McFarland Johnson
Innovative Solutions / Sustainable Results

60 Railroad Place • Suite 402 • Saratoga Springs, NY 12866
Phone: 518-580-9380 • Fax: 518-580-9383
www.mjinc.com

August 10, 2020

Chairperson Ronald Nolland and Members of the Zoning Board of Appeals (ZBA)
City of Plattsburgh
41 City Hall Place
Plattsburgh, NY 12901

Chairperson Derek Rosenbaum and Members of the Planning Board (PB)
City of Plattsburgh
41 City Hall Place
Plattsburgh, NY 12901

Re: ***Durkee Street Mixed Use Development – Final Site Plan Application***
Property: Parcel located north of Broad Street and South of Bridge Street (SLB: 207.20-7-15)

Dear Chairpersons Nolland, Rosenbaum, and Members of the ZBA and PB:

Summary of Changes:

After the July 15th Zoning Board of Appeals (ZBA) and July 22nd Planning Board (PB) meeting(s), the project was modified to address comments and mitigate concerns of ZBA and PB members. The changes made have been mitigating measures to address potential impacts perceived by the Boards. As evidenced by the numbers and descriptions given below, there will be no adverse environmental impact from the changes made. The following is a summary of those changes.

Feature	Previously Proposed	Current Proposed
Residential		
Residential Units	115	104
Bedrooms	182	176
Commercial		
Commercial/Retail Space	7,250 SF	9,900 SF
Eating/Drinking Front of House	3,690 SF	7,000 SF
Eating/Drinking Back of House	2,460 SF	1,000 SF
Total Commercial Space	13,400 SF	17,900 SF

Feature	Previously Proposed	Current Proposed
Lot Stat		
North Setback	3.5' (proposed building)	15.1’ (proposed building)
South Setback	5' (existing out building) 231’ (proposed building)	5' (existing out building) 231’ (proposed building)
East Setback	2' (existing out building) 4’ (proposed building)	2' (existing out building) 15.3’ (proposed building)
West Setback	9' (proposed building)	19’ (proposed building)
Building Coverage	38,440 (32%)	36,800 (31%)
Open Space	22,135 SF	22,925 SF
Parking		
Parking Spaces	286	290

Layout:

The setback from the property line to the proposed building was a concern raised by the Boards. As a result, the building has been reconfigured and reoriented so that a minimum 15’ setback can be achieved from all property lines to the proposed building. The north, east, and west faces of the building were all pulled back increasing the sidewalk width by 7’ along Bridge Street and 5’ along Durkee and increasing the open space around the building by 4,075 sf making more space for pedestrian accessible sidewalks and plantings. This change has the added benefit of mitigating concerns related to the width of the proposed Riverwalk and its proximity to the eastern face of the proposed building By increasing the setback on the eastern portion of the project, the distance from the eastern face of the building to the pedestrian walkway of the proposed Riverwalk is increased from 4’ to 15’. This additional setback opens up the area of the proposed Riverwalk not only visually and spatially, but also potentially for additional walkway space if desired.

The perceived conflict of pedestrians with the basement garage entrance on Bridge Street was also a concern voiced by the Boards. To mitigate this concern the separate garage entrance has been eliminated and the basement garage will be accessed through the building’s courtyard entrance on Durkee Street. The courtyard entrance has been relocated farther south within the building, increasing its distance from the Bridge and Durkee Street intersection, minimizing potential conflicts between the site entrance and the intersection. The new combined entrance location is more open and provides ample sight lines for both drivers and pedestrians to see potential conflicts. The combined entrance has the added benefit of eliminating the driveway on Bridge Street, a main thoroughfare through downtown. The loading dock has been relocated into the combined building entrance eliminating it from the southerly surface lot thereby providing space for additional parking.

The presence of residential units within view of street level has been an on-going concern of the Boards. To mitigate this concern, the residential units on the south wing of the building have been replaced by parking, and the residential units along the north wing of the building have been pulled farther east to where the grade difference between the first floor and Bridge Street is at its greatest. To accommodate this change the entrance to the residential space was relocated to a covered to walkway along the north face of the building. An additional residential entrance has been added at the “basement” level along the Riverwalk in the northeast corner of the building.

In addition to these the mitigation measures the project has also relocated the southern surface lot father to the east. This change allows for an additional five feet of sidewalk along Durkee Street on the western edge of the parking lot.

As a result of these changes the projects building coverage has been reduced and its open space increased. In addition, the green space (which is not measured for zoning purposes) has been increased.

With these the changes the number of residential units has been reduced from 115 to 104 (roughly a 10% reduction); the amount of commercial space has increased from 13,400 sf to 17,900 sf; and the number of parking spaces has increased from 286 to 290.

Materials:

The materials selected for the building have been a concern for some members of the Boards with brick material being preferred to the board and batten. To mitigate concerns related to the exterior finishes and materials of the proposed building Prime changed the clapboard siding and board and batten siding to Sto Brick; maintained use of Sto Granitex (or Sto Brick) for corner building volumes; and maintained use of stone veneer at Level 1 of the building base adjacent to the sidewalks. As with massing adjustments, substitution of more brick throughout the project helps to make the overall project more sympathetic to neighboring structures and the downtown.

Utility Coordination:

The City of Plattsburgh Department of Public Works has been provided an updated set of site plans as well as updated water and sewer demands based upon the new building uses listed above. The City of Plattsburgh Municipal Lighting Department has been provided an updated set of site plans with an updated electrical demand. We have requested "will-serve" letters from each department.

Emergency Services Coordination:

The City of Plattsburgh Police and Fire Departments have been provided an updated site plan. We have discussed the new site plan with them and neither has any concerns. We have requested and received "will-serve" communications from both departments (copies are included in this submission).

Parking:

Based upon the new building square footages and uses, below is a summary of the project's updated parking. Per the City's Zoning Code Section 360-21, the Planning Board has the ability to allow deviations from parking requirements established in Section 360-26 for a PUD where the applicant can demonstrate that another method of computation will adequately serve the proposed mixed or multiple use. Using the approved parking demand from Prime's successful mixed use residential / commercial development at "The Hamlet", in Saratoga Springs, NY, the project is proposing 1.5 parking spaces per residential unit, one parking space per 300 sf of commercial space (commercial, retail, and restaurant), and one parking space for every two employees (with one employee per 900 sf of commercial space).

Parking Use	Amount	Parking Demand	Parking Spaces
Residential	104 units	1.5/unit	156
Commercial	17,900 sf	1/300 sf	60
Employees	20 employees	1/2 /employee	10
City Use			50
Total Parking Demand			276
Total Parking Provided			290

In support of these changes and their mitigation of the Boards' concerns, please find the attached documents:

- Revised Site Plan Set
- Revised SWPPP Report
- Revised Building Elevation – North
- Revised Building Elevation – West
- Revised Rendering – View from Bridge Street and Durkee Street
- Revised Rendering – View on Bridge Street
- Fire Department "Will Serve" Communication
- Police Department "Will Serve" Communication
- Whiteman, Osterman, & Hanna SEQRA impact letter

We respectfully request that this matter be placed on the ZBA's August 17 meeting agenda and the PB's August 24 meeting agenda. If you have any questions related to the enclosed information or if you require additional information, please contact our office.

Very Truly Yours,
MCFARLAND JOHNSON, NC.

Turner Bradford, P.E.
Project Engineer

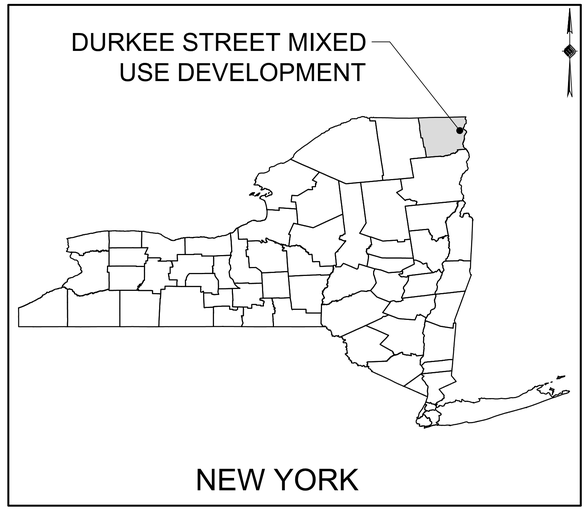
cc: Deb Osterhoudt – Prime Plattsburgh, LLC
Charles Gottlieb – Whiteman Osterman & Hanna, LLP
Joe McMahon – City of Plattsburgh, Building Inspector
Malana Tamer - City of Plattsburgh, City Planner
Mathew Miller – City of Plattsburgh, Director of Community Development

encl

Revised Site Plan Set

PRIME PLATTSBURGH, LLC

DURKEE STREET MIXED USE DEVELOPMENT



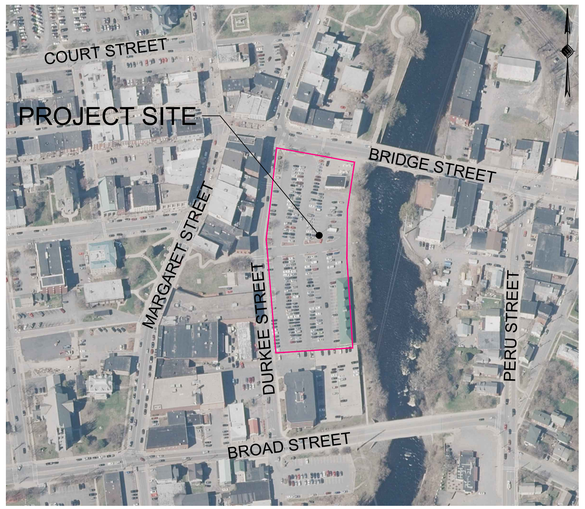
LOCATION MAP

SITE PLAN SUBMISSION
FEBRUARY 3, 2020

REVISED 08/10/2020 - BUILDING REVISION

CITY OF PLATTSBURGH
CLINTON COUNTY
NEW YORK

NOT FOR CONSTRUCTION



VICINITY MAP

DRAWING INDEX	
SHEET NUMBER	SHEET TITLE
CV-00	COVER SHEET
GN-01	GENERAL NOTES
SURV-01	EXISTING CONDITIONS SURVEY
DE-01	DEMOLITION PLAN
BL-01	BORING LOG
C-01	SITE PLAN
C-02	DRIVEWAY PLAN
GR-01	GRADING AND DRAINAGE PLAN
GR-02	DRAINAGE PROFILES
UT-01	UTILITY LAYOUT
UT-02	SANITARY PROFILES
UT-03	SANITARY PROFILES
UT-04	WATER PROFILES
EC-01	EROSION AND SEDIMENT CONTROL PLAN PHASE I
EC-02	EROSION AND SEDIMENT CONTROL PLAN PHASE II
DT-01	DETAILS
DT-02	DETAILS
DT-03	DETAILS
DT-04	DETAILS
DT-05	DETAILS
DT-06	DETAILS
SL-01	SITE LIGHTING PLAN
SL-02	SITE LIGHTING DETAILS
LP-01	LANDSCAPE PLAN
EM-01	EASEMENT PLAN

PREPARED FOR:

PRIME PLATTSBURGH, LLC
621 COLUMBIA ST.
COHOES, NEW YORK
(518) 785-9000 X126
WWW.PRIMECOMPANIES.COM

PREPARED BY:

McFarland Johnson
60 RAILROAD PLACE, SUITE 402
SARATOGA SPRINGS, NEW YORK 12866

18491.00

UTILITY CONTACTS

WATER/ SEWER/ STORM/ ROADS
CITY OF PLATTSBURGH DEPARTMENT OF PUBLIC WORKS
ANDREW DURRIN, ENGINEERING TECHNICIAN
251 IDAHO AVENUE
PLATTSBURGH, NY 12903
(518) 536-7453

NYSDOT REGION 7
STEVEN G. KOKKORIS, REGIONAL DIRECTOR
317 WASHINGTON STREET
WATERTOWN, NY 13601
(518) 785-2333

ELECTRIC
CITY OF PLATTSBURGH MUNICIPAL LIGHTING DEPARTMENT
BILL TREACY, MANAGER
6 MILLER STREET
PLATTSBURGH, NY 12903
(518) 563-2200

FIRE DEPARTMENT
CITY OF PLATTSBURGH FIRE DEPARTMENT
SCOTT LAWLISS
65 CORNELIA STREET
PLATTSBURGH, NY 12903
(518) 561-3780

BUILDING DEPARTMENT
JOE MCMAHON, BUILDING INSPECTOR
41 CITY HALL PLACE
PLATTSBURGH, NY 12903
(518) 563-7707

GAS
NYSEG PLATTSBURGH OFFICE
4125 ROUTE 22
PLATTSBURGH, NY 12901
(518) 566-9846

GENERAL NOTES:

1. THE UNDERGROUND STRUCTURES AND UTILITIES SHOWN ON THESE PLANS HAVE BEEN PLOTTED FROM A SURVEY PREPARED BY ROBERT M. SUTHERLAND P.C. 11 MACDONOUGH STREET, PLATTSBURGH, NY 12091, DATED JULY 25, 2019 AND AVAILABLE SURVEYS AND RECORD MAPS BY OTHERS. MCFARLAND JOHNSON DOES NOT CERTIFY TO THE ACCURACY OF THEIR LOCATION AND/OR COMPLETENESS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION AND EXTENT OF ALL UNDERGROUND STRUCTURES AND UTILITIES PRIOR TO ANY DIGGING OR CONSTRUCTION ACTIVITIES IN THEIR VICINITY. THE CONTRACTOR SHALL HAVE ALL EXISTING UTILITIES FIELD STAKED BEFORE STARTING WORK BY CALLING 1-800-962-7962.
2. THE CONTRACTOR SHALL PERFORM ALL WORK IN COMPLIANCE WITH TITLE 29 OF FEDERAL REGULATIONS, PART 1926, SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION (OSHA).
3. HIGHWAY DRAINAGE ALONG ALL ROADS AND PRIVATE DRIVES SHALL BE KEPT CLEAN OF MUD, DEBRIS ETC. AT ALL TIMES. ALL CATCH BASINS AND STORM SEWER MANHOLES SHALL BE CLEANED PRIOR TO ACCEPTANCE BY THE TOWN.
4. REFER TO ARCHITECTURAL DRAWINGS FOR PRECISE BUILDING DIMENSIONS AND BUILDING UTILITY LOCATIONS.
5. THE CONTRACTOR SHALL CONSULT THE DESIGN ENGINEER BEFORE DEVIATING FROM THESE PLANS.
6. IN ALL TRENCH EXCAVATIONS, CONTRACTOR MUST LAY THE TRENCH SIDE SLOPES BACK TO A SAFE SLOPE, USE A TRENCH SHIELD OR PROVIDE SHEETING AND BRACING. THE MEANS AND METHODS SHALL BE CERTIFIED BY A PROFESSIONAL ENGINEER.
7. EXCAVATED WASTE MATERIAL REMOVED FROM THE SITE SHALL BE PLACED AT A LOCATION ACCEPTABLE TO THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION.
8. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO MAINTAIN A MINIMUM OF 2' OF COVER OVER ALL EXISTING AND NEW STORM SEWER PIPES AND 4' OF COVER OVER ALL SANITARY PIPES DURING CONSTRUCTION.
9. ALL EXISTING SURFACE APPURTENANCES (I.E. WATER VALVES, CATCH BASIN FRAMES AND GRATES, MANHOLE COVERS) WITHIN THE PROJECT LIMITS SHALL BE ADJUSTED TO FINISHED GRADE. (NO SEPARATE PAYMENT).
10. AREAS DISTURBED OR DAMAGED AS PART OF THIS PROJECT'S CONSTRUCTION THAT ARE OUTSIDE OF THE PRIMARY WORK AREA SHALL BE RESTORED, AT THE CONTRACTORS EXPENSE, TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
11. UNLESS COVERED BY THE CONTRACT SPECIFICATIONS OR AS NOTED ON THE PLANS, ALL WORK SHALL CONFORM TO THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED JANUARY 8, 2015 AND ANY SUBSEQUENT REVISIONS.
12. CONTRACTOR SHALL COORDINATE PROVISION OF TEMPORARY UTILITY SERVICE AS REQUIRED DURING CONSTRUCTION TO ENSURE UNINTERRUPTED SERVICE TO OCCUPIED BUILDINGS.
13. THE CONTRACTOR SHALL BE RESPONSIBLE TO SECURE ALL PERMITS AND PROVIDE ALL BONDS REQUIRED FOR THIS WORK, INCLUDING BUT NOT LIMITED TO UTILITY CONNECTIONS, BUILDING AND SITE CONSTRUCTION.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODE AND/OR UTILITY SERVICE COMPANIES. THIS SHALL BE COMPLETED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICES.
15. MAINTENANCE AND PROTECTION OF TRAFFIC ALONG WITH SECURING THE WORK AREA SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
16. THE CONTRACTOR SHALL LOCATE, MAKE, SAFEGUARD AND PRESERVE ALL SURVEY CONTROL MONUMENTS AND ROW MONUMENTS IN THE AREAS OF CONSTRUCTION.
17. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND SAFETY PROCEDURES. THE OWNER AND/OR ARCHITECT/ ENGINEER SHALL NOT BE RESPONSIBLE FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUB CONTRACTOR OR THEIR AGENTS, EMPLOYEES OR ANY OTHER PERSON PERFORMING ANY OF THE WORK.
18. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATION ASSOCIATED WITH THIS PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATION OR APPLICABLE CODES, IT IS THE CONTRACTORS RESPONSIBILITY TO NOTIFY THE OWNERS REP. IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE OWNERS REP. SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS IN FULL CONFORMANCE WITH LOCAL REGULATIONS AND CODES.
19. SNOW STORAGE WILL OCCUR AT MULTIPLE LOCATIONS THROUGHOUT ALL PAVED SURFACES.
20. THE CONTRACTOR SHALL CONTACT THE CITY DPW IF THEY DISCOVER ANY UTILITY LINE NOT NOTED ON THE SURVEY, TO DETERMINE IF THE LINE IS ACTIVE.
21. THE PROJECT SITE HAS A HISTORY OF VARIED USES INCLUDING COMMERCIAL, RESIDENTIAL, MANUFACTURING, AUTO REPAIR STEAM LAUNDERING, SIGN PAINTING AND MILLING. THE CITY OF PLATTSBURGH APPLIED FOR THE PROPERTY'S INCLUSION IN THE NEW YORK STATE ENVIRONMENTAL RESTORATION PROGRAM. AS A RESULT C.T. MALE CREATED A SITE MANAGEMENT PLAN (SMP) THAT WAS ADOPTED BY THE NEW YORK STATE DEC. ALL CONSTRUCTION ACTIVITIES MUST BE IN COMPLIANCE WITH THE SMP. IT SHOULD BE NOTED, SECTION 7 OF THE SMP STATES THAT THERE SHALL BE NO DISTURBANCE OF THE SITE NYSDEC NOTIFICATION 60 DAYS PRIOR. THE FULL SMP AND ENVIRONMENTAL EASEMENT ARE INCLUDED AS APPENDIX J OF THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
22. NO ROAD OR LANE CLOSURES ARE ALLOWED UNLESS THE CONTRACTOR PROVIDES A TRAFFIC CONTROL PLAN IN ACCORDANCE WITH THE CURRENT EDITION OF MUTCD FOR APPROVAL BY THE CITY OF PLATTSBURGH, EMERGENCY SERVICES, AND SCHOOL DISTRICT

SEQUENCE OF CONSTRUCTION

1. HOLD A PRE-CONSTRUCTION MEETING WITH PROJECT MANAGER, OPERATOR'S ENGINEER, CONTRACTORS & SUB-CONTRACTORS, AND REPRESENTATIVES OF THE CITY OF PLATTSBURGH PRIOR TO LAND DISTURBING ACTIVITIES. REVIEW NSYDEC APPROVED SMP.
2. HAVE A QUALIFIED PROFESSIONAL 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 AS REQUIRED BY THE GP-0-15-002 HAVE BEEN ADEQUATELY INSTALLED OR IMPLEMENTED TO ENSURE OVERALL PREPAREDNESS OF THE SITE FOR THE COMMENCEMENT OF CONSTRUCTION.
3. CONSTRUCT TEMPORARY STABILIZED CONSTRUCTION ENTRANCE AT LOCATION SHOWN ON THE DRAWINGS.
4. INSTALL PERIMETER CONTROLS AND INLET PROTECTION AT THE LOCATIONS SHOWN ON THE DRAWINGS.
5. CONSULT A QUALIFIED PROFESSIONAL TO PERFORM A SITE INSPECTION AND VERIFY THAT THE INITIAL PHASE OF EROSION CONTROL DEVICES HAVE BEEN INSTALLED PER THE DRAWINGS PRIOR TO COMMENCEMENT OF GROUND DISTURBANCE.
6. BEGIN EARTHWORK OPERATIONS.
7. COMMENCE EARTHWORK CUTS AND FILLS. WORK SHALL BE PROGRESSED TO ALLOW A REASONABLE TRANSFER OF CUT AND FILL FOR ROUGH GRADING AND EARTH MOVING FOR BULK SITE GRADING.
8. STABILIZE ALL AREAS IDLE IN EXCESS OF 7 DAYS IN WHICH CONSTRUCTION WILL NOT COMMENCE WITHIN 7 DAYS.

SEQUENCE OF CONSTRUCTION CONTINUED:

9. ADJUST THE EROSION AND SEDIMENT CONTROL PRACTICES AS REQUIRED FOR CONTINUING CONSTRUCTION AS SHOWN ON THE EROSION & SEDIMENT CONTROL PLAN. THIS SHALL BE A PHASED ADJUSTMENT IN ORDER TO ENSURE THAT RUNOFF FROM ALL DISTURBED AREAS IS TREATED BY APPROPRIATE EROSION AND SEDIMENT CONTROL DEVICES.
10. BEGIN UTILITY INSTALLATION AND BACKFILL. UTILITY INSTALLATION AREA SHALL BE STABILIZED WITH SEED AND MULCH PROGRESSIVELY AT THE END OF EACH WORK DAY.
11. CONSTRUCT CATCH BASINS, AREA INLETS AND STORM SEWER MANHOLES, AS SHOWN ON THE PLANS.
12. INSTALL INLET/OUTLET PROTECTION PROGRESSIVELY AS THE STORM SEWER IS INSTALLED.
13. AS LANDSCAPED AREAS ARE BROUGHT TO GRADE, STABILIZE WITH TOPSOIL, SEED AND MULCH PER SPECIFICATIONS.
14. FINALIZE BUILDING AND PAVEMENT SUB-GRADE PREPARATION.
15. CONSTRUCT CURB
16. INSTALL ASPHALT SUB-BASE MATERIAL AS REQUIRED FOR PAVEMENT.
17. CARRY OUT ALL FINAL GRADING. STABILIZE SLOPES GREATER THAN 3D:1V WITH HEIGHTS EXCEEDING 5 FEET WITH EROSION CONTROL MATTING/BLANKETS, AND SEED AND MULCH ALL DISTURBED AREAS.
18. A QUALIFIED PROFESSIONAL SHALL PERFORM A SITE ASSESSMENT TO CONFIRM THAT ALL PERMANENT STORMWATER DEVICES HAVE BEEN INSTALLED PER PLANS AND 80% UNIFORM GERMINATION/STABILIZATION HAS BEEN ACHIEVED PRIOR TO THE REMOVAL OF ALL REMAINING TEMPORARY EROSION AND SEDIMENT CONTROL.

STORM SEWER:

1. ALL HDPE PIPES SHALL FOLLOW NYSDOT SECTION 603-2 AND 706-12, BE SMOOTH INTERIOR.
2. PLACE RIP-RAP AROUND ALL END SECTIONS.
3. IN INSTANCES WHERE THE STORM SEWER CROSSES THE SANITARY SEWER A CRUSHED STONE ENCASEMENT SHALL BE PROVIDED AROUND THE SANITARY SEWER UP TO THE STORM SEWER-COMPACT WITH APPROVED EQUIPMENT.
4. ALL CATCH BASINS AND STORM MANHOLES WITHIN PAVEMENT TO BE CONSTRUCTED TO WITHSTAND HS-20 LOADING.

SANITARY SEWER NOTES:

1. ONLY DOMESTIC WASTE FROM THE PROJECT SHALL BE DISCHARGED INTO THE SANITARY SEWER.
2. ALL SANITARY LATERALS SHALL BE 6" PVC SDR-21 ASTM D2241 UNLESS OTHERWISE SPECIFIED ON THE PLANS.
3. A MINIMUM OF 4 FEET OF COVER SHALL BE PROVIDED OVER ENTIRE LENGTH OF ALL SANITARY LATERALS. IN ANY PLACE THE MINIMUM COVER CANNOT BE MET, THE PIPE SHALL BE INSULATED.
5. THE CITY OF PLATTSBURGH DPW SHALL BE NOTIFIED SEVENTY-TWO HOURS IN ADVANCE OF CONNECTION OR TAP. [518-536-7453].
6. SANITARY SEWER LATERAL(S) AND APPURTENANCES SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE REQUIREMENTS OF THE CITY OF PLATTSBURGH.
7. FLOOR DRAINS, IF CONSTRUCTED, SHALL BE CONNECTED TO THE SANITARY SEWER. FLOOR DRAINS DO NOT INCLUDE FOUNDATION/FOOTER DRAINS. NOTE: ALL DISCHARGES TO THE SANITARY SEWER MUST COMPLY WITH THE EFFLUENT LIMITS OF THE LOCAL AND/OR CLINTON COUNTY SEWER USE LAW.
8. MAXIMUM SPACING BETWEEN CLEANOUTS ON SANITARY LATERALS MAY NOT EXCEED SEVENTY-FIVE (75) FEET.
9. MAXIMUM SPACING BETWEEN SANITARY MANHOLES MAY NOT EXCEED FOUR-HUNDRED (400) FEET.
10. EXFILTRATION AND/OR INFILTRATION FOR SANITARY SEWERS SHALL BE LIMITED TO 100 GALLONS PER DAY, PER MILE OF PIPE, PER INCH DIAMETER, AND SHALL BE PERFORMED IN ACCORDANCE WITH DISTRICT PROCEDURES. AIR TESTS, INCLUDING VACUUM TESTS, SHALL NOT BE ALLOWED ON SANITARY MANHOLES.
11. UPON COMPLETING CONSTRUCTION AND AFTER THE PIPE BACKFILL HAS BEEN IN PLACE FOR A PERIOD OF 30 DAYS, THE NEW SANITARY SEWER SHALL BE SUBJECT TO THE FOLLOWING TESTS AND PROCEDURES. FLUSH AND CLEAN THE SYSTEM, SEWER MAIN AIR PRESSURE/ EXFILITRATION TESTING, SEWER MANHOLE VACUUM/INFILTRATION TESTING (PERFORMED ONLY AFTER INVERTS AND BENCHES ARE FORMED), AND SEWER MAIN DEFLECTION TEST. DEFLECTION TESTS SHALL BE PERFORMED ON ALL FLEXIBLE PIPE. THE TEST SHALL BE CONDUCTED AFTER ALL FINAL BACKFILL HAS BEEN IN PLACE AT LEAST THIRTY (30) DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF FIVE PERCENT (5%). IF THE DEFLECTION TEST IS RUN USING A RIGID BALL OR MANDREL, IT SHALL HAVE A MINIMUM DIAMETER EQUAL TO NINETY-FIVE PERCENT (95%) OF THE INSIDE DIAMETER OF THE PIPE. TEST SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES.
12. MANHOLES SHALL BE 4' INSIDE DIAMETER UNLESS OTHERWISE SPECIFIED ON PLANS. MANHOLE FRAMES AND COVERS SHALL BE EJ, PRODUCT NO. 00120715, OR APPROVED EQUAL PER THE CITY OF PLATTSBURGH WATER AND SEWER DEPARTMENT STANDARDS.
13. MINIMUM DEFLECTION OF 3" PVC SDR21 ASTM D2241 FORCE MAIN SEWER LINE IS 0.7' FOR 20' LENGTHS.
14. ALL SEWER LINES ARE PRIVATE UNLESS OTHERWISE NOTED.

