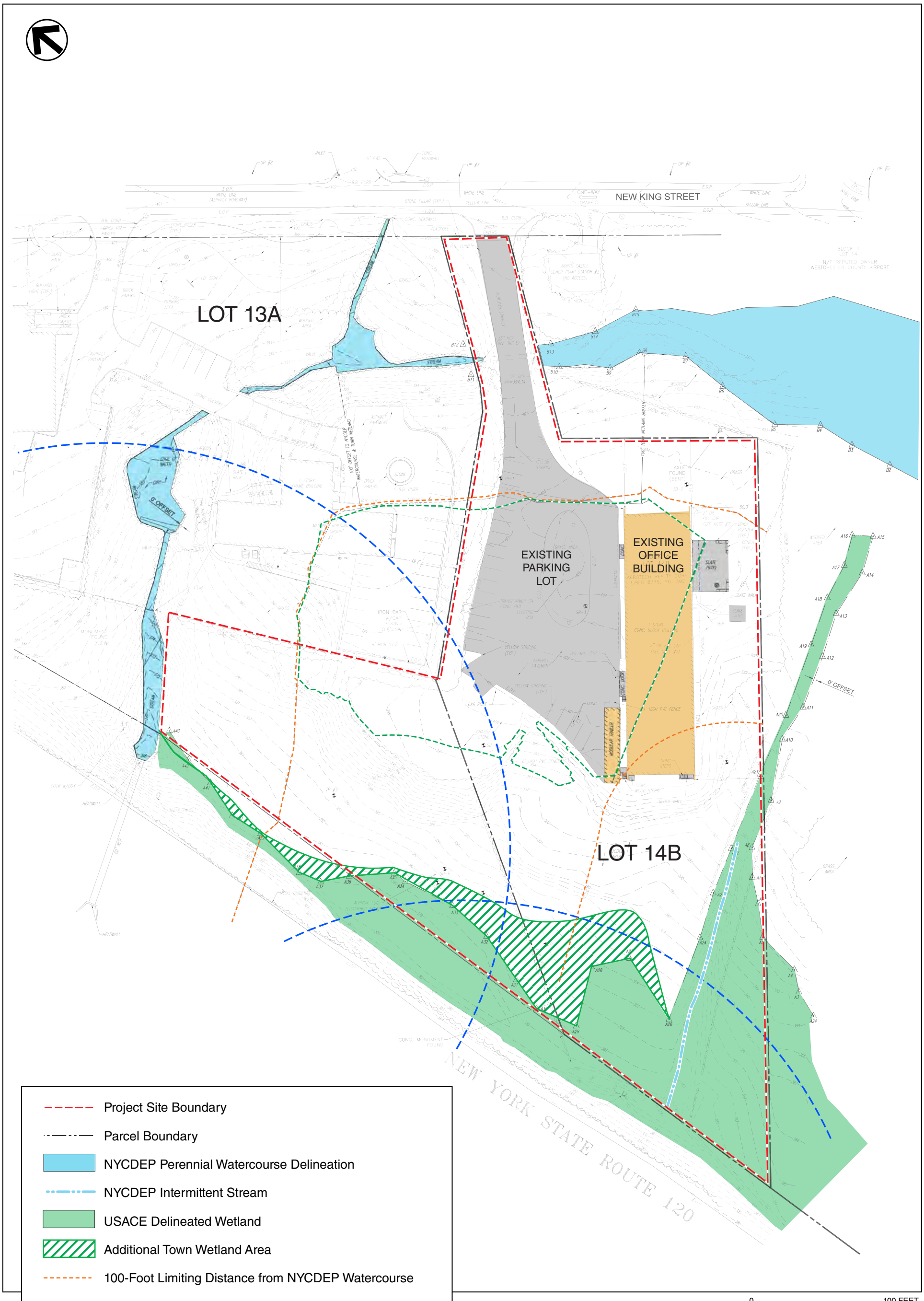
As presented in the FEIS, the proposed automated parking facility will use a steel building envelope that will contain an automated parking system. The primary structural system will be made up of perimeter columns and a clear spanning roof truss. The automated vehicle storage units will consist of an independent structural system which will be erected within the building envelope. The storage and retrieval of a vehicle will be accomplished with a 'lift and a shuttle' working in conjunction with one another. The shuttles will operate with chains and pulleys and electric motors. Hydraulic lifts that use hydraulic fluid are not anticipated to be part of the process. In addition, the vehicles will sit on individual pallets that will prevent migration of any drippings from the vehicles whether salt, oil, or water. The residue collected on the pallets from the cars will be property disposed of.

A driver will enter one of several queuing lanes where they will be advised via an overhead LED (or directed by a parking attendant) to proceed to an available entry 'cabin.' Each entry cabin will be roughly the size of a garage in a single family home and will contain sensing devices and an LED display. Once directed to proceed, the driver will drive the vehicle into the entry cabin and position the vehicle by following the directions and prompts. The driver will exit the vehicle, leave the entry cabin, and proceed to a ticketing machine/smartcard scanner station located immediately outside the entry cabin. There, the driver will collect a ticket or swipe a smartcard.

The lift will retrieve a vehicle from the entry cabin by positioning itself in front of the entry cabin and send a signal to the parking control system (PCS) that it is ready. The roll door between the lift and entry cabin will open to allow the vehicle to be moved from the entry cabin to the lift. The lift will ascend/descend to the computer assigned parking level while a shuttle on the computer assigned parking level will move laterally to position itself in front of the lift. The vehicle will then be transferred from the lift to the shuttle and the shuttle will move laterally to the computer assigned parking space where the vehicle will be stored.

To retrieve a vehicle, a vehicle owner will swipe the parking ticket or smartcard at a card reader to activate the retrieval process. A shuttle will retrieve the vehicle from its parking space, slide laterally and transfer the vehicle to a lift. The lift will then ascend/descend to the ground floor and transfer the vehicle to the exit cabin. Once the vehicle is available, the driver will be prompted to go to the appropriate exit cabin and retrieve the vehicle and exit the garage.

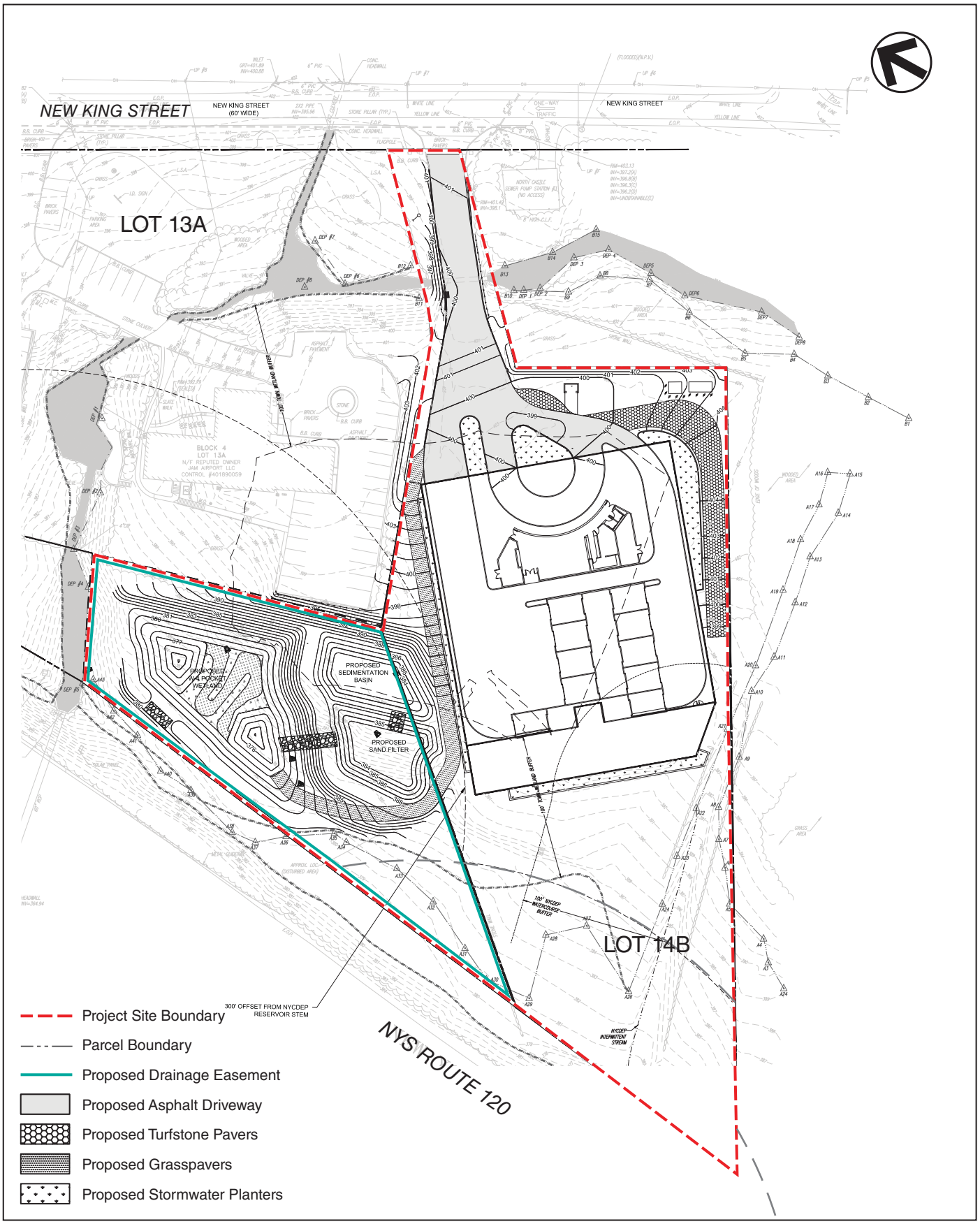
In response to comments on the FEIS, the Applicant has again reduced the size/footprint of the proposed parking structure to further distance the limits of development from the Town-regulated wetland buffer and NYCDEP watercourse buffer, and to further minimize potential stormwater runoff impacts (see **Figure 1** and **Figure 2**). **Table 1** presents a summary of Project modifications. As shown in **Figure 3**, the proposed building was originally 50,915 square feet (sf) as presented in the DEIS, reduced to 44,812 sf in the FEIS, and is now 37,444 sf with the current Draft SEIS (DSEIS) plan. Overall, this is a 26 percent reduction in building footprint. The parking capacity of the proposed project was reduced from 1,450 parking spaces in the DEIS to 1,380 spaces in the FEIS, and is now approximately 980 parking spaces in the current DSEIS plan. Proposed impervious surfaces within the NYCDEP watercourse buffer were reduced from 23,642 sf in the DEIS to 18,662 sf in the FEIS and are now 13,697 sf in the current DSEIS plan. This is only a



PARK PLACE at Westchester Airport

Existing Conditions
Figure 1

1.6.16



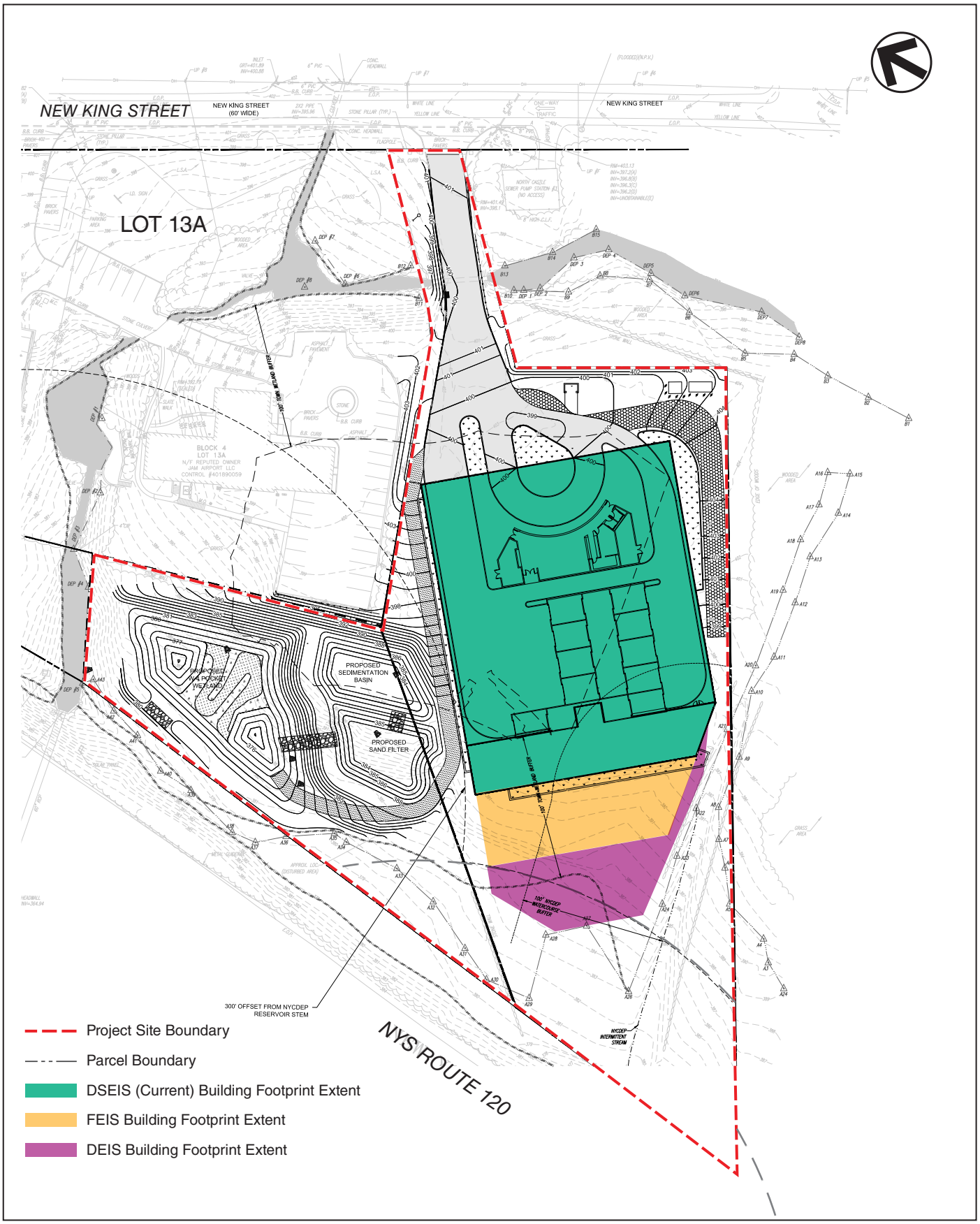
0 80 FEET

SCALE

Proposed Site Plan

Figure 2

1.6.15



Proposed Building Footprint Extents

Figure 3

5,993-sf increase over the existing condition (existing building and parking surfaces). Lastly, proposed impervious surfaces within the Town's wetland and watercourse buffer, were reduced from 40,722 sf in the DEIS to 36,514 sf in the FEIS, and are now 27,466 sf in the DSEIS plan. This reduction amounts to a 33 percent decrease overall. A revised Landscape Plan is shown in **Figure 4**, and provided in more detail in the large scale drawings that accompany this DSEIS. Additional area is provided for wetland buffer enhancement planting due to the reduced building footprint.

Table 1
Summary of Project Modifications

	Existing Condition *	Original Project (DEIS)	Modified Project (FEIS)	Current DSEIS
Number of Parking Spaces	35	1,450	1,380	980
Building Footprint	9,700 sf	50,915 sf	44,812 sf	37,444 sf
Building Height*****	10 ft--	56 ft	59 ft	53 ft
Limit of Disturbance Area	--	122,038 sf	110,703 sf	106,450 sf
Excavated Material		25,075 cubic yards	19,949 cubic yards	****
Wetland Disturbance	--	5,699 sf	0 sf	0 sf
Impervious Surface Total	33,716 sf	68,579 sf	63,447 sf	47,272 sf
Impervious Surface within 100-foot Town Wetland and Watercourse Buffer**	12,316 sf	40,722 sf	36,514 sf	27,466 sf
Impervious Surface within 100' DEP Watercourse Buffer***	7,704 sf	23,642 sf	18,662 sf	13,697 sf

Notes:
* The existing building is unoccupied.
** This impervious surface coverage includes approximately 5,800 sf of pervious pavers.
*** This impervious surface coverage does not include the pervious pavers, per NYCDEP watershed regulations.
**** A cut/fill balance has not been completed for the reduced DSEIS building footprint. However, owing to the substantial reduction in building footprint, the current DSEIS site plan should realize a similar reduction in excavated material as was seen in the 20% reduction between the DEIS and FEIS site plans.
***** Building height is averaged for the four building sides. The DEIS building proposed 5 levels, increased to 8 levels in the FEIS, and now reduced to 7 levels in the current plan. Building height has also varied due to the building's shrinking footprint which has reduced the height of the western façade. The front façade/entrance of the current building plan is 50' 7" in height measured from the proposed finished first floor. The elevation of the building roof is 455' above mean sea level (msl), which has been approved by the FAA for air navigation.

In response to comments on the FEIS, the project sponsor has provided the following:

- Appendices:
  - Correspondence – Comments on the FEIS (Appendix A)
  - Pollutant Loading Assessment for Stormwater Plan (Appendix B)
  - Documentation of Stormwater Practice Infiltration Field Tests (Appendix C)
  - Revised Wetland and Wetland Buffer Enhancement Plan Document (Appendix D)
  - FAA Determination of "No Hazard" and Consultant's Report (Appendix E)
  - NYCDEP Watershed Rules and Regulations (WRR) Variance Application and Correspondence (Appendix F)
- Attachments:
  - Revised Drawings C-1 to C-15

STORMWATER PLANTERS

VINES TO BE LOCATED AT GREEN SCREENS MOUNTED ON BUILDING (TYP). SEE ARCHITECTURAL PLANS FOR LOCATIONS.

EROSION CONTROL BLANKET AND EROSION CONTROL PLANTING FOR SLOPE STABILIZATION.

STORMWATER TRANSITION PLANTING

STORMWATER BASIN SEED

POND

WETLAND BUFFER ENHANCEMENT AREA

WETLAND ENHANCEMENT AREA

NEW YORK STATE ROUTE 120

LEGEND

EXISTING DECIDUOUS TREE
EXISTING EVERGREEN TREE
PROPOSED DECIDUOUS TREE
PROPOSED EVERGREEN TREE
PROPOSED DECIDUOUS SHRUBS
PROPOSED EVERGREEN SHRUBS
PROPOSED VINES

EROSION CONTROL PLANTING
STORMWATER PLANTER VEGETATION
STORMWATER BASIN SEEDING
STORMWATER TRANSITION AREA
WETLAND BUFFER ENHANCEMENT AREA
WETLAND ENHANCEMENT AREA

NOTE: SEE PLANT LISTS ON THE LANDSCAPE PLAN DRAWING C-9

0 100 FEET
SCALE

Landscape Plan
Figure 4

Table 2
Required Approvals and Involved Agencies

Approval/Permit/Review	Involved Agency
Town of North Castle	
Site Plan Approval	Planning Board
Wetland Permit	Planning Board
Tree Removal Permit	Planning Board
Zoning Text Amendment	Town Board
Sanitary Sewer Connection	Building Department
Westchester County	
Sanitary Sewer Connection	Department of Health (WCDOH)
Water Supply Well	WCDOH
Roadway/Signal Improvements	Department of Public Works (WCDPW)
New York City	
Stormwater Pollution Prevention Plan (SWPPP)	Department of Environmental Protection (NYCDEP)
Sanitary Sewer Connection	NYCDEP
Variance from Section 18-39(a)(4)(iii) of the WRR	NYCDEP
New York State	
Roadway/Signal Improvements (NYS Route 120)	Department of Transportation (NYSDOT)
SPDES Permit No. GP-0-15-002	Department of Environmental Conservation (NYSDEC)
Federal	
Height Limitation	Federal Aviation Administration (FAA)
Notice of Proposed Construction or Alteration	FAA
Nationwide Permit, if applicable	U.S. Army Corps of Engineers (USACE)

SUBMISSION OF VARIANCE REQUEST TO NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION (NYCDEP)

On July 1, 2015, the Applicant submitted an application to NYCDEP seeking an interpretation, or alternatively an area variance, from NYCDEP to permit the construction of a multi-level automated parking structure, including significant stormwater management infrastructure treating both the new construction and existing buildings and parking areas. A copy of the Application is included as Appendix F.

On August 3, 2015 NYCDEP denied the requested interpretation and advised that there would need to be a variance issued, as the adjacent lot at 7 New King Street could not be considered part of the "existing facility" despite the proposed use of a portion of this lot for the stormwater management system and the capture of a portion of the adjacent lot's existing impervious surface runoff in the new stormwater management system.

Subsequent correspondence from NYCDEP, dated August 17, 2015, indicated that before NYCDEP would commence review, the following information is required:

1. A variance request from Section 18-39(a)(1) of the Watershed Regulations seeking permission to construct new impervious surfaces within 100' of the watercourse.
2. A Draft Supplemental Environmental Impact Statement would need to be submitted to the Planning Board and forwarded to the NYCDEP following acceptance by the Lead Agency

In response to NYCDEP's requests, and as required by the North Castle Planning Board, acting as lead agency, this Supplemental Environmental Impact Statement has been prepared to address comments raised by NYCDEP, Westchester County Department of Planning, NYSDOT, and the Watershed Inspector General. The Applicant's July 1, 2015 variance application remains active with NYCDEP and will be pursued following the acceptance by the lead agency of this DSEIS.

Further reducing the building footprint to eliminate the need for a NYCDEP variance is not economically feasible as it would require further reductions below the current 980 parking space size. Design of the proposed garage is constrained by footprint and height limitations. The current size/design of the garage has been minimized significantly during the SEQRA review process. The footprint of the proposed building was reduced from 50,914 sf in the DEIS to 44,812 square feet in the FEIS and is now 37,444 sf in the current DSEIS plan. This represents a 26 percent decrease in building footprint overall over the course of the environmental review. Impervious surface within the 100-foot limiting distance to the onsite NYCDEP streams under existing conditions (current unoccupied building and parking area) is 7,704 sf. With the current DSEIS plan, the increase in impervious surface within the NYCDEP 100-foot limiting distance has been reduced to 5,993 sf (13,697 sf total). A portion of the proposed increase in impervious surface within the 100 foot limiting distance is required for road widening to provide a uniform driveway width for safe access to the new building off New King Street, and represents a reduction in impervious surface within the NYCDEP limiting distances as compared to the DEIS and FEIS site plans.

As indicated in the NYCDEP Watershed Rules and Regulations (WRR), §18-39.a.4.iii, the expansion of an existing impervious surface within 100 feet of a watercourse or wetland at an existing facility is allowed provided the total area of expanded impervious surfaces does not exceed 25 percent of the area of the existing impervious surfaces. At the project site, the total existing impervious surface of the building and parking is 33,716 sf. The proposed facility would increase impervious surface to a total of 47,272 sf, representing an increase of 13,556 sf. This is a 40 percent expansion over the existing impervious surface. In order to reduce the expansion to the 25 percent allowable increase and thereby avoid the need for a NYCDEP Variance from the WRR, the expansion would have to be reduced by 5,127 sf, more than a 50% reduction in the proposed impervious surface expansion. Considering the Town requirements to widen the driveway and the economic limitations on the size of the proposed garage, which has already been reduced in footprint by 26 percent as compared to the DEIS, the applicant cannot avoid the need for a NYCDEP Variance from the WRR.

The Lead Agency will need to determine whether the project should be revised to reduce project impacts so that a NYCDEP variance would not be required other than any variance associated with required safety improvements related to the access drive.

FAA – DETERMINATION OF NO HAZARD TO AIR NAVIGATION

In 2011, the proposed project received a "Determination of No Hazard" from the FAA, pursuant to its FAA 7460-1 Form or Aeronautical Review – Aeronautical Study Number (ASN): 2011-AEA-2792-OE. The 'Determination' expired on August 14, 2014 and the Applicant conducted an updated technical analysis regarding the potential effects of the parking garage using the modified site plan presented herein.

The Applicant submitted an updated "Off Airport Parking Garage Height Limitation Study" to the FAA that was accompanied by an FAA Part 77 Imaginary Surfaces evaluation to identify restrictions over the subject parcel, and a revised FAA Form 7460-1 reflecting updated land coordinates and elevation proposed for the parking garage (Aeronautical Study No. 2015-AEA-4118-OE). (See Appendix E) In correspondence dated August 18, 2015, the FAA issued a "Determination of No Hazard to Air Navigation" for the proposed current Park Place project building and plan (DSEIS plan), which was consistent with the prior determination. In its latest determination, the FAA indicated that its aeronautical study revealed that the proposed project

does not exceed obstruction standards and would not be a hazard to air navigation. The determination included one Advisory Recommendation—that, while the structure does not constitute a hazard to air navigation, because it would be located within the RPZ of the Westchester County Airport (HPN) Runway 16/3, "structures which will result in the congregation of people within an RPZ are strongly discouraged in the interest of protecting people and property on the ground." (FAA, 8/18/15 [see Appendix E]).

In cases where the airport owner neither owns nor controls the use of a property (as is the case with the proposed project), FAA advisory recommendations are issued to inform the airport owner from the standpoint of safety of personnel and property on the ground. In the case of the proposed parking garage, the use will not cause the congregation of people because it will have minimal staff and low numbers of people at the facility at any given time dropping off or picking up vehicles. The intent of this parking garage is not to support a venue that congregates people, such as a sports arena, church, or shopping center, thus eliminating the chance that the garage will fill and empty at the same time.

Furthermore, the FAA's AIP Sponsor Guide, which serves to assist airport owners with administering Airport Improvement Program (AIP) grants, provides the following guidance with respect to parking structures within a Runway Protection Zones:

> "The following land use criteria apply within the RPZ: (a) While it is desirable to clear all objects from the RPZ, some uses are permitted, provided they do not attract wildlife, are outside the Runway OFA, and do not interfere with navigational aids. *Automobile parking facilities, although discouraged, may be permitted, provided the parking facilities and any associated appurtenances, in addition to meeting all of the preceding conditions, are located outside of the object free area extension*. (B) Land uses prohibited from the RPZ are: residences and places of public assembly. (Churches, schools, hospitals, office buildings, shopping centers, and other uses with similar concentrations of persons typify places of public assembly.)" (FAA Airport Improvement Program Sponsor Guide, §550).

The project site is outside of the Object Free Area. Therefore, the FAA's Advisory Recommendation does not prohibit the proposed project.

Both the Off-Airport Parking Garage Height Limitation Study and the FAA's Determination are contained in Appendix E.

The Lead Agency will need to determine whether there are any significant adverse impacts associated with permitting this type of use at this location.

POLLUTANT LOADING ASSESSMENT

The pollutant loading calculations were completed in accordance with Simple Method calculations. An efficiency reduction was applied to the sand filter and pocket wetland treatment systems connected in series. Typical pollutant concentrations were taken from the CPSWQ Exam Review Course Workbook (2005). Efficiency rates were taken from the National Pollutant Removal Performance Database for Stormwater Treatment Practices (2000). A comparison between pre-developed and post-developed conditions showed a reduction in total pollutant loading for TP, TN, and TSS for the entire site. BOD loading for post-developed conditions does not exceed the loading for pre-developed conditions. An increase in TN and BOD is shown at Design Point 2 (As described in the SWPPP, last revised December 9, 2014 and contained in the FEIS Document). This increase is created by the increase in drainage area to Design Point 2. However, this increase is offset by the decrease in TN and BOD loadings at Design Points 1 and

3. Design Points 1, 2, and 3 ultimately flow to the same location. Additionally, to provide conservative results, no credit was taken for treatment in the stormwater planters surrounding the proposed building. The results indicate the proposed stormwater management facility will achieve a net improvement in runoff pollutant concentrations.

Regarding stormwater runoff to the Kensico Reservoir, it should be noted that the current condition of this Project Site, as well as the other developed sites along New King Street, provide no stormwater quality or quantity treatment. In the existing condition, stormwater runs off the Project Site and across/under I-684 and then into the Kensico Reservoir. The Proposed Project will be the first along New King Street to capture and treat runoff from the entire Project Site and also a portion of the abutting parcel (Lot 13A). The Stormwater Analyses provided in the FEIS and the revised Pollutant Loading Analysis provided in Appendix B show that post-construction runoff rates and pollutant concentrations will be reduced as compared to the existing condition.

INFILTRATION TEST AND DEEP SOIL PIT SUMMARY

The infiltration tests and deep soil pit were conducted on December 15, 2015. The tests were witnessed by Mr. Giannetta of NYCDEP and Mr. Grau of Kellard Sessions Consulting, P.C., as representative for the Town of North Castle. The deep soil pit was conducted within the vicinity of the proposed pretreatment basin and the two infiltration tests were conducted in the region of the proposed porous paver fire lane. The deep soil pit was dug to a depth of two feet below the bottom elevation of the proposed pretreatment basin. No groundwater or mottling was observed. The soil conditions meet the requirements of the NYSDEC Stormwater Management Design Manual because seasonal high groundwater is deeper than two feet below the proposed bottom elevation of the pretreatment basin. The infiltration tests provided adequate infiltration rates to accommodate the use of porous pavers. Documentation of the infiltration test is provided in Appendix C.

C. RESPONSE TO COMMENTS ON THE FEIS

Comments on the FEIS were received from NYCDEP, WIG, NYSDOT, and the Westchester County Department of Planning. These are contained in full in Appendix A. Some comments have been shortened or paraphrased below. Included in Appendix A are the comments on the DEIS received from the WIG dated 6.1.11, some of which were cited in the WIG's latest comments on the DSEIS.

NYCDEP DATED 2/12/15

Comment 1: In Table 1-11, it is unclear what is meant by "limiting distance disturbance." (NYCDEP 2/12/15)

Response: This table of Required Approvals and Involved Agencies has been revised to clarify that the Applicant will be requesting a variance from Section 18-39(a)(1) of the Rules and Regulations for the Protection from Contamination, Degradation, and Pollution of the New York City Water Supply and Its Sources (Codified at 10 NYCRR 128-3.9). As previously noted, the Applicant requested an area variance (see correspondence to NYCDEP July 1, 2015 in Appendix F). NYCDEP responded that before a variance would be considered the Applicant

would need a Negative Declaration from the lead agency for NYCDEP to make a Determination of Completeness with regard to the SWPPP.

Comment 2: The project sponsor has accurately depicted the location of the intermittent watercourse and the locations of all reservoir stems on the drawings; however the "limiting distance" to the intermittent stream is incorrectly interpreted by the applicant as 50 feet. The Watershed Regulations generally prohibit the construction of new impervious surfaces within 100 feet of DEP-flagged watercourses. (NYCDEP 2/12/15)

Response: The "limiting distance" to the intermittent stream has been modified to be 100 feet, and is shown on the Modified Site Plan Drawings and Figures in the DSEIS.

Comment 3: The project sponsor has met with DEP; however, a negative declaration or DEIS must have been prepared in order for DEP to make a determination of completeness with regard to the SWPPP. (NYCDEP 2/12/15)

Response: Upon acceptance of this DSEIS by the Town of North Castle Planning Board, the lead agency, a copy will be distributed to NYCDEP along with a revised SWPPP for a determination of completeness of the SWPPP. In addition, the submitted variance request from Section 18-39(a)(1) of the WRR will be considered by NYCDEP.

Comment 4: Although the project sponsor has provided a revised construction sequence, the sequence still does not alleviate DEP's concerns regarding water quality impacts during construction. A design professional should be able to produce a construction sequence that can reasonably anticipate the means and the methods and steps required to avoid a water quality violation during construction. (NYCDEP 2/12/15)

Response: The Erosion and Sediment Control Construction Sequence has been expanded to include a phased approach to minimize impact to the disturbed area during construction. Each phase has been depicted and described in a narrative sequence on the plans (see Attached Drawings). The proposed phasing includes construction of the building foundation as a priority to isolate and stabilize the largest portion of the development. The sediment basin in the first phase will be constructed close to existing grades to reduce the overall disturbance. Once the building footprint is stabilized, the area around the building will be graded and stabilized; again as a measure to minimize disturbance. When the area tributary to the sand filter has been stabilized, the sand filter will be constructed and the pocket wetland area graded to be used as a sediment trap. As the majority of the site will be stabilized at this stage of the construction, the detention storage area of the pocket wetland will provide sufficient volume as a sediment basin. Upon completion and stabilization of the sand filter area, the pocket wetland will be

final graded and planted; completing the development of the site. The DEIS Chapters 14: Traffic and Chapter 17: Construction address construction staging and construction-related traffic in more detail.

A detailed construction sequencing and erosion and sediment control plans can be found on sheets C-8A through C-8C of the site plans. As depicted, all staging for construction activities will occur on site. The staging area will be protected by erosion and sediment controls to mitigate impacts to surrounding wetlands and watercourses. Because most of the excavated soil is intended to be exported offsite, it is anticipated that minimal stockpiling will occur onsite. Stockpiles that do remain on site will be protected.

Construction equipment, haulers, and vehicles will enter the site from the existing driveway off of New King Street. The entrance will be stabilized as required. The project site is less than 0.5 miles from I-684, as a result it is anticipated most construction related traffic will utilize I-684; some construction traffic may also utilize NY-120 (Purchase Street). The number and type of vehicles will vary depending upon the type of work occurring on the project site. Construction of the proposed project will be completed in a single phase and will last an estimated 14 months. Construction activity will be limited to 7:30 a.m. and 7:00 p.m. Monday through Friday, and 8:00 a.m. to 5:00 p.m. on Saturdays. Construction activities will take place during daylight hours. Construction lighting will not be used. A list of construction vehicles and schedule is given below.

Equipment	Duration	Construction Period
2 Excavators/Bulldozers	3 months (intermittently)	Site Preparation
2 Backhoes	3 months	Foundations/Utilities
Crawler Crane	4 months	Precast Structure/Skin Erection
Crane and/or Conveyor	1 Week	Hoisting roof equipment and materials
2 Graders/Rollers	1 Week	Pavement Preparation
Dump Trucks	3-4 Months	Site Preparation
Dump Trucks	1 Month	Foundations/Utilities
Dump Trucks	1 Month	Final Site Preparation
140 Concrete Trucks	3 Months	Foundations
200 Concrete Trucks	(2) 2 week periods	Concrete Slabs

Excavated soil export and concrete deliveries will be major components of the construction traffic. An estimated ±20,000 c.y. of soil material will be exported, which means during a portion of the construction process approximately 15-20 truckloads will on average be exported each day to an approved site. Concrete foundations and slabs will require approximately 3,500 c.y. of concrete to be delivered to the project site. This would amount to approximately 350 concrete truck deliveries. Concrete source and equipment will determine the number of trucks per day. The building structure will be primarily constructed of precast concrete panels. Approximately 350 trucks will be required to deliver these panels and a crane will be utilized to install the panels. A concrete washout station has been included in the site plans.

Comment 5: Response 17-2 does not adequately address DEP's concerns regarding the management of groundwater during construction. As designed, Temporary Sediment Basin No. 2 may not function as intended because the bottom excavation appears to penetrate the seasonally high water table witnessed in deep test pit excavations conducted on site. (NYCDEP 2/12/15)

Response: Sediment Basin No. 2 will not be used until the final phase of the construction sequence. As such, the storage volume above the ground water/permanent pool elevation of the pocket wetland will be sufficient to provide more than the minimum recommended volume of a sediment basin.

Comment 6: The FEIS does not adequately address DEP's concerns regarding removal of dissolved phosphorus. The stormwater design standards represent the minimum regulatory stormwater treatment required by current code and therefore does not constitute mitigation in the context of SEQRA. Furthermore, mention of the assumed removal of 40% total phosphorus does not substantiate the dissolved fraction of the total phosphorus. The project sponsor's conclusive statement that "Stormwater facilities designed in series are effective for removing dissolved phosphorus" is not supported in the design and information provided in the FEIS. DEP requested that the applicant assess pollutants such as TN, BOD, and TSS in the FEIS. The project sponsor states that this was not done and that by meeting current stormwater regulatory requirements the project is presumed to have achieved appropriate pollutant removals. Again, regulatory compliance represents a minimum code requirement and does not constitute appropriate mitigation under SEQRA. (NYCDEP 2/12/15)

Response: Water quality treatment will be provided by placing two (2) primary standard practices in series: a sand filter, followed by a pocket wetland. The water quality volume will be directed toward the sand filter. Filtered runoff will then be conveyed to the pocket wetland. Filtering the runoff will remove the majority of the suspended phosphorus leaving the dissolved phosphorus for plant uptake in the pocket wetland. This paired practice will provide more than the minimum code requirements, and as such, do constitute appropriate mitigation per guidance from NYSDEC and NYCDEP. A revised pollutant loading assessment was completed for the current DSEIS plan, as described above and in Appendix B. A net reduction is shown in all pollutants analyzed with construction of the proposed stormwater management plan, as compared to existing conditions.

Comment 7: DEP expressed concern regarding the adverse impacts associated with post-development increases in stormwater volume. The data provided in Table 1-4 show that the revised plan will result in significant increases in post-development stormwater runoff volumes at Design Point 2. Based on the stormwater volume data from Table 1-4 the project will result in increases of 88%, 49%, and 61% in runoff volume above pre-development levels for the 1-

year, 10-year, and 100-year, 24-hour storms respectively. Design Point 2 is the only design point showing a post-development increase in stormwater volume; therefore a "hard look" at adverse impacts due to increased post-development stormwater volume is warranted, with impacts either eliminated or mitigated. (NYCDEP 2/12/15)

Response: Stormwater regulations are based on peak flow mitigation (i.e. flow rate) for larger storm events and volume control for smaller, more frequent storm events. The smaller storm volume control is accomplished by providing Green Infrastructure (GI) practices to promote infiltration of the stormwater. For this site, the GI practice of, permeable pavement will be used to infiltrate the increased volume from the development of the site during the smaller storm events. Larger storm stormwater volume will be stored in the pocket wetland and released slowly by regulating the flow rate out of the pocket wetland with an outlet structure. Reduction of volume of runoff from the larger storm events would require infiltration practices which are not able to be supported by the site soils.

Comment 8: DEP suggested the applicant consider an alternative that utilizes more intensive green stormwater infrastructure, including a green roof. Response 9-13 includes the unsupported assertion that a green roof "is not a proven effective measure for stormwater quality as they typically require fertilizer, thus increasing pollutants…" DEP cannot concur with this unsubstantiated assessment of green roofs and strongly disagrees with the assumed potential impact on Kensico Reservoir. A green roof combined with the measures to capture and treat stormwater runoff proposed by the project sponsor in the selected alternative would likely enhance the stormwater management capability of the project, not detract from it. (NYCDEP 2/12/15)

Response: Due to structural limitations of the proposed architecture to provide a green roof, references to pollutants regarding the green roof have been removed. Instead, runoff from the building's roof area will be directed into the GI practice of stormwater planters to provide runoff reduction. In this manner, the roof area will have been treated and cannot be attributed to another practice (i.e., "double dipping"). Although a green roof would have provided another option to treat stormwater, it is no longer part of the proposed project. Nonetheless, the proposed stormwater management plan meets the NYSDEC requirements of SPDES GP-0-15-002. Additionally, to provide conservative results, no pollutant removal credit was taken for treatment in the stormwater planters surrounding the proposed building. The pollutant loading analysis results, contained in Appendix B, indicate the proposed stormwater management facility will achieve a net improvement in runoff pollutant concentrations

Comment 9: The extent of wetland and buffer enhancement should be clarified. The FEIS indicates the invasive species management will be conducted in an 8,000 square foot area of wetland buffer and 20,000 square foot area of wetland. The FEIS also indicates that coverage of invasive species is approximately 50% of these areas and cites 4,000 and 10,000 square feet of enhancement for the buffer and wetland, respectively. As such removal of 14,000 square feet of invasive species may not be adequate mitigation for 36,514 square feet of disturbance. (NYCDEP 2/12/15)

Response: Due to the reduction in building footprint, the area of *wetland buffer* enhancement has expanded to 9,800 sf. The *wetland* enhancement area is 29,200 sf, for a total wetland/buffer enhancement area of 39,000 sf. A site inspection indicates that approximately 50 percent of this area is dominated by invasive plants, meaning approximately 19,500 sf of wetland/buffer mitigation is proposed.

The modified DSEIS building plan has been reduced in size, resulting in a 9,048 decrease in the amount of impervious surface located within the Town's 100-foot wetland buffer as compared to the previous, FEIS site plan. The Town's wetland mitigation requirements measure a project's impacts against the existing site conditions. At present, the existing building/parking areas on the project site total 12,316 sf of impervious surface within the Town's 100-foot wetland buffer. The modified project now proposed would result in 27,466 sf of impervious surface within the 100-foot wetland buffer, representing an increase of 15,150 sf of impervious surface in the buffer as compared to the existing building/parking areas. This 15,150 sf of new impervious surface within the buffer constitutes a permanent "loss" of buffer area. To offset this impact, the approximately 19,500 sf of wetland/buffer enhancement planting proposed represents a mitigation ratio of 1.3:1, which is ~~somewhat~~ less than the Town Code's 2:1 mitigation requirement.

Town Code §340: Wetlands and Watercourse Protection, indicates that "the mitigation plan shall also compensate for unavoidable wetland buffer losses at a ratio of two for one, unless the approval authority determines that such mitigation is not feasible." What constitutes a "loss" of wetland buffer is not defined in the Code. "Regulated Activities" are clearly defined at §340-4, including such actions as the placement of roadways, structures, deposition of fill, modification of land contours, clearing of trees, etc. Thus, it is unclear if the 2:1 mitigation ratio for impacts to buffers applies to the area temporarily disturbed during construction or just the buffer area permanently "lost" due to the placement of structures, drives, or other impervious surfaces. As indicated in Table 1, the area of permanent impervious surface proposed within the buffer has been reduced to 27,466 sf with the current plan. The area of temporary disturbance (clearing/re-grading) within the buffer has remained roughly the same since the DEIS at 42,177 sf. This is for the stormwater basins and small

previously disturbed areas adjacent to the building which will be landscaped with native vegetation. This 42,177 sf of temporary disturbance in the buffer will be fully re-vegetated with native wetland (within the pocket wetland and stormwater basins) and upland species (within upland areas to be replanted) and therefore it will be restored to functional wetland buffer. In total, temporary and permanent disturbance within the buffer is now approximately 69,643 sf. Considered this way, the 19,500 sf of wetland/buffer mitigation plantings yields a mitigation ratio of 0.28:1.0. But as discussed, the majority of this area is temporary buffer disturbance that will be replanted with native species and so may be considered "impact avoidance" or "mitigation" in itself.

The Applicant is willing to provide additional offsite wetland buffer mitigation at a location of the Town's choosing and has requested that a meeting be arranged with the Town's Conservation Board to identify appropriate offsite locations. Please note, however, that §340-9 of the Town Code explicitly states that 2:1 buffer mitigation is required "unless the approval authority determines that such mitigation is not feasible." Furthermore, for wetland buffer mitigation, the Code specifies that mitigation take the form of, "preventative practices to protect the natural condition and function of the wetland," and "restoration or enhancement (e.g. improving the density and diversity of the native plant species) of remaining or other upland buffer to offset impacts to the original buffer." (Town Code §340-9.B.2). In the Applicant's opinion, the proposed Wetland and Buffer Enhancement Plan (contained in Appendix D) does exactly this by planting all non-impervious land areas within the buffer in native species and by removing invasive plants from areas of undisturbed buffer and wetland. In this instance, with limited land onsite for wetland buffer mitigation, the Applicant may be found to have satisfied the Town's mitigation requirement with its proposed enhancement plan. The Town will review this plan and has the right to make a final determination as to the adequacy of the Applicant's wetland buffer mitigation plan.

Comment 10: Both mechanical and chemical methods are proposed for the removal of 10 different invasive species in a 14,000 square foot area. This could potentially result in extensive chemical application within a wetland and buffer in close proximity to the Kensico Reservoir. (NYCDEP 2/12/15)

Response: Limited chemical methods for the removal of invasive species will be used. However, when used, only NYSDEC-approved herbicides will be chosen to spot-treat individual plants. Best practices will include using a backpack or hand sprayer, wick applicator, cloth glove applicator, stem injection or herbicide clippers. No broadcast herbicide applications (using, for example, a truck-mounted sprayer) would be permitted. In all cases, any herbicide directions for use or restrictions found on the label must and shall be followed by a New York State Certified Applicator or Technician in an appropriate category. Herbicide spot treatment will require follow-up inspection later in the growing season or

the following year to retreat any individuals that were missed. The approximate quantity of wetland/buffer enhancement has increased, and is now 19,500 sf. This mitigation offsets the added impervious surfaces within the Town buffer by a 1:1.3 ratio.

Comment 11: The FEIS also indicates that native species will be protected during enhancement activities but does not explain how. The project sponsor should provide a discussion on measures that will be used to protect native species during buffer enhancement. (NYCDEP 2/12/15)

Response: The protection of existing native and non-target vegetation has been considered throughout the development of the Wetland and Wetland Buffer Enhancement Plan. As stated, the project ecologist will apply best practices and be on site to supervise all activities within the enhancement areas. This professional, who is experienced in wetland enhancement and plant ecology, will determine the areas where invasive species are not dominant and identify native trees and shrubs which are to be protected. Where practical, these areas will be taped off prior to the enhancement activities and left undisturbed. In addition, the native and non-target vegetation will be protected through the methodologies outlined in the Wetland and Wetland Buffer Enhancement Plan contained in Appendix D and shown in Drawing C-9. As discussed in the plan the preference is for invasive species to be removed by hand. Only limited chemical methods of removal through manually spot-treating one plant at a time will be used, thus minimizing risk of disturbance to non-target species.

Comment 12: A five year monitoring and maintenance program is indicated in the Wetland and Buffer Enhancement Plan. The plan should include a target level of invasive species coverage in the enhancement areas, and should include not only provisions for continued invasive species removal, but for continued planting of native species. (NYCDEP 2/12/15)

Response: The maximum amount of invasive species coverage at the end of the five-year monitoring period and the end of each year during the monitoring period will be 5 percent or less. This is the criteria currently required by the USACE for wetland mitigation/creation projects. As described in the Revised Wetland and Wetland Buffer Enhancement Plan (Appendix D), the extent of invasive species colonization within the enhancement areas would be assessed annually, and invasive species removal with supplemental planting of native wetland and wetland buffer vegetation will occur annually during the five-year monitoring period. The Applicant will work with the Town Planning/Building departments during Site Plan Approval to ensure the wetland enhancement meets with the Town's approval and the Approval of NYCDEP.

Comment 13: The symbol used in the landscape legend of Figure 1-5 for the wetland enhancement area does not appear in the figure itself and cannot be discerned. Figure 1-5 should be revised accordingly. In addition, Figure 1-5 does not clarify the species of plants proposed. (NYCDEP 2/12/15)

Response: Figures 1-5 and the Landscape Plan on Sheet C-9 have been revised. The species of plants proposed for the Wetland Enhancement Area and the Wetland Buffer Enhancement Area can be found in the Wetland and Buffer Enhancement Document, contained in Appendix D and on the large scale drawings, Sheet C-9.

Comment 14: Regarding to Response 6-2, Figure 1-10 and Drawing C-9 include a list of proposed plant species, yet provide no specific information on where each species will be placed in the landscape design. Appendix F, the Wetland and Wetland Buffer Enhancement Plan, also does not provide detail about their placement in the landscape. The landscaping plan should be more detailed and should indicate where each species is proposed for use. (NYCDEP 2/12/15)

Response: Additional information regarding the placement of specific plant species is documented in the revised Landscape Plan (Drawing C-9).

The species of plants proposed for the Wetland Enhancement Area and the Wetland Buffer Enhancement Area can be found in the Wetland and Buffer Enhancement Document, contained in Appendix D and on the large scale drawings, Sheet C-9. In these areas, plants will be located as determined in the field by the project ecologist, who is experienced in wetland enhancement and plant ecology, based on field conditions and the extent of invasive species removals. No specific planting plan is provided for the Wetland and Wetland Buffer Enhancement areas as it is intended to be an Adaptive Management program that provides in-fill planting where necessary to fill the growing space left upon invasive species removal. The Landscape Plan will be further refined by the project Landscape Architect in coordination with the project ecologist during the Site Plan review process.

Comment 15: Drawing C-13 shows planting details for deciduous and evergreen trees, and deciduous shrubs on steep slopes. Note that the use of stakes, guy wires, and tree wrap is no longer considered to be standard practice and should only be used where trees are subject to high winds (for guying materials) and thin-barked trees to sun-scale (for tree wrap). Should the site have these conditions and use of these items is necessary, a note on the plan should then be added to require their removal prior to final acceptance (i.e., within 1 year following planting) of the landscaping. If these materials are left in place, there is a ~~s~~high likelihood they will eventually strangle the trees and/or harbor pests or diseases and cause mortality. (NYCDEP 2/12/15)

Response: Comment noted. The planting details on Drawing C-13 have been revised and the following note has been added to the Landscape Plan, Drawing C-9:

"Tree staking, guy wires and wrap shall not be used unless directed by the project landscape architect or project arborist in the field at the time of planting. if used, all tree staking, guy wires and wrap shall be removed prior to final acceptance and no longer than one (1) year after planting."

NEW YORK STATE WATERSHED INSPECTOR GENERAL (WIG)

Responses to comments 11-21 and 24 & 25 from WIG 6/1/11 correspondence; Responses to comments from WIG 2/19/15 correspondence.

Comment 16: Significant disturbance and encroachments of wetland and watercourse buffers remain. The Project still proposes construction of stormwater practices and additional impervious areas within the 100' Town of North Castle wetland buffer. The combined disturbances from these activities within the wetland buffer amounts to about 40,000 square feet in area. In the FEIS Chapter 3, Comments and Responses, on page 3-197, Response 9-76 states: "The Lead Agency does not typically permit stormwater treatment facilities in the Town-regulated wetland buffer." Given the extremely sensitive location of the site, just on the doorstep of the Kensico Reservoir, there is no reason why the Town Planning Board as Lead Agency should allow that here.

Response: The project proposes no wetland disturbance, and with the current DSEIS plan proposes to increase impervious surface within Town Wetland Buffer by 15,150 sf. This 15,150 sf represents the permanent "loss" of wetland buffer area that would occur with the proposed project. At present, the existing building/parking areas on the project site total 12,316 sf of impervious surface within the Town's 100-foot wetland buffer. Additional 42,177 sf of temporary disturbance is required in the 100-foot wetland buffer for the construction and planting of the stormwater management system but this area will recover into a fully vegetated state, occupied by native woody and herbaceous wetland and upland plant species. In the Applicant's opinion, therefore, it is not a "loss" of buffer, only a temporary disturbance. The Town may consider the placement of stormwater facilities in the wetland buffer and will need to weigh the net benefit of the proposed pocket wetland and wetland buffer enhancement in its decision of approval on the permanent and temporary wetland buffer disturbance proposed.

Comment 17: The construction of the parking facility would increase by over 400% the amount of impervious surface within the 100' buffer of a DEP-regulated intermittent stream (from approximately 2,043 sf to 10,413 sf). Under DEP's Watershed Regulations, the construction of an impervious surface within 100' of a watercourse is generally prohibited. In light of the extremely sensitive location of the site and proposed large encroachment within the buffer, the WIG

Office is aware of no reason why a variance to this prohibition should be granted. Thus, the Project should be scaled down or reconfigured to exclude disturbances and new impervious areas from Town and DEP buffer areas. (Office of the Watershed Inspector General, 2/19/15)

Response: In response to comments, it should be noted that the footprint of the proposed building was reduced from 50,914 sf in the DEIS to 44,812 square feet in the FEIS and is now 37,444 sf in the current DSEIS plan. This represents a 26 percent decrease in building footprint overall over the course of the environmental review. Impervious surface within the 100-foot limiting distance to the onsite DEP streams under existing conditions (current unoccupied building and parking area) is 7,704 sf. With the current DSEIS plan, the increase in impervious surface within the DEP 100-foot limiting distance has been minimized to just 5,993 sf (13,697 sf total). This is required for widening the access drive off New King Street and for the new building, and represents a substantial reduction in impervious surface within the DEP limiting distances as compared to the DEIS and FEIS site plans. Further reducing the building footprint to eliminate the need for a NYCDEP variance is not economically feasible as it would require further reductions, below the current 980 parking space size. As indicated in the NYCDEP Watershed Rules and Regulations (WRR), §18-39.a.4.iii, the expansion of an existing impervious surface within 100 feet of a watercourse or wetland at an existing facility is allowed provided the total area of expanded impervious surfaces does not exceed 25 percent of the area of the existing impervious surfaces. At the project site, the total existing impervious surface of the building and parking is 33,716 sf. The proposed facility would increase impervious surface to a total of 47,272 sf, representing an increase of 13,556 sf. This is a 40 percent expansion over the existing impervious surface. In order to reduce the expansion to the 25 percent allowable increase and thereby avoid the need for a NYCDEP Variance from the WRR, the expansion would have to be reduced by 5,127 sf, more than a 50 percent reduction in the proposed impervious surface expansion. Considering the Town requirements to widen the driveway and the economic limitations on the size of the proposed garage, which has already been reduced in footprint by 26 percent as compared to the DEIS, the applicant cannot avoid the need for a NYCDEP Variance from the WRR.

Comment 18: The hydrologic analysis performed with the Hydro CAD computer program is flawed. Although the updated Northeast Regional Climate Center (NRCC) rainfall data values were correctly used in the routings, they were incorrectly coupled with a Soil Conservation Service (SCS) Type 3 rainfall distribution, which is no longer valid in New York State. The rainfall table from NRCC must be imported into the Hydro CAD file, to be converted to the appropriate rainfall distributions at the project site. These analyses must be redone. (Office of the Watershed Inspector General, 2/19/15)

Response: The Soil Conservation Service (SCS) Type 3 rainfall distribution curve that was used generates a higher flow rate than the site specific NRCC hydrographs that can be imported in the computer modeling software. Therefore, the stormwater model provided for the proposed project is conservative. The comparison between pre-developed conditions versus post-developed conditions compares the results of the development to approximate the increase and provides a guideline for storage and peak flow mitigation required. As such, the difference between the flow rates calculated by the rainfall distribution curves is more reflective of the mitigation needed than the subtle differences between the above mentioned distribution curves.

Comment 19: The Hydrologic Soil Groups (HSG) and soil data for this project are outdated and incorrect. The SWPPP shows a significant amount of Charlton loam soil on site. The U.S. Department of Agriculture Natural Resources Conservation Service updated soil survey information for Putnam and Westchester Counties in December 2011. As a result, the Charlton loam is no longer mapped for this site. The soil replacing Charlton loam is Woodbridge loam… Both of these loam soils are HSG C, but the type of land use overlaying different areas of each of these soils may have changed which could result in a change in the runoff volume. Another change to the soil data is that Ridgebury loam, which was a HSG C soil is now an HSG D soils. However, the existing routing results using the HydroCAD computer model do not account for any HSG D soil in the drainage areas. This change, which occurs over approximately 50-60% of the site, as well as HSG C area changes, will result in an increase in the runoff in the curve number (RCN) and thus an increase in the runoff volume amount for all storm frequencies. Therefore, all the hydrology must be re-calculated with this updated soil data. (Office of the Watershed Inspector General, 2/19/15)

Response: A Hydrologic Group D soil provides a higher rainfall runoff than a Hydrologic Group C soil. This increases the predevelopment peak flow rate. As such, utilizing a D soil in the predeveloped condition would actually reduce the difference between the existing predevelop peak flow rate and post developed peak flow rates with the additional impervious area. As such, the peak flow mitigation using Hydrologic C soil is a more conservative approach, which was used in this analysis.

Comment 20: The data presented in the Stormwater Facility Profile shown on drawing C-13, Standard Details IV, is incorrect and does not agree with the current HydroCAD routing inputs and results. In addition, drawing C-13 shows the wetland permanent pool to be at elevation 377.5, while the HydroCAD routings start at pool elevation 378.00. The wetland outlet pipe elevation should be 372.5, instead of 368.5+/- shown on the drawing. Therefore, the entire Stormwater Facility Profile should be re-drawn once the correct elevations and dimensions have been established. (Office of the Watershed Inspector General, 2/19/15)

Response: The profile has been adjusted to reflect the proposed site conditions.

Comment 21: A quality assurance/quality control check should be performed between drawings C-6, C-11, C-13, and the HydroCAD input and output to ensure that all elevations and dimensions between these documents are in agreement.

Response: Comment noted. Stormwater engineering design details such as these will be performed as suggested and will be included in the plans submitted for site plan review.

Comment 22: Our DEIS Technical Comments, in items 24 and 25, dealt with pollutant loading and water quality, and recommended that the sponsor implement additional retrofits for the impervious areas on the adjacent lot 13A. In the FEIS's response to these comments, the sponsor stated that it would investigate options for retrofitting these impervious areas and include them in the final SWPPP. This investigation should not be deferred; rather it should be completed and incorporated into the project before it is approved by the Lead Agency. (Office of the Watershed Inspector General, 2/19/15)

Response: The Applicant is sensitive to the fact that much of the existing offsite area near the proposed development was developed without concern for water quality as it predates the regulations. To address concerns, the Applicant has investigated options for retrofitting offsite areas and including them in the proposed SWPPP to the extent practicable due to topography and built environment constraints. This includes the current proposal to incorporate treatment of approximately 11,000 sf of impervious surfaces from the abutting property (Lot 13A). If during site plan review additional offsite areas are identified that could benefit from being integrated into the proposed SWPPP, the Applicant will be willing to consider these modifications. A revised water quality analysis has been prepared and is provided in Appendix B ~~C~~. The stormwater management plan captures all areas of disturbance and meets or exceeds NYSDEC requirements.

Comment 23: A concrete truck washout facility must be added to the SWPPP in Sections 7.1, Erosion and Sediment Control Practices, and 8.1, Inspections and Record Keeping During Construction. It should also be included on the drawing C-1, Notes and drawings C-8, Erosion and Sediment Control Plan and C-13, Standard Details IC. Although a concrete truck washout facility is acknowledged in the "Comments and Responses" on page 3-249 of Chapter 3 in the FEIS, it must be placed on the applicable drawings and incorporated more fully into the SWPPP. (Office of the Watershed Inspector General, 2/19/15)

Response: A concrete washout area has been added to the site details, see Drawing C-10.

Comment 24: The design details for catch basin hoods do not appear on the drawings. These hoods are covers which extend over the entrance of the outlet pipes of the catch basins. They extend out from the wall and down over the opening of the pipe entrance to keep trash out. The omission of design detail must be corrected to property assess whether the hoods are properly sized. (Office of the Watershed Inspector General, 2/19/15)

Response: Hoods have been added to the catch basin details, see Drawing C-11.

Comment 25: Rock outlet protection for the end of the Perimeter Dike and Swales #1 and #2 has not been included on drawing C-8 in the Erosion and Sediment Control Plan. (Office of the Watershed Inspector General, 2/19/15)

Response: Check dams, rip rap, and rock outlet protection have been added to the perimeter dike and Swales #1 and #2, see Drawing C-11.

Comment 26: The Storm Drainage Schedule table on drawing C-6 should be amended to include information for structure no.18, which is shown on the drawing and labeled as structure type ES6. Structure type ES6 is the roof leader or roof downspout and extended discharge pipe from the building on Lot 13A to the wetland. This outlet should be removed from the building on Lot 13A to the wetland. This outlet should be removed from the wetland and re-routed to the sediment basin to provide enhanced water quality treatment, by allowing particles to settle out prior to directing the flow through the treatment system. In addition, structure 9 in the storm drainage schedule needs to be corrected to show a 15 inch diameter pipe outletting from the flow splitter instead of the 12 inch diameter pipe. (Office of the Watershed Inspector General, 2/19/15)

Response: Comment noted. The Storm Drainage Schedule table referred to in the above comment would not adversely impact the layout of the proposed site plan. Nonetheless, the specific comments requiring amendments to engineering details will be included in the set of drawings that will be submitted to the Town as part of site plan review.

Comment 27: Temporary conveyances to the sediment basins would be designed to transport a 100-year storm event. However, these calculations were not provided in the PSWPPP nor were specific dimensions for the perimeter Dike/Swale presented on Sheet C-10. (Office of the Watershed Inspector General, 6/1/11 – Comment #11)

Response: Comment noted. The design calculations for the temporary conveyances and dimensions referred to in the above comment would not have a substantive impact in the layout of the proposed site plan. Nonetheless, it is understood that the specific request to provide the calculations and specific dimensions for the

perimeter dike/swale will be included in the set of drawings that will be submitted as part of site plan review.

Comment 28: Considering the proposed size of disturbance and construction operations, a curve number of 98 is recommended to size the erosion and sediment controls for all areas. In addition, the construction condition hydrologic and hydraulic calculations must also be presented. (Office of the Watershed Inspector General, 6/1/11 – Comment #12)

Response: Comment noted. Using a curve number of 98 to size the erosion and sediment controls would not substantively impact the layout of the proposed site plan. Nonetheless, the specific calculations concerning the construction condition, hydrologic and hydraulic calculations will be provided as part of site plan review.

Comment 29: The structural details for three outlet structures within the Stormwater Control System are absent and should be provided. Validation of the post-developed design HydroCAD routings cannot be made without these details. A table of dimensions and elevations needs to be provided on Sheet C-10. (Office of the Watershed Inspector General, 6/1/11 – Comment #13)

Response: Comment noted. The outlet structure engineering details referred to in the above comment would not substantively impact the layout of the proposed site plan. Nonetheless, the structural details for the outlet structures will be included with the stormwater engineering design details that will accompany the plans for site plan review.

Comment 30: The flow splitter detail on Sheet C-10 of the construction drawings is incorrect, since it shows two outlets on the same side of a splitter wall and at the same invert elevations. Also the flow splitter detail does not match the HydroCAD routings, which show a 2' x 0.5' orifice below the 24" diameter overflow pipe. This error needs to be corrected. (Office of the Watershed Inspector General, 6/1/11 – Comment #14)

Response: Comment noted. The flow splitter details referred to in the above comment will be corrected and included in the drawings submitted as part of site plan review. Nonetheless, the flow splitter detail requested would not have a substantive impact on either the site plan or the effectiveness of the stormwater plan.

Comment 31: Specific dimensions and elevations should be added to the Stormwater Planter Detail on Sheet C-10, and to all the details, as appropriate, on Sheets C-9 through C-12. (Office of the Watershed Inspector General, 6/1/11 – Comment #15)

Response: Comment noted. The specific dimensions and elevations for the Planter details referred to in the above comment will be provided as part of the drawing set that will be submitted as part of site plan review. Nonetheless, these details would not have a substantive impact on the proposed site plan.

Comment 32: The profile of the outlet structure for the pocket wetland shown on Sheet C-12 is incorrect. The bottom of the outlet control structure should be raised to elevation 374.0 and the pipe outlet invert elevation raised to elevation 370.0 to agree with the elevations show in the table on Sheet C-5 and also to correct the HydroCAD routing, which shows the pipe invert at 372.0. In addition, the W-4 wet pond label on Sheet C-12 needs to be edited to W-4 pocket wetland. (Office of the Watershed Inspector General, 6/1/11 – Comment #16)

Response: Comment noted. The profile and detail of the pocket wetland and associated outlet structure of the above comment will be reviewed and corrected if necessary, and submitted as part of site plan review. Nonetheless, if a modification is required, it would not have a substantive impact on either the site plan or the effectiveness of the stormwater water plan.

Comment 33: The runoff reduction volume (RRv) calculations performed and included as Appendix E of the PSWPPP …. should be validated and the details on the construction drawing C-10 for the stormwater planter should match those used in the design calculations presented in the SWPPP Appendix E. For example, the soil depth shown on Sheet C-10 is 18", whereas the soil depth presented in the design calculations in the PSWPPP is 24". These inconsistencies need to be corrected. (Office of the Watershed Inspector General, 6/1/11 – Comment #17)

Response: Comment noted. Engineering details and RRv calculations as noted in the above comment will be reevaluated as part of the preparation of the plans that will be submitted as part of site plan review. Nonetheless, these refinements would not substantively impact either the site plan or the effectiveness of the stormwater plan.

Comment 34: The Tc flow path to the design point DP-2 does not appear to accurately represent the entire PRE-2 drainage area. The same is true for the Tc flow path for PRE-3. Corrected Tc flow paths should be used or the drainage areas should be further subdivided to more accurately represent the design points. (Office of the Watershed Inspector General, 6/1/11 – Comment #18)

Response: Comment noted. Subtle differences in the time of concentration flow paths of the above comment would not adversely impact the layout of the proposed site plan. The specific comments regarding the stormwater engineering design details such as these will be addressed during site plan review.

Comment 35: It appears that lower mannings coefficients for sheet flow were used while higher Kv values were used for shallow concentrated flow, both resulting in higher pre-developed peak discharges. These calculations need to be re-evaluated. (Office of the Watershed Inspector General, 6/1/11 – Comment #19)

Response: Comment noted. Subtle differences in the specific engineering friction factors used in calculating the time of concentration of the above comment would not adversely impact the layout of the proposed site plan. The specific comments regarding the stormwater engineering design details such as these will be addressed during site plan review.

Comment 36: The sedimentation basin used as pre-treatment for sand filters should be sized to: 1) contain 25% of the sand filter water quality volume; and 2) to dewater over a twenty-four hour period, to effectively retain fines and prevent clogging. These details are needed to validate its intended operation. (Office of the Watershed Inspector General, 6/1/11 – Comment #20)

Response: Comment noted. The pretreatment and dewatering time period of the above comment do not adversely impact the layout of the proposed site plan. The specific comments regarding the stormwater engineering design details such as these will be addressed during site plan review.

Comment 37: The contributing areas assigned in the pollutant loading calculations do not agree with the drainage areas utilized in the HydroCAD model. These should be reconciled. (Office of the Watershed Inspector General, 6/1/11 – Comment #21)

Response: Comment noted. Contributing areas to the pollutant loading calculations and drainage areas used in the HydroCAD model have been reconciled.

Comment 38: These results indicate a 29% phosphorus reduction below the pre-developed load and a total phosphorus reduction of approximately 47.5% of the post-developed load. These values are significantly less than the 40% to 88% reduction shown in Table 6-7 on page 23 of the SWPPP. As a result, additional retrofits of impervious areas of Lot 13A should be required to increase phosphorus removal. (Office of the Watershed Inspector General, 6/1/11 – Comment #22)

Response: Comment noted. Pollutant loading removal calculations with the reconciled areas stated in the above comment and included in Appendix B demonstrate the total phosphorus reduction will be 24%.

Comment 39: In addition to the capture of rooftop runoff from the masonry building on Lot 13A, offsite, runoff from other offsite impervious surfaces on Lot 13A should be captured and treated. A useful aid to designing a retrofit program is available from the Center for Watershed Protection (CWP) which has developed a

Watershed Treatment Model (WTM), that integrates the latest pollutant removal practices and calculation methodologies. (Office of the Watershed Inspector General, 6/1/11 – Comment #23)

Response: Comment noted. As previously stated, the Applicant is sensitive to the fact that much of the existing offsite area near the proposed development was developed without concern for water quality as it predates the regulations. To address concerns, the Applicant has investigated options for retrofitting offsite areas and including them in the proposed SWPPP to the extent practicable due to topography and built environment constraints. This includes a proposal to incorporate 10,931 sf of impervious surfaces from the abutting property (Lot 13A). This is the maximum amount of impervious surface on the adjacent lot that can be readily conveyed and treated in the proposed stromwater management system. Other areas of impervious surface on Lot 13A drain eastwards, in the opposite direction from the proposed stormwater system. (See existing conditions Drawing C-2). To incorporate additional runoff from Lot 13A would require substantial regrading and disturbance to this abutting property. It has been the intent of this project to capture as much offsite stormwater runoff as possible and to provide treatment to this previously untreated runoff before it goes into the Kensico Reservoir. The applicant will continue to work with the Town, the Watershed Inspector General, and NYCDEP to identify additional opportunities for improving the quality of stormwater entering the Kensico Reservoir.

RESPONSES TO COMMENTS FROM WESTCHESTER COUNTY DEPARTMENT OF PLANNING DATED 2-11-15

Comment 40: We have consulted with the FAA and have been informed that the reference to the RPZ policy in AC 150/5300-13 is obsolete. In a FAA memorandum dated September 27, 2012 (attached), the FAA Office of Airports identified a need to clarify policies on land uses within the RPZ. The memorandum contains interim RPZ guidance that does not differentiate between the central portion and the controlled activity area. Significantly, we point out that this interim guidance was issued after the "No Hazard" determination was granted from the FAA on August 16, 2011. While documents have been provided noting that this determination was extended, it is our understanding that the approval expired on August 14, 2014. Because the "No Hazard" determination is no longer in effect, and because the proposed building height has now been increased, the FAA has informed us that the proposed project must be reevaluated using the interim RPZ policy.

Response: As noted in correspondence from the Westchester County Planning Board, the FAA "Determination of No Hazard" for the proposed project, per 49 U.S.C., Section 44718, Title 14 of the Code of Regulations, part 77, expired on August

14, 2014, and the proposed project needed to be re-evaluated using the current RPZ policy.

A request for re-evaluation was made and a determination was received on 08/18/2015. The FAA concluded that the proposed structure does not exceed obstruction standards and would not be a hazard to air navigation, and marking/lighting would not be necessary. This determination will expire on 02/18/2017. Further, the FAA determination requires that within five days after the proposed garage reaches its greatest height that the FAA be notified via FAA Form 7460-2, Notice of Actual Construction or Alternation.

The FAA determination includes an "Advisory Recommendation" discouraging structures that will result in the "…congregation of people within an RPZ..." if the '…airport owner can control the use of the property…' For this proposed project, the property is privately owned, thus not controlled by the airport, and the proposed structure will not result in the 'congregation of people." The point of fact is that there will be small groups of people dropping off and picking up their car, but no long term congregating of people. Therefore, the FAA's Advisory Recommendation does not apply to the proposed project.

Consequently, the Applicant has received a renewal of the previous determination from the FAA that this is no hazard to air navigation. A copy of the FAA documents are included as Appendix E.

The Lead Agency will need to determine whether there are any significant adverse impacts associated with permitting this type of use within the RPZ.

Comment 41: The plans include stormwater planters to treat stormwater from the roof of the proposed garage. The additional plantings surrounding the building raise a concern that birds will be attracted to the site and that bird strikes with airplanes may increase. We recommend that this impact be evaluated.

Response: The Westchester County Department of Planning raised the concern that the stormwater planters proposed to capture roof runoff may attract birds and therefore pose a risk for airplane bird strikes. The vegetation to be planted in the stormwater planters would consist of herbaceous/shrub species located directly adjacent to the building in elevated planters. These planters would be inaccessible to larger birds (geese/ducks). Small perching birds (songbirds) may forage on seasonal seeds/fruits or glean insects from the foliage of the vegetation in the planters. However, the species of plants and the abundance of foraging birds would be no different than those that occur in the existing habitats that surround the site and within natural and landscaped areas nearby. No substantial increase in the abundance or species of song birds frequenting the site is expected to occur with the proposed project. Regarding larger birds, which are more frequently associated with conflicts with aircraft, the periphery of the site's proposed stormwater basins (pocket wetland, sand filter, sediment

basin) would be fully vegetated with facultative wetland vegetation, both woody (trees/shrubs) and herbaceous. Geese utilize open areas occupied by lawns and short grasses. Allowing vegetation to grow to full height and including woody shrubs/trees in the planting plan, has been shown to prevent use of a site by geese.[1] By keeping the periphery of the stormwater basins fully vegetated (unmowed) with a mix of herbaceous and woody species, and by occupying the majority of the project site in a fully landscaped condition, the potential for increased use of the site by Canada geese or other problematic waterfowl is avoided. The site plan will actually realize a substantial net reduction in lawn area, a habitat preferred by Canada geese. In this way, the project will not increase goose/duck populations or use of the site or adjacent areas.

Comment 42: The plans include solar panels to be placed atop the roof of the garage. The solar panels may cause glare issues for aircraft. While the FAA requires a review for all solar panel installations on airport property, we encourage the applicant to follow FAA guidelines as much as possibly if the solar panels continue to be considered.

Response: Correspondence from Westchester County Department of Planning expressed concern that the proposal to include solar panels atop the roof of the garage may cause glare issues for aircraft. While the proposed project aspires to include the maximum amount of green building technology, conventional solar panels were never contemplated. The Applicant is aware that if solar panels are proposed they will have to conform to FAA guidelines and policies with respect to non-glare solar panels.

Comment 43: The proposed traffic mitigation referenced in the final EIS would include restriping of the Airport Access Road (County Road 135), east of NYS Route 120, to create two receiving lanes. This work will require a Road Permit from the Westchester County Department of Public Works and Transportation. The striping/signage plan must meet MUTCD requirements and must take into consideration that at the intersection of the Airport Access Road with New King Street, the lane configuration is one eastbound left turn only lane and one eastbound through lane.

Response: As noted in correspondence from Westchester County Department of Planning (2-11-15), the proposed traffic mitigation referenced in the FEIS would include restriping of the Airport Access Road (County Road 135), east of NYS Route 120, to create two receiving lanes. This work will require a Road Permit from the Westchester County Department of Public Works and Transportation. The striping/signage plan must meet MUTCD requirements and must take into consideration that at the intersection of the Airport Access Road with New King

[1] http://www.dec.ny.gov/docs/wildlife_pdf/geese.pdf

Street, the land configuration is one eastbound left turn only lane and one eastbound through lane. The Applicant has met with Westchester County Department of Public Works (DPW) to discuss the restriping and DPW expressed no concerns regarding the proposed improvement. A permit application along with a drawing that complies with MUTCD guidance showing the proposed improvement will be submitted to DPW for their review and comment.

Comment 44: While the final EIS notes that the development will no longer disturb any on-site wetlands, there will be extensive site disturbance within wetland buffer areas. This should be of concern, especially because the site is in close proximity to the Kensico Reservoir and contains a watercourse which drains directly to the reservoir.

Response: It should be noted that the current condition of this site, as well as the developed sites along New King Street, provides **no stormwater quality treatment to runoff going into the Reservoir**. In the existing condition, stormwater runs off the site and across/under I-684 and then into the Kensico Reservoir. This project will be the first along New King Street to capture and treat all of the subject site, and a portion of the abutting site. The proposed water quality treatment process will include a sand filter and pocket wetland stormwater management system designed in series. As such, they will provide greater water quality treatment and phosphorus removal than the existing vegetation. The Stormwater Analyses provided in the FEIS and revised Pollutant Loading Analysis in Appendix B show that post-construction runoff rates and pollutant concentrations will be reduced as compared to the existing condition.

Comment 45: The site plan proposes site work that would denude and extensively regrade the forested embankment. Construction of this stormwater management system, therefore, would replace the stormwater management benefits provided by the existing, naturally vegetated buffer alongside the wetland and watercourse with a man-made system that requires proper site and environmental conditions, design, construction and long-term maintenance.

Response: The proposed sand filter and pocket wetland stormwater management system will treat runoff from the newly created impervious surfaces constructed in the upland areas. In addition, the onsite wetland will be preserved. The conversion of a small percentage of the site's undeveloped upland area is more than compensated by the provision of the stormwater management system, as shown in the Stormwater Pollutant Loading Analysis provide in Appendix B. At present, no stormwater detention or water quality practices exist on the site. The forested slope provides some infiltration but no treatment for storms that generate substantial runoff. The proposed stormwater management system will

provide greater water quality treatment and phosphorus removal than the existing vegetation.

Comment 46: No planting plan or adequate cross-sectional and other details specific to the proposed stormwater planters, sediment basin, sand filter and pocket wetland have been provided. Therefore, the proposed stormwater management practices cannot be adequately assessed by reviewing the current plans.

Response: A preliminary planting plan and schematic cross section of the proposed stormwater management system has been included in the Site Plan Drawings that accompany this DSEIS. Further details will be added as the plan is developed during site plan review.

Comment 47: No vehicle accessway is provided to all of the stormwater management practices. Therefore, the expected short- and long-term maintenance needs of these practices appear not to have been considered. Access to the practices, particularly to remove sediment and debris from the sediment basin and sand filter, should be provided and shown on plans.

Response: A permeable grass pavement system has been is provided for maintenance access to the stormwater practices. See Drawing C-5.

