PB# 07-07

Jerry's Climate Control Storage (SP)

4-2-19

TOWN OF NEW WINDSOR
PLANNING BOARD
APPROVED COPY
DATE: 10-3-07

07-07 Jerry's Climate Control S.P.
Rt. 300 (Zimmerman) Storage Units

Sabini

9 March To Dillmann - D.O.T.
13 June Re Sent to Dillmann - D.O.T.

9 March Sent Lead Agency Letter
N.Y.S. Parks + Rec
D.O.T.
O.C. Planning

9 March Sent to O.C. Planning
13 June Re Sent to O.C. Planning

13 June N.Y.S. Parks + Rec.
Palisades Park Comm
Michael Clark - Historic Site Manager
Glenn Marshall - Town Hist.

6-11-07 from D.O.T.
6-22-07 from O.C. Plan.
5-3-07 from O.C. Plan.

07-07 Jerry's Climate Control S.P.
Rt. 300 (Zimmerman) Storage Units

Pickup. # 217

Jerry Sabini - 914-403-6879

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UPC 19944
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ZIMMERMAN
ENGINEERING & SURVEYING, P. C.

148 Route 17M • Harriman, NY 10926 Tel: 845-782-7976 • Fax: 845-782-3148

GERALD ZIMMERMAN, P.E., L.S.
MICHAEL OBERMEYER, L.S.
ROY OPPEWALL, P.E.

EMAIL: zimeng@frontiernet.net

Stormwater Pollution Prevention Plan

Jerry's Climate Control

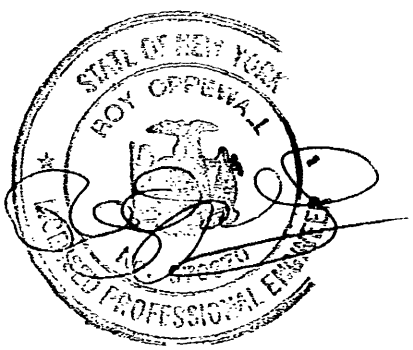
Our Job No. 2647

Town of New Windsor

Orange County, New York

March 29, 2007

Revised: April 25,2007



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MAP INSERTS

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SW-2 POST DEVELOPED WATERSHED

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SW-5 EROSION & SEDIMENT CONTROL DETAILS

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INTRODUCTION

This SWPPP contains the Notice of Intent, Notice of Termination, Erosion Control Plans, Details, Specifications and Maintenance Schedule, Stormwater Permit, Construction Site Log book, Construction Stormwater Inspection Manual, Construction Sequence Schedule, and Long Term Maintenance Plan. These materials should be kept on site and made available for contractors, NYSDEC and local officials.

Project Description

Jerry's Climate Control is located on a 3.0 acre lot identified as Section 4 Block 3 lot 19 and is located on Temple Hill Rd. across from Hempstead Rd. in the Town of New Windsor, Orange County, NY.

The project is a 4 story self storage facility with associated parking. The development results in the increase of impervious area and will be covered under the NYSDEC General Permit for Stormwater Discharges from Construction Activity GP-02-01, pursuant to section 402 of the "Clean Water Act" and issued in accordance with NY State's Environmental Conservation Law. The site is part of the New Windsor MS4. This site will not discharge to any regulated "TMDL" or water on the 303(d) list.

Existing hydrology

Stormwater runoff presently discharges as sheet flow onto the adjacent parcel and into the roadside swale in the states ROW on NY Route 300. Flow eventually discharges into Silver Stream, to the west. The watershed is part of the Moodna Creek Basin. The soils present on site are Mardin, Alden, Erie, and Udorthents which are Group C and D soils.

Post Development Hydrology

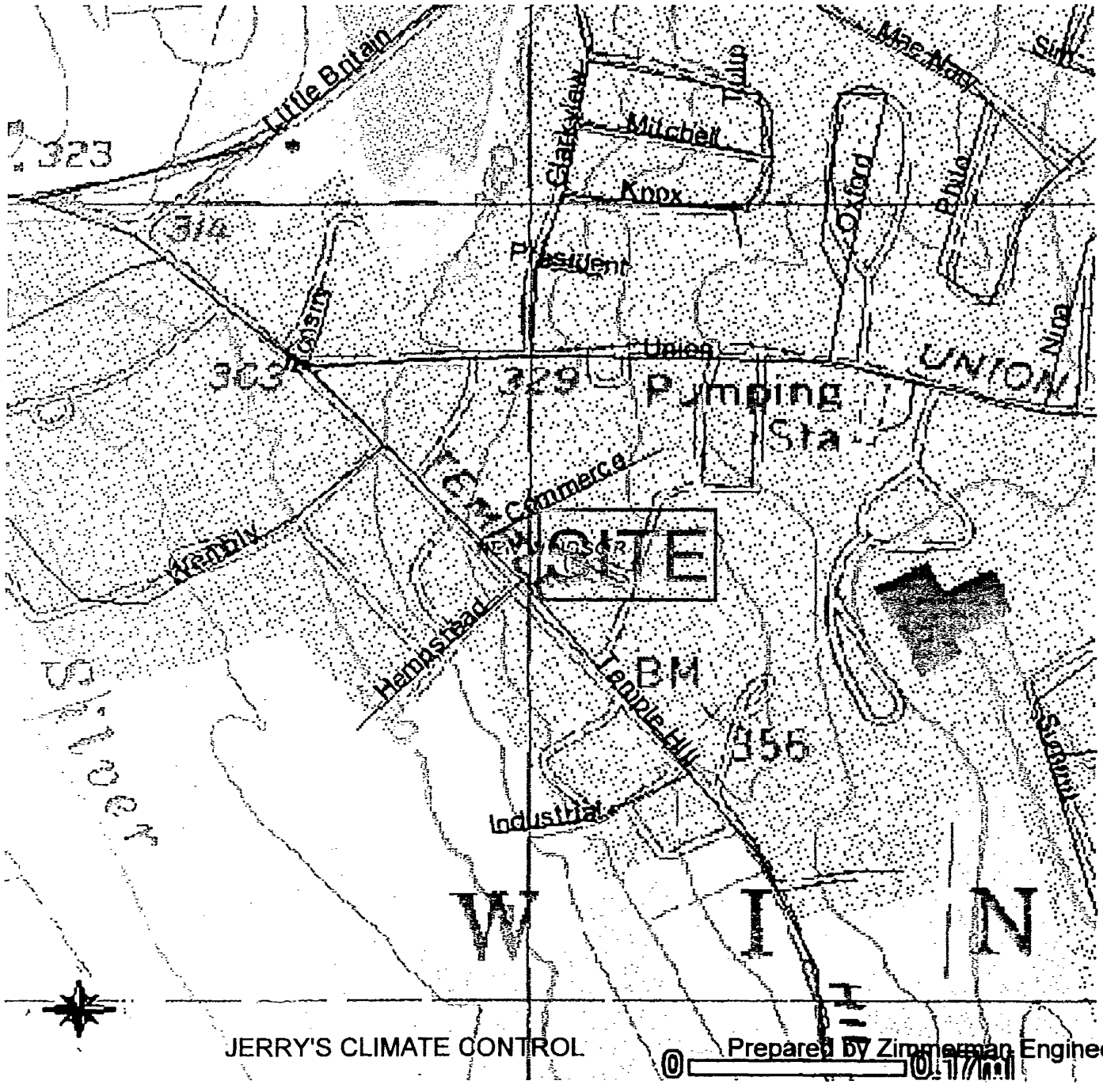
The hydrology and drainage flow will not substantially change after redevelopment. Site runoff will be collected and discharged into a 30" cmp culvert that runs under NYS Route 300. This SWPPP will meet or exceed the requirements to provide for the capture and treatment of the water quality volume which is a result of runoff from the redeveloped area and water quantity control of the channel protection, overbank flood and extreme flood storms.

A pocket pond is proposed to accomplish the water quality and water quantity requirements.

Design Standards

This SWPPP has been prepared by a licensed NY professional engineer. The design is in accordance with the "New York Standards and Specifications for Erosion and Sediment Control" and the "New York State Stormwater Management Design Manual".

JERRY'S CLIMATE CONTROL- TOWN OF NEW WINDSOR



POUGHKEEPSIE NEWBURGH MS4
TMDL WATERSHED- NONE
303d SEGMENT - NONE

X=578013 Y=4592547

TOWN OF NEW WINDSOR,
ORANGE COUNTY
ROUTE 300, A.K.A TEMPLE HILL ROAD

Local Streets
Regulated MS4s
Automatic
Designation
Towns
Counties

JERRY'S CLIMATE CONTROL

Prepared by Zimmerman Engineering & Surveying, PC

0 0.17 mi

STORMWATER COMPONENTS

EROSION AND SEDIMENT CONTROL

The following erosion and sediment control practices will be utilized.
Stabilized construction entrance, storm drain inlet protection, rock outlet protection, sediment basin, silt fence, temporary critical area plantings, and permanent critical area plantings.

IMPLEMENTATION SCHEDULE FOR EROSION AND SEDIMENT CONTROL PRACTICES

Installation of Stabilized Construction Entrance.

Installation of silt fencing

Installation of Temporary Sediment Trap

Installation of temporary drainage swales and culverts. This work should coincide with installation of site drainage structures.

Installation of Stormwater inlet protection.

Installation of temporary critical area plantings should coincide with site earthwork and grading.

Installation of permanent critical plantings should occur after site areas have been graded to final elevations

Installation of post construction stormwater practices

TEMPORARY PRACTICE CONVERSION TO PERMANENT CONTROL

The temporary sediment trap located at the northeast portion of the site will be converted to a dry pond.

WATER QUALITY AND QUANTITY CONTROL

The WQ_v volume required is 0.06 acre feet. The WQ_v volume provided is 0.06 acre feet.
The CP_v volume required is 0.332 acre feet. The CP_v volume provided is 0.332 acre feet.
The Q_p flowrate required is. The Q_p flow rate provided is.
The Q_f flow rate required is. The Q_f flow rate provided is.
The total drainage area is 4.70 acres.

The pre-construction impervious area is 0 acres.
The post-construction impervious area is 1.99 acres.
The total number of discharge points is 2.

SWPPP IMPLEMENTATION

The developer Hudson Valley Offices, LLC is responsible for the implementation, in all areas of the site, of temporary soil and erosion control measures, conversion of temporary stormwater practices to permanent practices, maintenance of structural or vegetative erosion and control practices, implementation and maintenance of permanent erosion and sediment control practices, and the implementation and maintenance of post-construction stormwater practices.

STRUCTURAL PRACTICES TO DIVERT FLOWS

The installation of temporary swales will be used to divert flow form exposed soils. The flow will be diverted to a temporary sediment trap.
Silt laden sheet flow will be controlled with the installation of silt fencing.

POST CONSTRUCTION CONTROL PRACTICES

The post construction control practices control water quality and quantity in one structure. The proposed P-5 pocket pond has been approved by the NYSDEC as an acceptable practice for post construction water quality. The pocket pond will provide extended detention of the channel protection volume and will attenuate peak flow rates of the 10 year and 100 year storms.

CONSTRUCTION SEQUENCE SCHEDULE

Filing of notice of Intent

Flag work limits & install construction fencing at construction clearing limit.

Pre-Construction Meeting

Installation of Temporary erosion and sediment controls starting with the Stabilized Construction Entrance.

Clearing and grubbing

Land disturbance includes roadway grading, excavations for building footings, site drainage and permanent stormwater ponds.

Stabilization of land disturbance

Installation of site utilities

Building footing and finished floor slab

Interior MEP facilities

Installation of permanent stormwater practices

Curb installation

Final grading and installation of base course

Stabilization of final grading

After the site is stabilized, remove all temporary measures.

File notice of Termination

MAINTENANCE SCHEDULE FOR EROSION AND SEDIMENT CONTROL

All erosion and sediment control practices will be checked for stability and operation following every runoff producing rainfall but in no case less than once every week. Any needed repairs will be made immediately to maintain all practices as designed and installed for their appropriate phase of the project.
Then sediment traps will be cleaned out when the level of sediment reaches 2.0 ft below the top of the riser. Gravel will be cleaned or replaced when the sediment pool no longer drains properly.

Sediment will be removed from behind the silt fence when it becomes about 0.5 ft. deep the fence. The silt fence will be repaired as necessary to maintain a barrier.

All seeded areas will be fertilized, reseeded as necessary, and mulched according to specifications in the vegetative plan to maintain a vigorous, dense vegetative cover.

Straw baled dikes will be inspected and repaired, as noted above.

Silt fence will be inspected and repaired, as noted above.

Storm drain inlet protection will be inspected and repaired, as noted above.

Stabilized construction entrance shall be maintained in a condition which will prevent tracking of sediment onto public rights of way or streets.

Rock outlet protection should be inspected after high flows for evidence of scour beneath the rip rap or for dislodged stones. Repairs should be made immediately.

POLLUTION PREVENTION MEASURES

A staging area at the construction entrance will be established. All supplies and construction materials will be held within this area until the contents of the shipment has been identified as hazardous or non-hazardous. The shipment will be recorded in a site document clearly labeled and available for review by the NYSDEC. This "Construction Shipment Log Record" will list the date, invoice number, vendor, material and quantity, placement and use of the hazardous material.

STORAGE OF CONSTRUCTION & WASTE MATERIALS

A hazardous material area will be established by the contractor. This area will provide spill prevention controls, facilities and protection.

The contractor will establish a Spill Prevention Plan and Emergency Spill Procedure Protocol.

The removal of any hazardous material or construction debris will be recorded. All hazardous materials shall be discarded as per local, State and Federal requirements.

LONG TERM MAINTENANCE PLAN FOR STORMWATER PRACTICES

Owner/Operator

Hudson Valley Offices, LLC

PO Box 522

Vails Gate, NY 12584

Legally Binding Maintenance Agreement

This long term maintenance plan shall apply to the Developer and any other responsible party.

Stormwater Operation and Maintenance Plan

The responsible party will follow the comprehensive operation and maintenance plan for the stormwater pond and buffer areas provided herein.

Description of Stormwater Practices

Stormwater Pond-Located at the southwest portion of the site.

Annual maintenance Tasks-To include all storm drainage features, including the following

Maintain Embankment and emergency spillways

Maintain Riser and principal spillway

Maintain permanent pool

Maintain Sediment Forebays

Maintain Dry Pond Areas

Maintain Condition of Outfalls

Miscellaneous Maintenance items

Maintain Vegetation

Stormwater Pond/Wetland Operation, Maintenance and Management Inspection Checklist

Project _____
Location: _____
Site Status: _____

Date: _____
Time: _____

Inspector: _____

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
1. Embankment and emergency spillway (Annual, After Major Storms)		
1. Vegetation and ground cover adequate		
2. Embankment erosion		
3. Animal burrows		
4. Unauthorized planting		
5. Cracking, bulging, or sliding of dam		
a. Upstream face		
b. Downstream face		
c. At or beyond toe		
downstream		
upstream		
d. Emergency spillway		
6.Pond, toe & chimney drains clear and functioning		
7.Seeps/leaks on downstream face		
8.Slope protection or riprap failure		
9. Vertical/horizontal alignment of top of dam "As-Built"		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
10. Emergency spillway clear of obstructions and debris		
11. Other (specify)		
2. Riser and principal spillway (Annual)		
Type: Reinforced concrete _____ Corrugated pipe _____ Masonry _____ 1. Low flow orifice obstructed		
2. Low flow trash rack. a. Debris removal necessary		
b. Corrosion control		
3. Weir trash rack maintenance a. Debris removal necessary		
b. corrosion control		
4. Excessive sediment accumulation insider riser		
5. Concrete/masonry condition riser and barrels a. cracks or displacement		
b. Minor spalling (<1")		
c. Major spalling (rebars exposed)		
d. Joint failures		
e. Water tightness		
6. Metal pipe condition		
7. Control valve a. Operational/exercised		
b. Chained and locked		
8. Pond drain valve a. Operational/exercised		
b. Chained and locked		
9. Outfall channels functioning		
10. Other (specify)		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
3. Permanent Pool (Wet Ponds) (monthly)		
1. Undesirable vegetative growth		
2. Floating or floatable debris removal required		
3. Visible pollution		
4. Shoreline problem		
5. Other (specify)		
4. Sediment Forebays		
1.Sedimentation noted		
2. Sediment cleanout when depth < 50% design depth		
5. Dry Pond Areas		
1. Vegetation adequate		
2. Undesirable vegetative growth		
3. Undesirable woody vegetation		
4. Low flow channels clear of obstructions		
5. Standing water or wet spots		
6. Sediment and / or trash accumulation		
7. Other (specify)		
6. Condition of Outfalls (Annual , After Major Storms)		
1. Riprap failures		
2. Slope erosion		
3. Storm drain pipes		
4.Endwalls / Headwalls		
5. Other (specify)		
7. Other (Monthly)		
1. Encroachment on pond, wetland or easement area		

Maintenance Item	Satisfactory/ Unsatisfactory	Comments
2. Complaints from residents		
3.Aesthetics a. Grass growing required		
b. Graffiti removal needed		
c. Other (specify)		
4. Conditions of maintenance access routes.		
5. Signs of hydrocarbon build-up		
6. Any public hazards (specify)		
8. Wetland Vegetation (Annual)		
1. Vegetation healthy and growing Wetland maintaining 50% surface area coverage of wetland plants after the second growing season. (If unsatisfactory, reinforcement plantings needed)		
2. Dominant wetland plants: Survival of desired wetland plant species Distribution according to landscaping plan?		
3. Evidence of invasive species		
4. Maintenance of adequate water depths for desired wetland plant species		
5. Harvesting of emergent plantings needed		
6. Have sediment accumulations reduced pool volume significantly or are plants "choked" with sediment		
7. Eutrophication level of the wetland.		
8. Other (specify)		

Comments:

Actions to be Taken:

Infiltration Trench Operation, Maintenance, and Management Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
1. Debris Cleanout (Monthly)		
Trench surface clear of debris		
Inflow pipes clear of debris		
Overflow spillway clear of debris		
Inlet area clear of debris		
2. Sediment Traps or Forebays (Annual)		
Obviously trapping sediment		
Greater than 50% of storage volume remaining		
3. Dewatering (Monthly)		
Trench dewaters between storms		
4. Sediment Cleanout of Trench (Annual)		
No evidence of sedimentation in trench		
Sediment accumulation doesn't yet require cleanout		
5. Inlets (Annual)		

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
Good condition		
No evidence of erosion		
6. Outlet/Overflow Spillway (Annual)		
Good condition, no need for repair		
No evidence of erosion		
7. Aggregate Repairs (Annual)		
Surface of aggregate clean		
Top layer of stone does not need replacement		
Trench does not need rehabilitation		

Comments:

Actions to be Taken:

Sand/Organic Filter Operation, Maintenance and Management Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
1. Debris Cleanout (Monthly)		
Contributing areas clean of debris		
Filtration facility clean of debris		
Inlet and outlets clear of debris		
2. Oil and Grease (Monthly)		
No evidence of filter surface clogging		
Activities in drainage area minimize oil and grease entry		
3. Vegetation (Monthly)		
Contributing drainage area stabilized		
No evidence of erosion		
Area mowed and clipping removed		
4. Water Retention Where Required (Monthly)		
Water holding chambers at normal pool		
No evidence of leakage		
5. Sediment Deposition (Annual)		

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
Filter chamber free of sediments		
Sedimentation chamber not more than half full of sediments		
6. Structural Components (Annual)		
No evidence of structural deterioration		
Any grates are in good condition		
No evidence of spalling or cracking of structural parts		
7. Outlet/Overflow Spillway (Annual)		
Good condition, no need for repairs		
No evidence of erosion (if draining into a natural channel)		
8. Overall Function of Facility (Annual)		
Evidence of flow bypassing facility		
No noticeable odors outside of facility		

Comments:

_____
_____
_____
_____
_____
_____
_____

Actions to be Taken:

_____
_____
_____
_____
_____
_____

Bioretention Operation, Maintenance and Management Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
1. Debris Cleanout (Monthly)		
Bioretention and contributing areas clean of debris		
No dumping of yard wastes into practice		
Litter (branches, etc.) have been removed		
2. Vegetation (Monthly)		
Plant height not less than design water depth		
Fertilized per specifications		
Plant composition according to approved plans		
No placement of inappropriate plants		
Grass height not greater than 6 inches		
No evidence of erosion		
3. Check Dams/Energy Dissipaters/Sumps (Annual, After Major Storms)		
No evidence of sediment buildup		

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
Sumps should not be more than 50% full of sediment		
No evidence of erosion at downstream toe of drop structure		
4. Dewatering (Monthly)		
Dewaters between storms		
No evidence of standing water		
5. Sediment Deposition (Annual)		
Swale clean of sediments		
Sediments should not be > 20% of swale design depth		
6. Outlet/Overflow Spillway (Annual, After Major Storms)		
Good condition, no need for repair		
No evidence of erosion		
No evidence of any blockages		
7. Integrity of Filter Bed (Annual)		
Filter bed has not been blocked or filled inappropriately		

Comments:

Actions to be Taken:

Open Channel Operation, Maintenance, and Management Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

MAINTENANCE ITEM	SATISFACTORY/ UNSATISFACTORY	COMMENTS
1. Debris Cleanout (Monthly)		
Contributing areas clean of debris		
2. Check Dams or Energy Dissipators (Annual, After Major Storms)		
No evidence of flow going around structures		
No evidence of erosion at downstream toe		
Soil permeability		
Groundwater / bedrock		
3. Vegetation (Monthly)		
Mowing done when needed		
Minimum mowing depth not exceeded		
No evidence of erosion		
Fertilized per specification		
4. Dewatering (Monthly)		
Dewaters between storms		

MAINTENANCE ITEM	SATISFACTORY/ UNSATISFACTORY	COMMENTS
5. Sediment deposition (Annual)		
Clean of sediment		
6. Outlet/Overflow Spillway (Annual)		
Good condition, no need for repairs		
No evidence of erosion		

Comments:

Actions to be Taken:

NOTICE OF INTENT

NOTICE OF INTENT

New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505

NYR _____ (for DEC use only)

Stormwater Discharges Associated with Construction Activity Under State Pollutant Discharge Elimination System (SPDES) General Permit # GP-02-01

All sections must be completed unless otherwise noted. Failure to complete all items may result in this form being returned to you, thereby delaying your coverage under this General Permit. Applicants must read and understand the conditions of the permit and prepare a Stormwater Pollution Prevention Plan prior to submitting this NOI. Applicants are responsible for identifying and obtaining other DEC permits that may be required. To properly complete this form, please refer to the Instruction Manual which can be accessed at www.dec.state.ny.us/website/dow/toolbox/instr_man.pdf

-IMPORTANT-

THIS FORM FOR MACHINE PRINT ONLY
RETURN THIS FORM TO THE ADDRESS ABOVE

OWNER/OPERATOR **MUST SIGN FORM**

Owner/Operator Information

Owner/Operator (Company Name/Private Owner Name/Municipality Name)
JERRY'S CLIMATE CONTROL

Owner/Operator Contact Person Last Name (NOT CONSULTANT)
SARKISSIAN

Owner/Operator Contact Person First Name
JERRY SABINI

Owner/Operator Mailing Address
PO Box 522

City
VAILS GATE

State
NY

Zip
12584 - ____

Phone (Owner/Operator)
845 - 561 - 0220

Fax (Owner/Operator)
___ - ___ - ____

Email (Owner/Operator)

Location Information

Project Site Information

Project/Site Name
JERRY'S CLIMATE CONTROL

Street Address (NOT P.O. BOX)
NY ROUTE 300

City/Town/Village (THAT ISSUES BUILDING PERMIT)
NEW WINDSOR

State
NY

Zip
-

County
ORANGE

DEC Region (if known)
3

Name of Nearest Cross Street
HEAMPSTEAD RD

Distance to Nearest Cross Street (Feet)
100

Direction to Nearest Cross Street
○ North ○ South ○ East ● West

1. Provide the Geographic Coordinates for the project site in NYTM Units. To do this you **must** go to the NYSDEC Stormwater Interactive Map on the DEC website at:

www.dec.state.ny.us/website/imsmaps/stormwater/viewer.htm

Zoom into your Project Location such that you can accurately click on the centroid of your site. Once you have located your project site go to the dropdown menu on the left and choose "Get Coordinates". Click on the center of your site and a small window containing the X, Y coordinates in UTM will pop up. Transcribe these coordinates into the boxes below. For problems with the interactive map use the help function.

X Coordinates (Easting)
578013

Y Coordinates (Northing)
4592547

2. What is the nature of this construction project?

● **New Construction**

○ **Redevelopment with increase in imperviousness**

○ **Redevelopment with no increase in imperviousness**

Project Site Information

3. Select the predominant land use for both pre and post development conditions.
SELECT ONLY ONE CHOICE FOR EACH

Pre-Development Existing Land Use	Post-Development Future Land Use
● FOREST	○ SINGLE FAMILY HOME
○ PASTURE/OPEN LAND	○ SINGLE FAMILY SUBDIVISION
○ CULTIVATED LAND	○ TOWN HOME RESIDENTIAL
○ SINGLE FAMILY HOME	○ MULTIFAMILY RESIDENTIAL
○ SINGLE FAMILY SUBDIVISION	○ INSTITUTIONAL/SCHOOL
○ TOWN HOME RESIDENTIAL	○ INDUSTRIAL
○ MULTIFAMILY RESIDENTIAL	● COMMERCIAL
○ INSTITUTIONAL/SCHOOL	○ ROAD/HIGHWAY
○ INDUSTRIAL	○ RECREATIONAL/SPORTS FIELD
○ COMMERCIAL	○ BIKE PATH/TRAIL
○ ROAD/HIGHWAY	○ LINEAR UTILITY (water, sewer, gas, etc.)
○ RECREATIONAL/SPORTS FIELD	○ PARKING LOT
○ BIKE PATH/TRAIL	○ OTHER
○ SUBSURFACE UTILITY	
○ PARKING LOT	
○ OTHER	
OTHER	OTHER

Number of Lots

4. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law ? ○ Yes ● No

5. Is this a project which does not require coverage under the General Permit (e.g. Project done under an Individual SPDES Permit, or department approved remediation)? ○ Yes ● No

6. Is this property owned by a state authority, state agency or local government? ○ Yes ● No

7. In accordance with the larger common plan of development or sale; enter the total project site acreage, the acreage to be disturbed and the future impervious area (acreage)within the disturbed area. Round to the nearest tenth of an acre.

Total Site Acreage	Acreage To Be Disturbed	Existing Impervious Area Within Disturbed	Future Impervious Area Within Disturbed
3.0	3.0	0.0	2.0

8. Will there be more than 5 acres disturbed at any given time? ○ Yes ● No

9. Indicate the percentage of each Hydrologic Soil Group(HSG) at the site.

A	B	C	D
%	%	95 %	5 %

10. Is this a phased project? **(if yes, The SWPPP must address all planned phases)** ○ Yes * ● No

11. Enter the planned start and end dates of the disturbance activities

Start Date 07/01/2007 – **End Date** 07/01/2012

Receiving System(s)

12. Provide the name of the nearest, natural, classified surface waterbody(ies) into which construction site runoff has the potential to discharge.

For Questions 13 and 14 refer to the Instruction Manual for a subset of 303(d) segments and TMDL watersheds subject to Condition A of the permit. These waterbodies and watersheds have been identified for regulation within the stormwater program due to some level of impairment by nutrients, silt or sediment. The Instruction Manual can be accessed at www.dec.state.ny.us/website/dow/toolbox/instr_man.pdf

13. Has the surface waterbody(ies) in question 12 been identified as a 303(d) segment? ○ Yes * ● No

14. Is this project located in a TMDL Watershed? ○ Yes * ● No

***NOTE:** **If you answered Yes to either question 13 or 14, Pursuant to Part I.D.3.(b) of the permit, you must have your SWPPP prepared and certified by a licensed/certified professional and the SWPPP is subject to a 60-business day review.**

15. Does the site runoff enter a separate storm sewer system- including roadside drains, swales, ditches, culverts, etc? **if no, skip question 16)** ● Yes ○ No ○ Unknown

16. What is the name of the municipality/entity that owns the separate storm sewer system?

TOWN OF NEW WINDSOR

17. Does any runoff from the site enter a sewer classified as a Combined Sewer? ○ Yes ○ No ● Unknown

Stormwater Pollution Prevention Plan (SWPPP)

18. Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book) ? ● Yes ○ No*

19. Does this construction activity require the development of a SWPPP that includes Water Quality and Quantity Control components (Post-Construction Stormwater Management Practices) **If no, Skip question 20** ● Yes ○ No

20. Have the Water Quality and Quantity Control components of the SWPPP been developed in comformance with the current NYS Stormwater Management Design Manual ? ● Yes ○ No*

NOTE: If you answered no to question 18 or 20, Pursuant to Part I.D.3.(b) of the permit, you must have your SWPPP prepared and certified by a licensed/certified professional and the SWPPP is subject to a 60-business day review. Please provide further details in the details/comment section on the last page of this form.

21. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:

- ● **Professional Engineer (P.E.)**
- ○ **Soil and Water Conservation District (SWCD)**
- ○ **Registered Landscape Architect (R.L.A)**
- ○ **Certified Professional in Erosion and Sediment Control (CPESC)**
- ○ **Owner/Operator**
- ○ **Other**

SWPPP Preparer Information
(if different from Owner/Operator info)

SWPPP Preparer
ZIMMERMAN ENGINEERING & SURVEYING P.C.

Contact Name (Last, Space, First)
OPPEWALL, ROY

Mailing Address
148 ROUTE 17M

City
HARRIMAN

State
NY

Zip
10926-

Phone
845-782-7976

Fax
845-782-3148

Email
ZIMENG@FRONTIERNET,NET

Stormwater Pollution Prevention Plan (SWPPP)

Erosion and Sediment Control Practices

22. Has a construction sequence schedule for the planned management practices been prepared?

● Yes ○ No

23. Select **all** of the erosion and sediment control practices that will be employed on the project site.

Temporary Structural

- ○ Check Dams
- ○ Construction Road Stabilization
- ○ Dust Control
- ○ Earth Dike
- ○ Level Spreader
- ○ Perimeter Dike/Swale
- ○ Pipe Slope Drain
- ○ Portable Sediment Tank
- ○ Rock Dam
- ○ Sediment Basin
- ● Sediment Traps
- ● Silt Fence
- ● Stabilized Construction Entrance
- ● Storm Drain Inlet Protection
- ● Straw/Hay Bale Dike
- ○ Temporary Access Waterway Crossing
- ○ Temporary Stormdrain Diversion
- ○ Temporary Swale
- ○ Turbidity Curtain
- ○ Water bars

Biotechnical

- ○ Brush Matting
- ○ Wattling

Vegetative Measures

- ○ Brush Matting
- ○ Dune Stabilization
- ○ Grassed Waterway
- ● Mulching
- ○ Protecting Vegetation
- ○ Recreation Area Improvement
- ● Seeding
- ○ Sodding
- ○ Straw/Hay Bale Dike
- ○ Streambank Protection
- ○ Temporary Swale
- ● Topsoiling
- ○ Vegetating Waterways

Permanent Structural

- ○ Debris Basin
- ○ Diversion
- ○ Grade Stabilization Structure
- ○ Land Grading
- ○ Lined Waterway (Rock)
- ○ Paved Channel (Concrete)
- ○ Paved Flume
- ○ Retaining Wall
- ○ Riprap Slope Protection
- ● Rock Outlet Protection
- ○ Streambank Protection

Other

Stormwater Pollution Prevention Plan (SWPPP)

Water Quality and Quantity Control

Important: Completion of Questions 24-30 is not required if the project:

Disturbs less than 5 acres and is planned for single-family residential homes(including subdivisions) or construction on agricultural property and does not have a discharge to a 303(d) water or is not located within a TMDL watershed.

Additionally, sites where there will be no future impervious area within the disturbed area and that do not have a change(pre to post development)in hydrology do not need to complete questions 24-30.

24. Indicate **all** the permanent Stormwater Management Practice(s) that will be installed on this site

Post Construction Stormwater Management Practices

Ponds

- ○ **Micropool Extended Detention (P-1)**
- ○ **Wet Pond (P-2)**
- ○ **Wet Extended Detention (P-3)**
- ○ **Multiple Pond System (P-4)**
- ● **Pocket Pond (P-5)**

Filtering

- ○ **Surface Sand Filter (F-1)**
- ○ **Underground Sand Filter (F-2)**
- ○ **Perimeter Sand Filter (F-3)**
- ○ **Organic Filter (F-4)**
- ○ **Bioretention (F-5)**

Wetlands

- ○ **Shallow Wetland (W-1)**
- ○ **Extended Detention Wetland (W-2)**
- ○ **Pond/Wetland System (W-3)**
- ○ **Pocket Wetland (W-4)**

Infiltration

- ○ **Infiltration Trench (I-1)**
- ○ **Infiltration Basin (I-2)**
- ○ **Dry Well (I-3)**

Open Channels

- ○ **Dry Swale (O-1)**
- ○ **Wet Swale (O-2)**

○ **Other**

Describe other stormwater management practices not listed above or explain any deviations from the technicial standards. If the SWPPP does not conform to the technicial standards, the SWPPP must be prepared and certified by a licensed/certified professional and is subject to a 60-business day review.

Has a long term Operation and Maintenance plan for the post construction management practices been developed? ● **Yes** ○ **No**

If Yes, Identify the entity responsible for the long term Operation and Maintenance

JERRY'S CLIMATE CONTROL

Stormwater Pollution Prevention Plan (SWPPP)
Water Quality and Quantity Control

25. Provide the total water quality volume required and the total provided for the site.

Total Water Quality Volume (WQv)

WQv Required	WQv Provided
0.06 acre-feet	0.06 acre-feet

26. Provide the following Unified Stormwater Sizing Criteria for the site.

Total Channel Protection Storage Volume (CPv) - Extended detention of post-developed 1 year, 24 hour storm event

CPv Required	CPv Provided
0.311 acre-feet	0.311 acre-feet

The need to provide for channel protection has been waived because
○ **Site discharges directly to fourth order stream or larger**

Total Overbank Flood Control Criteria (Qp) - Peak discharge rate for the 10 year storm

Pre-Development	Post-development
8.64 CFS	4.95 CFS

Total Extreme Flood Control Criteria (Qf) - Peak discharge rate for the 100 year storm

Pre-Development	Post-development
15.12 CFS	7.85 CFS

The need to provide for flood control has been waived because
○ **Site discharges directly to fourth order stream or larger**
○ **Downstream analysis reveals that flood control is not required**

IMPORTANT: **For questions 27 and 28 impervious area should be calculated considering the project site and all offsite areas that drain to the post-construction stormwater management practice(s) (Total Drainage Area = Project Site + Offsite areas)**

27. Pre-Construction Impervious Area - As a percent of the Total Drainage Area enter the percentage of the existing impervious areas before construction begins. **16 %**

28. Post-Construction Impervious Area - As a percent of the Total Drainage Area enter the percentage of the future impervious areas that will be created/remain on the site after completion of construction. **59 %**

29. Indicate the total number of permanent stormwater management practices to be installed **1**

30. Provide the total number of stormwater discharge points from the site (include discharges to either surface waters or to seperate storm sewer systems) **2**

Other Permits

ny other DEC permits that are required for this project or ● None

DEC Permits

Air Pollution Control	○ Stream Protection/Article 15
Coastal Erosion	○ Water Quality Certificate
Hazardous Waste	○ Dam Safety
Long Island Wells	○ Water Supply
Mined Land Reclamation	○ Freshwater Wetlands
Other SPDES	○ Tidal Wetlands
Solid Waste	○ Wild, Scenic and Recreational Rivers

NOI is being submitted for the purpose of continuing coverage under a it for stormwater runoff from construction activities, please indicate PDES number assigned.

N Y R

Details/Comments

Certification

: been advised of the permit conditions and believe that I understand them. I also at, under the terms of the permit, there may be reporting requirements. I also certify under v that this document and the corresponding documents were prepared under my direction or a accordance with a system designed to assure that qualified personnel properly gather and information submitted. Based on my inquiry of the person(s) who manage the system, or those ly responsible for gathering the information, the information submitted is, to the best of and belief, true, accurate and complete. I am aware that there are significant penalties for lse information, including the possibility of fine and imprisonment for knowing violations. erstand that coverage under the general permit will be identified in the acknowledgment that e as a result of submitting this NOI and can be as long as sixty (60) days as provided for l permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP loped and will be implemented as the first element of construction. and agreeing to comply terms and conditions of the general permit for which this NOI is being submitted.

st Name: Y

MI:

st Name: N I

erator Signature:

Date: 0 3 / 3 0 / 2 0 0 7

Notice of Termination

New York State Department of Environmental Conservation
Division of Water
Bureau of Water Permits, 4th Floor
625 Broadway, Albany, New York 12233-3505
Phone: (518) 402-8111 . **Fax:** (518) 402-9029
Website: www.dec.state.ny.us

NYR ☐☐☐☐☐☐
(for DEC use only)

Notice of Intent or Termination

For Stormwater Discharges Associated with Industrial Activity under the State Pollutant Discharge Elimination System (SPDES) Multi-Sector General Permit GP-0-06-002

All Sections must be completed unless otherwise noted. Failure to complete all items may result in this form being returned to you, thereby delaying your coverage under this General Permit. Applicants must read and understand the conditions of the permit and prepare a Stormwater Pollution Prevention Plan prior to submitting this Notice of Intent or Termination (NOIT) Form. Applicants are responsible for identifying and obtaining other DEC permits that may be required.

"IMPORTANT - PRINT CAPITAL LETTERS USING BLACK INK. AVOID CONTACT WITH THE EDGE OF THE BOXES. FILL IN CIRCLES COMPLETELY AND DO NOT USE CHECK MARKS. OWNER/OPERATOR MUST SIGN FORM."

Owner/Operator Information

O/O Name
JERRY'S CLIMATE CONTROL

O/O Street Address

O/O City

O/O State
NY

O/O Zip
-

Contact Information

Contact First Name

Contact Last Name

Contact Phone
- -

Contact Fax
- -

Contact eMail

Facility Information

Facility Name

Facility Street Address

Facility City

Facility State: N Y

Facility Zip: ____ - ____

Facility County

Name of Nearest Cross Street: HEAMPSTEAD RD

Distance to Nearest Cross Street (feet): 100

Direction to Nearest Cross Street

○ North ○ South ○ East ○ West

---

1. Permit I.D Number (for renewals, modifications or terminations) NYR

2. Reason for Submittal:
   - ○ Coverage for a new facility (not previously permitted)
   - ○ Permit Renewal
   - ○ Modification (There has been a change in information since the earlier submission)
   - ○ Want to terminate general stormwater permit coverage

3. Provide the Geographic Coordinates for the facility in NYTM units.

X Coordinates (Easting)

4 Y Coordinates (Northing)

These coordinates can be obtained through the NYSDEC Stormwater Interactive Map on the DEC Website at: http://www.dec.state.ny.us/website/imsmaps/stormwater/viewer.htm
Directions: Go to the above website. Zoom into your project location such that you can accurately click on the center of your facility. Once you have located your facility, go to the drop-down menu on the left and choose "Get Coordinates". Click on the center of your facility and a small window containing the X, Y coordinates in NYTM units will pop up. Transcribe these coordinates into the spaces above. For problems with the interactive map, please try the help function.

4. Identify all applicable Industrial Activities from the Industrial Sectors shown below that are located within areas subject to the stormwater discharges covered under this permit. Check all that apply to your facility.

Sampling Notes	Mark all that apply	SIC Code or Activity Code	Activity Represented
		Sector A: Timber Products	
B,C	O	2411	Log Storage and Handling (Wet deck storage areas are only authorized if no chemical additives are used in the spray water or applied to the logs).
B	O	2421	General Sawmills and Planning Mills
B	O	2426	Hardwood Dimension and Flooring Mills
B	O	2429	Special Product Sawmills, Not Elsewhere
B	O	2431-2439 (except 2434 - see sector W)	Millwork, Veneer, Plywood, and Structural Wood.
B	O	2441, 2448, 2449	Wood Containers
B	O	2451, 2452	Wood Buildings and Mobile Homes
B	O	2491	Wood Preserving
B	O	2493	Reconstituted Wood Products
B	O	2499	Wood Products, Not Elsewhere Classified
		Sector B: Paper and Allied Products	
	O	2611	Pulp Mills
	O	2621	Paper Mills
B	O	2631	Paperboard Mills
	O	2652-2657	Paperboard Containers and Boxes
	O	2671-2679	Converted Paper and Paperboard Products, Except Containers and Boxes
		Sector C: Chemical and Allied Products	
B	O	2812-2819	Industrial Inorganic Chemicals.
B	O	2821-2824	Plastics Materials and Synthetic Resins, Synthetic Rubber, Cellulosic and Other Manmade Fibers Except Glass.
	O	2833-2836	Medicinal Chemicals and Botanical Products; Pharmaceutical Preparations; In Vitro and In Vivo Diagnostic Substances; Biological Products, Except Diagnostic Substances.
B	O	2841-2844	Soaps, Detergents, and Cleaning Preparations; Perfumes, Cosmetics, and Other Toilet Preparations.
	O	2851	Paints, Varnishes, Lacquers, Enamels, and Allied Products.
	O	2861-2869	Industrial Organic Chemicals.
B,C	O	2873-2879	Agricultural Chemicals.
	O	2891-2899	Miscellaneous Chemical Products.
	O	3952 (limited to list)	Inks and Paints, Including China Painting Enamels, India Ink, Drawing Ink, Platinum Paints for Burnt Wood or Leather Work, Paints for China Painting, Artist's Paints and Artist's Watercolors.
		Sector D: Asphalt Paving and Roofing Materials and Lubricants	
B,C	O	2951, 2952	Asphalt Paving and Roofing Materials
	O	2992, 2999	Miscellaneous Products of Petroleum and Coal
		Sector E: Glass Clay, Cement, Concrete, and Gypsum Products	
	O	3211	Flat Glass
	O	3221, 3229	Glass and Glassware, Pressed or Blown
	O	3231	Glass Products Made of Purchased Glass
C	O	3241	Hydraulic Cement
B	O	3251-3259	Structural Clay Products
B	O	3261-3269	Pottery and Related Products
B,C	O	3271-3275	Concrete, Gypsum and Plaster
	O	3281	Cut Stone and Stone Products
	O	3291-3299	Abrasive, Asbestos, and Miscellaneous Non-metallic Mineral Products

Sampling Notes	Mark all that apply	SIC Code or Activity Code	Activity Represented
		Sector F: Primary Metals	
B	O	3312-3317	Steel Works, Blast Furnaces, and Rolling and Finishing Mills
B	O	3321-3325	Iron and Steel Foundries
	O	3331-3339	Primary Smelting and Refining of Nonferrous Metals
	O	3341	Secondary Smelting and Refining of Nonferrous Metals
B	O	3351-3357	Rolling, Drawing, and Extruding of Nonferrous
B	O	3363-3369	Nonferrous Foundries (Castings)
	O	3398, 3399	Miscellaneous Primary Metal Products
		Sector G: Metal Mining (Ore Mining and Dressing)	
B	O	1011	Iron Ores
B	O	1021	Copper Ores
B	O	1031	Lead and Zinc Ores
B	O	1041, 1044	Gold and Silver Ores
B	O	1061	Ferroalloy Ores, Except Vanadium
B	O	1081	Metal Mining Services
B	O	1094, 1099	Miscellaneous Metal Ores
		Sector H: Coal Mines and Coal Mining Related Facilities	
		Sector I: Oil and Gas Extraction and Refining	
B	O	1311	Crude Petroleum and Natural Gas
B	O	1321	Natural Gas Liquids
B	O	1381-1389	Oil and Gas Field Services
B	O	2911	Petroleum Refineries
		Sector J: Mineral Mining and Dressing	
B	O	1411	Dimension Stone
B,C	O	1422-1429	Crushed and Broken Stone, Including Rip Rap
B,C	O	1442, 1446	Sand and Gravel
	O	1455, 1459	Clay, Ceramic, and Refractory Materials
	O	1474-1479	Chemical and Fertilizer Mineral Mining
B	O	1481	Nonmetallic Minerals Services, Except Fuels
B	O	1499	Miscellaneous Nonmetallic Minerals, Except Fuels
		Sector K: Hazardous Waste Treatment, Storage, or Disposal Facilities	
B,C	O	HZ	Hazardous Waste Treatment, Storage or Disposal
		Sector L: Land Fills and Land Application Sites	
B,C	O	LF	Landfills, Land Application Sites, and Open Dumps
		Sector M: Automobile Salvage Yards	
B	O	5015	Automobile Salvage Yards
		Sector N: Scrap Recycling Facilities	
B	O	5093	Scrap Recycling Facilities
B	O	4499 (limited to list)	Dismantling Ships, Marine Salvaging, and Marine Wrecking - Ships for Scrap
		Sector O: Steam Electric Generating Facilities	
B,C	O	SE	Steam Electric Generating Facilities

Sampling Notes	Mark all that apply	SIC Code or Activity Code	Activity Represented
		Sector P: Land Transportation and Warehousing	
B	O	4011, 4013	Railroad Transportation
B	O	4111-4173	Local and Highway Passenger Transportation
B	O	4212-4231	Motor Freight Transportation and Warehousing
B	O	4311	United States Postal Service
B	O	5171	Petroleum Bulk Stations and Terminals
		Sector Q: Water Transportation	
B	O	4412-4499 (except 4499 as specified in Sector N)	Water Transportation
		Sector R: Ship and Boat Building or Repairing Yards	
	O	3731, 3732	Ship and Boat Building or Repair Yards
		Sector S: Air Transportation	
B	O	4512-4581	Air Transportation Facilities
		Sector T: Treatment Works	
B	O	TW	Treatment Works
		Sector U: Food and Kindred Products	
	O	2011-2015	Meat Products
	O	2021-2026	Dairy Products
	O	2032-2038	Canned, Frozen and Preserved Fruits, Vegetables and Food Specialties
B	O	2041-2048	Grain Mill Products
	O	2051-2053	Bakery Products
	O	2061-2068	Sugar and Confectionery Products
B	O	2074-2079	Fats and Oils
	O	2082-2087	Beverages
	O	2091-2099	Miscellaneous Food Preparations and Kindred Products
	O	2111-2141	Tobacco Products
		Sector V: Textile Mills, Apparel, and Other Fabric Product Manufacturing, Leather and Leather Pruducts	
	O	2211-2299	Textile Mill Products
	O	2311-2399	Apparel and Other Finished Products Made From Fabrics and Similiar Materials
	O	3131-3199 (except 3111- see sector Z)	Leather and Leather Products, except Leather Tanning and Finishing
		Sector W: Furniture and Fixtures	
	O	2434	Wood Kitchen Cabinets
	O	2511-2599	Furniture and Fixtures
		Sector X: Printing and Publishing	
	O	2711-2796	Printing, Publishing, and Allied Industries
		Sector Y: Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries	
B	O	3011	Tires and Inner Tubes
B	O	3021	Rubber and Plastics Footwear
B	O	3052, 3053	Gaskets, Packing, and Sealing Devices and rubber and Plastics Hose and Belting
B	O	3061, 3069	Fabricated Rubber Products, Not Elsewhere Classified
B	O	3081-3089	Miscellaneous Plastics Products
	O	3931	Musical Instruments
	O	3942-3949	Dolls, Toys, Games and Sporting and Athletic Goods
	O	3951-3955	Pens, Pencils, and Other Artists' Materials
	O	3961, 3965	Costume Jewelry, Costume Novelties, Buttons, and Miscellaneous Notions, Except Precious Metal
	O	3991-3999	Miscellaneous Manufacturing Industries

Sampling Notes	Mark all that apply	SIC Code or Activity Code	Activity Represented
		Sector Z: Leather Tanning and Finishing	
B	O	3111	Leather Tanning, Currying and Finishing
		Sector AA: Fabricated Metal Products	
B	O	3411-3499	Fabricated Metal Products, Except Machinery and Transportation Equipment
B	O	3911-3915	Jewelry, Silverware, and Plated Ware
		Sector AB: Transportation Equipment, Industrial or Commercial Machinery	
	O	3511-3599 (except 3571-3579 see Sector AC)	Industrial and Commercial Machinery (Except Computer and Office Equipment)
	O	3711-3799 (except 3731 & 3732 see Sector R)	Transportation Equipment (Except Ship and Boat Building and Repairing)
		Sector AC: Electronic, Electrical, Photographic, and Optical Goods	
B	O	3571-3579	Computer and Office Equipment
B	O	3612-3699	Electronic, Electrical Equipment and Components, Except Computer Equipment
B	O	3812-3873	Measuring, Analyzing and Controlling Instrument; Photographic and Optical Goods
		Sector AD & AE: Non-Classified Facilities/Storm Water Discharges Designated By the Board As Requiring Permits	
B	O	Sector AD	Other Storm Water Discharges Designated By the Department As Needing a Permit or Any Facility Discharging Storm Water Associated With Industrial Activity Not Described By Any of Sectors A-AC. Note: Facilities may not elect to be covered under Sector AD. Only the Department may assign a facility to Sector AD.
B	O	Sector AE	

Notes: B - Benchmark Monitoring Required
C - Compliance Monitoring for Point Source Category Effluent Limitations

5. Has a Stormwater Pollution Prevention Plan (SWPPP) been prepared for this facility in accordance with the requirements of the SPDES Multi-Sector General Permit? Please be advised that you cannot obtain coverage under this permit without having first prepared a SWPPP. ..... O Yes O No

6. For each stormwater discharge associated with industrial activity at your facility identify the outfall number (e.g., 001, 002, etc.); the four digit Standard Industrial Classification (SIC) codes or 2-letter Industrial Activity Codes that best represent the principal products or services rendered by the facility for that drainage area; and the acreage of industrial activity exposed to stormwater for each outfall (round to nearest tenth of an acre):

	Outfall No.	Industrial Activities (SIC or 2-letter Codes) A	B	C	Acreage
1					.
2					.
3					.
4					.
5					.
6					.
7					.
8					.
9					.
				Total Acreage	.

(Note: SIC information can be obtained at the following web sites: http://www.osha.gov/pls/imis/sicsearch.html and http://www.softshare.com/tables/sic/. The 2-letter Industrial Activity Codes are: **HZ** - hazardous waste treatment, storage or disposal facilities; **LF** - landfills/disposal facilities that receive or have received any industrial waste; **SE** - steam electric power generating facilities; or **TW** - treatment works for treating domestic sewage.)

7. Does this facility have coal piles that are exposed to precipitation? ..... O Yes O No

8. Does this facility discharge have salt piles that are exposed to precipitation? ..... O Yes O No

9. Does this facility discharge stormwater from secondary containment areas for liquid bulk storage or transfer areas? ..... O Yes O No

10. Is the facility subject to any of the following EPA Point Source Category Effluent Limitations?

- Runoff from material storage piles at cement manufacturing facilities (40 CFR Part 411 Subpart C)? ..... O Yes O No

If yes, list Outfall Nos. ☐☐☐ ☐☐☐ ☐☐☐ ☐☐☐ ☐☐☐ ☐☐☐ ☐☐☐

- Contaminated runoff from phosphate fertilizer manufacturing facilities (40 CFR Part 418 Subpart A)? ..... O Yes O No

If yes, list Outfall Nos. ☐☐☐ ☐☐☐ ☐☐☐ ☐☐☐ ☐☐☐ ☐☐☐ ☐☐☐

- Coal Pile runoff at steam electric power generating facilities (40 CFR Part 423)? ..... O Yes O No

If yes, list Outfall Nos. ☐☐☐ ☐☐☐ ☐☐☐ ☐☐☐ ☐☐☐ ☐☐☐ ☐☐☐

- Discharges resulting from spraydown or intentional wetting of logs at wet deck storage areas (40 CFR Part 429 Subpart I)? ..... O Yes O No

If yes, list Outfall Nos. ☐☐☐ ☐☐☐ ☐☐☐ ☐☐☐ ☐☐☐ ☐☐☐ ☐☐☐

- Mine dewatering discharges at crushed stone, construction sand and gravel, and industrial sand mines (40 CFR Part 436)? ..... O Yes O No

If yes, list Outfall Nos. ☐☐☐ ☐☐☐ ☐☐☐ ☐☐☐ ☐☐☐ ☐☐☐ ☐☐☐

- Runoff from asphalt emulsion facilities (40 CFR Part 443 Subpart A)? ..... O Yes O No

If yes, list Outfall Nos. ☐☐☐ ☐☐☐ ☐☐☐ ☐☐☐ ☐☐☐ ☐☐☐ ☐☐☐

- Runoff from landfills (40 CFR 445 Subpart A and B)? ..... O Yes O No

If yes, list Outfall Nos. ☐☐☐ ☐☐☐ ☐☐☐ ☐☐☐ ☐☐☐ ☐☐☐ ☐☐☐

11. Provide the name(s) of the surface waterbody(ies) into which site runoff will discharge:

☐☐

12(a). Does site runoff enter a Municipal Separate Storm Sewer System including roadside drains, swales, ditches, culverts, etc.? ..... O Yes O No

12(b). If yes, what is the name of the municipality/entity that owns the Municipal Separate Storm Sewer System?

☐☐

13. Identify any other DEC Permits that are required for this facility:

O Air Pollution Control	O Stream Protection/Article 15
O Coastal Erosion	O Water Quality Certificate
O Hazardous Waste	O Dam Safety
O Long Island Wells	O Water supply
O Mined Land Reclamation	O Freshwater Wetlands
O Other SPDES	O Tidal Wetlands
O Solid Waste	O Wild, Scenic and Recreational Rivers

Other

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Owner/Operator First Name (please print or type) MI Date / /

Owner/Operator Last Name (please print or type) Signature

STORMWATER PERMIT

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SPDES GENERAL PERMIT
FOR STORMWATER DISCHARGES

from

CONSTRUCTION ACTIVITY

Permit No. GP-02-01

Issued Pursuant to Article 17, Titles 7, 8 and Article 70
of the Environmental Conservation Law

Effective Date: January 8, 2003 | Expiration: January 8, 2008

William R. Adriance
Chief Permit Administrator

Address: NYS DEC
Div. Environmental Permits
625 Broadway, 4th Floor
Albany, N.Y. 12233-1750

Authorized Signature
William R. Adriance

Date: January 8, 2003

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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITY

Preface

Pursuant to Section 402 of the Clean Water Act ("CWA"), stormwater discharges from certain construction activities to waters of the United States[1] are unlawful unless they are authorized by a NPDES (National Pollutant Discharge Elimination System) permit or by a state permit program. New York's SPDES (State Pollutant Discharge Elimination System) is a NPDES-approved program with permits issued in accordance with the Environmental Conservation Law ("ECL"). Discharges of pollutants to all other "Waters of New York State" such as groundwaters are also unlawful unless they are authorized by a SPDES permit.

A discharger, owner, or operator may[2] obtain coverage under this general permit by submitting a Notice of Intent ("NOI") to the Department. Copies of this General Permit and the NOI for New York are available by calling (518) 402-8109 or at any Department of Environmental Conservation (the Department) regional office (see Appendix A on Page 23). They are also available on the Department's website at:

www.dec.state.ny.us

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1 "Waters of the United States" means:

(a) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; and
(b) All interstate waters, including interstate "wetlands"; and
(c) All other waters such as interstate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:
    (1) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
    (2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
    (3) Which are used or could be used for industrial purposes by industries in interstate commerce; and
(d) All impoundments of waters otherwise defined as waters of the United States under this definition; and
(e) Tributaries of waters identified in paragraphs (a) through (d) of this definition; and
(f) The territorial sea; and
(g) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA are not waters of the United States. This exclusion applies only to manmade bodies of water which neither were originally created in waters of the United States (such as disposal areas in wetlands) nor resulted from the impoundment of waters of the United States.

2 "may" refers to circumstances under which the discharger is ineligible for coverage under this general permit because of other provisions of this permit. Dischargers which are excluded from coverage under this general permit as provided for in Part I, Section C, for example, are not authorized to discharge under this permit. This also applies to possible situations in which an NOI has been submitted and/or a regulatory fee paid pursuant to Article 72 of the ECL. The submittal of an NOI and/or regulatory fee has no bearing or relevance whatsoever on the eligibility of the construction activity discharging stormwater runoff under the authority of this permit.

Local Programs of a Regulated MS4

Under the federal Phase II stormwater program, many cities, villages, towns, and other public entities in New York State which are located within "Urbanized Areas" as defined by the U.S. Census and who operate a Municipal Separate Storm Sewer System ("MS4") will be required to obtain SPDES permit coverage for stormwater discharges under their jurisdiction and control (see 40CFR Part 122 §122.26.32). Additionally, MS4s may be designated by the Department as regulated MS4s. Among other requirements, the Phase 2 NPDES stormwater regulations require regulated MS4s to address stormwater runoff from construction activities. Construction activities covered under this general permit, which are subject to stormwater runoff controls of a regulated MS4, will also need to comply with the MS4's controls.

Five (5) Day Coverage

Prior to the submission of an NOI, the owner or operator must have completed a Storm Water Pollution Prevention Plan (SWPPP) that complies with all requirements of this general permit. Submitting an NOI is an affirmation that a SWPPP has been prepared and will be implemented. If an applicant certifies that the SWPPP has been developed in conformance with the Department's technical standards, the applied-for activity may obtain coverage under this general permit in five (5) business days after the Department's receipt of the NOI provided, that the activity is eligible for coverage under this general permit and that the Department has not informed the applicant otherwise.

Sixty (60) Day Coverage

While the Department's technical standards are appropriate statewide, it is recognized that there may be situations where stormwater management goals can best be met by alternative means that are more suitable given local conditions.

For construction projects in these situations, applicants must identify in their NOI each of the deviations from the Department's technical standards that they are seeking. Applicants must also explain why the deviations are needed or desired and what impacts to water quality, if any, can be expected if the deviation were allowed. Applicants must also explain the actions, if any, that local board(s) have taken with respect to the deviation(s). For applicants which cannot certify conformance with the Department's technical standards, the SWPPP must also be certified by a licensed/certified professional that the SWPPP has been developed in a manner which will insure compliance with water quality standards and with the substantive intent of this permit.

In cases of deviations from the Department's technical standards, applicants must allow sixty (60) business days after the receipt by the Department of a completed NOI and certification before gaining coverage under this general permit and before initiating any construction activity. During this 60 day period, the Department may conduct further review of the NOI and SWPPP. If additional information is needed to complete the review, the NOI will be considered

incomplete and the applicant will be so advised. The intent of this provision is to require conformance the Department's technical standards wherever possible and appropriate. At the same time, alternative means to address stormwater control may be allowed under this general permit where they are more suitable for the site in question and where they will not diminish water quality protection.

There are other scenarios under which coverage under this general permit will not occur until 60 business days from the receipt of a completed NOI. For example, if the construction activity or post construction runoff causes the discharge of a pollutant of concern to a water identified on the 303(d) list or a watershed with an approved TMDL for that pollutant of concern, coverage under the general permit will not occur until sixty (60) business days from the receipt by the Department of a completed NOI. For these projects the operator may be required to submit the SWPPP and/or appropriate certification(s) to the Department for review. The flowchart shown in Figure 1 on page vi will help to describe the process under which certain conditions exist that require possible further analysis and water quality/quantity considerations.

Computer Tool Available For Completion of SWPPPs and NOIs Under Development

The Department is currently developing an interactive computer software tool entitled "How to Prepare SWPPPs and Notices of Intent" to assist applicants in both developing SWPPPs and completing NOIs. This will be available in the near future for use on the Department website as well as being packaged independently on compact discs. This tool will contain guidance as well as many useful links to reference materials and documents concerning erosion and sedimentation control, as well as to the design of stormwater management practices . The Department's website will contain the latest information and guidance on the various tools available.

The Department's Technical Standards

The Department's technical standards for erosion and sediment control are contained in the document, *"New York Standards and Specifications for Erosion and Sediment Control"*[3] published by the Empire State Chapter of the Soil and Water Conservation Society. For the design of water quantity and water quality controls (post-construction stormwater control practices), the Department's technical standards are detailed in the *"New York State Stormwater Management Design Manual."* Both of these documents are available on the Department's website. If an applicant certifies that stormwater management practices will conform to the Department's technical standards, then coverage under the permit may occur sooner than otherwise would be the case if non-conformance with the manuals existed. See Figure 1 on page vi for more information.

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3 Previously, the *"New York Guidelines for Urban Erosion and Sediment Control"*, also commonly referred to as the "Blue Book".

Permit Valid for Any Size Disturbance

This permit may be used for construction activities involving any amount of disturbed acreage, provided that all other eligibility conditions in subsection B of Part I are satisfactorily met (see page 2 of this permit). Thus, this permit may apply to activities identified under 40 CFR Part 122, subsection 122.26(b)(14)(x) which are also referred to as "NPDES Phase 1 construction activities" involving soil disturbances of five (5) acres or more. This permit may also apply to activities identified under 40 CFR Part 122, subsection 122.26(b)(15) which are also referred to as "NPDES Phase 2 small construction activities" involving soil disturbances of between one (1) and five (5) acres. And, this permit may also apply to construction activities involving soil disturbances of less than one (1) acre if the Department determines that a SPDES permit is required pursuant to the ECL. In any and all cases, all of the eligibility provisions of this general permit must be met in order to gain coverage.

Notice of Termination

After construction is completed as defined in the general permit (see Part II beginning on Page 7), cancellation of coverage is accomplished by the submittal of a Notice of Termination ("NOT"). Failure to submit a NOT may result in the continued obligation to pay a yearly Regulatory Fee established pursuant to Article 72 of the ECL and/or may be cause for suspension of permit coverage.

Previous versions of NOIs, NOTs and Notices of Intent, Transfer and Termination ("NOITT"s) cannot be used in conjunction with this general permit. There is a new NOI required for obtaining coverage under this general permit. Failure to include information identified as "mandatory" entries on the new NOI form may prevent and/or delay discharge authorization being sought under this permit.

The new NOT will also include an identification of any permanent structures that are being left on the site after stabilization occurs and after termination of permit coverage under this general permit. The NOT will also include a certification that the structures were constructed as described in the SWPPP and that an Operation and Maintenance ("O&M") manual has been prepared and has been made available to the owner of such permanent structures who is expected to conduct the necessary O&M over the life of the structure(s).

Ineligible Activities

The submittal of a completed NOI and/or the payment of an annual regulatory fee by an applicant does not necessarily mean that an applicant is covered under this permit if the applicant is ineligible for coverage under this permit under the terms cited in Part I of this permit. In other words, submitting a completed NOI and paying an annual regulatory fee does not automatically gain an applicant permit coverage if the applicant is ineligible for coverage under this permit even if the Department fails to immediately inform the applicant of such ineligibility.

Permit Expiration Date

Coverage under this general permit is available January 8, 2003 and will expire five (5) years after issuance on January 8, 2008.

Activities Previously Covered Under GP-93-06

In a separate proposal, the Department is also concurrently seeking to re-issue GP-93-06 with an expiration of August 1, 2003. The purpose of this action is to provide a transition period for permittees which have had SPDES permit coverage under GP-93-06 immediately prior to January 8, 2003, the effective date of GP-02-01. **Prior to August 1, 2003**, these activities will need to:
(1) stabilize their sites in accordance with GP-93-06 and submit an NOT; or, if necessary,
(2) gain coverage under GP-02-01 by submitting a new NOI.

For **new** construction activities, coverage under GP-93-06 will not be available after the effective date of GP-02-01, January 8, 2003. Such discharges may be eligible for coverage under GP-02-01 (see Part I.B. on page 2 of this permit).

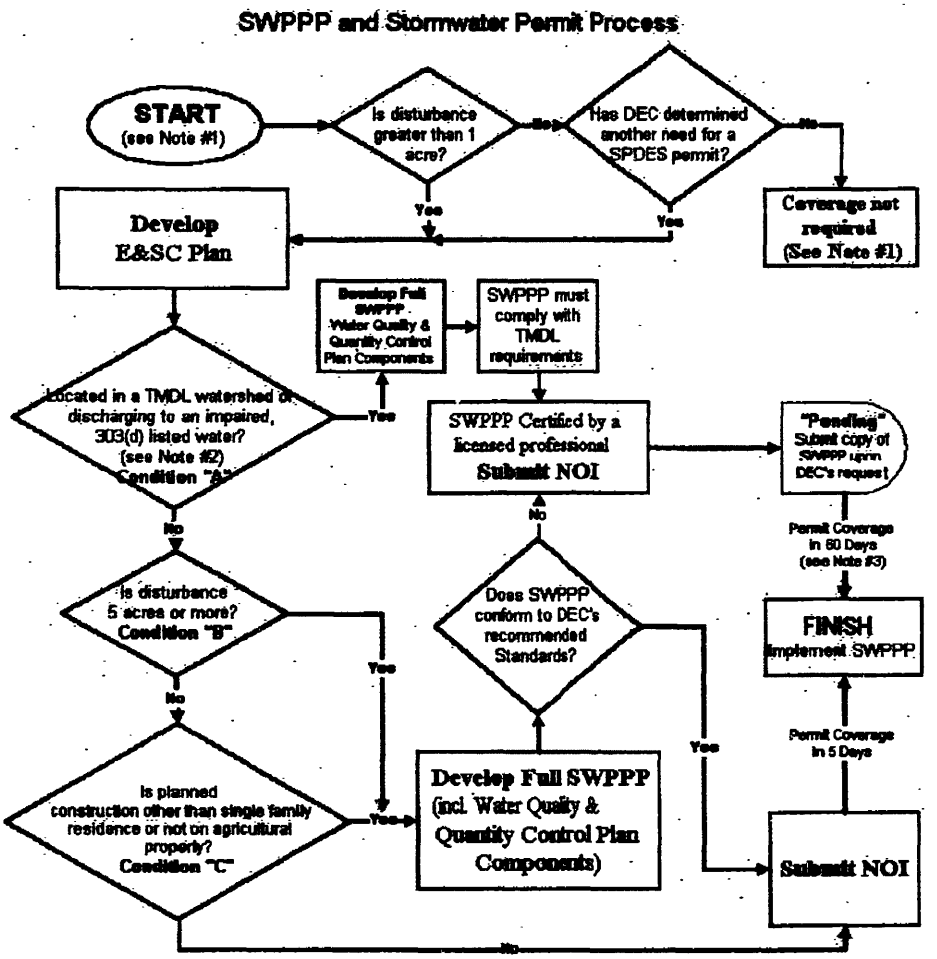
Water Quality Violations Not Permitted

This permit does not authorize any person to cause or contribute to a condition in contravention of any water quality standards that are contained in the Rules and Regulations of the State of New York (see Part I of this permit on page 2) even if the permittee is in compliance with all other provisions of this permit. Any violations of water quality standards may be considered by the Department to be violations of this permit and/or the ECL, including its accompanying regulations.

Other Department Permits

Construction activities may also require other Department permits in addition to the coverage provided by this general permit including, but not limited to, dam safety, wetlands and stream protection. Such other Department permits must be obtained separately from coverage under this general permit. Further information concerning these permits should be sought from the Regional Permit Administrator at the appropriate Department regional office (See Appendix A on page 23).

FIGURE 1



NOTES:

1. Under any of the above conditions other environmental permits may be required. DEC may require permit for construction disturbance < 1 acre on a case by case basis.
2. and the following exists: construction and/or stormwater discharges from the construction or post-construction site contain the pollutant of concern identified in the TMDL or 303(d) listing.
3. *After receipt by DEC of completed application.*

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES

FROM CONSTRUCTION ACTIVITIES

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Part I. COVERAGE UNDER THIS PERMIT

A. **Maintaining Water Quality** - It shall be a violation of this general permit and the Environmental Conservation Law ("ECL") for any discharge authorized by this general permit to either cause or contribute to a violation of water quality standards as contained in Parts 700 through 705 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York including, but not limited to:

1. There shall be no increase in turbidity that will cause a substantial visible contrast to natural conditions;

2. There shall be no increase in suspended, colloidal and settleable solids that will cause deposition or impair the waters for their best usages; and

3. There shall be no residue from oil and floating substances, nor visible oil film, nor globules of grease.

B. **Eligibility Under This General Permit**

1. This permit may authorize all discharges of stormwater from construction activity[4] to surface waters and groundwaters except for ineligible discharges identified under subparagraph C of this Part (see below). Discharge authorization under this permit requires the submittal of a completed NOI.

2. Except for non-stormwater discharges explicitly listed in the next paragraph, this permit only authorizes stormwater discharges from construction activities.

3. Notwithstanding paragraphs B.1 and B.2 above, the following non-stormwater discharges may be authorized by this permit: discharges from fire

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[4] This includes discharges of stormwater associated with industrial activity identified under 40 CFR Part 122, subsection 122.26(b)(14)(x), small construction activities identified under 40 CFR Part 122, subsection 122.26(b)(15) or any other stormwater from construction activities that are not otherwise ineligible for coverage under this permit (See Part I, subsection B beginning on page 2).

fighting activities; fire hydrant flushings; waters to which cleansers or other components have **not** been added that are used to wash vehicles or control dust in accordance with the SWPPP, routine external building washdown which does not use detergents; pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used; air conditioning condensate; springs; and foundation or footing drains where flows are not contaminated with process materials such as solvents. For those entities required to obtain coverage under this general permit, and who discharge as noted in this paragraph, and with the exception of flows from fire fighting activities, these discharges must be identified in the SWPPP(see Part III beginning on Page 7). Under all circumstances, the permittee must still comply with water quality standards (see Part I, subsection A on Page 2).

C. **Activities Which Are Ineligible for Coverage Under This General Permit** - All of the following stormwater discharges from construction activities are **not** authorized by this permit:

1. Discharges after construction activities have been completed and the site has undergone final stabilization[5];

2. Discharges that are mixed with sources of non-stormwater other than those expressly authorized under subsection B.3. of this Part (see page 3) and identified in the SWPPP required by this permit;

3. Discharges that are subject to an existing SPDES individual or general permit or which are required to obtain an individual or alternative general permit pursuant to Part V, subparagraph K (see page 21) of this permit;

4. Discharges that are likely to adversely affect a listed, or proposed to be listed, endangered or threatened species, or its critical habitat;

5. Discharges which are subject to an existing effluent (limitation) guideline addressing stormwater and/or process wastewater unless said guidelines are contained herein; or

6. Discharges which either cause or contribute to a violation of water quality standards adopted pursuant to the ECL and its accompanying regulations (See subsection A of Part I on page 2).

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[5] "Final Stabilization" means that all soil disturbing activities at the site have been completed, and that a uniform perennial vegetative cover with a density of 80% has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed on all unpaved areas and areas not covered by permanent structures.

D. **Authorization Under This General Permit**

1. An operator[6] must submit a completed NOI form in order to be authorized to discharge under this general permit. The NOI form shall be one which is associated with this general permit, signed in accordance with Part V. H.(see Page 19) of this permit and submitted to the address indicated on the NOI form. NOIs and NOITTs used in association with either previous or other general permits are not valid for obtaining coverage under this general permit. The submittal of an NOI is an affirmation to the operators' understanding and belief that the activity is eligible for coverage under this permit and that a SWPPP has been prepared and will be implemented in accordance with Part III of this permit.

2. All contractors and subcontractors of the operator identified under Part III.E.1 (see page 17) must provide the certification cited under Part III.E.2 (see page 17). Such certifications shall become part of the SWPPP for the construction activity covered under this general permit.

3. Unless notified by the Department to the contrary, operators who are eligible for coverage under this permit **and** who submit an NOI in accordance with the requirements of this permit, may be authorized to discharge stormwater from construction activities under the terms and conditions of this permit, and in accordance with the following timetable:

a. For construction activities which:

(1) develop a SWPPP in conformance with the Department's technical standards (See subsection D of Part III on page 10), and do not or will not discharge a pollutant of concern to an impaired water or a TMDL watershed;

or

(2) as of the effective date of this general permit, GP-02-01, have obtained coverage under, and are operating in compliance with, GP-93-06; and do not or will not discharge a pollutant of concern to an impaired water or a TMDL watershed;

authorization to discharge under this permit may occur <u>five (5) business days</u> after the date on which the NOI is received by the Department.

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6 For the purposes of this permit, the term "operator" means the person, persons, or legal entity which owns or leases the property on which the construction activity is occurring. Also, see Part V., subsection H. on page 19 of this permit.

b. For activities which do not comply with the preceding subsection (i.e. Part I.D.3.a.), authorization to discharge under this permit will begin no sooner than sixty (60) business days from the receipt of the completed NOI unless notified differently by the Department pursuant to Part V, subsection K of this permit (see page 21). For activities not satisfying Part I.D.3.a.(1) above, or for construction site runoff subject to a TMDL (see Figure 1 on page vi), the SWPPP must be prepared by a licensed/certified professional[7] and include a certification stating that the SWPPP has been developed in a manner which will assure compliance with water quality standards (see Part I.A.) and with the substantive intent of this permit.

c. For construction activities which are subject to a sixty-day period provision identified in the preceding subparagraph b., the SWPPP shall include each of the components identified in Part III.A.1.b. (see page 8).

4. At its sole discretion, the Department may deny or terminate coverage under this permit and require coverage under another SPDES permit at any time based on a review of the NOI, the SWPPP or other relevant information (see Part V, subsection K of this permit on page 21).

5. A copy of the NOI and a brief description of the project shall be posted at the construction site in a prominent place for public viewing.

6. A signed copy of the NOI, the SWPPP, and any reports required by this permit shall also be submitted concurrently to the local governing body and any other authorized agency[8] having jurisdiction or regulatory control over the construction project.

7. New stormwater discharges from construction activities that require any other Uniform Procedures Act permit (Environmental Conservation Law, 6 NYCRR Part 621) cannot be covered under this general permit until the other required permits are obtained. Upon satisfaction of the State Environmental Quality Review Act ("SEQRA") for the proposed action and issuance of necessary permits, the applicant may submit an NOI to obtain coverage under this general

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7 A "licensed/certified professional" means a person currently licensed to practice engineering in New York State or is a Certified Professional in Erosion and Sediment Control (CPESC).

8 For the purposes of this general permit, "any other authorized agency" shall include any local, regional, or state entity or agency except the Department which has authority to review stormwater discharge from the project, including authority under any approved watershed protection plan or regulations.

permit.[9] In order to facilitate the Department's review of a multi-permitted project, an applicant should submit, at a minimum, a copy of the SWPPP which contains the information specified in Appendix B (see page 24). This information will assist the Department in determining whether or not coverage under this general permit or another SPDES permit is the more appropriate option. The Department may also require the submission of additional information in order to determine the SWPPP's conformance with the Department's technical standards.

8. Upon renewal of this general permit or issuance of a new general permit, the permittee is required to notify the Department of its intent to be covered by the new general permit. Coverage will continue under this permit for its term unless action is taken to terminate permit coverage as provided elsewhere in this permit. See also Part V. subsection B. on page 18 of this permit.

9. In the event of a transfer of ownership or responsibility for stormwater runoff, there can be no "automatic" transfer of permit coverage from one permittee to the next without appropriate notification from the dischargers. The former permittee must submit an NOT and notify the new discharger of the possible need for the new discharger to submit a new NOI (see Section E, subparagraph 2 below).

E. **Deadlines for Notification**

1. Operators who intend to obtain coverage under this general permit for stormwater runoff from construction activities must submit an NOI in accordance with the requirements of this Part at least five (5), or sixty (60) business days, as appropriately determined from Part I, Section D.3 (see page 4) prior to the commencement of construction[10] activities.

2. For stormwater runoff from construction activities where the operator changes, a new NOI must be submitted by the new operator in accordance with the requirements of this permit. The former operator must submit a NOT in accordance with Part II (see page 7) of this permit and notify the new operator of the requirement to submit a new NOI to obtain coverage under this permit. The new operator must also review and sign the SWPPP in accordance with Part III.B.(see page 9) and continue implementation of the SWPPP as required by this

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9 The purposes of this subsection is to assure that the requirements of SEQRA are fulfilled, if necessary, before any discharge authorization under this general permit is granted.

10 "Commencement of Construction" means the initial disturbance of soils associated with clearing, grading, or excavating activities, or other construction activities.

permit.

Part II. TERMINATION OF COVERAGE[11]

Where a site has been finally stabilized, the operator must submit a NOT form prescribed by the Department for use with this general permit. The NOT shall be signed in accordance with Part V. H.(see page 19) of this permit and submitted to the address indicated on the approved NOT form.

The permittee must identify all permanent stormwater management structures that have been constructed and provide the owner(s) of such structures with a manual describing the operation and maintenance practices that will be necessary in order for the structure to function as designed after the site has been stabilized. The permittee must also certify that the permanent structure(s) have been constructed as described in the SWPPP.

Part III. STORMWATER POLLUTION PREVENTION PLANS ("SWPPP"s)

A. **General**

1. **SWPPP Preparation**

a. A SWPPP shall be developed by the operator for construction activities at each site to be covered by this permit, prior to the initiation of activities requiring coverage under this permit. SWPPPs shall be prepared in accordance with sound engineering practices. The SWPPP shall identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater discharges. In addition, the SWPPP shall describe and ensure the implementation of practices which will be used to reduce the pollutants in stormwater discharges and to assure compliance with the terms and conditions of this permit. Operators are encouraged to have their SWPPP reviewed for adequacy and completeness by the local soil and water conservation district ("SWCD") and/or other professionals qualified in erosion and sediment control practices[12] and stormwater management. Moreover, if the construction activity is identified under Part I, subsection D.3.b. (See page 5), or for construction site runoff subject to a TMDL (see Figure 1 on page vi), the SWPPP must include a certification by a licensed/certified professional.

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11 Submittal of an NOT will terminate coverage under this general permit and will also remove the permittee from subsequent billings of the annual regulatory fee levied under Article 72 of the ECL.

12 For example, CPESC, Inc. administers a certified program of individuals under its CPESC (Certified Professional in Erosion and Sediment Control) program which is sponsored by the International Erosion Control Association (IECA) and the Soil and Water Conservation Society (SWCS) and is endorsed by USDA - Natural Resources Conservation Service. CPESC, Inc. also administers the CPSWQ (Certified Professional in Stormwater Quality) program.

b. All SWPPPs shall include erosion and sediment controls. For construction activities meeting either Condition "A", "B" or "C" described below, the SWPPP shall also include water quantity and water quality controls (post-construction stormwater control practices).(see Part III. D.).

(1) Condition A - Construction site or post construction runoff discharging a pollutant of concern to either an impaired water identified on DEC's 303(d) list or a TMDL watershed for which pollutants in stormwater have been identified as a source of the impairment.

(2) Condition B - Construction site runoff from Phase 1 construction activities (construction activities disturbing five (5) or more acres) identified under 40 CFR Part 122, §122.26(b)(14)(x).

(3) Condition C - Construction site runoff from construction activity disturbing between one (1) and five (5) acres of land during the course of the project, exclusive of the construction of single family residences and construction activities at agricultural properties.

2. **SWPPP Implementation** - Operators are responsible for implementing the provisions of the SWPPP and ensuring that all contractors and subcontractors who perform professional services at the site provide certification of the SWPPP in accordance with Part I.D.2. (see page 4) and Part III.E.2. (see page 17) of this permit. All contractors and subcontractors identified in the SWPPP in accordance with Part III.E.1. (see page 17) of this permit must agree to implement applicable provisions of the SWPPP and satisfy the certification requirement of Part III.E.2. (see page17). However, contractors and subcontractors who are not operators, as defined in this permit (see page 4), are not required to submit a NOI in addition to the NOI submitted by the operator.

3. **Deadlines for SWPPP Preparation and Compliance** - The SWPPP must be developed prior to the submittal of an NOI and provide for compliance with the terms and schedule of the SWPPP beginning with the initiation of construction activities. The operator shall also certify in the SWPPP that all appropriate stormwater control measures will be in place before commencement of construction of any segment of the project that requires such measures.

4. **Local Requirements** - Developing a SWPPP that complies with the requirements listed herein does not relieve an operator from the obligation of complying with stormwater management requirements of the local government having jurisdiction over the project.

5. **Activities Previously Covered Under GP-93-06** - For construction activities which are covered by GP-93-06 as of the effective date of this permit (GP-02-01), the continued implementation of their SWPPP that was developed and implemented in accordance with GP-93-06 is acceptable until such time as:

(a) an NOT is submitted;

(b) the Department notifies them otherwise in accordance with this permit, including Part V, subsection K (see page 21); or

(c) this permit expires.

B. **Signature and SWPPP Review**

1. The SWPPP shall be signed in accordance with Part V. H.(see page 19), and be retained at the site where the construction activity occurs in accordance with Part IV (see retention of records on page 17) of this permit.

2. The permittee shall submit a copy of the SWPPP and any amendments thereto to the local governing body and any other authorized agency having jurisdiction or regulatory control over the construction activity. The operator shall make SWPPPs available upon request to the Department and any local agency having jurisdiction; or in the case of a stormwater discharge associated with industrial activity which discharges through a municipal separate storm sewer system, to the municipal operator of the system.

3. The Department, or its authorized representative, may notify the permittee at any time that the SWPPP does not meet one or more of the minimum requirements of this permit. Such notification shall identify those provisions of the permit which are not being met by the SWPPP and identify which provisions of the SWPPP require modifications in order to meet the minimum requirements of this permit. Within seven (7) days of such notification, (or as otherwise provided by the Department) the permittee shall make the required changes to the SWPPP and shall submit to the Department a written certification that the requested changes have been made. Notwithstanding the foregoing, the Department reserves all rights to enforce the terms of the ECL.

C. **Keeping SWPPPs Current** - The permittee shall amend the SWPPP whenever:

1. There is a significant change in design, construction, operation, or maintenance which may have a significant effect on the potential for the discharge of pollutants to the waters of the United States and which has not otherwise been addressed in the SWPPP; or

2. The SWPPP proves to be ineffective in:

a. Eliminating or significantly minimizing pollutants from sources identified in the SWPPP required by this permit, or

b. Achieving the general objectives of controlling pollutants in stormwater discharges from permitted construction activity.

3. Additionally, the SWPPP shall be amended to identify any new contractor or subcontractor that will implement any measure of the SWPPP (see Part III.E, page 17 below). Amendments to the SWPPP may be reviewed by the Department in the same manner as provided by Part III.B (see page 9 above).

D. **General Contents of SWPPPs** -

1. **Standards for construction activities covered under this permit** - The Department's technical standards for erosion and sediment controls are detailed in the "*New York Standards and Specifications for Erosion and Sediment Control*"[13] published by the Empire State Chapter of the Soil and Water Conservation Society. For the design of water quality and water quantity controls (post-construction stormwater control practices), the Department's technical standards are detailed in the "*New York State Stormwater Management Design Manual.*"

If an operator certifies that the SWPPP has been developed in conformance with the Department's technical standards referenced above, they may obtain coverage under this general permit in five (5) business days from the Department's receipt of the NOI, provided the construction activity does not meet Condition A in Part III.A.1.b. For SWPPPs which will not conform with the Department's technical standards, the SWPPP must be prepared by a licensed/certified professional and include a certification stating that the SWPPP has been developed in a manner which will assure compliance with the State's water quality standards and with the substantive intent of this permit. In addition, coverage under this general permit will not begin until sixty (60) business days from the receipt of a completed NOI.

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13 Previously, the "*New York Guidelines for Urban Erosion and Sediment Control,*" also commonly referred to as the "Blue Book."

2. **Minimum SWPPP Components** SWPPPs prepared pursuant to this general permit shall present fully designed and engineered stormwater management practices with all necessary maps, plans and construction drawings. The SWPPP must, at a minimum, include the following:

a. For all construction activities subject to this general permit -

(1). provide background information about the scope of the project, including the location, type and size of project.

(2) provide a site map/construction drawing(s) for the project, including a general location map. At a minimum, the site map should show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s), wetlands and drainage patterns that could be affected by the construction activity; existing and final slopes; locations of off-site material, waste, borrow or equipment storage areas; and location(s) of the stormwater discharge(s);

(3) provide a description of the soil(s) present at the site;

(4) provide a construction phasing plan describing the intended sequence of construction activities, including clearing and grubbing, excavation and grading, utility and infrastructure installation and any other activity at the site that results in soil disturbance. Consistent with the New York Guidelines for Urban Erosion and Sediment Control, there shall not be more than five (5) acres of disturbed soil at any one time without prior written approval from the Department;

(5) provide a description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a pollutant source in the storm water discharges;

(6) provide a description of construction and waste materials expected to be stored on-site with updates as appropriate, and a description of controls to reduce pollutants from these materials including storage practices to minimize exposure of the materials to storm water, and spill prevention and response;

(7) describe the temporary and permanent structural and vegetative measures to be used for soil stabilization, runoff control and sediment control for each stage of the project from initial land

clearing and grubbing to project close-out;

(8) identify and show on a site map/construction drawing(s) the specific location(s), size(s), and length(s) of each erosion and sediment control practice;

(9) provide the dimensions, material specifications and installation details for all erosion and sediment control practices, including the siting and sizing of any temporary sediment basins;

(10) identify temporary practices that will be converted to permanent control measures;

(11) provide an implementation schedule for staging temporary erosion and sediment control practices, including the timing of initial placement and the duration that each practice should remain in place;

(12) provide a maintenance schedule to ensure continuous and effective operation of the erosion and sediment control practices;

(13) provide the names(s) of the receiving water(s);

(14) provide a delineation of SWPPP implementation responsibilities for each part of the site;

(15) provide a description of structural practices to divert flows from exposed soils, store flows, or otherwise limit runoff and the discharge of pollutants from exposed areas of the site to the degree attainable; and

(16) provide any existing data that describes the stormwater runoff characteristics at the site.

b. For construction activities meeting Condition A, B or C in Part III.A.1.b.

(1) provide all the information required in Parts III.D.2.a.1 - 16 above;

(2) provide a description of each post-construction stormwater control practice;

(3) identify and show on a site map/construction drawing(s) the specific location(s) and size(s) of each post-construction stormwater control practice;

(4) provide a hydrologic and hydraulic analysis for all structural components of the stormwater control system for the applicable design storms;

(5) provide a comparison of post-development stormwater runoff conditions with pre-development conditions;

(6) provide the dimensions, material specifications and installation details for each post-construction stormwater control practice;

(7) provide a maintenance schedule to ensure continuous and effective operation of each post-construction stormwater control practice.

The following three subsections, Part III.D. 3. through Part III.D. 5., apply only to construction activities covered under this general permit which meet Conditions "A" , "B"[14] or "C" in Part III. A.1.b. Beginning with Part III.E. below (see page 17) the requirements set forth therein apply to all permittees covered under this permit.

3. **Site Assessment and Inspections** -

a. The operator shall have a qualified professional[15] conduct an assessment of the site prior to the commencement of construction and certify in an inspection report that the appropriate erosion and sediment controls described in the SWPPP and required by Part III.D. (see page 10) of this permit have been adequately installed or implemented to ensure overall preparedness of the site for the commencement of construction. Following the commencement of construction, site inspections shall be conducted by the qualified professional at least every 7 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater. During each inspection, the qualified professional shall record the following information:

(1) On a site map, indicate the extent of all disturbed site areas and drainage pathways. Indicate site areas that are expected to undergo initial disturbance or significant site work within the next 14-day period;

(2) Indicate on a site map all areas of the site that have undergone temporary or permanent stabilization;

(3) Indicate all disturbed site areas that have not undergone active site work during the previous 14-day period;

(4) Inspect all sediment control practices and record the approximate degree of sediment accumulation as a percentage of the sediment storage volume (for example, 10 percent, 20 percent, 50 percent);

(5) Inspect all erosion and sediment control practices and record all maintenance requirements such as verifying the integrity of barrier or diversion systems (earthen berms or silt fencing) and

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14 Condition "B" includes construction activities covered under GP-93-06 and, therefore, are subject to Part III.D.3 through Part III.D. 5.

15 "Qualified professional" means a person knowledgeable in the principles and practice of erosion and sediment controls, such as a licensed professional engineer, Certified Professional in Erosion and Sediment Control (CPESC), or soil scientist.

containment systems (sediment basins and sediment traps). Identify any evidence of rill or gully erosion occurring on slopes and any loss of stabilizing vegetation or seeding/mulching. Document any excessive deposition of sediment or ponding water along barrier or diversion systems. Record the depth of sediment within containment structures, any erosion near outlet and overflow structures, and verify the ability of rock filters around perforated riser pipes to pass water;
and

(6) All deficiencies that are identified with the implementation of the SWPPP.

b. The operator shall maintain a record of all inspection reports in a site log book. The site log book shall be maintained on site and be made available to the permitting authority upon request. Prior to the commencement of construction,[16] the operator shall certify in the site log book that the SWPPP, prepared in accordance with Part III.D. (see page 10) of this permit, meets all Federal, State and local erosion and sediment control requirements.

The operator shall post at the site, in a publicly-accessible location, a summary of the site inspection activities on a monthly basis.

c. Prior to filing of the Notice of Termination or the end of permit term, the operator shall have the qualified professional perform a final site inspection. The qualified professional shall certify that the site has undergone final stabilization[17] using either vegetative or structural stabilization methods and that all temporary erosion and sediment controls (such as silt fencing) not needed for long-term erosion control have been removed.

d. The operator shall certify that the requirements of Parts III.D.3., III.D.4. and III.D.5 of this permit have been satisfied within 48 hours of actually meeting such requirements.

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16 "Commencement of construction" means the initial removal of vegetation and disturbance of soils associated with clearing, grading or excavating activities or other construction activities.

17 "Final stabilization" means that all soil-disturbing activities at the site have been completed and a uniform, perennial vegetative cover with a density of eighty (80) percent has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed on all unpaved areas and areas not covered by permanent structures.

4. **Stabilization**[18] - The operator shall initiate stabilization measures as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. This requirement does not apply in the following instances:

a. Where the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently ceased is precluded by snow cover or frozen ground conditions, stabilization measures shall be initiated as soon as practicable;

b. Where construction activity on a portion of the site is temporarily ceased, and earth-disturbing activities will be resumed within twenty-one (21) days, temporary stabilization measures need not be initiated on that portion of the site.

5. **Maintenance** - Sediment shall be removed from sediment traps or sediment ponds whenever their capacity has been reduced by fifty (50) percent from the design capacity.

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18 "Stabilization" means covering or maintaining an existing cover over soil. Cover can be vegetative (e.g. grass, trees, seed and mulch, shrubs, or turf) or non-vegetative (e.g. geotextiles, riprap, or gabions).

E. **Contractors**

1. The SWPPP must clearly identify for each measure identified in the SWPPP, the contractor(s) and subcontractor(s) that will implement the measure. All contractors and subcontractors identified in the SWPPP must sign a copy of the certification statement in Part III.E.2 (see below) of this permit in accordance with Part V.H.(see page 19) of this permit. All certifications must be included in the SWPPP. Additionally, new contractors and subcontractors (see subsection C.3. above) need to similarly certify.

2. **Certification Statement** - All contractors and subcontractors identified in a SWPPP in accordance with Part III.E.1 (see above) of this permit shall sign a copy of the following certification statement before undertaking any construction activity at the site identified in the SWPPP:

> "I certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP for the construction site identified in such SWPPP as a condition of authorization to discharge stormwater. I also understand that the operator must comply with the terms and conditions of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards."

The certification must include the name and title of the person providing the signature in accordance with Part V.H.(see page 19) of this permit; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification is made.

Part IV. MONITORING, REPORTING AND RETENTION OF RECORDS

A. The Department may, at its sole discretion, require monitoring of discharge(s) from the permitted construction activity after notifying the permittee in writing of the basis for such monitoring, the parameters and frequency at which monitoring shall occur and the associated reporting requirements, if any.

B. The operator shall retain copies of SWPPPs and any reports submitted in conjunction with this permit, and records of all data used to complete the NOI to be covered by this permit, for a period of at least three years from the date that the site is finally stabilized. This period may be extended by the Department, in its sole discretion, at any time upon written notification.

C. The operator shall retain a copy of the SWPPP required by this permit at the construction site from the date of initiation of construction activities to the date of final

stabilization.

D. The operator shall also prepare a written summary of its status with respect to compliance with this general permit at a minimum frequency of every three months during which coverage under this permit exists. The summary should address the status of achieving each component of the SWPPP . This summary shall be handled in the same manner as prescribed for SWPPPs under Part III, subsection B (see Page 9).

E. **Addresses** - Except for the submittal of NOIs and NOTs, all written correspondence under this permit directed to the Department, including the submittal of individual permit applications, shall be sent to the address of the appropriate Department Office as listed in Appendix A (see page 23).

Part V. STANDARD PERMIT CONDITIONS

A. **Duty to Comply** - The operator must comply with all conditions of this permit. All contractors and subcontractors associated with the project must comply with the terms of the SWPPP. Any permit noncompliance constitutes a violation of the Clean Water Act (CWA) and the ECL and is grounds for an enforcement action against either the operator or the contractor/subcontractor; permit revocation or modification; or denial of a permit renewal application. Upon a finding of significant non-compliance with this permit or the applicable SWPPP, the Department may order an immediate stop to all construction activity at the site until the non-compliance is remedied. The stop work order shall be in writing, shall describe the non-compliance in detail, and shall be sent to the operator or the operator's on-site representative.

B. **Continuation of the Expired General Permit** - This permit expires five (5) years after issuance on January 8, 2008. However, coverage may be obtained under the expired general permit which will continue in force and effect until a new general permit is issued. After issuance of a new general permit, those with coverage under GP-02-01 will have six (6) months from the effective date of the new general permit to complete their project or obtain coverage under the new permit. Unless otherwise notified by the Department in writing, operators seeking authorization under a new general permit must submit a new NOI in accordance with the terms of such new general permit. See also Part I, subsection D.8. on page 6.

C. **Penalties for Violations of Permit Conditions** - There are substantial criminal, civil, and administrative penalties associated with violating the provisions of this permit. Fines of up to $25,000 per day for each violation and imprisonment for up to fifteen (15) years may be assessed depending upon the nature and degree of the offense.

D. **Need to halt or reduce activity not a defense** - It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the construction activity in order to maintain compliance with the conditions of this permit.

E. **Duty to Mitigate** - The permittee and its contractors and subcontractors shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

F. **Duty to Provide Information** - The permittee shall furnish any information requested by any agency with regulatory or review authority over this project for the purpose of determining compliance with this permit or compliance with any other regulatory requirements placed on the project in conjunction with this permit. Failure to provide requested information shall be a violation of this permit. Such regulating agencies include but are not limited to the Department, SWCDs,[19] local planning, zoning, health, and building departments that review and approve erosion and sediment control plans, grading plans, and Stormwater Management Plans, as well as MS4s into whose system runoff from the permitted project or activity discharges. The SWPPP and inspection reports required by this general permit are public documents that the operator must make available for inspection, review and copying by any person within five (5) business days of the operator receiving a written request by any such person to review the SWPPP and/or the inspection reports. Copying of documents will be done at the requester's expense.

G. **Other Information** - When the permittee becomes aware that he or she failed to submit any relevant facts or submitted incorrect information in the NOI or in any other report to the Department, he or she shall promptly submit such facts or information.

H. **Signatory Requirements** - All NOIs, NOTs, SWPPPs, reports, certifications or information required by this permit or submitted pursuant to this permit, shall be signed as follows:

1. All NOIs and NOTs shall be signed as follows:

   a. For a corporation: by (1) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person authorized to and who performs similar policy or decision-making functions for the corporation; or (2) the manager of one or more manufacturing, production or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25,000,000 (in second-quarter 1980 dollars) if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

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19 "SWCD" means Soil and Water Conservation District

b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

c. For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes (1) the chief executive officer of the agency, or (2) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

2. The SWPPP and all reports required by the permit and other information requested by the Department or local agency shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described above and submitted to the Department.

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of manager, operator, superintendent, or position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position).

c. **Certification** - Except for NOIs and NOTs, any person signing documents in accordance with this Part shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that false statements made herein are punishable as a class A misdemeanor pursuant to Section 210.45 of the Penal Law."

I. **Property Rights** - The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

Severability - The provisions of this permit are severable, and if any provision of this rmit, or the application of any provision of this permit to any circumstance, is held invalid, e application of such provision to other circumstances, and the remainder of this permit all not be affected thereby.

Denial of Coverage Under This Permit

1. At its sole discretion, the Department may require any person authorized by this permit to apply for and/or obtain either an individual SPDES permit or an alternative SPDES general permit. Where the Department requires a discharger authorized to discharge under this permit to apply for an individual SPDES permit, the Department shall notify the discharger in writing that a permit application is required. This notification shall include a brief statement of the reasons for this decision, an application form, a statement setting a deadline for the discharger to file the application, and a statement that on the effective date of issuance or denial of the individual SPDES permit or the alternative general permit as it applies to the individual permittee, coverage under this general permit shall automatically terminate. Applications shall be submitted to the appropriate Department Office indicated in Appendix A of this permit. The Department may grant additional time to submit the application upon request of the applicant. If a discharger fails to submit in a timely manner an individual SPDES permit application as required by the Department under this paragraph, then the applicability of this permit to the individual SPDES permittee is automatically terminated at the end of the day specified by the Department for application submittal.

2. Any discharger authorized by this permit may request to be excluded from the coverage under this permit by applying for an individual permit. In such cases, the permittee shall submit an individual application in accordance with the requirements of 40 CFR 122.26(c)(1)(ii) and 6 NYCRR Part 621, with reasons supporting the request, to the Department at the address for the appropriate Department Office (see addresses in Appendix A on page 23 of this permit). The request may be granted by issuance of an individual permit or an alternative general permit at the discretion of the Department.

3. When an individual SPDES permit is issued to a discharger covered by this permit, or the discharger is authorized to discharge under an alternative SPDES general permit, the applicability of this permit to the individual SPDES permittee is automatically terminated on the effective date of the individual permit or the date of authorization of coverage under the alternative general permit, whichever the case may be. When an individual SPDES permit is denied to an operator otherwise subject to this permit, or the operator is denied for coverage under an alternative SPDES general permit, the applicability of this permit to the individual SPDES permittee is automatically terminated on the date of such denial, unless otherwise specified by the Department.

L. **Proper Operation and Maintenance** - The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit and with the requirements of SWPPPs. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance requires the operation of backup or auxiliary facilities or similar systems, installed by a permittee only when necessary to achieve compliance with the conditions of the permit.

M. **Inspection and Entry** - The permittee shall allow the Department or an authorized representative of EPA, the State, or, in the case of a construction site which discharges through an MS4, an authorized representative of the MS4 receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;

2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and

3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment).

N. **Permit Actions** - At the Department's sole discretion, this permit may, at any time, be modified, revoked, or renewed. The filing of a request by the permittee for a permit modification, revocation and reissuance, termination, a notification of planned changes or anticipated noncompliance does not stay compliance with any terms of this permit.