WATER MAIN INSTALLATION:

1. WATER SERVICE LINE (LATERALS) SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REGULATIONS AND SPECIFICATIONS OF THE CLINTON COUNTY HEALTH DEPARTMENT, AND THE LOCAL WATER AUTHORITY.
2. ALL EROSION CONTROL MEASURES SHALL BE EMPLOYED DURING ALL PHASES OF CONSTRUCTION IN ACCORDANCE WITH ALL APPROPRIATE STANDARDS AND REQUIREMENTS. BEST MANAGEMENT PRACTICES ARE TO BE FOLLOWED.
3. WATER MAINS AND ALL WATER SERVICE LINES SHALL HAVE A MINIMUM OF 5 FEET OF COVER FROM FINISH GRADE TO TOP OF PIPE.
4. THE MINIMUM VERTICAL SEPARATION BETWEEN WATER MAINS AND SEWER MAINS SHALL BE 18" MEASURED FROM THE OUTSIDE OF THE PIPES AT THE POINT OF CROSSING. THE MINIMUM HORIZONTAL SEPARATION BETWEEN WATER MAINS AND SEWER MAINS SHALL BE 10 FEET MEASURED FROM THE OUTSIDE OF THE PIPES. ONE FULL LENGTH OF WATER MAIN SHALL BE CENTERED UNDER OR OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE, WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT (COMPACTED SELECT FILL) SHALL BE PROVIDED FOR THE SEWERS TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING ON AND BREAKING THE WATER MAINS.
5. HYDRANT TYPE SHALL BE AS NOTED ON THE PLANS OR AS REQUIRED BY THE CITY OF PLATTSBURGH. GUARD VALVES SHALL BE USED AND ALL HYDRANT STUB PIPING SHALL BE MECHANICAL JOINT. FIRE HYDRANT WEEP HOLES (DRAINS) SHALL BE PLUGGED WHEN GROUND WATER IS ENCOUNTERED WITHIN 7 FEET OF THE FINISHED GRADE. ALL PLUGS SHALL BE MECHANICAL METAL PLUGS. ALL HYDRANTS WITH PLUGGED WEEP HOLES SHALL BE APPROPRIATELY TAGGED.

WATER MAIN INSTALLATION CONTINUED:

6. ALL MECHANICAL JOINTS, FITTINGS (TEES, BENDS, PLUGS), ETC. SHALL BE BACKED WITH 3,000 PSI CONCRETE THRUST BLOCKS OR APPROVED MECHANICAL RESTRAINTS.
7. WHERE PIPING IS TO BE PLACED WITHIN FILL AREAS, THE FILL SHALL BE PLACED AND COMPACTED TO AT LEAST 95% MODIFIED PROCTOR PRIOR TO TRENCH EXCAVATION.
8. SHUTDOWN OF EXISTING WATER MAINS SHALL BE IN ACCORDANCE WITH THE LOCAL WATER AUTHORITY. THE CITY OF PLATTSBURGH DPW MANAGER MUST BE NOTIFIED IN ADVANCE OF ALL PROPOSED SHUTDOWNS IN ACCORDANCE WITH THEIR DIRECTION. WATER MUST BE TURNED BACK ON AS SOON AS POSSIBLE. ALL ENDS OF WATER MAINS MUST BE PROVIDED WITH ADEQUATE PLUG, BLOCK AND BLOW-OFF AS INDICATED ON THE PLANS.
9. WATER SERVICE LINES SHALL BE SEPARATED AT LEAST TEN (10) FEET, MEASURED FROM THE OUTSIDE OF THE PIPES, FROM SEWER MAINS AND SEPTIC SYSTEMS.
10. BACKFLOW PREVENTION SHALL BE PROVIDED IN THE BUILDING.
11. BACKFLOW PREVENTION APPLICATION MUST BE SUBMITTED TO AND APPROVED BY THE SUPPLIER WHO WILL FORWARD PLANS TO THE NYS DEPARTMENT OF HEALTH FOR THEIR APPROVAL. THE APPROVAL PROCESS MUST BE COMPLETED PRIOR TO INSTALLATION. THE APPROVAL PROCESS SHOULD BE STARTED EARLY TO AVOID UNNECESSARY DELAYS OR CONFLICTS WITH OTHER HEALTH DEPARTMENT APPROVALS.
12. ALL WATER LINES ARE PRIVATE UNLESS OTHERWISE NOTED.

WATER MAIN MATERIALS:

1. POLYVINYL CHLORIDE (PVC) PIPE MUST BE WITH INTEGRAL BELL AND SPIGOT JOINTS; CLASS 150, DR 18; CONFORMING WITH THE LATEST REVISION OF ANSI/AWWA C900 (FOR 4"-12" PIPE) OR C905 (FOR LARGER PIPE) STANDARD. MAXIMUM DEFLECTION OF 12" POLYVINYL CHLORIDE (PVC) AWWA C900 WATER LINE IS 0.7' FOR 20' LENGTHS. INSTALLATION TO INCLUDE TRACER TAPE AS PER MANUFACTURER'S INSTRUCTIONS.
2. CEMENT-LINED DUCTILE-IRON (DI) PIPE MUST BE CLASS 52 MINIMUM CONFORMING WITH THE LATEST REVISION OF ANSI/AWWA C151 STANDARD. IF REQUIRED BY WATER SUPPLIER THE PIPE SHALL BE ENCASED WITH A MINIMUM 8 MIL. POLYETHYLENE WRAP AS PER LATEST REVISION OF ANSI/AWWA C105 STANDARD.
3. POLYETHYLENE (PE) PRESSURE PIPE MUST BE PE 3408 MATERIAL MINIMUM. CONFORMING TO THE LATEST REVISION OF AWWA C901 AND C906.

WATER SYSTEM TESTS:

1. SOIL TEST. THE CONTRACTOR SHALL PROVIDE A SOIL TEST EVALUATION TO DETERMINE THE NEED FOR POLYETHYLENE ENCASEMENT PER ANSI/AWWS C105/AZ1.5-82 PRIOR TO WATER MAIN INSTALLATION. SOIL TESTING SHALL BE CONDUCTED BY AN APPROVED SOIL TESTING LABORATORY IN ACCORDANCE WITH LOCAL WATER AUTHORITY STANDARDS.
2. WATER PIPING SHALL BE FLUSHED AND TESTED IN CONFORMANCE WITH THE LATEST REVISION OF ANSI/AWWA C600 STANDARD FOR DUCTILE IRON PIPE, C605 FOR PVC PIPE, OR EQUIVALENT OF C600 AND/OR C605 FOR PE PIPE.
3. WATER SERVICE LINES SIEZED 4-INCHES OR GREATER SHALL BE:

   - PRESSURE TESTED IN ACCORDANCE WITH THE LATEST SPECIFICATIONS OF THE LOCAL WATER AUTHORITY. THE PRESSURE TEST SHALL BE WITNESSED BY A REPRESENTATIVE FROM THE LOCAL WATER AUTHORITY.

   - DISINFECTION BY USING THE CONTINUOUS FEED METHOD ACCORDING TO AWWA STANDARD SPECIFICATIONS. AFTER FLUSHING AND DISINFECTING THE SERVICE LINE, WATER SAMPLES SHALL BE COLLECTED BY THE CLINTON COUNTY HEALTH DEPARTMENT. APPROVAL AND NOTIFICATION BY THE HEALTH DEPARTMENT MUST BE RECEIVED BEFORE THE LATER IS PLACED IN SERVICE.
4. THE COMPLETED WORKS SHALL BE VERIFIED WITH CLINTON COUNTY HEALTH DEPARTMENT. PRIOR TO ISSUANCE, A NYS-LICENCED PROFESSIONAL ENGINEER MUST SUBMIT CERTIFICATION TO THE HEALTH DEPARTMENT THAT: THEY OR THEIR DESIGNATED REPRESENTATIVE WITNESSED THAT CONSTRUCTION WAS IN CONFORMANCE WITH THE PLANS AS APPROVED; FLUSHING, TESTING, AND DISINFECTION PROCEDURES NOTED HEREIN HAD BEEN PROPERLY PERFORMED; AND, MICROBACTERIAL SAMPLE RESULTS FROM THE COMPLETED WORKS WERE ACCEPTABLE. COPIES OF THE OFFICIAL LABORATORY RESULTS ARE TO BE INCLUDED WITH THE CERTIFICATION.
5. FIRE HYDRANTS ARE NOT ACCEPTABLE TESTING/SAMPLING POINTS.

GRADING NOTES:

1. REMOVE AND STOCKPILE TOPSOIL AS DIRECTED BY THE CONSTRUCTION MANAGER, REPLACE TOPSOIL TO A MINIMUM 4" DEPTH. ALL DISTURBED AREAS TO BE HYDROSEEDED AS DIRECTED BY THE CONSTRUCTION MANAGER.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND REMOVAL OF TEMPORARY SEDIMENTATION CONTROLS, INCLUDING INLET PROTECTION AND SILT FENCE. EROSION CONTROL MEASURES SHALL NOT BE REMOVED BEFORE VEGETATION HAS OCCURRED COMPLETELY.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATION OF TOPSOIL TO ALL DISTURBED AREAS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN EROSION CONTROL MEASURES AT ALL TIMES.
4. EROSION CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, CLINTON COUNTY HEALTH DEPARTMENT, AND THE CITY OF PLATTSBURGH REQUIREMENTS.
5. ALL INLETS TO THE STORM SEWER SHALL HAVE STONE DROP INLET PROTECTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING BEST MANAGEMENT PRACTICES (BMP'S) UNTIL GROUND COVER IS ESTABLISHED.
6. SILT FENCE, JUTE MESH, AND/OR EROSION CONTROL BLANKETS WILL BE USED ON STEEP SLOPES AND WHEREVER NECESSARY TO CONTROL EROSION AND SILTATION OF EXISTING DRAINAGE SYSTEMS AS ORDERED BY THE ENGINEER OR SPECIFIED ON PLANS.
8. THE CONTRACTOR SHALL DESIGNATE A MEMBER OF HIS/HER FIRM TO BE RESPONSIBLE TO MONITOR EROSION CONTROL, EROSION CONTROL STRUCTURES, TREE PROTECTION AND PRESERVATION THROUGHOUT CONSTRUCTION.
9. ALL GRADING AND EARTHWORK SHALL BE IN CONFORMANCE WITH NEW YORK STATE STANDARD SPECIFICATIONS SECTION 203 - EXCAVATION AND EMBANKMENT, WHICH INCLUDES MAXIMUM EMBANKMENT LIFT THICKNESS ALLOWED BASED ON THE COMPACTION EQUIPMENT USED.
10. ALL PROPOSED ELEVATIONS SHOWN HEREON ARE FINISHED GRADE ELEVATION.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING RIM ELEVATIONS IN RELATION TO PROPOSED GRADE PRIOR TO INSTALLATION.

PROJECT DATA:

1. APPLICANT: PRIME PLATTSBURGH, LLC, 621 COLUMBIA STREET, COHOES, NY 12047
2. EXISTING ZONING: COMMERCIAL/ PLANNED UNIT DEVELOPMENT
3. LOT AREA: 2.76 ACRES (120,120 SF)

ZONING:

	TAX ACC. NO.	LOT SIZE	ZONING
EXISTING:	207.20-7-15	±4.66 ACRES	COMM/PUD
PROPOSED:	XXX.XX-X-XX	±2.76 ACRES	PUD

GROSS COMMERCIAL AREA:	9,900 SF
GROSS RESTAURANT AREA:	8,000 SF
60% CUSTOMER AREA:	7,000 SF
40% OTHER AREA:	1,000 SF
TOTAL APARTMENT UNITS:	104

PARKING DEMAND PER CITY CODE

USE	CALCULATION	NO. OF SPACES
RESIDENTIAL	(2 PER DU FOR FIRST 10) x 10 + (1.75 PER DU OVER 10) x 94	185
COMMERCIAL	(1 SPACE PER 250 SF)	40
RESTAURANT		
CUSTOMER AREA	(1 PER 50 SF) x 7,000 SF	140
OTHER AREA	(1 PER 250 SF) x 1,000 SF	4
PUBLIC PARKING FOR CITY USE		50
TOTAL DEMAND	-	419

PARKING DEMAND PER PUD

USE	CALCULATION	NO. OF SPACES
RESIDENTIAL	(1.5 PER DU) x 104	156
COMMERCIAL	(1 SPACE PER 300 SF)	61
EMPLOYEE PARKING	½ SPACE PER EMPLOYEE) x 20	10
PUBLIC PARKING FOR CITY USE	-	50
TOTAL DEMAND	-	277

PARKING PROVIDED

LOCATION	NO. OF SPACES
SURFACE PARKING LOT	92
COURTYARD PARKING LOT	44
UNDERGROUND PARKING LOT	154
TOTAL PARKING PROVIDED	290

*PARKING SPACES WILL BE STRIPED TO INDICATE SPACE AVAILABLE FOR PUBLIC USE

COMPACT/SUBCOMPACT PARKING (PER CITY CODE):

COMPACT SPACES ALLOWED:	58 SPACES
COMPACT SPACES PROVIDED:	52 SPACES
SUBCOMPACT SPACES ALLOWED:	58 SPACES
SUBCOMPACT SPACES PROVIDED:	49 SPACES

ADA PARKING (PER NYS 2016 UNIFORM CODE SUPPLEMENT):

ACCESSIBLE SPACES REQUIRED:		ACCESSIBLE SPACES PROVIDED:	
SURFACE PARKING	4 SPACES	SURFACE PARKING	4 SPACES
COURTYARD PARKING	2 SPACES	COURTYARD PARKING	2 SPACES
UNDERGROUND PARKING	6 SPACES	UNDERGROUND PARKING	6 SPACES

ZONING CHART

FEATURES	CALCULATION	UNDERLYING CITY ZONING	PROPOSED
PARCEL SIZE	CHAPTER 360 SCHEDULE III	50,000 SF	120,120 SF
MIN. LOT DIMENSION	SQUARE ROOT OF LOT AREA X 0.67	232'	216'
MAX. HEIGHT IN STORIES	LOT AREA X 0.0001	14	5
MAX. BLDG HEIGHT	STORIES X 12	60'	65'
MINIMUM BUILDING SETBACKS	STORIES X 3	15'	15' NORTH 2' EAST (EXISTING) 19' WEST 5' SOUTH (EXISTING)
MAX. BLDG COVERAGE	LOT SIZE - SETBACK AREA	82%	31%
MIN. OPEN SPACE	SETBACK AREA	22,105 SF	22,925 SF

LEGEND

20	PROPOSED MAJOR CONTOUR		PROPOSED TRAFFIC FLOW ARROWS
21	PROPOSED MINOR CONTOUR		PROPOSED DRAINAGE FLOW ARROW
XX	EXISTING MAJOR CONTOUR	(11)	NUMBER OF PARKING SPACES
XX	EXISTING MINOR CONTOUR		LIGHT POLE (SINGLE HEAD)
UE	UNDERGROUND ELECTRIC		LIGHT POLE (DOUBLE HEAD)
ST	STORM SEWER		ONE POST SIGN
G	UNDERGROUND GAS SERVICE		WATER GATE VALVE
W	WATER	S	SANITARY SEWER MANHOLE
SA	SANITARY SEWER		STORM SEWER CATCH BASIN
LOD	LIMITS OF DISTURBANCE	D	STORM SEWER MANHOLE
SF	SILT FENCE	HDPE	HIGH DENSITY POLYETHYLENE PIPE
	CHAINLINK FENCE	TC	TOP OF CURB
	CONCRETE SIDEWALK	BG	BOTTOM OF CURB
	PROPOSED CURB		UTILITY POLE

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
mjinc.com

PROJECT MILESTONE

SITE PLAN SUBMISSION

NO.	DATE	DESCRIPTION
1	04/16/20	CITY COMMENTS
2	05/05/20	CLARIFICATIONS
3	08/10/20	BUILDING REVISION

CLIENT: PRIME PLATTSBURGH, LLC

PROJECT: DURKEE STREET MIXED USE DEVELOPMENT
CITY OF PLATTSBURGH, NEW YORK

DRAWN	NSO
DESIGNED	NSO
CHECKED	TCB
SCALE	N.T.S.
DATE	FEBRUARY 2020
PROJECT	18491.00

DRAWING TITLE

GENERAL NOTES

DRAWING NUMBER

GN-01

Map Notes:

1. Unauthorized alteration or addition to a survey map bearing a Licensed Land Surveyor's seal is a violation of section 7209, sub-division 2 of the New York State Education Law.
2. Only copies from the original of this survey marked with an original of the Land Surveyor's embossed seal shall be considered valid true copies. (mylar prints shall be stamped with the surveyor's ink seal with an original signature)
3. Certifications indicated hereon signify that this survey was prepared in accordance with the existing Code of Practice for Land Surveys adopted by the New York State Association of Professional Land Surveyors, Inc. Said certifications shall run only to the person for whom the survey is prepared and on his behalf the title company, governmental agency, and lending institution listed hereon, and to the assignees of the lending institution. Certifications are not transferable to additional institutions or subsequent owners.
4. Copyright 2019, Robert M. Sutherland, P.C. All rights reserved.
5. The location of sub-surface improvements are approximate and compiled from field location and mapping provided by the respective utility companies. The contractor shall confirm the location of all utilities prior to the commencement of excavation.
6. Subject to any findings of an accurate abstract of title or those discoverable by inspection.
7. North arrow and bearings based on grid north NAD 83 New York East zone 18.
8. Vertical datum based on NAVD 1988.
9. All distances shown hereon are ground distances.
10. Riparian rights, if any, have not been established as a result of this survey.
11. Building offsets, as shown on this map, are not to be used for construction purposes.