Comment 48: The erosion and sediment control plan is inadequate for the work proposed: a) an existing, steeply sloping, naturally vegetated buffer alongside a wetland and watercourse will be denuded and a considerable amount of earthen materials will be regraded alongside the wetland and watercourse in order to construct temporary sediment basins, b) the same area will then be regraded again to construct permanent stormwater management practices, and c) regrading also will occur at the wetland and watercourse crossing on the northeastern side of the site. To protect the immediately adjacent wetlands and watercourse, only a single line of silt fence has been proposed at the toe of the newly created steep slopes. This is not in compliance with sound erosion and sediment control practices.

Response: The Erosion and Sediment Control Plan has been revised and, in the applicant's opinion, is compliant with best management practices for erosion and sediment control, see Drawings C-8A, C-8B, and C-8C included in the DSEIS Drawing Set, and additional practices have been provided. These practices include slope stabilization blankets and the erosion and sediment control sequencing expanded to provide a description of the proposed stages to be undertaken during construction of the site. All erosion and sediment control practices will comply with New York State and Town of North Castle regulations.

Comment 49: The erosion and sediment control plan also needs to clearly depict how erosion and sediment control practices will be adjusted through the various phases of construction. This will require the preparation of more than one erosion control plan sheet so that multiple phases of construction and erosion control practices can be shown.

Response: The Erosion and Sediment Control Plan has been revised to include a multi-stage sequence. These are shown in Drawings C-8A, C-8B, and C-8C, included in the DSEIS Drawing Set.

RESPONSES TO COMMENTS FROM NYSDOT DATED FEBRUARY 2, 2015.

Comment 50: Please be advised that any work proposed within the State right-of-way including, but not limited to, permanent improvements, oversized/overweight transportation of materials/equipment, and implementation of temporary traffic management plans require a NYSDOT permit.

Response: Comment noted. A Highway Work Permit (HWP) application will be submitted to NYSDOT for their approval for any work to be performed in the ROW.

✷

Appendix A

NYC Environmental Protection

Emily Lloyd
Commissioner

Paul V. Rush, P.E.
Deputy Commissioner
Bureau of Water Supply
prush@dep.nyc.gov

465 Columbus Avenue
Valhalla, New York 10595
T: (845) 340-7800
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February 12, 2015

Mr. Adam Kaufman, Director of Planning
Town of North Castle
17 Bedford Road
Armonk, NY 10504-1898

Re: **Park Place at Westchester Airport FEIS**
11 New King Street
Town of North Castle, Westchester County
Tax map#: 119.-03-1-1 & 118.02-2-3
DEP Log #:2008-KE-2045-SQ.1

Dear Mr. Kaufman and Members of the Planning Board:

The New York City Department of Environmental Protection (DEP) has received the Final Environmental Impact Statement (FEIS), dated January 2015 and accepted January 13, 2015, for the above-referenced action.

Based on a review of the responses and information provided in the FEIS, DEP remains concerned about the project's potential to cause adverse water quality impacts. DEP appreciates the opportunity for the extended review time and offers the following comments on the proposed action:

1. In Table 1-11, Required Approvals and Involved Agencies, under NYC, it is unclear what is meant by "limiting distance disturbance." A Variance from Section 18-39(a)(4)(iii) of the *Rules and Regulations for the Protection from Contamination, Degradation, and Pollution of the New York City Water Supply and Its Sources* (Watershed Regulations), must be listed as a required approval as the proposed action still includes an expansion of existing impervious surfaces exceeding 25 percent within 100 feet of a watercourse. Note that a Variance application is a discretionary approval. DEP has not received an application for this Variance; and cannot approve a Stormwater Pollution Prevention Plan (SWPPP) without the applicant first obtaining the Variance approval. It is preferable for DEP to review applications for a SWPPP and Variance concurrently.

2. The project sponsor has accurately depicted the location of the intermittent watercourse, flagged by DEP staff on December 16, 2011 and the locations of all reservoir stems on the drawings; however, the "limiting distance" to the intermittent stream is incorrectly interpreted by the applicant as 50 feet. The Watershed Regulations generally prohibit the construction of new impervious surfaces within 100 feet of DEP-flagged watercourses pursuant to Section 18-39(a)(1) and in this instance, Section 18-39(a)(4)(iii).

3. As stated in the FEIS, the project sponsor has met with DEP; however, the Response to Comment 9-7 is incorrect. Pursuant to Section 18-39 of the Watershed Regulations, an applicant may submit to DEP an application for review of a Stormwater Pollution Prevention Plan; however, a negative declaration or DEIS must have been prepared in order for DEP to make a determination of completeness with regard to the SWPPP application.

4. Although the project sponsor has provided a revised construction sequence, the sequence still does not alleviate DEP's concerns regarding water quality impacts during construction. The sequence is vague with respect to earthwork, which is critical for this project. For example, the sequence does not provide an appropriate level of detail with respect to interim grading, temporary stabilization during initial earth-moving operations, installation of temporary outlets for temporary sediment basins, or stable site ingress and egress for construction equipment and the vehicle trips required to remove the estimated 19,912 cubic yards of excavated material. Note that on page 2-12 of the FEIS, the project sponsor states that the expected daily number of trucks removing material would be 7 trucks per day; reasonable assuming a 10 cubic-yard capacity for a single would yield approximately 285 days of haulage – an impact not currently addressed. As such, DEP disagrees with the project sponsor's dismissal of the need for a more detailed construction sequence stated in Response 17-6. Due to the close proximity of this project to two watercourses that are tributary to a terminal reservoir of the City of New York's unfiltered water supply, a more detailed construction sequence is absolutely appropriate to assess impacts under SEQRA. A design professional should be able to produce a construction sequence that can reasonably anticipate the means and methods and steps required to avoid a water quality violation during construction.

5. Response 17-2 does not adequately address DEP's concerns regarding the management of groundwater during construction. As designed, Temporary Sediment Basin No.2 may not function as intended because the bottom excavation appears to penetrate the seasonally high water table witnessed in deep test pit excavations conducted on site. Interception of groundwater may interfere with sediment basin capacity and functionality.

6. The FEIS does not adequately address DEP's concerns regarding removal of dissolved phosphorus in Comment 9-9. The Response discusses elements of design required by current regulatory stormwater performance standards and reiterates the intent of performance standards established by current design standards. The stormwater design standards represent the minimum regulatory stormwater treatment required by current code and therefore does not constitute mitigation in the context of SEQRA. Furthermore, mention of the assumed removal of 40% total phosphorus does not substantiate the dissolved fraction of the total phosphorus. The project sponsor's conclusive statement that "stormwater facilities designed in series are effective for removing dissolved phosphorous" is not supported in the design and information provided in the FEIS.

7. DEP requested that the applicant assess pollutants such as TN, BOD, and TSS in the FEIS. In Response 9-10, the project sponsor states that this was not done and that by

meeting current stormwater regulatory requirements the project is presumed to have achieved appropriate pollutant removals. Again, regulatory compliance represents a minimum code requirement and does not constitute appropriate mitigation under SEQRA.

8. DEP expressed concern regarding the adverse impacts associated with post-development increases in stormwater volume. DEP's concerns were not addressed in Response 9-16, which provides some characteristics of the channel of the receiving stream and assumptions of stream bed behavior with no supporting information to give context to the project. The data provided in Table 1-4 show that the revised plan will result in significant increases in post-development stormwater runoff volumes at Design Point 2. Based on the stormwater volume data from Table 1-4, the project will result in increases of 88%, 49%, and 61% in runoff volume above pre-development levels for the 1-year, 10-year, and 100-year, 24-hour storms respectively. Note that Design Point 2 is the watercourse to which all of the proposed stormwater management practices for the proposed project will discharge, which is directly tributary to Kensico Reservoir. Design Point 2 is the only design point showing a post-development increase in stormwater volume; therefore a "hard look" at adverse impacts due to increased post-development stormwater volume is warranted, with impacts either eliminated or mitigated.

9. DEP suggested the applicant consider an alternative that utilizes more intensive green stormwater infrastructure, including a green roof. Response 9-13 includes the unsupported assertion that a green roof "is not a proven effective measure for stormwater quality as they typically require fertilizer, thus increasing pollutants. Additionally, they have been proven to increase phosphorous and other nutrient loading and increase the temperature of stormwater runoff due to the heat island effect on the roof. Since Kensico Reservoir is often used for recreational fishing, the green roof is no longer being considered." DEP cannot concur with this unsubstantiated assessment of green roofs and strongly disagrees with the assumed potential impact on Kensico Reservoir. It is unlikely that a green roof will achieve a higher temperature than a standard asphaltic- or membrane-covered roof. A green roof combined with the measures to capture and treat stormwater runoff proposed by the project sponsor in the selected alternative would likely enhance the stormwater management capability of the project, not detract from it.

10. The extent of wetland and buffer enhancement should be clarified. The FEIS indicates that invasive species management will be conducted in an 8,000 square foot area of wetland buffer and 20,000 square foot area of wetland. The FEIS also indicates that coverage of invasive species is approximately 50% of these areas and cites 4,000 and 10,000 square feet of enhancement for the buffer and wetland, respectively. As such, removal of 14,000 square feet of invasive species may not be adequate mitigation for 36, 514 square feet of disturbance.

11. Both mechanical and chemical methods are proposed for the removal of 10 different invasive species in a 14,000 square foot area. This could potentially result in extensive chemical application within a wetland and buffer in close proximity to the Kensico

12. The FEIS also indicates that native species will be protected during enhancement activities but does not explain how. The project sponsor should provide a discussion on measures that will be used to protect native species during buffer enhancement.

13. A five year monitoring and maintenance program is indicated in the Wetland and Buffer Enhancement Plan. The plan should include a target level of invasive species coverage in the enhancement areas, and should include not only provisions for continued invasive species removal, but for continued planting of native species.

14. The symbol used in the landscape legend of Figure 1-5 for the wetland enhancement area does not appear in the figure itself and cannot be discerned. Figure 1-5 should be revised accordingly. In addition, Figure 1-5 does not clarify the species of plants proposed.

15. With regard to Response 6-2, Figure 1-10 and Drawing C-9 include a list of proposed plant species, yet provide no specific information on where each species will be placed in the landscape design. Appendix F, the Wetland and Wetland Buffer Enhancement Plan, also does not provide detail about their placement in the landscape. It is noted that certain species on the lists, notably, maple-leaved viburnum (Viburnum acerifolium) and running serviceberry (Amelanchier stolonifera), can be very difficult to obtain in larger quantities. Native plants with similar qualities could be selected to replace these. Others, such as elderberry (Sambucus canadensis) and swamp azalea (Rhododendron viscosum) can be favored deer foods and may need protection from herbivory. Depending on availability of other foods nearby, meadow voles and other rodents may attack bark on trees and shrubs. The landscaping plan should be more detailed and should indicate where each species is proposed for use.

16. Drawing C-13 shows planting details for deciduous and evergreen trees, and deciduous shrubs on steep slopes. Note that the use of stakes, guy wires, and tree wrap is no longer considered to be standard practice and should only be used where trees are subject to high winds (for guying materials) and thin-barked trees to sun-scald (for tree wrap). Should the site have these conditions and use of these items is necessary, a note on the plan should then be added to require their removal prior to final acceptance (i.e., within 1 year following planting) of the landscaping. If these materials are left in place, there is a high likelihood they will eventually strangle the trees and/or harbor pests or diseases and cause mortality.

Thank you for the opportunity to provide comments. You may reach me at cgarcia@dep.nyc.gov or (914) 773-4455 with any questions or if you care to discuss the matter further.

Sincerely,

Cynthia Garcia

Cynthia Garcia
SEQRA Coordination Section

C: SEQRA Unit, ACOE
D. Whitehead, NYSDEC
E. Burroughs, WCDP
J. Nash, AKRF Engineering, P.C.
D. Warne, Assistant Commissioner DEP
P. Bein, Watershed Inspector General

NEW YORK STATE OF OPPORTUNITY. | Department of Transportation

ANDREW M. CUOMO
Governor

JOAN McDONALD
Commissioner

WILLIAM GORTON, P.E.
Regional Director

February 2, 2015

Town of North Castle Planning Board
Adam R. Kaufman
17 Bedford Road
Armonk, NY 12504-1898

Re: SEQRA 09-0192
Park Place at Westchester Airport
Route 120, Town of North Castle
Westchester County

Dear Mr. Kaufman:

The New York State Department of Transportation (NYSDOT) is in receipt of the project Final Environmental Impact Statement (FEIS) dated January, 2015. The Department accepts the conclusions of the study offering no additional comments.

Please be advised that any work proposed within the State Right-of-Row including, but not limited to, permanent improvements, oversized/overweight transportation of materials/equipment, and implementation of temporary traffic management plans require a NYSDOT permit.

Thank you for the opportunity to comment.

Very truly yours,

Michael Sassi, P.E.
Regional Highway Work Permit Coordinator

cc: C. Lee, Permit Inspector, Residency 8-9
Westchester County Planning Board
AKRF

Robert P. Astorino
County Executive

County Planning Board

February 11, 2015

Adam R. Kaufman, AICP
Director of Planning
Town of North Castle
17 Bedford Road
Armonk, NY 10504-1898

Subject: **Referral File No. NOC 15-001 — Park Place at Westchester Airport**
Final Environmental Impact Statement
Zoning Text Amendments, Site Plan & Special Permit

Dear Mr. Kaufman:

The Westchester County Planning Board has received a final environmental impact statement (EIS) (dated accepted January 13, 2015) prepared pursuant to the NYS Environmental Quality Review Act (SEQR) for the above referenced actions. We have also received site plans, dated revised October 15, 2014.

The proposed development involves the construction of a privately-owned automated parking garage on a 3.3-acre site located at 11 New King Street, to the north of the Westchester County Airport. The site contains one tax lot (2.47 acres) and a 0.87-acre portion of an adjacent lot that will be used for the construction of stormwater management infrastructure by way of a drainage easement. The site currently contains a 9,700 square foot office building which would be demolished. The site is encumbered with a significant amount of wetlands, as well as a watercourse which drains to the Kensico Reservoir (Rye Lake) through the rear (west side) of the site.

While the project was initially proposed as a 1,450 space automated parking garage with a car wash, the project has been revised to reduce the building footprint so as to not encroach on any of the on-site wetlands. As a result, the car wash is no longer proposed and the garage has been reduced to 1,380 spaces. Building height, however, has increased to 59 feet from 56 feet initially proposed. The applicant is also proposing to construct the building to LEED certification, incorporating a number of green building elements including stormwater planters and a rooftop solar array.

The applicant is petitioning the Town for an amendment to the text of the Zoning Ordinance to allow parking structures in the Industrial AA (IND-AA) zoning district as a special permit use. The petition also proposes raising the maximum allowable building height in the IND-AA district to 60 feet, where 30 feet is the current maximum. If the zoning amendments are approved, the applicant would then proceed with site plan and special permit applications.

The County Planning Board has reviewed the final EIS under the provisions of Section 239 L, M and N of the General Municipal Law and Section 277.61 of the County Administrative Code. Through coordination with the County Department of Public Works and Transportation, we have also consulted with staff of the County Airport and the Federal Aviation Administration. Our review is a continuation of our earlier review, in response to the draft EIS, which was provided to the Town in a letter dated May 31, 2011.

Our review continues to find significant concerns about the compatibility of the proposed development with the need to protect people and property on the ground within certain zones around the airport. We consider it incumbent upon the Town of North Castle to place these concerns in the forefront when making decisions about what land uses should be permitted in runway protection zones. As the sole entity with land use authority at this location, it is the Town's responsibility to ensure that its land use controls and decisions protect public safety.

The County Planning Board's review raises serious concerns about the prudence of amending the Town Zoning Ordinance to allow the processing of the proposed development. We offer the following comments:

1. Location within runway protection zone for Westchester County Airport. As we noted previously in our response to the draft EIS, the location of the proposed parking garage is within the runway protection zone (RPZ) for runway 16 at the County Airport. Because the County is responsible as a sponsor for grants received from the FAA, the FAA has recommended that the County take action to the extent reasonable to discourage development within the RPZ.

The final EIS states the following with respect to the project's location within the RPZ:

- (The project) is outside of the central portion of the RPZ. According to AC 150-5300-13, uses such as automobile parking facilities are permitted outside of the central portion of the RPZ.
- The project has received a "No Hazard" determination from the FAA, pursuant to its FAA 7460-1 Form for Aeronautical Review—Aeronautical Study Number (ASN): 2011-AEA-2792-OE.

With respect to the above, we have consulted with the FAA and have been informed that the reference to the RPZ policy in AC 150/5300-13 is obsolete. In a FAA memorandum dated September 27, 2012 (attached), the FAA Office of Airports identified a need to clarify policies on land uses within the RPZ. The memorandum contains interim RPZ guidance that does not differentiate between the central portion and the controlled activity area. Significantly, we point out that this interim guidance was issued after the "No Hazard" determination was granted from the FAA on August 16, 2011. While documents have been provided noting that this determination was extended, it is our understanding that the approval expired on August 14, 2014.

Because the "No Hazard" determination is no longer in effect, and because the proposed building height has now been increased, the FAA has informed us that the proposed project must be re-evaluated using the interim RPZ policy.

2. <u>Possible conflicts with project elements and airport safety</u>. While this Board has long advocated for every development project to include the maximum amount of green building technology as possible, we caution against inclusion of two specific green building project elements at this particular site:

- The plans include stormwater planters to treat stormwater from the roof of the proposed garage. The additional plantings surrounding the building raise a concern that birds will be attracted to the site and that bird strikes with airplanes may increase. We recommend that this impact be evaluated.
- The plans include solar panels to be placed atop the roof of the garage. The solar panels may cause glare issues for aircraft. While the FAA requires a review for all solar panel installations on airport property, we encourage the applicant to follow FAA guidelines as much as possible if the solar panels continue to be considered. Information about FAA guidelines and policies with respect to solar installations can be found at: https://www.federalregister.gov/articles/2013/10/23/2013-24729/interim-policy-faa-review-of-solar-energy-system-projects-on-federally-obligated-airports

3. <u>County road.</u> The proposed traffic mitigation referenced in the final EIS would include restriping of the Airport Access Road (County Road 135), east of NYS Route 120, to create two receiving lanes. This work will require a Road Permit from the Westchester County Department of Public Works and Transportation. The striping/signage plan must meet MUTCD requirements and must take into consideration that at the intersection of the Airport Access Road with New King Street, the lane configuration is one eastbound left turn only lane and one eastbound through lane.

4. <u>Wetland, stormwater and water quality impacts</u>. While the final EIS notes that the development will no longer disturb any on-site wetlands, there will be extensive site disturbance within wetland buffer areas. This should be of concern, especially because the site is in close proximity to the Kensico Reservoir and contains a watercourse which drains directly to the reservoir.

The proposed stormwater management system of stormwater planters, sediment basin, sand filter and pocket wetland appears to provide a comprehensive treatment train of stormwater management practices that may properly treat stormwater runoff from the proposed structures. However, they would be located on a steeply sloping, forested embankment directly adjacent to an existing wetland and watercourse. The site plan proposes site work that would denude and extensively regrade the forested embankment. Construction of this stormwater management system, therefore, would replace the stormwater management benefits provided by the existing, naturally vegetated buffer alongside the wetland and watercourse with a man-made system that requires proper site and environmental conditions, design, construction and long-term maintenance.

No planting plan or adequate cross-sectional and other details specific to the proposed stormwater planters, sediment basin, sand filter and pocket wetland have been provided. Therefore, the proposed stormwater management practices cannot be adequately assessed by reviewing the current plans titled

No vehicular accessway is provided to all of the stormwater management practices. Therefore, the expected short- and long-term maintenance needs of these practices appear not to have been considered. Access to the practices, particularly to remove sediment and debris from the sediment basin and sand filter, should be provided and shown on the plans.

The erosion and sediment control plan is inadequate for the work proposed: a) an existing, steeply sloping, naturally vegetated buffer alongside a wetland and watercourse will be denuded and a considerable amount of earthen materials will be regraded alongside the wetland and watercourse in order to construct temporary sediment basins, b) the same area will then be regraded again to construct permanent stormwater management practices, and c) regrading also will occur at the wetland and watercourse crossing on the northeastern side of the site. To protect the immediately adjacent wetlands and watercourse, only a single line of silt fence has been proposed at the toe of the newly created steep slopes. This is not in compliance with sound erosion and sediment control practices.

Better protection of these water resources should be required in accordance with the *New York State Standards and Specifications for Erosion and Sediment Control*. The erosion and sediment control plan also needs to clearly depict how erosion and sediment control practices will be adjusted through the various phases of construction. This will require the preparation of more than one erosion and sediment control plan sheet so that multiple phases of construction and corresponding erosion and sediment control practices can be shown.

Thank you for calling this matter to our attention.

Respectfully,
WESTCHESTER COUNTY PLANNING BOARD

FOR:
By:

Edward Buroughs, AICP
Commissioner

EEB/LH

cc: Patty Chemka, Deputy Commissioner, County Department of Public Works and Transportation
Peter Scherrer, Manager, Westchester County Airport
Michael Dispenza, Contract Administrator, County Department of Public Works and Transportation
Kevin Roseman, Traffic Engineer, County Department of Public Works and Transportation
Otto N. Suriani, Acting New York Airport District Manager, Federal Aviation Administration, Eastern Region
Thomas Felix, Manager, Planning and Programming Branch, Federal Aviation Administration

Federal Aviation Administration

Memorandum

Date: SEP 27 2012

To: Regional Airports Division Managers
610 Branch Managers
620 Branch Managers
ADO Managers

From: Benito De Leon, Director
Office of Airport Planning and Programming (APP-1)

Michael J. O'Donnell, Director
Office of Airport Safety and Standards (AAS-1)

Subject: Interim Guidance on Land Uses Within a Runway Protection Zone

Background

The FAA Office of Airports (ARP) has identified the need to clarify our policy on land uses within the Runway Protection Zone (RPZ). This memorandum presents interim policy guidance on compatible land uses within Runway Protection Zones (RPZ) to address recurrent questions about what constitutes a compatible land use and how to evaluate proposed land uses that would reside in an RPZ. While Advisory Circular 150/5300-Change 17(Airport Design) notes that "it is desirable to clear all objects from the RPZ," it also acknowledges that "some uses are permitted" with conditions and other "land uses are prohibited."

RPZ land use compatibility also is often complicated by ownership considerations. Airport owner control over the RPZ land is emphasized to achieve the desired protection of people and property on the ground. Although the FAA recognizes that in certain situations the airport sponsor may not fully control land within the RPZ, the FAA expects airport sponsors to take all possible measures to protect against and remove or mitigate incompatible land uses.

ARP is developing a new guidance document for the Regional Office (RO) and Airport District Office (ADO) staff that clarifies our policy regarding land uses in the RPZ. This new guidance document will outline a comprehensive review process for existing and proposed land uses within an RPZ and is slated for publication in 2013. We also intend to incorporate RPZ land use considerations into the ongoing update to the Land Use Compatibility Advisory Circular (AC) which is slated for publication in 2014.

This memorandum outlines interim guidance for ARP RO and ADO staff to follow until the comprehensive RPZ land use guidance is published.

Interim Guidance

New or Modified Land Uses in the RPZ

Regional and ADO staff must consult with the National Airport Planning and Environmental Division, APP-400 (who will coordinate with the Airport Engineering Division, AAS-100), when any of the land uses described in **Table 1** would enter the limits of the RPZ as the result of:

1. An airfield project (e.g., runway extension, runway shift)
2. A change in the critical design aircraft that increases the RPZ dimensions
3. A new or revised instrument approach procedure that increases the RPZ dimensions
4. A local development proposal in the RPZ (either new or reconfigured)

Table 1: Land Uses Requiring Coordination with APP-400

- Buildings and structures (Examples include, but are not limited to: residences, schools, churches, hospitals or other medical care facilities, commercial/industrial buildings, etc.)
- Recreational land use (Examples include, but are not limited to: golf courses, sports fields, amusement parks, other places of public assembly, etc.)
- Transportation facilities. Examples include, but are not limited to:
  - Rail facilities – light or heavy, passenger or freight
  - Public roads/highways
  - Vehicular parking facilities
- Fuel storage facilities (above and below ground)
- Hazardous material storage (above and below ground)
- Wastewater treatment facilities
- Above-ground utility infrastructure (i.e. electrical substations), including any type of solar panel installations.

Land uses that may create a safety hazard to air transportation resulting from wildlife hazard attractants such as retention ponds or municipal landfills are not subject to RPZ standards since these types of land uses do not create a hazard to people and property on the ground. Rather, these land uses are controlled by other FAA policies and standards. In accordance with the relevant Advisory Circulars, the Region/ADO must coordinate land use proposals that create wildlife hazards with AAS-300, regardless of whether the proposed land use occurs within the limits of an RPZ.

Alternatives Analysis

Prior to contacting APP-400, the RO and ADO staff must work with the airport sponsor to identify and document the full range of alternatives that could:

1. Avoid introducing the land use issue within the RPZ
2. Minimize the impact of the land use in the RPZ (i.e., routing a new roadway through the controlled activity area, move farther away from the runway end, etc.)

3. Mitigate risk to people and property on the ground (i.e., tunneling, depressing and/or protecting a roadway through the RPZ, implement operational measures to mitigate any risks, etc.)

Documentation of the alternatives should include:

- A description of each alternative including a narrative discussion and exhibits or figures depicting the alternative
- Full cost estimates associated with each alternative regardless of potential funding sources.
- A practicability assessment based on the feasibility of the alternative in terms of cost, constructability and other factors.
- Identification of the preferred alternative that would meet the project purpose and need while minimizing risk associated with the location within the RPZ.
- Identification of all Federal, State and local transportation agencies involved or interested in the issue.
- Analysis of the specific portion(s) and percentages of the RPZ affected, drawing a clear distinction between the Central Portion of the RPZ versus the Controlled Activity Area, and clearly delineating the distance from the runway end and runway landing threshold.
- Analysis of (and issues affecting) sponsor control of the land within the RPZ.
- Any other relevant factors for HQ consideration.

APP-400 will consult with AAS-100 when reviewing the project documents provided by the RO/ADO. APP-400 and AAS-100 will work with the Region/ADO to make a joint determination regarding Airport Layout Plan (ALP) approval after considering the proposed land use, location within the RPZ and documentation of the alternatives analysis.

In addition, APP-400 and AAS-100 will work with the Region/ADO to craft language for inclusion in the airspace determination letter regarding any violations to ensure that all stakeholders (including tenants, operators, and insurers) are fully apprised of the issues and potential risks and liabilities associated with permitting such facilities within the RPZ.

Existing Land Uses in the RPZ

This interim policy only addresses the introduction of new or modified land uses to an RPZ and proposed changes to the RPZ size or location. Therefore, at this time, the RO and ADO staff shall continue to work with sponsors to remove or mitigate the risk of any existing incompatible land uses in the RPZ as practical.

For additional information or questions regarding this interim guidance, please contact either Ralph Thompson, APP-400, at ralph.thompson@faa.gov or (202) 267-8772 or Danielle Rinsler, APP-401, at danielle.rinsler@faa.gov or (202) 267-8784.

Comments of the Office of the Watershed Inspector General

Final Environmental Impact Statement
Park Place at Westchester Airport
Town of North Castle, Westchester County, New York

February 19, 2015

The Office of the Watershed Inspector General ("WIG" or "WIG Office")[1] respectfully submits these comments on the final environmental impact statement ("FEIS") concerning the proposed Park Place at Westchester Airport project located in the Town of North Castle, Westchester County ("Park Place" or "the Project"). Park Place entails construction of a large parking facility in one of the most sensitive areas of the New York City Watershed, only 600 feet from the Kensico Reservoir, a water body that provides unfiltered drinking water to approximately eight million New Yorkers each day. The WIG Office submitted comments on the draft environmental impact statement ("DEIS") for Park Place on June 1, 2011. In those comments, the WIG sought modifications of the Project to avoid construction in wetland and buffer areas, to improve erosion and sediment controls to prevent pollution during construction, and to enhance post-construction stormwater practices.

Unfortunately, while some of our DEIS concerns have been addressed, serious problems of project design and pollution control remain. Among these problems is the Project's footprint which is significantly oversized and should be scaled down to avoid encroaching on wetland and watercourse buffer areas that play a vital role in protecting the Kensico Reservoir from pollution. In addition, the hydrologic analysis, which underpins the Project's plan for controlling stormwater post-construction, is flawed and must be redone. Otherwise there is no basis to conclude that the plan is sufficient to protect the Kensico from stormwater discharges.

Until these and other problems are corrected in accordance with our comments, the WIG Office recommends that the Town Planning Board withhold its approval for the Project.

[1] The position of WIG was established by Governor Pataki in Executive Order No. 86 on August 19, 1998, and continued in orders by successive governors. *See* 9 NYCRR § 5.86. The WIG's purpose is "to enhance current efforts to protect the New York City drinking water supply from activities that have the potential to adversely affect the New York City Watershed reservoirs and tributaries." *See id.* § 5.86. The WIG is a joint appointee of the Attorney General and the Governor within the employ of the Attorney General. The comments herein express the views of the WIG and not necessarily those of any State agency that may now or later be represented by the Attorney General in this matter or in any related matter.

I. Documents Reviewed

The WIG Office, with the assistance of its consultant, Donald Lake, P.E., CPESC, CPSWQ, reviewed the following documents:

1. The final environmental impact statement (FEIS) by AKRF for 11 New King Street, LLC, dated January 2015 (336 pages);
2. FEIS Appendices, AKRF, January 2015 (658 pages);
3. The revised stormwater pollution prevention plan (SWPPP), AKRF, dated December 9, 2014 (328 pages); and
4. Large scale drawings, C-1 through C-15, updated for FEIS submission.

II. Project Improvements

The application of phosphorous containing fertilizer has been eliminated. In addition, the FEIS reflects several relatively modest improvements in site design. The number of parking spaces is reduced from 1450 to 1380 (or 5 %). The Project footprint is reduced from 51,000 square feet to 45,000 square feet (or 12%). Site area disturbance is reduced from 122,038 square feet to 117,081 square feet (or 4%). Proposed impervious area is reduced from 68,570 square feet to 62,767 square feet (or 8.5%). Both the proposed car wash and disturbances in wetlands have been eliminated. In addition, the Project's sponsor has acknowledged and conceptually agreed with a majority of the WIG Office's DEIS comments concerning its stormwater pollution prevention plan ("SWPPP").

III. Remaining Deficiencies

1. **Disturbances in Wetland and Watercourse Buffers Should Be Eliminated**:

   Significant disturbance and encroachments of wetland and watercourse buffers remain. The Project still proposes construction of stormwater practices and additional impervious areas within the 100' Town of North Castle wetland buffer. The combined disturbances from these activities within the wetland buffer amounts to about 40,000 square feet in area. In the FEIS Chapter 3, Comments and Responses, on page 3-197, Response 9-76 states: "The Lead Agency does not typically permit stormwater treatment facilities in the Town-regulated wetland buffer." Given the extremely sensitive location of the site, just on the doorstep of the Kensico Reservoir, there is no reason why the Town Planning Board as Lead Agency should allow that here.

   The construction of the parking facility would increase by over 400% the amount of impervious surface within the 100' buffer of a DEP-regulated intermittent stream (from approximately 2,043 ft^2 to 10,413 $ft^{2)}$. *See* attached Figures 1 and 2, prepared by Donald Lake using a planimeter. Under DEP's

Watershed Regulations, the construction of an impervious surface within 100' of a watercourse is generally prohibited. *See* 10 NYCRR § 128-3.9(a)(1). And, as DEP has indicated in its February 12, 2015 comments on the FEIS, because the planned expansion of all impervious areas at the site is so large, an exception to that prohibition for more limited expansions of impervious areas does not apply. 10 NYCRR § 128-3.9(a)(4)(iii). In light of the extremely sensitive location of the site and proposed large encroachment within the buffer, the WIG Office is aware of no reason why a variance to this prohibition should be granted.

Thus, the Project should be scaled down or reconfigured to exclude disturbances and new impervious areas from Town and DEP buffer areas.

2. **The Hydrology is Incorrect and Needs to be Redone**.

   a. **Incorrect Use of Rainfall Data**:

   The hydrologic analysis performed with the HydroCAD computer program is flawed. Although the updated Northeast Regional Climate Center (NRCC) rainfall data values were correctly used in the routings, they were incorrectly coupled with a Soil Conservation Service (SCS) Type 3 rainfall distribution, which is no longer valid in New York State. The rainfall table from NRCC must be imported into the HydroCAD file, to be converted to the appropriate rainfall distributions at the project site. These analyses must be redone.

   b. **Incorrect Use of Soil Data**:

   The Hydrologic Soil Groups (HSG) and soil data for this project are outdated and incorrect. The SWPPP Appendix B, Pre and Post Stormwater Drainage Maps, shows a significant amount of Charlton loam soil on site. The U.S. Department of Agriculture Natural Resources Conservation Service updated soil survey information for Putnam and Westchester Counties in December 2011. As a result, the Charlton loam is no longer mapped for this site. The soil replacing Charlton loam is Woodbridge loam which appears on page 4 of the SWPPP Summary. Both of these loam soils are HSG C, but the type of land use overlaying different areas of each of these soils may have changed which could result in a change in the runoff volume. Another change to the soil data is that Ridgebury loam, which was a HSG C soil is now an HSG D soil. (A HSG D soil is the least permeable soil type and water will often pool on top of it). However, the existing routing results using the HydroCAD computer model do not account for any HSG D soil in the drainage areas. This change, which occurs over approximately 50-60% of the site, as well as

HSG C area changes, will result in an increase in the runoff curve number (RCN) and thus an increase in the runoff volume amounts for all storm frequencies. Therefore, all the hydrology must be re-calculated with this updated soil data.

c. <u>Other Deficiencies:</u>

Our DEIS Technical Comments, in items 11 through 21, questioned the details of the site hydrology and the design analyses. These issues have not been satisfactorily addressed. The FEIS responded to these comments by stating that these items will be addressed at the Site Plan Review stage. However, these comments concern the calculations and analyses for stormwater management practices and infrastructure connections, including sizing, placement, and sequencing of practices, which could impact the amount of disturbances. It is essential that these comments be addressed at this time to properly assess environmental impacts.

3. **<u>Inconsistencies Between Drawings and the HydroCAD Analsyis</u>**:

a. The data presented in the Stormwater Facility Profile shown on drawing C-13, Standard Details IV, is incorrect and does not agree with the current HydroCAD routing inputs and results. The following table illustrates the inconsistencies between drawing C-13 and the HydroCAD values:

<u>Structure & Storm</u>	<u>C-13 Elev.</u>	<u>H'CAD Elev.</u>
Sand Filter - 1 Yr	387.39	387.00
Sand Filter – 10 Yr	387.63	387.05
Sand Filter – 100 Yr	387.75	387.93
Wetland – 1 Yr	378.23	378.60
Wetland – 10 Yr	378.93	378.78
Wetland – 100 – Yr	379.76	380.16

In addition, drawing C-13 shows the wetland permanent pool to be at elevation 377.5, while the HydroCAD routings start at pool elevation 378.00. The wetland outlet pipe elevation should be 372.5, instead of the 368.5 +/- shown on the drawing. Therefore, the entire Stormwater Facility Profile should be re-drawn once the correct elevations and dimensions have been established.

b. A quality assurance/quality control check should be performed between drawings C-6, C-11, C-13, and the HydroCAD input and output to

ensure that all elevations and dimensions between these documents are in agreement. As of now, they are not.

4. **Pollutant Loading and Stormwater Retrofits**

Our DEIS Technical Comments, in items 24 and 25, dealt with pollutant loading and water quality, and recommended that the sponsor implement additional retrofits for the impervious areas on the adjacent lot 13A. In the FEIS's response to these comments, the sponsor stated that it would investigate options for retrofitting these impervious areas and include them in the final SWPPP. This investigation should not be deferred; rather it should be completed and incorporated into the project before it is approved by the Lead Agency.

5. **The Concrete Truck Washout Facility is Not Properly Specified.**

A concrete truck washout facility must be added to the SWPPP in Sections 7.1, Erosion and Sediment Control Practices, and 8.1, Inspections and Record Keeping During Construction. It should also be included on the drawing C-1, Notes and drawings C-8, Erosion and Sediment Control Plan and C-13, Standard Details IV. Although a concrete truck washout facility is acknowledged in the "Comments and Responses" on page 3-249 of Chapter 3 in the FEIS, it must be placed on the applicable drawings and incorporated more fully into the SWPPP.

6. **Catch Basin Hoods:**

The design details for catch basin hoods do not appear on the drawings. These hoods are covers which extend over the entrance of the outlet pipes of the catch basins. They extend out from the wall and down over the opening of the pipe entrance to keep trash out. The omission of design detail must be corrected to properly assess whether the hoods are properly sized.

7. **Rock Outlet Protection:**

Rock outlet protection for the end of the Perimeter Dike and Swales #1 and #2 has not been included on drawing C-8 in the Erosion and Sediment Control Plan. This omission must be corrected.

8. **Structure Type ES6:**

The Storm Drainage Schedule table on drawing C-6 should be amended to include information for structure no. 18, which is shown on the drawing and labeled as structure type ES6. Structure type ES6 is the roof leader or roof downspout and extended discharge pipe from the building on Lot 13A to the wetland. This outlet should be removed from the wetland and re-routed to the sediment basin to provide enhanced water quality treatment, by allowing particles to settle out prior to directing the flow through the treatment system. In addition, structure 8 in the storm drainage schedule needs to be corrected to show a 15 inch diameter pipe outletting from the flow splitter instead of the 12 inch diameter pipe.

IV. Conclusion

In conclusion, the WIG Office requests that the Town Planning Board withhold its approval of the Project until these comments are fully addressed.

Respectfully submitted,

//s

Philip Bein
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Assistant Attorney General
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//s

Charles Silver, Ph.D.
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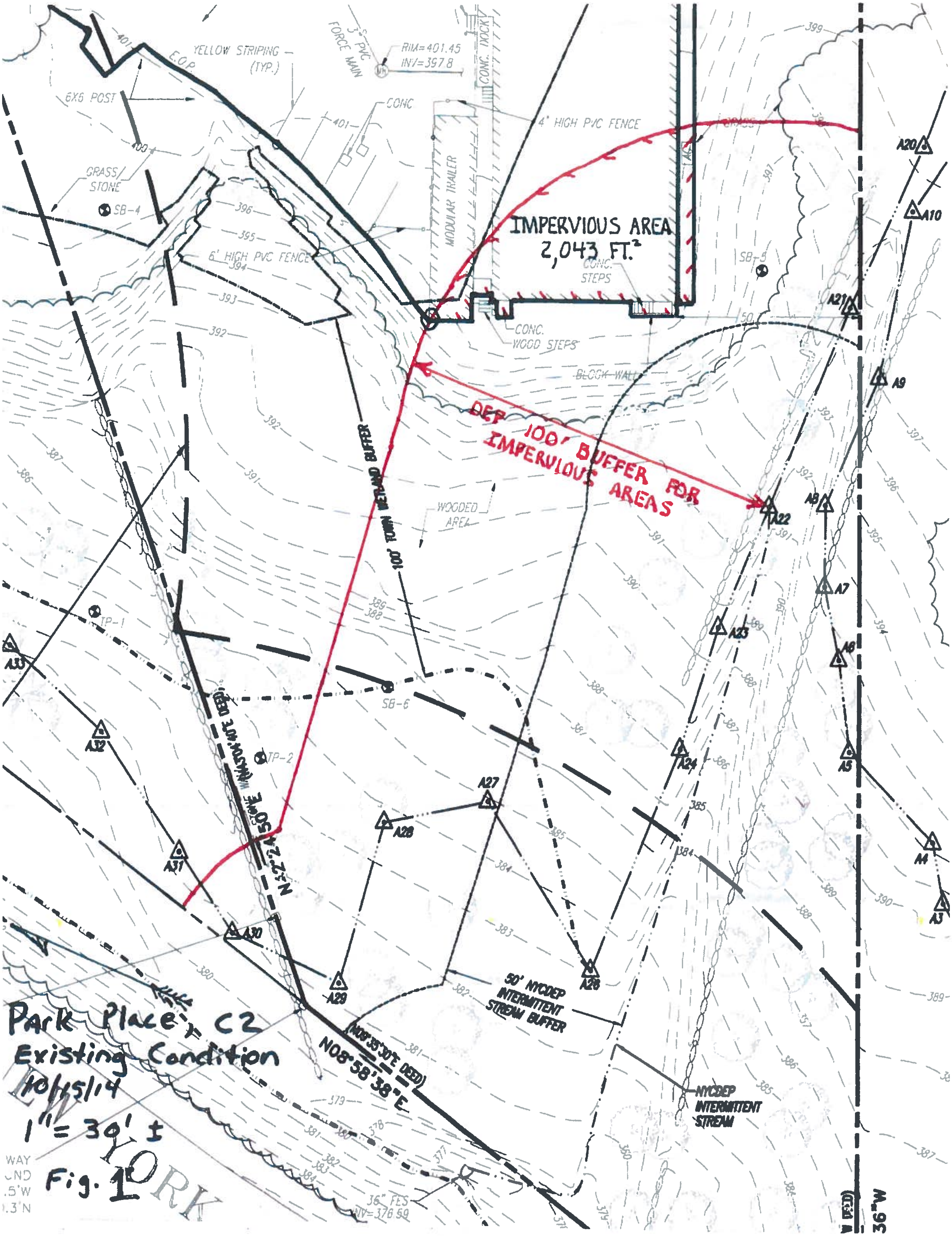
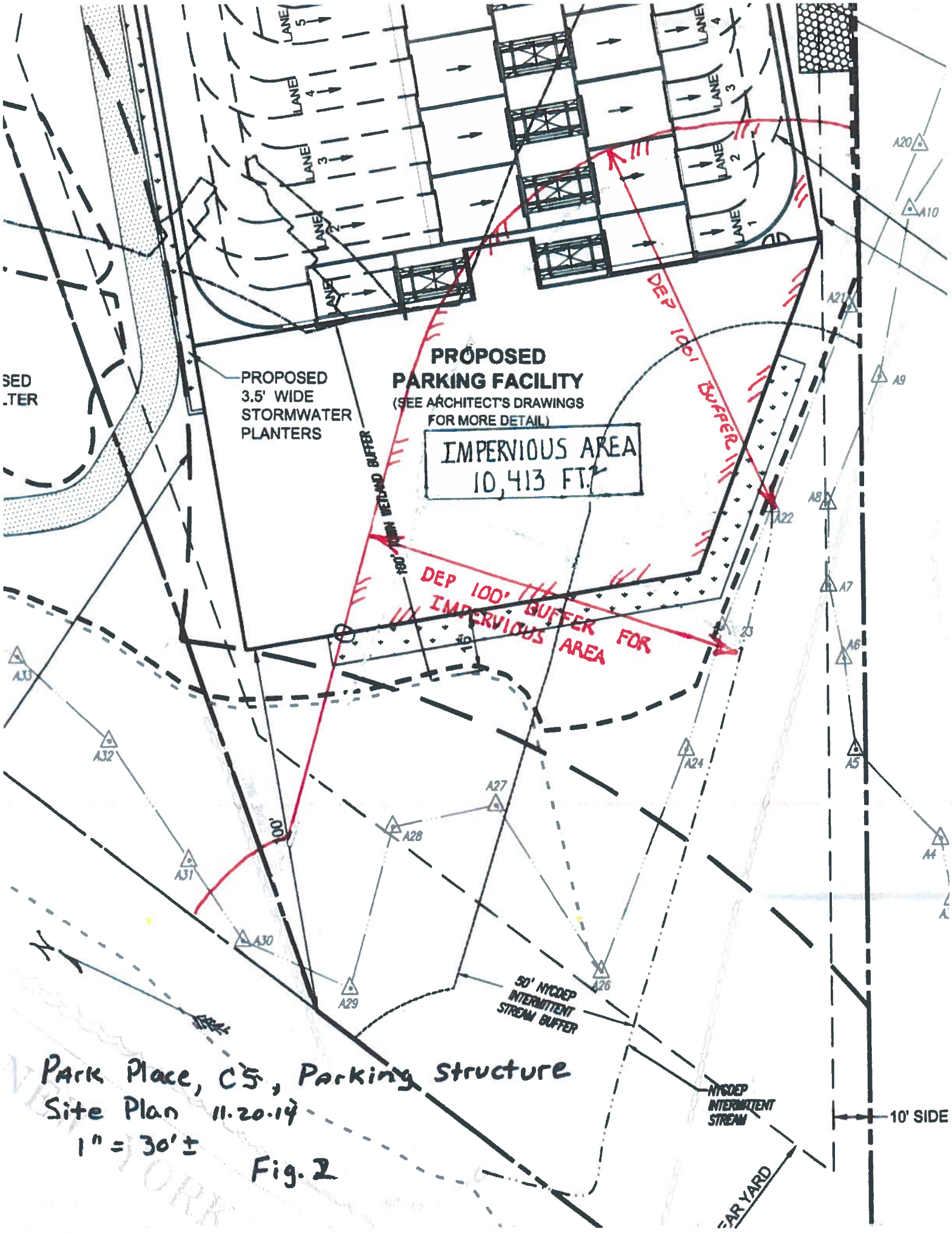
Cc: Dave Warne
Cynthia Garcia
Matt Giannetta
John Drake
Tom Snow


IMPERVIOUS AREA
2,043 FT.²
DEP 100' BUFFER FOR IMPERVIOUS AREAS
YELLOW STRIPING (TYP.)
E.O.P.
6X6 POST
GRASS/STONE
SB-4
3" PVC FORCE MAIN
RIM=401.45
INV=397.8
CONC.
CONC. DOCK
MODULAR TRAILER
4' HIGH PVC FENCE
6' HIGH PVC FENCE
CONC. STEPS
CONC. WOOD STEPS
BLOCK WALL
SB-5
100' TOWN WETLAND BUFFER
WOODED AREA
TP-1
TP-2
SB-6
N32°2?'50"E
STONE WALL
50' NYCDEP INTERMITTENT STREAM BUFFER
NYCDEP INTERMITTENT STREAM
N08°58'38"E
(N08°35'30"E DEED)
36" FES
INV=376.59
36"W
A3
A4
A5
A6
A7
A8
A9
A10
A20
A21
A22
A23
A24
A26
A27
A28
A29
A30
A31
A32
A33

Park Place, C2
Existing Condition
10/15/14
1" = 30' ±
Fig. 1



Park Place, C5, Parking Structure
Site Plan 11.20.14
1" = 30'±

Fig. 2

Comments of the Office of the Watershed Inspector General

Draft Environmental Impact Statement
Park Place at Westchester Airport
Town of North Castle
Westchester County, New York

June 1, 2011

The Office of the Watershed Inspector General ("WIG" or "WIG Office")[1] respectfully submits these comments on the draft environmental impact statement ("DEIS") concerning the proposed Park Place at Westchester Airport project located in the Town of North Castle, Westchester County ("Park Place" or "the Project"). Park Place is an automated parking facility that would be located only six hundred feet from the Kensico Reservoir. As a terminal reservoir, water from the Kensico is drawn directly into New York City's drinking water distribution system following chlorination. The Kensico Reservoir typically provides unfiltered drinking water to approximately eight million New Yorkers each day.

WIG submits these comments because construction activities at the proposed Park Place project, as currently described, would threaten pollution of the Kensico Reservoir. WIG recognizes that the Project could have beneficial impacts on stormwater pollution after construction is complete, especially if significant improvements to the preliminary stormwater plans for the Project are implemented. WIG does not oppose development of Park Place, but seeks appropriate modifications of the Project to avoid construction in wetland and wetland buffer areas, to improve erosion and sediment controls to prevent pollution during construction, and to enhance post-construction stormwater practices. Such modifications are necessary to eliminate and mitigate potential adverse water pollution impacts from the project in accordance with the State Environmental Quality Review Act ("SEQRA").

comment 8-117

I. Summary

The project site includes two contiguous map parcels adjacent to each other north of Westchester County Airport in the Town of North Castle, one at 11 New King Street (Lot 14B) and the other located at 7 New King Street (Lot 13A). The 2.47-acre parcel at 11 New King Street currently supports a 9,700-square-foot one-story office building built in the 1960s and a 35-space parking area. The total extent of impervious area at the

[1] The position of WIG was established by Governor Pataki in Executive Order No. 86 on August 19, 1998, and continued in orders by successive governors. See 9 NYCRR § 5.86. The WIG's purpose is "to enhance current efforts to protect the New York City drinking water supply from activities that have the potential to adversely affect the New York City Watershed reservoirs and tributaries." See id., § 5.86. The WIG is a joint appointee of the Attorney General and the Governor within the employ of the Attorney General. The comments herein express the views of the WIG and not necessarily those of any State agency that may now or later be represented by the Attorney General in this matter or in any related matter.

existing project site is approximately 32,000 square feet or nearly three quarters of an acre. Approximately 0.87 acres of the 4.20-acre parcel at Lot 13A is included within the project site. This portion of the project site is undeveloped and primarily wooded.

The proposed project would involve construction of an approximately 267,000-square-foot five-and-a-half-level enclosed automated parking structure with a building footprint of approximately 51,000 square feet (~1.2 acres). The parking facility is designed to accommodate 1,450 vehicles. The upper levels and partial lower level would be used primarily for vehicle storage. The main level would contain a variety of areas intended for: vehicle and equipment storage, an office, a shuttle bus pick up/drop off waiting area, vehicle loading bays for vehicle drop off and automated parking, and a car wash bay. Water from the automated car wash will be filtered, treated, and recycled. Wastewater that is not recycled will be sent to the municipal sewer. The total extent of impervious area at the proposed parking facility would be approximately 60,200 square feet (1.38 acres), or almost twice as much as currently exists on site.

With the exception of the northern corner of the site, watercourses and Town wetlands surround much of the property. The watercourses include a perennial New York State Department of Environmental Conservation designated Class A stream and an ephemeral drainage channel. When leaving the site, the stream flows to the west under NYS Route 120 and into the Rye Lake portion of the Kensico Reservoir. Due to its connection to the Kensico Reservoir, the stream is considered a "reservoir stem" by the New York City Department of Environmental Protection ("NYCDEP"), defined by that agency as any watercourse segment which is tributary to a reservoir and lies within 500 feet or less of the reservoir. A reservoir stem designation includes a 300-foot buffer that extends in a circular configuration beyond the 500 foot upstream point from where the stream enters the reservoir. The western boundary of the Park Place site is located approximately 600 feet from the reservoir. As such, part of the property is located within the reservoir stem buffer area. No activities regulated by NYCDEP, such as constructing new impervious surfaces, are being proposed within the reservoir stem buffer area.

Town of North Castle wetlands have been identified and tentatively delineated on site. The tentative wetland boundaries are subject to confirmation by the Town this Spring. Town delineated wetlands are protected by a 100 foot buffer area. Construction of an impervious surface within 100 feet of a watercourse or wetland without a permit or variance is prohibited by the Town. Using the preliminary unconfirmed wetland delineation, approximately 0.13 acres of wetlands are to be destroyed at the site. Mitigation for this loss consists of creating new onsite wetland areas. In addition, 0.49 acres of wetland buffer would be destroyed. Mitigation proposed for this loss is wetland vegetation planting, primarily within the proposed stormwater management system, within the remaining buffer area.

As discussed further below and in the attached Technical Appendix, the DEIS's evaluation of the Project's pollution impacts and plans for mitigation are flawed. Further environmental review under SEQRA and modifications to the Project are needed to correct these deficiencies and mitigate potential adverse water quality impacts. Project

comment 9-72

modifications should include, among other elements: (1) scaling down the development footprint to reduce wetland and associated buffer area disturbance at the site; (2) maximizing the use of "green infrastructure" to reduce pollutant loadings and runoff volumes; (3) revising the preliminary stormwater pollution prevention plan to more effectively mitigate pollution impacts; and (4) implementing, or funding the implementation of, additional offsite mitigation projects to further reduce stormwater pollution.

II. The Kensico Reservoir

The proposed Project is located adjacent to the Kensico Reservoir in suburban central Westchester County. The Kensico Reservoir holds 30.6 billion gallons at full capacity and is located approximately 15 miles north of New York City. The Reservoir's drainage basin is highly developed, and includes portions of the Towns of Harrison, Mount Pleasant, North Castle, New Castle, and Greenwich, Connecticut.

The Kensico Reservoir receives most of its water from two aqueducts that transport water from the city's six West-of-Hudson reservoirs in the Catskill and Delaware portions of the New York City Watershed ("Watershed"). As the terminal reservoir for the Catskill and Delaware system waters, the Kensico Reservoir is ordinarily the last stop before its unfiltered drinking water empties into the distribution system for New York City. Water is usually detained in the Kensico Reservoir for 15 to 25 days before entering the distribution system. The Westchester Joint Water Works also draws unfiltered drinking water for areas of Harrison, Port Chester, Rye, and Rye Brook, directly from the western "Rye Lake" section of the Kensico.

The proposed Project has the clear potential for significant adverse impacts on the Kensico Reservoir and its tributaries. These include construction related erosion and sedimentation (e.g., siltation from excavation) and discharges of turbidity in runoff; increased stormwater flow from additional impervious surfaces; and polluted runoff (e.g., oil, grease, and automotive fluids from parking areas, soaps and detergents from a car wash, fertilizers and pesticides from lawns, and pathogens carried in stormwater into the Reservoir from newly created impervious surfaces). In the event these pollutants enter the Kensico Reservoir from adjacent developments, they will not receive treatment other than the limited but important protections afforded by disinfection with chlorine implemented by NYCDEP.

Comment 9-73

During normal operations, the Kensico Reservoir provides unfiltered drinking water to roughly 90% of the people who consume New York City water. As a result, the Kensico Reservoir is a critical component of New York City's drinking water supply system and is subject to strict water quality standards as a Class "AA" water body.

A Class AA water body is of sufficient quality when adequately disinfected to serve as a source of safe and satisfactory drinking water that will meet New York State Department of Health drinking water standards. 6 NYCRR §701.5. The best usages of Class AA waters are: a source of water supply for drinking, culinary or food processing

purposes; primary and secondary contact recreation; and fishing. Class AA waters shall be suitable for fish, shellfish, and wildlife propagation and survival. Id.

The Kensico Reservoir is also regulated by the federal Safe Drinking Water Act, 42 U.S.C. § 300f et seq. ("SDWA"). Under the SDWA, EPA promulgated the Surface Water Treatment Rule, which requires that a public drinking-water system supplied by surface waters satisfy water quality standards, either by installing a filtration system or by meeting criteria, including a "watershed control program," to protect the quality of the water in the absence of filtration. See 40 C.F.R. §§ 141.70, 141.71. Under EPA regulations, the City has avoided filtration of Kensico Reservoir water pursuant to several filtration avoidance determinations issued by that agency since the 1990s.

Under the SDWA, Kensico water must comply with water quality standards for turbidity and pathogens. EPA prohibits raw water turbidity measurements in unfiltered drinking water, such as the Kensico Reservoir, at the intake to the distribution system in excess of 5 nephelometric turbidity units. See 40 CFR § 141.71(a)(2). Violations of this turbidity standard could provide grounds for the New York State Department of Health ("NYSDOH"), which now holds primacy in enforcing filtration avoidance regulations under the SDWA, to require that the City filter Kensico water. In the 2007 Filtration Avoidance Determination, EPA found that "significant improvement to the City's ability to prevent, manage, and control turbidity in the Catskill System [which supplies almost half of the water in Kensico Reservoir] is required in order to maintain filtration avoidance for the long-term."[2] In addition, because of the health risks associated with pathogens in a drinking water supply, EPA requires that each unfiltered water system meet strict requirements "ensuring that the system is not a source of a waterborne disease outbreak." 40 C.F.R. § 141.71.

Development within the Kensico Reservoir Basin threatens the discharge of additional turbidity and pathogens, among other pollutants, to that waterbody. If the Kensico Reservoir fails to meet water quality standards, the City could be forced to construct a filtration plant for Kensico water, entailing capital expenditures of over $10 billion and annual operation and maintenance costs exceeding $100 million.

Comment 8-110

Given the sensitivity of the Kensico Reservoir as a terminal reservoir, new development is generally disfavored within the Kensico basin and any development that is approved must achieve compliance with strict and heightened pollutant control criteria. To address concerns arising from polluted runoff from existing development and impervious surfaces, extensive and very costly efforts have been undertaken by the NYCDEP and others to reduce pollutant loading from existing development into the Kensico Reservoir.

[2] 2007 FAD, pp. 13-14.

III. Stormwater Pollution Associated with Construction and Development of Land

"Stormwater pollution is one of the most significant sources of water pollution in the nation." Environmental Def. Ctr., Inc. v. EPA, 344 F.3d 832, 840 (9th Cir. 2003). According to EPA, "[u]ncontrolled storm water discharges from areas of urban development and construction activity negatively impact receiving waters by changing the physical, biological, and chemical composition of the water, resulting in an unhealthy environment for aquatic organisms, wildlife and humans," and can "severely compromise" water quality.[3]

The construction and development of land, is a major source of pollutants discharged to surface waterbodies, such as rivers and reservoirs, in stormwater runoff. Discharges of stormwater from construction sites include sediment which, when suspended in water contributes to turbidity (murkiness) in the water and serves as a carrier of other pollutants, such as phosphorus, metals, organic compounds, and pathogens. "It is generally acknowledged that erosion rates from construction sites are much greater than from almost any other land use."[4] Sediment loads in stormwater discharges from construction sites are typically 1,000 to 2,000 times the sediment loads in discharges from undeveloped forested land.[5]

Development adjacent to the Kensico Reservoir could increase discharges of stormwater polluted by turbidity, pathogens, and other contaminants. Turbidity not only facilitates the transportation of pollutants, but it can shelter pathogens from exposure to attack by chlorine, a disinfectant routinely used in the Kensico Reservoir to protect public health. In addition, the organic particles that contribute to turbidity can also combine with chlorine to create disinfection by-products which may increase the risk of cancer or early term miscarriage for people drinking the water.[6]

Comment 9-74

Post-construction stormwater discharges from developed areas are also a major source of pollution to the waters of the United States. "Urbanization alters the natural infiltration capability of the land and generates a host of pollutants . . . thus causing an increase in storm water runoff volumes and pollutant loadings."[7] Land development "can

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[3] "National Pollutant Discharge Elimination System – Regulations for Revision of the Water Pollution Control Program Addressing Stormwater Discharges; Final Rule," 64 Fed. Reg. 68722, 68724, 68728. (Dec. 8, 1999) (hereinafter, 1999 Preamble & Rule).

[4] "National Pollutant Discharge Elimination System – Regulations for Revision of the Water Pollution Control Program Addressing Stormwater Discharges; Final Rule," 64 Fed. Reg. 68722, 68724, 68728. (Dec. 8, 1999).

[5] EPA, "Storm Water Phase II Final Rule: Small Construction Program Overview (Fact Sheet 3.0)," EPA 833-F-00-013 (Jan. 2000), available at http://www.epa.gov/npdes/pubs/fact3-0.pdf.

[6] See National Research Council, "Watershed Management for Potable Water Supply: Assessing the New York City Strategy" (2000) at 2, 5-6, 102-05, 109.

[7] 1999 Preamble & Rule, 64 Fed. Reg. at 68725.

result in both short- and long-term adverse impacts to water quality in lakes, rivers and streams within the affected watershed by increasing the load of various pollutants in receiving water bodies, including sediments, metals, organic compounds, pathogens, and nutrients."[8] Stormwater pollution to the Kensico Reservoir is of great concern becauseits drainage basin, including the Project Site, lies within the "sixty-day travel time" of the water which is supplied to consumers. Sixty days is generally viewed as the life span for many disease-causing microbes in fresh water, such as Giardia lamblia and cryptosporidia.

Comment B-119

Preventing pathogens from contaminating the water is of particular concern for the City's Watershed because of the risks pathogens pose to public health. Pathogens include viruses and bacteria, such as Giardia lamblia, cryptosporidia, and E. coli 0157:H7, which can cause serious illness or death, especially among very young, old and people with compromised immune systems.[9]

IV. SEQRA

Under SEQRA, the lead agency "having principal responsibility for carrying out or approving" an action regulated by SEQRA must determine if the action "may have a significant effect on the environment." ECL § 8-0111(6). If the lead agency determines that the action may have such effect, the agency issues a "positive declaration" and a draft environmental impact statement is prepared and made available for public review and comment before being finalized as a final environmental impact statement ("FEIS"). ECL § 8-0109(5); 6 N.Y.C.R.R. § 617.7(a)(1).

Environmental review under SEQRA must be comprehensive; it must cover all "relevant areas of environmental concern." Har Enterprises v. Town of Brookhaven, 74 N.Y.2d 524, 529 (1989). An environmental impact statement must evaluate alternatives to a proposed project; any project approval must avoid or minimize adverse environmental impacts "to the maximum extent possible." ECL §§ 8-0109(2), (8); 6 N.Y.C.R.R. § 617.11.[10] Because SEQRA requires consideration of alternatives and mitigation of environmental impacts, it "is not merely a disclosure statute; it imposes far more action-forcing or substantive requirements on state and local decision makers than [the National Environmental Policy Act] imposes on their federal counterparts." Matter

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[8] EPA, Draft Proposed Rule for Effluent Limitations Guidelines and New Source Performance Standards for the Construction and Development Category, Docket No. 01644, at 49-50. February 12, 2002.

[9] In August 1999, the largest outbreak of waterborne E. coli O157:H7 illness in United States history occurred at the Washington County Fair in New York, when a drinking water supply well became contaminated with that pathogen, infecting 781 people, and resulting in the hospitalization of 71 people and two deaths.

[10] Alternatively, the agency can disapprove the action based on adverse environmental effects disclosed during SEQRA review or on other grounds. See, e.g., Matter of Fawn Builders, Inc. v. Planning Bd., 223 A.D.2d 996 (3d Dep't 1996).

of Jackson v. N.Y. State Urban Dev. Corp., 67 N.Y.2d. 400, 415 (1986) (internal quotations omitted).

V. WIG's Concerns Regarding the DEIS for Park Place

A. Wetlands and Wetland Buffers

Wetlands provide flood control, wildlife habitat, and improve drinking water quality by accumulating and retaining nutrients, trapping sediments, removing and transforming human and animal wastes, and degrading certain pollutants. Any disturbance to wetlands or their adjacent areas within the Watershed is highly disfavored. The restoration or re-creation of wetlands that have been disturbed is often far less successful than anticipated. In short, development should be re-directed away from wetlands and their buffer areas.

The location of the parking facility and its associated stormwater management practices are being proposed in Town regulated wetlands and wetland buffer areas. The importance of wetlands to the protection of drinking water quality and maintenance of site hydrology is well accepted and understood. The proposed project should be redesigned so that wetlands and wetland buffers are left undisturbed.

comment 9-75

B. Proposed Project Modifications

The proposed Park Place project should incorporate the following measures to mitigate increased water pollution that otherwise would be generated by the project. These measures may be accomplished in part by implementing additional "Green Infrastructure" practices. To the project sponsors' credit, the capture and treatment of roof top runoff at the masonry building on Lot 13A, offsite, provide a water quality benefit. Runoff from other offsite impervious surfaces, such as the parking area, on Lot 13A also should be captured and treated. Options for this treatment include, but are not limited to: bioretention modification to the parking areas; grass swales designed for low velocity; utilizing chambered water quality units on-line with the stormwater drainage system; porous pavement replacing impervious pavement in parking areas; pervious walkways; and disconnecting impervious areas to buffer areas.

comment 9-76

A useful aid to designing a retrofit program is available from the Center for Watershed Protection which has developed a Watershed Treatment Model, that integrates the latest pollutant removal practices and calculation methodologies. See Technical Appendix, comment 25.

C. The Preliminary Stormwater Pollution Prevention Plan is Deficient

The stormwater sections of the DEIS are deficient in various respects, as described in detail in the Technical Appendix. Inadequacies include, construction details that are incomplete and at times inaccurate for erosion and sediment control and stormwater management. Proper and complete documentation is missing for hydrology, water quality, and runoff reduction calculations. Some steep slopes are not adequately stabilized and there are no controls proposed for concrete truck wash outs at the site. The design for the pocket wetland and for accepting roof runoff from an offsite building on Lot 13A are deficient.

comment 9-77

These inadequacies and others identified in the Technical Appendix, need to be corrected. Because the SWPPP is only "preliminary," a revised SWPPP containing these and other corrections should be included in a Supplemental DEIS, so that members of the public and interested public agencies will have an effective opportunity to comment on such matters.

D. The DEIS Does Not Adequately Address Car Wash and Automotive Fluid Wastewater Treatment

According to the DEIS, a car wash will be operated at the proposed parking facility. The car wash will utilize a special treatment and filtering system to allow wastewater to be recycled for subsequent washes. A detailed description of this treatment and filtering system is not presented in the DEIS. This system is also equipped with an oil/grit separator. Once the oil and unrecoverable wastewater have been segregated for disposal, it will drain to the sewage ejector pit and be conveyed into the municipal sewer. It is also expected that any automobile fluids leaking out onto the garage floor would be washed into this ejector unit and conveyed into the sewer. No specific details for the internal drainage system nor for the car wash system were included in the DEIS documents other than a schematic shown on Sheet MEP-1. This information must be provided and made available for public comment.

comment 9-78

Technical Appendix:

Park Place at Westchester Airport
Town of North Castle
Westchester County, New York

Prepared by Donald W. Lake Jr., P.E., CPESC, CPSWQ

I. Need for Revision of Preliminary Stormwater Plans

The preliminary stormwater pollution prevention plan (PSWPPP) and associated site plans contain a number of errors and omissions that need to be corrected to properly evaluate the effectiveness of stormwater controls at the Site. To this end, these preliminary plans should be revised to develop a stormwater pollution prevention plan, set of associated site plans, and the stormwater section of the draft environmental impact statement (DEIS), and those documents should be made available for public comment prior to completion of a final EIS.

comment 9-63

II. Erosion and Sediment Control

1. According to page 17-2 of the PSWPPP, 1,200 cubic yards of concrete will be poured for the foundation and another 2,250 cubic yards will be poured for the concrete slabs. As a result, approximately 430 truck loads of concrete will be required. Concrete is alkaline or has a high pH, so wash water from concrete trucks should be contained and not allowed to enter and adversely impact the environment. To address this issue, a concrete truck washout facility should be constructed on site, away from environmentally sensitive resources, such as water courses, wetlands, and wetland buffer areas. The details for this structure should be added to Sheet C-9 and a note should be added to the Erosion and Sediment Control Plan shown on Sheet C-7.

comment 17-15

2. All plan views show the finished parking facility extending to and possibly encroaching beyond the proposed limit of clearing and grubbing. As a result, the proposed construction footprint is probably undersized. A foundation grading plan is not included in the set of construction drawings C-1 through C-12. This drawing should be added to assure that the construction footprint stays within the proposed area of disturbance.

comment 17-16

3. Steep side slopes, 2:1, occur on the east side of the pocket wetland and sedimentation basin and are shown on the Paving, Grading, and Drainage Plan on Sheet C-5. They are too steep to maintain and should be seeded with a seed mix for critical areas (NYS Standards and Specifications for Erosion and Sediment Control, August 2005, page 3.5) or flattened in combination with construction of a structural retaining wall.

comment 9-64

4. According to the first bullet on page 7-10 of the DEIS and Erosion and Sediment Control note 8 on Sheet C-1, disturbed site soils need to be stabilized in seven days.

However, the third bullet on page 7-10 states that disturbed site soils need to be stabilized within 14 days. Due to the proposed project's proximity to the Kensico Reservoir, we recommend that disturbed site soils be stabilized within 7 days. In addition, the soil stabilization time limit note appearing on Sheet C-1 should be moved to the Erosion and Sediment Control Plan on Sheet C-7.

5. Permanent seeding specifications and a detailed planting schedule are not included on the construction drawings and should be added to the Landscape Plan on Sheet C-8 and to the Details on Sheet C-12.

6. On Sheet C-7, a proposed Perimeter Dike & Swale (#2) is shown discharging at the top of a 3:1 slope. Rock riprap needs to be installed to protect this outlet.

Comment 9-65

7. On Sheet C-7, the outlet for Perimeter Dike & Swale #1 joins the outlet for the storm drain system on the west side of the proposed project site and flows into Sediment Basin #2. This combined flow needs rock riprap protection down to elevation 377.

8. Also on Sheet C-7, the outlet from Sediment Basin #1 needs rock riprap protection all the way down to elevation 377, where it enters Sediment Basin #2.

9. To facilitate and clarify the erosion and sediment (E&S) control component of the PSWPPP, the E&S notes on Sheet C-1 should be relocated to the E&S Plan on Sheet C-7.

10. Stone check dam details are shown on Sheet C-10. However, these are not mentioned in the E&S notes on Sheet C-1 nor shown on the Erosion and Sediment Control Plan on Sheet C-7. These details should be removed.

III. Stormwater Management

11. According to the second paragraph on page 7-11 of the DEIS, temporary conveyances to the sediment basins would be designed to transport a 100-year storm event. However, these calculations were not provided in the PSWPPP nor were specific dimensions for the perimeter Dike/Swale presented on Sheet C-10. This deficiency needs to be addressed to validate the capacity of the temporary conveyances.

Comment 9-66

12. The PSWPPP is deficient in that the hydrologic and hydraulic calculations for the construction condition are absent. Considering the proposed size of disturbance and construction operations, a curve number of 98 is recommended to size the erosion and sediment controls for all areas. In addition, the construction condition hydrologic and hydraulic calculations must also be presented.

Comment 9-67

13. The structural details for three outlet structures within the Stormwater Control System are absent and should be provided. Validation of the post-developed design HydroCAD routings cannot be made without these details. A table of dimensions and elevations needs to be provided on Sheet C-10.

Comment D-23

14. The flow splitter detail on Sheet C-10 of the construction drawings is incorrect, since it shows two outlets on the same side of a splitter wall and at the same invert elevations. Also the flow splitter detail does not match the HydroCAD routings, which show a 2' x 0.5' orifice below the 24" diameter overflow pipe. This error needs to be corrected. Comment D-24

15. Specific dimensions and elevations should be added to the Stormwater Planter Detail on Sheet C-10, and to all the details, as appropriate, on Sheets C-9 through C-12. Comment D-25

16. The profile of the outlet structure for the pocket wetland shown on Sheet C-12 is incorrect. The bottom of the outlet control structure should be raised to elevation 374.0 and the pipe outlet invert elevation raised to elevation 370.0 to agree with the elevations show in the table on Sheet C-5 and also to correct the HydroCAD routing, which shows the pipe invert at 372.0. In addition, the W-4 wet pond label on Sheet C-12 needs to be edited to W-4 pocket wetland. Comment D-26

17. The runoff reduction volume (RRv) calculations performed and included as Appendix E of the PSWPPP were never signed by the designer nor signed as checked. These calculations also include the water quality volume (WQv) for sizing the rain garden and stormwater planter. These calculations should be validated and the details on the construction drawing C-10 for the stormwater planter should match those used in the design calculations presented in the SWPPP Appendix E. For example, the soil depth shown on Sheet C-10 is 18", whereas the soil depth presented in the design calculations in the PSWPPP is 24". These inconsistencies need to be corrected. Comment D-27

18. The time of concentration (Tc) is defined as the time required for a drop of water to travel from the most hydrologically distant point in a subcatchment to the outlet. Sheet D-1 of the PSWPPP Appendix B presents the drainage area shown as PRE-2. However, the Tc flow path to the design point DP-2 does not appear to accurately represent the entire PRE-2 drainage area. The same is true for the Tc flow path for PRE-3. As a result, the analysis for the existing condition discharges at design points 2 and 3 appear to be erroneous. Corrected Tc flow paths should be used or the drainage areas should be further subdivided to more accurately represent the design points. Comment D-28

19. Mannings coefficients (n) are used to calculate sheet flow travel time while Kv coefficients are a component used to calculate shallow concentrated flow velocity. Based on aerial photos and existing site descriptions, it appears that lower mannings coefficients for sheet flow were used while higher Kv values were used for shallow concentrated flow, both resulting in higher pre-developed peak discharges. These calculations need to be re-evaluated. Comment D-29

20. The sedimentation basin used as pre-treatment for sand filters should be sized to: 1) contain 25% of the sand filter water quality volume; and 2) to dewater over a twenty-four hour period, to effectively retain fines and prevent clogging. The DEIS does not provide structural details nor drawdown calculations for the sedimentation basin outlet structure. These details are needed to validate its intended operation. Comment D-30

21. The contributing areas assigned in the pollutant loading calculations do not agree with the drainage areas utilized in the HydroCAD model. These should be reconciled. comment D-31

22. Page 35 of the PSWPPP refers to a wet pond (W-4) instead of to a pocket wetland. This should be corrected here and wherever else it occurs in the document. comment D-32

23. Roof runoff from the offsite building on Lot 13A is flowing into the proposed onsite pocket wetland for treatment. However, no pre-treatment for the roof runoff is shown on the drawing nor described in the DEIS, as required in the New York State Stormwater Management Design Manual, Chapter 6, 2010. In addition, the outlet location entering the pocket wetland, as designed on Sheet C-5, should be re-configured to increase flow and modified to incorporate a serpentine flow path to the outlet structure to prevent short circuiting through the stormwater treatment system as shown on Figure 6-10 of the New York State Stormwater Management Design Manual, March 2010, page 6-26. comment D-33

24. A detailed review of the pollutant loadings was conducted. Although some areas did not agree with the HydroCAD sub-area valves, the pollutant loads, as calculated in accordance with the DEC 1992 Reducing The Impacts Of Stormwater Runoff From New Development manual, showed a phosphorus decrease after treatment. Our independent evaluation, based on more recent methods and pollutant load characteristics for the project and offsite area, showed the following: comment 9-68

Pre-Developed Load = 4.67 lbs TP
Post-Developed Load = 6.31 lbs TP
Post-Dev Load with Treatment* = 3.31 lbs TP

* Using the efficiency methodology of sites in series in Appendix 1, New York State Stormwater Management Design Manual, 2003.

Pollutant Loading Calculations

Simple Method Calculations (New York State Stormwater Design Manual August 2003)

$$L = \frac{P \cdot P_j \cdot R_V \cdot C \cdot A \cdot (2.72)}{12}$$

L = Pollutant Load in Pounds (a loading rate is the total amount of pollutants entering the system from one or multiple sources. It estimates pollutant discharge with different land use categories and is often expressed as pounds per acre per year in a watershed.)

P = 48.2 inches (annual rainfall)

P_j = 0.9 (constant for fraction of annual rainfall events that produce runoff)

R_V = 0.05 + 0.009 • I (I = % Impervious)
0.068 existing condition for woods and 2% I
0.59 existing condition for commercial and 60% I

C = Constant Pollutant Concentration (Terrene Institute 1996)
- 0.11 total phosphorus (TP) in mg/l or ppm (for forest)
- 0.33 TP (for commercial [comm])
- 0.08 TP (for water/wetlands)

A = Source Area (the adjusted areas as shown on the HydroCad routings for Pre- and Post-Development)
- 1.9225 acres of forest for existing condition
- 1.1995 acres of forest for developed condition
- 2.3606 acres of commercial for existing condition
- 3.2441 acres of commercial for developed condition

12 & 2.72 are Constants for Units (converts variables into pounds)

1. Existing Condition - Total Phosphorus

Woods - L $= \frac{48.2 \cdot 0.9 \cdot .068}{12} \cdot 0.11 \cdot 1.9225 \text{ Acre} \cdot (2.72) = 0.14$ pounds

= 0.14 pounds of total phosphorus

Commercial - L $= \frac{48.2 \cdot 0.9 \cdot .59}{12} \cdot 0.33 \cdot 2.3606 \text{ Acre} \cdot (2.72) = 4.52$ pounds

= 4.52 pounds of total phosphorus

Existing Total Phosphorus Total = 0.14 + 4.52 = 4.66 pounds

2. Future Condition - Total Phosphorus

Woods - L $= \frac{48.2 \cdot 0.9 \cdot .068}{12} \cdot 0.11 \cdot 1.1995 \text{ Acre} \cdot (2.72)$

= 0.09 pounds of total phosphorus

Commercial - L $= \frac{48.2 \cdot 0.9 \cdot .59}{12} \cdot 0.33 \cdot 3.2441 \text{ Acre} \cdot (2.72)$

= 6.21 pounds of total phosphorus

Future Total Phosphorus Total = 0.09 + 6.21 = 6.30 pounds

Future Condition With Treatment

Average pollutant removal efficiency of a sand filter for total phosphorus = 40%
Average pollutant removal efficiency of a pocket wetland for total phosphorus = 46%
(American Society of Civil Engineers [ASCE] Pollutant Removal Database 2009)

As the second treatment practice in series: the efficiency (E) for $E_2 = (1\text{-}E_1) \bullet E_2$
$E_2 = (1\text{-}0.4)\ (46) = 27.6$, so use 28%

Since only design point (DP)-2 is treated = 2.7524 acres (total commercial area)

$$\text{Its load (Developed)} = \frac{48.2 \bullet 0.9 \bullet .59}{12} \bullet 0.33 \bullet 2.7524 \text{ acres} \bullet (2.72)$$
$$= 5.27 \text{ pounds of total phosphorus (TP)}$$

Removal = 5.27 pounds • 0.4 = 2.11 pounds of TP removed by the sand filter
5.27 pounds - 2.11 pounds = 3.16 pounds of TP that flow into the pocket wetland
3.16 pounds • (0.28) = 0.88 pounds of TP removed by the pocket wetland
3.16 pounds - 0.88 pounds = 2.28 pounds of TP remaining after the pocket wetland
2.28 pounds + 1.03 pounds (from untreated Drainage Area's 1 & 3) = 3.31 pounds of total phosphorus

Total Phosphorus Leaving the Site After Treatment = 3.31 pounds.