APPENDIX A

List of NYS DEC Regional Offices

Region	Covering the following counties:	DIVISION OF ENVIRONMENTAL PERMITS (DEP) Permit Administrators	DIVISION OF WATER (DOW) Water (SPDES) Program
1	Nassau and Suffolk	Bldg 40 - SUNY @ Stony Brook Stony Brook, NY 11790-2356 Tel. (631) 444-0365	Bldg 40 - SUNY @ Stony Brook Stony Brook, NY 11790-2356 Tel. (631) 444-0405
2	Bronx, Kings, New York, Queens and Richmond	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4997	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4933
3	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster and Westchester	21 South Putt Corners Road New Paltz, NY 12561-1696 Tel. (845) 256-3059	200 White Plains Road, 5th Floor Tarrytown, NY 10591-5805 Tel. (845) 332-1835
4	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady and Schoharie	1150 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2069	1150 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2045
5	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren and Washington	Route 86, PO Box 296 Ray Brook, NY 12977-0296 Tel. (518) 897-1234	232 Hudson Street Warrensburg, NY 12885-0220 Tel. (518) 623-1200
6	Herkimer, Jefferson, Lewis, Oneida and St. Lawrence	State Office Building 317 Washington Street Watertown, NY 13601-3787 Tel. (315) 785-2245	State Office Building 207 Genesee Street Utica, NY 13501-2885 Tel. (315) 793-2554
7	Broome, Cayuga, Chenango, Cortland, Madison, Onondaga, Oswego, Tioga and Tompkins	615 Erie Blvd. West Syracuse, NY 13204-2400 Tel. (315) 426-7438	615 Erie Blvd. West Syracuse, NY 13204-2400 Tel. (315) 426-7500
8	Chemung, Genesee, Livingston, Monroe, Ontario, Orleans, Schuyler, Seneca, Steuben, Wayne and Yates	6274 East Avon-Lima Road Avon, NY 14414-9519 Tel. (585) 226-2466	6274 East Avon-Lima Rd. Avon, NY 14414-9519 Tel. (585) 226-2466
9	Allegany, Cattaraugus, Chautauqua, Erie, Niagara and Wyoming	270 Michigan Avenue Buffalo, NY 14203-2999 Tel. (716) 851-7165	270 Michigan Ave. Buffalo, NY 14203-2999 Tel. (716) 851-7070

APPENDIX B

Information Required of Construction Activities Which Are Identified Under Part I, subsection D.7. (see page 5)

A. The location (including a map) and the nature of the construction activity;

B. The total area of the site and the area of the site that is expected to undergo excavation during the life of the permit;

C. Proposed measures, including best management practices, to control pollutants in storm water discharges during construction, including a brief description of applicable State and local erosion and sediment control requirements;

D. Proposed measures to control pollutants in storm water discharges that will occur after construction operations have been completed, including a brief description of applicable State or local erosion and sediment control requirements;

E. An estimate of the runoff coefficient of the site and the increase in impervious area after the construction addressed in the permit application is completed, the nature of the fill material and existing data describing the soil or the quality of the discharge; and

F. The name of the receiving water(s).

CONSTRUCTION SITE LOG BOOK

APPENDIX H

STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM FOR CONSTRUCTION ACTIVITIES

CONSTRUCTION SITE LOG BOOK

Table of Contents

I. Pre-Construction Meeting Documents
   a. Preamble to Site Assessment and Inspections
   b. Operator's Certification
   c. Qualified Professional's Credentials & Certification
   d. Pre-Construction Site Assessment Checklist

II. Construction Duration Inspections
   a. Directions
   b. Modification to the SWPPP

III. Monthly Summary Reports

IV. Monitoring, Reporting, and Three-Month Status Reports
   a. Operator's Compliance Response Form

Properly completing forms such as those contained in Appendix H meet the inspection requirement of NYS-DEC SPDES GP for Construction Activities. Completed forms shall be kept on site at all times and made available to authorities upon request.

I. PRE-CONSTRUCTION MEETING DOCUMENTS

Project Name _____

Permit No. _____ **Date of Authorization** _____

Name of Operator _____

Prime Contractor _____

a. Preamble to Site Assessment and Inspections

The Following Information To Be Read By All Person's Involved in The Construction of Stormwater Related Activities:

The Operator agrees to have a qualified professional[1] conduct an assessment of the site prior to the commencement of construction[2] and certify in this inspection report that the appropriate erosion and sediment controls described in the SWPPP have been adequately installed or implemented to ensure overall preparedness of the site for the commencement of construction.

Prior to the commencement of construction, the Operator shall certify in this site logbook that the SWPPP has been prepared in accordance with the State's standards and meets all Federal, State and local erosion and sediment control requirements.

When construction starts, site inspections shall be conducted by the qualified professional at least every 7 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater (Construction Duration Inspections). The Operator shall maintain a record of all inspection reports in this site logbook. The site logbook shall be maintained on site and be made available to the permitting authorities upon request. The Operator shall post at the site, in a publicly accessible location, a summary of the site inspection activities on a monthly basis (Monthly Summary Report).

The operator shall also prepare a written summary of compliance with this general permit at a minimum frequency of every three months (Operator's Compliance Response Form), while coverage exists. The summary should address the status of achieving each component of the SWPPP.

Prior to filing the Notice of Termination or the end of permit term, the Operator shall have a qualified professional perform a final site inspection. The qualified professional shall certify that the site has undergone final stabilization[3] using either vegetative or structural stabilization methods and that all temporary erosion and sediment controls (such as silt fencing) not needed for long-term erosion control have been removed. In addition, the Operator must identify and certify that all permanent structures described in the SWPPP have been constructed and provide the owner(s) with an operation and maintenance plan that ensures the structure(s) continuously functions as designed.

1 "Qualified Professional means a person knowledgeable in the principles and practice of erosion and sediment controls, such as a Certified Professional in Erosion and Sediment Control (CPESC), soil scientist, licensed engineer or someone working under the direction and supervision of a licensed engineer (person must have experience in the principles and practices of erosion and sediment control).

2 "Commencement of construction" means the initial removal of vegetation and disturbance of soils associated with clearing, grading or excavating activities or other construction activities.

3 "Final stabilization" means that all soil-disturbing activities at the site have been completed and a uniform, perennial vegetative cover with a density of eighty (80) percent has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed on all unpaved areas and areas not covered by permanent structures.

b. Operators Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. Further, I hereby certify that the SWPPP meets all Federal, State, and local erosion and sediment control requirements. I am aware that false statements made herein are punishable as a class A misdemeanor pursuant to Section 210.45 of the Penal Law.

Name (please print): _____

Title _____ **Date:** _____

Address: _____

Phone: _____ **Email:** _____

Signature: _____

c. Qualified Professional's Credentials & Certification

"I hereby certify that I meet the criteria set forth in the General Permit to conduct site inspections for this project and that the appropriate erosion and sediment controls described in the SWPPP and as described in the following Pre-construction Site Assessment Checklist have been adequately installed or implemented, ensuring the overall preparedness of this site for the commencement of construction."

Name (please print): _____

Title _____ **Date:** _____

Address: _____

Phone: _____ **Email:** _____

Signature: _____

d. Pre-construction Site Assessment Checklist
(NOTE: Provide comments below as necessary)

1. Notice of Intent, SWPPP, and Contractors Certification:

Yes No NA

[ ] [ ] [ ] Has a Notice of Intent been filed with the NYS Department of Conservation?
[ ] [ ] [ ] Is the SWPPP on-site? Where?_____
[ ] [ ] [ ] Is the Plan current? What is the latest revision date?_____
[ ] [ ] [ ] Is a copy of the NOI (with brief description) onsite? Where?_____
[ ] [ ] [ ] Have all contractors involved with stormwater related activities signed a contractor's certification?

2. Resource Protection

Yes No NA

[ ] [ ] [ ] Are construction limits clearly flagged or fenced?
[ ] [ ] [ ] Important trees and associated rooting zones, on-site septic system absorption fields, existing vegetated areas suitable for filter strips, especially in perimeter areas, have been flagged for protection.
[ ] [ ] [ ] Creek crossings installed prior to land-disturbing activity, including clearing and blasting.

3. Surface Water Protection

Yes No NA

[ ] [ ] [ ] Clean stormwater runoff has been diverted from areas to be disturbed.
[ ] [ ] [ ] Bodies of water located either on site or in the vicinity of the site have been identified and protected.
[ ] [ ] [ ] Appropriate practices to protect on-site or downstream surface water are installed.
[ ] [ ] [ ] Are clearing and grading operations divided into areas <5 acres?

4. Stabilized Construction Entrance

Yes No NA

[ ] [ ] [ ] A temporary construction entrance to capture mud and debris from construction vehicles before they enter the public highway has been installed.
[ ] [ ] [ ] Other access areas (entrances, construction routes, equipment parking areas) are stabilized immediately as work takes place with gravel or other cover.
[ ] [ ] [ ] Sediment tracked onto public streets is removed or cleaned on a regular basis.

5. Perimeter Sediment Controls

Yes No NA

[ ] [ ] [ ] Silt fence material and installation comply with the standard drawing and specifications.
[ ] [ ] [ ] Silt fences are installed at appropriate spacing intervals
[ ] [ ] [ ] Sediment/detention basin was installed as first land disturbing activity.
[ ] [ ] [ ] Sediment traps and barriers are installed.

6. Pollution Prevention for Waste and Hazardous Materials

Yes No NA

[ ] [ ] [ ] The Operator or designated representative has been assigned to implement the spill prevention avoidance and response plan.
[ ] [ ] [ ] The plan is contained in the SWPPP on page _____
[ ] [ ] [ ] Appropriate materials to control spills are onsite. Where? _____

II. CONSTRUCTION DURATION INSPECTIONS

a. Directions:
Inspection Forms will be filled out during the entire construction phase of the project.
Required Elements:

(1) On a site map, indicate the extent of all disturbed site areas and drainage pathways. Indicate site areas that are expected to undergo initial disturbance or significant site work within the next 14-day period;

(2) Indicate on a site map all areas of the site that have undergone temporary or permanent stabilization;

(3) Indicate all disturbed site areas that have not undergone active site work during the previous 14-day period;

(4) Inspect all sediment control practices and record the approximate degree of sediment accumulation as a percentage of sediment storage volume (for example, 10 percent, 20 percent, 50 percent);

(5) Inspect all erosion and sediment control practices and record all maintenance requirements such as verifying the integrity of barrier or diversion systems (earthen berms or silt fencing) and containment systems (sediment basins and sediment traps). Identify any evidence of rill or gully erosion occurring on slopes and any loss of stabilizing vegetation or seeding/mulching. Document any excessive deposition of sediment or ponding water along barrier or diversion systems. Record the depth of sediment within containment structures, any erosion near outlet and overflow structures, and verify the ability of rock filters around perforated riser pipes to pass water; and

(6) Immediately report to the Operator any deficiencies that are identified with the implementation of the SWPPP.

SITE PLAN/SKETCH

Inspector (print name)	**Date of Inspection**
Qualified Professional (print name)	**Qualified Professional Signature**

The above signed acknowledges that, to the best of his/her knowledge, all information provided on the forms is accurate and complete.

CONSTRUCTION DURATION INSPECTIONS **Page 2 of _____**

Maintaining Water Quality

Yes No NA
[ ] [ ] [ ] Is there an increase in turbidity causing a substantial visible contrast to natural conditions?
[ ] [ ] [ ] Is there residue from oil and floating substances, visible oil film, or globules or grease?
[ ] [ ] [ ] All disturbance is within the limits of the approved plans.
[ ] [ ] [ ] Have receiving lake/bay, stream, and/or wetland been impacted by silt from project?

Housekeeping

1. General Site Conditions
Yes No NA
[ ] [ ] [ ] Is construction site litter and debris appropriately managed?
[ ] [ ] [ ] Are facilities and equipment necessary for implementation of erosion and sediment control in working order and/or properly maintained?
[ ] [ ] [ ] Is construction impacting the adjacent property?
[ ] [ ] [ ] Is dust adequately controlled?

2. Temporary Stream Crossing
Yes No NA
[ ] [ ] [ ] Maximum diameter pipes necessary to span creek without dredging are installed.
[ ] [ ] [ ] Installed non-woven geotextile fabric beneath approaches.
[ ] [ ] [ ] Is fill composed of aggregate (no earth or soil)?
[ ] [ ] [ ] Rock on approaches is clean enough to remove mud from vehicles & prevent sediment from entering stream during high flow.

Runoff Control Practices

1. Excavation Dewatering
Yes No NA
[ ] [ ] [ ] Upstream and downstream berms (sandbags, inflatable dams, etc.) are installed per plan.
[ ] [ ] [ ] Clean water from upstream pool is being pumped to the downstream pool.
[ ] [ ] [ ] Sediment laden water from work area is being discharged to a silt-trapping device.
[ ] [ ] [ ] Constructed upstream berm with one-foot minimum freeboard.

2. Level Spreader
Yes No NA
[ ] [ ] [ ] Installed per plan.
[ ] [ ] [ ] Constructed on undisturbed soil, not on fill, receiving only clear, non-sediment laden flow.
[ ] [ ] [ ] Flow sheets out of level spreader without erosion on downstream edge.

3. Interceptor Dikes and Swales
Yes No NA
[ ] [ ] [ ] Installed per plan with minimum side slopes 2H:1V or flatter.
[ ] [ ] [ ] Stabilized by geotextile fabric, seed, or mulch with no erosion occurring.
[ ] [ ] [ ] Sediment-laden runoff directed to sediment trapping structure

CONSTRUCTION DURATION INSPECTIONS **Page 3 of _____**

Runoff Control Practices (continued)

4. Stone Check Dam

Yes No NA

[ ] [ ] [ ] Is channel stable? (flow is not eroding soil underneath or around the structure).
[ ] [ ] [ ] Check is in good condition (rocks in place and no permanent pools behind the structure).
[ ] [ ] [ ] Has accumulated sediment been removed?.

5. Rock Outlet Protection

Yes No NA

[ ] [ ] [ ] Installed per plan.
[ ] [ ] [ ] Installed concurrently with pipe installation.

Soil Stabilization

1. Topsoil and Spoil Stockpiles

Yes No NA

[ ] [ ] [ ] Stockpiles are stabilized with vegetation and/or mulch.
[ ] [ ] [ ] Sediment control is installed at the toe of the slope.

2. Revegetation

Yes No NA

[ ] [ ] [ ] Temporary seedings and mulch have been applied to idle areas.
[ ] [ ] [ ] 4 inches minimum of topsoil has been applied under permanent seedings

Sediment Control Practices

1. Stabilized Construction Entrance

Yes No NA

[ ] [ ] [ ] Stone is clean enough to effectively remove mud from vehicles.
[ ] [ ] [ ] Installed per standards and specifications?
[ ] [ ] [ ] Does all traffic use the stabilized entrance to enter and leave site?
[ ] [ ] [ ] Is adequate drainage provided to prevent ponding at entrance?

2. Silt Fence

Yes No NA

[ ] [ ] [ ] Installed on Contour, 10 feet from toe of slope (not across conveyance channels).
[ ] [ ] [ ] Joints constructed by wrapping the two ends together for continuous support.
[ ] [ ] [ ] Fabric buried 6 inches minimum.
[ ] [ ] [ ] Posts are stable, fabric is tight and without rips or frayed areas.
Sediment accumulation is ___% of design capacity.

Sediment Control Practices (continued)

3. Storm Drain Inlet Protection (Use for Stone & Block; Filter Fabric; Curb; or, Excavated practices)

Yes No NA

[ ] [ ] [ ] Installed concrete blocks lengthwise so open ends face outward, not upward.
[ ] [ ] [ ] Placed wire screen between No. 3 crushed stone and concrete blocks.
[ ] [ ] [ ] Drainage area is 1acre or less.
[ ] [ ] [ ] Excavated area is 900 cubic feet.
[ ] [ ] [ ] Excavated side slopes should be 2:1.
[ ] [ ] [ ] 2" x 4" frame is constructed and structurally sound.
[ ] [ ] [ ] Posts 3-foot maximum spacing between posts.
[ ] [ ] [ ] Fabric is embedded 1 to 1.5 feet below ground and secured to frame/posts with staples at max 8-inch spacing.
[ ] [ ] [ ] Posts are stable, fabric is tight and without rips or frayed areas.

Sediment accumulation ___% of design capacity.

4. Temporary Sediment Trap

Yes No NA

[ ] [ ] [ ] Outlet structure is constructed per the approved plan or drawing.
[ ] [ ] [ ] Geotextile fabric has been placed beneath rock fill.

Sediment accumulation is ___% of design capacity.

5. Temporary Sediment Basin

Yes No NA

[ ] [ ] [ ] Basin and outlet structure constructed per the approved plan.
[ ] [ ] [ ] Basin side slopes are stabilized with seed/mulch.
[ ] [ ] [ ] Drainage structure flushed and basin surface restored upon removal of sediment basin facility.

Sediment accumulation is ___% of design capacity.

Note: Not all erosion and sediment control practices are included in this listing. Add additional pages to this list as required by site specific design.
Construction inspection checklists for post-development stormwater management practices can be found in Appendix F of the New York Stormwater Management Design Manual.

CONSTRUCTION DURATION INSPECTIONS

b. Modifications to the SWPPP (To be completed as described below)

The Operator shall amend the SWPPP whenever:

1. There is a significant change in design, construction, operation, or maintenance which may have a significant effect on the potential for the discharge of pollutants to the waters of the United States and which has not otherwise been addressed in the SWPPP; or
2. The SWPPP proves to be ineffective in:
   a. Eliminating or significantly minimizing pollutants from sources identified in the SWPPP and as required by this permit; or
   b. Achieving the general objectives of controlling pollutants in stormwater discharges from permitted construction activity; and
3. Additionally, the SWPPP shall be amended to identify any new contractor or subcontractor that will implement any measure of the SWPPP.

Modification & Reason:

III. Monthly Summary of Site Inspection Activities

Name of Permitted Facility:	**Today's Date:**	**Reporting Month:**
Location:	**Permit Identification #:**	
Name and Telephone Number of Site Inspector:		

Date of Inspection	Regular / Rainfall based Inspection	Name of Inspector	Items of Concern

Owner/Operator Certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that false statements made herein are punishable as a class A misdemeanor pursuant to Section 210.45 of the Penal Law."

Signature of Permittee or Duly Authorized Representative

Name of Permittee or Duly Authorized Representative Date

Duly authorized representatives must have written authorization, submitted to DEC, to sign any permit documents.

CONSTRUCTION STORMWATER INSPECTION MANUAL

Denise M. Sheehan
Commissioner

DEC

Construction Stormwater Inspection Manual

New York State
Department of Environmental Conservation

George E. Pataki, *Governor* Denise M. Sheehan, *Commissioner*

Prepared by Zimmerman Engineering & Surveying, PC

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1.0 INTRODUCTON AND PURPOSE

The New York State Department of Environmental Conservation Division of Water (DOW) considers there to be two types of inspections germane to construction stormwater; compliance inspections and self-inspections.

This manual is for use by DOW and other regulatory oversight construction stormwater inspectors in performing compliance inspections, as well as to site operators in performing self inspections. The manual should be used in conjunction with the New York State Standards and Specifications for Erosion and Sediment Control, August 2005.

1.1 Compliance Inspections

Regulatory compliance inspections are performed by regulatory oversight authorities such as DOW staff or representatives of DOW and local municipal construction stormwater inspectors. These inspections are intended to determine compliance with the state or local requirements for control of construction stormwater through erosion and sediment control and post construction practices. Compliance inspections focus on determinations of compliance with legal and water quality standards. Typically compliance inspections can be further sub-categorized to include comprehensive inspections and follow-up or reconnaissance inspections.

Compliance inspectors will focus on determining whether:

- the project is causing water quality standard violations;
- the Stormwater Pollution Prevention Plan (SWPPP) that was required to be prepared includes appropriate erosion and sediment controls and, to some extent, post construction controls;
- the owner/operator is complying with the SWPPP;
- where required, self-inspections are being properly performed; and
- where self inspections are required, the owner/operator responds appropriately to the self-inspector's reports.

1.1.1 Comprehensive Inspection

Comprehensive inspections are designed to verify permittee compliance with all applicable regulatory requirements, effluent controls, and compliance schedules. This inspection involves records reviews, visual observations, and evaluations of the management practices, effluents, and receiving waters.

Comprehensive inspections should be conducted according to a neutral or random inspection scheme or in accordance with established priorities. A neutral monitoring scheme provides some objective basis for scheduling inspections and sampling visits by establishing a system for

setting priorities (whether a complex factor-based, alphabetical, or geographic system) to ensure that a particular facility is not unfairly selected for inspection or sampling. The selection of which facility to inspect must be made without bias to ensure that the regulatory oversight authority, if challenged for operating its inspection and sampling program in either an arbitrary or capricious manner, can reasonably defend itself.

The neutral inspection scheme should set the criteria the inspector uses to choose which facilities to inspect, but the schedule for the actual inspection should remain confidential and may be kept separate from the neutral plan.

A routine comprehensive compliance inspection is most effective when it is unannounced or conducted with very little advance warning.

1.1.2 Reconnaissance Inspection

The reconnaissance inspection is performed in lieu of or following a comprehensive inspection to obtain a preliminary overview of an owner/operator's compliance program, to respond to a citizen complaint or to assess a non-permitted site. The inspector performs a brief (generally about an hour) visual inspection of the site, discharges and receiving waters. The reconnaissance inspection uses the inspector's experience and judgement to summarize any potential compliance problems, without conducting the full comprehensive inspection. The objective of the reconnaissance inspection is to expand inspection coverage without increasing inspection resource expenditures. The reconnaissance inspection is the shortest and least resource intensive of all inspections.

Reconnaissance inspections may be initiated in response to known or suspected violations, a public complaint, a violation of regulatory requirements, or as follow-up to verify that necessary actions were taken in response to a previous inspection.

1.2 Self-Inspections

For some projects, the site owner/operator is required by their State Pollutant Discharge Elimination System (SPDES) Permit and/or local requirements to have a qualified professional[1] perform a "self-inspection" at the site. In these self-inspections, the qualified professional determines whether the site is being managed in accordance with the SWPPP, and whether the SWPPP's recommended erosion and sediment controls are effective. If activities are not in accordance with the SWPPP, or if the SWPPP erosion and sediment controls are not effective, the qualified professional inspecting the site recommends corrections to the owner/operator.

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[1] "Qualified professional" means a person knowledgeable in the principles and practice of erosion and sediment controls, such as a licensed professional engineer, Certified Professional in Erosion and Sediment Control (CPESC), licensed landscape architect or soil scientist.

2.0 PRE-INSPECTION ACTIVITIES

2.1 Regulatory Oversight Authorities

This section is intended for inspectors with regulatory oversight authority such as agents of the DOW or a local municipality, or others acting on their behalf such as county Soil & Water Conservation District staff. Examples of other regulatory oversight authorities include the United States Environmental Protection Agency (EPA), New York City Department of Environmental Protection (DEP), Adirondack Park Agency (APA), the Lake George Park Commission (LGPC), and the Skaneateles Lake Watershed Authority (SLWA). Before arriving on-site to conduct the inspection there are considerations to be made concerning communication, documentation and equipment.

2.1.1 Communication

Coordination with Other Entities
Where appropriate, prior to selecting sites for inspection, compliance inspectors should communicate with other regulatory oversight authorities to avoid unnecessary duplication or to provide for coordination in follow-up to inspections performed by those other regulatory oversight authorities.

Announced vs. Unannounced Inspection
Inspections may be announced or unannounced. Each method has its own advantages and disadvantages. Unannounced inspections are preferred, however many job sites are not continuously manned, or not always staffed by a person who is familiar with the Stormwater Pollution Prevention Plan, thus necessitating an announced inspection. As an alternative, when an announced inspection is necessary, inspectors should try to give as little advanced warning as possible (24 hours is suggested).

Itinerary
For obvious safety reasons, inspectors should be sure to inform someone in their office which site or sites they will be visiting prior to leaving the to perform inspections.

2.1.2 Documentation

Data Review
The inspector should review any available information such as:

- Notice of Intent
- Stormwater Pollution Prevention Plan
- Past inspection records
- Phasing plan
- Construction sequence
- Maintenance schedules
- Site specific issues
- Consent Orders

- Access agreements

Inspection Form
The inspector should have copies of, and be familiar with, the inspection form used by their regulatory oversight authority (example in **ATTACHMENT 1**) before leaving the office. Static information such as name, location and permit number can be entered onto the inspection form prior to arriving at the inspection site.

Credentials
Inspectors should always carry proper identification with them to prove that they are employed by an entity with jurisdictional authority. Failure to properly display proper credentials may be legal grounds for denial of entry on to a site.

2.1.3 Equipment

Personal Protective Equipment
DOW employees must conform to the DOW Health and Safety policy as it relates to personal protective equipment. Other regulatory oversight authorities must have their own safety policies or may wish to consult the OSHA health and safety tool at:

http://www.osha.gov/dep/etools/ehasp/index.html to develop a health and safety plan.

The following is a list of some of the most common health and safety gear that may be needed:

- Hard hat (Class G, Type1 or better)
- Safety toe shoes
- Reflective vest
- Hearing protection (to achieve 85 dBA - 8 hr TWA)
- Safety glasses with side shields

If the construction is on an industrial site or a hazardous waste site, it is possible that special training is required prior to entering that site. For those sites, the inspector should consult with OSHA or NYSDEC prior to entering such a site.

Monitoring Equipment
The following is a list of some equipment that may be helpful to document facts and verify compliance:

- Digital Camera
- Measuring tape or wheel.
- Hand level or clinometer

and sometimes

- Turbidity meter

2.2 Permittee's Self-Inspection

This section is intended for qualified professionals who conduct site self-inspections on behalf of owner/operators.

Prior to conducting inspections, qualified professionals should ensure familiarity with the Stormwater Pollution Prevention Plan and previous inspection reports.

3.0 ON-SITE INSPECTION PROCESS

3.1 Compliance Inspections

3.1.1 Professionalism

Don't Pretend to Possess Knowledge

Unless the inspector has experience with a particular management practice, do not pretend to possess knowledge. Inspectors cannot be expert in all areas; their job is to collect information, not to demonstrate superior wisdom. Site operators are often willing to talk to someone who is inquisitive and interested. Within reason, asking questions to obtain new information about a management practice, construction technique or piece of equipment is one of the inspector's main roles in an inspection.

Don't Recommend Solutions

The inspector should not recommend solutions or endorse products. The solution to a compliance problem may appear obvious based on the inspector's experience. However, the responsibility should be placed on the site owner to implement a workable solution to a compliance problem that meets NYSDEC standards. The inspector should refer the site operator to the New York Standards and Specifications for Erosion and Sediment Control (the Blue Book) or the New York State Stormwater Management Design Manual (the Design Manual).

Key advice must be offered carefully. One experienced stormwater inspector suggests using the phrase: "I can't direct you or make recommendations, but what we've seen work in other situations is ....."

The way an inspector presents themself is important to the effectiveness of the inspection. An inspector cannot be overly familiar, but will be more effective if able to establish a minimum level of communication.

3.1.2 Safety

DOW employees must conform to the Division of Water Health and Safety policy when on a construction site. Other regulatory oversight authorities must have their own safety policies or

may wish to consult the OSHA health and safety tool at:

http://www.osha.gov/dep/etools/ehasp/index.html to develop a health and safety plan.

Some general protections for construction sites are:

- Beware heavy equipment - avoid operator blind spots and make sure of operator eye contact around heavy equipment
- Avoid walking on rock rip rap if possible. The loose rock presents a slip hazard.
- Stay out of confined spaces like tanks, trenches and foundation holes
- Avoid lightning danger - monitor weather conditions, get out of water, avoid open areas and high points, do not huddle in groups or near trees
- Protection from sun and heat exposure - sun screen or shading clothing, remaining hydrated by drinking water, watching for signs of heat cramps, exhaustion (fatigue, nausea, dizziness, headache, cool or moist skin), or stroke (high body temperature; red, hot and dry skin)
- Protection from cold weather- wear multiple layers of thin clothing, wear a warm hat, drink warm fluids or eat hot foods, and keep dry
- Avoid scaffolding in excess of 4' above grade
- Beware of ticks, stinging insects, snakes and poison ivy/oak/sumack

3.1.3 Legal access

DOW has general powers, set forth under ECL 17-0303, subparagraph 6, to enter premises for inspections. In addition, ECL 3-0301.2 conveys general statutory authority granting the DOW the power to access private property to fulfill DOW obligations under the law.

ECL 15-0305 gives the DOW the authority to enter at all times in or upon any property, public or private, for the purpose of inspecting or investigating conditions affecting the construction of improvements to or developments of water resources for the public health, safety or welfare.

ECL 17-0829 allows any DOW representative, upon presentation of his credentials, to enter upon any premises where any effluent source is located or in which records are required to be maintained. The representative may at reasonable times have access to and sample discharges/pollutants to the waters or to publicly owned treatment plants where the effluent source is located. This subparagraph provides DOW representatives performing their duties authority to enter a site to pursue administrative violations. Pursuing criminal violations may require a warrant or the owner's permission to enter the site.

For sites that are permitted, DOW has authority under the permit to enter the site.

If the owner/operator representatives onsite deny access, the inspector should not physically force entry. Under these circumstances the attorney representing the inspector should be immediately notified and consideration should be given to soliciting the aid of a law officer to obtain entry.

DOW staff have the right to enter at any reasonable time. If no one is available, and the site is fenced or posted, DOW staff should make all reasonable efforts to identify, contact and notify the owner that the DOW is entering the site. If staff has made all reasonable efforts to contact site owners, but was unable to contact the owners, the site can then be accessed. All efforts should be taken to not cause any damage to the facility.

Other regulatory oversight authorities should seek advice on their legal authorities to enter a job site. Municipalities that have adopted Article 6 of the New York State Sample Local Law for Stormwater Management and Erosion & Sediment Control (NYSDEC, 2004, updated 2006) will have a legal authority to enter sites similar to that of the DOW.

Agents of DOW have similar authority to enter sites as DOW staff. However, DOW staff enjoy significant personal liability protections as state employees. That liability protection would not be the same for agents of DOW. For agents of DOW (or other regulatory oversight authorities) it is prudent to obtain permission to enter the site. If such permission is denied, the agent should inform the appropriate DOW contact, usually the regional water manager.

3.1.4 Find the Legally Responsible Party (Construction Manager, Self-Inspector)

The first action a compliance inspector should take upon entering a construction site is to find the construction trailer or the construction or project manager if they are available. The inspector should present appropriate identification to the site's responsible party and state the reason for the inspection; construction storm water complaint response or neutral construction stormwater inspection. If the inspection is initiated as a response to a complaint, frequently the responsible party will ask who made the complaint. DOW has always kept individual complainants confidential. If the complainant is another regulatory oversight authority, DOW tends to make that known to the site's responsible party.

3.1.5 On-site records review (NOI, SWPPP, Self-inspection Reports, Permit)

Generally, the compliance inspector should next review the on-site records. Verify that a copy of the construction stormwater permit and NOI are on-site. Verify that the acreage, site conditions, and receiving water listed on the NOI are accurate. Compare the on-site documentation with documentation already submitted to or obtained by the compliance inspector.

If the SWPPP has not been reviewed in the office, verify that it exists and contains the minimum required components (the 16 for a basic plan and 22 for a full plan). On-site review of the SWPPP should determine if there is an appropriate phasing plan, the acreage disturbed in each phase, construction sequence for each phase, proposed implementation of Erosion and Sediment control measures and, where required, post construction controls. For each of the erosion and sediment control practices, the SWPPP must show design details in accordance with the NYS Standards for Erosion and Sediment Controls. The SWPPP must also include provisions for maintenance of practices during construction. On-site review of post construction controls is generally limited to verification that the proposed stormwater management practices are shown on the site plan.

Where self-inspections are required, self-inspection reports are a significant tool for the compliance inspector to determine the performance history of the site. The self-inspection reports should be done in accordance with the required frequency (generally weekly). Self-inspection reports must include all the details required by the permit. Generally, it is desirable for that information to be shown on a site plan. The compliance inspector should become familiar with the report and use that familiarity to judge whether the self-inspections are being performed correctly and that the site operator is correcting the deficiencies noted in the report.

3.1.6 Walk the Site

During wet weather conditions, it may be advantageous to observe the receiving waters prior to walking the rest of the site. At some point during the inspection, the receiving water conditions must be observed and noted. It is critical to note if there is a substantial visible contrast to natural conditions, or evidence of deposition, streambank erosion, construction debris or waste materials (e.g. concrete washdown) in the receiving stream.

Each inspector should evaluate actual implementation and maintenance of practices on-site compared to how implementation and maintenance is detailed in the SWPPP. At a minimum, the compliance inspector should observe all areas of active construction. Observing equipment or materials storage, recently stabilized areas, or stockpile areas is also appropriate to evaluate the effectiveness of management practices.

3.1.7 Taking Photographs

Evidence of poor receiving water conditions and poor or ineffective practices should be documented with digital photographs. Those photographs should be logged date stamped and stored on a media that cannot be edited (e.g. write only CDs). Photos should also be appended to the site inspector's report.

It is also beneficial to take photographs of good practices for educational and technology transfer reasons.

3.1.8 Exit Interview

Clearly communicate expectations and consequences. If it is clear from the inspection that the owner/operator must modify the SWPPP or modify management practices within an assigned period (e.g. 24 hours, 48 hours, one week, two weeks), then that finding should be communicated at the time of the exit interview. The inspector should assign the period based on factors such as how long it would reasonably take to complete such modifications and the level of risk to water quality associated with failure to make such modifications.

The inspector should make clear that the department reserves rights to future enforcement actions. If the inspector's supervisor or enforcement coordinator determines additional enforcement actions are necessary, the inspector should not have reassured the owner/operator that the current situation is acceptable.

3.2 Non-Permitted Site Inspections

For sites not authorized in accordance with state or local laws, the process will be abbreviated. First verify need for authorization and observe receiving waters to detect water quality standard violations. If there is a violation, notify the owner of the violation or other compliance actions for illicit operation. For DOW staff, **ATTACHMENT 2** or a similar notice can be used to notify the site owner/operator that stormwater authorization is required.

3.3 Self-Inspections

The role of the self-inspector is to verify that the site is complying with stormwater requirements. In particular, the self-inspector verifies the SWPPP is being properly implemented. The self-inspector also documents SWPPP implementation so that regulatory agencies can review those SWPPP implementation activities.

It is <u>not</u> the role of the self-inspector to report directly to regulatory authorities.

Appendix H of <u>The New York Standards and Specifications for Erosion and Sediment Control</u> (the Blue Book) includes a Construction Duration Inspection checklist that can be used by the owner/operators qualified professional for self-inspections. The Blue Book is available at:

<u>http://www.dec.state.ny.us/website/dow/toolbox/escstandards/index.html</u>

3.3.1 Purpose

The self inspector should ensure that the project's SWPPP is being properly implemented. This includes ensuring that the practices are properly installed and that they are being maintained in accordance with the SWPPP/Blue Book.

The project must be properly phased to limit the disturbance to less than five acres and the construction sequence for each phase must be followed. The SWPPP must also be modified to address evolving circumstances. Finally, and most importantly, the receiving waters must be protected.

If the soil disturbance will be greater than five acres at any given time, the site operator must obtain written permission from the DOW regional office.

3.3.2 Pre-Construction Conference

The parties responsible for various aspects of stormwater compliance should be identified at the pre-construction conference. Responsible parties may include, but are not limited to, owner's engineer, owner/operator/permittee, contractors, and subcontractors.

Typical responsibilities include: installation of erosion and sediment control (E & SC) practices; maintenance of E & SC practices, installation of post construction stormwater management practices, inspection E&SC practices, installation and maintenance of E&SC Practices, installation of post construction SMPs, inspection of post construction SMPs, SWPPP revisions,

and contractor direction.

All parties should clearly know what is expected of them. The RPs should complete the Pre-construction Site Assessment Checklist provided in Appendix H of the Blue Book for pre-construction.

3.3.3 Inspection Preparation
The inspector should review the project's SWPPP (including the phasing plan, construction sequence and site specific issues) and the last few inspection reports (if the inspector has available prior inspection reports).

3.3.4 Self-Inspection Components

Inspect installation, performance and maintenance of all ESC practices

The self inspector should inspect all areas that are under active construction or disturbance and areas that are vulnerable to erosion. The self-inspector should also inspect areas that will be disturbed prior to the next inspection for measures required prior to construction (e.g. silt barriers, stabilized construction entrance, diversions). Finally, self-inspectors should inspect post-construction controls during and after installation.

Identify site deficiencies and corrective measures

The self-inspector must maintain a log book on site and make the log book available to the regulatory authorities. The self-inspector may also be called upon to perform a final site inspection, including post construction stormwater management practices, prior to filing the Notice of Termination.

4.0 POST-INSPECTION ACTIVITIES

4.1 Regulatory Oversight Authorities

This section is intended for inspectors with regulatory oversight authority such as agents of the DOW or a local municipality, or others acting on their behalf (such as County Soil & Water Conservation District staff.) Upon completion of an inspection, the inspection results should be documented for the record.

4.1.1 Written Notification

The inspector should inform the permittee or the on-site representative of the inspection results in writing by sending the permittee a complete, signed copy of the inspection report. The inspection report should be transmitted under a cover letter which elaborates where necessary on any deficiencies noted in the inspection report. It is probably not a good idea to commend exceptional efforts by the owner/operator in a letter because such letters have tended to undermine enforcement efforts where the compliance status of the site degrades.

The inspector should consider providing other parties with a copy of the cover letter and inspection report including:

- Permittee
- Contractor(s)
- Other regulatory oversight authorities
- Other parties present during the inspection (e.g. Stormwater Pollution Prevention Plan preparer, permittee's self-inspector, etc.)

For DOW staff, an example inspection cover letter is included as **ATTACHMENT 3.**

4.1.2 Inspection Tracking

DOW staff must enter their inspection results into the electronic *Water Compliance System.*

Local municipalities and other regulatory oversight authorities are encouraged to develop an electronic tracking system in which to record their inspections.

4.2 Permittee's Self-Inspections

This section is intended for qualified professionals who conduct site inspections for permittees in accordance with a SPDES permit or local requirements.

4.2.1 Written Records

Inspection Reports
The inspector shall prepare a written report summarizing the inspection results. The inspection report is then provided to the permittee, or the permittee's duly authorized representative, and to the contractor responsible for implementing stormwater controls on-site to correct deficiencies noted in the inspection report. Finally, the inspection report must be added to the site log book that is required to be maintained on-site and be available to regulatory oversight authorities for review.

4.2.2 Stormwater Pollution Prevention Plan Revisions

The inspector must inform the permittee of his/her duty to amend the Stormwater Pollution Prevention Plan (SWPPP) whenever an inspection proves the SWPPP to be ineffective in:

- Eliminating or significantly minimizing pollutants from on-site sources
- Achieving the general objectives of controlling pollutants in stormwater discharges from permitted construction activity
- Eliminating discharges that cause a substantial visible contrast to natural conditions

ATTACHMENT 1
Construction Stormwater Compliance Inspection Report

Project Name and Location:	Date:	Page 1 of _____
	Permit # (if any): NYR	
Municipality: County:	Entry Time:	Exit Time:
On-site Representative(s) and contact information:	Weather Conditions:	
Name and Address of SPDES Permittee/Title/Phone/Fax Numbers: Contacted Yes• •No• •		

INSPECTION CHECKLIST

SPDES Authority

Yes	No	N/A		Law, rule or permit citation
1. • •	• •	• •	Is a copy of the NOI posted at the construction site for public viewing?	
2. • •	• •	• •	Is an up-to-date copy of the signed SWPPP retained at the construction site?	
3. • •	• •	• •	Is a copy of the SPDES General Permit retained at the construction site?	

SWPPP Content

Yes	No	N/A		Law, rule or permit citation
4. • •	• •	• •	Does the SWPPP describe and identify the erosion & sediment control measures to be employed?	
5. • •	• •	• •	Does the SWPPP provide a maintenance schedule for the erosion & sediment control measures?	
6. • •	• •	• •	Does the SWPPP describe and identify the post-construction SW control measures to be employed?	
7. • •	• •	• •	Does the SWPPP identify the contractor(s) and subcontractor(s) responsible for each measure?	
8. • •	• •	• •	Does the SWPPP include all the necessary contractor certification statements?	
9. • •	• •	• •	Is the SWPPP signed/certified by the permittee?	

Recordkeeping

Yes	No	N/A		Law, rule or permit citation
10. • •	• •	• •	Are inspections being performed as required by the permit (every 7 days and after ½" rain event)?	
11. • •	• •	• •	Are the site inspections being performed by a qualified professional?	
12. • •	• •	• •	Are all required reports properly signed/certified?	
13. • •	• •	• •	Does the SWPPP include copies of the monthly/quarterly written summaries of compliance status?	

Visual Observations

Yes	No	N/A		Law, rule or permit citation
14. • •	• •	• •	All erosion and sediment control measures have been installed/constructed?	
15. • •	• •	• •	All erosion and sediment control measures are being maintained properly?	
16. • •	• •	• •	Are there currently more than 5 acres of disturbed soil at the site without prior approval?	
17. • •	• •	• •	Have stabilization measures been initiated in inactive areas?	
18. • •	• •	• •	Are permanent stormwater control measures being implemented?	
19. • •	• •	• •	Was there a discharge into the receiving water on the day of inspection?	
20. • •	• •	• •	Is there evidence of turbidity, sedimentation, or oil in the receiving waters? (If yes, complete Page 2)	

Overall Inspection Rating: • •Satisfactory • •Marginal • •Unsatisfactory	
Name/Agency of Lead Inspector:	**Signature of Lead Inspector:**
Names/Agencies of Other Inspectors:	

Rev. 10-16-06

Water Quality Observations

Describe the discharge(s) [source(s), impact on receiving water(s), etc.] _____

Describe the quality of the receiving water(s) both upstream and downstream of the discharge _____

Describe any other water quality standards or permit violations _____

Additional Comments: _____

• • Photographs attached

ATTACHMENT 2

**** NOTICE ****

On March 10, 2003, provisions of the Federal Clean Water Act went into effect that applies to many construction operations.

If your construction operations result in the disturbance of 1 acre or greater and stormwater runoff from your site reaches surface waters (i.e., lake, stream, road side ditch, swale, storm sewer system, etc.), the stormwater runoff from your site must be covered by a State Pollutant Discharge Elimination System (SPDES) Permit issued by the New York State Department of Environmental Conservation (NYSDEC).

To facilitate your compliance with the Law, NYSDEC has issued a General Permit (GP-02-01) which may be applicable to your project. To obtain coverage under this General Permit, you need to prepare a Stormwater Pollution Prevention Plan and then file a Notice of Intent (NOI) to the NYSDEC Headquarters in Albany. The NOI form is available on the DEC Website (www.dec.state.ny.us/website/dow/PhaseII.html) in the stormwater section. You may also obtain a copy of the NOI at the NYSDEC Regional Offices.

When you file your NOI you are certifying that you have developed a Storm Water Pollution Prevention Plan (SWPPP) and that it will be implemented prior to commencing construction.
When you submit the NOI you need to indicate if your SWPPP is in conformance with published NYSDEC criteria; if it is, your coverage can be effective in as little as five business days. If your SWPPP does not conform to the DEC criteria, coverage will not be available for at least 60 business days.

Failure to have the required Permit can result in legal actions which include Stop Work Orders and/or monetary penalties of up to $37,500/day

If your construction operations are already in progress and you are not covered by an appropriate NYSDEC Permit contact the NYSDEC Regional Water Engineer (357-2045) as soon as possible. If your construction field operations have not yet commenced, review the NOI and the General Permit on the DEC Website or at the DEC Regional Office. When you are comfortable that you understand and comply with the requirements you should file your NOI.

This requirement does not replace any local requirements. Developers/Contractors are directed to contact the Local Code Enforcement Officer.

ATTACHMENT 3

<< Date >>

Mr. John Smith
123 Main Street
Ferracane, NY 12345

Re: Stormwater Inspection
SPDES Permit Identification No. NYR10Z000 (through SPDES No. GP-02-01)
Blowing Leaves Subdivision
Gasper (T), Eaton (Co.)

Dear Mr. Smith:

On the afternoon of << date >> I conducted an inspection of the construction activities associated with the Blowing Leaves Subdivision located on County Route 1 in the town of Gasper, Eaton County. The inspection was conducted in the presence of you and Mr. Samuel Siltfence of Acme Excavating Co., Inc. The purpose of the inspection was to verify compliance with the *State Pollutant Discharge Elimination System (SPDES) General Permit (No. GP-02-01) for Storm Water Discharges from Construction Activity* ("the general permit").

The overall rating for the project at the time of the inspection was ***unsatisfactory***. A copy of my inspection report is attached for your information. In addition to the report, I would like to elaborate on the following:

SPDES Authority

- In accordance with subdivision 750-2.1 (a) of Title 6 of the Official Compilation of Codes, Rules, and Regulations of the State of New York (6 NYCRR), a copy of your permit must be retained at the construction site. You did not have a copy of the general permit at the site. **Your failure to retain a copy of the general permit at the construction site is a violation of 6 NYCRR Part 750-2.1 (a).** Please retain a copy of the general permit at the site from this point forward.

SWPPP Content

- In accordance with Part III.E.2. of the general permit, contractors and subcontractors must certify that they understand the terms and conditions of the general permit and the SWPPP before undertaking any construction activity at the site. Your SWPPP does not include a certification statement from Acme Excavating Co., Inc. **The failure of your contractor to sign this certification before undertaking construction activity at the site is a violation of Part III.E.2. of the general permit.** Please obtain copies of all necessary certifications and provide copies of them to each party who holds a copy of your SWPPP.

- In accordance with Part V.H.2. of the general permit, SWPPP's must be certified by the permittee. Your SWPPP was not certified by you. **Your failure to certify your SWPPP is a**

violation of Part V.H.2. of the general permit. Please certify your SWPPP.

Recordkeeping

- In accordance with Parts III.D.3.a. and III.D.3.b. of the general permit, permittees must have a qualified professional conduct site inspections within 24 hours of the end of 0.5" or greater rain events and at least once per week. A review of your records revealed that your "self-inspections" are only being conducted about two or three times per month. **Your failure to have a qualified professional conduct inspections at the required frequency is a violation of Part III.D.3.b. of the general permit.** Please immediately direct your qualified professional to conduct your site inspections at the required frequency.

- Although the frequency of self-inspections is not up to par, the quality of them is outstanding. Your qualified professional has accurately noted the same SWPPP deficiencies and necessary maintenance activities that I also observed, and prepared thorough sketches on the self-inspection site maps.

- In accordance with Part V.H.2. of the general permit, the permittee must certify all reports required by the permit. A review of your records showed that your self-inspection reports were not certified. **Your failure to certify your self-inspection reports is a violation of Part V.H.2. of the general permit.** Please sign and certify any and all existing and future self-inspection reports.

Visual Observations

- In accordance with Parts III.A.2. and III.A.3. of the general permit, all erosion and sediment controls (E&SC) measures must be installed (as detailed in the SWPPP) prior to the initiation of construction. During the inspection I noted all of your E&SC measures have been correctly installed at the right times and locations. Your contractor is to be commended for this.

- In accordance with Part V.L. of the general permit, all of the E&SC measures at your site must be maintained properly. While on site I observed that, among other things, the section of silt fence in place parallel to County Route 1 is in various stages of disrepair. **The failure of your contractor to adequately maintain the E&SC measures currently in place at your site is a violation of Part V.L of the general permit.** Please direct your contractor to repair this silt fence immediately and to diligently maintain all of the other required E&SC measures as they are brought to his attention by your qualified professional.

- This inspection was conducted during a rain event which was resulting in a stormwater discharge to the municipal separate storm sewer system (MS4) being operated by the Eaton County Department of Public Works. Your discharge was visibly turbid whereas the upstream water in the MS4 was clear. As a result, the discharge from the MS4 outfall into Karimipour

Mr. John Smith
Re: SPDES Inspection
Blowing Leaves Subdivision
Gasper (T), Eaton (Co.)

<< Date >>

Creek was causing slight turbidity. Please be advised that the narrative water quality standard for turbidity in Karimipour Creek is "no increase that will cause a substantial visible contrast to natural conditions." I attribute the lack of maintenance of your E&SC measures to be the primary cause of the turbid discharge. Please be reminded that the general permit does not authorize you cause or contribute to a condition in contravention of any water quality standards.

If you have any questions or comments, please feel free to contact me at (999) 456-5432.

Sincerely,

Hector D. Inspector, CPESC
Environmental Program Specialist 2

HDI:ms
Attachment

cc w/att.: Chester Checkdam, (T) Gasper Code Enforcement Officer
Samuel Siltfence, Acme Excavating Co., Inc.

EROSION & SEDIMENT CONTROL SPECIFICATIONS

STANDARD AND SPECIFICATIONS FOR TEMPORARY CRITICAL AREA PLANTINGS

Definition

Providing erosion control protection to a critical area for an interim period. A critical area is any disturbed, denuded slope subject to erosion.

Purpose

To provide temporary erosion and sediment control. Temporary control is achieved by covering all bare ground areas that exist as a result of construction or a natural event.

Conditions Where Practice Applies

Temporary seedings may be necessary on construction sites to protect an area, or section, where final grading is complete, when preparing for winter work shutdown, or to provide cover when permanent seedings are likely to fail due to mid-summer heat and drought. The intent is to provide temporary protective cover during temporary shutdown of construction and/or while waiting for optimal planting time.

Criteria

Water management practices must be installed as appropriate for site conditions. The area must be rough graded and slopes physically stable. Large debris and rocks are usually removed. Seedbed must be seeded within 24 hours of disturbance or scarification of the soil surface will be necessary prior to seeding.

Fertilizer or lime are not typically used for temporary seedings.

IF: Spring or summer or early fall, then seed the area with ryegrass (annual or perennial) at 30 lbs. per acre (Approximately 0.7 lb./1000 sq. ft. or use 1 lb./1000 sq. ft.).
IF: Late fall or early winter, then seed Certified 'Aroostook' winter rye (cereal rye) at 100 lbs. per acre (2.5 lbs./1000 sq. ft.).

Any seeding method may be used that will provide uniform application of seed to the area and result in relatively good soil to seed contact.

Mulch the area with hay or straw at 2 tons/acre (approx. 90 lbs./1000 sq. ft. or 2 bales). Quality of hay or straw mulch allowable will be determined based on long term use and visual concerns. Mulch anchoring will be required where wind or areas of concentrated water are of concern. Wood fiber hydromulch or other sprayable products approved for erosion control (nylon web or mesh) may be used if applied according to manufacturers' specification. Caution is advised when using nylon or other synthetic products. They may be difficult to remove prior to final seeding.

STANDARD AND SPECIFICATIONS FOR PERMANENT CRITICAL AREA PLANTINGS

Definition

Establishing grasses with other forbs and/or shrubs to provide perennial vegetative cover on disturbed, denuded, slopes subject to erosion.

Purpose

To reduce erosion and sediment transport.

Conditions Where Practice Applies

This practice applies to all disturbed areas void of, or having insufficient, cover to prevent erosion and sediment transport. See additional standards for special situations such as sand dunes and sand and gravel pits.

Criteria

All water control measures will be installed as needed prior to final grading and seedbed preparation. Any severely compacted sections will require chiseling or disking to provide an adequate rooting zone, to a minimum depth of 12". The seedbed must be prepared to allow good soil to seed contact, with the soil not too soft and not too compact. Adequate soil moisture must be present to accomplish this. If surface is powder dry or sticky wet, postpone operations until moisture changes to a favorable condition. If seeding is accomplished within 24 hours of final grading, additional scarification is generally not needed, especially on ditch or stream banks. Remove all stones and other debris from the surface that are greater than 4 inches, or that will interfere with future mowing or maintenance.

Soil amendments should be incorporated into the upper 2 inches of soil when feasible. **The soil should be tested to determine the amounts of amendments needed.** Apply ground agricultural limestone to attain a pH of 6.0 in the upper 2 inches of soil. If soil must be fertilized before results of a soil test can be obtained to determine fertilizer needs, apply commercial fertilizer at 600 lbs. per acre of 5-10-10 or equivalent. If manure is used, apply a quantity to meet the nutrients of the above fertilizer. This requires an appropriate manure analysis prior to applying to the site. Do not use manure on sites to be planted with birdsfoot trefoil or in the path of concentrated water flow.

Seed mixtures may vary depending on location within the state and time of seeding. Generally, warm season grasses should only be seeded during early spring, April to May. These grasses are primarily used for vegetating excessively drained sands and gravels. See Standard and Specification for Sand and Gravel Mine Reclamation. Other grasses may be seeded any time of the year when the soil is not frozen and is workable. When legumes such as birdsfoot trefoil are included, spring seedings are preferred. See Table 3.1 "Permanent Critical Area Planting Mixture Recommendations" for additional seed mixtures.

General Seed Mix:
[1] add inoculant immediately prior to seeding

	Variety	lbs./acre	lbs/1000 sq. ft.
Birdsfoot trefoil[1] OR	Empire/Pardee	8[2]	0.20
Common white clover[1]	Common	8	0.20
PLUS			
Tall fescue	KY-31/Rebel	20	0.45
PLUS			
Redtop OR	Common	2	0.05
Ryegrass (perennial)	Pennfine/Linn	5	0.10

[2] Mix 4 lbs each of Empire and Pardee OR 4 lbs of Birdsfoot and 4 lbs white clover per acre.

Time of Seeding: The optimum timing for the general seed mixture is early spring. Permanent seedings may be made any time of year if properly mulched and adequate moisture is provided. Late June through early August is not a good time to seed, but may facilitate covering the land without additional disturbance if construction is completed. Portions of the seeding may fail due to drought and heat. These areas may need reseeding in late summer/fall or the following spring.

Method of seeding: Broadcasting, drilling, cultipack type

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seeding, or hydroseeding are acceptable methods. Proper soil to seed contact is key to successful seedings.

Mulching: Mulching is essential to obtain a uniform stand of seeded plants. Optimum benefits of mulching new seedings are obtained with the use of small grain straw applied at a rate of 2 tons per acre, and anchored with a netting or tackifier. See the mulch standard and specification for choices and requirements.

Irrigation: Watering may be essential to establish a new seeding when a drought condition occurs shortly after a new seeding emerges. Irrigation is a specialized practice and care must be taken not to exceed the application rate for the soil or subsoil. When disconnecting irrigation pipe, be sure pipes are drained in a safe manor, not creating an erosion concern.

Table 3.1
Permanent Critical Area Planting Mixture Recommendations

Seed mixture	Variety	Rate in lbs. per acre	Rate in lbs. Per 1000 sq. ft.
Mix #1			
Creeping red fescue	Ensylva, Pennlawn, Boreal	10	.25
Perennial ryegrass	Pennfine, Linn	10	.25

*This mix is used extensively for shaded areas.

Mix #2

Switchgrass	Shelter, Pathfinder, Trailblazer, or Blackwell	20	.5

*This rate is in pure live seed, this would be an excellent choice along the upland edge of a wetland to filter runoff and provide wildlife benefits. In areas where erosion may be a problem, a companion seeding of sand lovegrass should be added to provide quick cover at a rate of 2 lbs. per acre (0.05 lbs. per 1000 sq. ft.).

Mix #3

Switchgrass	Shelter, Pathfinder, Trailblazer, or Blackwell	4	.1
Big bluestem	Niagara	4	.1
Little bluestem	Aldous or Camper	2	.05
Indiangrass	Rumsey	4	.1
Ccastal panicgrass	Atlantic	2	.05
Sideoats grama	El Reno or Trailway	2	.05
Wildflower mix		.5	.01

*This mix has been successful on sand and gravel plantings. It is very difficult to seed without a warm season grass seeder such as a Truax seed drill. Broadcasting this seed is very difficult due to the fluffy nature of some of the seed, such as bluestems and indiangrass.

Mix #4

Switchgrass	Shelter, Pathfinder Trailblazer, or Blackwell	10	.25
Coastal panicgrass	Atlantic	10	.25

*This mix is salt tolerant, a good choice along the upland edge of tidal areas and roadsides.

Mix #5

Saltmeadow cordgrass (Spartina patens)—This grass is used for tidal shoreline protection and tidal marsh restoration. It is planted by vegetative stem divisions.

'Cape' American beachgrass can be planted for sand dune stabilization above the saltmeadow cordgrass zone.

Mix #6

Creeping red fescue	Ensylva, Pennlawn, Boreal	20	.45
Tall fescue	KY 31, Rebel	20	.45
Perennial ryegrass	Pennfine, Linn	5	.10
Birdsfoot trefoil	Empire, Pardee	10	.45

*General purpose erosion control mix. Not to be used for a turf planting or play grounds.

STANDARD AND SPECIFICATIONS FOR TOPSOILING

Definition

Spreading a specified quality and quantity of topsoil materials on graded or constructed subsoil areas.

Purpose

To provide acceptable plant cover growing conditions, thereby reducing erosion; to reduce irrigation water needs; and to reduce the need for nitrogen fertilizer application.

Conditions Where Practice Applies

Topsoil is applied to subsoils that are droughty (low available moisture for plants), stony, slowly permeable, salty or extremely acid. It is also used to backfill around shrub and tree transplants. This standard does not apply to wetland soils.

Design Criteria

1. Preserve existing topsoil in place where possible, thereby reducing the need for added topsoil.

2. Conserve by stockpiling topsoil and friable fine textured subsoils that must be stripped from the excavated site and applied after final grading where vegetation will be established.

3. Refer to USDA Soil Conservation Service (presently Natural Resource Conservation Service) soil surveys or soil interpretation record sheets for further soil texture information for selecting appropriate design topsoil depths.

Site Preparation

1. As needed, install erosion control practices such as diversions, channels, sediment traps, and stabilizing measures, or maintain if already installed.

2. Complete rough grading and final grade, allowing for depth of topsoil to be added.

3. Scarify all compact, slowly permeable, medium and fine textured subsoil areas. Scarify at approximately right angles to the slope direction in soil areas that are steeper than 5 percent. Areas that have been overly compacted shall be decompacted to a minimum depth of 12 inches with a deep ripper or chisel plow prior to topsoiling.

4. Remove refuse, woody plant parts, stones over 3 inches in diameter, and other litter.

Topsoil Materials

1. Topsoil shall have at least 6 percent by weight of fine textured stable organic material, and no greater than 20 percent. Muck soil shall not be considered topsoil.

2. Topsoil shall have not less than 20 percent fine textured material (passing the NO. 200 sieve) and not more than 15 percent clay.

3. Topsoil treated with soil sterilants or herbicides shall be so identified to the purchaser.

4. Topsoil shall be relatively free of stones over 1 1/2 inches in diameter, trash, noxious weeds such as nut sedge and quackgrass, and will have less than 10 percent gravel.

5. Topsoil containing soluble salts greater than 500 parts per million shall not be used.

Application and Grading

1. Topsoil shall be distributed to a uniform depth over the area. It shall not be placed when it is partly frozen, muddy, or on frozen slopes or over ice, snow, or standing water puddles.

2. Topsoil placed and graded on slopes steeper than 5 percent shall be promptly fertilized, seeded, mulched, and stabilized by "tracking" with suitable equipment.

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3. Apply topsoil in the following amounts:

Site Conditions	Intended Use	Minimum Topsoil Depth
1. Deep sand or loamy sand	Mowed lawn	6 in.
	Tall legumes, unmowed	2 in.
	Tall grass, unmowed	1 in.
2. Deep sandy loam	Mowed lawn	5 in.
	Tall legumes, unmowed	2 in.
	Tall grass, unmowed	none
3. Six inches or more: silt loam, loam, or silt	Mowed lawn	4 in.
	Tall legumes, unmowed	1 in.
	Tall grass, unmowed	1 in.

STANDARD AND SPECIFICATIONS FOR MULCHING

Definition

Applying coarse plant residue or chips, or other suitable materials, to cover the soil surface.

Purpose

The primary purpose is to provide initial erosion control while a seeding or shrub planting is establishing. Mulch will conserve moisture and modify the surface soil temperature and reduce fluctuation of both. Mulch will prevent soil surface crusting and aid in weed control. Mulch is also used alone for temporary stabilization in non-growing months.

Conditions Where Practice Applies

On soils subject to erosion and on new seedings and shrub plantings. Mulch is useful on soils with low infiltration rates by retarding runoff.

Criteria

Site preparation prior to mulching requires the installation of necessary erosion control or water management practices and drainage systems.

Slope, grade and smooth the site to fit needs of selected mulch products.

Remove all undesirable stones and other debris to meet the needs of the anticipated land use and maintenance required.

Apply mulch after soil amendments and planting is accomplished or simultaneously if hydroseeding is used.

Select appropriate mulch material and application rate or material needs. Determine local availability.

Select appropriate mulch anchoring material.

NOTE: The best combination for grass/legume establishment is straw (cereal grain) mulch applied at 2 ton/acre (90 lbs./1000sq.ft.) and anchored with wood fiber mulch (hydromulch) at 500 – 750 lbs./acre (11 – 17 lbs./1000 sq. ft.). The wood fiber mulch must be applied through a hydroseeder immediately after mulching.

Table 3.7
Guide to Mulch Materials, Rates, and Uses

Mulch Material	Quality Standards	per 1000 Sq. Ft.	per Acre	Depth of Application	Remarks
Wood chips or shavings	Air-dried. Free of objectionable coarse material	500-900 lbs.	10-20 tons	2-7"	Used primarily around shrub and tree plantings and recreation trails to inhibit weed competition. Resistant to wind blowing. Decomposes slowly.
Wood fiber cellulose (partly digested wood fibers)	Made from natural wood usually with green dye and dispersing agent	50 lbs.	2,000 lbs.	—	Apply with hydromulcher. No tie down required. Less erosion control provided than 2 tons of hay or straw.
Gravel, Crushed Stone or Slag	Washed; Size 2B or 3A—1 1/2"	9 cu. yds.	405 cu. yds.	3"	Excellent mulch for short slopes and around plants and ornamentals. Use 2B where subject to traffic. (Approximately 2,000 lbs./cu. yd.). Frequently used over filter fabric for better weed control.
Hay or Straw	Air-dried; free of undesirable seeds & coarse materials	90-100 lbs. 2-3 bales	2 tons (100-120 bales)	cover about 90% surface	Use small grain straw where mulch is maintained for more than three months. Subject to wind blowing unless anchored. Most commonly used mulching material. Provides the best micro-environment for germinating seeds.
Jute twisted yarn	Undyed, unbleached plain weave. Warp 78 ends/yd., Weft 41 ends/ yd. 60-90 lbs./roll	48" x 50 yds. or 48" x 75 yds.	—	—	Use without additional mulch. Tie down as per manufacturers specifications. Good for center line of concentrated water flow.
Excelsior wood fiber mats	Interlocking web of excelsior fibers with photodegradable plastic netting	8" x 100" 2-sided plastic, 48" x 180" 1-sided plastic	—	—	Use without additional mulch. Excellent for seeding establishment. Tie down as per manufacturers specifications. Approximately 72 lbs./roll for excelsior with plastic on both sides. Use two sided plastic for centerline of waterways.
Compost	Up to 3" pieces, moderately to highly stable	3-9 cu. yds.	134-402 cu. yds.	1-3"	Coarser textured mulches may be more effective in reducing weed growth and wind erosion.
Straw or coconut fiber, or combination	Photodegradable plastic net on one or two sides	Most are 6.5 ft. x 3.5 ft.	81 rolls	—	Designed to tolerate higher velocity water flow, centerlines of waterways, 60 sq. yds. per roll.

Table 3.8
Mulch Anchoring Guide

Anchoring Method or Material	Kind of Mulch to be Anchored	How to Apply
1. Peg and Twine	Hay or straw	After mulching, divide areas into blocks approximately 1 sq. yd. in size. Drive 4-6 pegs per block to within 2" to 3" of soil surface. Secure mulch to surface by stretching twine between pegs in criss-cross pattern on each block. Secure twine around each peg with 2 or more tight turns. Drive pegs flush with soil. Driving stakes into ground tightens the twine.
2. Mulch netting	Hay or straw	Staple the light-weight paper, jute, wood fiber, or plastic nettings to soil surface according to manufacturer's recommendations. Should be biodegradable. Most products are not suitable for foot traffic.
3. Wood cellulose fiber	Hay or straw	Apply with hydroseeder immediately after mulching. Use 500 lbs. wood fiber per acre. Some products contain an adhesive material ("tackifier"), possibly advantageous.
4. Mulch anchoring tool	Hay or straw	Apply mulch and pull a mulch anchoring tool (blunt, straight discs) over mulch as near to the contour as possible. Mulch material should be "tucked" into soil surface about 3".
5. Tackifier	Hay or straw	Mix and apply polymeric and gum tackifiers according to manufacturer's instructions. Avoid application during rain. A 24-hour curing period and a soil temperature higher than 45^0 Fahrenheit are required.

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STANDARD AND SPECIFICATIONS FOR PROTECTING VEGETATION DURING CONSTRUCTION

Definition

The protection of trees, shrubs, ground cover and other vegetation from damage by construction equipment.

Purpose

To preserve existing vegetation determined to be important for soil erosion control, water quality protection, shade, screening, buffers, wildlife habitat, wetland protection, and other values.

Condition Where Practice Applies

On planned construction sites where valued vegetation exists and needs to be preserved.

Design Criteria

1. Planning Considerations

   A. Inventory:

      1) Property boundaries, topography, vegetation and soils information should be gathered. Identify potentially high erosion areas, areas with tree windthrow potential, etc. A vegetative cover type map should be made on a copy of a topographic map which shows other natural and manmade features. Vegetation that is desirable to preserve because of its value for screening, shade, critical erosion control, endangered species, aesthetics, etc., should be identified and marked on the map.

      2) Based upon this data, general statements should be prepared about the present condition, potential problem areas, and unique features of the property.

   B. Planning:

      1) After engineering plans (plot maps) are prepared, another field review should take place and recommendations made for the vegetation to be saved. Minor adjustments in location of roads, dwellings, and utilities may be needed. Construction on steep slopes, erodible soils, wetlands, and streams should be avoided. Clearing limits should be delineated (See Section 2).

      2) Areas to be seeded and planted should be identified. Remaining vegetation should blend with their surroundings and/or provide special function such as a filter strip, buffer zone, or screen.

      3) Trees and shrubs of special seasonal interest, such as flowering dogwood, red maple, striped maple, serviceberry, or shadbush, and valuable potential shade trees should be identified and marked for special protective treatment as appropriate.

      4) Trees to be cut should be marked on the plans. If timber can be removed for salable products, a forester should be consulted for marketing advice.

      5) Trees that may become a hazard to people, personal property, or utilities should be removed. These include trees that are weak-wooded, disease-prone, subject to windthrow, or those that have severely damaged root systems.

      6) The vigor of remaining trees may be improved by a selective thinning. A forester should be consulted for implementing this practice.

2. Measures to Protect Vegetation

   A. Limit soil placement over existing tree and shrub roots to a maximum of 3 inches. Soils with loamy texture and good structure should be used.

   B. Use retaining walls and terraces to protect roots of trees and shrubs when grades are lowered. Lowered grades should start no closer than the dripline of the tree. For narrow-canopied trees and shrubs, the stem diameter in inches is converted to feet and doubled, such that a 10 inch tree should be protected to 20 feet.

C. Trenching across tree root systems should be the same minimum distance from the trunk, as in "B". Tunnels under root systems for underground utilities should start 18 inches or deeper below the normal grounds surface. Tree roots which must be severed should be cut clean. Backfill material that will be in contact with the roots should be topsoil or a prepared planting soil mixture.

D. Construct sturdy fences, or barriers, of wood, steel, or other protective material around valuable vegetation for protection from construction equipment. Place barriers far enough away from trees, but not less than the specifications in "B", so that tall equipment such as backhoes and dump trucks do not contact tree branches.

E. Construction limits should be identified and clearly marked to exclude equipment.

F. Avoid spills of oil/gas and other contaminants.

G. Obstructive and broken branches should be pruned properly. The branch collar on all branches whether living or dead should not be damaged. The 3 or 4 cut method should be used on all branches larger than two inches at the cut. First cut about one-third the way through the underside of the limb (about 6-12 inches from the tree trunk). Then (approximately an inch further out) make a second cut through the limb from the upper side. When the branch is removed, there is no splintering of the main tree trunk. Remove the stub. If the branch is larger than 5-6 inches in diameter, use the four cut system. Cuts 1 and 2 remain the same and cut 3 should be from the underside of the limb, on the outside of the branch collar. Cut 4 should be from the top and in alignment with the 3rd cut. Cut 3 should be 1/4 to 1/3 the way through the limb. This will prevent the bark from peeling down the trunk. Do not paint the cut surface.

H. Penalties for damage to valuable trees, shrubs, and herbaceous plants should be clearly spelled out in the contract.

STANDARD AND SPECIFICATIONS FOR TEMPORARY SWALE

Definition

A temporary excavated drainage way.

Purpose

The purpose of a temporary swale is to prevent runoff from entering disturbed areas by intercepting and diverting it to a stabilized outlet or to intercept sediment laden water and divert it to a sediment trapping device.

Conditions Where Practice Applies

Temporary swales are constructed:

1. to divert flows from entering a disturbed area.
2. intermittently across disturbed areas to shorten overland flow distances.
3. to direct sediment laden water along the base of slopes to a trapping device.
4. to transport offsite flows across disturbed areas such as rights-of-way.

Swales collecting runoff from disturbed areas shall remain in place until the disturbed areas are permanently stabilized.

Design Criteria

See Figure 5A.2 on page 5A.5 for details.

	Swale A	Swale B
Drainage Area	<5 Ac	5-10 Ac
Bottom Width of Flow Channel	4 ft	6 ft
Depth of Flow Channel	1 ft	1 ft
Side Slopes	2:1 or flatter	2:1 or flatter
Grade	0.5% Min. 20% Max.	0.5% Min. 20% Max.

For drainage areas larger than 10 acres, refer to the Standard and Specification for Waterways on page 5B.11.

Stabilization

Stabilization of the swale shall be completed within 7 days of installation in accordance with the appropriate standard and specifications for vegetative stabilization or stabilization with mulch as determined by the time of year. The flow channel shall be stabilized as per the following criteria:

Type of Treatment	Channel Grade[1]	Flow Channel A (<5 Ac.)	Flow Channel B (5-10 Ac)
1	0.5-3.0%	Seed & Straw Mulch	Seed & Straw Mulch
2	3.1-5.0%	Seed & Straw Mulch	Seed and cover with RECP, Sod, or lined with plastic or 2 in. stone
3	5.1-8.0%	Seed and cover with RECP, Sod, or line with plastic or 2 in. stone	Line with 4-8 in. or stone or Recycled Concrete Equivalent[2] or geotextile
4	8.1-20%	Line with 4-8 in. stone or Recycled Concrete Equivalent[2] or geotextile	Site Specific Engineering Design

[1] In highly erodible soils, as defined by the local approving agency, refer to the next higher slope grade for type of stabilization.
[2] Recycled Concrete Equivalent shall be concrete broken into the required size, and shall contain no steel reinforcement.

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Outlet

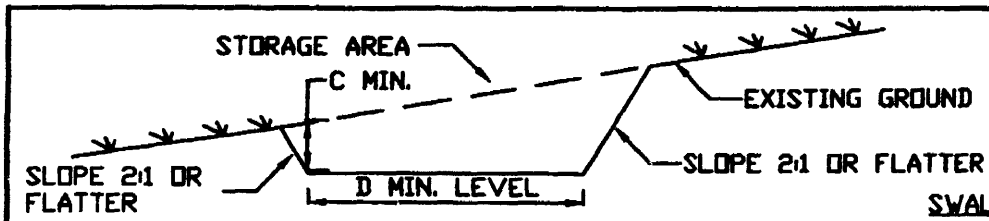
Swale shall have an outlet that functions with a minimum of erosion, and dissipates runoff velocity prior to discharge off the site.

Runoff shall be conveyed to a sediment trapping device such as a sediment trap or sediment basin until the drainage area above the swale is adequately stabilized.

The on-site location may need to be adjusted to meet field conditions in order to utilize the most suitable outlet condition.

If a swale is used to divert clean water flows from entering a disturbed area, a sediment trapping device may not be needed.

Figure 5A.2
Temporary Swale



CROSS SECTION

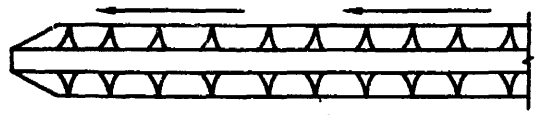
SYMBOL

A-2 / B-3

	SWALE A	SWALE B
C	1'	1'
D	4'	6'

POSITIVE DRAINAGE: 0.5% OR STEEPER DEPENDENT ON TOPOGRAPHY

OUTLET AS REQUIRED SEE ITEM 8 BELOW.



PLAN VIEW

CONSTRUCTION SPECIFICATIONS

1. ALL TEMPORARY SWALES SHALL HAVE UNINTERUPTED 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 DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSIVE VELOCITY.
4. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
5. THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
6. FILLS SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.
7. ALL EARTH REMOVED AND NOT NEEDED FOR CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE SWALE.
8. STABILIZATION SHALL BE AS PER THE FLOW CHANNEL STABILIZATION CHART BELOW:

TYPE OF TREATMENT	CHANNEL GRADE	A(5 AC. OR LESS)	B(5 AC -10AC)
1	0.5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED AND COVER USING RECP
3	5.1-8.0%	SEED AND COVER WITH RECP	LINED WITH 4-8" RIP-RAP OR GEOTEXTILE
4	8.1-20.%	LINED WITH 4-8" RIP-RAP OR GEOTEXTILE	ENGINEERED DESIGN

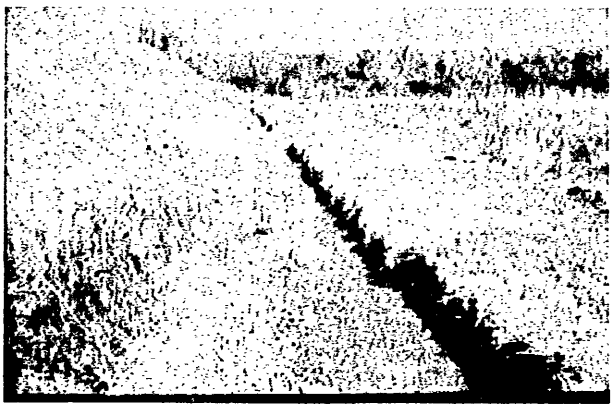
9. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

TEMPORARY SWALE

JERRY'S CLIMATE CONTROL Prepared by Zimmerman Engineering & Surveying, PC

STANDARD AND SPECIFICATIONS FOR STRAW BALE DIKE



Definition

A temporary barrier of straw, or similar material, used to intercept sediment laden runoff from small drainage areas of disturbed soil.

Purpose

The purpose of a bale dike is to reduce runoff velocity and effect deposition of the transported sediment load. Straw bale dikes have an estimated design life of three (3) months.

Conditions Where Practice Applies

The straw bale dike is used where:

1. No other practice is feasible.
2. There is no concentration of water in a channel or other drainage way above the barrier.
3. Erosion would occur in the form of sheet erosion.
4. Length of slope above the straw bale dike does not exceed these limits.

Constructed Slope	Percent Slope	Slope Length (ft.)
2:1	50	25
3:1	33	50
4:1	25	75

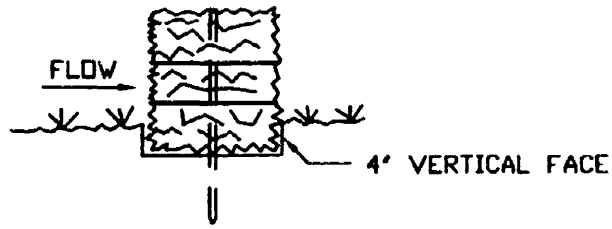
Where slope gradient changes through the drainage area, steepness refers to the steepest slope section contributing to the straw bale dike.

The practice may also be used for a single family lot if the slope is less than 15 percent. The contributing drainage areas in this instance shall be less than one quarter of an acre per 100 feet of fence and the length of slope above the dike shall be less than 200 feet.

Design Criteria

The above table is adequate, in general, for a one-inch rainfall event. Larger storms could cause failure of this practice. Use of this practice in sensitive areas for longer than one month should be specifically designed to store expected runoff. All bales shall be placed on the contour with cut cdge of bale adhering to the ground. See Figure 5A.7 on page 5A.18 or details.

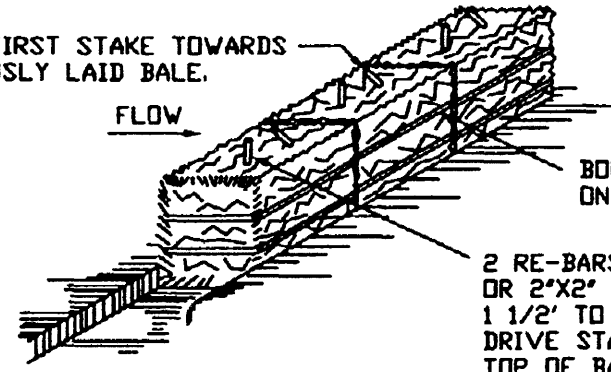
Figure 5A.7
Straw Bale Dike



SYMBOL

BEDDING DETAIL
NOT TO SCALE

DRAINAGE AREA NO MORE THAN 1/4 ACRE PER 100 FEET OF STRAW BALE DIKE FOR SLOPES LESS THAN 25%.



ANCHORING DETAIL
NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

1. BALES SHALL BE PLACED AT THE TOE OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF (4) INCHES, AND PLACED SO THE BINDINGS ARE HORIZONTAL.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
4. INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE MADE PROMTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULLNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE	STRAW BALE DIKE

JERRY'S CLIMATE CONTROL
Prepared by Zimmerman Engineering & Surveying, PC

STANDARD AND SPECIFICATIONS FOR SILT FENCE

n

y barrier of geotextile fabric installed on the ross a slope used to intercept sediment laden ı small drainage areas of disturbed soil.

e of a silt fence is to reduce runoff velocity and sition of transported sediment load. Limits ultraviolet stability of the fabric will dictate the eriod the silt fence may be used (approximately

ns Where Practice Applies

may be used subject to the following

timum allowable slope lengths contributing to a silt fence placed on a slope are:

pe ness	Maximum Length (ft.)
:1	25
:1	50
:1	75
flatter	100

2. Maximum drainage area for overland flow to a silt fence shall not exceed ¼ acre per 100 feet of fence, with maximum ponding depth of 1.5 feet behind the fence; and

3. Erosion would occur in the form of sheet erosion; and

4. There is no concentration of water flowing to the barrier.

Design Criteria

Design computations are not required for installations of 1 month or less. Longer installation periods should be designed for expected runoff. All silt fences shall be placed as close to the areas as possible, but at least 10 feet from the toe of a slope to allow for maintenance and roll down. The area beyond the fence must be undisturbed or stabilized.

Sensitive areas to be protected by silt fence may need to be reinforced by using heavy wire fencing for added support to prevent collapse.

Where ends of filter cloth come together, they shall be overlapped, folded and stapled to prevent sediment bypass. A detail of the silt fence shall be shown on the plan. See Figure 5A.8 on page 5A.21 for details.

Criteria for Silt Fence Materials

1. Silt Fence Fabric: The fabric shall meet the following specifications unless otherwise approved by the appropriate erosion and sediment control plan approval authority. Such approval shall not constitute statewide acceptance.

Fabric Properties	Minimum Acceptable Value	Test Method
Grab Tensile Strength (lbs)	90	ASTM D1682
Elongation at Failure (%)	50	ASTM D1682

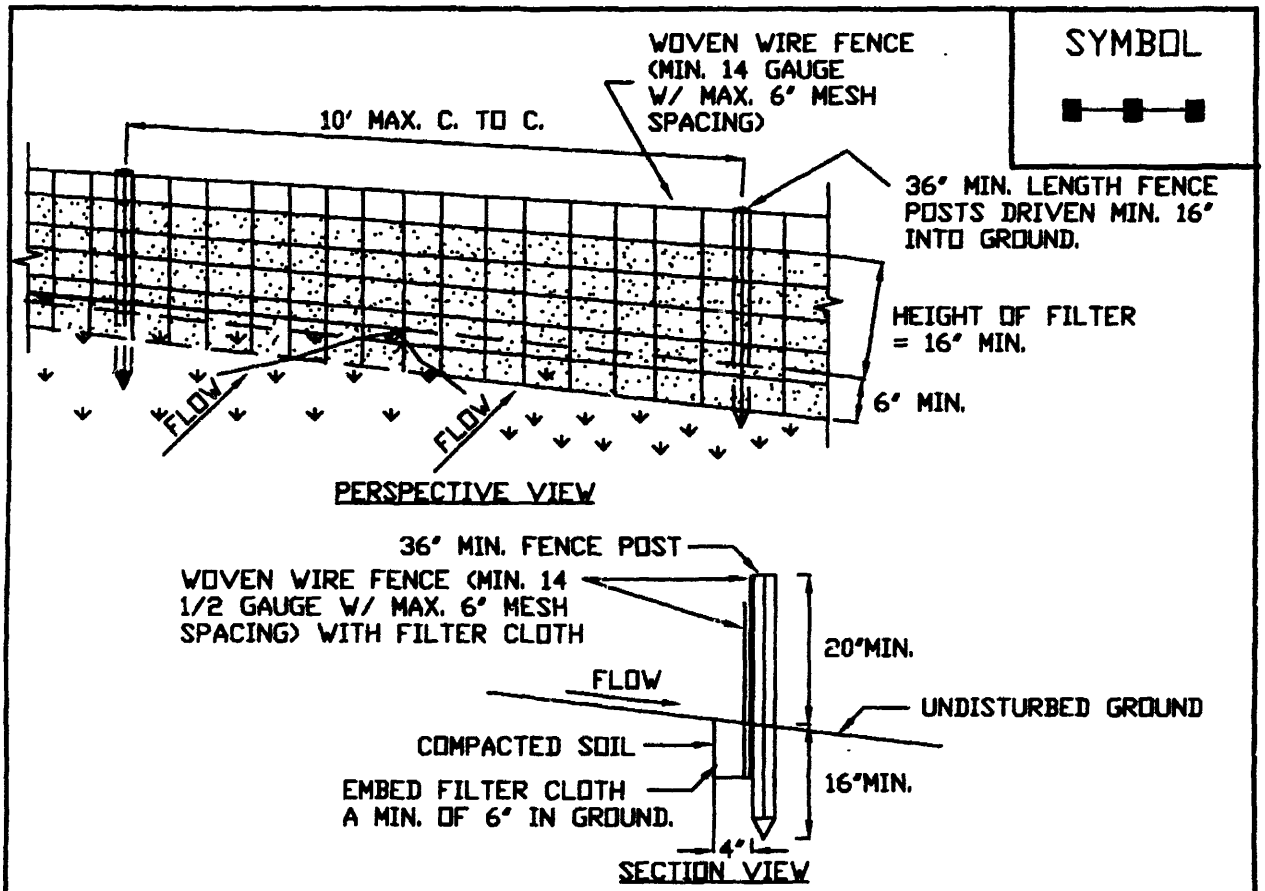
Mullen Burst Strength (PSI)	190	ASTM D3786
Puncture Strength (lbs)	40	ASTM D751 (modified)
Slurry Flow Rate (gal/min/sf)	0.3	
Equivalent Opening Size	40-80	US Std Sieve CW-02215
Ultraviolet Radiation Stability (%)	90	ASTM G-26

2. Fence Posts (for fabricated units): The length shall be a minimum of 36 inches long. Wood posts will be of sound quality hardwood with a minimum cross sectional area of 3.0 square inches. Steel posts will be standard T and U section weighing not less than 1.00 pound per linear foot.

3. Wire Fence (for fabricated units): Wire fencing shall be a minimum 14 gage with a maximum 6 in. mesh opening, or as approved.

4. Prefabricated Units: Envirofence, Geofab, or approved equal, may be used in lieu of the above method providing the unit is installed per details shown in Figure 5A.8.

Figure 5A.8
Silt Fence

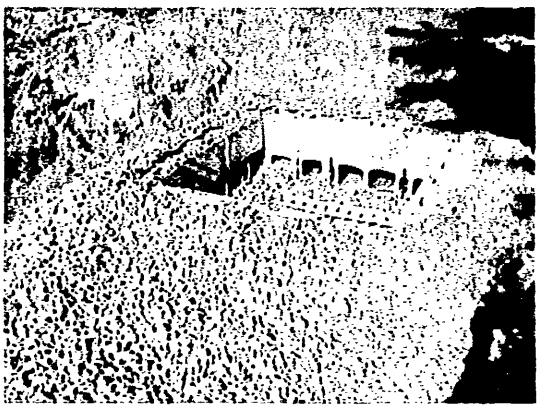


CONSTRUCTION SPECIFICATIONS

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.

ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE	SILT FENCE

STANDARD AND SPECIFICATIONS FOR STORM DRAIN INLET PROTECTION



Definition

A temporary, somewhat permeable barrier, installed around inlets in the form of a fence, berm or excavation around an opening, trapping water and thereby reducing the sediment content of sediment laden water by settling.

Purpose

To prevent heavily sediment laden water from entering a storm drain system through inlets.

Conditions Where Practice Applies

This practice shall be used where the drainage area to an inlet is disturbed, it is not possible to temporarily divert the storm drain outfall into a trapping device, and watertight blocking of inlets is not advisable. **It is not to be used in place of sediment trapping devices.** This may be used in conjunction with storm drain diversion to help prevent siltation of pipes installed with low slope angle.

Types of Storm Drain Inlet Practices

There are four (4) specific types of storm drain inlet protection practices that vary according to their function, location, drainage area, and availability of materials:

I. Excavated Drop Inlet Protection
II. Fabric Drop Inlet Protection
III. Stone & Block Drop Inlet Protection
IV. Curb Drop Inlet Protection

Design Criteria

Drainage Area – The drainage area for storm drain inlets shall not exceed one acre. The crest elevations of these practices shall provide storage and minimize bypass flow.

Type I – Excavated Drop Inlet Protection

See details for Excavated Drop Inlet Protection in Figure 5A.11 on page 5A.29.

Limit the drainage area to the inlet device to 1 acre. Excavated side slopes shall be no steeper than 2:1. The minimum depth shall be 1 foot and the maximum depth 2 feet as measured from the crest of the inlet structure. Shape the excavated basin to fit conditions with the longest dimension oriented toward the longest inflow area to provide maximum trap efficiency. The capacity of the excavated basin should be established to contain 900 cubic feet per acre of disturbed area. Weep holes, protected by fabric and stone, should be provided for draining the temporary pool.

Inspect and clean the excavated basin after every storm. Sediment should be removed when 50 percent of the storage volume is achieved This material should be incorporated into the site in a stabilized manner.

Type II – Fabric Drop Inlet Protection

See Figure 5A.12 for details on Filter Fabric Drop Inlet Protection on page 5A.30.

Limit the drainage area to 1 acre per inlet device. Land area slope immediately surrounding this device should not exceed 1 percent. The maximum height of the fabric above the inlet crest shall not exceed 1.5 feet unless reinforced.

The top of the barrier should be maintained to allow overflow to drop into the drop inlet and not bypass the inlet to unprotected lower areas. Support stakes for fabric shall be a minimum of 3 feet long, spaced a maximum 3 feet apart. They should be driven close to the inlet so any overflow drops into the inlet and not on the unprotected soil. Improved performance and sediment storage volume can be obtained by excavating the area.

Inspect the fabric barrier after each rain event and make repairs as needed. Remove sediment from the pool area as

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necessary with care not to undercut or damage the filter fabric. Upon stabilization of the drainage area, remove all materials and unstable sediment and dispose of properly. Bring the adjacent area of the drop inlet to grade, smooth and compact and stabilize in the appropriate manner to the site.

If straw bales are used in lieu of filter fabric, they should be placed tight with the cut edge adhering to the ground at least 3 inches below the elevation of the drop inlet. Two anchor stakes per bale shall be driven flush to bale surface. Straw bales will be replaced every 4 months until the area is stabilized.

Type III – Stone and Block Drop Inlet Protection

See Figure 5A.13 for details on Stone and Block Drop Inlet Protection on page 5A.31.

Limit the drainage area to 1 acre at the drop inlet. The stone barrier should have a minimum height of 1 foot and a maximum height of 2 feet. Do not use mortar. The height should be limited to prevent excess ponding and bypass flow.

Recess the first course of blocks at least 2 inches below the crest opening of the storm drain for lateral support. Subsequent courses can be supported laterally if needed by placing a 2x4 inch wood stud through the block openings perpendicular to the course. The bottom row should have a few blocks oriented so flow can drain through the block to dewater the basin area.

The stone should be placed just below the top of the blocks on slopes of 2:1 or flatter. Place hardware cloth of wire mesh with ½ inch openings over all block openings to hold stone in place.

As an optional design, the concrete blocks may be omitted and the entire structure constructed of stone, ringing the outlet ("doughnut"). The stone should be kept at a 3:1 slope toward the inlet to keep it from being washed into the inlet. A level area 1 foot wide and four inches below the crest will further prevent wash. Stone on the slope toward the inlet should be at least 3 inches in size for stability and 1 inch or smaller away from the inlet to control flow rate. The elevation of the top of the stone crest must be maintained 6 inches lower than the ground elevation down slope from the inlet to ensure that all storm flows pass over the stone into the storm drain and not past the structure. Temporary diking should be used as necessary to prevent bypass flow.

The barrier should be inspected after each rain event and repairs made where needed. Remove sediment as necessary to provide for accurate storage volume for subsequent rains. Upon stabilization of contributing drainage area, remove all materials and any unstable soil and dispose of properly.

Bring the disturbed area to proper grade, smooth, compact and stabilized in a manner appropriate to the site.

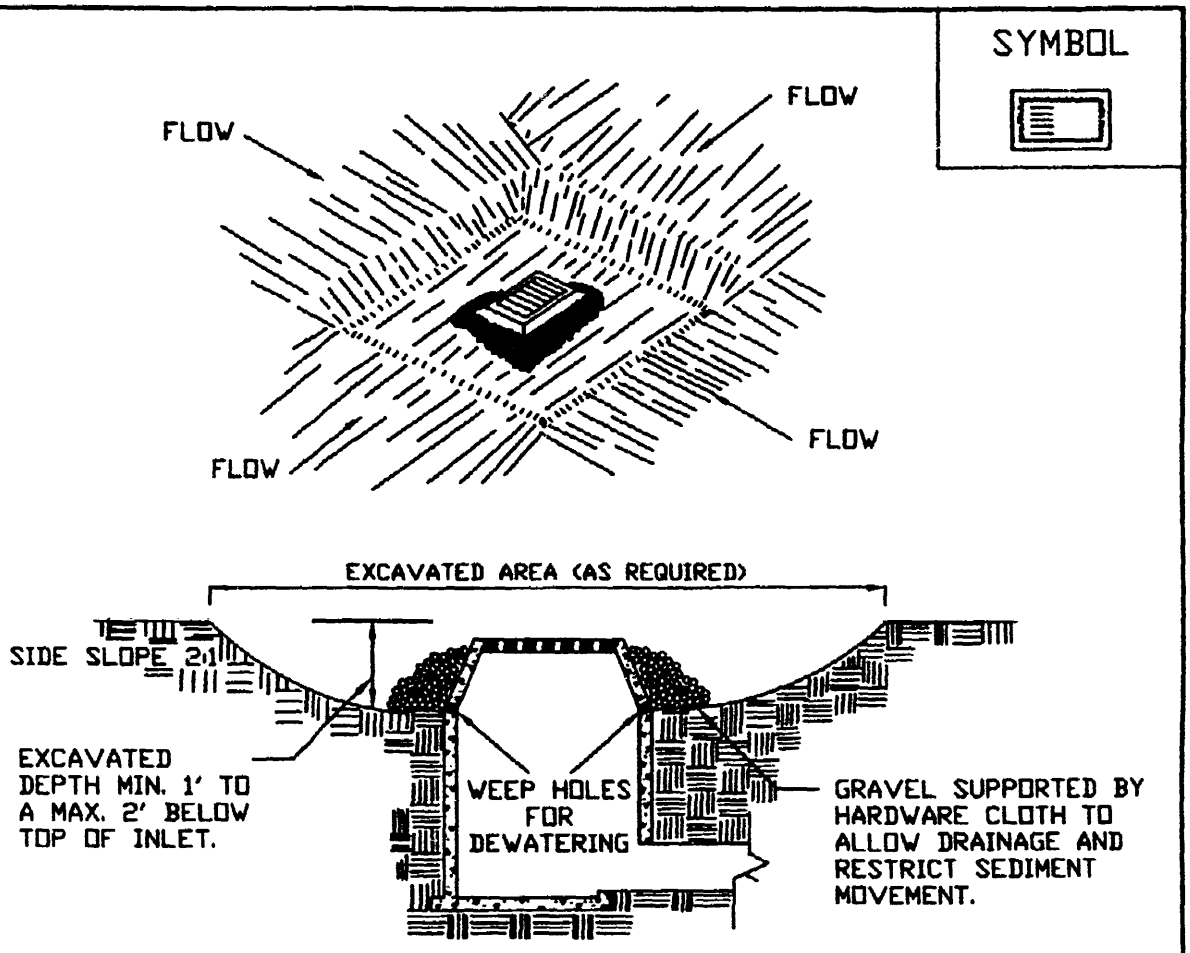
Type IV – Curb Drop Inlet Protection

See Figure 5A. 14 for details on Curb Drop Inlet Protection on page 5A.32.

The drainage area should be limited to 1 acre at the drop inlet. The wire mesh must be of sufficient strength to support the filter fabric and stone with the water fully impounded against it. Stone is to be 2 inches in size and clean. The filter fabric must be of a type approved for this purpose with an equivalent opening size (EOS) of 40-85. The protective structure will be constructed to extend beyond the inlet 2 feet in both directions. Assure that storm flow does not bypass the inlet by installing temporary dikes (such as sand bags) directing flow into the inlet. Make sure that the overflow weir is stable. Traffic safety shall be integrated with the use of this practice.

The structure should be inspected after every storm event. Any sediment should be removed and disposed of on the site. Any stone missing should be replaced. Check materials for proper anchorage and secure as necessary.

Figure 5A.11
Excavated Drop Inlet Protection



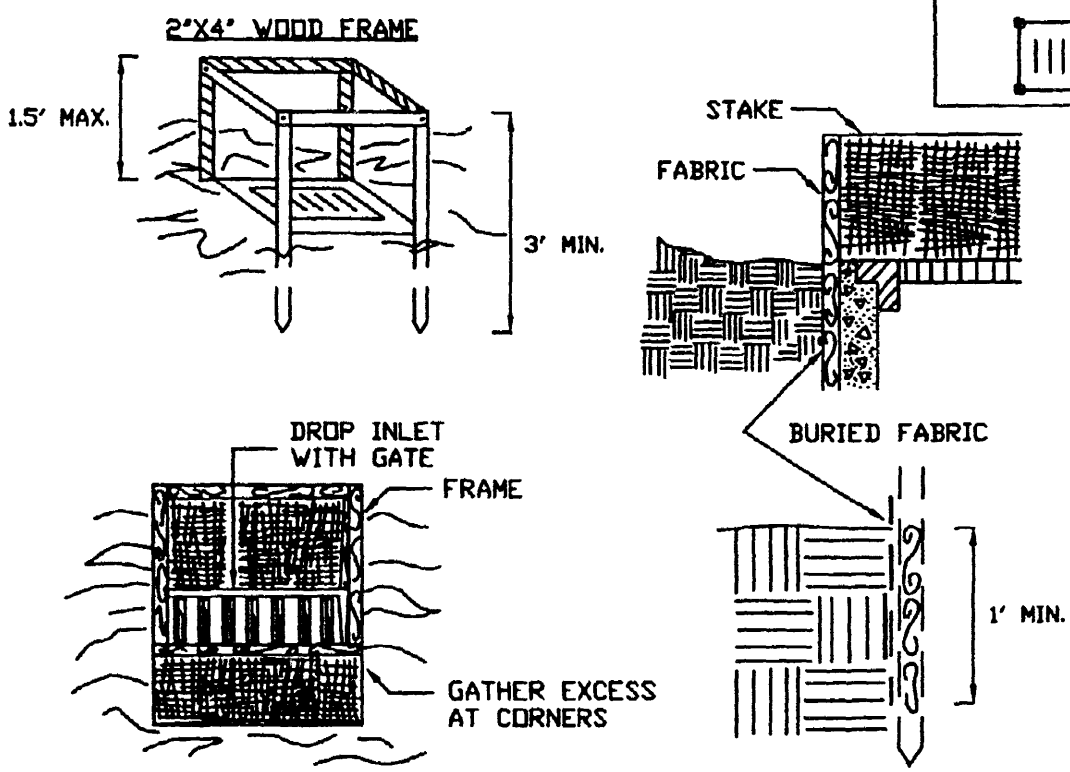
CONSTRUCTION SPECIFICATIONS

1. CLEAR THE AREA OF ALL DEBRIS THAT WILL HINDER EXCAVATION.
2. GRADE APPROACH TO THE INLET UNIFORMLY AROUND THE BASIN.
3. WEEP HOLES SHALL BE PROTECTED BY GRAVEL.
4. UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA, SEAL WEEP HOLES, FILL EXCAVATION WITH STABLE SOIL TO FINAL GRADE, COMPACT IT PROPERLY AND STABILIZE WITH PERMANENT SEEDING.

MAXIMUM DRAINAGE AREA 1 ACRE

ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE	EXCAVATED DROP INLET PROTECTION

Figure 5A.12
Filter Fabric Drop Inlet Protection



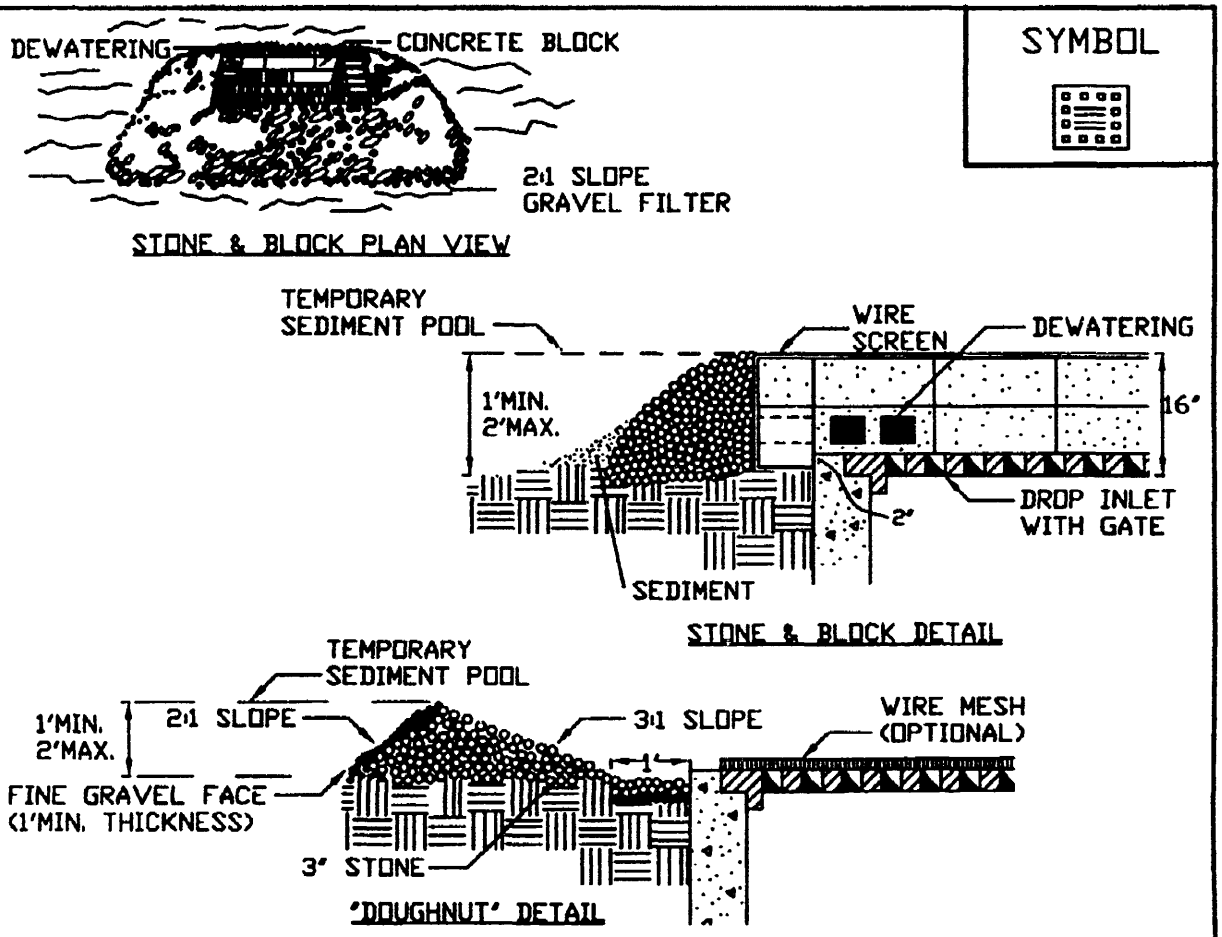
CONSTRUCTION SPECIFICATIONS

1. FILTER FABRIC SHALL HAVE AN EOS OF 40-85. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.
2. CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
3. STAKE MATERIALS WILL BE STANDARD 2" x 4" WOOD OR EQUIVALENT. METAL WITH A MINIMUM LENGTH OF 3 FEET.
4. SPACE STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE A MINIMUM 18 INCHES DEEP. SPANS GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.
5. FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.
6. A 2" x 4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVER FLOW STABILITY.