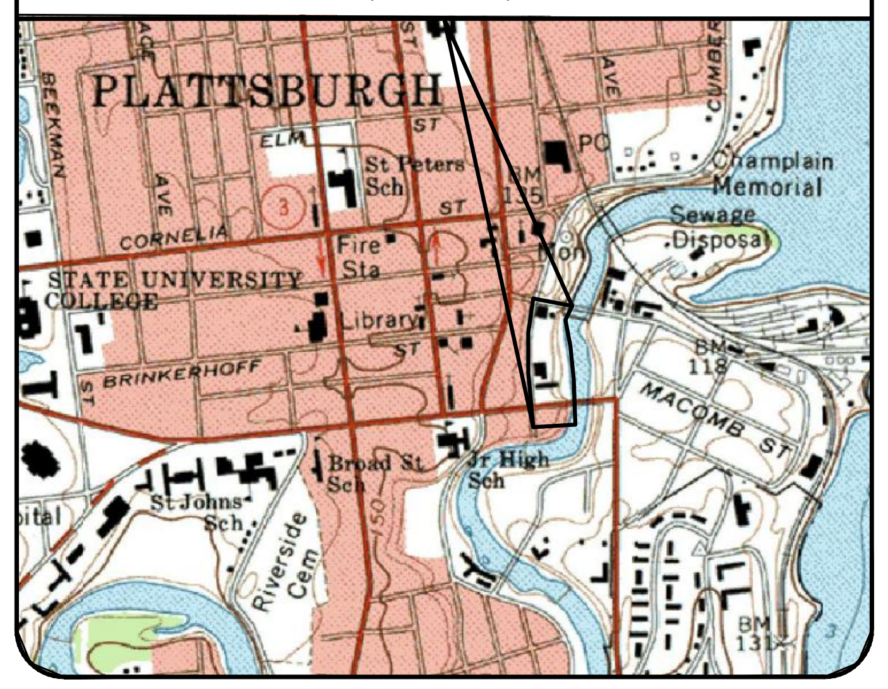
Reference Maps:

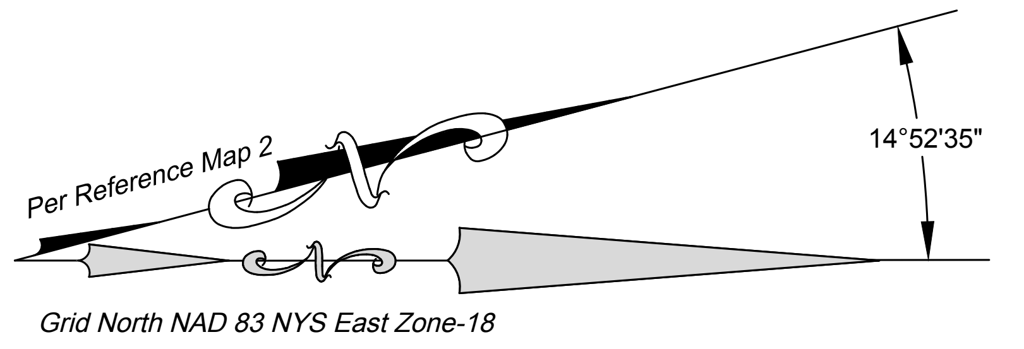
1. "Map of Lands of City of Plattsburgh 44-48 Margaret Street, Plattsburgh." prepared by Joseph J. Martina, L.S. dated September 30, 1974 and filed in the Clinton County Clerk's Office in Book 6 Page 57.
2. "Survey Map Showing Parcels of Land(Parcels A-J) owned by City of Plattsburgh Proposed to be conveyed to City Plaza Associates." prepared by Jolly and Russo Land Surveyors dated September 25, 1989 and filed in Clinton County Clerk's Office in Book 19 Page 71.
3. "Boundary Survey Portion of Lands of The City of Plattsburgh." prepared by C.T. Male Associates, P.C. dated October 5, 2004 and on file in the office of Robert M. Sutherland, P.C.
4. "Map Showing Plattsburgh Gateway-Phase 1 Site Plan." prepared by Robert M. Sutherland, P.C. dated May 12, 2006.

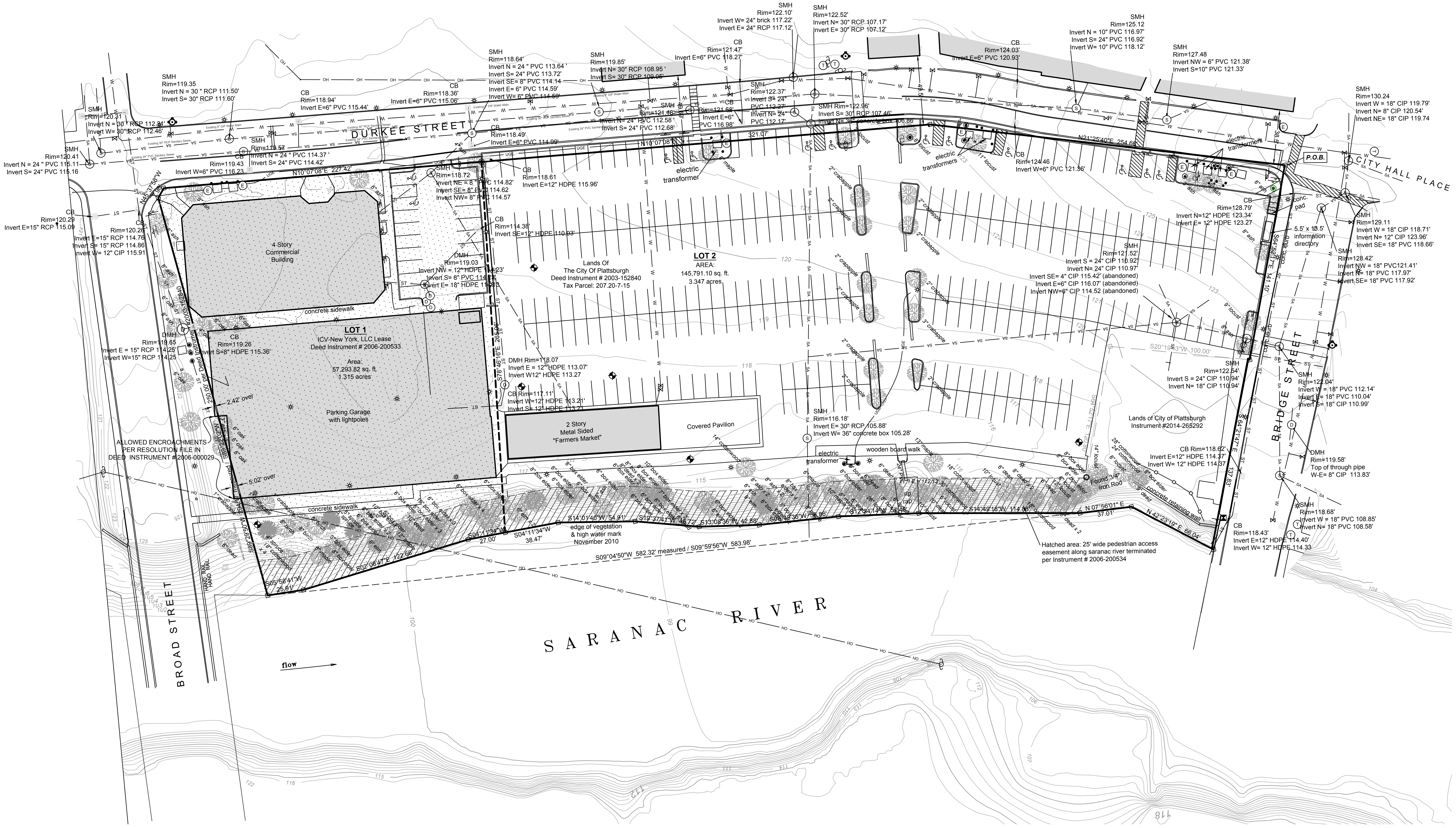
Reference Deeds:

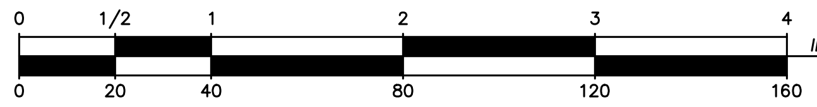
1. City Plaza Associates to City of Plattsburgh by deed dated February 27, 2003 and recorded on Instrument # 2003-152840 on March 12, 2003 in the Clinton County Clerk's Office.
2. Lease to ICV-NY, LLC to City of Plattsburgh by deed dated May 26, 2006 and recorded as Instrument # 2006-200533 on November 17, 2006 in the Clinton County Clerk's Office.
3. Richard A. Marks to City of Plattsburgh by deed dated July 9, 2014 and recorded on Instrument # 2014-265603 on July 09, 2014 in the Clinton County Clerk's Office.

General Location Map
(Not to Scale)









Scale: 1 Inch = 40 Feet

Tax Map Reference:

Section 207.20 - Block 7 - Lot 15
City of Plattsburgh
County of Clinton

Certification:

I hereby certify that this survey was prepared from deeds and maps of record and from an accurate survey performed during September and October of 2018.

Jeffrey F. Burns, L.S.
N.Y.S. License #050702

Date

Planned Unit Development Schedule:

LOCATION: Lands of the City of Plattsburgh, being a portion of lands on the south side of Bridge Street, east side of Durkee Street and north side of Broad Street, said portion of lands are contiguous to the westerly bank of the Saranac River.

ZONE: Commercial / Planned Unit Development

Item	Lot 1	Lot 2
Lot area	57,293.82 sq. ft.	145,791.10 sq. ft.
Road frontage	529.57 ft.	828.96 ft.
Use	ICV-New York, LLC Lease	Parking lot

Legend:

◉	5/8" iron rod w/ RMS survey cap (to be set)	▨	Catch basin square	○	Bollard	— W —	Waterline
⊙	Found property evidence (as described)	Ⓣ	Telephone pedestal	⊕	Monitoring well	— SA —	Sanitary line
⊡	Computed corner	Ⓒ	Cable pedestal	╡	Gas marker	— ST —	Storm line
⊕	Fire Hydrant	⋈	Water Valve	Ⓖ	Gas meter	— UGE —	Underground electric
Ⓢ	Sanitary manhole	WSO	Water shutoff	⊠	Gas valve	— UGT —	Underground telephone
Ⓓ	Drainage manhole	☼	Light pole	Ⓔ	Electric meter	— GAS —	Underground gas
●	Catch basin round	⊖	Utility pole	✺	Deciduous tree	– – – –	Proposed property line
		⊸	Sign	✹	Coniferous tree	———	Existing property line
						-·-·-·-	Adjoiner property line

No.	Revision/Issue	Date

RMS
ROBERT M. SUTHERLAND P.C.
ENGINEERS - PLANNERS - SURVEYORS
SOIL & MATERIAL TESTING
11 MacDonough Street, Plattsburgh, NY 12901
518.561.6145(Ph) 518.561.2496 (Fx)
RMSPC.COM

Project Name & Address
Survey Map
Prepared for
The City Of Plattsburgh
showing portions of lands
to be included within the
Planned Unit Development
~ Situate ~
City of Plattsburgh
Clinton County State of New York

Project # 19116	Sheet SURVEY 1
Date 07/25/2019	
Scale 1" = 40'	
Drawn LSC	Checked J.F.B.