This results indicate a 29% phosphorus reduction below the pre-developed load and a total phosphorus reduction of approximately 47.5% of the post-developed load. These values are significantly less than the 40% to 88% reduction shown in Table 6-7 on page 23 of the SWPPP. As a result, additional retrofits of impervious areas of Lot 13A should be required to increase phosphorus removal.

Comment 9-68 (cont'd.

25. The Town of North Castle is a municipal separate storm sewer system (MS4) in the New York City Watershed. In accordance with the NYSDEC General Permit for MS4's, the town needs to reduce the amount of phosphorus entering its waters. Municipalities must also estimate how many pounds of phosphorus have not entered reservoirs and other water bodies due to this program. One way to achieve this goal is by implementing a retrofit program which constructs, or directs the construction of, stormwater management practices designed to reduce phosphorous loads to receiving waters. In addition to the capture of rooftop runoff from the masonry building on Lot 13A, offsite, runoff from other offsite impervious surfaces on Lot 13A should be captured and treated. Options for this treatment include but are not limited to: bioretention modification to the parking areas; grass swales designed for low velocity; utilizing chambered water quality units on-line with the stormwater drainage system; porous pavement replacing impervious pavement in parking areas; pervious walkways; and disconnecting impervious areas to buffer areas.

Comment 9-69

A useful aid to designing a retrofit program is available from the Center for Watershed Protection (CWP) which has developed a Watershed Treatment Model (WTM), that integrates the latest pollutant removal practices and calculation methodologies. The WTM is acknowledged by NYSDEC as meeting this MS4 requirement and this type of model should be used on all projects within the New York City Watershed.

26. Chapter 18 of the DEIS evaluates the proposed project and compares it to six other development alternatives as well as to the no build alternative. No explanation was provided justifying why: all the other analyzed alternatives are "self-park;" the automated alternative was set at 1,450 cars; Alternative C was not analyzed for the automated system which reduces the impervious surface foot print, saves some wetland buffer, and reduces further the pollutant load. In addition, analysis of the social and economic need for additional parking was inadequate and should include consideration of the availability of other emerging parking services for the Airport, such as Purchase Park2 Fly, the new parking service being provided by Purchase College. Comment 18-22

27. The DEIS states that the proposed project alternative will provide 1,450 parking spaces. Based on the numbers provided on the DEIS Architectural Drawings (A.21, A2.2, and A2.3) 1,290 parking spaces are shown. This 160 parking space discrepancy needs to be explained. Comment 18-23

28. Page 9-9 of the DEIS discusses mitigation measures and " ... site planning practices and that were used to help determine the site plan and stormwater management system design". The first four planning practices presented are: Preservation of Undistributed Areas; Preservation of Buffers; Reduction of Clearing and Grading; and Locating Sites in Less Sensitive Areas. Based on the proposed areas of wetland and wetland buffer destruction, none of these planning practices were implemented. They should be seriously considered in a revised DEIS which should be made available for public comment prior to issuance of a final EIS. Comment 9-70

29. According to pages 1-7 and 1-8 of the DEIS, a car wash will be operated at the proposed parking facility. The car wash will utilize a special treatment and filtering system to allow wastewater to be recycled for subsequent washes. This system is also equipped with an oil/grit separator. Once the oil and unrecoverable wastewater have been segregated for disposal, it will drain to the sewage ejector pit and be conveyed to the municipal sewer. It is also expected that any automobile fluids leaking out onto the garage floor would be washed into this ejector unit and conveyed to the sewer. No specific details of this proposed system were included in the DEIS documents other than a schematic shown on Sheet MEP-1. This information must be provided for a full review. Comment 9-80

30. According to page 16 of the PSWPPP, all deep sump catch basins will be installed with a "hood" at their outlet. However, the hood details are missing from the catch basin details shown on Sheet C-10 and need to be added. Comment D-34

31. "Turfstone" permeable paver units are described in the SWPPP on page 15 and are shown in detail on Sheets C-5 and C-11. The detail on Sheet C-11 shows the permeable paver incorrectly depicted on a slope instead of on level ground to the south side of the facility. As such, this detail is incorrectly labeled. In addition, the depth dimensions associated with determining the amount of water that can be stored beneath the permeable pavers is missing. Finally an underdrain should also be provided in low permeable soil, such as the Ridgebury loam on site. Comment D-35

32. The DEIS in many locations notes that the proposed project will provide 1,450 parking spaces and this is compared to alternatives A1 and A2 shown in Chapter 18 of the DEIS whose parking spaces number 500 and 1,000 respectively. Based on the numbers provided on the Architectural Drawings A2.1, A2.2, and A2.3, there are only 1,290 parking spaces shown. What accounts for this discrepancy of 160 parking spaces and how will that affect the comparison results in the DEIS?

comment 9-81

33. The DEIS does not provide a map depicting the stormwater sub-areas analyzed in Appendix E. As a result, the water quality volume (WQv) and runoff reduction volume (RRv) calculations provided in Appendix E of the PSWPPP are unsupported. Based on the site information provided on page 9-9 of the DEIS, our independent calculations indicate a site WQv equal to 10,819 cubic feet for the impervious area of Lot 14B, in the developed condition. This calculation is based on a 25% WQv capture for re-development runoff captured by a standard stormwater management practice (New York State Stormwater Management Design Manual, Chapter 9, 2010). This value exceeds the 4,144 cubic feet stated on page 9-11, Chapter 9, of the DEIS by over two and a half times. The DEIS needs to further document and clarify this issue.

comment 9-71

Appendix B

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White Plains, NY 10601

Project Name:	Park Place	**Project Number:**	80202
Project Location:	11 New King Street, North Castle, NY	**Date:**	12/30/2015

Pollutant Loading Calculations

Summary Tables

Pre-Development Conditions					
Design Point	**Area (AC)**	**Total Pollutant Load (lbs)**			
		TP	**TN**	**BOD**	**TSS**
Design Point #1	6.00	2.57	24.04	151	692
Design Point #2	1.96	3.40	23.09	193	1071
Design Point #3	1.42	2.11	14.92	121	647
Total	**9.37**	**8.08**	**62.05**	**464**	**2411**

Post-Development Conditions					
Design Point	**Area (AC)**	**Total Pollutant Load (lbs)**			
		TP	**TN**	**BOD**	**TSS**
Design Point #1	5.87	2.34	22.48	138	620
Design Point #2	2.79	3.09	27.36	285	587
Design Point #3	0.89	0.70	5.61	41	206
Total	**9.55**	**6.13**	**55.46**	**463**	**1413**

$$\text{Total Reduced Pollutant Loading} = \frac{\text{Pre-Development Total Loading - Post Development Total Loading}}{\text{Pre-Development Total Loading}} \times 100\%$$

TP Total Reduced Pollutant Loading =	(8.08-6.13)/8.08 * 100 =	**24%**
TN Total Reduced Pollutant Loading =	(62.05-55.46)/62.05 * 100 =	**11%**
BOD Total Reduced Pollutant Loading =	(464-463)/464 * 100 =	**0%**
TSS Total Reduced Pollutant Loading =	(2411-1413)/2411 * 100 =	**41%**

Breakdown of Pollutant Loading Calculations by Design Points

Simple Method Equation: $L = 2.72/12 * P * P_j * Rv * C * A$

L = Annual Pollutant Load (lbs)
P = Annual Rainfall (inches)
48.2 inches
P_j = Fraction of Rainfall Events Producing Runoff (90%)
Rv = Runoff Coefficient [11]
C = Pollutant Concentration (mg/L or ppm)
A = Area (acres)

Design Point #1

Pre-Development - Drainage Area "Pre 1"

Land Use Type	Area (SF)	Area (AC)	Rv[11]	C[1] (mg/L or ppm)				Loading Rate (lbs/ac/yr)				Total Pollutant Load (lbs)			
				TP	TN	BOD	TSS	TP	TN	BOD	TSS	TP	TN	BOD	TSS
Paved Parking[2]	3,564	0.08	0.932	0.43	2.65	24	141	3.94	24.29	220	1292	0.32	1.99	18	106
Woods, Fair[3]	161,376	3.70	0.068	0.11	1.74	3	51	0.07	1.16	2	34	0.27	4.31	7	126
>75% Grass[4]	96,254	2.21	0.275	0.33	2.97	21	77	0.89	8.03	57	208	1.97	17.75	125	460
Total	261,194	6.00										2.57	24.04	151	692

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Post-Development - Drainage Area "Post 1"

Land Use Type	Area (SF)	Area (AC)	Rv[11]	C[1] (mg/L or ppm)				Loading Rate (lbs/ac/yr)				Total Pollutant Load (lbs)			
				TP	TN	BOD	TSS	TP	TN	BOD	TSS	TP	TN	BOD	TSS
Gravel Roads[6]	1,496	0.03	0.932	0.43	2.65	24	141	3.94	24.29	220	1292	0.14	0.83	8	44
Woods, Fair[3]	159,708	3.67	0.068	0.11	1.74	3	51	0.07	1.16	2	34	0.27	4.27	7	125
>75% Grass[4, 12]	94,293	2.16	0.275	0.33	2.97	21	77	0.89	8.03	57	208	1.93	17.38	123	451
Total	255,497	5.87										2.34	22.48	138	620

Design Pt 1 - Pollutant Load Reduction (lbs)	0.23	1.56	13	72
Design Pt 1 - Pollutant Load Reduction (%)	9%	6%	9%	10%

Design Point #2

Pre-Development - Drainage Area "Pre 2"

Land Use Type	Area (SF)	Area (AC)	Rv[11]	C[1] (mg/L or ppm)				Loading Rate (lbs/ac/yr)				Total Pollutant Load (lbs)			
				TP	TN	BOD	TSS	TP	TN	BOD	TSS	TP	TN	BOD	TSS
Paved Parking[2]	30,862	0.71	0.932	0.43	2.65	24	141	3.94	24.29	220	1292	2.79	17.21	156	915
Woods, Fair[3]	34,050	0.78	0.068	0.11	1.74	3	51	0.07	1.16	2	34	0.06	0.91	2	27
50-75% Grass[5]	20,332	0.47	0.365	0.33	2.97	21	77	1.18	10.66	75	276	0.55	4.98	35	129
Total	85,244	1.96										3.40	23.09	193	1071

Post-Development - Drainage Area "Post 2A"

Land Use Type	Area (SF)	Area (AC)	Rv[11]	C[1] (mg/L or ppm)				Loading Rate (lbs/ac/yr)				Total Pollutant Load (lbs)			
				TP	TN	BOD	TSS	TP	TN	BOD	TSS	TP	TN	BOD	TSS
Paved Parking[2]	4,907	0.11	0.932	0.43	2.65	24	141	3.94	24.29	220	1292	0.44	2.74	25	146
Total	4,907	0.11										0.44	2.74	25	146
Sand Filter Removal Efficiency[8]												59%	32%	20%	87%
Reduced Pollutant Load (lbs)												0.18	1.86	20	19
Pocket Wetland Removal Efficiency[9]												57%	44%	25%	57%
Adjusted Efficiency[10]												23%	30%	20%	7%
Reduced Pollutant Load (lbs)												0.14	1.30	16	18

Post-Development - Drainage Area "Post 2B"

Land Use Type	Area (SF)	Area (AC)	Rv[11]	C[1] (mg/L or ppm)				Loading Rate (lbs/ac/yr)				Total Pollutant Load (lbs)			
				TP	TN	BOD	TSS	TP	TN	BOD	TSS	TP	TN	BOD	TSS
Paved Parking[2]	6,122	0.14	0.932	0.43	2.65	24	141	3.94	24.29	220	1292	0.55	3.41	31	182
Gravel Roads[6]	2,354	0.05	0.932	0.43	2.65	24	141	3.94	24.29	220	1292	0.21	1.31	12	70
>75% Grass[4]	6,154	0.14	0.275	0.33	2.97	21	77	0.89	8.03	57	208	0.13	1.13	8	29
Total	14,630	0.34										0.89	5.86	51	281
Sand Filter Removal Efficiency[8]												59%	32%	20%	87%
Reduced Pollutant Load (lbs)												0.37	3.98	41	37
Pocket Wetland Removal Efficiency[9]												57%	44%	25%	57%
Adjusted Efficiency[10]												23%	30%	20%	7%
Reduced Pollutant Load (lbs)												0.28	2.79	33	34

Post-Development - Drainage Area "Post 2C"

Land Use Type	Area (SF)	Area (AC)	Rv[11]	C[1] (mg/L or ppm)				Loading Rate (lbs/ac/yr)				Total Pollutant Load (lbs)			
				TP	TN	BOD	TSS	TP	TN	BOD	TSS	TP	TN	BOD	TSS
Paved Parking[2, 12]	37,947	0.87	0.932	0.43	2.65	24	141	3.94	24.29	220	1292	3.43	21.16	192	1126
Total	37,947	0.87										3.43	21.16	192	1126
Sand Filter Removal Efficiency[8]												59%	32%	20%	87%
Reduced Pollutant Load (lbs)												1.41	14.39	153	146
Pocket Wetland Removal Efficiency[9]												57%	44%	25%	57%
Adjusted Efficiency[10]												23%	30%	20%	7%
Reduced Pollutant Load (lbs)												1.08	10.08	123	135

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Post-Development - Drainage Area "Post 2D"

Land Use Type	Area (SF)	Area (AC)	Rv[11]	C				Loading Rate (lbs/ac/yr)				Total Pollutant Load (lbs)			
				TP	TN	BOD	TSS	TP	TN	BOD	TSS	TP	TN	BOD	TSS
Gravel Roads[6]	2,117	0.05	0.932	0.43	2.65	24	141	3.94	24.29	220	1292	0.19	1.18	11	63
50-75% Grass[5]	6,293	0.14	0.365	0.33	2.97	21	77	1.18	10.66	75	276	0.17	1.54	11	40
Total	8,410	0.19										0.36	2.72	22	103
											Sand Filter Removal Efficiency[8]	59%	32%	20%	87%
											Reduced Pollutant Load (lbs)	0.15	1.85	17	13
											Pocket Wetland Removal Efficiency[9]	57%	44%	25%	57%
											Adjusted Efficiency[10]	23%	30%	20%	7%
											Reduced Pollutant Load (lbs)	0.11	1.30	14	12

Post-Development - Drainage Area "Post 2E"

Land Use Type	Area (SF)	Area (AC)	Rv[11]	C[1] (mg/L or ppm)				Loading Rate (lbs/ac/yr)				Total Pollutant Load (lbs)			
				TP	TN	BOD	TSS	TP	TN	BOD	TSS	TP	TN	BOD	TSS
Paved Parking[2]	5,415	0.12	0.932	0.43	2.65	24	141	3.94	24.29	220	1292	0.49	3.02	27	161
50-75% Grass[5]	8,095	0.19	0.365	0.33	2.97	21	77	1.18	10.66	75	276	0.22	1.98	14	51
Total	13,510	0.31										0.71	5.00	41	212
											Sand Filter Removal Efficiency[8]	59%	32%	20%	87%
											Reduced Pollutant Load (lbs)	0.29	3.40	33	28
											Pocket Wetland Removal Efficiency[9]	57%	44%	25%	57%
											Adjusted Efficiency[10]	23%	30%	20%	7%
											Reduced Pollutant Load (lbs)	0.22	2.38	26	26

Post-Development - Drainage Area "Post 2F"

Land Use Type	Area (SF)	Area (AC)	Rv[11]	C[1] (mg/L or ppm)				Loading Rate (lbs/ac/yr)				Total Pollutant Load (lbs)			
				TP	TN	BOD	TSS	TP	TN	BOD	TSS	TP	TN	BOD	TSS
Roofs[7]	4,258	0.10	0.932	0.43	2.65	24	141	3.94	24.29	220	1292	0.39	2.37	21	126
Total	4,258	0.10										0.39	2.37	21	126

Post-Development - Drainage Area "Post 2G"

Land Use Type	Area (SF)	Area (AC)	Rv[11]	C[1] (mg/L or ppm)				Loading Rate (lbs/ac/yr)				Total Pollutant Load (lbs)			
				TP	TN	BOD	TSS	TP	TN	BOD	TSS	TP	TN	BOD	TSS
Paved Parking[2]	1,113	0.03	0.932	0.43	2.65	24	141	3.94	24.29	220	1292	0.10	0.62	6	33
Gravel Roads[6]	2,183	0.05	0.932	0.43	2.65	24	141	3.94	24.29	220	1292	0.20	1.22	11	65
50-75% Grass[5]	20,037	0.46	0.365	0.33	2.97	21	77	1.18	10.66	75	276	0.54	4.90	35	127
Total	23,333	0.54										0.84	6.74	51	225

Post-Development - Drainage Area "Post 2H"

Land Use Type	Area (SF)	Area (AC)	Rv[11]	C[1] (mg/L or ppm)				Loading Rate (lbs/ac/yr)				Total Pollutant Load (lbs)			
				TP	TN	BOD	TSS	TP	TN	BOD	TSS	TP	TN	BOD	TSS
Woods, Fair[3]	14,691	0.34	0.068	0.11	1.74	3	51	0.07	1.16	2	34	0.02	0.39	1	12
Total	14,691	0.34										0.02	0.39	1	12

Post-Development Total Pollutant Load	3.09	27.36	285	587

Design Pt 2 - Pollutant Load Reduction (lbs)	0.31	-4.27	-92	484
Design Pt 2 - Pollutant Load Reduction (%)	9%	-19%	-48%	45%

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White Plains, NY 10601

Design Point #3

Pre-Development - Drainage Area "Pre 3"

Land Use Type	Area (SF)	Area (AC)	Rv[11]	C[1]				Loading Rate (lbs/ac/yr)				Total Pollutant Load (lbs)			
				TP	TN	BOD	TSS	TP	TN	BOD	TSS	TP	TN	BOD	TSS
Paved Parking[2]	16,986	0.39	0.932	0.43	2.65	24	141	3.94	24.29	220	1292	1.54	9.47	86	504
Woods, Fair[3]	25,334	0.58	0.068	0.11	1.74	3	51	0.07	1.16	2	34	0.04	0.68	1	20
50-75% Grass[5]	19,508	0.45	0.365	0.33	2.97	21	77	1.18	10.66	75	276	0.53	4.77	34	124
Total	61,828	1.42										2.11	14.92	121	647

Post-Development - Drainage Area "Post 3A"

Land Use Type	Area (SF)	Area (AC)	Rv[11]	C[1] (mg/L or ppm)				Loading Rate (lbs/ac/yr)				Total Pollutant Load (lbs)			
				TP	TN	BOD	TSS	TP	TN	BOD	TSS	TP	TN	BOD	TSS
Paved Parking[2]	3,842	0.09	0.932	0.43	2.65	24	141	3.94	24.29	220	1292	0.35	2.14	19	114
Woods, Fair[3]	20,173	0.46	0.068	0.11	1.74	3	51	0.07	1.16	2	34	0.03	0.54	1	16
50-75% Grass[5]	9,590	0.22	0.365	0.33	2.97	21	77	1.18	10.66	75	276	0.26	2.35	17	61
Total	33,605	0.77										0.64	5.03	37	191

Post-Development - Drainage Area "Post 3B"

Land Use Type	Area (SF)	Area (AC)	Rv[11]	C[1] (mg/L or ppm)				Loading Rate (lbs/ac/yr)				Total Pollutant Load (lbs)			
				TP	TN	BOD	TSS	TP	TN	BOD	TSS	TP	TN	BOD	TSS
Woods, Fair[3]	3,044	0.07	0.068	0.11	1.74	3	51	0.07	1.16	2	34	0.01	0.08	0	2
50-75% Grass[5]	2,038	0.05	0.365	0.33	2.97	21	77	1.18	10.66	75	276	0.06	0.50	4	13
Total	5,082	0.12										0.06	0.58	4	15

Post-Development Total Pollutant Load	0.70	5.61	41	206

Design Pt 3- Pollutant Load Reduction (lbs)	1.41	9.31	80	442
Design Pt 3 - Pollutant Load Reduction (%)	67%	62%	66%	68%

[1] Pollutant Concentration, taken from Table 6-8 CPSWQ Exam Review Course Workbook, Feb. 2005.

[2] Paved Parking; assumed Ia=98% and pollutant concetrations are equal to *Highways* in Table 6-8 CPSWQ Exam Review Course Workbook, Feb. 2005.

[3] Woods,Fair; assumed Ia=2% and pollutant concetrations are equal to *Forest/rural open* in Table 6-8 CPSWQ Exam Review Course Workbook, Feb. 2005

[4] >75% Grass; assumed Ia=25% and pollutant concetrations are equal to *Commercial* in Table 6-8 CPSWQ Exam Review Course Workbook, Feb. 2005.

[5] 50-75% Grass; assumed Ia=35% and pollutant concetrations are equal to *Commercial* in Table 6-8 CPSWQ Exam Review Course Workbook, Feb. 2005.

[6] Gravel Roads; assumed Ia=98% and pollutant concetrations are equal to *Highways* in Table 6-8 CPSWQ Exam Review Course Workbook, Feb. 2005.

[7] Roofs; assumed Ia=98% and pollutant concetrations are equal to *Highways* in Table 6-8 CPSWQ Exam Review Course Workbook, Feb. 2005.

[8] Median Pollutant Removal, taken from Table 3.2, National Pollutant Removal for Stormwater Treatment Practices, Mar. 2000. Assumed 20% for BOD.

[9] Median Pollutant Removal, taken from Table 3.3, National Pollutant Removal for Stormwater Treatment Practices, Mar. 2000. Assumed 25% for BOD.

[10] Efficeincy reduced for treatment practices connected in series; $E_{2'} = (1-E_1)*E_2$.

[11] Rv, Runoff Coefficient, is equal to 0.05 + 0.9 * Ia, where Ia is Impervious Fraction.

[12] Area adjusted from value listed in HydroCAD model to reflect the decrease in impervious area caused by the reduced size of the proposed building.

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EXAM REVIEW COURSE WORKBOOK

FEBRUARY 2005

International **Erosion Control** Association

Table 6-8

Water Quality Characteristics of Urban Runoff

Land Use Category	BOD	COD	TSS	TDS	TP	DP	TKN	NO_2/No_3	Pb	Cu	Zn	Cd
Forest/rural open	3	27	51	415	0.11	0.03	0.94	0.8	0	0	0	0
Urban	3	27	51	415	0.11	0.03	0.94	0.8	0.014	0	0.04	0.001
Agriculture/ pasture	3	53	145	415	0.37	0.09	1.92	4.06	0	0	0	0
Low-density residential	38	124	70	144	0.52	0.27	3.32	1.83	0.057	0.026	0.161	0.004
Medium-density residential	38	124	70	144	0.52	0.27	3.32	1.83	0.18	0.047	0.176	0.004
High-density residential	14	79	97	189	0.24	0.08	1.17	2.12	0.041	0.033	0.218	0.003
Commercial	21	80	77	294	0.33	0.17	1.74	1.23	0.049	0.037	0.156	0.003
Industrial	24	85	149	202	0.32	0.11	2.08	1.89	0.072	0.058	0.671	0.005
Highways	24	103	141	294	0.43	0.22	1.82	0.83	0.049	0.037	0.156	0.003
Water/wetlands	4	6	6	12	0.08	0.04	0.79	0.59	0.011	0.007	0.003	0.001

Adapted from NURP (1983), Horner et al. (1994), and Cave et al. (1994)

BOD	Biochemical Oxygen Demand
COD	Chemical Oxygen Demand
TSS	Total Suspended Solids
TDS	Total Dissolved Solids
TP	Total Phosphorus
DP	Dissolved Phosphorus

TKN	Total Kjeldahl Nitrogen
NO_2/NO_3	Nitrates/Nitrites
Pb	Lead
Cu	Copper
Zn	Zinc
Cd	Cadmium

All units in milligrams per Liter (mg/L).

Source: Terrene Institute, 1996

National Pollutant Removal Performance Database for Stormwater Treatment Practices

2nd Edition

March 2000

by:
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for:
EPA Office of Science and Technology
In association with
TetraTech, Inc.

Table 3.2 Median Pollutant Removal (%) of Stormwater Filtering, Infiltration, Open Channel, and Other Practices							
	TSS	**TP**	**Sol P**	**TN**	**NO_x**	**Cu**	**Zn**
Filtering Practices[1]							
Organic Filter	88	61	30[2]	41[2]	-15	66[2]	89
Perimeter Sand Filter[2]	79	41	68	47	-53	25	69
Surface Sand Filter	87	59	-17[2]	32	-13	49	80
Vertical Sand Filter[2]	58	45	21	5	-87	32	56
Bioretention[2]	N/A	65	N/A	49	16	97	95
Group Median* ± *1 St. Dev	**86** ±23	**59** ±38	**3** ±46	**38** ± 16	**-14** ±47	**49** ±26	**88** ±17
Infiltration Practices							
Infiltration Trench[2]	N/A	100	100	42	82	N/A	N/A
Porous Pavement[2]	95	65	10	83	N/A	N/A	99
Group Median* ± *1 St. Dev	**95**[2]	**80** ±24	**85**[2]	**51** ±24	**82**[2]	N/A	**99**[2]
Open Channels							
Ditches[3]	31	-16	-25[2]	-9	24[2]	14[2]	0[2]
Grass Channel[2]	68	29	40	N/A	-25	42	45
Dry Swale[2]	93	83	70	92	90	70	86
Wet Swale[2]	74	28	-31	40	31	11	33
Group Median*[4] ± *1 St. Dev	**81** ±14	**34** ±33	**38** ±46	**84**[2]	**31** ±49	**51** ±40	**71** ±36
Other							
Oil-Grit Separator[2]	-8	-41	40	N/A	47	-11	17
Stormceptor®[2]	25	19	21	N/A	6	30	21

1. Excludes vertical sand filters and filter strips
2. Data based on fewer than five data points
3. Refers to open channel practices not designed for water quality
4. Median value excludes ditches

NOTES:
- N/A indicates that the data is not available.
- TSS = Total Suspended Solids; TP = Total Phosphorus; Sol P = Soluble Phosphorus; TN = Total Nitrogen; NO_x = Nitrate and Nitrite Nitrogen; Cu = Copper; Zn = Zinc

A supplementary analysis compared removal rates of ponds and wetlands in different drainage classes (Table 3.3). Overall, these data do not support many conclusions regarding pollutant removal differences between drainage classes. In particular, data for Pocket ponds are sparse, with fewer than five studies represented. Based on the limited analysis conducted here, it appears that Regional wetlands have higher pollutant removal overall than other wetland designs. Regional ponds, on the other hand, have slightly lower efficiencies. The poor performance of Regional ponds may be caused by the influence of baseflow on these larger systems.

Table 3.3 Median Pollutant Removal (%) of Stormwater Treatment Practices by Drainage Class

		TSS	TP	Sol P	TN	NO_x	Cu	Zn
Stormwater Wet Ponds	Pocket[1]	87	78	65[2]	28[2]	67[2]	55	65
	Regular[3]	80	49	70	32	62	58	66
	Regional[4]	70	48	42	37	23	55[2]	43
Stormwater Wetlands	Pocket[1]	57[2]	57[2]	66[2]	44[2]	67[2]	25[2]	52[2]
	Regular[2]	61	36	37	15	45	60	36
	Regional[3]	80	43	35	35	68	57[2]	52[2]

1. Drainage area < 10 acres
2. Data based on fewer than five data points
3. Drainage area <= 300 acres and >= 10 acres
4. Drainage area > 300 acres

NOTES:
- TSS = Total Suspended Solids; TP = Total Phosphorus; Sol P = Soluble Phosphorus; TN = Total Nitrogen; NO_x = Nitrate and Nitrite Nitrogen; Cu = Copper; Zn = Zinc

Appendix C

AKRF Engineering, P.C.
34 South Broadway
White Plains, NY 10601

Project Name:	Park Place	**Date:**	12/16/2015
Project Address:	11 New King Street, North Castle, NY	**Project No.:**	80202

Infiltration Tests

Pre-Soak: 10:00 AM 12/15/2015

Hole No.:	**1**
Test Date	12/16/2015
Hole Dia.:	6"
Depth:	30"
Elevation:	1.5' below grade

Time	Drop (in)
9:00	-
10:00	30.00
10:45	30.00
11:25	30.00
12:05	30.00

Rate: 45 in/hr

Hole No.:	**2**
Test Date	12/16/2015
Hole Dia.:	6"
Depth:	30"
Elevation:	0.25' below grade

Time	Drop (in)
8:55	-
9:55	24.50
10:55	22.25
11:55	20.75
12:55	20.25

Rate: 20.25 in/hr

Test Pit

Name: TP2015-1

Depth	Description
0' - 8'	Fill
8' - 16'	Native Soil

Mottling: None
Water: None

Appendix D

WETLAND AND WETLAND BUFFER ENHANCEMENT PLAN

Introduction

Due to the construction of the proposed automated parking facility and the requirements of stormwater management, much of the project site at 11 New King Street would be disturbed, cleared of existing vegetation and regraded. Much of the undisturbed area is wetland and wetland buffer. Based on site inspection invasive plant cover in these undisturbed areas on the project site is close to 50%.

Invasive plants are typically non-native plant species which disrupt the natural balance of an ecosystem by outcompeting with native plants for nutrients, water or sunlight. These plant species, which are foreign to the region, may have been imported from other countries for ornamental gardening or agricultural purposes. Having escaped from cultivation and with no natural predators these species have become naturalized in the region. The lack of natural controls allows these species to become dominant, reducing biodiversity and thereby degrading habitats. Controlling invasive plant populations is important to regain ecological stability, maintain habitat for native wildlife and reduce negative impacts on the nearby resources.

The applicant is planning measures intended to improve the quality of the natural resources remaining on the project site as mitigation for disturbance within the wetlands buffer area. The information and guidelines in this document outline invasive removal activity and native plant augmentation to be conducted as part of the proposed project. These guidelines would be used in the field by the project ecologist who would supervise all activity beyond the project's limit-of-disturbance line and within enhancement areas (see Figure 1-4 and Drawing C-9).

The goal of this enhancement plan is to reverse the degradation of the wetland ecology typical of disturbed land. The intent is to increase the ecological function of the existing wetland through intervention. The plan's objective is to eliminate, or significantly reduce, the *target species*- the non-native, invasive species currently found on the project site- and to reintroduce appropriate native plant species. The augmentation of the native species population, in conjunction with removal of invasive species and up to 5 years of monitoring, will provide an advantage to the native species types to regain dominance.

Clearing of invasive species and replanting with native plants is to take place only where necessary. All existing native plants and non-target species vegetation in the undisturbed portions of the project site will be protected during the enhancement activities. The activities described in this enhancement plan are in addition to the proposed project. As part of the proposed project construction (separate from the Wetland and Wetland Buffer Enhancement Plan activities) all unpaved but regraded areas of site will be planted, using exclusively native plant species, to address a variety of site design goal including aesthetic concerns, wetland functionality and erosion control. The plantings specified for the area within the project limit-of-disturbance is shown in drawing C-9: Landscape Plan.

Discussion of use of Herbicides

Non-chemical means of control are generally preferred, but in some cases the use of chemical controls will be necessary to significantly reduce or eliminate invasive species from the designated areas. An herbicide-based approach may be required to control an infestation that has become well established or widespread. Glyphosate or triclopyr may be used for the control of some of the target species. Glyphosate has low oral toxicity (acute or chronic) to humans or other animals but some formulations are irritating to skin or eyes. Glyphosate does not persist or bioaccumulate in the environment. The oral toxicity of triclopyr is fairly low relative to other

pesticides, but not as low as that of glyphosate. Amine-based triclopyr formulations are corrosive and damaging to eyes and skin. Toxicity to birds and fish is relatively low, although ester formulations are more toxic to fish than amine formulations or the parent acid of triclopyr. An aquatic-specific formula of Glyphosate is approved by the United States Environmental Protection Agency (EPA) for use in aquatic/wetlands systems.

Extent of Enhancement Activities

As shown in Drawing C-9 and Figure 1-4, the enhancement plan would apply to undisturbed areas of the site - i.e. those areas not cleared and regraded for the proposed project. The area shown for proposed wetland enhancement is approximately 29,200 SF and the area shown for proposed wetland buffer enhancement is approximately 9,800 SF. The exact location and extent of wetland and wetland buffer enhancement activities would be as directed by the project ecologist based on field conditions.

Invasive Plant Removal

The invasive plants will be removed by hand with cutting tools and digging to remove root mass. As discussed in detail below, several of these plants must be disposed of offsite to prevent spread of remnant seed and vegetative re-growth of rhizomes. Limited use of herbicide may be required for plant species that are less likely to be successfully eradicated by hand-removal alone. The determination as to whether and when to use herbicide and its application in the field would be made by the project ecologist in consultation with the licensed landscape professional who would conduct the application. The landscape professional must be licensed in the application of all herbicides used.

The predominant non-native, invasive plants found onsite and to be removed during the wetland and wetland buffer enhancement activities are listed below. For each target species a brief description is provided along with details on preferred removal techniques, alternative removal techniques, and a recommended schedule of removal activities.

TARGET SPECIES: HERBACEOUS PLANTS

Common Reed (Phragmites australis)

Description: *Phragmites* is a perennial grass that can grow to 14 feet in height. It is capable of vigorous vegetative reproduction and often forms dense, virtually monospecific stands. *Phragmites* is most commonly found in freshwater wetlands but it readily invades salt marshes that have been degraded by some type of flow restriction.

Preferred Removal Strategy: Herbicides

Glyphosate should be sprayed in September or October just before the plants begin to senesce (i.e. consolidate above-ground water and nutrients from the stems to the rhizome complex). It is recommended to use glyphosate with a surfactant to better penetrate the leaf coating. Repeated treatments will likely be necessary. If the plants are too tall to spray, cut back in mid summer and apply glyphosate when regrowth reaches 2 to 3 ft tall. Choose Rodeo formulation (or approved equal) for applications in standing water or along a shoreline (a permit from New York State Department of Environmental Protection (DEP) is required for any pesticide application to a body of water). In areas where Phragmites in intermixed with other species, best application

method includes wiping or wicking with a wand or brush to avoid contact with unintended targets.

RODEO [glyphosate (53.8%)]: 2 fl. oz./gal]

Alternate Removal Strategy: Cutting and Pulling

Hand-pulling is not as effective a technique for controlling *Phragmites* in small areas even with sandy soils, due to the aggressive nature of both above and below ground runners. As an alternative, *Phragmites* stems should be cut below the lowest leaf, leaving a 6" or shorter stump. Hand-held cutters and gas-powered hedge trimmers work well. String Trimmers with a circular blade have been found to be particularly efficient. Cut or pulled material should be removed from the site and composted. Some patches may be too large to cut by hand, but repeated cutting of the perimeter of a stand can slow vegetative expansion. Cutting treatments need to be repeated annually. The best time to cut *Phragmites* is at the end of July. Cutting at other times may increase stand density.

Garlic Mustard (Alliaria officinalis)

Description: A naturalized European biennial herb that typically invades partially shaded forested and roadside areas. It is capable of dominating the ground layer and excluding other herbaceous species. Plants die after producing seeds, which typically mature and disperse in August. Normally its seeds are dormant for 20 months and germinate the second spring after being formed. Seeds remain viable for up to 5 years.

Preferred Removal Strategy: Cutting and Pulling

Hand pulling is an effective method for removing small populations of garlic mustard, since plants pull up easily in most forested habitats. Plants can be pulled during most of the year. However, if plants have capsules present, they should be bagged and disposed of to prevent seed dispersal. Care should be taken to minimize soil disturbance but to remove all root tissues. Soil disturbance can bring garlic mustard seeds to the surface, thus creating a favorable environment for their germination. To avoid this, soil should be tamped down firmly after removing the plant. Re-sprouting is uncommon but may occur from mature plants not entirely removed.

Cutting is effective for medium- to large-sized populations depending on available time and labor resources. Cut stems when in flower (late spring/early summer) at ground level either manually (with clippers or a scythe) or with a motorized string trimmer. This technique will result in almost total mortality of existing plants and will minimize re-sprouting. Dormant seeds in the soil are unaffected by this technique due to minimal disturbance of the soil. However, as viable seeds may be produced from cut stems, they should be removed from the site when possible. Cuttings should be conducted annually until the seed bank is depleted.

Alternate Removal Strategy: Herbicides

Garlic mustard is a biennial that spreads only by seed. The post-emergence herbicides listed below should be applied after seedlings have emerged, but prior to flowering of second-year plants. None of these herbicides will affect subsequent seedling emergence of garlic mustard or other plants.

SAFER Superfast Weed & Grass Killer [potassium salts of fatty acids]: Ready-to-use spray

FINALE [glufosinate-ammonium (11.33%)]: 3 fl. oz./gal

Japanese Knotweed (Polygonum cuspidatum)

Description: An herbaceous perennial which forms dense clumps 1-3 meters (3-10 feet) high. Knotweed reproduces via seed and by vegetative growth through stout, aggressive rhizomes. It spreads rapidly to form dense thickets that can alter natural ecosystems. Japanese knotweed can tolerate a variety of adverse conditions including full shade, high temperatures, high salinity, and drought. It is found near water sources, in low-lying areas, waste places, and utility rights of way. It poses a significant threat to riparian areas, where it can survive severe floods.

Preferred Removal Strategy: Cutting and Pulling

Grubbing is appropriate for very small populations or in environmentally sensitive areas where herbicides cannot be used. Typically, the entire plant, including roots and runners, is removed with an appropriate digging tool. Care must be taken not to spread rhizome fragments. Juvenile plants can be hand-pulled depending on soil conditions and root development. Any portions of the root system not removed will potentially re-sprout. All plant parts, including mature fruit, should be bagged and disposed of in the trash to prevent reestablishment.

Repeated cutting may be effective in eliminating Japanese knotweed, but this strategy must be carried out for several years to obtain success. Generally, knotweed is cut close to the ground at least three times a year to affect control. Cutting stems over time results in a significant reduction of rhizomatous reserves. Manual control is labor intensive, but where populations are small and isolated or in environmentally sensitive areas, it may be a good option. Cutting or mowing should occur in late June.

Alternate Removal Strategy: Herbicides

Chemical control through spraying with either glyphosate or triclopyr has been shown to slow advancement, but has generally been shown to be ineffective for knotweed eradication.

An effective chemical treatment for knotweed is through individual injection of each plant stem with 100% glyphosate solution. Follow-up treatment may be necessary to treat missed stems.

Glyphosate treatments in late summer or early fall are much more effective in preventing re-growth of Japanese knotweed the following year.

Established stands of Japanese knotweed are difficult to eradicate. Adequate control is usually not possible unless the entire stand of knotweed is treated (otherwise, it will re-invade via creeping rootstocks from untreated areas).

Both mechanical and herbicidal control methods require continued treatment to prevent reestablishment of knotweed.

Target Species: Invasive Woody Plant Species

Japanese Honeysuckle (Lonicera japonica)

Description: commonly found along roadsides, forest edges, and in abandoned fields as it quickly invades natural areas after disturbances. Japanese honeysuckle spreads by seeds, rhizomes, and runners. It can quickly cover small trees, either stunting their growth or killing them completely. Dense growth of the species will also reduce light available to other species, deplete soil moisture nutrients, and may cause trees to topple due to the weight of its vines.

Preferred Removal Strategy: Hand-pulling

For small patches, repeated pulling of entire vines and root systems may be effective. Seedlings and young plants can be hand pulled when the soil is moist by holding low on the stem to remove the whole plant along with its roots. Frequently monitoring is necessary to identify and remove any new plants. Twining vines should be cut and removed to prevent them from girdling and killing shrubs and other plants. An effective method for removal of patches of honeysuckle covering the ground is to lift up and hold a portion of the vine mass with a rake and have a chain saw operator cut the stems low to the ground. Plants can also be grubbed out using a digging tool, taking care to remove all roots and runners.

Alternate Removal Strategy: Herbicides

Japanese honeysuckle leaves continue to photosynthesize long after most other plants have lost their leaves. This allows for application of herbicides when many native species are dormant. For effective control with herbicides, healthy green leaves must be present at application time and temperatures must be sufficient for plant activity. Several systemic herbicides (e.g., glyphosate and triclopyr) move through the plant to the roots when applied to the leaves or stems and have been used effectively on Japanese honeysuckle. A 2.5% rate of glyphosate mixed with water and an appropriate surfactant should be applied to foliage from spring through fall. Alternatively, a 2% concentration of triclopyr plus water can be applied to foliage by thoroughly wetting the leaves but not to the point of drip-off. A coarse, low-pressure spray should be used. Repeat applications may be needed. Treatment in the fall, when many non-target plants are going dormant, is best. Also, a 25% glyphosate or triclopyr solution mixed with water can be applied to cut stem surfaces any time of year as long as the ground is not frozen.

Foliar sprays:

RODEO [glyphosate (53.8%)]: 2 fl. oz./gal

BRUSH-B-GON [triclopyr (8%)]: 4 fl. oz./gal

Japanese Barberry (Berberis thunbergii)

Description: a multi-branched dense shrub that can grow to 2.5 m (8 ft) in height. Shiny green to burgundy leaves are alternate along its thorny stems. Solitary yellow flowers bloom from March to April, and the fruit is a round or elliptical red berry. Japanese barberry is a popular landscape shrub that has escaped into many natural areas, and can grow in dense thickets in the understory of woods and forests. It is a prolific seed producer, and numerous birds eat and subsequently disperse the seeds.

Preferred Removal Strategy: Pulling by hand or weed wrench, or mowing/cutting

Hand pulling can effectively control small populations of Japanese barberry, since it can be done during most of the year and plants pull up easily in most forested habitats. To avoid injury from the sharp spines, heavy gloves and long-sleeved shirt are recommended. Barberry breaks bud early in the spring, thus it is easy to see in springtime before other deciduous plants leaf out. If plants have fruit present, they should be bagged and disposed of to prevent seed dispersal. Care should be taken to minimize soil disturbance. If lacking berries, uprooted shrubs can be piled and left as cover for small animals. For larger shrubs, a weed wrench provides the necessary leverage to pull up the plant by its roots and also minimizes contact with the thorny stems.

Repeated mowing or cutting will control the spread of Japanese barberry but will not eradicate it. Stems should be cut at least once per growing season as close to ground level as possible. Hand cutting of established clumps is difficult and time consuming due to the prolific thorns.

Alternate Removal Strategy: Herbicides

Japanese barberry breaks bud earlier in the spring than most woody species. Thus, it is possible to selectively spray its young leaves before other woody species have produced leaves. For such early season treatments, triclopyr is usually more effective than glyphosate. Wait until significant leaf expansion to ensure sufficient absorption of triclopyr. From mid summer to fall, both glyphosate and triclopyr are effective when applied as foliar sprays or as cut stump treatments.

Foliar spray:

BRUSH-B-GON [triclopyr (8%)]:

4 fl. oz./gal

Cut-stump treatment: Undiluted

Multiflora Rose (Rosa multiflora)

Description: a large, dense shrub that has escaped from ornamental and conservation plantings to become a serious invasive plant problem across the eastern half of the U.S. It invades natural areas, pastures, and light gaps in forests. Multiflora rose spreads quickly and may grow 1 to 2 feet per week to form impenetrable thickets of thorny stems.

Preferred Removal Strategy: Cutting or grubbing

Cutting method is appropriate for small initial populations and for environmentally sensitive areas where herbicides cannot be used. Repeated cutting will control the spread of multiflora rose, but will not eradicate it. Stems should be cut at least once per growing season as close to ground level as possible. Hand cutting of established clumps is difficult and time consuming due to the long arching stems and prolific thorns.

Pulling, grubbing, or removing individual plants is effective when plants are small. Use a digging tool to remove the entire plant. Special care should be taken to ensure that all roots are removed to prevent their resprouting. If plants develop from severed roots these should be removed as well.

Alternate Removal Strategy: Herbicides

Multiflora rose is susceptible to both glyphosate and triclopyr. Triclopyr can be applied starting in spring before or during flowering. Glyphosate is most effective when applied after flowering

(early summer) until early fall. Cut-stump treatments with both herbicides also provide control, but cutting stumps in established thickets is very difficult because of the numerous thorny branches.

BRUSH-B-GON [triclopyr (8%)]:

Foliar spray: 4 fl. oz./gal

Cut-stump treatment: Undiluted

Oriental Bittersweet (Celastrus orbiculatus)

Description: a deciduous woody vine that can reach 19 m (60 ft) in height, and can grow to 10 cm (4 in) in diameter. It is a serious threat to plant communities due to its high reproductive rate, long-range dispersal, ability to root sucker, and rapid growth rate. Climbing vines severely damage or kill trees and shrubs by constricting and girdling stems, and by blocking sunlight. Oriental bittersweet has a wide range of habitat preferences including roadsides, thickets, young forests and dunes. It is shade tolerant, readily germinating and growing under a closed forest canopy. Seeds are dispersed readily by birds and small mammals.

Preferred Removal Strategy: Cutting or Grubbing

Cut climbing or trailing vines as close to the root collar as possible. Cutting will reduce seed production and strangulation of surrounding woody vegetation. Oriental bittersweet will re-sprout unless cut so frequently that its root stock is exhausted. Treatment should begin early in the growing season and be repeated at 2-week intervals until autumn.

Grubbing is carried out by using a "pulaski" or similar digging tool to remove the entire plant, including all roots and runners. Juvenile plants can be hand pulled depending on soil conditions and root development. Any portions of the root system not removed will potentially re-sprout.

All plant parts, including mature fruit, should be bagged and disposed of in a trash dumpster to prevent reestablishment.

Alternate Removal Strategy: Herbicides

Young vines or low-growing patches can be sprayed with triclopyr any time during active growth. Larger vines or vines that have climbed high into trees should be cut or girdled just above ground level in summer or early fall. Paint undiluted triclopyr into the freshly cut surfaces of the stump. Repeated applications may be necessary to eliminate re-sprouting.

BRUSH-B-GON [triclopyr (8%)]: Foliar spray: 4 fl. oz./gal.

Cut-stump treatment: Undiluted

Porcelainberry (Ampelopsis brevipedunculata)

Description: a deciduous, woody vine. It twines with the help of non-adhesive tendrilsand closely resembles native grapes. Porcelain-berry spreads by seed and through vegetative means. The colorful fruits, each with two to four seeds, attract birds and other small animals that eat the berries and disperse the seeds in their droppings. The seeds of porcelainberry germinate readily to start new infestations. Porcelainberry is often found growing in riparian areas downstream from established patches, suggesting they may be dispersed by water also. The taproot of

porcelain-berry is large and vigorous. Resprouting will occur in response to cutting of above-ground portions.

Preferred Removal Strategy: Hand Pulling

Hand pulling of vines in the fall or spring will prevent flower buds from forming the following season. Where feasible, plants should be pulled up by hand before fruiting to prevent the production and dispersal of seeds. If the plants are pulled while in fruit, the fruits should be bagged and disposed of. For vines too large to pull out, cut them near the ground and repeat cutting of regrowth as necessary. Because the roots of porcelain-berry plants often merge with shrubs or other desirable vegetation, this type of manual removal is difficult in well established patches without damaging the desirable vegetation as well.

Alternate Removal Strategy: Herbicides

From summer to fall, apply a water-based solution of 2.5% Garlon® 3A (triclopyr amine) to foliage or cut plants first, allow time for regrowth and then reapply the mixture. Smaller infestations can be controlled to some extent with spot applications of glyphosate to leaves, used sparingly to avoid contact of desirable plants with spray. Cut the vines back during the summer and allow to re-sprout before applying herbicide, or apply glyphosate to leaves in early autumn.

To control climbing vines, cut large stems close to ground level and immediately treat the stump tops with Garlon 3A or a glyphosate herbicide with a 25-percent solution (3 quarts per 3-gallon mix). ORTHO Brush-B-Gon, Enforcer Brush Killer, and Vine-X are effective undiluted for treating cut-stumps and available in retail garden stores (safe to surrounding plants). For large vines, make stem injections using Arsenal AC*, Garlon 3A, or a glyphosate herbicide.

Herbicide treatment is most effective when applied toward the end of the growing season when plants are actively transporting nutrients from stems and leaves to the root system. Follow-up treatments may be needed in subsequent years to remove plants which have sprouted from seeds remaining in the soil.

Additional Removal Information

Because porcelainberry vines can grow up to 15 ft. in a single growing season, especially when rainfall is abundant, and seed may be viable in the soil for several years, effective control requires dedicated follow-up. Treatment measures often must be repeated during the growing season and for several years afterwards to fully eradicate the plant. Prevention of flowering, fruiting and production of mature seeds will help reduce its spread. Chemical control in combination with manual and mechanical methods is effective and likely to be necessary for large infestations.

Wineberry or Wine Raspberry (Rubus phoenicolasius)

Description: a perennial shrub with long, arching canes up to 9 feet long. It produces a large number of fruits that are readily eaten and dispersed by birds to forme dense, impenetrable thickets, crowding out native vegetation. It also spreads when tips of the canes touch the soil and take root. It can thrive in disturbed areas, wetlands, forest edges, floodplains, open canopy woodlands and roadsides. It can rapidly form dense monotypic thickets that crowd out native vegetation. Since the fruits are tasty, it is often not recognized as a problem. Copious fruit production and subsequent bird-dispersal contribute to its spread across the landscape.

Preferred Removal Strategy: Hand Pulling

No tools are necessary for hand removal of wineberry other than gloves to protect from thorns. The easiest time to remove this plant is in the fall or winter after a rain when the soil is moist. The stem should be grasped near the base to remove the entire root system. Broken roots left in place will likely re-grow. It is recommended to pull in series of tugs rather than one strong pull to achieve greater root removal.

Alternate Removal Strategy: Herbicide

A cut stump application of glyphosate or triclopyr in the fall is recommended when necessary

HABITAT ENHANCEMENT / AUGMENTATION OF NATIVE SPECIES

The primary objective of the revegetation effort will be to create a foundation for long term stability of a productive wetland ecology. The initial planting must address erosion control issues while providing an environment which gives an advantage to the establishment of native species.

Based on site inspection, the cover of invasive plants in portions of the site's buffer and wetland areas approaches 50%. Clearing of invasive species and replanting with native plants is proposed only where necessary. This is a conservative estimate used to approximate plant cover/density and costs required to implement the initial replanting of the site after selective removal of invasive species has occurred. As shown in Sheet C-9, this amounts to approximately 4000 square feet of invasive plant removal in the wetlands buffer and 10,000 square feet of invasive plant removal in the wetland. These areas will be re-vegetated with native plant seedlings and plant-plugs soon after removals are complete for erosion control and habitat restoration.

Both woody plants and herbaceous species appropriate for the site conditions will be specified. There is an opportunity to collect desirable species from areas of the project which will be excavated and /or regraded prior to site demolition. The project ecologist will be on site to direct collection activities. All collected plant material must be replanted immediately or stored in appropriate conditions to maintain its viability.

Additional plant material will be required to supplement the collected material and to introduce natives species not currently found on the project site. Herbaceous plant material will be specified in a variety of sizes for each species; in small containers and plugs. Depending on the species, the vegetation will be planted at 6" to 2'-0" on-center to provide uniform cover of the enhancement area within the first year of growth. Woody plant materials will be specified in a variety of types and sizes; containerized plant and live stakes. Planting of all herbaceous materials will take place in the spring. Containerized trees and shrubs will take place either spring or fall. Live stakes of shrubs will be planted during the shrub's dormant season.

A list of appropriate plants to be used during the enhancement effort is provided below.

Wetland Enhancement Plant List:

Tussock sedge (Carex stricta)

Fox sedge (Carex vulpinoidea)

Soft rush (Juncus effusus)

Woolgrass (Scirpus cyperinus)

Swamp milkweed (Asclepias incarnata)
Pale false mannagrass (Glyceria pallida)
Common three square (Scirpus americanus)
Sensitive fern (Onoclea sensibilis)
Smooth alder (Alnus serrulata)
Redosier dogwood (Cornus stolonifera)
Winterberry (Ilex verticillata)
Swamp azalea (Rhododendron viscosum)
Swamp white oak (Quercus bicolor)

Wetland Buffer Enhancement Plant List:

Red chokeberry (Aronia arbutifolia)
Sweet pepperbush (Clethra alnifolia)
Silky dogwood (Cornus amomum)
Red- pinicled dogwood (Cornus racemosa)
Spicebush (Lindera benzoin)
Arrowwood (Viburnum dentatum)
Elderberry (Sambucus canadensis)
Highbush blueberry (Vaccinium corymbosom)
Red maple (Acer rubrum)
Sweetgum (Liquidambar styraciflua)
Nannyberry (Viburnum lentago)
Pin oak (Quercus palustris)
Bayberry (Myrica pensylvanica)
New York fern (Thelypteris noveboracensis)
Lance leaved goldenrod (Euthamia graminifolia)
giant goldenrod (Solidago gigantea)
Switchgrass (Panicum virgatum)
Yellow birch (Betula alleghaniensis)
River birch (Betula nigra)

Topsoil

Any existing topsoil which exhibits the presence of invasive species should not be reused within the enhancement area. If additional topsoil is required, it will be brought in from an approved source, will be free of any undesirable materials, and will meet appropriate levels for pH, nutrient balance and texture. Topsoil placed in the wetland enhancement areas should not be rolled or compacted. The surface must be scarified prior to planting.

Watering

Newly planted vegetation in the enhancement areas should be monitored for up to 5 years. Irrigation is important during the first two growing seasons for plant establishment. During the first 3 to 5 years trees and shrubs should be irrigated during the dry periods and mulched to retain moisture. Native grasses and wildflowers need no supplemental irrigation.

Pest control

Generally, native plants do not require the use of insecticides or fungicides. However, if pesticides are required, pesticides labeled for aquatic use will be used. Label directions for application, usage and disposal will be followed. Fencing and or bird mesh will be installed and maintained for a minimum of five years to deter grazing by wildlife.

Fertilizing/Innoculation

In general, fertilizers are not needed or recommended for herbaceous wetland vegetation projects. However, the addition of mychorrizal inoculants is recommended for soil enhancement and best practice for tree and shrub establishment. Depending on site condition and performance of the installed vegetation, native trees and shrubs may benefit from a twice yearly application of a slow release or organic fertilizer for two years after planting.

Maintenance Practices

The pruning of native trees and shrubs is not required. Consistent and on-going monitoring and maintenance will be critical to identify and mitigate problems in the post-construction period. A five year monitoring period will be required to ensure the success of the initial enhancement plantings in taking hold and occupying the growing space. Dead or diseased material should be removed and replaced during this time. During this period subsequent invasive plant removal will also likely occur.

Successful “filling” of the growing space by the enhancement plant can itself help prevent re-colonization by invasive plant species. Annual monitoring and all subsequent removal activities will be overseen by the project ecologist on all occasions. The techniques employed to remove invasive plants, and the decision to use herbicide, will be re-evaluated annually. Based on annual monitoring and an assessment of invasive plant presence, the techniques will be adjusted as necessary to maximize invasive plant removal while minimizing negative effects to the site’s wetlands and existing native flora/fauna. The project ecologist will provide a letter report to the Town Planning Department documenting the monitoring and maintenance activities that occur each year. This report will provide photographs of the enhancement areas, details on plant survival, and cover estimates for any re-colonization of invasive plants.

Appendix E

OFF-AIRPORT PARKING GARAGE HEIGHT LIMITATION STUDY
SUPPLEMENTAL REPORT

SUBMITTED TO:
11 New King Street LLC
c/o Jeffrey Brown and Kim Frank
Westchester County, New York

AUGUST 2015

Louis Berger

Introduction

This report provides a supplement to the report prepared by DY Consultants in July 2011 that provided a technical analysis for the height limitations of a proposed vehicular parking facility (parking garage) in proximity to Westchester County Airport (HPN). The project is being planned by 11 New King Street LLC.

Project Location

The construction is proposed to take place at 11 New King Street, White Plains, NY 10604 to the north of the Westchester County Airport within the airport's runway protection zone (RPZ). **See Figure 1a and 1b**.

Figure 1a – General Project Location

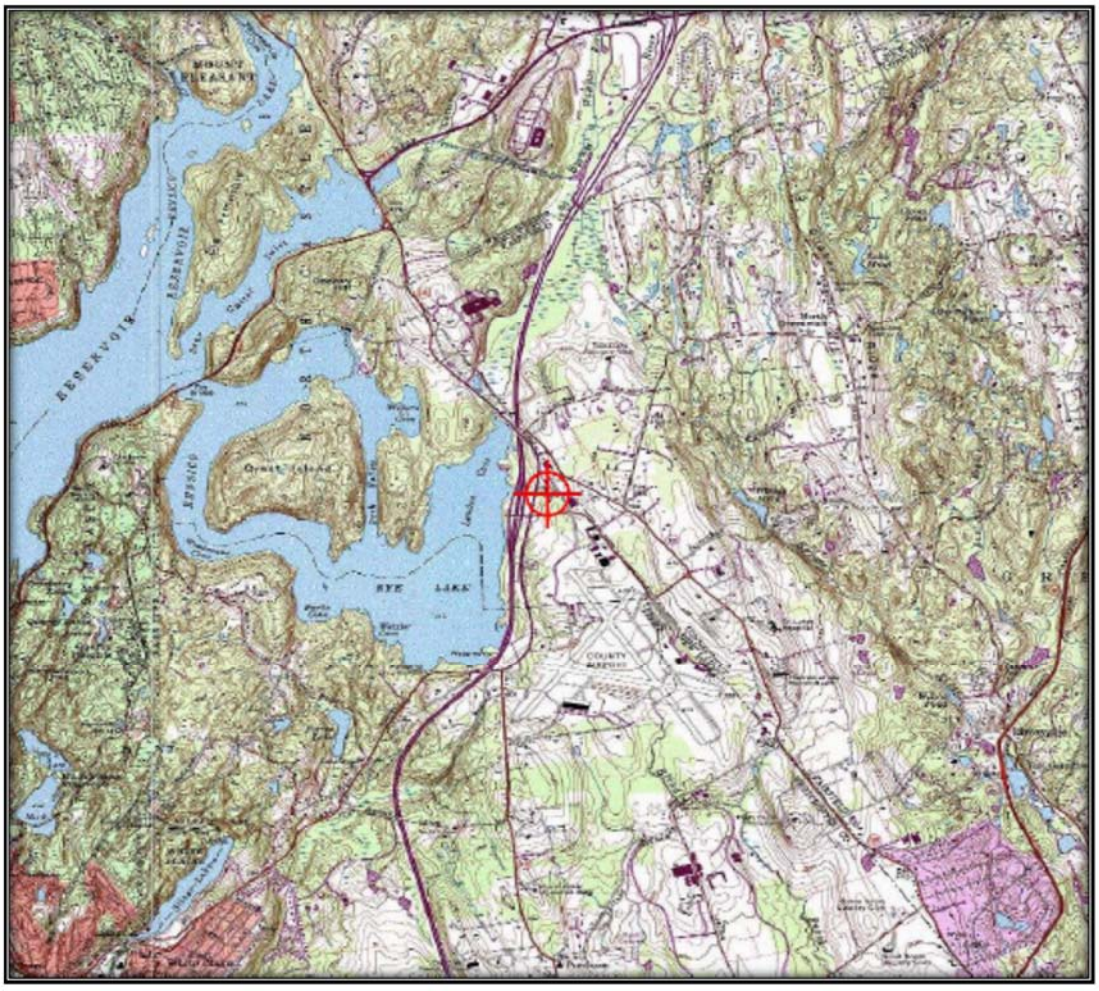
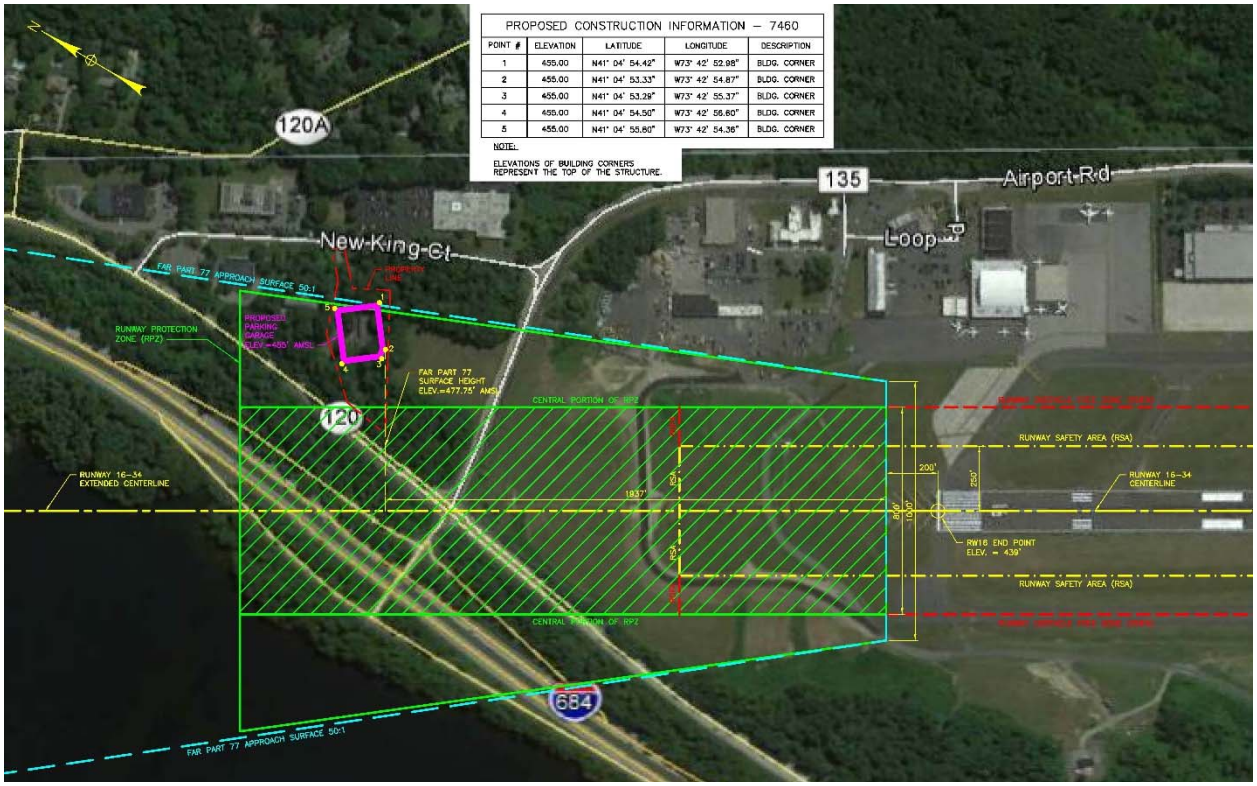


Figure 1b. – Project and RPZ Location

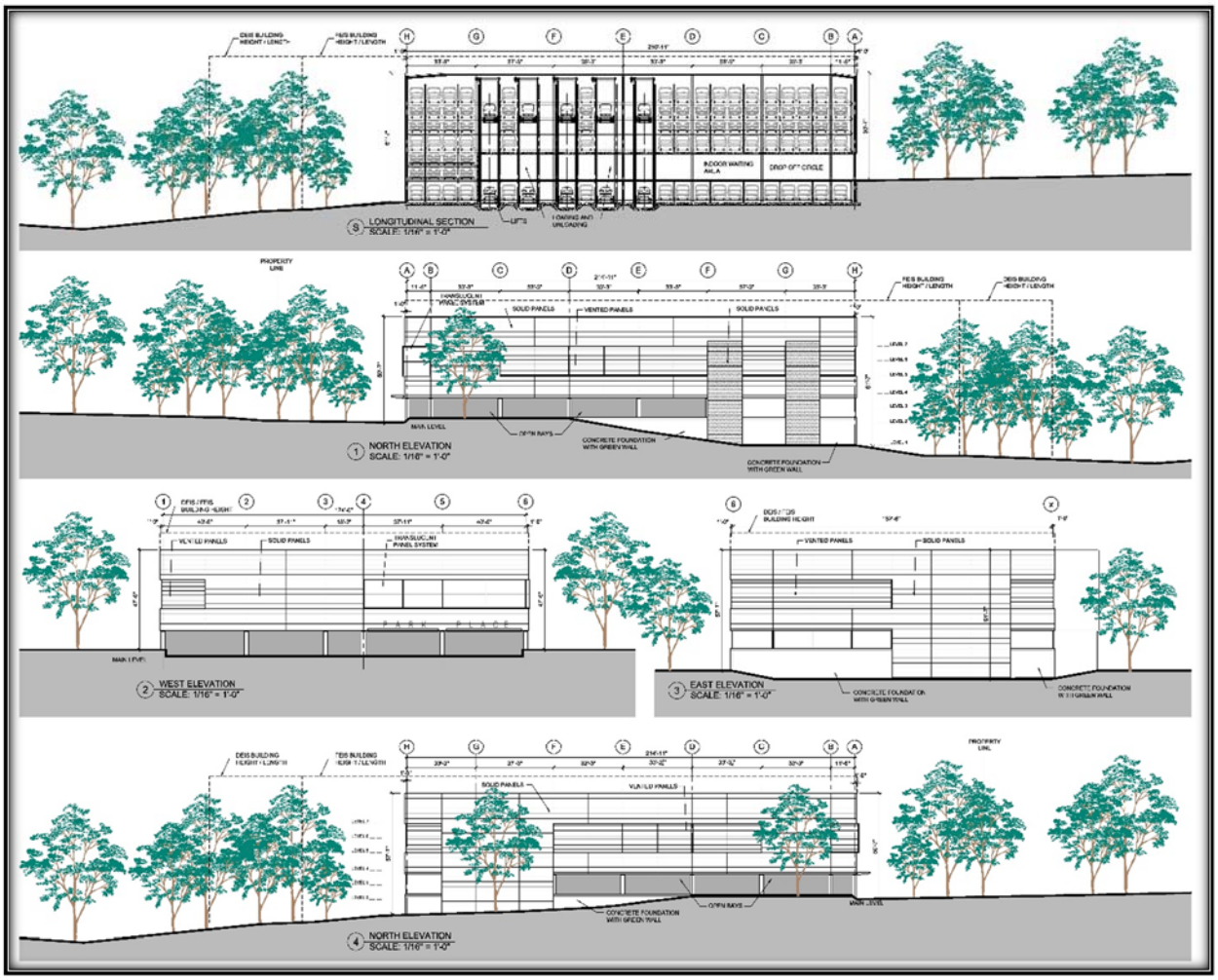


PROPOSED CONSTRUCTION INFORMATION – 7460				
POINT #	ELEVATION	LATITUDE	LONGITUDE	DESCRIPTION
1	455.00	N41° 04' 54.42"	W73° 42' 52.98"	BLDG. CORNER
2	455.00	N41° 04' 53.33"	W73° 42' 54.87"	BLDG. CORNER
3	455.00	N41° 04' 53.29"	W73° 42' 55.37"	BLDG. CORNER
4	455.00	N41° 04' 54.50"	W73° 42' 56.60"	BLDG. CORNER
5	455.00	N41° 04' 55.80"	W73° 42' 54.36"	BLDG. CORNER

Project Development

The general project description is an off-airport parking structure primarily used to relieve the airport's existing shortage of long-term parking. Since 2011 the 11 New King Street, LLC. had the parking garage plans revised such that the overall footprint of the building is smaller than initially proposed and the height of the structure remains 455 feet above mean sea level (455' AMSL) which is the same elevation AMSL as described in the 2011 report. The proposed finished floor of the parking garage is approximately 404'-7" above mean sea level and the roof of the proposed parking garage is 50'-7" above planned finished first floor. **See Figure 2**.

Figure 2. – Parking Garage Rendering



FAA Requirements

The Federal Aviation Administration (FAA) sets forth criteria for the protection of airspace around airports, essentially through the definition and application of various "imaginary surfaces" or slopes which radiate out from an airport's runways. Under Part 77 of the Federal Aviation Regulations (FAR), proposed structures that would exceed any of the defined imaginary surfaces, or which would stand a certain height above ground, are considered "obstructions" and must be reviewed by the FAA to determine if the obstructions would also constitute "hazards" to aviation.

In 2011, the project received a "No Hazard" determination from the FAA, pursuant to its FAA 7460-1 Form for Aeronautical Review—Aeronautical Study Number (ASN): 2011-AEA-2792-OE.

However, in a FAA memorandum dated September 27, 2012, the FAA Office of Airports identified a need to clarify policies on land uses within the RPZ. The FAA interim guidance was issued after the "No Hazard" determination was granted from the FAA on August 16, 2011 and has since expired on August 14, 2014. Subsequently, as part of this effort a new FAA Form 7460-1 was submitted to the FAA. This new submission reflects the updated land coordinates and elevation proposed for the parking garage (Aeronautical Study No. 2015-AEA-4118-OE). The FAA has determined that the structure does not constitute a hazard to air navigation. **See Attachment 1.**

Conclusion

While the structure does not constitute a hazard to air navigation, the FAA acknowledges that it would be located within the Runway Protection Zone (RPZ) of the Westchester County Airport (HPN) Runway 16/34.

Pursuant to FAA planning criteria "Structures, which will result in the congregation of people within an RPZ, are strongly discouraged in the interest of protecting people and property on the ground, and in cases where the airport owner can control the use of the property, such structures are prohibited."

Should the project be constructed, an FAA Form 7460-2 will be required. This is required for advance notice to the FAA for actual construction and is shown at the end of **Attachment 1**.

Attachment 1 can be found on the following pages.

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2015-AEA-4115-OE
Prior Study No.
2011-AEA-2803-OE

Issued Date: 08/18/2015

Kim Frank
11 New King Street LLC
2337 Philmont Ave
Huntingdon Valley, PA 19006

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building Park Place - Parking Garage (pt 1)
Location:	North Castle, NY
Latitude:	41-04-54.42N NAD 83
Longitude:	73-42-52.98W
Heights:	404 feet site elevation (SE)
	51 feet above ground level (AGL)
	455 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

ADVISORY RECOMMENDATION - While the structure does not constitute a hazard to air navigation, it would be located within the Runway Protection Zone (RPZ) of the Westchester County Airport (HPN) Runway 16/3..

Structures, which will result in the congregation of people within an RPZ, are strongly discouraged in the interest of protecting people and property on the ground. In cases where the airport owner can control the use of the property, such structures are prohibited. In cases where the airport owner exercises no such control, advisory recommendations are issued to inform the sponsor of the inadvisability of the project from the standpoint of safety to personnel and property.

This determination expires on 02/18/2017 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

This determination cancels and supersedes prior determinations issued for this structure.

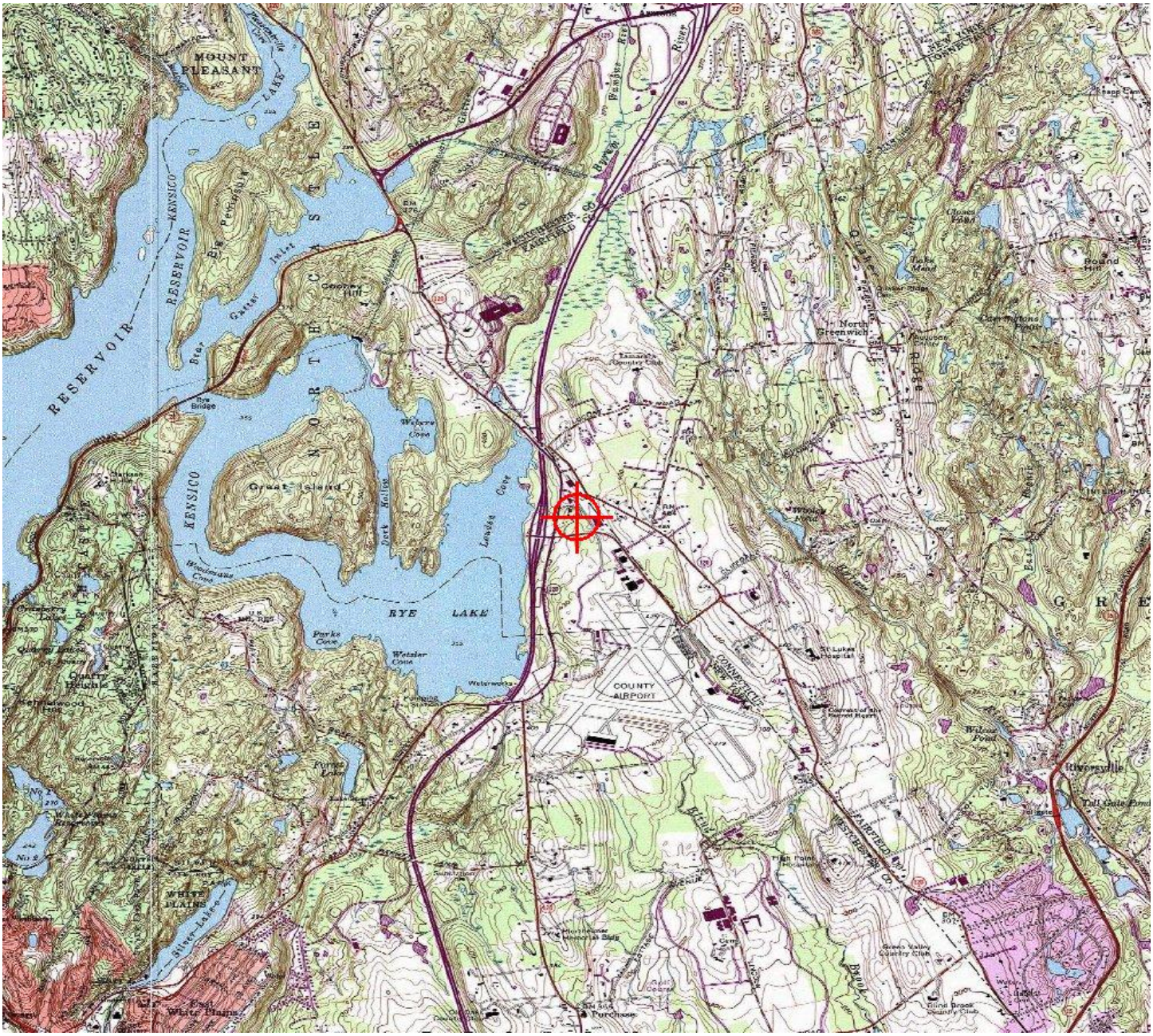
If we can be of further assistance, please contact our office at (404) 305-6531. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2015-AEA-4115-OE.

Signature Control No: 258694595-261189446 (DNE)
Darin Clipper
Specialist

Attachment(s)
Case Description
Map(s)

The proposal is for an off-airport, long term parking structure to support the airport.

TOPO Map for ASN 2015-AEA-4115-OE

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CALF ISLAND NATIONAL
WILDLIFE REFUGE
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WRENN
OYSTER BAY NATIONAL
WILDLIFE REFUGE
NEW YORK
UC
561
055°
Bayville

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2015-AEA-4114-OE
Prior Study No.
2011-AEA-2792-OE

Issued Date: 08/18/2015

Kim Frank
11 New King Street LLC
2337 Philmont Ave
Huntingdon Valley, PA 19006

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building Park Place - Parking Garage (pt 2)
Location:	North Castle, NY
Latitude:	41-04-53.33N NAD 83
Longitude:	73-42-54.87W
Heights:	404 feet site elevation (SE)
	51 feet above ground level (AGL)
	455 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

ADVISORY RECOMMENDATION - While the structure does not constitute a hazard to air navigation, it would be located within the Runway Protection Zone (RPZ) of the Westchester County Airport (HPN) Runway 16/3..