MAXIMUN DRAINAGE AREA 1 ACRE

ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE	FILTER FABRIC DROP INLET PROTECTION

Figure 5A.13
Stone & Block Drop Inlet Protection



CONSTRUCTION SPECIFICATIONS

1. 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.
2. HARDWARE CLOTH OR 1/2" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.
3. 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.
4. 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.

MAXIMUM DRAINAGE AREA 1 ACRE

ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE	STONE & BLOCK DROP INLET PROTECTION

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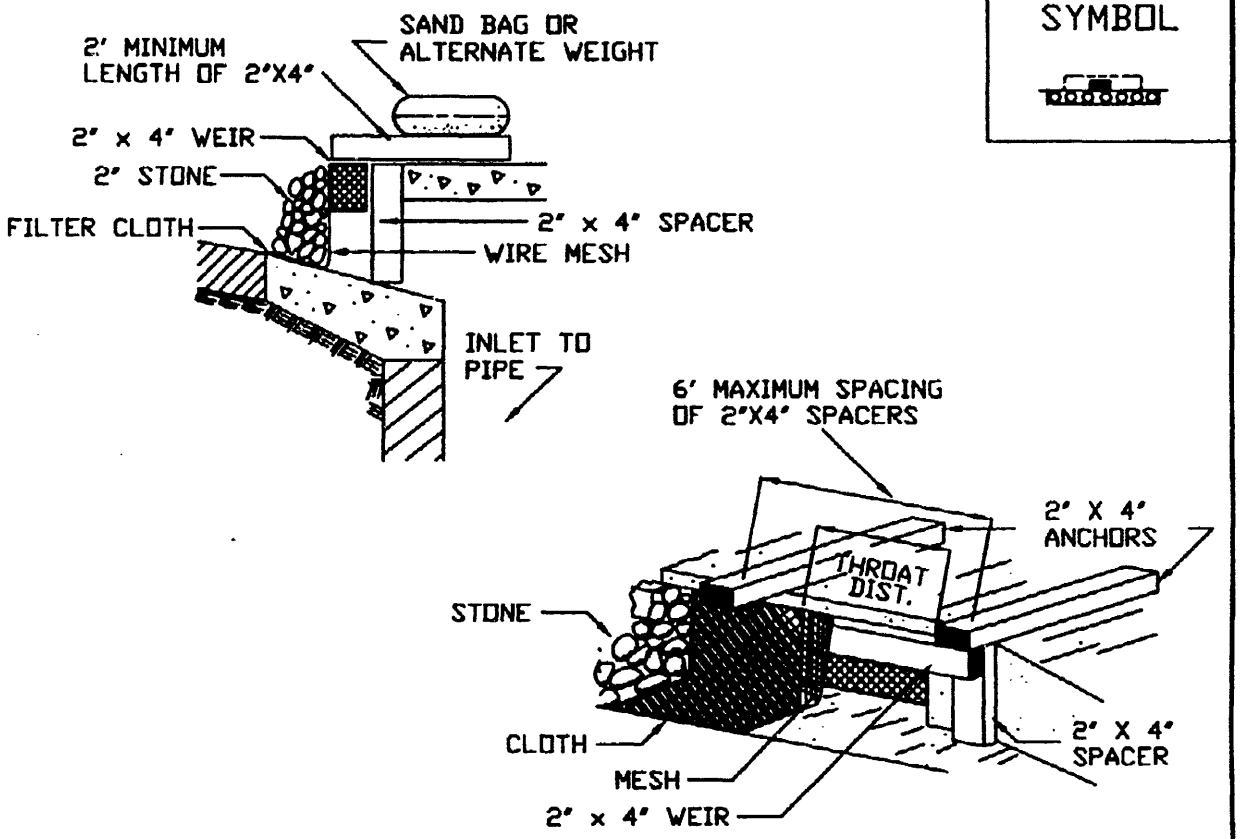
Figure 5A.14
Curb Drop Inlet Protection



CONSTRUCTION SPECIFICATIONS

1. FILTER FABRIC SHALL HAVE AN AOS OF 40-85.
2. WOODEN FRAME SHALL BE CONSTRUCTED OF 2" x 4" CONSTRUCTION GRADE LUMBER.
3. WIRE MESH ACROSS THROAT SHALL BE A CONTINUOUS PIECE 30 INCH MINIMUM WIDTH WITH A LENGTH 4 FEET LONGER THAN THE THROAT. IT SHALL BE SHAPED AND SECURELY NAILED TO A 2" x 4" WEIR.
4. THE WEIR SHALL BE SECURELY NAILED TO 2" x 4" SPACERS 9 INCHES LONG SPACED NO MORE THAN 6 FEET APART.
5. THE ASSEMBLY SHALL BE PLACED AGAINST THE INLET AND SECURED BY 2" x 4" ANCHORS 2 FEET LONG EXTENDING ACROSS THE TOP OF THE INLET AND HELD IN PLACE BY SANDBAGS OR ALTERNATE WEIGHTS.

MAXIMUM DRAINAGE AREA 1 ACRE

ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE	CURB DROP INLET PROTECTION

JERRY'S CLIMATE CONTROL
Prepared by Zimmerman Engineering & Surveying, PC

STANDARD AND SPECIFICATIONS FOR SEDIMENT TRAP

Definition

A temporary sediment control device formed by excavation and/or embankment to intercept sediment laden runoff and retain the sediment.

Purpose

The purpose of the structure is to intercept sediment-laden runoff and trap the sediment in order to protect drainage ways, properties, and rights-of-way below the sediment trap from sedimentation.

Conditions Where Practice Applies

A sediment trap is usually installed in a drainage way, at a storm drain inlet, or other points of collection from a disturbed area.

Sediment traps should be used to artificially break up the natural drainage area into smaller sections where a larger device (sediment basin) would be less effective.

Design Criteria

If any of the design criteria presented here cannot be met, see Standard and Specification for Sediment Basin on page 5A.49.

Drainage Area

The drainage area for sediment traps shall be in accordance with the specific type of sediment trap used (Type I through V).

Location

Sediment traps shall be located so that they can be installed prior to grading or filling in the drainage area they are to protect. Traps must not be located any closer than 20 feet from a proposed building foundation if the trap is to function during building construction. Locate traps to obtain maximum storage benefit from the terrain and for ease of cleanout and disposal of the trapped sediment.

Trap Size

The volume of a sediment trap as measured at the elevation of the crest of the outlet shall be at least 3,600 cubic feet per acre of drainage area. The volume of a constructed trap shall be calculated using standard mathematical procedures. The volume of a natural sediment trap may be approximated by the equation: Volume (cu.ft.) = 0.4 x surface area (sq.ft.) x maximum depth (ft.).

Trap Cleanout

Sediment shall be removed and the trap restored to the original dimensions when the sediment has accumulated to ½ of the design depth of the trap. Sediment removed from the trap shall be deposited in a protected area and in such a manner that it will not erode.

Embankment

All embankments for sediment traps shall not exceed five (5) feet in height as measured at the low point of the original ground along the centerline of the embankment. Embankments shall have a minimum four (4) foot wide top and side slopes of 2:1 or flatter. The embankment shall be compacted by traversing with equipment while it is being constructed. The embankment shall be stabilized with seed and mulch as soon as it is completed

The elevation of the top of any dike directing water to any sediment trap will equal or exceed the maximum height of the outlet structure along the entire length of the trap.

Excavation

All excavation operations shall be carried out in such a manner that erosion and water pollution shall be minimal. Excavated portions of sediment traps shall have 1:1 or flatter slopes.

Outlet

The outlet shall be designed, constructed, and maintained in such a manner that sediment does not leave the trap and that erosion at or below the outlet does not occur.

Sediment traps must outlet onto stabilized (preferable undisturbed) ground, into a watercourse, stabilized channel, or into a storm drain system. Distance between inlet and outlet should be maximized to the longest length practicable.

Trap Details Needed on Erosion and Sediment Control Plans

Each trap shall be delineated on the plans in such a manner that it will not be confused with any other features. Each trap on a plan shall indicate all the information necessary to properly construct and maintain the structure. If the drawings are such that this information cannot be delineated on the drawings, then a table shall be developed. If a table is developed, then each trap on a plan shall have a number and the numbers shall be consecutive.

The following information shall be shown for each trap in a summary table format on the plans.

1. Trap number
2. Type of trap
3. Drainage area
4. Storage required
5. Storage provided (if applicable)
6. Outlet length or pipe sizes
7. Storage depth below outlet or cleanout elevation
8. Embankment height and elevation (if applicable)

Type of Sediment Traps

There are five (5) specific types of sediment traps which vary according to their function, location, or drainage area.

I. Pipe Outlet Sediment Trap
II. Grass Outlet Sediment Trap
III. Catch Basin Sediment Trap
IV. Stone Outlet Sediment Trap
V. Riprap Outlet Sediment Trap

I. Pipe Outlet Sediment Trap

A Pipe Outlet Sediment Trap consists of a trap formed by embankment or excavation. The outlet for the trap is through a perforated riser and a pipe through the embankment. The outlet pipe and riser shall be made of steel, corrugated metal or other suitable material. The top of the embankment shall be at least 1 ½ feet above the crest of the riser. The top 2/3 of the riser shall be perforated with one (1) inch nominal diameter holes or slits spaced six (6) inches vertically and horizontally placed in the concave portion of the corrugated pipe.

No holes or slits will be allowed within six (6) inches of the top of the horizontal barrel. All pipe connections shall be watertight. The riser shall be wrapped with ½ to ¼ inch hardware cloth wire then wrapped with filter cloth with a sieve size between #40-80 and secured with strapping or connecting band at the top and bottom of the cloth. The cloth shall cover an area at least six (6) inches above the highest hole and six (6) inches below the lowest hole. The top of the riser pipe shall not be covered with filter cloth. The riser shall have a base with sufficient weight to prevent flotation of the riser. Two approved bases are:

1. A concrete base 12 in. thick with the riser embedded 9 in. into the concrete base, or

2. One quarter inch, minimum, thick steel plate attached to the riser by a continuous weld around the circumference of the riser to form a watertight connection. The plate shall have 2.5 feet of stone, gravel, or earth placed on it to prevent flotation. In either case, each side of the square base measurement shall be the riser diameter plus 24 inches.

Pipe outlet sediment traps shall be limited to a five (5) acre maximum drainage area. Pipe outlet sediment traps may be interchangeable in the field with stone outlet or riprap sediment traps provided that these sediment traps are constructed in accordance with the detail and specifications for that trap.

Select pipe diameter from the following table:

Minimum Sizes

Barrel Diameter[1] (in.)	Riser Diameter[1] (in.)	Maximum Drainage Area (ac.)
12	15	1
15	18	2
18	21	3
21	24	4
21	27	5

[1] Barrel diameter may be same size as riser diameter.

See details for Pipe Outlet Sediment Trap ST-I in Figure 5A.16 (1) and 5A.16 (2) on pages 5A.38 and 5A.39.

II. Grass Outlet Sediment Trap

A Grass Outlet Sediment Trap consists of a trap formed by excavating the earth to create a holding area. The trap has a discharge point over natural existing grass. The outlet crest width (feet) shall be equal to four (4) times the drainage area (acres) with a minimum width of four (4) feet. The outlet shall be free of any restrictions to flow. The outlet lip must remain undisturbed and level. The volume of this trap shall be computed at the elevation of the crest of the outlet. Grass outlet sediment traps shall be limited to a five (5) acre maximum drainage area.

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Prepared by Zimmerman Engineering & Surveying, PC

See details for Grass Outlet Sediment Trap ST-II in Figure 5A.17 on page 5A.40.

III. Catch Basin Sediment Trap

A Catch Basin Sediment Trap consists of a basin formed by excavation on natural ground that discharges through an opening in a storm drain inlet structure. This opening can either be the inlet opening or a temporary opening made by omitting bricks or blocks in the inlet.

A yard drain inlet or an inlet in the median strip of a dual highway could use the inlet opening for the type outlet. The trap should be out of the roadway so as not to interfere with future compaction or construction. Placing the trap on the opposite side of the opening and diverting water from the roadway to the trap is one means of doing this. Catch basin sediment traps shall be limited to a three (3) acre maximum drainage area. The volume of this trap is measured at the elevation of the crest of the outlet (invert of the inlet opening).

See details for Catch Basin Sediment Trap ST-III in Figure 5A.18 on page 5A.41.

IV. Stone Outlet Sediment Trap

A Stone Outlet Sediment Trap consists of a trap formed by an embankment or excavation. The outlet of this trap is over a stone section placed on level ground. The minimum length (feet) of the outlet shall be equal to four (4) times the drainage area (acres).

Required storage shall be 3,600 cubic feet per acre of drainage area.

The outlet crest (top of stone in weir section) shall be level, at least one (1) foot below top of embankment and no more than one (1) foot above ground beneath the outlet. Stone used in the outlet shall be small riprap (4 in. x 8 in.). To provide more efficient trapping effect, a layer of filter cloth should be embedded one (1) foot back into the upstream face of the outlet stone or a one (1) foot thick layer of two (2) inch or finer aggregate shall be placed on the upstream face of the outlet.

Stone Outlet Sediment Traps may be interchangeable in the field with pipe or riprap outlet sediment traps provided they are constructed in accordance with the detail and specifications for those traps. Stone outlet sediment traps shall be limited to a five (5) acre maximum drainage area.

See details for Stone Outlet Sediment Trap ST-IV in Figure 5A.19 on page 5A.42.

V. Riprap Outlet Sediment Trap

A Riprap Outlet Sediment Trap consists of a trap formed by an excavation and embankment. The outlet for this trap shall be through a partially excavated channel lined with riprap. This outlet channel shall discharge onto a stabilized area or to a stable watercourse. The riprap outlet sediment trap may be used for drainage areas of up to a maximum of 15 acres.

Design Criteria for Riprap Outlet Sediment Trap

1. The total contributing drainage area (disturbed or undisturbed either on or off the developing property) shall not exceed 15 acres.
2. The storage needs for this trap shall be computed using 3600 cubic feet of required storage for each acre of drainage area. The storage volume provided can be figured by computing the volume of storage area available behind the outlet structure up to an elevation of one (1) foot below the level weir crest.
3. The maximum height of embankment shall not exceed five (5) feet.
4. The elevation of the top of any dike directing water to a riprap outlet sediment trap will equal or exceed the minimum elevation of the embankment along the entire length of this trap.

Riprap Outlet Sediment Trap ST-V
(for Stone Lined Channel)

Contributing Drainage Area (ac.)	Depth of Channel (a) (ft.)	Length of Weir (b) (ft.)
1	1.5	4.0
2	1.5	5.0
3	1.5	6.0
4	1.5	10.0
5	1.5	12.0
6	1.5	14.0
7	1.5	16.0
8	2.0	10.0
9	2.0	10.0
10	2.0	12.0
11	2.0	14.0
12	2.0	14.0
13	2.0	16.0
14	2.0	16.0
15	2.0	18.0

See details for Riprap Outlet Sediment Trap ST-V on Figures 5A.20(1) and 5A.20(2) on pages 5A.43 and 5A.44.

Optional Dewatering Methods

Optional dewatering devices may be designed for use with sediment traps. Included are two methods, which may be used. See Figure 5A.21 on page 5A.45 for details.

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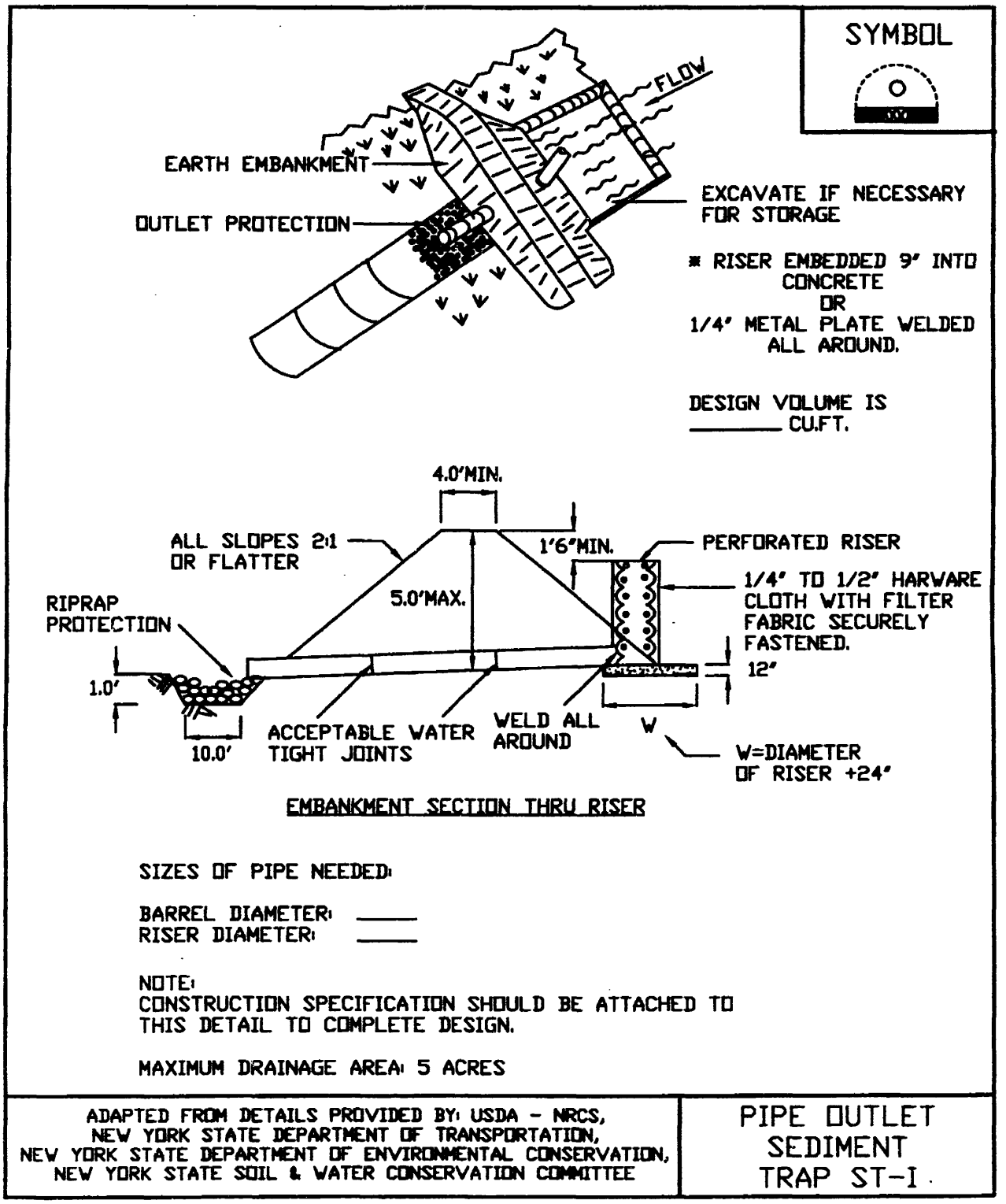
Figure 5A.16(1)
Pipe Outlet Sediment Trap: ST-I



SIZES OF PIPE NEEDED:

BARREL DIAMETER: _____
RISER DIAMETER: _____

NOTE:
CONSTRUCTION SPECIFICATION SHOULD BE ATTACHED TO THIS DETAIL TO COMPLETE DESIGN.

MAXIMUM DRAINAGE AREA: 5 ACRES

ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE	PIPE OUTLET SEDIMENT TRAP ST-I

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Figure 5A.16(2)
Pipe Outlet Sediment Trap: ST-I—Construction Specifications

SYMBOL

CONSTRUCTION SPECIFICATIONS

1. AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED.
2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS OR 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.
3. VOLUME OF SEDIMENT STORAGE SHALL BE 3600 CUBIC FEET PER ACRE OF CONTRIBUTORY DRAINAGE.
4. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND STABILIZED.
5. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
6. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND SEDIMENT ARE CONTROLLED.
7. THE STRUCTURE SHALL BE REMOVED AND AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
8. ALL FILL SLOPES SHALL BE 2:1 OR FLATTER; CUT SLOPES 1:1 OR FLATTER.
9. ALL PIPE CONNECTIONS SHALL BE WATERTIGHT.
10. THE TOP 2/3 OF THE RISER SHALL BE PERFORATED WITH ONE (1) INCH DIAMETER HOLES OR SLITS SPACED SIX (6) INCHES VERTICALLY AND HORIZONTALLY AND PLACED IN THE CONCAVE PORTION OF PIPE. NO HOLES WILL BE ALLOWED WITHIN SIX (6) INCHES OF THE HORIZONTAL BARREL.
11. THE RISER SHALL BE WRAPPED WITH 1/4 TO 1/2 INCH HARDWARE CLOTH WIRE THEN WRAPPED WITH FILTER CLOTH (HAVING AN EQUIVALENT SIEVE SIZE OF 40-80). THE FILTER CLOTH SHALL EXTEND SIX (6) INCHES ABOVE THE HIGHEST HOLE AND SIX (6) INCHES BELOW THE LOWEST HOLE. WHERE ENDS OF THE FILTER CLOTH COME TOGETHER, THEY SHALL BE OVER-LAPPED, FOLDED AND STAPLED TO PREVENT BYPASS.
12. STRAPS OR CONNECTING BANDS SHALL BE USED TO HOLD THE FILTER CLOTH AND WIRE FABRIC IN PLACE. THEY SHALL BE PLACED AT THE TOP AND BOTTOM OF THE CLOTH.
13. FILL MATERIAL AROUND THE PIPE SPILLWAY SHALL BE HAND COMPACTED IN FOUR (4) INCH LAYERS. A MINIMUM OF TWO (2) FEET OF HAND COMPACTED BACKFILL SHALL BE PLACED OVER THE PIPE SPILLWAY BEFORE CROSSING IT WITH CONSTRUCTION EQUIPMENT.
14. THE RISER SHALL BE ANCHORED WITH EITHER A CONCRETE BASE OR STEEL PLATE BASE TO PREVENT FLOTATION. FOR CONCRETE BASED THE DEPTH SHALL BE TWELVE (12) INCHES WITH THE RISER EMBEDDED NINE (9) INCHES. A 1/4 INCH MINIMUM THICKNESS STEEL PLATE SHALL BE ATTACHED TO THE RISER BY A CONTINUOUS WELD AROUND THE BOTTOM TO FORM A WATERTIGHT CONNECTION AND THEN PLACE TWO (2) FEET OF STONE, GRAVEL, OR TAMPED EARTH ON THE PLATE.

ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE	PIPE OUTLET SEDIMENT TRAP ST-I

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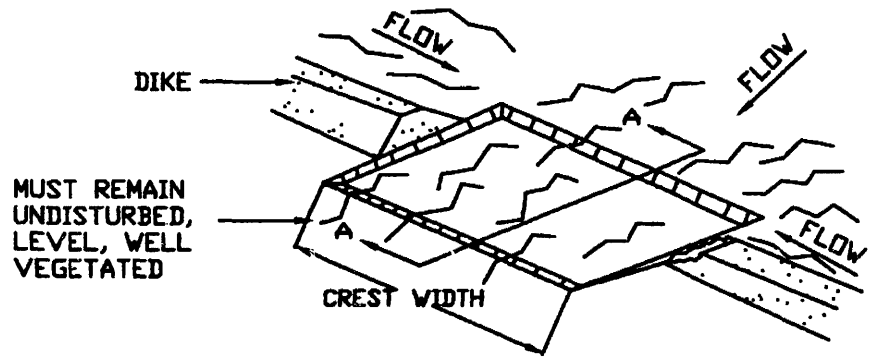
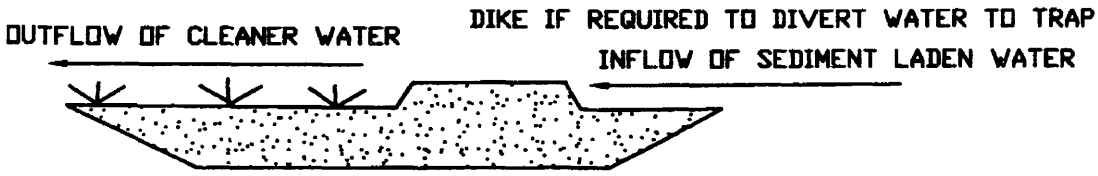
Figure 5A.17
Grass Outlet Sediment Trap: ST-II



SYMBOL



CREST WIDTH (FT)=4xDRAINAGE AREA (ACRES)

SECTION A - A
EXCAVATED GRASS OUTLET SEDIMENT TRAP

CONSTRUCTION SPECIFICATIONS

1. VOLUME OF SEDIMENT STORAGE SHALL BE 3600 CUBIC FEET PER ACRE OF CONTRIBUTORY DRAINAGE AREA.
2. MINIMUM CREST WIDTH SHALL BE 4 x DRAINAGE AREA
3. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND STABILIZED.
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 SEDIMENT ARE CONTROLLED.
6. THE SEDIMENT TRAP SHALL BE REMOVED AND AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
7. ALL CUT SLOPES SHALL BE 1:1 OR FLATTER.

MAXIMUM DRAINAGE AREA: 5 ACRES

ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE	GRASS OUTLET SEDIMENT TRAP ST-II

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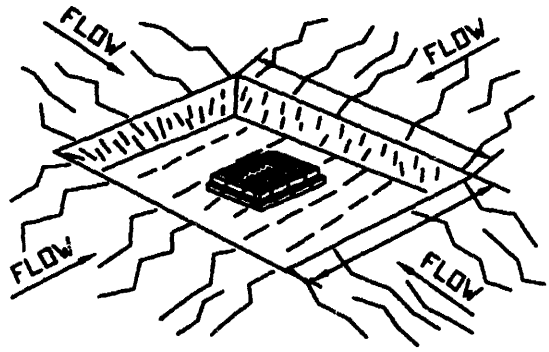
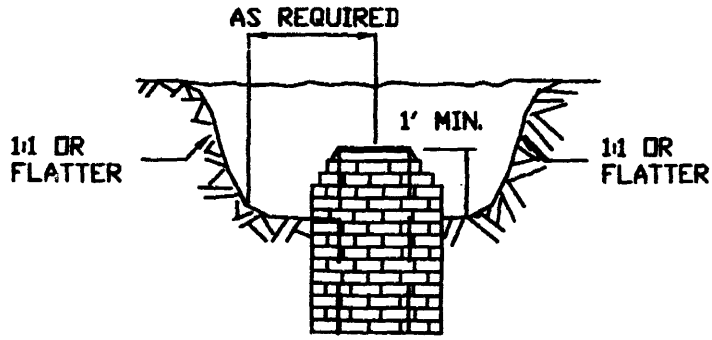
Figure 5A.18
Catch Basin Sediment Trap: ST-III



YARD DRAIN

SYMBOL



CROSS SECTION

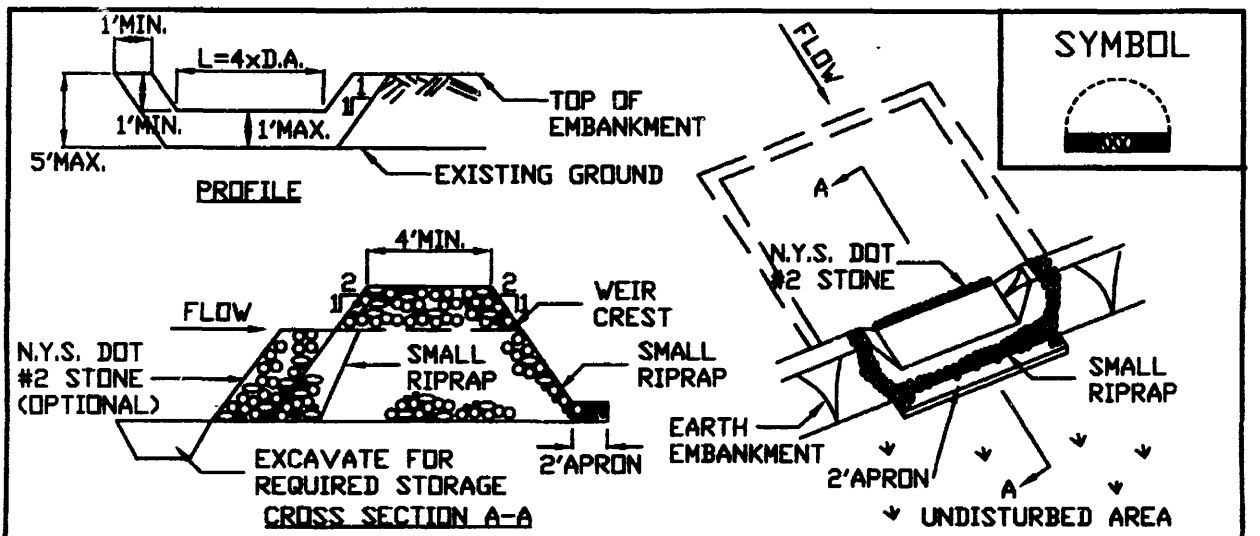
CONSTRUCTION SPECIFICATIONS

1. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND STABILIZED.
2. THE VOLUME OF SEDIMENT STORAGE SHALL BE 3600 CUBIC FEET PER ACRE OF CONTRIBUTORY DRAINAGE.
3. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
4. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND SEDIMENT ARE CONTROLLED.
5. THE SEDIMENT TRAP SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE CONSTRUCTED DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
6. ALL CUT SLOPES SHALL BE 1:1 OR FLATTER.

MAXIMUM DRAINAGE AREA: 3 ACRES

ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE	CATCH BASIN SEDIMENT TRAP ST-III

Figure 5A.19
Stone Outlet Sediment Trap: ST-IV



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.

CONSTRUCTION SPECIFICATIONS

1. AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED.
2. 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.
3. ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER.
4. 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.
5. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. IT SHALL BE PLACED ON SITE AND STABILIZED.
6. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
7. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND SEDIMENT ARE CONTROLLED.
8. THE STRUCTURE SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

MAXIMUM DRAINAGE AREA 5 ACRES

ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE	STONE OUTLET SEDIMENT TRAP ST-IV

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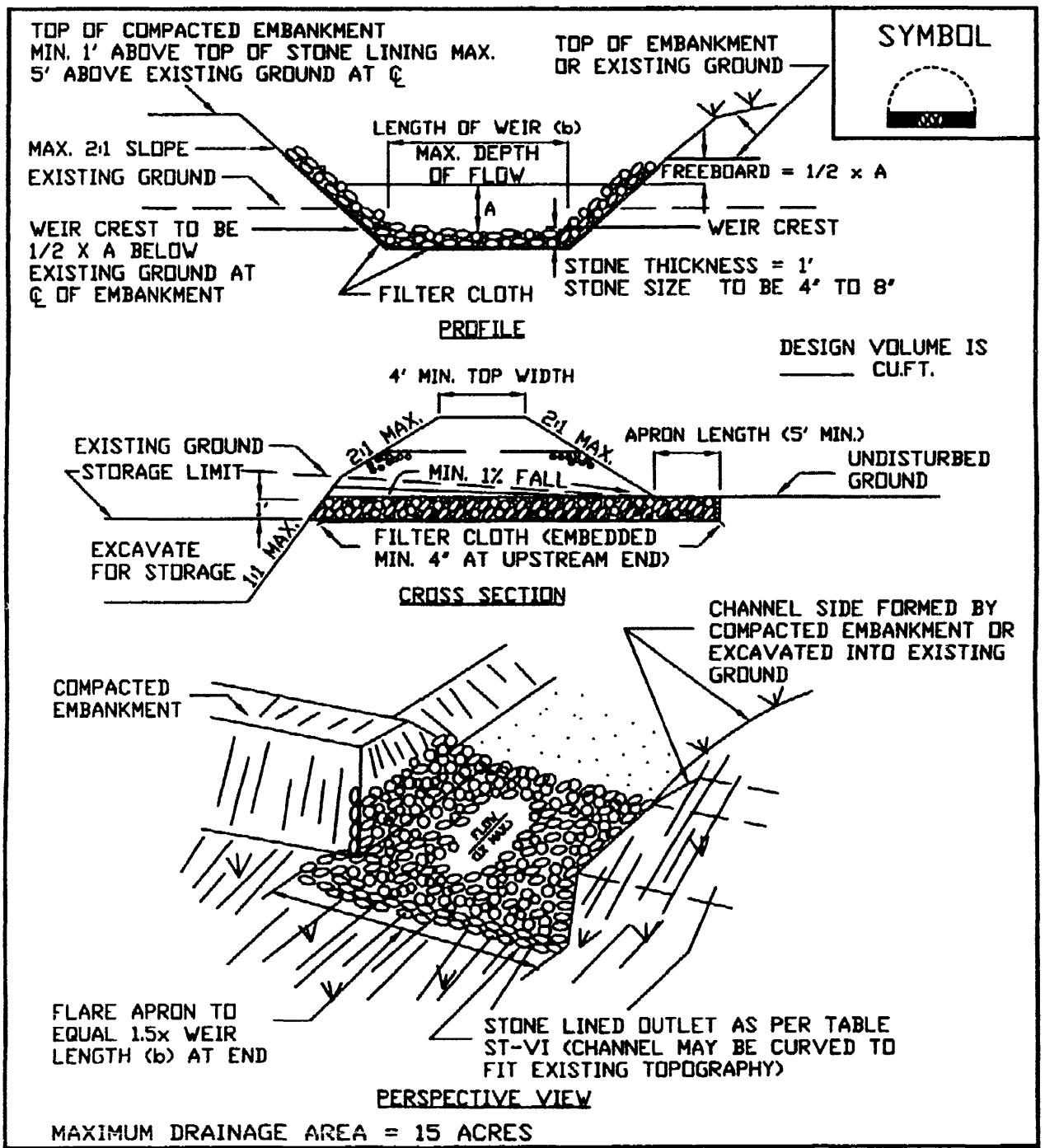
Figure 5A.20(1)
Riprap Outlet Sediment Trap: ST-V



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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION,
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

RIPRAP OUTLET
SEDIMENT TRAP
ST-V

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Figure 5A.202)
Riprap Outlet Sediment Trap: ST-V—Construction Specifications

SYMBOL

CONSTRUCTION SPECIFICATIONS

1. THE AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED.
2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS OR 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. MAXIMUM HEIGHT OF OF EMBANKMENT SHALL BE FIVE (5) FEET, MEASURED AT CENTERLINE OF EMBANKMENT.
3. ALL FILL SLOPES SHALL BE 2:1 OR FLATTER, CUT SLOPES 1:1 OR FLATTER.
4. ELEVATION OF THE TOP OF ANY DIKE DIRECTING WATER INTO TRAP MUST EQUAL OR EXCEED THE HEIGHT OF EMBANKMENT.
5. STORAGE AREA PROVIDED SHALL BE FIGURED BY COMPUTING THE VOLUME AVAILABLE BEHIND THE OUTLET CHANNEL UP TO AN ELEVATION OF ONE (1) FOOT BELOW THE LEVEL WEIR CREST.
6. FILTER CLOTH SHALL BE PLACED OVER THE BOTTOM AND SIDES OF THE OUTLET CHANNEL PRIOR TO PLACEMENT OF STONE. SECTIONS OF FABRIC MUST OVERLAP AT LEAST ONE (1) FOOT WITH SECTION NEAREST THE ENTRANCE PLACED ON TOP. FABRIC SHALL BE EMBEDDED AT LEAST SIX (6) INCHES INTO EXISTING GROUND AT ENTRANCE OUTLET CHANNEL.
7. STONE USED IN THE OUTLET CHANNEL SHALL BE FOUR (4) TO EIGHT (8) INCH RIPRAP. TO PROVIDE A FILTERING EFFECT, A LAYER OF FILTER CLOTH SHALL BE EMBEDDED ONE (1) FOOT WITH SECTION NEAREST ENTRANCE PLACED ON TOP. FABRIC SHALL BE EMBEDDED AT LEAST SIX (6) INCHES INTO EXISTING GROUND AT ENTRANCE OF OUTLET CHANNEL.
8. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
9. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRED AS NEEDED.
10. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION ARE MINIMIZED.
11. THE STRUCTURE SHALL BE REMOVED AND THE AREA STABILIZED WHEN DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
12. DRAINAGE AREA FOR THIS PRACTICE IS LIMITED TO 15 ACRES OR LESS.

ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE	RIPRAP OUTLET SEDIMENT TRAP ST-V

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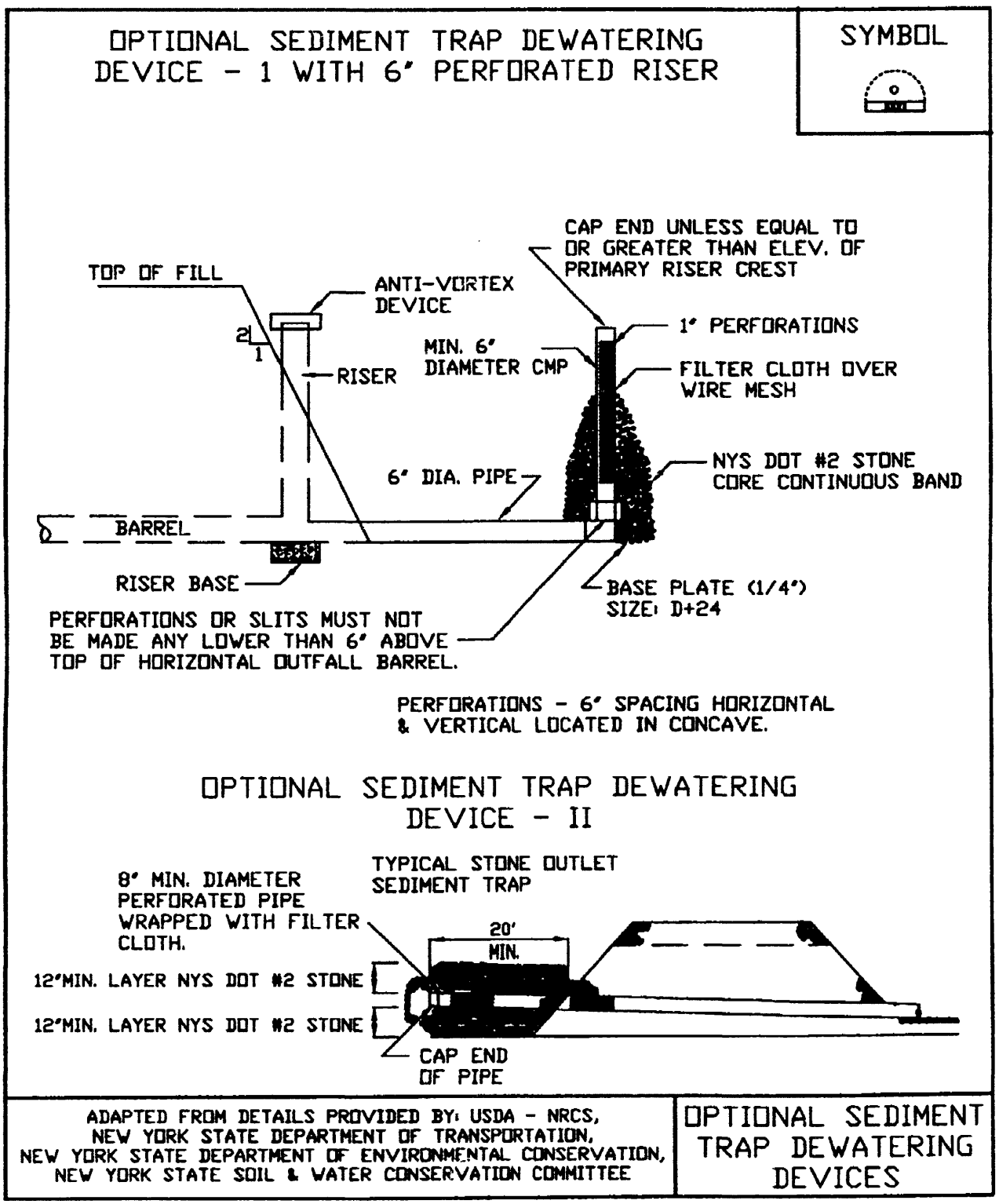
Prepared by Zimmerman Engineering & Surveying, PC

Figure 5A.21
Optional Sediment Trap Dewatering Devices



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STANDARD AND SPECIFICATIONS FOR STABILIZED CONSTRUCTION ENTRANCE

Definition

A stabilized pad of aggregate underlain with geotextile located at any point where traffic will be entering or leaving a construction site to or from a public right-of-way, street, alley, sidewalk, or parking area.

Purpose

The purpose of stabilized construction entrance is to reduce or eliminate the tracking of sediment onto public rights-of-way or streets.

Conditions Where Practice Applies

A stabilized construction entrance shall be used at all points of construction ingress and egress.

Design Criteria

See Figure 5A.35 on page 5A.76 for details.

Aggregate Size: Use a matrix of 1-4 inch stone, or reclaimed or recycled concrete equivalent.

Thickness: Not less than six (6) inches.

Width: 12-foot minimum but not less than the full width of points where ingress or egress occurs. 24-foot minimum if there is only one access to the site.

Length: As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum would apply).

Geotextile: To be placed over the entire area to be covered with aggregate. Filter cloth will not be required on a single-family residence lot. Piping of surface water under entrance shall be provided as required. If piping is impossible, a mountable berm with 5:1 slopes will be permitted.

Criteria for Geotextile

The geotextile shall be woven or nonwoven fabric consisting only of continuous chain polymeric filaments or yarns of polyester. The fabric shall be inert to commonly encountered chemicals, hydro-carbons, mildew, rot resistant, and conform to the fabric properties as shown:

Fabric Properties[3]	Light Duty[1] Roads Grade Subgrade	Heavy Duty[2] Haul Roads Rough Graded	Test Method
Grab Tensile Strength (lbs)	200	220	ASTM D1682
Elongation at Failure (%)	50	60	ASTM D1682
Mullen Brust Strength (lbs)	190	430	ASTM D3786
Puncture Strength (lbs)	40	125	ASTM D751 modified
Equivalent Opening Size	40-80	40-80	US Std Sieve CW-02215
Aggregate Depth	6	10	--

[1]Light Duty Road: Area sites that have been graded to subgrade and where most travel would be single axle vehicles and an occasional multi-axle truck. Acceptable materials are Trevira Spunbond 1115, Mirafi 100X, Typar 3401, or equivalent.

[2]Heavy Duty Road: Area sites with only rough grading, and where most travel would be multi-axle vehicles. Acceptable materials are Trevira Spunbond 1135, Mirafi 600X, or equivalent.

[3]Fabrics not meeting these specifications may be used only when design procedure and supporting documentation are supplied to determine aggregate depth and fabric strength.

Maintenance

The entrance shall be maintained in a condition which will prevent tracking of sediment onto public rights-of-way or streets. This may require periodic top dressing with additional aggregate. All sediment spilled, dropped, or washed onto public rights-of-way must be removed immediately.

When necessary, wheels must be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with aggregate, which drains into an approved sediment-trapping device. All sediment shall be prevented from entering storm drains, ditches, or watercourses.

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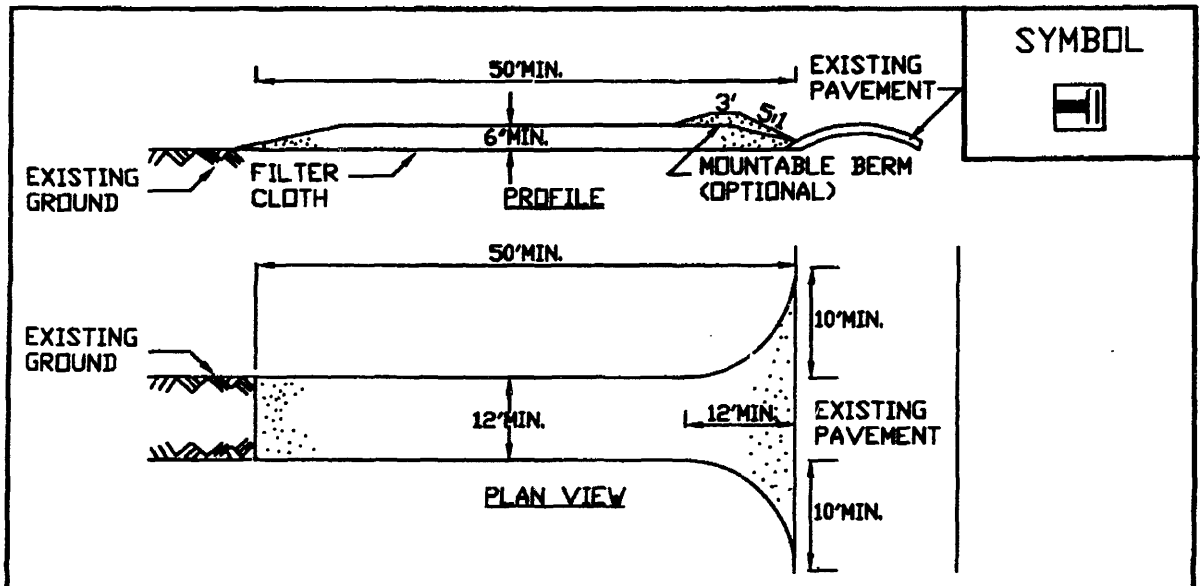
Figure 5A.35
Stabilized Construction Entrance



CONSTRUCTION SPECIFICATIONS

1. STONE SIZE - USE 1-4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
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. GEOTEXTILE - 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 BENEATH 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 A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE	STABILIZED CONSTRUCTION ENTRANCE

JERRY'S CLIMATE CONTROL
Prepared by Zimmerman Engineering & Surveying, PC

STANDARD AND SPECIFICATIONS FOR DUST CONTROL

Definition

The control of dust resulting from land-disturbing activities.

Purpose

To prevent surface and air movement of dust from disturbed soil surfaces that may cause off-site damage, health hazards, and traffic safety problems.

Conditions Where Practice Applies

On construction roads, access points, and other disturbed areas subject to surface dust movement and dust blowing where off-site damage may occur if dust is not controlled.

Design Criteria

Construction operations should be scheduled to minimize the amount of area disturbed at one time. Buffer areas of vegetation should be left where practical. Temporary or permanent stabilization measures shall be installed. No specific design criteria is given; see construction specifications below for common methods of dust control.

Water quality must be considered when materials are selected for dust control. Where there is a potential for the material to wash off to a stream, ingredient information must be provided to the local permitting authority.

Construction Specifications

A. **Non-driving Areas** – These areas use products and materials applied or placed on soil surfaces to prevent airborne migration of soil particles.

Vegetative Cover – For disturbed areas not subject to traffic, vegetation provides the most practical method of dust control (see Section 3).

Mulch (including gravel mulch) – Mulch offers a fast effective means of controlling dust. This can also include rolled erosion control blankets.

Spray adhesives – These are products generally composed of polymers in a liquid or solid form that are mixed with water to form an emulsion that is sprayed on the soil surface with typical hydroseeding equipment. The mixing ratios and application rates will be in accordance with the manufacturer's recommendations for the specific soils on the site. In no case should the application of these adhesives be made on wet soils or if there is a probability of precipitation within 48 hours of its proposed use. Material Safety Data Sheets will be provided to all applicators and others working with the material.

B. **Driving Areas** – These areas utilize water, polymer emulsions, and barriers to prevent dust movement from the traffic surface into the air.

Sprinkling – The site may be sprayed with water until the surface is wet. This is especially effective on haul roads and access routes.

Polymer Additives – These polymers are mixed with water and applied to the driving surface by a water truck with a gravity feed drip bar, spray bar or automated distributor truck. The mixing ratios and application rates will be in accordance with the manufacturer's recommendations. Incorporation of the emulsion into the soil will be done to the appropriate depth based on expected traffic. Compaction after incorporation will be by vibratory roller to a minimum of 95%. The prepared surface shall be moist and no application of the polymer will be made if there is a probability of precipitation within 48 hours of its proposed use. Material Safety Data Sheets will be provided to all applicators working with the material.

Barriers – Woven geotextiles can be placed on the driving surface to effectively reduce dust throw and particle migration on haul roads. Stone can also be used for construction roads for effective dust control.

Windbreak – A silt fence or similar barrier can control air currents at intervals equal to ten times the barrier height. Preserve existing wind barrier vegetation as much as practical.

All Stormwater Pollution Prevention Plans must contain the NYS DEC issued "Conditions for Use" and "Application Instructions" for any polymers used on the site. This information can be obtained from the NYS DEC website.

Maintenance

Maintain dust control measures through dry weather periods until all disturbed areas are stabilized.

STANDARD AND SPECIFICATIONS FOR SUMP PIT

Definition

A temporary pit which is constructed to trap and filter water for pumping to a suitable discharge area.

Purpose

To remove excessive water from excavations.

Conditions Where Practice Applies

Sump pits are constructed when water collects during the excavation phase of construction. This practice is particularly useful in urban areas during excavation for building foundations.

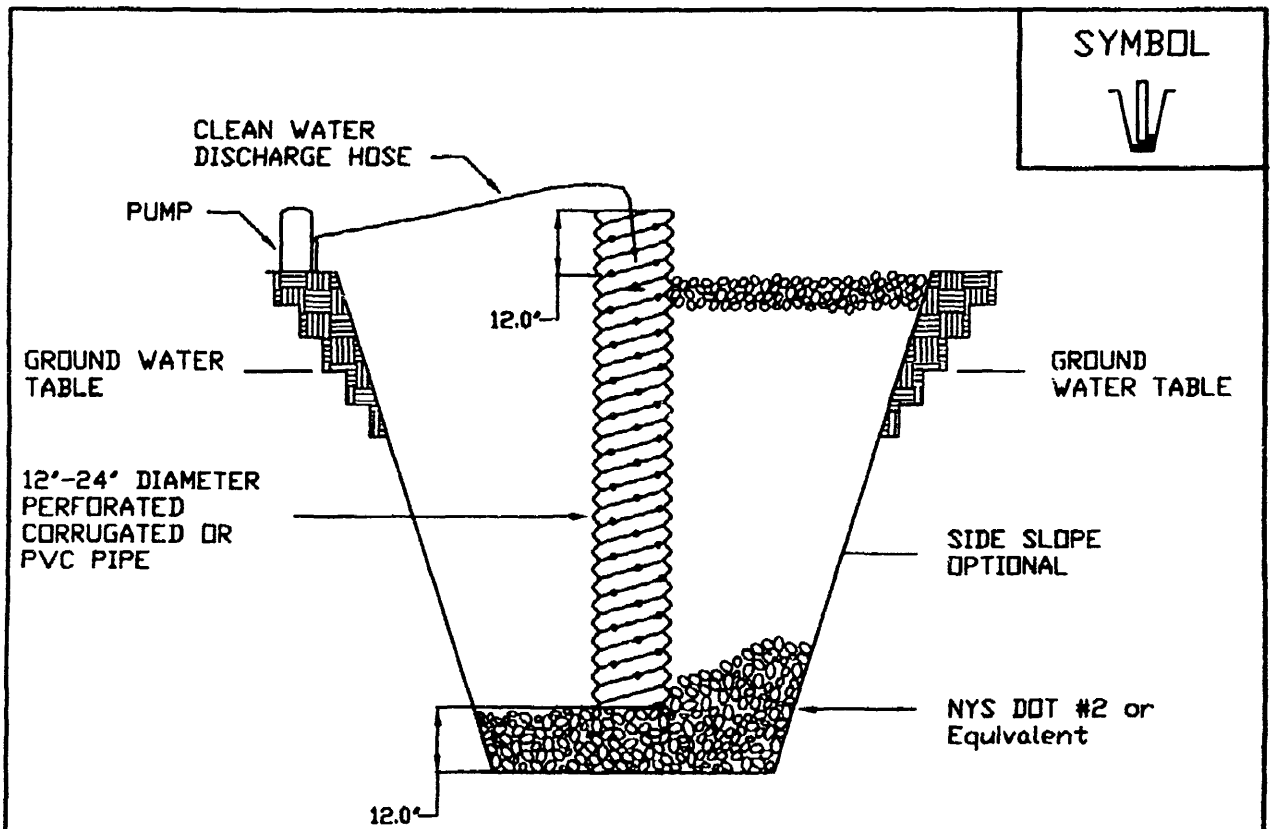
Design Criteria

The number of sump pits and their locations shall be determined by the contractor/engineer. A design is not required, but construction should conform to the general criteria outlined on Figure 7A.39 on page 7A.90.

A perforated vertical standpipe is placed in the center of the pit to collect filtered water. Water is then pumped from the center of the pipe to a suitable discharge area.

Discharge of water pumped from the standpipe should be to a sediment trap, sediment basin, or stabilized area, such as a filter strip. If water from the sump pit will be pumped directly to a storm drain system, filter cloth (Mirafi 100X, Poly Filter GB, or a filter cloth with an equivalent sieve size between 40-80) should be wrapped around the standpipe to ensure clean water discharge. It is recommended that ¼ to ½ inch hardware cloth be wrapped around and secured to the standpipe prior to attaching the filter cloth. This will increase the rate of water seepage into the standpipe.

Figure 5A.39
Sump Pit

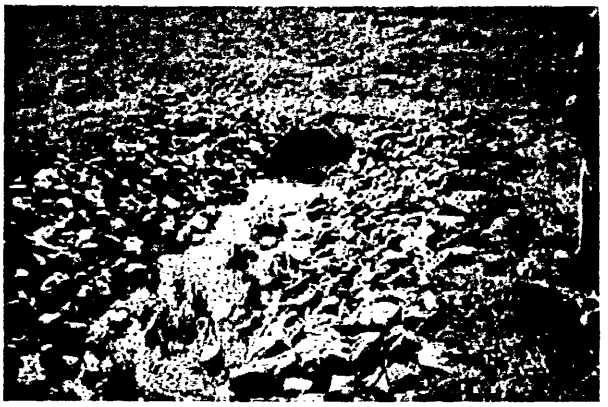


CONSTRUCTION SPECIFICATIONS

1. 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. IF DISCHARGE WILL BE PUMPED DIRECTLY TO A STORM DRAINAGE SYSTEM, THE STANDPIPE SHOULD BE WRAPPED WITH FILTERCLOTH BEFORE INSTALLATION. IF DESIRED, 1/4"-1/2" HARDWARE CLOTH MAY BE PLACED AROUND THE STANDPIPE, PRIOR TO ATTACHING THE FILTERCLOTH.

ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE	SUMP PIT

STANDARD AND SPECIFICATIONS FOR ROCK OUTLET PROTECTION



Definition

A section of rock protection placed at the outlet end of the culverts, conduits, or channels.

Purpose

The purpose of the rock outlet protection is to reduce the depth, velocity, and energy of water, such that the flow will not erode the receiving downstream reach.

Scope

This standard applies to the planning, design, and construction of rock riprap and gabions for protection of downstream areas. It does not apply to rock lining of channels or streams.

Conditions Where Practice Applies

This practice applies where discharge velocities and energies at the outlets of culverts, conduits, or channels are sufficient to erode the next downstream reach. This applies to:

1. Culvert outlets of all types.

2. Pipe conduits from all sediment basins, dry storm water ponds, and permanent type ponds.

3. New channels constructed as outlets for culverts and conduits.

Design Criteria

The design of rock outlet protection depends entirely on the location. Pipe outlet at the top of cuts or on slopes steeper than 10 percent, cannot be protected by rock aprons or riprap sections due to re-concentration of flows and high velocities encountered after the flow leaves the apron.

Many counties and state agencies have regulations and design procedures already established for dimensions, type and size of materials, and locations where outlet protection is required. Where these requirements exist, they shall be followed.

Tailwater Depth

The depth of tailwater immediately below the pipe outlet must be determined for the design capacity of the pipe. If the tailwater depth is less than half the diameter of the outlet pipe, and the receiving stream is wide enough to accept divergence of the flow, it shall be classified as a Minimum Tailwater Condition; see Figure 5B.12 on page 5B.25 as an example. If the tailwater depth is greater than half the pipe diameter and the receiving stream will continue to confine the flow, it shall be classified as a Maximum Tailwater Condition; see Figure 5B.13 on page 5B.26 as an example. Pipes which outlet onto flat areas with no defined channel may be assumed to have a Minimum Tailwater Condition; see Figure 5B.12 on page 5B.25 as an example.

Apron Size

The apron length and width shall be determined from the curves according to the tailwater conditions:

Minimum Tailwater – Use Figure 5B.12 on page 5B.25
Maximum Tailwater – Use Figure 5B.13 on page 5B.26

If the pipe discharges directly into a well defined channel, the apron shall extend across the channel bottom and up the channel banks to an elevation one foot above the maximum tailwater depth or to the top of the bank, whichever is less.

The upstream end of the apron, adjacent to the pipe, shall have a width two (2) times the diameter of the outlet pipe, or conform to pipe end section if used.

Bottom Grade

The outlet protection apron shall be constructed with no slope along its length. There shall be no overfall at the end of the apron. The elevation of the downstream end of the apron shall be equal to the elevation of the receiving channel or adjacent ground.

Alignment

The outlet protection apron shall be located so that there are no bends in the horizontal alignment.

Materials

The outlet protection may be done using rock riprap, grouted riprap, or gabions.

Riprap shall be composed of a well-graded mixture of stone size so that 50 percent of the pieces, by weight, shall be larger than the d_{50} size determined by using the charts. A well-graded mixture, as used herein, is defined as a mixture composed primarily of larger stone sizes, but with a sufficient mixture of other sizes to fill the smaller voids between the stones. The diameter of the largest stone size in such a mixture shall be 1.5 times the d_{50} size.

Thickness

The minimum thickness of the riprap layer shall be 1.5 times the maximum stone diameter for d_{50} of 15 inches or less; and 1.2 times the maximum stone size for d_{50} greater than 15 inches. The following chart lists some examples:

D_{50} (inches)	d_{max} (inches)	Minimum Blanket Thickness (inches)
4	6	9
6	9	14
9	14	20
12	18	27
15	22	32
18	27	32
21	32	38
24	36	43

Stone Quality

Stone for riprap shall consist of field stone or rough unhewn quarry stone. The stone shall be hard and angular and of a quality that will not disintegrate on exposure to water or weathering. The specific gravity of the individual stones shall be at least 2.5.

Recycled concrete equivalent may be used provided it has a density of at least 150 pounds per cubic foot, and does not have any exposed steel or reinforcing bars.

Filter

A filter is a layer of material placed between the riprap and the underlying soil surface to prevent soil movement into and through the riprap. Riprap shall have a filter placed under it in all cases.

A filter can be of two general forms: a gravel layer or a plastic filter cloth. The plastic filter cloth can be woven or non-woven monofilament yarns, and shall meet these base requirements: thickness 20-60 mils, grab strength 90-120 lbs; and shall conform to ASTM D-1777 and ASTM D-1682.

Gravel filter blanket, when used, shall be designed by comparing particle sizes of the overlying material and the base material. Design criteria are available in Standard and Specification for Riprap Slope Protection on page 5B.57.

Gabions

Gabions shall be made of hexagonal triple twist mesh with heavily galvanized steel wire. The maximum linear dimension of the mesh opening shall not exceed 4 ½ inches and the area of the mesh opening shall not exceed 10 square inches.

Gabions shall be fabricated in such a manner that the sides, ends, and lid can be assembled at the construction site into a rectangular basket of the specified sizes. Gabions shall be of single unit construction and shall be installed according to manufacturers recommendations.

The area on which the gabion is to be installed shall be graded as shown on the drawings. Foundation conditions shall be the same as for placing rock riprap, and filter cloth shall be placed under all gabions. Where necessary, key, or tie, the structure into the bank to prevent undermining of the main gabion structure.

Maintenance

Once a riprap outlet has been installed, the maintenance needs are very low. It should be inspected after high flows for evidence of scour beneath the riprap or for dislodged stones. Repairs should be made immediately.

Design Procedure

1. Investigate the downstream channel to assure that nonerosive velocities can be maintained.

2. Determine the tailwater condition at the outlet to establish which curve to use.
3. Enter the appropriate chart with the design discharge to

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determine the riprap size and apron length required. It is noted that references to pipe diameters in the charts are based on full flow. For other than full pipe flow, the parameters of depth of flow and velocity must be used to adjust the design discharges.

4. Calculate apron width at the downstream end if a flare section is to be employed.

Examples

Example 1: Pipe Flow (full) with discharge to unconfined section.

Given: A circular conduit flowing full.

Q = 280 cfs, diam. = 66 in., tailwater (surface) is 2 ft. above pipe invert (minimum tailwater condition).

Find: Read d_{50} = 1.2 and apron length (L_a) = 38 ft.

Apron width = diam. + L_a = 5.5 + 38 = 43.5 ft.

Use: d_{50} = 15", d_{max} = 22", blanket thickness = 32"

Example 2: Box Flow (partial) with high tailwater

Given: A box conduit discharging under partial flow conditions. A concrete box 5.5 ft. x 10 ft. flowing 5.0 ft. deep,

Q = 600 cfs and tailwater surface is 5 ft. above invert (max. tailwater condition).

Since this is not full pipe and does not directly fit the nomograph assumptions of Figure 7B.13 substitute depth as the diameter, to find a discharge equal to full pipe flow for that diameter, in this case 60 inches.

Since, $Q = AV$ and $A = \frac{\pi D^2}{4}$

First, compute velocity:

$V = (Q/A) = (600/(5)(10)) = 12$ fps

Then substituting:

$$Q = \frac{\pi D^2}{4} \times V = \frac{3.14\,(5\text{ ft})^2}{4} \times 12\text{ fps} = 236\text{ cfs}$$

At the intersection of the curve d = 60 in. and Q = 236 cfs, read d_{50} = 0.4 ft.

Then reading the d = 60 in. curve, read apron length (L_a) = 40 ft.

Apron width, W = conduit width + (6.4)(L_a) = 10 + (0.4)(40) = 26 ft.

Example 3: Open Channel Flow with Discharge to Unconfined Section

Given: A trapezoidal concrete channel 5 ft. wide with 2:1 side slopes is flowing 2 ft. deep, Q = 180 cfs (velocity = 10 fps) and the tailwater surface downstream is 0.8 ft. (minimum tailwater condition).

Find: Using similar principles as Example 2, compute equivalent discharge for a 2 foot, using depth as a diameter, circular pipe flowing full at 10 feet per second.

Velocity:

$$Q = \frac{\pi\,(2\text{ft})^2}{4} \times 10\text{ fps} = 31.4\text{ cfs}$$

At intersection of the curve, d = 24 in. and Q = 32 cfs, read d_{50} = 0.6 ft.

Then reading the d = 24 in. curve, read apron length (L_a) = 20 ft.

Apron width, W = bottom width of channel + L_a = 5 + 20 = 25 ft.

Example 4: Pipe flow (partial) with discharge to a confined section

Given: A 48 in. pipe is discharging with a depth of 3 ft. Q = 100 cfs, and discharge velocity of 10 fps (established from partial flow analysis) to a confined trapezoidal channel with a 2 ft. bottom, 2:1 side slopes, n = .04, and grade of 0.6%.

Calculation of the downstream channel (by Manning's Equation) indicates a normal depth of 3.1 ft. and normal velocity of 3.9 fps.

Since the receiving channel is confined, the maximum tailwater condition controls.

Find: discharge using previous principles:

$$Q = \frac{\pi\,(3\text{ft})^2}{4} \times 10\text{ fps} = 71\text{ cfs}$$

At the intersection of d = 36 in. and Q = 71 cfs, read d_{50} = 0.3 ft.

Reading the d = 36" curve, read apron length (L_a) = 30 ft.

Since the maximum flow depth in this reach is 3.1 ft., that is the minimum depth of riprap to be maintained for the entire length.

Construction Specifications

1. The subgrade for the filter, riprap, or gabion shall be prepared to the required lines and grades. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material.

2. The rock or gravel shall conform to the specified grading limits when installed respectively in the riprap or filter.

3. Filter cloth shall be protected from punching, cutting, or tearing. Any damage other than an occasional small hole shall be repaired by placing another piece of cloth over the damaged part or by completely replacing the cloth. All overlaps, whether for repairs or for joining two pieces of cloth shall be a minimum of one foot.

4. Stone for the riprap or gabion outlets may be placed by equipment. Both shall each be constructed to the full course thickness in one operation and in such a manner as to avoid displacement of underlying materials. The stone for riprap or gabion outlets shall be delivered and placed in a manner that will ensure that it is reasonably homogenous with the smaller stones and spalls filling the voids between the larger stones. Riprap shall be placed in a manner to prevent damage to the filter blanket or filter cloth. Hand placement will be required to the extent necessary to prevent damage to the permanent works.

Figure 5B.12
Outlet Protection Design—Minimum Tailwater Condition (Design of Outlet Protection from a Round Pipe Flowing Full, Minimum Tailwater Condition: $T_w < 0.5D_o$) (USDA - NRCS)

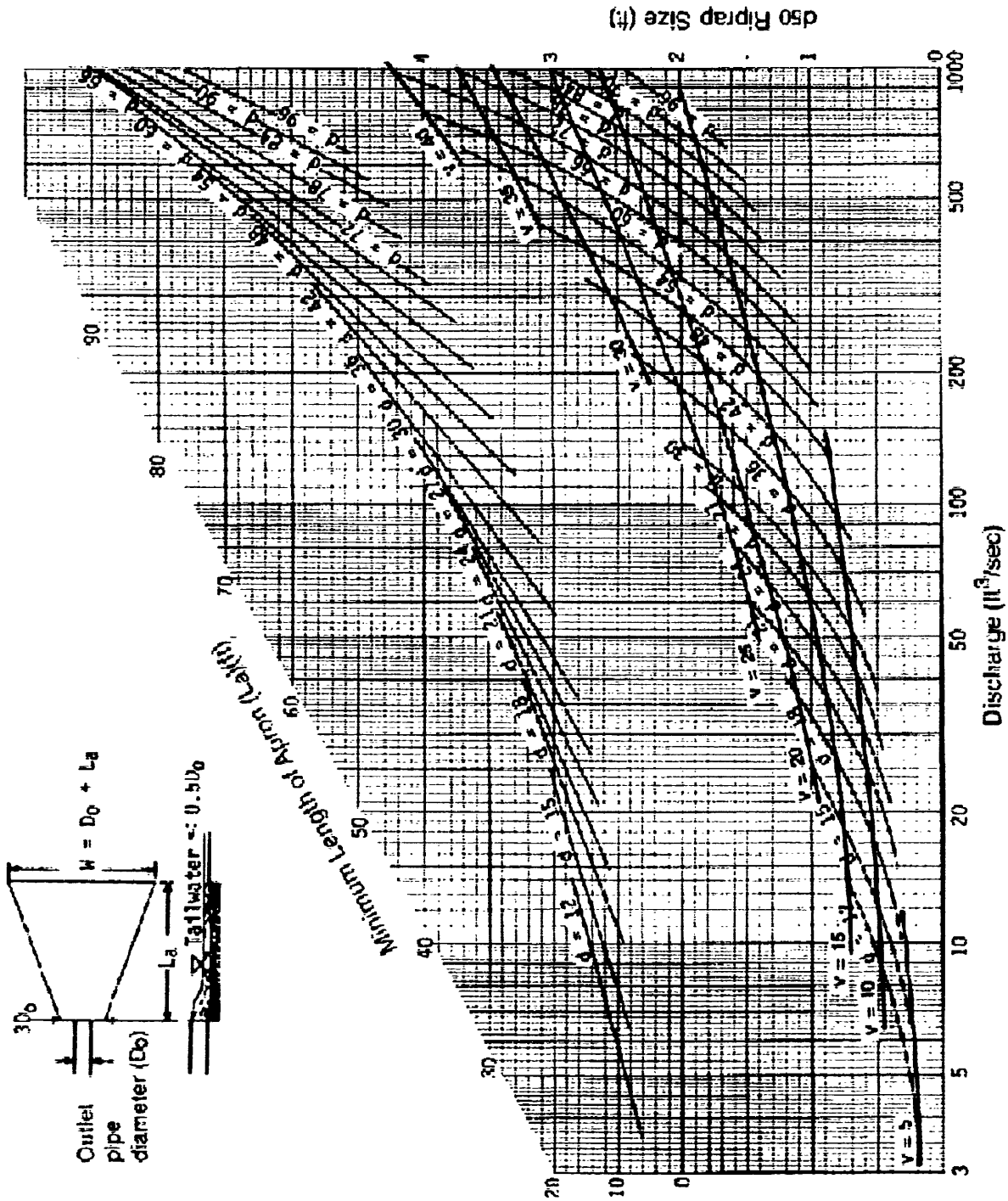


Figure 5B.13
Outlet Protection Design—Maximum Tailwater Condition (Design of Outlet Protection from a Round Pipe Flowing Full, Maximum Tailwater Condition: $T_w \geq 0.5D_o$) (USDA - NRCS)

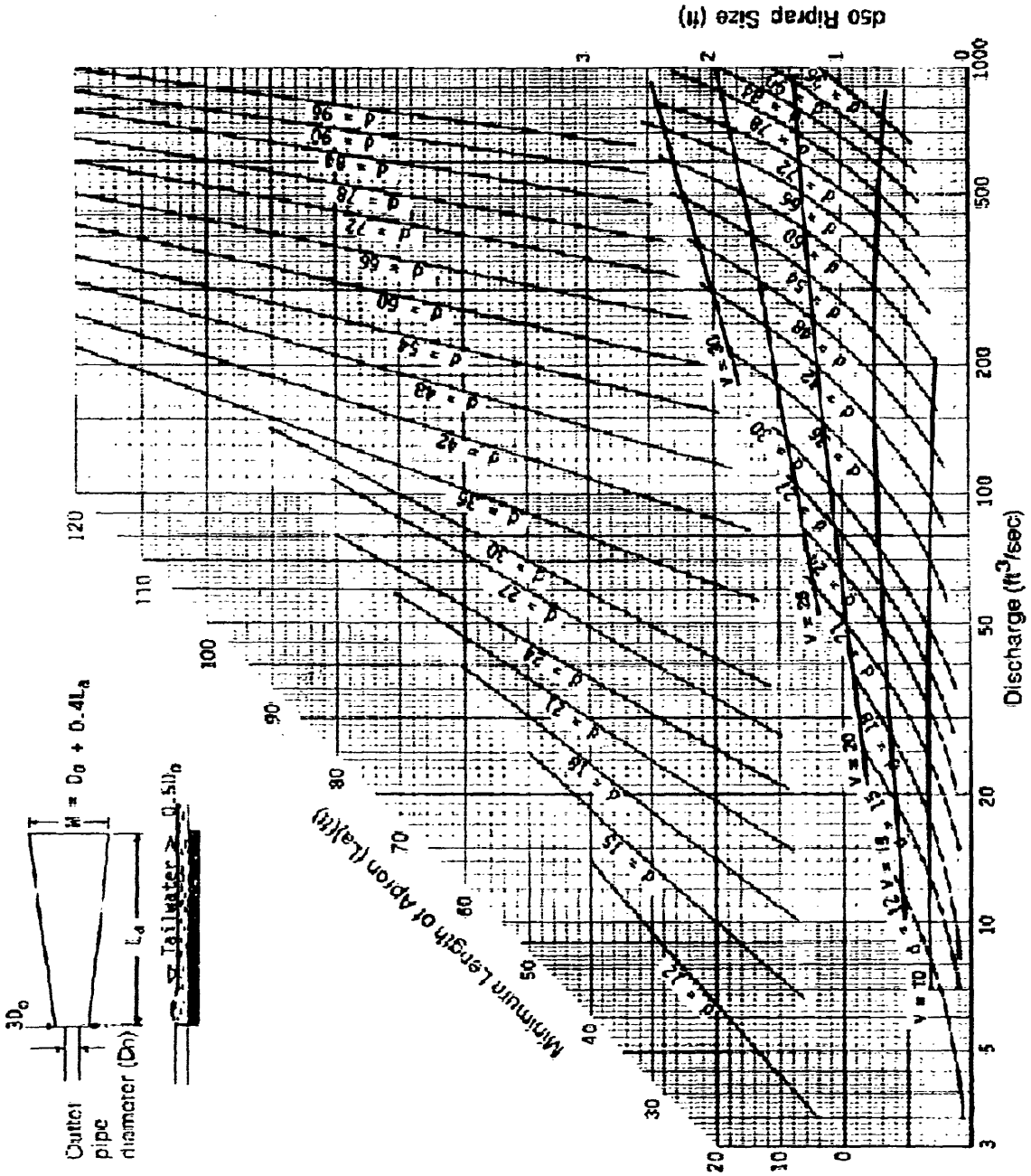
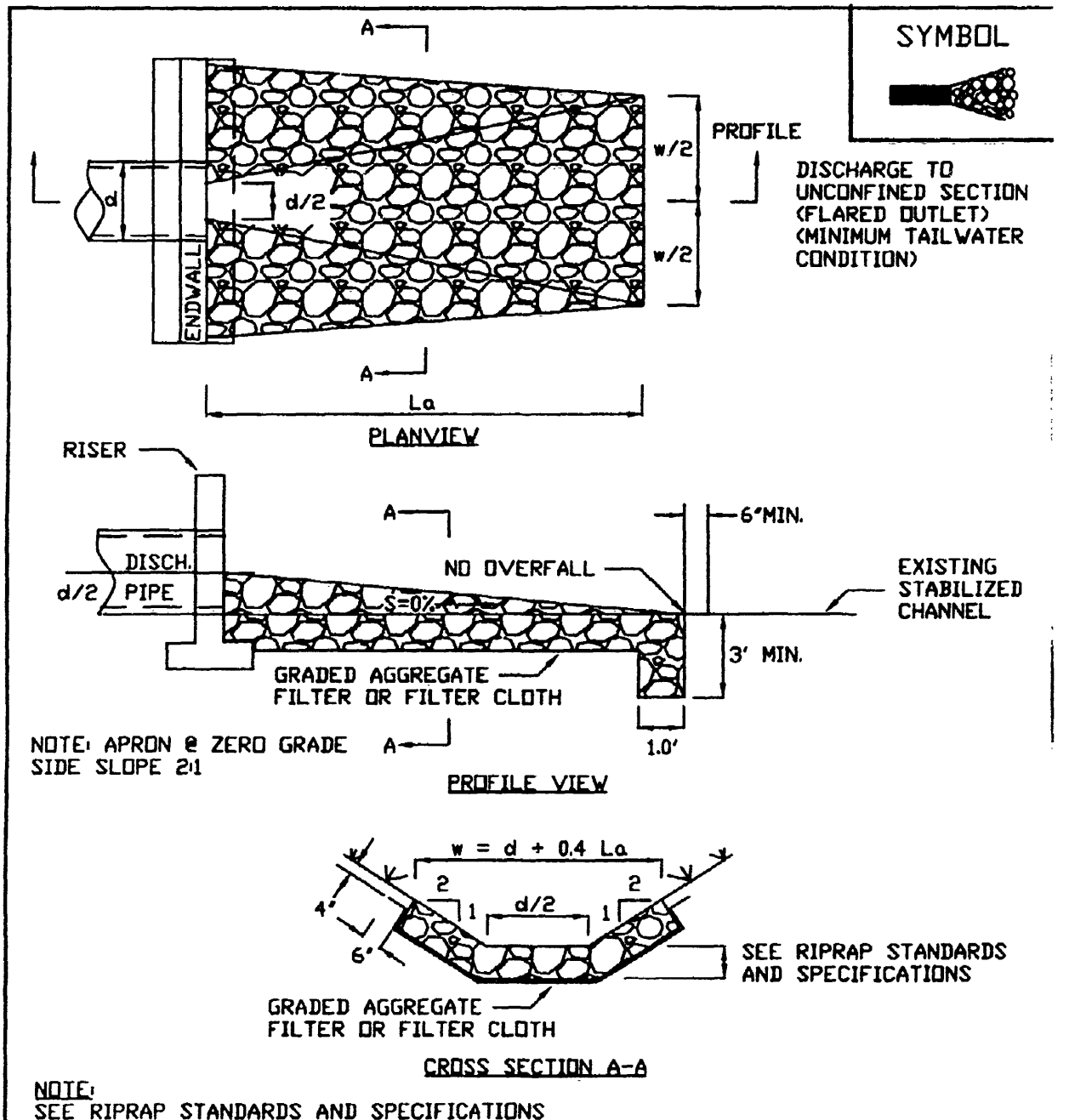


Figure 5B.14
Riprap Outlet Protection Detail (1)



NOTE:
SEE RIPRAP STANDARDS AND SPECIFICATIONS
MINIMUM TAILWATER CONDITIONS

ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE	RIPRAP OUTLET PROTECTION EXAMPLE

Figure 5B.15
Riprap Outlet Protection Detail (2)

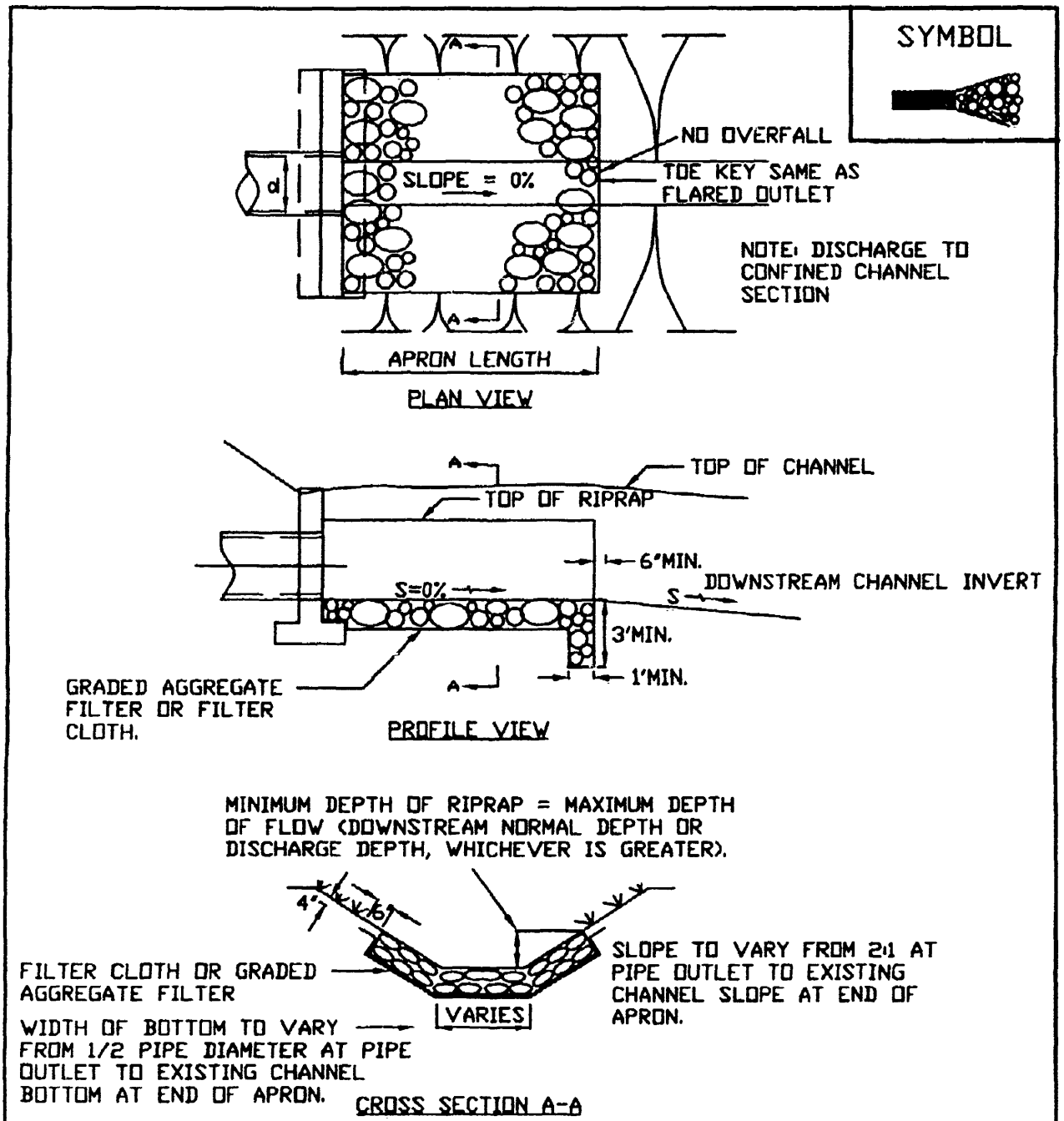


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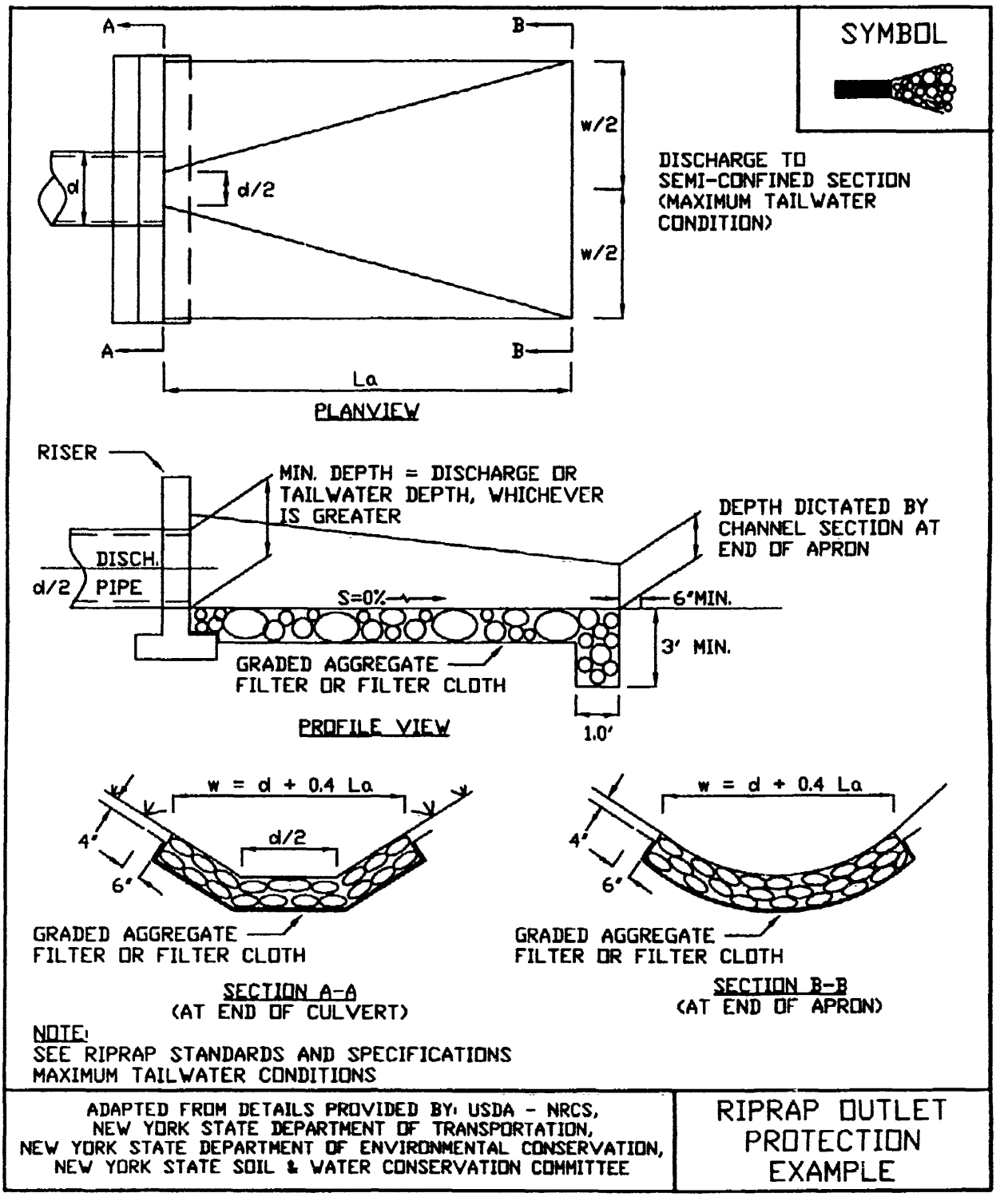
Figure 5B.16
Riprap Outlet Protection Detail (3)



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PONDS & WETLANDS

PLANT LIST

H.1 Ponds and Wetlands

For areas that are to be planted within a stormwater pond, it is necessary to determine what type of hydrologic zones will be created within the pond. The following six zones describe the different conditions encountered in stormwater management facilities. Every facility does not necessarily reflect all of these zones. The hydrologic zones designate the degree of tolerance the plant exhibits to differing degrees of inundation by water.

Table H.5 at the end of this appendix designates appropriate zones for each plant. There may be other zones listed outside of these brackets. The plant materials may occur within these zones, but are not typically found in them. Plants suited for specific hydrologic conditions may perish when those conditions change, exposing the soil, and therefore, increasing the chance for erosion.

Each zone has its own set of plant selection criteria based on the hydrology of the zone, the stormwater functions required of the plant and the desired landscape effect. The hydrologic zones are as follows:

Table H.1 Hydrologic Zones

Zone #	Zone Description	Hydrologic Conditions
Zone 1	Deep Water Pool	1-6 feet deep Permanent Pool
Zone 2	Shallow Water Bench	6 inches to 1 foot deep
Zone 3	Shoreline Fringe	Regularly inundated
Zone 4	Riparian Fringe	Periodically inundated
Zone 5	Floodplain Terrace	Infrequently inundated
Zone 6	Upland Slopes	Seldom or never inundated

Zone 1: Deep Water Area ***(1- 6 Feet)***

Ponds and wetlands both have deep pool areas that comprise Zone 1. These pools range from one to six feet in depth, and are best colonized by submergent plants, if at all.

This pondscaping zone has not been routinely planted for several reasons. First, the availability of plant materials that can survive and grow in this zone is limited, and it is also feared that plants could clog the stormwater facility outlet structure. In many cases, these plants will gradually become established through natural recolonization (e.g., transport of plant fragments from other ponds via the feet and legs of waterfowl). If submerged plant material becomes more commercially available and clogging concerns are addressed, this area can be planted. The function of the planting is to reduce resedimentation and improve oxidation while creating a greater aquatic habitat.

- Plant material must be able to withstand constant inundation of water of one foot or greater in depth.
- Plants may be submerged partially or entirely.
- Plants should be able to enhance pollutant uptake.
- Plants may provide food and cover for waterfowl, desirable insects, and other aquatic life.

Zone 2: Shallow Water Bench ***(Normal Pool To 1 Foot)***

Zone 2 includes all areas that are inundated below the normal pool to a depth of one foot, and is the primary area where emergent plants will grow in a stormwater wetlands. Zone 2 also coincides with the aquatic bench found in stormwater ponds. This zone offers ideal conditions for the growth of many emergent wetland species. These areas may be located at the edge of the pond or on low mounds of earth located below the surface of the water within the pond. When planted, Zone 2 can be an important habitat for many aquatic and nonaquatic animals, creating a diverse food chain. This food chain includes predators, allowing a natural regulation of mosquito populations, thereby reducing the need for insecticidal applications.

- Plant material must be able to withstand constant inundation of water to depths between six inches and one foot deep.
- Plants will be partially submerged.
- Plants should be able to enhance pollutant uptake.
- Plants may provide food and cover for waterfowl, desirable insects and other aquatic life.

Plants will stabilize the bottom of the pond, as well as the edge of the pond, absorbing wave impacts and reducing erosion, when water level fluctuates. Plant also slow water velocities and increase sediment deposition rates. Plants can reduce resuspension of sediments caused by the wind. Plants can also soften the engineered contours of the pond, and can conceal drawdowns during dry weather.

Zone 3: Shoreline Fringe ***(Regularly Inundated)***

Zone 3 encompasses the shoreline of a pond or wetland, and extends vertically about one foot in elevation from the normal pool. This zone includes the safety bench of a pond, and may also be periodically inundated if storm events are subject to extended detention. This zone occurs in a wet pond or shallow marsh and can be the most difficult to establish since plants must be able to withstand inundation of water during storms, when wind might blow water into the area, or the occasional drought during the summer. In order to stabilize the soil in this zone, Zone 3 must have a vigorous cover.

- Plants should stabilize the shoreline to minimize erosion caused by wave and wind action or water fluctuation.
- Plant material must be able to withstand occasional inundation of water. Plants will be partially submerged at this time.
- Plant material should, whenever possible, shade the shoreline, especially the southern exposure. This will help to reduce the water temperature.

- Plants should be able to enhance pollutant uptake.
- Plants may provide food and cover for waterfowl, songbirds, and wildlife. Plants could also be selected and located to control overpopulation of waterfowl.
- Plants should be located to reduce human access, where there are potential hazards, but should not block the maintenance access.
- Plants should have very low maintenance requirements, since they may be difficult or impossible to reach.
- Plants should be resistant to disease and other problems which require chemical applications (since chemical application is not advised in stormwater ponds).

Zone 4: Riparian Fringe ***(Periodically Inundated)***

Zone 4 extends from one to four feet in elevation above the normal pool. Plants in this zone are subject to periodic inundation after storms, and may experience saturated or partly saturated soil conditions. Nearly all of the temporary ED area is included within this zone.

- Plants must be able to withstand periodic inundation of water after storms, as well as occasional drought during the warm summer months.
- Plants should stabilize the ground from erosion caused by run-off.
- Plants should shade the low flow channel to reduce the pool warming whenever possible.
- Plants should be able to enhance pollutant uptake.
- Plant material should have very low maintenance, since they may be difficult or impossible to access.
- Plants may provide food and cover for waterfowl, songbirds and wildlife. Plants may also be selected and located to control overpopulation of waterfowl.
- Plants should be located to reduce pedestrian access to the deeper pools.

Zone 5: Floodplain Terrace ***(Infrequently Inundated)***

Zone 5 is periodically inundated by flood waters that quickly recedes in a day or less. Operationally, Zone 5 extends from the maximum two year or Cpv water surface elevation up to the 10 or 100 year maximum water surface elevation. Key landscaping objectives for Zone 5 are to stabilize the steep slopes characteristic of this zone, and establish a low maintenance, natural vegetation.

- Plant material should be able to withstand occasional but brief inundation during storms, although typical moisture conditions may be moist, slightly wet, or even swing entirely to drought conditions during the dry weather periods.
- Plants should stabilize the basin slopes from erosion.
- Ground cover should be very low maintenance, since they may be difficult to access on steep slopes or if frequency of mowing is limited. A dense tree cover may help reduce maintenance and discourage resident geese.
- Plants may provide food and cover for waterfowl, songbirds, and wildlife.

- Placement of plant material in Zone 5 is often critical, as it often creates a visual focal point and provides structure and shade for a greater variety of plants.

Zone 6: Upland Slopes *(Seldom or Never Inundated)*

The last zone extends above the maximum 100 year water surface elevation, and often includes the outer buffer of a pond or wetland. Unlike other zones, this upland area may have sidewalks, bike paths, retaining walls, and maintenance access roads. Care should be taken to locate plants so they will not overgrow these routes or create hiding places that might make the area unsafe.

- Plant material is capable of surviving the particular conditions of the site. Thus, it is not necessary to select plant material that will tolerate any inundation. Rather, plant selections should be made based on soil condition, light, and function within the landscape.
- Ground covers should emphasize infrequent mowing to reduce the cost of maintaining this landscape.
- Placement of plants in Zone 6 is important since they are often used to create a visual focal point, frame a desirable view, screen undesirable views, serve as a buffer, or provide shade to allow a greater variety of plant materials. Particular attention should be paid to seasonal color and texture of these plantings.

H.2 Bioretention

Planting Soil Bed Characteristics

The characteristics of the soil for the bioretention facility are perhaps as important as the facility location, size, and treatment volume. The soil must be permeable enough to allow runoff to filter through the media, while having characteristics suitable to promote and sustain a robust vegetative cover crop. In addition, much of the nutrient pollutant uptake (nitrogen and phosphorus) is accomplished through adsorption and microbial activity within the soil profile. Therefore, the soils must balance soil chemistry and physical properties to support biotic communities above and below ground.

The planting soil should be a sandy loam, loamy sand, loam (USDA), or a loam/sand mix (should contain a minimum 35 to 60% sand, by volume). The clay content for these soils should by less than 25% by volume. Soils should fall within the SM, or ML classifications of the Unified Soil Classification System (USCS). A permeability of at least 1.0 feet per day (0.5"/hr) is required (a conservative value of 0.5 feet per day is used for design). The soil should be free of stones, stumps, roots, or other woody material over 1" in diameter. Brush or seeds from noxious weeds. Placement of the planting soil should be in lifts of 12 to 18", loosely compacted (tamped lightly with a dozer or backhoe bucket). The specific characteristics are presented in Table H.2.

Table H.2 Planting Soil Characteristics

Parameter	Value
PH range	5.2 to 7.00
Organic matter	1.5 to 4.0%
Magnesium	35 lbs. per acre, minimum
Phosphorus (P_2O_5)	75 lbs. per acre, minimum
Potassium (K_2O)	85 lbs. per acre, minimum
Soluble salts	• •500 ppm
Clay	10 to 25%
Silt	30 to 55%
Sand	35 to 60%

Mulch Layer

The mulch layer plays an important role in the performance of the bioretention system. The mulch layer helps maintain soil moisture and avoid surface sealing which reduces permeability. Mulch helps prevent erosion, and provides a micro-environment suitable for soil biota at the mulch/soil interface. It also serves as a pretreatment layer, trapping the finer sediments which remain suspended after the primary pretreatment.

The mulch layer should be standard landscape style, single or double, shredded hardwood mulch or chips. The mulch layer should be well aged (stockpiled or stored for at least 12 months), uniform in color, and free of other materials, such as weed seeds, soil, roots, etc. The mulch should be applied to a maximum depth of three inches. Grass clippings should not be used as a mulch material.

Planting Plan Guidance

Plant material selection should be based on the goal of simulating a terrestrial forested community of native species. Bioretention simulates an ecosystem consisting of an upland-oriented community dominated by trees, but having a distinct community, or sub-canopy, of understory trees, shrubs and herbaceous materials. The intent is to establish a diverse, dense plant cover to treat stormwater runoff and withstand urban stresses from insect and disease infestations, drought, temperature, wind, and exposure.

The proper selection and installation of plant materials is key to a successful system. There are essentially three zones within a bioretention facility (Figure H.1). The lowest elevation supports plant species adapted to standing and fluctuating water levels. The middle elevation supports a slightly drier group of plants, but still tolerates fluctuating water levels. The outer edge is the highest elevation and generally supports plants adapted to dryer conditions. When using Table A.5 to identify species, use the following guideline:

Lowest Zone: Zones 2-3

Middle Zone: Zones 3-4

Outer Zone: Zones 5-6

The layout of plant material should be flexible, but should follow the general principals described in Table H.3. The objective is to have a system which resembles a random and natural plant layout, while maintaining optimal conditions for plant establishment and growth.

Figure H.1 Planting Zones for Bioretention Facilities

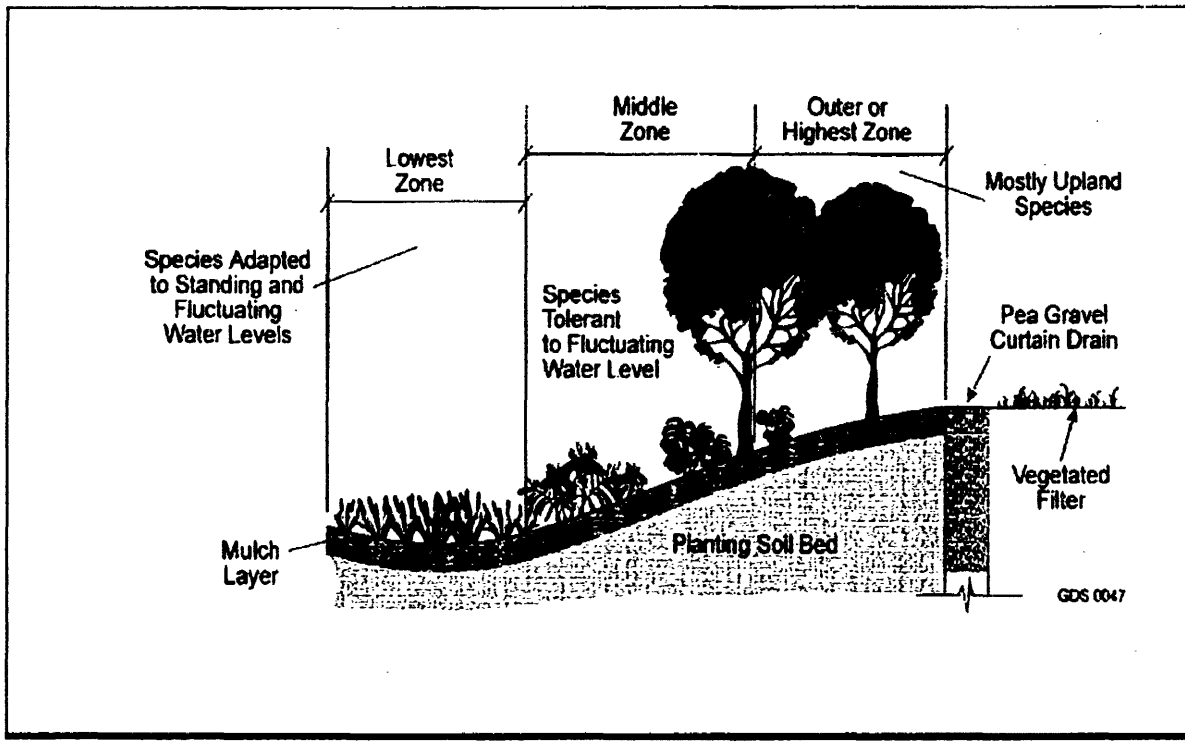

Table H.3 Planting Plan Design Considerations
Native plant species should be specified over exotic or foreign species.
Appropriate vegetation should be selected based on the zone of hydric tolerance (see Figure H.1).
Species layout should generally be random and natural.
A canopy should be established with an understory of shrubs and herbaceous materials.
Woody vegetation should not be specified in the vicinity of inflow locations.
Trees should be planted primarily along the perimeter of the bioretention area.
Urban stressors (e.g., wind, sun, exposure, insect and disease infestation, drought) should be considered when laying out the planting plan.
Noxious weeds should not be specified.
Aesthetics and visual characteristics should be a prime consideration.
Traffic and safety issues must be considered.
Existing and proposed utilities must be identified and considered.

Plant Material Guidance

Plant materials should conform to the American Standard Nursery Stock, published by the American Association of Nurserymen, and should be selected from certified, reputable nurseries. Planting specifications should be prepared by the designer and should include a sequence of construction, a description of the contractor's responsibilities, a planting schedule and installation specifications, initial maintenance, and a warranty period and expectations of plant survival. Table H.4 presents some typical issues for planting specifications.