SAW CUT DURKEE STREET, REPAIR TO BE IN COMPLIANCE WITH DPW REQUIREMENTS

EXISTING CATCH BASIN TO BE REMOVED, RETURN FRAME AND GRATE TO CITY DPW

Existing 8" DIP Water Main

Existing 8" DIP Water Main

EXISTING CURB TO BE REMOVED FOR SITE ENTRY

EXISTING ELECTRICAL TRANSFORMER AND MANHOLE TO REMAIN

EXISTING CURB TO BE REMOVED

EXISTING CURB TO BE REMOVED

EXISTING ELECTRICAL LINES TO BE PROTECTED AND MAINTAINED DURING CONSTRUCTION

EXISTING ELECTRICAL TRANSFORMERS AND MANHOLE TO REMAIN

EXISTING CURB TO BE REMOVED FOR SITE ENTRY

EXISTING SIGNAGE TO BE REMOVED AND STOCKPILED FOR CITY DPW

EXISTING ELECTRICAL TRANSFORMER AND MANHOLE TO REMAIN

EXISTING BOLLARDS TO BE REMOVED

EXISTING SANITARY MANHOLES (PAVED OVER) TO REMAIN, FRAME AND GRATE TO BE RAISED TO PROPOSED GRADE

EXISTING CONNECTION TO BE REMOVED AND OPENING TO BE PATCHED

EXISTING SANITARY PIPE TO BE REMOVED

EXISTING MANHOLE TO BE REMOVED, RETURN FRAME AND GRATE TO CITY DPW

EXISTING ELECTRICAL LINES TO BE PROTECTED AND MAINTAINED DURING CONSTRUCTION

EXISTING DRAINAGE PIPE TO BE REMOVED

EXISTING CURB TO BE REMOVED

EXISTING BOLLARDS TO BE REMOVED

EXISTING CURB TO BE REMOVED

EXISTING BOLLARDS TO BE REMOVED

EXISTING SIGNAGE TO BE REMOVED AND STOCKPILED FOR CITY DPW

LC

EXISTING SANITARY LINE TO BE CUT, PLUGGED, AND CAPPED AT PROPERTY LINE AND AT MANHOLE CONNECTION

EXISTING WATER LINE TO BE REMOVED

B-4

B-2

EXISTING SANITARY PIPE TO BE REMOVED

EXISTING ASPHALT PAVEMENT TO BE REMOVED

EXISTING CURB TO BE REMOVED

EXISTING HIGH MAST LIGHT TO BE REMOVED AND STOCKPILED FOR THE CITY MLD

EXISTING INFORMATION DIRECTORY TO BE REMOVED AND STOCKPILED FOR THE CITY

EXISTING SANITARY LINE TO BE REMOVED

EXISTING CURB TO BE REMOVED

EXISTING ASPHALT PAVEMENT TO BE REMOVED

EXISTING MANHOLE TO BE REMOVED

EXISTING TRUNK LINE SEWER TO REMAIN

EXISTING TREE TO BE REMOVED (TYP.)

EXISTING CURB TO BE REMOVED

EXISTING SANITARY PIPE TO BE REMOVED

EXISTING MANHOLE TO BE REMOVED, RETURN FRAME AND GRATE TO CITY DPW

EXISTING MANHOLE TO BE REMOVED, RETURN FRAME AND GRATE TO CITY DPW

EXISTING CONNECTION TO BE REMOVED AND OPENING TO BE PATCHED

EXISTING CURB TO BE REMOVED

EXISTING CATCH BASIN TO BE REMOVED

B-3

B-1

EXISTING PIPE TO BE PLUGGED AND FILLED W/ FLOWABLE FILL

EXISTING BUILDING TO BE REHABBED

EXISTING SANITARY MANHOLE TO REMAIN

EXISTING ELECTRICAL TRANSFORMER TO BE REMOVED AND STOCKPILED FOR THE CITY MLD

EXISTING DRAINAGE OUTLET TO BE REMOVED AND BANK TO BE FILLED IN

EXISTING WATER LINE TO BE CUT AND CAPPED AT PROPERTY LINE

EXISTING CURB TO BE REMOVED FOR SITE ENTRY

DRAINAGE PIPE TO BE INSTALLED AND BANK REPAIRED

HYDRANT TO BE REMOVED AND RETURNED TO CITY DPW

TOP OF BANK

8" SA

SAW CUT BRIDGE STREET, REPAIR TO BE IN COMPLIANCE WITH DPW REQUIREMENTS

S A R A N A C R I V E R

LEGEND

- UTILITY LINE TO BE REMOVED
- SAW CUT
- STRUCTURE TO BE REMOVED
- BORING LOCATION

0 20 40 60 FT

SCALE

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
mjinc.com

PROJECT MILESTONE

SITE PLAN SUBMISSION

NO.	DATE	DESCRIPTION
1	04/16/20	CITY COMMENTS
2	05/05/20	CLARIFICATIONS
3	08/10/20	BUILDING REVISION

CLIENT: PRIME PLATTSBURGH, LLC
CITY OF PLATTSBURGH, NEW YORK

PROJECT: DURKEE STREET MIXED USE DEVELOPMENT

DRAWN	NSO
DESIGNED	NSO
CHECKED	TCB
SCALE	1"=20'
DATE	FEBRUARY 2020
PROJECT	18491.00

DRAWING TITLE

DEMOLITION PLAN

DRAWING NUMBER

DE-01

BORING LOG NO. B-1

Page 1 of 1

PROJECT: Bridge Street Building
CLIENT: Prime Plattsburgh Hotel, LLC Cohoes, New York
SITE: Durkee and Bridge Street Plattsburgh, New York

LOCATION See Exploration Plan
Latitude: 44.6970° Longitude: -73.4510°
Approximate Surface Elev.: 120 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description	DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
0.4	119.6+/-	**TOPSOIL**		24	9-27-46-45 N=73		
		FILL - POORLY GRADED SAND, brown, dry, very loose to very dense		19	29-32-13-8 N=45		
3.8	116+/-		5	13	2-2-1-1 N=3		
		FILL - CLAYEY SAND, with gravel, gray to brown, moist to wet, very loose to loose		17	1-1-2-3 N=3		
		Grades to wet at approximately 10 feet		12	1-2-2-1 N=3		
12.0	108+/-			19	1-2-4-6 N=6		34
		FILL - LEAN CLAY, trace gravel, frequent pieces of wood, gray, wet, medium-stiff to hard	10	2	1-2-2-1 N=4		
		Sampler refusal on probable timber		1	1-2-2-1 N=4		
				4	50/4"		
29.5	90.5+/-		15	5	3-2-2-2 N=4		
		PROBABLE BOULDERS		17	3-2-2-4 N=4		
30.5	90+/-		20	4	1-2-50/4"		
		Sampler Refusal on Probable Boulders at 26 Feet		0	50/0"		
			25				

Stratification lines are approximate. In-situ, the transition may be gradual. Hammer Type: Automatic

Advancement Method: 3 1/4" ID HSA
Abandonment Method: Boring backfilled with soil cuttings upon completion.
See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (if any).
See Supporting Information for explanation of symbols and abbreviations.
Elevations were interpolated from a topographic site plan.
Notes:

WATER LEVEL OBSERVATIONS
▽ *20.2 feet while drilling*

Terracon, 594 Broadway, Watervliet, NY

Boring Started: 03-18-2019 | Boring Completed: 03-19-2019
Drill Rig: CME 45 | Driller: S. Loiselle
Project No.: JB195049

BORING LOG NO. B-2

Page 1 of 1

PROJECT: Bridge Street Building
CLIENT: Prime Plattsburgh Hotel, LLC Cohoes, New York
SITE: Durkee and Bridge Street Plattsburgh, New York

LOCATION See Exploration Plan
Latitude: 44.6971° Longitude: -73.452°
Approximate Surface Elev.: 123 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description	DEPTH (Ft.)	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
0.3	122.7+/-	**ASPHALT**		18	24-20-17-17 N=37		
0.7	122.3+/-	**PAVEMENT BASE**					
		FILL - POORLY GRADED SAND, with gravel, orange to brown, dry, dense		22	17-14-6-4 N=20		
4.0	119+/-						
		FILL - SILTY SAND, with gravel, pieces of brick and cinders, brown, moist to wet, loose to medium dense		19	2-2-2-3 N=4		
			5	18	2-3-3-2 N=6		
11.5	111.5+/-			22	1-2-4-4 N=6		
		POORLY GRADED SAND (SP), with gravel, gray to brown, wet, loose to medium dense		20	1-2-4-9 N=6		
20.5	102.5+/-						
		SILTY SAND (SM), occasional cobbles and boulders, gray, dry, very dense	15	20	4-4-4-4 N=8		
23.5	99.5+/-						
		Sampler Refusal on Probable Boulders at 23.5 Feet	20	20	7-20-45-50/2" N=65		
				0	50/0"		
			25				

Stratification lines are approximate. In-situ, the transition may be gradual. Hammer Type: Automatic

Advancement Method: 3 1/4" ID HSA
Abandonment Method: Boring backfilled with soil cuttings upon completion. Asphalt repaired using "cold patch" asphalt.
See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (if any).
See Supporting Information for explanation of symbols and abbreviations.
Elevations were interpolated from a topographic site plan.
Notes:

WATER LEVEL OBSERVATIONS
▽ *23 feet after boring completion*

Terracon, 594 Broadway, Watervliet, NY

Boring Started: 03-20-2019 | Boring Completed: 03-20-2019
Drill Rig: CME 45 | Driller: S. Loiselle
Project No.: JB195049

BORING LOG NO. B-3

Page 1 of 1

PROJECT: Bridge Street Building
CLIENT: Prime Plattsburgh Hotel, LLC Cohoes, New York
SITE: Durkee and Bridge Street Plattsburgh, New York

LOCATION See Exploration Plan
Latitude: 44.6967° Longitude: -73.4516°
Approximate Surface Elev.: 117 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
0.3	116.7+/-	**ASPHALT**			19	12-11-9-25 N=20		
0.7	116.3+/-	**PAVEMENT BASE**						
		FILL - SILTY SAND, pieces of brick, orange to brown, moist, medium dense to dense			20	22-26-9-10 N=35		
6.0	112+/-				10	3-3-3-3 N=6		
		FILL - CLAYEY SAND, with gravel, pieces of wood, brick, and glass, orange to brown, moist to wet, loose			7	3-4-2-3 N=6		
13.0	104+/-				19	2-1-4-3 N=5		
13.5	103.5+/-	**FORMER TOPSOIL**			13	2-3-2-2 N=5		
15.0	102+/-				17	1-1-2-2 N=3		
		POORLY GRADED SAND (SP), with gravel, gray, wet, loose			14	1-2-4-6 N=6		
17.0	100+/-				22	24-39-48-50/1" N=87		
		SILTY SAND (SM), with gravel, occasional cobbles and boulders, gray, dry, very dense						
20.0	97+/-				0	50/0"		
		Sampler Refusal on Probable Boulders at 20 Feet						

Stratification lines are approximate. In-situ, the transition may be gradual. Hammer Type: Automatic

Advancement Method: 3 1/4" ID HSA
Abandonment Method: Boring backfilled with soil cuttings upon completion. Asphalt repaired using "cold patch" asphalt.
See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (if any).
See Supporting Information for explanation of symbols and abbreviations.
Elevations were interpolated from a topographic site plan.
Notes:

WATER LEVEL OBSERVATIONS
▽ *19.4 feet before auger removal*
▽ *16.9 after auger removal*

Terracon, 594 Broadway, Watervliet, NY

Boring Started: 03-19-2019 | Boring Completed: 03-19-2019
Drill Rig: CME 45 | Driller: S. Loiselle
Project No.: JB195049

BORING LOG NO. B-4

Page 1 of 1

PROJECT: Bridge Street Building
CLIENT: Prime Plattsburgh Hotel, LLC Cohoes, New York
SITE: Durkee and Bridge Street Plattsburgh, New York

LOCATION See Exploration Plan
Latitude: 44.6962° Longitude: -73.452°
Approximate Surface Elev.: 119 (Ft.) +/-

DEPTH	ELEVATION (Ft.)	Description	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	WATER CONTENT (%)
0.3	118.7+/-	**ASPHALT**			19	10-12-9-12 N=21		
0.7	118.3+/-	**PAVEMENT BASE**						
		FILL - POORLY GRADED SAND, with gravel, occasional cobbles, gray to orange, dry, medium dense			22	14-13-9-5 N=22		
4.5	115+/-							
6.0	113+/-	**FORMER TOPSOIL**			4	3-3-9-12 N=12		
		SILTY SAND (SM), with gravel, occasional sand seams, cobbles, and boulders, brown to gray, moist to wet, medium dense to dense			16	7-6-6-9 N=11		
11.0	108+/-				19	6-9-37-9 N=46		
		POORLY GRADED SAND (SP), brown to gray, wet, medium dense			22	8-13-15-11 N=28		
13.0	106+/-				20	4-6-8-10 N=14		
		SILTY SAND (SM), with gravel, occasional sand seams, cobbles, and boulders, gray, wet, medium dense to very dense			22	9-15-34-41 N=49		
		Grades to gray at approximately 15 feet						
					10	24-50/2"		
27.5	91.5+/-				11	25-50/4"		
		Sampler Refusal on Probable Boulders at 27.5 Feet			1	100/1"		

Stratification lines are approximate. In-situ, the transition may be gradual. Hammer Type: Automatic

Advancement Method: 3 1/4" ID HSA
Abandonment Method: Boring backfilled with soil cuttings upon completion. Asphalt repaired using "cold patch" asphalt.
See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (if any).
See Supporting Information for explanation of symbols and abbreviations.
Elevations were interpolated from a topographic site plan.
Notes:

WATER LEVEL OBSERVATIONS
▽ *6.4 feet 24 hours after boring completion*
▽ *8.7 feet after auger removal*
▽ *21.4 feet after auger removal*

Terracon, 594 Broadway, Watervliet, NY

Boring Started: 03-19-2019 | Boring Completed: 03-19-2019
Drill Rig: CME 45 | Driller: S. Loiselle
Project No.: JB195049

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
mjinc.com

PROJECT MILESTONE

SITE PLAN SUBMISSION

NO.	DATE	DESCRIPTION
1	04/16/20	CITY COMMENTS
2	05/05/20	CLARIFICATIONS
3	08/10/20	BUILDING REVISION

CLIENT: PRIME PLATTSBURGH, LLC
CITY OF PLATTSBURGH, NEW YORK
PROJECT: DURKEE STREET MIXED USE DEVELOPMENT

DRAWN	NSO
DESIGNED	NSO
CHECKED	TCB
SCALE	N.T.S.
DATE	FEBRUARY 2020
PROJECT	18491.00

DRAWING TITLE

BORING LOG

DRAWING NUMBER

BL-01

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
mjinc.com

PROJECT MILESTONE

SITE PLAN SUBMISSION

NO.	DATE	DESCRIPTION
1	04/16/20	CITY COMMENTS
2	05/05/20	CLARIFICATIONS
3	05/11/20	ZBA COMMENTS
4	05/21/20	ADDED DIMENSIONS
5	06/05/20	ADDED SIGNAGE
6	08/10/20	BUILDING REVISION