Structures, which will result in the congregation of people within an RPZ, are strongly discouraged in the interest of protecting people and property on the ground. In cases where the airport owner can control the use of the property, such structures are prohibited. In cases where the airport owner exercises no such control, advisory recommendations are issued to inform the sponsor of the inadvisability of the project from the standpoint of safety to personnel and property.

This determination expires on 02/18/2017 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

This determination cancels and supersedes prior determinations issued for this structure.

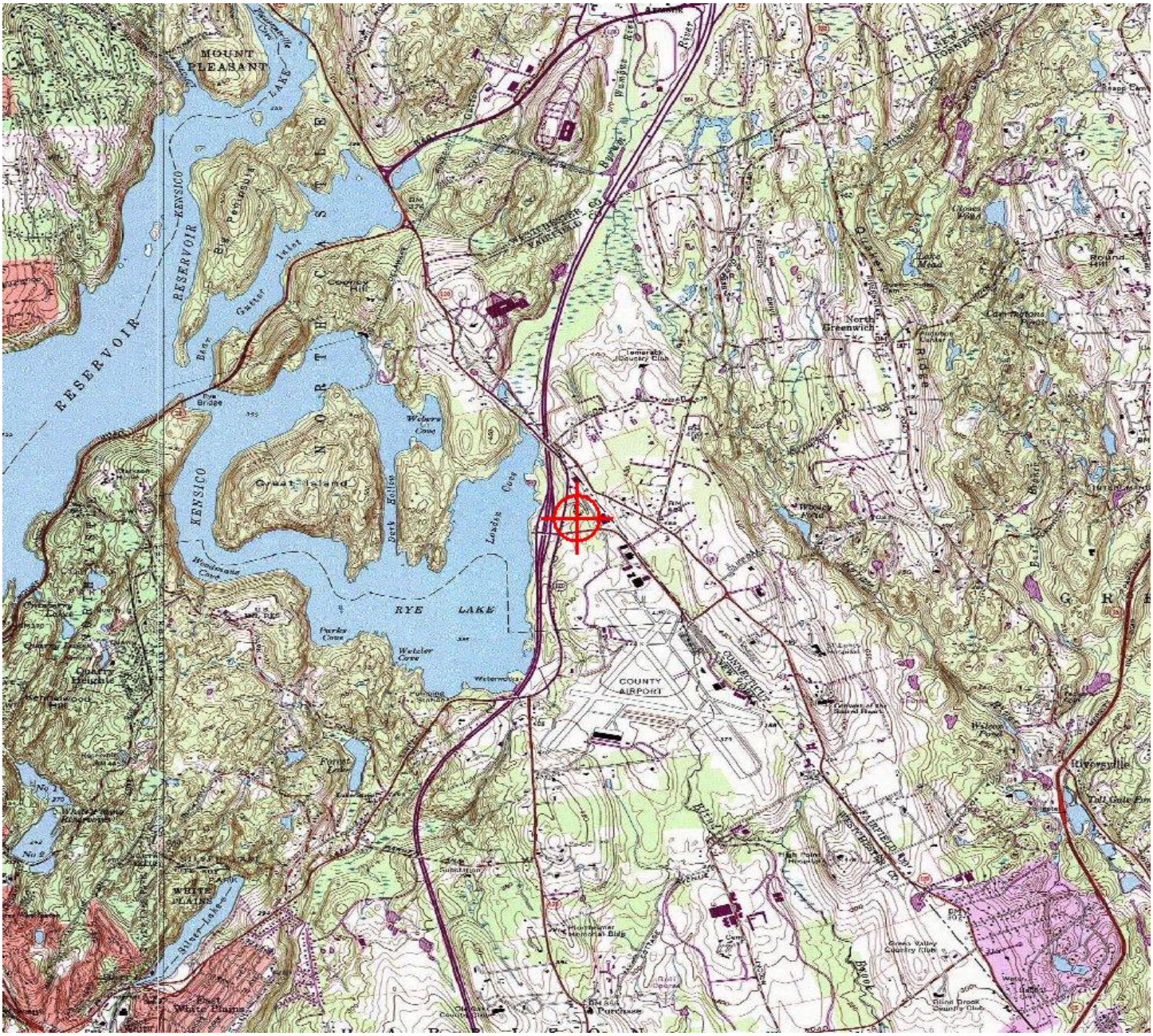
If we can be of further assistance, please contact our office at (404) 305-6531. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2015-AEA-4114-OE.

Signature Control No: 258694594-261189442 (DNE)
Darin Clipper
Specialist

Attachment(s)
Case Description
Map(s)

The proposal is for an off-airport, long term parking structure to support the airport.

TOPO Map for ASN 2015-AEA-4114-OE



Sectional Map for ASN 2015-AEA-4114-OE

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2015-AEA-4116-OE
Prior Study No.
2011-AEA-2804-OE

Issued Date: 08/18/2015

Kim Frank
11 New King Street LLC
2337 Philmont Ave
Huntingdon Valley, PA 19006

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building Park Place - Parking Garage (pt 3)
Location:	North Castle, NY
Latitude:	41-04-53.29N NAD 83
Longitude:	73-42-55.37W
Heights:	404 feet site elevation (SE)
	51 feet above ground level (AGL)
	455 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

_____ At least 10 days prior to start of construction (7460-2, Part 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

ADVISORY RECOMMENDATION - While the structure does not constitute a hazard to air navigation, it would be located within the Runway Protection Zone (RPZ) of the Westchester County Airport (HPN) Runway 16/3..

Structures, which will result in the congregation of people within an RPZ, are strongly discouraged in the interest of protecting people and property on the ground. In cases where the airport owner can control the use of the property, such structures are prohibited. In cases where the airport owner exercises no such control, advisory recommendations are issued to inform the sponsor of the inadvisability of the project from the standpoint of safety to personnel and property.

This determination expires on 02/18/2017 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

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This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

This determination cancels and supersedes prior determinations issued for this structure.

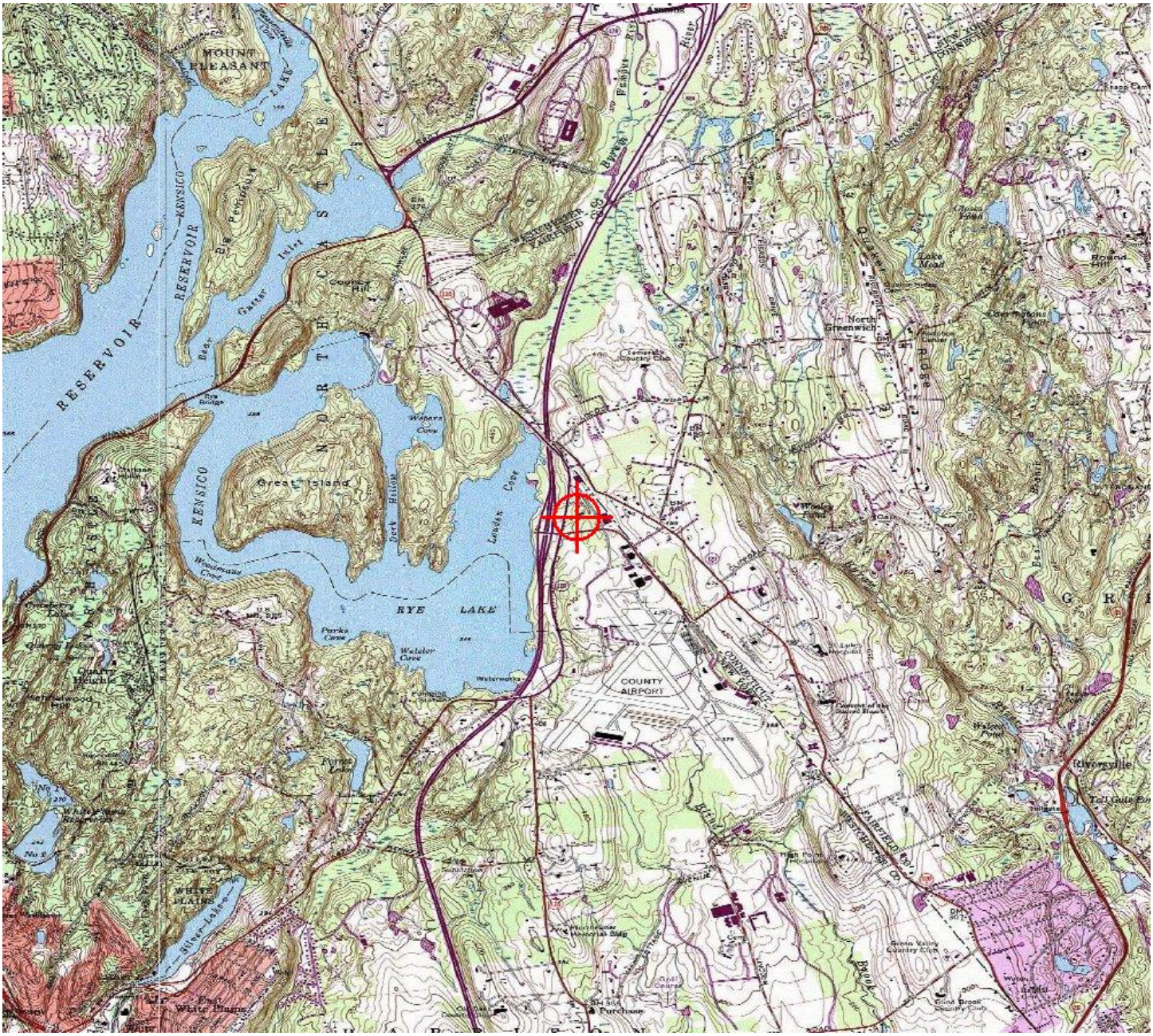
If we can be of further assistance, please contact our office at (404) 305-6531. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2015-AEA-4116-OE.

Signature Control No: 258694600-261189443 (DNE)
Darin Clipper
Specialist

Attachment(s)
Case Description
Map(s)

The proposal is for an off-airport, long term parking structure to support the airport.

TOPO Map for ASN 2015-AEA-4116-OE



Sectional Map for ASN 2015-AEA-4116-OE

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2015-AEA-4117-OE
Prior Study No.
2011-AEA-2805-OE

Issued Date: 08/18/2015

Kim Frank
11 New King Street LLC
2337 Philmont Ave
Huntingdon Valley, PA 19006

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building Park Place - Parking Garage (pt 4)
Location:	North Castle, NY
Latitude:	41-04-54.50N NAD 83
Longitude:	73-42-56.60W
Heights:	404 feet site elevation (SE)
	51 feet above ground level (AGL)
	455 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

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__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

ADVISORY RECOMMENDATION - While the structure does not constitute a hazard to air navigation, it would be located within the Runway Protection Zone (RPZ) of the Westchester County Airport (HPN) Runway 16/3..

Structures, which will result in the congregation of people within an RPZ, are strongly discouraged in the interest of protecting people and property on the ground. In cases where the airport owner can control the use of the property, such structures are prohibited. In cases where the airport owner exercises no such control, advisory recommendations are issued to inform the sponsor of the inadvisability of the project from the standpoint of safety to personnel and property.

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This determination cancels and supersedes prior determinations issued for this structure.

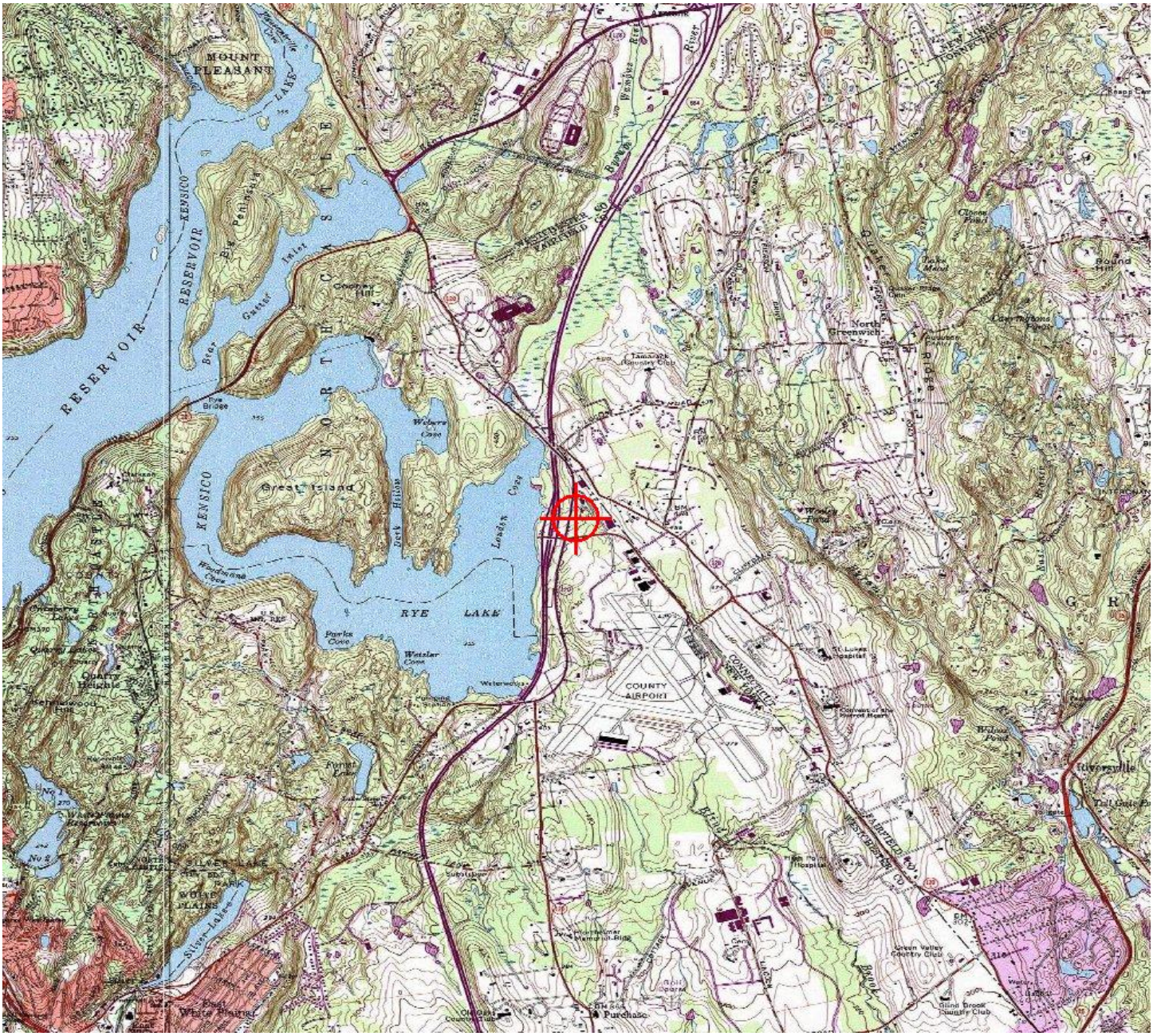
If we can be of further assistance, please contact our office at (404) 305-6531. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2015-AEA-4117-OE.

Signature Control No: 258694601-261189445 (DNE)
Darin Clipper
Specialist

Attachment(s)
Case Description
Map(s)

The proposal is for an off-airport, long term parking structure to support the airport.

TOPO Map for ASN 2015-AEA-4117-OE



Sectional Map for ASN 2015-AEA-4117-OE

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2015-AEA-4118-OE
Prior Study No.
2011-AEA-2806-OE

Issued Date: 08/18/2015

Kim Frank
11 New King Street LLC
2337 Philmont Ave
Huntingdon Valley, PA 19006

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building Park Place - Parking Garage (pt 5)
Location:	North Castle, NY
Latitude:	41-04-55.80N NAD 83
Longitude:	73-42-54.36W
Heights:	404 feet site elevation (SE)
	51 feet above ground level (AGL)
	455 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

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Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

ADVISORY RECOMMENDATION - While the structure does not constitute a hazard to air navigation, it would be located within the Runway Protection Zone (RPZ) of the Westchester County Airport (HPN) Runway 16/3..

Structures, which will result in the congregation of people within an RPZ, are strongly discouraged in the interest of protecting people and property on the ground. In cases where the airport owner can control the use of the property, such structures are prohibited. In cases where the airport owner exercises no such control, advisory recommendations are issued to inform the sponsor of the inadvisability of the project from the standpoint of safety to personnel and property.

This determination expires on 02/18/2017 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

This determination cancels and supersedes prior determinations issued for this structure.

If we can be of further assistance, please contact our office at (404) 305-6531. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2015-AEA-4118-OE.

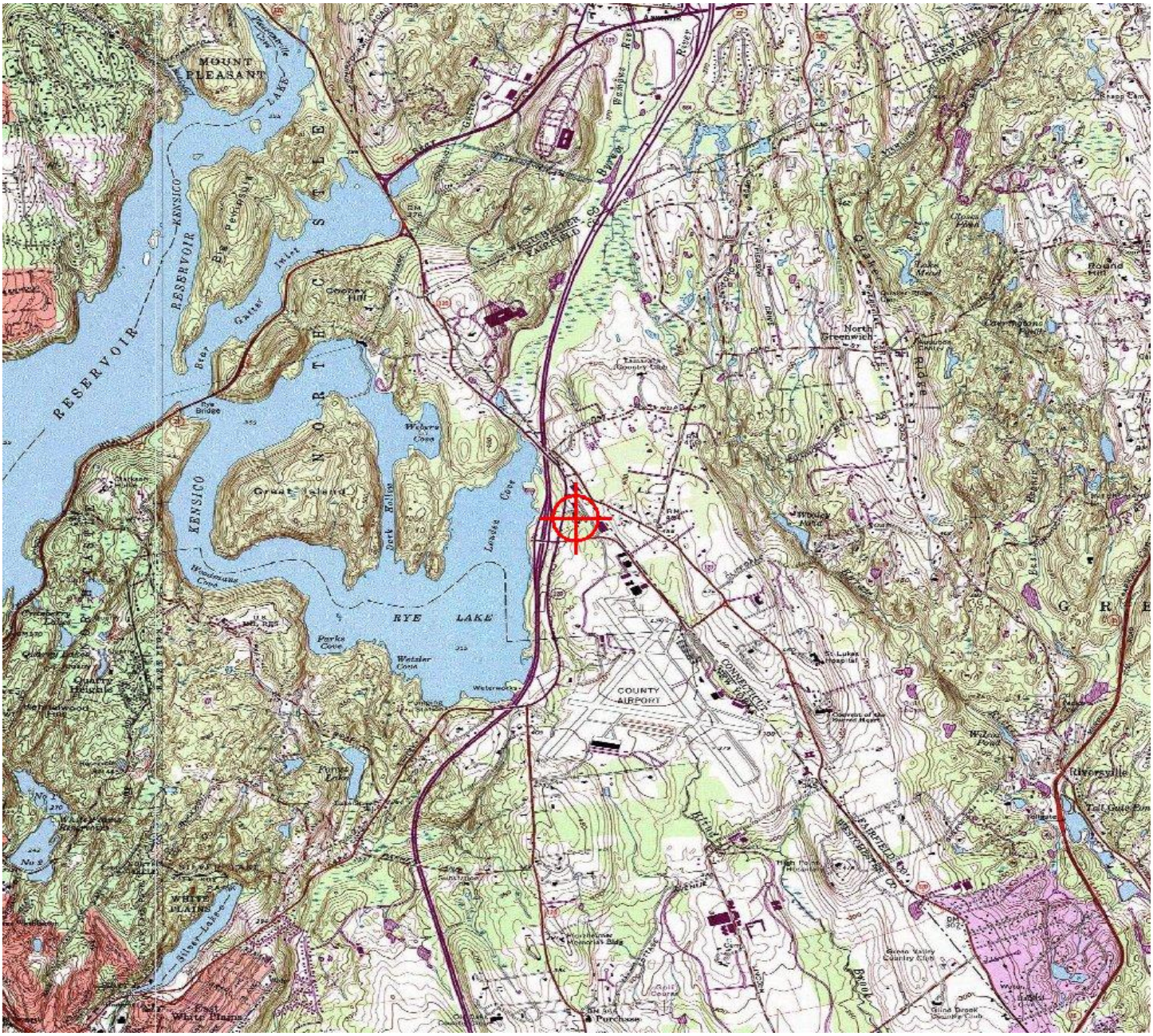
Signature Control No: 258694602-261189444 (DNE)
Darin Clipper
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2015-AEA-4118-OE

The proposal is for an off-airport, long term parking structure to support the airport.

TOPO Map for ASN 2015-AEA-4118-OE

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Form Approved OMB No. 2120-0001
Expiration Date: 10/31/2017

SUPPLEMENTAL NOTICE

Submission Instructions: For Advance Notice of Actual Construction or Alteration. Complete items 1, 2, 3A (1), 3A(2), and 6. If applicable, also complete items 4 and 5. Detach Part 1. Fold and tape at bottom. Mail to the FAA Regional Office for your area. Part 1A is provided for your file.

Aeronautical Study No.

U.S. Department of Transportation
Federal Aviation Administration

Notice of Actual Construction or Alteration

(Please Type or Print on this Form)

1. Construction

A. Type and Description of Construction
☐ New
☐ Alteration

B. Owner of Structure

2. Construction Location -- Height

A. Coordinates *(To hundredths of seconds, if known)*
Latitude: ° ' "
Longitude: ° ' "

B. Location *(City, State, include Street Address if any)*

C. Construction Heights
Site Elevation Ft. AMSL
Structure Height Ft. AGL
Total Height *(Structure & Site)* Above Mean Sea Level Ft. AMSL

D. Site Elevation Determined By
☐ Actual Survey
☐ USGS 7.5' Quad Chart
☐ Other *(Specify)*

E. Reference datum of coordinates
☐ NAD 27
☐ NAD 83
☐ Other *(Specify)*

F. Name of Nearest Public-Use or Military Airport *(include Distance and Direction from the Airport)*

3. Construction Notifications

A. Notification (Notice Is Critical to Flight Safety --- FAR Part 77 Required)	Date	B. Construction/Project	Date
★ (1) Construction will start (Submit at least 48 hrs. in advance		(1) Project Abandoned	
(2) Estimated Completion			
★ (3) Structure Reached Greatest Height *(Submit within 5 days)*		(2) Construction Dismantled	

4. Marking and Lighting

A. Marked
☐ Yes ☐ No ☐ Temporary

B. Lighted
☐ Medium Intensity White
☐ Dual (Medium Intensity White & Red)
☐ High Intensity White
☐ Dual (High Intensity White & Red)
☐ Red
☐ None

5. Antenna Requiring FCC License

A. Call Sign	B. Frequency	C. Date Applied for FCC Construction Permit	D. Date Construction Permit Issued

6. Preparer's Certification

Submitted by: (If submitted by a proponent's representative, please also complete item B.)

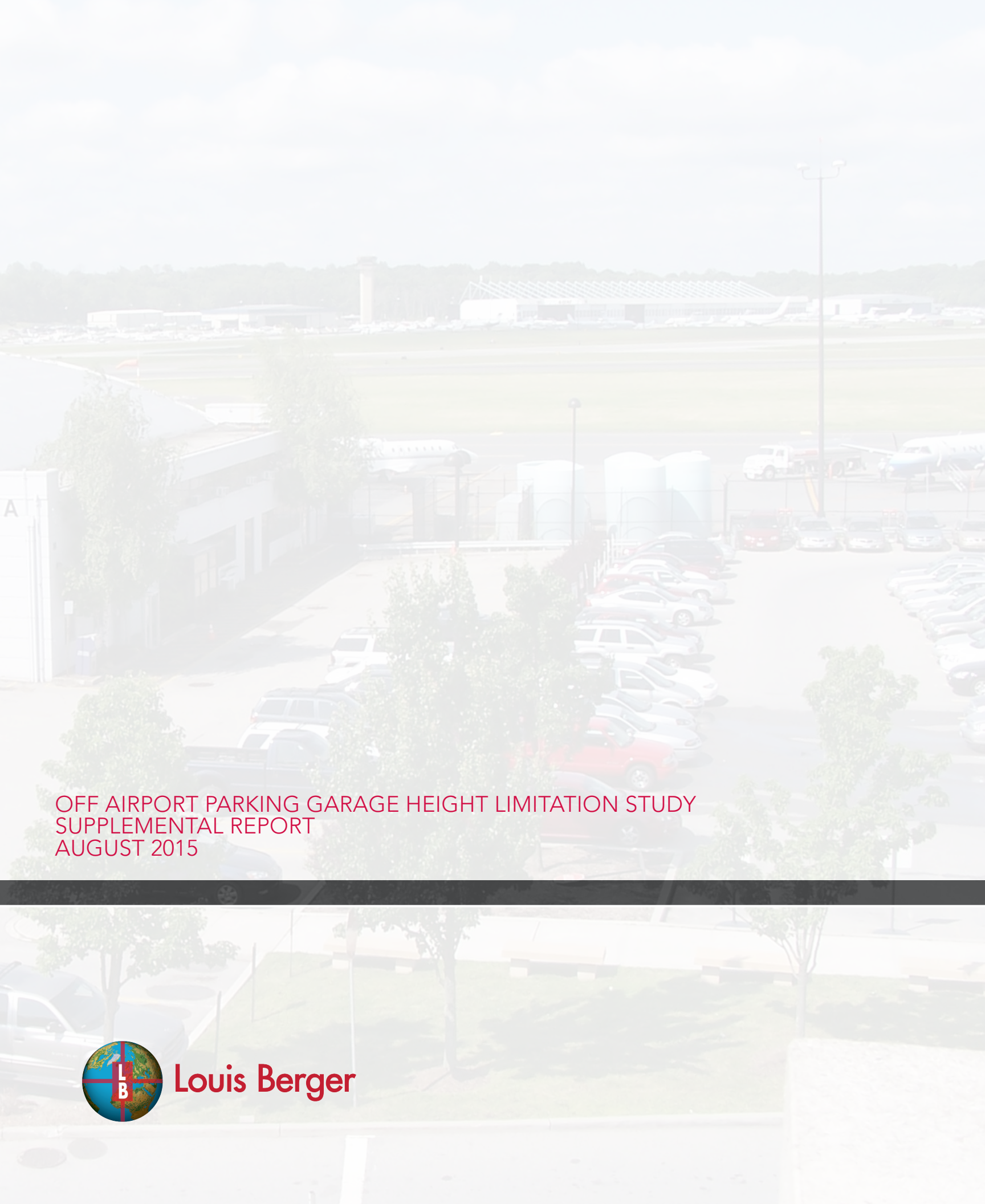
A. Proponent's Representative
Name:
Address:
Tel. No.: *(Include Area Code)*

B. Construction Proponent
Name:
Address:
Tel. No.: *(Include Area Code)*

I hereby certify that the information provided is true, complete, and correct to the best of my knowledge.

Signature	Title	Date

Notice is required by 14 Code of Federal Regulations, part 77 pursuant to 49 U.S.C., Section 44718. Persons who knowingly and willingly violate the notice requirements of part 77 are subject to a civil penalty of $1,000 per day until the notice is received, pursuant to 49 U. & C., Section 46301(a).



OFF AIRPORT PARKING GARAGE HEIGHT LIMITATION STUDY
SUPPLEMENTAL REPORT
AUGUST 2015

Louis Berger

Appendix F

CUDDY & FEDER LLP

445 Hamilton Avenue, 14th Floor
White Plains, New York 10601
Tel 914.761.1300 Fax 914.761.5372
www.cuddyfeder.com

July 1, 2015

VIA FEDERAL EXPRESS
Ms. Mary Galasso
New York City Department of Environmental Protection
465 Columbus Avenue, 1st Floor
Valhalla, New York 10595

Re: 11 New King Street, LLC – Park Place (Automated Vehicle Parking)
Application for Interpretation, or Area Variance
Premises: 7 & 11 New King Street, Armonk, New York (Town of North Castle)
(Tax Identification Numbers: SBL 3-4-13A & 3-4-14B)

Dear Ms. Galasso:

On behalf of 11 New King Street, LLC, (the "Applicant"), we respectfully submit the enclosed Application, seeking an Interpretation, or alternatively an area variance, from New York City Department of Environmental Protection ("DEP") to permit the construction of a multi-level automated parking structure to be known as "Park Place," including significant stormwater management infrastructure treating both the new construction and existing buildings and parking areas (the "Proposed Facility"). The Proposed Facility will replace an approximately 10,000 square foot existing, vacant office building and accessory parking lot.

The original copy of this Application has been sent directly to Commissioner Lloyd. Pursuant to our discussions with Matthew Giannetta, we respectfully submit five (5) additional copies of the Application for your review and consideration.

Should you or the Commissioner have any questions or comments in connection with this application, we respectfully request that we be contacted. Thank you in advance for your consideration.

Respectfully yours,

William S. Null

WSN:yp
Enclosures

CUDDY & FEDER LLP

445 Hamilton Avenue, 14th Floor
White Plains, New York 10601
Tel 914.761.1300 Fax 914.761.5372
www.cuddyfeder.com

July 1, 2015

VIA FEDERAL EXPRESS
Commissioner Emily Lloyd
New York City Department of Environmental Protection
Regulatory and Engineering Programs
465 Columbus Avenue
Valhalla, New York 10595

Re: 11 New King Street, LLC – Park Place (Automated Vehicle Parking)
Application for Interpretation, or Area Variance
Premises: 7 & 11 New King Street, Armonk, New York (Town of North Castle)
(Tax Identification Numbers: SBL 3-4-13A & 3-4-14B)

Dear Commissioner Lloyd:

On behalf of 11 New King Street, LLC, (the "Applicant"), we respectfully submit this Application seeking an Interpretation, or alternatively an area variance, from New York City Department of Environmental Protection ("DEP") to permit the construction of a multi-level automated parking structure to be known as "Park Place," including significant stormwater management infrastructure treating both the new construction and existing buildings and parking areas (the "Proposed Facility"). The Proposed Facility will replace an approximately 10,000 square foot existing, vacant office building and accessory parking lot.

The Premises are comprised of two (2) contiguous tax parcels located at 11 New King Street ("Lot 14B") and a portion of 7 New King Street ("Lot 13A"), totaling 3.34 acres of land and related improvements in the Town of North Castle, Westchester County (collectively the "Premises") which are functionally interconnected by a Drainage Easement perpetually burdening Lot 13A for the benefit of Lot 14B (as more particularly described below). *See,* Site Plan prepared by KG&D Architects, dated April 21, 2015, last revised June 17, 2015, attached hereto as Exhibit A. The Premises are currently improved with office buildings and parking lots, which are permitted uses in the Industrial AA (IND-AA) District in which they are classified in accordance with the Zoning Ordinance of the Town of North Castle (the "Zoning Ordinance"). Under existing conditions, untreated stormwater is conveyed directly into an onsite wetland and travels, without treatment either overland into the wetland along N.Y.S. Route 120, or into an existing stream on the Premises (also without treatment) and then is discharged into the Kensico Reservoir.

The Proposed Facility would incorporate green and sustainable design elements that would provide benefits to the community and environment, including but not limited to:

- Treating and controlling stormwater runoff from the Premises including the new construction as well as existing buildings and impervious surfaces on the adjacent property, where none is currently provided;
- Avoiding the NYCDEP reservoir stem limiting distance (buffers);
- Avoiding disturbance to on-site federal and Town wetlands;
- Minimizing new ground disturbance by re-developing a previously developed site;
- Reducing traffic within a congested traffic network;

- Reducing air emissions as a result of increased efficiency traffic flow due to the enclosed automated facility whereby vehicles would not idle or circulate within the structure;
- Designing the project to meet LEED certification requirements; and
- Recycling and Reusing the existing building and impervious site materials on site where possible.

This Application to DEP seeks its determinations regarding two (2) issues:

1. Permitting the expansion of impervious surfaces within 100 feet of a watercourse or wetland at an existing commercial facility, where the expansion is less than 25% and the Proposed Facility provides stormwater treatment for both existing and new facilities. This Application seeks a favorable Interpretation of the Rules and Regulations for the Protection from Contamination, Degradation and Pollution of the New York City Water Supply and its Sources ("WRR" or "Watershed Regulations") that would conclude that the expansion of impervious surfaces herein comprises a fifteen percent (15%) impervious surface increase, which is less than the maximum amount of 25% expansion permitted for existing facilities; or
2. In the alternative, permitting the minimum necessary expansion beyond the 25% threshold for small encroachments into the 100' buffer by granting a variance from 10 NYCRR § 128-3.9(a)(4)(iii)[1] for this industrially zoned property:
    a. For the proposed parking structure within the 100' buffer of an intermittent ephemeral stream, and
    b. For the widening of an existing driveway crossing over a NYSDEC-designated class A watercourse for a uniform 41-feet in width, a total of 1,737 square feet to enable two-way traffic between the Proposed Facility and New King Street, the sole public roadway accessible to the Premises

These requests are presented together for DEP's consideration. The Interpretation seeks recognition by DEP that these industrially zoned facilities are situated on interconnected lots joined by a perpetual Drainage Easement for construction, maintenance and management of stormwater infrastructure. Alternatively, we request an area variance for relief from the Watershed Regulations to permit the Proposed Facility to be constructed where it improves overall water quality within the watershed.

THE PROPOSED FACILITY INCLUDES TREATMENT FOR WATER QUALITY & QUANTITY WHERE NO SUCH TREATMENT OR INFRASTRUCTURE NOW EXISTS

As you know, in response to the need for water quality treatment, the Watershed Regulations require the implementation of water treatment infrastructure to protect the watershed. The Premises currently

[1] The WRR provision 10 NYCRR § 128-3.9(a) restricts the construction of an impervious surface within the limiting distance of 100 feet of a watercourse or wetland, or within the limiting distance of 300 feet of a reservoir, reservoir stem, or controlled lake. However, WRR provision 10 NYCRR § 128-3.9(a)(4)(iii) provides that in the East of Hudson Watershed or an area zoned commercial or industrial, the restriction on construction of impervious surface does not apply to the "...expansion of an existing impervious surface within the limiting distance of 100 feet of a watercourse or wetland, at an existing commercial or industrial facility, provided that the total area of all expanded impervious surfaces does not exceed 25 percent of the area of the existing impervious surface at that commercial or industrial facility, which shall comply with subdivisions (b), (c) and (d) of this section."

lack any stormwater treatment and the Proposed Project will provide it for both the Park Place automated parking structure and as much as can be collected from the adjacent existing buildings and parking lots given the topographic constraints and direction of the drainage flows. Accordingly, this Application requests DEP to adopt an interpretation of Section 10 NYCRR §128-3.9(a)(4)(iii) of the Watershed Regulations that encourages existing developed areas to implement stormwater treatment in accordance with the Watershed Regulations similar to the design of the Proposed Facility.

As noted above, the Proposed Facility would be developed on a portion of lands improved with office buildings and parking areas, which currently have no stormwater treatment. The Proposed Facility therefore would provide a meaningful improvement in the treatment of stormwater quality and quantity to this developed area. The Proposed Facility addresses an existing demand for a convenient and reliable parking facility in an area dominated by office and large-scale transportation uses including Westchester County Airport, Interstate 684 (I-684) and N.Y.S. Route 120. Currently, the lack of convenient and appropriate parking has created a situation where many passengers arrange to be driven to, and picked up from the airport rather than risk being unable to find parking. Absent reliable parking near the airport, the number of vehicle trips per passenger is nearly doubled as vehicles drive to the airport, drop-off passengers and return to pick them up once more, thus increasing the vehicle miles associated per passenger, and the attendant adverse environmental impacts from these additional vehicle trips.

Although the Proposed Facility would result in more impervious surface than existing conditions, it would provide an overall improvement in the stormwater runoff quantity and quality over the existing conditions on the Premises. The details of these stormwater improvements are more particularly set forth in the Applicant's Stormwater Pollution Prevention Plan ("SWPPP"), including improved collection and treatment to adequately mitigate existing point and nonpoint stormwater sources that avoid contamination and degradation of the water supply. These improvements conform the Premises to the spirit, intent and purpose of the Watershed Regulations.

While the automated parking structure will be situated on Lot 14B and the appurtenant stormwater treatment and management facilities will be situated within a 0.87-acre Easement area on contiguous Lot 13A, integrally benefitting both the new parking facility and certain of the existing improvements on Lot 13A. Accordingly, they are functionally interrelated and inextricably intertwined both operationally and, for the purposes of calculating the expansion of the existing impervious surface.

This Proposed Facility is not the typical development, as it includes an automated parking facility that will not cause untreated run-off from vehicles parking within it and it includes meaningful water treatment facilities for existing buildings and impervious surfaces. Therefore, the Proposed Facility will not result in the type of impacts generally associated with development:

1. It will *not* have the potential to affect the watershed by preventing the filtration of surface water that naturally occurs in wetlands and through soil absorption, so that the ground loses its ability to absorb the water and the run off washes across the land picking up contaminants such as gasoline and oil, road salts, soil, pesticides and industrial chemicals; and
2. It will *not* result in the generation of waste.

We respectfully submit that DEP should consider the Proposed Facility to be a single development and a unified "facility" on Lots 13A and 14B in accordance with the Watershed Regulations.

BACKGROUND

The Proposed Facility is being reviewed by the Town of North Castle in connection with a Petition seeking to amend the Zoning Ordinance to permit a parking structure in this Industrial District. Before the Zoning Ordinance is amended, the Planning Board, as Lead Agency, must complete its review in accordance with the State Environmental Quality Review Act ("SEQRA"). As the project has developed, a DEIS and a subsequent FEIS have been completed describing the Proposed Facility. Further, the Proposed Facility has been modified and reduced in scope and substance in response to comments. The footprint of the proposed automated parking structure has been reduced from 50,195 square feet in the DEIS to 44,812 square feet in the FEIS and 37,462 square feet in the Current Plan. *See* Base Map Rendering of Reduced Building Footprint and Impervious Surface from DEIS to the Current Plan, attached hereto as Exhibit B. Additionally, the capacity of the Proposed Facility has been reduced from 1450 vehicles in the DEIS to 1380 vehicles in the FEIS and approximately 980 vehicles in the Current Plan.

Through the environmental review process to date, the Applicant has undertaken to assess potential impacts to the environment and community from the Proposed Facility. Under existing conditions stormwater is untreated:

- Stormwater runoff from Lot 14B is conveyed directly into an onsite wetland and discharged without treatment into the Kensico Reservoir; and
- Stormwater runoff from Lot 13A travels either overland into the wetland along N.Y.S. Route 120, or into an existing stream on the property, also without treatment, due to the existing improvements having been constructed prior to the promulgation of federal and state stormwater regulations.

Currently, stormwater flows from rooftops, over paved areas and bare soil, and through sloped lawns, collecting and transporting soil, animal waste, salt, pesticides, fertilizers, oil and grease, debris and other potential pollutants. Potential other pollution sources include sand and salt from roadway and parking lot runoff. The existing untreated stormwater runoff flows over impervious surfaces directly discharging into the down gradient wetland and watercourse without treatment.

Without the Proposed Facility and its integral stormwater treatment, there would be no improvement to on-site stormwater runoff. Pollutants from atmospheric deposition and vehicle use would continue to be conveyed via surface water runoff directly to downstream surface water resources and ultimately to discharge into the Kensico Reservoir. Stormwater would continue to discharge without any control with respect to volume or velocity, and without any water quality treatment.

Wetlands onsite have been mapped and classified as "palustrine forested, broad-leaved deciduous, temporarily flooded." These linear wetlands were confirmed on the project site by the Town's consultants, among others, and additional forested wetland areas contiguous to the mapped wetlands were identified and delineated. The area of wetland on the overall 3.34 acre project site is approximately 0.66 acres. Two (2) streams occur on the project site – including a perennial stream and an ephemeral drainage channel that is infrequently flooded. The perennial stream, which crosses the westerly boundary of the project site through a culvert under the existing paved entrance drive before flowing northward offsite, is regulated by the U.S. Army Corps of Engineers, New York State, New York City, and the Town of North Castle. The ephemeral stream or drainage way that borders the project site to the south conveying surface runoff from rain events down slope to the

onsite wetlands is confined by stone walls on both sides and is part of the onsite wetlands regulated only by the Town of North Castle and the U.S. Army Corps of Engineers subject to an onsite confirmation (jurisdictional determination), which occurred.

The project site ranges in elevation from 370 feet to 404 feet above sea level, and the site slopes from east to west, with the highest elevations located in the southeast corner of the site and the lowest in the northwest corner adjacent to the perennial stream. The project site is bordered by an undeveloped open field to the south; N.Y.S. Route 120, as well as I-684, a heavily traveled highway with three (3) travel lanes in each direction and forested watershed lands surrounding the Kensico Reservoir (Rye Lake) to the west; and office buildings to the north and east, the later being located on the opposite side of New King Street. In fact, significant portions of I-684 drain untreated into the Kensico Reservoir, and I-684 does not include stormwater treatment practices as it was built prior to the promulgation of federal and state stormwater regulations.

In addition to the above site conditions and limitations that create a substantial hardship for the Applicant to comply with the impervious surface regulations of the WRR, the Applicant sought and obtained a drainage easement over the adjacent Lot 13A, in order to adequately implement stormwater quality and control measures and mitigate some existing stormwater issues. The need for such an easement is a result of the shape of the parcel in relation to existing site conditions and limitations on the Lot.

The Proposed Facility also would implement stormwater treatment improvements that integrate green practices, such as stormwater planters and rain gardens and a surface sand filter to manage both existing and proposed stormwater runoff. Stormwater basins have been oversized in order to accommodate runoff from the Proposed Facility, including existing impacts from Lot 14B and a portion of Lot 13A. As discussed above, the revised SWPPP documents capture of overland stormwater flow and runoff from roof drains being conveyed to multiple treatment mechanisms in a series, including catch basins with deep sumps, a sedimentation basin, a sand filter and pocket wetland. In part, stormwater collected from the roof of the parking facility would be directed into stormwater planters and then conveyed into the stormwater facilities before discharging to the Kensico Reservoir.

The green infrastructure practices proposed to be constructed would function as belts-and-suspenders and would provide significant improvements to the quality of water entering the reservoir as compared to existing conditions. In addition to the enhancements detailed in to the SWPPP, the automated parking system would be a fully contained system within an enclosed building, reducing potentially adverse pollutants otherwise typical for a parking structure. Under the proposed condition, automobiles would be driven into a discrete portal area onto a palate, the vehicle would be turned-off, examined and video-recorded by a computerized system to document its condition, and then transported by a robotic system to a storage location within the enclosed "parking" structure. The vehicle would not be driven to its parking space. The typical discharges from oil, hydrocarbons, and other pollutants that emanate from parking facilities would not occur. Instead, contaminants would be contained, collected and discharged into a proposed sanitary collection system within the building. The sediments collected within this system would ultimately be conveyed and treated at a wastewater treatment plant and would not enter the stormwater system, or the Kensico Reservoir.

Additional measures being employed by the Applicant to promote the overall wetland functionality on the Premises include a Wetlands and Wetland Buffer Enhancement Plan and invasive species

removal. In areas of steep slopes, a mix of grasses, groundcovers and perennials have been designed to promote slope stability and erosion control over the short and long-term. These efforts have been designed to foster the long-term health and functionality of the existing wetlands. This plan should enhance and reinforce a productive ecosystem within the existing wetlands and wetlands buffer areas supporting functionality both in terms of stormwater quality treatment and wildlife habitat.

Interpretation Relief Related to Impervious Surfaces

As noted, the Applicant respectfully requests an interpretation of 10 NYCRR § 128-3.9(a)(4)(iii) of the Watershed Regulations that recognizes the integral design and development of the Proposed Facility and does not penalize it for having the Proposed Facility located on both Lots 13A and 14B. Given that there will be an expansion of existing impervious surfaces within the limiting distance of 100 feet of a watercourse or wetland at an existing commercial facility, this request for an Interpretation seeks DEP's acknowledgment that the spirit and intent of the Watershed Regulations are served by considering both Lots 13A and 14B as the project site, since the Proposed Facility has been designed to, and will treat run-off from the new construction as well as from those portions of the existing buildings and impervious surfaces on the adjacent parcel which can be collected and treated in the proposed stormwater management facilities.

It respectfully is submitted that 10 NYCRR § 128-3.9(a)(4)(iii) of the Watershed Regulations should permit an expansion of existing impervious surfaces within the limiting distance of 100 feet of a watercourse or wetland in the East of Hudson watershed, provided that the total area of all expanded impervious surfaces does not exceed 25 percent (25%) of the area of the existing impervious surfaces at that commercial or industrial facility. Here, in addition to treating stormwater from the portion of the Proposed Facility on Lot 14B, the part of the Proposed Facility that consists of the Applicant's stormwater basins will also treat large portions of the existing facilities on Lot 13A. The Easement benefiting Lot 14B will enable stormwater quality and control to be established for these functionally related properties where no such treatment currently exists on either lot.

In considering the granting of the requested interpretation of the WRR, "[d]eference is indeed accorded the reasonable interpretation of regulations rendered by the agency responsible for their promulgation and enforcement (*see* Matter of Gaines v. New York State Div. of Hous. & Community Renewal, 90 N.Y.2d 545, 548–549, 664 N.Y.S.2d 249, 686 N.E.2d 1343 (3d Dep't 1999) (citing City of New York v. Vill. of Tannersville, 263 A.D.2d 877, 878-79, 694 N.Y.S.2d 801, 803 (1997)). Therefore, in construing a statute or regulation, one must assume that every provision thereof was intended for some useful purpose and that an enforceable result was intended by the statute.[2] A statute or regulation must not be construed in such a way that would result in the Legislature having performed a useless or vain act, and constriction which would render a statute ineffective must be avoided.[3] Further, as between two constructions of an act, one of which renders it practically nugatory and the other enables the evident purposes of the Legislature to be effectuated, the latter is preferred.[4]

The Watershed Regulations define the words "facility" and "existing," at 10 NYCRR § 128-1.6 (38) and (40), as follows:

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[2] *See* N.Y. Stat. Law §144 (McKinney).
[3] *See* N.Y. Stat. Law §144 (McKinney).
[4] *See* N.Y. Stat. Law §144 (McKinney).

> (38) Existing means physically constructed, functioning and operational prior to the effective date of these rules and regulations.
>
> (40) Facility means a structure, room or other physical feature designed to perform a particular function and that makes possible some activity.

When applying the above-quoted definitions to the situation presented herein, the language in the definitions simply should not be considered dispositive. These definitions do not indicate how to interpret the applicability of the WRR to this Proposed Facility, which is located on two lots. Nor does the express language of the WRR consider existing facilities where one building would be demolished, but others as well as appurtenant parking areas would remain, and all would be benefited by the stormwater treatment to be constructed as part of the Proposed Facility. Specifically, the definitions do not address whether the measurement of the expansion of impervious surfaces should be based solely upon one part of the land at issue, ignoring the other part of the land because it is under separate ownership, albeit interconnected due to being subject to a perpetual Easement. The WRR definitions do not address ownership of underlying land, or whether ownership is important in determining whether there is an integral operation or feature that inextricably causes improvements to operate as one, unified project.

Importantly, the Watershed Regulations do not define the word "site." Accordingly, we respectfully submit that the spirit and intent of the Watershed Regulations should lead to an interpretation that the Proposed Facility, including improvements on both Lots 13A and 14B, qualify as a single "facility" as defined in the Regulations. The interpretation of the term "facility" in this manner seems correct since it logically supports the purpose and intent of the Watershed Regulations to encourage the treatment of existing impervious surfaces and protect the water supply.

Pursuant to this requested interpretation, the existing impervious surfaces on the Premises are 91,746 +/- square feet, which are comprised of 33,643 +/- square feet of existing imperious surface on Lot 14B, and 58,103 +/- square feet of existing impervious surface from Lot 13A. *See* Exhibit B. The impervious surface for the Proposed Facility would be 105,375+/- square feet, which are comprised of 47,272 +/- square feet of impervious surface on Lot 14B, and 58,103+/- square feet of impervious surface on Lot 13A. *See* Exhibit B.

As you know, 10 NYCRR § 128-3.9(a)(4)(iii) of the Watershed Regulations refers to "existing" impervious surface, and "commercial or industrial facility" and defines "[f]acility" to mean "... a structure, room or other physical feature designed to perform a particular function and that makes possible some activity." 10 NYCRR § 128-1.6(40). The Watershed Regulations also define "existing" to mean "... physically constructed, functioning and operational prior to the effective date of these rules and regulations." 10 NYCRR § 128-1.6(38).

As identified above, 10 NYCRR § 128-1.2(d) of the Watershed Regulations implements DEP's intention to:

> . . . minimize the discharge of pollutants into the source waters from both point and nonpoint sources, minimize the adverse impacts of erosion, limit the discharge of phosphorus to source waters which may accelerate the eutrophication process, and provide notification to the City of ongoing or proposed activities, which either alone or in conjunction with other existing and proposed regulated activities, may cause contamination to or degradation of the water supply.

The definition of the term "existing" identifies improvements that are physically constructed and functioning and operational prior to the date of the watershed regulations. The existing facilities on the project site were constructed prior to the promulgation of federal and state stormwater regulations. Under existing conditions without the proposed stormwater treatment infrastructure included with the Proposed Facility, there would be no improvements to on-site stormwater runoff occurring on Lot 14B or Lot 13A. Pollutants from atmospheric deposition and vehicle use would continue to be conveyed by surface water runoff directly to downstream surface water resources and ultimately discharge into the Kensico Reservoir.

Therefore, it is respectfully submitted that the granting of this requested Interpretation is appropriate since the "site" and "facility" as defined in the WRR should be deemed to include the Proposed Facility, as well as the two (2) existing buildings and related parking area on both Lots 14B and 13A for the purposes of determining the percentage increase in impervious surface. The Applicant's Proposed Facility and related stormwater improvements together with the functionally related facilities on the adjacent Lot 13A represent a fifteen percent (15%) increase in impervious surfaces from the existing impervious surface on the site, in compliance with the Watershed Regulations. *See* Approximate Base Map Rendering – Impervious Surface Calculations -- Lot 13A and Lot 14B attached hereto as Exhibit C.

Based on these facts and circumstances, this Application is consistent with DEP's stated intention to "... minimize discharge of pollutants, which either alone or in conjunction with other existing proposed regulated activities, may cause contamination to or degradation of the water supply." 10 NYCRR § 128-1.2(d). The Applicant's Proposed Facility inarguably would provide an overall improvement in stormwater runoff quantity and quality. Further, the improvements on Lots 14B and 13A are functionally related to the purpose of improving stormwater drainage, including but not limited to detention ponds, pipes, lines, conduits and drainage improvements that receive stormwater from Lot 14B and a portion of Lot 13A, which perpetually burden both Lots 14B and Lot 13A now and in the future for development, further evidencing the functional interrelationship between the facilities. Lot 13A is constrained to a substantial degree by its own onsite wetlands, including a perennial stream that transects the site, steep slopes from a ravine of the onsite stream and the DEP's 300-foot reservoir stem. The portion of Lot 13A that is located in the DEP's 300-foot reservoir stem includes part of the existing building and parking lot on the site that has no stormwater management for quality or quantity.

By granting the Interpretation herein requested, the Applicant's proposed stormwater and related site improvements would effectuate the purpose of the Watershed Regulations, as intended by DEP. Such an Interpretation also is consistent with the Legislative intent to minimize contamination to, or degradation of the water supply. Absent the granting of relief by DEP, it is more than likely that the existing facilities, constructed prior to the promulgation of federal and state stormwater regulations, would remain without necessary mitigation and enhancement measures.

If such an Interpretation were adopted by DEP, the Applicant's Proposed Facility, including stormwater improvements and existing improvements on Lot 13A would represent a fifteen (15%) increase in impervious surfaces from existing impervious surfaces, thereby being in compliance with the Watershed Regulations and not requiring a variance therefrom.

Alternatively, a Variance is requested from 10 NYCRR § 128-3.9(a)(4)(iii)

The Applicant respectfully is requesting, in the alternative and without prejudice to the above request for an Interpretation, that DEP grant a variance from this Section of the Watershed Regulations, which limits expansion of an existing impervious surface within the limiting distance of 100 feet of a watercourse or wetland, at an existing commercial facility, provided that the total area of all expanded impervious surfaces, including all impervious surfaces allowed under the Watershed Regulations do not exceed 25 percent (25%) of the area of the existing impervious surface at the commercial facility. As you know, the granting of a variance from 10 NYCRR § 128-3.9(a)(4)(iii) of the Watershed Regulations, 10 NYCRR § 128-6.1 of the Watershed Regulations remains in the Commissioner's discretion.

The requested variance would permit 2,482 square feet of additional impervious surface, representing a 5.5% increase over that permitted. The proposed increase is calculated using the existing 33,643 square feet of impervious surface on Lot 14B, together with the 10,931 square feet of impervious surface on Lot 13A that is currently untreated by stormwater infrastructure. That impervious area is proposed to be collected by the infrastructure associated with the Proposed Facility for a total of 44,577 square feet of existing impervious surface. Accordingly, the proposed impervious surface for the proposed parking structure and widened driveway consists of 47,272 square feet from Lot 14B, and the existing 10,931 square feet of impervious surface on Lot 13A that will be treated by the Proposed Facility, making a total of 58,203 square feet. *See* Approximate Base Map Rendering – Impervious Surface Calculations – Existing and Proposed Impervious Surfaces to be Treated by New Stormwater Mechanisms, annexed hereto as Exhibit D. Where 55,721 square feet of impervious surface would be permitted, and 58,203 square feet is proposed, the requested variance would permit 2,482 square feet of additional impervious surface, representing a 5.5% increase over that permitted.

Alternatively, looking solely at the impervious surface on Lot 14B, despite the impervious surface to be treated on Lot 13A, the requested variance on Lot 14B alone would permit 5,218 square feet of additional impervious surface, representing a 15.5% increase over that permitted. While an increase of 8,410 square feet of impervious surface is permitted over the existing 33,643 square feet of impervious surface on Lot 14B, only 12.9% of the Proposed Facility would be located in the 100' buffer. The Watershed Regulations permit an additional 1/3 of the impervious surface to be located in the 100' wetland buffer. However, the Applicant's modifications and reductions to the Proposed Facility demonstrate the Applicant's efforts to avoid such impacts, making the variance the minimum necessary to afford relief. Therefore, a variance for the 15.5 percent (15.5%) of increased impervious surface should be granted herein as appropriate and warranted.

Additionally, the sole access from the Premises to a public road is provided through a driveway between New King Street and the property, which driveway spans a NYSDEC regulated Class-A watercourse. To comply with Town Code requirements and to ensure vehicle safety, the driveway will need to be expanded from its current width which ranges from 20.7 to 24 feet wide, to a uniform 24 feet wide. As stated in the DEIS, this would require 1,737 square feet of new impervious surface within the 100-foot limiting distance of the perennial stream.

As noted above, under current conditions, there are no existing stormwater management systems on-site. The majority of stormwater runoff is conveyed by overland flow from paved surfaces, bare soil and sloped lawns, discharging directly into downgradient wetlands and watercourses without treatment. While there is an existing subsurface sewage treatment system, it is no longer functional

and has been abandoned for several years. In light of the site conditions and limitations discussed below that limit developability of the Premises, should DEP determine that the Proposed Facility including existing improvements on Lot 13A are not functionally related, then strict compliance with the Watershed Regulations would impose a substantial hardship for the Applicant.

In accordance with the WRR, for the Commissioner's consideration, an application for a variance for a regulated activity or for an alteration or modification of a noncomplying regulated activity shall set forth the basis for granting such relief. Accordingly, we respectfully submit that this Application meets the criteria for granting a variance for the reasons set forth below:

1. *Identify the specific provision of the rules and regulations from which the variance is sought or identify the nature and extent of the alteration or modification of the noncomplying regulated activity.*

   A variance is requested from 10 NYCRR § 128-3.9(a)(4)(iii) of the Watershed Regulations. Section 128-3.9 of the WRR is entitled "Stormwater Pollution Prevention Plans and impervious surfaces," and subsection (a) is entitled "Impervious surfaces." Specifically, 10 NYCRR § 128-3.9(a)(4)(iii) provides that the construction of an impervious surface within the limiting distance of 100 feet of a watercourse or wetland or within the limiting distance of 300 feet of a reservoir, reservoir stem, or controlled lake, would not be prohibited in the East of Hudson watershed where . . "the total area of all expanded impervious surfaces does not exceed 25 percent of the area of the existing impervious surface at that commercial or industrial facility, which shall comply with subdivisions (b), (c) and (d) of this section." *See* 10 NYCRR § 128-3.9(a)(4)(iii).

   The Applicant seeks a variance for expanding the impervious surface of an existing industrially zoned facility, including widening of the driveway within the limiting distance of 100 feet of a watercourse or wetland in excess of 25% of the area of the existing impervious surface at that commercial facility. The proposed expansion would not intrude within the water course and the impervious surface is located outside the 300 foot reservoir stem.

2. *Demonstrate that the variance requested is the minimum necessary to afford relief.*

   It is respectfully submitted that the Proposed Facility, which has been significantly modified and reduced since the initial submission to the Town of North Castle in response to comments received during the environmental review process, is functionally designed so that the granting of the variance is the minimum necessary to afford relief and enable usability of the site. Although a variance is requested herein, whereby the Proposed Facility would result in more impervious surface than currently exists, it would in turn provide an overall improvement in the treatment of stormwater runoff for both quantity and quality.

   Under the "minimum necessary" requirement of the WRR, a variance applicant is required to demonstrate that the requested variance from the rule "be the minimum variance that is required for the project to go forward." *See* Guard Hill Farms Associates v. Dep't of Environmental Protection, Comm'r Decision (Sept. 11, 1998), aff'g on other grounds, OATH Index No. 1757/98 (Aug. 11, 1998). As discussed above, the Proposed Facility has been designed with careful consideration to avoid significant adverse impacts to existing natural resources. The Applicant has significantly reduced the footprint and the scale of the proposed parking structure from 50,915+/- square feet in the DEIS to 44,812 square feet in the FEIS

and 37,462 square feet in the Current Plan. This represents a significant reduction in the building footprint alone. *See* Exhibit B. Additionally, the parking capacity of the Proposed Facility has been reduced from 1450 parking spaces in the DEIS to 1380 spaces in the FEIS to approximately 980 vehicles in the Current Plan. The total site disturbance has been reduced from 122,038 square feet to 110,703 square feet in the FEIS, and approximately 103,322 square feet in the Current Plan, representing an approximately fifteen percent (15%) reduction.

Given the location and proximity of the site to other nearby industrial and commercial uses, as well as the existence of onsite wetlands and steep slopes on the two lots, redevelopment of existing impervious surface and of the facilities on the site is limited. Site limitations on Lots 14B and 13A include the drainage easement, which is an encumbrance on the project site. Further, to effectuate safe ingress and egress to the Proposed Facility, in compliance with the Town of North Castle Code, a widened driveway is necessitated. Height limitations in the Town Code and the project site's proximity to the Westchester County Airport and state highways, have also shaped the Proposed Facility throughout the environmental review process. As a result, the Applicant has modified and reduced the footprint of the Proposed Facility to the minimum feasibly developable, and the variance requested is the minimum necessary to afford relief.

The existing onsite wetland constraints do not permit proposed facilities to be relocated, or reduced in size beyond the major reductions already afforded throughout the environmental review process. The expansion of the driveway, while increasing the amount of impervious surface within the 100-foot limiting distance of the stream, is the minimal amount necessary to enable two-way traffic to access the site. Vehicles accessing the site currently cross this stream via an existing bridge. Given topographical and other natural limitations on the property, including trees, steep slopes and wetlands, this location for vehicular crossing and access to a public road is the only feasible location. Access to and from the site has been designed to minimize impacts to the watercourse and surrounding environmental features.

In accordance with the WRR, the existence and nature of alternatives are relevant considerations in meeting the "minimum necessary" requirement. Accordingly, "factors to be taken into account include, among others, the feas[i]bility of available alternatives and the degree to which alternatives would require substantial changes in the size or scope of a project." *See* Guard Hill Farms Associates v. Dep't of Environmental Protection, Comm'r Decision (Sept. 11, 1998), aff'g on other grounds, OATH Index No. 1757/98 (Aug. 11, 1998).

As a part of the SEQRA process, the Applicant is required to consider project alternatives, which are formulated in response to potential impacts of the Proposed Facility. The adopted Scope for the Park Place DEIS required consideration of seven (7) alternatives for reasonable comparison to the Proposed Facility. Potential environmental impacts from each of these alternatives were analyzed to a level of detail sufficient to allow reasonable comparison with the Proposed Facility. The alternatives considered were: (1) Reduced Size Parking (500 cars); (2) Reduced Size Parking Facility (1,000 cars); (3) Reduced Height Parking Facility; (4) Reduced Wetland Impact Alternative; (5) No Wetland Impact Alternative; (6) Alternative Use; and (7) the No Action Alternative.

Each of the subject areas analyzed in the Applicant's DEIS was analyzed for each of these alternatives. Using conclusions from the preceding chapters of the DEIS, the potential impacts of each alternative was compared to the potential impacts of the Proposed Facility. While each alternative aimed to reduce or limit specific environmental impacts, the analyses demonstrated that the Proposed Facility has been designed to minimize environmental impacts and maximize beneficial impacts, including but not limited to the project site's economic potential.

As detailed in the analysis of alternatives, the majority of them would not accommodate more than 500 cars, which renders each of them economically unfeasible alternatives. In addition, a parking structure of 500 cars or less would not adequately respond to existing parking demands at Westchester County Airport. As demonstrated by this alternatives analysis, the Proposed Facility remains the preferred alternative.

Under existing zoning regulations that permit development of the site for industrial uses and office use, the maximum build-out per the existing lot and bulk dimensional standards would also not yield any feasible alternative enabling a future office project to proceed without a variance from DEP. Given the existing conditions of the site, whereby existing impervious surface and related site improvements were constructed prior to the promulgation of federal and state stormwater regulations, the variance requested is the minimum necessary to afford relief to increase impervious surface where the Proposed Facility will ultimately provide an overall improvement in stormwater runoff quantity and quality.

3. *Demonstrate that the activity as proposed includes adequate mitigation measures to avoid contamination to or degradation of the water supply, which are at least as protective of the water supply as the standards for regulated activities set forth in these rules and regulations.*

According to 10 NYCRR § 128-1.2(d) of the WRR, the Watershed Regulations implement DEP's intention to "minimize the discharge of pollutants into the source waters from both point and nonpoint sources, minimize the adverse impacts of erosion, limit the discharge of phosphorus to source waters which may accelerate the eutrophication process, and provide notification to the City of ongoing or proposed activities, which either alone or in conjunction with other existing and proposed regulated activities, may cause contamination to or degradation of the water supply." As set forth above, "[a]n applicant for a variance is required to demonstrate that it will adopt adequate mitigation measures to avoid contamination or degradation of the water supply." *See* Guard Hill Farms Associates v. Dep't of Environmental Protection, OATH Index No. 1757/98 (Aug. 11, 1998).

Through the environmental review process to date, the Applicant has undertaken to assess potential impacts to the environment and community from the Proposed Facility. Under existing conditions, there is no treatment of stormwater, as detailed above. In the future, under existing conditions, without the proposed stormwater treatment facilities included with the Proposed Facility, there would be no improvements to on-site stormwater runoff occurring on either lot comprising the Premises. Stormwater would continue to discharge directly to these surface water resources from Lot 14B and Lot 13A without any control with respect to volume or velocity, and without and water quality treatment. Therefore, while the Proposed Facility would result in more impervious surface, it would in turn provide an overall improvement in stormwater runoff quantity and quality.

Further, the green infrastructure practices that have been added to the stormwater management plan would function as belts-and-suspenders and would provide significant improvements to the quality of water entering the reservoir as compared to existing conditions. In addition to the enhancements made to the proposed SWPPP, the proposed automated parking facility itself would be beneficial in minimizing potentially adverse impacts to stormwater runoff. The automated system would be fully contained within an enclosed building, reducing potentially adverse pollutants typical for a parking structure.

Additionally, the existing building and impervious site materials would be deconstructed rather than demolished. The recyclable material, such as glass, steel, and concrete, would be separated out of the 'waste' material and would be reused on site where possible. The Applicant also proposes to improve the overall wetland functionality on the project site through a Wetlands and Wetland Buffer Enhancement Plan, including invasive species removal. In areas of steep slopes, a mix of grasses, groundcovers and perennials have been designed to promote slope stability and erosion control over the short and long-term. These efforts have been designed to promote the long-term health and functionality of the existing wetlands. The objective of this plan is to enhance and reinforce a productive ecosystem within the existing wetlands and wetlands buffer areas to support functionality both in terms of stormwater quality treatment and wildlife habitat.

The proposed widening of the driveway and crossing over the watercourse comprises less than 4 feet of additional structure at its maximum, as the driveway and bridge are 24 feet wide in some locations. To provide a uniform 24 feet in width to allow two-way traffic would require 1,737 square feet of new impervious surfaces on a raised bridge spanning an existing culvert. This design does not cause any significant adverse impact to the regulated watercourse.

Additional mitigation measures include, but are not limited to:

- Stormwater pocket wetland, proposed sedimentation basin and sand filter;
- Improved collection and treatment of stormwater;
- Wetland functionality improvements to the landscape to maximize stormwater retention and treatment through natural processes;
- Revised building and access/circulation;
- Green building proposed to exceed treatment requirements for the project as outlined in the New York State Storm Management Design Manual (NYSSMDM); and
- Erosion and sediment control, and maintaining large existing trees.

The Proposed Facility is designed with the intention to minimize the discharge of pollutants into source waters, minimizing impacts of erosion and providing stormwater management that will be inspected and maintained to ensure the that the practices designed in the SWPPP continue to be effective during and after construction of the Proposed Facility. We respectfully submit that the Proposed Facility includes adequate mitigation measures to avoid contamination to, or degradation of the water supply as the Watershed Regulations require, and the Proposed Facility would reduce impacts to those presently existing.

4. *Demonstrate that for the proposed use or activity for which the variance is requested, compliance with the identified provision of the rules and regulations would create a substantial hardship due to site conditions or limitations.*

In accordance with 10 NYCRR § 128-1.2(d) of the WRR, "an applicant seeking a variance on the basis of substantial hardship must explain the need for the variance by describing the physical conditions on the subject parcel that make compliance with a particular regulation difficult or impossible." *See* Smith v. Dep't of Environmental Protection, OATH Index No. 673/08 (Dec. 28, 2007).

As discussed above, Lot 14B is currently improved by an approximately 9,700-square-foot one-story office building with an accessory 35-space parking area. The unimproved section of Lot 14B is comprised of a maintained lawn, wooded areas, and regulated wetlands. Lot 14B is a flag lot with no direct street frontage but with driveway access off New King Street. The site's access driveway crosses over a NYSDEC-designated class A watercourse.

Absent the ability to provide two-way access to the site over this driveway, the operation of the property would be infeasible as it could not comply with the Town of North Castle regulations for safe and efficient traffic flow. If the driveway cannot be widened due to a prohibition limiting impervious surfaces near a regulated watercourse, the site could not be accessed safely, if at all. The current one-way traffic flow over the driveway and bridge is non-conforming and this variance is required to permit safe and efficient two-way ingress and egress to the site.

Lot 14B contains existing steep slopes (i.e. greater than 25 percent), many of which were created by soil filling during previous site development and do not include appropriate measures to minimize erosion and environmental impacts. The development plan for the Proposed Facility includes removal of the fill material comprising the steep slopes, and engineering measures to construct a new slope network that would minimize project-related and future environmental impacts.

As discussed in detail above, site conditions and limitations make it difficult and or impossible to modify the proposal to reduce impervious surfaces. Compounding such challenges are limitations in the Town of North Castle Code, furthered by regulations imposed by the Federal Aviation Administration ("FAA") concerning building height in proximity to Westchester County Airport. Development proximate to Westchester County Airport is of interest to the FAA to ensure navigable air space does not become obstructed and that adjacent land uses are compatible with operations of an airport. The Code of Federal Regulations, Title 14, Part 150 (14 CFR 15) provides guidelines to assist local and regional policy makers with determining appropriate land uses adjacent to or near airports. While parking facilities are considered compatible land uses in areas with ambient noise levels up to 85 decibels, the FAA also monitors building heights to prevent obstructions to air space. Since the Proposed Facility would be approximately 54 feet above average grade, it would not be expected to obstruct any navigable airspace. The project site's location within the Industrial AA (IND-AA) zoning district also restricts the height of the building to 30' feet. As discussed above, the Applicant filed a petition to the Town of North Castle to amend the zoning code to permit a maximum building height for parking structures in the IND-AA district to 60-feet.

Taken together, the shape of the lot; the adjacent highway, airport and commercial uses; portions of both Lots being located within the 300-foot reservoir stem; onsite wetlands; steep slopes; limited access to the Lots; FAA regulations, Town Code limitations and the drainage

easement represent some of the numerous site conditions limiting the development of the Proposed Facility. In accordance with the alternatives analysis conducted by the Applicant, alternative uses of the project site result in similar impacts, without the same economic and community benefits as the Proposed Facility. Therefore, compliance with the Watershed Regulations with respect to increased impervious surface on the project site over existing impervious surface, for which this variance is requested, would create a substantial hardship.

CONCLUSION

On balancing the facts and circumstances in this case, it is respectfully submitted that the granting of the requested Interpretation regarding the proposed and existing functionally related facilities is warranted. By granting the Interpretation herein requested regarding the Proposed Facility and the existing facilities on the functionally related site, the Applicant's proposed stormwater and related site improvements will effectuate the purpose of the Watershed Regulations, as intended by DEP. Said Interpretation also is consistent with the purpose and intent of the Legislature to minimize contamination to, or degradation of the water supply without frustrating its intent to minimize impacts, whereas the existing facilities constructed prior to the promulgation of federal and state stormwater regulations would otherwise remain on the site without the proposed mitigation or enhancement measures.

In the alternative, without prejudice to the request for an Interpretation, we respectfully submit that the Applicant is entitled to an area variance because the Applicant has demonstrated: that the variance requested is the minimum necessary to afford relief for the reduced facilities; that the proposed activity includes adequate mitigation to avoid contamination to the water supply; and that compliance with identified Watershed Regulations would create a substantial hardship due to site conditions and limitations. While the Proposed Facility would result in more impervious surface cover, it would permit safe and efficient access to and from the site to a public roadway and would in turn provide an overall improvement in the management of stormwater runoff quantity and quality over existing facilities. Accordingly, we respectfully submit that the variance is warranted and should be granted.

In support of our Application, we submit five (5) sets of this letter, with the following documents:

Exhibit A: Site Plan Depicting Lot 14B and Lot 13A;

1) Site Plan prepared by KG&D Architects, dated April 21, 2015, last revised June 17, 2015, Sheet No. A-1.1 Site Plan;
2) Figure 1: Existing Conditions – Lots 13A and Lot 14B, prepared by AKRF Environmental Planning and Engineering Consultants, dated June 23, 2015
3) Site Plan prepared by KG&D Architects, dated April 21, 2015, last revised June 17, 2015, Sheet No. A-1 Site Plan;

Exhibit B: Base Map Rendering of Reduced Building Footprint and Impervious Surface from DEIS to the Current Plan;

Exhibit C: Approximate Base Map Rendering – Impervious Surface Calculations – Lot 13A and Lot 14B; and

Exhibit D: Approximate Base Map Rendering – Impervious Surface Calculations – Existing and Proposed Impervious Surfaces to be Treated by New Stormwater Mechanisms.

Exhibit E: New York City Department of Environmental Protection Application for Variances Form.

Should the Commissioner have any questions or comments in connection with this application, we respectfully request that we be contacted. Thank you in advance for your consideration.