Table H.4 Planting Specification Issues for Bioretention Areas	
Specification Element	**Elements**
Sequence of Construction	Describe site preparation activities, soil amendments, etc.; address erosion and sediment control procedures; specify step-by-step procedure for plant installation through site clean-up.
Contractor's Responsibilities	Specify the contractors responsibilities, such as watering, care of plant material during transport, timeliness of installation, repairs due to vandalism, etc.
Planting Schedule and Specifications	Specify the materials to be installed, the type of materials (e.g., B&B, bare root, containerized); time of year of installations, sequence of installation of types of plants; fertilization, stabilization seeding, if required; watering and general care.
Maintenance	Specify inspection periods; mulching frequency (annual mulching is most common); removal and replacement of dead and diseased vegetation; treatment of diseased trees; watering schedule after initial installation (once per day for 14 days is common); repair and replacement of staking and wires.
Warranty	Specify the warranty period, the required survival rate, and expected condition of plant species at the end of the warranty period.

Table H.5 Native Plant Guide for Stormwater Management Areas (NY)						
Plant Name	**Zone**	**Form**	**Available**	**Inundation Tolerance**	**Wildlife Value**	**Notes**
Trees and Shrubs						
American Elm *(Ulmus americana)*	4,5,6	Dec. Tree	yes	Irregular-seasonal saturation	High. Food (seeds,browsing), cover, nesting for birds & mammals	Susceptible to diesease (short-lived). Sun to full shade, tolerates drought and wind/ice damage.
Arrowwood Viburrium *(Viburrium dentatum)*	3,4	Dec. Shrub	yes	yes	High. Songbirds and mammals	Grows best in sun to partial shade
Bald Cypress *(Taxodium distichum)*	3,4	Dec. Tree	yes	yes	Little food value, but good perching site for waterfowl	Forested Coastal Plain. North of normal range. Tolerates drought.
Bayberry *(Myrica pensylvanica)*	4,5,6	Dec. Shrub	yes	yes	High. Nesting, food, cover. Berries last into winter	Coastal Plain only. Roots fix N_2 Tolerates slightly acidic soils.
Black Ash *(Fraxinus nigra)*	3,4,5	Dec. Tree	yes	Irregular-seasonal saturation	High. Food (seeds, sap), cover, nesting for birds & mammals. Fruit persists in winter	Rapid growth. Requires full sun. Susceptible to wind/ice damage & disease. Tolerates drought and infrequent flooding by salt water.
Black Cherry *(Prunus serotina)*	5,6	Dec. Tree	yes	no	High. Food	Moist soils or wet bottomland areas
Blackgum or Sourgum *(Nyssa sylvatica)*	4,5,6	Dec. Tree	yes	yes	High. Songbirds, egrets, herons, raccoons, owls	Can be difficult to transplant. Prefers sun to partial shade
Black Willow *(Salix nigra)*	3,4,5	Dec. Tree	yes	yes	High. Browsing and cavity nesters.	Rapid growth, stabilizes stream-banks. Full sun
Buttonbush *(Cepahlanthus occidentalis)*	2,3,4,5	Dec. Shrub	yes	yes	High. Ducks and shorebirds. Seeds, nectar and nesting.	Full sun to partial shade. Will grow in dry areas.
Common Spice Bush *(Lindera benzoin)*	3,4,5	Dec. Shrub	yes	yes	Very high. Songbirds	Shade and rich soils. Tolerates acidic soils. Good understory species

Table H.5 Native Plant Guide for Stormwater Management Areas (NY)						
Plant Name	**Zone**	**Form**	**Available**	**Inundation Tolerance**	**Wildlife Value**	**Notes**
Eastern Cottonwood *(Populus deltoides)*	4,5	Dec. Tree	yes	yes	Moderate. Cover, food.	Shallow rooted, subject to windthrow. Invasive roots. Rapid growth.
Eastern Hemlock *(Tsuga canadensis)*	5,6	Conif. Tree	yes	yes	Moderate. Mostly cover and some food	Tolerates all sun/shade conditions. Tolerates acidic soil.
Eastern Red Cedar *(Juniperus virginiana)*	4,5,6	Conif. Tree	yes	no	High. Fruit for birds. Some cover.	Full sun to partial shade. Common in wetlands, shrub bogs and edge of stream
Elderberry *(Sambucus canadensis)*	3,4,5,6	Dec. Shrub	yes	yes	Extremely high. Food and cover, birds and mammals.	Full sun to partial shade.
Green Ash, Red Ash *(Fraxinus pennsylvania)*	4,5	Dec. Tree	yes	yes	Moderate. Songbirds.	Rapid growing streambank stabilizer. Full sun to partial shade.
Hackenberry *(Celtis occidentalis)*	5,6	Dec. Tree	yes	some	High. Food and cover	Full sun to partial shade.
Larch, Tamarack *(Larix latricina)*	3,4	Conif. Tree	no	yes	Low. Nest tree and seeds.	Rapid initial growth. Full sun, acidic boggy soil.
Pin Oak *(Quercus palustris)*	3,4,5,6	Dec. Tree	yes	yes	High. Tolerates acidic soil	Gypsy moth target. Prefers well drained, sandy soils.
Red Choke Berry *(Pyrus arbutifolia)*	3,4,5	Dec. Shrub	no	yes	Moderate. Songbirds.	Bank stabilizer. Partial sun.
Red Maple *(Acer rubrum)*	3,4,5,6	Dec. Tree	yes	yes	High seeds and browse. Tolerates acidic soil.	Rapid growth.
River Birch *(Betula nigra)*	3,4,5	Dec. Tree	yes	yes	Low. Good for cavity nesters.	Bank erosion control. Full sun.
Shadowbush, Serviceberry *(Amelanchier*	4,5,6	Dec. Shrub	yes	yes	High. Nesting, cover, food. Birds and	Prefers partial shade. Common in forested

Table H.5 Native Plant Guide for Stormwater Management Areas (NY)						
Plant Name	**Zone**	**Form**	**Available**	**Inundation Tolerance**	**Wildlife Value**	**Notes**
canadensis)					mammals.	wetlands and upland woods.
Silky Dogwood *(Cornus amomium)*	3,4,5	Dec. Shrub	yes	yes	High. Songbirds, mammals.	Shade and drought tolerant. Good bank stabilizer.
Slippery Elm *(Ulnus rubra)*	3,4,5	Dec. Tree	rare	yes	High. Food (seeds, buds) for birds & mammals (browse). Nesting	Rapid growth, no salinity tolerance. Tolerant to shade and drought.
Smooth Alder *(Alnus serrulata)*	3,4,5	Dec. Tree	no	yes	High. Food, cover.	Rapid growth. Stabilizes streambanks.
Speckled Alder *(Alnus rugosa)*	3,4	Dec. Shrub	yes	yes	High. Cover, browse for deer, seeds for bird.	
Swamp White Oak *(Quercus bicolor)*	3,4,5	Dec. Tree	yes	yes	High. Mast	Full sun to partial shade. Good bottomland tree.
Swamp Rose *(Rosa Palustrus)*	3,4	Dec. Shrub		Irregular, seasonal, or regularly saturated	High. Food (hips) for birds including turkey, ruffed grouse and mammals. Fox cover.	Prefers full sun. Easy to establish. Low salt tolerance.
Sweetgum *(Liquidambar styraciflua)*	4,5,6	Dec. Tree	yes	yes	Moderate. Songbirds	Tolerates acid or clay soils. Sun to partial shade.
Sycamore *(Platanus occidentalis)*	4,5,6,	Dec. Tree	yes	yes	Low. Food, cavities for nesting.	Rapid growth. Common in floodplains and alluvial woodlands.
Tulip Tree *(Liriodendron tulipifera)*	5,6	Dec. Tree	yes	no	Moderate. Seeds and nest sites	Full sun to partial shade. Well drained soils. Rapid growth.
Tupelo *(Nyssa sylvatica vari biflora)*	3,4,5	Dec. Tree	yes	yes	High. Seeds and nest sites	Ornamental

Table H.5 Native Plant Guide for Stormwater Management Areas (NY)						
Plant Name	**Zone**	**Form**	**Available**	**Inundation Tolerance**	**Wildlife Value**	**Notes**
White Ash *(Fraxinus americana)*	5,6	Dec. Tree	yes	no	High. Food	All sunlight conditions. Well drained soils.
Winterberry *(Ilex verticillata)*	3,4,5	Dec. Shrub	yes	yes	High. Cover and fruit for birds. Holds berries into winter.	Full sun to partial shade. Seasonally flooded areas.
Witch Hazel *(Hamamelis virginiana)*	4,5	Dec. Shrub	yes	no	Low. Food for squirrels, deer, and ruffed grouse.	Prefers shade. Ornamental.
Herbaceous Plants						
Arrow arum *(Peltandra virginica)*	2,3	Emergent	yes	up to 1 ft.	High. Berries are eaten by wood ducks.	Full sun to partial shade.
Arrowhead, Duck Potato *(Saggitaria latifolia)*	2,3	Emergent	yes	up to 1 ft.	Moderate. Tubers and seeds eaten by ducks.	Aggressive colonizer.
Big Bluestem (*Andropogon gerardi*)	4,5	Perimeter	yes	Irregular or seasonal inundation.	High. Seeds for songbirds. Food for deer	Requires full sun.
Birdfoot deervetch (*Lotus Corniculatus*)	4,5,6	Perimeter	yes	Infrequent inundation	High. Food for birds.	Full sun. Nitrogen fixer.
Blue Flag Iris *(Iris versicolor)*	2,3	Emergent	yes	Regular or permanently, up to ½ ft or saturated	Moderate. Food muskrat and wildfowl. Cover, marshbirds	Slow growth. Full sun to partial shade. Tolerates clay. Fresh to moderately brackish water.
Blue Joint (*Calamagrotis canadensis*)	2,3,4	Emergent	yes	Regular or permanent inundation up to 0.5 ft.	Moderate. Food for game birds and moose.	Tolerates partial shade
Broomsedge *(Andropogon virginicus)*	2,3	Perimeter	yes	up to 3 in.	High. Songbirds and browsers. Winter food and cover.	Tolerant of fluctuation water levels & partial shade.
Bushy Beardgrass *(Andropogon glomeratus)*	2,3	Emergent	yes	up to 1 ft.		Requires full sun.
Cardinal flower (*Lobelia cardinalis*)	4,5,6	Perimeter	yes	Some. Tolerates saturation up to 100% of season.	High. Nectar for hummingbird, oriole, butterflies.	Tolerates partial shade

Table H.5 Native Plant Guide for Stormwater Management Areas (NY)						
Plant Name	**Zone**	**Form**	**Available**	**Inundation Tolerance**	**Wildlife Value**	**Notes**
Cattail *(Typha sp.)*	2,3	Emergent	yes	up to 1 ft.	Low. Except as cover	Aggressive. May eliminate other species. Volunteer. High pollutant treatment
Coontail *(Ceratophyllum demersum)*	1	Submergent	no	yes	Low food value. Good habitat and shelter for fish and invertebrates.	Free floating SAV. Shade tolerant. Rapid growth.
Common Three-Square *(Scirpus pungens)*	2	Emergent	yes	up to 6 in.	High. Seeds, cover. Waterfowl and fish.	High metal removal.
Duckweed *(Lemma sp.)*	1,2	Submergent/ Emergent	yes	yes	High. Food for waterfowl and fish.	High metal removal.
Fowl mannagrass (*Glyceria striata*)	4,5	Perimeter	yes	Irregular or seasonal inundation	High. Food for waterfowl, muskrat, and deer.	Partial to full shade.
Hardstem Bulrush *(Scirpus acutus)*	2	Emergent	yes	up to 3 ft.	High. Cover, food (achenes, rhizomes) ducks, geese, muskrat, fish. Nesting for bluegill and bass.	Quick to establish, fresh to brackish. Good for sediment stabilization and erosion control.
Giant Burreed *(Sparganium eurycarpum)*	2,3	Emergent	rare	Regular to permanently inundated. up to 1 ft.	High. Food (seeds, plant) waterfowl, beaver & other mammals. Cover for marshbirds, waterfowl.	Rapid spreading . Tolerates partial sun. Good for shoreline stabilization.. Salinity <0.5 ppt
Lizard's Tail *(Saururus cernuus)*	2	Emergent	yes	up to 1 ft.	Low, except wood ducks.	Rapid growth. Shade tolerant
Long-leaved Pond Weed *(Potamogeton nodosus)*	1,2	Rooted submerged aquatic	yes	up to 1-6 ft. depending on turbidity	High. Food (seeds, roots) waterfowl, aquatic fur-bearers, deer, moose. Habitat for fish	Rapid spread. Salinity <0.5 ppt. Flowers float on surface, Aug.-Sept.

Table H.5 Native Plant Guide for Stormwater Management Areas (NY)						
Plant Name	**Zone**	**Form**	**Available**	**Inundation Tolerance**	**Wildlife Value**	**Notes**
Marsh Hibiscus *(Hibiscus moscheutos)*	2,3	Emergent	yes	up to 3 in.	Low. Nectar.	Full sun. Can tolerate periodic dryness.
Pickerelweed *(Pontederia cordata)*	2,3	Emergent	yes	up to 1 ft.	Moderate. Ducks. Nectar for butterflies.	Full sun to partial shade.
Pond Weed, Sago *(Potamogeton pectinatus*	1	Submergent	yes	yes	Extremely high. Waterfowl, marsh and shorebirds.	Removes heavy metals.
Redtop (*Agrostis alba*)	3,4,5	Perimeter	yes	Up to 25% of season	Moderate. Rabbits and some birds.	Quickly established but not highly competitive.
Rice Cutgrass *(Leersia oryzoides)*	2,3	Emergent	yes	up to 3 in.	High. Food and cover.	Full sun although tolerant of shade. Shoreline stabilization.
Sedges *(Carex spp.)*	2,3	Emergent	yes	up to 3 in.	High waterfowl, songbirds.	Many wetland and upland species.
Tufted Hairgrass (*Deschampsia caespitosa*)	3,4,5	Perimeter	yes	Regular to irregular inundation.	High.	Full sun. May become invasive.
Soft-stem Bulrush *(Scirpus validus)*	2,3	Emergent	yes	up to 1 ft.	Moderate. Good cover and food.	Full sun. Aggressive colonizer. High pollutant removal.
Smartweed *(Polygonum spp.)*	2,3,4	Emergent	yes	up to 1 ft.	High. Waterfowl, songbirds. Seeds and cover.	Fast colonizer. Avoid weedy aliens such as *P. perfoliatum.*
Soft Rush *(Juncus effusus)*	2,3,4	Emergent	yes	up to 3 in.	Moderate.	Tolerates wet or dry conditions.
Spatterdock *(Nuphar luteum)*	2	Emergent	yes	up to 3 ft.	Moderate for food but high for cover.	Fast colonizer. Tolerant of fluctuating water levels.
Switchgrass *(Panicum virgatum)*	2,3,4,5,6	Perimeter	yes	up to 3 in.	High. Seeds, cover for waterfowl, songbirds.	Tolerates wet/dry conditions.

Table H.5 Native Plant Guide for Stormwater Management Areas (NY)						
Plant Name	**Zone**	**Form**	**Available**	**Inundation Tolerance**	**Wildlife Value**	**Notes**
Sweet Flag *(Acorus calamus)*	2,3	Herbaceous	yes	up to 3 in.	Low.	Tolerant of dry periods. Not a rapid colonizer. Tolerates acidic conditions.
Waterweed *(Elodea canadensis)*	1	Submergent	yes	yes	Low.	Good water oxygenator. High nutrient, copper, manganese and chromium removal.
Wild Celery *(Valisneria americana)*	1	Submergent	yes	yes	High. Food for waterfowl. Habitat for fish and invertebrates.	Tolerant of murkey water and high nutrient loads.
Wild Rice *(Zizania aquatica)*	2	Emergent	yes	up to 1 ft.	High. Food for birds.	Prefers full sun
Wool Grass *(Scirpus cyperinus)*	2,3	Emergent	yes	Irregularly to seasonally indundated	Moderate. Cover, Food.	Requires full sun. Can tolerate acidic soils, drought. Colonizes disturbed areas, moderate growth.

SWPPP REPORT REQUIREMENTS

Part III.D.2.a.1
Provide Background information about the scope of the project, including the location, type and size of project

- Background information about the project is located on page 1, under "Project Description", of this SWPPP.

Part III.D.2.a.2
Provide a site map/construction drawing(s) for the project, including a general location map. At a minimum, the site map should show the total site area; all improvements; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s), wetlands and drainage patterns that could be affected by the construction activity; existing and final slopes; locations of off-site material, waste, borrow or equipment storage areas; and location(s) of the stormwater discharge(s)

- A site map for the project has been included as a map insert in the SWPPP.

Part III.D.2.a.3
Provide a description of the soil(s) present at the site

- A description of the soils on the site has been provided in the Stormwater Management Report which is part of this SWPPP.

Part III.D.2.a.4
Provide a construction phasing plan describing the intended sequence of construction activities, including clearing and grubbing, excavation and grading, utility and infrastructure installation and any other activity at the site that results in soil disturbance. Consistent with the New York Guidelines for Urban Erosion and Sediment Control, there shall not be more than five(5) acres of disturbed soil at any one time without prior written approval from the Department.

- Construction phasing is located on page 4 under the section titled "Construction Sequence Schedule"

Part III.D.2.a.5
Provide a description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a pollutant source in the storm water discharges.

- A description of the pollution prevention measures has been provided on page 7 under the section titled "Pollution Prevention Measures"

Part III.D.2.a.6
Provide a description of construction and waste materials expected to be stored on-site with updates as appropriate, and a description of controls to reduce pollutants from these materials including storage practices to minimize exposure of the materials to storm water, and spill prevention and response.

- A description of the construction and waste materials to be stored on site has been provided on page 7 under the section titled "Storage of Construction and Waste Materials".

Part III.D.2.a.7
Describe the temporary and permanent structural and vegetative measures to be used for soil stabilization, runoff control and sediment control for each stage of the project from initial land clearing and grubbing to project close-out.

- A description of the temporary and permanent structural and vegetative measures has been provided on page 3 under the section titled "Implementation Schedule for Erosion and Sediment Control Practice".

Part III.D.2.a.8
Identify and show on a site map/construction drawing(s) the specific location(s), and length(s) of each erosion and sediment control practice.

- The location(s) and length(s) of each erosion and sediment control practice have been provided on a Map insert titled "Erosion and Sediment Control Plan".

Part III.D.2.a.9
Provide the dimensions, material specifications and installation details for all erosion and sediment control practices including the siting and sizing of any temporary sediment basins.

- The dimension and material specifications and installation details have been provided. This information has been included in the SWPPP report sections and Map inserts.

Part III.D.2.a.10
Identify temporary practices that will be converted to permanent control measures.

- The identification of temporary practices that will be converted to permanent control measures has been listed on page 3 of this SWPPP under a section titled "Temporary Practice Conversion to Permanent Control".

Part III.D.2.a.11
Provide an implementation schedule for staging temporary erosion and sediment control practices, including the timing of initial placement and the duration that each practice should remain in place.

- An implementation schedule for staging temporary erosion and sediment control practices has been provided on page 3 of this SWPPP under a section titled "Implementation Schedule for Erosion and Sediment Control Practices"

Part III.D.2.a.12
Provide a maintenance schedule to ensure continuous and effective operation of the erosion and sediment control practices.

- A maintenance schedule of the erosion and sediment control practices has been provided on page 6 of this SWPPP under a section titled "Maintenance Schedule for Erosion and Sediment Control"

Part III.D.2.a.13
Provide the names(s) of the receiving water(s)

- The name(s) of the receiving water has been provided on page 1 of this SWPPP under a section titled "Existing Hydrology"

Part III.D.2.a.14
Provide a delineation of SWPPP implementation responsibilities for each part of the site

- The delineation of SWPPP implementation responsibilities has been provided on page 3 of this SWPPP under a section titled "SWPPP Implementation"

Part III.D.2.a.15
Provide a description of structural practices to divert flows from exposed soils, store flows, or otherwise limit runoff and the discharge of pollutants from exposed areas of the site to the degree attainable.

- A description of structural practices to divert flows from exposed soils has been provided on page 4 of this SWPPP under a section titled "Structural Practices to Divert Flows"

Part III.D.2.a.16
Provide any existing data that describes the stormwater runoff characteristics of the site.

- Existing data describing the stormwater runoff characteristics of the site has been provided on page 1 of this SWPPP under a section titled "Existing Hydrology"

Part III.D.2.b.1
Provide all the information required in Parts III.D.2.a.1-16

- All information required in Parts III.D.2.a.1-6 has been provided. See items above.

Part III.D.2.b.2
Provide a description of each post-construction stormwater control practice

- A description of each post-construction stormwater control practice has been provided on page 4 of this SWPPP under a section titled "Post-Construction Control practices"

Part III.D.2.b.3
Identify and show on a site map/construction drawing(s) the specific location(s) and size(s) of each post-construction stormwater control practice.

- Each post-construction stormwater control practice has been identified on a Map Insert title Post Development Watershed.

Part III.D.2.b.4
Provide a hydrologic and hydraulic analysis for all structural components of the stormwater control system for the applicable design storms.

- A hydrologic and hydraulic analysis has been provided in this SWPPP under a section titled "Stormwater Management Report"

Part III.D.2.b.5
Provide a comparison of post-development stormwater runoff conditions with pre-development conditions.

- A comparison of post-development stormwater runoff conditions with pre-development condition has been provided in this SWPPP under a section titled Hydrology within the "Stormwater Management Report"

Part III.D.2.b.6
Provide the dimension, material specifications and installation details for each post-construction stormwater control practice.

The dimension, material specifications and installation details for each post-construction stormwater control practice has been provided on a Map Insert tiled "Stormwater Control Practice Plan & Details"

Part III.D.2.b.7
Provide a maintenance schedule to ensure continuous and effective operation of each post construction stormwater control practice.

A maintenance schedule of each post construction stormwater control practice has been provided in this SWPPP under a section titled "Long-term Maintenance Plan for Stormwater Practices"

STORMWATER MANAGEMENT REPORT

INSERT REPORT DATED APRIL 25

STORMWATER MANAGEMENT REPORT
JERRY'S CLIMATE CONTROL
OUR JOB NO. 2647
TOWN OF NEW WINDSOR
ORANGE COUNTY, NEW YORK

STORMWATER MANAGEMENT REPORT

Jerry's Climate Control

Our Job No. 2647

Town of New Windsor

Orange County, New York

March 29, 2007

REVISED:

April 25, 2007

Jerry's Climate Control

Project Description

Jerry's Climate Control is located on a 3.0 acre lot identified as Section 4 Block 3 lot 19 and is located on Temple Hill Rd. across from Hempstead Rd. in the Town of New Windsor, Orange County, NY.

The project is a 4 story self storage facility with associated parking. The development results in the increase of impervious area and will be covered under the NYSDEC General Permit for Stormwater Discharges from Construction Activity GP-02-01, pursuant to section 402 of the "Clean Water Act" and issued in accordance with NY State's Environmental Conservation Law. The site is part of the New Windsor MS4. This site will not discharge to any regulated "TMDL" or water on the 303(d) list.

Existing Hydrology

Stormwater runoff presently discharges as sheet flow onto the adjacent parcel and into the roadside swale in the states ROW on NY Route 300. Flow eventually discharges into Silver Stream, to the west. The watershed is part of the Moodna Creek Basin. The soils present on site are Mardin, Alden, Erie, and Udorthents which are Group C and D soils.

Post Development Hydrology

The hydrology and drainage flow will not substantially change after redevelopment. Site runoff will be collected and discharged into a 30" cmp culvert that runs under NYS Route 300. This SWPPP will meet or exceed the requirements to provide for the capture and treatment of the water quality volume which is a result of runoff from the redeveloped area and water quantity control of the channel protection, overbank flood and extreme flood storms.

Design Standards

This SWPPP has been prepared by a licensed NY professional engineer. The design is in accordance with the "New York Standards and Specifications for Erosion and Sediment Control" and "New York State Stormwater Management Design Manual".

Methodology

Pre- and post-development runoff conditions from the site were analyzed in accordance with NYSDEC Stormwater Design Manual.

1. Intellisolve's Hydraflow program was used to determine pre and post development runoffs from the watersheds. TR55 method was used. Watersheds were analyzed for the 90% , 1year, 10 year, and 100 year rainfall events.
2. Soils type delineations were taken from "Soils Survey of Orange County, New York", USDA Soil Conservation Service, October 1981.
4. Water Quality requirements are met through employment of an approved practice listed in Table 5.1 of the Stormwater Design Manual. A Pocket Pond has been provided.
5. WQv volumes will be held within the Pond.
6. 24 hour extended detention of the Cpv volume has been provided. 7. Overbank Flood Control (Qp) requirements have been satisfied by attenuating the post development 10-year, 24 hour peak discharge rate to predevelopment rates.
8. Extreme Flood Control (Qf) requirements have been satisfied by attenuating the post development 100-year, 24 hour peak discharge rate to predevelopment rates.
9. Storm drainage system and collection swales are sized for a 10 year design storm.
10. The existing 30" culvert was analyzed with a headwater elevation set at the edge of pavement of Route 300. The culvert meets NYSDOT 50 year design and also has additional capacity for the 100 year design.

STORMWATER MANAGEMENT

Impact Analysis of Gateway Medical Plaza Development.

Jerry's Climate Control site (3.0 acres) lies within watershed 1 (4.70 acres). The hydrologic soil group is 'C' and 'D'.

The proposed stormwater management plan provides water quality treatment, protect downstream channels, attenuate the overbank flood and extreme storm peak discharge.

Existing Condition

The SCS soil classifications for the site are primarily C/D Hydrological Group.
The existing ground cover is primarily woods and open space in fair condition.

One discharge point, located approximately 160 feet north, at the outfall of an existing collection swale and road catch basin was analyzed. The outfall discharges into Silver stream which is a second order stream that flows into the Moodna Creek.

Watershed 1-	4.70 Acres
Woods -	3.05 Acres
Open Area -	0.88 Acres
Impervious Area -	0.77 Acres

Outfall-Point A

Hydrologic Group- Erie Group C, Mardin Group C, Alden Group D, Udorthents

Developed Condition

The post-development analysis of watershed 1 analyzes 2 flow-paths. The first flow-path coincides with the existing flow path condition and is associated with the undisturbed area. The second flow-path follows runoff into the development's storm drain and into the proposed pond.

The outfall discharges into Silver stream which is a second order stream that flows into the Moodna Creek.

The 30" culvert crossing NYS Route 300 was analyzed (See Culvert Analysis)

Watershed 1-	4.70 Acres
Land disturbance-	3.00 Acres
Impervious Area	2.78 Acres
Open Space	1.92 Acres
Outfall Points A & B	

Hydrologic Group- Erie Group C, Mardin Group C, Alden Group D, Udorthents

Sub watershed 'A'

Impervious Area	1.84 Acres
Open Space	0.81 Acres
Outfall Point 'B'	

Sub watershed 'B'

Impervious Area	0.94 Acres
Open Space	1.11 Acres
Outfall Point 'A'	

TABLE 1

Soils

Soil		Depth to Bedrock	High Water	Hydrologic Group	Infiltration Rate
AC	Alden	60"+	0'-0.5'	D	Slow
ESB	Erie	60"+	0.5'-1.5'	C	Slow
MdB	Mardin	60"+	1.5'-2'	C	Slow
UH	Udorthents	60"+	NA	NA	Moderate

Hydrology

The annual average precipitation at the nearby West Point gage is 48.7 inches, varying from a minimum of 34.7 inches to a maximum of 65.0 inches. Total average annual snowfall is approximately 30 inches.

The receiving storm drain flows south. Flow eventually outfalls into the Moodna Creek which is located 1 mile southeast of the site. The density of residential homes is low, adjacent to the stream. The Moodna creek has a history of flooding. Therefore increasing the flow into the receiving stream may cause damage to structures downstream. The proposed stormwater management plan reduces flow in the stream.

The proposed Stormwater Management Plan meets water quality treatment requirements as specified by the NYSDEC. This has been accomplished by holding the 90% runoff. Channel protection has been provided by 24 hour extended detention. The peak discharge for the overbank flood and extreme storm has been attenuated to predevelopment rates. Table 2 summarizes peak flow rates.

TABLE 2

Point 'A' = Route 300 Catch Basin 160' north of site

Point 'B' = Route 300 Catch Basin at Site's Southern Boundary (HW for 30" CMP)

Point 'A'	1 Year (cfs)	10Year (cfs)	50 Year (cfs)	100 Year (cfs)
Pre Development Point 'A'	2.56	8.64	12.50	15.12
Post Development	1.98	4.95	6.69	7.85

Point 'B'	1 Year (cfs)	10Year (cfs)	50 Year (cfs)	100 Year (cfs)
Pre Development	NA	NA	NA	NA
Post Development (Additional -Flow)	0	0.15	0.89	2.18

Culvert Analysis

The capacity of the existing 30" culvert, which crosses NY Route 300, was analyzed for both inlet and outlet control. The culvert presently conveys flow from the New Windsor Business Park storm drainage system and runoff from a small portion of Route 300.

The flow from these sources was modeled by using Manning's equation for full pipe flow. The flow conveyed through the culvert comes from existing 18" and 24" cmp pipes. Full flow from these pipes was added to the pond outlet pipe flow and the headwater of the culvert was determined. Data sheets titled "Exist. 30" CMP Culvert", "Exist 24" CMP Capacity", "Exist 18" CMP Capacity" are included in this report. Below is a summary of the analysis.

100 Year Storm Flow

Existing 18" CMP Capacity	7.99 cfs
Existing 24" CMP Capacity	7.92 cfs
24" DIP from Storm water Pond	2.18 cfs
Total	18.09 cfs

Headwater Elevation of 30" CMP

Roadway El.(Rte 300 Edge of Pvmt) 343.80

Capacity vs. 100Yr. Design Flow

Capacity	100 Yr. Design flow
45.1 cfs	18.09 cfs

Conclusion:

The existing 30" culvert has enough capacity for post development flows from a 100 year storm.

In conclusion, the stormwater analysis of Jerry's Climate Control indicates that both localized and downstream impacts have been mitigated.

COMPUTER PRINTOUT OF HYDROGRAPHS

Jerry's Climate Control

Our Job No. 2647

Town of New Windsor

Orange County, New York

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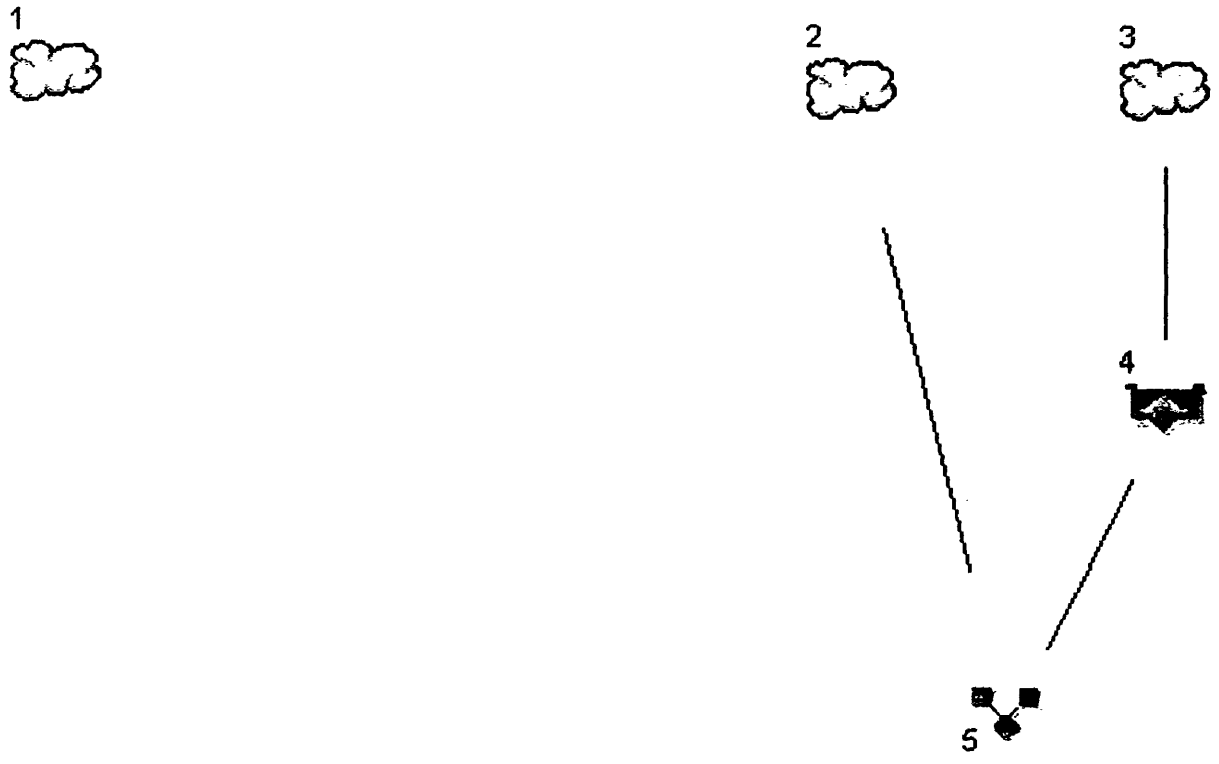

Legend

Hyd.	Origin	Description
1	SCS Runoff	PREDEV
2	SCS Runoff	POSTDEV A
3	SCS Runoff	POSTDEV B
4	Reservoir	POND
5	Combine	TOTAL POST

Hydrograph Return Period Recap

Hyd. No.	Hydrograph type (origin)	Inflow Hyd(s)	Peak Outflow (cfs)								Hydrograph description
			1-Yr	2-Yr	3-Yr	5-Yr	10-Yr	25-Yr	50-Yr	100-Yr	
1	SCS Runoff	------	2.56	------	------	------	8.64	------	12.50	15.12	PREDEV
2	SCS Runoff	------	1.98	------	------	------	4.95	------	6.69	7.85	POSTDEV A
3	SCS Runoff	------	2.56	------	------	------	6.40	------	8.65	10.14	POSTDEV B
4	Reservoir	3	0.00	------	------	------	0.15	------	0.89	2.18	POND
5	Combine	2, 4	1.98	------	------	------	4.95	------	6.69	7.85	TOTAL POST

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Hydrograph Summary Report

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Volume (acft)	Inflow hyd(s)	Maximum elevation (ft)	Maximum storage (acft)	Hydrograph description
1	SCS Runoff	2.56	10	740	0.329	—	—	—	PREDEV
2	SCS Runoff	1.98	10	740	0.241	—	—	—	POSTDEV A
3	SCS Runoff	2.56	10	740	0.311	—	—	—	POSTDEV B
4	Reservoir	0.00	10	0	0.000	3	339.19	0.311	POND
5	Combine	1.98	10	740	0.241	2, 4	—	—	TOTAL POST

Hydrograph Report

Hydraflow Hydrographs by Intelisolve

Thursday, Apr 19 2007, 4:17 PM

Hyd. No. 1

PREDEV

Hydrograph type	= SCS Runoff	Peak discharge	= 2.56 cfs
Storm frequency	= 1 yrs	Time interval	= 10 min
Drainage area	= 4.70 ac	Curve number	= 75
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 31.4 min
Total precip.	= 2.90 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

Hydrograph Volume = 0.329 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time -- (hrs	Outflow cfs)
12.33	2.56 <<

...End

TR55 Tc Worksheet

Hydraflow Hydrographs by Intelisolve

Hyd. No. 1

PREDEV

Description		A		B		C		Totals
Sheet Flow								
Manning's n-value	=	0.400		0.011		0.011		
Flow length (ft)	=	100.0		0.0		0.0		
Two-year 24-hr precip. (in)	=	3.50		0.00		0.00		
Land slope (%)	=	1.00		0.00		0.00		
Travel Time (min)	=	**27.09**	+	**0.00**	+	**0.00**	=	**27.09**
Shallow Concentrated Flow								
Flow length (ft)	=	266.00		0.00		0.00		
Watercourse slope (%)	=	1.00		0.00		0.00		
Surface description	=	Unpaved		Paved		Paved		
Average velocity (ft/s)	=	1.61		0.00		0.00		
Travel Time (min)	=	**2.75**	+	**0.00**	+	**0.00**	=	**2.75**
Channel Flow								
X sectional flow area (sqft)	=	0.67		0.00		0.00		
Wetted perimeter (ft)	=	2.17		0.00		0.00		
Channel slope (%)	=	1.50		0.00		0.00		
Manning's n-value	=	0.015		0.015		0.015		
Velocity (ft/s)	=	5.54		0.00		0.00		
Flow length (ft)	=	531.0		0.0		0.0		
Travel Time (min)	=	**1.60**	+	**0.00**	+	**0.00**	=	**1.60**

Total Travel Time, Tc ..... **31.40 min**

Hydrograph Report

Hydraflow Hydrographs by Intelisolve

Thursday, Apr 19 2007, 4:17 PM

Hyd. No. 2

POSTDEV A

Hydrograph type	= SCS Runoff	Peak discharge	= 1.98 cfs
Storm frequency	= 1 yrs	Time interval	= 10 min
Drainage area	= 2.05 ac	Curve number	= 85
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 20.4 min
Total precip.	= 2.90 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

Hydrograph Volume = 0.241 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time – (hrs	Outflow cfs)
12.33	1.98 <<

...End

TR55 Tc Worksheet

Hydraflow Hydrographs by Intelisolve

Hyd. No. 2

POSTDEV A

Description		A		B		C		Totals
Sheet Flow								
Manning's n-value	=	0.400		0.011		0.011		
Flow length (ft)	=	50.0		0.0		0.0		
Two-year 24-hr precip. (in)	=	3.50		0.00		0.00		
Land slope (%)	=	1.00		0.00		0.00		
Travel Time (min)	=	**15.56**	+	**0.00**	+	**0.00**	=	**15.56**
Shallow Concentrated Flow								
Flow length (ft)	=	316.00		0.00		0.00		
Watercourse slope (%)	=	1.00		0.00		0.00		
Surface description	=	Unpaved		Paved		Paved		
Average velocity (ft/s)	=	1.61		0.00		0.00		
Travel Time (min)	=	**3.26**	+	**0.00**	+	**0.00**	=	**3.26**
Channel Flow								
X sectional flow area (sqft)	=	0.67		0.00		0.00		
Wetted perimeter (ft)	=	2.16		0.00		0.00		
Channel slope (%)	=	1.50		0.00		0.00		
Manning's n-value	=	0.015		0.015		0.015		
Velocity (ft/s)	=	5.55		0.00		0.00		
Flow length (ft)	=	531.0		0.0		0.0		
Travel Time (min)	=	**1.59**	+	**0.00**	+	**0.00**	=	**1.59**

Total Travel Time, Tc ..... 20.40 min

Hydrograph Report

Hydraflow Hydrographs by Intelisolve — Thursday, Apr 19 2007, 4:17 PM

Hyd. No. 3

POSTDEV B

Hydrograph type	= SCS Runoff	Peak discharge	= 2.56 cfs
Storm frequency	= 1 yrs	Time interval	= 10 min
Drainage area	= 2.65 ac	Curve number	= 85
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 18.6 min
Total precip.	= 2.90 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

Hydrograph Volume = 0.311 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time -- (hrs)	Outflow (cfs)
12.33	2.56 <<

...End

TR55 Tc Worksheet

Hyd. No. 3

POSTDEV B

Description	A	B	C	Totals
Sheet Flow				
Manning's n-value	= 0.400	0.011	0.011	
Flow length (ft)	= 50.0	0.0	0.0	
Two-year 24-hr precip. (in)	= 3.50	0.00	0.00	
Land slope (%)	= 1.00	0.00	0.00	
Travel Time (min)	**= 15.56 +**	**0.00 +**	**0.00 =**	**15.56**
Shallow Concentrated Flow				
Flow length (ft)	= 308.00	0.00	0.00	
Watercourse slope (%)	= 1.00	0.00	0.00	
Surface description	= Paved	Paved	Paved	
Average velocity (ft/s)	= 2.03	0.00	0.00	
Travel Time (min)	**= 2.53 +**	**0.00 +**	**0.00 =**	**2.53**
Channel Flow				
X sectional flow area (sqft)	= 2.50	0.00	0.00	
Wetted perimeter (ft)	= 2.00	0.00	0.00	
Channel slope (%)	= 2.00	0.00	0.00	
Manning's n-value	= 0.015	0.015	0.015	
Velocity (ft/s)	= 16.31	0.00	0.00	
Flow length (ft)	= 464.0	0.0	0.0	
Travel Time (min)	**= 0.47 +**	**0.00 +**	**0.00 =**	**0.47**

Total Travel Time, Tc ..... 18.60 min

Hydrograph Report

Hydraflow Hydrographs by Intelisolve | Thursday, Apr 19 2007, 4:17 PM

Hyd. No. 4

POND

Hydrograph type	= Reservoir	Peak discharge	= 0.00 cfs
Storm frequency	= 1 yrs	Time interval	= 10 min
Inflow hyd. No.	= 3	Reservoir name	= POND A
Max. Elevation	= 339.19 ft	Max. Storage	= 0.311 acft

Storage Indication method used. | Outflow hydrograph volume = 0.000 acft

...End

Pond Report

Hydraflow Hydrographs by Intelisolve — Thursday, Apr 19 2007, 4:17 PM

Pond No. 1 - POND A

Pond Data

Pond storage is based on known contour areas. Average end area method used.

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (acft)	Total storage (acft)
0.00	333.88	123	0.000	0.000
2.50	336.38	1,305	0.041	0.041
4.00	337.88	4,472	0.099	0.140
4.12	338.00	4,601	0.012	0.153
6.12	340.00	6,987	0.266	0.419
8.12	342.00	10,921	0.411	0.830
9.12	343.00	12,533	0.269	1.099

Culvert / Orifice Structures

	[A]	[B]	[C]	[D]
Rise (in)	= 24.00	1.00	12.00	0.00
Span (in)	= 24.00	1.00	36.00	0.00
No. Barrels	= 1	1	1	0
Invert El. (ft)	= 339.00	337.89	341.50	0.00
Length (ft)	= 122.00	70.00	0.00	0.00
Slope (%)	= 0.30	0.40	0.00	0.00
N-Value	= .013	.013	.013	.013
Orif. Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	Yes	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 10.00	0.00	0.00	0.00
Crest El. (ft)	= 342.00	0.00	0.00	0.00
Weir Coeff.	= 2.60	3.33	0.00	0.00
Weir Type	= Broad	—	—	—
Multi-Stage	= No	No	No	No

Exfiltration = 0.000 in/hr (Contour) Tailwater Elev. = 341.38 ft

Note: Culvert/Orifice outflows have been analyzed under inlet and outlet control.

Stage / Storage / Discharge Table

Stage ft	Storage acft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Total cfs
0.00	0.000	333.88	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
0.25	0.004	334.13	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
0.50	0.008	334.38	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
0.75	0.012	334.63	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
1.00	0.016	334.88	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
1.25	0.020	335.13	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
1.50	0.025	335.38	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
1.75	0.029	335.63	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
2.00	0.033	335.88	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
2.25	0.037	336.13	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
2.50	0.041	336.38	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
2.65	0.051	336.53	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
2.80	0.061	336.68	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
2.95	0.071	336.83	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
3.10	0.081	336.98	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
3.25	0.091	337.13	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
3.40	0.101	337.28	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
3.55	0.111	337.43	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
3.70	0.121	337.58	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
3.85	0.130	337.73	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.00	0.140	337.88	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.01	0.142	337.89	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.02	0.143	337.90	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.04	0.144	337.92	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.05	0.145	337.93	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.06	0.147	337.94	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.07	0.148	337.95	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.08	0.149	337.96	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.10	0.150	337.98	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.11	0.152	337.99	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.12	0.153	338.00	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00

Continues on next page...

POND A

Stage / Storage / Discharge Table

Stage ft	Storage acft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Total cfs
4.32	0.180	338.20	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.52	0.206	338.40	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.72	0.233	338.60	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.92	0.259	338.80	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
5.12	0.286	339.00	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
5.32	0.313	339.20	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
5.52	0.339	339.40	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
5.72	0.366	339.60	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
5.92	0.392	339.80	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
6.12	0.419	340.00	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
6.32	0.460	340.20	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
6.52	0.501	340.40	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
6.72	0.542	340.60	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
6.92	0.583	340.80	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
7.12	0.625	341.00	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
7.32	0.666	341.20	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
7.52	0.707	341.40	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
7.72	0.748	341.60	0.33	0.00	0.32	—	0.00	—	—	—	—	0.33
7.92	0.789	341.80	1.68	0.00	1.68	—	0.00	—	—	—	—	1.68
8.12	0.830	342.00	3.61	0.00	3.61	—	0.00	—	—	—	—	3.62
8.22	0.857	342.10	4.75	0.00	4.75	—	0.82	—	—	—	—	5.57
8.32	0.884	342.20	5.98	0.01	5.98	—	2.33	—	—	—	—	8.31
8.42	0.911	342.30	7.31	0.01	7.31	—	4.27	—	—	—	—	11.59
8.52	0.938	342.40	8.72	0.01	8.72	—	6.58	—	—	—	—	15.31
8.62	0.965	342.50	10.21	0.01	10.21	—	9.19	—	—	—	—	19.41
8.72	0.992	342.60	11.19	0.01	11.19	—	12.08	—	—	—	—	23.28
8.82	1.019	342.70	11.78	0.01	11.78	—	15.23	—	—	—	—	27.01
8.92	1.045	342.80	12.21	0.01	12.21	—	18.61	—	—	—	—	30.83
9.02	1.072	342.90	12.64	0.01	12.64	—	22.20	—	—	—	—	34.84
9.12	1.099	343.00	13.05	0.01	13.04	—	26.00	—	—	—	—	39.05

...End

Hydrograph Report

Hydraflow Hydrographs by Intelisolve | Thursday, Apr 19 2007, 4:18 PM

Hyd. No. 5

TOTAL POST

Hydrograph type	= Combine	Peak discharge	= 1.98 cfs
Storm frequency	= 1 yrs	Time interval	= 10 min
Inflow hyds.	= 2, 4		

Hydrograph Volume = 0.241 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time (hrs)	Hyd. 2 + (cfs)	Hyd. 4 = (cfs)	Outflow (cfs)
12.33	1.98 <<	0.00 <<	1.98 <<

...End

Hydrograph Summary Report

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Volume (acft)	Inflow hyd(s)	Maximum elevation (ft)	Maximum storage (acft)	Hydrograph description
1	SCS Runoff	8.64	10	740	1.050	---	----	-----	PREDEV
2	SCS Runoff	4.95	10	740	0.614	---	----	-----	POSTDEV A
3	SCS Runoff	6.40	10	740	0.794	---	----	-----	POSTDEV B
4	Reservoir	0.15	10	1260	0.087	3	341.49	0.726	POND
5	Combine	4.95	10	740	0.701	2, 4	----	-----	TOTAL POST

Hydrograph Report

Hydraflow Hydrographs by Intelisolve

Thursday, Apr 19 2007, 4:18 PM

Hyd. No. 1

PREDEV

Hydrograph type	= SCS Runoff	Peak discharge	= 8.64 cfs
Storm frequency	= 10 yrs	Time interval	= 10 min
Drainage area	= 4.70 ac	Curve number	= 75
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 31.4 min
Total precip.	= 5.50 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

Hydrograph Volume = 1.050 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time – Outflow (hrs	cfs)
12.33	8.64 <<

...End

TR55 Tc Worksheet

Hydraflow Hydrographs by Intelisolve

Hyd. No. 1

PREDEV

Description		A		B		C		Totals
Sheet Flow								
Manning's n-value	=	0.400		0.011		0.011		
Flow length (ft)	=	100.0		0.0		0.0		
Two-year 24-hr precip. (in)	=	3.50		0.00		0.00		
Land slope (%)	=	1.00		0.00		0.00		
Travel Time (min)	=	**27.09**	+	**0.00**	+	**0.00**	=	**27.09**
Shallow Concentrated Flow								
Flow length (ft)	=	266.00		0.00		0.00		
Watercourse slope (%)	=	1.00		0.00		0.00		
Surface description	=	Unpaved		Paved		Paved		
Average velocity (ft/s)	=	1.61		0.00		0.00		
Travel Time (min)	=	**2.75**	+	**0.00**	+	**0.00**	=	**2.75**
Channel Flow								
X sectional flow area (sqft)	=	0.67		0.00		0.00		
Wetted perimeter (ft)	=	2.17		0.00		0.00		
Channel slope (%)	=	1.50		0.00		0.00		
Manning's n-value	=	0.015		0.015		0.015		
Velocity (ft/s)	=	5.54		0.00		0.00		
Flow length (ft)	=	531.0		0.0		0.0		
Travel Time (min)	=	**1.60**	+	**0.00**	+	**0.00**	=	**1.60**

Total Travel Time, Tc ..... **31.40 min**

Hydrograph Report

Hydraflow Hydrographs by Intelisolve

Thursday, Apr 19 2007, 4:18 PM

Hyd. No. 2

POSTDEV A

Hydrograph type	= SCS Runoff	Peak discharge	= 4.95 cfs
Storm frequency	= 10 yrs	Time interval	= 10 min
Drainage area	= 2.05 ac	Curve number	= 85
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 20.4 min
Total precip.	= 5.50 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

Hydrograph Volume = 0.614 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time -- (hrs	Outflow cfs)
12.33	4.95 <<

...End

TR55 Tc Worksheet

Hydraflow Hydrographs by Intelisolve

Hyd. No. 2

POSTDEV A

Description		A		B		C		Totals
Sheet Flow								
Manning's n-value	=	0.400		0.011		0.011		
Flow length (ft)	=	50.0		0.0		0.0		
Two-year 24-hr precip. (in)	=	3.50		0.00		0.00		
Land slope (%)	=	1.00		0.00		0.00		
Travel Time (min)	=	**15.56**	+	**0.00**	+	**0.00**	=	**15.56**
Shallow Concentrated Flow								
Flow length (ft)	=	316.00		0.00		0.00		
Watercourse slope (%)	=	1.00		0.00		0.00		
Surface description	=	Unpaved		Paved		Paved		
Average velocity (ft/s)	=	1.61		0.00		0.00		
Travel Time (min)	=	**3.26**	+	**0.00**	+	**0.00**	=	**3.26**
Channel Flow								
X sectional flow area (sqft)	=	0.67		0.00		0.00		
Wetted perimeter (ft)	=	2.16		0.00		0.00		
Channel slope (%)	=	1.50		0.00		0.00		
Manning's n-value	=	0.015		0.015		0.015		
Velocity (ft/s)	=	5.55		0.00		0.00		
Flow length (ft)	=	531.0		0.0		0.0		
Travel Time (min)	=	**1.59**	+	**0.00**	+	**0.00**	=	**1.59**

Total Travel Time, Tc ..... **20.40 min**

Hydrograph Report

Hydraflow Hydrographs by Intelisolve | Thursday, Apr 19 2007, 4:19 PM

Hyd. No. 3

POSTDEV B

Hydrograph type	= SCS Runoff	Peak discharge	= 6.40 cfs
Storm frequency	= 10 yrs	Time interval	= 10 min
Drainage area	= 2.65 ac	Curve number	= 85
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 18.6 min
Total precip.	= 5.50 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

Hydrograph Volume = 0.794 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time -- (hrs	Outflow cfs)
12.33	6.40 <<

...End

TR55 Tc Worksheet

Hyd. No. 3

POSTDEV B

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.400		0.011		0.011		
Flow length (ft)	= 50.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 3.50		0.00		0.00		
Land slope (%)	= 1.00		0.00		0.00		
Travel Time (min)	**= 15.56**	**+**	**0.00**	**+**	**0.00**	**=**	**15.56**
Shallow Concentrated Flow							
Flow length (ft)	= 308.00		0.00		0.00		
Watercourse slope (%)	= 1.00		0.00		0.00		
Surface description	= Paved		Paved		Paved		
Average velocity (ft/s)	= 2.03		0.00		0.00		
Travel Time (min)	**= 2.53**	**+**	**0.00**	**+**	**0.00**	**=**	**2.53**
Channel Flow							
X sectional flow area (sqft)	= 2.50		0.00		0.00		
Wetted perimeter (ft)	= 2.00		0.00		0.00		
Channel slope (%)	= 2.00		0.00		0.00		
Manning's n-value	= 0.015		0.015		0.015		
Velocity (ft/s)	= 16.31		0.00		0.00		
Flow length (ft)	= 464.0		0.0		0.0		
Travel Time (min)	**= 0.47**	**+**	**0.00**	**+**	**0.00**	**=**	**0.47**

Total Travel Time, Tc ..... 18.60 min

Hydrograph Report

Hydraflow Hydrographs by Intelisolve | Thursday, Apr 19 2007, 4:19 PM

Hyd. No. 4

POND

Hydrograph type	= Reservoir	Peak discharge	= 0.15 cfs
Storm frequency	= 10 yrs	Time interval	= 10 min
Inflow hyd. No.	= 3	Reservoir name	= POND A
Max. Elevation	= 341.49 ft	Max. Storage	= 0.726 acft

Storage Indication method used.

Outflow hydrograph volume = 0.087 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
21.00	0.15	341.49 <<	0.15	0.00	0.15	---	---	---	---	---	---	0.15 <<

...End

Pond Report

Hydraflow Hydrographs by Intelisolve — Thursday, Apr 19 2007, 4:19 PM

Pond No. 1 - POND A

Pond Data

Pond storage is based on known contour areas. Average end area method used.

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (acft)	Total storage (acft)
0.00	333.88	123	0.000	0.000
2.50	336.38	1,305	0.041	0.041
4.00	337.88	4,472	0.099	0.140
4.12	338.00	4,601	0.012	0.153
6.12	340.00	6,987	0.266	0.419
8.12	342.00	10,921	0.411	0.830
9.12	343.00	12,533	0.269	1.099

Culvert / Orifice Structures

	[A]	[B]	[C]	[D]
Rise (in)	= 24.00	1.00	12.00	0.00
Span (in)	= 24.00	1.00	36.00	0.00
No. Barrels	= 1	1	1	0
Invert El. (ft)	= 339.00	337.89	341.50	0.00
Length (ft)	= 122.00	70.00	0.00	0.00
Slope (%)	= 0.30	0.40	0.00	0.00
N-Value	= .013	.013	.013	.013
Orif. Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	Yes	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 10.00	0.00	0.00	0.00
Crest El. (ft)	= 342.00	0.00	0.00	0.00
Weir Coeff.	= 2.60	3.33	0.00	0.00
Weir Type	= Broad	---	---	---
Multi-Stage	= No	No	No	No

Exfiltration = 0.000 in/hr (Contour) Tailwater Elev. = 341.38 ft

Note: Culvert/Orifice outflows have been analyzed under inlet and outlet control.

Stage / Storage / Discharge Table

Stage ft	Storage acft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Total cfs
0.00	0.000	333.88	0.00	0.00	0.00	---	0.00	---	---	---	---	0.00
0.25	0.004	334.13	0.00	0.00	0.00	---	0.00	---	---	---	---	0.00
0.50	0.008	334.38	0.00	0.00	0.00	---	0.00	---	---	---	---	0.00
0.75	0.012	334.63	0.00	0.00	0.00	---	0.00	---	---	---	---	0.00
1.00	0.016	334.88	0.00	0.00	0.00	---	0.00	---	---	---	---	0.00
1.25	0.020	335.13	0.00	0.00	0.00	---	0.00	---	---	---	---	0.00
1.50	0.025	335.38	0.00	0.00	0.00	---	0.00	---	---	---	---	0.00
1.75	0.029	335.63	0.00	0.00	0.00	---	0.00	---	---	---	---	0.00
2.00	0.033	335.88	0.00	0.00	0.00	---	0.00	---	---	---	---	0.00
2.25	0.037	336.13	0.00	0.00	0.00	---	0.00	---	---	---	---	0.00
2.50	0.041	336.38	0.00	0.00	0.00	---	0.00	---	---	---	---	0.00
2.65	0.051	336.53	0.00	0.00	0.00	---	0.00	---	---	---	---	0.00
2.80	0.061	336.68	0.00	0.00	0.00	---	0.00	---	---	---	---	0.00
2.95	0.071	336.83	0.00	0.00	0.00	---	0.00	---	---	---	---	0.00
3.10	0.081	336.98	0.00	0.00	0.00	---	0.00	---	---	---	---	0.00
3.25	0.091	337.13	0.00	0.00	0.00	---	0.00	---	---	---	---	0.00
3.40	0.101	337.28	0.00	0.00	0.00	---	0.00	---	---	---	---	0.00
3.55	0.111	337.43	0.00	0.00	0.00	---	0.00	---	---	---	---	0.00
3.70	0.121	337.58	0.00	0.00	0.00	---	0.00	---	---	---	---	0.00
3.85	0.130	337.73	0.00	0.00	0.00	---	0.00	---	---	---	---	0.00
4.00	0.140	337.88	0.00	0.00	0.00	---	0.00	---	---	---	---	0.00
4.01	0.142	337.89	0.00	0.00	0.00	---	0.00	---	---	---	---	0.00
4.02	0.143	337.90	0.00	0.00	0.00	---	0.00	---	---	---	---	0.00
4.04	0.144	337.92	0.00	0.00	0.00	---	0.00	---	---	---	---	0.00
4.05	0.145	337.93	0.00	0.00	0.00	---	0.00	---	---	---	---	0.00
4.06	0.147	337.94	0.00	0.00	0.00	---	0.00	---	---	---	---	0.00
4.07	0.148	337.95	0.00	0.00	0.00	---	0.00	---	---	---	---	0.00
4.08	0.149	337.96	0.00	0.00	0.00	---	0.00	---	---	---	---	0.00
4.10	0.150	337.98	0.00	0.00	0.00	---	0.00	---	---	---	---	0.00
4.11	0.152	337.99	0.00	0.00	0.00	---	0.00	---	---	---	---	0.00
4.12	0.153	338.00	0.00	0.00	0.00	---	0.00	---	---	---	---	0.00

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POND A

Stage / Storage / Discharge Table

Stage ft	Storage acft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Total cfs
4.32	0.180	338.20	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.52	0.206	338.40	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.72	0.233	338.60	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.92	0.259	338.80	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
5.12	0.286	339.00	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
5.32	0.313	339.20	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
5.52	0.339	339.40	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
5.72	0.366	339.60	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
5.92	0.392	339.80	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
6.12	0.419	340.00	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
6.32	0.460	340.20	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
6.52	0.501	340.40	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
6.72	0.542	340.60	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
6.92	0.583	340.80	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
7.12	0.625	341.00	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
7.32	0.666	341.20	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
7.52	0.707	341.40	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
7.72	0.748	341.60	0.33	0.00	0.32	—	0.00	—	—	—	—	0.33
7.92	0.789	341.80	1.68	0.00	1.68	—	0.00	—	—	—	—	1.68
8.12	0.830	342.00	3.61	0.00	3.61	—	0.00	—	—	—	—	3.62
8.22	0.857	342.10	4.75	0.00	4.75	—	0.82	—	—	—	—	5.57
8.32	0.884	342.20	5.98	0.01	5.98	—	2.33	—	—	—	—	8.31
8.42	0.911	342.30	7.31	0.01	7.31	—	4.27	—	—	—	—	11.59
8.52	0.938	342.40	8.72	0.01	8.72	—	6.58	—	—	—	—	15.31
8.62	0.965	342.50	10.21	0.01	10.21	—	9.19	—	—	—	—	19.41
8.72	0.992	342.60	11.19	0.01	11.19	—	12.08	—	—	—	—	23.28
8.82	1.019	342.70	11.78	0.01	11.78	—	15.23	—	—	—	—	27.01
8.92	1.045	342.80	12.21	0.01	12.21	—	18.61	—	—	—	—	30.83
9.02	1.072	342.90	12.64	0.01	12.64	—	22.20	—	—	—	—	34.84
9.12	1.099	343.00	13.05	0.01	13.04	—	26.00	—	—	—	—	39.05

...End

Hydrograph Report

Hydraflow Hydrographs by Intelisolve | Thursday, Apr 19 2007, 4:19 PM

Hyd. No. 5

TOTAL POST

Hydrograph type	= Combine	Peak discharge	= 4.95 cfs
Storm frequency	= 10 yrs	Time interval	= 10 min
Inflow hyds.	= 2, 4		

Hydrograph Volume = 0.701 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time (hrs)	Hyd. 2 + (cfs)	Hyd. 4 = (cfs)	Outflow (cfs)
12.33	4.95 <<	0.00	4.95 <<

...End

Hydrograph Summary Report

Hyd. no.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Volume (acft)	Inflow hyd(s)	Maximum elevation (ft)	Maximum storage (acft)	Hydrograph description
1	SCS Runoff	12.50	10	740	1.524	—	—	—	PREDEV
2	SCS Runoff	6.69	10	740	0.841	—	—	—	POSTDEV A
3	SCS Runoff	8.65	10	740	1.087	—	—	—	POSTDEV B
4	Reservoir	0.89	10	850	0.381	3	341.68	0.765	POND
5	Combine	6.69	10	740	1.222	2, 4	—	—	TOTAL POST

Hydrograph Report

Hydraflow Hydrographs by Intelisolve | Thursday, Apr 19 2007, 4:20 PM

Hyd. No. 1

PREDEV

Hydrograph type	= SCS Runoff	Peak discharge	= 12.50 cfs
Storm frequency	= 50 yrs	Time interval	= 10 min
Drainage area	= 4.70 ac	Curve number	= 75
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 31.4 min
Total precip.	= 7.00 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

Hydrograph Volume = 1.524 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time – Outflow (hrs	cfs)
12.33	12.50 <<

...End

TR55 Tc Worksheet

Hydraflow Hydrographs by Intelisolve

Hyd. No. 1

PREDEV

Description		A		B		C		Totals
Sheet Flow								
Manning's n-value	=	0.400		0.011		0.011		
Flow length (ft)	=	100.0		0.0		0.0		
Two-year 24-hr precip. (in)	=	3.50		0.00		0.00		
Land slope (%)	=	1.00		0.00		0.00		
Travel Time (min)	=	**27.09**	+	**0.00**	+	**0.00**	=	**27.09**
Shallow Concentrated Flow								
Flow length (ft)	=	266.00		0.00		0.00		
Watercourse slope (%)	=	1.00		0.00		0.00		
Surface description	=	Unpaved		Paved		Paved		
Average velocity (ft/s)	=	1.61		0.00		0.00		
Travel Time (min)	=	**2.75**	+	**0.00**	+	**0.00**	=	**2.75**
Channel Flow								
X sectional flow area (sqft)	=	0.67		0.00		0.00		
Wetted perimeter (ft)	=	2.17		0.00		0.00		
Channel slope (%)	=	1.50		0.00		0.00		
Manning's n-value	=	0.015		0.015		0.015		
Velocity (ft/s)	=	5.54		0.00		0.00		
Flow length (ft)	=	531.0		0.0		0.0		
Travel Time (min)	=	**1.60**	+	**0.00**	+	**0.00**	=	**1.60**

Total Travel Time, Tc ..... **31.40 min**

Hydrograph Report

Hydraflow Hydrographs by Intelisolve

Thursday, Apr 19 2007, 4:21 PM

Hyd. No. 2

POSTDEV A

Hydrograph type	= SCS Runoff	Peak discharge	= 6.69 cfs
Storm frequency	= 50 yrs	Time interval	= 10 min
Drainage area	= 2.05 ac	Curve number	= 85
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 20.4 min
Total precip.	= 7.00 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

Hydrograph Volume = 0.841 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time -- (hrs	Outflow cfs)
12.33	6.69 <<

...End

TR55 Tc Worksheet

Hydraflow Hydrographs by Intelisolve

Hyd. No. 2

POSTDEV A

Description		A		B		C		Totals
Sheet Flow								
Manning's n-value	=	0.400		0.011		0.011		
Flow length (ft)	=	50.0		0.0		0.0		
Two-year 24-hr precip. (in)	=	3.50		0.00		0.00		
Land slope (%)	=	1.00		0.00		0.00		
Travel Time (min)	=	**15.56**	+	**0.00**	+	**0.00**	=	**15.56**
Shallow Concentrated Flow								
Flow length (ft)	=	316.00		0.00		0.00		
Watercourse slope (%)	=	1.00		0.00		0.00		
Surface description	=	Unpaved		Paved		Paved		
Average velocity (ft/s)	=	1.61		0.00		0.00		
Travel Time (min)	=	**3.26**	+	**0.00**	+	**0.00**	=	**3.26**
Channel Flow								
X sectional flow area (sqft)	=	0.67		0.00		0.00		
Wetted perimeter (ft)	=	2.16		0.00		0.00		
Channel slope (%)	=	1.50		0.00		0.00		
Manning's n-value	=	0.015		0.015		0.015		
Velocity (ft/s)	=	5.55		0.00		0.00		
Flow length (ft)	=	531.0		0.0		0.0		
Travel Time (min)	=	**1.59**	+	**0.00**	+	**0.00**	=	**1.59**

Total Travel Time, Tc ..... **20.40 min**

Hydrograph Report

Hydraflow Hydrographs by Intelisolve

Thursday, Apr 19 2007, 4:21 PM

Hyd. No. 3

POSTDEV B

Hydrograph type	= SCS Runoff	Peak discharge	= 8.65 cfs
Storm frequency	= 50 yrs	Time interval	= 10 min
Drainage area	= 2.65 ac	Curve number	= 85
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 18.6 min
Total precip.	= 7.00 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

Hydrograph Volume = 1.087 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time -- (hrs	Outflow cfs)
12.33	8.65 <<

...End

TR55 Tc Worksheet

Hyd. No. 3

POSTDEV B

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.400		0.011		0.011		
Flow length (ft)	= 50.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 3.50		0.00		0.00		
Land slope (%)	= 1.00		0.00		0.00		
Travel Time (min)	**= 15.56**	**+**	**0.00**	**+**	**0.00**	**=**	**15.56**
Shallow Concentrated Flow							
Flow length (ft)	= 308.00		0.00		0.00		
Watercourse slope (%)	= 1.00		0.00		0.00		
Surface description	= Paved		Paved		Paved		
Average velocity (ft/s)	= 2.03		0.00		0.00		
Travel Time (min)	**= 2.53**	**+**	**0.00**	**+**	**0.00**	**=**	**2.53**
Channel Flow							
X sectional flow area (sqft)	= 2.50		0.00		0.00		
Wetted perimeter (ft)	= 2.00		0.00		0.00		
Channel slope (%)	= 2.00		0.00		0.00		
Manning's n-value	= 0.015		0.015		0.015		
Velocity (ft/s)	= 16.31		0.00		0.00		
Flow length (ft)	= 464.0		0.0		0.0		
Travel Time (min)	**= 0.47**	**+**	**0.00**	**+**	**0.00**	**=**	**0.47**

Total Travel Time, Tc ..... 18.60 min

Hydrograph Report

Hydraflow Hydrographs by Intelisolve | Thursday, Apr 19 2007, 4:22 PM

Hyd. No. 4

POND

Hydrograph type	= Reservoir	Peak discharge	= 0.89 cfs
Storm frequency	= 50 yrs	Time interval	= 10 min
Inflow hyd. No.	= 3	Reservoir name	= POND A
Max. Elevation	= 341.68 ft	Max. Storage	= 0.765 acft

Storage Indication method used. | Outflow hydrograph volume = 0.381 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
14.17	0.86	341.68 <<	0.89	0.00	0.88	----	----	----	----	----	----	0.89 <<

...End

Pond Report

Hydraflow Hydrographs by Intelisolve — Thursday, Apr 19 2007, 4:22 PM

Pond No. 1 - POND A

Pond Data

Pond storage is based on known contour areas. Average end area method used.

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (acft)	Total storage (acft)
0.00	333.88	123	0.000	0.000
2.50	336.38	1,305	0.041	0.041
4.00	337.88	4,472	0.099	0.140
4.12	338.00	4,601	0.012	0.153
6.12	340.00	6,987	0.266	0.419
8.12	342.00	10,921	0.411	0.830
9.12	343.00	12,533	0.269	1.099

Culvert / Orifice Structures

	[A]	[B]	[C]	[D]
Rise (in)	= 24.00	1.00	12.00	0.00
Span (in)	= 24.00	1.00	36.00	0.00
No. Barrels	= 1	1	1	0
Invert El. (ft)	= 339.00	337.89	341.50	0.00
Length (ft)	= 122.00	70.00	0.00	0.00
Slope (%)	= 0.30	0.40	0.00	0.00
N-Value	= .013	.013	.013	.013
Orif. Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	Yes	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 10.00	0.00	0.00	0.00
Crest El. (ft)	= 342.00	0.00	0.00	0.00
Weir Coeff.	= 2.60	3.33	0.00	0.00
Weir Type	= Broad	—	—	—
Multi-Stage	= No	No	No	No

Exfiltration = 0.000 in/hr (Contour) Tailwater Elev. = 341.38 ft

Note: Culvert/Orifice outflows have been analyzed under inlet and outlet control.

Stage / Storage / Discharge Table

Stage ft	Storage acft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Total cfs
0.00	0.000	333.88	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
0.25	0.004	334.13	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
0.50	0.008	334.38	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
0.75	0.012	334.63	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
1.00	0.016	334.88	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
1.25	0.020	335.13	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
1.50	0.025	335.38	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
1.75	0.029	335.63	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
2.00	0.033	335.88	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
2.25	0.037	336.13	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
2.50	0.041	336.38	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
2.65	0.051	336.53	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
2.80	0.061	336.68	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
2.95	0.071	336.83	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
3.10	0.081	336.98	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
3.25	0.091	337.13	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
3.40	0.101	337.28	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
3.55	0.111	337.43	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
3.70	0.121	337.58	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
3.85	0.130	337.73	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.00	0.140	337.88	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.01	0.142	337.89	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.02	0.143	337.90	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.04	0.144	337.92	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.05	0.145	337.93	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.06	0.147	337.94	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.07	0.148	337.95	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.08	0.149	337.96	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.10	0.150	337.98	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.11	0.152	337.99	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.12	0.153	338.00	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00

Continues on next page...

POND A

Stage / Storage / Discharge Table

Stage ft	Storage acft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Total cfs
4.32	0.180	338.20	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.52	0.206	338.40	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.72	0.233	338.60	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.92	0.259	338.80	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
5.12	0.286	339.00	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
5.32	0.313	339.20	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
5.52	0.339	339.40	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
5.72	0.366	339.60	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
5.92	0.392	339.80	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
6.12	0.419	340.00	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
6.32	0.460	340.20	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
6.52	0.501	340.40	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
6.72	0.542	340.60	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
6.92	0.583	340.80	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
7.12	0.625	341.00	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
7.32	0.666	341.20	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
7.52	0.707	341.40	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
7.72	0.748	341.60	0.33	0.00	0.32	—	0.00	—	—	—	—	0.33
7.92	0.789	341.80	1.68	0.00	1.68	—	0.00	—	—	—	—	1.68
8.12	0.830	342.00	3.61	0.00	3.61	—	0.00	—	—	—	—	3.62
8.22	0.857	342.10	4.75	0.00	4.75	—	0.82	—	—	—	—	5.57
8.32	0.884	342.20	5.98	0.01	5.98	—	2.33	—	—	—	—	8.31
8.42	0.911	342.30	7.31	0.01	7.31	—	4.27	—	—	—	—	11.59
8.52	0.938	342.40	8.72	0.01	8.72	—	6.58	—	—	—	—	15.31
8.62	0.965	342.50	10.21	0.01	10.21	—	9.19	—	—	—	—	19.41
8.72	0.992	342.60	11.19	0.01	11.19	—	12.08	—	—	—	—	23.28
8.82	1.019	342.70	11.78	0.01	11.78	—	15.23	—	—	—	—	27.01
8.92	1.045	342.80	12.21	0.01	12.21	—	18.61	—	—	—	—	30.83
9.02	1.072	342.90	12.64	0.01	12.64	—	22.20	—	—	—	—	34.84
9.12	1.099	343.00	13.05	0.01	13.04	—	26.00	—	—	—	—	39.05

...End

Hydrograph Report

Hydraflow Hydrographs by Intelisolve | Thursday, Apr 19 2007, 4:22 PM

Hyd. No. 5

TOTAL POST

Hydrograph type	= Combine	Peak discharge	= 6.69 cfs
Storm frequency	= 50 yrs	Time interval	= 10 min
Inflow hyds.	= 2, 4		

Hydrograph Volume = 1.222 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time (hrs)	Hyd. 2 + (cfs)	Hyd. 4 = (cfs)	Outflow (cfs)
12.33	6.69 <<	0.00	6.69 <<

...End

Hydrograph Summary Report

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Volume (acft)	Inflow hyd(s)	Maximum elevation (ft)	Maximum storage (acft)	Hydrograph description
1	SCS Runoff	15.12	10	740	1.851	—	—	—	PREDEV
2	SCS Runoff	7.85	10	740	0.995	—	—	—	POSTDEV A
3	SCS Runoff	10.14	10	740	1.286	—	—	—	POSTDEV B
4	Reservoir	2.18	10	780	0.580	3	341.85	0.799	POND
5	Combine	7.85	10	740	1.575	2, 4	—	—	TOTAL POST

Hydrograph Report

Hydraflow Hydrographs by Intelisolve

Thursday, Apr 19 2007, 4:23 PM

Hyd. No. 1

PREDEV

Hydrograph type	= SCS Runoff	Peak discharge	= 15.12 cfs
Storm frequency	= 100 yrs	Time interval	= 10 min
Drainage area	= 4.70 ac	Curve number	= 75
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 31.4 min
Total precip.	= 8.00 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

Hydrograph Volume = 1.851 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time -- (hrs)	Outflow (cfs)
12.33	15.12 <<

...End

TR55 Tc Worksheet

Hydraflow Hydrographs by Intelisolve

Hyd. No. 1

PREDEV

Description		A		B		C		Totals
Sheet Flow								
Manning's n-value	=	0.400		0.011		0.011		
Flow length (ft)	=	100.0		0.0		0.0		
Two-year 24-hr precip. (in)	=	3.50		0.00		0.00		
Land slope (%)	=	1.00		0.00		0.00		
Travel Time (min)	=	**27.09**	+	**0.00**	+	**0.00**	=	**27.09**
Shallow Concentrated Flow								
Flow length (ft)	=	266.00		0.00		0.00		
Watercourse slope (%)	=	1.00		0.00		0.00		
Surface description	=	Unpaved		Paved		Paved		
Average velocity (ft/s)	=	1.61		0.00		0.00		
Travel Time (min)	=	**2.75**	+	**0.00**	+	**0.00**	=	**2.75**
Channel Flow								
X sectional flow area (sqft)	=	0.67		0.00		0.00		
Wetted perimeter (ft)	=	2.17		0.00		0.00		
Channel slope (%)	=	1.50		0.00		0.00		
Manning's n-value	=	0.015		0.015		0.015		
Velocity (ft/s)	=	5.54		0.00		0.00		
Flow length (ft)	=	531.0		0.0		0.0		
Travel Time (min)	=	**1.60**	+	**0.00**	+	**0.00**	=	**1.60**

Total Travel Time, Tc ..... **31.40 min**

Hydrograph Report

Hydraflow Hydrographs by Intelisolve

Thursday, Apr 19 2007, 4:23 PM

Hyd. No. 2

POSTDEV A

Hydrograph type	= SCS Runoff	Peak discharge	= 7.85 cfs
Storm frequency	= 100 yrs	Time interval	= 10 min
Drainage area	= 2.05 ac	Curve number	= 85
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 20.4 min
Total precip.	= 8.00 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

Hydrograph Volume = 0.995 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time -- (hrs	Outflow cfs)
12.33	7.85 <<

...End

TR55 Tc Worksheet

Hydraflow Hydrographs by Intelisolve

Hyd. No. 2

POSTDEV A

Description		A		B		C		Totals
Sheet Flow								
Manning's n-value	=	0.400		0.011		0.011		
Flow length (ft)	=	50.0		0.0		0.0		
Two-year 24-hr precip. (in)	=	3.50		0.00		0.00		
Land slope (%)	=	1.00		0.00		0.00		
Travel Time (min)	=	**15.56**	+	**0.00**	+	**0.00**	=	**15.56**
Shallow Concentrated Flow								
Flow length (ft)	=	316.00		0.00		0.00		
Watercourse slope (%)	=	1.00		0.00		0.00		
Surface description	=	Unpaved		Paved		Paved		
Average velocity (ft/s)	=	1.61		0.00		0.00		
Travel Time (min)	=	**3.26**	+	**0.00**	+	**0.00**	=	**3.26**
Channel Flow								
X sectional flow area (sqft)	=	0.67		0.00		0.00		
Wetted perimeter (ft)	=	2.16		0.00		0.00		
Channel slope (%)	=	1.50		0.00		0.00		
Manning's n-value	=	0.015		0.015		0.015		
Velocity (ft/s)	=	5.55		0.00		0.00		
Flow length (ft)	=	531.0		0.0		0.0		
Travel Time (min)	=	**1.59**	+	**0.00**	+	**0.00**	=	**1.59**

Total Travel Time, Tc ..... **20.40 min**

Hydrograph Report

Hydraflow Hydrographs by Intelisolve | Thursday, Apr 19 2007, 4:23 PM

Hyd. No. 3

POSTDEV B

Hydrograph type	= SCS Runoff	Peak discharge	= 10.14 cfs
Storm frequency	= 100 yrs	Time interval	= 10 min
Drainage area	= 2.65 ac	Curve number	= 85
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 18.6 min
Total precip.	= 8.00 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

Hydrograph Volume = 1.286 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time -- (hrs	Outflow cfs)
12.33	10.14 <<

...End

TR55 Tc Worksheet

Hydraflow Hydrographs by Intelisolve

Hyd. No. 3

POSTDEV B

Description		A		B		C		Totals
Sheet Flow								
Manning's n-value	=	0.400		0.011		0.011		
Flow length (ft)	=	50.0		0.0		0.0		
Two-year 24-hr precip. (in)	=	3.50		0.00		0.00		
Land slope (%)	=	1.00		0.00		0.00		
Travel Time (min)	=	**15.56**	+	**0.00**	+	**0.00**	=	**15.56**
Shallow Concentrated Flow								
Flow length (ft)	=	308.00		0.00		0.00		
Watercourse slope (%)	=	1.00		0.00		0.00		
Surface description	=	Paved		Paved		Paved		
Average velocity (ft/s)	=	2.03		0.00		0.00		
Travel Time (min)	=	**2.53**	+	**0.00**	+	**0.00**	=	**2.53**
Channel Flow								
X sectional flow area (sqft)	=	2.50		0.00		0.00		
Wetted perimeter (ft)	=	2.00		0.00		0.00		
Channel slope (%)	=	2.00		0.00		0.00		
Manning's n-value	=	0.015		0.015		0.015		
Velocity (ft/s)	=	16.31		0.00		0.00		
Flow length (ft)	=	464.0		0.0		0.0		
Travel Time (min)	=	**0.47**	+	**0.00**	+	**0.00**	=	**0.47**

Total Travel Time, Tc ..... **18.60 min**

Hydrograph Report

Hydraflow Hydrographs by Intelisolve | Thursday, Apr 19 2007, 4:23 PM

Hyd. No. 4

POND

Hydrograph type	= Reservoir	Peak discharge	= 2.18 cfs
Storm frequency	= 100 yrs	Time interval	= 10 min
Inflow hyd. No.	= 3	Reservoir name	= POND A
Max. Elevation	= 341.85 ft	Max. Storage	= 0.799 acft

Storage Indication method used. | Outflow hydrograph volume = 0.580 acft

Hydrograph Discharge Table

(Printed values >= 100% of Qp.)

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
13.00	2.07	341.85 <<	2.18	0.00	2.17	----	----	----	----	----	----	2.18 <<

...End

Pond Report

Hydraflow Hydrographs by Intelisolve — Thursday, Apr 19 2007, 4:23 PM

Pond No. 1 - POND A

Pond Data

Pond storage is based on known contour areas. Average end area method used.

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (acft)	Total storage (acft)
0.00	333.88	123	0.000	0.000
2.50	336.38	1,305	0.041	0.041
4.00	337.88	4,472	0.099	0.140
4.12	338.00	4,601	0.012	0.153
6.12	340.00	6,987	0.266	0.419
8.12	342.00	10,921	0.411	0.830
9.12	343.00	12,533	0.269	1.099

Culvert / Orifice Structures

	[A]	[B]	[C]	[D]
Rise (in)	= 24.00	1.00	12.00	0.00
Span (in)	= 24.00	1.00	36.00	0.00
No. Barrels	= 1	1	1	0
Invert El. (ft)	= 339.00	337.89	341.50	0.00
Length (ft)	= 122.00	70.00	0.00	0.00
Slope (%)	= 0.30	0.40	0.00	0.00
N-Value	= .013	.013	.013	.013
Orif. Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	Yes	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 10.00	0.00	0.00	0.00
Crest El. (ft)	= 342.00	0.00	0.00	0.00
Weir Coeff.	= 2.60	3.33	0.00	0.00
Weir Type	= Broad	—	—	—
Multi-Stage	= No	No	No	No

Exfiltration = 0.000 in/hr (Contour) Tailwater Elev. = 341.38 ft

Note: Culvert/Orifice outflows have been analyzed under inlet and outlet control.

Stage / Storage / Discharge Table

Stage ft	Storage acft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Total cfs
0.00	0.000	333.88	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
0.25	0.004	334.13	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
0.50	0.008	334.38	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
0.75	0.012	334.63	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
1.00	0.016	334.88	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
1.25	0.020	335.13	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
1.50	0.025	335.38	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
1.75	0.029	335.63	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
2.00	0.033	335.88	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
2.25	0.037	336.13	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
2.50	0.041	336.38	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
2.65	0.051	336.53	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
2.80	0.061	336.68	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
2.95	0.071	336.83	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
3.10	0.081	336.98	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
3.25	0.091	337.13	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
3.40	0.101	337.28	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
3.55	0.111	337.43	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
3.70	0.121	337.58	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
3.85	0.130	337.73	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.00	0.140	337.88	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.01	0.142	337.89	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.02	0.143	337.90	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.04	0.144	337.92	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.05	0.145	337.93	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.06	0.147	337.94	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.07	0.148	337.95	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.08	0.149	337.96	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.10	0.150	337.98	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.11	0.152	337.99	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.12	0.153	338.00	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00

Continues on next page...

POND A

Stage / Storage / Discharge Table

Stage ft	Storage acft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Total cfs
4.32	0.180	338.20	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.52	0.206	338.40	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.72	0.233	338.60	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
4.92	0.259	338.80	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
5.12	0.286	339.00	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
5.32	0.313	339.20	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
5.52	0.339	339.40	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
5.72	0.366	339.60	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
5.92	0.392	339.80	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
6.12	0.419	340.00	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
6.32	0.460	340.20	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
6.52	0.501	340.40	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
6.72	0.542	340.60	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
6.92	0.583	340.80	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
7.12	0.625	341.00	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
7.32	0.666	341.20	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
7.52	0.707	341.40	0.00	0.00	0.00	—	0.00	—	—	—	—	0.00
7.72	0.748	341.60	0.33	0.00	0.32	—	0.00	—	—	—	—	0.33
7.92	0.789	341.80	1.68	0.00	1.68	—	0.00	—	—	—	—	1.68
8.12	0.830	342.00	3.61	0.00	3.61	—	0.00	—	—	—	—	3.62
8.22	0.857	342.10	4.75	0.00	4.75	—	0.82	—	—	—	—	5.57
8.32	0.884	342.20	5.98	0.01	5.98	—	2.33	—	—	—	—	8.31
8.42	0.911	342.30	7.31	0.01	7.31	—	4.27	—	—	—	—	11.59
8.52	0.938	342.40	8.72	0.01	8.72	—	6.58	—	—	—	—	15.31
8.62	0.965	342.50	10.21	0.01	10.21	—	9.19	—	—	—	—	19.41
8.72	0.992	342.60	11.19	0.01	11.19	—	12.08	—	—	—	—	23.28
8.82	1.019	342.70	11.78	0.01	11.78	—	15.23	—	—	—	—	27.01
8.92	1.045	342.80	12.21	0.01	12.21	—	18.61	—	—	—	—	30.83
9.02	1.072	342.90	12.64	0.01	12.64	—	22.20	—	—	—	—	34.84
9.12	1.099	343.00	13.05	0.01	13.04	—	26.00	—	—	—	—	39.05

...End

Hydrograph Report

Hydraflow Hydrographs by Intelisolve | Thursday, Apr 19 2007, 4:24 PM

Hyd. No. 5

TOTAL POST

Hydrograph type	= Combine	Peak discharge	= 7.85 cfs
Storm frequency	= 100 yrs	Time interval	= 10 min
Inflow hyds.	= 2, 4		

Hydrograph Volume = 1.575 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time (hrs)	Hyd. 2 + (cfs)	Hyd. 4 = (cfs)	Outflow (cfs)
12.33	7.85 <<	0.00	7.85 <<

...End

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29 GA SLC									■	■	■	■	■			■			■		■						▲					■
26 GA GR50 SLCM									■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	◆	◆	◆		■
26 GA GR80 SLCM	■	■	■	■	■	■	■	■																								
26 GA SLCMX									■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	●	▲	●		■
24 GA SLCMX									◆	◆	◆	◆	◆			◆					◆							◆	◆	◆	◆	■
22 GA SLCM									■																							■
26 GA 7.2RIB									■	■	■					■					■				■		■					■
24 GA 7.2RIB									■																							■
22 GA 7.2RIB																																■

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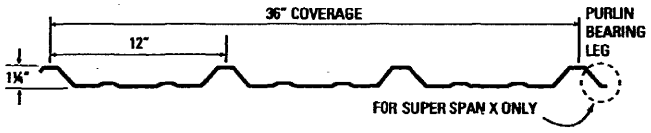
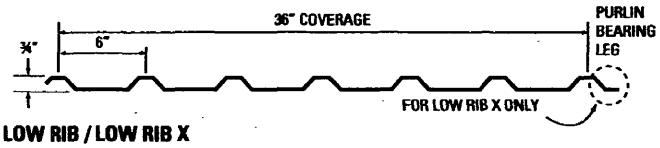
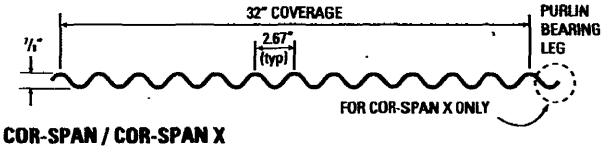


SUPER SPAN / SUPER SPAN X



LOW RIB / LOW RIB X



COR-SPAN / COR-SPAN X

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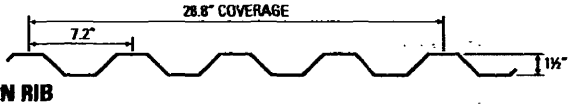
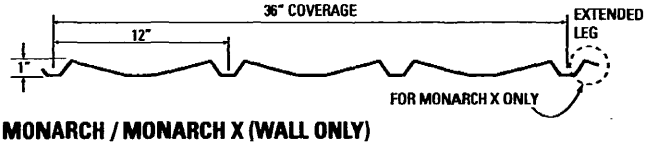


7.2N RIB



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STORMWATER MANAGEMENT REPORT

Jerry's Climate Control

Our Job No. 2647

Town of New Windsor

Orange County, New York

March 29, 2007

REVISED:
April 25, 2007
May 16, 2007

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EMAIL: zimeng@frontiernet.net

May 18, 2007

John Szarowski, P.E.
McGoey, Hauser and Edsall
33 Airport Center Drive
Suite 202
New Windsor, NY 12553

Re: Jerry's Climate Control
Town of New Windsor
Our Job No. 2647

Dear Mr. Szarowski,

We are submitting revisions to the SWPPP for the above noted project. This submission is in response to your comments dated May 3, 2007.

Please find enclosed the revised Stormwater Management Report and Stormwater Map Inserts SW-3 dated May 16, 2007.
These documents are an addendum to the "Stormwater Pollution Prevention Plan " revised April 25, 2007.

Following are responses to your comments:

Comment:

1. *The applicant proposes using the existing 30-inch culvert under Route 300 in the New York State Department of Transportation (NYSDOT) R-O-W. Currently, stormwater from the site does not discharge to the 30-inch culvert. The site discharges to a culvert to the north. The NYSDOT will have to be contacted and approve the additional flow conveyed to the 30-inch culvert.*

Response:

The drainage report has been submitted to the New York State Department of Transportation for approval.

Comment:

2. *The Site Plans, revision date April 23, 2007, include deep pit testing information in the area of the proposed Pocket Pond. The ground water elevation appears to be between 338 and 339 ft. The groundwater appears to be above the lowest orifice elevation, 337.89 feet, in the ponds. The outlet pipe associated with this orifice may have a continuous base flow conveyed to the ditch in the NYSDOT R-0-W. Please include a discussion of the ground water results in the report and include field data in the appendix.*

Response:

A discussion of the groundwater testing has been provided in the report and the results of the groundwater testing has been added to the appendix.
The lowest pond orifice has been set at 339.00, thus eliminating a constant base flow.

Comment

3. *The storm water model submitted by the applicant uses the elevation of 333-feet as the beginning elevation in the Stage/Storage calculation of the pond. The lowest orifice elevation, 337.89-feet for the low flow orifice, will establish the surface water elevation of the P-5 Pocket Pond. From elevation 333-feet to elevation 337.89 feet the pond is filling with no discharge in the stormwater model. This can be seen in the Stage/Storage/Discharge table included in the report appendix. The summary of the storms in the Hydrograph Return Period Recap in the appendix shows the pond peak outflow of 0.00 cfs for the one year storm, 0.15 cfs for the 10 year, and 2.18 cfs for the 100 year storm. These results are not valid. The Stage/Storage calculation of the pond must begin of the lowest orifice.*

Response:

The beginning elevation in the Stage /Storage calculation of the pond has been revised to coincide with lowest orifice elevation of 339.00. The results shown in the Hydrograph Return Period Recap, in the appendix, were revised to match the Stage/Storage calculation. This calculation begins at the lowest orifice.

Comment:

4. *The low flow orifice is depicted as being under a trash rack, but the site plan shows the orifice extending 20-feet into the pond from the face of the structure. Are trash racks that long available?*

Response:

The low flow orifice has been revised. It will only extend 3 feet away from the outlet structure. This layout will coincide with the trash rack layout and detail.

Comment:

5. *Please show the limit of disturbance on the Erosion and Sediment Control plan sheet 6 of 8.*

Response:

The Site Map Sheet "Erosion and Sediment Control Plan" will be revised to show the limit of disturbance.

Comment:

6. *Applicant should consider an open grate on the top of the outlet structure in lieu of manhole frame and cover. The grate elevation would be set just above the water elevation for the 100 year storm.*

Response:

An open grate has been provided on the top of the outlet structure in lieu of the manhole frame and cover. The grate elevation has been set just above the water elevation for the 100 year storm.

We hope that this submission addresses your concerns. Please contact us if you need any additional information.

Very Truly Yours,

Roy Oppewall

Enc: Stormwater Management Report , Map SW-3

20070518 2647 SZAROWSKI.Doc

Jerry's Climate Control

Project Description

Jerry's Climate Control is located on a 3.0 acre lot identified as Section 4 Block 3 lot 19 and is located on Temple Hill Rd. across from Hempstead Rd. in the Town of New Windsor, Orange County, NY.

The project is a 4 story self storage facility with associated parking. The development results in the increase of impervious area and will be covered under the NYSDEC General Permit for Stormwater Discharges from Construction Activity GP-02-01, pursuant to section 402 of the "Clean Water Act" and issued in accordance with NY State's Environmental Conservation Law. The site is part of the New Windsor MS4. This site will not discharge to any regulated "TMDL" or water on the 303(d) list.

Existing Hydrology

Stormwater runoff presently discharges as sheet flow onto the adjacent parcel and into the roadside swale in the states ROW on NY Route 300. Flow eventually discharges into Silver Stream, to the west. The watershed is part of the Moodna Creek Basin. The soils present on site are Mardin, Alden, Erie, and Udorthents which are Group C and D soils.

Post Development Hydrology

The hydrology and drainage flow will not substantially change after redevelopment. Site runoff will be collected and discharged into a 30" cmp culvert that runs under NYS Route 300. This SWPPP will meet or exceed the requirements to provide for the capture and treatment of the water quality volume which is a result of runoff from the redeveloped area and water quantity control of the channel protection, overbank flood and extreme flood storms.

Design Standards

This SWPPP has been prepared by a licensed NY professional engineer. The design is in accordance with the "New York Standards and Specifications for Erosion and Sediment Control" and "New York State Stormwater Management Design Manual".

Methodology

Pre- and post-development runoff conditions from the site were analyzed in accordance with NYSDEC Stormwater Design Manual.

1. Intellisolve's Hydraflow program was used to determine pre and post development runoffs from the watersheds. TR55 method was used. Watersheds were analyzed for the 90% , 1year, 10 year, 50 year and 100 year rainfall events.
2. Soils type delineations were taken from "Soils Survey of Orange County, New York", USDA Soil Conservation Service, October 1981.
4. Water Quality requirements are met through employment of an approved practice listed in Table 5.1 of the Stormwater Design Manual. A Pocket Pond has been provided.
5. WQv volumes will be held within the Pond.
6. 24 hour extended detention of the Cpv volume has been provided.
7. Overbank Flood Control (Qp) requirements have been satisfied by attenuating the post development 10-year, 24 hour peak discharge rate to predevelopment rates.
8. Extreme Flood Control (Qf) requirements have been satisfied by attenuating the post development 100-year, 24 hour peak discharge rate to predevelopment rates.
9. Storm drainage system and collection swales are sized for a 10 year design storm.
10. The existing 30" culvert was analyzed with a headwater elevation set at the edge of pavement of Route 300. The culvert meets NYSDOT 50 year design and also has additional capacity for the 100 year design.

STORMWATER MANAGEMENT

Impact Analysis of Gateway Medical Plaza Development.

Jerry's Climate Control site (3.0 acres) lies within watershed 1 (4.70 acres). The hydrologic soil group is 'C' and 'D'.

The proposed stormwater management plan provides water quality treatment, protect downstream channels, attenuate the overbank flood and extreme storm peak discharge.

Existing Condition

The SCS soil classifications for the site are primarily C/D Hydrological Group.
The existing ground cover is primarily woods and open space in fair condition.

One discharge point, located approximately 160 feet north, at the outfall of an existing collection swale and road catch basin was analyzed. The outfall discharges into Silver stream which is a second order stream that flows into the Moodna Creek.

Watershed 1-	4.70 Acres
Woods -	3.05 Acres
Open Area -	0.88 Acres
Impervious Area -	0.77 Acres

Outfall-Point A

Hydrologic Group- Erie Group C, Mardin Group C, Alden Group D, Udorthents

Developed Condition

The post-development analysis of watershed 1 analyzes 2 flow-paths. The first flow-path coincides with the existing flow path condition and is associated with the undisturbed area. The second flow-path follows runoff into the development's storm drain and into the proposed pond.

The outfall discharges into Silver stream which is a second order stream that flows into the Moodna Creek.

The 30" culvert crossing NYS Route 300 was analyzed (See Culvert Analysis)

Watershed 1-	4.70 Acres
Land disturbance-	3.00 Acres
Impervious Area	2.78 Acres
Open Space	1.92 Acres
Outfall Points A & B	

Hydrologic Group- Erie Group C, Mardin Group C, Alden Group D, Udorthents

Sub watershed 'A'

Impervious Area	1.84 Acres
Open Space	0.81 Acres
Outfall Point 'B'	

Sub watershed 'B'

Impervious Area	0.94 Acres
Open Space	1.11 Acres
Outfall Point 'A'	

TABLE 1

Soils

Soil		Depth to Bedrock	High Water	Hydrologic Group	Infiltration Rate
AC	Alden	60"+	0'-0.5'	D	Slow
ESB	Erie	60"+	0.5'-1.5'	C	Slow
MdB	Mardin	60"+	1.5'-2'	C	Slow
UH	Udorthents	60"+	NA	NA	Moderate

Stormwater Practice P-5

A P-5 pocket pond is proposed to provide water quality and runoff storage for the proposed development. A fore-bay, micro-pool and aquatic bench have been provided as required elements of the pond.

Deep Hole tests were performed within the area of the proposed pocket pond. These tests are included at the end of this report. The tests indicate that the groundwater is present between elevation 338.00 and 339.00. The NYSDEC recommends a 4 foot permanent pool. Therefore a the bottom of the micro-pool was set at 335.00 and the lowest orifice was set at 339.00.

Hydrology

The annual average precipitation at the nearby West Point gage is 48.7 inches, varying from a minimum of 34.7 inches to a maximum of 65.0 inches. Total average annual snowfall is approximately 30 inches.

The receiving storm drain flows south. Flow eventually outfalls into the Moodna Creek which is located 1 mile southeast of the site. The density of residential homes is low, adjacent to the stream. The Moodna creek has a history of flooding. Therefore increasing the flow into the receiving stream may cause damage to structures downstream. The proposed stormwater management plan reduces flow in the stream.

The proposed Stormwater Management Plan meets water quality treatment requirements as specified by the NYSDEC. This has been accomplished by holding the 90% runoff. Channel protection has been provided by 24 hour extended detention. The peak discharge for the overbank flood and extreme storm has been attenuated to predevelopment rates. Table 2 summarizes peak flow rates.

TABLE 2

Point 'A' = Route 300 Catch Basin 160' north of site

Point 'B' = Route 300 Catch Basin at Site's Southern Boundary (HW for 30" CMP)

Site Sumary	1 Year (cfs)	10Year (cfs)	50 Year (cfs)	100 Year (cfs)
Pre Development Point	2.56	8.64	12.50	15.12
Post Development	2.00	6.93	10.42	12.69
Point 'A'	1 Year (cfs)	10Year (cfs)	50 Year (cfs)	100 Year (cfs)
Pre Development Point 'A'	2.56	8.64	12.50	15.12
Post Development	1.98	4.95	6.69	7.85
Point 'B'	1 Year (cfs)	10Year (cfs)	50 Year (cfs)	100 Year (cfs)
Pre Development	NA	NA	NA	NA
Post Development (Additional -Flow)	0.17	3.25	5.02	6.35

Culvert Analysis

The capacity of the existing 30" culvert, which crosses NY Route 300, was analyzed for both inlet and outlet control. The culvert presently conveys flow from the New Windsor Business Park storm drainage system and runoff from a small portion of Route 300.

The flow from these sources was modeled by using Manning's equation for full pipe flow. The flow conveyed through the culvert comes from existing 18" and 24" cmp pipes. Full flow from these pipes was added to the pond outlet pipe flow and the headwater of the culvert was determined. Data sheets titled "Exist. 30" CMP Culvert", "Exist 24" CMP Capacity", "Exist 18" CMP Capacity" are included in this report. Below is a summary of the analysis.

100 Year Storm Flow

Existing 18" CMP Capacity	7.99 cfs
Existing 24" CMP Capacity	7.92 cfs
24" DIP from Storm water Pond	6.35 cfs
Total	22.26 cfs

Headwater Elevation of 30" CMP

Q	El.	
22.26	341.33	Design Elevation
45.10	343.80	Roadway El.(Rte 300 Edge of Pvmt)

Capacity vs. 100Yr. Design Flow

Capacity	100 Yr. Design flow
45.1 cfs	22.26 cfs

Conclusion:

The existing 30" culvert has enough capacity for post development flows from a 100 year storm.

In conclusion, the stormwater analysis of Jerry's Climate Control indicates that both localized and downstream impacts have been mitigated.