CLIENT: PRIME PLATTSBURGH, LLC
CITY OF PLATTSBURGH, NEW YORK

PROJECT: DURKEE STREET MIXED USE DEVELOPMENT

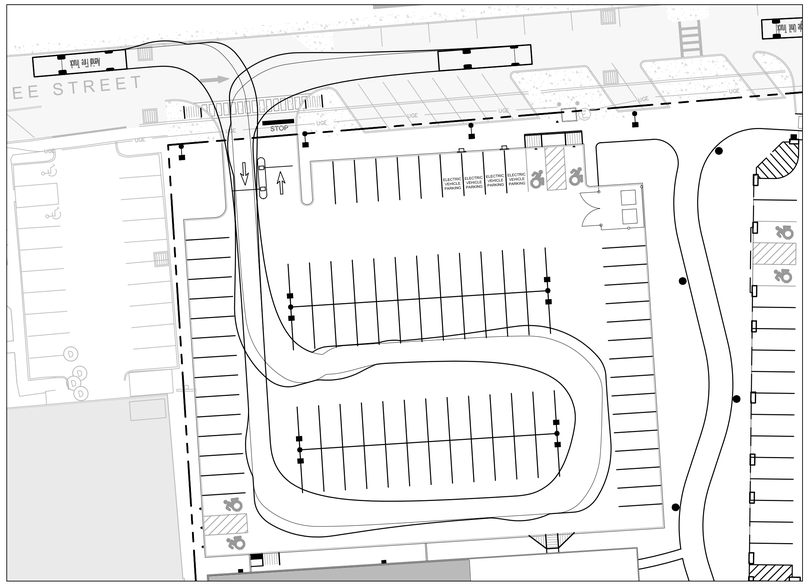
DRAWN	NSO
DESIGNED	NSO
CHECKED	TCB
SCALE	1"=20'
DATE	FEBRUARY 2020
PROJECT	18491.00

DRAWING TITLE

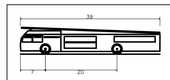
SITE PLAN

DRAWING NUMBER

C-01

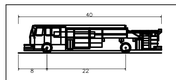


AERIAL FIRE TRUCK ROUTE

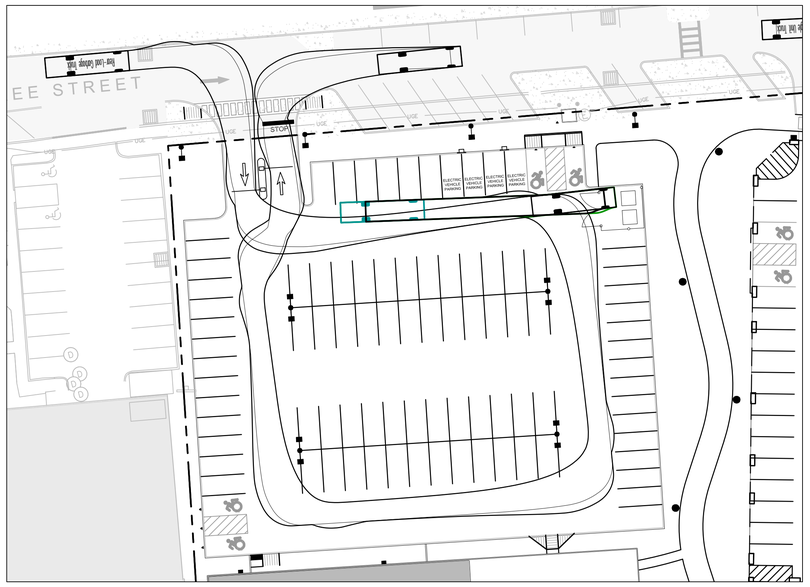


Aerial Fire Truck	
Overall Length	39.000ft
Overall Width	8.167ft
Overall Body Height	7.500ft
Min Body Ground Clearance	0.729ft
Track Width	8.167ft
Lock-to-lock time	5.00s
Max Wheel Angle	45.00°

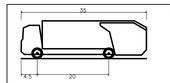
PUMPER FIRE TRUCK ROUTE



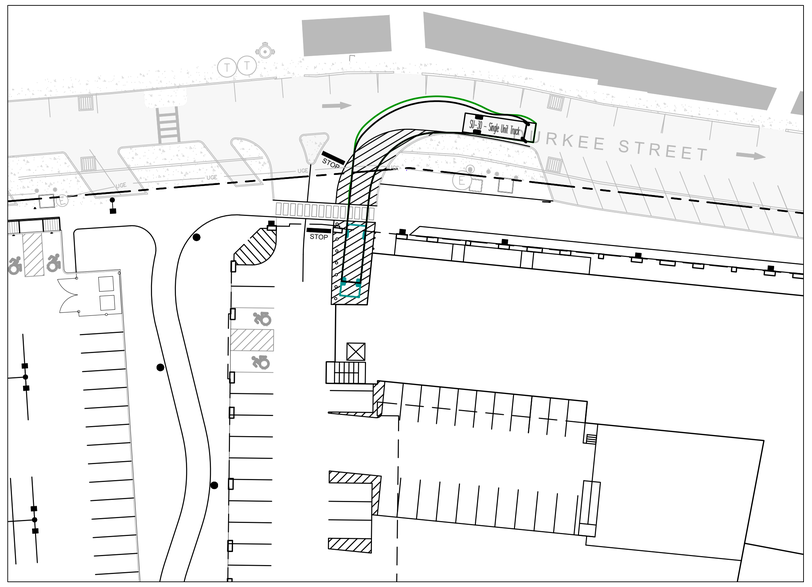
Pumper Fire Truck	
Overall Length	40.000ft
Overall Width	8.167ft
Overall Body Height	7.745ft
Min Body Ground Clearance	0.625ft
Track Width	8.167ft
Lock-to-lock time	5.00s
Max Wheel Angle	45.00°



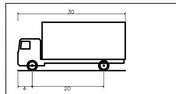
GARBAGE TRUCK ROUTE



Rear-Load Garbage Truck	
Overall Length	35.000ft
Overall Width	8.375ft
Overall Body Height	10.546ft
Min Body Ground Clearance	1.000ft
Track Width	8.375ft
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	29.300ft



BOX TRUCK ROUTE



SU-30 - Single Unit Truck	
Overall Length	30.000ft
Overall Width	8.000ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.367ft
Track Width	8.000ft
Lock-to-lock time	5.00s
Max Steering Angle (Virtual)	31.80°

0 30 60 90 FT

SCALE

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
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PROJECT MILESTONE

SITE PLAN SUBMISSION

NO.	DATE	DESCRIPTION
1	04/16/20	CITY COMMENTS
2	05/05/20	CLARIFICATIONS
3	08/10/20	BUILDING REVISION

CLIENT: PRIME PLATTSBURGH, LLC

CITY OF PLATTSBURGH, NEW YORK

PROJECT: DURKEE STREET MIXED USE DEVELOPMENT

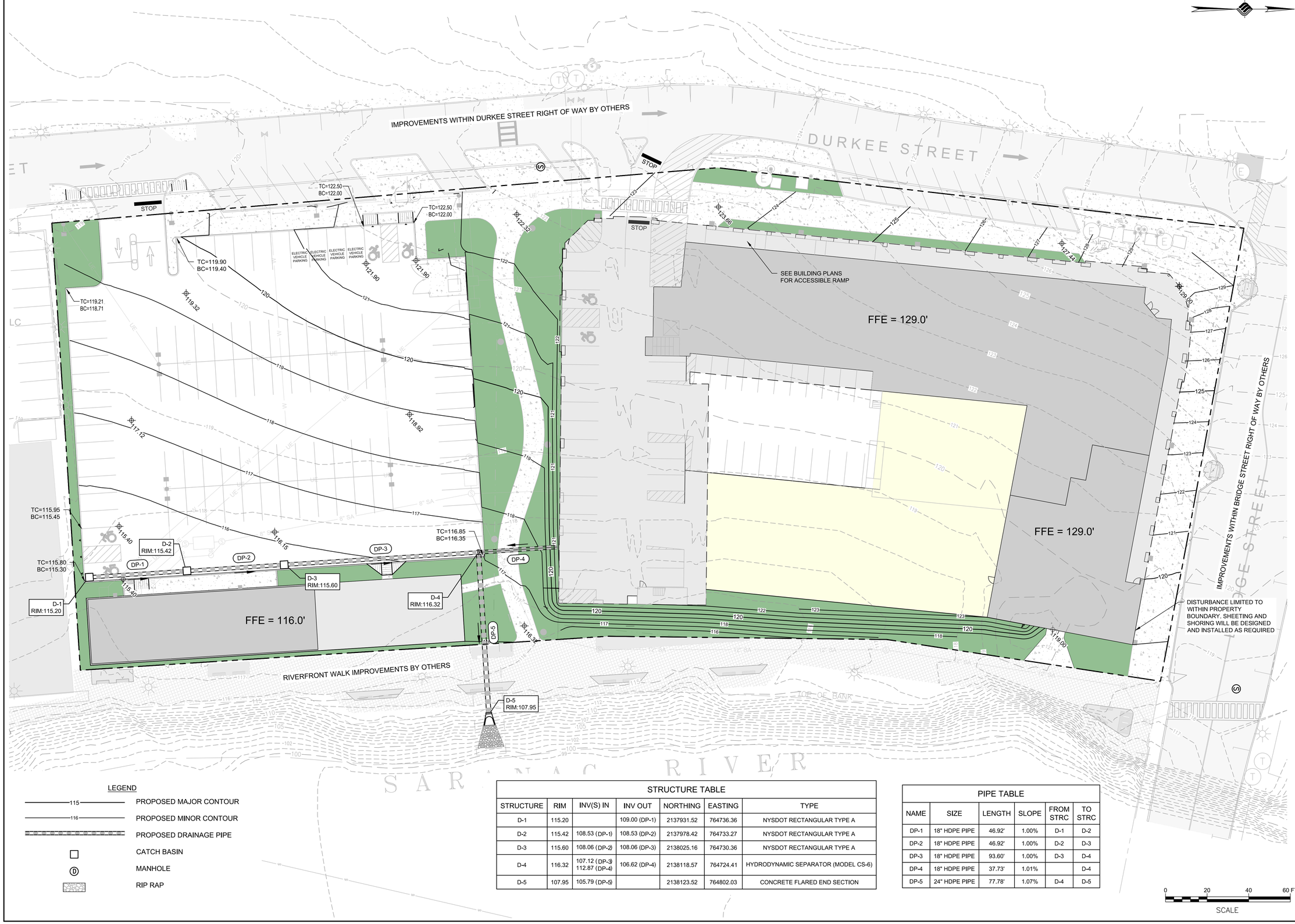
DRAWN	NSO
DESIGNED	NSO
CHECKED	TCB
SCALE	1"=30'
DATE	FEBRUARY 2020
PROJECT	18491.00

DRAWING TITLE

DRIVEWAY PLAN

DRAWING NUMBER

C-02



LEGEND

- PROPOSED MAJOR CONTOUR (115)
- PROPOSED MINOR CONTOUR (116)
- PROPOSED DRAINAGE PIPE
- CATCH BASIN
- MANHOLE
- RIP RAP

STRUCTURE TABLE

STRUCTURE	RIM	INV(S) IN	INV OUT	NORTHING	EASTING	TYPE
D-1	115.20		109.00 (DP-1)	2137931.52	764736.36	NYSDOT RECTANGULAR TYPE A
D-2	115.42	108.53 (DP-1)	108.53 (DP-2)	2137978.42	764733.27	NYSDOT RECTANGULAR TYPE A
D-3	115.60	108.06 (DP-2)	108.06 (DP-3)	2138025.16	764730.36	NYSDOT RECTANGULAR TYPE A
D-4	116.32	107.12 (DP-3) 112.87 (DP-4)	106.62 (DP-4)	2138118.57	764724.41	HYDRODYNAMIC SEPARATOR (MODEL CS-6)
D-5	107.95	105.79 (DP-5)		2138123.52	764802.03	CONCRETE FLARED END SECTION

PIPE TABLE

NAME	SIZE	LENGTH	SLOPE	FROM STRC	TO STRC
DP-1	18" HDPE PIPE	46.92'	1.00%	D-1	D-2
DP-2	18" HDPE PIPE	46.92'	1.00%	D-2	D-3
DP-3	18" HDPE PIPE	93.60'	1.00%	D-3	D-4
DP-4	18" HDPE PIPE	37.73'	1.01%		D-4
DP-5	24" HDPE PIPE	77.78'	1.07%	D-4	D-5

0 20 40 60 FT
SCALE

McFarland Johnson
60 RAILROAD PLACE
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PROJECT MILESTONE
SITE PLAN SUBMISSION

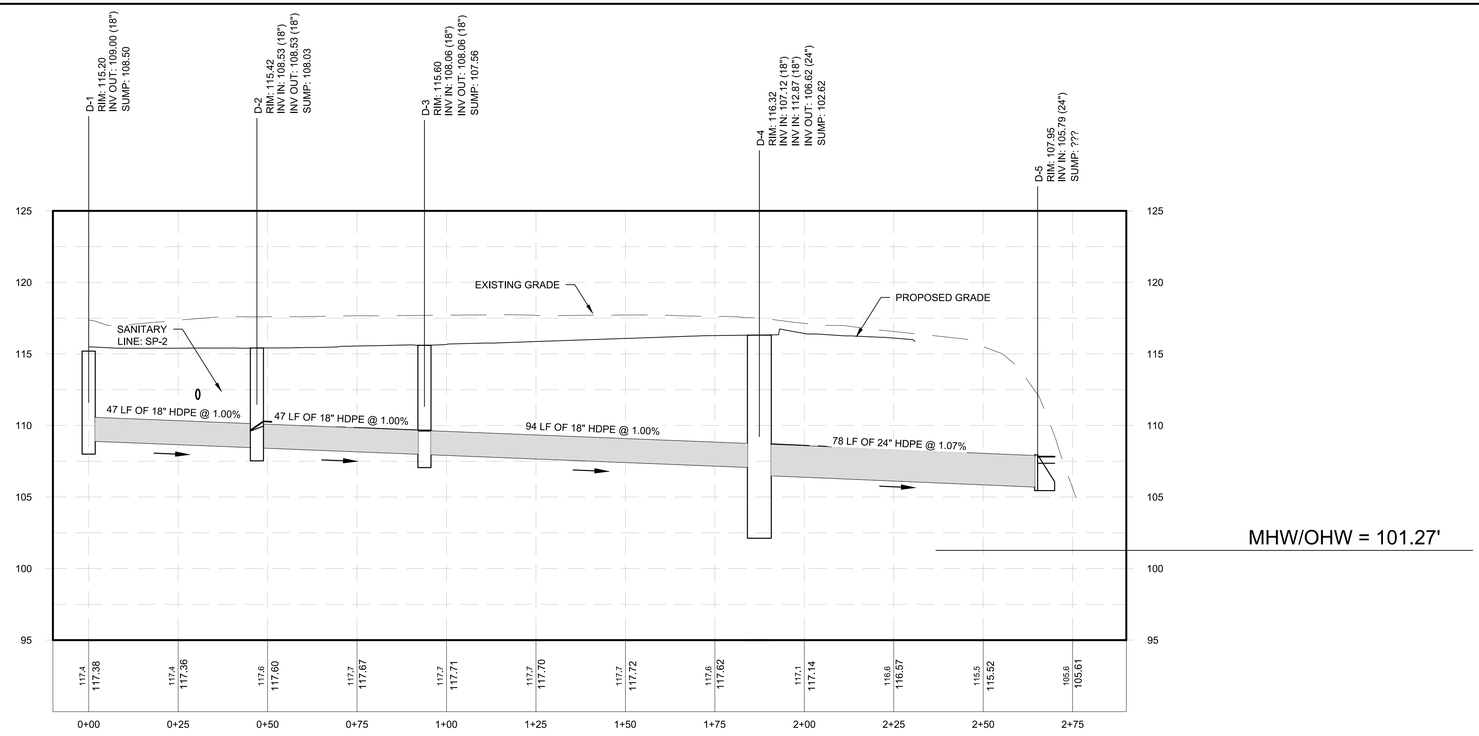
NO.	DATE	DESCRIPTION
1	04/16/20	CITY COMMENTS
2	05/05/20	CLARIFICATIONS
3	08/10/20	BUILDING REVISION