Respectfully yours,

William S. Null

WSN:yp
Enclosures

cc: Mr. Jeffrey M. Brown; Ms. Kim Frank; and Ms. Nanette Bourne and Mr. James Nash

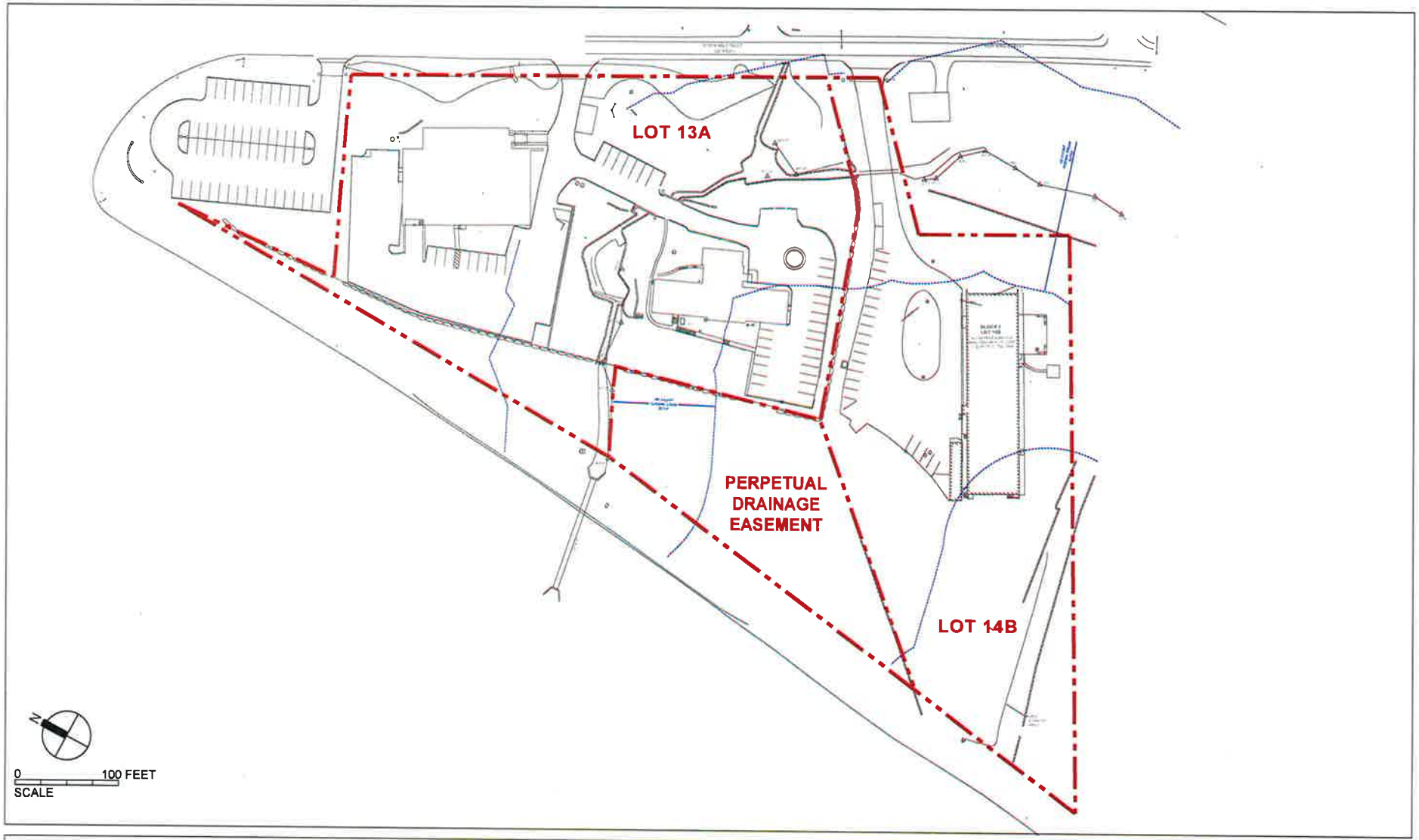

FIGURE 1: EXISTING CONDITIONS - LOT 13A AND LOT 14B

PARK PLACE AT WESTCHESTER AIRPORT
JUNE 23, 2015

AKRF

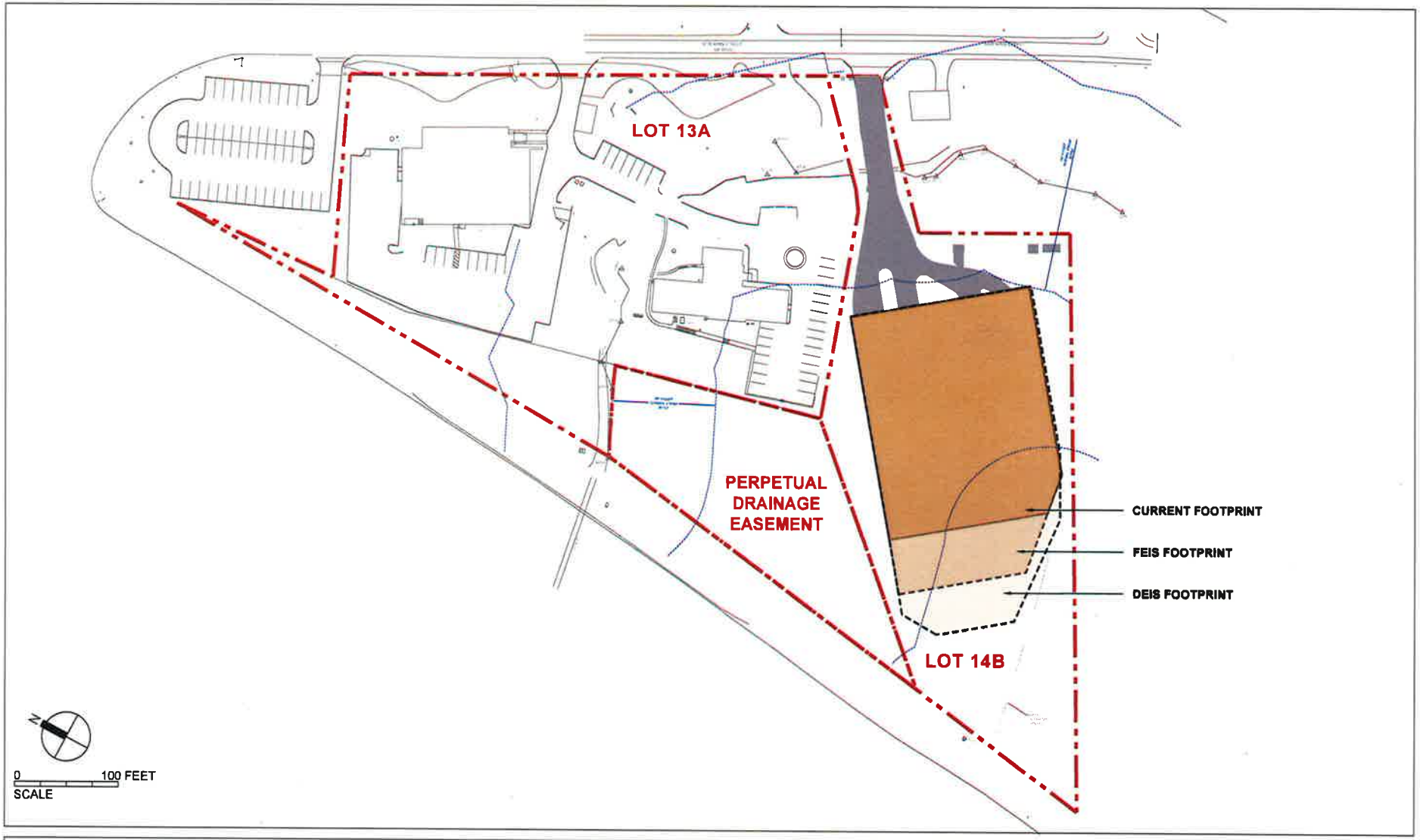

FIGURE 2: SITE PLAN WITH HISTORICAL COMPARISON OF PROPOSED BUILDING SIZES

PARK PLACE AT WESTCHESTER AIRPORT
JUNE 23, 2015

AKRF

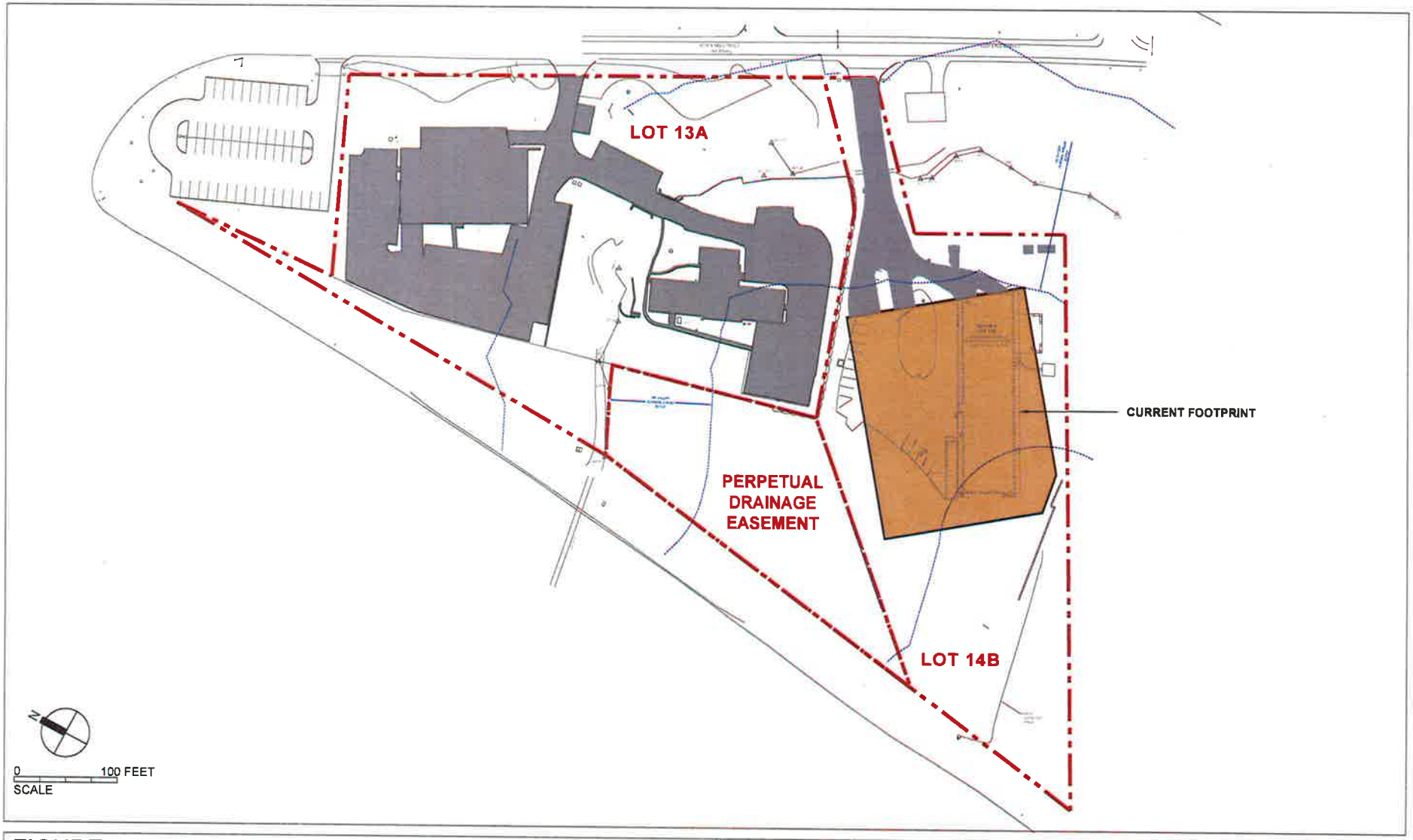

FIGURE 3: PROPOSED OVERALL IMPERVIOUS SURFACES

PARK PLACE AT WESTCHESTER AIRPORT
JUNE 23, 2015

AKRF

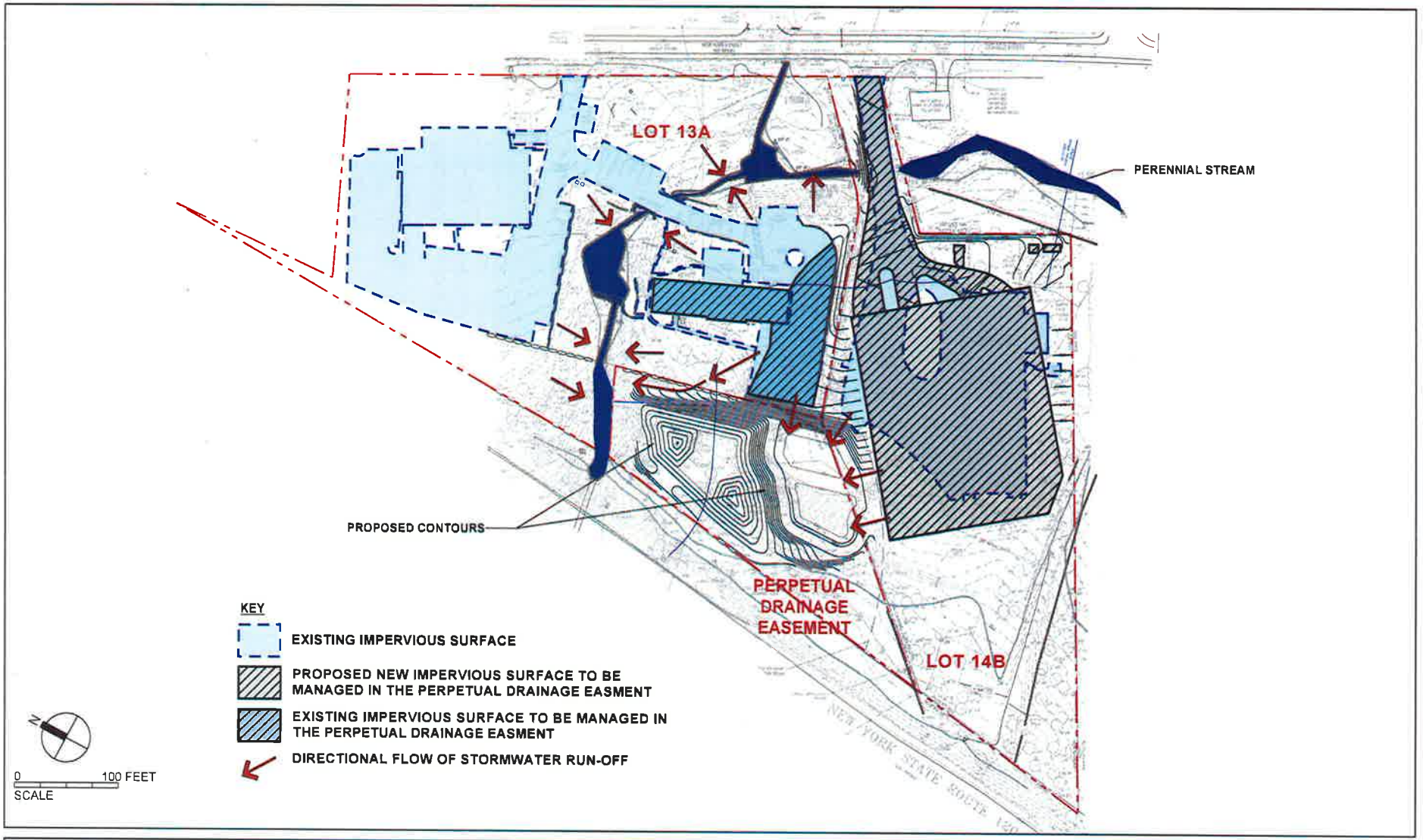

FIGURE 4: EXISTING AND PROPOSED IMPERVIOUS SURFACE

PARK PLACE AT WESTCHESTER AIRPORT
JUNE 23, 2015

AKRF

Environmental Protection

Emily Lloyd
Commissioner

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August 3, 2015

William S. Null
Cuddy & Feder LLP
445 Hamilton Avenue, 14th Floor
White Plains, New York 10601

Re: Park Place at Westchester Airport; *Stormwater Pollution Prevention Plan (SWPPP);*
11 New King Street; (T) North Castle;
Tax Map # 119.03-1-1 &118.02-2-3;
DEP Log #2008-KE-2045

Dear Mr. Null:

This letter is in response to your July 1, 2015 correspondence to Commissioner Emily Lloyd requesting the New York City Department of Environmental Protection's ("DEP") interpretation of Section 18-39(a)(4)(iii) of the *Rules and Regulations for the Protection from Contamination, Degradation, and Pollution of the New York City Water Supply and its Sources* ("Watershed Regulations"), which limits "expansion of an existing impervious surface within the limiting distance of 100 feet of a watercourse or wetland, at an existing commercial . . . facility . . ." to "25 percent of the area of the existing impervious surface at that commercial . . . facility . . ."

You have requested that DEP interpret Section 18-39(a)(4)(iii) to include as the "existing facility," for the purposes of calculating the allowable 25% expansion, both the lot at 11 New King Street (Parcel 119.03-1-1) and the lot at 7 New King Street. Such interpretation would result in a larger impervious surface at an "existing facility" than if only 11 New King Street were considered to be the "existing facility," which would in turn allow expansion of such surface without requiring a variance pursuant to the Watershed Regulations, as such expansion would be in an amount less than 25 percent. DEP does not interpret Section 18-39(a)(4)(iii) in this manner.

The term "existing" is defined in the Watershed Regulations as "physically constructed, functioning and operational prior to the effective date of these rules and regulations" (Section 18-16(a)(42)). The term "facility" is defined in the Watershed Regulations as "a structure, room or other physical feature designed to perform a particular function and that makes possible some activity" (Section 18-16(a)(44)). You state that the definitions of "existing" and "facility" "should not be considered dispositive" since the Proposed Facility, as defined in your submission dated July 1, 2015, is "located on two lots." We disagree, as, to illustrate one example, the plain reading of the definitions makes

clear, when read together, that an existing facility must be a physical feature that is "functioning and operational" prior to the promulgation of the Watershed Regulations. 11 New King Street, LLC did not own an easement over the 7 New King Street lot when the Watershed Regulations were promulgated in 1997. Thus, the area of the easement was not an "existing facility" that was "functioning and operational" on the 7 New King Street lot in 1997, let alone one that could be construed to be part of an "existing facility" at 11 New King Street.

The existing building, etc., located at 7 New King Street (Parcel 118.02-2-3) constitutes a separate existing commercial facility from that of 11 New King Street. As such, DEP does not interpret the Watershed Regulations in a manner that would allow the area of separately owned impervious surfaces located on the 7 New King Street lot to be included in the impervious surface expansion calculations required to implement Section 18-39(a)(4)(iii) of the Watershed Regulations for the proposed Park Place at Westchester Airport project located on 11 New King Street. Under this subsection, the impervious surface area that may be used to calculate the allowable 25% expansion is limited to the impervious surface at the "existing facility" on the 11 New King Street lot as it existed in 1997.

As discussed at our meeting on February 10, 2015 and our letter of March 16, 2015, an expansion of impervious surfaces within 100 feet of the watercourse that exceeds 25 percent of the area of the existing impervious surfaces at the existing commercial facility located at 11 New King St shall require a variance from the Watershed Regulations.

Sincerely,

William Mirrer

c: James Nash, AKRF, Inc.

Emily Lloyd
Commissioner

Paul V. Rush, P.E.
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August 17, 2015

William S. Null, Esq.
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445 Hamilton Avenue, 14th Floor
White Plains, NY 10601

Re: Park Place at Westchester Airport; *Variance;*
11 New King Street; (T) North Castle; Tax Map #119.03-1-1
DEP Log #2008-KE-2045-VA.1

Dear Mr. Null:

The New York City Department of Environmental Protection ("DEP") has determined that the above captioned application, received by DEP on July 2, 2015, is *incomplete*. Please be advised that the following information is required before DEP can commence review:

1. The documents accompanying the variance application reference the incorrect regulation. A variance from Section 18-39(a)(4)(iii) of the *Rules and Regulations for the Protection from Contamination, Degradation and Pollution of the New York City Water Supply and Its Sources* ("Watershed Regulations") has been requested. Note that Section 18-39(a)(1) prohibits the construction of new impervious surfaces within 100' of the watercourses on this site and Section 18-39(a)(4)(iii) allows up to a 25% expansion of the existing impervious surfaces within 100' of a watercourse at an existing commercial facility, so long as a SWPPP is first reviewed and approved by DEP. An expansion of impervious surfaces that exceeds the above-stated 25% exemption is therefore a new impervious surface and is thus prohibited under Section 18-39(a)(1). As such, a variance from Section 18-39(a)(1) of the Watershed Regulations must be sought.

2. Pursuant to Section 18-23(c)(2) of the Watershed Regulations, the variance application must include a copy of any Environmental Assessment Form (EAF), and either a Draft Environmental Impact Statement (DEIS) or a determination of non-significance by the lead agency, where such documents are prepared pursuant to Article 8 of

the Environmental Conservation Law and the rules and regulations promulgated thereunder. The lead agency issued a Positive Declaration and declared its intent to require a Supplemental Draft Environmental Impact Statement (SDEIS) on March 9, 2015. DEP has yet to receive the SDEIS.

The review of your application cannot commence until DEP receives the necessary information and determines that the application is complete. DEP will notify you within 10 days of its receipt of the additional information requested above as to the completeness of your application. Please be advised that failure to submit information to DEP or to follow DEP procedures is sufficient grounds to deny approval, pursuant to Section 18-23(b)(2) of the Watershed Regulations.

If you have any questions, please call the undersigned at (914) 742-2025.

Sincerely,

John G. Drake, P.E.
Civil Engineer
Stormwater Programs

cc: James Nash, AKRF, Inc.
Planning Board, (T) North Castle
Will Mirrer, DEP Bureau of Legal Affairs
Devon Goodrich, NYC Law Department

CUDDY & FEDER LLP

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September 4, 2015

BY FIRST CLASS MAIL
Mr. John G. Drake, P.E.
New York City Department of Environmental Protection
465 Columbus Avenue, 1st Floor
Valhalla, New York 10595

Re: 11 New King Street, LLC – Park Place (Automated Vehicle Parking)
Application for Area Variance
Premises: 7 & 11 New King Street, Armonk, New York (Town of North Castle)
(Tax Identification Numbers: SBL 3-4-13A & 3-4-14B; DEP Log# 2008-KE-2045-VA.1)

Dear Mr. Drake:

On behalf of 11 New King Street, LLC (the "Applicant"), we respectfully submit this letter in response to your letter, dated August 17, 2015, regarding our request that the New York City Department of Environmental Protection ("DEP") adopt an Interpretation, or alternatively grant an area variance to permit the construction of a multi-level automated parking structure to be known as "Park Place" (the "Proposed Facility").

In accordance with your August 17, 2015 letter, the Applicant's variance application (the "Application") will be revised to specifically request relief from Section 18-39(a)(1) of Watershed Regulations, which provides that "[t]he construction of an impervious surface within the limiting distance of 100 feet of a watercourse or wetland, or within the limiting distance of 300 feet of a reservoir, reservoir stem, or controlled lake, is prohibited."

In furtherance of the Application, last Friday, August 28, 2015, our office was in communication with William Mirrer, Esq., Assistant Counsel for DEP's Bureau of Legal Affairs, and Devon Goodrich, Esq., Assistant Corporation Counsel for the New York City Law Department, Environmental Law Division, regarding the Application. Based upon their input, it is clear that DEP will require the submission of the Supplemental Draft Environmental Impact Statement ("SDEIS"), once accepted by the Planning Board of the Town of North Castle, acting as Lead Agency herein, pursuant to Article 8 of the New York State Environmental Conservation Act and the rules and regulations promulgated thereunder at 6 N.Y.C.R.R. Part 617 (collectively "SEQRA").

Accordingly, we respectfully request that DEP continue to treat this Application as being active, so that the SDEIS may be prepared, reviewed and ultimately forwarded to DEP for your review and action upon this Application. In the interim, we will keep DEP apprised of our proceedings before the Town of North Castle Planning Board.

We respectfully submit one (1) original and five (5) additional copies of this letter for your review and consideration. Should you or Commissioner Lloyd have any questions or comments

in connection with this application, we respectfully request that you call me. Thank you for your consideration.

Respectfully yours,

William S. Null (yp)

William S. Null

WSN:yp
Enclosures

cc: Mr. Jeffrey M. Brown; Ms. Kim Frank; Ms. Nanette Bourne; and Mr. James Nash

Attachment

GENERAL NOTES

1. SURVEY INFORMATION SHOWN IS BASED ON TOPOGRAPHIC AND UTILITY SURVEY PERFORMED OCTOBER 2008 BY CONTROL POINT ASSOCIATES. ELEVATIONS SHOWN ARE REFERRED TO NGVD 1929. ALL VALUES SHOWN ARE IN ENGLISH UNITS. EXISTING UNDERGROUND UTILITIES, AS SHOWN ON THIS DRAWING, HAVE BEEN DETERMINED BY STANDARD SURVEY METHODS AND AVAILABLE UTILITY RECORDS. NEITHER THE EXACT LOCATION NOR THE INFORMATION GIVEN FOR THESE EXISTING UTILITIES IS GUARANTEED TO BE COMPLETE OR CORRECT.
2. THE EXISTING UTILITIES SHOWN ON THE SURVEY WERE TAKEN FROM THE BEST AVAILABLE INFORMATION AND ARE NOT GUARANTEED TO BE ACCURATE. FIELD CONDITIONS MAY VARY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE LOCAL UTILITY COMPANIES THAT HAVE SUBSURFACE INSTALLATIONS IN THE AREA OF WORK FOR THIS CONTRACT AND DIRECT THEM TO HAVE THEIR FACILITIES MARKED OUT PRIOR TO COMMENCING WORK.
3. CONTRACTOR TO REFER TO THE GEOTECHNICAL INVESTIGATION REPORTS DATED NOVEMBER 6, 2008 PREPARED BY MELICK-TULLEY AND ASSOCIATES, P.C., FOR INFORMATION ON SUBSURFACE SOIL CONDITIONS.
4. SITE EXCAVATION: ALL EXCAVATED SOIL SHALL BE STOCKPILED IN CONFORMANCE WITH THE EROSION AND SEDIMENT CONTROL DETAILS. ALL NYSDEC AND USEPA REGULATIONS FOR REMOVAL OF CONTROLLED FILL SHALL BE ADHERED TO.
5. CONTRACTOR TO INSTALL TEMPORARY SITE CONSTRUCTION FENCE AROUND PERIMETER OF WORK AREA PRIOR TO START OF CONSTRUCTION.
6. SITE SHALL BE WATERED DOWN DURING CONSTRUCTION TO MINIMIZE DUST. THIS ACTIVITY SHALL BE PERFORMED BY THE CONTRACTOR AS DEEMED NECESSARY BY THE ENGINEER.
7. ALL DEMOLITION, GRADING, AND TREE REMOVAL PROCEDURES, PERMITS AND APPROVALS SHALL BE IN ACCORDANCE WITH NYSDEC AND/OR OTHER APPROPRIATE AUTHORIZING AGENCIES AND ARE THE RESPONSIBILITY OF THE CONTRACTOR.
8. THE CONTRACTOR IS TO EXERCISE EXTREME CASE WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO BUILDING WALLS, TO REMAIN IN PLACE. ALL UNSUITABLE MATERIAL, CONSTRUCTION DEBRIS, ETC. SHALL BE PROPERLY REMOVED AND DISPOSED OF OFF-SITE IN ACCORDANCE WITH ALL APPLICABLE CODES, ORDINANCES AND LAWS.
9. THE CONTRACTOR SHALL PRESERVE ALL NATURAL SITE FEATURES. AS LITTLE VEGETATIVE COVER SHALL BE REMOVED AS NECESSARY. ANY DISTURBED AREA SHALL BE IMMEDIATELY STABILIZED BY ROLLED EROSION CONTROL PRODUCT.
10. ALL EXISTING TREES AND VEGETATION TO REMAIN SHALL BE PROTECTED BY THE CONTRACTOR. ANY DAMAGED TREES AND/OR VEGETATION SHALL BE REPLACED IN KIND AT THE EXPENSE OF THE CONTRACTOR.
11. THE CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO ENSURE THE SAFETY OF HIS EMPLOYEES AND GENERAL PUBLIC, STRUCTURAL/SITE FEATURES TO REMAIN, ADJACENT PROPERTIES & PUBLIC RIGHT-OF-WAY'S DURING ALL CONSTRUCTION AND REMOVAL ACTIVITIES IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL CODES AND REGULATIONS. THE OWNER AND PROJECT ENGINEER ASSUME NO RESPONSIBILITIES FOR THE CONTRACTOR'S SAFETY PROGRAM AND PROCEDURES IN CONNECTION WITH THE WORK.
12. PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY BY THE BUILDING INSPECTOR, AN "AS-BUILT" PLAN SHOWING THE INSTALLED AND COMPLETED IMPROVEMENTS (ABOVE AND BELOW GRADE), CERTIFIED BY A NEW YORK STATE LICENSED LAND SURVEYOR SHALL BE PREPARED AT THE SOLE EXPENSE OF THE CONTRACTOR. SAID AS-BUILT PLAN SHALL BE PROVIDED TO THE BUILDING INSPECTOR AND PROJECT ENGINEER DOCUMENTING SATISFACTORY COMPLETION OF ALL APPROVED AND AUTHORIZED CONSTRUCTION ACTIVITIES AND ZONING COMPLIANCE.
13. WETLAND BOUNDARY DELINEATED BY KELLARD SESSIONS CONSULTING, P.C. BASED ON SITE VISIT DATED DECEMBER 23, 2010. WETLAND BOUNDARY TO BE FIELD VERIFIED AND SURVEY LOCATED IN THE SPRING 2011.

DEMOLITION NOTES

1. CONTRACTOR TO FIELD-VERIFY ALL REMOVAL QUANTITIES.
2. ALL DEMOLITION DEBRIS SHALL BE PROPERLY HANDLED AND DISPOSED OF IN ACCORDANCE WITH NYSDEC WESTCHESTER COUNTY AND LOCAL REGULATIONS.
3. EXISTING SANITARY SEWER SHOULD BE CAPPED AT THE BUILDING AND AT THE EXISTING SANITARY MANHOLE AT SITE ENTRANCE. SEWER SHALL BE REMOVED IN ACCORDANCE WITH DRAWINGS AND DETAILS. APPROXIMATELY 330 LF OF SANITARY FORCEMAIN TO BE REMOVED. CONTRACTOR TO FIELD VERIFY LOCATION OF SANITARY FORCE MAIN AND ALL APPURTENANCES.
4. EXISTING SANITARY SEWER CONNECTION TO BE CAPPED IN CONFORMANCE WITH TOWN AND WESTCHESTER COUNTY DEPARTMENT OF HEALTH REQUIREMENTS.
5. EXISTING SANITARY PUMP CHAMBER TO BE DEMOLISHED AND REMOVED IN CONFORMANCE WITH WESTCHESTER COUNTY DEPARTMENT OF HEALTH REQUIREMENTS. PRIOR TO DEMOLITION, THE CONTRACTOR SHALL DISMANTLE AND CLEAN OUT THE EXISTING PUMP CHAMBER IN CONFORMANCE WITH ALL LOCAL AND STATE REQUIREMENTS.
6. EXISTING SANITARY FORCEMAIN TO BE CAPPED IN CONFORMANCE WITH TOWN AND WESTCHESTER COUNTY DEPARTMENT OF HEALTH REQUIREMENTS. THE FORCEMAIN IS TO BE REMOVED AND DISPOSED IN ACCORDANCE WITH WESTCHESTER DEPARTMENT OF HEALTH AND NYSDEC REGULATIONS.
7. APPROXIMATELY 30 LF GRAVITY SANITARY SEWER BETWEEN PUMP CHAMBER AND BUILDING CONNECTION TO BE REMOVED.
8. EXISTING UTILITIES SHALL BE CAPPED 10' BEYOND BUILDING FOUNDATION PRIOR TO BUILDING DEMOLITION BY A LICENSED PLUMBER AND ELECTRICIAN. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH ALL UTILITY PROVIDERS.
9. EXISTING ELECTRICAL AND COMMUNICATION LINES TO BE DISCONNECTED IN ACCORDANCE WITH ASSOCIATED UTILITY PROVIDER . CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH APPLICABLE UTILITY PROVIDERS.
10. EXISTING TRANSFORMER TO BE REMOVED IN ACCORDANCE WITH CON-ED REQUIREMENTS. CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH CON-ED. ASSOCIATED CONCRETE PAD AND ASSOCIATED CONDUITS TO BE DEMOLISHED AND REMOVED.
11. EXISTING ONE-STORY CONCRETE BUILDING AND ASSOCIATED SLATE PATIO AND WALKWAYS TO BE DEMOLISHED AND REMOVED.
12. EXISTING MODULAR TRAILER TO BE DISCONNECTED FROM ALL UTILITY CONNECTIONS AND REMOVED FROM SITE.
13. WELL DECOMMISSIONING SHALL BE IN ACCORDANCE WITH WESTCHESTER COUNTY DEPARTMENT OF HEALTH. THE CONTRACTOR IS RESPONSIBLE FOR SECURING A NYSDEC REGISTERED WELL DRIVER TO PERFORM THE WELL ABANDONMENT / DECOMMISSIONING. NYSDEC WELL DRIVER SHALL PROVIDE DETAILS OF WELL DECOMMISSIONING TO WESTCHESTER COUNTY DEPARTMENT OF HEALTH IN WRITING PRIOR TO STARTING OF WORK.
14. WHERE EXISTING OR ASPHALT CONCRETE PAVEMENT ARE REMOVED, THE CONTRACTOR SHALL SAWCUT AND NEATLY TRIM EDGE OF REMAINING PAVEMENT BEFORE INSTALLING NEW PAVEMENT.
15. EXISTING UNDERGROUND PETROLEUM STORAGE TANKS (2) TO BE FIELD LOCATED BY CONTRACTOR. TANK REMOVAL SHALL BE PERFORMED IN ACCORDANCE WITH WESTCHESTER COUNTY REGULATION AS WELL AS NYSDEC REQUIREMENTS.
16. CONTRACTOR TO FIELD VERIFY LOCATION OF EXISTING ABANDONED SANITARY ABSOPRTION FIELDS. EXISTING PIPE, GRAVEL AND ASSOCIATED APPURTENANCES SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH WCDOH AND NYSDEC REQUIREMENTS. SURROUNDING SOIL SHOULD BE TESTED AND DISPOSED IN ACCORDANCE WITH NYSDEC REQUIREMENTS.

CONSTRUCTION NOTES

1. THE CONTRACTOR SHALL REVIEW THE SEQUENCE OF CONSTRUCTION PLAN AND EROSION AND SEDIMENT CONTROL PLAN TO INCLUDE WORK STAGING AND A TEMPORARY METHOD OF COLLECTING AND CONVEYING DRAINAGE DURING CONSTRUCTION INCLUDING EROSION AND SEDIMENT CONTROL PRACTICES. THE SEQUENCE OF CONSTRUCTION SHALL BE SUBMITTED FOR REVIEW TO AKRF ENGINEERING PRIOR TO THE PRE-CONSTRUCTION MEETING.
2. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY CONSTRUCTION PERMITS AND APPROVALS PRIOR TO COMMENCING WORK.
3. PRIOR TO STARTING ANY CONSTRUCTION ACTIVITY THE CONTRACTOR SHALL COORDINATE AND ATTEND A PRECONSTRUCTION MEETING WITH AKRF ENGINEERING.
4. CONTRACTOR SHALL EXAMINE AND FIELD VERIFY ALL EXISTING AND GIVEN DIMENSIONS AND CONDITIONS WITH THOSE SHOWN ON THE PLANS. IN CASE OF ANY DISCREPANCY, CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ENGINEER.
5. THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF LOCATION AND EXTENT OF ALL UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
6. CONTRACTOR RESPONSIBLE FOR COORDINATING WITH PROPER UTILITY COMPANY OR AGENCY FOR DISCONNECTING SERVICES, RELOCATING SERVICES, AND PROVIDING NEW SERVICES WITHIN THE PROJECT AREA.
7. WHERE CONSTRUCTION, INCLUDING UTILITY LINES, CROSSES OR IS ADJACENT TO EXISTING UTILITY LINES (FUEL, WATER, SEWER, TELECOMMUNICATION, GAS OR ELECTRIC), CONTRACTOR SHALL DIG TEST PITS AND CAREFULLY HAND EXCAVATE SO AS TO LOCATE, MARK, AND PROTECT THE UTILITY LINES AGAINST DISTURBANCE OR DAMAGE.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY BRACING AND PROTECTING ALL WORK DURING CONSTRUCTION AGAINST DAMAGE, BREAKAGE, COLLAPSE, DISTORTIONS AND OFF ALIGNMENTS ACCORDING TO CODES AND STANDARDS OF GOOD PRACTICE.
9. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL LABOR, EQUIPMENT, AND MATERIALS AS REQUIRED FOR THE IMPROVEMENT WORK SHOWN WITHIN THE PROJECT AREA.
10. THE TOP ELEVATION OF ALL EXISTING HANDHOLES, MANHOLES, CATCH BASINS, VALVE BOXES, AND FILL CAPS COVERS LOCATED WITHIN THE CONSTRUCTION AREA SHALL BE RESET AND BE MADE FLUSH WITH THE PROPOSED GRADE.
11. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR ALL PRODUCTS (I.E. PIPES, STRUCTURES, ETC.) INCLUDING MATERIAL SPECIFICATIONS FOR ROCK, FILL MATERIAL, EROSION CONTROL MAT, SILT FENCE, AND PAVEMENT SECTION. ALL SITE-RELATED SHOP DRAWINGS SUBMITTED TO THE ENGINEER SHALL BEAR THE APPROVAL STAMP OF GENERAL CONTRACTOR.
12. WHERE MANUFACTURER'S NAMES AND PRODUCT NUMBERS ARE INDICATED ON DRAWINGS, IT SHALL BE CONSTRUED TO MEAN THE ESTABLISHMENT OF QUALITY AND PERFORMANCE STANDARDS OF SUCH ITEMS. ALL OTHER PRODUCTS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE THEY SHALL BE DEEMED EQUAL.
13. ALL FINISH GRADING IS TO BE DONE SO AS TO ENSURE POSITIVE DRAINAGE TOWARD THE APPROPRIATE CATCH BASINS.
14. ALL SITE SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE LATEST NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.)
15. UNLESS OTHERWISE SPECIFIED OR INDICATED ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH @28 DAYS OF 4,000 PSI.
16. UNSUITABLE MATERIAL, CONSTRUCTION DEBRIS, ETC. SHALL BE PROPERLY REMOVED AND DISPOSED OF OFF-SITE IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL CODES, ORDINANCES, AND LAWS.
17. IN AREAS DEEMED AS FULL DEPTH ASPHALT PAVEMENT REPLACEMENT, EXISTING ASPHALT PAVEMENT SHALL BE ENTIRELY REMOVED AND DISPOSED OF BY THE CONTRACTOR IN CONFORMANCE WITH NYSDEC AND TOWN CODE. THE SUBGRADE SHALL BE PREPARED AND BROUGHT TO THE REQUIRED ELEVATION PRIOR TO CONSTRUCTING BASE AND TOP COURSE.
18. ALL EXCAVATION SHALL BE PROPERLY BACKFILLED IN 12" LIFTS OR LESS WITH CLEAN FILL AND COMPACTED TO MINIMUM 95% PROCTOR (IN PAVED AREAS) OF THEIR MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557 TEST PROCEDURE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPACTION TESTING AND SHALL SUBMIT SUCH REPORT AND VERIFICATION TO PROJECT ENGINEER.
19. A MINIMUM OF TWELVE (12) INCHES OF ENVIRONMENTALLY CLEAN TOP SOIL SHALL BE USED ON ALL EXPOSED GROUND SURFACES, INCLUDING LANDSCAPED AREAS.
20. HIGH DENSITY POLYETHYLENE (HDPE) PIPE SHALL BE HANCOR (BLUE SEAL) AND FITTINGS SHALL HAVE SMOOTHED INTERIOR AND CORRUGATED EXTERIOR. THE BELL-AND-SPIGOT HDPE PIPING NETWORK SHALL BE JOINED USING WATERTIGHT CONNECTIONS IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM D3212. ELASTOMERIC SEALS (GASKETS) MADE OF POLYISOPRENE AND MEETING THE REQUIREMENTS OF ASTM F477 SHALL SHOW NO VISIBLE LEAKS WHEN TESTED UNDER A 10 FT. HYDROSTATIC WATER TEST. PROVIDE THOSE BY HANCOR CO. OR OTHER MANUFACTURER THAT CAN PROVIDE WATERTIGHT JOINTS.
21. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION METHODS AND MEANS FOR COMPLETION OF THE WORK DEPICTED ON THESE PLANS, NOR FOR ANY CONFLICTS AND/OR REVISIONS WHICH RESULT FROM THE SAME. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING METHODS AND MEANS OF COMPLETION OF THE WORK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AND NOTIFY THE PROJECT ENGINEER WHEN A CONFLICT IS IDENTIFIED.
22. CONTRACTOR TO COMPLY WITH THE FOLLOWING EARTHWORK MATERIAL GUIDELINES:

    22.A. FILL AND BACKFILL: ONLY ENVIRONMENTALLY CLEAN MATERIAL (I.E., MATERIAL THAT HAS BEEN TESTED AND FOUND TO CONTAIN LEVELS OF SEMI-VOLATILE ORGANIC COMPOUNDS OR INORGANIC ANALYTES THAT DO NOT EXCEED NYSDEC TAGM HWR-4046 RECOMMENDED SOIL CLEANUP OBJECTIVES AND NOT DETECTABLE VOLATILE ORGANIC COMPOUNDS) SHALL BE USED AS FILL AND BACKFILL. COMPOSITION SHALL CONSIST OF SAND, GRAVEL, CRUSHED STONE, CRUSHED GRAVEL OR A MIXTURE OF THESE. MATERIAL SHALL NOT CONTAIN SALTS OR FOREIGN MATERIALS OF ANY KIND. THESE FILL MATERIALS SHALL CONTAIN NO PARTICLES EXCEEDING 4" IN THE LARGEST DIMENSION. NO MORE THAN 30% OF THE MATERIAL SHALL BE RETAINED ON A 3/4" SIEVE. THE MATERIAL PASSING THE 3/4" SIEVE SHALL CONTAIN, BY WEIGHT, NO MORE THAN 40% PASSING THE NO. 100 SIEVE, NOR 12% PASSING THE NO. 200 SIEVE.

    22.B. AGGREGATE BASE: AGGREGATE BASE COURSE UNDER PAVEMENT SHALL BE COMPOSED OF CRUSHED LEDGE ROCK OR TALUS, ROUGHLY CUBICAL OR PYRAMIDAL IN SHAPE, AND SAND MEETING THE GRADATION AND SOUNDNESS REQUIREMENTS OF NEW YORK STATE DOT, ITEM 3.04.02, TYPE 2. MATERIAL SHALL BE UNIFORM IN QUALITY AND FREE OF WOOD, LOAM, CLAY, DIRT, ROOTS, BARK, AND ANY OTHER EXTRANEOUS MATERIAL.
23. FIELD QUALITY CONTROL TESTING SHALL BE PERFORMED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE AND THE RESULTS ARE TO BE FURNISHED TO PROJECT ENGINEER FOR REVIEW AND APPROVAL.

TESTS:

23.A. SIEVE ANALYSIS: THE CONTRACTOR SHALL PERFORM SIEVE ANAYLSIS IN ACCORDANCE WITH ASTM D422 ON FILL AND AGGREGATE MATERIALS AT THE SITE PRIOR TO PLACEMENT IN ORDER TO VERIFY CONFORMANCE WITH THE REQUIREMENTS.

23.B. FIELD DENSITY TESTS: PERFORM IN-PLACE FIELD DENSITY TESTS IN ACCORDANCE WITH ASTM D1557 PROCEDURES.

    26.B.1. EXISTING SUBGRADE - ONE FIELD DENSITY TEST FOR EACH 2000 SQ. FT., BUT IN NO CASE LESS THAN THREE TESTS.

26.B.2. FILL AREAS - FOR EACH LIFT (FILL TO BE PLACED IN LIFTS NO GREATER THAN 6"), ONE FIELD DENSITY TEST FOR EACH 2000 SQ. FT., BUT IN NO CASE LESS THAN TWO TESTS.

UTILITY NOTES

SANITARY SEWERS

1. EXISTING UTILITY LOCATIONS SHOWN ON THE COMPOSITE UTILITY PLAN ARE APPROXIMATE, IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE EXACT LOCATION AND ELEVATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
2. SANITARY SEWERS SHALL BE CLEANED AND FLUSHED UPON CONSTRUCTION COMPLETION.
3. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN REGARDING OVER EXISTING/NEW UTILITIES INCLUDING, BUT NOT LIMITED TO STORM AND SANITARY SEWERS, WATER MAINS, GAS AND ELECTRIC LINES.
4. THE SANITARY MANHOLE COVERS ARE TO BEAR THE INSCRIPTION “SANITARY”.
5. NO SANITARY SEWER MAIN WITHIN THE PROJECT SITE SHALL BE ACTIVATED UNTIL AN EXFILTRATION/INFILTRATION TEST IS MADE AND HAS MET REQUIREMENTS AND STANDARDS SET FORTH BY THE TOWN ENGINEER. ALL SEWER PIPES MUST MEET AN INFILTRATION TEST RATE OF ONE HUNDRED (100) GALLONS PER DAY/MILE/INCH DIAMETER, OR ANY OTHER REQUIREMENT SET FORTH BY THE TOWN ENGINEER.
6. EXFILTRATION/INFILTRATION TESTS SHALL BE OBSERVED AND CERTIFIED TO THE TOWN ENGINEER AND DEVELOPER'S LICENSED PROFESSIONAL ENGINEER.
7. THE SANITARY SEWER FORCE MAIN SHALL BE 4” PVC. CONTRACTOR TO REFER TO MEP/ARCHITECTURAL DRAWINGS FOR LOCATION OF SANITARY EJECTOR PUMP AND DETAIL.

ELECTRIC

1. CONTRACTOR TO FIELD VERIFY ALL EXISTING BURIED UTILITIES INCLUDING ELECTRIC.
2. CONTRACTOR SHALL COORDINATE WITH CONSOLIDATED EDISON (CON-ED) REGARDING THE REMOVAL OF ANY UTILITY POLES, TRANSFORMERS, CONDUITS, AND OVERHEAD WIRES.
3. CONTRACTOR SHALL COORDINATE WITH CON-ED REGARDING THE PROPOSED CONNECTIONS FROM EXISTING OVERHEAD WIRES, AND PROPOSED UTILITY POLE.
4. PROPOSED TRANSFORMER AND ASSOCIATED PAD SHALL BE CONSTRUCTED IN ACCORDANCE WITH CON-ED.

TOWN OF NORTH CASTLE

GENERAL NOTES

1. INSPECTION OF EROSION CONTROLS BY THE TOWN ENGINEER IS REQUIRED PRIOR TO ANY EXCAVATION.
2. ALL DRAINAGE FACILITIES SHALL BE INSPECTED PRIOR TO BACKFILLING BY THE TOWN ENGINEER. (FOR ANY PROPOSED SUBSURFACE STORMWATER TREATMENT)
3. SOIL TESTING DATA IS REQUIRED TO BE SUBMITTED.
4. INSPECTION OF SUBSURFACE DRAINAGE SYSTEMS SHALL BE INSPECTED BY THE TOWN ENGINEER PRIOR TO BACKFILLING.
5. PUBLIC ROADWAYS SHALL BE PROTECTED FROM MACHINERY AND DEBRIS.
6. ANY CHANGES, ALTERATIONS, AND/OR MODIFICATIONS SHALL BE REVIEWED AND APPROVED BY THE BUILDING INSPECTOR AND/OR TOWN ENGINEER, PRIOR TO PERFORMING SUCH WORK.

EROSION & SEDIMENT CONTROL NOTES

1. CONTRACTOR IS RESPONSIBLE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING ALL OF THE EROSION AND SEDIMENT CONTROL PRACTICES IN ACCORDANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
2. CONTRACTOR IS RESPONSIBLE TO EVALUATE AND IMPLEMENT ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES AS REQUIRED TO MEET THE OBJECTIVES OF THE TOWN, NYSDEC AND NYCDEP REGULATIONS.
3. CONTRACTOR IS REQUIRED TO HAVE A NYSDEC CERTIFIED TRAINED CONTRACTOR ON-SITE RESPONSIBLE FOR THE IMPLEMENTATION OF THE SWPPP.
4. CONTRACTOR IS RESPONSIBLE FOR INSTALLATION, INSPECTION, AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
5. CONTRACTOR IS RESPONSIBLE TO INSTALL EROSION AND SEDIMENT CONTROL PRACTICES PRIOR TO ANY SOIL DISTURBANCE AND TO MAINTAIN THEM UNTIL PERMANENT PROTECTION IS ESTABLISHED. EROSION AND SEDIMENT CONTROL MEASURES MUST BE INSTALLED IN ACCORDANCE WITH THE CURRENT EDITION OF THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL ("BLUE BOOK").
6. THE CONTRACTOR SHALL PRESERVE ALL NATURAL SITE FEATURES. AS LITTLE VEGETATIVE COVER SHALL BE REMOVED AS NECESSARY. ANY DISTURBED AREAS SHALL BE IMMEDIATELY STABILIZED BY ROLLED EROSION CONTROL PRODUCT.
7. CONTRACTOR IS RESPONSIBLE TO INSPECT THE EROSION AND SEDIMENT CONTROL MEASURES AND THAT THEY BE MAINTAINED IN GOOD WORKING ORDER AT ALL TIMES.
8. CONTRACTOR IS RESPONSIBLE TO TEMPORARILY STABILIZE DISTURBED AREAS IN ACCORDANCE WITH NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL, NO LATER THAN 7 DAYS AFTER CONSTRUCTION ACTIVITY IN THE AREA HAS CEASED.
9. CONTRACTOR IS RESPONSIBLE TO KEEP PUBLIC RIGHTS-OF-WAY ALONG SITE BOUNDARIES CLEAR OF SOIL AND DEBRIS AND IS RESPONSIBLE FOR ANY STREET CLEANING NECESSARY DURING THE COURSE OF THE PROJECT.
10. THE SITE SHALL BE WATERED DOWN DURING CONSTRUCTION TO MINIMIZE DUST. THIS ACTIVITY SHALL BE PERFORMED BY THE CONTRACTOR AS DEEMED NECESSARY BY THE ENGINEER. CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL THROUGHOUT CONSTRUCTION PERIODS AND UNTIL SITE IS PERMANENTLY STABILIZED.
11. CONTRACTOR IS RESPONSIBLE TO REMOVE EROSION AND SEDIMENT CONTROL MEASURES AFTER THE DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED, I.E. GREATER THAN 80% VEGETATIVE COVER.
12. AREAS DISTURBED BY CONSTRUCTION SHALL BE SEEDED & MULCHED UNLESS OTHERWISE NOTED. AFTER FINAL GRADING AND CLEANUP OF ALL DISTURBED AREAS, CONTRACTOR SHALL ESTABLISH A STAND OF GRASS BY SEEDING AND MULCHING AS PER THE VEGETATIVE PLAN. THE CONTRACTOR SHALL WATER THE SEEDED AREAS TO MAINTAIN MOISTURE LEVELS FOR OPTIMUM GROWTH FOR A PERIOD NO LESS THAN TWO (2) WEEKS.
13. CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING A CONCRETE TRUCK WASH OUT STATION. THE FACILITY SHALL BE WATERTIGHT. WASTE WATER SHALL NOT BE PERMITTED TO ENTER INTO ENVIRONMENTALLY SENSITIVE RESOURCES.

SEQUENCE OF CONSTRUCTION ACTIVITIES

SEQUENCE I: (LIMIT OF DISTURBANCE = 1.4 AC)

1. A PRE CONSTRUCTION MEETING SHALL BE HELD WITH REPRESENTATIVES OF NYCDEP, CERTIFIED PROFESSIONAL TRAINED CONTRACTOR, THE TOWN, AND THE ENGINEER PRIOR TO ANY SITE DISTURBANCE.
2. PRIOR TO CLEARING AND GRUBBING ACTIVITIES THE CONTRACTOR SHALL INSTALL STABILIZED CONSTRUCTION ENTRANCE/EXIT AND CONSTRUCTION ACCESS AREA AS SHOWN ON THE PLAN
3. INSTALL SILT FENCE AS INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN.
4. DISCONNECT ALL UTILITY CONNECTIONS TO EXISTING ONE STORY BUILDING AND REMOVE BUILDING AND ASSOCIATED APPURTENANCES IN ACCORDANCE WITH DEMOLITION PLAN. PAVEMENT DEMOLITION SHALL NOT BE PERFORMED UNTIL TEMPORARY SEDIMENT TRAP IS INSTALLED.
5. CLEAR AND GRUB IN AREA OF SEQUENCE I TEMPORARY SEDIMENT TRAP. ANY TOPSOIL SHALL BE STOCKPILED ON-SITE AS SHOWN ON DRAWING.
6. ROUGH GRADE PROPOSED TEMPORARY SEDIMENT TRAP AND ASSOCIATED STORMWATER STRUCTURES. INSTALL 6" OF TOPSOIL, SEED, AND STABILIZE WITH ROLLED EROSION CONTROL PRODUCT (RECP).
7. SOIL STOCKPILE SHOULD BE LOCATED ON GRASSY AREAS IN ACCORDANCE WITH DETAIL.
8. INSTALL PERIMETER DIKE/SWALE STARTING WITH POSITIVE DRAINAGE TO THE TEMPORARY SEDIMENT TRAP AS SHOWN ON PLAN.
9. INSTALL CHECK DAMS IN THE PERIMETER SWALE.
10. BEGIN CLEARING AND GRUBBING IN THE AREA OF THE PROPOSED BUILDING FOOTPRINT. STOCKPILE FILL MATERIAL IN DESIGNATED AREA AS SHOWN ON PLAN.
11. REMOVE EXISTING STRUCTURE AND FOUNDATION AS SHOWN ON THE PLAN.
12. BEGIN CONSTRUCTION OF BUILDING FOUNDATION AT THE WESTERLY PORTION (REAR OF BUILDING) AND PROCEED WITH EXCAVATION TOWARDS THE EASTERLY PORTION (FRONT OF BUILDING).
13. STOCKPILE SHALL BE A TEMPORARY STAGING AREA FOR SOIL EXPORT AND MAY MOVE THROUGHOUT THE DURATION OF EXCAVATION AS NECESSARY.

SEQUENCE II: (LIMIT OF DISTURBANCE = 2.0 AC)

1. CLEAR AND GRUB IN AREA OF SEQUENCE II TEMPORARY SEDIMENT TRAP.
2. ROUGH GRADE PROPOSED TEMPORARY SEDIMENT TRAP AND ASSOCIATED STORMWATER STRUCTURES. INSTALL 6" OF TOPSOIL, SEED, AND STABILIZE WITH ROLLED EROSION CONTROL PRODUCT (RECP).
3. INSTALL PERIMETER DIKE/SWALE STARTING WITH POSITIVE DRAINAGE TO THE TEMPORARY SEDIMENT TRAP AS SHOWN ON THE PLAN.
4. INSTALL CHECK DAMS IN THE PERIMETER SWALE.
5. INSTALL SUMP PIT WITHIN THE BUILDING FOUNDATION. CONNECT SUMP PIT TO A DEWATERING BAG ABOVE THE SEDIMENT TRAP. ALL SEDIMENT LADEN WATER SHALL BE DIRECTED TO THE TEMPORARY SEDIMENT TRAP.
6. CONTRACTOR TO CONTINUE EXCAVATION WITHIN THE EASTERLY PORTION OF THE BUILDING FOUNDATION (FRONT OF BUILDING).
7. ONCE INTERIOR EXCAVATION IS COMPLETED, THEN THE CONTRACTOR IS TO BEGIN STABILIZING THE EXCAVATION BY POURING THE CONCRETE FOUNDATION AND SLAB.
8. ONCE FOUNDATION IS COMPLETE, BACKFILL AND FOUNDATION AND STABILIZE.

SEQUENCE III: (LIMIT OF DISTURBANCE = 2.4 AC)

1. ONCE BUILDING EXCAVATION IS STABILIZED, BEGIN INSTALLATION OF STORMWATER STRUCTURES AND PIPING.CONTRACTOR IS TO BEGIN WITH THE DOWNSTREAM STRUCTURES AND PROCEED UPSTREAM.
2. IMMEDIATELY INSTALL INLET PROTECTION ONCE INLET STRUCTURE BEGINS TO RECEIVE A TRIBUTARY AREA.
3. INSTALL PROPOSED UTILITIES.
4. MAINTAIN SUMP PIT AND DEWATERING BAG UNTIL EXCAVATION COVERED.
5. SEQUENCE III TEMPORARY SEDIMENT TRAP CAN BE LIMITED TO AREA OF PROPOSED PRETREATMENT BASIN.
6. CLEAR AND GRUB IN AREA OF WET POND. ANY TOPSOIL SHALL BE STOCKPILED ON-SITE AS SHOWN ON THE DRAWING.
7. STABILIZE SLOPES WITH ROLLED EROSION CONTROL PRODUCT (RECP).
8. CONSTRUCT PAVED SURFACES.
9. ONCE BUILDING AND PAVED SURFACES ARE COMPLETE, COMPLETE FINAL GRADING IN ADJACENT AREAS. STABILIZE WITH ROLLED EROSION CONTROL PRODUCT.
10. COMPLETE FINAL GRADING IN BASINS AND INSTALL VEGETATION IN ACCORDANCE WITH LANDSCAPE PLAN.
11. ONCE FINAL GRADE IS ACHIEVED IN PROPOSED LANDSCAPED AREAS TEMPORARY SEEDING AND MULCHING SHALL BE DONE IMMEDIATELY.
12. INSTALL SAND FILTER OFFLINE. DO NOT CONNECT UNTIL TRIBUTARY AREA IS CONSIDERED STABILIZED.
13. POCKET WETLAND TO BE COMPLETED ONCE TRIBUTARY AREA IS STABILIZED. TEMPORARY OUTLET CAN BE REMOVED ONCE WETLAND VEGETATION IS PLANTED.
14. CLEAN ALL INLET STRUCTURES OF SEDIMENT AND DEBRIS.
15. REMOVE SILT FENCE AND REMAINING EROSION AND SEDIMENT CONTROLS.

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FEIS SUBMISSION

PROJECT NORTH

NEW YORK STATE EDUCATION LAW 145, SECTION 7209, PROHIBITS ANY INDIVIDUAL FROM ALTERING THESE DRAWINGS AND/OR ACCOMPANYING SPECIFICATIONS IN ANY WAY, UNLESS IT IS UNDER THE DIRECT SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER. IF ALTERATIONS ARE MADE, THE ALTERING ENGINEER MUST SIGN, SEAL, DATE, AND DESCRIBE THE FULL DESCRIPTION OF THE ALTERATION ON THE DRAWING AND/OR SPECIFICATIONS.

NOTE: ALL IDEAS, DESIGNS, ARRANGEMENTS AND PLANS INDICATED OR REPRESENTED BY THIS DRAWING ARE OWNED BY AND ARE THE PROPERTY OF KAEYER, GARMENT, & DAVIDSON ARCHITECTS, PC (KG&D), AND WERE CREATED, EVOLVED AND DEVELOPED FOR USE ON, AND IN CONNECTION WITH, THE SPECIFIED PROJECT. NONE OF SUCH IDEAS, DESIGNS, ARRANGEMENTS OR PLANS SHALL BE USED BY OR DISCLOSED TO ANY PURPOSE WHATSOEVER WITHOUT THE WRITTEN PERMISSION OF (KG&D).

WRITTEN DIMENSIONS ON THIS DRAWING SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THIS OFFICE MUST BE NOTIFIED OF ANY VARIATIONS FROM DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS. SHOP DETAILS MUST BE SUBMITTED TO THIS OFFICE FOR APPROVAL BEFORE PROCEEDING WITH FABRICATION.

LEGAL NOTICE: ALTERATIONS BY ANY PERSON, IN ANY WAY, OF ANY ITEM CONTAINED ON THIS DOCUMENT, UNLESS ACTING UNDER THE DIRECTION OF THE LICENCED ARCHITECT WHOSE PROFESSIONAL SEAL IS AFFIXED HERETO, IS A VIOLATION OF TITLE VII, SECT. 69.5 (b) OF NEW YORK STATE LAW.

No.	Date	Issue
7	12-18-15	REVISED PER DEP COMMENTS
6	10-15-14	FEIS SUBMISSION
5	05-30-14	FEIS SUBMISSION
4	08-21-11	REVISION PER DEIS COMMENTS
3	01-24-11	REVISION PER DEIS COMMENTS
2	10-26-10	DEIS SUBMISSION
1	06-15-09	SITE PLAN SUBMISSION

Sheet Title

NOTES PLAN

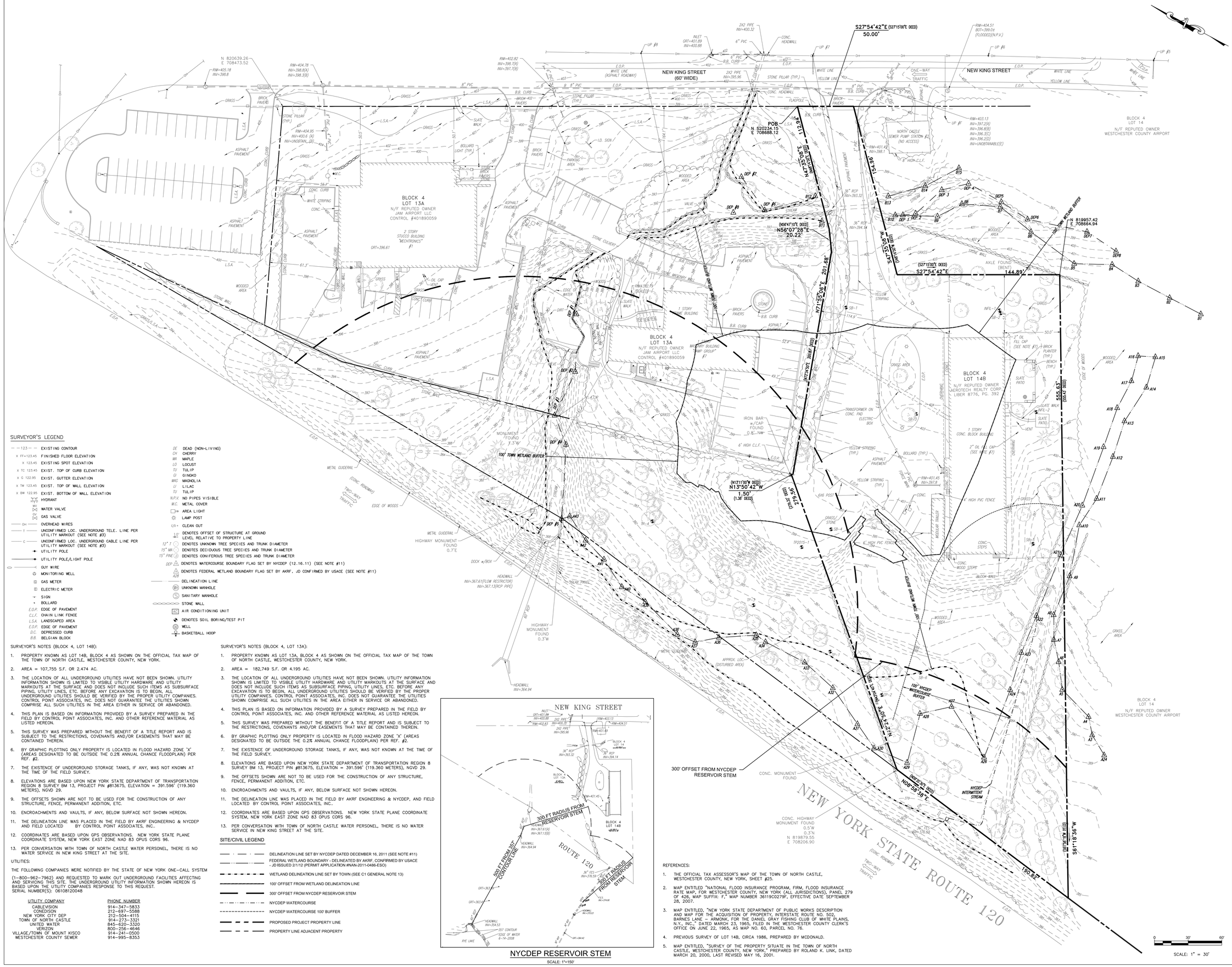
Job No.
2007-0632

Date
08-25-10

Scale
As Shown

Drawn/Checked
JH/AM

Sheet No.
C-1



SURVEYOR'S LEGEND

- EXISTING CONTOUR
- FF=123.45 FINISHED FLOOR ELEVATION
- 123.45 EXISTING SPOT ELEVATION
- TC 123.45 EXIST. TOP OF CURB ELEVATION
- G 122.95 EXIST. GUTTER ELEVATION
- TW 123.45 EXIST. TOP OF WALL ELEVATION
- BW 122.95 EXIST. BOTTOM OF WALL ELEVATION
- HYDRANT
- WV WATER VALVE
- GV GAS VALVE
- OH OVERHEAD WIRES
- T UNCONFIRMED LOC. UNDERGROUND TELE. LINE PER UTILITY MARKOUT (SEE NOTE #3)
- C UNCONFIRMED LOC. UNDERGROUND CABLE LINE PER UTILITY MARKOUT (SEE NOTE #3)
- UTILITY POLE
- UTILITY POLE/LIGHT POLE
- GUY WIRE
- MONITORING WELL
- GAS METER
- ELECTRIC METER
- SIGN
- BOLLARD
- E.O.P. EDGE OF PAVEMENT
- C.L.F. CHAIN LINK FENCE
- L.S.A. LANDSCAPED AREA
- E.O.P. EDGE OF PAVEMENT
- D.C. DEPRESSED CURB
- B.B. BELGIAN BLOCK
- DE DEAD (NON-LIVING)
- CH CHERRY
- MA MAPLE
- LO LOCUST
- TU TULIP
- GI GINGKO
- MAG MAGNOLIA
- LI LILAC
- TU TULIP
- N.P.V. NO PIPES VISIBLE
- M.C. METAL COVER
- AREA LIGHT
- LAMP POST
- C/O CLEAN OUT
- 12" DENOTES OFFSET OF STRUCTURE AT GROUND LEVEL RELATIVE TO PROPERTY LINE
- 12" T DENOTES UNKNOWN TREE SPECIES AND TRUNK DIAMETER
- 15" MA DENOTES DECIDUOUS TREE SPECIES AND TRUNK DIAMETER
- 15" PINE DENOTES CONIFEROUS TREE SPECIES AND TRUNK DIAMETER
- DEP A28 DENOTES WATERCOURSE BOUNDARY FLAG SET BY NYCDEP (12.16.11) (SEE NOTE #11)
- A28 DENOTES FEDERAL WETLAND BOUNDARY FLAG SET BY AKRF, JD CONFIRMED BY USACE (SEE NOTE #11)
- DELINEATION LINE
- UNKNOWN MANHOLE
- SANITARY MANHOLE
- STONE WALL
- A/C AIR CONDITIONING UNIT
- DENOTES SOIL BORING/TEST PIT
- WELL
- BASKETBALL HOOP

SURVEYOR'S NOTES (BLOCK 4, LOT 14B):

1. PROPERTY KNOWN AS LOT 14B, BLOCK 4 AS SHOWN ON THE OFFICIAL TAX MAP OF THE TOWN OF NORTH CASTLE, WESTCHESTER COUNTY, NEW YORK.
2. AREA = 107,755 S.F. OR 2.474 AC.
3. THE LOCATION OF ALL UNDERGROUND UTILITIES HAVE NOT BEEN SHOWN. UTILITY INFORMATION SHOWN IS LIMITED TO VISIBLE UTILITY HARDWARE AND UTILITY MARKOUTS AT THE SURFACE AND DOES NOT INCLUDE SUCH ITEMS AS SUBSURFACE PIPING, UTILITY LINES, ETC. BEFORE ANY EXCAVATION IS TO BEGIN, ALL UNDERGROUND UTILITIES SHOULD BE VERIFIED BY THE PROPER UTILITY COMPANIES. CONTROL POINT ASSOCIATES, INC. DOES NOT GUARANTEE THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA EITHER IN SERVICE OR ABANDONED.
4. THIS PLAN IS BASED ON INFORMATION PROVIDED BY A SURVEY PREPARED IN THE FIELD BY CONTROL POINT ASSOCIATES, INC. AND OTHER REFERENCE MATERIAL AS LISTED HEREON.
5. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND IS SUBJECT TO THE RESTRICTIONS, COVENANTS AND/OR EASEMENTS THAT MAY BE CONTAINED THEREIN.
6. BY GRAPHIC PLOTTING ONLY PROPERTY IS LOCATED IN FLOOD HAZARD ZONE 'X' (AREAS DESIGNATED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) PER REF. #2.
7. THE EXISTENCE OF UNDERGROUND STORAGE TANKS, IF ANY, WAS NOT KNOWN AT THE TIME OF THE FIELD SURVEY.
8. ELEVATIONS ARE BASED UPON NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION 8 SURVEY BM 13, PROJECT PIN #813675, ELEVATION = 391.596' (119.360 METERS), NGVD 29.
9. THE OFFSETS SHOWN ARE NOT TO BE USED FOR THE CONSTRUCTION OF ANY STRUCTURE, FENCE, PERMANENT ADDITION, ETC.
10. ENCROACHMENTS AND VAULTS, IF ANY, BELOW SURFACE NOT SHOWN HEREON.
11. THE DELINEATION LINE WAS PLACED IN THE FIELD BY AKRF ENGINEERING & NYCDEP AND FIELD LOCATED BY CONTROL POINT ASSOCIATES, INC..
12. COORDINATES ARE BASED UPON GPS OBSERVATIONS. NEW YORK STATE PLANE COORDINATE SYSTEM, NEW YORK EAST ZONE NAD 83 OPUS CORS 96.
13. PER CONVERSATION WITH TOWN OF NORTH CASTLE WATER PERSONEL, THERE IS NO WATER SERVICE IN NEW KING STREET AT THE SITE.

UTILITIES:

THE FOLLOWING COMPANIES WERE NOTIFIED BY THE STATE OF NEW YORK ONE-CALL SYSTEM (1-800-962-7962) AND REQUESTED TO MARK OUT UNDERGROUND FACILITIES AFFECTING AND SERVICING THIS SITE. THE UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS BASED UPON THE UTILITY COMPANIES RESPONSE TO THIS REQUEST. SERIAL NUMBER(S): 06108120048

UTILITY COMPANY	PHONE NUMBER
CABLEVISION	914-347-5833
CONEDISON	212-697-5588
NEW YORK CITY DEP	212-504-4115
TOWN OF NORTH CASTLE	914-273-3321
UNITED WATER	845-620-3320
VERIZON	800-256-4646
VILLAGE/TOWN OF MOUNT KISCO	914-241-0500
WESTCHESTER COUNTY SEWER	914-995-8353

SURVEYOR'S NOTES (BLOCK 4, LOT 13A):

1. PROPERTY KNOWN AS LOT 13A, BLOCK 4 AS SHOWN ON THE OFFICIAL TAX MAP OF THE TOWN OF NORTH CASTLE, WESTCHESTER COUNTY, NEW YORK.
2. AREA = 182,749 S.F. OR 4.195 AC.
3. THE LOCATION OF ALL UNDERGROUND UTILITIES HAVE NOT BEEN SHOWN. UTILITY INFORMATION SHOWN IS LIMITED TO VISIBLE UTILITY HARDWARE AND UTILITY MARKOUTS AT THE SURFACE AND DOES NOT INCLUDE SUCH ITEMS AS SUBSURFACE PIPING, UTILITY LINES, ETC. BEFORE ANY EXCAVATION IS TO BEGIN, ALL UNDERGROUND UTILITIES SHOULD BE VERIFIED BY THE PROPER UTILITY COMPANIES. CONTROL POINT ASSOCIATES, INC. DOES NOT GUARANTEE THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA EITHER IN SERVICE OR ABANDONED.
4. THIS PLAN IS BASED ON INFORMATION PROVIDED BY A SURVEY PREPARED IN THE FIELD BY CONTROL POINT ASSOCIATES, INC. AND OTHER REFERENCE MATERIAL AS LISTED HEREON.
5. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND IS SUBJECT TO THE RESTRICTIONS, COVENANTS AND/OR EASEMENTS THAT MAY BE CONTAINED THEREIN.
6. BY GRAPHIC PLOTTING ONLY PROPERTY IS LOCATED IN FLOOD HAZARD ZONE 'X' (AREAS DESIGNATED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) PER REF. #2.
7. THE EXISTENCE OF UNDERGROUND STORAGE TANKS, IF ANY, WAS NOT KNOWN AT THE TIME OF THE FIELD SURVEY.
8. ELEVATIONS ARE BASED UPON NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION 8 SURVEY BM 13, PROJECT PIN #813675, ELEVATION = 391.596' (119.360 METERS), NGVD 29.
9. THE OFFSETS SHOWN ARE NOT TO BE USED FOR THE CONSTRUCTION OF ANY STRUCTURE, FENCE, PERMANENT ADDITION, ETC.
10. ENCROACHMENTS AND VAULTS, IF ANY, BELOW SURFACE NOT SHOWN HEREON.
11. THE DELINEATION LINE WAS PLACED IN THE FIELD BY AKRF ENGINEERING & NYCDEP, AND FIELD LOCATED BY CONTROL POINT ASSOCIATES, INC..
12. COORDINATES ARE BASED UPON GPS OBSERVATIONS. NEW YORK STATE PLANE COORDINATE SYSTEM, NEW YORK EAST ZONE NAD 83 OPUS CORS 96.
13. PER CONVERSATION WITH TOWN OF NORTH CASTLE WATER PERSONEL, THERE IS NO WATER SERVICE IN NEW KING STREET AT THE SITE.

SITE/CIVIL LEGEND

- DELINEATION LINE SET BY NYCDEP DATED DECEMBER 16, 2011 (SEE NOTE #11)
- FEDERAL WETLAND BOUNDARY - DELINEATED BY AKRF, CONFIRMED BY USACE - JD ISSUED 2/1/12 (PERMIT APPLICATION #NAN-2011-0486-ESO)
- WETLAND DELINEATION LINE SET BY TOWN (SEE C1 GENERAL NOTE 13)
- 100' OFFSET FROM WETLAND DELINEATION LINE
- 300' OFFSET FROM NYCDEP RESERVOIR STEM
- NYCDEP WATERCOURSE
- NYCDEP WATERCOURSE 100' BUFFER
- PROPOSED PROJECT PROPERTY LINE
- PROPERTY LINE ADJACENT PROPERTY

NYCDEP RESERVOIR STEM

SCALE: 1"=150'

REFERENCES:

1. THE OFFICIAL TAX ASSESSOR'S MAP OF THE TOWN OF NORTH CASTLE, WESTCHESTER COUNTY, NEW YORK, SHEET #25.
2. MAP ENTITLED "NATIONAL FLOOD INSURANCE PROGRAM, FIRM, FLOOD INSURANCE RATE MAP, FOR WESTCHESTER COUNTY, NEW YORK (ALL JURISDICTIONS), PANEL 279 OF 426, MAP SUFFIX: F," MAP NUMBER 36119C0279F, EFFECTIVE DATE SEPTEMBER 28, 2007.
3. MAP ENTITLED, "NEW YORK STATE DEPARTMENT OF PUBLIC WORKS DESCRIPTION AND MAP FOR THE ACQUISITION OF PROPERTY, INTERSTATE ROUTE NO. 502, BARNES LANE - ARMONK, FOR THE DANIEL GRAY FISHING CLUB OF WHITE PLAINS, N.Y., INC.," DATED MARCH 23, 1965, FILED IN THE WESTCHESTER COUNTY CLERK'S OFFICE ON JUNE 22, 1965, AS MAP NO. 60, PARCEL NO. 76.
4. PREVIOUS SURVEY OF LOT 14B, CIRCA 1986, PREPARED BY MCDONALD.
5. MAP ENTITLED, "SURVEY OF THE PROPERTY SITUATE IN THE TOWN OF NORTH CASTLE, WESTCHESTER COUNTY, NEW YORK," PREPARED BY ROLAND K. LINK, DATED MARCH 20, 2000, LAST REVISED MAY 16, 2001.