Exist 18" CMP Capacity

Given Input Data:

Shape	Circular
Solving for	Flowrate
Diameter	18.0000 in
Depth	18.0000 in
Slope	0.0137 ft/ft
Manning's n	0.0200

Computed Results:

Flowrate	7.9918 cfs
Area	1.7671 ft2
Wetted Area	1.7671 ft2
Wetted Perimeter	56.5487 in
Perimeter	56.5487 in
Velocity	4.5224 fps
Hydraulic Radius	4.5000 in
Percent Full	100.0000 %
Full flow Flowrate	7.9918 cfs
Full flow velocity	4.5224 fps

Critical Information

Critical depth	16.4373 in
Critical slope	0.0176 ft/ft
Critical velocity	6.2364 fps
Critical area	1.8132 ft2
Critical perimeter	43.1490 in
Critical hydraulic radius	6.0513 in
Critical top width	18.0000 in
Specific energy	1.9926 ft
Minimum energy	2.0547 ft
Froude number	0.8577
Flow condition	Subcritical

MP Capacity

Data:

.....	Circular
g for	Flowrate
er	24.0000 in
.....	24.0000 in
.....	0.0029 ft/ft
g's n	0.0200

sults:

te	7.9186 cfs
.....	3.1416 ft2
Area	3.1416 ft2
Perimeter	75.3982 in
ter	75.3982 in
ty	2.5206 fps
lic Radius	6.0000 in
t Full	100.0000 %
low Flowrate	7.9186 cfs
low velocity	2.5206 fps

Critical Information

al depth	14.4764 in
al slope	0.0126 ft/ft
al velocity	5.6488 fps
al area	1.9835 ft2
al perimeter	42.6520 in
al hydraulic radius	6.6967 in
al top width	24.0000 in
ic energy	2.1530 ft
n energy	1.8096 ft
number	0.4140
ondition	Subcritical

Exist 30 CMP Culvert.txt

Entered Data:

Shape	Circular
Number of Barrels	1
Solving for	Headwater
Chart Number	1
Scale Number	1
Chart Description	CONCRETE PIPE CULVERT; NO BEVELED RING ENTRANCE
Scale Description	SQUARE EDGE ENTRANCE WITH HEADWALL
Overtopping	Off
Flowrate	45.1000 cfs
Manning's n	0.0200
Roadway Elevation	343.8000 ft
Inlet Elevation	338.7900 ft
Outlet Elevation	337.7600 ft
Diameter	30.0000 in
Length	67.0000 ft
Entrance Loss	0.0000
Tailwater	2.5000 ft

Computed Results:

Headwater	343.8054 ft
Slope	0.0154 ft/ft
Velocity	NA

Messages:

Headwater elevation exceeds roadway elevation.

DIS-CHARGE Flow cfs	HEAD-WATER ELEV. ft	INLET CONTROL DEPTH ft	OUTLET CONTROL DEPTH ft	FLOW TYPE	NORMAL DEPTH in	CRITICAL DEPTH in	OUTLET VEL. fps	OUTLET DEPTH ft	TAILWATER VEL. fps	TAILWATER DEPTH ft
3.36	340.28	0.80	1.49	NA	6.45	30.00	0.68	2.50	0.00	2.50
6.72	340.33	1.17	1.54	NA	9.17	30.00	1.37	2.50	0.00	2.50
10.08	340.42	1.48	1.63	NA	11.36	30.00	2.05	2.50	0.00	2.50
13.44	340.56	1.77	1.76	NA	13.31	14.80	6.39	1.11	0.00	2.50
16.80	340.83	2.04	1.92	NA	15.13	16.63	6.77	1.26	0.00	2.50
20.16	341.10	2.31	2.11	NA	16.90	18.29	7.07	1.41	0.00	2.50
23.52	341.37	2.58	2.35	NA	18.68	19.82	7.32	1.56	0.00	2.50
26.88	341.65	2.86	2.61	NA	20.52	21.21	7.51	1.71	0.00	2.50
30.24	342.00	3.21	2.92	NA	22.53	22.50	7.65	1.88	0.00	2.50
33.60	342.31	3.52	3.26	NA	30.00	30.00	6.84	2.50	0.00	2.50
36.96	342.70	3.91	3.63	NA	30.00	30.00	7.53	2.50	0.00	2.50
40.32	343.13	4.34	4.04	NA	30.00	30.00	8.21	2.50	0.00	2.50
43.68	343.60	4.81	4.49	NA	30.00	30.00	8.90	2.50	0.00	2.50
47.04	343.76	0.00	4.97	NA	30.00	30.00	9.58	2.50	0.00	2.50

DEEP HOLE RESULTS

DH-1

0 TO 6"	TOPSOIL
6" TO 4'-3"	BROWN CLAY LOAM
4'-3" TO 8'-2"	BROWN CLAY LOAM W/ RUST & GRAY MOTTLING

GROUNDWATER SEEPAGE @ 4'-3"

DH-2

0 TO 4"	TOPSOIL
4" TO 4'-0"	BROWN CLAY LOAM
4'-0" TO 5'-0"	GRAY CLAY W/ RUST MOTTLING
5'-0" TO 8'-0	BROWN CLAY LOAM

GROUNDWATER SEEPAGE @ 5'-0"

COMPUTER PRINTOUT OF HYDROGRAPHS

Jerry's Climate Control

Our Job No. 2647

Town of New Windsor

Orange County, New York

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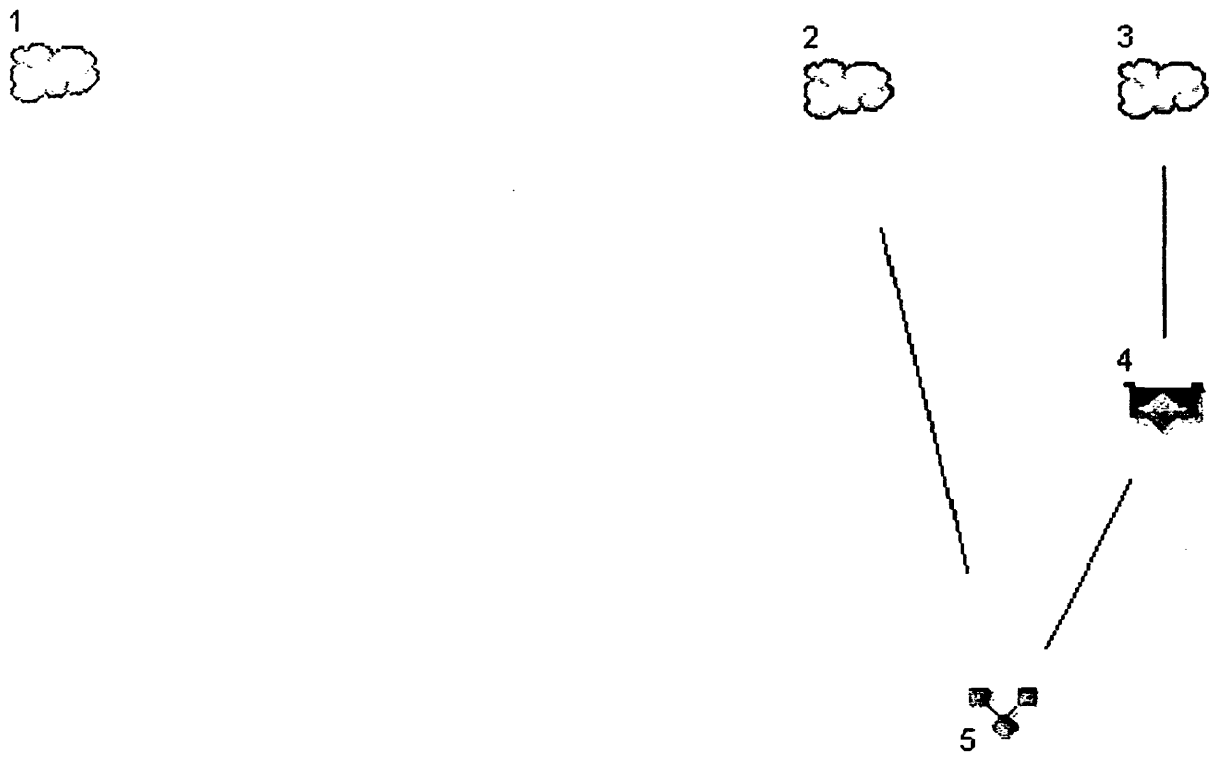

Legend

Hyd.	Origin	Description
1	SCS Runoff	PREDEV
2	SCS Runoff	POSTDEV A
3	SCS Runoff	POSTDEV B
4	Reservoir	POND
5	Combine	TOTAL POST

Hydrograph Return Period Recap

Hyd. No.	Hydrograph type (origin)	Inflow Hyd(s)	Peak Outflow (cfs)								Hydrograph description
			1-Yr	2-Yr	3-Yr	5-Yr	10-Yr	25-Yr	50-Yr	100-Yr	
1	SCS Runoff	------	2.56	------	------	------	8.64	------	12.50	15.12	PREDEV
2	SCS Runoff	------	1.98	------	------	------	4.95	------	6.69	7.85	POSTDEV A
3	SCS Runoff	------	2.56	------	------	------	6.40	------	8.65	10.14	POSTDEV B
4	Reservoir	3	0.17	------	------	------	3.25	------	5.02	6.35	POND
5	Combine	2, 4	2.00	------	------	------	6.93	------	10.42	12.69	TOTAL POST

Hydrograph Summary Report

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Volume (acft)	Inflow hyd(s)	Maximum elevation (ft)	Maximum storage (acft)	Hydrograph description
1	SCS Runoff	2.56	10	740	0.329	---	------	------	PREDEV
2	SCS Runoff	1.98	10	740	0.241	---	------	------	POSTDEV A
3	SCS Runoff	2.56	10	740	0.311	---	------	------	POSTDEV B
4	Reservoir	0.17	10	960	0.309	3	340.56	0.228	POND
5	Combine	2.00	10	740	0.550	2, 4	------	------	TOTAL POST

Hydrograph Report

Hydraflow Hydrographs by Intelisolve

Thursday, May 17 2007, 3:28 PM

Hyd. No. 1

PREDEV

Hydrograph type	= SCS Runoff	Peak discharge	= 2.56 cfs
Storm frequency	= 1 yrs	Time interval	= 10 min
Drainage area	= 4.70 ac	Curve number	= 75
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 31.4 min
Total precip.	= 2.90 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

Hydrograph Volume = 0.329 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time -- (hrs	Outflow cfs)
12.33	2.56 <<

...End

TR55 Tc Worksheet

Hydraflow Hydrographs by Intelisolve

Hyd. No. 1

PREDEV

Description	A	B	C	Totals
Sheet Flow				
Manning's n-value	= 0.400	0.011	0.011	
Flow length (ft)	= 100.0	0.0	0.0	
Two-year 24-hr precip. (in)	= 3.50	0.00	0.00	
Land slope (%)	= 1.00	0.00	0.00	
Travel Time (min)	**= 27.09 +**	**0.00 +**	**0.00 =**	**27.09**
Shallow Concentrated Flow				
Flow length (ft)	= 266.00	0.00	0.00	
Watercourse slope (%)	= 1.00	0.00	0.00	
Surface description	= Unpaved	Paved	Paved	
Average velocity (ft/s)	= 1.61	0.00	0.00	
Travel Time (min)	**= 2.75 +**	**0.00 +**	**0.00 =**	**2.75**
Channel Flow				
X sectional flow area (sqft)	= 0.67	0.00	0.00	
Wetted perimeter (ft)	= 2.17	0.00	0.00	
Channel slope (%)	= 1.50	0.00	0.00	
Manning's n-value	= 0.015	0.015	0.015	
Velocity (ft/s)	= 5.54	0.00	0.00	
Flow length (ft)	= 531.0	0.0	0.0	
Travel Time (min)	**= 1.60 +**	**0.00 +**	**0.00 =**	**1.60**

Total Travel Time, Tc ..... 31.40 min

Hydrograph Report

Hydraflow Hydrographs by Intelisolve | Thursday, May 17 2007, 3:28 PM

Hyd. No. 2

POSTDEV A

Hydrograph type	= SCS Runoff	Peak discharge	= 1.98 cfs
Storm frequency	= 1 yrs	Time interval	= 10 min
Drainage area	= 2.05 ac	Curve number	= 85
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 20.4 min
Total precip.	= 2.90 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

Hydrograph Volume = 0.241 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time (hrs)	Outflow (cfs)
12.33	1.98 <<

...End

TR55 Tc Worksheet

Hyd. No. 2

POSTDEV A

Description		A		B		C		Totals
Sheet Flow								
Manning's n-value	=	0.400		0.011		0.011		
Flow length (ft)	=	50.0		0.0		0.0		
Two-year 24-hr precip. (in)	=	3.50		0.00		0.00		
Land slope (%)	=	1.00		0.00		0.00		
Travel Time (min)	=	**15.56**	+	**0.00**	+	**0.00**	=	**15.56**
Shallow Concentrated Flow								
Flow length (ft)	=	316.00		0.00		0.00		
Watercourse slope (%)	=	1.00		0.00		0.00		
Surface description	=	Unpaved		Paved		Paved		
Average velocity (ft/s)	=	1.61		0.00		0.00		
Travel Time (min)	=	**3.26**	+	**0.00**	+	**0.00**	=	**3.26**
Channel Flow								
X sectional flow area (sqft)	=	0.67		0.00		0.00		
Wetted perimeter (ft)	=	2.16		0.00		0.00		
Channel slope (%)	=	1.50		0.00		0.00		
Manning's n-value	=	0.015		0.015		0.015		
Velocity (ft/s)	=	5.55		0.00		0.00		
Flow length (ft)	=	531.0		0.0		0.0		
Travel Time (min)	=	**1.59**	+	**0.00**	+	**0.00**	=	**1.59**

Total Travel Time, Tc ..... **20.40 min**

Hydrograph Report

Hydraflow Hydrographs by Intelisolve

Thursday, May 17 2007, 3:29 PM

Hyd. No. 3

POSTDEV B

Hydrograph type	= SCS Runoff	Peak discharge	= 2.56 cfs
Storm frequency	= 1 yrs	Time interval	= 10 min
Drainage area	= 2.65 ac	Curve number	= 85
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 18.6 min
Total precip.	= 2.90 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

Hydrograph Volume = 0.311 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time (hrs)	Outflow (cfs)
12.33	2.56 <<

...End

TR55 Tc Worksheet

Hydraflow Hydrographs by Intelisolve

Hyd. No. 3

POSTDEV B

Description		A	B	C	Totals
Sheet Flow					
Manning's n-value	=	0.400	0.011	0.011	
Flow length (ft)	=	50.0	0.0	0.0	
Two-year 24-hr precip. (in)	=	3.50	0.00	0.00	
Land slope (%)	=	1.00	0.00	0.00	
Travel Time (min)	=	**55** +	**0.00** +	**0.00** =	**55**
Shallow Concentrated Flow					
Flow length (ft)	=	308.00	0.00	0.00	
Watercourse slope (%)	=	1.00	0.00	0.00	
Surface description	=	Paved	Paved	Paved	
Average velocity (ft/s)	=	2.03	0.00	0.00	
Travel Time (min)	=	**2.5** +	**0.00** +	**0.00** =	**2.5**
Channel Flow					
X sectional flow area (sqft)	=	2.50	0.00	0.00	
Wetted perimeter (ft)	=	2.00	0.00	0.00	
Channel slope (%)	=	2.00	0.00	0.00	
Manning's n-value	=	0.015	0.015	0.015	
Velocity (ft/s)	=	16.31	0.00	0.00	
Flow length (ft)	=	464.0	0.0	0.0	
Travel Time (min)	=	**0.47** +	**0.00** +	**0.00** =	**0.47**

Total Travel Time, Tc ..... **60 min**

Hydrograph Report

Hydraflow Hydrographs by Intelisolve | Thursday, May 17 2007, 3:29 PM

Hyd. No. 4

POND

Hydrograph type	= Reservoir	Peak discharge	= 0.17 cfs
Storm frequency	= 1 yrs	Time interval	= 10 min
Inflow hyd. No.	= 3	Reservoir name	= POND A
Max. Elevation	= 340.56 ft	Max. Storage	= 0.228 acft

Storage Indication method used.

Outflow hydrograph volume = 0.309 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
16.00	0.17	340.56 <<	0.17	0.03	0.10	-----	0.03	-----	-----	-----	-----	0.17 <<

...End

Pond Report

Hydraflow Hydrographs by Intelisolve — Thursday, May 17 2007, 3:29 PM

Pond No. 1 - POND A

Pond Data

Pond storage is based on known contour areas. Average end area method used.

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (acft)	Total storage (acft)
0.00	339.00	5,328	0.000	0.000
1.00	340.00	6,502	0.136	0.136
2.00	341.00	7,786	0.164	0.300
3.00	342.00	9,179	0.195	0.495
4.00	343.00	10,618	0.227	0.722

Culvert / Orifice Structures

	[A]	[B]	[C]	[D]
Rise (in)	= 24.00	1.00	6.00	0.00
Span (in)	= 24.00	1.00	18.00	0.00
No. Barrels	= 1	1	1	0
Invert El. (ft)	= 339.00	339.00	340.50	0.00
Length (ft)	= 131.00	70.00	0.00	0.00
Slope (%)	= 0.30	0.40	0.00	0.00
N-Value	= .013	.013	.013	.013
Orif. Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	Yes	Yes	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 0.00	17.00	10.00	0.00
Crest El. (ft)	= 340.25	341.96	342.00	0.00
Weir Coeff.	= 0.57	2.60	2.60	0.00
Weir Type	= 45 degV	Broad	Broad	---
Multi-Stage	= Yes	Yes	No	No

Exfiltration = 0.000 in/hr (Contour) Tailwater Elev. = 0.00 ft

Note: Culvert/Orifice outflows have been analyzed under inlet and outlet control.

Stage / Storage / Discharge Table

Stage ft	Storage acft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Total cfs
0.00	0.000	339.00	0.00	0.00	0.00	—	—	0.00	0.00	—	—	0.00
0.10	0.014	339.10	0.01	0.01	0.00	—	—	0.00	0.00	—	—	0.01
0.20	0.027	339.20	0.01	0.01	0.00	—	—	0.00	0.00	—	—	0.01
0.30	0.041	339.30	0.02	0.01	0.00	—	—	0.00	0.00	—	—	0.01
0.40	0.054	339.40	0.02	0.02	0.00	—	—	0.00	0.00	—	—	0.02
0.50	0.068	339.50	0.02	0.02	0.00	—	—	0.00	0.00	—	—	0.02
0.60	0.081	339.60	0.02	0.02	0.00	—	—	0.00	0.00	—	—	0.02
0.70	0.095	339.70	0.02	0.02	0.00	—	—	0.00	0.00	—	—	0.02
0.80	0.109	339.80	0.02	0.02	0.00	—	—	0.00	0.00	—	—	0.02
0.90	0.122	339.90	0.03	0.02	0.00	—	—	0.00	0.00	—	—	0.02
1.00	0.136	340.00	0.03	0.03	0.00	—	—	0.00	0.00	—	—	0.03
1.10	0.152	340.10	0.03	0.03	0.00	—	—	0.00	0.00	—	—	0.03
1.20	0.169	340.20	0.03	0.03	0.00	—	—	0.00	0.00	—	—	0.03
1.30	0.185	340.30	0.03	0.03	0.00	—	0.00	0.00	0.00	—	—	0.03
1.40	0.201	340.40	0.04	0.03	0.00	—	0.00	0.00	0.00	—	—	0.04
1.50	0.218	340.50	0.05	0.03	0.00	—	0.02	0.00	0.00	—	—	0.05
1.60	0.234	340.60	0.24	0.03	0.16	—	0.04	0.00	0.00	—	—	0.23
1.70	0.251	340.70	0.60	0.03	0.46	—	0.08	0.00	0.00	—	—	0.57
1.80	0.267	340.80	1.05	0.03	0.84	—	0.13	0.00	0.00	—	—	1.00
1.90	0.283	340.90	1.58	0.03	1.29	—	0.19	0.00	0.00	—	—	1.52
2.00	0.300	341.00	2.13	0.03	1.81	—	0.28	0.00	0.00	—	—	2.12
2.10	0.319	341.10	2.58	0.03	2.14	—	0.38	0.00	0.00	—	—	2.55
2.20	0.339	341.20	3.05	0.03	2.42	—	0.50	0.00	0.00	—	—	2.96
2.30	0.358	341.30	3.44	0.03	2.68	—	0.65	0.00	0.00	—	—	3.36
2.40	0.378	341.40	3.85	0.03	2.91	—	0.81	0.00	0.00	—	—	3.76
2.50	0.397	341.50	4.16	0.03	3.13	—	1.00	0.00	0.00	—	—	4.16
2.60	0.417	341.60	4.58	0.03	3.33	—	1.21	0.00	0.00	—	—	4.57
2.70	0.436	341.70	5.00	0.03	3.52	—	1.45	0.00	0.00	—	—	5.00
2.80	0.456	341.80	5.52	0.03	3.70	—	1.71	0.00	0.00	—	—	5.45
2.90	0.475	341.90	5.93	0.03	3.87	—	2.00	0.00	0.00	—	—	5.91
3.00	0.495	342.00	6.79	0.03	4.04	—	2.31	0.35	0.00	—	—	6.73
3.10	0.517	342.10	8.99	0.03	4.13	—	2.49	2.32	0.82	—	—	9.79
3.20	0.540	342.20	11.33	0.03	3.55	—	2.56	5.20	2.33	—	—	13.65

Continues on next page...

POND A

Stage / Storage / Discharge Table

Stage ft	Storage acft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Total cfs
3.30	0.563	342.30	14.33	0.02	2.99	—	2.55	8.76	4.27	—	—	18.60
3.40	0.585	342.40	17.04	0.02	2.19	—	2.26	12.57	6.58	—	—	23.62
3.50	0.608	342.50	18.33	0.01	1.79	—	2.14	14.39	9.19	—	—	27.52
3.60	0.631	342.60	19.25	0.01	1.52	—	2.07	15.65	12.08	—	—	31.33
3.70	0.654	342.70	20.00	0.01	1.31	—	2.03	16.65	15.23	—	—	35.23
3.80	0.676	342.80	20.65	0.01	1.16	—	2.01	17.48	18.61	—	—	39.25
3.90	0.699	342.90	21.24	0.01	1.03	—	1.99	18.20	22.20	—	—	43.43
4.00	0.722	343.00	21.79	0.01	0.93	—	1.99	18.85	26.00	—	—	47.78

...End

Hydrograph Report

Hydraflow Hydrographs by Intelisolve | Thursday, May 17 2007, 3:29 PM

Hyd. No. 5

TOTAL POST

Hydrograph type	= Combine	Peak discharge	= 2.00 cfs
Storm frequency	= 1 yrs	Time interval	= 10 min
Inflow hyds.	= 2, 4		

Hydrograph Volume = 0.550 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time (hrs)	Hyd. 2 + (cfs)	Hyd. 4 = (cfs)	Outflow (cfs)
12.33	1.98 <<	0.02	2.00 <<

...End

Hydrograph Summary Report

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Volume (acft)	Inflow hyd(s)	Maximum elevation (ft)	Maximum storage (acft)	Hydrograph description
1	SCS Runoff	8.64	10	740	1.050	---	-----	-----	PREDEV
2	SCS Runoff	4.95	10	740	0.614	---	-----	-----	POSTDEV A
3	SCS Runoff	6.40	10	740	0.794	---	-----	-----	POSTDEV B
4	Reservoir	3.25	10	760	0.791	3	341.27	0.353	POND
5	Combine	6.93	10	750	1.405	2, 4	-----	-----	TOTAL POST

Hydrograph Report

Hydraflow Hydrographs by Intelisolve

Thursday, May 17 2007, 3:30 PM

Hyd. No. 1

PREDEV

Hydrograph type	= SCS Runoff	Peak discharge	= 8.64 cfs
Storm frequency	= 10 yrs	Time interval	= 10 min
Drainage area	= 4.70 ac	Curve number	= 75
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 31.4 min
Total precip.	= 5.50 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

Hydrograph Volume = 1.050 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time -- (hrs	Outflow cfs)
12.33	8.64 <<

...End

TR55 Tc Worksheet

Hydraflow Hydrographs by Intelisolve

Hyd. No. 1

PREDEV

Description		A		B		C		Totals
Sheet Flow								
Manning's n-value	=	0.400		0.011		0.011		
Flow length (ft)	=	100.0		0.0		0.0		
Two-year 24-hr precip. (in)	=	3.50		0.00		0.00		
Land slope (%)	=	1.00		0.00		0.00		
Travel Time (min)	=	**27.09**	+	**0.00**	+	**0.00**	=	**27.09**
Shallow Concentrated Flow								
Flow length (ft)	=	266.00		0.00		0.00		
Watercourse slope (%)	=	1.00		0.00		0.00		
Surface description	=	Unpaved		Paved		Paved		
Average velocity (ft/s)	=	1.61		0.00		0.00		
Travel Time (min)	=	**2.75**	+	**0.00**	+	**0.00**	=	**2.75**
Channel Flow								
X sectional flow area (sqft)	=	0.67		0.00		0.00		
Wetted perimeter (ft)	=	2.17		0.00		0.00		
Channel slope (%)	=	1.50		0.00		0.00		
Manning's n-value	=	0.015		0.015		0.015		
Velocity (ft/s)	=	5.54		0.00		0.00		
Flow length (ft)	=	531.0		0.0		0.0		
Travel Time (min)	=	**1.60**	+	**0.00**	+	**0.00**	=	**1.60**

Total Travel Time, Tc ..... **31.40 min**

Hydrograph Report

Hydraflow Hydrographs by Intelisolve | Thursday, May 17 2007, 3:30 PM

Hyd. No. 2

POSTDEV A

Hydrograph type	= SCS Runoff	Peak discharge	= 4.95 cfs
Storm frequency	= 10 yrs	Time interval	= 10 min
Drainage area	= 2.05 ac	Curve number	= 85
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 20.4 min
Total precip.	= 5.50 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

Hydrograph Volume = 0.614 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time -- (hrs	Outflow cfs)
12.33	4.95 <<

...End

TR55 Tc Worksheet

Hydraflow Hydrographs by Intelisolve

Hyd. No. 2

POSTDEV A

Description		A		B		C		Totals
Sheet Flow								
Manning's n-value	=	0.400		0.011		0.011		
Flow length (ft)	=	50.0		0.0		0.0		
Two-year 24-hr precip. (in)	=	3.50		0.00		0.00		
Land slope (%)	=	1.00		0.00		0.00		
Travel Time (min)	=	**15.56**	+	**0.00**	+	**0.00**	=	**15.56**
Shallow Concentrated Flow								
Flow length (ft)	=	316.00		0.00		0.00		
Watercourse slope (%)	=	1.00		0.00		0.00		
Surface description	=	Unpaved		Paved		Paved		
Average velocity (ft/s)	=	1.61		0.00		0.00		
Travel Time (min)	=	**3.26**	+	**0.00**	+	**0.00**	=	**3.26**
Channel Flow								
X sectional flow area (sqft)	=	0.67		0.00		0.00		
Wetted perimeter (ft)	=	2.16		0.00		0.00		
Channel slope (%)	=	1.50		0.00		0.00		
Manning's n-value	=	0.015		0.015		0.015		
Velocity (ft/s)	=	5.55		0.00		0.00		
Flow length (ft)	=	531.0		0.0		0.0		
Travel Time (min)	=	**1.59**	+	**0.00**	+	**0.00**	=	**1.59**

Total Travel Time, Tc ..... **20.40 min**

Hydrograph Report

Hydraflow Hydrographs by Intelisolve | Thursday, May 17 2007, 3:30 PM

Hyd. No. 3

POSTDEV B

Hydrograph type	= SCS Runoff	Peak discharge	= 6.40 cfs
Storm frequency	= 10 yrs	Time interval	= 10 min
Drainage area	= 2.65 ac	Curve number	= 85
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 18.6 min
Total precip.	= 5.50 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

Hydrograph Volume = 0.794 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time -- (hrs	Outflow cfs)
12.33	6.40 <<

...End

TR55 Tc Worksheet

Hydraflow Hydrographs by Intelisolve

Hyd. No. 3

POSTDEV B

Description		A		B		C		Totals
Sheet Flow								
Manning's n-value	=	0.400		0.011		0.011		
Flow length (ft)	=	50.0		0.0		0.0		
Two-year 24-hr precip. (in)	=	3.50		0.00		0.00		
Land slope (%)	=	1.00		0.00		0.00		
Travel Time (min)	=	**15.56**	+	**0.00**	+	**0.00**	=	**15.56**
Shallow Concentrated Flow								
Flow length (ft)	=	308.00		0.00		0.00		
Watercourse slope (%)	=	1.00		0.00		0.00		
Surface description	=	Paved		Paved		Paved		
Average velocity (ft/s)	=	2.03		0.00		0.00		
Travel Time (min)	=	**2.53**	+	**0.00**	+	**0.00**	=	**2.53**
Channel Flow								
X sectional flow area (sqft)	=	2.50		0.00		0.00		
Wetted perimeter (ft)	=	2.00		0.00		0.00		
Channel slope (%)	=	2.00		0.00		0.00		
Manning's n-value	=	0.015		0.015		0.015		
Velocity (ft/s)	=	16.31		0.00		0.00		
Flow length (ft)	=	464.0		0.0		0.0		
Travel Time (min)	=	**0.47**	+	**0.00**	+	**0.00**	=	**0.47**

Total Travel Time, Tc ..... **18.60 min**

Hydrograph Report

Hydraflow Hydrographs by Intelisolve | Thursday, May 17 2007, 3:30 PM

Hyd. No. 4

POND

Hydrograph type	= Reservoir	Peak discharge	= 3.25 cfs
Storm frequency	= 10 yrs	Time interval	= 10 min
Inflow hyd. No.	= 3	Reservoir name	= POND A
Max. Elevation	= 341.27 ft	Max. Storage	= 0.353 acft

Storage Indication method used.

Outflow hydrograph volume = 0.791 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
12.67	3.35	341.27	3.34	0.03	2.61	----	0.61	----	----	----	----	3.25 <<

...End

Pond Report

Hydraflow Hydrographs by Intelisolve — Thursday, May 17 2007, 3:31 PM

Pond No. 1 - POND A

Pond Data

Pond storage is based on known contour areas. Average end area method used.

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (acft)	Total storage (acft)
0.00	339.00	5,328	0.000	0.000
1.00	340.00	6,502	0.136	0.136
2.00	341.00	7,786	0.164	0.300
3.00	342.00	9,179	0.195	0.495
4.00	343.00	10,618	0.227	0.722

Culvert / Orifice Structures

	[A]	[B]	[C]	[D]
Rise (in)	= 24.00	1.00	6.00	0.00
Span (in)	= 24.00	1.00	18.00	0.00
No. Barrels	= 1	1	1	0
Invert El. (ft)	= 339.00	339.00	340.50	0.00
Length (ft)	= 131.00	70.00	0.00	0.00
Slope (%)	= 0.30	0.40	0.00	0.00
N-Value	= .013	.013	.013	.013
Orif. Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	Yes	Yes	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 0.00	17.00	10.00	0.00
Crest El. (ft)	= 340.25	341.96	342.00	0.00
Weir Coeff.	= 0.57	2.60	2.60	0.00
Weir Type	= 45 degV	Broad	Broad	---
Multi-Stage	= Yes	Yes	No	No

Exfiltration = 0.000 in/hr (Contour) Tailwater Elev. = 0.00 ft

Note: Culvert/Orifice outflows have been analyzed under inlet and outlet control.

Stage / Storage / Discharge Table

Stage ft	Storage acft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Total cfs
0.00	0.000	339.00	0.00	0.00	0.00	---	---	0.00	0.00	---	---	0.00
0.10	0.014	339.10	0.01	0.01	0.00	---	---	0.00	0.00	---	---	0.01
0.20	0.027	339.20	0.01	0.01	0.00	---	---	0.00	0.00	---	---	0.01
0.30	0.041	339.30	0.02	0.01	0.00	---	---	0.00	0.00	---	---	0.01
0.40	0.054	339.40	0.02	0.02	0.00	---	---	0.00	0.00	---	---	0.02
0.50	0.068	339.50	0.02	0.02	0.00	---	---	0.00	0.00	---	---	0.02
0.60	0.081	339.60	0.02	0.02	0.00	---	---	0.00	0.00	---	---	0.02
0.70	0.095	339.70	0.02	0.02	0.00	---	---	0.00	0.00	---	---	0.02
0.80	0.109	339.80	0.02	0.02	0.00	---	---	0.00	0.00	---	---	0.02
0.90	0.122	339.90	0.03	0.02	0.00	---	---	0.00	0.00	---	---	0.02
1.00	0.136	340.00	0.03	0.03	0.00	---	---	0.00	0.00	---	---	0.03
1.10	0.152	340.10	0.03	0.03	0.00	---	---	0.00	0.00	---	---	0.03
1.20	0.169	340.20	0.03	0.03	0.00	---	---	0.00	0.00	---	---	0.03
1.30	0.185	340.30	0.03	0.03	0.00	---	0.00	0.00	0.00	---	---	0.03
1.40	0.201	340.40	0.04	0.03	0.00	---	0.00	0.00	0.00	---	---	0.04
1.50	0.218	340.50	0.05	0.03	0.00	---	0.02	0.00	0.00	---	---	0.05
1.60	0.234	340.60	0.24	0.03	0.16	---	0.04	0.00	0.00	---	---	0.23
1.70	0.251	340.70	0.60	0.03	0.46	---	0.08	0.00	0.00	---	---	0.57
1.80	0.267	340.80	1.05	0.03	0.84	---	0.13	0.00	0.00	---	---	1.00
1.90	0.283	340.90	1.58	0.03	1.29	---	0.19	0.00	0.00	---	---	1.52
2.00	0.300	341.00	2.13	0.03	1.81	---	0.28	0.00	0.00	---	---	2.12
2.10	0.319	341.10	2.58	0.03	2.14	---	0.38	0.00	0.00	---	---	2.55
2.20	0.339	341.20	3.05	0.03	2.42	---	0.50	0.00	0.00	---	---	2.96
2.30	0.358	341.30	3.44	0.03	2.68	---	0.65	0.00	0.00	---	---	3.36
2.40	0.378	341.40	3.85	0.03	2.91	---	0.81	0.00	0.00	---	---	3.76
2.50	0.397	341.50	4.16	0.03	3.13	---	1.00	0.00	0.00	---	---	4.16
2.60	0.417	341.60	4.58	0.03	3.33	---	1.21	0.00	0.00	---	---	4.57
2.70	0.436	341.70	5.00	0.03	3.52	---	1.45	0.00	0.00	---	---	5.00
2.80	0.456	341.80	5.52	0.03	3.70	---	1.71	0.00	0.00	---	---	5.45
2.90	0.475	341.90	5.93	0.03	3.87	---	2.00	0.00	0.00	---	---	5.91
3.00	0.495	342.00	6.79	0.03	4.04	---	2.31	0.35	0.00	---	---	6.73
3.10	0.517	342.10	8.99	0.03	4.13	---	2.49	2.32	0.82	---	---	9.79
3.20	0.540	342.20	11.33	0.03	3.55	---	2.56	5.20	2.33	---	---	13.65

Continues on next page...

POND A

Stage / Storage / Discharge Table

Stage ft	Storage acft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Total cfs
3.30	0.563	342.30	14.33	0.02	2.99	—	2.55	8.76	4.27	—	—	18.60
3.40	0.585	342.40	17.04	0.02	2.19	—	2.26	12.57	6.58	—	—	23.62
3.50	0.608	342.50	18.33	0.01	1.79	—	2.14	14.39	9.19	—	—	27.52
3.60	0.631	342.60	19.25	0.01	1.52	—	2.07	15.65	12.08	—	—	31.33
3.70	0.654	342.70	20.00	0.01	1.31	—	2.03	16.65	15.23	—	—	35.23
3.80	0.676	342.80	20.65	0.01	1.16	—	2.01	17.48	18.61	—	—	39.25
3.90	0.699	342.90	21.24	0.01	1.03	—	1.99	18.20	22.20	—	—	43.43
4.00	0.722	343.00	21.79	0.01	0.93	—	1.99	18.85	26.00	—	—	47.78

...End

Hydrograph Report

Hydraflow Hydrographs by Intelisolve | Thursday, May 17 2007, 3:31 PM

Hyd. No. 5

TOTAL POST

Hydrograph type	= Combine	Peak discharge	= 6.93 cfs
Storm frequency	= 10 yrs	Time interval	= 10 min
Inflow hyds.	= 2, 4		

Hydrograph Volume = 1.405 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time (hrs)	Hyd. 2 + (cfs)	Hyd. 4 = (cfs)	Outflow (cfs)
12.50	4.02	2.91	6.93 <<

...End

Hydrograph Summary Report

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Volume (acft)	Inflow hyd(s)	Maximum elevation (ft)	Maximum storage (acft)	Hydrograph description
1	SCS Runoff	12.50	10	740	1.524	---	-----	-----	PREDEV
2	SCS Runoff	6.69	10	740	0.841	---	-----	-----	POSTDEV A
3	SCS Runoff	8.65	10	740	1.087	---	-----	-----	POSTDEV B
4	Reservoir	5.02	10	760	1.085	3	341.70	0.437	POND
5	Combine	10.42	10	740	1.927	2, 4	-----	-----	TOTAL POST

Hydrograph Report

Hydraflow Hydrographs by Intelisolve

Thursday, May 17 2007, 3:31 PM

Hyd. No. 1

PREDEV

Hydrograph type	= SCS Runoff	Peak discharge	= 12.50 cfs
Storm frequency	= 50 yrs	Time interval	= 10 min
Drainage area	= 4.70 ac	Curve number	= 75
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 31.4 min
Total precip.	= 7.00 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

Hydrograph Volume = 1.524 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time – Outflow (hrs	cfs)
12.33	12.50 <<

...End

TR55 Tc Worksheet

Hydraflow Hydrographs by Intelisolve

Hyd. No. 1

PREDEV

Description		A		B		C		Totals
Sheet Flow								
Manning's n-value	=	0.400		0.011		0.011		
Flow length (ft)	=	100.0		0.0		0.0		
Two-year 24-hr precip. (in)	=	3.50		0.00		0.00		
Land slope (%)	=	1.00		0.00		0.00		
Travel Time (min)	=	**27.09**	+	**0.00**	+	**0.00**	=	**27.09**
Shallow Concentrated Flow								
Flow length (ft)	=	266.00		0.00		0.00		
Watercourse slope (%)	=	1.00		0.00		0.00		
Surface description	=	Unpaved		Paved		Paved		
Average velocity (ft/s)	=	1.61		0.00		0.00		
Travel Time (min)	=	**2.75**	+	**0.00**	+	**0.00**	=	**2.75**
Channel Flow								
X sectional flow area (sqft)	=	0.67		0.00		0.00		
Wetted perimeter (ft)	=	2.17		0.00		0.00		
Channel slope (%)	=	1.50		0.00		0.00		
Manning's n-value	=	0.015		0.015		0.015		
Velocity (ft/s)	=	5.54		0.00		0.00		
Flow length (ft)	=	531.0		0.0		0.0		
Travel Time (min)	=	**1.60**	+	**0.00**	+	**0.00**	=	**1.60**

Total Travel Time, Tc ..... **31.40 min**

Hydrograph Report

Hydraflow Hydrographs by Intelisolve

Thursday, May 17 2007, 3:32 PM

Hyd. No. 2

POSTDEV A

Hydrograph type	= SCS Runoff	Peak discharge	= 6.69 cfs
Storm frequency	= 50 yrs	Time interval	= 10 min
Drainage area	= 2.05 ac	Curve number	= 85
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 20.4 min
Total precip.	= 7.00 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

Hydrograph Volume = 0.841 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time -- (hrs	Outflow cfs)
12.33	6.69 <<

...End

TR55 Tc Worksheet

Hydraflow Hydrographs by Intelisolve

Hyd. No. 2

POSTDEV A

Description		A		B		C		Totals
Sheet Flow								
Manning's n-value	=	0.400		0.011		0.011		
Flow length (ft)	=	50.0		0.0		0.0		
Two-year 24-hr precip. (in)	=	3.50		0.00		0.00		
Land slope (%)	=	1.00		0.00		0.00		
Travel Time (min)	=	**15.56**	+	**0.00**	+	**0.00**	=	**15.56**
Shallow Concentrated Flow								
Flow length (ft)	=	316.00		0.00		0.00		
Watercourse slope (%)	=	1.00		0.00		0.00		
Surface description	=	Unpaved		Paved		Paved		
Average velocity (ft/s)	=	1.61		0.00		0.00		
Travel Time (min)	=	**3.26**	+	**0.00**	+	**0.00**	=	**3.26**
Channel Flow								
X sectional flow area (sqft)	=	0.67		0.00		0.00		
Wetted perimeter (ft)	=	2.16		0.00		0.00		
Channel slope (%)	=	1.50		0.00		0.00		
Manning's n-value	=	0.015		0.015		0.015		
Velocity (ft/s)	=	5.55		0.00		0.00		
Flow length (ft)	=	531.0		0.0		0.0		
Travel Time (min)	=	**1.59**	+	**0.00**	+	**0.00**	=	**1.59**

Total Travel Time, Tc ..... **20.40 min**

Hydrograph Report

Hydraflow Hydrographs by Intelisolve

Thursday, May 17 2007, 3:33 PM

Hyd. No. 3

POSTDEV B

Hydrograph type	= SCS Runoff	Peak discharge	= 8.65 cfs
Storm frequency	= 50 yrs	Time interval	= 10 min
Drainage area	= 2.65 ac	Curve number	= 85
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 18.6 min
Total precip.	= 7.00 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

Hydrograph Volume = 1.087 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time – (hrs	Outflow cfs)
12.33	8.65 <<

...End

TR55 Tc Worksheet

Hyd. No. 3

POSTDEV B

Description	A	B	C	Totals
Sheet Flow				
Manning's n-value	= 0.400	0.011	0.011	
Flow length (ft)	= 50.0	0.0	0.0	
Two-year 24-hr precip. (in)	= 3.50	0.00	0.00	
Land slope (%)	= 1.00	0.00	0.00	
Travel Time (min)	**= 15.56 +**	**0.00 +**	**0.00 =**	**15.56**
Shallow Concentrated Flow				
Flow length (ft)	= 308.00	0.00	0.00	
Watercourse slope (%)	= 1.00	0.00	0.00	
Surface description	= Paved	Paved	Paved	
Average velocity (ft/s)	= 2.03	0.00	0.00	
Travel Time (min)	**= 2.53 +**	**0.00 +**	**0.00 =**	**2.53**
Channel Flow				
X sectional flow area (sqft)	= 2.50	0.00	0.00	
Wetted perimeter (ft)	= 2.00	0.00	0.00	
Channel slope (%)	= 2.00	0.00	0.00	
Manning's n-value	= 0.015	0.015	0.015	
Velocity (ft/s)	= 16.31	0.00	0.00	
Flow length (ft)	= 464.0	0.0	0.0	
Travel Time (min)	**= 0.47 +**	**0.00 +**	**0.00 =**	**0.47**

Total Travel Time, Tc ..... **18.60 min**

Hydrograph Report

Hydraflow Hydrographs by Intelisolve

Thursday, May 17 2007, 3:33 PM

Hyd. No. 4

POND

Hydrograph type	= Reservoir	Peak discharge	= 5.02 cfs
Storm frequency	= 50 yrs	Time interval	= 10 min
Inflow hyd. No.	= 3	Reservoir name	= POND A
Max. Elevation	= 341.70 ft	Max. Storage	= 0.437 acft

Storage Indication method used.

Outflow hydrograph volume = 1.085 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
12.67	4.46	341.70	5.02	0.03	3.53	----	1.46	----	----	----	----	5.02 <<

...End

Pond Report

Hydraflow Hydrographs by Intelisolve — Thursday, May 17 2007, 3:33 PM

Pond No. 1 - POND A

Pond Data

Pond storage is based on known contour areas. Average end area method used.

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (acft)	Total storage (acft)
0.00	339.00	5,328	0.000	0.000
1.00	340.00	6,502	0.136	0.136
2.00	341.00	7,786	0.164	0.300
3.00	342.00	9,179	0.195	0.495
4.00	343.00	10,618	0.227	0.722

Culvert / Orifice Structures

	[A]	[B]	[C]	[D]
Rise (in)	= 24.00	1.00	6.00	0.00
Span (in)	= 24.00	1.00	18.00	0.00
No. Barrels	= 1	1	1	0
Invert El. (ft)	= 339.00	339.00	340.50	0.00
Length (ft)	= 131.00	70.00	0.00	0.00
Slope (%)	= 0.30	0.40	0.00	0.00
N-Value	= .013	.013	.013	.013
Orif. Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	Yes	Yes	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 0.00	17.00	10.00	0.00
Crest El. (ft)	= 340.25	341.96	342.00	0.00
Weir Coeff.	= 0.57	2.60	2.60	0.00
Weir Type	= 45 degV	Broad	Broad	---
Multi-Stage	= Yes	Yes	No	No

Exfiltration = 0.000 in/hr (Contour) Tailwater Elev. = 0.00 ft

Note: Culvert/Orifice outflows have been analyzed under inlet and outlet control.

Stage / Storage / Discharge Table

Stage ft	Storage acft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Total cfs
0.00	0.000	339.00	0.00	0.00	0.00	---	---	0.00	0.00	---	---	0.00
0.10	0.014	339.10	0.01	0.01	0.00	---	---	0.00	0.00	---	---	0.01
0.20	0.027	339.20	0.01	0.01	0.00	---	---	0.00	0.00	---	---	0.01
0.30	0.041	339.30	0.02	0.01	0.00	---	---	0.00	0.00	---	---	0.01
0.40	0.054	339.40	0.02	0.02	0.00	---	---	0.00	0.00	---	---	0.02
0.50	0.068	339.50	0.02	0.02	0.00	---	---	0.00	0.00	---	---	0.02
0.60	0.081	339.60	0.02	0.02	0.00	---	---	0.00	0.00	---	---	0.02
0.70	0.095	339.70	0.02	0.02	0.00	---	---	0.00	0.00	---	---	0.02
0.80	0.109	339.80	0.02	0.02	0.00	---	---	0.00	0.00	---	---	0.02
0.90	0.122	339.90	0.03	0.02	0.00	---	---	0.00	0.00	---	---	0.02
1.00	0.136	340.00	0.03	0.03	0.00	---	---	0.00	0.00	---	---	0.03
1.10	0.152	340.10	0.03	0.03	0.00	---	---	0.00	0.00	---	---	0.03
1.20	0.169	340.20	0.03	0.03	0.00	---	---	0.00	0.00	---	---	0.03
1.30	0.185	340.30	0.03	0.03	0.00	---	0.00	0.00	0.00	---	---	0.03
1.40	0.201	340.40	0.04	0.03	0.00	---	0.00	0.00	0.00	---	---	0.04
1.50	0.218	340.50	0.05	0.03	0.00	---	0.02	0.00	0.00	---	---	0.05
1.60	0.234	340.60	0.24	0.03	0.16	---	0.04	0.00	0.00	---	---	0.23
1.70	0.251	340.70	0.60	0.03	0.46	---	0.08	0.00	0.00	---	---	0.57
1.80	0.267	340.80	1.05	0.03	0.84	---	0.13	0.00	0.00	---	---	1.00
1.90	0.283	340.90	1.58	0.03	1.29	---	0.19	0.00	0.00	---	---	1.52
2.00	0.300	341.00	2.13	0.03	1.81	---	0.28	0.00	0.00	---	---	2.12
2.10	0.319	341.10	2.58	0.03	2.14	---	0.38	0.00	0.00	---	---	2.55
2.20	0.339	341.20	3.05	0.03	2.42	---	0.50	0.00	0.00	---	---	2.96
2.30	0.358	341.30	3.44	0.03	2.68	---	0.65	0.00	0.00	---	---	3.36
2.40	0.378	341.40	3.85	0.03	2.91	---	0.81	0.00	0.00	---	---	3.76
2.50	0.397	341.50	4.16	0.03	3.13	---	1.00	0.00	0.00	---	---	4.16
2.60	0.417	341.60	4.58	0.03	3.33	---	1.21	0.00	0.00	---	---	4.57
2.70	0.436	341.70	5.00	0.03	3.52	---	1.45	0.00	0.00	---	---	5.00
2.80	0.456	341.80	5.52	0.03	3.70	---	1.71	0.00	0.00	---	---	5.45
2.90	0.475	341.90	5.93	0.03	3.87	---	2.00	0.00	0.00	---	---	5.91
3.00	0.495	342.00	6.79	0.03	4.04	---	2.31	0.35	0.00	---	---	6.73
3.10	0.517	342.10	8.99	0.03	4.13	---	2.49	2.32	0.82	---	---	9.79
3.20	0.540	342.20	11.33	0.03	3.55	---	2.56	5.20	2.33	---	---	13.65

Continues on next page...

POND A

Stage / Storage / Discharge Table

Stage ft	Storage acft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Total cfs
3.30	0.563	342.30	14.33	0.02	2.99	—	2.55	8.76	4.27	—	—	18.60
3.40	0.585	342.40	17.04	0.02	2.19	—	2.26	12.57	6.58	—	—	23.62
3.50	0.608	342.50	18.33	0.01	1.79	—	2.14	14.39	9.19	—	—	27.52
3.60	0.631	342.60	19.25	0.01	1.52	—	2.07	15.65	12.08	—	—	31.33
3.70	0.654	342.70	20.00	0.01	1.31	—	2.03	16.65	15.23	—	—	35.23
3.80	0.676	342.80	20.65	0.01	1.16	—	2.01	17.48	18.61	—	—	39.25
3.90	0.699	342.90	21.24	0.01	1.03	—	1.99	18.20	22.20	—	—	43.43
4.00	0.722	343.00	21.79	0.01	0.93	—	1.99	18.85	26.00	—	—	47.78

...End

Hydrograph Report

Hydraflow Hydrographs by Intelisolve

Thursday, May 17 2007, 3:33 PM

Hyd. No. 5

TOTAL POST

Hydrograph type	= Combine	Peak discharge	= 10.42 cfs
Storm frequency	= 50 yrs	Time interval	= 10 min
Inflow hyds.	= 2, 4		

Hydrograph Volume = 1.927 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time (hrs)	Hyd. 2 + (cfs)	Hyd. 4 = (cfs)	Outflow (cfs)
12.33	6.69 <<	3.73	10.42 <<

...End

Hydrograph Summary Report

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to peak (min)	Volume (acft)	Inflow hyd(s)	Maximum elevation (ft)	Maximum storage (acft)	Hydrograph description
1	SCS Runoff	15.12	10	740	1.851	---	-----	-----	PREDEV
2	SCS Runoff	7.85	10	740	0.995	---	-----	-----	POSTDEV A
3	SCS Runoff	10.14	10	740	1.286	---	-----	-----	POSTDEV B
4	Reservoir	6.35	10	760	1.284	3	341.95	0.486	POND
5	Combine	12.69	10	740	2.279	2, 4	-----	-----	TOTAL POST

SABINI 300 2007_05_16.gpw	Return Period: 100 Year	Thursday, May 17 2007, 3:34 PM

Hydrograph Report

Hydraflow Hydrographs by Intelisolve

Thursday, May 17 2007, 3:34 PM

Hyd. No. 1

PREDEV

Hydrograph type	= SCS Runoff	Peak discharge	= 15.12 cfs
Storm frequency	= 100 yrs	Time interval	= 10 min
Drainage area	= 4.70 ac	Curve number	= 75
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 31.4 min
Total precip.	= 8.00 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

Hydrograph Volume = 1.851 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time -- (hrs	Outflow cfs)
12.33	15.12 <<

...End

TR55 Tc Worksheet

Hydraflow Hydrographs by Intelisolve

Hyd. No. 1

PREDEV

Description		A		B		C		Totals
Sheet Flow								
Manning's n-value	=	0.400		0.011		0.011		
Flow length (ft)	=	100.0		0.0		0.0		
Two-year 24-hr precip. (in)	=	3.50		0.00		0.00		
Land slope (%)	=	1.00		0.00		0.00		
Travel Time (min)	=	**27.09**	+	**0.00**	+	**0.00**	=	**27.09**
Shallow Concentrated Flow								
Flow length (ft)	=	266.00		0.00		0.00		
Watercourse slope (%)	=	1.00		0.00		0.00		
Surface description	=	Unpaved		Paved		Paved		
Average velocity (ft/s)	=	1.61		0.00		0.00		
Travel Time (min)	=	**2.75**	+	**0.00**	+	**0.00**	=	**2.75**
Channel Flow								
X sectional flow area (sqft)	=	0.67		0.00		0.00		
Wetted perimeter (ft)	=	2.17		0.00		0.00		
Channel slope (%)	=	1.50		0.00		0.00		
Manning's n-value	=	0.015		0.015		0.015		
Velocity (ft/s)	=	5.54		0.00		0.00		
Flow length (ft)	=	531.0		0.0		0.0		
Travel Time (min)	=	**1.60**	+	**0.00**	+	**0.00**	=	**1.60**

Total Travel Time, Tc ..... **31.40 min**

Hydrograph Report

Hydraflow Hydrographs by Intelisolve

Thursday, May 17 2007, 3:34 PM

Hyd. No. 2

POSTDEV A

Hydrograph type	= SCS Runoff	Peak discharge	= 7.85 cfs
Storm frequency	= 100 yrs	Time interval	= 10 min
Drainage area	= 2.05 ac	Curve number	= 85
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 20.4 min
Total precip.	= 8.00 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

Hydrograph Volume = 0.995 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time -- (hrs	Outflow cfs)
12.33	7.85 <<

...End

TR55 Tc Worksheet

Hydraflow Hydrographs by Intelisolve

Hyd. No. 2

POSTDEV A

Description		A		B		C		Totals
Sheet Flow								
Manning's n-value	=	0.400		0.011		0.011		
Flow length (ft)	=	50.0		0.0		0.0		
Two-year 24-hr precip. (in)	=	3.50		0.00		0.00		
Land slope (%)	=	1.00		0.00		0.00		
Travel Time (min)	=	**15.56**	+	**0.00**	+	**0.00**	=	**15.56**
Shallow Concentrated Flow								
Flow length (ft)	=	316.00		0.00		0.00		
Watercourse slope (%)	=	1.00		0.00		0.00		
Surface description	=	Unpaved		Paved		Paved		
Average velocity (ft/s)	=	1.61		0.00		0.00		
Travel Time (min)	=	**3.26**	+	**0.00**	+	**0.00**	=	**3.26**
Channel Flow								
X sectional flow area (sqft)	=	0.67		0.00		0.00		
Wetted perimeter (ft)	=	2.16		0.00		0.00		
Channel slope (%)	=	1.50		0.00		0.00		
Manning's n-value	=	0.015		0.015		0.015		
Velocity (ft/s)	=	5.55		0.00		0.00		
Flow length (ft)	=	531.0		0.0		0.0		
Travel Time (min)	=	**1.59**	+	**0.00**	+	**0.00**	=	**1.59**

Total Travel Time, Tc ..... **20.40 min**

Hydrograph Report

Hydraflow Hydrographs by Intelisolve | Thursday, May 17 2007, 3:34 PM

Hyd. No. 3

POSTDEV B

Hydrograph type	= SCS Runoff	Peak discharge	= 10.14 cfs
Storm frequency	= 100 yrs	Time interval	= 10 min
Drainage area	= 2.65 ac	Curve number	= 85
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 18.6 min
Total precip.	= 8.00 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

Hydrograph Volume = 1.286 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time -- (hrs	Outflow cfs)
12.33	10.14 <<

...End

TR55 Tc Worksheet

Hydraflow Hydrographs by Intelisolve

Hyd. No. 3

POSTDEV B

Description		A		B		C		Totals
Sheet Flow								
Manning's n-value	=	0.400		0.011		0.011		
Flow length (ft)	=	50.0		0.0		0.0		
Two-year 24-hr precip. (in)	=	3.50		0.00		0.00		
Land slope (%)	=	1.00		0.00		0.00		
Travel Time (min)	=	**15.56**	+	**0.00**	+	**0.00**	=	**15.56**
Shallow Concentrated Flow								
Flow length (ft)	=	308.00		0.00		0.00		
Watercourse slope (%)	=	1.00		0.00		0.00		
Surface description	=	Paved		Paved		Paved		
Average velocity (ft/s)	=	2.03		0.00		0.00		
Travel Time (min)	=	**2.53**	+	**0.00**	+	**0.00**	=	**2.53**
Channel Flow								
X sectional flow area (sqft)	=	2.50		0.00		0.00		
Wetted perimeter (ft)	=	2.00		0.00		0.00		
Channel slope (%)	=	2.00		0.00		0.00		
Manning's n-value	=	0.015		0.015		0.015		
Velocity (ft/s)	=	16.31		0.00		0.00		
Flow length (ft)	=	464.0		0.0		0.0		
Travel Time (min)	=	**0.47**	+	**0.00**	+	**0.00**	=	**0.47**

Total Travel Time, Tc ..... **18.60 min**

Hydrograph Report

Hydraflow Hydrographs by Intelisolve

Thursday, May 17 2007, 3:34 PM

Hyd. No. 4

POND

Hydrograph type	= Reservoir	Peak discharge	= 6.35 cfs
Storm frequency	= 100 yrs	Time interval	= 10 min
Inflow hyd. No.	= 3	Reservoir name	= POND A
Max. Elevation	= 341.95 ft	Max. Storage	= 0.486 acft

Storage Indication method used.

Outflow hydrograph volume = 1.284 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time (hrs)	Inflow cfs	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Outflow cfs
12.67	5.19	341.95	6.40	0.03	3.96	---	2.17	0.19	---	---	---	6.35 <<

...End

Pond Report

Hydraflow Hydrographs by Intelisolve — Thursday, May 17 2007, 3:35 PM

Pond No. 1 - POND A

Pond Data

Pond storage is based on known contour areas. Average end area method used.

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (acft)	Total storage (acft)
0.00	339.00	5,328	0.000	0.000
1.00	340.00	6,502	0.136	0.136
2.00	341.00	7,786	0.164	0.300
3.00	342.00	9,179	0.195	0.495
4.00	343.00	10,618	0.227	0.722

Culvert / Orifice Structures

	[A]	[B]	[C]	[D]
Rise (in)	= 24.00	1.00	6.00	0.00
Span (in)	= 24.00	1.00	18.00	0.00
No. Barrels	= 1	1	1	0
Invert El. (ft)	= 339.00	339.00	340.50	0.00
Length (ft)	= 131.00	70.00	0.00	0.00
Slope (%)	= 0.30	0.40	0.00	0.00
N-Value	= .013	.013	.013	.013
Orif. Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	Yes	Yes	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 0.00	17.00	10.00	0.00
Crest El. (ft)	= 340.25	341.96	342.00	0.00
Weir Coeff.	= 0.57	2.60	2.60	0.00
Weir Type	= 45 degV	Broad	Broad	—
Multi-Stage	= Yes	Yes	No	No

Exfiltration = 0.000 in/hr (Contour) Tailwater Elev. = 0.00 ft

Note: Culvert/Orifice outflows have been analyzed under inlet and outlet control.

Stage / Storage / Discharge Table

Stage ft	Storage acft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Total cfs
0.00	0.000	339.00	0.00	0.00	0.00	—	—	0.00	0.00	—	—	0.00
0.10	0.014	339.10	0.01	0.01	0.00	—	—	0.00	0.00	—	—	0.01
0.20	0.027	339.20	0.01	0.01	0.00	—	—	0.00	0.00	—	—	0.01
0.30	0.041	339.30	0.02	0.01	0.00	—	—	0.00	0.00	—	—	0.01
0.40	0.054	339.40	0.02	0.02	0.00	—	—	0.00	0.00	—	—	0.02
0.50	0.068	339.50	0.02	0.02	0.00	—	—	0.00	0.00	—	—	0.02
0.60	0.081	339.60	0.02	0.02	0.00	—	—	0.00	0.00	—	—	0.02
0.70	0.095	339.70	0.02	0.02	0.00	—	—	0.00	0.00	—	—	0.02
0.80	0.109	339.80	0.02	0.02	0.00	—	—	0.00	0.00	—	—	0.02
0.90	0.122	339.90	0.03	0.02	0.00	—	—	0.00	0.00	—	—	0.02
1.00	0.136	340.00	0.03	0.03	0.00	—	—	0.00	0.00	—	—	0.03
1.10	0.152	340.10	0.03	0.03	0.00	—	—	0.00	0.00	—	—	0.03
1.20	0.169	340.20	0.03	0.03	0.00	—	—	0.00	0.00	—	—	0.03
1.30	0.185	340.30	0.03	0.03	0.00	—	0.00	0.00	0.00	—	—	0.03
1.40	0.201	340.40	0.04	0.03	0.00	—	0.00	0.00	0.00	—	—	0.04
1.50	0.218	340.50	0.05	0.03	0.00	—	0.02	0.00	0.00	—	—	0.05
1.60	0.234	340.60	0.24	0.03	0.16	—	0.04	0.00	0.00	—	—	0.23
1.70	0.251	340.70	0.60	0.03	0.46	—	0.08	0.00	0.00	—	—	0.57
1.80	0.267	340.80	1.05	0.03	0.84	—	0.13	0.00	0.00	—	—	1.00
1.90	0.283	340.90	1.58	0.03	1.29	—	0.19	0.00	0.00	—	—	1.52
2.00	0.300	341.00	2.13	0.03	1.81	—	0.28	0.00	0.00	—	—	2.12
2.10	0.319	341.10	2.58	0.03	2.14	—	0.38	0.00	0.00	—	—	2.55
2.20	0.339	341.20	3.05	0.03	2.42	—	0.50	0.00	0.00	—	—	2.96
2.30	0.358	341.30	3.44	0.03	2.68	—	0.65	0.00	0.00	—	—	3.36
2.40	0.378	341.40	3.85	0.03	2.91	—	0.81	0.00	0.00	—	—	3.76
2.50	0.397	341.50	4.16	0.03	3.13	—	1.00	0.00	0.00	—	—	4.16
2.60	0.417	341.60	4.58	0.03	3.33	—	1.21	0.00	0.00	—	—	4.57
2.70	0.436	341.70	5.00	0.03	3.52	—	1.45	0.00	0.00	—	—	5.00
2.80	0.456	341.80	5.52	0.03	3.70	—	1.71	0.00	0.00	—	—	5.45
2.90	0.475	341.90	5.93	0.03	3.87	—	2.00	0.00	0.00	—	—	5.91
3.00	0.495	342.00	6.79	0.03	4.04	—	2.31	0.35	0.00	—	—	6.73
3.10	0.517	342.10	8.99	0.03	4.13	—	2.49	2.32	0.82	—	—	9.79
3.20	0.540	342.20	11.33	0.03	3.55	—	2.56	5.20	2.33	—	—	13.65

Continues on next page...

POND A

Stage / Storage / Discharge Table

Stage ft	Storage acft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	Clv D cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	Total cfs
3.30	0.563	342.30	14.33	0.02	2.99	—	2.55	8.76	4.27	—	—	18.60
3.40	0.585	342.40	17.04	0.02	2.19	—	2.26	12.57	6.58	—	—	23.62
3.50	0.608	342.50	18.33	0.01	1.79	—	2.14	14.39	9.19	—	—	27.52
3.60	0.631	342.60	19.25	0.01	1.52	—	2.07	15.65	12.08	—	—	31.33
3.70	0.654	342.70	20.00	0.01	1.31	—	2.03	16.65	15.23	—	—	35.23
3.80	0.676	342.80	20.65	0.01	1.16	—	2.01	17.48	18.61	—	—	39.25
3.90	0.699	342.90	21.24	0.01	1.03	—	1.99	18.20	22.20	—	—	43.43
4.00	0.722	343.00	21.79	0.01	0.93	—	1.99	18.85	26.00	—	—	47.78

...End

Hydrograph Report

Hydraflow Hydrographs by Intelisolve

Thursday, May 17 2007, 3:35 PM

Hyd. No. 5

TOTAL POST

Hydrograph type	= Combine	Peak discharge	= 12.69 cfs
Storm frequency	= 100 yrs	Time interval	= 10 min
Inflow hyds.	= 2, 4		

Hydrograph Volume = 2.279 acft

(Printed values >= 100% of Qp.)

Hydrograph Discharge Table

Time (hrs)	Hyd. 2 + (cfs)	Hyd. 4 = (cfs)	Outflow (cfs)
12.33	7.85 <<	4.85	12.69 <<

...End

RESOLUTION GRANTING SITE PLAN APPROVAL FOR A SELF STORAGE FACILITY

Jerry's Climate Control
PB # 07-07

WHEREAS, an application was made to the Planning Board of the Town of New Windsor for approval of a site plan by Hudson Valley Offices, LLC (the "applicant") for a project described as "Jerry's Climate Control";

WHEREAS, the subject site consists of 3.0 acres of land and comprised of one tax map parcel in the Town of New Windsor identified on the tax map as section 4, block 2, and lot 19 (SBL 4-2-19); and

WHEREAS, the action involves a request for a site plan approval for a self storage facility; and

WHEREAS, the applicant has submitted a fully executed short form Environmental Assessment Form ("EAF") pursuant to the New York State Environmental Quality Review Act ("SEQRA"); and

WHEREAS, the Planning Board conducted a coordinated SEQRA review for this project; and

WHEREAS, during the course of the Planning Board's review of the Applicant's proposed site plan layout, the Planning Board received and considered correspondence from the public as well as the Town's consultants; and

WHEREAS, a duly advertised public hearing on the application for site plan approval was held on July 25, 2007 at which time all those wishing to be heard were given the opportunity to heard; and

WHEREAS, on July 25, 2007 the public hearing on the application for site plan approval was closed; and

WHEREAS, the application and related materials were submitted to the Orange County Planning Department ("OCDP") for its review pursuant to the requirements of the General Municipal Law § 239-m, and OCDP responded on May 3, 2007 recommending conditional approval; and

WHEREAS, the Planning Board has carefully considered all of the comments raised by the public, the Board's consultants, and other interested agencies, organizations and officials,

including those presented at numerous meetings of the Board as well as those submitted separately in writing; and

WHEREAS, the applicant has submitted a proposed site plan consisting of 8 sheets, prepared by Zimmerman Engineering & Surveying, P.C. dated January 12, 2007 and last revised on June 25, 2007; and

WHEREAS, the Planning Board has heretofore determined that the Proposed Action minimizes or avoids significant environmental impacts and, adopted a Negative Declaration as part of the approval of site plan.

NOW, THEREFORE, the Planning Board finds that the applicant has satisfied the requirements of Town Code § 300-86 and approves the site plan subject to the following terms and conditions:

1. The applicant shall pay all outstanding fees due the Town for review of this application;

2. The applicant shall make any required revisions to the site plan to the satisfaction of the Planning Board Engineer and Planning Board Attorney;

3. The applicant shall secure all necessary permits, approvals and authorizations required from any other agency, if required;

4. The applicant shall submit proof of satisfaction of the foregoing conditions and submit a plat for signature within six months of the date of this resolution.

Upon motion made by Member Mr Vanleeuwen, seconded by Member Mr Schlessinger, the foregoing resolution was adopted as follows:

Member, Daniel Gallagher	Aye	Nay	Abstain	Absent
Member, Howard Brown	Aye	Nay	Abstain	Absent
Member, Neil Schlesinger	Aye	Nay	Abstain	Absent
Member, Henry Vanleeuwen	Aye	Nay	Abstain	Absent
Chairman, Genaro Argenio	Aye	Nay	Abstain	Absent

- - -

Alternate, Henry Schieble Aye Nay Abstain Absent

Dated: August 8, 2007
New Windsor, New York

Genaro Argenio, Chairman

Filed in the Office of the Town Clerk on this 9th day of August, 2007.

Deborah Green
Town Clerk

RESOLUTION ADOPTING A NEGATIVE DECLARATION FOR A SITE PLAN APPLICATION

Jerry's Climate Control
PB # 07-07

WHEREAS, an application was made to the Planning Board of the Town of New Windsor for approval of a site plan by Hudson Valley Offices, LLC (the "applicant") for a project described as the "Jerry's Climate Control";

WHEREAS, the subject site consists of 3.0 acres of land and comprised of one tax map parcel in the Town of New Windsor identified on the tax map as section 4, block 2, and lot 19 (SBL 4-2-19); and

WHEREAS, the action involves a request for a site plan approval for a self storage facility; and

WHEREAS, the applicant has submitted a fully executed short form Environmental Assessment Form ("EAF") pursuant to the New York State Environmental Quality Review Act ("SEQRA"); and

WHEREAS, the Planning Board conducted a coordinated SEQRA review for this project; and

WHEREAS, the Planning Board declared its intent to become the Lead Agency with respect to the Proposed Action and circulated a Notice of Intent to be Lead Agency to other involved and interested agencies; and

WHEREAS, having received no objection to the proposed Lead Agency designation within thirty (30) days after circulation of the Notice of Intent, the Planning Board was automatically designated the Lead Agency for environmental review of the Proposed Action; and

WHEREAS, during the course of the Planning Board's review of the Applicant's proposed site plan layout, the Planning Board received and considered correspondence from the public as well as the Town's consultants; and

WHEREAS, a duly advertised public hearing on the application for site plan approval was held on July 25, 2007 at which time all those wishing to be heard were given the opportunity to heard; and

WHEREAS, on July 25, 2007 the public hearing on the application for site plan approval was closed; and

WHEREAS, the application and related materials were submitted to the Orange County Planning Department ("OCDP") for its review pursuant to the requirements of the General Municipal Law § 239-m, and OCDP responded on May 3, 2007 recommending conditional approval; and

WHEREAS, the Planning Board has carefully considered all of the comments raised by the public, the Board's consultants, and other interested agencies, organizations and officials, including those presented at numerous meetings of the Board as well as those submitted separately in writing; and

WHEREAS, the applicant has submitted a proposed site plan consisting of 8 sheets, prepared by Zimmerman Engineering & Surveying, P.C. dated January 12, 2007 and last revised on June 25, 2007; and

WHEREAS, the Planning Board has determined that the Proposed Action minimizes or avoids significant environmental impacts and, therefore, the accompanying Negative Declaration is hereby adopted as part of the approval of site plan.

NOW, THEREFORE, be it resolved as follows:

1. The Planning Board is lead agency for an uncoordinated review of this action;

2. This is an Unlisted Action for SEQRA purposes;

3. The EAF submitted by the applicant has been fully reviewed and considered by the Planning Board;

4. Having reviewed with due care and diligence the EAF submitted by the applicant, the application herein and all pertinent documentation and testimony received at the public hearing, it is determined that the proposed action will not have, nor does it include, the potential for significant adverse environmental impacts;

5. The Planning Board hereby adopts the SEQRA "Negative Declaration" annexed hereto.

Upon motion made by Member Mr Vanleeuwen, seconded by Member Mr Schlesinger, the foregoing resolution was adopted as follows:

Member, Daniel Gallagher	Aye	Nay	Abstain	Absent
Member, Howard Brown	Aye	Nay	Abstain	Absent
Member, Neil Schlesinger	Aye	Nay	Abstain	Absent
Member, Henry Vanleeuwen	Aye	Nay	Abstain	Absent
Chairman, Genaro Argenio	Aye	Nay	Abstain	Absent

- - -

Alternate, Henry Schieble	Aye	Nay	Abstain	Absent

Dated: August 1, 2007
New Windsor, New York

Genaro Argenio, Chairman

Filed in the Office of the Town Clerk on this 9th day of August, 2007.

Deborah Green
Town Clerk

TOWN OF NEW WINDSOR PLANNING BOARD
COUNTY OF ORANGE

NEGATIVE DECLARATION

Jerry's Self Storage Site Plan
PB # 07-07
(S-B-L: 4-2-19)

PLEASE TAKE NOTICE that, according to the provisions of Article 8 of the Environmental Conservation Law and the New York Code of Rules and Regulations Part 617, the Town of New Windsor Planning Board has adopted a Negative Declaration for the project named below. The Planning Board is serving as Lead Agency for this Unlisted Action, for a coordinated review of this Unlisted Action.

Name of Project: Jerry's Climate Control Self Storage Site Plan
Action Type: Unlisted Action; Coordinated Review
Location: Town of New Windsor, County of Orange
Location: Union Avenue
Tax Map Parcel: Section 4, Block 2, Lot 19

Summary of Action:

The action involves a request for a commercial site plan approval for a 3.0 acre parcel located in the Town of New Windsor. The parcel is presently vacant.

Reasons Supporting the Negative Declaration:

Based on its consideration of the available information, the Planning Board finds there would be no significant adverse environmental effects associated with granting site plan approval for a self storage structure and related improvements. With respect to traffic patterns, traffic safety and emergency access, the proposed lots will have access to NYS Route 32. With respect to water and sewer resources, the lots will be served by public water and sewer. With respect to grading and land disturbance, a stormwater pollution prevention plan has been developed in conjunction with the proposed site plan for the site. The site does not constitute significant habitat area for flora or fauna. Although the site is located in a historic corridor, it is zoned for commercial use, it is surround by other existing commercial uses, and is more than ¼ mile away from any cultural resource. The proposed site plan is considered to comply with all currently existing zoning requirements and municipal plans for the Town of New Windsor, and is consistent with the community character. Neither solid waste generation, energy consumption, nor public service demands would be significant or excessive for the new lots within this proposed site plan. No other potentially significant harmful environmental impacts are identified.

Date of Adoption of Negative Declaration: August 8, 2006
Agency Address: Town of New Windsor Planning Board
Town Hall – 555 Union Avenue
New Windsor, New York 12553
Tel. (845) 563-4615
Contact Person: Genaro Argenio, Planning Board Chairman

PLANNING BOARD
TOWN OF NEW WINDSOR

AS OF: 11/26/2007

LISTING OF PLANNING BOARD**ACTIONS**

STAGE: STATUS [Open, Withd]
A [Disap, Appr]

FOR PROJECT NUMBER: 7-7
NAME: JERRY'S CLIMATE CONTROL STORAGE PA2007-0002
APPLICANT: JERRY SABINI

--DATE--	MEETING-PURPOSE----------	ACTION-TAKEN--------
10/03/2007	PLANS STAMPED	APPROVED
05/09/2007	P.B. APPEARANCE . SUBMIT LONG EAF - SUBMIT TO GLENN MARSHALL, PALISADES PK . COMM - NEED FENCE FOR SAFETY - NEED MANUFACTURE R OF BLOCKS . FOR WALLS - CHANGE DETAILS FOR WALL - *	PUBL HEAR LEFT OPEN
02/28/2007	P.B. APPEARANCE . ADDRESS MARK'S COMMENTS - IMPROVE LANDSCAPING - NEED . ELEVATIONS OF BUILDING - NEED LONG FOR EAF - THEN SEND LEAD . AGENCY LETTERS. . ONCE ALL IS COMPLETE - SCHEDULE WS THEN PH	AUTH LTR - SCH PH
02/07/2007	WORK SHOP APPEARANCE	SUBMIT

PLANNING BOARD
TOWN OF NEW WINDSOR

AS OF: 11/26/2007

LISTING OF PLANNING BOARD SEQRA ACTIONS

FOR PROJECT NUMBER: 7-7
NAME: JERRY'S CLIMATE CONTROL STORAGE PA2007-0002
APPLICANT: JERRY SABINI

	DATE-SENT	ACTION----------	DATE-RECD	RESPONSE----------
ORIG	02/22/2007	EAF SUBMITTED	02/22/2007	WITH APPLIC
ORIG	02/22/2007	CIRCULATE TO INVOLVED AGENCIES	02/28/2007	AUTH LTR
ORIG	02/22/2007	LEAD AGENCY DECLARED	/ /	
ORIG	02/22/2007	DECLARATION (POS/NEG)	/ /	
ORIG	02/22/2007	SCHEDULE PUBLIC HEARING . AFTER REVISED PLANS AND 30-DAYS FOR LEAD AGENCY LET - RETURN . TO WS - THEN SCHED PH	02/28/2007	SCHED PH
ORIG	02/22/2007	PUBLIC HEARING HELD	/ /	
ORIG	02/22/2007	WAIVE PUBLIC HEARING	/ /	
ORIG	02/22/2007	FINAL PUBLIC HEARING	/ /	
ORIG	02/22/2007	PRELIMINARY APPROVAL	/ /	
ORIG	02/22/2007	LEAD AGENCY LETTER SENT	/ /	

PLANNING BOARD
TOWN OF NEW WINDSOR

7

LISTING OF PLANNING BOARD **FEES**
APPROVAL

ER: 7-7
ME: JERRY'S CLIMATE CONTROL STORAGE PA2007-0002
NT: JERRY SABINI

RIPTION---------	TRANS	--AMT-CHG	-AMT-PAID	--BAL-DUE
OVAL FEE	CHG	125.00		
CK. #1065	PAID		125.00	
	TOTAL:	125.00	125.00	0.00

PLANNING BOARD
TOWN OF NEW WINDSOR

AS OF: 10/04/2007

LISTING OF PLANNING BOARD **FEES**
ESCROW

FOR PROJECT NUMBER: 7-7
NAME: JERRY'S CLIMATE CONTROL STORAGE PA2007-0002
APPLICANT: JERRY SABINI

--DATE--	DESCRIPTION---------	TRANS	--AMT-CHG	-AMT-PAID	--BAL-DUE
02/28/2007	P.B. ATTY. FEE (CORDISCO)	CHG	850.00		
02/28/2007	P.B. MINUTES	CHG	84.00		
05/09/2007	P.B. MINUTES	CHG	175.00		
06/14/2007	FEDEX THREE PACKAGES	CHG	43.98		
07/22/2007	REC. CK. #1020	PAID		750.00	
10/03/2007	P.B. ENGINEER FEE	CHG	3799.20		
10/04/2007	REC. CK. #1066	PAID		4202.18	
		TOTAL:	4952.18	4952.18	0.00

J Lamagna
received
J Lamagna 10-4-07

10/4/07
To close out escrow.

P.B. #07-07 Escrow
GERALD SCOTT SABINI
P.O. Box 522
Vails Gate, NY
561-0220
1066
Date 10-4-07
50-1292/219
03
Pay to the Order of Town of New Windsor $ 4202.18
Four Thousand Two Hundred Two and 18/100 Dollars
CATSKILL HUDSON BANK
731 Route 211 East
Middletown, NY 10941
For
⑆021912928⑆3200⑈3451⑈ ⑈1066

PLANNING BOARD
TOWN OF NEW WINDSOR

AS OF: 10/03/2007 PAGE: 1

LISTING OF PLANNING BOARD **FEES**
4% FEE

FOR PROJECT NUMBER: 6-16
NAME: TOM YU SITE PLAN
APPLICANT: TOM YU

--DATE--	DESCRIPTION---------	TRANS	--AMT-CHG	-AMT-PAID	--BAL-DUE
09/17/2007	2% OF COST EST	CHG	75.00		
10/02/2007	REC CK. #1068	PAID		75.00	
		TOTAL:	75.00	75.00	0.00

J. Turnejan received
J. Turnejan 10-4-07

P.B #06-16 Inspection fee

UNJOO OR DONG YU 534-4827
40 Calico Lane
Highland Mills, NY 10930

1068

9.27.2007 DATE

1-108/210

PAY TO THE ORDER OF Town of New Windsor $ 75.00

Seventy Five and 00/100 DOLLARS

HSBC

HSBC Bank USA, N.A. Vails Gate, NY 12584

FOR 2% of Cost Estimate /Inspection fee P.B #06-16

⑆021001088⑆078782900⑈ 1068

© HARLAND CAMBRIDGE

2% Private Land
4% Public Land

PLANNING BOARD
TOWN OF NEW WINDSOR

AS OF: 10/04/2007

LISTING OF PLANNING BOARD **FEES**
4% FEE

FOR PROJECT NUMBER: 7-7
NAME: JERRY'S CLIMATE CONTROL STORAGE PA2007-0002
APPLICANT: JERRY SABINI

--DATE--	DESCRIPTION---------	TRANS	--AMT-CHG	-AMT-PAID	--BAL-DUE
10/03/2007	2% OF 351,299.50 COST EST	CHG	7025.99		
10/04/2007	REC. CK. #1067	PAID		7025.99	
		TOTAL:	7025.99	7025.99	0.00

J Flannigan
received
J Flannigan
10-4-07

P.B. #07-07 Inspection fee
GERALD SCOTT SABINI 561-0220 1067
P.O. BOX 522
Vails Gate, NY
Date 10-4-07 50-1292/210
Pay to the Order of Town of New Windsor $ 7025.99
Seventy Thousand & twenty five 99/100 Dollars
CATSKILL HUDSON BANK
731 Route 211 East
Middletown, NY 10941
For
⑆021912928⑈3200⑈3551⑈ ⑈1067

July 25, 2007

PUBLIC HEARING

JERRY'S CLIMATE CONTROL (07-07)

MR. ARGENIO: Next we have two public hearings. The first one is going to be Jerry's Climate Control on Route 207 in New Windsor. If the audience recalls this was tabled at a prior meeting, we needed to hear back from the historical folks and we have. If somebody is here to represent this I'd like you to please come forward, give us your name for the stenographer, put your plan up on the board, tell us what changes you've made in your plan since the last time you've been here and then we'll open it up to the public and once the public comments we will review it again as a planning board.

MR. ZIMMERMAN: My name is Jerry Zimmerman. I'm the engineer for the project.

MR. ARGENIO: Dan, do you have a plan?

MR. GALLAGHER: Yes.

MR. ARGENIO: Go ahead, Mr. Zimmerman.

MR. ZIMMERMAN: The applicant, Jerry Sabini, is present, also. And we were present at the last planning board meeting when the public hearing was open on this project. And basically the revisions that were made to the plan that was requested by the board and consultants related to a fence being placed along the proposed retaining wall, the northerly boundary of the property. We needed to provide some additional information regarding the handicap spacings that are shown on the plan. We needed to provide, as requested by the fire department, a fire department connection that the fire department could use in the event of a fire. And we also, what was required was to relocate the entrance to the project site so that it would line up with the street directly across from the property on Route 300.

July 25, 2007

MR. ARGENIO: And that was a request from the county and the state?

MR. ZIMMERMAN: Yes, correct.

MR. ARGENIO: And if I remember correctly there was an issue with the pond when you moved the driveway. How did moving of the driveway affect your pond in the front of the facility?

MR. ZIMMERMAN: Well, the state had, as you had indicated, requested that relocation, so that was done. And, as I said, that relocation was done. Additionally, there was an issue of where the storm drainage would ultimately discharge to and that was a concern of both the state and the town, primarily the state. And we originally had the outfall of this detention pond coming into an existing catch basin at the southerly portion of the property and we were able to revise the plan, the calculations and the ponds to accommodate the outfall to go along Route 300 to the northerly portion. And we had a sign-off from D.O.T. on that and also from your consulting engineer's office that this was done satisfactorily.

MR. ARGENIO: Are you okay with all of that, Mark?

MR. EDSALL: Yes, they met everyone's requirements.

MR. ZIMMERMAN: One of the other comments was to add to the plan, it's on the first sheet, a site location map which depicts the location of the historic properties in proximity to the project site.

MR. ARGENIO: How did you handle that?

MR. ZIMMERMAN: Well, we added to the first sheet a vicinity location map which shows the locations.

MR. ARGENIO: That was a request by the

county, if I remember correctly?

MR. ZIMMERMAN: That's correct, yes.

MR. ARGENIO: Very good. Do you guys see that on the top, the first page? Go ahead, Mr. Zimmerman.

MR. ZIMMERMAN: Those in essence were the requested revisions.

MR. ARGENIO: I'd like to open this up to the public. If there's any additional comments we'll take them and consider them and after we close the public hearing we'll reopen it up to the board for further discussion.

I already read the statement about the letters, when they were sent out at the original public hearing. So at this time if anybody would like to speak for or against this application or just comment on it please raise your hand and recognized and certainly you'll have your chance to speak.

Yes, Mr. Steidle.

MR. STEIDLE: My name is Bill Steidle. My recollection is at the last meeting there were a number of comments relative to visual impacts and I had requested that a visual assessment be done including photo simulations so that one could see what the building would look like at various vantage points along Route 300. Now, I did not have a chance to review the file because I have other endeavors, but I'm still interested in that issue and I think it is an issue that needs to be resolved and I think it's critical particularly since the site is in a historic corridor.

MR. ARGENIO: Thank you. As much as there's no other hands I'll accept a motion.

MR. VAN LEEUWEN: So moved.

MR. SCHLESINGER: Second.

MR. ARGENIO: Motion made and seconded that we close the public hearing on Jerry's Climate Control Storage Facility. I want to, I'm going to go through, for the benefit of the members just to refresh everybody's memory, the Orange County Planning, they did redo the driveway, relocate the driveway which I think everybody here thought was a good idea. That misalignment by 20 or 30 feet, whatever it was, I think reeked havoc on Route 300 which is already a busy highway. I think Danny had commented on that. They did show the locations of the historic buildings on the relocation map on the front of the plans. They did bring what I see is a rendering which I'm sure Mr. Sabini wouldn't mind putting up on the easel for us, for the members to take a look at. We also discussed as a board the issue of the sidewalks. And, as I remember, we determined that the presence of the sidewalks in this area of town was not necessarily very high on the list to serve the residents. I just can't imagine somebody walking down the sidewalk with their boxes in their arms to walk into the storage facility to store their stuff.

MR. VAN LEEUWEN: The sidewalks don't connect to anything.

MR. ARGENIO: It doesn't connect to anything.

MR. VAN LEEUWEN: There's no sidewalks on the street, that I know of, any place.

MR. ARGENIO: As you recall, Henry, prior to the change in the board a couple of years ago we had worked hard for many years, Neil was here for it, in the Vails Gate area, to require all the applicants in that 32 corridor to install sidewalks, applicant after applicant, to try to encourage pedestrian traffic in that area because it's a shopping district and it's working pretty well.

MR. VAN LEEUWEN: That's a different story.

MR. ARGENIO: Different issue. I agree. I

agree. A letter dated 6/26/07 from D.O.T. Poughkeepsie advises that the new driveway location is acceptable and any detailed revisions will be addressed as part of the permit process. I want to also touch on the historical issue which has been brought up quite a few times not only with this application but other applicants in this corridor. And this came in the other day, I have two letters here, one from our town historian and one from the Palisades Interstate Park Commission. I'll read the letter from Glenn Marshal in its entirely because it's pretty simple and straightforward. We would prefer, it's not we, I'll read it exactly, would prefer that the look be more natural looking such as brick or earth-tone colors, something that would blend in with the surrounding business park buildings. And he says no neon signs or flashing signs. Again, I think those are perfectly reasonable requests in this area.

I'm going to read just a bit of this palisades Interstate Park Commission letter, per your request the Palisades Interstate Park Commission has reviewed the above listed item and it is determined that the proposal shall presumedly not have any foreseeable adverse impact on nearby park resources.

Are you proposing some type of lighted sign or sign in any way, shape or form that's detached from the building, Mr. Sabini or Mr. Zimmerman?

MR. SABINI: Yeah, the front entrance, you know, I wanted to put a sign, a four by eight sign. I want it to be a lighted sign.

MR. ARGENIO: How do we handle that, Mike? Do we have criteria for that?

MR. BABCOCK: There is criteria for that and exactly the size he said, four by eight is allowed there. Each side. It could be 32 square foot, 64 total.

MR. SABINI: Can it be lit?

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MR. BABCOCK: It's allowed to be lit. It cannot be flashing.

MR. ARGENIO: That's lit with white light, correct?

MR. SABINI: What do you mean, white light?

MR. ARGENIO: There's not red lights on it, green lights.

MR. SABINI: I liked red. Okay.

MR. ARGENIO: I want to take heed to what the historical society has given us, Mr.

MR. SABINI: Okay.

MR. ARGENIO: -- Sabini because they certainly have the ability to do a lot of things.

MR. SABINI: They do. In other words, a white light?

MR. VAN LEEUWEN: Just a regular white light.

MR. SABINI: Okay.

MR. BABCOCK: Clear light bulb.

MR. SCHLESINGER: We don't want a red right sign.

MR. SABINI: What about on the building, the peek, can that be a lit sign?

MR. BABCOCK: It can, it can be lit.

MR. ARGENIO: Not color. I believe, Neil, isn't that where you're going with that?

MR. SCHLESINGER: I'm not so sure. I think from your letter, my interpretation is that they don't want neon like a bar, you know, Budweiser and everything like that.

MR. SABINI: I understand that.

MR. SCHLESINGER: I think that Jerry, in his mind, you know, most signs in front of, you know, commercial places are white with black lettering or I mean red lettering, I wouldn't think would be offensive to me.

MR. ARGENIO: I'm not talking about the color of the sign, I'm talking about the color of the light.

MR. SCHLESINGER: That's what I'm talking about.

MR. SABINI: The light is whatever color I want, I can have.

MR. ARGENIO: Yes.

MR. SCHLESINGER: The light box is white.

MR. SABINI: Okay.

MR. BROWN: So it's not flashing on and off, that's all.

MR. ARGENIO: There's a couple of procedural things that I'm going to need to go through and I certainly will go through them, but I want to, I would like to do the review. And I will, I want to address with the engineer and the attorney the aesthetics of the building with input from the members, also. Do you guys have any other comments here? We certainly have scrutinized this a bit.

MR. SCHLESINGER: Are you going to address the aesthetics?

MR. ARGENIO: Yes. Dan, do you have anything else?

MR. GALLAGHER: Nothing else.

MR. ARGENIO: The landscaping is, you put more landscaping in, which is nice. You've landscaped around that pond rather nicely. Relative to the aesthetics, Mark, contrary to your comment about assuming lead agency Myra

told me we did not assume lead agency on this application.

MR. EDSALL: We had discussed that today. We weren't sure. But we circulated the lead agency coordination letter but never acted after that.

MR. VAN LEEUWEN: So moved, Mr. Chairman, that we take lead agency.

MR. SCHLESINGER: Second.

MR. ARGENIO: Motion made and seconded that the Town of New Windsor assume lead agency for Jerry's Climate Control site plan on Interstate Route 300. If there is no further discussion from the board members I will have a roll call.

ROLL CALL

MR. SCHLESINGER	AYE
MR. BROWN	AYE
MR. GALLAGHER	AYE
MR. VAN LEEUWEN	AYE
MR. ARGENIO	AYE

MR. ARGENIO: On this building I happen to agree with Mr. Marshal.

MR. SABINI: What do you want to do?

MR. ARGENIO: That's the problem I'm having, we don't have guidelines, the Town of New Windsor Planning Board does not have specific guidelines set forth as to what we're to request of you, so it's very subjective.

MR. SABINI: All right.

MR. ARGENIO: Very subjective. So I want to get input from everybody here and we'll come up with something. Neil and Howard, do you guys have any thoughts on this? The guidance we received is natural earth-tones. Dark earth something that doesn't stand out as much as what you have here.

MR. SABINI: The blue, do you see these doors? These are like the garage doors that are blue. This more earth-tone?

MR. ARGENIO: The outside.

MR. SABINI: The outside. This building does sit back 200 feet off.

MR. ARGENIO: I understand that. I understand that.

MR. SABINI: All right.

MR. ARGENIO: Do you guys have any thoughts?

MR. SCHLESINGER: Jerry, what's the finish on the outside?

MR. SABINI: That's like stucco.

MR. ARGENIO: Stucco.

MR. SCHLESINGER: You could have whatever color you want.

MR. SABINI: There's hundreds of colors.

MR. SCHLESINGER: Being that you brought it up you got blue doors.

MR. ARGENIO: Are you looked into blue --

MR. SABINI: I kind of like it.

MR. SCHLESINGER: Do you have a clothing store that sells suits that you like?

MR. SABINI: The blue stands out.

MR. SCHLESINGER: That's what I'm trying to get at, it stands out.

MR. SABINI: I saw a lot of these complexes in Paramus. They look pretty --

MR. SCHLESINGER: That's not New Windsor.

MR. BROWN: It's not a historic area.

MR. SABINI: You're probably right about that.

MR. SCHLESINGER: I don't think from a business point of view you're going to lose any business regardless of what color those doors are.

MR. ARGENIO: Jerry, would you consider the possibility of those interior doors possibly being like a rust color, a dark red, something like that?

MR. SCHLESINGER: Something to blend.

MR. BROWN: Or green.

MR. ARGENIO: A rust color.

MR. VAN LEEUWEN: Blue stands out.

MR. ARGENIO: Would you consider that?

MR. SABINI: Yeah. I mean if it's going to make you guys happy, yeah. Like a rust color or --

MR. ARGENIO: Like Edsall's shirt, dark, something dark. That blue does jump out quite a bit.

MR. SABINI: That's why I did it. It's a retail business, you want the people to come to it.

MR. ARGENIO: You're trying to tone it up, we're trying to pull it down a little bit.

MR. SABINI: I understand.

MR. ARGENIO: Because of the location. Howard?

MR. BROWN: Well, I have the same feeling as Neil that if this was on Route 32 it wouldn't be a problem, but being on Route 300.

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MR. ARGENIO: That's a good thought.

MR. SABINI: So what color choice do you think, like rust?

MR. ARGENIO: We're looking for like a rust, something like that.

MR. SCHLESINGER: Earth-tone color.

MR. ARGENIO: Howard or Danny?

MR. VAN LEEUWEN: The same color as the building.

MR. ARGENIO: Do you have any input?

MR. SABINI: What about the color of the building? I mean --

MR. VAN LEEUWEN: The same color of the building.

MR. SABINI: It's got to stand out just a little, the doors.

MR. ARGENIO: I think what you need to do with this building is I think you need to put some darker colors on it. Okay?

MR. SABINI: That's not a big deal.

MR. ARGENIO: And if you could incorporate some brick somewhere down there even if it's a decent file brick, I don't think that would be the worst thing. I know the Drive-It guys, they can do a lot of stuff.

MR. SABINI: I know they can, brick and cultured stone and something like that.

MR. ARGENIO: That would be really good.

MR. SABINI: Like on the base part, the first five.

MR. ARGENIO: Something like that. As I said, too, you need to tone it down a little bit.

Here is my other problem, Mark and Dominic, how do we handle this?

MR. BABCOCK: Well, the applicant -- if the applicant agrees.

MR. SABINI: I got to apply for a permit for you anyway.

MR. BABCOCK: He's agreeing.

MR. ARGENIO: I want to see it though.

MR. VAN LEEUWEN: Let Mike control it.

MR. CORDISCO: I think you can do a conditional approval with Mike and then with your engineer in particular having a review of revised elevations essentially as part of the site plan conditional approval.

MR. ARGENIO: And we will leave that with Mike and Mark, I'm okay with that. I'm certainly okay with that.

MR. EDSALL: Yeah, we'll work with it. If we have any questions we'll come back to the board.

MR. ARGENIO: Those interior blue doors have to be --

MR. SABINI: You want them the color of Mark's shirt.

MR. ARGENIO: Like a dark red or rust. You need to darken up the outside of the building so it blends in with the environment a little bit better and you need some, a brick or cultured stone. And Mark and Michael, if you guys have any doubt bring them back here.

MR. SABINI: You're not saying the whole building has to be brick or stone, right?

MR. ARGENIO: No. I'm saying the whole building has to be darker and in the bottom six or eight feet put something down there for

us, I think.

MR. SABINI: All right.

MR. ARGENIO: Does anybody have anything else with this?

MR. CORDISCO: I have some comments, if you like, Mr. Chairman.

MR. ARGENIO: I certainly would. I'm sure they are procedural in nature.

MR. CORDISCO: They are. Given the fact that the board has closed the public hearing and I believe has comments from your engineer that I'm sure they'll expend on in terms of the fitness of the plans, the board's in a position now to consider taking action under SEQRA. SEQRA, of course, requires that you take a hard look at a number of different impacts and one that, of course, has been brought to the attention of the board relates to visual impacts. Visual impacts is something that SEQRA requires you to look at in terms of every application, but this one in particular is especially apt because it falls within the historic corridor.

Even though, however, that it falls within the historic corridor, I would just point out for the board's reference that it's located in a commercial district and there are existing commercial enterprises all around this particular building.

MR. ARGENIO: I think he's bringing up the neighborhood, Dominic.

MR. CORDISCO: Well, that may very well be so, but the revised plans show the location of course of the Cantonment and the Cantonment is over how far away?

MR. EDSALL: It's approaching a half a mile away.

MR. CORDISCO: So in a sense that doing further visual analysis on a receptor that's

over a half a mile away --

MR. ARGENIO: Maybe unfair to the applicant.

MR. CORDISCO: -- in a commercial corridor where there are plenty of commercial uses in between this proposed use, existing use, this proposed use and the Cantonment, it is within the board's discretion as to whether or not you want to require it. If you don't want to require it, I think that that would be a valid basis for not requiring it. And you could move on to making a decision under SEQRA tonight.

MR. ARGENIO: Thank you, Dominic. I'll accept a motion --

MR. VAN LEEUWEN: So moved.

MR. ARGENIO: -- to declare a neg dec on this?

MR. VAN LEEUWEN: So moved.

MR. SCHLESINGER: Second.

MR. ARGENIO: A motion has been made and seconded that the Town of New Windsor Planning Board declare a neg dec on the site plan. If there's no further discussion from the board members I will have roll call.

ROLL CALL

MR. SCHLESINGER	AYE
MR. BROWN	AYE
MR. GALLAGHER	AYE
MR. VAN LEEUWEN	AYE
MR. ARGENIO	AYE

MR. CORDISCO: Mr. Chairman, I would prepare a written negative declaration for the board's adoption.

MR. ARGENIO: I would respect that you would do that. Mark, it seems as though the engineering comments, it's taken care of

everything it seems to me.

MR. EDSALL: They are --

MR. ARGENIO: What is here?

MR. EDSALL: -- they are 100 percent on other than, I believe, an elevation that was to be corrected on a final SWPPP which is extremely minor. We will work with the engineer. My only suggestion is that we ask a note be added to the plan reflecting the board's or the applicant's voluntary modification of the color, generally matching what was discussed just so that there's something on the plan.

MR. ARGENIO: Jerry?

MR. SABINI: Yes, sir.

MR. ARGENIO: I want you to take that rendering that's on the easel and I want you to redo it. And I want you to bring it to Mike and Mark. I'd like you to do that. I'm requesting that of you. This board is requesting that of you because I don't want there to be any surprises.

MR. SABINI: I understand.

MR. ARGENIO: Because we are all talking the same language here it seems. I want to make sure we continue to talk the same language.

MR. SABINI: If I make that the colors that we talked about.

MR. ARGENIO: And put the stone in there.

MR. SABINI: And bring it to Mr. Babcock.

MR. ARGENIO: Mike and Mark will take a look at it. How long will it take to do that?

MR. SABINI: The guy is away this week. I could probably have it done next week. It's not a big deal.

MR. ARGENIO: A couple of weeks.

MR. SABINI: It's on the computer.

MR. ARGENIO: Anything else?

MR. VAN LEEUWEN: Motion to approve.

MR. SCHLESINGER: Second.

MR. ARGENIO: Motion made and seconded by the Town of New Windsor to offer final approval to Jerry Sabini site plan on Route 300. No further discussion of the board members, I will have a roll call.

ROLL CALL

MR. SCHLESINGER	AYE
MR. BROWN	AYE
MR. GALLAGHER	AYE
MR. VAN LEEUWEN	AYE
MR. ARGENIO	AYE

MR. ARGENIO: Thank you very much, have a good tonight.

McGOEY, HAUSER and EDSALL
CONSULTING ENGINEERS P.C.