CLIENT: PRIME PLATTSBURGH, LLC
PROJECT: DURKEE STREET MIXED USE DEVELOPMENT
CITY OF PLATTSBURGH, NEW YORK

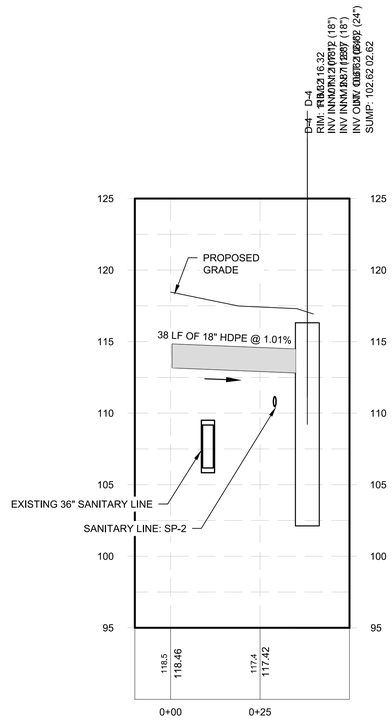
DRAWN	NSO
DESIGNED	NSO
CHECKED	TCB
SCALE	1"=20'
DATE	FEBRUARY 2020
PROJECT	18491.00

DRAWING TITLE
GRADING AND DRAINAGE PLAN

DRAWING NUMBER
GR-01



DRAINAGE PROFILE
Horizontal Scale: 1" = 20'
Vertical Scale: 1" = 5'



P1-4 PROFILE
Horizontal Scale: 1" = 20'
Vertical Scale: 1" = 5'

0 20 40 60 FT
SCALE

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
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PROJECT MILESTONE
SITE PLAN SUBMISSION

NO.	DATE	DESCRIPTION
1	04/16/20	CITY COMMENTS
2	05/05/20	CLARIFICATIONS
3	08/10/20	BUILDING REVISION

CLIENT: PRIME PLATTSBURGH, LLC
CITY OF PLATTSBURGH, NEW YORK
PROJECT: DURKEE STREET MIXED USE DEVELOPMENT

DRAWN	NSO
DESIGNED	NSO
CHECKED	TCB
SCALE	1"=20'
DATE	FEBRUARY 2020
PROJECT	18491.00

DRAWING TITLE
DRAINAGE PROFILES

DRAWING NUMBER
GR-02

PROPOSED 4" DIP CEMENT LINED CLASS 52 DOMESTIC WATER SERVICE

PROPOSED WATER SERVICE CONNECTION (TO BE COORDINATED WITH THE CITY OF PLATTSBURGH DPW)

PROPOSED WATER SERVICE CONNECTION (TO BE COORDINATED WITH THE CITY OF PLATTSBURGH DPW)

PROPOSED 6" DIP CEMENT LINED CLASS 52 SPRINKLER WATER SERVICE

PROPOSED ELECTRIC SERVICE CONNECTION REQUIREMENTS TO BE COORDINATED WITH THE CITY OF PLATTSBURGH DPW

EXISTING ELECTRICAL EQUIPMENT TO REMAIN (TYP.)

PROPOSED ELECTRICAL TRANSFORMERS

PROPOSED STANDPIPE SYSTEM FOR SPRINKLER SERVICE

APPROXIMATE LOCATION OF BLOW-OFF, DISINFECTION & SAMPLING TAP LOCATION, WATER METER & BACKFLOW PREVENTER (LOCATED IN MECHANICAL ROOM WITHIN BUILDING BASEMENT)

UNDERGROUND ELECTRICAL CONDUIT CONNECTION TO BUILDING

8" DIP CEMENT LINED CLASS 52 AWWA C151 DOMESTIC WATER SERVICE

PROPOSED UTILITY EASEMENT

8" 45° ELBOW

SEE SHEETS SL-01 AND SL-02 FOR SITE LIGHTING PLAN AND DETAILS

PROPOSED GREASE TRAP

PROPOSED GREASE TRAP

PROPOSED SANITARY LINE

SEE SHEET GR-01 FOR DRAINAGE PLAN

SEE SHEET DT-04 FOR WATER CONNECTION DETAIL

PROPOSED SANITARY SEWER CONNECTION TO EXISTING MANHOLE (TO BE COORDINATED WITH THE CITY OF PLATTSBURGH DPW)

PROPOSED 12" PVC OVERFLOW LINE FOR SIPHON MANHOLE

EXISTING SIPHON MANHOLE

PROPOSED SANITARY SEWER CONNECTION TO EXISTING MANHOLE (TO BE COORDINATED WITH THE CITY OF PLATTSBURGH DPW)

LEGEND

- W — PROPOSED PRIVATE WATER LINE
- UE — PROPOSED ELECTRIC LINE
- 8" SA — PROPOSED PRIVATE SANITARY LINE
- 12" SA — PROPOSED CITY SANITARY LINE
- SA — EXISTING CITY SANITARY LINE
- PROPOSED PRIVATE DRAINAGE PIPE
- Ⓢ PROPOSED SANITARY MANHOLE
- □ PROPOSED CATCH BASIN
- PROPOSED END SECTION
- PROPOSED WATER VALVE
- PROPOSED LIGHT FIXTURE

STRUCTURE TABLE

STRUCTURE	RIM	INV(S) IN	INV OUT	TYPE	NORTHING	EASTING
CO-1	115.42	111.89	111.89	Cleanout	2137956.39	764739.39
CO-2	120.37	111.90	111.90	Cleanout	2138152.94	764677.22
CO-3	115.39	111.81	111.81	Cleanout	2137962.12	764740.57
CO-4	115.49	111.62	111.62	Cleanout	2137976.29	764726.82
CO-5	115.59	111.51	111.51	Cleanout	2137990.03	764725.79
CO-6	120.17	111.90	111.89	Cleanout	2138152.70	764694.84
SS-2	115.65	111.75	111.65	Concentric Cylindrical Structure	2137977.71	764720.33
SS-3	115.81	111.44 111.44	111.34	Concentric Cylindrical Structure	2137995.22	764719.21
SS-4	118.70	111.12	111.02	Concentric Cylindrical Structure	2138114.05	764678.62
SS-5	118.38	110.81 110.73 110.73	110.63	Concentric Cylindrical Structure	2138115.17	764696.13
SS-6	115.50	110.87	110.72	Concentric Cylindrical Structure	2138176.65	764771.10
SS-7	117.14	110.03	109.93	Concentric Cylindrical Structure	2138314.40	764771.29
SS-8	119.04	109.35	109.25	Concentric Cylindrical Structure	2138428.57	764788.69
SS-9	117.00	109.15	109.05	Concentric Cylindrical Structure	2138439.49	764805.93

PIPE TABLE

NAME	SIZE	LENGTH	SLOPE	MATERIAL
SP-1	8"	5.39'	2.00%	SDR-35
SP-2	8"	28.59'	0.50%	SDR-35
SP-3	8"	3.78'	0.50%	SDR-35
SP-4	8"	3.78'	0.50%	SDR-35
SP-5	8"	122.15'	0.50%	SDR-35
SP-6	8"	38.92'	2.00%	SDR-35
SP-7	8"	3.77'	0.82%	SDR-35
SP-8	8"	3.77'	0.50%	SDR-35
SP-9	8"	71.12'	0.50%	SDR-35
SP-10	12"	27.85'	0.50%	SDR-35
SP-11	12"	137.75'	0.50%	SDR-35
SP-12	12"	115.49'	0.50%	SDR-35
SP-13	12"	20.41'	0.50%	SDR-35
SP-14	12"	43.77'	0.50%	SDR-35
SP-15	8"	4.87'	2.00%	SDR-35

PIPE TABLE

NAME	SIZE	LENGTH	SLOPE	MATERIAL
SP-16	8"	3.84'	2.03%	SDR-35
SP-17	8"	19.75'	0.97%	SDR-35
SP-18	8"	13.77'	0.80%	SDR-35
SP-19	8"	8.38'	0.82%	SDR-35
SP-20	8"	4.72'	2.12%	SDR-35
SP-21	8"	37.55'	3.09%	SDR-35

0 20 40 60 FT
SCALE

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
mjinc.com

PROJECT MILESTONE

SITE PLAN SUBMISSION

NO.	DATE	DESCRIPTION
1	04/16/20	CITY COMMENTS
2	05/05/20	CLARIFICATIONS
3	08/10/20	BUILDING REVISION

CLIENT: PRIME PLATTSBURGH, LLC

CITY OF PLATTSBURGH, NEW YORK

PROJECT: DURKEE STREET MIXED USE DEVELOPMENT

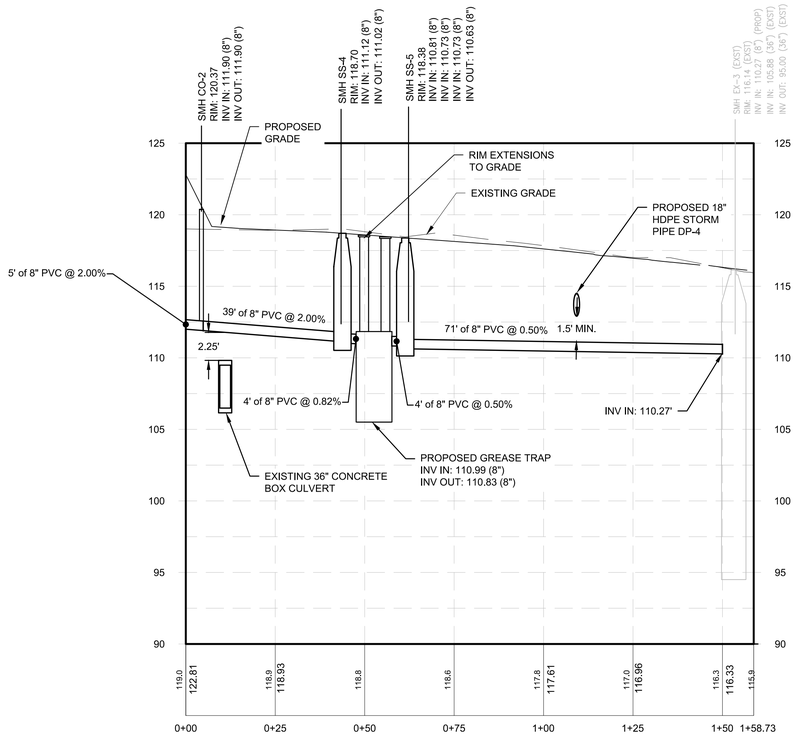
DRAWN	TCH
DESIGNED	TCH
CHECKED	TCB
SCALE	1"=20'
DATE	FEBRUARY 2020
PROJECT	18491.00

DRAWING TITLE

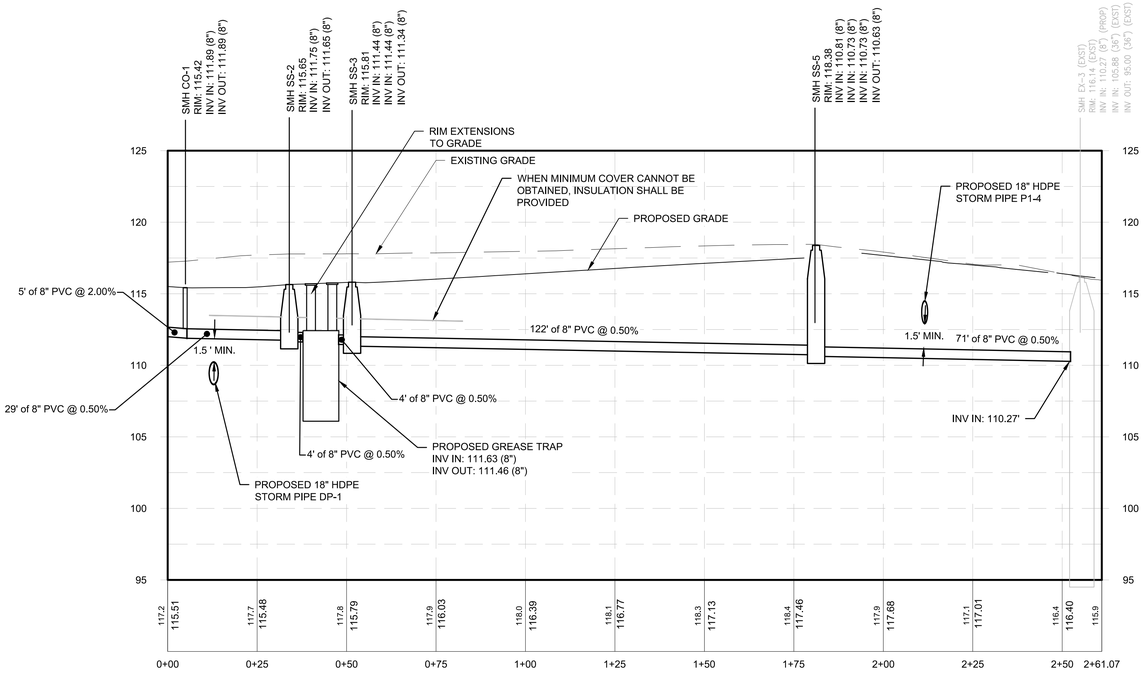
UTILITY LAYOUT

DRAWING NUMBER

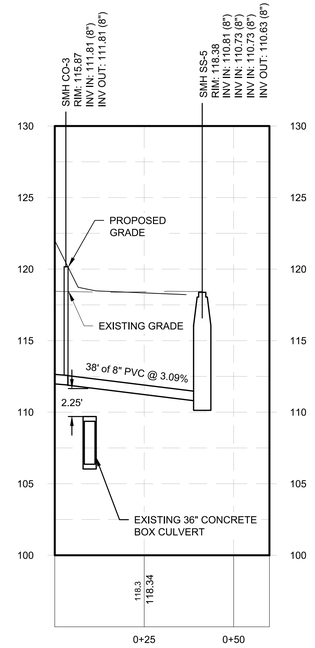
UT-01



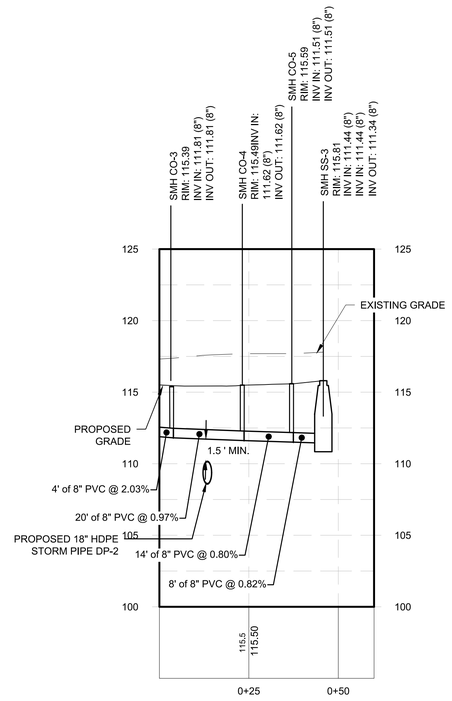
MIXED-USE DEVELOPMENT PROPOSED SANITARY SEWER
Horizontal Scale: 1" = 20'
Vertical Scale: 1" = 5'