PARK PLACE

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FEIS SUBMISSION

No.	Date	Issue
7	12-18-15	REVISED PER DEP COMMENTS
6	10-15-14	FEIS SUBMISSION
5	05-30-14	FEIS SUBMISSION
4	08-21-11	REVISION PER DEIS COMMENTS
3	01-24-11	REVISION PER DEIS COMMENTS
2	10-26-10	DEIS SUBMISSION
1	06-15-09	SITE PLAN SUBMISSION

Sheet Title

EXISTING CONDITIONS PLAN

Job No. 2007-0632	Sheet No. C-2
Date 08-25-10	
Scale 1"=30'	
Drawn/Checked JR/AM	

SURVEYOR'S LEGEND

- EXISTING CONTOUR
- FINISHED FLOOR ELEVATION
- EXISTING SPOT ELEVATION
- EXIST. TOP OF CURB ELEVATION
- EXIST. GUTTER ELEVATION
- EXIST. TOP OF WALL ELEVATION
- EXIST. BOTTOM OF WALL ELEVATION
- HYDRANT
- WATER VALVE
- GAS VALVE
- OVERHEAD WIRES
- UNCONFIRMED LOC. UNDERGROUND TELE. LINE PER UTILITY MARKOUT (SEE NOTE #3)
- UNCONFIRMED LOC. UNDERGROUND CABLE LINE PER UTILITY MARKOUT (SEE NOTE #3)
- UTILITY POLE
- UTILITY POLE/LIGHT POLE
- GUY WIRE
- MONITORING WELL
- GAS METER
- ELECTRIC METER
- SIGN
- BOLLARD
- EDGE OF PAVEMENT
- CHAIN LINK FENCE
- LANDSCAPED AREA
- EDGE OF PAVEMENT
- DEPRESSED CURB
- BELGIAN BLOCK
- DEAD (NON-LIVING)
- CHERRY
- MAPLE
- LOCUST
- TULIP
- GINGKO
- MAGNOLIA
- LILAC
- TULIP
- NO PIPES VISIBLE
- METAL COVER
- AREA LIGHT
- LAMP POST
- CLEAN OUT
- DENOTES OFFSET OF STRUCTURE AT GROUND LEVEL RELATIVE TO PROPERTY LINE
- DENOTES UNKNOWN TREE SPECIES AND TRUNK DIAMETER
- DENOTES DECIDUOUS TREE SPECIES AND TRUNK DIAMETER
- DENOTES CONIFEROUS TREE SPECIES AND TRUNK DIAMETER
- DENOTES WATERCOURSE BOUNDARY FLAG AET BY NYCDEP (12.16.11) (SEE NOTE #11)
- DENOTES FEDERAL WETLAND BOUNDARY FLAG SET BY AKRF, JD CONFIRMED BY USACE (SEE NOTE #11)
- DELINEATION LINE
- UNKNOWN MANHOLE
- SANITARY MANHOLE
- STONE WALL
- AIR CONDITIONING UNIT
- DENOTES SOIL BORING/TEST PIT
- WELL
- BASKETBALL HOOP

SITE/CIVIL LEGEND

- DELINEATION LINE SET BY NYCDEP DATED DECEMBER 16, 2011 (SEE NOTE #11)
- FEDERAL WETLAND BOUNDARY - DELINEATED BY AKRF, CONFIRMED BY USACE - JD ISSUED 2/1/12 (PERMIT APPLICATION #NAN-2011-0486-ESO)
- WETLAND DELINEATION LINE SET BY TOWN (SEE C1 GENERAL NOTE 13)
- 100' OFFSET FROM WETLAND DELINEATION LINE
- 300' OFFSET FROM NYCDEP RESERVOIR STEM
- NYCDEP WATERCOURSE
- NYCDEP WATERCOURSE 100' BUFFER
- EXISTING PROPERTY LINE
- EXISTING PROPERTY LINE ADJACENT PROPERTY
- LIMIT OF DISTURBANCE
- DRAINAGE EASEMENT
- 25 - 35 % SLOPE WITHIN LOD
- >35 % SLOPE WITHIN LOD

STEEP SLOPES		
	WITHIN LOD (SF)	OUTSIDE LOD (SF)
25 - 35 % SLOPE	6,613	254
>35 % SLOPE	3,344	762

SURVEYOR'S NOTES:

1. PROPERTY KNOWN AS LOT 14B, BLOCK 4 AS SHOWN ON THE OFFICIAL TAX MAP OF THE TOWN OF NORTH CASTLE, WESTCHESTER COUNTY, NEW YORK.
2. AREA = 107,755 S.F. OR 2.474 AC.
3. THE LOCATION OF ALL UNDERGROUND UTILITIES HAVE NOT BEEN SHOWN. UTILITY INFORMATION SHOWN IS LIMITED TO VISIBLE UTILITY HARDWARE AND UTILITY MARKOUTS AT THE SURFACE AND DOES NOT INCLUDE SUCH ITEMS AS SUBSURFACE PIPING, UTILITY LINES, ETC. BEFORE ANY EXCAVATION IS TO BEGIN, ALL UNDERGROUND UTILITIES SHOULD BE VERIFIED BY THE PROPER UTILITY COMPANIES. CONTROL POINT ASSOCIATES, INC. DOES NOT GUARANTEE THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA EITHER IN SERVICE OR ABANDONED.
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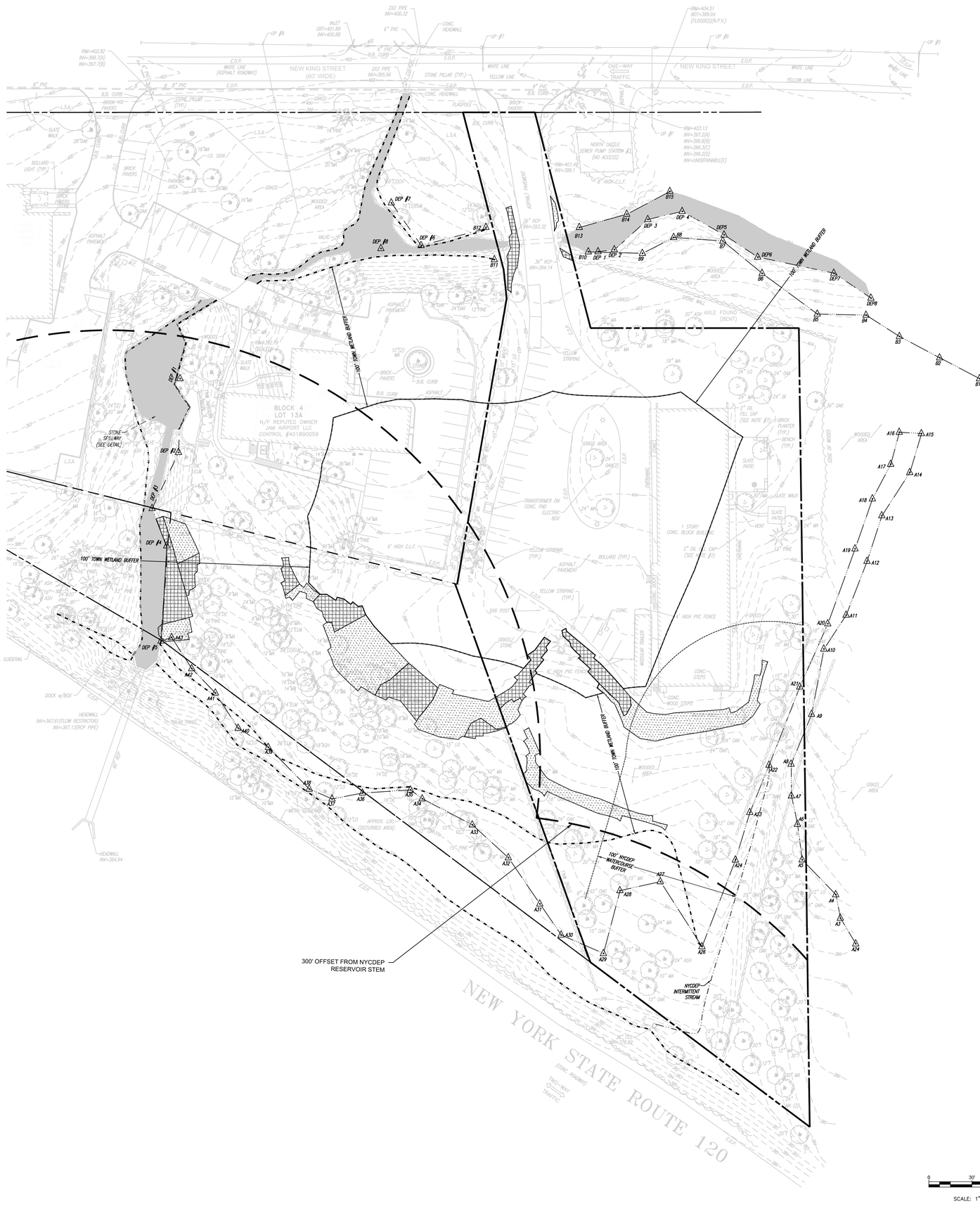
5. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND IS SUBJECT TO THE RESTRICTIONS, COVENANTS AND/OR EASEMENTS THAT MAY BE CONTAINED THEREIN.
6. BY GRAPHIC PLOTTING ONLY PROPERTY IS LOCATED IN FLOOD HAZARD ZONE "X" (AREAS DESIGNATED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) PER REF. #2.
7. THE EXISTENCE OF UNDERGROUND STORAGE TANKS, IF ANY, WAS NOT KNOWN AT THE TIME OF THE FIELD SURVEY.
8. ELEVATIONS ARE BASED UPON NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION 8 SURVEY BM 13, PROJECT PIN #813675, ELEVATION = 391.596' (119.360 METERS), NGVD 29.
9. THE OFFSETS SHOWN ARE NOT TO BE USED FOR THE CONSTRUCTION OF ANY STRUCTURE, FENCE, PERMANENT ADDITION, ETC.
10. ENCROACHMENTS AND VAULTS, IF ANY, BELOW SURFACE NOT SHOWN HEREON.
11. THE DELINEATION LINE WAS PLACED IN THE FIELD BY AKRF ENGINEERING & NYCDEP AND FIELD LOCATED BY CONTROL POINT ASSOCIATES, INC..
12. COORDINATES ARE BASED UPON GPS OBSERVATIONS. NEW YORK STATE PLANE COORDINATE SYSTEM, NEW YORK EAST ZONE NAD 83 OPUS CORS 96.
13. PER CONVERSATION WITH TOWN OF NORTH CASTLE WATER PERSONEL, THERE IS NO WATER SERVICE IN NEW KING STREET AT THE SITE.

REFERENCES:

1. THE OFFICIAL TAX ASSESSOR'S MAP OF THE TOWN OF NORTH CASTLE, WESTCHESTER COUNTY, NEW YORK, SHEET #25.
2. MAP ENTITLED "NATIONAL FLOOD INSURANCE PROGRAM, FIRM, FLOOD INSURANCE RATE MAP, FOR WESTCHESTER COUNTY, NEW YORK (ALL JURISDICTIONS), PANEL 279 OF 426, MAP SUFFIX: F," MAP NUMBER 36119C0279F, EFFECTIVE DATE SEPTEMBER 28, 2007.
3. MAP ENTITLED, "NEW YORK STATE DEPARTMENT OF PUBLIC WORKS DESCRIPTION AND MAP FOR THE ACQUISITION OF PROPERTY, INTERSTATE ROUTE NO. 502, BARNES LANE – ARMONK, FOR THE DANIEL GRAY FISHING CLUB OF WHITE PLAINS, N.Y., INC.," DATED MARCH 23, 1965, FILED IN THE WESTCHESTER COUNTY CLERK'S OFFICE ON JUNE 22, 1965, AS MAP NO. 60, PARCEL NO. 76.
4. PREVIOUS SURVEY OF PROPERTY CIRCA 1986, PREPARED BY MCDONALD.

Tree Species	dbh (in)	In Wetland Buffer?
locust	34	N
oak	18	N
locust	20	N
maple	15	N
maple	8	N
maple	24	N
maple	18	N
locust	20	N
locust	20	N
cherry	24	N
locust	15	N
maple	24	N
oak	24	N
pine	30	N
locust	15	Y
maple	15	Y
maple	15	Y
maple	30	Y
maple	20	Y
maple	12	Y
maple	18	Y
maple	18	Y
locust	24	Y
maple	24	Y
birch	24	Y
oak	24	Y
birch	8	Y
deciduous	8	Y
maple	30	Y
pine	12	Y
maple	24	Y
deciduous	30	Y
maple	10	Y
oak	15	Y
oak	18	Y
deciduous	30	Y
birch	15	Y
oak	8	Y
oak	8	Y
oak	12	Y
deciduous	15	Y
oak	24	Y
oak	24	Y
oak	15	Y
deciduous	20	Y
deciduous	12	Y
oak	12	Y
maple	10	Y
oak	8	Y
oak	24	Y
cherry	10	Y
oak	18	Y
maple	12	Y
maple	12	Y
maple	12	Y
maple	12	Y
locust	15	Y
oak	8	Y
locust	15	Y
maple	12	Y
deciduous	14	Y
maple	18	Y
deciduous	36	Y
deciduous	26	Y
maple	12	Y
maple	10	Y
maple	12	Y
maple	8	Y
maple	8	Y
maple	8	Y
maple	14	Y
maple	20	Y
maple	12	Y
elm	16	Y
maple	14	Y
elm	20	Y
deciduous	18	Y
maple	14	Y
ash	18	Y
elm	26	Y
maple	16	Y
maple	10	Y
maple	8	Y
maple	12	Y
maple	12	Y
maple	14	Y
elm	16	Y
maple	12	Y
maple	8	Y
elm	14	Y
elm	8	Y
locust	26	Y
maple	16	Y
maple	14	Y
pine	8	Y
locust	18	Y
maple	8	Y
deciduous	20	Y
maple	12	Y
pine	26	Y
deciduous	18	Y
maple	8	Y
maple	12	Y
deciduous	28	Y
maple	14	Y
deciduous	12	Y
elm	24	Y
elm	12	Y
maple	8	Y
pine	18	Y
maple	24	Y
maple	8	Y
deciduous	24	Y
deciduous	8	Y
maple	18	Y



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Town of North Castle, New York

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FEIS SUBMISSION

PROJECT NORTH

No.	Date	Issue
8	12-18-15	REVISED PER DEP COMMENTS
7	11-20-14	KSC COMMENTS OF 11/20/14
6	10-15-14	FEIS SUBMISSION
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2	10-26-10	DEIS SUBMISSION
1	06-15-09	SITE PLAN SUBMISSION

Sheet Title

EXISTING STEEP SLOPE ANALYSIS

Job No. 2007-0632	Sheet No. C-3
Date 08-25-10	
Scale 1"=30'	
Drawn/Checked JR/AM	

SURVEYOR'S LEGEND

- EXISTING CONTOUR
- FF=123.45 FINISHED FLOOR ELEVATION
- 123.45 EXISTING SPOT ELEVATION
- TC 123.45 EXIST. TOP OF CURB ELEVATION
- G 123.85 EXIST. GUTTER ELEVATION
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- HYDRANT
- WV WATER VALVE
- GV GAS VALVE
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- T UNCONFIRMED LOC. UNDERGROUND TELE. LINE PER UTILITY MARKOUT (SEE NOTE #3)
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- D.C. DEPRESSED CURB
- B.B. BELGIAN BLOCK
- DE DEAD (NON-LIVING)
- CH CHERRY
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- MAG MAGNOLIA
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- N.P.V. NO PIPES VISIBLE
- M.C. METAL COVER
- AREA LIGHT
- LAMP POST
- C/O CLEAN OUT
- 1.0' DENOTES OFFSET OF STRUCTURE AT GROUND LEVEL RELATIVE TO PROPERTY LINE
- 12" ? DENOTES UNKNOWN TREE SPECIES AND TRUNK DIAMETER
- 15" MA DENOTES DECIDUOUS TREE SPECIES AND TRUNK DIAMETER
- 15" PINE DENOTES CONIFEROUS TREE SPECIES AND TRUNK DIAMETER
- DEP DENOTES WATERCOURSE BOUNDARY FLAG AET BY NYCDEP (12.16.11) (SEE NOTE #11)
- A28 DENOTES FEDERAL WETLAND BOUNDARY FLAG SET BY AKRF, JD CONFIRMED BY USACE (SEE NOTE #11)
- DELINEATION LINE
- UNKNOWN MANHOLE
- SANITARY MANHOLE
- STONE WALL
- AC AIR CONDITIONING UNIT
- DENOTES SOIL BORING/TEST PIT
- WELL
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SITE/CIVIL LEGEND

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- FEDERAL WETLAND BOUNDARY - DELINEATED BY AKRF, CONFIRMED BY USACE - JD ISSUED 2/1/12 (PERMIT APPLICATION #NAN-2011-0486-ESO)
- WETLAND DELINEATION LINE SET BY TOWN (SEE C1 GENERAL NOTE 13)
- 100' OFFSET FROM WETLAND DELINEATION LINE
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- EXISTING PROPERTY LINE
- EXISTING PROPERTY LINE ADJACENT PROPERTY
- NYCDEP IWATERCOURSE
- NYCDEP WATERCOURSE 100' BUFFER
- LIMIT OF CLEARING AND GRUBBING
- APPROXIMATE LOCATION OF ABANDONED SEPTIC SYSTEM
- EXISTING STONE WALL TO BE REMOVED
- EXISTING FULL DEPTH ASPHALT PAVEMENT TO BE REMOVED
- EXISTING FULL DEPTH ASPHALT PAVEMENT TO BE MILLED ONLY
- EXISTING CONCRETE LOADING BAY TO BE REMOVED
- EXISTING CONCRETE AREA TO BE REMOVED
- EXISTING DECIDUOUS TREE TO BE REMOVED
- EXISTING CONIFEROUS TREE TO BE REMOVED
- UTILITIES TO BE REMOVED
- CAPPED UTILITY LINE
- EXISTING SANITARY FORCEMAIN TO BE REMOVED

SURVEYOR'S NOTES:

1. PROPERTY KNOWN AS LOT 14B, BLOCK 4 AS SHOWN ON THE OFFICIAL TAX MAP OF THE TOWN OF NORTH CASTLE, WESTCHESTER COUNTY, NEW YORK.
2. AREA = 107,755 S.F. OR 2.474 AC.
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9. THE OFFSETS SHOWN ARE NOT TO BE USED FOR THE CONSTRUCTION OF ANY STRUCTURE, FENCE, PERMANENT ADDITION, ETC.
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12. COORDINATES ARE BASED UPON GPS OBSERVATIONS. NEW YORK STATE PLANE COORDINATE SYSTEM, NEW YORK EAST ZONE NAD 83 OPUS CORS 96.
13. PER CONVERSATION WITH TOWN OF NORTH CASTLE WATER PERSONEL, THERE IS NO WATER SERVICE IN NEW KING STREET AT THE SITE.

Tree Species	dbh (in)	In Wetland Buffer?
locust	34	N
oak	18	N
locust	20	N
maple	15	N
maple	8	N
maple	24	N
maple	18	N
locust	20	N
locust	20	N
cherry	24	N
locust	15	N
maple	24	N
oak	24	N
pine	30	N
locust	15	Y
maple	15	Y
maple	15	Y
maple	30	Y
maple	20	Y
maple	12	Y
maple	18	Y
maple	18	Y
locust	24	Y
maple	24	Y
birch	24	Y
oak	24	Y
birch	8	Y
deciduous	8	Y
maple	30	Y
pine	12	Y
maple	24	Y
deciduous	30	Y
maple	10	Y
oak	15	Y
oak	18	Y
deciduous	30	Y
birch	15	Y
oak	8	Y
oak	8	Y
oak	12	Y
deciduous	15	Y
oak	24	Y
oak	24	Y
oak	15	Y
deciduous	20	Y
deciduous	12	Y
oak	12	Y
maple	10	Y
oak	8	Y
oak	24	Y
cherry	10	Y
oak	18	Y
maple	12	Y
maple	12	Y
maple	12	Y
maple	12	Y
locust	15	Y
oak	8	Y
locust	15	Y
maple	12	Y
deciduous	14	Y
maple	18	Y
deciduous	36	Y
deciduous	26	Y
maple	12	Y
maple	10	Y
maple	12	Y
maple	8	Y
maple	8	Y
maple	8	Y
maple	14	Y
maple	20	Y
maple	12	Y
elm	16	Y
maple	14	Y
elm	20	Y
deciduous	18	Y
maple	14	Y
ash	18	Y
elm	26	Y
maple	16	Y
maple	10	Y
maple	8	Y
maple	12	Y
maple	12	Y
maple	14	Y
elm	16	Y
maple	12	Y
maple	8	Y
elm	14	Y
elm	8	Y
locust	26	Y
maple	16	Y
maple	14	Y
pine	8	Y
locust	18	Y
maple	8	Y
deciduous	20	Y
maple	12	Y
pine	26	Y
deciduous	18	Y
maple	8	Y
maple	12	Y
deciduous	28	Y
maple	14	Y
deciduous	12	Y
elm	24	Y
elm	12	Y
maple	8	Y
pine	18	Y
maple	24	Y
maple	8	Y
deciduous	24	Y
deciduous	8	Y
maple	18	Y

NOTES:
1. ALL EROSION AND SEDIMENT CONTROL PRACTICES SHOWN ON THE EROSION AND SEDIMENT CONTROL DRAWING SHALL BE IN PLACE PRIOR TO DEMOLITION.
2. CLEARING AND GRUBBING ACTIVITIES SHALL BE IN ACCORDANCE WITH THE SEQUENCE OF CONSTRUCTION ON DRAWING C-1.

REFERENCES:
1. THE OFFICIAL TAX ASSESSOR'S MAP OF THE TOWN OF NORTH CASTLE, WESTCHESTER COUNTY, NEW YORK, SHEET #25.
2. MAP ENTITLED "NATIONAL FLOOD INSURANCE PROGRAM, FIRM, FLOOD INSURANCE RATE MAP, FOR WESTCHESTER COUNTY, NEW YORK (ALL JURISDICTIONS), PANEL 279 OF 426, MAP SUFFIX: F," MAP NUMBER 36119C0279F, EFFECTIVE DATE SEPTEMBER 28, 2007.
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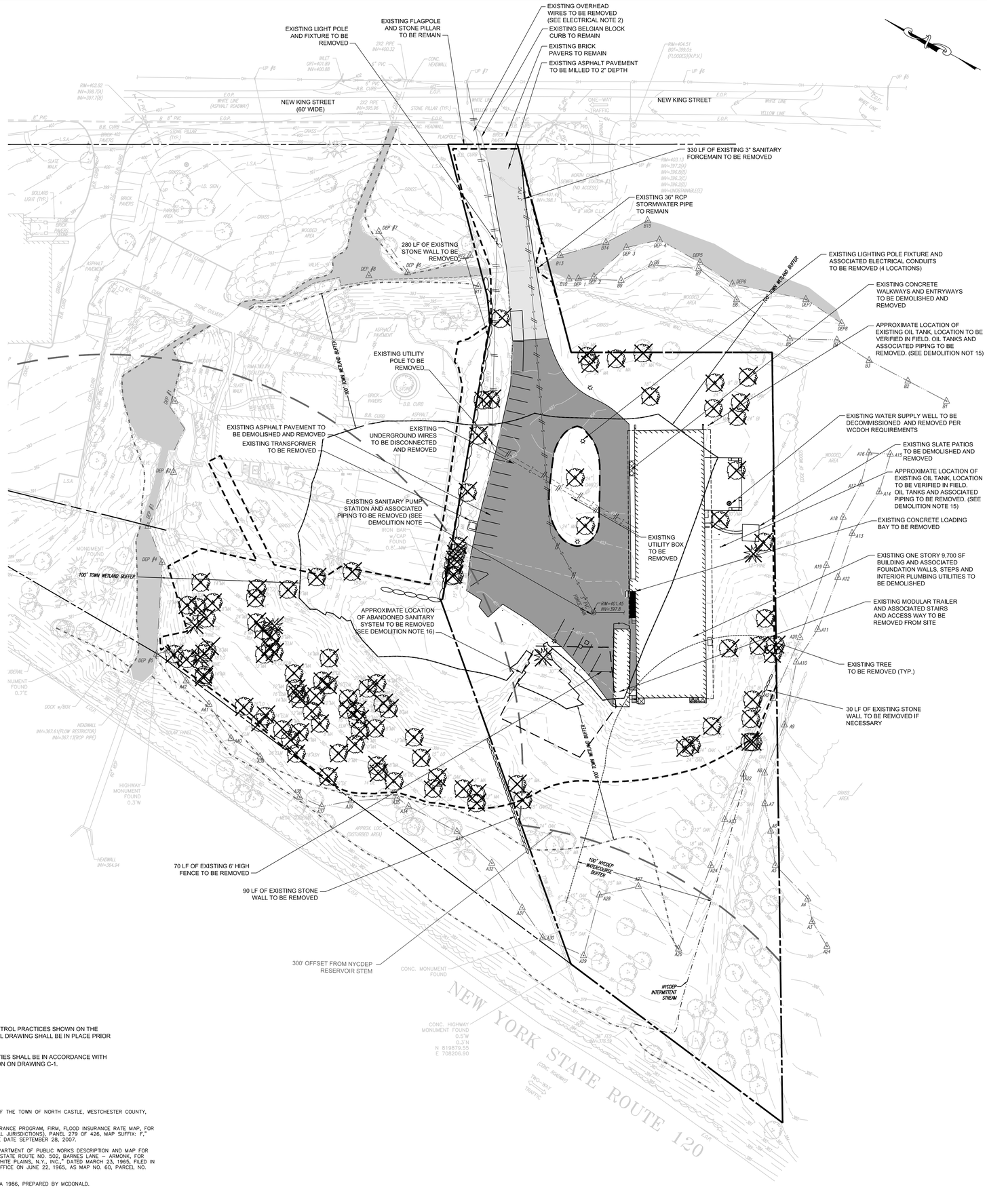

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FEIS SUBMISSION

No.	Date	Issue
8	12-18-15	REVISED PER DEP COMMENTS
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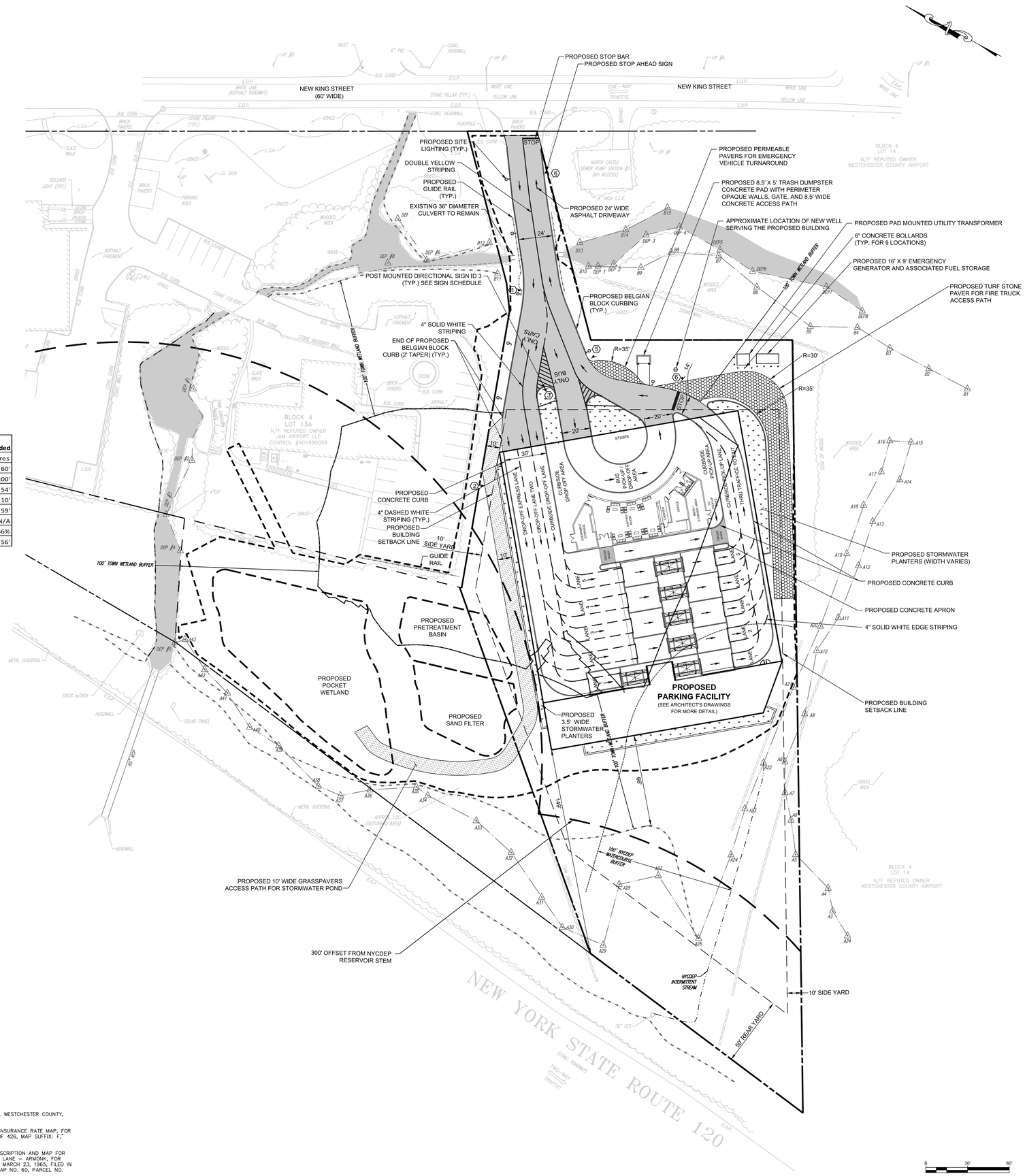
1	06-15-09	SITE PLAN SUBMISSION

Sheet Title

DEMOLITION PLAN

Job No. 2007-0632	Sheet No. C-4
Date 08-25-10	
Scale 1"=30'	
Drawn/Checked JH/AM	



SURVEYOR'S LEGEND

123	EXISTING CONTOUR
X FF=123.45	FINISHED FLOOR ELEVATION
X 123.45	EXISTING SPOT ELEVATION
X TC 123.45	EXIST. TOP OF CURB ELEVATION
X G 122.95	EXIST. GUTTER ELEVATION
X TW 123.45	EXIST. TOP OF WALL ELEVATION
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	HYDRANT
WV	WATER VALVE
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OH	OVERHEAD WIRES
T	UNCONFIRMED LOC. UNDERGROUND TELE. LINE PER UTILITY MARKOUT (SEE NOTE #3)
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	UTILITY POLE
	UTILITY POLE/LIGHT POLE
	GUY WIRE
	MONITORING WELL
G	GAS METER
E	ELECTRIC METER
	SIGN
	BOLLARD
E.O.P.	EDGE OF PAVEMENT
C.L.F.	CHAIN LINK FENCE
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D.C.	DEPRESSED CURB
B.B.	BELGIAN BLOCK
DE	DEAD (NON-LIVING)
CH	CHERRY
MA	MAPLE
LO	LOCUST
TU	TULIP
GI	GINGKO
MAG	MAGNOLIA
LI	LILAC
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M.C.	METAL COVER
	AREA LIGHT
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C/O	CLEAN OUT
1.0'	DENOTES OFFSET OF STRUCTURE AT GROUND LEVEL RELATIVE TO PROPERTY LINE
12" T	DENOTES UNKNOWN TREE SPECIES AND TRUNK DIAMETER
15" MA	DENOTES DECIDUOUS TREE SPECIES AND TRUNK DIAMETER
15" PINE	DENOTES CONIFEROUS TREE SPECIES AND TRUNK DIAMETER
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	SANITARY MANHOLE
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	WELL
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- NYCDEP WATERCOURSE
- NYCDEP WATERCOURSE 100' BUFFER
- EXISTING PROPERTY LINE
- EXISTING PROPERTY LINE ADJACENT PROPERTY
- LIMIT OF DISTURBANCE
- PROPOSED BUILDING ENVELOPE (BUILDING SETBACK LINE)
- PROPOSED MULTI-LEVEL PARKING FACILITY
- PROPOSED BELGIAN BLOCK CURBING
- STORMWATER DRAINAGE EASEMENT
- PROPOSED TRAFFIC FLOW DIRECTION
- ▨ PROPOSED ASPHALT DRIVEWAY
- ▨ PROPOSED PERMEABLE PAVERS
- ▨ PROPOSED GRASSPAVERS
- ▨ PROPOSED STORMWATER PLANTERS
- ▨ PROPOSED CONCRETE PAVEMENT
- PROPOSED GUIDE RAIL
- □ PROPOSED BUILDING COLUMN
- PROPOSED SIGN
- PROPOSED TRENCH DRAIN
- ○ PROPOSED DRAINAGE MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED SITE LIGHTING
- (1) PROPOSED SIGN IDENTIFICATION (SEE PROPOSED SIGN SCHEDULE)

PROPOSED SIGNAGE		
SIGN ID	PROPOSED SIGN	
1	CUSTOM SIGN 12" x 18"	SHUTTLE BUSES LEFT ONLY
2	CUSTOM SIGN 12" x 18"	STORMWATER MAINTENANCE ACCESS ONLY
3	CUSTOM SIGN 12" x 18"	PASSENGER VEHICLES RIGHT ONLY
5	CUSTOM SIGN 12" x 18"	NO PARKING EMERGENCY USE ONLY
6	STOP 18" x 18" R1-1	STOP

SCHEDULE OF DIMENSIONAL ZONING REQUIREMENTS

	IND-AA Requirements	IND-AA Proposed Amendments	Provided
Min. Lot Size	2 acres	2 acres	2.47 acres
Min. Frontage	200'	NA	60'
Min. Depth	200'	NA	>200'
Min. Front Yard	50'	50'	54'
Min. Side Yard	50'	10'	10'
Min. Rear Yard	50'	50'	59'
Max. Building Coverage	30%	N/A	N/A
Max. Lot Coverage	N/A	60%	56%
Max. Building Height	30' (2 stories)	60'	56'

PROJECT NORTH

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FEIS SUBMISSION

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NOTE: ALL IDEAS, DESIGNS, ARRANGEMENTS AND PLANS INDICATED OR REPRESENTED BY THIS DRAWING ARE OWNED BY AND ARE THE PROPERTY OF KAEYER, GARMENT, & DAVIDSON ARCHITECTS, PC (KG&D), AND WERE CREATED, EVOLVED AND DEVELOPED FOR USE ON, AND IN CONNECTION WITH, THE SPECIFIED PROJECT. NONE OF SUCH IDEAS, DESIGNS, ARRANGEMENTS OR PLANS SHALL BE USED BY OR DISCLOSED TO ANY PURPOSE WHATSOEVER WITHOUT THE WRITTEN PERMISSION OF (KG&D).

WRITTEN DIMENSIONS ON THIS DRAWING SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THIS OFFICE MUST BE NOTIFIED OF ANY VARIATIONS FROM DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS. SHOP DETAILS MUST BE SUBMITTED TO THIS OFFICE FOR APPROVAL BEFORE PROCEEDING WITH FABRICATION.

LEGAL NOTICE: ALTERATIONS BY ANY PERSON, IN ANY WAY, OF ANY ITEM CONTAINED ON THIS DOCUMENT, UNLESS ACTING UNDER THE DIRECTION OF THE LICENCED ARCHITECT WHOSE PROFESSIONAL SEAL IS AFFIXED HERETO, IS A VIOLATION OF TITLE VII, SECT. 69.5 (b) OF NEW YORK STATE LAW.

No.	Date	Issue
8	12-18-15	REVISED PER DEP COMMENTS
7	11-20-14	KSC COMMENTS OF 11/20/14
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5	05-30-14	FEIS SUBMISSION
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2	10-26-10	DEIS SUBMISSION
1	06-15-09	SITE PLAN SUBMISSION

Sheet Title

SITE PLAN

Job No. 2007-0632
Date 08-25-10
Scale 1"=30'
Drawn/Checked JR/AM
Sheet No. C-5

SURVEYOR'S LEGEND

- EXISTING CONTOUR
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- EXISTING SPOT ELEVATION
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- GUY WIRE
- MONITORING WELL
- GAS METER
- ELECTRIC METER
- SIGN
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- EDGE OF PAVEMENT
- CHAIN LINK FENCE
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- DEPRESSED CURB
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- DEAD (NON-LIVING)
- CHERRY
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- NO PIPES VISIBLE
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SITE/CIVIL LEGEND

- DELINEATION LINE SET BY NYCDEP DATED DECEMBER 16, 2011 (SEE NOTE #11)
- FEDERAL WETLAND BOUNDARY - DELINEATED BY AKRF, CONFIRMED BY USACE - JD ISSUED 2/1/12 (PERMIT APPLICATION #NAN-2011-0486-ESO)
- WETLAND DELINEATION LINE SET BY TOWN (SEE C1 GENERAL NOTE 13)
- 100' OFFSET FROM WETLAND DELINEATION LINE
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- EXISTING PROPERTY LINE
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- LIMIT OF DISTURBANCE
- PROPOSED BUILDING ENVELOPE (BUILDING SETBACK LINE)
- PROPOSED MULTI-LEVEL PARKING FACILITY
- PROPOSED BELGIAN BLOCK CURBING
- STORMWATER DRAINAGE EASEMENT
- PROPOSED DRAINAGE FLOW DIRECTION
- PROPOSED ASPHALT DRIVEWAY
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- PROPOSED STORMWATER PLANTERS
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- PROPOSED GUIDE RAIL
- PROPOSED BUILDING COLUMN
- PROPOSED SIGN
- PROPOSED TRENCH DRAIN
- PROPOSED DRAINAGE MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED SITE LIGHTING
- PROPOSED RIP RAP OUTLET PROTECTION
- PROPOSED END SECTION
- PROPOSED DRAINAGE STRUCTURE NUMBER
- PROPOSED HIGH POINT

SURVEYOR'S NOTES:

1. PROPERTY KNOWN AS LOT 14B, BLOCK 4 AS SHOWN ON THE OFFICIAL TAX MAP OF THE TOWN OF NORTH CASTLE, WESTCHESTER COUNTY, NEW YORK.
2. AREA = 107,755 S.F. OR 2.474 AC.
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13. PER CONVERSATION WITH TOWN OF NORTH CASTLE WATER PERSONEL, THERE IS NO WATER SERVICE IN NEW KING STREET AT THE SITE.

STORM DRAINAGE SCHEDULE

ABBREVIATIONS: CB - CATCH BASIN, MH - MANHOLE, FS- FLOW SPLITTER, OS - OUTLET STRUCTURE, RL - ROOF LEADER, ES - END SECTION, USF - UNDERGROUND SAND FILTER

NOTES: ALL NEW STORMWATER PIPING SHALL BE HANCOR BLUE SEAL WATER TIGHT HIGHT DENSITY POLYETHELENE (HDPE) OR ENGINEER APPROVED EQUAL, UNLESS OTHERWISE NOTED

STRUCTURE NO.	STRUCTURE TYPE	ELEVATION		DESCRIPTION
1	CB	GRATE	403.50	
		INV. (SE)	398.50	UNDERDRAIN IN STORMWATER PLANTER @ 0.0%
		INV. (NW)	396.00	1 TO 5A, 76 LF 12" DIA. HDPE @ 1.0%
2	CB	GRATE	399.50	
		INV. (W)	395.00	2 TO 3, 36 LF 12" DIA. HDPE @ 1.0%
3	CB	GRATE	398.60	
		INV. (SE)	394.60	
		INV. (NW)	394.00	3 TO 6, 57 LF 12" DIA. HDPE @ 3.5%
4	CB	GRATE	399.80	
		INV. (W)	393.00	4 TO 6, 99 LF 12" DIA. HDPE @ 1.0%
5A	CB	RIM	398.50	
		INV. (S)	395.20	
		INV. (E)	395.70	UNDERDRAIN IN STORMWATER PLANTER @ 0.0%
		INV. (NW)	395.00	5A TO 5B, 43 LF 12" DIA. HDPE @ 1.0%
5B	CB	RIM	399.00	
		INV. (S)	394.50	
		INV. (E)	395.00	UNDERDRAIN IN STORMWATER PLANTER @ 0.0%
		INV. (NW)	391.80	5B TO 7, 38 LF 12" DIA. HDPE @ 2.0%
6	USF	RIM	400.10	
		INV. (SE)	392.00	
		INV. (NE)	392.00	
		INV. (NW)	390.40	6 TO 7, 17 LF 12" DIA. HDPE @ 2.0%
7	MH	RIM	401.00	
		INV. (SE)	390.00	
		INV. (SW)	391.00	
		INV. (W)	390.00	7 TO 8, 120 LF 12" DIA. HDPE @ 2.5%
8	FS	RIM	393.00	
		INV. (RL)	387.00	UNDERDRAIN IN STORMWATER PLANTER @ 0.0%
		INV. (NE)	387.00	
		WIER	387.75	
		INV. (NW)	386.00	8 TO 13, 20 LF 12" DIA. HDPE @ 13.0%
		INV. (SW)	386.45	8 TO 10, 106 LF 24" DIA. HDPE @ 4.2%
9	OS	GRATE	386.60	
		INV. (SW)	384.00	9 TO 14, 40 LF 10" DIA. HDPE @ 0.0%
10	MH	RIM	386.50	
		INV. (NE)	382.00	
		INV. (NW)	381.00	10 TO 15, 95 LF 24" DIA. HDPE @ 1.1%
11	OS	GRATE	387.00	
		INV. (NW)	381.50	11 TO 16, 38 LF 10" DIA. HDPE @ 3.9%
12	OS	GRATE	379.00	
		INV. (NW)	373.00	12 TO 17, 40 LF 12" DIA. HDPE @ 5.0%
13	ES1	INV. (NW)	384.00	
14	ES2	INV. (S)	384.00	
15	ES3	INV. (NW)	380.00	
16	ES4	INV. (NW)	380.00	
17	ES5	INV. (NW)	372.50	

REFERENCES:

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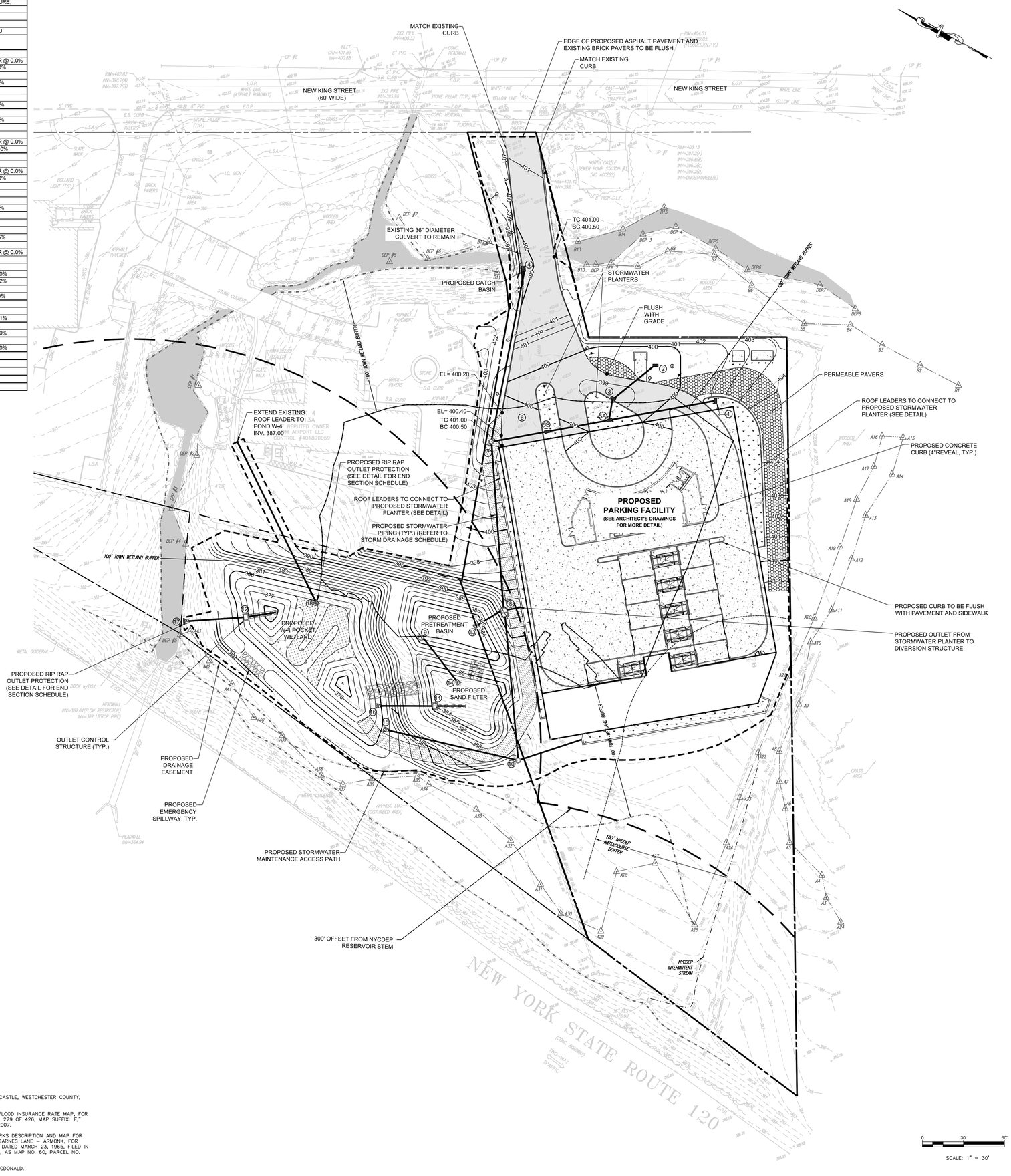

PARK PLACE

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Town of North Castle, New York

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KG&D architects

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Fax:(212)726-0942

FEIS SUBMISSION

No.	Date	Issue
8	12-18-15	REVISED PER DEP COMMENTS
7	11-20-14	KSC COMMENTS OF 11/20/14
6	10-15-14	FEIS SUBMISSION
5	05-30-14	FEIS SUBMISSION
4	08-21-11	REVISION PER DEIS COMMENTS
3	01-24-11	REVISION PER DEIS COMMENTS
2	10-26-10	DEIS SUBMISSION
1	06-15-09	SITE PLAN SUBMISSION

Sheet Title

PAVING, GRADING, AND DRAINAGE PLAN

Job No. 2007-0632	Sheet No. C-6
Date 08-25-10	
Scale 1"=30'	
Drawn/Checked JR/AM	

SURVEYOR'S LEGEND

- EXISTING CONTOUR
- FINISHED FLOOR ELEVATION
- EXISTING SPOT ELEVATION
- EXIST. TOP OF CURB ELEVATION
- EXIST. GUTTER ELEVATION
- EXIST. TOP OF WALL ELEVATION
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- UNCONFIRMED LOC. UNDERGROUND TELE. LINE PER UTILITY MARKOUT (SEE NOTE #3)
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SITE/CIVIL LEGEND

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- PROPOSED ELECTRIC CONDUIT
- PROPOSED TELECOMMUNICATIONS CONDUIT
- PROPOSED STORM FLOW DIRECTION
- PROPOSED ASPHALT DRIVEWAY
- PROPOSED PERMEABLE PAVERS
- PROPOSED GRASSPAVERS
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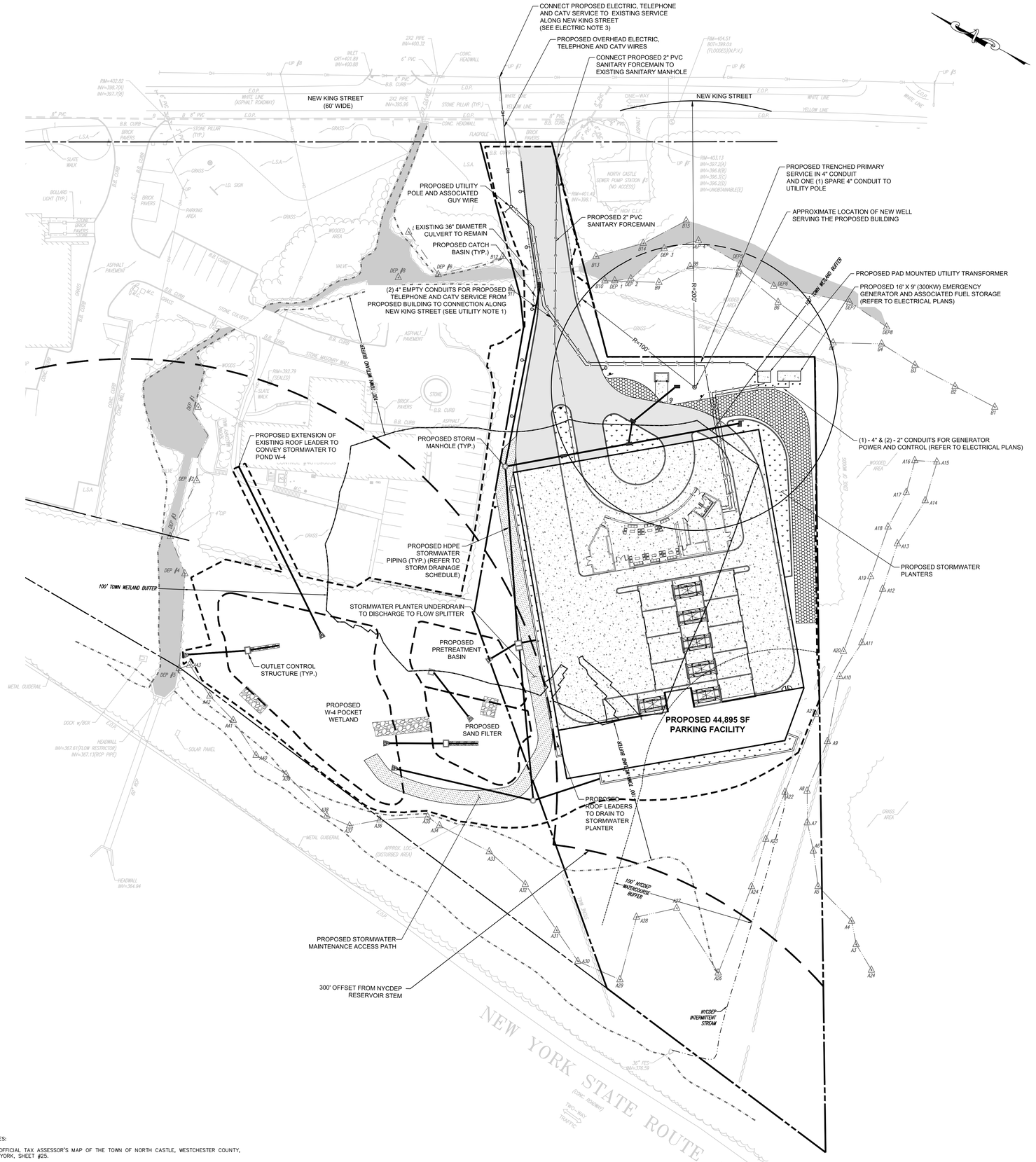

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FEIS SUBMISSION

PROJECT NORTH

No.	Date	Issue
7	12-18-15	REVISED PER DEP COMMENTS
6	10-15-14	FEIS SUBMISSION
5	05-30-14	FEIS SUBMISSION
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1	06-15-09	SITE PLAN SUBMISSION

Sheet Title

COMPOSITE UTILITY PLAN

Job No. 2007-0632	Sheet No. C-7
Date 08-25-10	
Scale 1"=30'	
Drawn/Checked JR/AM	

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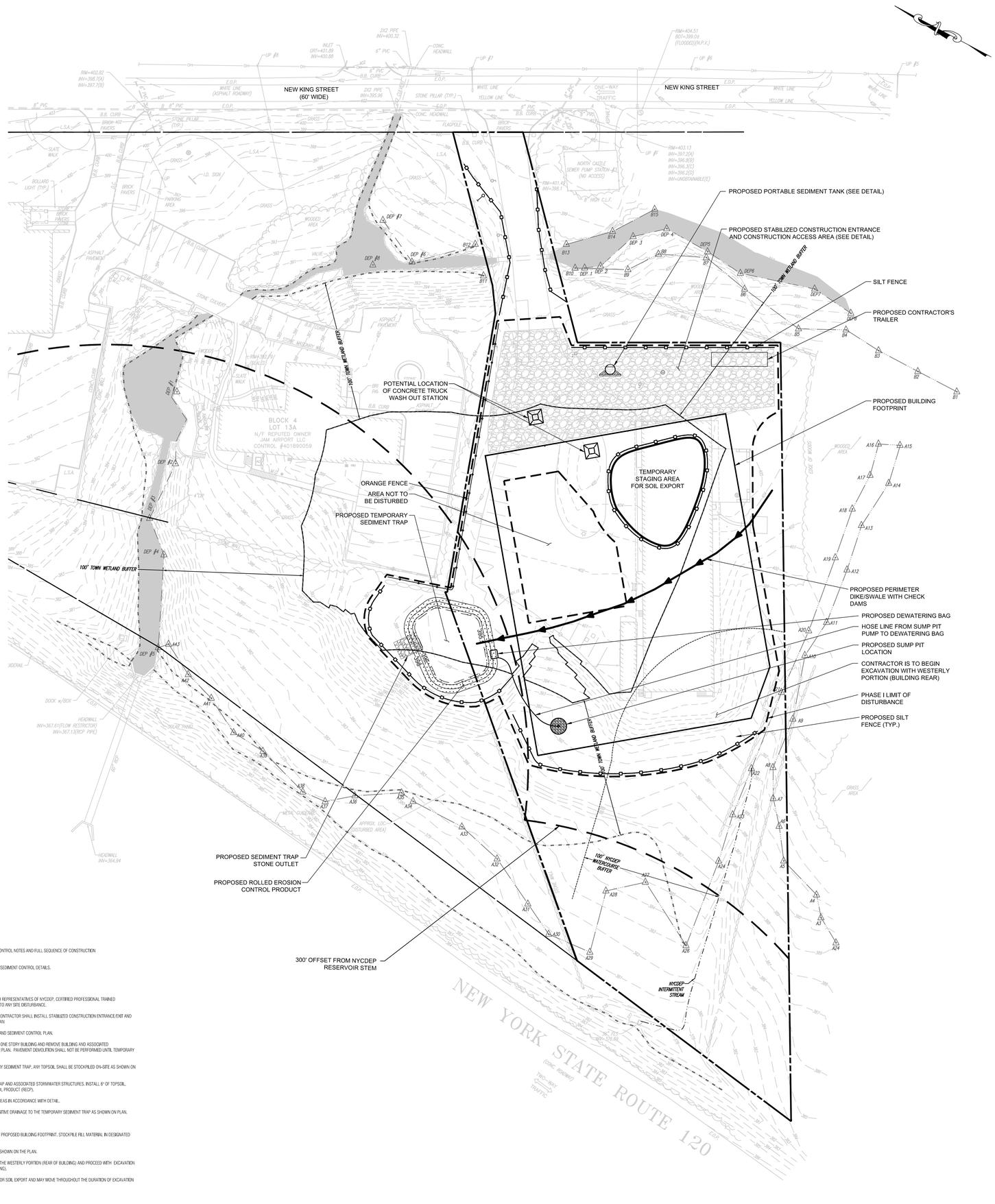
- SILT FENCE
- PROPOSED ROLLED EROSION CONTROL PRODUCT
- PROPOSED STABILIZED CONSTRUCTION ENTRANCE
- INLET PROTECTION
- CONCRETE TRUCK WASH OUT STATION



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4. PREVIOUS SURVEY OF PROPERTY CIRCA 1986, PREPARED BY MCDONALD.

NOTES:

1. REFER TO SHEET C-1 FOR EROSION AND SEDIMENT CONTROL NOTES AND FULL SEQUENCE OF CONSTRUCTION ACTIVITIES.
2. REFER TO SHEETS C-10 AND C-11 FOR EROSION AND SEDIMENT CONTROL DETAILS.

PARTIAL SEQUENCE OF CONSTRUCTION ACTIVITIES

SEQUENCE I: (LIMIT OF DISTURBANCE = 1.4 AC)

1. A PRE CONSTRUCTION MEETING SHALL BE HELD WITH REPRESENTATIVES OF NYCDEP, CERTIFIED PROFESSIONAL TRAINED CONTRACTOR, THE TOWN, AND THE ENGINEER PRIOR TO ANY SITE DISTURBANCE.
2. PRIOR TO CLEARING AND GRUBBING ACTIVITIES THE CONTRACTOR SHALL INSTALL STABILIZED CONSTRUCTION ENTRANCE/EXIT AND CONSTRUCTION ACCESS AREA AS SHOWN ON THE PLAN.
3. INSTALL SILT FENCE AS INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN.
4. DISCONNECT ALL UTILITY CONNECTIONS TO EXISTING ONE STORY BUILDING AND REMOVE BUILDING AND ASSOCIATED APPURTENANCES IN ACCORDANCE WITH DEMOLITION PLAN. PAVEMENT DEMOLITION SHALL NOT BE PERFORMED UNTIL TEMPORARY SEDIMENT TRAP IS INSTALLED.
5. CLEAR AND GRUB IN AREA OF SEQUENCE I TEMPORARY SEDIMENT TRAP. ANY TOPSOIL SHALL BE STOCKPILED ON-SITE AS SHOWN ON DRAWING.
6. ROUGH GRADE PROPOSED TEMPORARY SEDIMENT TRAP AND ASSOCIATED STORMWATER STRUCTURES. INSTALL 6" OF TOPSOIL, SEED, AND STABILIZE WITH ROLLED EROSION CONTROL PRODUCT (RECP).
7. SOIL STOCKPILE SHOULD BE LOCATED ON GRASSY AREAS IN ACCORDANCE WITH DETAIL.
8. INSTALL PERIMETER DIKE/SWALE STARTING WITH POSITIVE DRAINAGE TO THE TEMPORARY SEDIMENT TRAP AS SHOWN ON PLAN.
9. INSTALL CHECK DAMS IN THE PERIMETER SWALE.
10. BEGIN CLEARING AND GRUBBING IN THE AREA OF THE PROPOSED BUILDING FOOTPRINT. STOCKPILE FILL MATERIAL IN DESIGNATED AREA AS SHOWN ON PLAN.
11. REMOVE EXISTING STRUCTURE AND FOUNDATION AS SHOWN ON THE PLAN.
12. BEGIN CONSTRUCTION OF BUILDING FOUNDATION AT THE WESTERLY PORTION (REAR OF BUILDING) AND PROCEED WITH EXCAVATION TOWARDS THE EASTERLY PORTION (FRONT OF BUILDING).
13. STOCKPILE SHALL BE A TEMPORARY STAGING AREA FOR SOIL EXPORT AND MAY MOVE THROUGHOUT THE DURATION OF EXCAVATION AS NECESSARY.

SCALE: 1" = 30'

PARK PLACE

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FEIS SUBMISSION

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3	01-24-11	REVISION PER DEIS COMMENTS
2	10-26-10	DEIS SUBMISSION
1	06-15-09	SITE PLAN SUBMISSION

Sheet Title

EROSION AND SEDIMENT CONTROL PLAN - SEQUENCE I

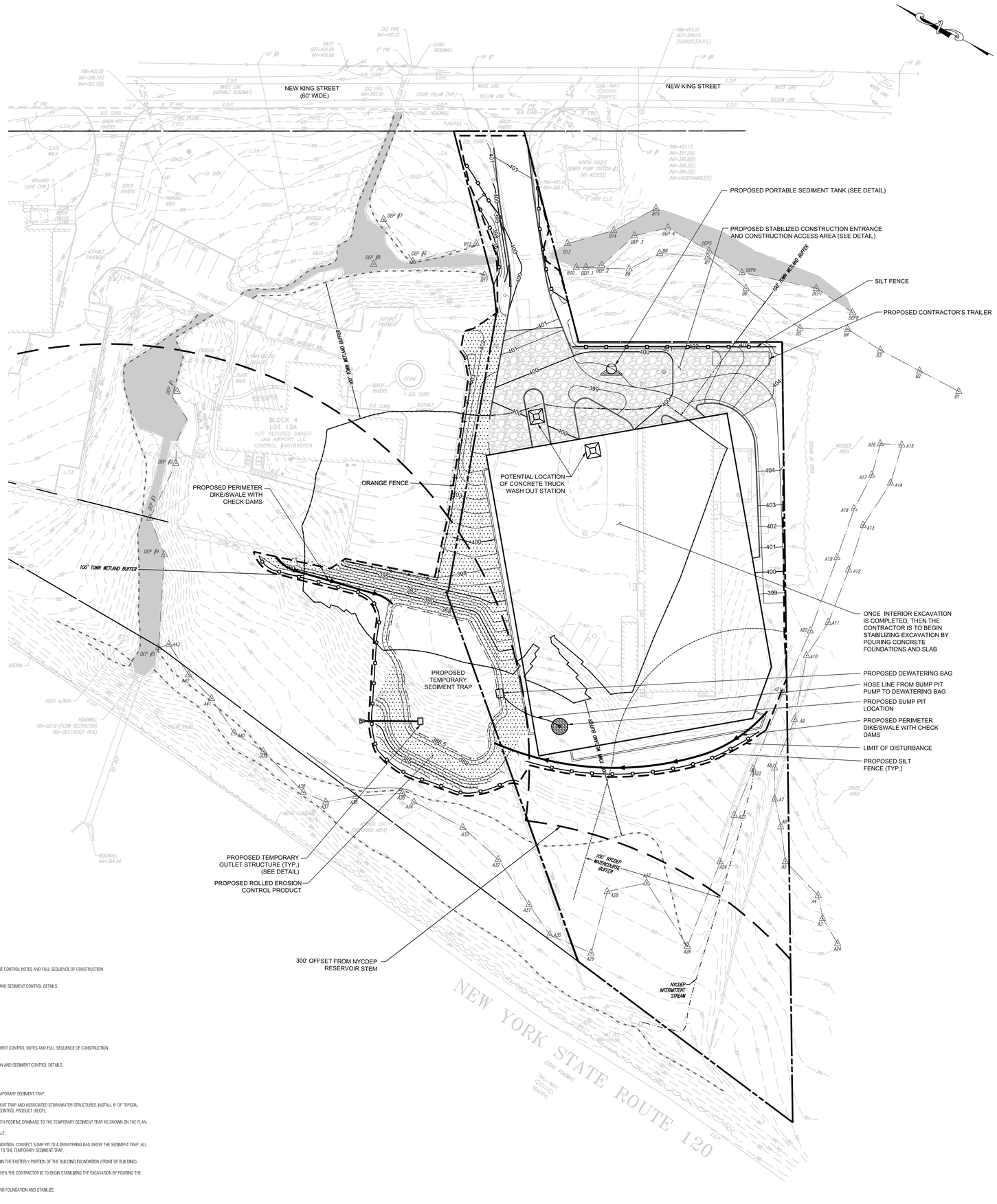
Job No. 2007-0632	Sheet No. C-8A
Date 08-25-10	
Scale 1"=30'	
Drawn/Checked JH/AM	

SURVEYOR'S LEGEND

- EXISTING CONTOUR
- FINISHED FLOOR ELEVATION
- EXISTING SPOT ELEVATION
- EXIST. TOP OF CURB ELEVATION
- EXIST. GUTTER ELEVATION
- EXIST. TOP OF WALL ELEVATION
- EXIST. BOTTOM OF WALL ELEVATION
- HYDRANT
- WATER VALVE
- GAS VALVE
- OVERHEAD WIRES
- UNCONFIRMED LOC. UNDERGROUND TELE. LINE PER UTILITY MARKOUT (SEE NOTE #3)
- UNCONFIRMED LOC. UNDERGROUND CABLE LINE PER UTILITY MARKOUT (SEE NOTE #3)
- UTILITY POLE
- UTILITY POLE/LIGHT POLE
- GUY WIRE
- MONITORING WELL
- GAS METER
- ELECTRIC METER
- SIGN
- BOLLARD
- EDGE OF PAVEMENT
- CHAIN LINK FENCE
- LANDSCAPED AREA
- EDGE OF PAVEMENT
- DEPRESSED CURB
- BELGIAN BLOCK
- DEAD (NON-LIVING)
- CHERRY
- MAPLE
- LOCUST
- TULIP
- GINGKO
- MAGNOLIA
- LILAC
- TULIP
- NO PIPES VISIBLE
- METAL COVER
- AREA LIGHT
- LAMP POST
- CLEAN OUT
- DENOTES OFFSET OF STRUCTURE AT GROUND LEVEL RELATIVE TO PROPERTY LINE
- DENOTES UNKNOWN TREE SPECIES AND TRUNK DIAMETER
- DENOTES DECIDUOUS TREE SPECIES AND TRUNK DIAMETER
- DENOTES CONIFEROUS TREE SPECIES AND TRUNK DIAMETER
- DENOTES WATERCOURSE BOUNDARY FLAG AET BY NYCDEP (12.16.11) (SEE NOTE #11)
- DENOTES FEDERAL WETLAND BOUNDARY FLAG SET BY AKRF, JD CONFIRMED BY USACE (SEE NOTE #11)
- DELINEATION LINE
- UNKNOWN MANHOLE
- SANITARY MANHOLE
- STONE WALL
- AIR CONDITIONING UNIT
- DENOTES SOIL BORING/TEST PIT
- WELL
- BASKETBALL HOOP

SITE/CIVIL LEGEND

- DELINEATION LINE SET BY NYCDEP DATED DECEMBER 16, 2011 (SEE NOTE #11)
- FEDERAL WETLAND BOUNDARY - DELINEATED BY AKRF, CONFIRMED BY USACE - JD ISSUED 2/1/12 (PERMIT APPLICATION #NAN-2011-0486-ESO)
- WETLAND DELINEATION LINE SET BY TOWN (SEE C1 GENERAL NOTE 13)
- 100' OFFSET FROM WETLAND DELINEATION LINE
- NYCDEP WATERCOURSE
- NYCDEP WATERCOURSE 100' BUFFER
- 300' OFFSET FROM NYCDEP RESERVOIR STEM
- EXISTING PROPERTY LINE
- EXISTING PROPERTY LINE ADJACENT PROPERTY
- PROPOSED MULTI-LEVEL PARKING FACILITY
- LIMIT OF CLEARING AND GRUBBING
- PERIMETER DIKE/SWALE
- SILT FENCE
- PROPOSED ROLLED EROSION CONTROL PRODUCT
- PROPOSED STABILIZED CONSTRUCTION ENTRANCE
- INLET PROTECTION
- CONCRETE TRUCK WASH OUT STATION



SURVEYOR'S NOTES:

1. PROPERTY KNOWN AS LOT 14B, BLOCK 4 AS SHOWN ON THE OFFICIAL TAX MAP OF THE TOWN OF NORTH CASTLE, WESTCHESTER COUNTY, NEW YORK.
2. AREA = 107,755 S.F. OR 2.474 AC.
3. THE LOCATION OF ALL UNDERGROUND UTILITIES HAVE NOT BEEN SHOWN. UTILITY INFORMATION SHOWN IS LIMITED TO VISIBLE UTILITY HARDWARE AND UTILITY MARKOUTS AT THE SURFACE AND DOES NOT INCLUDE SUCH ITEMS AS SUBSURFACE PIPING, UTILITY LINES, ETC. BEFORE ANY EXCAVATION IS TO BEGIN, ALL UNDERGROUND UTILITIES SHOULD BE VERIFIED BY THE PROPER UTILITY COMPANIES. CONTROL POINT ASSOCIATES, INC. DOES NOT GUARANTEE THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA EITHER IN SERVICE OR ABANDONED.
4. THIS PLAN IS BASED ON INFORMATION PROVIDED BY A SURVEY PREPARED IN THE FIELD BY CONTROL POINT ASSOCIATES, INC. AND OTHER REFERENCE MATERIAL AS LISTED HEREON.
5. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND IS SUBJECT TO THE RESTRICTIONS, COVENANTS AND/OR EASEMENTS THAT MAY BE CONTAINED THEREIN.
6. BY GRAPHIC PLOTTING ONLY PROPERTY IS LOCATED IN FLOOD HAZARD ZONE 'X' (AREAS DESIGNATED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) PER REF. #2.
7. THE EXISTENCE OF UNDERGROUND STORAGE TANKS, IF ANY, WAS NOT KNOWN AT THE TIME OF THE FIELD SURVEY.
8. ELEVATIONS ARE BASED UPON NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION 8 SURVEY BM 13, PROJECT PIN #813675, ELEVATION = 391.596' (119.360 METERS), NGVD 29.
9. THE OFFSETS SHOWN ARE NOT TO BE USED FOR THE CONSTRUCTION OF ANY STRUCTURE, FENCE, PERMANENT ADDITION, ETC.
10. ENCROACHMENTS AND VAULTS, IF ANY, BELOW SURFACE NOT SHOWN HEREON.
11. THE DELINEATION LINE WAS PLACED IN THE FIELD BY AKRF ENGINEERING & NYCDEP AND FIELD LOCATED BY CONTROL POINT ASSOCIATES, INC..
12. COORDINATES ARE BASED UPON GPS OBSERVATIONS. NEW YORK STATE PLANE COORDINATE SYSTEM, NEW YORK EAST ZONE NAD 83 OPUS CORS 96.
13. PER CONVERSATION WITH TOWN OF NORTH CASTLE WATER PERSONEL, THERE IS NO WATER SERVICE IN NEW KING STREET AT THE SITE.

REFERENCES:

1. THE OFFICIAL TAX ASSESSOR'S MAP OF THE TOWN OF NORTH CASTLE, WESTCHESTER COUNTY, NEW YORK, SHEET #25.
2. MAP ENTITLED "NATIONAL FLOOD INSURANCE PROGRAM, FIRM, FLOOD INSURANCE RATE MAP, FOR WESTCHESTER COUNTY, NEW YORK (ALL JURISDICTIONS), PANEL 279 OF 426, MAP SUFFIX: F," MAP NUMBER 36119C0279F, EFFECTIVE DATE SEPTEMBER 28, 2007.
3. MAP ENTITLED, "NEW YORK STATE DEPARTMENT OF PUBLIC WORKS DESCRIPTION AND MAP FOR THE ACQUISITION OF PROPERTY, INTERSTATE ROUTE NO. 502, BARNES LANE – ARMONK, FOR THE DANIEL GRAY FISHING CLUB OF WHITE PLAINS, N.Y., INC.," DATED MARCH 23, 1965, FILED IN THE WESTCHESTER COUNTY CLERK'S OFFICE ON JUNE 22, 1965, AS MAP NO. 60, PARCEL NO. 76.
4. PREVIOUS SURVEY OF PROPERTY CIRCA 1986, PREPARED BY MCDONALD.

NOTES:

1. REFER TO SHEET C-1 FOR EROSION AND SEDIMENT CONTROL NOTES AND FULL SEQUENCE OF CONSTRUCTION ACTIVITIES.
2. REFER TO SHEETS C-10 AND C-11 FOR EROSION AND SEDIMENT CONTROL DETAILS.

PARTIAL SEQUENCE OF CONSTRUCTION ACTIVITIES

NOTES:

1. REFER TO SHEET C-1 FOR EROSION AND SEDIMENT CONTROL NOTES AND FULL SEQUENCE OF CONSTRUCTION ACTIVITIES.
2. REFER TO SHEETS C-10 AND C-11 FOR EROSION AND SEDIMENT CONTROL DETAILS.

PARTIAL SEQUENCE OF CONSTRUCTION ACTIVITIES

SEQUENCE III (LIMIT OF DISTURBANCE = 2.4 AC)

1. CLEAR AND GRUB IN AREA OF SEQUENCE II TEMPORARY SEDIMENT TRAP.
2. ROUGH GRADE PROPOSED TEMPORARY SEDIMENT TRAP AND ASSOCIATED STORMWATER STRUCTURES. INSTALL 6" OF TOPSOIL, SEED, AND STABILIZE WITH ROLLED EROSION CONTROL PRODUCT (RECP).
3. INSTALL PERIMETER DIKE/SWALE STARTING WITH POSITIVE DRAINAGE TO THE TEMPORARY SEDIMENT TRAP AS SHOWN ON THE PLAN.
4. INSTALL CHECK DAMS IN THE PERIMETER SWALE.
5. INSTALL SUMP PIT WITHIN THE BUILDING FOUNDATION. CONNECT SUMP PIT TO A DEWATERING BAG ABOVE THE SEDIMENT TRAP. ALL SEDIMENT LADEN WATER SHALL BE DIRECTED TO THE TEMPORARY SEDIMENT TRAP.
6. CONTRACTOR TO CONTINUE EXCAVATION WITHIN THE EASTERLY PORTION OF THE BUILDING FOUNDATION (FRONT OF BUILDING).
7. ONCE INTERIOR EXCAVATION IS COMPLETED, THEN THE CONTRACTOR IS TO BEGIN STABILIZING THE EXCAVATION BY POURING THE CONCRETE FOUNDATION AND SLAB.
8. ONCE FOUNDATION IS COMPLETE, BACKFILL AND FOUNDATION AND STABILIZE.

SEQUENCE IV (LIMIT OF DISTURBANCE = 2.4 AC)

SCALE: 1" = 30'

PROJECT NORTH

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1	06-15-09	SITE PLAN SUBMISSION

Sheet Title

EROSION AND SEDIMENT CONTROL PLAN - SEQUENCE II

Job No. 2007-0632	Sheet No. C-8B
Date 08-25-10	
Scale 1"=30'	
Drawn/Checked JH/AM	

SURVEYOR'S LEGEND

- EXISTING CONTOUR
- FINISHED FLOOR ELEVATION
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SITE/CIVIL LEGEND

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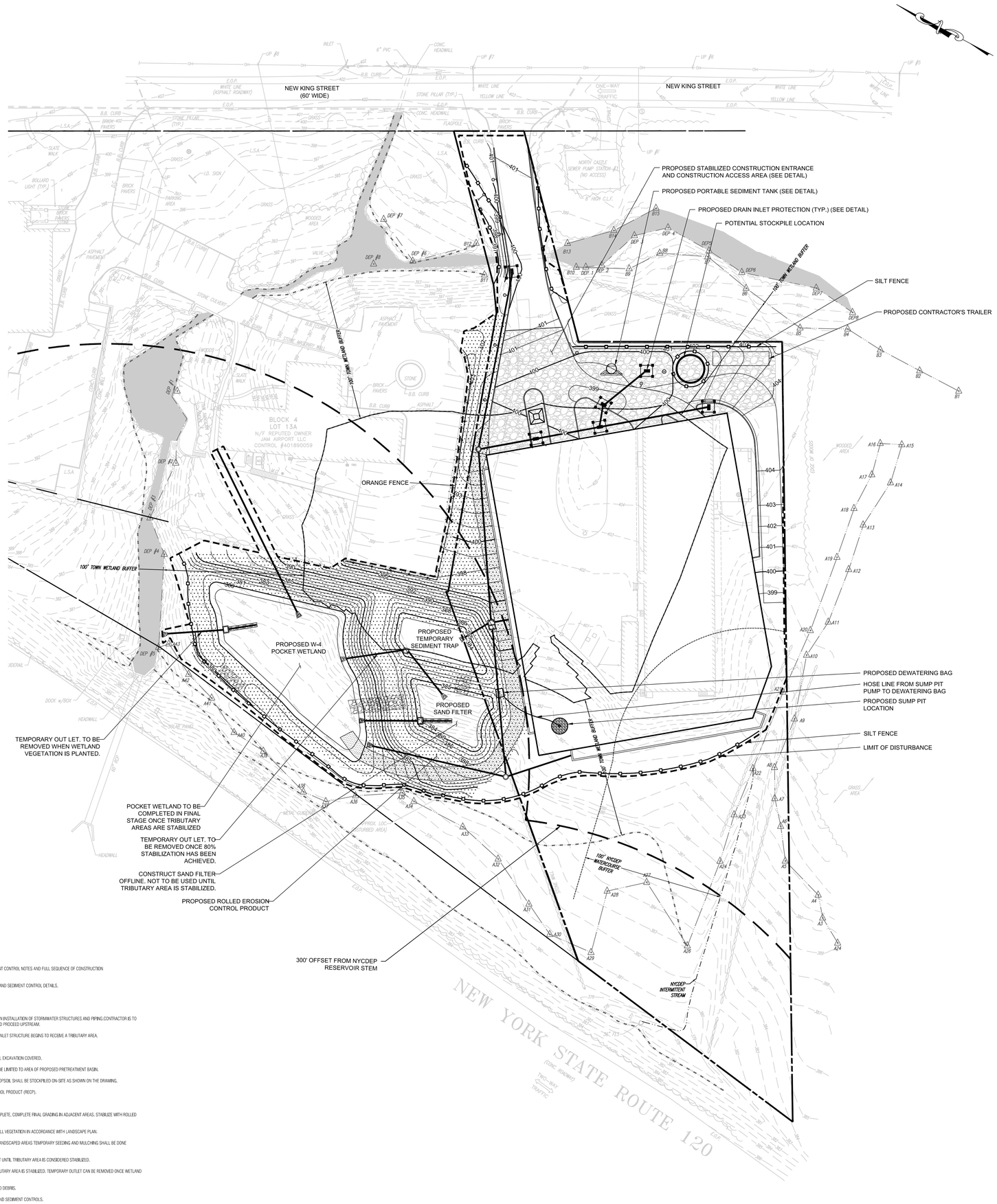

SURVEYOR'S NOTES:

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PARTIAL SEQUENCE OF CONSTRUCTION ACTIVITIES

SEQUENCE III: (LIMIT OF DISTURBANCE – 2.4 AC)

1. ONCE BUILDING EXCAVATION IS STABILIZED, BEGIN INSTALLATION OF STORMWATER STRUCTURES AND PIPING.CONTRACTOR IS TO BEGIN WITH THE DOWNSTREAM STRUCTURES AND PROCEED UPSTREAM.
2. IMMEDIATELY INSTALL INLET PROTECTION ONCE INLET STRUCTURE BEGINS TO RECEIVE A TRIBUTARY AREA.
3. INSTALL PROPOSED UTILITIES.
4. MAINTAIN SUMP PIT AND DEWATERING BAG UNTIL EXCAVATION COVERED.
5. SEQUENCE III TEMPORARY SEDIMENT TRAP CAN BE LIMITED TO AREA OF PROPOSED PRETREATMENT BASIN.
6. CLEAR AND GRUB IN AREA OF WET POND. ANY TOPSOIL SHALL BE STOCKPILED ON-SITE AS SHOWN ON THE DRAWING.
7. STABILIZE SLOPES WITH ROLLED EROSION CONTROL PRODUCT (RECP).
8. CONSTRUCT PAVED SURFACES.
9. ONCE BUILDING AND PAVED SURFACES ARE COMPLETE, COMPLETE FINAL GRADING IN ADJACENT AREAS. STABILIZE WITH ROLLED EROSION CONTROL PRODUCT.
10. COMPLETE FINAL GRADING IN BASINS AND INSTALL VEGETATION IN ACCORDANCE WITH LANDSCAPE PLAN.
11. ONCE FINAL GRADE IS ACHIEVED IN PROPOSED LANDSCAPED AREAS TEMPORARY SEEDING AND MULCHING SHALL BE DONE IMMEDIATELY.
12. INSTALL SAND FILTER OFFLINE. DO NOT CONNECT UNTIL TRIBUTARY AREA IS CONSIDERED STABILIZED.
13. POCKET WETLAND TO BE COMPLETED ONCE TRIBUTARY AREA IS STABILIZED. TEMPORARY OUTLET CAN BE REMOVED ONCE WETLAND VEGETATION IS PLANTED.
14. CLEAN ALL INLET STRUCTURES OF SEDIMENT AND DEBRIS.
15. REMOVE SILT FENCE AND REMAINING EROSION AND SEDIMENT CONTROLS.