RICHARD D. McGOEY, P.E. (NY & PA)
WILLIAM J. HAUSER, P.E. (NY & NJ)
MARK J. EDSALL, P.E. (NY, NJ & PA)
JAMES M. FARR, P.E. (NY & PA)

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WRITER'S E-MAIL ADDRESS:
MJE@MHEPC.COM

TOWN OF NEW WINDSOR
PLANNING BOARD
REVIEW COMMENTS

PROJECT NAME: JERRY'S CLIMATE CONTROL SITE PLAN
(4-STORY SELF STORAGE FACILITY)

PROJECT LOCATION: NYS ROUTE 300
SECTION 4 – BLOCK 2 – LOT 19

PROJECT NUMBER: 07-07

DATE: 25 JULY 2007

DESCRIPTION: THE APPLICATION PROPOSES A FOUR STORY SELF-STORAGE FACILITY WITH ASSOCIATED SITE IMPROVEMENTS ON THE 3 ACRE SITE ON THE NORTH SIDE OF ROUTE 300. THE PLAN WAS PREVIOUSLY REVIEWED AT THE 28 FEBRUARY 2007 AND 9 MAY 2007 PLANNING BOARD MEETINGS. ***THE APPLICATION IS BEFORE THE BOARD FOR THE CONTINUATION OF THE PUBLIC HEARING AT THIS MEETING.***

1. The project is located in the PI zoning district of the Town, and is also in the Historic Corridor. The bulk requirements on the plan are correct for the zone and use (permitted use A-12). The site as proposed appears to comply with the minimum standards of the bulk table.

2. All my previous review comments have been addressed on the submitted plans.

3. The applicant's engineer has revised the SWPPP for the project. It is acceptable, with only one minor correction remaining.

4. Please note the following procedural status for the application:

   - <u>SEQRA</u> – A lead agency coordination letter (dated 3-9-07) was prepared. It is my understanding that the planning board has assumed lead agency. Prior to taking any action under SEQRA, the board will need to consider all responses from NYSDOT and State Parks/Historic Preservation and issues related thereto.

- **O.C. Planning** – The application was referred to the Orange County Department of Planning by transmittal dated 3-9-07. A Conditional Approval report has been returned, dated 5-3-07. Note the following County Planning recommendations (and status in parenthesis):

    - Relocation of the driveway ***(was done as per DOT)***
    - Show location of Historic buildings, etc. ***(should be discussed with applicant)***
    - Renderings of each face of the building and the sign, and improved landscaping ***(should be discussed with applicant)***
    - Provision of sidewalks along Rt. 300 "to connect to those already existing for most of the street frontage along that side of the road." ***(should be discussed with applicant)***

- **NYSDOT** - The plans were referred for review. A letter dated 6-26-07 from DOT Poughkeepsie advises the new driveway location is acceptable and any detail revisions will be addressed as part of the permit process.

- **SWPPP** – The applicant has submitted a SWPPP and subsequently revised the plan pursuant to several comments from our office. One final correction needs to be made on the final SWPPP.

5. The Planning Board should require that a bond estimate be submitted for the key site improvements of this Site Plan in accordance with Chapter 137 of the Town Code. Applicants are advised that a list of acceptable unit prices is available from the Engineer for the Planning Board.

Respectfully Submitted,

Mark J. Edsall, P.E., P.P.
Engineer for the Planning Board

MJE/st
NW07-07-25July07.doc

AS OF: 10/03/2007

CHRONOLOGICAL JOB STATUS REPORT

JOB: 87-56

NEW WINDSOR PLANNING BOARD (Chargeable to Applicant)

CLIENT: NEWWIN - TOWN OF NEW WINDSO

TASK: 7- 7

FOR ALL WORK ON FILE:

TASK-NO	REC	--DATE--	TRAN	EMPL	ACT	DESCRIPTION---------	RATE	HRS.	TIME	EXP.	BILLED	BALANCE
									----------DOLLARS----------			
7-7	321203	01/17/07	TIME	MJE	WS	JERRY'S STORGE RT300	119.00	0.40	47.60			
7-7	324387	02/07/07	TIME	MJE	WS	JERRYS STORAGE RT300	119.00	0.40	47.60			
7-7	325747	02/21/07	TIME	MJE	MC	RT 300 STORAGE/MM	119.00	0.30	35.70			
7-7	327534	02/26/07	TIME	MJE	MR	JERRYS STORAGE S/P	119.00	0.80	95.20			
7-7	327542	02/27/07	TIME	MJE	MR	JERRYS STORAGE S/P	119.00	0.30	35.70			
7-7	327546	02/28/07	TIME	MJE	MM	JERRYS STORAGE	119.00	0.40	47.60			
7-7	327899	03/07/07	TIME	MJE	MC	JERRYS STORAGE L/A	119.00	0.30	35.70			
7-7	327900	03/07/07	TIME	MJE	MC	JERRYS STORAGE OCDP	119.00	0.30	35.70			
7-7	327901	03/07/07	TIME	MJE	MC	JERRYS STORAGE DOT	119.00	0.30	35.70			
7-7	327905	03/09/07	TIME	MJE	MC	JERRYS STORAGE L/A	119.00	0.20	23.80			
7-7	327906	03/09/07	TIME	MJE	MC	JERRYS STORAGE OCDP	119.00	0.20	23.80			
7-7	327907	03/09/07	TIME	MJE	MC	JERRYS STORAGE DOT	119.00	0.20	23.80			

									487.90			
7-7	328515	03/15/07				BILL 07-844					-487.90	

											-487.90	
7-7	374646					PD/CR 07-844 PD 03/28/07		487.90				
7-7	333069	04/02/07	TIME	MJE	MC	SABINI:ACTVTY @RT300	119.00	0.20	23.80			
7-7	333074	04/04/07	TIME	MJE	MC	RT300 STOP SITE WORK	119.00	0.30	35.70			
7-7	333765	04/10/07	TIME	MJE	PM	MTG SABINI:TEST HOLE	119.00	0.30	35.70			
7-7	333766	04/10/07	TIME	MJE	MC	DISC SABINI ISSUES	119.00	0.40	47.60			
7-7	334240	04/10/07	TIME	JRS	MR	JERRY'S COLD STORAGE	119.00	2.00	238.00			
7-7	334245	04/12/07	TIME	JRS	MR	JERRY'S COLD STORAGE	119.00	2.00	238.00			
7-7	333769	04/13/07	TIME	MJE	MC	JERRYS STORAGE 300	119.00	0.30	35.70			
7-7	334434	04/17/07	TIME	JRS	MR	SWPPP APPL MTG	119.00	0.50	59.50			
7-7	334438	04/18/07	TIME	JRS	MR	SWPPP APPL MTG	119.00	1.00	119.00			
7-7	334591	04/18/07	TIME	MJE	WS	JERRY CLIMATE CONTRL	119.00	0.40	47.60			
7-7	335594	04/24/07	TIME	MJE	MC	MM:JERRYS RT 300	119.00	0.30	35.70			
7-7	335613	04/27/07	TIME	MJE	MC	MM:JERRY'S STORAGE	119.00	0.30	35.70			
7-7	335858	04/27/07	TIME	JRS	MR	JERRYS CLIMATE CNTRL	119.00	1.50	178.50			
7-7	337289	04/30/07	TIME	JRS	MR	JERRY'S CLMTE CONTRL	119.00	1.00	119.00			
7-7	337295	05/01/07	TIME	JRS	MR	JERRY CLMT CNTROL	119.00	1.00	119.00			
7-7	337301	05/03/07	TIME	JRS	MR	JERRYS CLIMTE CONTRL	119.00	2.00	238.00			
7-7	338202	05/08/07	TIME	MJE	MR	JERRYS STORAGE S/P	119.00	0.30	35.70			
7-7	338209	05/08/07	TIME	MJE	PM	MTG GA/EAD RVW PROJ	119.00	0.20	23.80			
7-7	338699	05/09/07	TIME	EAD	MM	JERRY'S CLIMATE CNTR	119.00	0.60	71.40			
7-7	339235	05/17/07	TIME	MJE	PM	MTG/J.SABINI:RT 300	119.00	0.40	47.60			
7-7	341848	05/30/07	TIME	JRS	MR	JERRY'S CC-SWPPP RVW	119.00	2.00	238.00			
7-7	341854	05/31/07	TIME	JRS	MR	JERRYS CC-SWPPP RVW	119.00	2.50	297.50			

									2320.50			
7-7	339788	05/23/07				BILL 07-1353					-1785.00	

											-1785.00	
7-7	375694					PD/CR 07-1353 PD 06/11/07		1785.00				
7-7	343319	06/04/07	TIME	MJE	MC	SABINI W/HB/GA/MB	119.00	0.20	23.80			
7-7	344474	06/13/07	TIME	MJE	MC	JERRYS STORAGE/MM	119.00	0.40	47.60			
7-7	344475	06/13/07	TIME	MJE	MC	OCDP RE-REF	119.00	0.40	47.60			
7-7	344476	06/13/07	TIME	MJE	MC	DOT RE-REF	119.00	0.40	47.60			
7-7	344477	06/13/07	TIME	MJE	MC	NYS PARKS REFERRAL	119.00	0.30	35.70			
7-7	344483	06/14/07	TIME	MJE	MM	TC/ZIMMERMAN:SABINI	119.00	0.30	35.70			
7-7	344484	06/14/07	TIME	MJE	MM	GA RVW SABINI APP IS	119.00	0.30	35.70			
7-7	344485	06/14/07	TIME	MJE	MM	SABINI RVW DOT LTR	119.00	0.40	47.60			
7-7	344462	06/15/07	TIME	MJE	MC	OCDP:SABINI	119.00	0.20	23.80			

CHRONOLOGICAL JOB STATUS REPORT

JOB: 87-56

NEW WINDSOR PLANNING BOARD (Chargeable to Applicant) CLIENT: NEWWIN - TOWN OF NEW WINDSO

TASK: 7- 7

FOR ALL WORK ON FILE:

TASK-NO	REC	--DATE--	TRAN	EMPL	ACT	DESCRIPTION---------	RATE	HRS.	TIME	EXP.	BILLED	BALANCE
											DOLLARS	
7-7	345272	06/18/07	TIME	MJE	MC	OCDP:SABINI RT 300	119.00	0.40	47.60			
7-7	345273	06/18/07	TIME	MJE	MC	SABINI RT 300/OCDP	119.00	0.30	35.70			
7-7	345274	06/18/07	TIME	MJE	MC	DISC SABINI APP ISSU	119.00	0.30	35.70			
7-7	346704	06/29/07	TIME	JRS	MR	JERRY'S CLIMATE CNTR	119.00	0.50	59.50			
7-7	347817	07/02/07	TIME	CTL	CL	JERRYS CLMTE SWPPP	31.00	0.10	3.10			
7-7	347330	07/03/07	TIME	JRS	MR	JERRY CLMTE SWPPP	119.00	2.50	297.50			
7-7	348138	07/06/07	TIME	MJE	MC	M SABINI:CONSTR LOAN	119.00	0.30	35.70			
7-7	349378	07/16/07	TIME	MJE	MC	SABINI W/MM	119.00	0.20	23.80			
7-7	349382	07/16/07	TIME	MJE	MC	ZLUESTEIN:APP STATUS	119.00	0.30	35.70			
7-7	349390	07/19/07	TIME	MJE	WS	MTG/MARSHALL:JERRY'S	119.00	0.30	35.70			
7-7	349397	07/21/07	TIME	MJE	MR	JERRY'S REVIEW	119.00	0.40	47.60			
7-7	351091	07/23/07	TIME	MJE	MR	JERRYs STORAGE	119.00	0.70	83.30			
7-7	351095	07/24/07	TIME	MJE	MR	JERRYs STORAGE	119.00	0.20	23.80			
7-7	350010	07/25/07	TIME	MJE	MM	Jerry's COND FINAL	119.00	0.10	11.90			
7-7	351074	07/25/07	TIME	MJE	MM	JERRYs STORAGE PBLC	119.00	0.40	47.60			
7-7	351082	07/25/07	TIME	MJE	PM	JERRYs STORAGE W/GA	119.00	0.20	23.80			
7-7	351105	07/25/07	TIME	MJE	MC	JERRYs W/MM	119.00	0.30	35.70			
									1228.80			
7-7	347162	07/06/07				BILL 07-1799					-1059.10	
7-7	349787	07/20/07				BILL 07-1914					-336.30	
											-1395.40	
7-7	376264					PD/CR 07-1799 PD 07/25/07		1059.10				
7-7	376435					PD/CR 07-1914 PD 08/08/07		336.30				
7-7	354211	08/14/07	TIME	MJE	PM	MTG@PB OFF:SABINI	119.00	0.20	23.80			
7-7	354227	08/15/07	TIME	MJE	MC	JEN:JERRYS STORAGE	119.00	0.20	23.80			
									47.60			
7-7	353502	08/15/07				BILL 07-2170					-844.90	
											-844.90	
7-7	376691					PD/CR 07-2170 PD 08/27/07		844.90				
7-7	377473	09/28/07	TIME	MJE	MC	MM:JERRY CLIMATE	119.00	0.30	35.70			
									35.70			
7-7	359828	09/27/07				BILL 07-2516					-47.60	
											-47.60	
7-7	377607	10/03/07	TIME	MJE	MC	Closeout & TCs/MM	119.00	0.50	59.50			
						TASK TOTAL			4180.00	0.00	-4560.80	-380.80
						GRAND TOTAL			4180.00	0.00	-4560.80	-380.80

4180.00
- 380.80 correction
$ 3799.20

10-3-07
Cost Est
OK

ZIMMERMAN ENGINEERING & SURVEYING, P. C.
148 Route 17M • Harriman, NY 10926 Tel: 845-782-7976 • Fax: 845-782-3148

PROJECT NAME: JERRY'S CLIMATE CONTROL
MUNICIPALITY: TOWN OF NEW WINDSOR

JOB NO.: 26047

Description	Unit	Unit Cost	Qty	Total Cost
Roadway and Parking Lot				
Erosion Control	AC	$ 1,800.00	3	$ 5,400.00
Paving & Base (regular construction)	SY	$ 12.00	7500	$ 90,000.00
				$ -
Private Road (traveled way only)	SY	$ 12.00	0	$ -
Private Road (complete – swales etc)	LF	$ 35.00	0	$ -
Topsoil & Seeding	SY	$ 1.25	2284	$ 2,855.00
Street Signs (Traffic Control)	EA	$ 250.00	0	$ -
Parking Space Striping	EA	$ 9.00	62	$ 558.00
Parking & Lane Striping	LF	$ 0.50	0	$ -
Painted Striped Island	EA	$ 35.00	0	$ -
Site Plan Stop Bar	EA	$ 15.00	1	$ 15.00
Handicapped Sign & Striping	EA	$ 200.00	$3.00	$ 600.00
Traffic Control Sign	EA	$ 200.00	1	$ 200.00
Concrete Curbing	LF	$ 18.00	1625	$ 29,250.00
Concrete Sidewalk	SY	$ 38.00	310	$ 11,780.00
Timber Curbing	LF	$ 12.00	0	$ -
Curb (Precast) Bumpers	EA	$ 15.00	0	$ -
Shale Parking (Overflow) Area	SY	$ 8.00	0	$ -
Guiderail	LF	$ 40.00	620	$ 24,800.00
Drainage				
Catch Basin	EA	$ 2,700.00	3	$ 8,100.00
Connection to Existing Catch Basin	EA	$ 500.00	0	$ -
Stormwater Pipe (15")	LF	$ 30.00	0	$ -
Stormwater Pipe (18")	LF	$ 40.00	645	$ 25,800.00
Stormwater Pipe (24")	LF	$ 45.00	0	$ -
Stormwater Pipe (30")	LF	$ 50.00	0	$ -
Stormwater Pipe (36")	LF	$ 55.00	0	$ -
Stormwater Pipe (48")	LF	$ 65.00	0	$ -
End Section	EA	$ 350.00	1	$ 350.00
Concrete Headwall	EA	$ 4,000.00	0	$ -
Rip Rap Drainage Channel	LF	$ 8.00	40	$ 320.00
Non-lined Drainage Channel	LF	$ 3.50	0	$ -
Utilities				
Watermain (4")	LF	$ 35.00	320	$ 11,200.00
Gate Valve (4")	EA	$ 750.00	1	$ 750.00
Tapping Sleeve and Valve (8")	EA	$ 2,200.00	0	$ -
Watermain (12")	LF	$ 65.00	0	$ -
Gate Valve (12")	EA	$ 1,750.00	0	$ -

Hydrant Assembly	EA	$ 2,700.00	1	$	2,700.00
Sewer Main (6")	LF	$ 35.00	285	$	9,975.00
Sewer Main (12")	LF	$ 45.00	0	$	-
Sewer Manholes	EA	$ 2,300.00	0	$	-
Utility Trench (elec, phone, cable)	LF	$ 10.00	230	$	2,300.00
Misc.					
Landscaping Trees	EA	$ 180.00	47	$	8,460.00
Landscaping Shrubs	EA	$ 25.00	261	$	6,525.00
Mulched surface	SY	$ 3.00	0	$	-
Chain link fence (4' black vinyl coated	LF	$ 12.00	0	$	-
Split Rail Fence	LF	$ 8.00	0	$	-
Short Masonry Landscape Walls	LF	$ 10.00	0	$	-
Retaining Walls (modular) 8' height	LF	$ 80.00	623	$	49,840.00
Lamppost	EA	$ 1,500.00	6	$	9,000.00
Building Mtd. Light	EA	$ 500.00	7	$	3,500.00
Waste Enclosure (small)	EA	$ 750.00	0	$	-
Dumpster Enclosure (masonry/concret	EA	$ 1,500.00	1	$	1,500.00
Clear and Grub	AC	$ 3,000.00	3	$	9,000.00
NYS ROW ITEMS					
Roadway and Parking Lot					
Clear and Grade ROW	SF	$ 0.80	1140	$	912.00
Roadway Subbase (8" Course)	SY	$ 8.25	126	$	1,039.50
Asphalt Pavement (1.5" top)	SY	$ 7.00	126	$	882.00
Asphalt Pavement (3.5"course)	SY	$ 14.50	126	$	1,827.00
Concrete Curbing	LF	$ 28.00	112	$	3,136.00
Drainage					
Stormwater Manhole	EA	$ 3,600.00	1	$	3,600.00
Connection to Existing Catch Basin	EA	$ 1,000.00	1	$	1,000.00
Stormwater Pipe (CMP - 24" coated)	LF	$ 71.00	185	$	13,135.00
Rip Rap Drainage Channel	LF	$ 65.00	30	$	1,950.00
Water					
Watermain (DI - 4")	LF	$ 65.00	66	$	4,290.00
Tapping Sleeve and Valve (4")	EA	$ 2,800.00	1	$	2,800.00
Sewer					
Sewer service PVC - 6")	LF	$ 65.00	$30.00	$	1,950.00
				$	-
				$	-
Total				$	**351,299.50**

Client Ledger
ALL DATES

Date / Entry #	Received From/Paid To / Explanation	Che# / Rec#	Rcpts	General Disbs	Fees	Bld Inv#	Acc	Trust Activity Rcpts	Trust Activity Disbs	Trust Activity Balance
12132 TOWN OF NEW WINDSOR										
6085913	**JERRY'S CLIMATE CONTROL SITE PLAN (SABINI) PB**							**Resp Lawyer: JRL**		
Feb 28/2007 55422	Lawyer: DRC 0.40 Hrs X 250.00 REVIEW NEW FILE AND APPLICATION MATERIAL PB# 07-07				100.00	2887				
Feb 28/2007 55431	Lawyer: DRC 0.40 Hrs X 250.00 ATTEND PLANNING BOARD MEETING PB# 07-07				100.00	2887				
Mar 8/2007 56963	Billing on Invoice 2887 FEES 200.00			0.00		2887				
Mar 23/2007 60076	Town of New Windsor PMT - PAYMENT ON ACCOUNT	025719	200.00							
Jul 24/2007 83433	Lawyer: DRC 0.20 Hrs X 325.00 REVIEW M EDSALL'S COMMENTS PB# 07-07				65.00	4374				
Jul 24/2007 83434	Lawyer: DRC 0.30 Hrs X 325.00 REVIEW REVISED PLANS PB# 07-07				97.50	4374				
Jul 24/2007 83435	Lawyer: DRC 0.10 Hrs X 325.00 REVIEW OCPD'S 239 REPORT				32.50	4374				
Jul 25/2007 84132	Lawyer: DRC 0.50 Hrs X 325.00 ATTEND PLANNING BOARD MEETING PB# 07-07				162.50	4374				
Aug 3/2007 86228	Lawyer: DRC 0.50 Hrs X 325.00 PREPARE RESOLUTIONS ADOPTING A NEGATIVE DECLARATION AND APPROVING A SITE PLAN PB# 07-07				162.50	4646				
Aug 8/2007 86824	Lawyer: DRC 0.40 Hrs X 325.00 PREPARE NEGATIVE DECLARATION PB# 07-07				130.00	4646				
Aug 13/2007 87068	Billing on Invoice 4374 FEES 357.50			0.00		4374				
Sep 10/2007 91926	Billing on Invoice 4646 FEES 292.50			0.00		4646				
Sep 17/2007 93038	TOWN OF NEW WINDSOR PMT - PAYMENT ON ACCOUNT	011357	357.50							

TOTALS	UNBILLED CHE	+ RECOV	+ FEES	= TOTAL	BILLED DISBS	+ FEES	+ TAX	- RECEIPTS	BALANCES = A/R	TRUST
PERIOD	0.00	0.00	0.00	0.00	0.00	850.00	0.00	557.50	292.50	0.00
END DATE	0.00	0.00	0.00	0.00	0.00	850.00	0.00	557.50	292.50	0.00

FIRM TOTAI	UNBILLED CHE	+ RECOV	+ FEES	= TOTAL	BILLED DISBS	+ FEES	+ TAX	- RECEIPTS	BALANCES = A/R	TRUST
PERIOD	0.00	0.00	0.00	0.00	0.00	850.00	0.00	557.50	292.50	0.00
END DATE	0.00	0.00	0.00	0.00	0.00	850.00	0.00	557.50	292.50	0.00

REPORT SELECTIONS - Client Ledger

Layout Template	Default
Requested by	Jennifer Schneider
Finished	Thursday, September 20, 2007 at 04:15:00 PM
Ver	8.20c
Matters	6085913
Clients	All
Major Clients	All
Client Intro Lawyer	All
Matter Intro Lawyer	All
Responsible Lawyer	All
Assigned Lawyer	All
Type of Law	All
Select From	Active, Inactive Matters
Matters Sort by	Default
New Page for Each Lawyer	No
New Page for Each Matter	No
No Activity Date	Dec 31/2199
Firm Totals Only	No
Totals Only	No
Entries Shown - Billed Only	No
Entries Shown - Disbursements	Yes
Entries Shown - Receipts	Yes
Entries Shown - Time or Fees	Yes
Entries Shown - Trust	Yes
Incl. Matters with Retainer Bal	No
Incl. Matters with Neg Unbld Disb	No
Trust Account	All
Working Lawyer	All
Include Corrected Entries	No
Show Check # on Paid Payables	No
Show Client Address	No
Consolidate Payments	No
Show Trust Summary by Account	No

Town of New Windsor

555 Union Avenue
New Windsor, New York 12553
Telephone: (845) 563-4615
Fax: (845) 563-4689

OFFICE OF THE PLANNING BOARD

October 3, 2007

Jerry Sabini
P.O. Box 522
Vails Gate, NY 12584

SUBJECT: FEES DUE P.B. #07-07 - JERRY'S CLIMATE CONTROL

Dear Mr. Sabini:

Please find attached printouts of fees due for subject project.

Please submit payment in separate checks, payable to the Town of New Windsor, as follows:

Check #1 – Approval Fee.....$	125.00
Check #2 – Amount over escrow posted.....$	4,202.18
Check #3 - 2% of Cost Est. ($351,299.50) (inspection fee)$	7,025.99

Upon receipt of these checks, I will have the plans stamped and signed approved.

If you have any questions in this regard, please contact my office.

Very truly yours,

Myra L. Mason

Myra L. Mason, Secretary To The
NEW WINDSOR PLANNING BOARD

MLM

PLANNING BOARD
TOWN OF NEW WINDSOR

AS OF: 10/03/2007

LISTING OF PLANNING BOARD **FEES**
APPROVAL

FOR PROJECT NUMBER: 7-7
NAME: JERRY'S CLIMATE CONTROL STORAGE PA2007-0002
APPLICANT: JERRY SABINI

--DATE--	DESCRIPTION---------	TRANS	--AMT-CHG	-AMT-PAID	--BAL-DUE
10/03/2007	APPROVAL FEE	CHG	125.00		
			---	---	---
		TOTAL:	125.00	0.00	125.00

PLANNING BOARD
TOWN OF NEW WINDSOR

AS OF: 10/03/2007

LISTING OF PLANNING BOARD **FEES**
ESCROW

FOR PROJECT NUMBER: 7-7
NAME: JERRY'S CLIMATE CONTROL STORAGE PA2007-0002
APPLICANT: JERRY SABINI

--DATE--	DESCRIPTION---------	TRANS	--AMT-CHG	-AMT-PAID	--BAL-DUE
02/28/2007	P.B. ATTY. FEE (CORDISCO)	CHG	850.00		
02/28/2007	P.B. MINUTES	CHG	84.00		
05/09/2007	P.B. MINUTES	CHG	175.00		
06/14/2007	FEDEX THREE PACKAGES	CHG	43.98		
07/22/2007	REC. CK. #1020	PAID		750.00	
10/03/2007	P.B. ENGINEER FEE	CHG	3799.20		
			---	---	---
		TOTAL:	4952.18	750.00	4202.18

PLANNING BOARD
TOWN OF NEW WINDSOR

AS OF: 10/03/2007

LISTING OF PLANNING BOARD **FEES**
4% FEE

FOR PROJECT NUMBER: 7-7
NAME: JERRY'S CLIMATE CONTROL STORAGE PA2007-0002
APPLICANT: JERRY SABINI

--DATE--	DESCRIPTION---------	TRANS	--AMT-CHG	-AMT-PAID	--BAL-DUE
10/03/2007	2% OF 351,299.50 COST EST	CHG	7025.99		
			---	---	---
		TOTAL:	7025.99	0.00	7025.99

RESULTS OF P.B. MEETING OF: July 25, 2007

PROJECT: Jerry's Climate Control P.B. # 07-07

LEAD AGENCY:

AUTHORIZE COORD. LETTER: Y____ N____
TAKE LEAD AGENCY: Y ✓ N____

M) ✓ S) Schles VOTE: A 5 N 0
CARRIED: Y ✓ N____

NEGATIVE DEC:

M) ✓ S) Schles VOTE: A 5 N 0
CARRIED: Y ✓ N____

PUBLIC HEARING: WAIVED:____ CLOSED: ✓ FINAL:____

M) 5 S) 0 VOTE: A ✓ N Schles SCHEDULE P.H.: Y____ N____

SEND TO O.C. PLANNING: Y____ RETURN TO WORK SHOP: Y___ N____

SEND TO DEPT. OF TRANS: Y___ REFER TO Z.B.A.: M)___ S)___ VOTE: A___ N___

APPROVAL:

CONCEPTUAL: ____ **PRELIMINARY:**____ **COND. FINAL:** ✓ **FINAL**____

M) ✓ S) Schles VOTE: A 5 N 0 APPROVED: ✓

NEED NEW PLANS: Y ✓ N____

CONDITIONS – NOTES:

Sidewalks - Not necessary
No Neon or flashing signs
To be earth-tone colors
Get Neg Dec from Dominic
Add Note re: aesthetics of the bldg.

MEETING DATE: July 25, 2007

Town of New Windsor

555 Union Avenue
New Windsor, NY 12553
(845) 563-4611

RECEIPT
#780-2007

10/04/2007

Sabini, Gerald P.B. 07-07

Received $ 125.00 for Planning Board Fees, on 10/04/2007. Thank you for stopping by the Town Clerk's office.

As always, it is our pleasure to serve you.

Deborah Green
Town Clerk

PB#07-07

PLANNING BOARD
TOWN OF NEW WINDSOR

AS OF: 07/25/2007

LISTING OF PLANNING BOARD **AGENCY APPROVALS**

FOR PROJECT NUMBER: 7-7
NAME: JERRY'S CLIMATE CONTROL STORAGE PA2007-0002
APPLICANT: JERRY SABINI

	DATE-SENT	AGENCY----------	DATE-RECD	RESPONSE----------
ORIG	02/22/2007	MUNICIPAL HIGHWAY	02/28/2007	APPROVED
ORIG	02/22/2007	MUNICIPAL WATER	/ /	
ORIG	02/22/2007	MUNICIPAL SEWER	/ /	
ORIG	02/22/2007	MUNICIPAL FIRE	02/23/2007	APPROVED
		. PLEASE NOTE: SIZE OF BUILDING REQUIRES A SPRINKLER AND		
		. ALARM SYSTEM AND HEIGHT OF BUILDING WILL REQUIRE A STANDPIPE		
		. SYSTEM		
ORIG	02/22/2007	NYSDOT	/ /	

PLANNING BOARD
TOWN OF NEW WINDSOR

AS OF: 07/25/2007

LISTING OF PLANNING BOARD SEQRA ACTIONS

FOR PROJECT NUMBER: 7-7
NAME: JERRY'S CLIMATE CONTROL STORAGE PA2007-0002
APPLICANT: JERRY SABINI

	DATE-SENT	ACTION----------	DATE-RECD	RESPONSE----------
ORIG	02/22/2007	EAF SUBMITTED	02/22/2007	WITH APPLIC
ORIG	02/22/2007	CIRCULATE TO INVOLVED AGENCIES	02/28/2007	AUTH LTR
ORIG	02/22/2007	LEAD AGENCY DECLARED	/ /	
ORIG	02/22/2007	DECLARATION (POS/NEG)	/ /	
ORIG	02/22/2007	SCHEDULE PUBLIC HEARING	02/28/2007	SCHED PH
		. AFTER REVISED PLANS AND 30-DAYS FOR LEAD AGENCY LET - RETURN		
		. TO WS - THEN SCHED PH		
ORIG	02/22/2007	PUBLIC HEARING HELD	/ /	
ORIG	02/22/2007	WAIVE PUBLIC HEARING	/ /	
ORIG	02/22/2007	FINAL PUBLIC HEARING	/ /	
ORIG	02/22/2007	PRELIMINARY APPROVAL	/ /	
ORIG	02/22/2007	LEAD AGENCY LETTER SENT	/ /	

PLANNING BOARD
TOWN OF NEW WINDSOR

AS OF: 07/25/2007

LISTING OF PLANNING BOARD**ACTIONS**

STAGE: STATUS [Open, Withd]
O [Disap, Appr]

FOR PROJECT NUMBER: 7-7
NAME: JERRY'S CLIMATE CONTROL STORAGE PA2007-0002
APPLICANT: JERRY SABINI

--DATE-- MEETING-PURPOSE----------ACTION-TAKEN--------

05/09/2007 P.B. APPEARANCE PUBL HEAR LEFT OPEN
. SUBMIT LONG EAF - SUBMIT TO GLENN MARSHALL, PALISADES PK
. COMM - NEED FENCE FOR SAFETY - NEED MANUFACTURE R OF BLOCKS
. FOR WALLS - CHANGE DETAILS FOR WALL - *

02/28/2007 P.B. APPEARANCE AUTH LTR - SCH PH
. ADDRESS MARK'S COMMENTS - IMPROVE LANDSCAPING - NEED
. ELEVATIONS OF BUILDING - NEED LONG FOR EAF - THEN SEND LEAD
. AGENCY LETTERS.
. ONCE ALL IS COMPLETE - SCHEDULE WS THEN PH

02/07/2007 WORK SHOP APPEARANCE SUBMIT

Town of New Windsor

555 Union Avenue
New Windsor, New York 12553
Telephone: (845) 563-4615
Fax: (845) 563-4693

OFFICE OF THE PLANNING BOARD

9 March 2007

Mr. Richard Dillmann, P.E., Regional Traffic Engineer
NYS Department of Transportation, Region 8
4 Burnett Boulevard
Poughkeepsie, N.Y. 12603

SUBJECT: JERRY'S CLIMATE CONTROL SITE PLAN
TEMPLE HILL (FREEDOM) ROAD – NYS ROUTE 300
NEW WINDSOR PLANNING BOARD NO. 07-07

Dear Mr. Dillmann:

The Town of New Windsor Planning Board has received an application for site plan approval of a self-storage facility located on NYS Route 300 within the Town. The Planning Board has determined that the applicant will be required to obtain a Highway Work Permit from your Department.

We are forwarding herewith a copy of the plan submitted with the application for your review and comment. We request that you notify the Planning Board of any concerns regarding this application, which should be considered by the Board during their review of the project.

It is not the intent that these plans be considered the plans required for the Permit application, as these will be the responsibility of the applicant following site plan approval from the Town.

We look forward to your input regarding this application before the Board.

Very truly yours,

TOWN OF NEW WINDSOR PLANNING BOARD

Mark J. Edsall, P.E. P.P.

Mark J. Edsall, P.E., P.P.
Planning Board Engineer

MJE/st
NW07-07-NYSDOT-Ref 03-09-07.doc

TOWN OF NEW WINDSOR
HISTORIAN REVIEW

TO: NEW WINDSOR PLANNING BOARD

FROM: GLENN MARSHALL, TOWN HISTORIAN

DATE: JULY 19, 2007

SUBJECT: SABINI SITE PLAN – 07-07

Would prefer that the look be more natural looking such as brick or earth tone colors. Something that would blend in with the surrounding business park buildings.

No neon signs or flashing signs.

GLENN MARSHALL, TOWN HISTORIAN

fax: Mark Edsall

facsimile
TRANSMITTAL

Palisades Interstate Park Commission

to: Office of The Planning Board
Town of New Windsor

fax #: 845-563-4693
re: Jerry's Storage (Sabini) Site Plan No. 07-07
date: 7/17/07

To Whom It May Concern:

Per your request, the Palisades Interstate Park Commission has reviewed the above listed item and has determined that the proposal shall presumably not have any foreseeable adverse impact upon nearby park resources.

However an archeological review may still need to be considered, and will be addressed by Douglas Mackey of NY Parks and Historic Preservation.

Thank you for providing us with the opportunity to review and comment on this proposal.

Regards,

Karl B. Roecker
Junior Landscape Architect
Palisades Interstate Park Commission

Cc: Michael Clark, OPRHP - Historic Site Manager
Douglas Mackey, OPRHP - Archeologist

P.B. #07-07
cc: M.E.
J.A.
D.C.
Zim. Eng.

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
REGION EIGHT
4 BURNETT BOULEVARD
POUGHKEEPSIE, NEW YORK 12603
www.nysdot.gov

ROBERT A. DENNISON III, P.E.
REGIONAL DIRECTOR

ASTRID C. GLYNN
COMMISSIONER

June 26, 2007

Mr. Mark Edsall P.E., P.P.
Planning Board Engineer
Town of New Windsor
555 Union Avenue
New Windsor, NY 12553

Re: NYSDOT SEQRA # 07-0048
Jerry's Climate Control Site
Route 300 (Freedom Road)
New Windsor, Orange County

Dear Mr. Edsall:

The Department SEQRA Unit has reviewed the subject new driveway location as recommended and found it to be acceptable. However, since there is not enough time to do a complete review of the subject driveway before your next meeting, it should be noted that minor curb-line extension, roadway shoulder treatments, drainage improvements, etc., may be recommended during the Highway Work Permit review process.

The client should be advised to start our Highway Work Permit process any time after the Planning Board's approval. For additional information, please contact:

Siby Zachariah-Carbone, Permit Engineer
112 Dickson Street
Newburgh, NY 12550
(845) 562-8368

Thank you for your interest in highway safety.

Very truly yours,

Ursus A. Idosu
HWP / SEQRA Unit

UAI/kb

cc: S. Zachariah-Carbone, Permit Engineer, Res 8-4

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
112 DICKSON STREET
NEWBURGH, NY 12550-5324
(845) 562-8368
http://www.nysdot.gov

ROBERT A. DENNISON, III, P. E.
REGIONAL DIRECTOR

ASTRID C. GLYNN
COMMISSIONER

June 11, 2007

Gerald Zimmerman, P.E., L.S.
Zimmerman Engineering & Surveying, P.C.
148 Route 17M
Harriman, NY 10926

RE: JERRY'S CLIMATE CONTROL
Installation of Self-Storage Facility
Route 300, SBL 4-2-19, Town of New Windsor
Orange County

Dear Mr. Zimmerman:

This letter is to inform you that the Department's Design Group has reviewed the drainage report for the above referenced project and has the following comments.

1. The report includes an analysis of the culvert under Route 300. The analysis includes flow from two existing pipes, a 24" and an 18", and the proposed 24" DIP discharging from the Stormwater Pond. The report does not include flows from the drainage inlets, from Route 300, or any pipes that may enter on the other side of Route 300. The entire state drainage system that mixes with this crossing should be shown on the plans for this report, and included in the analysis since an increase in peak stormwater discharge is proposed for this crossing. The analysis should continue downstream until the flow enters a 4th order stream or larger.

2. The report should include a schedule for inspections, and future maintenance of the detention system, as well as a listing of the responsible person.

In your latest revision plan, dated 5/21/07, you have addressed the previous comments made by the Department's Traffic Engineering & Safety Group. At this time, we have no additional comments aside from the above. Please address these comments and resubmit a revised drainage report to the Department for final review and approval prior to obtaining a Highway Work Permit.

If you have any questions or comments, please give me a call. Thank you.

Sincerely,

Siby Mary Zachariah-Carbone
Permit Engineer, Orange County East

Cc: Richard Gaupman, P.E., R.E., Res. 6-4
Glenn Boucher, P.E., Permit Coordinator, R-8 TE&S
Jerry Sabini, owner
John Szarowski, P.E., MHE
file

P.B. #07-07 M.E. J.A. D.C. Z.E.

COUNTY OF ORANGE

EDWARD A. DIANA
COUNTY EXECUTIVE

DEPARTMENT OF PLANNING
124 MAIN STREET
GOSHEN, NEW YORK 10924-2124
TEL: (845)291-2318 FAX: (845)291-2533
www.orangecountygov.com/planning

DAVID CHURCH, A.I.C.P.
COMMISSIONER

ORANGE COUNTY DEPARTMENT OF PLANNING
239 L, M OR N REPORT

This proposed action is being reviewed as an aid in coordinating such action between and among governmental agencies by bringing pertinent inter-community and countywide considerations to the attention of the municipal agency having jurisdiction.

Referred by: Town of New Windsor Planning Board

Reference/County ID No.: NWT07-07M
County Tax ID: S4 B2 L19

Applicant: Jerry Sabini
Proposed Action: Site Plan for 4-story self-storage building
Reason for Review: Within 500 ft of NYS Route 300
Date of Full Statement: June 15, 2007

Comments:

1. The applicant has requested site plan approval for a 78,400sf 4-story climate-controlled self storage mini warehouse building, in a PI Planned Industrial zoning district.

2. We recognize the effort by the applicant to revise the proposal in coordination with some of the County's previous comments, including relocation of the driveway; the location of the "building, site, or district, listed on the State or National Registers of Historic Places;" and a landscaping plan.

3. It is noted that the applicant and the Planning Board are negotiating the appearance of the proposed building, including requirements for signage and architectural style. We ask that the applicant be required to include the following in future site plan submissions for approval :

   - renderings of front, back and side elevations of the proposed structure;
   - rendering of any proposed signage along with its intended location.

4. It is noted that sidewalks are currently located on the lot just east of the subject parcel. The lot just west of the subject parcel does not have sidewalks but they have been provided from the next parcel all the way to Union Avenue, on the right. We note further that requiring the applicant to supply walkways may be prudent because, if not, the cost of doing so may eventually fall on the Town itself. This said, the County strongly recommends that the applicant be required to include sidewalks within the design, to connect to those already existing.

County Recommendation:

Approval subject to the following modifications and/or conditions: Adherence to Comment #4

Date: June 22, 2007
Prepared by: Atticus Lanigan, Planner

David Church, AICP
Commissioner of Planning

"IMPORTANT NOTE: As per NYS General Municipal Law 239-m(6), within 30 days of municipal final action on the above referred project, the referring board must file a report of the final action taken with the County Planning Department. For such filing, please use the final action report form attached to this review or available on-line at www.orangecountygov.com/planning."

REPORT OF FINAL LOCAL ACTION

To: Orange County Department of Planning
124 Main Street
Goshen, NY 10924

From:

Date:

Subject: GML 239 Referral ID# BGT07-07M
Name of project: Sabini Self-Storage, resubmittal

As stated in Section 239 of the General Municipal Law of the State of New York State, within thirty days of taking final action in regard to a required referral to the Orange County Planning Department, the local referring agency shall file a report as to the final action taken. In regard to the proposed action described above, the following final action was taken:

_____ Our local board **approved** this action on _____.

_____ Our local board **approved** this action **with modifications** on _____.
Briefly, the modifications consisted of:

_____
_____
_____

_____ Our local board **disapproved** this action on_____.
Briefly, the reasons for disapproving this action were:

_____
_____
_____

_____ The proposal was **withdrawn**.

Additional space for comments on actions:

_____
_____
_____
_____
_____

Town of New Windsor

555 Union Avenue
New Windsor, New York 12553
Telephone: (845) 563-4615
Fax: (845) 563-4693

OFFICE OF THE PLANNING BOARD

13 June 2007

Mr. Richard Dillmann, P.E., Regional Traffic Engineer
NYS Department of Transportation, Region 8
4 Burnett Boulevard
Poughkeepsie, N.Y. 12603

SUBJECT: JERRY'S CLIMATE CONTROL SITE PLAN
TEMPLE HILL (FREEDOM) ROAD – NYS ROUTE 300
NEW WINDSOR PLANNING BOARD NO. 07-07

Dear Mr. Dillmann:

We previously forwarded plans for this application to you on 3-9-07. The Town received review comments from your representative, Ursus A. Idosu, dated 4-16-07.

Attached hereto please find revised plans for the project. Please advise if these plans prepared by the Applicants consultant adequately address the Department's concerns, such that the Planning Board can proceed with the approval process.

It is not the intent that these plans be considered the plans required for the Permit application, as these will be the responsibility of the applicant following site plan approval from the Town.

We look forward to your input regarding this application before the Board.

Very truly yours,

TOWN OF NEW WINDSOR PLANNING BOARD

Mark J. Edsall, P.E., P.P.

Mark J. Edsall, P.E., P.P.
Planning Board Engineer

MJE/st
NW07-07-NYSDOT-Ref 06-13-07.doc

6/14/07
Sent Fed Ex.

Orange County Department of Planning

Application for Mandatory County Review of Local Planning Action
(Variances, Zone Changes, Special Permits, Subdivisions)

To be completed by Local Board having jurisdiction.
To be signed by Local Official.

MUNICIPALITY: T/New Windsor

TAX MAP ID: 4-2-19
(Section-Block-Lot)

Local File #: 07-07
Please refer to this number in any correspondence.

Project Name: Jerry's Storage

Applicant: Jerry Sabini
Address: P.O. Box 522,
Vails Gate, NY 12584

Send Copy of Letter to Applicant: (check one)
Yes ☒ No ☐

Attorney, Engineer, Architect: Zimmerman Engineering, 148 Route 17M, Harriman, NY 10926

Location of Site: Temple Hill (Freedom) Road (NYS Route 300) (near Hempstead)
(Street, highway, nearest intersection)

Size of Parcel: 3 Ac +/- Existing Lots: 1 Proposed Lots/Units: 1

Present Zoning District: PI

TYPE OF REVIEW:

☒ Site Plan (SP): 4-story Self - storage building

☐ Special Use Permit* (SUP) _____

☐ Variance* USE (UV): _____

AREA (AV): _____

☐ Zoning District Change* From: _____ To: _____

☐ Zoning Amendment To Section: _____

☐ Subdivision: Major _____ Minor _____

☐Sketch ☐Preliminary ☐Final (Please indicate stage)

☒ Other Comments: resubmittal of revised plan (previous referral 3-9-07)

Date: 6-13-07

Mark J. Edsall, P.E., P.P.
Signature

Mark J. Edsall, P.E., P.P.
Engineer for the Planning Board

* Cite Section of Zoning Regulations where pertinent.

FOR COUNTY USE ONLY

County ID# _____

GML 239 Referral Guide – 02/27/2007

6/14/07 Sent Fed Ex

ORANGE COUNTY DEPARTMENT OF PLANNING

124 Main Street
Goshen, NY 10924-2124

APPLICATION FOR MANDATORY COUNTY REVIEW OF LOCAL PLANNING ACTION

(Variances, Zone Changes, Special Permits, Subdivisions, Site Plans)

Local File No. **7-07** **(Please include this number on any correspondence)**

1. Municipality **Town of New Windsor** Public Hearing Date: **not set**

City, Town or Village Board ____ Planning Board **X** Zoning Board ____

2. Owner: Name: **Hudson Valley Offices, LLS**
   Address: **3 Shipwatch Drive, Newburgh, NY 12550**

3. Applicant * Name: **Jerry Sabini**
   Address: **P.O. Box 522, Vails Gate, NY 12584**

***If applicant is owner, leave blank**

4. Location of Site: **Temple Hill (Freedom) Road (NYS Route 300)**
   (Street or highway, plus nearest intersection)

Tax Map Identification: Section: **4** Block: **2** Lot: **19**

Present Zoning District: **PI** Size of Parcel: **3.0 Acres**

5. Type of Review:

Special Permit

Zone Change: From -- To: --

Zoning Amendment: To Section ____

**Subdivision: Number of Lots/Units ____

***Site Plan: Use **4-story Self-Storage Building**

Date: **3-9-07** Signature & Title: Mark J. Edsall, P.E.
Mark J. Edsall, P.E.,
Planning Board Engineer

Town of New Windsor

555 Union Avenue
New Windsor, New York 12553
Telephone: (845) 563-4615
Fax: (845) 563-4693

OFFICE OF THE PLANNING BOARD

13 June 2007

New York State Parks Division for Historic Preservation
P.O. Box 189
Waterford, New York 12188-0189 - Sent Reg. Mail

ATT: Douglas Mackey, Archeologist

SUBJECT: JERRY's STORAGE (SABINI) SITE PLAN
NEW WINDSOR PLANNING BOARD NO. 07-07

Dear Mr. Mackey:

The Town of New Windsor Planning Board has received an application in the Historic District of the Town in proximity to State park properties. The Planning Board has determined that it is appropriate that application information be forwarded to interested parties for review and comment.

Enclosed herewith please find information in connection with the subject application before the Board. We would appreciate your review and response to the Board at your earliest convenience.

We are taking the liberty of providing a copy of this letter and a set of the plans to the Palisades Interstate Park Commission and Mike Clark, the Historic Site Manager, for their input as well. We have also forwarded a copy to the Town Historian.

We look forward to your input in this matter.

Very truly yours,
TOWN OF NEW WINDSOR PLANNING BOARD

Mark J. Edsall, P.E., P.P.

Mark J. Edsall, P.E., P.P.
Planning Board Engineer

cc (w/encl): Michael Clark, Historic Site Manager - Sent Regular Mail
P.O. Box 207
Vails Gate, NY 12584

Palisades Interstate Park Comm. - Sent Fed Ex

Glenn Marshall, Town Historian - in Mail Box

MJE/st NW07-07 State Park Ref 06-13-07.doc

Town of New Windsor

555 Union Avenue
New Windsor, New York 12553
Telephone: (845) 563-4615
Fax: (845) 563-4693

OFFICE OF THE PLANNING BOARD

9 March 2007

SUBJECT: JERRY'S CLIMATE CONTROL SITE PLAN
TOWN OF NEW WINDSOR, ORANGE COUNTY, NEW YORK
(NWPB REF. NO. 07-07)

To all Involved Agencies:

The Town of New Windsor Planning Board has had placed before it an application for Site Plan approval of the Jerry's Climate Control Storage project, located on Temple Hill (Freedom) Road (NYS Route 300) within the Town. The project involves, in general, the construction of a 4-story self-storage building with associated site improvements. The project is a permitted use and is located within the historic corridor of the Town. This letter is written as a request for Lead Agency Coordination as required under Part 617 of the Environmental Conservation Law.

A letter of response with regard to your interest in the position of Lead Agency, as defined by Part 617, Title 6 of the Environmental Conservation Law and the SEQRA review process, sent to the Planning Board at the above address, attention of Mark J. Edsall, P.E., Planning Board Engineer (contact person), would be most appreciated. Should no other involved agency desire the Lead Agency position; it is the desire of the Town of New Windsor Planning Board to assume such role. Should the Planning Board fail to receive a written response requesting Lead Agency within thirty (30) days, it will be understood that you do not have an interest in the Lead Agency position. Thank you for your attention to this matter. Should you have any questions regarding this notice, please feel free to contact the undersigned at the above number or (845) 563-4615.

Very truly yours,

Mark Edsall, P.E.

Mark J. Edsall, P.E., P.P.
Planning Board Engineer

New York State Parks, Recreation and Historic Preservation
NYS Department of Transportation, Poughkeepsie
George A. Green, Town of New Windsor Supervisor (w/o encl)
Town of New Windsor Town Clerk (w/o encl)
Orange County Department of Planning
Myra Mason, Planning Board Secretary
Planning Board Attorney (w/o encl)
Applicant (w/o encl)

NW07-07-LA Coord Letter 03-09-07.doc

JERRY'S_CLIMATE_CONTROL_(07-07)

MR. ARGENIO: Next on tonight's agenda is Jerry's Climate Control on Route 300. This application proposes four story self-storage facility with the associated site improvements on 3 acre site on the north side of Route 300. The plan was previously reviewed at the 28 February, 2007 planning board meeting. This application is before the board for a public hearing. Mr. Zimmerman, I'm sure you heard what I said to Miss Brown, you are familiar with our procedures, please tell us about your project, tell us the changes you've made and we'll discuss it a bit then we'll open it up to the public.

MR. ZIMMERMAN: Okay, as the notes indicated, the project is for the construction of a 4 story climate controlled self-storage building, each floor would have about 19,000 square feet of storage space with a total of 550 units to be contained within the building. The building is 80 foot wide by 245 feet in length and the project site is located on Route 300. It adjoins Automotive Brake is on one side, there's a commercial office plaza to the south. The roadway directly across from this site is Hempsted Road, the total, the access to the site as I said was off of 300, it's depicted on the site plan as a single entrance and exit point coming in with full circulation, traffic circulation around the building. And for the storm water detention storm water control on the site we have provided a series of catch basins and storm water piping which will be directed to a storm water detention pond which is located near the front of the property and we have provided details as to the construction and size that's part of the set of plans. As I said, there's intended to be 55 parking spaces on this site, that's what the zoning law requires and there's an additional ten spaces at the rear of the building for additional outdoor storage for the project. The building itself we're providing for the board's review an architectural

elevation of the building as you can see.

MR. ARGENIO: His name is in letters.

MR. ZIMMERMAN: Owner's name is in letters. Again, basically, the set of plans that we have provided shows the entire site plan, we have provided landscaping, lighting details, grading plan, storm water drainage plan, erosion control set of plans in its entirety.

MR. ARGENIO: Have you done the SWPPP?

MR. ZIMMERMAN: We've done storm water pollution plan which we have submitted.

MR. ARGENIO: Have you looked at that?

MR. DENEGA: Mark references that on page 2, they have submitted and subsequently revised the plan pursuant to several comments from our office, final corrections remain.

MR. ARGENIO: I have a question, Mr. Zimmerman, that wall on the I guess northwest side of the property you don't show a fence on that, that's problematic without a fence I do believe.

MR. ZIMMERMAN: I believe that we do have a fence, I have a detail for a fence to be installed at the top of that wall.

MR. ARGENIO: I see a wood guardrail, that's not a fence.

MR. ZIMMERMAN: Well, I didn't think we needed a fence.

MR. ARGENIO: I think you need a fence, as a matter of fact, I'm not the building inspector, I think it's code, Mike, is it code over 4 feet?

MR. BABCOCK: Yeah, Mark is saying here that it appears to be ten feet high.

MR. ARGENIO: No, what I'm saying is I think our code is if the wall is over either four or five feet you need a fence, I think I remember that coming up at another meeting, I think there should be a fence there in addition to the guardrail, it's dangerous, it's ten feet high. I think, I mean, that's my opinion.

MR. VAN LEEUWEN: Not only that but you're going to get people jumping over the fence to damage vehicles.

MR. ZIMMERMAN: It's not over ten.

MR. SABINI: Chairman wants a fence so we're putting a fence.

MR. ARGENIO: I don't want to sound like a bully, there's four other guys.

MR. BABCOCK: We're going to request they have a fence there too.

MR. ARGENIO: Typically on those walls we require a fence if it's over five feet.

MR. SABINI: Do I have to put the privacy slats or just a regular fence, I mean--

MR. ARGENIO: What's your opinion?

MR. SABINI: It's not like a self-storage with the typical ones with the long buildings.

MR. ARGENIO: You're certainly putting up a nice building.

MR. SCHLESINGER: I don't think you need a privacy fence, I would like to see a chain link fence.

MR. SABINI: No, something, those things are ugly and you have, people can look through them and, you know.

MR. VAN LEEUWEN: There's nobody in the back going to be looking through there.

MR. SABINI: Just talking on the 245 foot.

MR. ZIMMERMAN: Just on this side.

MR. ARGENIO: Neil, do you take exception on the chain link?

MR. SABINI: Automotive Brake's parking lot it's the side of their building.

MR. BABCOCK: In Mark's notes it says we had previously recommended a split rail fence with black vinyl coated chain link mesh, that's what the board previously requested.

MR. SABINI: I can do that. How high does the fence have to be?

MR. BABCOCK: I think 48 inches.

MR. ARGENIO: Okay, good. I have another little small issue, maybe this comes from my background, I really have a problem and I voiced this opinion before on this board with these walls that are going up all over town, I know we're getting more and more cramped for space, people are trying to utilize their property better and better with these walls, certainly it's not unlawful to use these walls but I think you should make sure that when you get this wall designed and this is not meant to impune you, Mr. Zimmerman, you should employ the services of an engineer, professional engineer that does walls for a living and it's not difficult because typically the block suppliers for the SMU walls they

have people that they work with and they can give you a stamped drawing for like 15 cents a foot.

MR. SABINI: I've done that before.

MR. ARGENIO: I think that's important.

MR. SABINI: Do I have the option for expense wise ever see those walls that the blocks are pretty good size?

MR. ARGENIO: Are you referring to the style of wall that's at Guardian on Route 32?

MR. SABINI: Yes, maybe not as big as those but something similar.

MR. VAN LEEUWEN: Eighteen inches high and three feet long.

MR. SABINI: I don't want to use the unilock walls.

MR. ARGENIO: I thought that's what you were going to use. I think Guardian looks nice.

MR. SABINI: Yeah, I think it looks nice.

MR. ARGENIO: I don't know whose blocks, they're with the top stone.

MR. SABINI: They're inexpensive too, okay.

MR. ARGENIO: I think it's a good idea.

MR. SABINI: Okay.

MR. ARGENIO: You know what you do too when you put that on there give us the manufacturer of those block, I think it may be Dick's Concrete or somebody out near Middletown, just let us know, I don't know who it is.

MR. SABINI: Need a stamped plan too, right, we need that for the building plan, not for you guys?

MR. VAN LEEUWEN: Building inspector.

MR. SABINI: All right.

MR. BABCOCK: On page 5 of 8 they've got a detail of the regular block you're going to have to change that.

MR. ZIMMERMAN: Yeah.

MR. ARGENIO: I think he's on that.

MR. SCHLESINGER: On the north side of the building says non-climate controlled garage units.

MR. SABINI: They're the ground floor units where you can drive a car in or motorcycle or snowmobile.

MR. SCHLESINGER: You can put something else in there, no?

MR. SABINI: Whatever you want, you're not going to use an elevator.

MR. SCHLESINGER: Ground level north side non-climate controlled.

MR. SABINI: There's climate control on the gable ends.

MR. SCHLESINGER: On the north side of the building the long side right there those are non-climate controlled garage units?

MR. SABINI: Yes.

MR. SCHLESINGER: So if people could back in and out there, they're what, 10 x 20, something like that?

MR. SABINI: Exactly, you can drive in those.

MR. SCHLESINGER: The other question I have is on the that's north this has got to be the east side of the building it says ten proposed outdoor storage and then it says parking.

MR. SABINI: That's for boats and RVs but I only have ten of them.

MR. SCHLESINGER: That's outdoor parking, that's, there's no structure there, it's just a space that you could rent to keep your boat or RV.

MR. SABINI: Yes.

MR. ARGENIO: We discussed this at the last meeting, do you know what my question is going to be?

MR. SABINI: No, I don't.

MR. ARGENIO: About the outdoor storage, somebody, I think it was Neil commented on the fact that the outdoor storage out on the corner of Toleman and 207 does not specifically look that appealing, we talked about a way of you screening that in some fashion. Have you thought about that?

MR. SABINI: No, no because I only have ten of them and they're in the back of the building, way back, they're way in the back about 600 feet from the main road.

MR. BROWN: Can't see it from the main road.

MR. DENEGA: I want to point out you're referencing the parking spaces, correct?

MR. SABINI: I'd like to have 40 of them.

MR. DENEGA: That's what I mean, outdoor, Mark's item

number 4 first bulleted item references the following, enclosing or screening of the 10 outdoor storage spaces at the rear.

MR. ARGENIO: I think he's got a good point, it's 600 feet from the highway.

MR. SCHLESINGER: Why would you rather have 40?

MR. SABINI: Cause it's free revenue, basically, it's a paid parking lot, you know what I mean?

MR. SCHLESINGER: Why don't you make the building smaller?

MR. SABINI: No, the land's too expensive, no, no.

MR. ARGENIO: I'd like to go through a couple things relative to the County and open it up to the public for comment. Orange County Planning has some comments, I think you're going to have to seriously consider the first one, they're recommending relocation of the driveway. We have a disapproval from the DOT. I don't know if you have a copy of that, we have a disapproval, what both agencies are recommending and I quite frankly tend to agree is to line up those two streets, line up your entrance with I think Hempsted across the street.

MR. SABINI: They told us not to do that.

MR. ZIMMERMAN: I met the representative at the site, we discussed that and the impression I got what she had said was that for in this use it wouldn't be an issue especially since the Hempsted is not, you know, a through street, it's not a heavily traveled street.

MR. ARGENIO: The proposed driveway location as shown on the subject plan is not acceptable, the subject driveway should be positioned directly opposite New Hempsted Road and that's from Sibby.

MR. ZIMMERMAN: She wrote that?

MR. ARGENIO: Irsisa Idoso (phonetic) wrote it and she's got Sibby's address on there.

MR. ZIMMERMAN: Writing it to Sibby?

MR. ARGENIO: No, she's writing it to Edsall, I'll give you a copy.

MR. SABINI: Sibby wrote that letter?

MR. ARGENIO: I'll give you a copy of the letter.

MR. ZIMMERMAN: Yes.

MR. SABINI: She flipflopped.

MR. ARGENIO: Maybe she changed her mind, I think she's right because you can't build intersections that are offset by 16, 18, 20 feet, it's not reasonable, either you have to get away from New Hempsted Road or line yourself up with it, one of the two.

MR. BABCOCK: DOT also disapproved.

MR. ARGENIO: That's what I was reading from DOT. County said to show the location of the historic buildings. I don't think it would be too much trouble for you to put on your location plan couple dots on the location plan. This is a good one, Jerry Sabini, the county strongly recommends that the applicant be required to include pedestrian sidewalks within the design along Route 300 to connect to those existing for most of the street frontage along the road that already exists. I don't think you have to worry about that unless somebody else feels differently, there's no sidewalks on 300.

MR. SCHEIBLE: There is so sidewalks so why don't we continue them.

MR. ARGENIO: It's not easy sometimes for the, for my fellow members, we'll have a chance to comment on this again, he does have a little bit of work to do here, I think I like the building, I think it looks good, it's nice but we'll get into some other things. I'd like to open it up to the public, give them a chance. The letter date is April 16, 2007. On the 26th day of April, 2007, five addressed envelopes containing the notice of public hearing pertinent to this application went out. This was provided by the Town of New Windsor Planning Board assessor's office. If there's anybody here that would like to speak for or against or comment on this plan we certainly would like to hear from you. Please raise your hand, be recognized and come forward, state your name for the stenographer.

MR. WILLIAMS: Kirk Williams, Riley Road. I will see this property directly from my property across the valley, my property, part of it is part of the original Cantonment and entire valley I believe is in an historic overlay district, what considerations have been thought about for historic overlay district for this property?

MR. ARGENIO: Dominic, do you, can you shed some light on that? This in the district, is it not?

MR. CORDISCO: I'm not sure whether it's in the district or not but in terms of consideration the purpose of the public hearing is to open up comments to the public so that comments such as this one can be introduced and we can evaluate.

MR. ARGENIO: Excellent. Go ahead.

MR. WILLIAMS: The other thing I would have to question is fire protection of that building in terms of ladder

truck, the building I believe is 80 by 245, did I hear how do you intend to get full coverage with a ladder truck on that building?

MR. ARGENIO: We certainly will require the applicant to comply with the fire code and I can read this to you here, we have input, we have received input from the fire inspector. The size of the building requires sprinkler system and alarm system and the height of the building will require a standard pipe system, doesn't say it is approved but it does tell the applicant what he's required to do. It does say approved, I'm sorry, I missed that, so he's been told by the fire inspector what he needs to do to make that building comply.

MR. WILLIAMS: Town also require to have full coverage with a ladder truck though the center of the building if it gets on fire and the fire sprinkler system fails what fire protection do you have? Just do the math, look at the side lot clearance.

MR. ARGENIO: I can't do the math, this is why we have professional firemen who actually do this for a living making these recommendations cause there's nobody up here at least not that I know of that has the ability to make that assessment whether it's safe or whether it's not safe.

MR. WILLIAMS: Thank you.

MR. ARGENIO: Anybody else?

MR. STEIDLE: Bill Steidle. I appreciate the opportunity to speak tonight. My name is Bill Steidle, I live on Jackson Avenue, Town of New Windsor. I speak as a private resident and opinions I express are my opinions only. The first thing I think I have mentioned to the board previously you have a big responsibility under the State Environmental Quality Review Act, Dominic certainly knows that as well.

SEQRA requires, incidentally, it's not to slight Mr. Zimmerman, SEQRA requires among other things that the board consider visual anesthetic impacts, it requires that the board consider impacts on historic resources, historic district and historic facilities and it requires that the board consider impacts on community character. I reviewed the file on Monday and to my dismay there was no information in the file dealing with visual impacts, historic resources or impacts on community character. In fact, the file was limited basically to a site plan and to an environmental assessment form, just Part 1, there was no Part 2 completed nor was there any Part 3 completed. Now I don't want to be overly critical but this issue has come up previously, it's my belief that the public hearing tonight is premature, that it should not have been scheduled until the applicant is required to provide appropriate environmental evaluations and studies that are necessary under the State Environmental Quality Review Act. Now what happens when a public hearing is premature, basically, it locks you into a timeframe, your counsel has told you that previously but worse than that, it's going to eliminate my ability to comment on any data that's subsequently provided and I think that that's wrong. Now I will tell you that from my perspective the building that's being proposed will have significant impacts, it's 48 feet tall, it's much higher than the surrounding landscape, the buildings that adjoin it are one story, everything on that road is one or two story. You're going to be consumed by a four story plus building when you drive south on Route 300 going to the Cantonment, going to Knox Headquarters, going to the Edmonton House you're going to be consumed by the sight of the building heading north to the Thruway interchange. Now make no mistake the building is also a big structure, the building is almost the length of a football field, you're talking a building that's over 80 yards long, that's, I'm telling you, you know, you can visualize what it's going to be as you drive up and down 300 to

see a four story building the length of a football field. I think that's why visual assessments are required, that's why you need consideration of this project on community character, how it fits in, that's why you need information on how this may or may not be compatible with the historic district and it is in a historic district, it's in a historic district that you people adopted. Now again I don't want to take pot shots but I bring this up because it's been, it was raised at the first meeting, it was raised a little bit tonight, it's a second facility on Toleman Road for years I've wanted to tell somebody that I think that place is the tackiest place that you can possibly find with the fake peaks on some of the buildings, not on the others, and to my way of thinking, it was inconsiderate of the residences across the road, lack of screening and landscaping on that facility.

MR. ARGENIO: Bill, I'm not going to cut you off but I want to stay on this project and I certainly want to hear what you have to say.

MR. STEIDLE: I read the minutes, half of the meeting last time talked about Toleman Road and now I bring it up for that reason only and I'm not taking pot shots, I think it could have been a decent facility but, you know, if that's what we're going to get we can do better. So in my opinion, what the board should do and I base this on 30 years of doing exactly what you're supposed to be doing, the first is to require a visual assessment of the project. Now you can get consultants, visual consultants that are the same as traffic consultants and other consultants they can do a good job, they'll show you, be able to prepare an evaluation that will allow us to see what this site will in fact be when it's completed, if it is completed. That assessment should include photo simulations very easily done showing what the landscaping is now, what it will look like when the building is done, should be one south on Route 300,

north on Route 300 and one catty-corner across the road from Schlesinger's parking lot cause you're going to see that when you're walking out of that place and that building hits you. The second thing that I think you should do is require an evaluation of the compatibility of this project with historic resources. It is a historic district, we know that there are historic facilities both ways, there's the Cantonment, there's the Purple Heart Museum, there's Knox Headquarters, there's the Edmonton House the other way there's the Patton House where the canine facility is that also is a historic structure. And the third thing that I ask that you do is not to close the public hearing. I want the opportunity to evaluate the environmental studies for this project that should have been provided and I want the opportunity to present my views to a public hearing, I don't want to do it at a planning board meeting at the end of the meeting, I want the opportunity to speak at a public hearing. And I should not be penalized because the data was not in the file. I appreciate your time.

MR. ARGENIO: Thank you, Bill. Miss Newlander?

MS. NEWLANDER: Diane Newlander, Lanis Avenue in New Windsor. I reviewed the file on Monday as well and at that time there was no picture of what the building was going to look like and I too noted that there are many areas that are required to be evaluated that were not addressed. Among these deficiencies are evaluations of the areas of significant visual and aesthetic impacts, historic resources, transportation, character of the community and neighborhood and even open space and recreation, none of those were addressed in this project. And it says in the file is acknowledged to be in the historic overlay, in addition to the Cantonment, National Purple Heart Hall of Honor is just down the road. These are important historic and economic resources for New Windsor, tourism is the second largest industry in New York, people from all over the

country come to these facilities. Since I hadn't anything to really visualize, I didn't visualize the two story storage place on Route 32 by Union Avenue.

MR. ARGENIO: Guardian?

MS. NEWLANDER: Right, so this is going to be twice as big and twice as tall and I just, you know, that is such a terrible visual impact to me. What is it going to do for New Windsor economically? It's going to give five jobs created during construction, two upon completion. New York State Environmental Quality Review Act requires every state and local agency in New York to give equal consideration to environmental protection, human and economic resources when considering proposed acts such as adopting the land use plan. This project requires further evaluations on the impacts mentioned above and I agree with Bill that the public hearing should remain open until this process is complete.

MR. ARGENIO: Anybody else?

MR. WILLIAMS: Is this the parcel that's been clear cut?

MR. ARGENIO: Yes.

MR. WILLIAMS: Why was it clear cut? Is that allowed by the town? I thought we make people go back and put a lot of trees and things in later.

MR. BABCOCK: Well, there's a landscape plan, I don't know what number it is, there's a landscape plan, we'll make sure that he plants and puts back once the board approves it.

MR. WILLIAMS: Why were they allowed to cut down the trees over a certain caliper before it was approved? Why were they allowed to remove trees over a certain

caliper with no approved plan?

MR. ARGENIO: Until they come in front of the planning board once you're in front of the planning board you can't do any work on your property, that's the law. Am I correct?

MR. BABCOCK: That's correct.

MR. ARGENIO: So at this point in time, he's precluded from doing anything else on that property until this process is complete, final approval.

MR. WILLIAMS: Town Code allow trees over certain caliper to be taken down without permits?

MR. ARGENIO: Don't have the town--

MR. WILLIAMS: Be very surprised if it did.

MR. ARGENIO: I don't have the Town Code memorized.

MR. WILLIAMS: It looks like a war zone there now it's too late.

MR. ARGENIO: Mike, do you have any information?

MR. BABCOCK: No, I don't know anything that precludes him from taking the trees down.

MR. WILLIAMS: What provisions are made to prevent that?

MR. ARGENIO: Mike just answered that, he's going to come up with a landscaping plan that's going to work and be acceptable to this board that's going to make the property look decent like we do with every other applicant.

MR. WILLIAMS: What happens in the interim for erosion

control?

MR. ARGENIO: To the best of my knowledge, the property hasn't been stumped, I can tell you that there's not an erosion control problem being in the construction business until you begin to stump and disturb the earth, that's been my experience. As I said, I don't have all the answers. Anybody else? Couple things, Dominic, is this a lawful public hearing tonight?

MR. CORDISCO: Well, yes, I think it's a lawful public hearing, I mean, the comments that are raised are fair comments regarding the board's obligations under SEQRA to the extent that SEQRA requires the board to evaluate and take a hard look at the resources that are impacted, including visual and historic resources but it's also important to note that the board hasn't concluded the SEQRA process yet and the purpose of holding a public hearing, holding a public hearing fairly early in the process is to introduce the public comment.

MR. ARGENIO: So it can be incorporated into the plan.

MR. CORDISCO: That's correct, different agencies treat public hearings differently. For instance, the Department of Environmental Conservation holds its public hearing after it completes the SEQRA process. Now of course they, you know, have a great deal of expertise in the SEQRA process. So they're more capable of rendering a SEQRA decision and then inviting public comment afterwards but the reverse I think is true amongst most planning boards because the planning boards can invite public comment and learn things that we as the planning board, you as planning board can evaluate without necessarily being a professional in that arena. That said, these plans are going to be subject to change and for no other reason that the Department of Transportation has turned down the access road or, excuse me, the access point that was being

proposed and as a result, it's fair to say that for that reason alone the public hearing should be kept open because the plans are going to have to be revised and those revised plans should be evaluated and allowed to be commented on by the public in terms of my recommendation.

MR. ARGENIO: I think that and this is only my opinion there's four other people up here, I think we got some good comments tonight, we got some good comments tonight and absent advice of counsel I think I'm going to close the public hearing because Bill, you have never been silenced in this room, at least not as long as I've been here.

MR. STEIDLE: I'm not suggesting that but I want the opportunity to speak during a public hearing, not during at the end of a meeting when everybody wants to go home, I raise my hand.

MR. ARGENIO: I understand your point. My point is that you've never been silenced here and as long as your comments are not redundant and repetitive or you're rude which you have never been, you have always been afforded the opportunity. We up here are lay people doing a public service, the comment, what we're supposed to be doing, well, we I think we do a pretty good job, we're lay people from quite a few different disciplines and we're performing a public service for the town for a stipend and we have good quality professionals here of the engineering firm McGoey, Hause & Edsall and the law firm of Loeb, Gogerty, Rodd, Kennedy, whatever it is and we certainly seek counsel for those folks to see to it that we follow the procedural items correctly. As such, unless any of the members take exception to it, I don't have a problem with leaving the public hearing open till that driveway's relocated and that gets squared away, I'd like to hear from the other board members.

MR. SCHLESINGER: I have no problem with it either way, I think that the comments made by the public were very valid. I think that in essence what you're doing is giving us the ball and we're going to run with the ball, you know, I think there's some visual things that could be addressed on this project and Bill you said you'd like to comment on those things. Well, I think the important part of your comment was that these things should be addressed, unfortunately, it's the board that makes the decision whether the building's going to be pink, black or white. Do you understand what I'm saying? Your comment is very well taken in that it should be addressed.

MR. ARGENIO: It will be.

MR. SCHLESINGER: And I think that that's where it should rest and I think Diane came up with some similar and other important issues and I heard them and I think the board has some issues that we could address with the client. I have no problem with the public hearing being left open as long as we don't hear the same type of comments at the next meeting.

MR. ARGENIO: I was going to endeavor to go into that a bit but you said it. Go ahead, Howard.

MR. BROWN: I agree with what Neil said.

MR. GALLAGHER: I have no problems. I just have one question, kind of off the path as far as security getting in and out, Guardian has a punch code security, are you doing anything like that?

MR. SABINI: They have the units in the back, this is a self-enclosed building, once you become a member, you have a code to get in.

MR. GALLAGHER: What about for the people parking their vehicles?

MR. SABINI: Just have cameras on 24 hours.

MR. SCHLESINGER: That's free money, we want those high security.

MR. VAN LEEUWEN: I don't like the whole public hearing open, I'm getting too old for this stuff.

MR. ARGENIO: I agree with you.

MR. VAN LEEUWEN: You're going to get nothing but redundancy.

MR. ARGENIO: Well, I have to say I tend to agree with you, Henry, on advice of counsel though do we need to vote?

MR. CORDISCO: Well, yes, you'll need to.

MR. ARGENIO: Do you have anymore input?

MR. CORDISCO: I have comments, some of them are procedural and some of them I think are relevant to the discussion that's been had so far. One of the first comments is that we have been able to confirm that it is in the historic corridor but in addition to that I think it's important to point out that the use that's being proposed for this site is permitted in that corridor and that the plan that's being proposed also meets as far as I understand it all the bulk area requirements including the height. So in terms of it's allowed under the zoning now that I don't think, I think that's very relevant and it's a very important part of this equation but also factored into the equation is the fact that SEQRA does require you to evaluate visual impacts, especially visual impacts on historic resources and moving forward the board has to decide what if any visual impact analysis are you going to require the applicant to prepare.

MR. ARGENIO: It's going to be subjective.

MR. CORDISCO: Secondly, in additional procedural comment not only does it have to go back to the DOT because they've got to figure out a way to get their DOT permit but revised plans would also have to go back to the County Planning Department. The case law is becoming increasingly clear in a number of decisions, decisions that I have been involved that when you have substantial changes to plans, plans that have already been referred to County Planning and then you've got changes that occur afterwards the plans have to go back.

MR. ARGENIO: Substantially subjective.

MR. CORDISCO: Substantial, I added that word substantial, it's important to note that that word is not in those cases that I have been involved with, in fact, any changes at all--

MR. ARGENIO: Okay, okay, okay, okay, here's what we're going to do, you have to make some changes to the plans, driveway is, substantial change, you're going to make that change, I don't know exactly what the nuts and bolts are with the historic district and the Palisades, what is it called, Dominic?

MR. CORDISCO: The PI district, yes.

MR. ARGENIO: The Palisades.

MS. NEWLANDER: Interstate Park Commission.

MR. ARGENIO: Notifying them we're going to do that so I'm going to suggest that we do hold the public hearing open for one more meeting. And I'm going to say this and I want to be very clear on this, I don't want to at the next meeting get into a lot of redundant things

that we have already talked about, we've heard the public comments on the historic concerns on things of that nature and we're going to address them and my logic and rationale I think that of the other members Henry excluded is that the plan, the changes on the plans are going to be substantial enough where it may warrant us doing that and that's what I'd like to do.

MR. BABCOCK: Mr. Chairman, one comment about the landscape plan, I didn't get to, the count is about 250 260 plantings going back on the site, just for the board's knowledge.

MR. SCHLESINGER: Jerry, I want to bring this up especially being that it's a public hearing something that always bothers me and this project is in the PI zone, the PI zone allows a four story building. Do I think this building is going to stick out like a sore thumb? Absolutely I do. Do I like it? No. But it's allowed, that's not up to this board to determine whether it's allowed and whether it's not allowed. And I think that the public has a misconception of that and you people have to understand that it's not for us to determine whether the building's allowed or not allowed, it's up to us, it's up to us to determine or to subjectively comment on the way the structure is built cosmetically and so forth, which are things that you have a concern about, you addressed the concern and I definitely hear you and I'm sure the other members of the board do as well.

MR. BABCOCK: The building height he's allowed 61.2 feet.

MR. ARGENIO: Lawfully?

MR. BABCOCK: Yes, by code.

MR. SABINI: Can I ask you something? This entrance has to be slid down ten feet, that's substantial.

MR. ARGENIO: Yeah, because you may end up changing the entire pond. I don't know if you have to or not but you may have and the consequence of that is going to be that you're going to have to change the landscaping. So I certainly don't, next time, next time we're going to talk, board is going to talk about this and give him some input, we'll leave it open, let's not kill ourselves tonight, that could be an issue, yeah, I don't know, I mean, glancing at it tonight I really can't tell you. Anybody else have any comments or questions?

MR. SCHLESINGER: Being that we're leaving this open and I think that it may be to your benefit if you address it before the next meeting is that I have a concern about the cosmetics of the building, you know, we're in a historic area. I did what I had to do when I built the restaurant, my restaurant.

MR. ARGENIO: You certainly did.

MR. SABINI: Restaurant's nice but Ganin Tire is across the street.

MR. SCHLESINGER: That went through my mind, Ganin Tire is in a hole, hold on, if Ganin Tire was not in a hole, I think that I agree with what you're saying.

MR. ARGENIO: But you know what--

MR. SCHLESINGER: I don't know how Ganin Tire got there, I wasn't part of the board, it's something beyond this board, I think, but I agree with your comments.

MR. ARGENIO: Unfortunately.

MR. SCHLESINGER: But it's there, I gotta address your project.

MR. ARGENIO: I would make the analogy of Automotive Brake that's certainly not a historic building, but I will give you the reality, there's a law in front of the New York State senate that's going to reduce the wetland impact from 12 acres to one acre.

MR. CORDISCO: Actually increase the DEC's jurisdiction from 12 acres down to one acre.

MR. ARGENIO: Things evolve, they do evolve so Neil is right, we can't back up. Listen, we talked about a lot of things here, you have work to do the things that we talked about which are not sole issues, I encourage you to take Mark's comments, Mr. Zimmerman heed his comments and make the corrections that he needs made and we'll talk about some of these other things next time. And as I said, I want to be very clear about this, I don't want to get in a lot of redundancy, this is very unusual to leave a public hearing open and the only reason I'm doing it is on the advice of counsel and the fact that that driveway change is going to be a pretty sweeping change and I think it's a good idea, I don't want to be redundant when we close this thing. Thank you. Have a good night. I'll take a motion that we table this public hearing.

MR. SCHLESINGER: I'll make a motion that we table the public hearing for one meeting.

MR. ARGENIO: One meeting.

MR. BROWN: Second it.

MR. ARGENIO: Motion has been made and seconded that the Town of New Windsor Planning Board table, am I using wrong terms?

MR. CORDISCO: My only concern that it's dependent on the applicant because they're going to have to revise

their plans.

MR. ARGENIO: Wait a second, I don't think he means sequential meeting, I mean the next meeting.

MR. CORDISCO: You didn't mean later this month.

MR. SCHLESINGER: No, no, no, that's it.

MR. ARGENIO: Motion has been made and seconded that the Town of New Windsor Planning Board table this public hearing. No further discussion from the board members, roll call.

ROLL CALL

MR. SCHLESINGER	AYE
MR. BROWN	AYE
MR. GALLAGHER	AYE
MR. VAN LEEUWEN	AYE
MR. ARGENIO	AYE

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CONSULTING ENGINEERS P.C.

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TOWN OF NEW WINDSOR
PLANNING BOARD
REVIEW COMMENTS

PROJECT NAME:	JERRY'S CLIMATE CONTROL SITE PLAN (4-STORY SELF STORAGE FACILITY)
PROJECT LOCATION:	NYS ROUTE 300 SECTION 4 – BLOCK 2 – LOT 19
PROJECT NUMBER:	07-07
DATE:	9 MAY 2007
DESCRIPTION:	THE APPLICATION PROPOSES A FOUR STORY SELF-STORAGE FACILITY WITH ASSOCIATED SITE IMPROVEMENTS ON THE 3 ACRE SITE ON THE NORTH SIDE OF ROUTE 300. THE PLAN WAS PREVIOUSLY REVIEWED AT THE 28 FEBRUARY 2007 PLANNING BOARD MEETING. ***THE APPLICATION IS BEFORE THE BOARD FOR A PUBLIC HEARING AT THIS MEETING.***

1. The project is located in the PI zoning district of the Town, and is also in the Historic Corridor. The bulk requirements on the plan are correct for the zone and use (permitted use A-12). The site as proposed appears to comply with the minimum standards of the bulk table.

2. We have reviewed the revised plans submitted for this meeting. Note the following comments:

   - The plans now include top of wall (TOW) elevations for the retaining wall along the west property line. It appears that the wall is between 7' and 10' in height along the property line with Automotive Brake. First, at this height, it would appear that a fence (in addition to the guide rail) would be necessary (we had previously recommended a split rail fence with black vinyl coated chain link mesh). Second, the wall height appears somewhat taller than appropriate for a modular block wall with adjacent vehicle (likely truck) loading.

   - The applicant has provided a handicapped parking detail which is correct, with one revision requested. Where standard parking space is adjacent to handicapped space, provide two parallel painted lines, one white, one blue.

   - The Fire Inspector previously requested that the fire department connection be shown on the plan.

3. Please note the following procedural status for the application:

- **SEQRA** – A lead agency coordination letter (dated 3-9-07) was prepared. The planning board secretary should advise of any responses. The Board should assume lead agency if so appropriate, based on responses (or lack thereof).

- **O.C. Planning** – The application was referred to the Orange County Department of Planning by transmittal dated 3-9-07. A Conditional Approval report has been returned, dated 5-3-07. County Planning is recommending:

    - Relocation of the driveway
    - Show location of Historic buildings, etc.
    - Renderings of each face of the building and the sign, and improved landscaping.
    - Provision of sidewalks along Rt. 300 "to connect to those already existing for most of the street frontage along that side of the road."

- **NYSDOT** - The plans were referred for review. A letter was received dated 4-16-07 which indicates no objection to a single 24 ft. drive, but directs that the same should be opposite Hempstead Road (or to the northeasterly edge of the property). The plans will need to be re-sent, with the drainage study, once the plans are revised.

- **SWPPP** – The applicant has submitted a SWPPP and subsequently revised the plan pursuant to several comments from our office. Some final corrections remain to be accomplished.

4. Some areas of discussion from the last meeting, and open items in my notes, which the Planning Board may wish to follow-up on with the applicant, are the following:

- *Enclosing or screening of the 10 outdoor storage spaces at the rear.*
- *Include note on plan defining what can be stored in the aforementioned spaces.*
- *Discussion of hours of operation and access security issues.*
- *The applicant indicates by letter that elevations and building finish information will be presented at this meeting. Such a review is warranted since this site is in the Historic Overlay District and Planning Board must review visual aspect issues.*

5. If there are any areas of technical/engineering concern identified as part of the Public Hearing, we will be pleased to review same, as deemed appropriate by the Planning Board.

Respectfully Submitted,

Mark J. Edsall, P.E., P.P.
Engineer for the Planning Board

RESULTS OF P.B. MEETING OF: May 9, 2007

PROJECT: Jerry's Climate Control P.B. #

LEAD AGENCY:

AUTHORIZE COORD. LETTER: Y____ N____
TAKE LEAD AGENCY: Y____ N____

M)___ S)___ VOTE: A___ N___
CARRIED: Y____ N___

NEGATIVE DEC:

M)___ S)___ VOTE: A___ N___
CARRIED: Y____ N___

PUBLIC HEARING: WAIVED:____ CLOSED:____ Public Hearing left open

M) Schless S) Ben VOTE: A 4 N 1 Left OPEN SCHEDULE P.H.: Y____ N____

SEND TO O.C. PLANNING: Y ✓
SEND TO DEPT. OF TRANSPORTATION: Y ✓ Resubmit Need Long EAF

REFER TO Z.B.A.: M)___ S)___ VOTE: A___ N___

RETURN TO WORK SHOP: Y___ N___

APPROVAL: Submit: Glenn Marshall Palisades PK.

M)___ S)___ VOTE: A___ N___ APPROVED:___

NEED NEW PLANS: Y___ N___ Historic Area -

CONDITIONS – NOTES: Public Hearing

Need fence for safety
Need Manufacturer of blocks for Walls. - Change detail.
Send Zimmerman disapproval from O.C. Plan + D.O.T.
Kirk Williams - Spoke re: Historic Dist. + Fire Coverage
Bill Stidle - Spoke re: Leaving P.H. Open
Diane Novlander - Spoke re: Leaving P.H. Open

May 9, 2007 Agenda

PLANNING BOARD
TOWN OF NEW WINDSOR
555 UNION AVENUE
NEW WINDSOR, N.Y. 12553

Appl No: 7-7 **File Date:** 07/22/2007

SEC-BLK-LOT: 4-2-19-0

Project Name: JERRY'S CLIMATE CONTROL STORAGE PA2007-0002 **Type:** 3

Owner's Name: HUDSON VALLEY OFFICES, LLC. **Phone:** ( ) -
Address: 3 SHIPWATCH DRIVE - NEWBURGH, NY 12550

Applicant's Name: JERRY SABINI **Phone:** (845) 561-0220
Address: P.O. BOX 522 - VAILS GATE, NY 12584

Preparer's Name: ZIMMERMAN ENGINEERING **Phone:** (845) 782-7976
Address: 148 RT. 17M HARRIMAN, NY 10926

Proxy/Attny's Name: N/A **Phone:**
Address:

Notify: ZIMMERMAN ENGINEERING **Phone:**

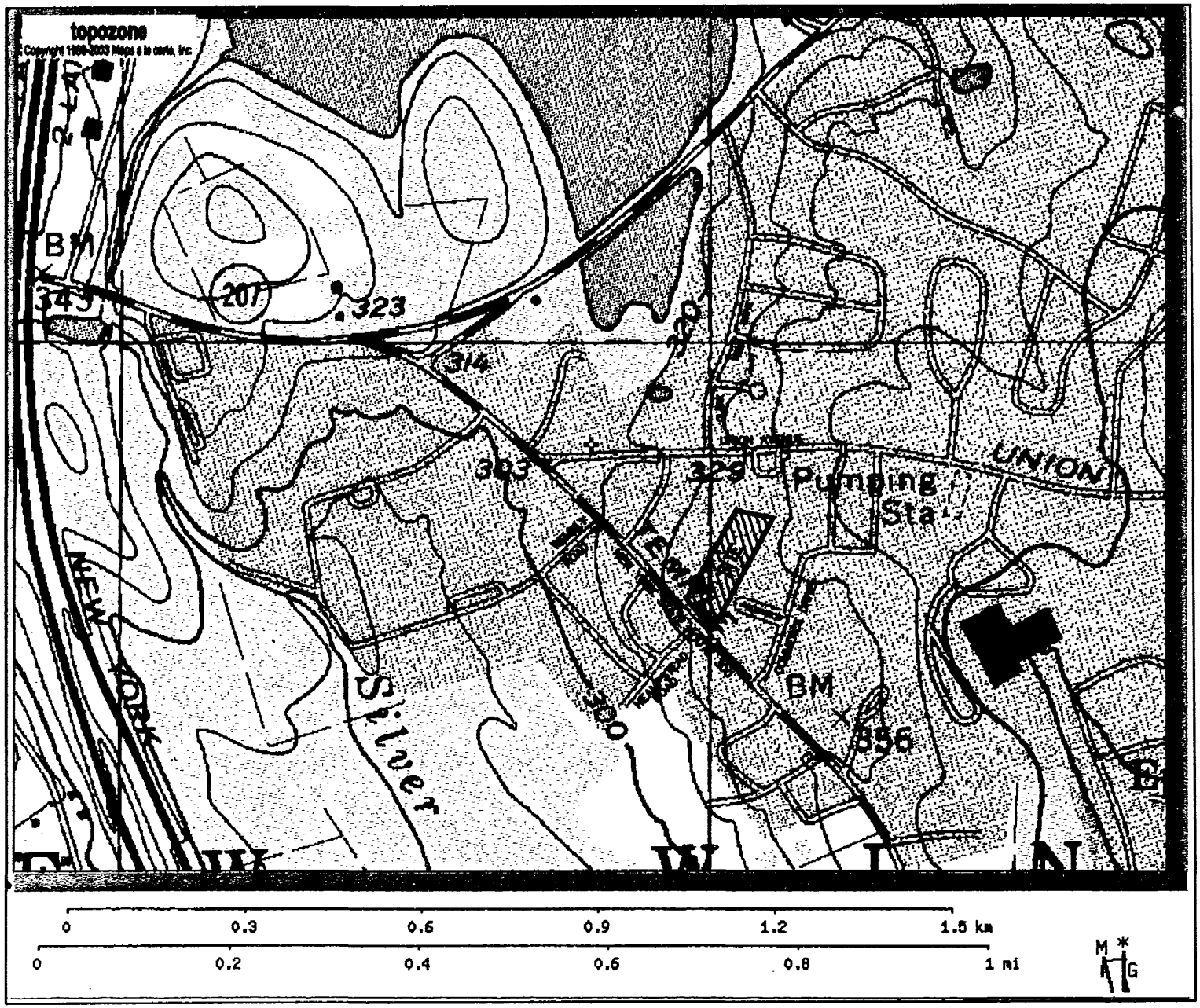
Location: RT. 300 - TEMPLE HILL ROAD

Acreage	Zoned	Prop-Class	Stage	Status
3.000	PI	0		O

Printed-on	Schl-Dist	Sewr-Dist	Fire-Dist	Light-Dist
06/14/2007	NEWB			

Appl for: CLIMATE CONTROLLED SELF-STORAGE MINI WAREHOUSE BUILDING. TH E BUILDING WILL BE A TOTAL 78,400 SF ON FOUR FLOORS. THE PR OJECT WILL BE SERVED BY MUNICIPAL WATER AND SEWER

Addl Municipal Services:
Streets:
Water:
Sewer:
Garbage:



USGS CORNWALL QUAD

SCALE: 1" = 800'
SITE PLAN FOR JERRY'S CLIMATE CONTROL
TOWN OF NEW WINDSOR
JOB NO. 26047

PLANNING BOARD: TOWN OF NEW WINDSOR
COUNTY OF ORANGE: STATE OF NEW YORK

----------X

In the Matter of the Application for Site Plan for:

JERRY'S CLIMATE CONTROL (SABINI) P. B. #07-07

Applicant

AFFIDAVIT OF
SERVICE
BY MAIL

STATE OF NEW YORK)
) SS:
COUNTY OF ORANGE)

MYRA L. MASON, being duly sworn, deposes and says:

That I am not a party to the action, am over 18 years of age and reside at 131 Mt. Airy Road, New Windsor, NY 12553.

That on the **26TH** day of APRIL, 2007, I compared the 5 addressed envelopes containing the Public Hearing Notice pertinent to this case with the certified list provided by the Assessor's Office regarding the above application for site plan/subdivision/special permit/lot line change approval and I find that the addresses are identical to the list received. I then placed the envelopes in a U.S. Depository within the Town of New Windsor.

Sworn to before me this

Myra L. Mason
Myra L. Mason, Secretary

9th day of May, 2007

Cheryl L. Canfield
Notary Public

CHERYL L. CANFIELD
Notary Public, State of New York
Qualified in Orange County
#01CA6073319
Commission Expires April 22, 2010

Town of New Windsor

555 Union Avenue
New Windsor, New York 12553
Telephone: (845) 563-4631
Fax: (845) 563-3101

Assessors Office

April 12, 2007

Jerry Sabini
PO Box 522
Vails Gate, NY 12584

Re: 4-2-19 PB# 07-07 (5)

Dear Mr. Sabini:

According to our records, the attached list of property owners are abutting and across any street of the above referenced property.

The charge for this service is $25.00 minus your deposit of $25.00.

Please remit the balance of $0 to the Town Clerk's Office.

Sincerely,

J. Todd Wiley

J. Todd Wiley, IAO
Sole Assessor

JTW/rah
Attachments

CC: Myra Mason, Zoning Board

4-2-3.222
YWMCA
565 UNION AVE.
NEW WINDSOR, NY 12553

4-2-16.6,16.7,16.8
NEW WINDSOR BUS. PARK
C/O RUBIN MANAGEMENT
147-39 175TH ST. RM 203
JAMAICA, NY 11434

4-2-18
RISING SUN ENTERPRISES OF
DUTCHESS LTD
508 TEMPLE HILL RD.
NEW WINDSOR, NY 12553

4-3-10.5
CROWLEY INC.
C/O TONY FIACCO
PO BOX 549
BINGHAMTON, NY 13902

4-3-10.23
GANIN BROTHERS,
C/O GANIN TIRE CO. INC.
1421 38TH ST.
BROOKLYN, NY 11212

LEGAL NOTICE

NOTICE IS HEREBY GIVEN that the PLANNING BOARD of the TOWN OF NEW WINDSOR, County of Orange, State of New York will hold a PUBLIC HEARING at Town Hall, 555 Union Avenue, New Windsor, New York on **MAY 9TH, 2007** at 7:30 P.M. on the approval of the proposed Site Plan for **JERRY'S CLIMATE CONTROL (07-07) NYS RT. 300 (ZIMMERMAN)**

Proposed climate control self storage mini warehouse building, 78,400 s.f. on four floors.

Located at **NYS RT. 300** (Tax Map #Section **4**, Block **2**, Lot **19**) .

Map of the proposed project is on file and may be inspected at the **Planning Board Office**, Town Hall, 555 Union Avenue, New Windsor, NY prior to the Public Hearing.

Date: APRIL 20, 2007

By Order of

TOWN OF NEW WINDSOR PLANNING BOARD

TOWN OF NEW WINDSOR
REQUEST FOR NOTIFICATION LIST

CHECKED BY MYRA: **4-12-07 mm**

DATE: **04-12-07** PROJECT NUMBER: ZBA# _____ P.B. # **07-07**

APPLICANT NAME: **JERRY SABINI**

PERSON TO NOTIFY TO PICK UP LIST:

JERRY SABINI
P.O. BOX 522
VAILS GATE, NY 12584

TELEPHONE: **561-0220**

TAX MAP NUMBER: SEC. **4** BLOCK **2** LOT **19**
SEC. _____ BLOCK _____ LOT _____

PROPERTY LOCATION: **RT. 300**
NEW WINDSOR

LIST OF PROPERTY OWNERS WITHIN 500 FT. FOR SITE PLANS/SUBDIVISION _____
(IS NOT PREPARED ON LABELS)

❖ ❖

THIS LIST IS BEING REQUESTED BY:

NEW WINDSOR PLANNING BOARD: **XXX**

SITE PLAN OR SUBDIVISION: (ABUTTING AND ACROSS ANY STREET **XXX**

SPECIAL PERMIT ONLY: (ANYONE WITHIN 500 FEET) _____

AGRICULTURAL DISTRICT:
(ANYONE WITHIN THE AG DISTRICT WHICH IS WITHIN 500'
OF SITE PLAN OR SUBDIVISION PROJECT) _____

❖ ❖
NEW WINDSOR ZONING BOARD _____

LIST WILL CONSIST OF ALL PROPERTY WITHIN 500 FEET OF PROJECT _____

❖ ❖
AMOUNT OF DEPOSIT: **25.00** CHECK NUMBER: **CASH**

TOTAL CHARGES: _____

McGOEY, HAUSER and EDSALL
CONSULTING ENGINEERS P.C.

RICHARD D. McGOEY, P.E. (NY & PA)
WILLIAM J. HAUSER, P.E. (NY & NJ)
MARK J. EDSALL, P.E. (NY, NJ & PA)
JAMES M. FARR, P.E. (NY & PA)

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Writer's e-mail address:
JSzarowski@mhepc.com

TOWN OF NEW WINDSOR
PLANNING BOARD
SWPPP COMMENTS

PROJECT NAME: JERRY'S CLIMATE CONTROL
PROJECT LOCATION: SECTION 4, BLOCK 2, LOT 19
P.B. PROJECT NO.: 07-07
APPLICANT'S REPRESENTATIVE: ZIMMERMAN ENGINEERING
PREPARATION DATE: 12 APRIL 2007
MEETING DATE:

1. The stormwater report identifies the design point, Discharge Point A, as an existing catch basin located to the north of the property along Route 300. The Pre-developed and Post-developed peak rate comparison was based on Design Point A. The site plan depicts the P-5 Pocket Pond connecting to an existing catch basin to the south of the site, identified as Discharge Point B. The Pre-developed stormwater does not currently go to this discharge point making the pre-developed peak flow rate 0 cfs. The Pre-developed to Post-developed peak rate comparison is only valid for Discharge Point A

   If the intent is to utilize Discharge Point B for the stormwater, then an analysis of the drainage basins tributary to the 30-inch culvert under Route 300 at Discharge Point B will be required. A pipe full calculation will not be sufficient to demonstrate the 30-inch pipe can safely convey the stormwater discharge from the site. The New York State Department of Transportation will have to be contacted and approve the additional flow conveyed to the 30-inch culvert at Design Point B.

2. Applicant proposes using a P-5 Pocket Pond as specified from the New York State Department of Environmental Conservation. A Pocket Pond relies on groundwater to maintain the permanent pool in the pond. Applicant should submit documentation to the depth of groundwater in the vicinity of the pond.

3. The storm water model submitted by the applicant uses the elevation of 339.5 as the bottom of the pond. The Pond Section detail and computer model indicate the lowest orifice, 4-inch x 4-inch, to be at elevation 341.00. The permanent pool elevation will be controlled by the orifice. The model as submitted does not reflect the correct starting elevation of the water surface and peak flow discharge of the outlet structure.

4. The proposed grading in the P-5 Pocket Pond depicts the bottom of the micro pool at elevation 336 as shown on the Post Developed Watershed differs from the grading shown on the Site Plan. The two

plans should be in agreement.

5. Applicant should provide a detail of the outlet structure for the P-5 Pocket Pond.

6. Provide a planting plan for the P-5 Pocket Pond.

7. The grading for the P-5 Pocket Pond does not allow for an Aquatic Bench.

8. The P-5 Pocket Pond does not appear to have an emergency overflow in the berm.

9. An Erosion and Sediment Control Plan must be prepared for the site and included in the Site Plan drawing set. Details for the proposed measures must be included in the plan set.

10. Both Erosion and Sediment Control Sequence notes and Maintenance notes should be included on the plans.

11. Please refer to NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity for minimum components to be included in a Stormwater Pollution Prevention Plan and Report.

Respectfully submitted,

MCGOEY, HAUSER & EDSALL
CONSULTING ENGINEERS, P.C.

Jo[redacted]Szarowski, P.E.
Senior Engineer

JERRY'S_CLIMATE_CONTROL_(07-07)

MR. ARGENIO: Mr. Sabini, Jerry's Climate Control site plan. Application proposes four story self-storage facility with associated site improvements on a 3 acre site on the north side of Route 300. Plan was reviewed on a concept basis only. Mr. Zimmerman appears to be here to represent this. What do you have, Mr. Zimmerman?

MR. ZIMMERMAN: The proposal is to develop a 3 acre lot which is located on 300, it lies between existing building business called Automotive Brake and existing Business Park New Windsor Business Park where there are existing buildings in that location. The proposal is as you've read to construct a single building proposed to be a four story climate controlled self-storage building.

MR. ARGENIO: Is that within code? They need zoning for that?

MR. EDSALL: He does meet the code.

MR. ARGENIO: Go ahead.

MR. ZIMMERMAN: The zone is in the PI, Planned Industrial Zone, and does permit this size building and height of the building as well. So again the proposed building is four stories, each level would be 19,600 square feet for a total of 78,400 square feet, footprint is 80 foot wide by 245 feet in length, part of the proposal is to, the access is obviously going to come in off of Route 300 and the main purposes, for grading purposes the site slopes from the rear of the property towards Route 300, so what we plan to do is grade the site in that same direction and bring the drainage into a storm water detention pond which will be located near the front of the property. The circulation is coming in off of Route 300 and will be

provided sufficient circulation to traverse around the building and come out through that single access road. The zoning requires what we're proposing in this building 550 storage units.

MR. ARGENIO: There must be a lot of money in that business, these things are popping up every place you look, you see storage units. Wouldn't you agree?

MR. SABINI: Yes.

MR. ARGENIO: And you own them?

MR. SABINI: Yes.

MR. ZIMMERMAN: Based on that number of units, the zoning requires, comes out to 55 spaces parking spaces and those are located on the site plan, some in the front of the building but the majority towards the rear of the building. That's the overall plan. Our submittal that we made shows a landscaping and lighting plan, shows a road profile and construction details and it's a 5 sheet set that we submitted.

MR. ARGENIO: Mark, historic overlay?