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1	06-15-09	SITE PLAN SUBMISSION

Sheet Title

EROSION AND SEDIMENT CONTROL PLAN - SEQUENCE III

Job No. 2007-0632	Sheet No. C-8C
Date 08-25-10	
Scale 1"=30'	
Drawn/Checked JH/AM	

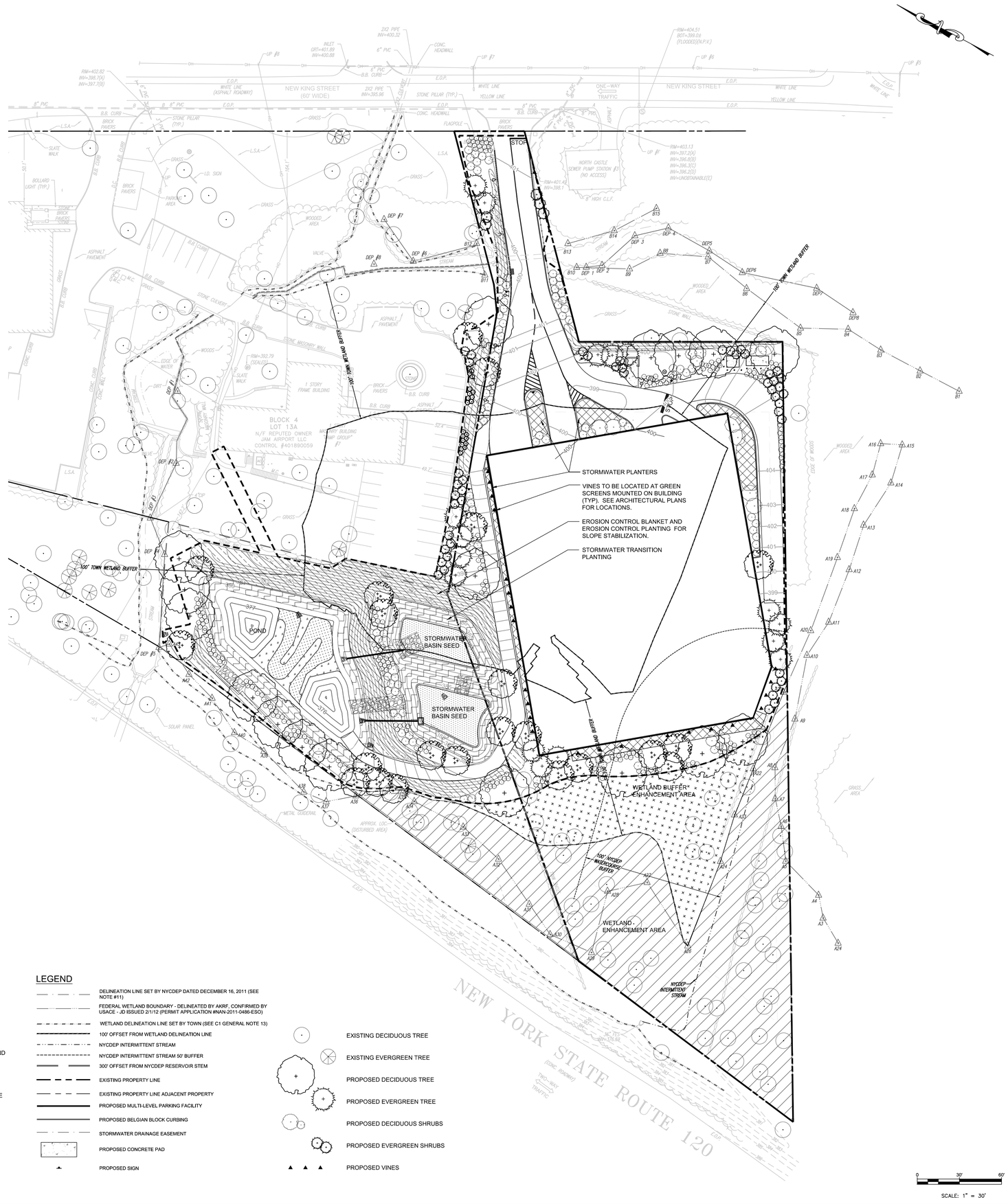
SYMBOL

PLANT LISTS

	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPACING
EROSION CONTROL PLANTING					
	Aquilegia canadensis	Wild columbine	2" plug	flat	18" O.C
	Chamaecrista fasciculata	Partridge pea	2" plug	flat	18" O.C
	Elymus virginicus	Wild Rye	N/A		seed mix
	Panicum virgatum	Switchgrass	2" plug	flat	2' O.C.
	Penstemon digitalis	White beardtongue	2" plug	flat	18" O.C
	Polystichum acrostichoides	Christmas fern	1 gal	cont	2' O.C.
	Schizachyrium scoparium	Little bluestem	2" plug	flat	2' O.C.
STORMWATER PLANTER VEGETATION					
	Carex stricta	Tussock sedge	2" plug	flat	12" O.C.
	Carex vulpinoidea	Fox sedge	2" plug	flat	6" O.C.
	Juncus effusus	Soft rush	2" plug	flat	12" O.C.
	Scirpus cyperinus	Woolgrass	2" plug	flat	12" O.C.
	Asclepias incarnata	Swamp milkweed	2" plug	flat	6" O.C.
	Scirpus americanus	Common three square	2" plug	flat	12" O.C.
	Euthamia graminifolia	Lance leaved goldenrod	2" plug	flat	12" O.C.
	Caltha palustris	Marsh marigold	2" plug	flat	6" O.C.
	Onoclea sensibilis	Sensitive fern	1 gal	cont	12" O.C.
STORMWATER BASIN SEED MIX					
	Asclepias incarnata	Swamp milkweed	N/A		seed mix
	Carex stricta	Tussock sedge	N/A		seed mix
	Carex vulpinoidea	Fox sedge	N/A		seed mix
	Elymus virginicus	Virginia Wild Rye	N/A		seed mix
	Euthamia graminifolia	Lance leaved goldenrod	N/A		seed mix
	Glyceria striata	Fowl mannagrass	N/A		seed mix
	Juncus effusus	Soft rush	N/A		seed mix
	Panicum virgatum	Switchgrass	N/A		seed mix
	Scirpus americanus	Common three square	N/A		seed mix
	Scirpus cyperinus	Woolgrass	N/A		seed mix
STORMWATER TRANSITION PLANTING					
	Asclepias incarnata	Swamp milkweed	2" plug	flat	6" O.C.
	Penstemon digitalis	White beardtongue	2" plug	flat	6" O.C.
	Iris versicolor	Blue flag iris	2" plug	flat	6" O.C.
	Potentilla fructicosa	Bushy cincfoil	2" plug	flat	6" O.C.
WETLAND ENHANCEMENT AREA PLANT LIST					
	Trees				
	Quercus bicolor	Swamp white oak	2" cal	bareroot	20' O.C.
	Shrubs				
	Alnus serrulata	Smooth alder	3gal	cont	4'-0" O.C.
	Cornus stolonifera	Redosier dogwood	3 gal	cont	4'-0" O.C.
	Ilex verticillata	Winterberry	3gal	cont	4'-0" O.C.
	Rhododendron viscosum	Swamp azalea	3 gal	cont	4'-0" O.C.
	Perennials, Grasses, Ferns				
	Asclepias incarnata	Swamp milkweed	2" plug	flat	12" O.C.
	Carex stricta	Tussock sedge	2" plug	flat	12" O.C.
	Carex vulpinoidea	Fox sedge	2" plug	flat	6" O.C.
	Glyceria pallida	Pale false mannagrass	2" plug	flat	12" O.C.
	Juncus effusus	Soft rush	2" plug	flat	12" O.C.
	Onoclea sensibilis	Sensitive fern	1 gal	cont	12" O.C.
	Scirpus americanus	Common three square	2" plug	flat	12" O.C.
	Scirpus cyperinus	Woolgrass	2" plug	flat	12" O.C.
WETLAND BUFFER ENHANCEMENT AREA PLANT LIST					
	Trees				
	Acer rubrum	Red maple	2" cal	B&B	20' -0" O.C.
	Betula alleghaniensis	Yellow birch	10' -12' ht	B&B	15'-0" O.C.
	Betula nigra	River birch	10' -12' ht	B&B	15'-0" O.C.
	Liquidambar styraciflua	Sweetgum	2" cal	B&B	20' -0" O.C.
	Quercus palustris	Pin oak	2" cal	B&B	20' -0" O.C.
	Shrubs				
	Aronia arbutifolia	Red chokeberry	3 gal	cont	4'-0" O.C.
	Clethra alnifolia	Sweet pepperbush	3 gal	cont	4'-0" O.C.
	Cornus amomum	Silky dogwood	3 gal	cont	4'-0" O.C.
	Cornus racemosa	Red- pinicled dogwood	3 gal	cont	4'-0" O.C.
	Lindera benzoin	Spicebush	3 gal	cont	5'-0" O.C.
	Viburnum dentatum	Arrowwood	3 gal	cont	5'-0" O.C.
	Sambucus canadensis	Elderberry	3 gal	cont	4'-0" O.C.
	Vaccinium corymbosom	Highbush blueberry	3 gal	cont	5'-0" O.C.
	Viburnum lentago	Nannyberry	3 gal	cont	5'-0" O.C.
	Myrica pensylvanica	Bayberry	3 gal	cont	5'-0" O.C.
	Perennials, Grasses, Ferns				
	Euthamia graminifolia	Lance leaved goldenrod	2" plug	flat	12" O.C.
	Panicum virgatum	Switchgrass	2" plug	flat	12" O.C.
	Solidago gigantea	giant goldenrod	2" plug	flat	12" O.C.
	Thelypteris noveboracensis	New York fern	1 gal	cont	12" O.C.
UPLAND PLANTING LIST					
	Trees				
	Amelanchier canadensis	Serviceberry	4' - 5'	B&B	as shown
	Cornus florida	Flowering dogwood	4' - 5'	B&B	as shown
	Crataegus phenopyram	Washington hawthorn	4' - 5'	B&B	as shown
	Juniperus virginiana	Eastern red cedar	5' - 6'	B&B	as shown
	Pinus strobus	Eastern white pine	5' - 6'	B&B	as shown
	Liquidambar styraciflua	Sweetgum	2" cal	B&B	as shown
	Shrubs				
	Alnus serrulata	Smooth alder	3' to 4' ht	cont	5'-0" O.C.
	Aronia arbutifolia	Red chokeberry	3' to 4' ht	cont	4'-0" O.C.
	Cornus stolonifera	Redosier dogwood	3' to 4' ht	cont	5'-0" O.C.
	Ilex verticillata	Winterberry	24 to 30" ht	cont	4'-0" O.C.
	Myrica pensylvanica	Northern bayberry	3' to 4' ht	cont	5'-0" O.C.
	Rhododendron viscosum	Swamp azalea	24 to 30" ht	cont	5'-0" O.C.
	Rhus aromatica	Fragrant sumac	3' to 4' ht	cont	5'-0" O.C.
	Viburnum acerifolium	Mapleleaf viburnum	3' to 4' ht	cont	5'-0" O.C.
	Viburnum dentatum	Arrowwood	3' to 4' ht	cont	5'-0" O.C.
	Viburnum lentago	Nannyberry	3' to 4' ht	cont	5'-0" O.C.
	Perennials, Grasses, Ferns, Vines				
	Asarum canadense	Wild ginger	2" plug	flat	18" O.C
	Asclepias incarnata	Swamp milkweed	2" plug	flat	6" O.C.
	Campsis radicans	Trumpet Vine	3 gal	cont	3' O.C.
	Euthamia graminifolia	Lance leaved goldenrod	2" plug	flat	12" O.C.
	Onoclea sensibilis	Sensitive fern	1 gal	cont	3' O.C.
	Pachysandra procumbens	Allegheny spurge	2" plug	flat	12" O.C
	Panicum virgatum	Switchgrass	2" plug	flat	12" O.C.
	Parthenocissus quinquefolia	Virginia creeper	1 gal	cont	3' O.C.
	Phlox divaricatus	Creeping phlox	2" plug	flat	18" O.C
	Polystichum acrosticoides	Christmas fern	1 gal	cont	3' O.C.
	Solidago gigantea	giant goldenrod	2" plug	flat	12" O.C.
	Thelypteris noveboracensis	New York fern	1 gal	cont	12" O.C.

PLANT MATERIALS NOTES

1. ALL TREES AND SHRUBS SHALL BE DUG IMMEDIATELY BEFORE MOVING. ALL TREES SHALL BE DUG TO RETAIN AS MANY FIBROUS ROOTS AS POSSIBLE. BALLED AND BURLAPPED TREES SHALL HAVE A SOLID BALL OF EARTH OF THE MINIMUM SPECIFIED SIZE (28"), SECURELY HELD IN PLACE BY UNTREATED BURLAP AND STOUT ROPE. SIZE AND GRADING STANDARDS SHALL CONFORM TO THOSE OF THE AMERICAN ASSOCIATION OF NURSERYMEN AMERICAN STANDARDS FOR NURSERY STOCK, 1996 EDITION, UNLESS OTHERWISE SPECIFIED.
2. ALL TREES SHALL BE TYPICAL OF THEIR SPECIES OR CULTIVAR. THEY SHALL HAVE NORMAL, WELL DEVELOPED BRANCHES AND A FIBROUS ROOT SYSTEM. THEY SHALL BE SOUND, HEALTHY, VIGOROUS TREES, FREE FROM DEFECTS, DISFIGURING KNOTS, SUNSCALD, INJURIES, ABRASIONS OF THE BARK, PLANT DISEASES, INSECT EGGS, BORERS AND ALL FORMS OF INFESTATIONS. ALL TREES SHALL HAVE A SINGLE, STRAIGHT TRUNK AND BE BRANCHED AT LEAST FIVE FEET FROM THE GROUND OR SPECIES WHICH TYPICALLY HAVE A LEADER, THE LEADER SHALL BE INTACT.
3. NO PLANT SUBSTITUTIONS WILL BE ACCEPTABLE UNLESS APPROVED BY THE PROJECT LANDSCAPE ARCHITECT OR, THE CONSULTING ARBORIST.THE PROJECT LANDSCAPE ARCHITECT OR THE CONSULTING ARBORIST SHALL INSPECT PLANT MATERIAL FOR ACCEPTANCE PRIOR TO PLANTING.
4. TREE STAKING, GUY WIRES AND WRAP SHALL NOT BE USE UNLESS DIRECTED BY THE PROJECT LANDSCAPE ARCHITECT OR PROJECT ARBORIST IN THE FIELD. IF USED, ALL TREE STAKING, GUY WIRES AND WRAP SHALL BE REMOVED PRIOR TO FINAL ACCEPTANCE AND NO LONGER THAN ONE (1) YEAR AFTER PLANTING.
5. REFER TO THE "WETLAND AND WETLAND BUFFER ENHANCEMENT PLAN GUIDANCE DOCUMENT FOR ALL PLANTING TO BE PERFORMED IN THE WETLAND ENHANCEMENT AREA AND THE WETLAND BUFFER ENHANCEMENT AREA



LEGEND

- DELINEATION LINE SET BY NYCDEP DATED DECEMBER 16, 2011 (SEE NOTE #11)
- FEDERAL WETLAND BOUNDARY - DELINEATED BY AKRF, CONFIRMED BY USACE - JD ISSUED 2/1/12 (PERMIT APPLICATION #NAN-2011-0486-ESO)
- WETLAND DELINEATION LINE SET BY TOWN (SEE C1 GENERAL NOTE 13)
- 100' OFFSET FROM WETLAND DELINEATION LINE
- NYCDEP INTERMITTENT STREAM
- NYCDEP INTERMITTENT STREAM 50' BUFFER
- 300' OFFSET FROM NYCDEP RESERVOIR STEM
- EXISTING PROPERTY LINE
- EXISTING PROPERTY LINE ADJACENT PROPERTY
- PROPOSED MULTI-LEVEL PARKING FACILITY
- PROPOSED BELGIAN BLOCK CURBING
- STORMWATER DRAINAGE EASEMENT
- PROPOSED CONCRETE PAD
- PROPOSED SIGN
- EXISTING DECIDUOUS TREE
- EXISTING EVERGREEN TREE
- PROPOSED DECIDUOUS TREE
- PROPOSED EVERGREEN TREE
- PROPOSED DECIDUOUS SHRUBS
- PROPOSED EVERGREEN SHRUBS
- PROPOSED VINES

0 30' 60'

SCALE: 1" = 30'

PROJECT NORTH

PARK PLACE

11 New King Street

Town of North Castle, New York

11 New King Street LLC
11 New King Street,
White Plains, NY
10604

KG&D architects
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FEIS SUBMISSION

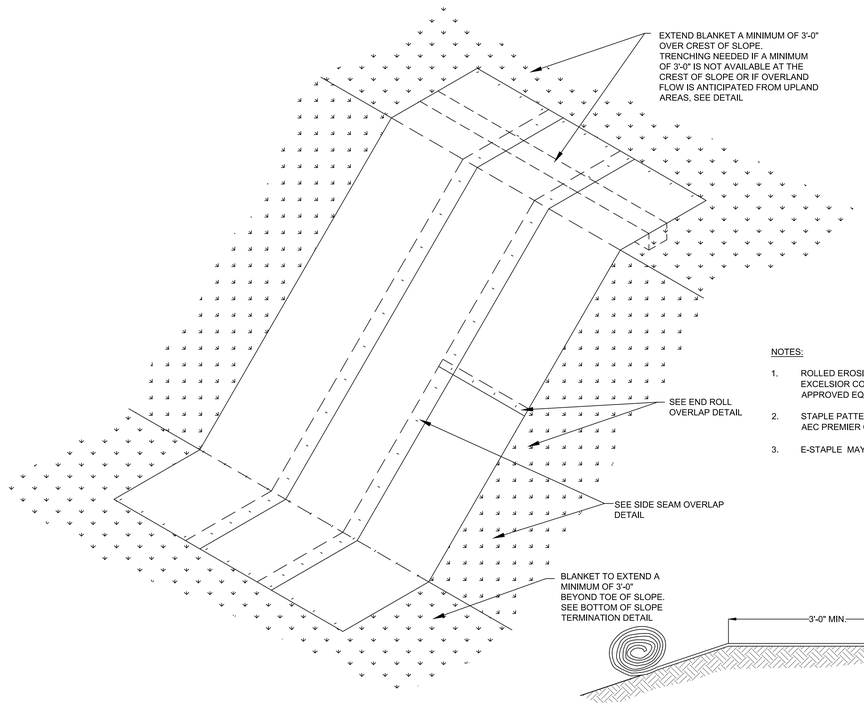
NEW YORK STATE EDUCATION LAW 145, SECTION 7209, PROHIBITS ANY INDIVIDUAL FROM ALTERING THESE DRAWINGS AND/OR ACCOMPANYING SPECIFICATIONS IN ANY WAY, UNLESS IT IS UNDER THE DIRECT SUPERVISION AND PERSONAL OBSERVATION OF A LICENSED ARCHITECT. IF ANY ITEM IS ALTERED ENGINEER MUST SIGN, SEAL, DATE, AND DESCRIBE THE FULL DESCRIPTION OF THE ALTERATION ON THE DRAWING AND/OR SPECIFICATIONS

No.	Date	Issue
8	12-18-15	REVISED PER DEP COMMENTS
7	11-20-14	KSC COMMENTS OF 11/20/14
6	10-15-14	FEIS SUBMISSION
5	05-30-14	FEIS SUBMISSION
4	08-21-11	REVISION PER DEIS COMMENTS
3	01-24-11	REVISION PER DEIS COMMENTS
2	10-26-10	DEIS SUBMISSION
1	06-15-09	SITE PLAN SUBMISSION

Sheet Title

LANDSCAPE PLAN

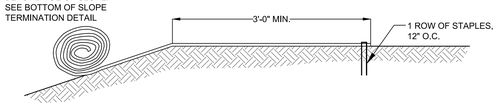
Job No. 2007-0632	Sheet No. C-9
Date 08-25-10	
Scale 1"=30'	
Drawn/Checked	



NOTES:

1. ROLLED EROSION CONTROL BLANKET (RECB) TO BE AMERICAN EXCELSIOR COMPANY (AEC) PREMIER COCONUT ECD OR APPROVED EQUAL.
2. STAPLE PATTERNS ARE DEPENDENT ON SITE CONDITIONS. SEE AEC PREMIER COCONUT STAPLE PATTERN GUIDE FOR DETAILS.
3. E-STAPLE MAY BE USED IN PLACE OF WIRE STAPLES.

ROLLED EROSION CONTROL BLANKET
N.T.S.



SLOPE TRENCH METHOD "A" (NO TRENCH)
N.T.S.

DO NOT NEED TO TRENCH BLANKET IN IF IT CAN BE EXTENDED A MINIMUM OF 3'-0" OVER THE CREST OF THE SLOPE.

SEEDING:

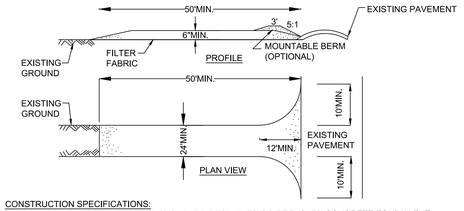
TIME	TYP	QUANTITY
SPRING/SUMMER/ EARLY FALL	RYEGRASS (ANNUAL OR PERENNIAL)	30 LBS. PER ACRE (1 LB./1000 SF)
LATE FALL/ EARLY WINTER	CERTIFIED 'AROOSTOOK' WINTER RYE (CEREAL RYE)	100 LBS. PER ACRE (2.5 LBS. /1000 S.F.)

MULCHING:

TIME	TYP	QUANTITY
ANY SEEDING TIME	HAY OR STRAW	2 TONS PER ACRE (90 LBS. PER 1000 S.F.)

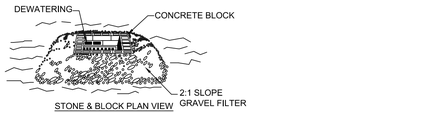
DETAIL NOTES:
1. AREAS WHERE WIND AND CONCENTRATED WATER ARE CONCERNS WILL REQUIRE MULCH ANCHORING
2. PRODUCTS TO BE USED FOR MULCH ANCHORING ARE WOOD FIBER HYDROMULCH OR OTHER SPRAYABLE PRODUCTS APPROVED FOR EROSION CONTROL
3. RECP MAY BE USED IN LIEU OF MULCHING

TEMPORARY SEEDING AND MULCHING SCHEDULE
N.T.S.

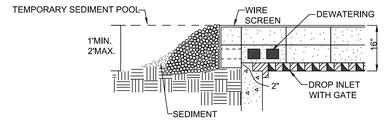


CONSTRUCTION SPECIFICATIONS:
1. STONE SIZE - USE 1-4 INCHES STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER FABRIC - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED EVERY 7 CALENDAR DAYS AND AFTER EACH RAINFALL EVENT.

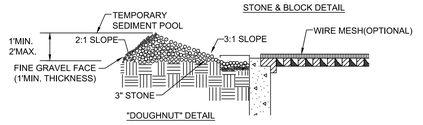
STABILIZED CONSTRUCTION ENTRANCE/EXIT
N.T.S.



STONE & BLOCK PLAN VIEW



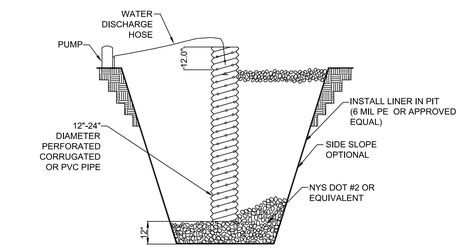
STONE & BLOCK DETAIL



"DOUGHNUT" DETAIL

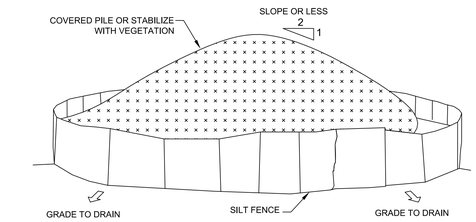
DETAIL NOTES:
1. THIS INLET PROTECTION STRUCTURE IS ONLY TO BE USED IN AREAS WHERE PAVEMENT HAS YET TO BE STABILIZED.
2. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE FOR DEWATERING. FOUNDATION SHALL BE 2 INCHES MINIMUM BELOW REST OF INLET AND BLOCKS SHALL BE PLACED AGAINST INLET FOR SUPPORT.
3. HARDWARE CLOTH OR 1/2" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.
4. USE CLEAN STONE OR GRAVEL 1/2-3/4 INCH IN DIAMETER PLACED 2 INCHES BELOW TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER.
5. FOR STONE STRUCTURES ONLY, A 1 FOOT THICK LAYER OF THE FILTER STONE WILL BE PLACED AGAINST THE 3 INCH STONE AS SHOWN ON THE DRAWINGS. 6 MAXIMUM DRAINAGE AREA 1 ACRE

STONE AND BLOCK DROP INLET PROTECTION
N.T.S. ADAPTED FROM: NYSDEC STANDARDS & SPECIFICATIONS FOR EROSION & SEDIMENT CONTROL



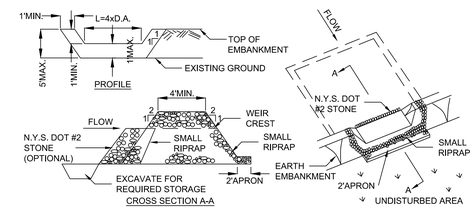
CONSTRUCTION SPECIFICATIONS
1. SUMP PIT TO BE USED IN COORDINATION WITH ANTI-TRACKING/DECONTAMINATION PAD. PIT DIMENSIONS ARE OPTIONAL.
2. THE STANDPIPE SHOULD BE CONSTRUCTED BY PERFORATING A 12-24" DIAMETER CORRUGATED OR PVC PIPE.
3. A BASE OF 2" AGGREGATE SHOULD BE PLACED IN THE PIT TO A DEPTH OF 12". AFTER INSTALLING THE STANDPIPE, THE PIT SURROUNDING THE STANDPIPE SHOULD BE BACKFILLED WITH 2" AGGREGATE.
4. THE STANDPIPE SHOULD EXTEND 12-18" ABOVE THE LIP OF THE PIT.
5. WATER TO BE PLACED IN DOT APPROVED CONATINER FOR OFF SITE DISPOSAL.

SUMP PIT
N.T.S.



CONSTRUCTION SPECIFICATIONS
1. THIS DETAIL IS TO BE USED ONLY FOR CLEAN, TESTED MATERIAL STOCKPILING.
2. AREA CHOSEN FOR SOIL STOCKPILE SHALL BE DRY AND STABLE
3. MAXIMUM SLOPE OF SOIL STOCKPILE SHALL BE 2:1
4. PRIOR TO DISTURBING FILL MATERIAL, EACH PILE SHALL BE SURROUNDED BY SILT FENCING.
5. UPON COMPLETION OF FILL MATERIAL GRADING, EACH PILE SHALL BE COVERED OR STABILIZED WITH VEGETATION.
6. SEGREGATE CERTIFIED CLEAN MATERIALS FROM OTHER MATERIALS WHEN STOCKPILING.

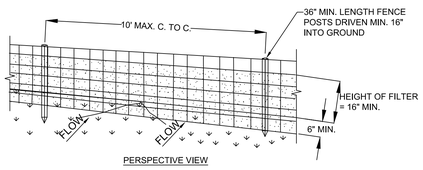
SOIL STOCKPILE DETAIL
N.T.S.



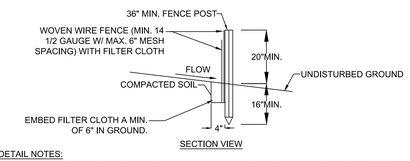
OPTION: A ONE FOOT LAYER OF N.Y.S. DOT #2 STONE MAY BE PLACED ON THE UPSTREAM SIDE OF THE RIPRAP INPLACE OF THE EMBEDDED FILTER CLOTH.

1. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS AND OTHER WOODY VEGETATION AS WELL AS OVER-SIZED STONES, ROCKS, ORGANIC MATERIAL OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
2. THE STONE USED IN THE OUTLET SHALL BE SMALL RIPRAP 4"-8" ALONG WITH A 1' THICKNESS OF 2" AGGREGATE PLACED ON THE UP-GRADE SIDE ON THE SMALL RIPRAP OR EMBEDDED FILTER CLOTH IN THE RIPRAP.
3. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH.
4. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
5. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION IS MINIMIZED.

STONE OUTLET SEDIMENT TRAP (ST-IV)
N.T.S.



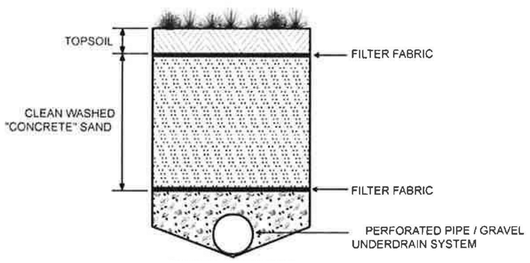
PERSPECTIVE VIEW



SECTION VIEW

DETAIL NOTES:
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
2. FILTER CLOTH TO BE TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

SILT FENCE
N.T.S.



SAND FILTER TYPICAL SECTION
N.T.S.

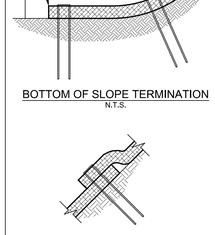
PLAN

SECTION A-A

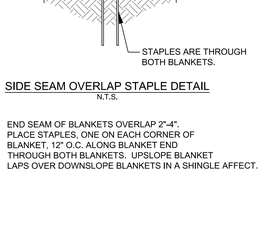
CONSTRUCTION SPECIFICATIONS

1. LOCATE WASHOUT STRUCTURE A MINIMUM OF 50 FEET AWAY FROM OPEN CHANNELS, STORM DRAIN INLETS, SENSITIVE AREAS, WETLANDS, BUFFERS AND WATER COURSES AND AWAY FROM CONSTRUCTION TRAFFIC.
2. SIZE WASHOUT STRUCTURE FOR VOLUME NECESSARY TO CONTAIN WASH WATER AND SOLIDS AND MAINTAIN AT LEAST 4 INCHES OF FREEBOARD. TYPICAL DIMENSIONS ARE 10 FEET X 10 FEET X 3 FEET DEEP.
3. PREPARE SOIL BASE FREE OF ROCKS OR OTHER DEBRIS THAT MAY CAUSE TEARS OR HOLES IN THE LINER. FOR LINER, USE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING, FREE OF HOLES AND TEARS OR OTHER DEFECTS THAT COMPROMISE IMPERMEABILITY OF THE MATERIAL.
4. PROVIDE A SIGN FOR THE WASHOUT IN CLOSE PROXIMITY TO THE FACILITY.
5. KEEP CONCRETE WASHOUT STRUCTURE WATER TIGHT. REPLACE IMPERMEABLE LINER IF DAMAGED (E.G., RIPPED OR PUNCTURED). EMPTY OR REPLACE WASHOUT STRUCTURE THAT IS 75 PERCENT FULL, AND DISPOSE OF ACCUMULATED MATERIAL PROPERLY. DO NOT REUSE PLASTIC LINER. WET-VACUUM STORED LIQUIDS THAT HAVE NOT EVAPORATED AND DISPOSE OF IN AN APPROVED MANNER. PRIOR TO FORECASTED RAINSTORMS, REMOVE LIQUIDS OR COVER STRUCTURE TO PREVENT OVERFLOWS. REMOVE HARDENED SOLIDS, WHOLE OR BROKEN UP, FOR DISPOSAL OR RECYCLING. MAINTAIN RUNOFF DIVERSION AROUND EXCAVATED WASHOUT STRUCTURE UNTIL STRUCTURE IS REMOVED.

EXCAVATED CONCRETE WASHOUT STATION
N.T.S.



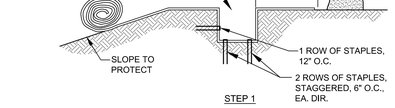
BOTTOM OF SLOPE TERMINATION
N.T.S.



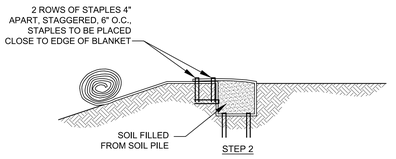
SIDE SEAM OVERLAP STAPLE DETAIL
N.T.S.

END SEAM OF BLANKETS OVERLAP 2"-4". PLACE STAPLES, ONE ON EACH CORNER OF BLANKET, 12" O.C. ALONG BLANKET END THROUGH BOTH BLANKETS. UPSLOPE BLANKET LAPS OVER DOWNSLOPE BLANKETS IN A SHINGLE AFFECT.

END ROLL OVERLAP
N.T.S.

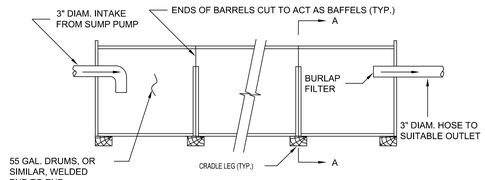


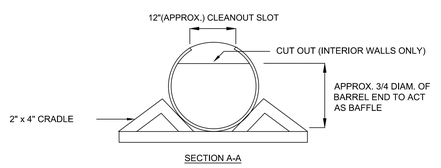
STEP 1



STEP 2

SLOPE TRENCH METHOD "C"
N.T.S.





SECTION A-A

CONSTRUCTION SPECIFICATIONS

1. CLEAN OUT THE SEDIMENT TANK WHEN ONE THIRD (1/3) FILLED WITH SILT.
2. STEEL DRUMS ARE USED AS AN EXAMPLE DUE TO THEIR READY AVAILABILITY. ANY TANKS MAY BE USED, PROVIDING THAT THE VOLUME REQUIREMENTS ARE MET.
3. ALL SEDIMENT COLLECTED IN THE TANK SHALL BE DISPOSED OF IN A SEDIMENT TRAPPING DEVICE OR AS APPROVED BY THE INSPECTOR.

PORTABLE SEDIMENT TANK
N.T.S. - ADAPTED FROM: NYSDEC STANDARDS & SPECIFICATIONS FOR EROSION & SEDIMENT CONTROL

PARK PLACE

11 New King Street

Town of North Castle, New York

11 New King Street LLC
11 New King Street,
White Plains, NY
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KG&D architects
kaeyer, garment & davidson architects, pc
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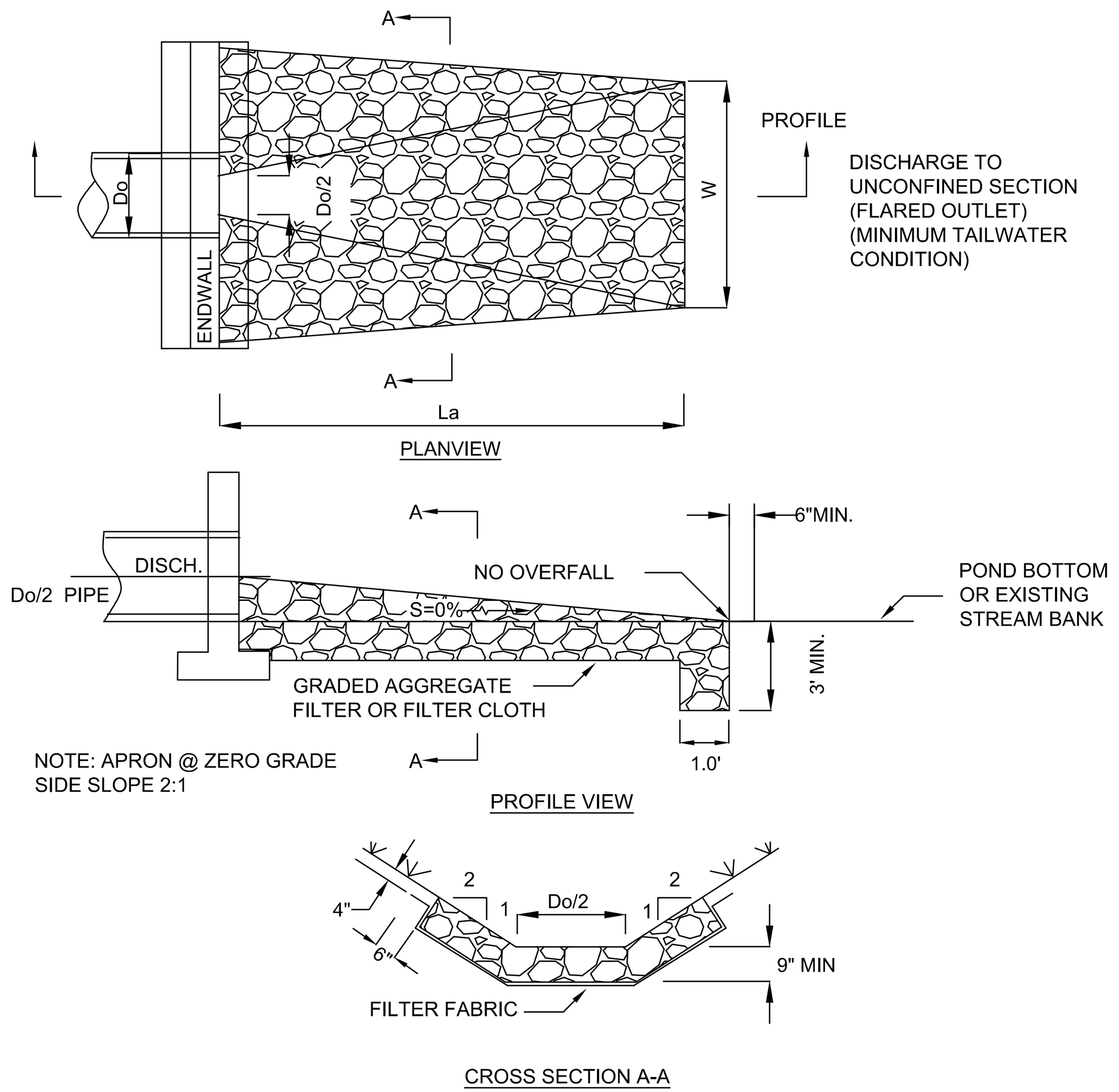
FEIS SUBMISSION

No.	Date	Issue
7	12-18-15	REVISED PER DEP COMMENTS
6	10-15-14	FEIS SUBMISSION
5	05-30-14	FEIS SUBMISSION
4	08-21-11	REVISION PER DEIS COMMENTS
3	01-24-11	REVISION PER DEIS COMMENTS
2	10-26-10	DEIS SUBMISSION
1	06-15-09	SITE PLAN SUBMISSION

Sheet Title

STANDARD DETAILS I

Job No. 2007-0632	Sheet No. C-10
Date 08-25-10	
Scale As Shown	
Drawn/Checked JH/AM	

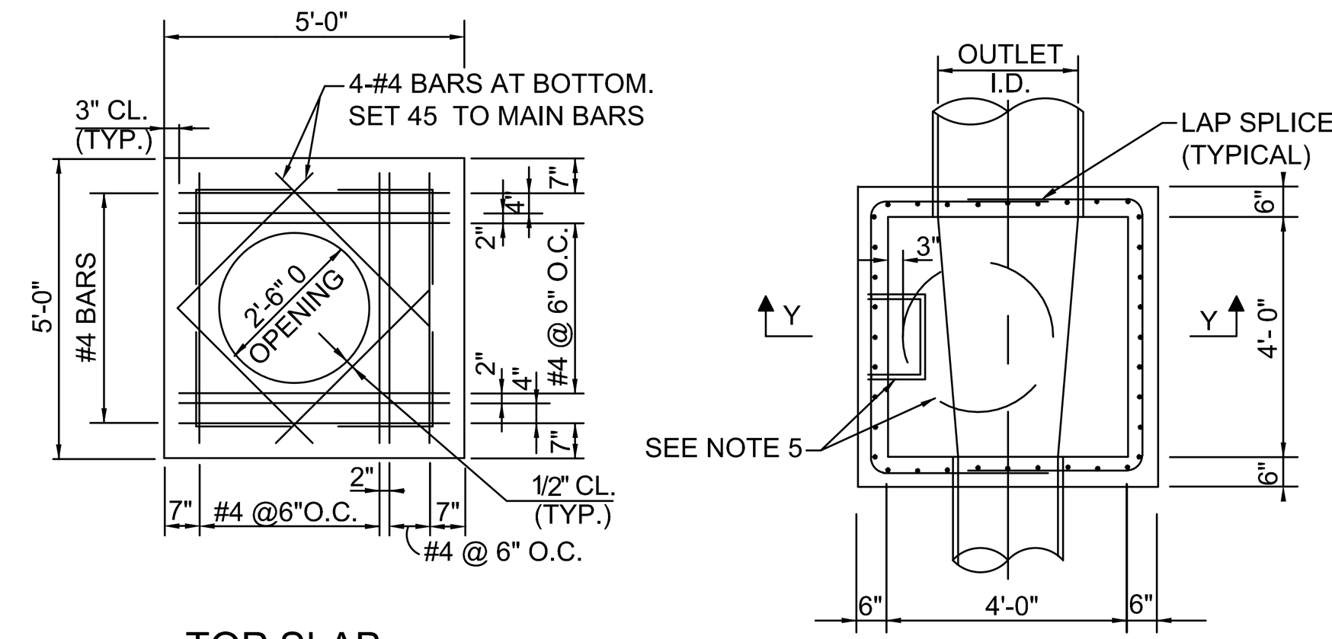


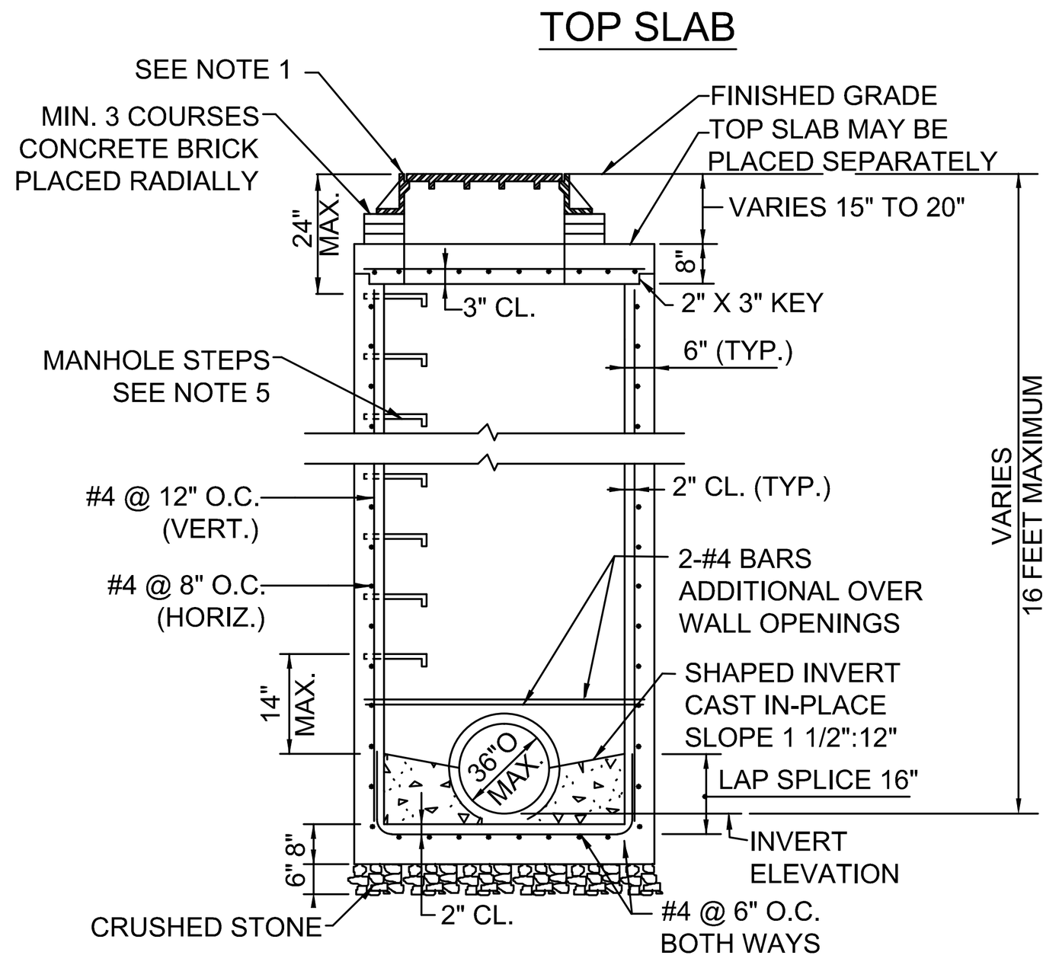
END SECTION		Do (IN)	d50 (IN)	La (FT)	W (FT)
1	TO SEDIMENT BASIN	12	4	8	9
2	TO SAND FILTER	12	4	8	9
3	TO POCKET WETLAND (FROM DIVERSION STRUCTURE)	24	4	10	12
4	TO POCKET WETLAND (FROM SAND FILTER)	10	4	8	9
5	TO STREAM	12	4	12	13

NOTES:
1. FILTER FABRIC MAY BE WOVEN OR NON WOVEN GEOTEXTILE FABRIC WITH A THICKNESS BETWEEN 20-60 MILS, GRAB STRENGTH 90-120 LBS, AND SHALL CONFORM TO ASTM D-1777 AND ASTM D-1582.

RIP RAP OUTLET PROTECTION

N.T.S. - ADAPTED FROM: NYSDEC STANDARDS & SPECIFICATIONS FOR EROSION & SEDIMENT CONTROL

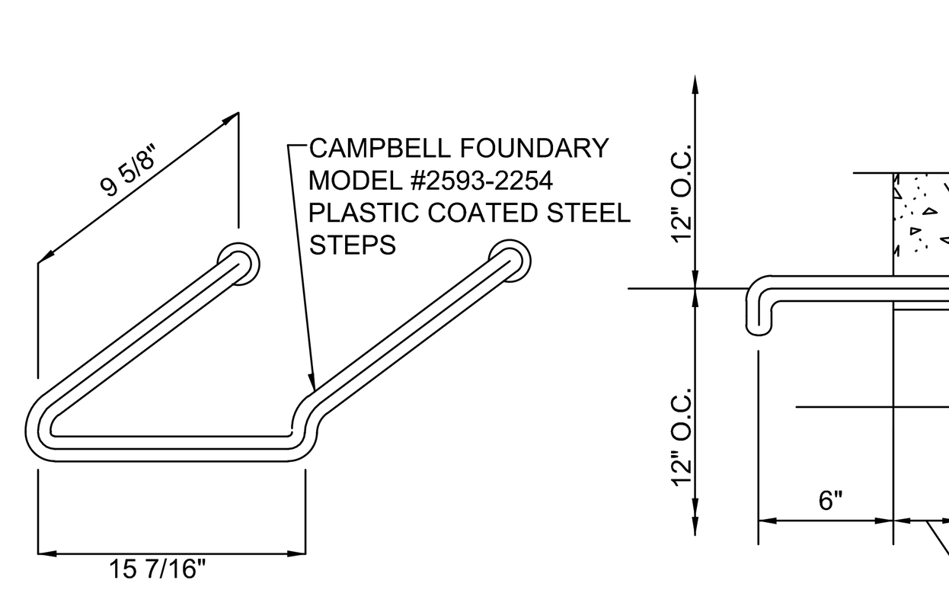




NOTES:
1. FRAME AND COVER SHALL BE CAMPBELL FOUNDRY CATALOG NO. 1012B OR APPROVED EQUAL, FOR SANITARY SEWER MANHOLE FURNISH VENTED COVER AND CAST ALUMINUM SILT BUCKET.
2. OPENINGS IN WALLS FOR PIPE SHALL BE CAST-IN OR CUT CLEANLY WITHOUT PERCUSSION TO MAXIMUM DIAMETER OF O.D. + 3". THE SPACE BETWEEN PIPE AND WALL SHALL THEN BE FILLED WITH GROUT, OR AN APPROVED JOINT IN- SERT ASSEMBLY.
3. FOR MANHOLE STEPS, SEE MANHOLE STEP DETAIL.
4. WHEN LIFTING THE PRE-CAST MANHOLE, A BAR SHALL BE PLACE HORIZONTALLY THROUGH LIFTING HOLES, PROVIDED AT THE TIME OF MANUFACTURE. THE LIFTING DEVICES SHALL BE PLACED ONLY ON THAT BAR. THE BAR AND HOLES SHALL BE AS APPROVED BY THE ENGINEER. THE BAR HOLES SHALL BE FILLED WITH GROUT AFTER MANHOLE IS IN POSITION.
5. LOCATE MANHOLE STEPS AND ACCESS ADJACENT TO WALL WITHOUT ANY PIPE OPENINGS. IF ALL WALLS CONTAIN PIPE OPENINGS, SELECT THE WALL WHICH HAS THE LARGEST AREA AVAILABLE FOR MANHOLE STEP INSTALLATION.

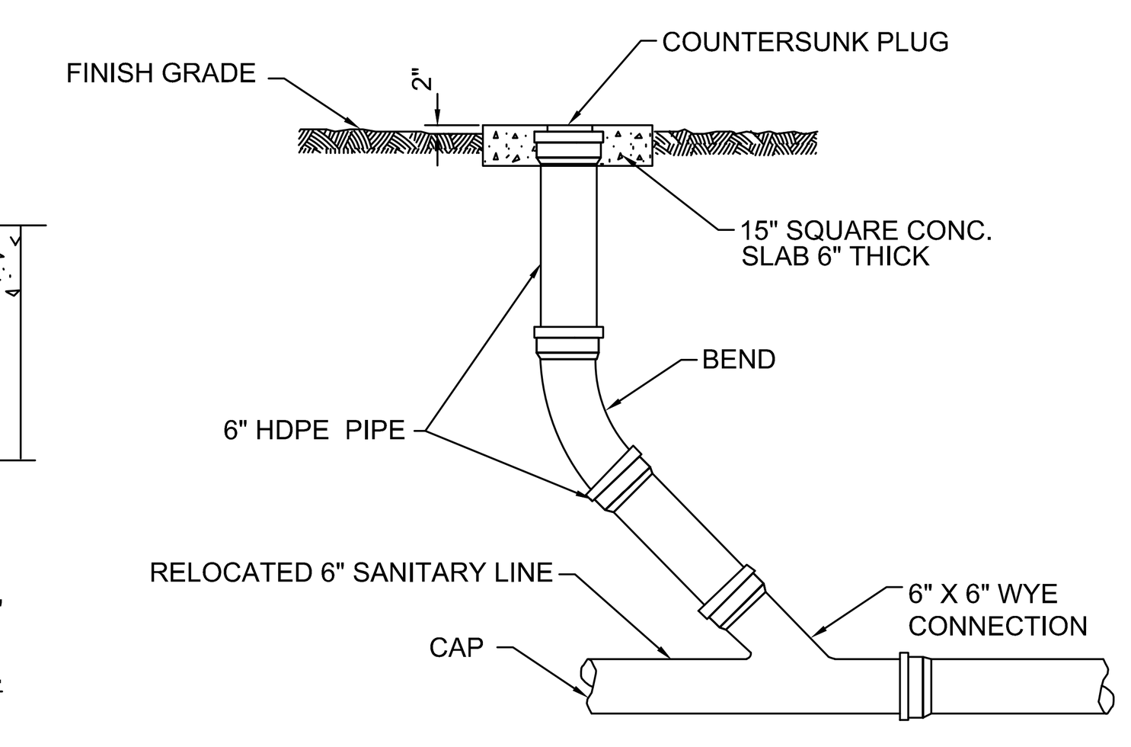
PRECAST MANHOLE DETAIL

N.T.S.



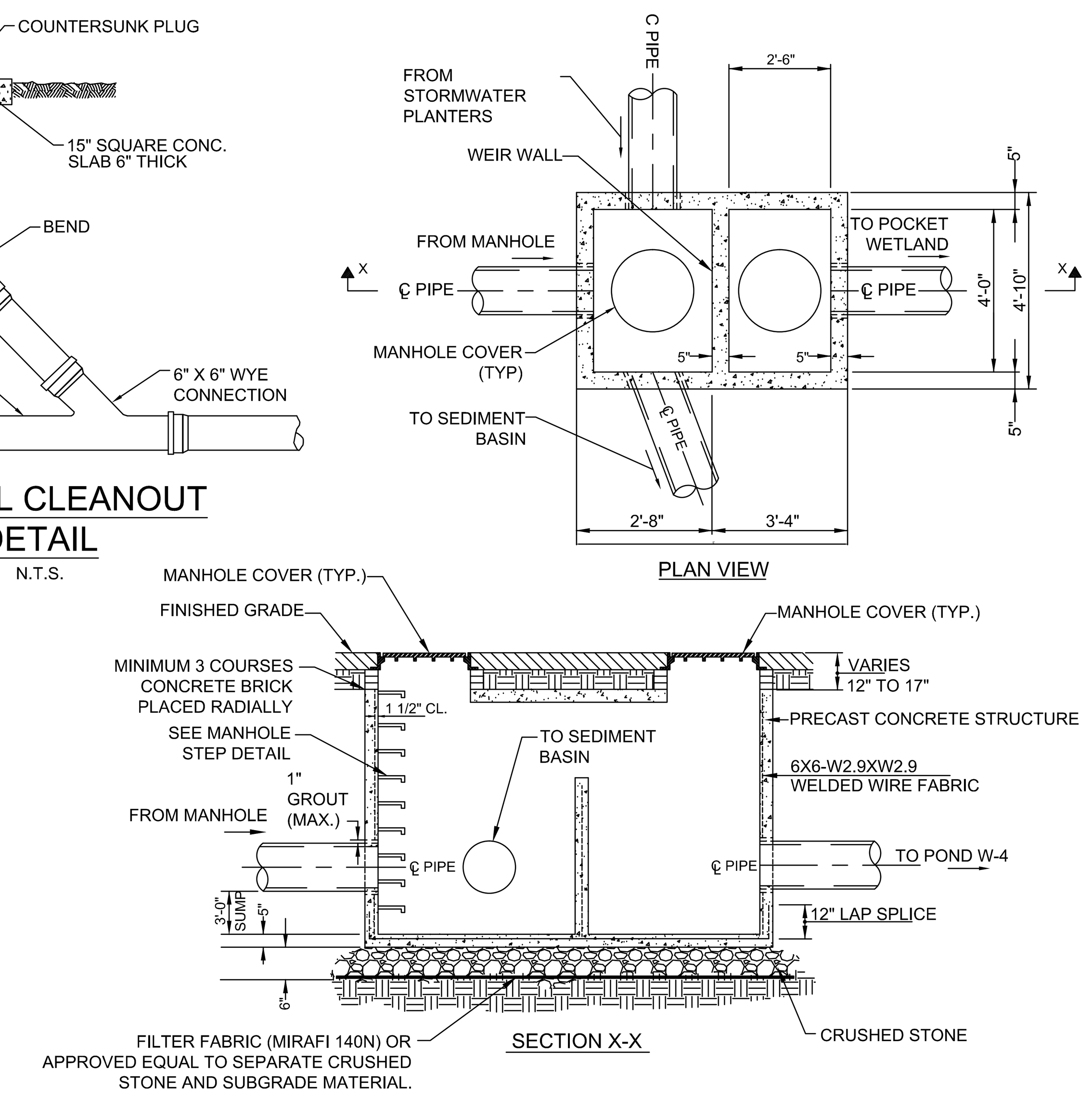
MANHOLE STEP DETAIL

N.T.S.



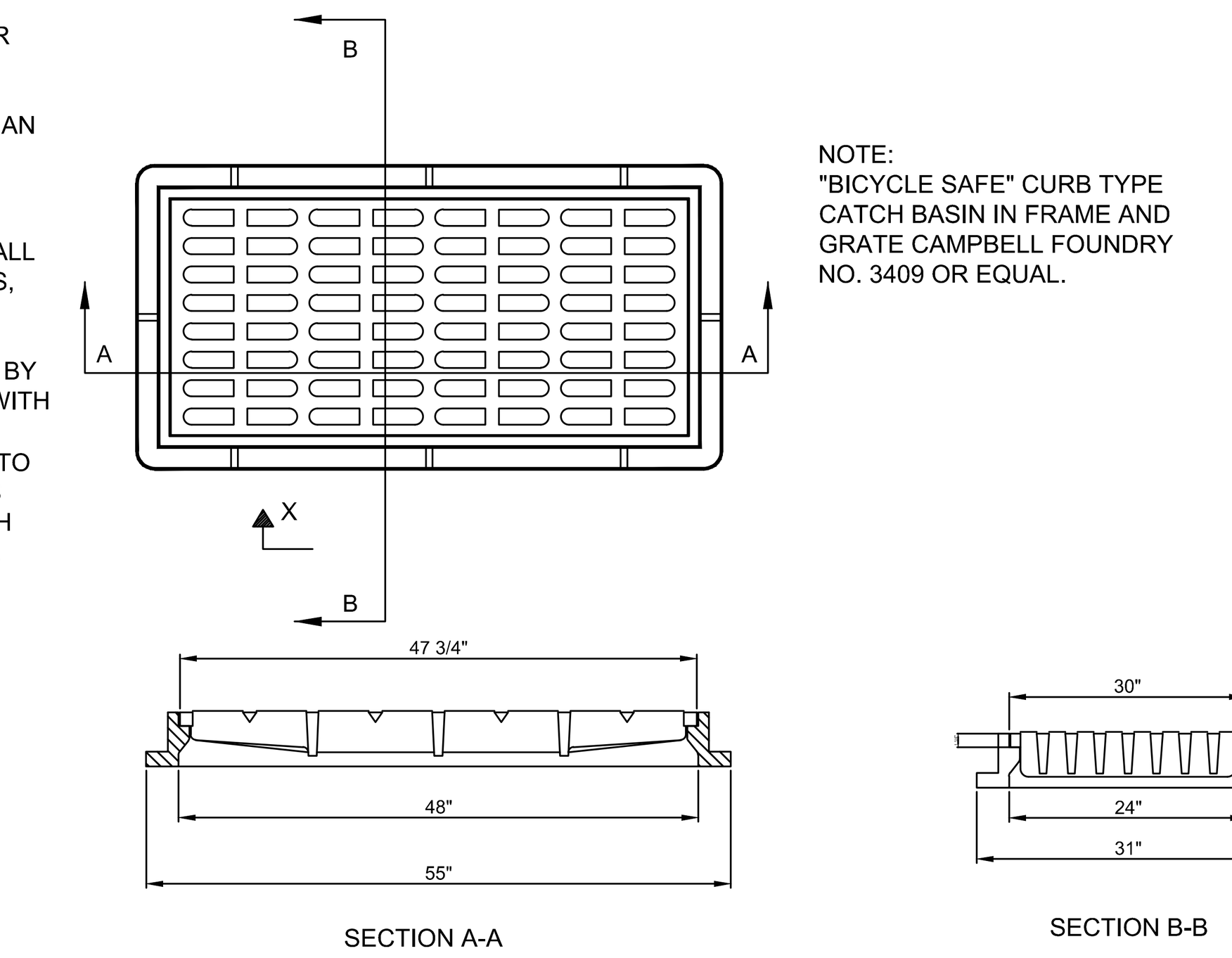
TYPICAL CLEANOUT DETAIL

N.T.S.



FLOW SPLITTER (TYPICAL DETAIL)

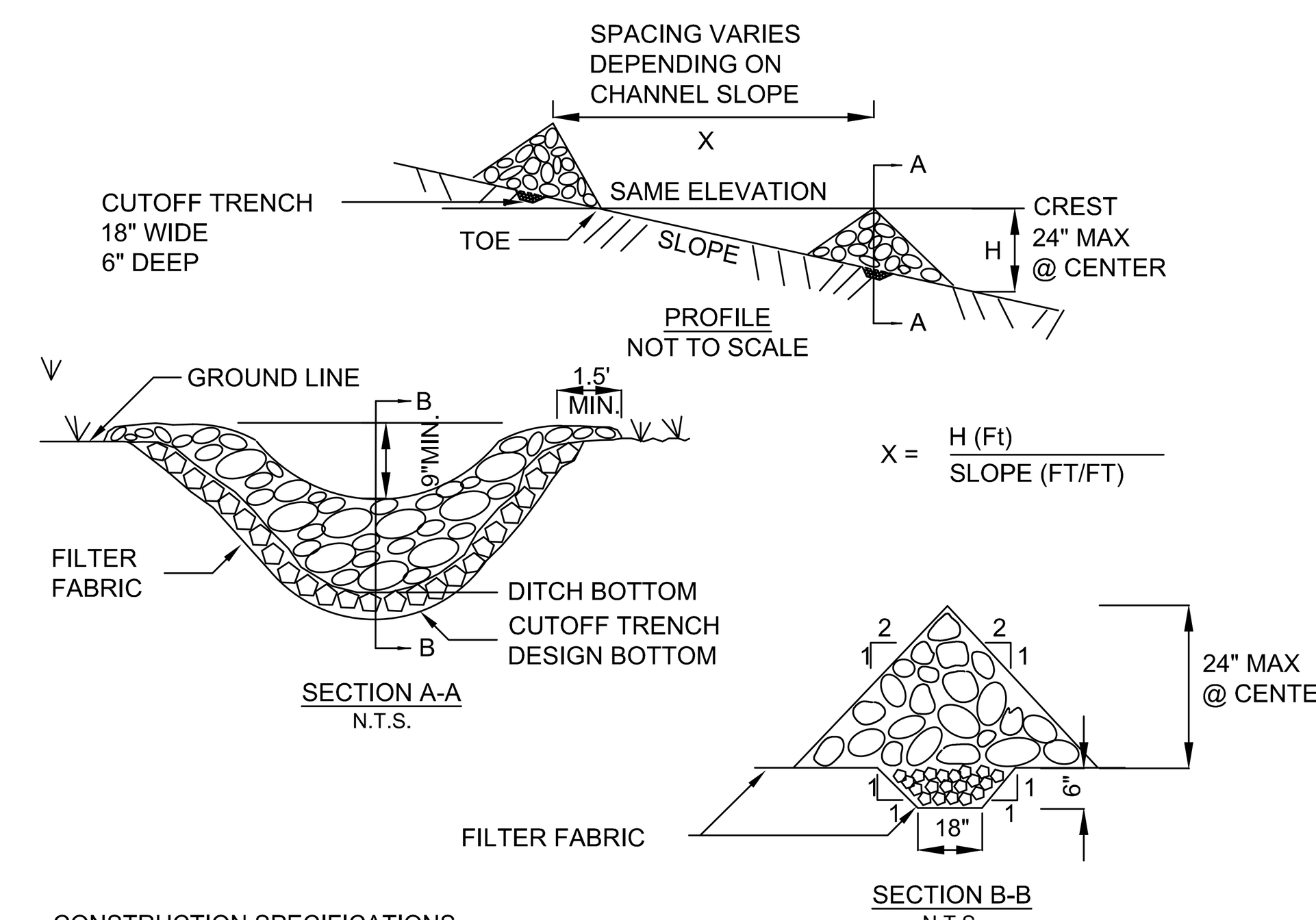
N.T.S.



NOTE: "BICYCLE SAFE" CURB TYPE CATCH BASIN IN FRAME AND GRATE CAMPBELL FOUNDRY NO. 3409 OR EQUAL.

DETAIL OF CATCH BASIN HEAD - CURB TYPE A

N.T.S.



$X = \frac{H\ (FT)}{SLOPE\ (FT/FT)}$

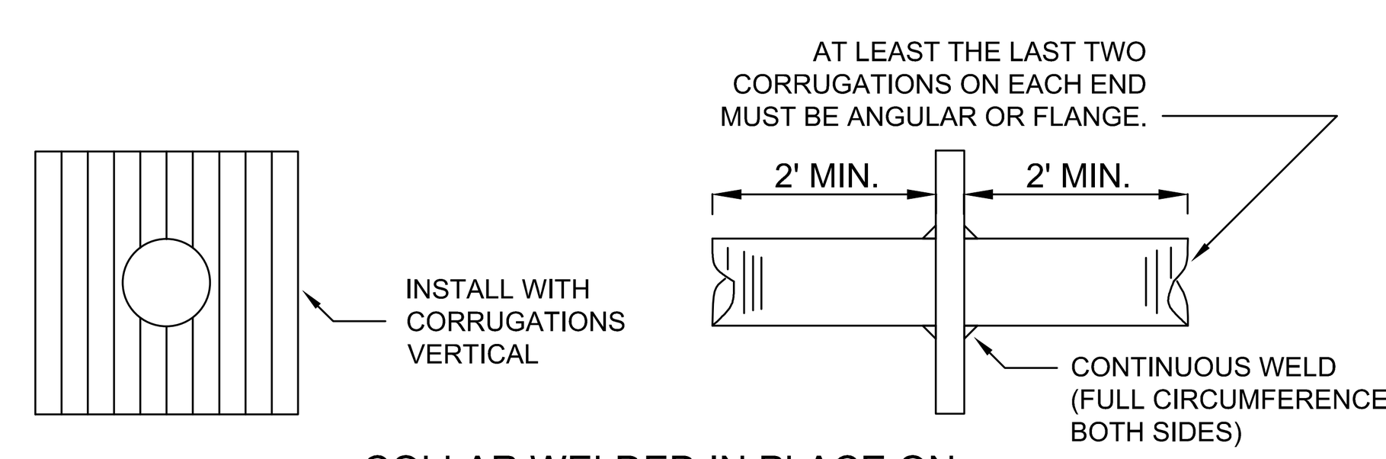
CONSTRUCTION SPECIFICATIONS

1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES AND LOCATIONS SHOWN IN THE PLAN.
2. SET SPACING OF CHECK DAMS TO ASSUME THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.

MAXIMUM DRAINAGE AREA 2 ACRES.

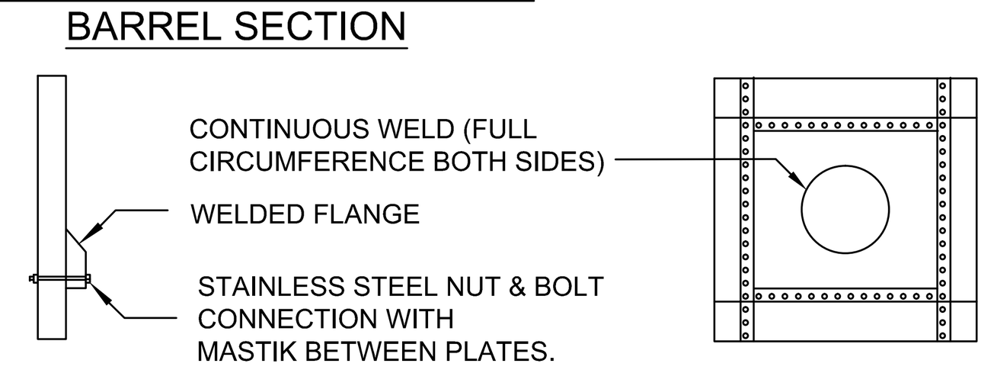
CHECK DAM

N.T.S. - ADAPTED FROM: NYSDEC STANDARDS & SPECIFICATIONS FOR EROSION & SEDIMENT CONTROL

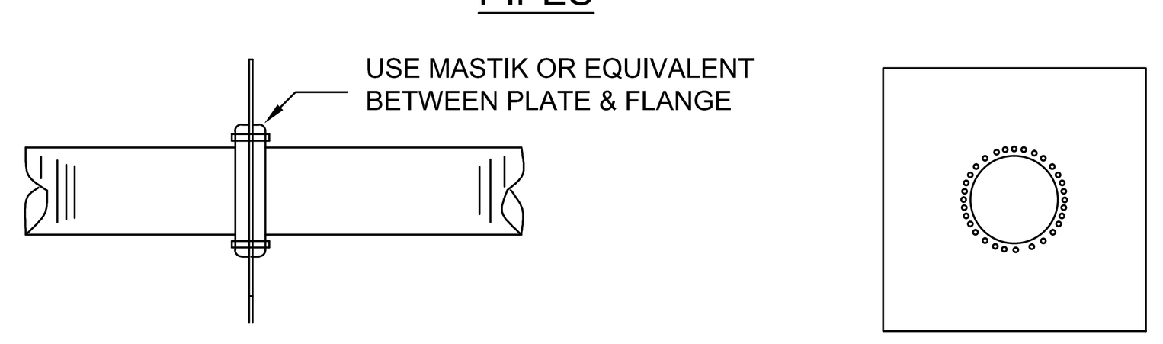


COLLAR WELDED IN PLACE ON BARREL SECTION

1. PLATES TO BE PRE-CUT CLAMPED TOGETHER & PRE-DRILLED & LABELED TO FACILITATE WATER TIGHT FIELD ASSEMBLY.



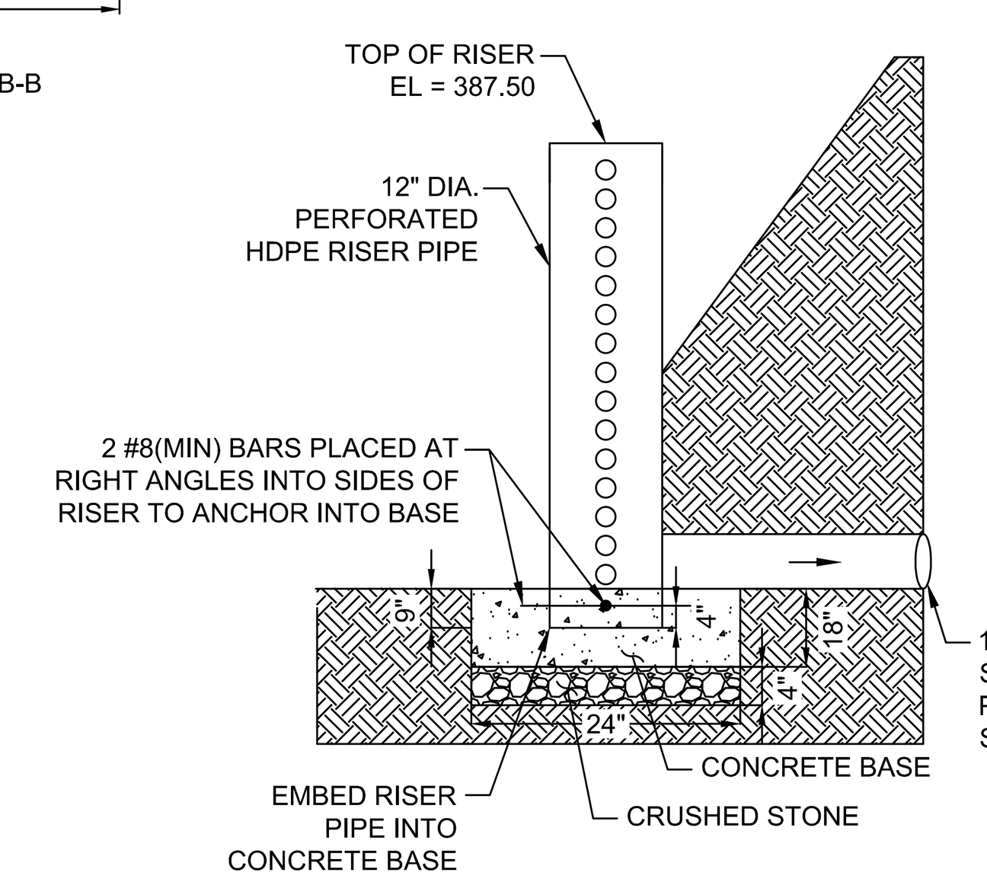
MULTI-PIECE COLLAR FOR LARGE PIPES



COLLAR FOR FLANGE JOINT PIPE

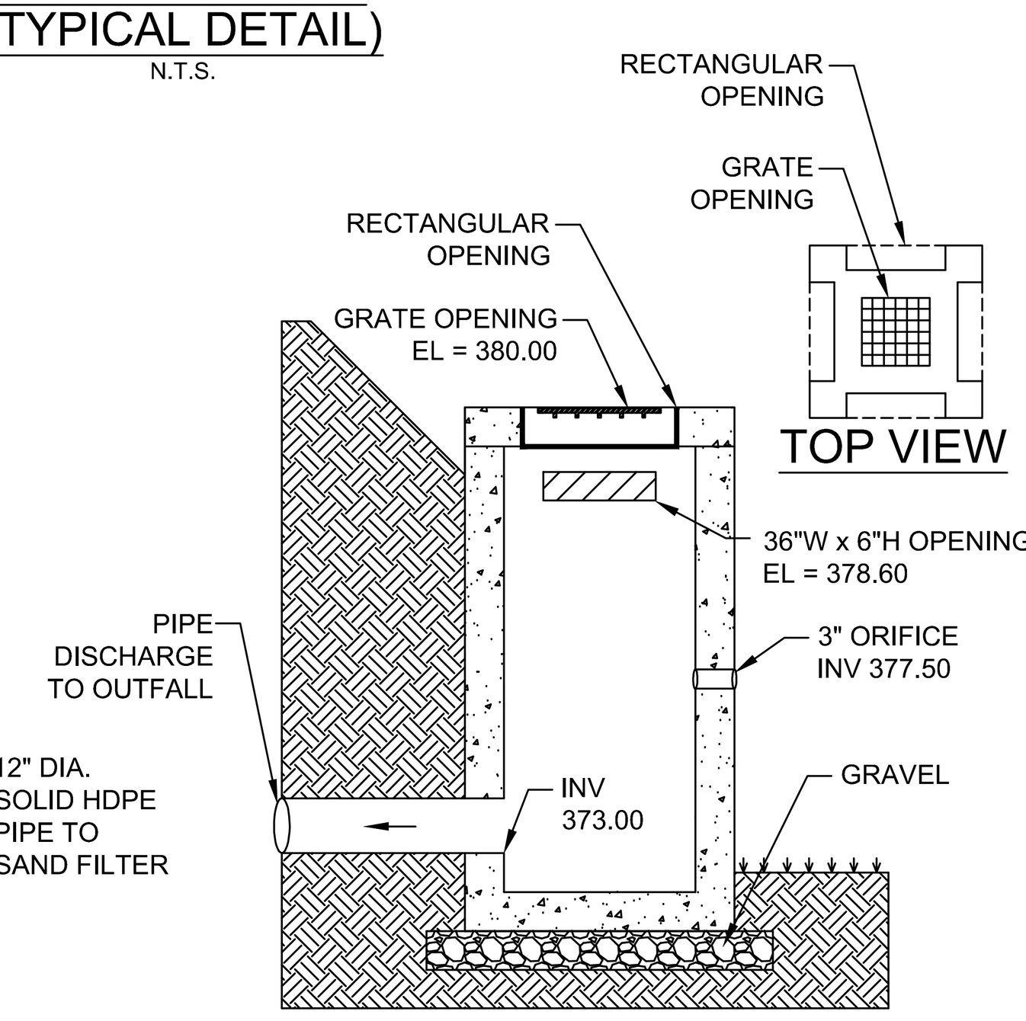
ANTI SEEP COLLAR

N.T.S. - ADAPTED FROM: NYSDEC STANDARDS & SPECIFICATIONS FOR EROSION & SEDIMENT CONTROL



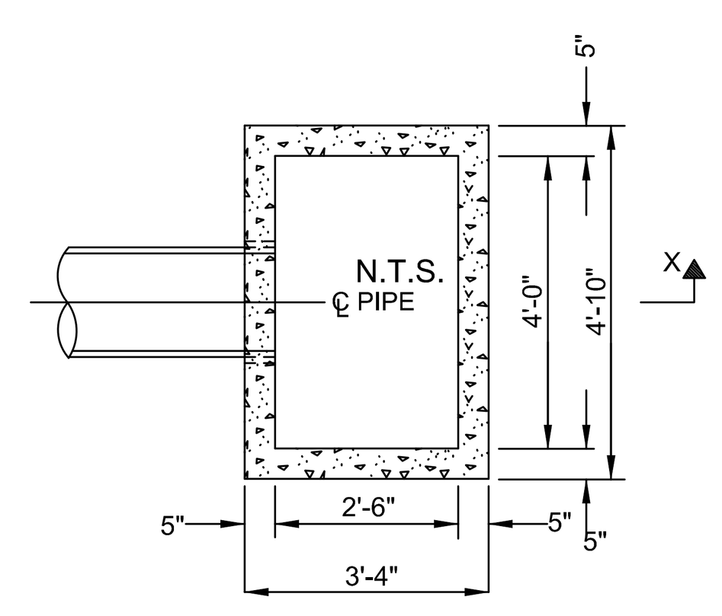
OUTLET CONTROL STRUCTURE SEDIMENTATION BASIN

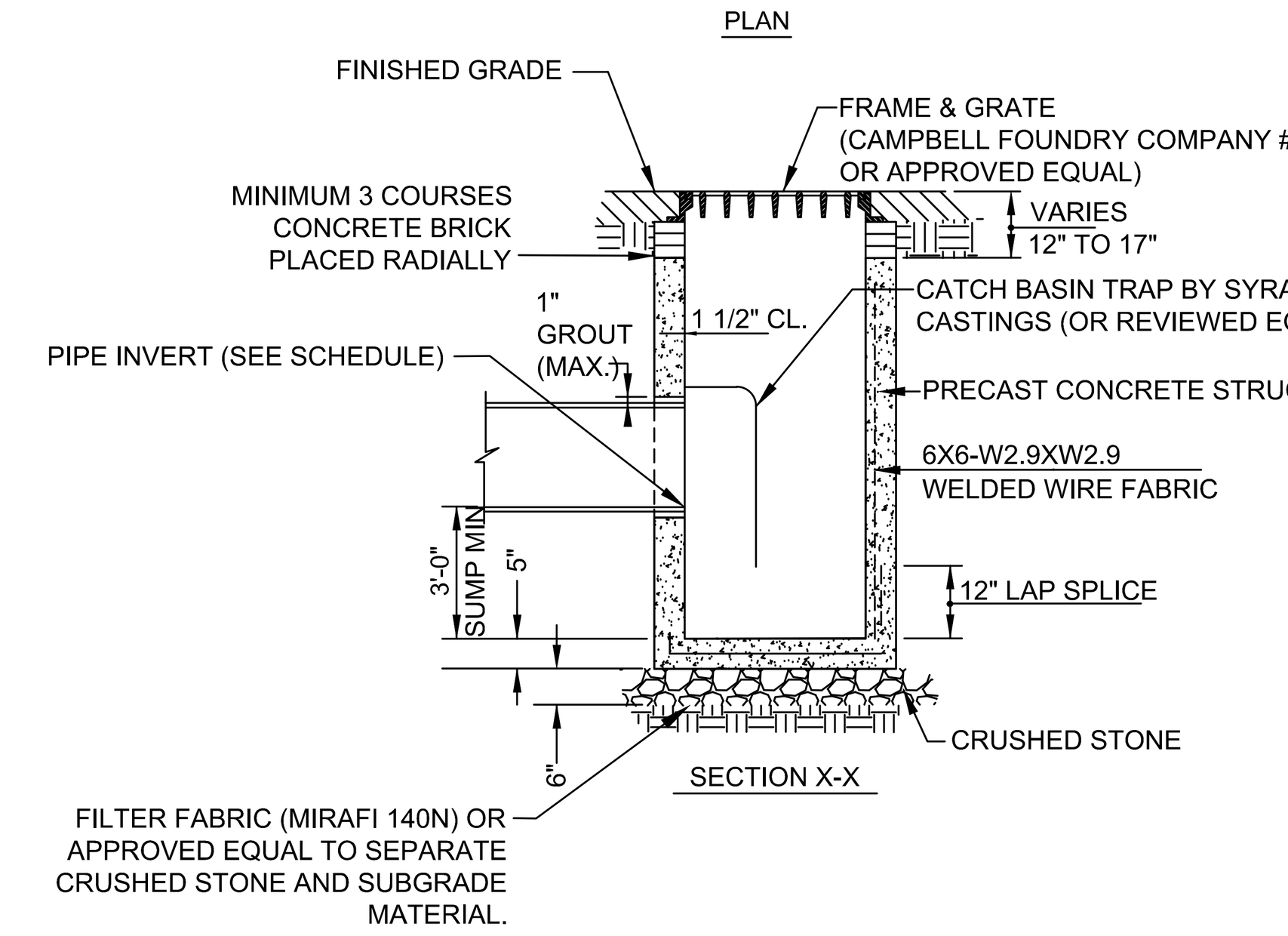
N.T.S.