MR. EDSALL: Yes.

MR. ARGENIO: Mr. Zimmerman, landscaping plan just I think you can do better than that.

MR. ZIMMERMAN: It was an initial attempt.

MR. ARGENIO: Okay, there you go. I just think we can do a little bit better. It's so symmetrical, we're not looking for the Powelton Club but you're--

MR. SABINI: I want it to look pretty.

MR. ARGENIO: I think it's important to you too, you've

been here before and you seem to build pretty decent stuff.

MR. SABINI: No, it has to look nice, it's a retail business to bring people in.

MR. ZIMMERMAN: Again, this was our initial presentation and before I get into every specific detail I wanted to make sure that the layout and the arrangement was satisfactory.

MR. ARGENIO: I think the layout, the flow looks to me, do we have anything from anybody yet Myra? We have highway approved.

MS. MASON: And fire.

MR. ARGENIO: The flow is good in and out, Mark, Mr. Zimmerman, one other thing, the pipes between the basins from station 500 to 400 to 300 is that some kind of discharge pipe or is that just a regular culvert pipe underneath the pavement?

MR. ZIMMERMAN: No, it will be a regular culvert pipe.

MR. ARGENIO: Not perforated with stone or anything like that?

MR. ZIMMERMAN: No.

MR. ARGENIO: Two things I want to read, we recommend dumpster detail require concrete inner pad and masonry pad and finished to match the building. Currently it's not clear. I'll tell you something else, what we're going to be looking for at some point in time, I don't want to trump Joe Minuta but we're in a historical district and we'll be looking for an elevation to build, okay?

MR. SABINI: Like earth tone colors.

MR. ARGENIO: A picture of it. And my next thing I was going to say is just what you said, you saved me from saying it, you knew what I was going to say before I said it.

MR. SABINI: I understand you don't want bright yellow with orange doors.

MR. ARGENIO: Something with stone.

MR. SABINI: I have this to show you, just shows you the finish with glass.

MR. ARGENIO: If you can get some stone, I don't know how to do it.

MR. SABINI: They have so many different looks you can go with.

MR. ARGENIO: That's what we're talking about though. Anything jumping out? Now would be the time to say it.

MR. CORDISCO: Mr. Chairman, I reviewed the application, I noted that they submitted a short form environmental assessment form given that it is in the historical corridor, you've got to take a hard look, I think a long form is appropriate.

MR. ARGENIO: I agree. What do I have to do?

MR. CORDISCO: Just ask him to submit a long form, it does require referral.

MR. MINUTA: We're looking for something and we're developing this as we go along, okay, the entire historic corridor we stated to several different meetings that we're really trying to pull from the aesthetics of the Cantonment of the shingle style types of architecture and buildings of that period so that

historic corridor maintains historic nostalgia, that's what we're looking for. I realize there's other buildings in that area and sometime upon a time they'll obviously do a facelift also.

MR. ARGENIO: Having said that, we understand you're not going to create a storage unit inside a barn with wood from the 1700s but just keep that theme in mind. Dominic, you were saying something?

MR. CORDISCO: I was beginning to say in addition to to the long form EAF this does require referral to the County Planning Department and it also perhaps should be circulated for lead agency given that there's also DOT approvals required.

MR. ARGENIO: With that, the long form Mr. Zimmerman, do you have that? We're in the historical district.

MR. ZIMMERMAN: I will prepare that. I didn't do that but I will.

MR. ARGENIO: So we need to authorize the issuance.

MR. CORDISCO: I think you need to circulate for lead agency and I think the referral from County Planning should go once the long form EAF comes in.

MR. ARGENIO: Why is that?

MR. CORDISCO: Because it's considered under the statute of general municipal law considered part of the formal application that's referred to the County Planning Department.

MR. ARGENIO: I agree with that then I'm with you.

MR. MINUTA: Two questions, fire, with regard to fire, I don't recall what happened there, I just have two questions in general. One is can local fire

accommodate a four story building? And two, is there enough setback on each side of the building in case they need to use a ladder or pumper or whatever to be able to erect that an facilitate putting out a fire?

MR. ARGENIO: I can only answer that I have comment from fire, I'll read directly from the notes, size of building requires sprinkler and alarm system and the height of the building will require standard pipe system. So yes, Mr. Bedetti's son Barney feels they can fight a fire in the area they have there.

MR. EDSALL: Now I, just to let you know, some changes made based on the workshops that Barney and I met them on.

MR. ARGENIO: Barney asked for changes?

MR. EDSALL: Yeah, the full 30 foot loop and the height is no problem because of 40, 50 foot is nothing relative to the aerial.

MR. ARGENIO: I'll accept a motion that we circulate lead agency coordination letter. Somebody agrees with that?

MR. GALLAGHER: So moved.

MR. BROWN: Second it.

MR. ARGENIO: Motion has been made and seconded that the Town of New Windsor Planning Board circulate lead agency coordination letter for Jerry's Climate Control on Route 300. No further discussion, roll call.

ROLL CALL

MR. GALLAGHER	AYE
MR. BROWN	AYE
MR. MINUTA	AYE

MR. ARGENIO AYE

MR. ARGENIO: We're going to wait for the long form before we refer to Orange County. Dominic, that's a very good point, so we have authorized it so we'll--

MR. EDSALL: I'll get it out to DOT as well.

MR. ARGENIO: The applicant should submit six sets of drawings folded and the environmental form. Mark, can we discuss number 4 tonight? We can discuss that, can't we?

MR. EDSALL: Yeah, that would be fair to let the applicant know your intent.

MR. ARGENIO: For those members in the audience number 4 I'll read it. The planning board should determine for the record if a public hearing will be required for this site plan per its discretionary judgment under Paragraph 300(a)(8) of the Town Zoning Law. I'm going to ask my associates but if I owned the lot next to it, next to the applicant I should say, I certainly would want to know if I had a four story building go up next to me.

MR. MINUTA: Yes.

MR. GALLAGHER: Yes.

MR. BROWN: Yes.

MR. ARGENIO: Okay, so can we schedule it?

MR. EDSALL: I think you can authorize it.

MR. ARGENIO: I don't want to have it until Mr. Zimmerman gets the plans closer because the landscaping is going to be an issue and I want the public to see something pretty darn close to what they're going to

build.

MR. EDSALL: I've got some layout comments, I think Gerry gave us a bonus of ten extra parking spaces but--

MR. ARGENIO: I didn't see that here.

MR. EDSALL: There's more spaces.

MR. ARGENIO: Fifty-five spaces required, 55 spaces provided, that's what I see.

MR. EDSALL: Now count them, there's 65.

MR. ARGENIO: So your table doesn't match your drawing, Mr. Zimmerman.

MR. ZIMMERMAN: No, the ten in the back were for outside storage.

MR. EDSALL: Is that called out as outside or did I miss outside storage?

MR. ZIMMERMAN: Yeah, outdoor storage.

MR. MINUTA: Do you need screening for those vehicles?

MR. EDSALL: Okay, it's parking spaces.

MR. ARGENIO: How does that work? Can they store vehicles out there?

MR. EDSALL: They need your approval.

MR. SABINI: We like that, Mr. Chairman, outside parking.

MR. EDSALL: Well, the flip side of the coin is there's no handicapped parking so they're going to need to provide handicapped parking which means they're going

to lose all the spaces for the access aisles.

MR. SABINI: Now, about the outside RV parking is in the back of the building, if you require landscaping to camouflage it.

MR. ARGENIO: Put it way in the back like in Montgomery.

MR. MINUTA: Can I just pick upon one thing that you mentioned, I'd like to see what the building is going to look like, not just what it might look like.

MR. ARGENIO: We're passed that, I'm with you.

MR. MINUTA: I want to see an elevation of what that looks like.

MR. SABINI: I just want to ask can you schedule a public hearing at the same time like Gerry does the work and simultaneously at the same time?

MR. ARGENIO: We're going to authorize the public hearing in a few minutes, matter of fact, anybody feels it's okay I'll accept a motion.

MR. MINUTA: So moved.

MR. GALLAGHER: Second it.

MR. ARGENIO: Motion has been made and seconded that the Town of New Windsor Planning Board authorize a public hearing for Jerry's Climate Control site plan. If there's no further discussion, roll call.

ROLL CALL

MR. GALLAGHER	AYE
MR. BROWN	AYE
MR. MINUTA	AYE

MR. ARGENIO AYE

MS. MASON: You have to wait 30 days until after lead agency coordination letter goes out.

MR. ARGENIO: And me as the chairman of this planning board I really insist on that when you guys come back in when you come in for a public hearing, I really want the plan to be really, really close to what it's going to look like. Anything that's missing subsequent to the public hearing will be certainly an oversight that Mark missed or we missed, it will be really minor stuff.

MR. SABINI: Fully detailed. Am I allowed to call Mr. Minuta and meet him at his office to see what he's looking for so I can do it the right way? You know what I'm saying, you say is there guidelines that you got to follow?

MR. ARGENIO: Let me say this, we're not an architectural review board, we don't have an architectural review board in new Windsor doesn't exist, we happen to have an architect on the planning board though so if you're brave enough to meet with Joe and talk about your elevations, that's up to you. It's got nothing to do with me, actually does very something to do with me but yeah, you can meet with him and go over it.

MR. MINUTA: I don't want to leave you openended, that's not the intent.

MR. ARGENIO: I don't want to turn it into brain surgery, we want to have earth tones as I said, I don't expect you to build your climate controlled storage building with wood from 1755 with wooden pegs and dowels, but we want to try to have a theme like Schlesinger's Steakhouse, like some of the stuff at the Cantonment, I'm not saying Schlesinger's, I'm not

saying you have to build the building out of stones.

MR. SABINI: I understand.

MR. GALLAGHER: Maybe we should get some--

MR. ARGENIO: What I want him to do is look at--

MR. GALLAGHER: Continental Manor, we gave them similar advice.

MR. ARGENIO: But you've got to remember, Dan, that's condos, this is a storage building, you can maybe look at those plans, Myra can show them to you or Ross Winglovitz is here, take a look at the colors they used because they did a pretty good job matching the colors but as I said, I don't want if you're brave enough to sit down with him, go ahead.

MR. SABINI: I understand, all right.

MS. MASON: You need a workshop before the public hearing.

MR. ARGENIO: What else? You're going to Orange County Planning, you're within 500 feet of a state highway, you're going to have to submit to DOT.

MR. EDSALL: We'll refer it to DOT.

MR. ARGENIO: To Poughkeepsie, good for you, the applicant that is.

MR. SABINI: Why is that?

MR. ARGENIO: Because Newburgh was, sometimes they didn't, they're a little understaffed and sometimes they didn't respond as quickly as we'd like them to. Poughkeepsie has a lot more staffing and they, right, Mark, they have more people that can handle stuff.

MR. EDSALL: We're hoping things move a lot quicker.

MR. ARGENIO: What else do we have to do here? This is it?

MR. CORDISCO: That's it.

MR. ARGENIO: We have given you some direction and as I said to my members or the members next to me we're going to see this again and Mr. Sabini certainly does do a pretty fair job when he does things in the Town, we have all the confidence that he will do that here.

MR. EDSALL: Is the board looking for anything relative to the storage for screening so we can work with him for the ten rear spaces? Are you looking for anything special?

MR. ARGENIO: I want to talk to Joe Minuta about that a little bit privately and toss around some ideas if that's okay.

MR. EDSALL: I'll work with them on the issue of the handicapped spaces and adjusting for that and some curb suggestions I had for channelization.

MR. ARGENIO: Okay, thank guys.

MR. SABINI: Thank you. Good night.

McGOEY, HAUSER and EDSALL
CONSULTING ENGINEERS P.C.

RICHARD D. McGOEY, P.E. (NY & PA)
WILLIAM J. HAUSER, P.E. (NY & NJ)
MARK J. EDSALL, P.E. (NY, NJ & PA)
JAMES M. FARR, P.E. (NY & PA)

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TOWN OF NEW WINDSOR
PLANNING BOARD
REVIEW COMMENTS

PROJECT NAME:	JERRY'S CLIMATE CONTROL SITE PLAN (4-STORY SELF STORAGE FACILITY)
PROJECT LOCATION:	NYS ROUTE 300 SECTION 4 – BLOCK 2 – LOT 19
PROJECT NUMBER:	07-07
DATE:	28 FEBRUARY 2007
DESCRIPTION:	THE APPLICATION PROPOSES A FOUR STORY SELF-STORAGE FACILITY WITH ASSOCIATED SITE IMPROVEMENTS ON THE 3 ACRE SITE ON THE NORTH SIDE OF ROUTE 300. THE PLAN WAS REVIEWED ON A CONCEPT BASIS ONLY.

1. The project is located in the PI zoning district of the Town, and is also in the Historic Corridor. The bulk requirements on the plan are correct for the zone and use (permitted use A-12). The site as proposed appears to comply with the minimum standards of the bulk table. The code requires 55 parking spaces, and the applicant indicates 55 are provided, although 65 are depicted on the plan. I suggest spaces be eliminated (see additional comment below).

2. We have performed a concept review of the plans and have the following comments regarding the proposed layout:

   - The plans do not include any handicapped spaces as required by State Code.

   - Since ten spaces can be eliminated, I suggest the three on the east side be eliminated, thereby providing full access to both sides. An additional space could be eliminated on the end of the west end of the nine up front to improve turning radius on that end. The end two spaces to the west at the rear could be eliminated and a corner island created. Since handicapped spaces are required, some spaces will be lost for the associated handicapped aisle. Any remaining spaces could be removed in the back.

- Since it is my understanding that the grade level will have access to storage units from pavement level, I suggest that the islands on the four corners be set to maintain the 30 foot fire lane aisle, and provide a "safe haven" of minimum 20 foot for vehicles backed into the building for loading/unloading. A secondary benefit of these islands will be a landscaping location at all four corners.

- Pursuant to a policy memorandum dated 23 February 1989 from the Town Building Inspector, a complete detail for the handicapped parking space and associated sign(s) should be provided on the plans. Currently only sign details are shown.

- We recommend that the dumpster detail require a concrete inner pad, and masonry block with a finish to match the building. Currently it is not clear in this regard.

3. The Planning Board may wish to authorize the issuance of a Lead Agency Coordination letter for the project, to begin the SEQRA review process. To my knowledge, the DOT and OCDP are involved agencies. The applicant should submit six (6) sets of drawings (folded) and the environmental form for this purpose.

4. The Planning Board should determine, for the record, if a Public Hearing will be required for this Site Plan, per its discretionary judgment under Paragraph 300-86 (C) of the Town Zoning Local Law.

5. This project is within a 500-foot distance from a State Highway, as such, must be referred to the Orange County Planning Department as per New York State General Municipal Law (GML 239).

6. Submittal of this application/plan to the NYSDOT will be necessary. Our office will prepare the referral form and coordinate with the Planning Board office.

7. The application involves non-single family development with disturbance greater than one acre and, as such, the application is subject to the State and Town regulations as they pertain to Stormwater Pollution Prevention Plans (SWPPPs). A full submittal is required.

Respectfully Submitted,

Mark J. Edsall, P.E., P.P.
Engineer for the Planning Board

MJE/st
NW07-07-28Feb07.doc

RESULTS OF P.B. MEETING OF: February 28, 2007

PROJECT: Jerry's Climate Control - Rt 300 P.B. # 07-07

LEAD AGENCY:

AUTHORIZE COORD. LETTER: Y ✓ N____
TAKE LEAD AGENCY: Y____ N____

M) G S) B VOTE: A 4 N 0
CARRIED: Y ✓ N____

NEGATIVE DEC:

M)____ S)____ VOTE: A____ N____
CARRIED: Y____ N____

PUBLIC HEARING: WAIVED:_____ CLOSED:_____

M) M S) G VOTE: A 4 N 0 SCHEDULE P.H.: Y ✓ N____ after revised plans + 30 days + work shop

SEND TO O.C. PLANNING: Y ✓
SEND TO DEPT. OF TRANSPORTATION: Y ✓

REFER TO Z.B.A.: M)____ S)____ VOTE: A____ N____

RETURN TO WORK SHOP: Y ✓ N____

APPROVAL:

M)____ S)____ VOTE: A____ N____ APPROVED: _____

NEED NEW PLANS: Y____ N____

CONDITIONS – NOTES:

Need better landscaping
Address Mark's comments
Need elevation of Bldg.
Need Longform EAF
Send L.A. Letter & O.C. Planning after Long form EAF

February 28, 2007 Agenda

PLANNING BOARD
TOWN OF NEW WINDSOR

AS OF: 02/28/2007

LISTING OF PLANNING BOARD **AGENCY APPROVALS**

FOR PROJECT NUMBER: 7-7
NAME: JERRY'S CLIMATE CONTROL STORAGE PA2007-0002
APPLICANT: JERRY SABINI

	DATE-SENT	AGENCY----------	DATE-RECD	RESPONSE----------
ORIG	02/22/2007	MUNICIPAL HIGHWAY	02/28/2007	APPROVED
ORIG	02/22/2007	MUNICIPAL WATER	/ /	
ORIG	02/22/2007	MUNICIPAL SEWER	/ /	
ORIG	02/22/2007	MUNICIPAL FIRE	02/23/2007	APPROVED
		. PLEASE NOTE: SIZE OF BUILDING REQUIRES A SPRINKLER AND . ALARM SYSTEM AND HEIGHT OF BUILDING WILL REQUIRE A STANDPIPE . SYSTEM		
ORIG	02/22/2007	NYSDOT	/ /	

PLANNING BOARD
TOWN OF NEW WINDSOR

AS OF: 02/28/2007

LISTING OF PLANNING BOARD**ACTIONS**

STAGE: STATUS [Open, Withd]
O [Disap, Appr]

FOR PROJECT NUMBER: 7-7
NAME: JERRY'S CLIMATE CONTROL STORAGE PA2007-0002
APPLICANT: JERRY SABINI

--DATE--	MEETING-PURPOSE----------	ACTION-TAKEN--------
02/07/2007	WORK SHOP APPEARANCE	SUBMIT

PLANNING BOARD
TOWN OF NEW WINDSOR

AS OF: 02/28/2007

LISTING OF PLANNING BOARD SEQRA ACTIONS

FOR PROJECT NUMBER: 7-7
NAME: JERRY'S CLIMATE CONTROL STORAGE PA2007-0002
APPLICANT: JERRY SABINI

	DATE-SENT	ACTION----------	DATE-RECD	RESPONSE----------
ORIG	02/22/2007	EAF SUBMITTED	02/22/2007	WITH APPLIC
ORIG	02/22/2007	CIRCULATE TO INVOLVED AGENCIES	/ /	
ORIG	02/22/2007	LEAD AGENCY DECLARED	/ /	
ORIG	02/22/2007	DECLARATION (POS/NEG)	/ /	
ORIG	02/22/2007	SCHEDULE PUBLIC HEARING	/ /	
ORIG	02/22/2007	PUBLIC HEARING HELD	/ /	
ORIG	02/22/2007	WAIVE PUBLIC HEARING	/ /	
ORIG	02/22/2007	FINAL PUBLIC HEARING	/ /	
ORIG	02/22/2007	PRELIMINARY APPROVAL	/ /	
ORIG	02/22/2007	LEAD AGENCY LETTER SENT	/ /	

Town of New Windsor

555 Union Avenue
New Windsor, NY 12553
(845) 563-4611

RECEIPT
#119-2007

02/23/2007

Sabini, Gerald

Received $ 125.00 for Planning Board Fees, on 02/23/2007. Thank you for stopping by the Town Clerk's office.

As always, it is our pleasure to serve you.

Deborah Green
Town Clerk

PB# 07-07

PLANNING BOARD
TOWN OF NEW WINDSOR

AS OF: 02/23/2007

LISTING OF PLANNING BOARD **FEES**
ESCROW

FOR PROJECT NUMBER: 7-7
NAME: JERRY'S CLIMATE CONTROL STORAGE PA2007-0002
APPLICANT: JERRY SABINI

--DATE--	DESCRIPTION---------	TRANS	--AMT-CHG	-AMT-PAID	--BAL-DUE
07/22/2007	REC. CK. #1020	PAID		750.00	
			---	---	---
		TOTAL:	0.00	750.00	-750.00

Received
Jan Fumega
2-23-07

FIRE INSPECTOR'S
INTER-OFFICE CORRESPONDENCE

TO: Genaro Argenio, Planning Board Chairman

FROM: Kenneth Schermerhorn, Asst. Fire Inspector

SUBJECT: PB-07-07
Jerry's Climate Control
SBL: 4-2-19

DATE: February 23, 2007

Fire Prevention Reference Number: FPS-07-004

A review of the above referenced site plan has been conducted and is approved with the following being noted:

* Note:

1) Size of building require installation of sprinkler & alarm system

2) Height of building will require a standpipe system

Town of New Windsor

555 Union Avenue
New Windsor, New York 12553
Telephone: (845) 563-4615
Fax: (845) 563-4693

OFFICE OF THE PLANNING BOARD

PROJECT REVIEW SHEET

TO: E 911 COORDINATOR

P.B. FILE #**07-07** DATE RECEIVED: **07-22-07** TAX MAP #**4-2-19**

PLEASE RETURN COMPLETED FORM TO MYRA BY: A.S.A.P. TO BE ON AGENDA FOR THE 02-28-07 PLANNING BOARD MEETING.

THE MAPS AND/OR PLANS FOR:

JERRY'S CLIMATE CONTROL
Applicant or Project Name

SITE PLAN **XXX**, SUBDIVISION ____, LOT LINE CHANGE ____, SPECIAL PERMIT ____

HAVE BEEN REVIEWED BY THE UNDERSIGNED AND ARE:

☐ APPROVED:

Notes:

☒ DISAPPROVED:

Notes: Use Assigned E911 Address on all plans
496 Temple Hill Road

Signature: McDonald 2/26/07
Reviewed by date

Town of New Windsor

555 Union Avenue
New Windsor, New York 12553
Telephone: (845) 563-4615
Fax: (845) 563-4693

OFFICE OF THE PLANNING BOARD

PROJECT REVIEW SHEET

TO: HIGHWAY DEPARTMENT

P.B. FILE #07-07 DATE RECEIVED: 07-22-07 TAX MAP #4-2-19

PLEASE RETURN COMPLETED FORM TO MYRA BY: A.S.A.P. TO BE ON AGENDA FOR THE 02-28-07 PLANNING BOARD MEETING.

RECEIVED
FEB 23 2007
N.W. HIGHWAY DEPT.

THE MAPS AND/OR PLANS FOR:

JERRY'S CLIMATE CONTROL
Applicant or Project Name

SITE PLAN XXX, SUBDIVISION ____, LOT LINE CHANGE ____, SPECIAL PERMIT ____

HAVE BEEN REVIEWED BY THE UNDERSIGNED AND ARE:

☒ APPROVED:

Notes:

☐ DISAPPROVED:

Notes:

Signature: _____ 2-27-07
Reviewed by date

COUNTY OF ORANGE **DEPARTMENT OF PLANNING**

EDWARD A. DIANA
COUNTY EXECUTIVE

124 MAIN STREET
GOSHEN, NEW YORK 10924-2124
TEL: (845)291-2318 FAX: (845)291-2533

DAVID CHURCH, A.I.C.P.
COMMISSIONER

March 5, 2007

Mr. Mark J. Edsall, P.E., PB Engineer
Town of New Windsor Planning Board
555 Union Ave
New Windsor, NY 12553

Re: Request for lead agency status for Jerry's Climate Control Storage Site Plan Review.

Dear Mr. Edsall:

Our office is in receipt of a lead agency coordination request. We have no interest in becoming the lead agency on this project, but we would like the opportunity to review all SEQR information that is provided by the applicant of this project.

Thank you for giving us the opportunity to respond to your request. We look forward to reviewing the application that has been referred to us as of March 23, 2007. Any questions can be directed to Atticus Lanigan, Planner.

Sincerely,

Dave Church, Commissioner

cc: M.E.
D.C.

P.B. #07-07

COUNTY OF ORANGE

EDWARD A. DIANA
COUNTY EXECUTIVE

DEPARTMENT OF PLANNING
124 MAIN STREET
GOSHEN, NEW YORK 10924-2124
TEL: (845)291-2318 FAX: (845)291-2533
www.orangecountygov.com/planning

DAVID CHURCH, A.I.C.P.
COMMISSIONER

ORANGE COUNTY DEPARTMENT OF PLANNING
239 L, M OR N REPORT

This proposed action is being reviewed as an aid in coordinating such action between and among governmental agencies by bringing pertinent inter-community and countywide considerations to the attention of the municipal agency having jurisdiction.

Referred by: Town of New Windsor Planning Board

Reference/County ID No.: NWT07-07M
County Tax ID: S4 B2 ~~L19~~

Applicant: Jerry Sabini
Proposed Action: Site Plan for 4-story self-storage building
Reason for Review: Within 500 ft of NYS Route 300
Date of Full Statement: March 23, 2007

Comments:

1. The applicant has requested site plan approval for a 78,400sf 4-story climate-controlled self storage mini warehouse building, in a PI Planned Industrial zoning district.

2. The County makes the following recommendations:

   - It is noted that the proposed development is located in a high-volume traffic area. Given this, the applicant could be required to relocate the proposed driveway directly across the existing driveway on Route 300. Doing so could limit driver confusion when entering and existing the site and reduce the potential for roadway conflicts.
   - The applicant could be required to include on the plans the location of any "building, site, or district, listed on the State or National Registers of Historic Places," which is noted but not named on the submitted SEQR Full EAF.
   - It is noted that much of the surrounding area is used primarily for commercial and light industrial uses where the quality of architecture and design of buildings seems to have been considered less frequently during the approval process than in other areas of Town. The County recommends that the Town consider ways in which this heavily-used corridor be planned with a more conscious consideration of aesthetics. The applicant could be required to include the following in future site plan submissions for approval:

     - renderings of front, back and side elevations of the proposed structure;
     - an extensive landscaping plan for along the perimeter of the site, especially in paved areas;

- a rendering of any proposed signage along with its intended location.

- The County strongly recommends that the applicant be required to include pedestrian sidewalks within the design for along Route 300, to connect to those already existing for most of the street frontage along that side of the road.

County Recommendation:

Approval subject to the following modifications and/or conditions: Adherence to Comment #2

Date: **May 3, 2007**
Prepared by: Atticus Lanigan, Planner

David Church, AICP
Commissioner of Planning

cc: M.E.
D.C.

P.B. #07-07

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
REGION EIGHT
4 BURNETT BOULEVARD
POUGHKEEPSIE, NEW YORK 12603
www.nysdot.gov

ROBERT A. DENNISON III, P.E.
REGIONAL DIRECTOR

ASTRID C. GLYNN
ACTING COMMISSIONER

April 16, 2007

Mark Edsall P.E., P.P.
Planning Board Engineer
Town of New Windsor
555 Union Avenue
New Windsor, NY 12553

Re: NYSDOT SEQRA # 07-0048
Jerry's Climate Control Site
Route 300 (Freedom Road)
New Windsor, Orange County

Dear Mr. Edsall:

The Department SEQR Unit has completed a cursory review of the proposed subject project plan. The Department will conceptually allow one 24' driveway for the property. However, the proposed driveway location, as shown on the subject plan, is not acceptable. The subject driveway should be positioned directly opposite to New Hempstead Road, or moved to the northerly edge of the property boundary.

For our review, a detailed engineering plan will be required during the Highway Work Permit review process. The applicant should be directed to contact our local Highway Work Permit Engineer to initiate the Highway Work Permit review process. Please contact:

Siby Zachariah-Carbone, Permit Engineer
112 Dickson Street
Newburgh, NY 12550
(845) 562-8368

Thank you for your interest in highway safety.

Very truly yours,

Ursus A. Idosu
HWP / SEQRA Unit

UAI/kb

cc S. Zachariah-Carbone, Permit Engineer, Res 8-4

McGOEY, HAUSER and EDSALL
CONSULTING ENGINEERS P.C.
RICHARD D. McGOEY, P.E. (NY & PA)
WILLIAM J. HAUSER, P.E. (NY & NJ)
MARK J. EDSALL, P.E. (NY, NJ & PA)
JAMES M. FARR, P.E. (NY & PA)

☐ Main Office
33 Airport Center Drive
Suite #202
New Windsor, New York 12553
(845) 567-3100
e-mail: mhenv@mhepc.com

☐ Regional Office
507 Broad Street
Milford, Pennsylvania 18337
(570) 296-2765
e-mail: mhepa@mhepc.com

Writer's E-mail Address:
mje@mhepc.com

PLANNING BOARD WORK SESSION
RECORD OF APPEARANCE

TOWN / VILLAGE OF: New Windsor **P/B APP. NO.:** 100-3 ____ - ____

WORK SESSION DATE: 18 APRIL 2007 **PROJECT:** NEW ____ OLD ____

REAPPEARANCE AT W/S REQUESTED: not now **RESUB. REQ'D:** new plans

PROJECT NAME: Jerry's Climate Control

REPRESENTATIVES PRESENT: Jerry Z

MUNICIPAL REPS PRESENT: BLDG INSP. ____ PB ATTY. ____
FIRE INSP. ____ PLANNER ____
MHE REP (MJE) (Other) ____ P/B CHMN ____ OTHER ____

ITEMS DISCUSSED:

- Stormwater mtg rchd w/ JRS this aft
- work on landscp
- (MM) ck if gone DOT
  ck Historic zone
- Jerry Z says they sent drainge study + revised plans to Sitg
- Mtg @ Dillman copies to be sent

STND CHECKLIST:
DRAINAGE ____
DUMPSTER ____
SCREENING ____
LIGHTING ____ (Streetlights)
LANDSCAPING ____
BLACKTOP ____
ROADWAYS ____
APPROVAL BOX ____

PROJECT TYPE
SITE PLAN
SPEC PERMIT
L L CHG.
SUBDIVISION
OTHER

PROJECT STATUS:
ZBA Referral: ____Y ____N
Ready For Meeting ____Y ____N
Recommended Mtg Date Pos 5/9 P/H

WorksessionForm.doc 01-07 MJE

TOWN OF NEW WINDSOR

555 UNION AVENUE
NEW WINDSOR, NEW YORK 12553
Telephone: (845) 563-4615
Fax: (845) 563-4695

PLANNING BOARD APPLICATION

TYPE OF APPLICATION (check appropriate item):

Subdivision [ ] Lot Line Change [ ] Site Plan [✓] Special Permit [ ]

Tax Map Designation: Sec. 4 Block 2 Lot 19

BUILDING DEPARTMENT PERMIT NUMBER PA PA2007 - 2

1. Name of Project SITE PLAN FOR JERRY'S CLIMATE CONTROL

2. Owner of Record HUDSON VALLEY OFFICES, LLC Phone

   Address: 3 SHIPWATCH DRIVE; NEWBURGH, NY 12550
   (Street Name & Number) (Post Office) (State) (Zip)

3. Name of Applicant JERRY SABINI Phone 845-561-0220

   Address: PO BOX 522; VAILS GATE, NY 12584
   (Street Name & Number) (Post Office) (State) (Zip)

4. Person Preparing Plan ZIMMERMAN ENGINEERING & SURVEYING Phone 845-782-7976

   Address: 148 RT. 17M HARRIMAN, NY 10926
   (Street Name & Number) (Post Office) (State) (Zip)

5. Attorney N/A Phone

   Address
   (Street Name & Number) (Post Office) (State) (Zip)

6. Person to be notified to appear at Planning Board meeting:

   ZIMMERMAN ENGINEERING
   (Name) (Phone) (fax)

7. Project Location: On the EASTERLY side of NYS RT. 300 (TEMPLE HILL RD.)
   (Direction) (Street)

8. Project Data: Acreage 3.00 Zone PI School Dist. NEWBURGH

(PLEASE DO NOT COPY 1 & 2 AS ONE PAGE TWO-SIDED)

07-07

9. Is this property wi[illegible] an Agricultural District containing a [illegible]h operation or within 500 feet of a farm operation located in an Agricultural District? Yes [ ] No [✓]

***This information can be verified in the Assessor's Office.**

***If you answer yes to question 9, please complete the attached AAgricultural Data Statement.**

10. Detailed description of Project: (Use, Size, Number of Lots, etc.)

THE PROJECT IS A PROPOSED CLIMATE CONTROLLED SELF STORAGE MINI WAREHOUSE BUILDING. THE BUILDING WILL BE A TOTAL78,400 S.F. ON FOUR FLOORS. THE PROJECT WILL BE SERVED BY MUNICIPAL WATER AND SEWER.

11. Has the Zoning Board of Appeals Granted any Variances for this property? yes [ ] no [✓]
12. Has a Special Permit previously been granted for this property? yes [ ] no [✓]

IF THIS APPLICATION IS SIGNED BY ANYONE OTHER THAN THE PROPERTY OWNER, A SEPARATE NOTARIZED STATEMENT OR PROXY STATEMENT FROM THE OWNER MUST BE SUBMITTED, AT THE TIME OF APPLICATION, AUTHORIZING THIS APPLICATION.

STATE OF NEW YORK)
SS.:
COUNTY OF ORANGE)

THE UNDERSIGNED APPLICANT, BEING DULY SWORN, DEPOSES AND STATES THAT THE INFORMATION, STATEMENTS AND REPRESENTATIONS CONTAINED IN THIS APPLICATION AND SUPPORTING DOCUMENTS AND DRAWINGS ARE TRUE AND ACCURATE TO THE BEST OF HIS/HER KNOWLEDGE AND/OR BELIEF. THE APPLICANT FURTHER ACKNOWLEDGES RESPONSIBILITY TO THE TOWN FOR ALL FEES AND COSTS ASSOCIATED WITH THE REVIEW OF THIS APPLICATION.

SWORN BEFORE ME THIS:

9th DAY OF February 2007

(OWNER'S SIGNATURE)

(AGENT'S SIGNATURE)

Gerald S. Sabini

Please Print Agent's Name as Signed

Lisa R. DiStefano

NOTARY PUBLIC

LISA R. DISTEFANO
Notary Public, State Of New York
No. 01DI6050022
Qualified In Orange County
Commission Expires 10/30/2010

****

TOWN USE ONLY:

2 2007

DATE APPLICATION RECEIVED

07-07

APPLICATION NUMBER

AGENT/OWNER PROXY STATEMENT
(for professional representation)

for submittal to the:
TOWN OF NEW WINDSOR PLANNING BOARD

Hudson Valley Offices, deposes and says that he resides
(OWNER)

at 3 SHIPWATCH DRIVE; NEWBURGH, NY 12550 in the County of ORANGE
(OWNER'S ADDRESS)

and State of NEW YORK and that he is the owner of property tax map

(Sec.____ Block____ Lot____)
designation number(Sec. 4 Block 2 Lot 19) which is the premises described in the foregoing application and that he designates:

JERRY SABINI PO BOX 522; VAILS GATE, NY 12584
(Agent Name & Address)

ZIMMERMAN ENGINEERING & SURVEYING, P.C.; 148 RT 17M; HARRIMAN, NY 10926
(Name & Address of Professional Representative of Owner and/or Agent)

as his agent to make the attached application.

THIS DESIGNATION SHALL BE EFFECTIVE UNTIL WITHDRAWN BY THE OWNER OR UNTIL TWO (2) YEARS FROM THE DATE AGREED TO, WHICH EVER IS SOONER.

SWORN BEFORE ME THIS:

9th DAY OF February 2007

** [signature]
Owner's Signature (MUST BE NOTARIZED

[signature]
Agent's Signature (If Applicable)

Lisa R. DiStefano
NOTARY PUBLIC

LISA R. DISTEFANO
Notary Public, State Of New York
No. 01DI6050022
Qualified In Orange County
Commission Expires 10/30/2010

Professional Representative's Signature

****PLEASE NOTE:** ***ONLY OWNER'S SIGNATURE MUST BE NOTARIZED.***

THIS PROXY SHALL BE VOID TWO (2) YEARS AFTER AGREED TO BY THE OWNER

ENTERED FEB 2 2 2007

07-07

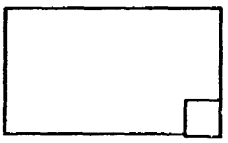
TOWN OF NEW WINDSOR PLANNING BOARD

SITE PLAN CHECKLIST

ITEM

1. ✓ Site Plan Title
2. ✓ **Provide 4" wide X 2" high box (IN THE LOWEST RIGHT CORNER OF THE PLAN) for use by Planning Board in affixing Stamp of Approval. (ON ALL PAGES OF SITE PLAN).**

SAMPLE:



3. ✓ Applicant's Name(s)
4. ✓ Applicant's Address
5. ✓ Site Plan Preparer's Name
6. ✓ Site Plan Preparer's Address
7. ✓ Drawing Date
8. ✓ Revision Dates
9. ✓ Area Map Inset and Site Designation
10. ✓ Properties within 500' of site
11. ✓ Property Owners (Item #10)
12. ✓ Plot Plan
13. ✓ Scale (1" = 50' or lesser)
14. ✓ Metes and Bounds
15. ✓ Zoning Designation
16. ✓ North Arrow
17. ✓ Abutting Property Owners
18. ✓ Existing Building Locations
19. ✓ Existing Paved Areas
20. ✓ Existing Vegetation
21. ✓ Existing Access & Egress

2 2 2007

07-07

PROPOSED IMPROVEMENTS

22.	✓	Landscaping
23.	✓	Exterior Lighting
24.		Screening
25.	✓	Access & Egress
26.	✓	Parking Areas
27.	✓	Loading Areas
28.	✓	Paving Details (Items 25 - 27)
29.	✓	Curbing Locations
30.	✓	Curbing through section
31.	✓	Catch Basin Locations
32.	✓	Catch Basin Through Section
33.	✓	Storm Drainage
34.	✓	Refuse Storage
35.	✓	Other Outdoor Storage
36.	✓	Water Supply
37.	✓	Sanitary Disposal System
38.	✓	Fire Hydrants
39.	✓	Building Locations
40	✓	Building Setbacks
41.		Front Building Elevations
42.		Divisions of Occupancy
43.		Sign Details
44.	✓	Bulk Table Inset
45.	✓	Property Area (Nearest 100 sq. ft.)
46.	✓	Building Coverage (sq. ft.)
47.	✓	Building Coverage (% of total area)
48.	✓	Pavement Coverage (sq. ft.)
49.	✓	Pavement Coverage (% of total area)
50		Open Space (sq. ft.)
51.		Open Space (% of total area)
52.	✓	No. of parking spaces proposed
53.	✓	No. of parking spaces required

RECEIVED FEB 2 2 1997

07-07

REFERRING TO QUESTION 9 ON THE APPLICATION FORM, AIS THIS PROPERTY WITHIN AN AGRICULTURAL DISTRICT CONTAINING A FARM OPERATION OR WITHIN 500 FEET OF A FARM OPERATION LOCATED IN AN AGRICULTURAL DISTRICT, PLEASE NOTE THE FOLLOWING:

54._____ Referral to Orange County Planning Dept. is required for all applicants filing AD Statement.

55._____ A disclosure Statement, in the form set below, must be inscribed on all site plan maps prior to the affixing of a stamp of approval, whether or not the Planning Board specifically requires such a statement as a condition of approval.

APrior to the sale, lease, purchase, or exchange of property on this site which is wholly or partially within or immediately adjacent to or within 500 feet of a farm operation, the purchaser or leasee shall be notified of such farm operation with a copy of the following notification.

It is the policy of this State and this community to conserve, protect and encourage the development and improvement of agricultural land for the production of food, and other products, and also for its natural and ecological value. This notice is to inform prospective residents that the property they are about to acquire lies partially or wholly within an agricultural district or within 500 feet of such a district and that farming activities occur within the district. Such farming activities may include, but not be limited to, activities that cause noise, dust and odors.

This list is provided as a guide only and is for the convenience of the Applicant. The Town of New Windsor Planning Board may require additional notes or revisions prior to granting approval.

PREPARER'S ACKNOWLEDGMENT:

THE PLAT FOR THE PROPOSED SITE PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THIS CHECKLIST AND THE TOWN OF NEW WINDSOR ORDINANCES, TO THE BEST OF MY KNOWLEDGE.

BY: _____ 2-9-07
Licensed Professional Date

PLEASE NOTE:

THE APPLICANT OR THEIR REPRESENTATIVE IS RESPONSIBLE TO KEEP TRACK OF ALL EXPIRATION DATES FOR ANY AND ALL APPROVALS GRANTED TO A PROJECT. EXTENSIONS MUST BE APPLIED FOR PRIOR TO EXPIRATION DATE.

2007

07-07

PROJECT ID NUMBER

617.20
APPENDIX C

SEQR

STATE ENVIRONMENTAL QUALITY REVIEW

SHORT ENVIRONMENTAL ASSESSMENT FORM

for UNLISTED ACTIONS Only

PART 1 - PROJECT INFORMATION (To be completed by Applicant or Project Sponsor)

1. APPLICANT / SPONSOR	2. PROJECT NAME
JERRY SABINI	SITE PLAN FOR JERRY'S CLIMATE CONTROL
3.PROJECT LOCATION: TOWN OF NEW WINDSOR Municipality	ORANGE COUNTY County

4. PRECISE LOCATION: Street Addess and Road Intersections, Prominent landmarks etc - or provide map

EASTERLY SIDE OF NYS RT. 300 AT THE INTERSECTION OF HEAMPSTEAD ROAD.

5. IS PROPOSED ACTION : ☑ New ☐ Expansion ☐ Modification / alteration

6. DESCRIBE PROJECT BRIEFLY:

THE PROJECT IS A PROPOSED CLIMATE CONTROLLED SELF STORAGE MINI WAREHOUSE BUILDING. THE BUILDING WILL BE A TOTAL 78,400 S.F. ON FOUR FLOORS. THE PROJECT WILL BE SERVED BY MUNICIPAL WATER AND SEWER.

7. AMOUNT OF LAND AFFECTED:
Initially 3.00 acres 3.00 Ultimately acres

8. WILL PROPOSED ACTION COMPLY WITH EXISTING ZONING OR OTHER RESTRICTIONS?
☑ Yes ☐ No If no, describe briefly:

9. WHAT IS PRESENT LAND USE IN VICINITY OF PROJECT? (Choose as many as apply.)
☐ Residential ☐ Industrial ☑ Commercial ☐ Agriculture ☐ Park / Forest / Open Space ☐ Other (describe)

10. DOES ACTION INVOLVE A PERMIT APPROVAL, OR FUNDING, NOW OR ULTIMATELY FROM ANY OTHER GOVERNMENTAL AGENCY (Federal, State or Local)
☑ Yes ☐ No If yes, list agency name and permit / approval:

NYSDOT ENTRANCE PERMIT

11. DOES ANY ASPECT OF THE ACTION HAVE A CURRENTLY VALID PERMIT OR APPROVAL?
☐ Yes ☑ No If yes, list agency name and permit / approval:

12. AS A RESULT OF PROPOSED ACTION WILL EXISTING PERMIT / APPROVAL REQUIRE MODIFICATION?
☐ Yes ☑ No

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE TO THE BEST OF MY KNOWLEDGE

Applicant / Sponsor Name GERALD ZIMMERMAN P.E. PROJECT ENGINEER Date: February 9, 2007

Signature

If the action is a Costal Area, and you are a state agency, complete the Coastal Assessment Form before proceeding with this assessment

ENTERED FEB 2 2 2007

07-07

PART II - IMPACT ASSESSMENT (To be completed by Lead Agency)

A. DOES ACTION EXCEED ANY TYPE I THRESHOLD IN 6 NYCRR, PART 617.4? If yes, coordinate the review process and use the FULL EAF.
☐ Yes ☐ No

B. WILL ACTION RECEIVE COORDINATED REVIEW AS PROVIDED FOR UNLISTED ACTIONS IN 6 NYCRR, PART 617.6? If No, a negative declaration may be superseded by another involved agency.
☐ Yes ☐ No

C. COULD ACTION RESULT IN **ANY** ADVERSE EFFECTS ASSOCIATED WITH THE FOLLOWING: (Answers may be handwritten, if legible)

C1. Existing air quality, surface or groundwater quality or quantity, noise levels, existing traffic pattern, solid waste production or disposal, potential for erosion, drainage or flooding problems? Explain briefly:

C2. Aesthetic, agricultural, archaeological, historic, or other natural or cultural resources; or community or neighborhood character? Explain briefly:

C3. Vegetation or fauna, fish, shellfish or wildlife species, significant habitats, or threatened or endangered species? Explain briefly:

C4. A community's existing plans or goals as officially adopted, or a change in use or intensity of use of land or other natural resources? Explain briefly:

C5. Growth, subsequent development, or related activities likely to be induced by the proposed action? Explain briefly:

C6. Long term, short term, cumulative, or other effects not identified in C1-C5? Explain briefly:

C7. Other impacts (including changes in use of either quantity or type of energy? Explain briefly:

D. WILL THE PROJECT HAVE AN IMPACT ON THE ENVIRONMENTAL CHARACTERISTICS THAT CAUSED THE ESTABLISHMENT OF A CRITICAL ENVIRONMENTAL AREA (CEA)? (If yes, explain briefly:
☐ Yes ☐ No

E. IS THERE, OR IS THERE LIKELY TO BE, CONTROVERSY RELATED TO POTENTIAL ADVERSE ENVIRONMENTAL IMPACTS? If yes explain:
☐ Yes ☐ No

PART III - DETERMINATION OF SIGNIFICANCE (To be completed by Agency)

INSTRUCTIONS: For each adverse effect identified above, determine whether it is substantial, large, important or otherwise significant. Each effect should be assessed in connection with its (a) setting (i.e. urban or rural); (b) probability of occurring; (c) duration; (d) irreversibility; (e) geographic scope; and (f) magnitude. If necessary, add attachments or reference supporting materials. Ensure that explanations contain sufficient detail to show that all relevant adverse impacts have been identified and adequately addressed. If question d of part ii was checked yes, the determination of significance must evaluate the potential impact of the proposed action on the environmental characteristics of the CEA.

Check this box if you have identified one or more potentially large or significant adverse impacts which **MAY** occur. Then proceed directly to the FULL EAF and/or prepare a positive declaration.

Check this box if you have determined, based on the information and analysis above and any supporting documentation, that the proposed action **WILL NOT** result in any significant adverse environmental impacts **AND** provide, on attachments as necessary, the reasons supporting this determination.

Name of Lead Agency	Date
Print or Type Name of Responsible Officer in Lead Agency	Title of Responsible Officer
Signature of Responsible Officer in Lead Agency	Signature of Preparer (If different from responsible officer)

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07-07

617.20
Appendix A
State Environmental Quality Review
FULL ENVIRONMENTAL ASSESSMENT FORM

Purpose: The full EAF is designed to help applicants and agencies determine, in an orderly manner, whether a project or action may be significant. The question of whether an action may be significant is not always easy to answer. Frequently, there are aspects of a project that are subjective or unmeasurable. It is also understood that those who determine significance may have little or no formal knowledge of the environment or may not be technically expert in environmental analysis. In addition, many who have knowledge in one particular area may not be aware of the broader concerns affecting the question of significance.

The full EAF is intended to provide a method whereby applicants and agencies can be assured that the determination process has been orderly, comprehensive in nature, yet flexible enough to allow introduction of information to fit a project or action.

Full EAF Components: The full EAF is comprised of three parts:

Part 1: Provides objective data and information about a given project and its site. By identifying basic project data, it assists a reviewer in the analysis that takes place in Parts 2 and 3.

Part 2: Focuses on identifying the range of possible impacts that may occur from a project or action. It provides guidance as to whether an impact is likely to be considered small to moderate or whether it is a potentially-large impact. The form also identifies whether an impact can be mitigated or reduced.

Part 3: If any impact in Part 2 is identified as potentially-large, then Part 3 is used to evaluate whether or not the impact is actually important.

THIS AREA FOR LEAD AGENCY USE ONLY

DETERMINATION OF SIGNIFICANCE -- Type 1 and Unlisted Actions

Identify the Portions of EAF completed for this project: ☑ Part 1 ☐ Part 2 ☐ Part 3

Upon review of the information recorded on this EAF (Parts 1 and 2 and 3 if appropriate), and any other supporting information, and considering both the magnitude and importance of each impact, it is reasonably determined by the lead agency that:

☐ A. The project will not result in any large and important impact(s) and, therefore, is one which **will not** have a significant impact on the environment, therefore **a negative declaration will be prepared.**

☐ B. Although the project could have a significant effect on the environment, there will not be a significant effect for this Unlisted Action because the mitigation measures described in PART 3 have been required, therefore **a CONDITIONED negative declaration will be prepared.***

☐ C. The project may result in one or more large and important impacts that may have a significant impact on the environment, therefore **a positive declaration will be prepared**.

*A Conditioned Negative Declaration is only valid for Unlisted Actions

SITE PLAN FOR JERRY'S CLIMATE CONTROL

Name of Action

TOWN OF NEW WINDSOR

Name of Lead Agency

Print or Type Name of Responsible Officer in Lead Agency

Title of Responsible Officer

Signature of Responsible Officer in Lead Agency

Signature of Preparer (If different from responsible officer)

MARCH 7, 2007

Date

website

PART 1--PROJECT INFORMATION
Prepared by Project Sponsor

NOTICE: This document is designed to assist in determining whether the action proposed may have a significant effect on the environment. Please complete the entire form, Parts A through E. Answers to these questions will be considered as part of the application for approval and may be subject to further verification and public review. Provide any additional information you believe will be needed to complete Parts 2 and 3.

It is expected that completion of the full EAF will be dependent on information currently available and will not involve new studies, research or investigation. If information requiring such additional work is unavailable, so indicate and specify each instance.

Name of Action SITE PLAN FOR JERRY'S CLIMATE CONTROL

Location of Action (include Street Address, Municipality and County)

EASTERLY SIDE OF NYS RT. 300 AT THE INTERSECTION OF HEAMPSTEAD ROAD.

Name of Applicant/Sponsor JERRY SABINI

Address PO BOX 522

City / PO VAILS GATE State NY Zip Code 12584

Business Telephone 845-561-0220

Name of Owner (if different) HUDSON VALLEY OFFICES,LLC

Address 3 SHIPWATCH DRIVE

City / PO NEWBURGH State NY Zip Code 12550

Business Telephone

Description of Action:

THIS PROJECT IS A PROPOSED CLIMATE CONTROLLED SELF STORAGE MINI WAREHOUSE BUILDING. THE PROJECT WILL BE A TOTAL OF 78,400 S.F. ON FOUR FLOORS. THE PROJECT WILL BE SERVED BY MUNICIPAL WATER AND SEWER.

Please Complete Each Question--Indicate N.A. if not applicable

A. SITE DESCRIPTION

Physical setting of overall project, both developed and undeveloped areas.

1. Present Land Use: ☐ Urban ☐ Industrial ☑ Commercial ☐ Residential (suburban) ☐ Rural (non-farm)
   ☐ Forest ☐ Agriculture ☐ Other UNDEVELOPED

2. Total acreage of project area: 3.00 acres.

APPROXIMATE ACREAGE	PRESENTLY	AFTER COMPLETION
Meadow or Brushland (Non-agricultural)	3.00 acres	0 acres
Forested	0 acres	0 acres
Agricultural (Includes orchards, cropland, pasture, etc.)	0 acres	0 acres
Wetland (Freshwater or tidal as per Articles 24,25 of ECL)	0 acres	0 acres
Water Surface Area	0 acres	0 acres
Unvegetated (Rock, earth or fill)	0 acres	0 acres
Roads, buildings and other paved surfaces	0 acres	2.00 acres
Other (Indicate type) LAWN/ LANDSCAPE/ STORMWATER DETENTION	0 acres	1 acres

3. What is predominant soil type(s) on project site?
   a. Soil drainage: ☐ Well drained ____% of site ☑ Moderately well drained 100 % of site.
   ☐ Poorly drained ____% of site
   b. If any agricultural land is involved, how many acres of soil are classified within soil group 1 through 4 of the NYS Land Classification System? _____ acres (see 1 NYCRR 370).

4. Are there bedrock outcroppings on project site? ☐ Yes ☒ No
   a. What is depth to bedrock >5 (in feet)

5. Approximate percentage of proposed project site with slopes:
   ☑ 0-10% 100 % ☐ 10- 15%____% ☐ 15% or greater____%

6. Is project substantially contiguous to, or contain a building, site, or district, listed on the State or National Registers of Historic Places? ☒ Yes ☐ No

7. Is project substantially contiguous to a site listed on the Register of National Natural Landmarks? ☒ Yes ☐ No

8. What is the depth of the water table? 1.5 TO 2' (in feet) PERCHED MARCH TO MAY

9. Is site located over a primary, principal, or sole source aquifer? ☐ Yes ☒ No

10. Do hunting, fishing or shell fishing opportunities presently exist in the project area? ☐ Yes ☒ No

11. Does project site contain any species of plant or animal life that is identified as threatened or endangered? ☐ Yes ☒ No

According to:

Identify each species:

12. Are there any unique or unusual land forms on the project site? (i.e., cliffs, dunes, other geological formations?

☐ Yes ☒ No

Describe:

13. Is the project site presently used by the community or neighborhood as an open space or recreation area?

☐ Yes ☒ No

If yes, explain:

14. Does the present site include scenic views known to be important to the community? ☐ Yes ☒ No

15. Streams within or contiguous to project area:

NONE

a. Name of Stream and name of River to which it is tributary

NONE

16. Lakes, ponds, wetland areas within or contiguous to project area:

NONE

b. Size (in acres):

17. Is the site served by existing public utilities? ☒ Yes ☐ No

a. If **YES**, does sufficient capacity exist to allow connection? ☒ Yes ☐ No

b. If **YES**, will improvements be necessary to allow connection? ☐ Yes ☒ No

18. Is the site located in an agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐ Yes ☒ No

19. Is the site located in or substantially contiguous to a Critical Environmental Area designated pursuant to Article 8 of the ECL, and 6 NYCRR 617? ☐ Yes ☒ No

20. Has the site ever been used for the disposal of solid or hazardous wastes? ☐ Yes ☒ No

B. Project Description

1. Physical dimensions and scale of project (fill in dimensions as appropriate).

a. Total contiguous acreage owned or controlled by project sponsor: 3.00 acres.

b. Project acreage to be developed: 3.00 acres initially; 3.00 acres ultimately.

c. Project acreage to remain undeveloped: 0 acres.

d. Length of project, in miles: N.A. (if appropriate)

e. If the project is an expansion, indicate percent of expansion proposed. N.A %

f. Number of off-street parking spaces existing 0 ; proposed 65

g. Maximum vehicular trips generated per hour: 5 (upon completion of project)?

h. If residential: Number and type of housing units: N.A.

	One Family	Two Family	Multiple Family	Condominium
Initially				
Ultimately				

i. Dimensions (in feet) of largest proposed structure: 48 height; 80 width; 245 length.

j. Linear feet of frontage along a public thoroughfare project will occupy is? 121 ft.

2. How much natural material (i.e. rock, earth, etc.) will be removed from the site? 0 tons/cubic yards.

3. Will disturbed areas be reclaimed ☐ Yes ☐ No ☒ N/A

a. If yes, for what intended purpose is the site being reclaimed?

b. Will topsoil be stockpiled for reclamation? ☐ Yes ☐ No

c. Will upper subsoil be stockpiled for reclamation? ☐ Yes ☐ No

4. How many acres of vegetation (trees, shrubs, ground covers) will be removed from site? 2.0 acres.

5. Will any mature forest (over 100 years old) or other locally-important vegetation be removed by this project?

☐ Yes ☒ No

6. If single phase project: Anticipated period of construction: 3 months, (including demolition)

7. If multi-phased: N.A.

   a. Total number of phases anticipated _____ (number)

   b. Anticipated date of commencement phase 1: _____ month _____ year, (including demolition)

   c. Approximate completion date of final phase: _____ month _____ year.

   d. Is phase 1 functionally dependent on subsequent phases? ☐ Yes ☐ No

8. Will blasting occur during construction? ☐ Yes ☒ No

9. Number of jobs generated: during construction 5 ; after project is complete 2

10. Number of jobs eliminated by this project 0 .

11. Will project require relocation of any projects or facilities? ☐ Yes ☒ No

    If yes, explain:

12. Is surface liquid waste disposal involved? ☐ Yes ☒ No

    a. If yes, indicate type of waste (sewage, industrial, etc) and amount _____

    b. Name of water body into which effluent will be discharged _____

13. Is subsurface liquid waste disposal involved? ☐ Yes ☒ No Type _____

14. Will surface area of an existing water body increase or decrease by proposal? ☐ Yes ☒ No

    If yes, explain:

    NO BODY OF WATER SHALL HAVE ITS SURFACE AREA AFFECTED BY THIS PROJECT

15. Is project or any portion of project located in a 100 year flood plain? ☐ Yes ☒ No

16. Will the project generate solid waste? ☒ Yes ☐ No

    a. If yes, what is the amount per month? .5 tons

    b. If yes, will an existing solid waste facility be used? ☒ Yes ☐ No

    c. If yes, give name OC SAN. LANDFILL ; location NEW HAMPTON

    d. Will any wastes not go into a sewage disposal system or into a sanitary landfill? ☐ Yes ☒ No

e. If yes, explain:

17. Will the project involve the disposal of solid waste? ☐ Yes ☒ No

    a. If yes, what is the anticipated rate of disposal? _____ tons/month.

    b. If yes, what is the anticipated site life? _____ years.

18. Will project use herbicides or pesticides? ☐ Yes ☒ No

19. Will project routinely produce odors (more than one hour per day)? ☐ Yes ☒ No

20. Will project produce operating noise exceeding the local ambient noise levels? ☐ Yes ☒ No

21. Will project result in an increase in energy use? ☐ Yes ☒ No

    If yes, indicate type(s)

22. If water supply is from wells, indicate pumping capacity N.A. gallons/minute.

23. Total anticipated water usage per day 100 gallons/day.

24. Does project involve Local, State or Federal funding? ☐ Yes ☒ No

    If yes, explain:

25. Approvals Required:

			Type	Submittal Date
City, Town, Village Board	☐ Yes	☒ No		
City, Town, Village Planning Board	☒ Yes	☐ No	SITE PLAN APPROVAL	
City, Town Zoning Board	☐ Yes	☒ No		
City, County Health Department	☐ Yes	☒ No		
Other Local Agencies	☐ Yes	☒ No		
Other Regional Agencies	☒ Yes	☐ No	O.C. PLANNING	
State Agencies	☒ Yes	☐ No	NYS DOT COMMERCIAL DRIVEWAY PERMIT REFERRAL TO HISTORIC PRESERVATION	
Federal Agencies	☐ Yes	☒ No		

C. Zoning and Planning Information

1. Does proposed action involve a planning or zoning decision? ☒ Yes ☐ No

If Yes, indicate decision required:

☐ Zoning amendment ☐ Zoning variance ☐ New/revision of master plan ☐ Subdivision

☒ Site plan ☐ Special use permit ☐ Resource management plan ☐ Other

2. What is the zoning classification(s) of the site?

PI (PLANNED INDUSTRIAL)

3. What is the maximum potential development of the site if developed as permitted by the present zoning?

AS PROPOSED ON PLAN

4. What is the proposed zoning of the site?

SAME AS 2 ABOVE

5. What is the maximum potential development of the site if developed as permitted by the proposed zoning?

SAME AS 3 ABOVE

6. Is the proposed action consistent with the recommended uses in adopted local land use plans? ■ Yes ☐ No

7. What are the predominant land use(s) and zoning classifications within a ¼ mile radius of proposed action?

COMMERCIAL

8. Is the proposed action compatible with adjoining/surrounding land uses with a ¼ mile? ■ Yes ☐ No

9. If the proposed action is the subdivision of land, how many lots are proposed? N.A.

   a. What is the minimum lot size proposed? _____

10. Will proposed action require any authorization(s) for the formation of sewer or water districts? ☐ Yes ☒ No

11. Will the proposed action create a demand for any community provided services (recreation, education, police, fire protection?

☐ Yes ☒ No

a. If yes, is existing capacity sufficient to handle projected demand? ☐ Yes ☐ No

12. Will the proposed action result in the generation of traffic significantly above present levels? ☐ Yes ☒ No

a. If yes, is the existing road network adequate to handle the additional traffic. ☐ Yes ☐ No

D. Informational Details

Attach any additional information as may be needed to clarify your project. If there are or may be any adverse impacts associated with your proposal, please discuss such impacts and the measures which you propose to mitigate or avoid them.

E. Verification

I certify that the information provided above is true to the best of my knowledge.

Applicant/Sponsor Name GERALD ZIMMERMAN Date MARCH 7, 2007

Signature

Title PROJECT ENGINEER

If the action is in the Coastal Area, and you are a state agency, complete the Coastal Assessment Form before proceeding with this assessment.

PART 2 - PROJECT IMPACTS AND THEIR MAGNITUDE

Responsibility of Lead Agency

General Information (Read Carefully)

! In completing the form the reviewer should be guided by the question: Have my responses and determinations been **reasonable?** The reviewer is not expected to be an expert environmental analyst.

! The **Examples** provided are to assist the reviewer by showing types of impacts and wherever possible the threshold of magnitude that would trigger a response in column 2. The examples are generally applicable throughout the State and for most situations. But, for any specific project or site other examples and/or lower thresholds may be appropriate for a Potential Large Impact response, thus requiring evaluation in Part 3.

! The impacts of each project, on each site, in each locality, will vary. Therefore, the examples are illustrative and have been offered as guidance. They do not constitute an exhaustive list of impacts and thresholds to answer each question.

! The number of examples per question does not indicate the importance of each question.

! In identifying impacts, consider long term, short term and cumulative effects.

Instructions (Read carefully)

a. Answer each of the 20 questions in PART 2. Answer **Yes** if there will be **any** impact.

b. **Maybe** answers should be considered as **Yes** answers.

c. If answering **Yes** to a question then check the appropriate box(column 1 or 2)to indicate the potential size of the impact. If impact threshold equals or exceeds any example provided, check column 2. If impact will occur but threshold is lower than example, check column 1.

d. Identifying that an Impact will be potentially large (column 2) does not mean that it is also necessarily **significant**. Any large impact must be evaluated in PART 3 to determine significance. Identifying an impact in column 2 simply asks that it be looked at further.

e. If reviewer has doubt about size of the impact then consider the impact as potentially large and proceed to PART 3.

f. If a potentially large impact checked in column 2 can be mitigated by change(s) in the project to a small to moderate impact, also check the **Yes** box in column 3. A **No** response indicates that such a reduction is not possible. This must be explained in Part 3.

	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated by Project Change
Impact on Land			
1. Will the Proposed Action result in a physical change to the project site? NO ☐ YES ☐			
Examples that would apply to column 2			
• Any construction on slopes of 15% or greater, (15 foot rise per 100 foot of length), or where the general slopes in the project area exceed 10%.	☐	☐	☐ Yes ☐ No
• Construction on land where the depth to the water table is less than 3 feet.	☐	☐	☐ Yes ☐ No
• Construction of paved parking area for 1,000 or more vehicles.	☐	☐	☐ Yes ☐ No
• Construction on land where bedrock is exposed or generally within 3 feet of existing ground surface.	☐	☐	☐ Yes ☐ No
• Construction that will continue for more than 1 year or involve more than one phase or stage.	☐	☐	☐ Yes ☐ No
• Excavation for mining purposes that would remove more than 1,000 tons of natural material (i.e., rock or soil) per year.	☐	☐	☐ Yes ☐ No

	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated by Project Change
• Construction or expansion of a santary landfill.	☐	☐	☐ Yes ☐ No
• Construction in a designated floodway.	☐	☐	☐ Yes ☐ No
• Other impacts:	☐	☐	☐ Yes ☐ No

2. Will there be an effect to any unique or unusual land forms found on the site? (i.e., cliffs, dunes, geological formations, etc.)
☐ NO ☐ YES

• Specific land forms:	☐	☐	☐ Yes ☐ No

Impact on Water

3. Will Proposed Action affect any water body designated as protected? (Under Articles 15, 24, 25 of the Environmental Conservation Law, ECL)
☐ NO ☐ YES

Examples that would apply to column 2

• Developable area of site contains a protected water body.	☐	☐	☐ Yes ☐ No
• Dredging more than 100 cubic yards of material from channel of a protected stream.	☐	☐	☐ Yes ☐ No
• Extension of utility distribution facilities through a protected water body.	☐	☐	☐ Yes ☐ No
• Construction in a designated freshwater or tidal wetland.	☐	☐	☐ Yes ☐ No
• Other impacts:	☐	☐	☐ Yes ☐ No

4. Will Proposed Action affect any non-protected existing or new body of water?
☐ NO ☐ YES

Examples that would apply to column 2

• A 10% increase or decrease in the surface area of any body of water or more than a 10 acre increase or decrease.	☐	☐	☐ Yes ☐ No
• Construction of a body of water that exceeds 10 acres of surface area.	☐	☐	☐ Yes ☐ No
• Other impacts:	☐	☐	☐ Yes ☐ No

	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated by Project Change
5. Will Proposed Action affect surface or groundwater quality or quantity? ☐ NO ☐ YES			
Examples that would apply to column 2			
• Proposed Action will require a discharge permit.	☐	☐	☐ Yes ☐ No
• Proposed Action requires use of a source of water that does not have approval to serve proposed (project) action.	☐	☐	☐ Yes ☐ No
• Proposed Action requires water supply from wells with greater than 45 gallons per minute pumping capacity.	☐	☐	☐ Yes ☐ No
• Construction or operation causing any contamination of a water supply system.	☐	☐	☐ Yes ☐ No
• Proposed Action will adversely affect groundwater.	☐	☐	☐ Yes ☐ No
• Liquid effluent will be conveyed off the site to facilities which presently do not exist or have inadequate capacity.	☐	☐	☐ Yes ☐ No
• Proposed Action would use water in excess of 20,000 gallons per day.	☐	☐	☐ Yes ☐ No
• Proposed Action will likely cause siltation or other discharge into an existing body of water to the extent that there will be an obvious visual contrast to natural conditions.	☐	☐	☐ Yes ☐ No
• Proposed Action will require the storage of petroleum or chemical products greater than 1,100 gallons.	☐	☐	☐ Yes ☐ No
• Proposed Action will allow residential uses in areas without water and/or sewer services.	☐	☐	☐ Yes ☐ No
• Proposed Action locates commercial and/or industrial uses which may require new or expansion of existing waste treatment and/or storage facilities.	☐	☐	☐ Yes ☐ No
• Other impacts:	☐	☐	☐ Yes ☐ No

	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated by Project Change

6. Will Proposed Action alter drainage flow or patterns, or surface water runoff?
   ☐ NO ☐ YES

Examples that would apply to column 2

• Proposed Action would change flood water flows	☐	☐	☐ Yes ☐ No
• Proposed Action may cause substantial erosion.	☐	☐	☐ Yes ☐ No
• Proposed Action is incompatible with existing drainage patterns.	☐	☐	☐ Yes ☐ No
• Proposed Action will allow development in a designated floodway.	☐	☐	☐ Yes ☐ No
• Other impacts:	☐	☐	☐ Yes ☐ No

IMPACT ON AIR

7. Will Proposed Action affect air quality?
   ☐ NO ☐ YES

Examples that would apply to column 2

• Proposed Action will induce 1,000 or more vehicle trips in any given hour.	☐	☐	☐ Yes ☐ No
• Proposed Action will result in the incineration of more than 1 ton of refuse per hour.	☐	☐	☐ Yes ☐ No
• Emission rate of total contaminants will exceed 5 lbs. per hour or a heat source producing more than 10 million BTU's per hour.	☐	☐	☐ Yes ☐ No
• Proposed Action will allow an increase in the amount of land committed to industrial use.	☐	☐	☐ Yes ☐ No
• Proposed Action will allow an increase in the density of industrial development within existing industrial areas.	☐	☐	☐ Yes ☐ No
• Other impacts:	☐	☐	☐ Yes ☐ No

IMPACT ON PLANTS AND ANIMALS

8. Will Proposed Action affect any threatened or endangered species?
   ☐ NO ☐ YES

Examples that would apply to column 2

• Reduction of one or more species listed on the New York or Federal list, using the site, over or near the site, or found on the site.	☐	☐	☐ Yes ☐ No

	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated by Project Change
• Removal of any portion of a critical or significant wildlife habitat.	☐	☐	☐ Yes ☐ No
• Application of pesticide or herbicide more than twice a year, other than for agricultural purposes.	☐	☐	☐ Yes ☐ No
• Other impacts:	☐	☐	☐ Yes ☐ No

9. Will Proposed Action substantially affect non-threatened or non-endangered species?
☐ NO ☐ YES

Examples that would apply to column 2			
• Proposed Action would substantially interfere with any resident or migratory fish, shellfish or wildlife species.	☐	☐	☐ Yes ☐ No
• Proposed Action requires the removal of more than 10 acres of mature forest (over 100 years of age) or other locally important vegetation.	☐	☐	☐ Yes ☐ No
• Other impacts:	☐	☐	☐ Yes ☐ No

IMPACT ON AGRICULTURAL LAND RESOURCES

10. Will Proposed Action affect agricultural land resources?
☐ NO ☐ YES

Examples that would apply to column 2			
• The Proposed Action would sever, cross or limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc.)	☐	☐	☐ Yes ☐ No
• Construction activity would excavate or compact the soil profile of agricultural land.	☐	☐	☐ Yes ☐ No
• The Proposed Action would irreversibly convert more than 10 acres of agricultural land or, if located in an Agricultural District, more than 2.5 acres of agricultural land.	☐	☐	☐ Yes ☐ No

	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated by Project Change
• The Proposed Action would disrupt or prevent installation of agricultural land management systems (e.g., subsurface drain lines, outlet ditches, strip cropping); or create a need for such measures (e.g. cause a farm field to drain poorly due to increased runoff).	☐	☐	☐ Yes ☐ No
• Other impacts:	☐	☐	☐ Yes ☐ No

IMPACT ON AESTHETIC RESOURCES

11. Will Proposed Action affect aesthetic resources? (If necessary, use the Visual EAF Addendum in Section 617.20, Appendix B.)
☐ NO ☐ YES

Examples that would apply to column 2			
• Proposed land uses, or project components obviously different from or in sharp contrast to current surrounding land use patterns, whether man-made or natural.	☐	☐	☐ Yes ☐ No
• Proposed land uses, or project components visible to users of aesthetic resources which will eliminate or significantly reduce their enjoyment of the aesthetic qualities of that resource.	☐	☐	☐ Yes ☐ No
• Project components that will result in the elimination or significant screening of scenic views known to be important to the area.	☐	☐	☐ Yes ☐ No
• Other impacts:	☐	☐	☐ Yes ☐ No

IMPACT ON HISTORIC AND ARCHAEOLOGICAL RESOURCES

12. Will Proposed Action impact any site or structure of historic, prehistoric or paleontological importance?
☐ NO ☐ YES

Examples that would apply to column 2			
• Proposed Action occurring wholly or partially within or substantially contiguous to any facility or site listed on the State or National Register of historic places.	☐	☐	☐ Yes ☐ No
• Any impact to an archaeological site or fossil bed located within the project site.	☐	☐	☐ Yes ☐ No
• Proposed Action will occur in an area designated as sensitive for archaeological sites on the NYS Site Inventory.	☐	☐	☐ Yes ☐ No

	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated by Project Change
• Other impacts:	☐	☐	☐ Yes ☐ No

IMPACT ON OPEN SPACE AND RECREATION

13. Will proposed Action affect the quantity or quality of existing or future open spaces or recreational opportunities?
☐ NO ☐ YES

Examples that would apply to column 2

• The permanent foreclosure of a future recreational opportunity.	☐	☐	☐ Yes ☐ No
• A major reduction of an open space important to the community.	☐	☐	☐ Yes ☐ No
• Other impacts:	☐	☐	☐ Yes ☐ No

IMPACT ON CRITICAL ENVIRONMENTAL AREAS

14. Will Proposed Action impact the exceptional or unique characteristics of a critical environmental area (CEA) established pursuant to subdivision 6NYCRR 617.14(g)?
☐ NO ☐ YES

List the environmental characteristics that caused the designation of the CEA

Examples that would apply to column 2

• Proposed Action to locate within the CEA?	☐	☐	☐ Yes ☐ No
• Proposed Action will result in a reduction in the quantity of the resource?	☐	☐	☐ Yes ☐ No
• Proposed Action will result in a reduction in the quality of the resource?	☐	☐	☐ Yes ☐ No
• Proposed Action will impact the use, function or enjoyment of the resource?	☐	☐	☐ Yes ☐ No
• Other impacts:	☐	☐	☐ Yes ☐ No

	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated by Project Change

IMPACT ON TRANSPORTATION

15. Will there be an effect to existing transportation systems?
☐ NO ☐ YES

Examples that would apply to column 2			
• Alteration of present patterns of movement of people and/or goods.	☐	☐	☐ Yes ☐ No
• Proposed Action will result in major traffic problems.	☐	☐	☐ Yes ☐ No
• Other impacts:	☐	☐	☐ Yes ☐ No

IMPACT ON ENERGY

16. Will Proposed Action affect the community's sources of fuel or energy supply?

☐ NO ☐ YES

Examples that would apply to column 2			
• Proposed Action will cause a greater than 5% increase in the use of any form of energy in the municipality.	☐	☐	☐ Yes ☐ No
• Proposed Action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two family residences or to serve a major commercial or industrial use.	☐	☐	☐ Yes ☐ No
• Other impacts:	☐	☐	☐ Yes ☐ No

NOISE AND ODOR IMPACT

17. Will there be objectionable odors, noise, or vibration as a result of the Proposed Action?

☐ NO ☐ YES

Examples that would apply to column 2			
• Blasting within 1,500 feet of a hospital, school or other sensitive facility.	☐	☐	☐ Yes ☐ No
• Odors will occur routinely (more than one hour per day).	☐	☐	☐ Yes ☐ No
• Proposed Action will produce operating noise exceeding the local ambient noise levels for noise outside of structures.	☐	☐	☐ Yes ☐ No
• Proposed Action will remove natural barriers that would act as a noise screen.	☐	☐	☐ Yes ☐ No
• Other impacts:	☐	☐	☐ Yes ☐ No

	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated by Project Change

IMPACT ON PUBLIC HEALTH

18. Will Proposed Action affect public health and safety?
☐ NO ☐ YES

• Proposed Action may cause a risk of explosion or release of hazardous substances (i.e. oil, pesticides, chemicals, radiation, etc.) in the event of accident or upset conditions, or there may be a chronic low level discharge or emission.	☐	☐	☐ Yes ☐ No
• Proposed Action may result in the burial of "hazardous wastes" in any form (i.e. toxic, poisonous, highly reactive, radioactive, irritating, infectious, etc.)	☐	☐	☐ Yes ☐ No
• Storage facilities for one million or more gallons of liquefied natural gas or other flammable liquids.	☐	☐	☐ Yes ☐ No
• Proposed Action may result in the excavation or other disturbance within 2,000 feet of a site used for the disposal of solid or hazardous waste.	☐	☐	☐ Yes ☐ No
• Other impacts:	☐	☐	☐ Yes ☐ No

IMPACT ON GROWTH AND CHARACTER OF COMMUNITY OR NEIGHBORHOOD

19. Will Proposed Action affect the character of the existing community?
☐ NO ☐ YES

Examples that would apply to column 2

• The permanent population of the city, town or village in which the project is located is likely to grow by more than 5%.	☐	☐	☐ Yes ☐ No
• The municipal budget for capital expenditures or operating services will increase by more than 5% per year as a result of this project.	☐	☐	☐ Yes ☐ No
• Proposed Action will conflict with officially adopted plans or goals.	☐	☐	☐ Yes ☐ No
• Proposed Action will cause a change in the density of land use.	☐	☐	☐ Yes ☐ No
• Proposed Action will replace or eliminate existing facilities, structures or areas of historic importance to the community.	☐	☐	☐ Yes ☐ No
• Development will create a demand for additional community services (e.g. schools, police and fire, etc.)	☐	☐	☐ Yes ☐ No

	1 Small to Moderate Impact	2 Potential Large Impact	3 Can Impact Be Mitigated by Project Change
• Proposed Action will set an important precedent for future projects.	☐	☐	☐ Yes ☐ No
• Proposed Action will create or eliminate employment.	☐	☐	☐ Yes ☐ No
• Other impacts:	☐	☐	☐ Yes ☐ No

20. Is there, or is there likely to be, public controversy related to potential adverse environment impacts?
☐ NO ☐ YES

If Any Action in Part 2 Is Identified as a Potential Large Impact or If you Cannot Determine the Magnitude of Impact, Proceed to Part 3

Part 3 - EVALUATION OF THE IMPORTANCE OF IMPACTS

Responsibility of Lead Agency

Part 3 must be prepared if one or more impact(s) is considered to be potentially large, even if the impact(s) may be mitigated.

Instructions (If you need more space, attach additional sheets)

Discuss the following for each impact identified in Column 2 of Part 2:

1. Briefly describe the impact.

2. Describe (if applicable) how the impact could be mitigated or reduced to a small to moderate impact by project change(s).

3. Based on the information available, decide if it is reasonable to conclude that this impact is **important**.

   To answer the question of importance, consider:

   - The probability of the impact occurring
   - The duration of the impact
   - Its irreversibility, including permanently lost resources of value
   - Whether the impact can or will be controlled
   - The regional consequence of the impact
   - Its potential divergence from local needs and goals
   - Whether known objections to the project relate to this impact.

IF APPLICABLE "XX"

**This form to be completed only if you answer "yes" to question #9 on the application form.

AGRICULTURAL DATA STATEMENT

1. Name and Address of Applicant:

   JERRY SABINI; PO BOX 522; VAILS GATE, NY 12584

2. Description of proposed project and its locations:

   THE PROJECT IS A PROPOSED CLIMATE CONTROLLED SELF STORAGE MINI WAREHOUSE BUILDING. THE BUILDING WILL BE A TOTAL78,400 S.F. ON FOUR FLOORS. THE PROJECT WILL BE SERVED BY MUNICIPAL WATER AND SEWER.

3. Name and address of any owner of land within the Agricultural District:

   TO BE OBTAINED FROM THE ASSESOR

4. Name and address of any owner of land containing farm operations located within 500 feet of the boundary of the subject property.

   SAME AS 3 ABOVE

5. A map is submitted herewith showing the site of the proposed project relative to the location of farm operations identified in this statement.

RECEIVED OCT 2 2 2007

07-07

FOR OFFICIAL USE ONLY
Permit No. _____
Fee Received _____ Date _____

_____ of _____

_____ County, New York

Permit Application for Development
in
Flood Hazard Areas

A. General instructions page 4 (Applicant to read and sign)

B. For assistance in completing or submittal of this application contact:

_____, Floodplain Administrator,
(Name)

_____
(Address)

_____, NY ( ) _____ - _____.

1. Name and Address of Applicant

JERRY SABINI
(First Name) (MI) (Last Name)

Street Address: PO BOX 522; VAILS GATE, NY 12584

Post Office: _____ State: _____ Zip Code: _____

Telephone: (845) 561 - 0220

2. Name and Address of Owner (If Different)

HUDSON VALLEY OFFICES, LLC
(First Name) (MI) (Last Name)

Street Address: 3 SHIPWATCH DRIVE

Post Office: NEWBURGH State: NY Zip Code: 12550

Telephone: ( ) _____ - _____

3. Engineer, Architect, Land Surveyor (If Applicable)

ZIMMERMAN ENGINEERING & SURVEYING, P.C.
(First Name) (MI) (Last Name)

Street Address: 148 RT. 17M

Post Office: HARRIMAN State: NY Zip Code: 12550

Telephone: 845) 782 - 7976

ENTERED FEB 2 2 2007

07-07

PROJECT LOCATION

Street Address: _____ Tax Map No. _____

_____

Name of, distance and direction from nearest intersection or other landmark

_____

_____

Name of Waterway: PROJECT NOT IN FLOODWAY

PROJECT DESCRIPTION (Check all applicable boxes and see Page 4, Item 3)

Structures	Structure Type
____ New Construction	____ Residential (1-4 family)
____ Addition	____ Residential (More than 4 family)
____ Alteration	____ Commercial
____ Relocation	____ Industrial
____ Demolition	____ Mobile Home (single lot)
____ Replacement	____ Mobile Home (Park)
	____ Bridge or Culvert

Estimated value of improvements if addition or alteration: _____

Other Development Activities

____ Fill ____ Excavation ____ Mining ____ Drilling Grading

____ Watercourse alteration ____ Water System ____ Sewer System

____ Subdivision (New) ____ Subdivision (Expansion)

____ Other (Explain)

CERTIFICATION

Application is hereby made for the issuance of a floodplain development permit. The applicant certifies that the above statements are true and agrees that the issuance of the permit is based on the accuracy thereof. False statements made herein are punishable under law. As a condition to the issuance of a permit, the applicant accepts full responsibility for all damage, direct or indirect, of whatever nature, and by whomever suffered, arising out of the project described herein and agrees to indemnify and save harmless to the community from suits, actions, damages and costs of every name and description resulting from the said project. Further, the applicant agrees that the issuance of a permit is not to be interpreted as a guarantee of freedom from risk of future flooding. The applicant certifies that the premises, structure, development, etc. will not be utilized or occupied until a Certificate of Compliance has been applied for and received.

2-22-97 _____
Date Signature of Applicant

ENTERED FEB 22 2007

07-07

GRAPHIC SCALE

(IN FEET)
1 inch = 30 ft.

FILED MAP

RISING SUN ENTERPRISES OF DUTCHESS, LTD.
S.4 – B.2 – L.18
LIBER 4952 PAGE 65
LIBER 4952 PAGE 69
PARCEL A
FILED MAP #9877

EXISTING COMMERCIAL BUILDING
"AUTOMOTIVE BRAKE"

N 31°03'03" W
10.00'

N 40°46'25" E

EXISTING EDGE OF PAVEMENT

550.72'

S 68°31'11" E

213.32'

712.51'

S 39°50'34" W

N 25°43'55" W

N 26°01'40" W

60.00'

161.67'

N.Y.S HIGHWAY ROUTE 300
(A.K.A. TEMPLE HILL ROAD)

EDGE OF PAVEMENT
WHITE LINE

CB-D
TOP = 331.60
INV. = 328.55

CB-A
TOP = 342.71
INV. = 338.91

CB-B
TOP = 342.78
INV. = 338.79

CB-C
TOP = 342.76
INV. = 337.76

SMH
TOP = 345.2
INV. = 336.6

30" CMP @ 1.51%

24" CMP @ 0.23%

18" CMP @ 1.3%

30" CMP

EXISTING CONCRETE CURB

EXISTING MACADAM PARKING AREA

EXISTING COMMERCIAL BUILDING
BUSINESS PARK ASSOCIATES
S.4 – B.2 – L.16.6
LIBER 2621 PAGE 39
PARCEL15.1.1 FILED MAP #9805

EXISTING COMMERCIAL BUILDING
NEW WINDSOR BUSINESS PARK
S.4 – B.2 – L.16.7
LIBER 4431 PAGE 176
PARCEL 15.1.2 FILED MAP #9805

EXISTING COMMERCIAL BUILDING
NEW WINDSOR BUSINESS PARK ASSOCIATES
S.4 – B.2 – L.16.8
LIBER 4431 PAGE 179
PARCEL 15.1.3 FILED MAP #9805

YOUNG WOMENS CHRISTIAN ASSOCIATION OF NEWBURGH
S.4 – B.2 – L.3.22
LIBER 5453 PAGE 159

LOCATION MAP SCALE: 1" = 1,000'

NEW WINDSOR CANTONMENT STATE HISTORIC SITE

VICINITY MAP SCALE: 1" = 500'

WEMBLY ROAD
HEAMPSTEAD ROAD
OLD STONE ROAD
SITE
COMMERCE DRIVE
CLARK VIEW DRIVE
BERRY POND

ZONING DATA

DISTRICT: PI (PLANNED INDUSTRIAL)

	REQUIRED	PROVIDED
MINIMUM LOT AREA =	40,000 S.F.	3.00 AC.
MINIMUM LOT WIDTH =	150'	231'
MINIMUM FRONT YARD =	50'	189.4'
MINIMUM SIDE YARD =	15'/40'	61.2'/124.5'
MINIMUM REAR YARD =	20'	141'
MIN. STREET FRONTAGE =	N/A	231.67'
MAX. BUILDING HEIGHT = (1)	61.2'	48'
MAX. FLOOR AREA RATIO =	0.60	0.60
DEVELOPMENT COVERAGE =	85%	66.7%

(1) MAX. BUILDING HEIGHT = 12" PER FOOT OF DISTANCE TO NEAREST LOT LINE.

TAX MAP NUMBER

SECTION: 4
BLOCK: 2
LOT: 19

DEED REFERENCE

LIBER: 11966
PAGE: 636

TOTAL TRACT AREA

130,680 S.F.
= 3.00± ACRES

RECORD OWNER / APPLICANT

HUDSON VALLEY OFFICES, LLC JERRY SABINI

MAP REFERENCE

PARCEL "B" AS SHOWN ON A MAP ENTITLED "MAP OF SUBDIVISION FOR AUTOMOTIVE BRAKE OF NEWBURGH, INC.". TOWN OF NEW WINDSOR, ORANGE COUNTY, NEW YORK. FILED IN THE ORANGE COUNTY CLERK'S OFFICE AS MAP NO. 9877 ON 4-25-90.

TOWN OF NEW WINDSOR APPROVAL
APPROVAL GRANTED BY TOWN OF NEW WINDSOR
OCT
By: Gerald Zimmerman, Chairman
By: Neil Schwenkgrber, Secretary

EXISTING CONDITIONS

TOWN APPROVAL BOX

GERALD ZIMMERMAN P.E. LIC. NO. 47391
P.L.S. LIC. NO. 49410

REVISIONS:
1. FEBRUARY 06, 2007 (WORKSHOP COMMENTS)
2. FEBRUARY 09, 2007 (WORKSHOP COMMENTS 2-7-07)
3. APRIL 17, 2007 (P.B. COMMENTS 2-28-07)
4. APRIL 23, 2007
5. MAY 21, 2007 (P.B. COMMENTS 5-09-07)
6. JUNE 25, 2007 (REVISION DATE ONLY)

SHEET NO. 1 OF 8
SCALE: 1" = 30'
DATE: JANUARY 12, 2007
JOB NO. 26047 DRAWN BY: J.F.

SITE PLAN
FOR
JERRY'S CLIMATE CONTROL
TOWN OF NEW WINDSOR
ORANGE COUNTY, NEW YORK

ZIMMERMAN ENGINEERING & SURVEYING, P.C.
148 ROUTE 17M
HARRIMAN, NEW YORK 10926
PHONE: (845) 782-7976 FAX: (845) 782-3148 E-MAIL: zimeng@frontiernet.net

GRAPHIC SCALE

(IN FEET)
1 inch = 30 ft.

RISING SUN ENTERPRISES OF DUTCHESS, LTD.
S.4 – B.2 – L.18
LIBER 4952 PAGE 65
LIBER 4952 PAGE 69
PARCEL A
FILED MAP #9877

EXISTING COMMERCIAL BUILDING "AUTOMOTIVE BRAKE"

CORE
EXIST. C.B.
INV. =328.55

REPLACE EXIST. RIP RAP

CB-D
TOP = 331.60
INV. = 328.55
U.P.

FILED MAP

N 31°03'03" W
10.00'

160 L.F. OF 24" CMP @ 3.87%

PROP. M.H.
RIM = 338.35
INV. = 334.74

110 L.F. OF 24" CMP @ 3.87%

N 40°46'25" E

161.67'

EXISTING EDGE OF PAVEMENT

PROPOSED RETAINING WALL

550.72'

S 68°31'11" E

213.32'

S 39°50'34" W

712.51'

N 26°01'40" W

N 25°43'56" W

60.00'

N.Y.S HIGHWAY ROUTE 300
(A.K.A. TEMPLE HILL ROAD)

APPROXIMATE LOCATION EXISTING WATER MAIN

EDGE OF PAVEMENT
WHITE LINE

PROP. C.B.
RIM = 346.98
INV. = 342.88

PROP. F.E.S.
INV. = 341.0

FOREBAY 337.00

AQUATIC BENCH 337.00

BOTTOM OF POND 336.00

TOP OF POND 343.5

PROPOSED HYDRANT

PROP. 6" PVC SEWER LATERAL

PROP. 4" D.I. WATER SERVICE

30" CMP

T.W. = 348.0
T.W. = 348.5
T.W. = 349.0
T.W. = 349.48
T.W. = 349.98
T.W. = 350.48
T.W. = 351.48

PROPOSED CONC. CURB
PROPOSED WOODEN GUIDERAIL

108 L.F. OF 18" CMP @ 1.0%

PROP. C.B.
RIM = 349.38
INV. = 343.96

END OF PROPOSED CURB

NON CLIMATE CONTROLLED GARAGE UNITS

PROPOSED
4 STORY
CLIMATE CONTROLLED
SELF STORAGE BUILDING
TOTAL FLOOR AREA =
78,400 S.F
245'

80'

F.F. EL. = 348.5

PROPOSED OFFICE

PROPOSED LOADING AREA

AUTOMATIC SPRINKLER SYSTEM
FIRE DEPARTMENT CONNECTION

PROP. C.B.
RIM = 349.51
INV. = 346.97

262 L.F. OF 18" CMP @ 1.0%

PROPOSED EDGE OF PAVEMENT

PROPOSED 6' WIDE CONCRETE SIDEWALK

PROPOSED CONC. CURB

PROPOSED PARKING SPACES

PROPOSED 15' X 15' DUMPSTER ENCLOSURE

EXISTING CONCRETE CURB

EXISTING MACADAM PARKING AREA

PROP. C.B.
RIM = 346.88
INV. = 344.38

EXISTING COMMERCIAL BUILDING
NEW WINDSOR BUSINESS PARK ASSOCIATES
S.4 – B.2 – L.16.7
LIBER 4431 PAGE 176
PARCEL 15.1.2 FILED MAP #9805

EXISTING COMMERCIAL BUILDING
NEW WINDSOR BUSINESS PARK ASSOCIATES
S.4 – B.2 – L.16.8
LIBER 4431 PAGE 179
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EXISTING COMMERCIAL BUILDING
NEW WINDSOR BUSINESS PARK ASSOCIATES
S.4 – B.2 – L.16.6
LIBER 2621 PAGE 39
PARCEL15.1.1 FILED MAP #9805

CB-A
TOP = 342.71
INV. = 338.91

CB-B
TOP = 342.78
INV. = 338.79

SMH
TOP = 345.2
INV. = 336.6

YOUNG WOMENS CHRISTIAN ASSOCIATION OF NEWBURGH
S.4 – B.2 – L.2.22
LIBER 5453 PAGE 159

NOTES

1. THE HOURS OF OPERATION FOR THIS FACILITY SHALL BE 7:00 AM TO 9:00 PM 7 DAYS A WEEK. THE FACILITY WILL BE ACCESSIBLE TO SELECT CLIENTS 24 HOURS A DAY.
2. THE 10 PROPOSED OUTDOOR STORAGE SPACES SHALL BE USED FOR WHEELED VEHICLES WITH LICENSE PLATES ONLY.

DEEP HOLE RESULTS

DH-1
0 TO 6" TOPSOIL
6" TO 4'-3" BROWN CLAY LOAM
4'-3" TO 8'-2" BROWN CLAY LOAM W/ RUST & GRAY MOTTLING
GROUNDWATER SEEPAGE @ 4'-3"

DH-2
0 TO 4" TOPSOIL
4" TO 4'-0" BROWN CLAY LOAM
4'-0" TO 5'-0" GRAY CLAY W/ RUST MOTTLING
5'-0" TO 8'-0 BROWN CLAY LOAM
GROUNDWATER SEEPAGE @ 5'-0"

PARKING ANALYSIS

AS PER SECTION 300-60 MINIMUM OFF-STREET PARKING REQUIREMENTS (D-44, MINI WAREHOUSES)

1 SPACE PER 10 UNITS
550 UNITS

1/10 X 550 = 55 SPACES REQUIRED
55 SPACES PROVIDED FOR CUSTOMER PARKING
10 ADDITIONAL OUTDOOR STORAGE SPACES PROVIDED
65 TOTAL SPACES SHOWN ON PLAN

TOWN OF NEW WINDSOR APPROVAL
APPROVAL GRANTED BY TOWN OF NEW WINDSOR
OCT
By: Gerard Avgeris, Chairman
By: Neil Schlesinger, Secretary

TOWN APPROVAL BOX

GERALD ZIMMERMAN P.E. LIC. NO. 47391
P.L.S. LIC. NO. 49410

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4. APRIL 23, 2007
5. MAY 21, 2007 (P.B. COMMENTS 5-09-07)
6. JUNE 25, 2007 (NYSDOT DRAINAGE 6-11-07)

SHEET NO. 2 OF 8
SCALE: 1" = 30'
DATE: JANUARY 12, 2007
JOB NO. 26047 DRAWN BY: J.F.

PLAN

SITE PLAN
FOR
JERRY'S CLIMATE CONTROL
TOWN OF NEW WINDSOR
ORANGE COUNTY, NEW YORK

ZIMMERMAN ENGINEERING & SURVEYING, P.C.
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(IN FEET)
1 inch = 30 ft.

RISING SUN ENTERPRISES OF DUTCHESS, LTD.
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N 31°03'03" W
10.00'

N 40°46'25" E

161.67'

N 25°43'56" W

N 26°01'40" W

60.00'

S 39°50'34" W

550.72'

S 68°31'11" E

213.32'

712.51'

EXISTING EDGE OF PAVEMENT

N.Y.S HIGHWAY ROUTE 300 (A.K.A. TEMPLE HILL ROAD)

EDGE OF PAVEMENT
WHITE LINE
APPROXIMATE LOCATION DESIGNS WATER MAIN

PROPOSED 4 STORY CLIMATE CONTROLLED SELF STORAGE BUILDING
TOTAL FLOOR AREA = 78,400 S.F
245' × 80'

F.F. EL. = 348.5

PROPOSED OFFICE
PROPOSED LOADING AREA

PROPOSED CONC. CURB
PROPOSED WOODEN GUIDERAIL
PROPOSED 6' WIDE CONCRETE SIDEWALK
END OF PROPOSED CURB
PROPOSED EDGE OF PAVEMENT

EXISTING 18" OAK TO BE REMOVED

PROPOSED ANNUAL PLANTING BED

PROPOSED FLAG POLE

PROPOSED 5' X 15' DUMPSTER ENCLOSURE

EXISTING CONCRETE CURB

EXISTING MACADAM PARKING AREA

EXISTING COMMERCIAL BUILDING
NEW WINDSOR BUSINESS PARK ASSOCIATES
S.4 – B.2 – L.16.6
LIBER 2621 PAGE 39
PARCEL15.1.1 FILED MAP #9805

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YOUNG WOMENS CHRISTIAN ASSOCIATION OF NEWBURGH
S.4 – B.2 – L.3.22
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CB-A
TOP = 342.71
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CB-B
TOP = 342.78
INV. = 338.79

CB-D
TOP = 331.60
INV. = 328.55

SMH
TOP = 345.2
INV. = 336.6

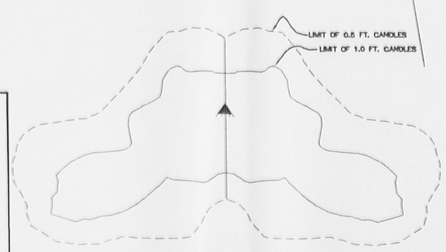
PLANT LIST

SYMBOL	QUANTITY	NAME	SIZE	REMARKS
	39	TALL DOUGLAS FIR AND BLUE SPRUCE MIX (50% & 50%) TREES SPACED AS SHOWN ON PLAN	6' - 8' HEIGHT	B & B
	117	PFITZERS JUNIPERS	12" TO 15" HEIGHT	CONTAINER
	6	RED SUNSET MAPLES	3" TO 3-1/2" CALIPER	B & B
	2	GREENSPIRE LINDEN	3" TO 3-1/2" CALIPER	B & B
	12	SPRING GLORY FORSYTHIA	34" TO 36" HEIGHT	B & B
	14	EUROPEAN CRANBERRY BUSH VIBURNUM	34" TO 36" HEIGHT	B & B
	91	PERIWINKLE	SPACED AS SHOWN ON PLAN	FLATS
	9	ARROWWOOD VIBURRIUM	34" TO 36" HEIGHT	B & B
	9	SILKY DOGWOOD	34" TO 36" HEIGHT	B & B
	9	SPECKLED ADLER	34" TO 36" HEIGHT	B & B
		GRASS (SEE NOTE NO. 1)		
		MIXTURE OF DUCKWEED, POND WEED & WATERWEED IN EVEN PROPRTIONS		
		MIXTURE OF COMMON THREE SQUARE, PICKERELWEED & SOFT STEM BULLRUSH IN EVEN PROPRTIONS		

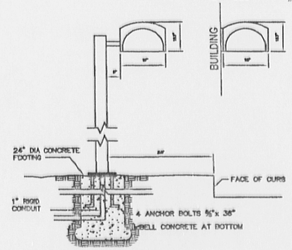
NOTES:
1. AFTER CONSTRUCTION, ALL AREAS INDICATED AS GRASS SHALL BE FINE GRADED, COVERED WITH TOPSOIL AND SEEDED WITH A PERMANENT LAWN MIX AS FOLLOWS:
   A. LIME TOPSOIL TO A pH OF 6.0.
   B. FERTILIZE WITH 20 LBS PER 1,000 S.F. 5-10-5, 50% WATER SOLUBLE NITROGEN FERTILIZER.
   C. SEED WITH 5 LBS PER 1,000 S.F. OF THE FOLLOWING MIXTURE:
      40% JAMESTOWN CHEWING FESCUE;
      20% YORKTOWN PERENNIAL RYEGRASS.
   D. MULCH WITH STRAW MULCH.
   E. FERTILIZE 4 WEEKS AFTER GERMINATION WITH 10 LBS OF 20-10-10 FERTILIZER PER 1,000 S.F.

TOWN OF NEW WINDSOR APPROVAL
APPROVAL GRANTED BY TOWN OF NEW WINDSOR
BY: Gerald Argenio, Chairman
BY: Neil Schlesinger, Secretary

TOWN APPROVAL BOX



ISOLUX CURVE



SQUARE DOME LIGHT DETAIL
N.T.S.

RUUD LIGHTING
MODEL NO. SQUARE DOME 63V SERIES
200 WATT MH TYPE III
CLEAR FLAT LENS
21,000 LUMENS
MOUNTING HIGHT = 18'
CURVES SHOWN IS 1.0 & 0.5 ISO FT CANDLES.