OUTLET CONTROL STRUCTURE POCKET WETLAND

N.T.S.

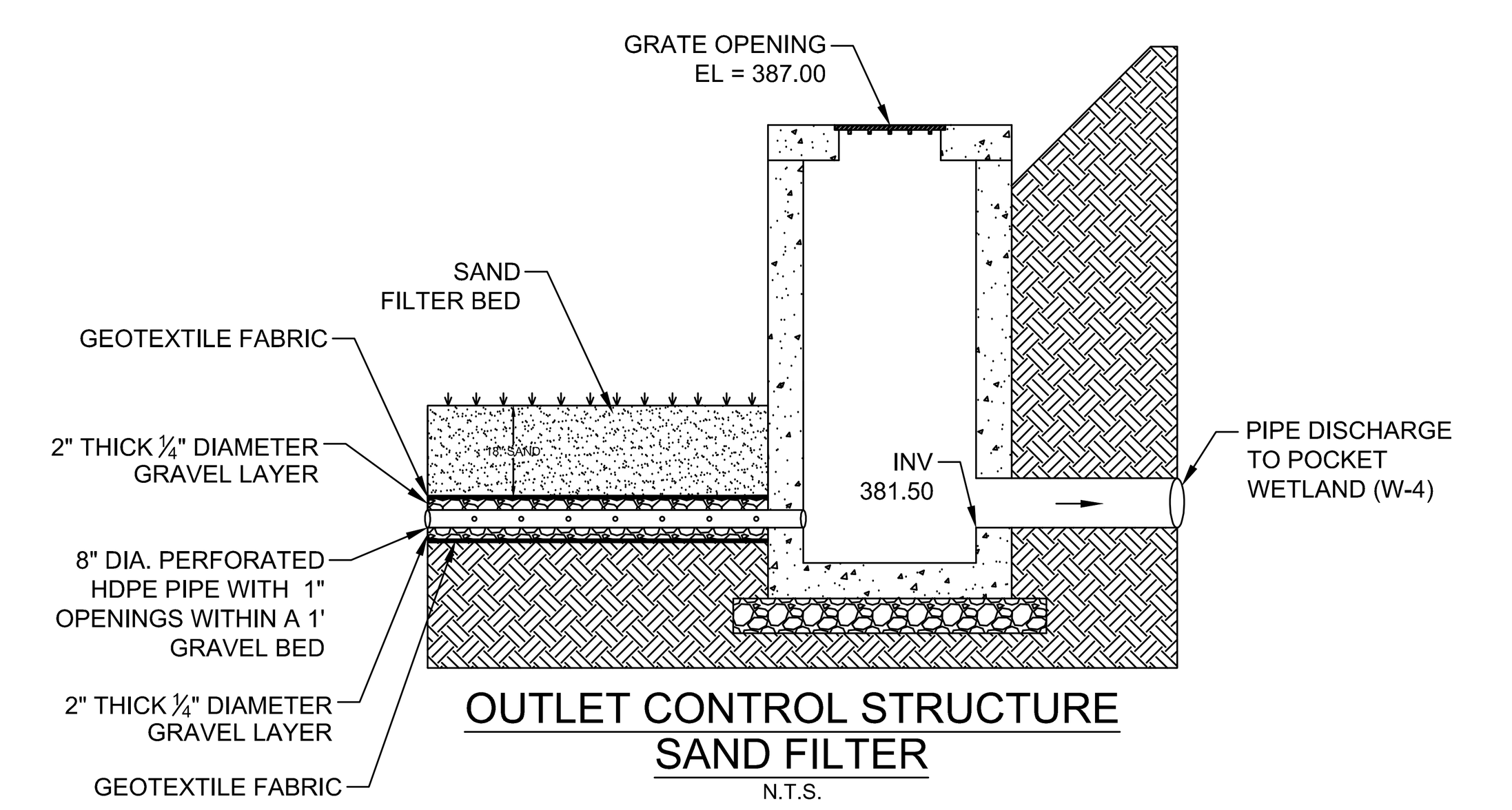




NOTES:
1. DEPTH OF SUMP SHALL BE 3 TIMES THE DIAMETER OF THE OUTLET PIPE.

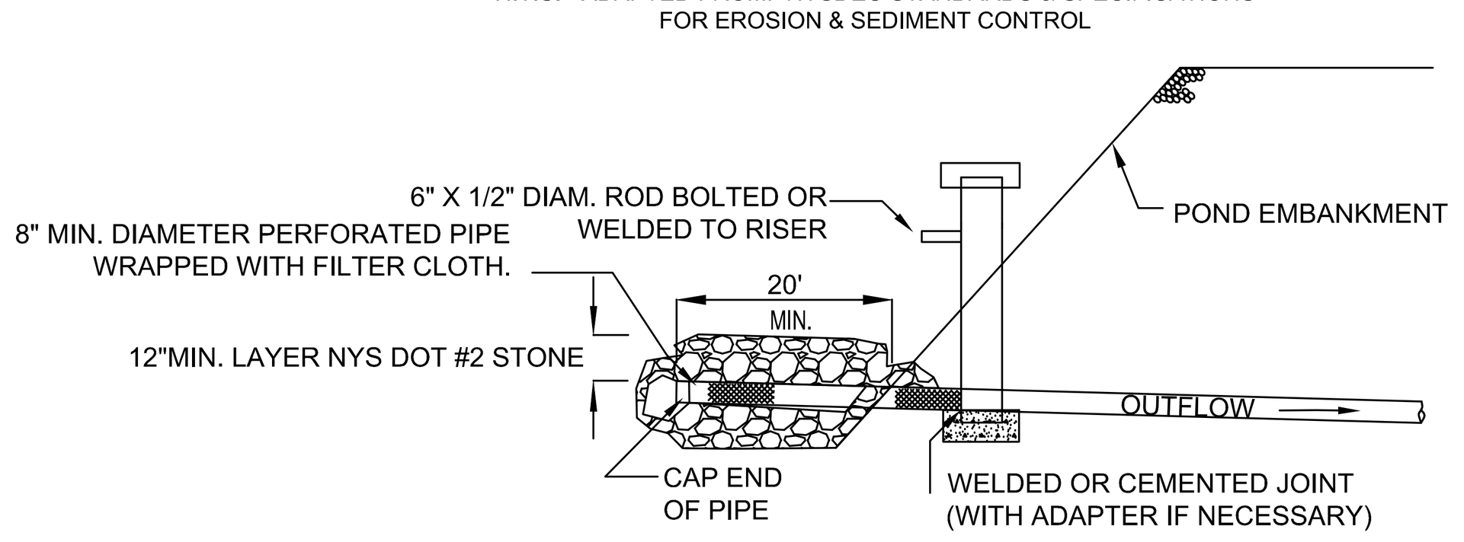
PRE-CAST CATCH BASIN AND YARD DRAIN

N.T.S.



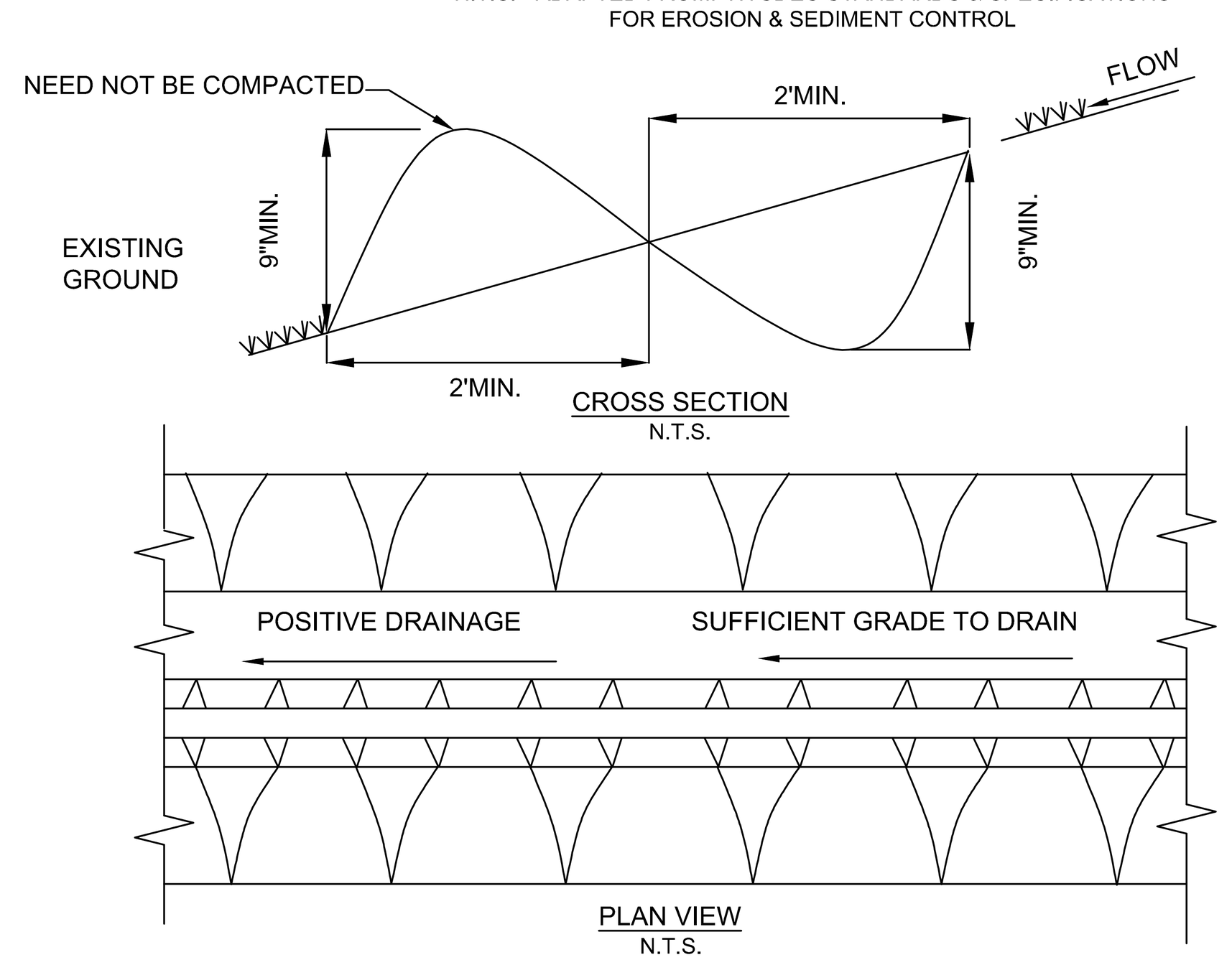
OUTLET CONTROL STRUCTURE SAND FILTER

N.T.S.



LOW FLOW DEWATERING DEVICE

N.T.S. - ADAPTED FROM: NYSDEC STANDARDS & SPECIFICATIONS FOR EROSION & SEDIMENT CONTROL



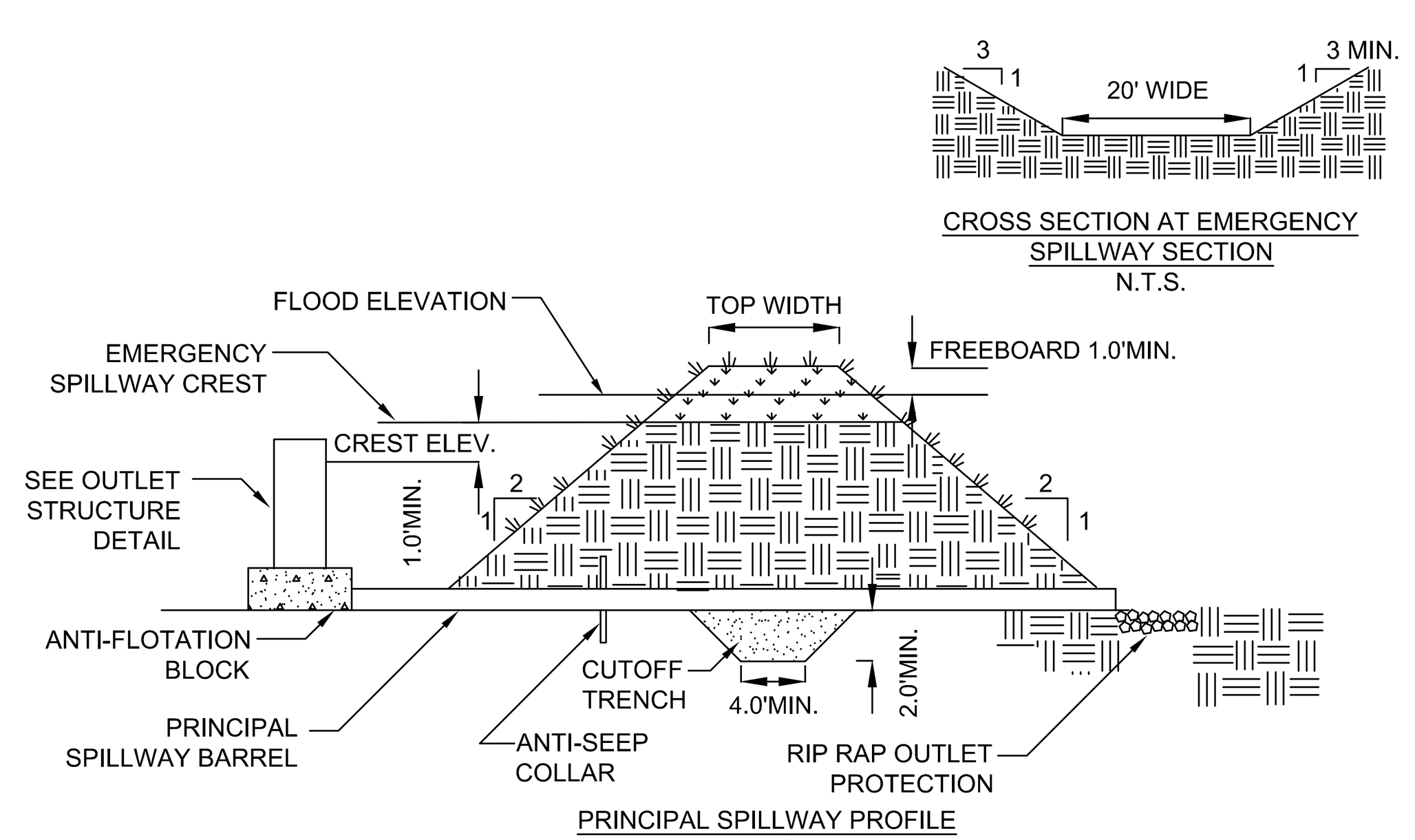
CONSTRUCTION SPECIFICATIONS

1. ALL PERIMETER DIKE/SWALE SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.
2. DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
3. DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSION VELOCITY.
4. THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED IN THE STANDARD.
5. STABILIZATION OF THE AREA DISTURBED BY THE DIKE AND SWALE SHALL BE DONE IN ACCORDANCE WITH THE STANDARD AND SPECIFICATIONS FOR TEMPORARY SEEDING AND MULCHING, AND SHALL BE DONE WITHIN 10 DAYS.
6. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

MAX. DRAINAGE AREA LIMIT: 2 ACRES

PERIMETER DIKE/SWALE

N.T.S. - ADAPTED FROM: NYSDEC STANDARDS & SPECIFICATIONS FOR EROSION & SEDIMENT CONTROL

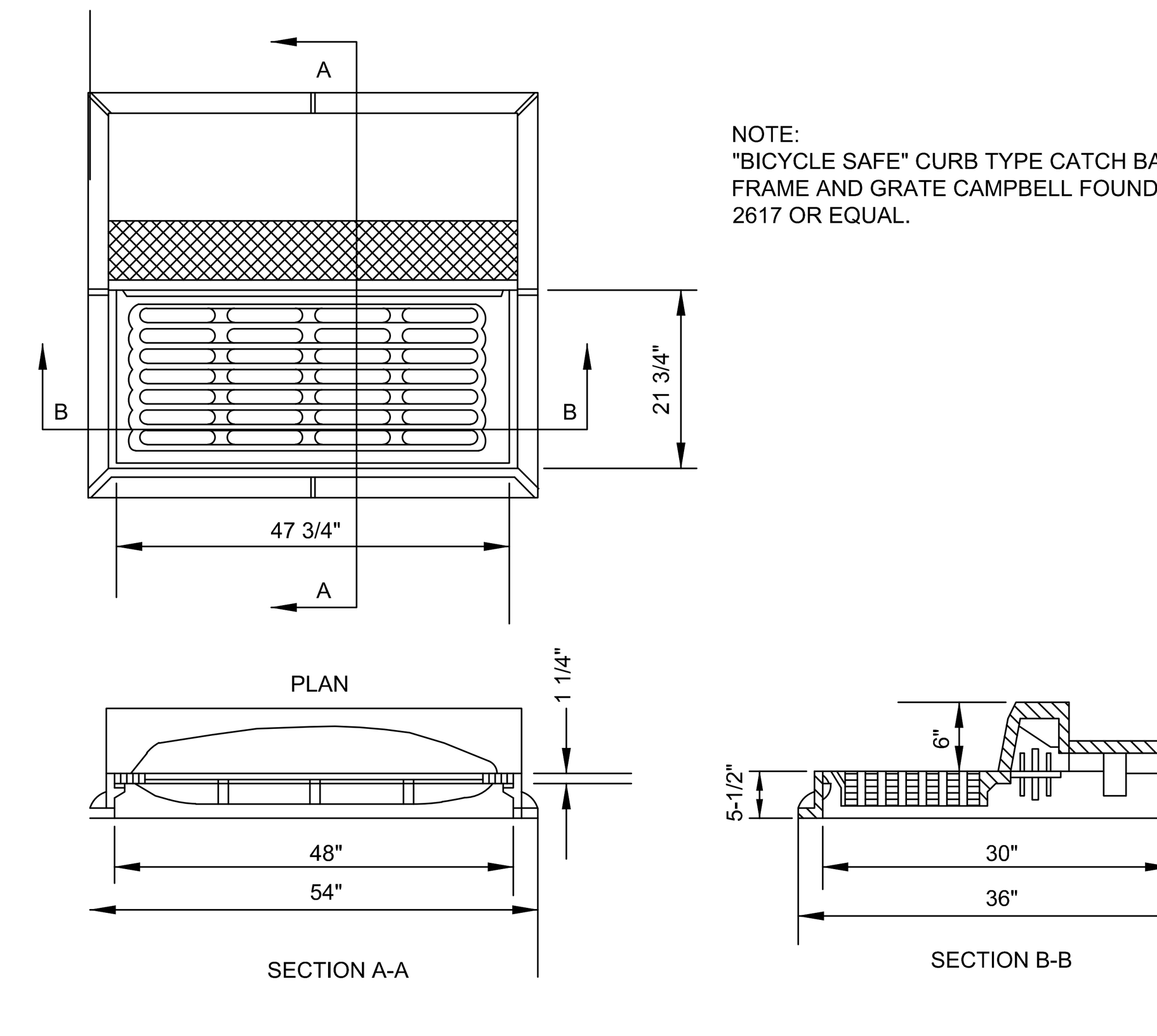


MAXIMUM DRAINAGE AREA = 100 ACRES

TEMPORARY SEDIMENT BASIN

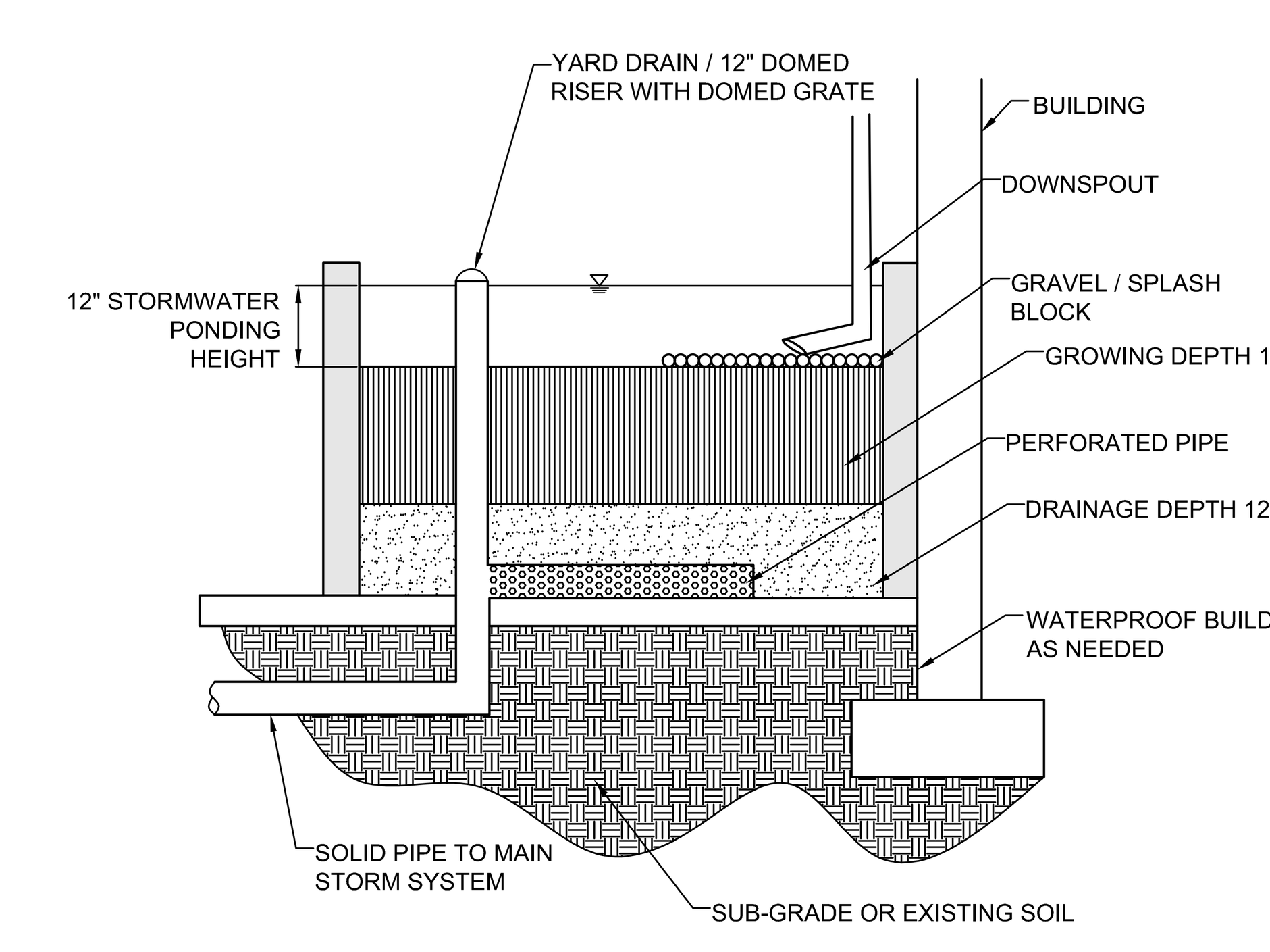
N.T.S. - ADAPTED FROM: NYSDEC STANDARDS & SPECIFICATIONS FOR EROSION & SEDIMENT CONTROL

NOTE: "BICYCLE SAFE" CURB TYPE CATCH BASIN IN FRAME AND GRATE CAMPBELL FOUNDRY NO. 2617 OR EQUAL.



DETAIL OF CATCH BASIN HEAD - CURB TYPE B

N.T.S.



STORMWATER PLANTER

N.T.S.

PARK PLACE

11 New King Street

Town of North Castle, New York

11 New King Street LLC
11 New King Street,
White Plains, NY
10604

kaeyer, garment & davidson architects, pc
285 main street mount kisco, new york 10549
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FEIS SUBMISSION

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2	10-26-10	DEIS SUBMISSION
1	06-15-09	SITE PLAN SUBMISSION

Sheet Title

STANDARD DETAILS II

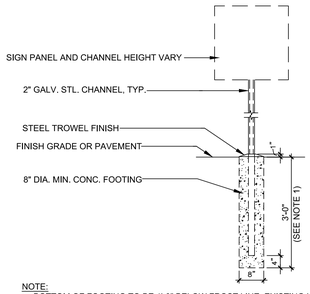
Job No. 2007-0632

Date 08-25-10

Scale As Shown

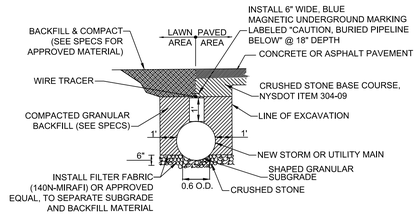
Drawn/Checked JH,JR/AM

Sheet No. C-11



NOTE:
1. BOTTOM OF FOOTING TO BE 1'-0" BELOW FROST LINE, EXISTING UNDISTURBED GRADE, OR COMPACTED FINISHED GRADE, WHICHEVER IS GREATER.

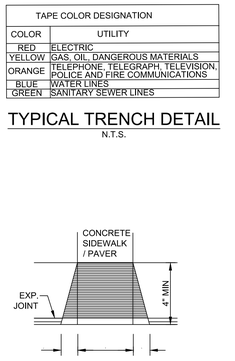
SIGNPOST DETAIL
N.T.S.



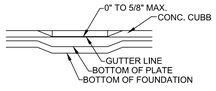
NOTE: GAS, WATER, AND SANITARY SEWER PIPE REQUIRE THE COLORED TAPE AND TRACER WIRE. REFER TO THE TABLE FOR COLOR DESIGNATION.

TAPE COLOR DESIGNATION	
COLOR	UTILITY
RED	ELECTRIC
YELLOW	GAS, OIL, DANGEROUS MATERIALS
ORANGE	TELEPHONE, TELEGRAPH, TELEVISION, POLICE AND FIRE COMMUNICATIONS
BLUE	WATER LINES
GREEN	SANITARY SEWER LINES

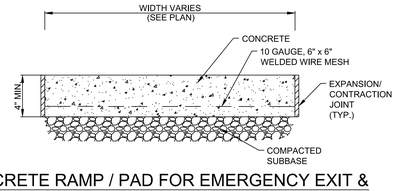
TYPICAL TRENCH DETAIL
N.T.S.



SIDEWALK/ PEDESTRIAN RAMPS
N.T.S.



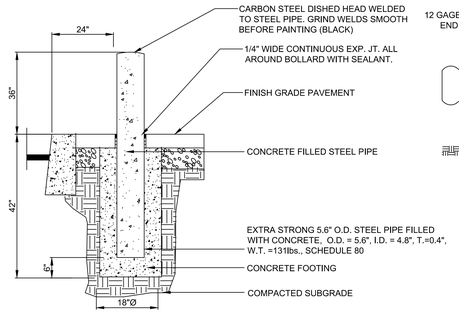
SIDEWALK/ PEDESTRIAN RAMP ELEVATION
N.T.S.



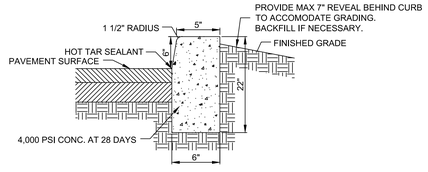
CONCRETE RAMP / PAD FOR EMERGENCY EXIT & REFUSE AREA
N.T.S.

EXPANSION/CONTRACTION JOINT NOTES:

1. EXPANSION JOINTS SHALL BE PROVIDED AT EQUAL DISTANCES OF NO MORE THAN 20 FEET. ALL EXISTING AND PROPOSED BUILDINGS, CURBING AND EXISTING PAVEMENT JOINTS SHALL BE FILLED WITH PREFORMED EXPANSION JOINT FILLER, 1/2" THICK. THE JOINT SHALL BE RECESSED 1/4" FROM THE TOP OF THE SLAB.
2. TOOLED CONTRACTION JOINTS SHALL BE PROVIDED AT EQUAL DISTANCES OF NO MORE THAN 5 FEET. JOINTS SHALL BE SPACED TO RESULT IN A NEAT AND ORDERLY ARRAY OF CONCRETE PAVERS.



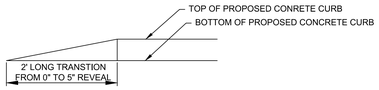
BOLLARD
N.T.S.



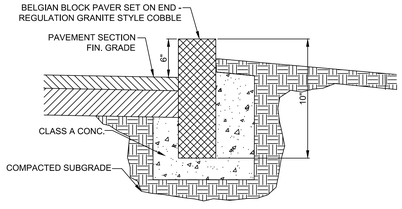
DETAIL NOTES:

1. ANY EXCAVATION BELOW DESIRED GRADE DUE TO OVER EXCAVATION OR WET SOIL CONDITIONS SHALL BE BACKFILLED WITH ¾" CLEAN CRUSHED STONE. ALL SUBGRADES SHALL BE APPROVED BY THE ENGINEER PRIOR TO POURING.
2. EXPANSION JOINTS SHALL BE PROVIDED AT EQUAL DISTANCES OF NOT MORE THAN 20', ALL PC AND PT POINTS, AND ALL STORM SEWER INLETS. JOINTS SHALL BE FILLED WITH PREFORMED EXPANSION JOINT FILLER, ½" THICK. THE JOINT SHALL BE RECESSED ¼" FROM THE TOP AND THE FRONT OF THE CONCRETE CURB.

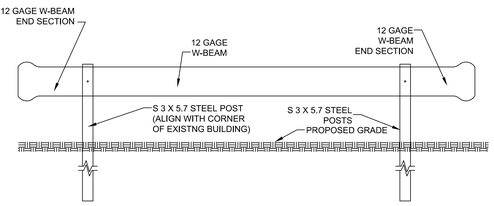
6" CONCRETE CURB DETAIL
N.T.S.



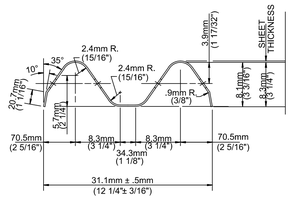
CONCRETE CURB TRANSITION DETAIL
N.T.S.



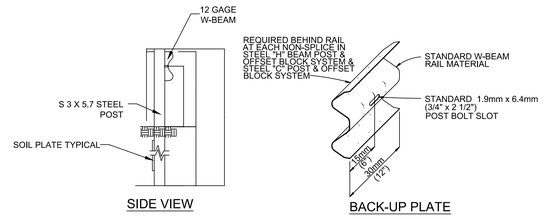
BELGIAN BLOCK DETAIL
N.T.S.



ELEVATION VIEW

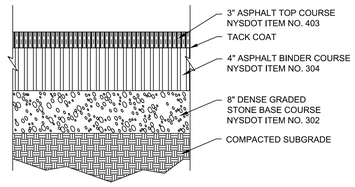


SECTION THRU 12" GAGE W-BEAM

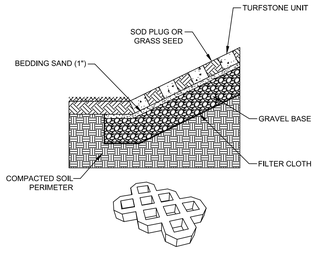


SIDE VIEW — BACK-UP PLATE

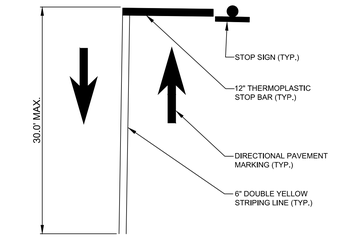
W-BEAM GUIDE RAIL
N.T.S.



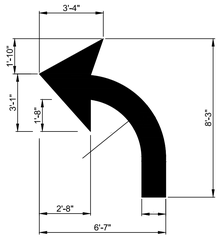
TYPICAL ASPHALT PAVEMENT SECTION
N.T.S.



TURFSTONE DETAIL
N.T.S.

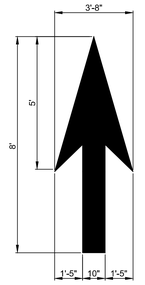


TYPICAL STOP BAR DETAIL
N.T.S.



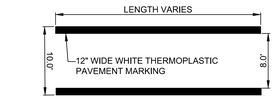
NOTE:
ALL FLOW ARROWS TO BE SOLID WHITE REFLECTIVE TRAFFIC PAINT AS PER ABOVE OR NYSDOT STANDARD

PAINTED TRAFFIC LEFT TURN ARROW (MIRROR IMAGE FOR RIGHT TURN)
N.T.S.



NOTE:
ALL FLOW ARROWS TO BE SOLID WHITE REFLECTIVE TRAFFIC PAINT AS PER ABOVE OR NYSDOT STANDARD

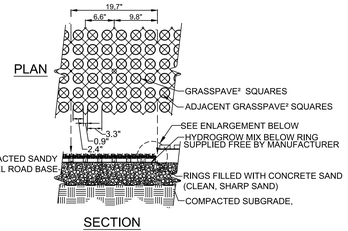
PAINTED TRAFFIC ARROW
N.T.S.



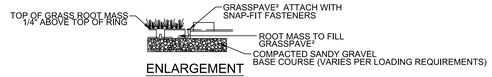
CROSSWALK DETAIL
N.T.S.

SECTION CONTROL JOINT — SECTION EXPANSION JOINT

CONCRETE PAVEMENT DETAIL
N.T.S.



SECTION



ENLARGEMENT

NOTE: GRASS/PLANT TYPES SHALL BE SPECIFIED BY A LANDSCAPE ARCHITECT OR LANDSCAPE DESIGNER

SPECIFICATIONS:
UNIT SIZE- 20" X 20" X 1"
UNIT WEIGHT- 18 OZ. OR 4.5 POUNDS
STRENGTH- 5720 PSI
95% MODIFIED PROCTOR DENSITY- 6 INCHES TO 12 INCHES
(DEPTH OF BASE COURSE TO BE DETERMINED BY ON-SITE ENGINEER)

GRASSPAVE DETAIL
INVISIBLE STRUCTURES,INC.

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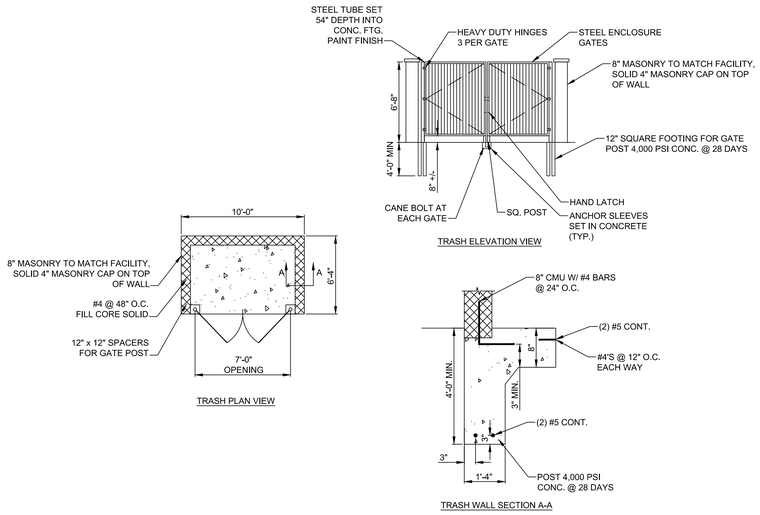
FEIS SUBMISSION

No.	Date	Issue
6	10-15-14	FEIS SUBMISSION
5	05-30-14	FEIS SUBMISSION
4	08-21-11	REVISION PER DEIS COMMENTS
3	01-24-11	REVISION PER DEIS COMMENTS
2	10-26-10	DEIS SUBMISSION
1	06-15-09	SITE PLAN SUBMISSION

Sheet Title

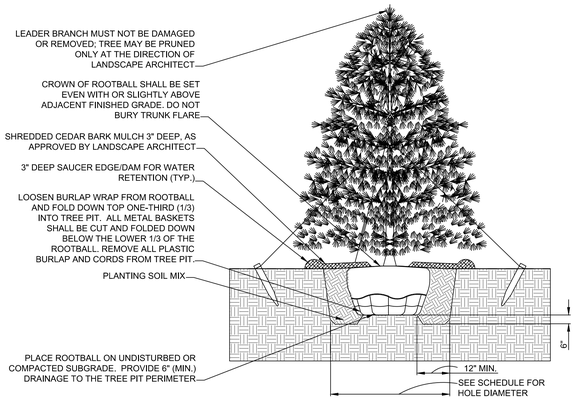
STANDARD DETAILS III

Job No. 2007-0632	Sheet No. C-12
Date 08-25-10	
Scale As Shown	
Drawn/Checked JH/AM	

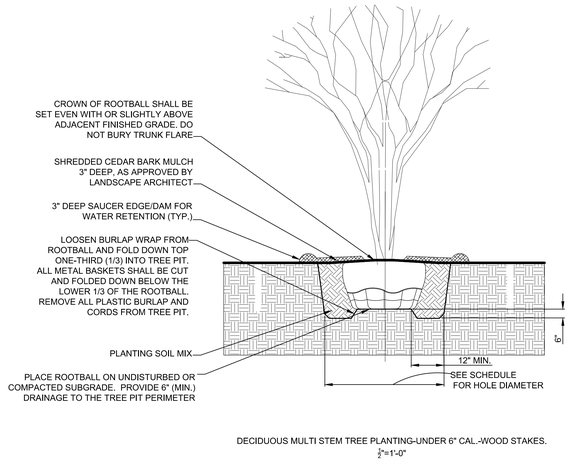


DUMPSTER ENCLOSURE DETAIL

N.T.S.



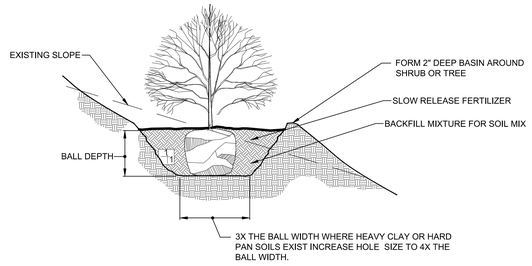
LARGE DECIDUOUS TREE



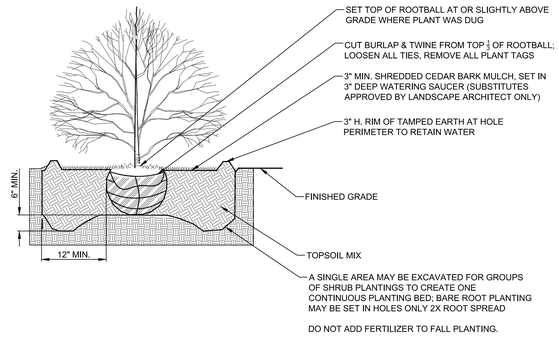
SMALL DECIDUOUS TREE

DECIDUOUS MULTI STEM TREE PLANTING-UNDER 6" CAL.-WOOD STAKES.
$\frac{1}{2}$"=1'-0"

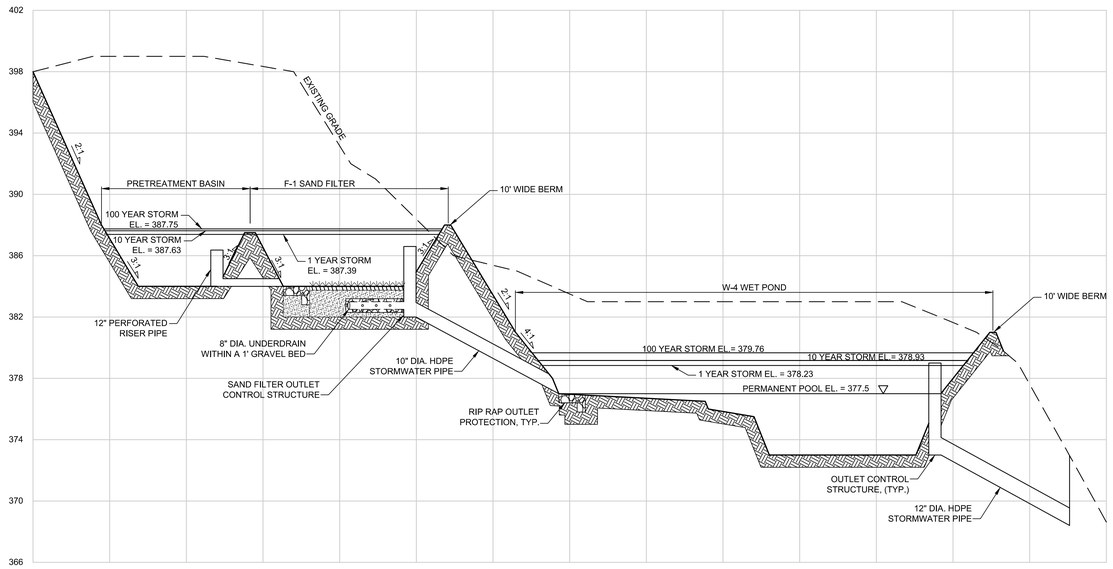
EVERGREEN TREE



DECIDUOUS SHRUB PLANTING ON STEEP SLOPES (>10%)



DECIDUOUS SHRUB PLANTING ON FLAT SLOPES (<10%)



STORMWATER FACILITY PROFILE

NOT TO SCALE

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6	10-15-14	FEIS SUBMISSION
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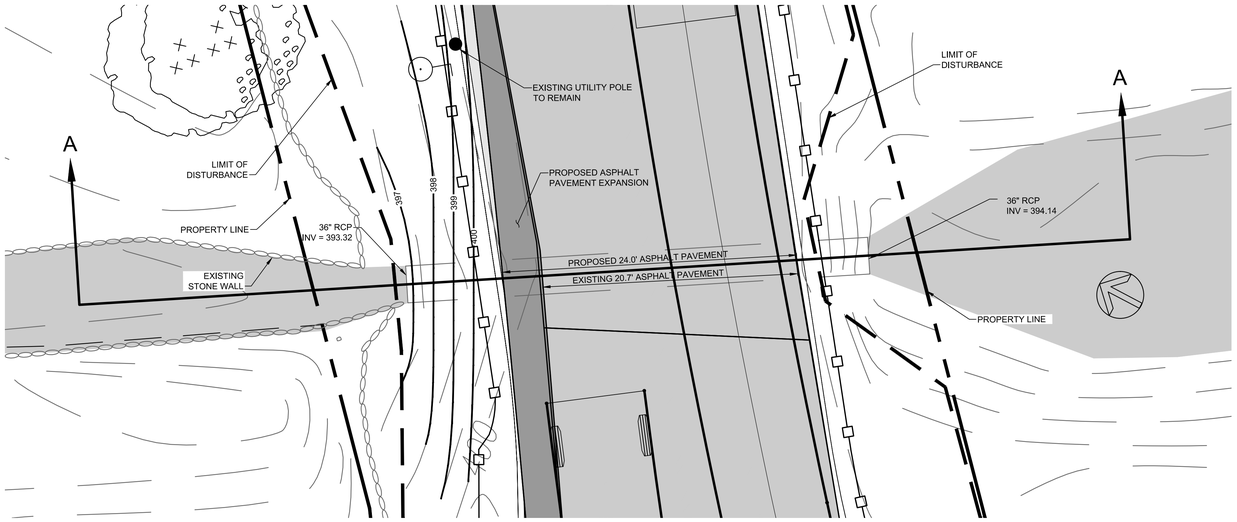
3	01-24-11	REVISION PER DEIS COMMENTS
2	10-26-10	DEIS SUBMISSION
1	06-15-09	SITE PLAN SUBMISSION

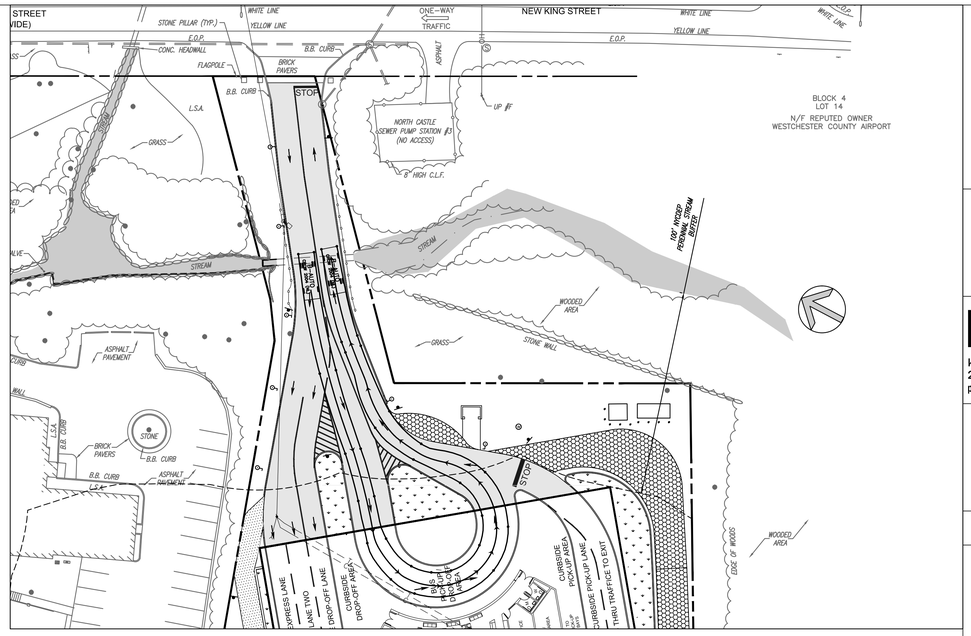
Sheet Title

STANDARD DETAILS IV

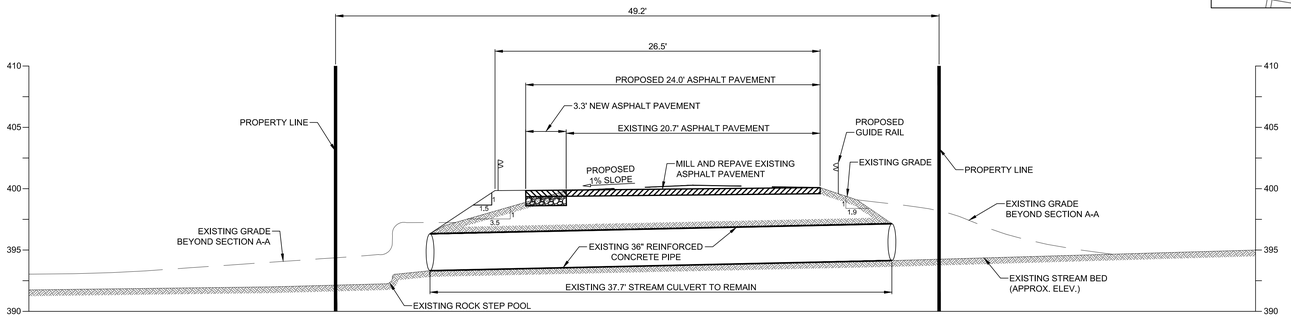
Job No. 2007-0632	Sheet No. C-13
Date 08-25-10	
Scale As Shown	
Drawn/Checked JH/AM	



STREAM CULVERT AT DRIVEWAY ENTRANCE
PLAN VIEW
SCALE: 1" = 5'



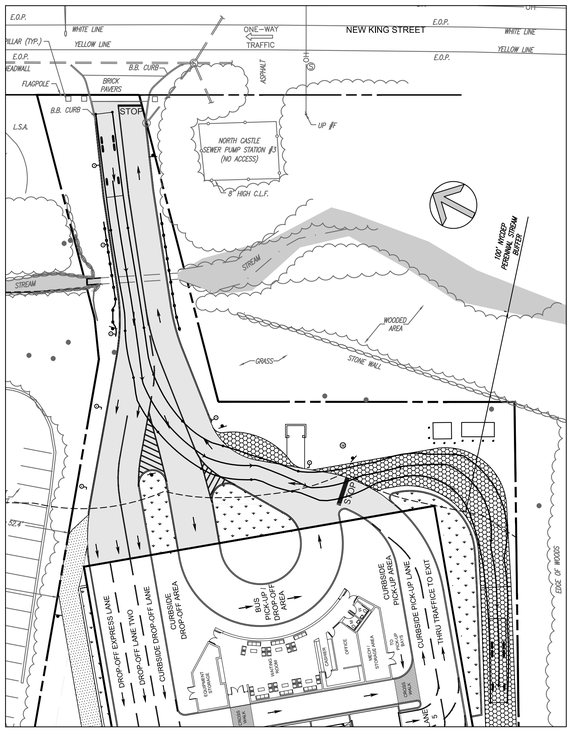
BUS TURN ANALYSIS
SCALE: 1" = 40'



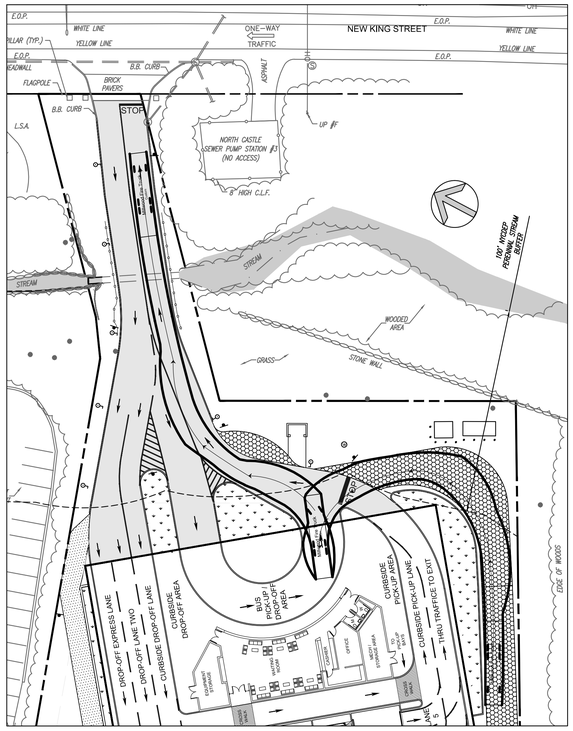
STREAM CULVERT AT DRIVEWAY ENTRANCE
SECTION A-A
SCALE:
H : 1" = 5'
V : 1" = 5'

LEGEND:

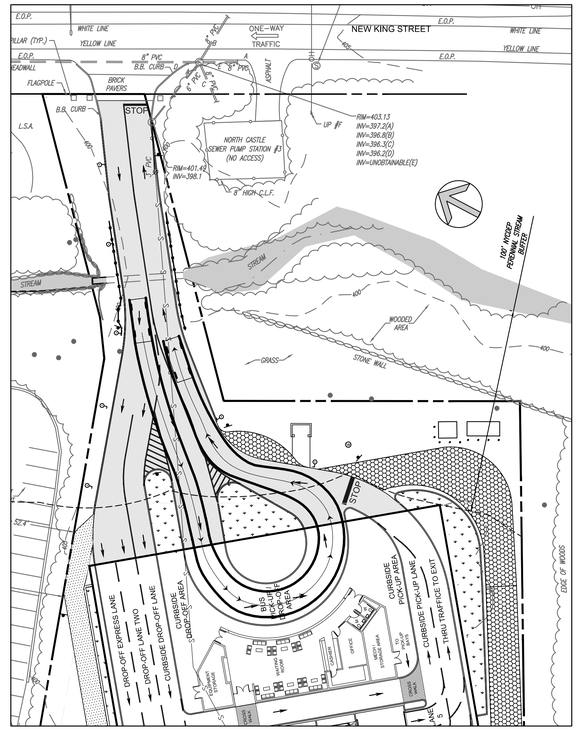
- PROPERTY LINE
- PROPOSED MILLING AND REPAVING OF EXISTING ASPHALT PAVEMENT
- PROPOSED FULL DEPTH ASPHALT PAVEMENT
- EXISTING ASPHALT PAVEMENT
- EXISTING GRADE
- PROPOSED GRADE
- EXISTING STREAM CULVERT
- 399 PROPOSED CONTOUR



FIRE TRUCK ENTRANCE TURN ANALYSIS
SCALE: 1" = 40'



FIRE TRUCK EXIT TURN ANALYSIS
SCALE: 1" = 40'



GARBAGE TRUCK TURN ANALYSIS
SCALE: 1" = 40'

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FEIS SUBMISSION

PROJECT NORTH

No.	Date	Issue
6	10-15-14	FEIS SUBMISSION
5	05-30-14	FEIS SUBMISSION
4	08-21-11	REVISION PER DEIS COMMENTS
3	01-24-11	REVISION PER DEIS COMMENTS
2	10-26-10	DEIS SUBMISSION
1	06-15-09	SITE PLAN SUBMISSION

Sheet Title

STANDARD DETAILS V

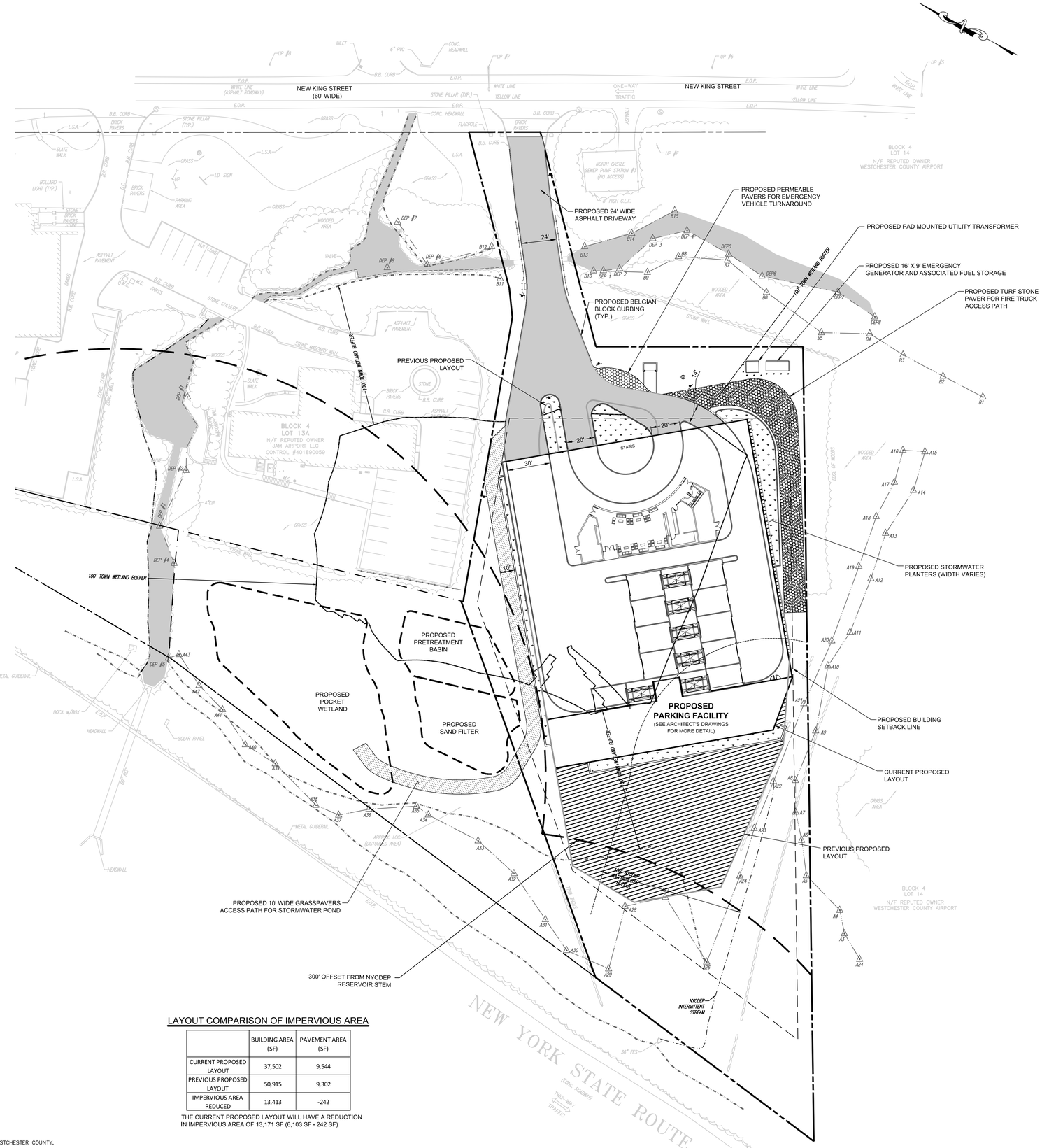
Job No. 2007-0632	Sheet No. C-14
Date 08-25-10	
Scale	
Drawn/Checked	

SURVEYOR'S LEGEND

— 123 —	EXISTING CONTOUR
X FF=123.45	FINISHED FLOOR ELEVATION
X 123.45	EXISTING SPOT ELEVATION
X TC 123.45	EXIST. TOP OF CURB ELEVATION
X G 122.95	EXIST. GUTTER ELEVATION
X TW 123.45	EXIST. TOP OF WALL ELEVATION
X BW 122.95	EXIST. BOTTOM OF WALL ELEVATION
	HYDRANT
WV	WATER VALVE
GV	GAS VALVE
OH	OVERHEAD WIRES
T	UNCONFIRMED LOC. UNDERGROUND TELE. LINE PER UTILITY MARKOUT (SEE NOTE #3)
C	UNCONFIRMED LOC. UNDERGROUND CABLE LINE PER UTILITY MARKOUT (SEE NOTE #3)
	UTILITY POLE
	UTILITY POLE/LIGHT POLE
	GUY WIRE
	MONITORING WELL
	GAS METER
	ELECTRIC METER
	SIGN
	BOLLARD
E.O.P.	EDGE OF PAVEMENT
C.L.F.	CHAIN LINK FENCE
L.S.A.	LANDSCAPED AREA
E.O.P.	EDGE OF PAVEMENT
D.C.	DEPRESSED CURB
B.B.	BELGIAN BLOCK
DE	DEAD (NON-LIVING)
CH	CHERRY
MA	MAPLE
LO	LOCUST
TU	TULIP
GI	GINGKO
MAG	MAGNOLIA
LI	LILAC
TU	TULIP
N.P.V.	NO PIPES VISIBLE
M.C.	METAL COVER
	AREA LIGHT
	LAMP POST
C/O	CLEAN OUT
1.0'	DENOTES OFFSET OF STRUCTURE AT GROUND LEVEL RELATIVE TO PROPERTY LINE
12" T	DENOTES UNKNOWN TREE SPECIES AND TRUNK DIAMETER
15" MA	DENOTES DECIDUOUS TREE SPECIES AND TRUNK DIAMETER
15" PINE	DENOTES CONIFEROUS TREE SPECIES AND TRUNK DIAMETER
DEP	DENOTES WATERCOURSE BOUNDARY FLAG AET BY NYCDEP (12.16.11) (SEE NOTE #11)
A28	DENOTES FEDERAL WETLAND BOUNDARY FLAG SET BY AKRF, JD CONFIRMED BY USACE (SEE NOTE #11)
	DELINEATION LINE
	UNKNOWN MANHOLE
	SANITARY MANHOLE
	STONE WALL
AC	AIR CONDITIONING UNIT
	DENOTES SOIL BORING/TEST PIT
	WELL
	BASKETBALL HOOP

SITE/CIVIL LEGEND

	DELINEATION LINE SET BY NYCDEP DATED DECEMBER 16, 2011 (SEE NOTE #11)
	FEDERAL WETLAND BOUNDARY - DELINEATED BY AKRF, CONFIRMED BY USACE - JD ISSUED 2/1/12 (PERMIT APPLICATION #NAN-2011-0486-ESO)
	WETLAND DELINEATION LINE SET BY TOWN (SEE C1 GENERAL NOTE 13)
	100' OFFSET FROM WETLAND DELINEATION LINE
	NYCDEP WATERCOURSE
	NYCDEP WATERCOURSE 100' BUFFER
	300' OFFSET FROM NYCDEP RESERVOIR STEM
	EXISTING PROPERTY LINE
	EXISTING PROPERTY LINE ADJACENT PROPERTY
	LIMIT OF DISTURBANCE
	PROPOSED BUILDING ENVELOPE (BUILDING SETBACK LINE)
	PROPOSED MULTI-LEVEL PARKING FACILITY
	PROPOSED BELGIAN BLOCK CURBING
	STORMWATER DRAINAGE EASEMENT
	PROPOSED ASPHALT DRIVEWAY
	PROPOSED PERMEABLE PAVERS
	PROPOSED GRASSPAVERS
	PROPOSED STORMWATER PLANTERS
	PROPOSED CONCRETE PAVEMENT
	PROPOSED GUIDE RAIL
	PROPOSED BUILDING COLUMN
	PROPOSED SIGN
	PROPOSED TRENCH DRAIN
	PROPOSED DRAINAGE MANHOLE
	PROPOSED CATCH BASIN
	PROPOSED SITE LIGHTING
1	



SURVEYOR'S NOTES:

1. PROPERTY KNOWN AS LOT 14B, BLOCK 4 AS SHOWN ON THE OFFICIAL TAX MAP OF THE TOWN OF NORTH CASTLE, WESTCHESTER COUNTY, NEW YORK.
2. AREA = 107,755 S.F. OR 2.474 AC.
3. THE LOCATION OF ALL UNDERGROUND UTILITIES HAVE NOT BEEN SHOWN. UTILITY INFORMATION SHOWN IS LIMITED TO VISIBLE UTILITY HARDWARE AND UTILITY MARKOUTS AT THE SURFACE AND DOES NOT INCLUDE SUCH ITEMS AS SUBSURFACE PIPING, UTILITY LINES, ETC. BEFORE ANY EXCAVATION IS TO BEGIN, ALL UNDERGROUND UTILITIES SHOULD BE VERIFIED BY THE PROPER UTILITY COMPANIES. CONTROL POINT ASSOCIATES, INC. DOES NOT GUARANTEE THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA EITHER IN SERVICE OR ABANDONED.
4. THIS PLAN IS BASED ON INFORMATION PROVIDED BY A SURVEY PREPARED IN THE FIELD BY CONTROL POINT ASSOCIATES, INC. AND OTHER REFERENCE MATERIAL AS LISTED HEREON.
5. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND IS SUBJECT TO THE RESTRICTIONS, COVENANTS AND/OR EASEMENTS THAT MAY BE CONTAINED THEREIN.
6. BY GRAPHIC PLOTTING ONLY PROPERTY IS LOCATED IN FLOOD HAZARD ZONE "X" (AREAS DESIGNATED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) PER REF. #2.
7. THE EXISTENCE OF UNDERGROUND STORAGE TANKS, IF ANY, WAS NOT KNOWN AT THE TIME OF THE FIELD SURVEY.
8. ELEVATIONS ARE BASED UPON NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION 8 SURVEY BM 13, PROJECT PIN #813675, ELEVATION = 391.596' (119.360 METERS), NGVD 29.
9. THE OFFSETS SHOWN ARE NOT TO BE USED FOR THE CONSTRUCTION OF ANY STRUCTURE, FENCE, PERMANENT ADDITION, ETC.
10. ENCROACHMENTS AND VAULTS, IF ANY, BELOW SURFACE NOT SHOWN HEREON.
11. THE DELINEATION LINE WAS PLACED IN THE FIELD BY AKRF ENGINEERING & NYCDEP AND FIELD LOCATED BY CONTROL POINT ASSOCIATES, INC..
12. COORDINATES ARE BASED UPON GPS OBSERVATIONS. NEW YORK STATE PLANE COORDINATE SYSTEM, NEW YORK EAST ZONE NAD 83 OPUS CORS 96.
13. PER CONVERSATION WITH TOWN OF NORTH CASTLE WATER PERSONEL, THERE IS NO WATER SERVICE IN NEW KING STREET AT THE SITE.

REFERENCES:

1. THE OFFICIAL TAX ASSESSOR'S MAP OF THE TOWN OF NORTH CASTLE, WESTCHESTER COUNTY, NEW YORK, SHEET #25.
2. MAP ENTITLED "NATIONAL FLOOD INSURANCE PROGRAM, FIRM, FLOOD INSURANCE RATE MAP, FOR WESTCHESTER COUNTY, NEW YORK (ALL JURISDICTIONS), PANEL 279 OF 426, MAP SUFFIX: F," MAP NUMBER 36119C0279F, EFFECTIVE DATE SEPTEMBER 28, 2007.
3. MAP ENTITLED, "NEW YORK STATE DEPARTMENT OF PUBLIC WORKS DESCRIPTION AND MAP FOR THE ACQUISITION OF PROPERTY, INTERSTATE ROUTE NO. 502, BARNES LANE – ARMONK, FOR THE DANIEL GRAY FISHING CLUB OF WHITE PLAINS, N.Y., INC.," DATED MARCH 23, 1965, FILED IN THE WESTCHESTER COUNTY CLERK'S OFFICE ON JUNE 22, 1965, AS MAP NO. 60, PARCEL NO. 76.
4. PREVIOUS SURVEY OF PROPERTY CIRCA 1986, PREPARED BY MCDONALD.

LAYOUT COMPARISON OF IMPERVIOUS AREA

	BUILDING AREA (SF)	PAVEMENT AREA (SF)
CURRENT PROPOSED LAYOUT	37,502	9,544
PREVIOUS PROPOSED LAYOUT	50,915	9,302
IMPERVIOUS AREA REDUCED	13,413	-242

THE CURRENT PROPOSED LAYOUT WILL HAVE A REDUCTION IN IMPERVIOUS AREA OF 13,171 SF (6,103 SF - 242 SF)

SCALE: 1" = 30'

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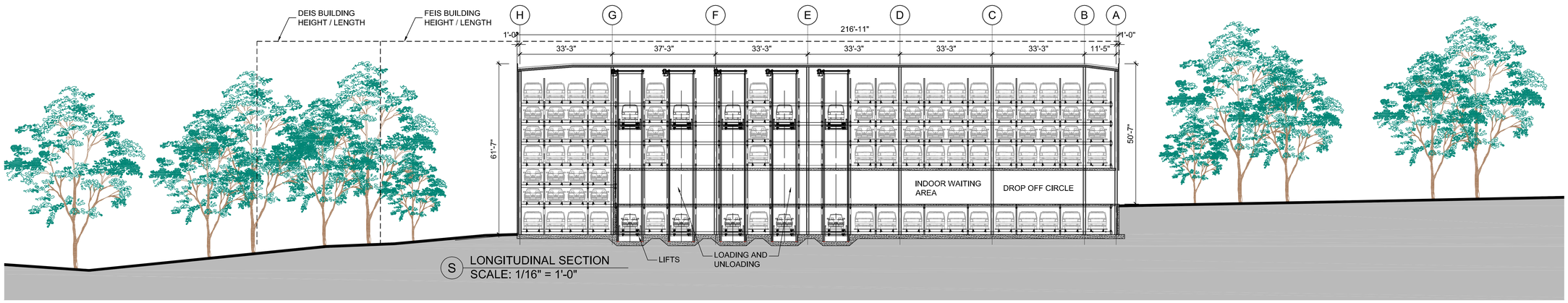
No.	Date	Issue
1	12-18-15	REVISED PER DEP COMMENTS

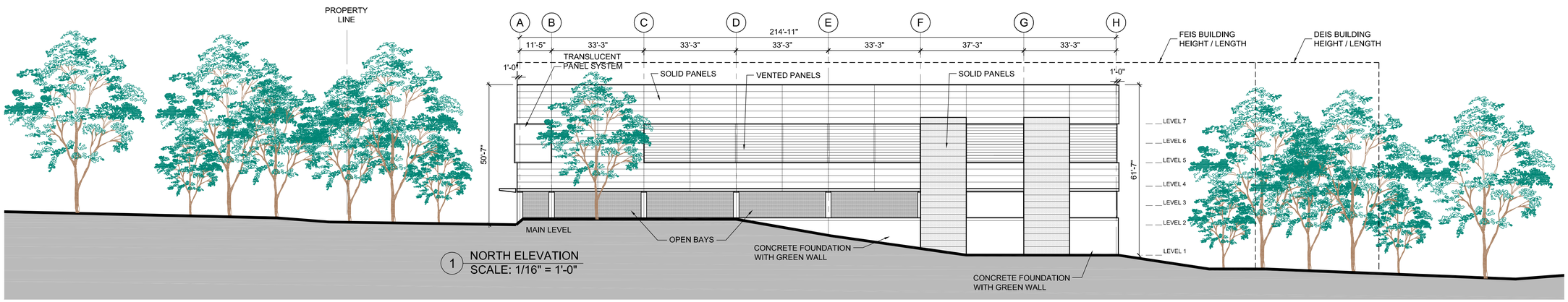
Sheet Title

LAYOUT COMPARISON

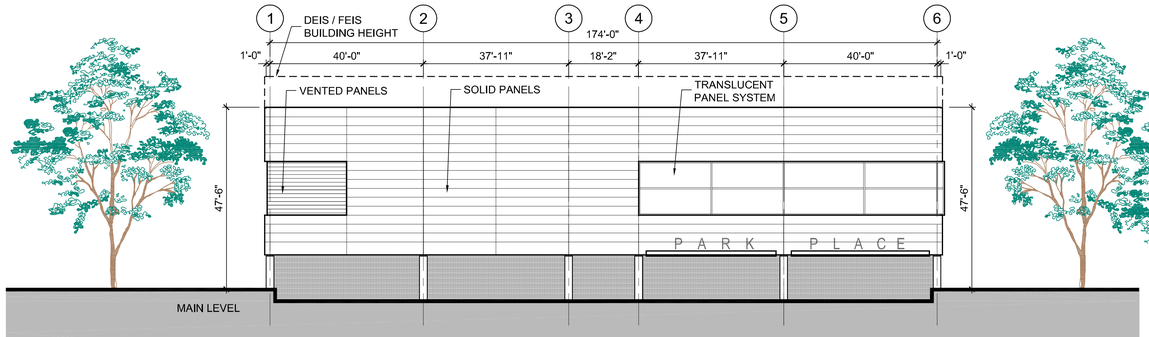
Job No. 2007-0632	Sheet No. C-15
Date 05-30-2014	
Scale 1"=30'	
Drawn/Checked JH/SK	



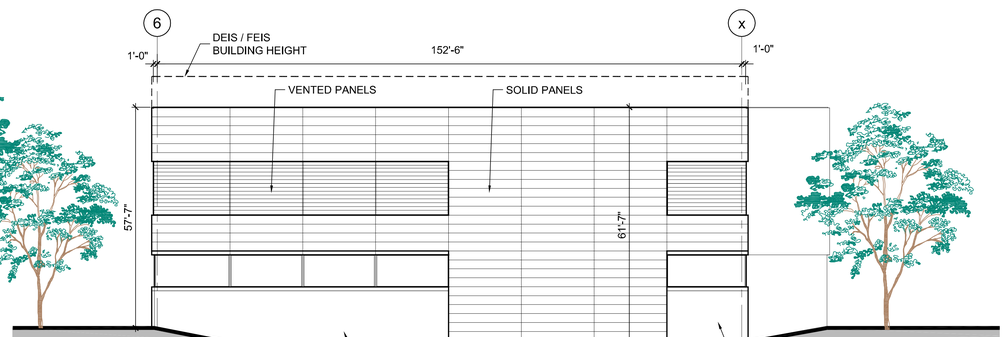
S LONGITUDINAL SECTION
SCALE: 1/16" = 1'-0"



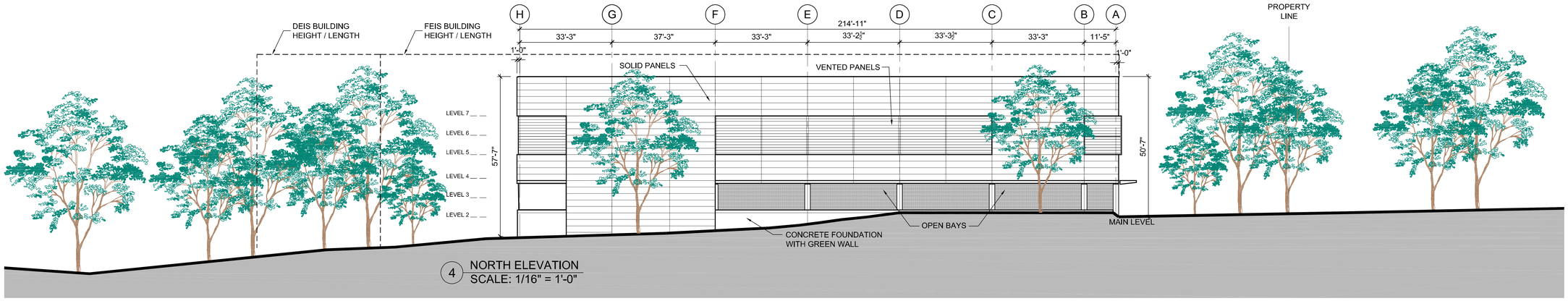
1 NORTH ELEVATION
SCALE: 1/16" = 1'-0"



2 WEST ELEVATION
SCALE: 1/16" = 1'-0"



3 EAST ELEVATION
SCALE: 1/16" = 1'-0"



4 NORTH ELEVATION
SCALE: 1/16" = 1'-0"

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FEIS SUBMISSION

N

No.	Date	Issue
6	04-21-15	REVISED PLAN
5	08-26-11	FEIS SUBMISSION
4	06-16-11	SCHEMATIC DESIGN REVIEW
3	05-24-11	ISSUED FOR PRICING
2	10-26-10	DEIS SUBMISSION
1	06-15-09	SITE PLAN SUBMISSION

Sheet Title

ELEVATIONS / BUILDING SECTION

Job No. 2007-0632	Sheet No. A-3
Date 04-21-15	
Scale AS NOTED	
Drawn/Checked EAK	