GERALD ZIMMERMAN P.E. LIC. NO. 47391
P.L.S. LIC. NO. 49410

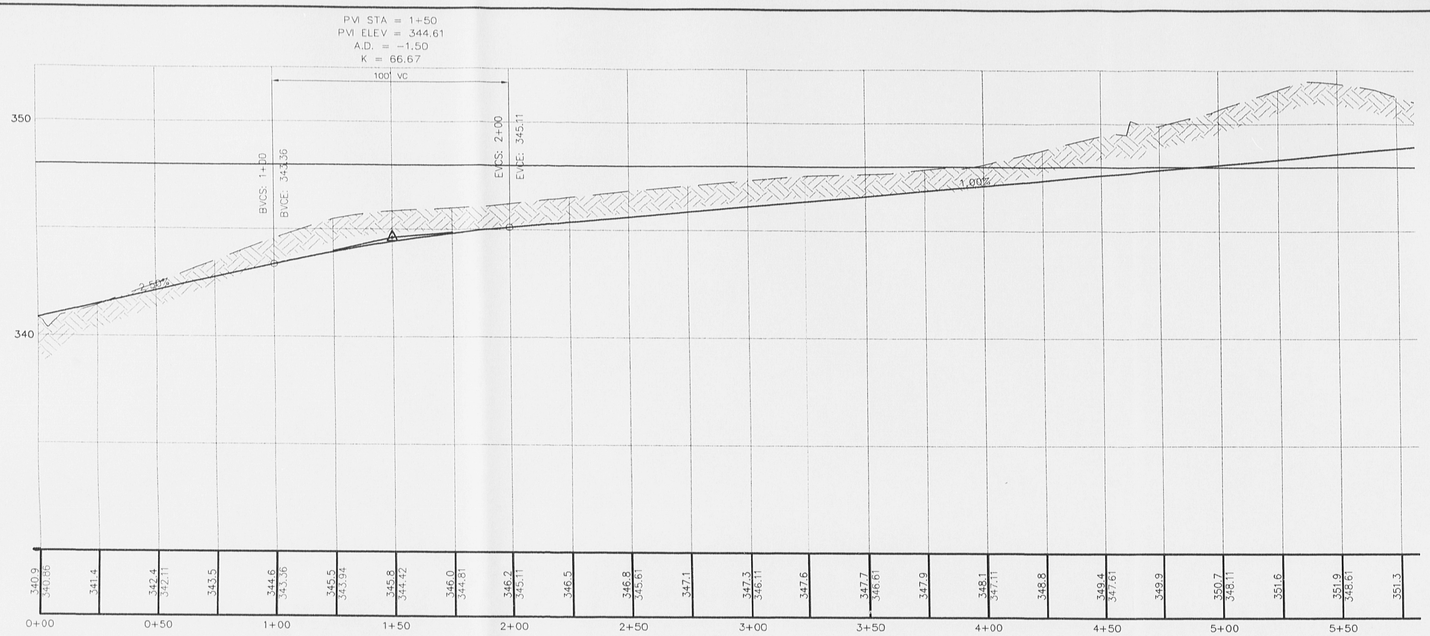
REVISIONS:
1. FEBRUARY 06, 2007 (WORKSHOP COMMENTS)
2. FEBRUARY 09, 2007 (WORKSHOP COMMENTS 2-7-07)
3. APRIL 17, 2007 (P.B. COMMENTS 2-28-07)
4. APRIL 23, 2007
5. MAY 21, 2007 (P.B. COMMENTS 5-09-07)
6. JUNE 25, 2007 (REVISION DATE ONLY)

LANDSCAPING & LIGHTING

SHEET NO. 3 OF 8
SCALE: 1" = 30'
DATE: JANUARY 12, 2007
JOB NO. 26047 DRAWN BY: J.F.

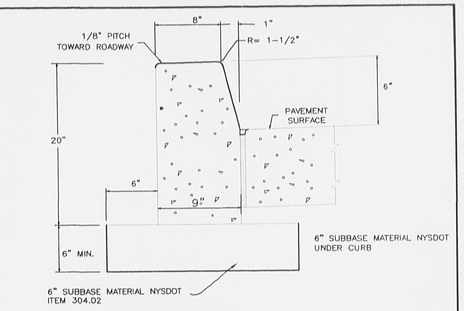
SITE PLAN
FOR
JERRY'S CLIMATE CONTROL
TOWN OF NEW WINDSOR
ORANGE COUNTY, NEW YORK

ZIMMERMAN ENGINEERING & SURVEYING, P.C.
148 ROUTE 17M
HARRIMAN, NEW YORK 10926
PHONE: (845) 782-7976 FAX: (845) 782-3148 E-MAIL: zimeng@frontiernet.net

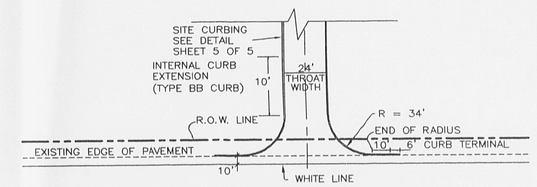


PROFILE

STA. 0+00 THRU 5+50
HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 3'

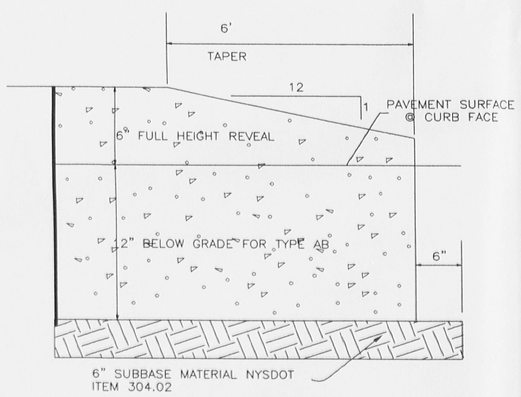


TYPE BB
PORTLAND CEMENT CONCRETE CURB
NYSDOT STANDARD SHEET 609.2

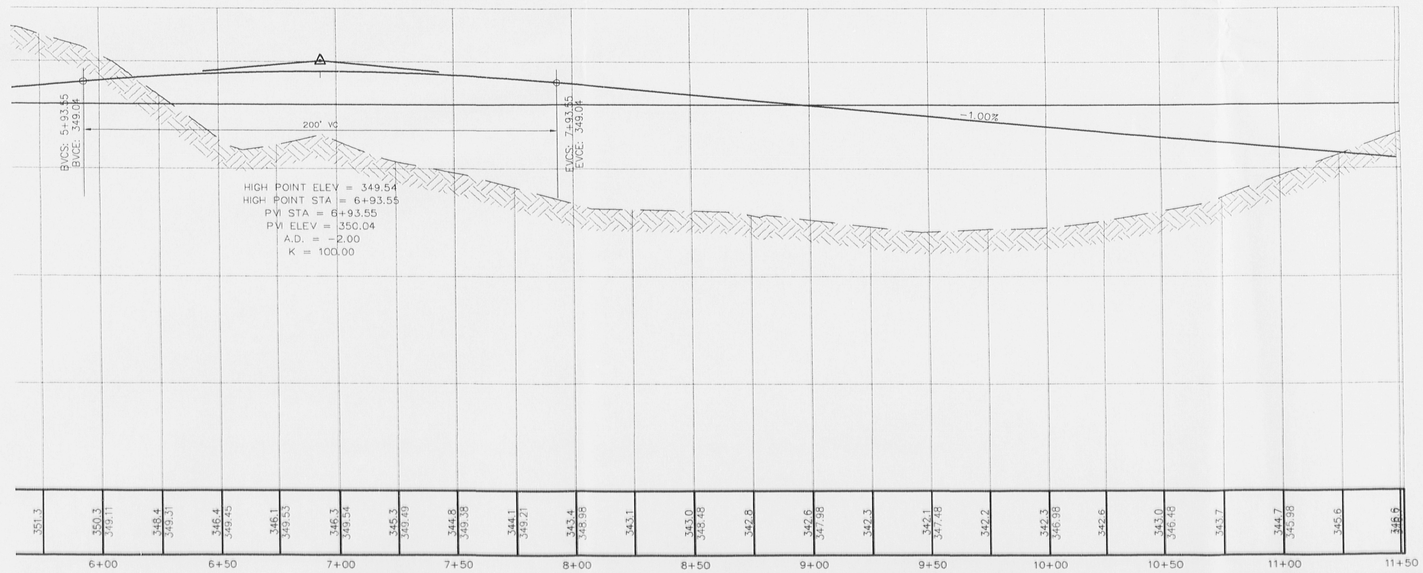


ROAD ENTRANCE DETAIL

NOTES:
1. BLEND TYPE BB CUBING TO MATCH SITE CURBING.



CURB TERMINAL



PROFILE

STA. 5+50 THRU 11+49.80
HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 3'

TOWN OF NEW WINDSOR APPROVAL

APPROVAL GRANTED BY TOWN OF NEW WINDSOR

TOWN APPROVAL BOX

STATE OF NEW YORK · GERALD ZIMMERMAN · No. 47391 · LICENSED PROFESSIONAL ENGINEER

GERALD ZIMMERMAN P.E. LIC. NO. 47391
P.L.S. LIC. NO. 49410

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SHEET NO. 4 OF 8	PROFILE
SCALE: 1" = 30'	SITE PLAN FOR JERRY'S CLIMATE CONTROL
DATE: JANUARY 12, 2007	TOWN OF NEW WINDSOR
JOB NO. 26047 DRAWN BY: J.F.	ORANGE COUNTY, NEW YORK

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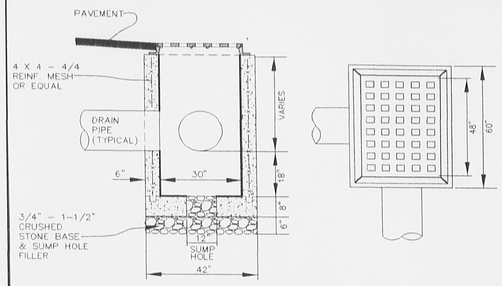
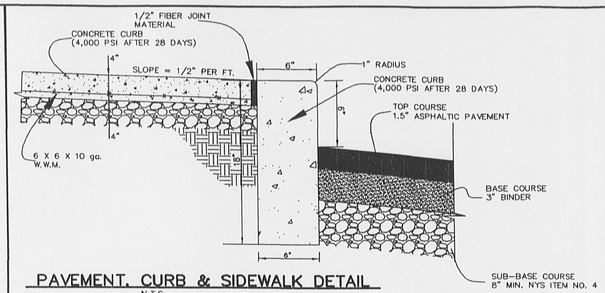


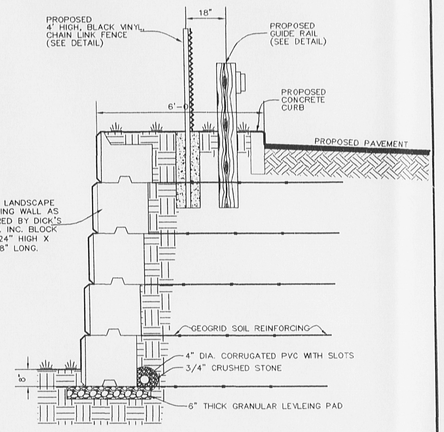
CATCH BASIN DETAIL
N.T.S.

NOTES:
1. CONCRETE TO TEST 4,000 P.S.I. AT 28 DAYS.
2. FRAME & GRATE BY CAMPBELL FOUNDRY MODEL NO. 30B7
3. ALL FRAME & GRATE MATERIALS SHALL CONFORM TO ASTM 48-83-CLASS 30B.
4. FRAME & GRATE TO ASSURE CLOSE, QUIET FIT.
5. CASTINGS SHALL BE DIPPED IN BLACK BITUMINOUS PAINT.
6. FRAME& COVER TO EXCEED A.A.S.H.T.O. H20-S16 HIGHWAY LOADING.



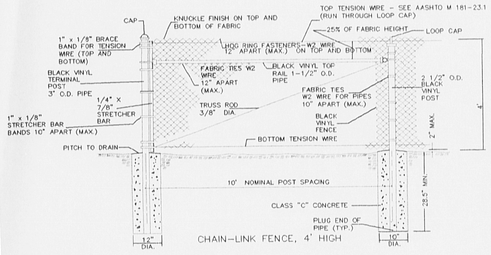
PAVEMENT, CURB & SIDEWALK DETAIL
N.T.S.

NOTES:
1. EXPANSION JOINTS CONSISTING OF 1/2" PRE-MOULDED FIBER JOINT FILLER SHALL BE INSTALLED AT 10' INTERVALS IN CURBING AND SIDEWALKS AND AT JOINTS BETWEEN CURB & SIDEWALK AND SIDEWALK & BUILDING.
2. CONSTRUCTION JOINTS SHALL BE INSTALLED 5' O.C. IN SIDEWALKS.
3. CONCRETE FOR CURBING & SIDEWALKS SHALL TEST TO 4,000 P.S.I. AT 28 DAYS.

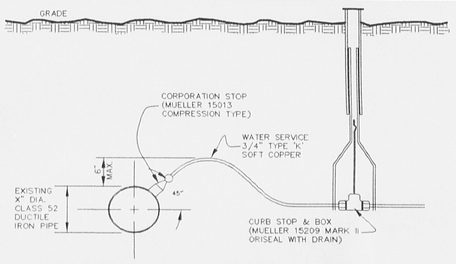


TERRA-CRETE RETAINING WALL
N.T.S.

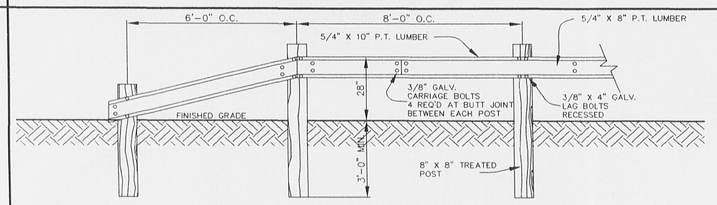
RETAINING WALL DESIGN BY OTHERS.



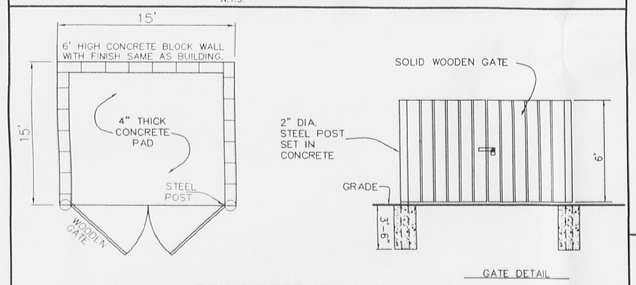
CHAIN LINK FENCE DETAIL
N.T.S.



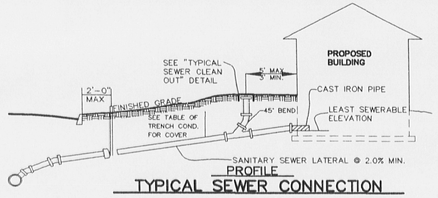
TYPICAL WATER SERVICE DETAIL
N.T.S.



WOODEN GUIDERAIL
N.T.S.



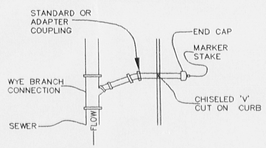
DUMPSTER ENCLOSURE
N.T.S.



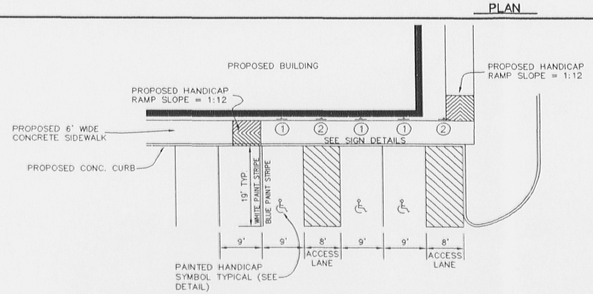
PROFILE

TYPICAL SEWER CONNECTION
N.T.S.

TRENCH CONDITIONS	
COVER	PIPE
1'-0" OR LESS	CAST IRON,EXTRA HEAVY
1'-0" TO 2'-6"	CAST IRON,EXTRA HEAVY
2'-6" TO 11'-0"	PVC, SDR-35

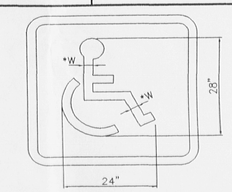


PLAN



HANDICAP RAMP AND PARKING DETAIL
N.T.S.

NOTES:
1. ALL PAINT STRIPING FOR HANDICAP SPACES SHALL BE BLUE.



HANDICAP PAVEMENT MARKING DETAIL
N.T.S.

NOTES:
1. * W = 3"
2. SYMBOL SHALL BE WHITE STRIPE AND BORDER WITH A BLUE BACKGROUND.

(2) NO PARKING ANYTIME SIGN DETAIL
N.T.S.

NOTES:
1. SIGN SHALL BE M.U.T.C.D NO. R7-1
2. BOTTOM OF SIGN SHALL BE AT LEAST 6'-8" ABOVE PAVEMENT SURFACE.

HANDICAP PARKING SIGN DETAIL (1)
N.T.S.

NOTES:
1. SIGN SHALL BE M.U.T.C.D NO. P4-6
2. SIGN SHALL BE PLACED ON BUILDING. BOTTOM OF SIGN SHALL BE AT LEAST 6'-8" ABOVE PAVEMENT SURFACE.

TOWN OF NEW WINDSOR APPROVAL

APPROVAL GRANTED BY TOWN OF NEW WINDSOR

OCT. 2007

By: Mariano Angelino, Supervisor

By: Nan Bonnemann, Secretary

TOWN APPROVAL BOX

STATE OF NEW YORK · GERALD ZIMMERMAN · No. 47391 · LICENSED PROFESSIONAL ENGINEER

GERALD ZIMMERMAN P.E. LIC. NO. 47391
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5. MAY 21, 2007 (P.B. COMMENTS 5-09-07)
6. JUNE 25, 2007 (REVISION DATE ONLY)

SHEET NO. 5 OF 8	DETAILS
SCALE: 1" = 30'	SITE PLAN FOR JERRY'S CLIMATE CONTROL
DATE: JANUARY 12, 2007	TOWN OF NEW WINDSOR
JOB NO. 26047 DRAWN BY: J.F.	ORANGE COUNTY, NEW YORK

ZIMMERMAN ENGINEERING & SURVEYING, P.C.
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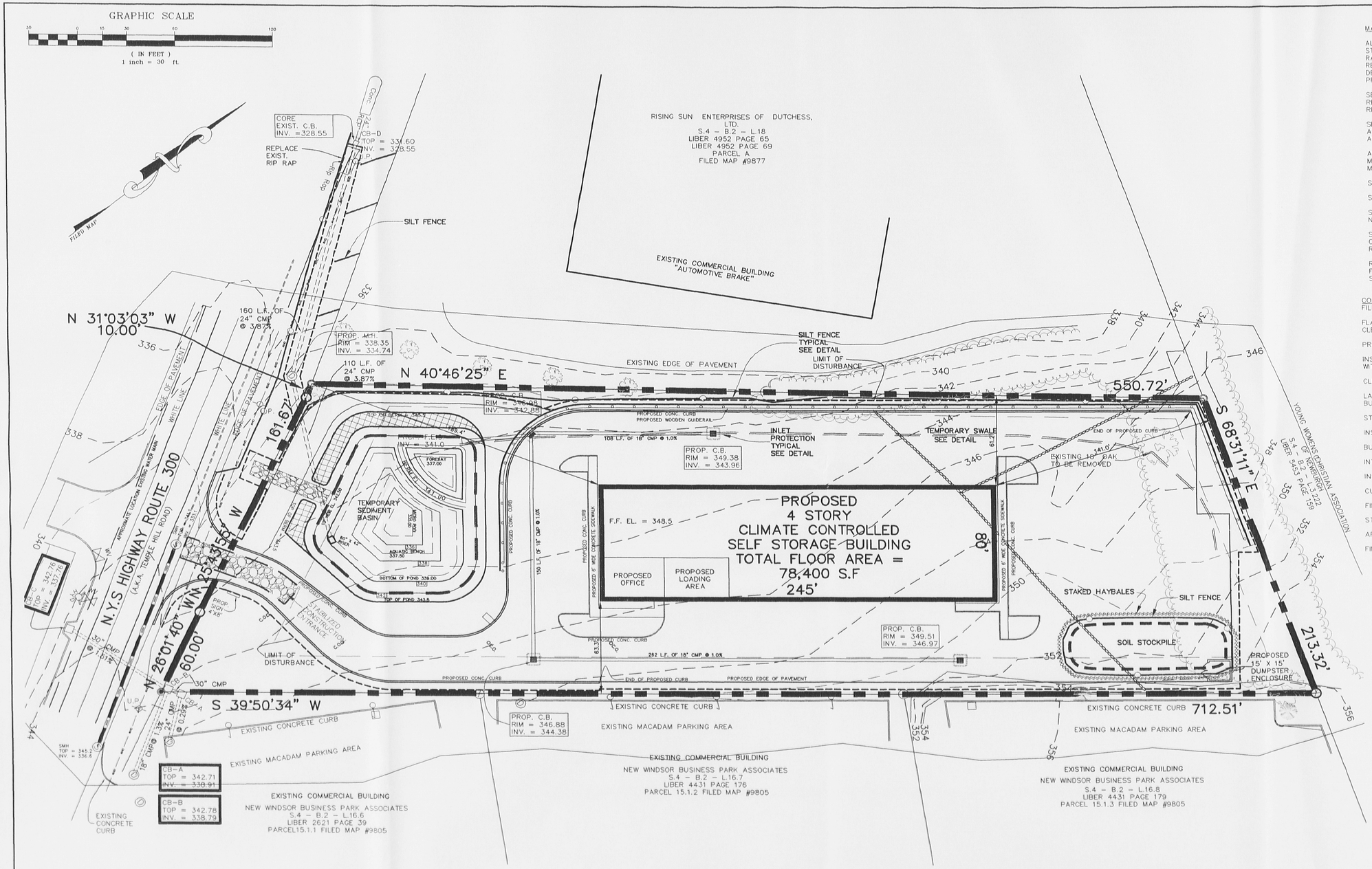

MAINTENANCE SCHEDULE FOR EROSION AND SEDIMENT CONTROL

ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND ORERATION FOLLOWING EVERY RUNOFF PRODUCING RAINFALL BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED AND INSTALLED FOR THEIR APPROPRIATE PHASE OF THE PROJECT.

SEDIMENT TRAPS WILL BE CLEANED OUT WHEN THE LEVEL OF SEDIMENT REACHES 2.0 FT. BELOW THE TOP OF THE RISER. GRAVEL WILL BE REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS PROPERLY.

SEDIMENT WILL BE REMOVED FROM BEHIND THE SILT FENCE WHEN IT ABOUT 0.5 FT. DEEP AT THE FENCE. THE SILT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER.

ALL SEEDED AREAS WILL BE FERTILIZED, RESEEDED AS NECESSARY AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.

STRAW BALE DIKES WILL BE INSPECTED AND REPAIRED AS NOTED ABOVE.

SILT FENCE WILL BE INSPECTED AND REPAIRED AS NOTED ABOVE.

STORM DRAIN INLET PROTECTION WILL BE INSPECTED AND REPAIRED AS NOTED ABOVE.

STABILIZED CONSTRUCTION ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS OF WAY OR STREETS.

ROCK OUTLET PROTECTION SHOULD BE INSPECTED AFTER HIGH FLOWS FOR EVIDENCE OF SCOUR BENEATH THE RIP-RAP OF FOR DISLOGED STONES. REPAIRS SHOULD BE MADE IMMEDIATELY.

CONSTRUCTION SEQUENCE SCHEDULE

FILING OF NOTICE OF INTENT.

FLAG WORK LIMITS & INSTALL CONSTRUCTION FENCING AT CONSTRUCTION CLEARING LIMIT.

PRE-CONSTRUCTION MEETING.

INSTALLATION OF TEMPORARY EROSION AND SEDIMENT CONTROLS STARTING WITH STABILIZED CONSTRUCTION ENTRANCE.

CLEARING AND GRUBBING.

LAND DISTURBANCE INCLUDES ROADWAY GRADING, EXCAVATIONS FOR BUILDING FOOTINGS, SITE DRAINAGE AND PERMANENT STORMWATER PONDS.

STABILIZATION OF LAND DISTURBANCE.

INSTALLATION OF SITE UTILITIES.

BUILDING FOOTING SND FINISHED FLOOR SLAB.

INTERIOR MEP FACILITIES.

INSTALLATION OF PERMANENT STORMWATER PRACTICES.

CURB INSTALLATION.

FINAL GRADING AND INSTALLATION OF BASE COURSE.

STABILIZATION OF FINAL GRADING.

AFTER SITE IS STABILIZED, REMOVE ALL TEMPORARY MEASURES.

FINAL NOTICE OF TERMINATION.

TOWN OF NEW WINDSOR APPROVAL

APPROVAL GRANTED BY TOWN OF NEW WINDSOR

OCT

By: Gerard Applegate, Chairman

By: Nina Estrella-Sgro, Secretary

TOWN APPROVAL BOX

STATE OF NEW YORK · GERALD ZIMMERMAN · No. 47391 · LICENSED PROFESSIONAL ENGINEER

GERALD ZIMMERMAN P.E. LIC. NO. 47391
P.L.S. LIC. NO. 49410

REVISIONS:
1. MAY 21, 2007 (P.B. COMMENTS 5-09-07)
2. JUNE 25, 2007 (NYSDOT DRAINAGE 6-11-07)

EROSION & SEDIMENT CONTROL PLAN

SHEET NO. 6 OF 8	SITE PLAN FOR JERRY'S CLIMATE CONTROL
SCALE: 1" = 30'	TOWN OF NEW WINDSOR
DATE: APRIL 23, 2007	ORANGE COUNTY, NEW YORK
JOB NO. 26047 DRAWN BY: J.F.	

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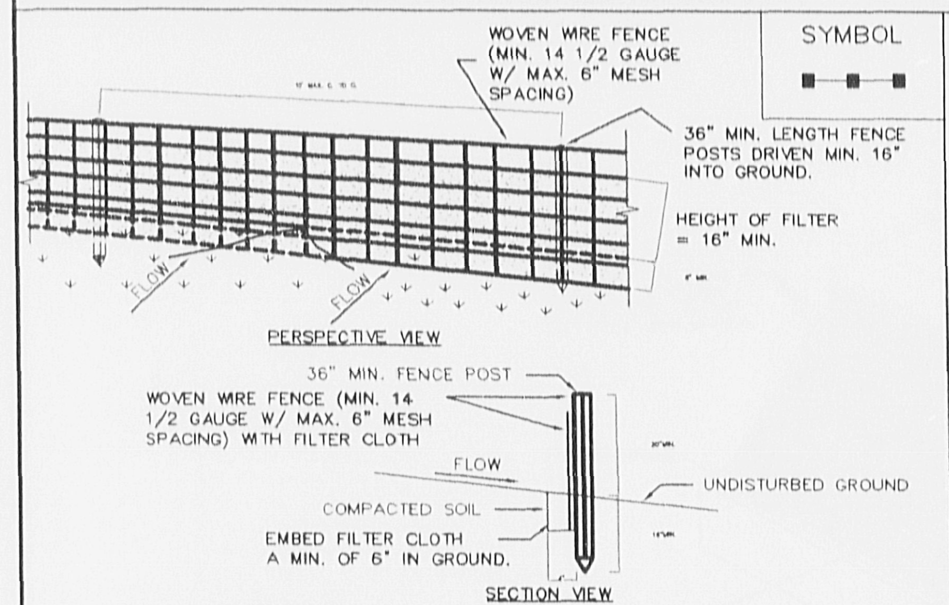
SILT FENCE



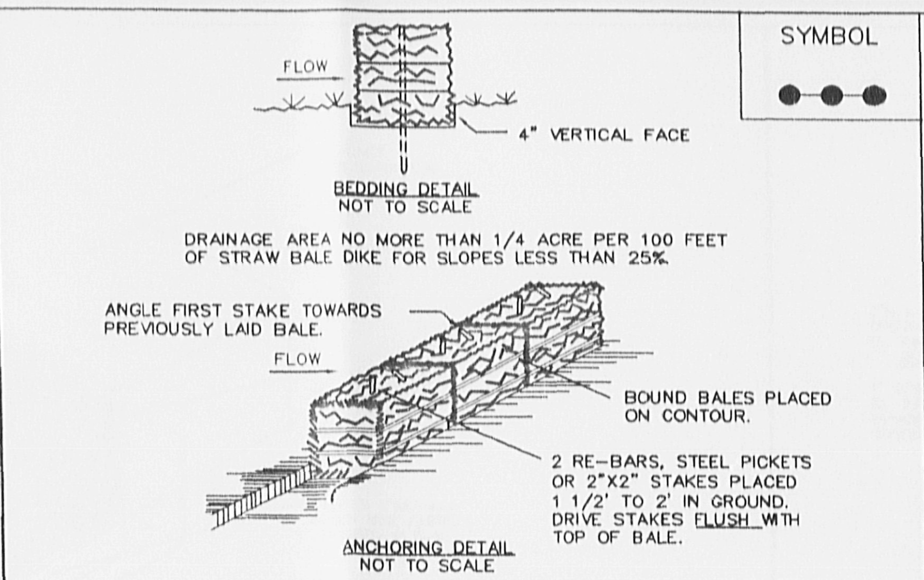
CONSTRUCTION SPECIFICATIONS

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, 12 1/2 GAUGE, 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.

U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

SILT FENCE

STRAW BALE DIKE



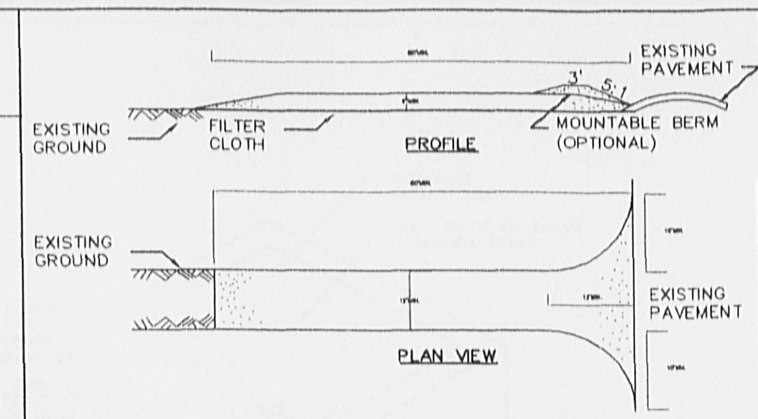
CONSTRUCTION SPECIFICATIONS

1. BALES SHALL BE PLACED AT THE TOE OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF (4) INCHES, AND PLACED SO THE BINDINGS ARE HORIZONTAL.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
4. INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE MADE PROMTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULLNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

STRAW BALE DIKE

STABILIZED CONSTRUCTION ENTRANCE



CONSTRUCTION SPECIFICATIONS

1. STONE SIZE – USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
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 CLOTH – 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 A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

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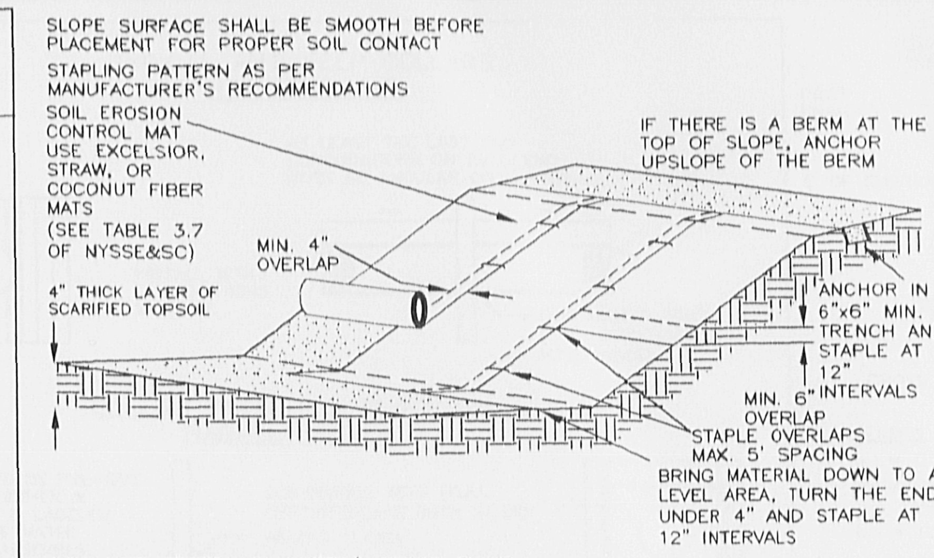
NATURAL RESOURCES CONSERVATION SERVICE
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

STABILIZED CONSTRUCTION ENTRANCE

MULCH MATERIAL SOIL EROSION MAT

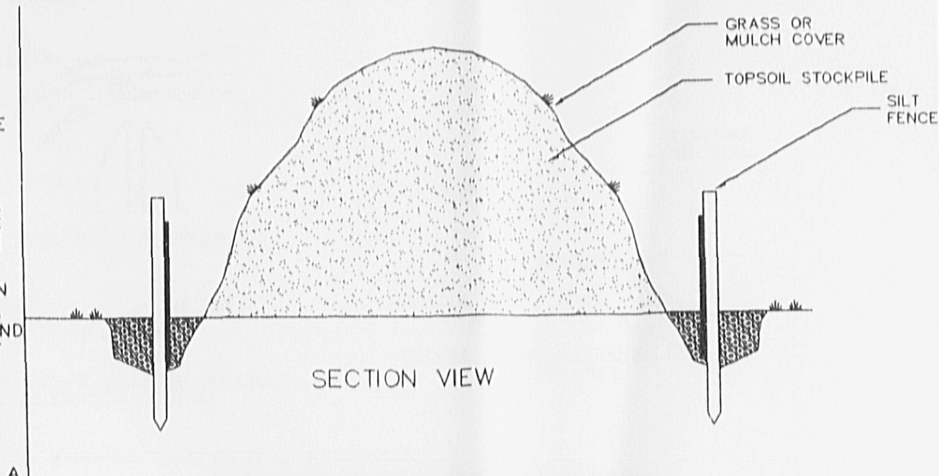


1. DO NOT STRETCH BLANKETS/MATTINGS TIGHT –
2. ALLOW THE ROLLS TO MOLD TO ANY IRREGULARITIES FOR SLOPES LESS THAN 3H:1V, ROLLS MAY BE PLACED IN HORIZONTAL STRIPS
3. LIME, FERTILIZE AND SEED BEFORE INSTALLATION. PLANTING OF SHRUBS, TREES, ETC. SHOULD OCCUR AFTER INSTALLATION.
4. TO BE INSTALLED OVER A MINIMUM OF 4" THICK LAYER OF SCARIFIED TOPSOIL MAXIMUM SLOPE 1H:1V
5. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

HYDROMULCH W/BONDED FIBER MATRIX IS AN ALTERNATE

MULCH MATERIAL SOIL EROSION MAT

TOPSOIL STOCKPILE DETAIL



TOPSOIL REMOVED DURING SITE PREPARATION SHALL BE STOCKPILED ON-SITE FOR FUTURE USE IN SITE RECLAMATION AND REVEGETATION.

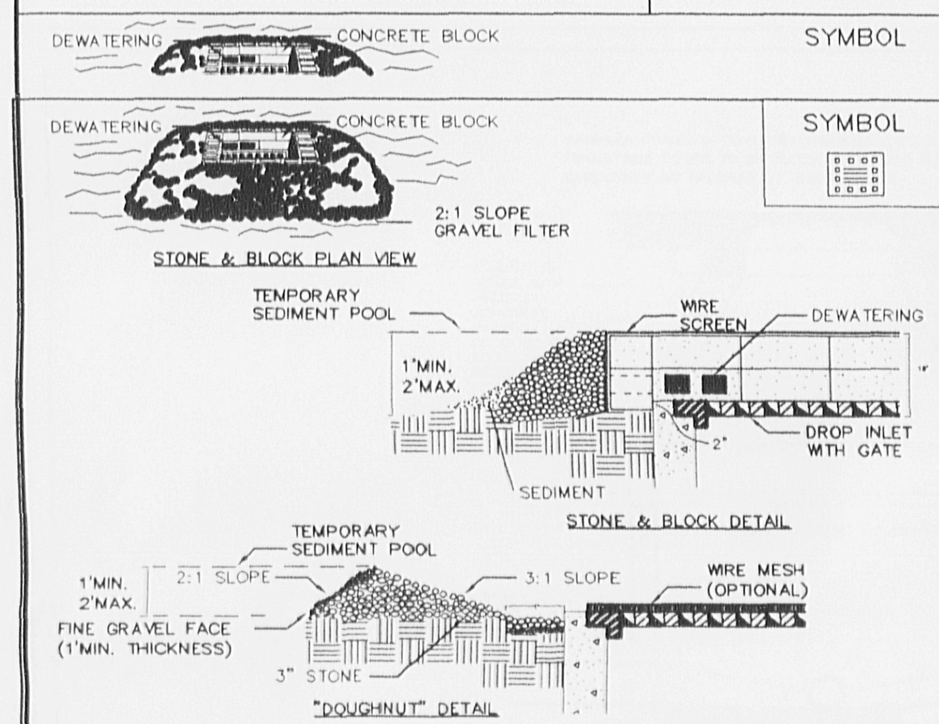
SOIL STOCKPILE SHALL BE ENCIRCLED WITH SILT FENCING WITH PASSAGEWAY PROVIDED FOR EQUIPMENT ACCESS.

PROVIDE TEMPORARY GRASS OR MULCH COVER IF STOCKPILE IS TO REMAIN UNDISTURBED FOR THIRTY DAYS OR MORE. TEMPORARY COVER SHALL CONSIST OF ONE OF THE FOLLOWING MEASURES.

- GRASS SEED (SEE TEMPORARY SEEDING MIXTURE)
- MULCH: 100 LBS. OF STRAW OR HAY/ 1,000 S.F.

TOPSOIL STOCKPILE

STONE & BLOCK DROP INLET PROTECTION



CONSTRUCTION SPECIFICATIONS

1. 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.
2. HARDWARE CLOTH OR 1/2" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.
3. 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.
4. 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.

MAXIMUM DRAINAGE AREA 1 ACRE

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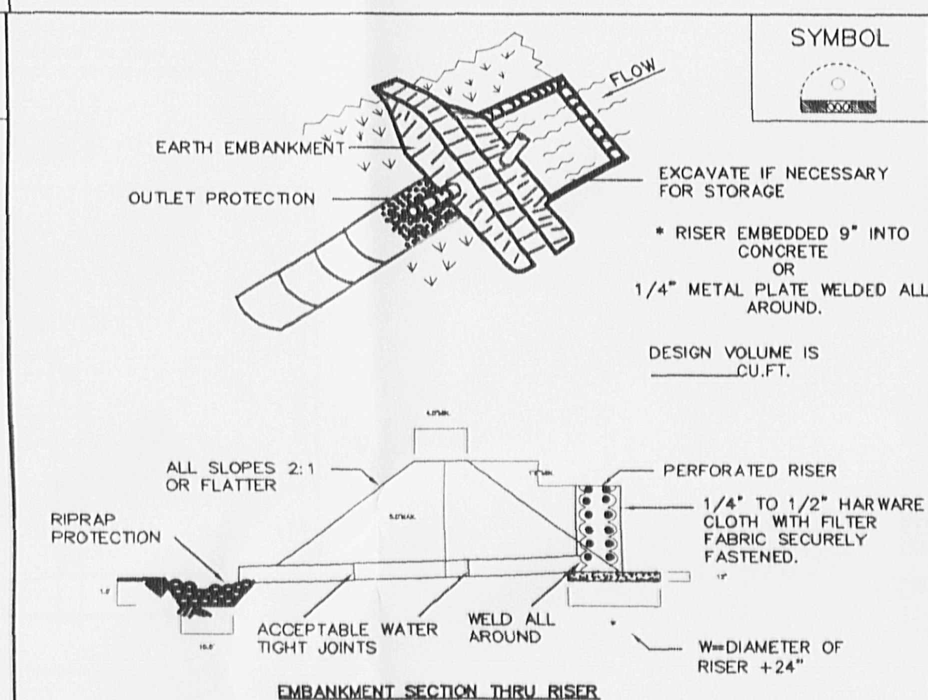
NATURAL RESOURCES CONSERVATION SERVICE
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

STONE & BLOCK DROP INLET PROTECTION

PIPE OUTLET SEDIMENT TRAP ST-1



SIZES OF PIPE NEEDED:

BARREL DIAMETER: ____
RISER DIAMETER: ____

NOTE:
CONSTRUCTION SPECIFICATION SHOULD BE ATTACHED TO THIS DETAIL TO COMPLETE DESIGN.

MAXIMUM DRAINAGE AREA: 5 ACRES

	VOLUME	L	W	Y
A	2,400	40	25	4
B	6,700	60	35	5
C	4,200	45	30	5
D	3,900	60	25	4
E	4,900	50	30	5
F	3,000	45	25	4
G	21,000	80	50	8
H	15,000	60	50	8
I	1,800	45	20	3

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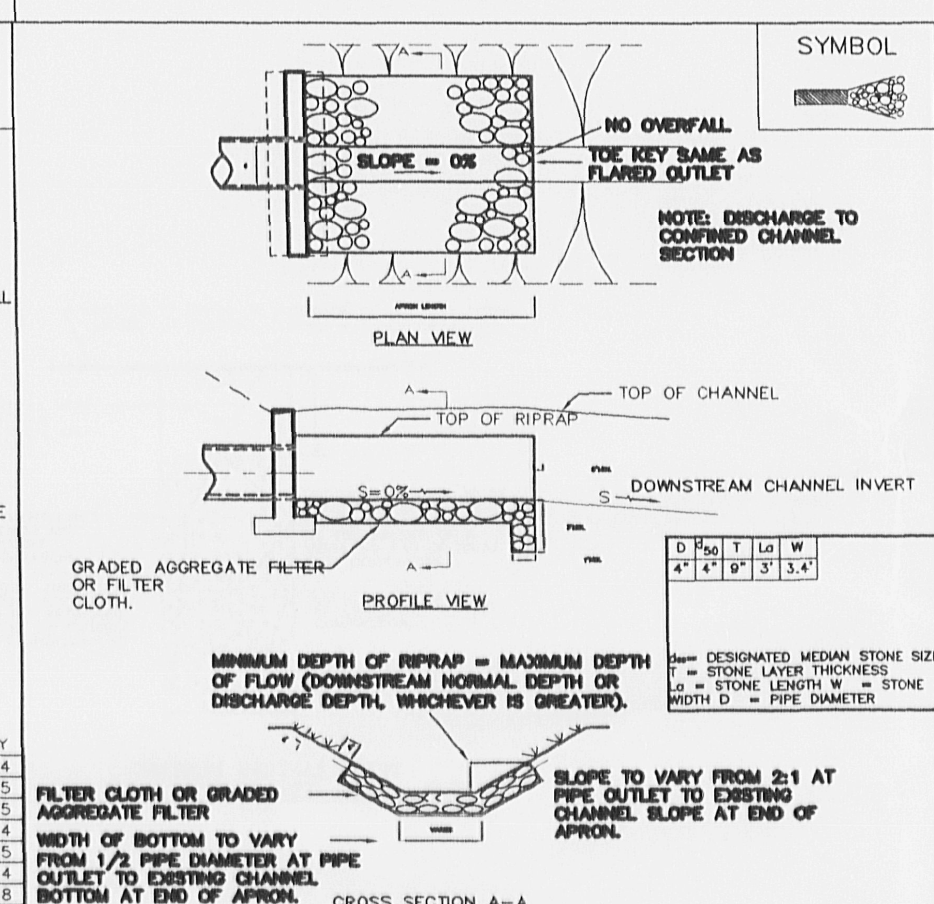
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

PIPE OUTLET SEDIMENT TRAP ST-1

RIPRAP OUTLET PROTECTION EXAMPLE



D	d_{50}	T	La	W
4"	4"	9"	3'	3.4'

d_{50} = DESIGNATED MEDIAN STONE SIZE
T = STONE LAYER THICKNESS
La = STONE LENGTH W = STONE WIDTH D = PIPE DIAMETER

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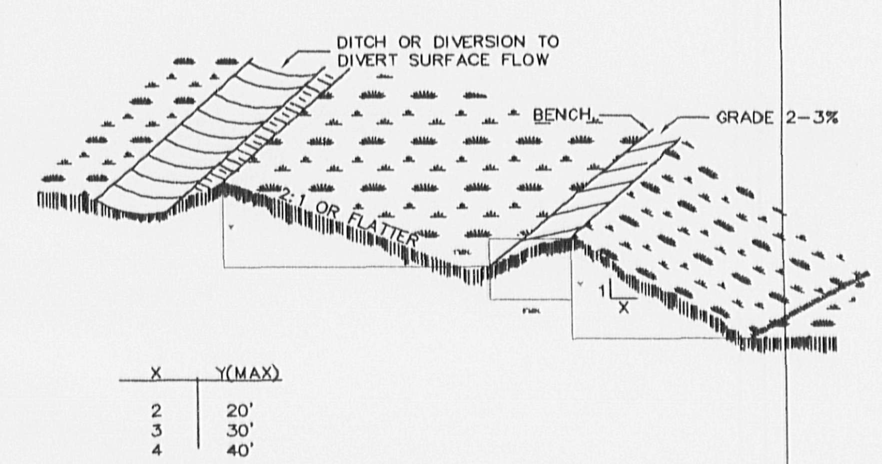
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

RIPRAP OUTLET PROTECTION EXAMPLE

LANDGRADING DETAIL



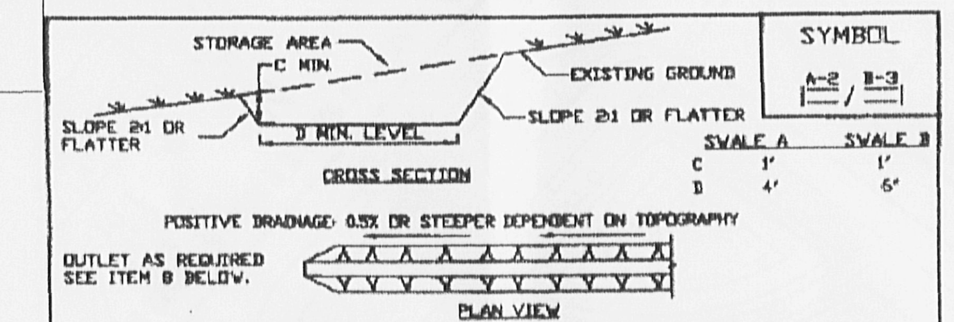
X	Y(MAX)
2	20'
3	30'
4	40'

(SEE SWPPP FOR SPECIFICATION)

U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

LANDGRADING DETAIL

Figure 5A.2 Temporary Swale



	SWALE A	SWALE B
C	1'	1'
D	4'	6'

CONSTRUCTION SPECIFICATIONS

1. ALL TEMPORARY SWALES SHALL HAVE UNINTERUPTED 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 DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSIVE VELOCITY.
4. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
5. THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
6. FILLS SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.
7. ALL EARTH REMOVED AND NOT NEEDED FOR CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE SWALE.
8. STABILIZATION SHALL BE AS PER THE FLOW CHANNEL STABILIZATION CHART BELOW:

TYPE OF TREATMENT	CHANNEL GRADE	A/5 AC. OR LESS	5/5 AC. -10AC
1	0.5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED AND COVER USING RECP
3	5.1-8.0%	SEED AND COVER WITH RECP	LINED WITH 4-8" RIP-RAP OR GEOTEXTILE
4	8.1-20.%	LINED WITH 4-8" RIP-RAP OR GEOTEXTILE	ENGINEERED DESIGN

9. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS,
NEW YORK STATE DEPARTMENT OF TRANSPORTATION,
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION,
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

TEMPORARY SWALE

August 2005 Page 5A.5 New York Standards and Specifications For Erosion and Sediment Control

PIPE OUTLET SEDIMENT TRAP ST-I

CONSTRUCTION SPECIFICATIONS

SYMBOL

1. AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED.
2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS OR 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.
3. VOLUME OF SEDIMENT STORAGE SHALL BE 1800 CUBIC FEET PER ACRE OF CONTRIBUTORY DRAINAGE.
4. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
5. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
6. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION ARE MINIMIZED.
7. THE STRUCTURE SHALL BE REMOVED AND AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
8. ALL FILL SLOPES SHALL BE 2:1 OR FLATTER; CUT SLOPES 1:1 OR FLATTER.
9. ALL PIPE CONNECTIONS SHALL BE WATERTIGHT.
10. THE TOP 2/3 OF THE RISER SHALL BE PERFORATED WITH ONE (1) INCH DIAMETER HOLES OR SLITS SPACED SIX (6) INCHES VERTICALLY AND HORIZONTALLY AND PLACED IN THE CONCAVE PORTION OF PIPE. NO HOLES WILL BE ALLOWED WITHIN SIX (6) INCHES OF THE HORIZONTAL BARREL.
11. THE RISER SHALL BE WRAPPED WITH 1/4 TO 1/2 INCH HARDWARE CLOTH WIRE THEN WRAPPED WITH FILTER CLOTH (HAVING AN EQUIVALENT SIEVE SIZE OF 40-80). THE FILTER CLOTH SHALL EXTEND SIX (6) INCHES ABOVE THE HIGHEST HOLE AND SIX (6) INCHES BELOW THE LOWEST HOLE. WHERE ENDS OF THE FILTER CLOTH COME TOGETHER, THEY SHALL BE OVER-LAPPED, FOLDED AND STAPLED TO PREVENT BYPASS.
12. STRAPS OR CONNECTING BANDS SHALL BE USED TO HOLD THE FILTER CLOTH AND WIRE FABRIC IN PLACE. THEY SHALL BE PLACED AT THE TOP AND BOTTOM OF THE CLOTH.
13. FILL MATERIAL AROUND THE PIPE SPILLWAY SHALL BE HAND COMPACTED IN FOUR (4) INCH LAYERS. A MINIMUM OF TWO (2) FEET OF HAND COMPACTED BACKFILL SHALL BE PLACED OVER THE PIPE SPILLWAY BEFORE CROSSING IT WITH CONSTRUCTION EQUIPMENT.
14. THE RISER SHALL BE ANCHORED WITH EITHER A CONCRETE BASE OR STEEL PLATE BASE TO PREVENT FLOTATION. FOR CONCRETE BASED THE DEPTH SHALL BE TWELVE (12) INCHES WITH THE RISER EMBEDDED NINE (9) INCHES. A 1/4 INCH MINIMUM THICKNESS STEEL PLATE SHALL BE ATTACHED TO THE RISER BY A CONTINUOUS WELD AROUND THE BOTTOM TO FORM A WATERTIGHT CONNECTION AND THEN PLACE TWO (2) FEET OF STONE, GRAVEL, OR TAMPED EARTH ON THE PLATE.

U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

PIPE OUTLET SEDIMENT TRAP ST-I

TOWN APPROVAL BOX

TOWN OF NEW WINDSOR APPROVAL
APPROVAL GRANTED BY TOWN OF NEW WINDSOR
OCT
By: Genaro Argenio, Chairman
By: Neil Schlesinger, Secretary

GERALD ZIMMERMAN P.E. LIC. NO. 47391
P.L.S. LIC. NO. 49410

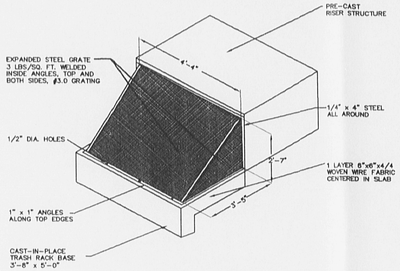
REVISIONS:
1. MAY 21, 2007 (P.B. COMMENTS 5-09-07)
2. JUNE 25, 2007 (REVISION DATE ONLY)

EROSION & SEDIMENT CONTROL DETAILS

SHEET NO. 7 OF 8
SCALE:
DATE: APRIL 23, 2007
JOB NO. 2647 DRAWN BY: J.F.

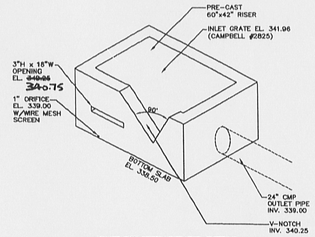
SITE PLAN FOR JERRY'S CLIMATE CONTROL
TOWN OF NEW WINDSOR
ORANGE COUNTY, NEW YORK

ZIMMERMAN ENGINEERING & SURVEYING, P.C.
148 ROUTE 17M
HARRIMAN, NEW YORK 10926
PHONE: (845) 782-7976 FAX: (845) 782-3148 E-MAIL: zimeng@frontiernet.net



EXPANDED TRASH RACK DETAIL

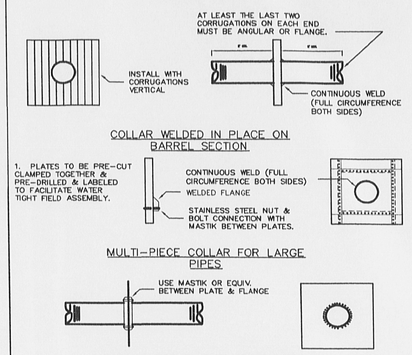
	EXPANDED TRASH RACK



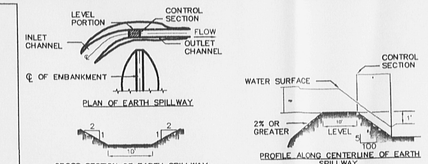
OUTLET STRUCTURE DETAIL

	OUTLET STRUCTURE

TYPICAL ANTI SEEP COLLARS
NOT TO SCALE



U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE	ANTI SEEP COLLAR



LEGEND

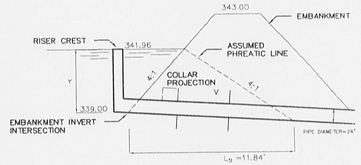
n = 0.20, MANNING'S COEFFICIENT OF ROUGHNESS.

Hp = DIFFERENCE IN ELEVATION BETWEEN CREST OF EARTH SPILLWAY AT THE CONTROL SECTION AND WATER SURFACE IN RESERVOIR, IN FEET.

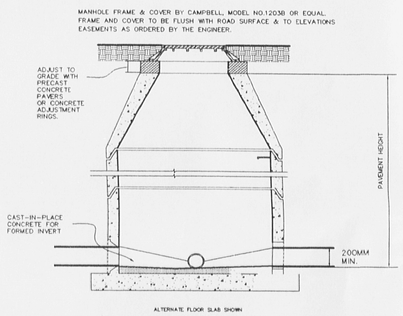
b = 10', BOTTOM WIDTH OF EARTH SPILLWAY AT THE CONTROL SECTION, IN FEET.

Q = N.A. (EMERGENCY SPILLWAY) TOTAL DISCHARGE, IN cfs.

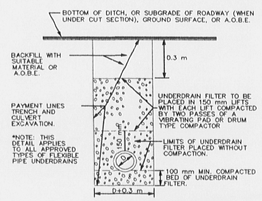
V = VELOCITY IN FEET PER SECOND, THAT WILL EXIST IN CHANNEL BELOW CONTROL SECTION, AT DESIGN Q, IF CONSTRUCTED TO SLOPE (S) THAT IS SHOWN.



U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE	DESIGN DATA FOR EARTH SPILLWAYS

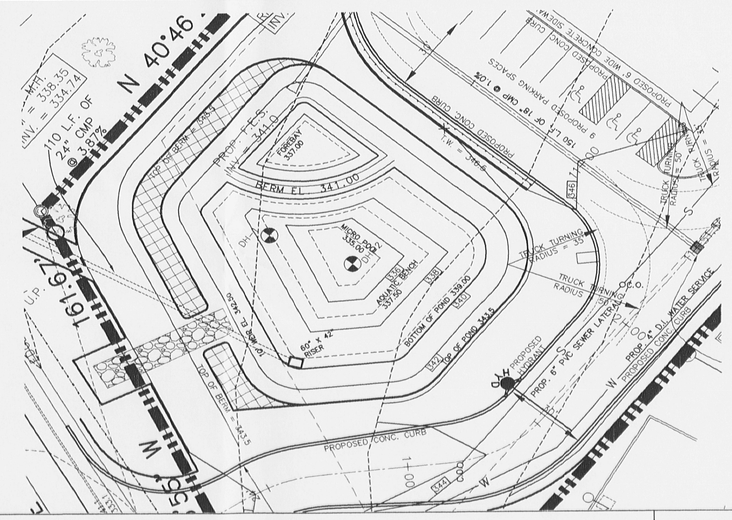


PRECAST ROUND MANHOLE
N.T.S.
NYSDOT TYPE 4B
SEE NYSDOT STANDARD SHEET M604-8R1



TRENCH INSTALLATION FOR CORRUGATED METAL PIPE
N.T.S.

NYSDOT DETAILS



1" = 40'	DETENTION POND PLAN

TOWN OF NEW WINDSOR APPROVAL
APPROVAL GRANTED BY TOWN OF NEW WINDSOR
OCT
By: Director of Planning
By: Town Engineer or Secretary

TOWN APPROVAL BOX

GERALD ZIMMERMAN P.E. LIC. NO. 47391
P.L.S. LIC. NO. 49410

REVISIONS:
1. MAY 21, 2007 (P.B. COMMENTS 5-09-07)
2. JUNE 25, 2007 (NYSDOT DRAINAGE 6-11-07)

STORMWATER CONTROL PRACTICE PLAN & DETAILS

SHEET NO. 8 OF 8	SITE PLAN FOR JERRY'S CLIMATE CONTROL
SCALE:	
DATE: APRIL 23, 2007	TOWN OF NEW WINDSOR
JOB NO. 2647 DRAWN BY: J.F.	ORANGE COUNTY, NEW YORK

ZIMMERMAN ENGINEERING & SURVEYING, P.C.
148 ROUTE 17M
HARRIMAN, NEW YORK 10926
PHONE: (845) 782-7976 FAX:(845) 782-3148 E-MAIL: zimeng@frontiernet.net

GRAPHIC SCALE

(IN FEET)
1 inch = 30 ft.

FILED MAP

RISING SUN ENTERPRISES OF DUTCHESS, LTD.
S.4 – B.2 – L.18
LIBER 4952 PAGE 65
LIBER 4952 PAGE 69
PARCEL A
FILED MAP #9877

EXISTING COMMERCIAL BUILDING "AUTOMOTIVE BRAKE"

N 31°03'03" W
10.00'

N 40°46'25" E

161.64'

EXISTING EDGE OF PAVEMENT

PROPOSED RETAINING WALL

550.72'

S 68°31'11" E

213.32'

712.51'

S 39°50'34" W

N 26°01'40" W

N 25°43'55" W

60.00'

N.Y.S HIGHWAY ROUTE 300
(A.K.A. TEMPLE HILL ROAD)

EDGE OF PAVEMENT
WHITE LINE

PROP. C.B.
RIM = 348.38
INV. = 342.88

PROP. F.E.S.
INV. = 341.0

PROP. C.B.
RIM = 349.38
INV. = 343.96

PROP. C.B.
RIM = 349.51
INV. = 346.97

PROP. C.B.
RIM = 346.88
INV. = 344.38

108 L.F. OF 18" CMP @ 1.0%

262 L.F. OF 18" CMP @ 1.0%

118 L.F. OF
24" CMP @ 0.4%

30" CMP

PROPOSED CONC. CURB
PROPOSED WOODEN GUIDERAIL

NON CLIMATE CONTROLLED GARAGE UNITS

PROPOSED
4 STORY
CLIMATE CONTROLLED
SELF STORAGE BUILDING
TOTAL FLOOR AREA =
78,400 S.F
245'

80'

F.F. EL. = 348.5

PROPOSED OFFICE

PROPOSED LOADING AREA

NON CLIMATE CONTROLLED GARAGE UNITS

PROPOSED CONC. CURB

PROPOSED CONC. SIDEWALK

PROPOSED 6' WIDE CONCRETE SIDEWALK

PROPOSED PARKING SPACES

END OF PROPOSED CURB

PROPOSED EDGE OF PAVEMENT

PROPOSED 15' X 15' DUMPSTER ENCLOSURE

PROPOSED WATER SERVICE

PROPOSED HYDRANT

PROPOSED SEWER LATERAL

EXISTING CONCRETE CURB

EXISTING MACADAM PARKING AREA

EXISTING COMMERCIAL BUILDING
NEW WINDSOR BUSINESS PARK ASSOCIATES
S.4 – B.2 – L.16.7
LIBER 4431 PAGE 176
PARCEL 15.1.2 FILED MAP #9805

EXISTING COMMERCIAL BUILDING
NEW WINDSOR BUSINESS PARK ASSOCIATES
S.4 – B.2 – L.16.8
LIBER 4431 PAGE 179
PARCEL 15.1.3 FILED MAP #9805

EXISTING COMMERCIAL BUILDING
NEW WINDSOR BUSINESS PARK ASSOCIATES
S.4 – B.2 – L.16.6
LIBER 2621 PAGE 39
PARCEL15.1.1 FILED MAP #9805

YOUNG WOMENS CHRISTIAN ASSOCIATION OF NEWBURGH
S.4 – B.2 – L.22
LIBER 5453 PAGE 159

CB-A
TOP = 342.71
INV. = 338.91

CB-B
TOP = 342.78
INV. = 338.79

CB-D
TOP = 342.78
INV. = 337.78

SMH
TOP = 345.2
INV. = 336.6

DEEP HOLE RESULTS

DH–1
0 TO 6" TOPSOIL
6" TO 4'–3" BROWN CLAY LOAM
4'–3" TO 8'–2" BROWN CLAY LOAM W/ RUST & GRAY MOTTLING
GROUNDWATER SEEPAGE @ 4'–3"

DH–2
0 TO 4" TOPSOIL
4" TO 4'–0" BROWN CLAY LOAM
4'–0" TO 5'–0" GRAY CLAY W/ RUST MOTTLING
5'–0" TO 8'–0 BROWN CLAY LOAM
GROUNDWATER SEEPAGE @ 5'–0"

PARKING ANALYSIS

AS PER SECTION 300–60 MINIMUM OFF–STREET PARKING REQUIREMENTS (D–44, MINI WAREHOUSES)

1 SPACE PER 10 UNITS
550 UNITS

1/10 X 550 = 55 SPACES REQUIRED
55 SPACES PROVIDED FOR CUSTOMER PARKING
10 ADDITIONAL OUTDOOR STORAGE SPACES PROVIDED
65 TOTAL SPACES SHOWN ON PLAN

TOWN OF NEW WINDSOR APPROVAL

TOWN APPROVAL BOX

GERALD ZIMMERMAN P.E. LIC. NO. 47391
P.L.S. LIC. NO. 49410

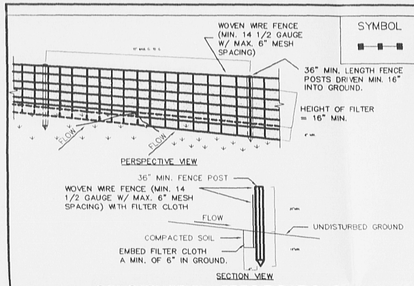
REVISIONS:
1. FEBRUARY 06, 2007 (WORKSHOP COMMENTS)
2. FEBRUARY 09, 2007 (WORKSHOP COMMENTS 2–7–07)
3. APRIL 17, 2007 (P.B. COMMENTS 2–28–07)
4. APRIL 23, 2007

SHEET NO. SW–6
SCALE: 1" = 30'
DATE: JANUARY 12, 2007
JOB NO. 26047 DRAWN BY: J.F.

SITE PLAN
FOR
JERRY'S CLIMATE CONTROL
TOWN OF NEW WINDSOR
ORANGE COUNTY, NEW YORK

ZIMMERMAN ENGINEERING & SURVEYING, P.C.
148 ROUTE 17M
HARRIMAN, NEW YORK 10926
PHONE: (845) 782–7976 FAX: (845) 782–3148 E–MAIL: zimeng@frontiernet.net

G:\Renovation\Documents\Hydrology\Hydraflow\Sabini Route 300\SITE PLAN.dwg, 4/23/2007 4:55:42 PM

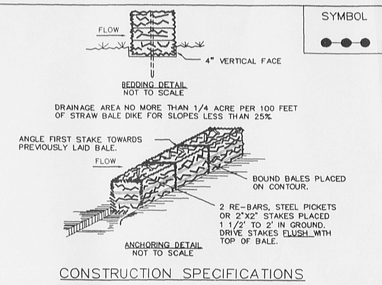


CONSTRUCTION SPECIFICATIONS

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, 12 1/2 GAUGE, 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.

U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

SILT FENCE

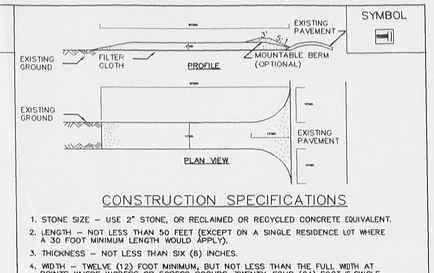


CONSTRUCTION SPECIFICATIONS

1. BALES SHALL BE PLACED AT THE TOE OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF (4) INCHES, AND PLACED SO THE BINDINGS ARE HORIZONTAL.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
4. INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE MADE PROMTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULLNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

STRAW BALE DIKE



CONSTRUCTION SPECIFICATIONS

1. STONE SIZE – USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
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 CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CON-STRUCTION 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 A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

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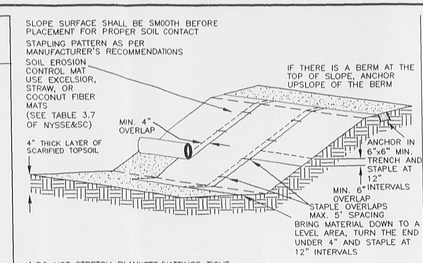
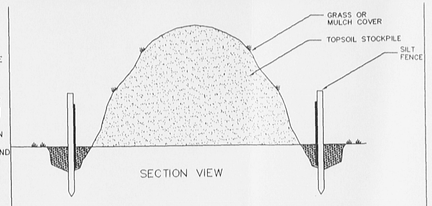
STABILIZED CONSTRUCTION ENTRANCE



1. DO NOT STRETCH BLANKETS/MATTINGS TIGHT –
2. ALLOW THE ROLLS TO MOLD TO ANY IRREGULARITIES FOR SLOPES LESS THAN 3H:1V, ROLLS MAY BE PLACED IN HORIZONTAL STRIPS
3. LIME, FERTILIZE AND SEED BEFORE INSTALLATION. PLANTING OF SHRUBS, TREES, ETC. SHOULD OCCUR AFTER INSTALLATION.
4. TO BE INSTALLED OVER A MINIMUM OF 4" THICK LAYER OF SCARIFIED TOPSOIL
MAXIMUM SLOPE 1H:1V
5. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

HYDROMULCH W/BONDED FIBER MATRIX IS AN ALTERNATE

MULCH MATERIAL SOIL EROSION MAT



TOPSOIL STOCKPILE DETAIL

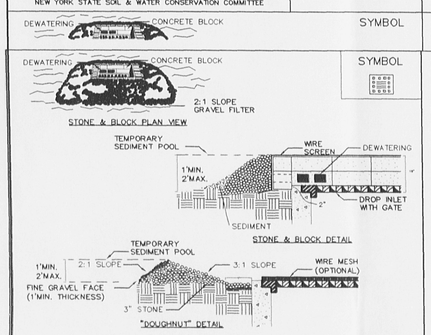
TOPSOIL REMOVED DURING SITE PREPARATION SHALL BE STOCKPILED ON-SITE FOR FUTURE USE IN SITE RECLAMATION AND REVEGETATION.

SOIL STOCKPILE SHALL BE ENCIRCLED WITH SILT FENCING WITH PASSAGEWAY PROVIDED FOR EQUIPMENT ACCESS.

PROVIDE TEMPORARY GRASS OR MULCH COVER IF STOCKPILE IS TO REMAIN UNDISTURBED FOR THIRTY DAYS OR MORE. TEMPORARY COVER SHALL CONSIST OF ONE OF THE FOLLOWING MEASURES.

- GRASS SEED (SEE TEMPORARY SEEDING MIXTURE)
- MULCH: 100 LBS. OF STRAW OR HAY / 1,000 S.F.

TOPSOIL STOCKPILE



CONSTRUCTION SPECIFICATIONS

1. 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.
2. HARDWARE CLOTH OR 1/2" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.
3. 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.
4. 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.

MAXIMUM DRAINAGE AREA 1 ACRE

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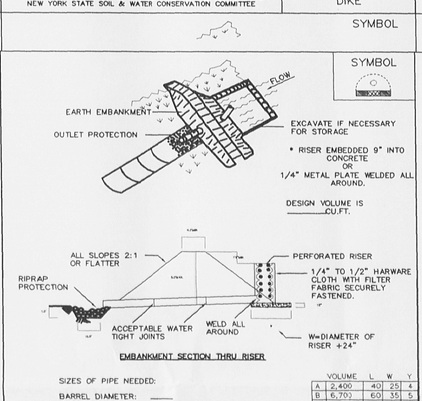
STONE & BLOCK DROP INLET PROTECTION



SIZES OF PIPE NEEDED:

BARREL DIAMETER: ____

RISER DIAMETER: ____

NOTE:
CONSTRUCTION SPECIFICATION SHOULD BE ATTACHED TO THIS DETAIL TO COMPLETE DESIGN.

MAXIMUM DRAINAGE AREA: 5 ACRES

	VOLUME	L	W	Y
A	2,400	40	25	4
B	6,700	60	35	5
C	4,200	45	30	5
D	3,900	60	25	4
E	4,900	50	30	5
F	3,000	45	25	4
G	21,000	80	50	8
H	15,000	60	50	8
I	1,800	45	20	3

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PIPE OUTLET SEDIMENT TRAP ST-1

SYMBOL

CONSTRUCTION SPECIFICATIONS

1. AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED.
2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS OR 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.
3. VOLUME OF SEDIMENT STORAGE SHALL BE 1800 CUBIC FEET PER ACRE OF CONTRIBUTORY DRAINAGE.
4. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
5. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
6. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION ARE MINIMIZED.
7. THE STRUCTURE SHALL BE REMOVED AND AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
8. ALL FILL SLOPES SHALL BE 2:1 OR FLATTER; CUT SLOPES 1:1 OR FLATTER.
9. ALL PIPE CONNECTIONS SHALL BE WATERTIGHT.
10. THE TOP 2/3 OF THE RISER SHALL BE PERFORATED WITH ONE (1) INCH DIAMETER HOLES OR SLITS SPACED SIX (6) INCHES VERTICALLY AND HORIZONTALLY AND PLACED IN THE CONCAVE PORTION OF PIPE. NO HOLES WILL BE ALLOWED WITHIN SIX (6) INCHES OF THE HORIZONTAL BARREL.
11. THE RISER SHALL BE WRAPPED WITH 1/4 TO 1/2 INCH HARDWARE CLOTH WIRE THEN WRAPPED WITH FILTER CLOTH (HAVING AN EQUIVALENT SIEVE SIZE OF 40-80). THE FILTER CLOTH SHALL EXTEND SIX (6) INCHES ABOVE THE HIGHEST HOLE AND SIX (6) INCHES BELOW THE LOWEST HOLE. WHERE ENDS OF THE FILTER CLOTH COME TOGETHER, THEY SHALL BE OVER-LAPPED, FOLDED AND STAPLED TO PREVENT BYPASS.
12. STRAPS OR CONNECTING BANDS SHALL BE USED TO HOLD THE FILTER CLOTH AND WIRE FABRIC IN PLACE. THEY SHALL BE PLACED AT THE TOP AND BOTTOM OF THE CLOTH.
13. FILL MATERIAL AROUND THE PIPE SPILLWAY SHALL BE HAND COMPACTED IN FOUR (4) INCH LAYERS. A MINIMUM OF TWO (2) FEET OF HAND COMPACTED BACKFILL SHALL BE PLACED OVER THE PIPE SPILLWAY BEFORE CROSSING IT WITH CONSTRUCTION EQUIPMENT.
14. THE RISER SHALL BE ANCHORED WITH EITHER A CONCRETE BASE OR STEEL PLATE. BASE TO PREVENT FLOTATION. FOR CONCRETE BASED THE DEPTH SHALL BE TWELVE (12) INCHES WITH THE RISER EMBEDDED NINE (9) INCHES. A 1/4 INCH MINIMUM THICKNESS STEEL PLATE SHALL BE ATTACHED TO THE RISER BY A CONTINUOUS WELD AROUND THE BOTTOM TO FORM A WATERTIGHT CONNECTION AND THEN PLACE TWO (2) FEET OF STONE, GRAVEL, OR TAMPED EARTH ON THE PLATE.

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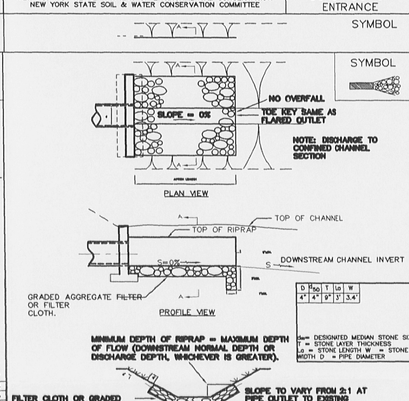
PIPE OUTLET SEDIMENT TRAP ST-1



D50 = DESIGNED MEDIAN STONE SIZE
T = STONE LAYER THICKNESS
Lo = STONE LENGTH W = STONE WIDTH D = PIPE DIAMETER

D	D50	T	Lo	W
4"	4"	9"	3'	3.4'

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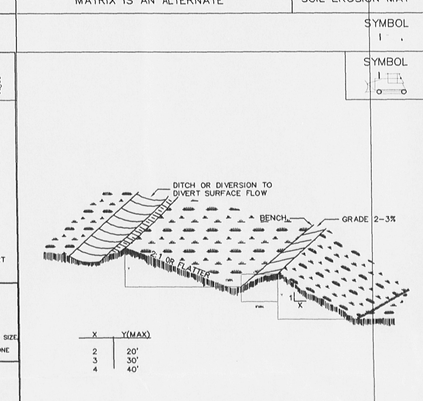
RIPRAP OUTLET PROTECTION EXAMPLE



X	Y(MAX)
2	20'
3	30'
4	40'

(SEE SWPPP FOR SPECIFICATION)

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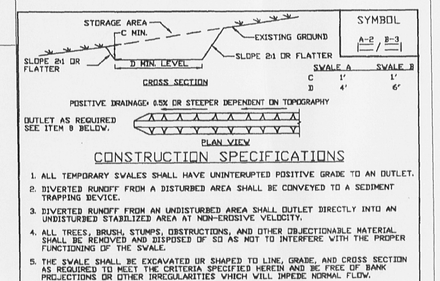
LANDGRADING DETAIL

Figure 5A.2
Temporary Swale



	SWALE A	SWALE B
C	1'	1'
D	4'	6'

CONSTRUCTION SPECIFICATIONS

1. ALL TEMPORARY SWALES SHALL HAVE UNINTERUPTED 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 DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSIVE VELOCITY.
4. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
5. THE SWALE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
6. FILLS SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.
7. ALL EARTH REMOVED AND NOT NEEDED FOR CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE SWALE.
8. STABILIZATION SHALL BE AS PER THE FLOW CHANNEL STABILIZATION CHART BELOW:

TYPE OF TREATMENT	CHANNEL GRADE	ACS AC. OR LESS	ACS AC. -(MAX)
1	0.5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED AND COVER USING RECP
3	5.1-8.0%	SEED AND COVER WITH RECP	LINED WITH 4-8" RIP-RAP OR GEOTEXTILE
4	8.1-20.%	LINED WITH 4-8" RIP-RAP OR GEOTEXTILE	ENGINEERED DESIGN

9. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

ADAPTED FROM DETAILS PROVIDED BY USDA – NRCS,
NEW YORK STATE DEPARTMENT OF TRANSPORTATION,
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION,
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

TEMPORARY SWALE

TOWN APPROVAL BOX

TOWN OF NEW WINDSOR APPROVAL

GERALD ZIMMERMAN P.E. LIC. NO. 47391
P.L.S. LIC. NO. 49410

REVISIONS:

EROSION & SEDIMENT CONTROL DETAILS

SHEET NO. SW-5

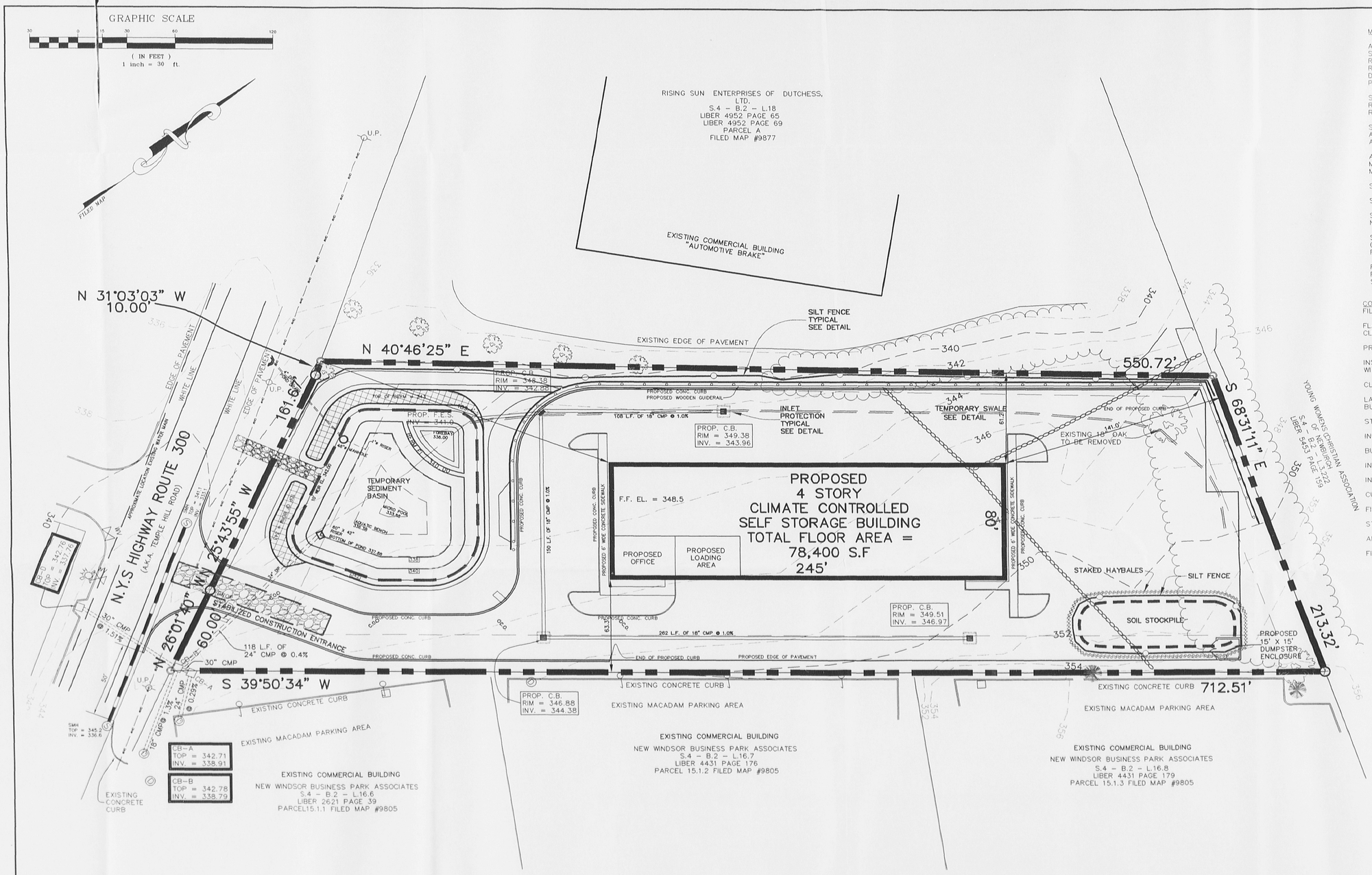
SCALE:

DATE: APRIL 23, 2007

JOB NO. 2647 DRAWN BY: J.F.

SITE PLAN
FOR
JERRY'S CLIMATE CONTROL
TOWN OF NEW WINDSOR
ORANGE COUNTY, NEW YORK

ZIMMERMAN ENGINEERING & SURVEYING, P.C.
148 ROUTE 17M
HARRIMAN, NEW YORK 10926
PHONE: (845) 782-7976 FAX: (845) 782-3148 E-MAIL: zimeng@frontiernet.net



MAINTENANCE SCHEDULE FOR EROSION AND SEDIMENT CONTROL

ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF PRODUCING RAINFALL BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED AND INSTALLED FOR THEIR APPROPRIATE PHASE OF THE PROJECT.

SEDIMENT TRAPS WILL BE CLEANED OUT WHEN THE LEVEL OF SEDIMENT REACHES 2.0 FT. BELOW THE TOP OF THE RISER. GRAVEL WILL BE REPLACED WHEN THE SEDIMENT POOL NO LONGER DRAINS PROPERLY.

SEDIMENT WILL BE REMOVED FROM BEHIND THE SILT FENCE WHEN IT ABOUT 0.5 FT. DEEP AT THE FENCE. THE SILT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER.

ALL SEEDED AREAS WILL BE FERTILIZED, RESEEDED AS NECESSARY AND MULCHED ACCORDING TO SPECIFICATIONS IN THE VEGETATIVE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.

STRAW BALE DIKES WILL BE INSPECTED AND REPAIRED AS NOTED ABOVE.

SILT FENCE WILL BE INSPECTED AND REPAIRED AS NOTED ABOVE.

STORM DRAIN INLET PROTECTION WILL BE INSPECTED AND REPAIRED AS NOTED ABOVE.

STABILIZED CONSTRUCTION ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS OF WAY OR STREETS.

ROCK OUTLET PROTECTION SHOULD BE INSPECTED AFTER HIGH FLOWS FOR EVIDENCE OF SCOUR BENEATH THE RIP-RAP OF FOR DISLOGED STONES. REPAIRS SHOULD BE MADE IMMEDIATELY.

CONSTRUCTION SEQUENCE SCHEDULE

FILING OF NOTICE OF INTENT.

FLAG WORK LIMITS & INSTALL CONSTRUCTION FENCING AT CONSTRUCTION CLEARING LIMIT.

PRE-CONSTRUCTION MEETING.

INSTALLATION OF TEMPORARY EROSION AND SEDIMENT CONTROLS STARTING WITH STABILIZED CONSTRUCTION ENTRANCE.

CLEARING AND GRUBBING.

LAND DISTURBANCE INCLUDES ROADWAY GRADING, EXCAVATIONS FOR BUILDING FOOTINGS, SITE DRAINAGE AND PERMANENT STORMWATER PONDS.

STABILIZATION OF LAND DISTURBANCE.

INSTALLATION OF SITE UTILITIES.

BUILDING FOOTING SND FINISHED FLOOR SLAB.

INTERIOR MEP FACILITIES.

INSTALLATION OF PERMANENT STORMWATER PRACTICES.

CURB INSTALLATION.

FINAL GRADING AND INSTALLATION OF BASE COURSE.

STABILIZATION OF FINAL GRADING.

AFTER SITE IS STABILIZED, REMOVE ALL TEMPORARY MEASURES.

FINAL NOTICE OF TERMINATION.

TOWN OF NEW WINDSOR APPROVAL

EROSION & SEDIMENT CONTROL PLAN

TOWN APPROVAL BOX

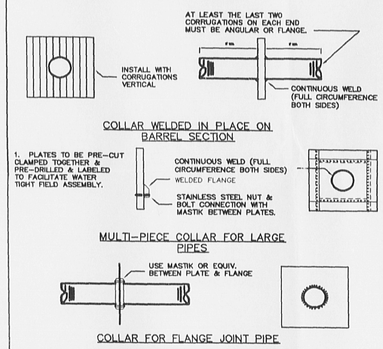
GERALD ZIMMERMAN P.E. LIC. NO. 47391
P.L.S. LIC. NO. 49410

REVISIONS:

SHEET NO. SW-4	SITE PLAN FOR JERRY'S CLIMATE CONTROL
SCALE: 1" = 30'	
DATE: APRIL 23, 2007	TOWN OF NEW WINDSOR
JOB NO. 26047 DRAWN BY: J.F.	ORANGE COUNTY, NEW YORK

ZIMMERMAN ENGINEERING & SURVEYING, P.C.
148 ROUTE 17M
HARRIMAN, NEW YORK 10926
PHONE: (845) 782-7976 FAX: (845) 782-3148 E-MAIL: zimeng@frontiernet.net

G:\Removable\Documents\Hydrology\Hydroflow\Saint Route 300\SITE PLAN.dwg, 4/23/2007 5:54:28 PM



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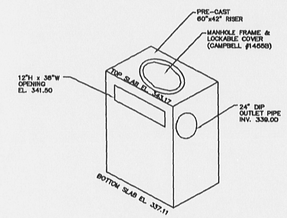
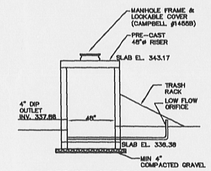
ANTI SEEP COLLAR



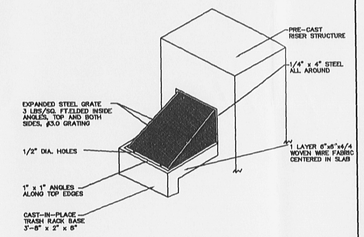
OUTLET STRUCTURE DETAIL

OUTLET STRUCTURE A



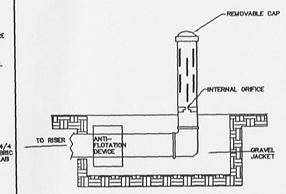
OUTLET STRUCTURE DETAIL

OUTLET STRUCTURE B



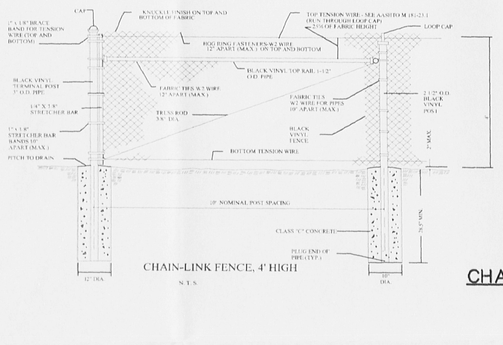
EXPANDED TRASH RACK DETAIL

EXPANDED TRASH RACK

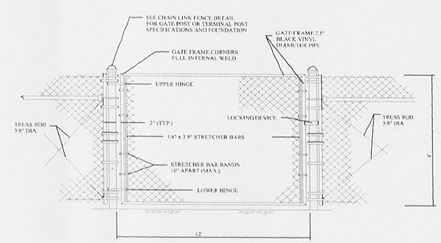


LOW FLOW ORIFICE DETAIL

LOW FLOW ORIFICE



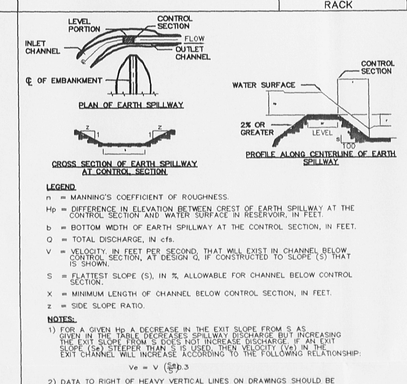
CHAIN-LINK FENCE, 4' HIGH
N.T.S.



GATES, CHAIN-LINK FENCE, 12' WIDE
N.T.S.

CHAIN LINK FENCE

CHAIN LINK FENCE | CHAIN LINK FENCE



LEGEND

n = MANNING'S COEFFICIENT OF ROUGHNESS.

Hp = DIFFERENCE IN ELEVATION BETWEEN CREST OF EARTH SPILLWAY AT THE CONTROL SECTION AND WATER SURFACE IN RESERVOIR, IN FEET.

b = BOTTOM WIDTH OF EARTH SPILLWAY AT THE CONTROL SECTION, IN FEET.

Q = TOTAL DISCHARGE, IN cfs.

V = VELOCITY, IN FEET PER SECOND, THAT WILL EXIST IN CHANNEL BELOW CONTROL SECTION, AT DESIGN Q, IF CONSTRUCTED TO SLOPE (S) THAT IS SHOWN.

S = FLATTEST SLOPE (S), IN %, ALLOWABLE FOR CHANNEL BELOW CONTROL SECTION.

X = MINIMUM LENGTH OF CHANNEL BELOW CONTROL SECTION, IN FEET.

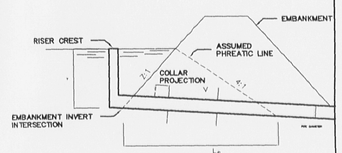
z = SIDE SLOPE RATIO.

NOTES:

1) FOR A GIVEN Hp, A DECREASE IN THE EXIT SLOPE FROM S AS GIVEN IN THE TABLE DECREASES SPILLWAY DISCHARGE BUT INCREASING THE EXIT SLOPE FROM S TO 2S DOES NOT INCREASE DISCHARGE. IF AN EXIT SLOPE (2S) STEEPER THAN S IS USED, THEN VELOCITY (Ve) IN THE EXIT CHANNEL WILL INCREASE ACCORDING TO THE FOLLOWING RELATIONSHIP:

$$Ve = V \left(\frac{2S}{S}\right)^{0.3}$$

2) DATA TO RIGHT OF HEAVY VERTICAL LINES ON DRAWINGS SHOULD BE USED WITH CAUTION, AS THE RESULTING SECTIONS WILL BE EITHER POORLY PROPORTIONED OR HAVE VELOCITIES IN EXCESS OF 6 FT/SEC.

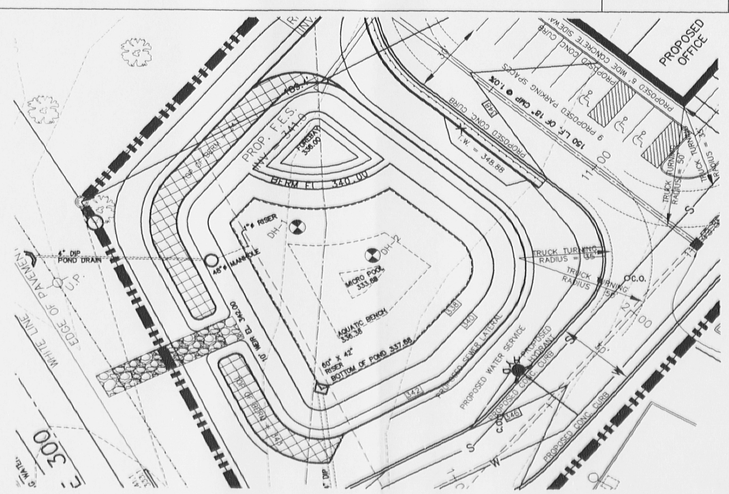


ANTI-SEEP COLLAR DESIGN

U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

DESIGN DATA FOR EARTH SPILLWAYS

U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE



DETENTION POND PLAN

1" = 40'

TOWN OF NEW WINDSOR APPROVAL

TOWN APPROVAL BOX

GERALD ZIMMERMAN P.E. LIC. NO. 47391
P.L.S. LIC. NO. 49410

REVISIONS:

STORMWATER CONTROL PRACTICE PLAN & DETAILS

SHEET NO. SW-3	SITE PLAN FOR JERRY'S CLIMATE CONTROL
SCALE:	
DATE: APRIL 23, 2007	TOWN OF NEW WINDSOR
JOB NO. 2647 DRAWN BY: J.F.	ORANGE COUNTY, NEW YORK

ZIMMERMAN ENGINEERING & SURVEYING, P.C.
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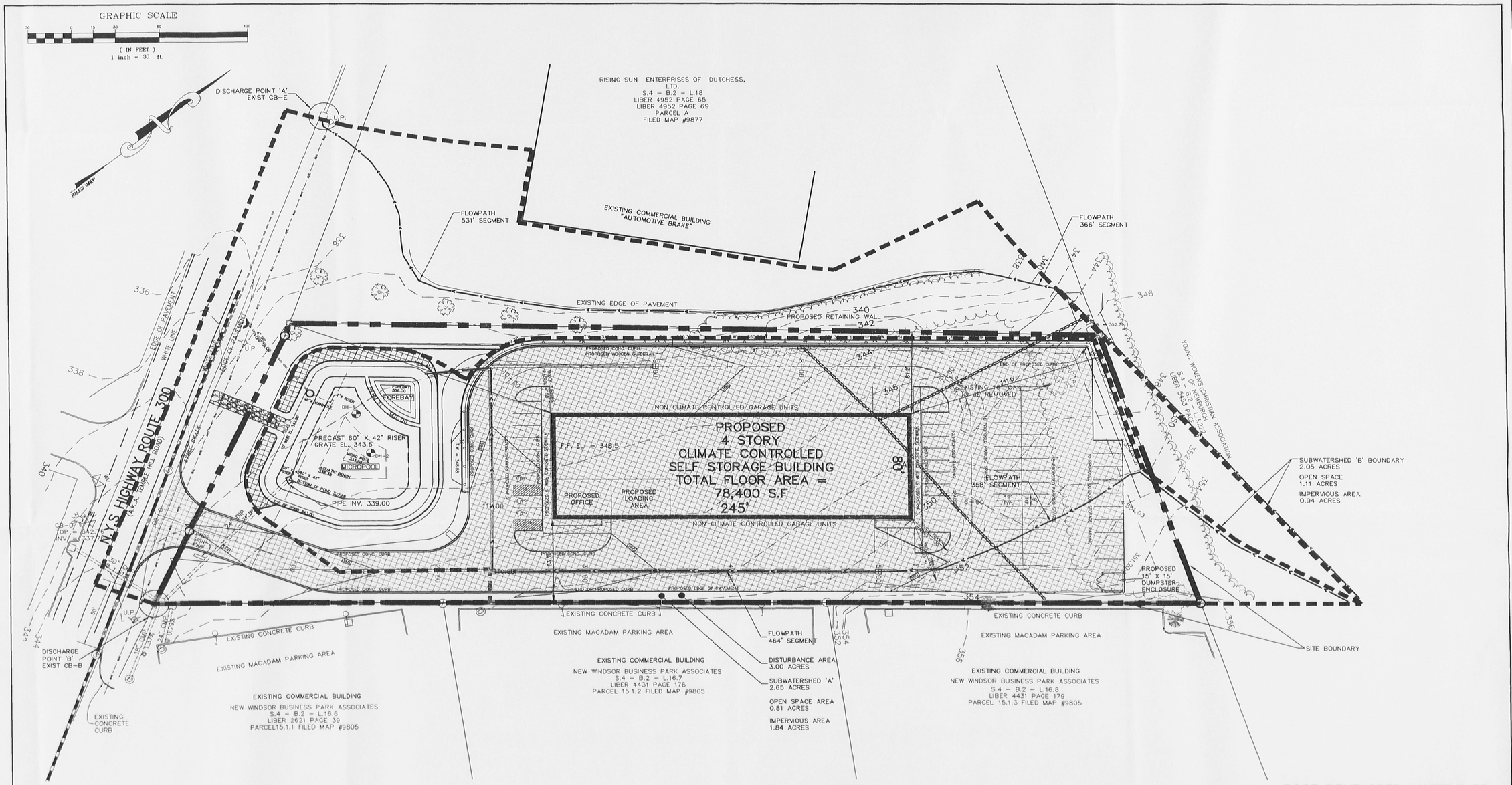
HARRIMAN, NEW YORK 10926
PHONE: (845) 782-7976 FAX: (845) 782-3148 E-MAIL: zimeng@frontiernet.net



POST DEVELOPED WATERSHED

TOWN APPROVAL BOX

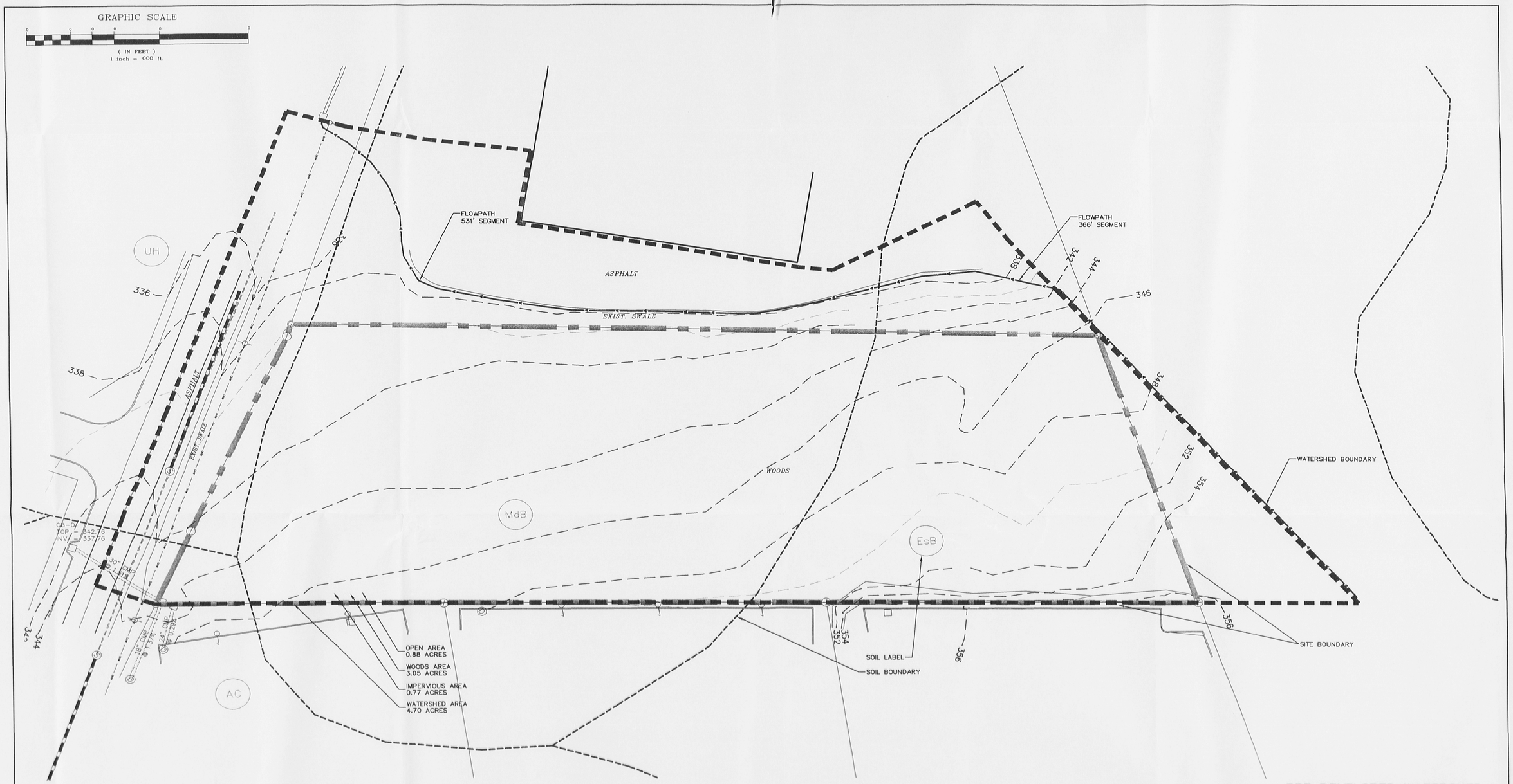
GERALD ZIMMERMAN P.E. LIC. NO. 47391
P.L.S. LIC. NO. 49410

REVISIONS:
APRIL 23, 2007

SHEET NO. SW-2	SITE PLAN FOR JERRY'S CLIMATE CONTROL
SCALE: 1" = 30'	
DATE: MARCH 29, 2007	TOWN OF NEW WINDSOR
JOB NO. 26047 DRAWN BY: R.O.	ORANGE COUNTY, NEW YORK

ZIMMERMAN ENGINEERING & SURVEYING, P.C.
148 ROUTE 17M
HARRIMAN, NEW YORK 10926
PHONE: (845) 782-7976 FAX: (845) 782-3148 E-MAIL: zimengi@frontiernet.net

G:\Remoteatlas\Documents\Hydrology\Hydraflow Satellite Route 300\200\20413 26147 storm\SWPPP Part 5 Inserts\ACAD-26147 watershed 2000.dwg, 4/24/2007 10:28:21 AM



PRE DEVELOPED WATERSHED

TOWN APPROVAL BOX

GERALD ZIMMERMAN P.E. LIC. NO. 47391
P.L.S. LIC. NO. 49410

REVISIONS:

SHEET NO. SW-1	SITE PLAN FOR JERRY'S CLIMATE CONTROL
SCALE: 1" = 30'	
DATE: MARCH 29, 2007	TOWN OF NEW WINDSOR
JOB NO. 26047 DRAWN BY: R.O.	ORANGE COUNTY, NEW YORK

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