CIVIC SPACE PROPOSED SANITARY SEWER
Horizontal Scale: 1" = 20'
Vertical Scale: 1" = 5'



MIXED-USE DEVELOPMENT PROPOSED SANITARY SEWER BYPASS
Horizontal Scale: 1" = 20'
Vertical Scale: 1" = 5'



CIVIC SPACE PROPOSED SANITARY SEWER BYPASS
Horizontal Scale: 1" = 20'
Vertical Scale: 1" = 5'

0 30 60 90 FT
SCALE

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
mjinc.com

PROJECT MILESTONE
SITE PLAN SUBMISSION

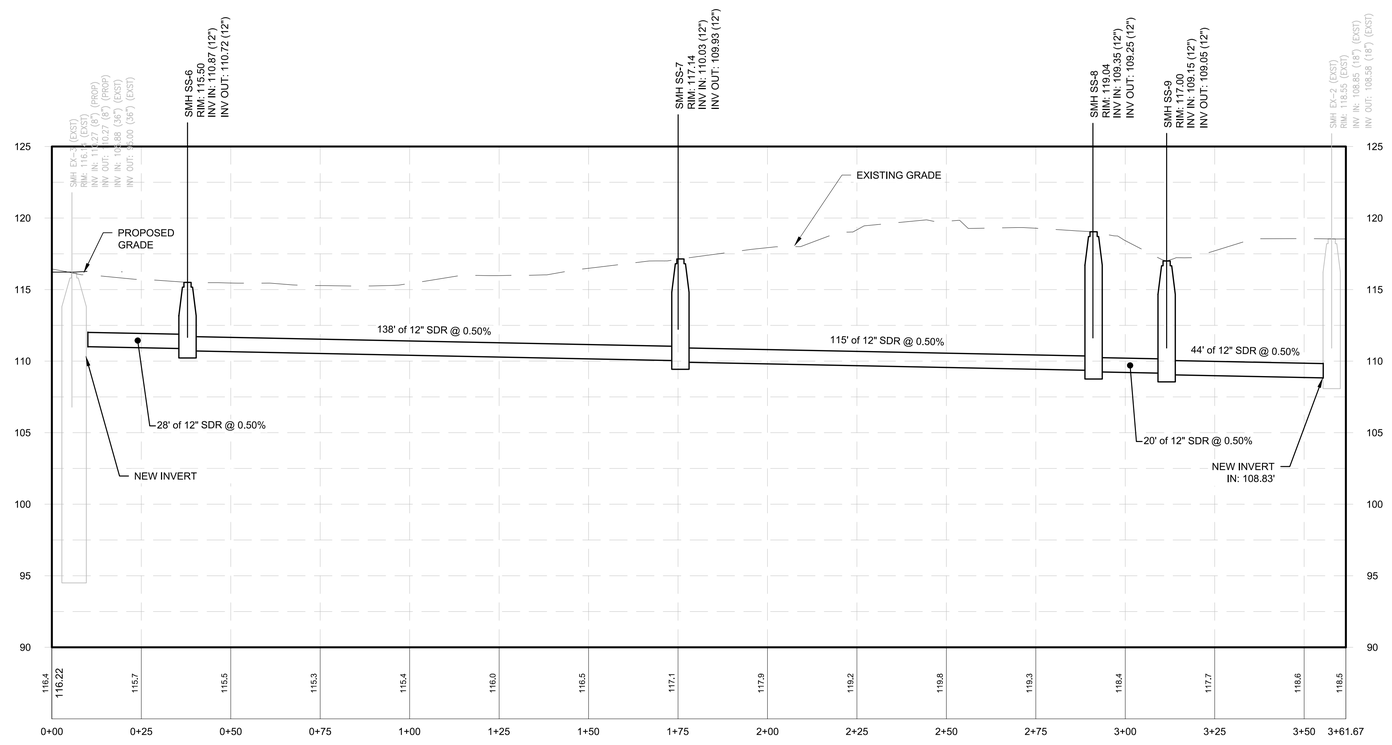
NO.	DATE	DESCRIPTION
1	04/16/20	CITY COMMENTS
2	05/05/20	CLARIFICATIONS
3	08/10/20	BUILDING REVISION

CLIENT: PRIME PLATTSBURGH, LLC
CITY OF PLATTSBURGH, NEW YORK
PROJECT: DURKEE STREET MIXED USE DEVELOPMENT

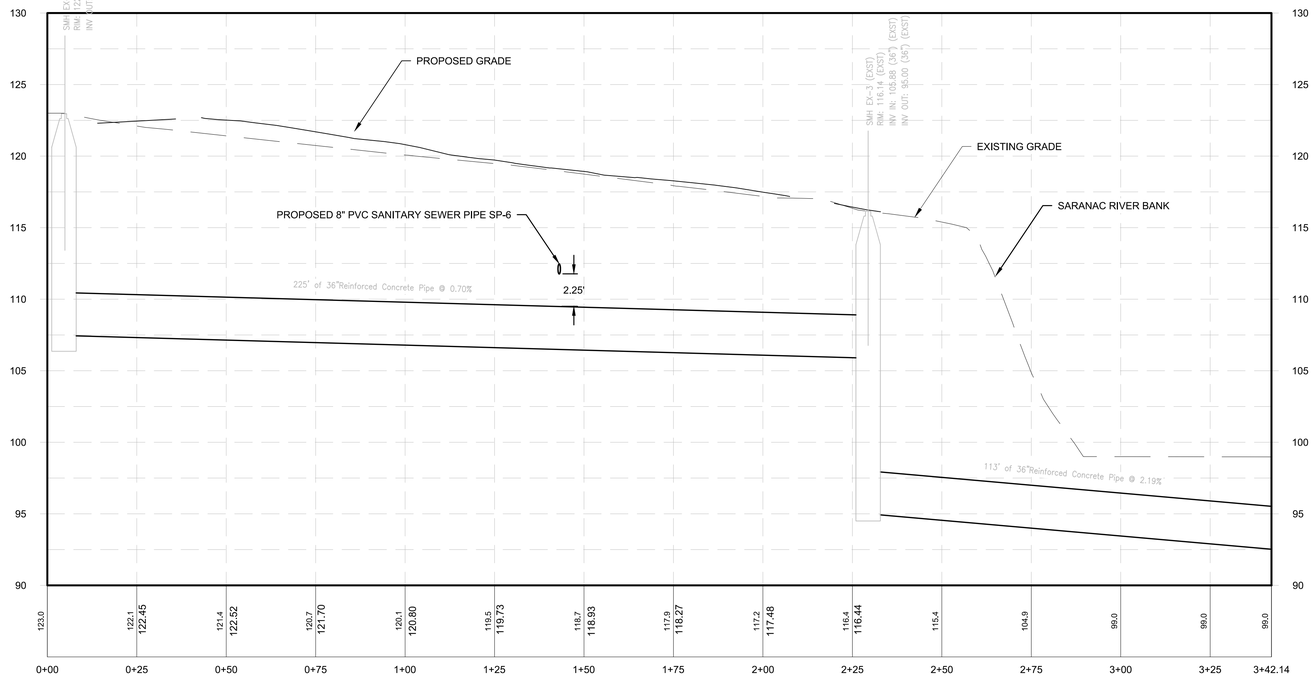
DRAWN	TCH
DESIGNED	TCH
CHECKED	TCB
SCALE	1"=30'
DATE	FEBRUARY 2020
PROJECT	18491.00

DRAWING TITLE
SANITARY PROFILES

DRAWING NUMBER
UT-02



PROPOSED SANITARY SEWER OVERFLOW LINE
Horizontal Scale: 1" = 20'
Vertical Scale: 1" = 5'



EXISTING GRAVITY SANITARY SEWER
Horizontal Scale: 1" = 20'
Vertical Scale: 1" = 5'

0 30 60 90 FT
SCALE

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
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PROJECT MILESTONE
SITE PLAN SUBMISSION

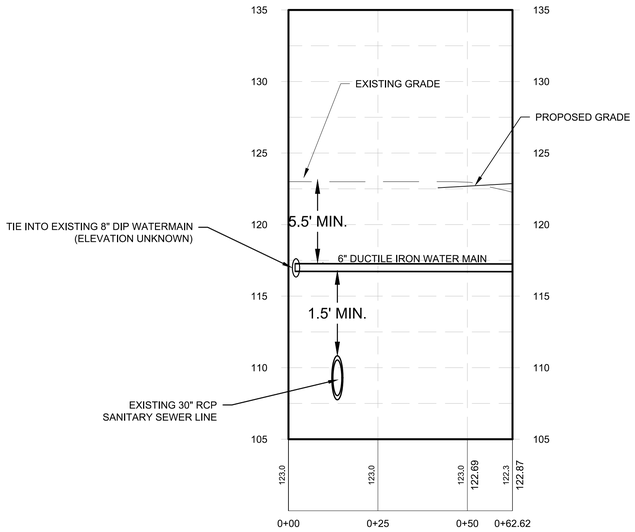
NO.	DATE	DESCRIPTION
1	04/16/20	CITY COMMENTS
2	05/05/20	CLARIFICATIONS
3	08/10/20	BUILDING REVISION

CLIENT: PRIME PLATTSBURGH, LLC
CITY OF PLATTSBURGH, NEW YORK
PROJECT: DURKEE STREET MIXED USE DEVELOPMENT

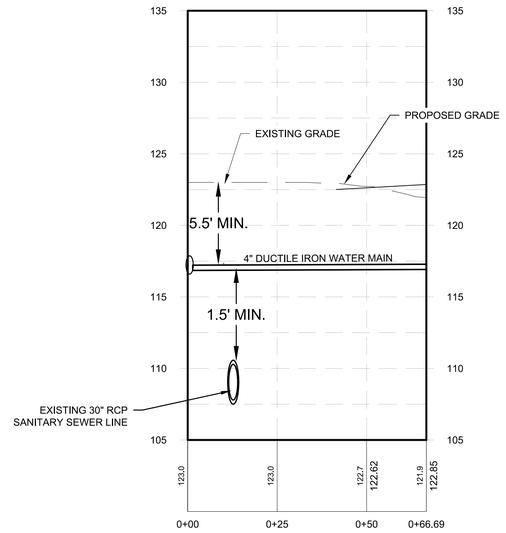
DRAWN	NSO
DESIGNED	NSO
CHECKED	TCB
SCALE	1"=20'
DATE	FEBRUARY 2020
PROJECT	18491.00

DRAWING TITLE
SANITARY PROFILES

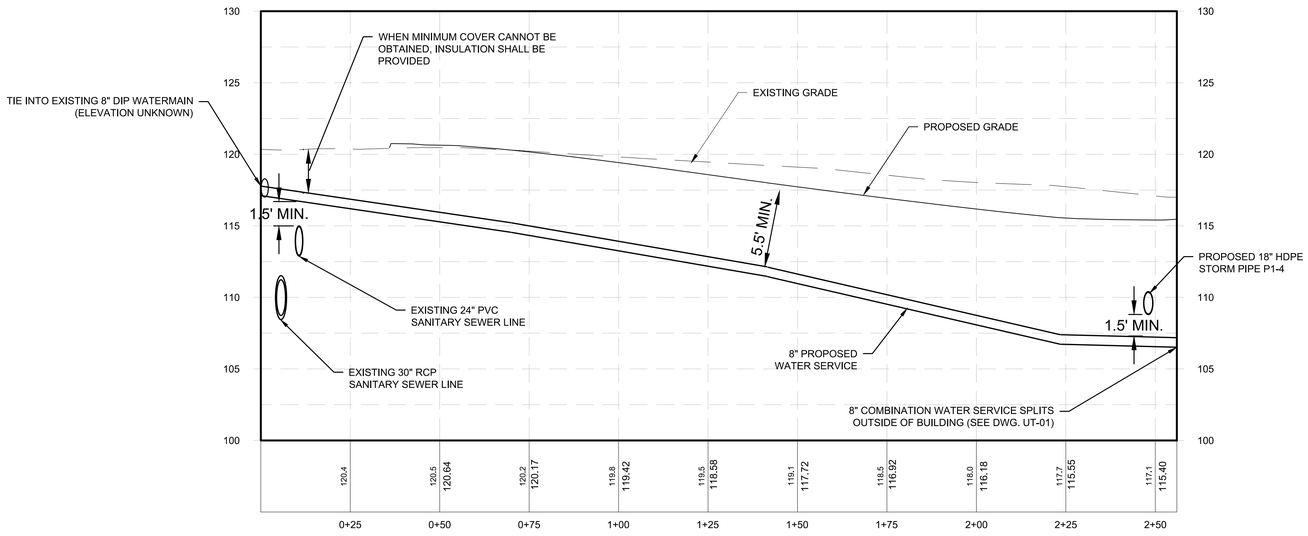
DRAWING NUMBER
UT-03



PROPOSED MIXED-USE DEVELOPMENT SPRINKLER SERVICE
Horizontal Scale: 1" = 20'
Vertical Scale: 1" = 5'



PROPOSED MIXED-USE DEVELOPMENT DOMESTIC WATER SERVICE
Horizontal Scale: 1" = 20'
Vertical Scale: 1" = 5'



CIVIC SPACE WATER SERVICE
Horizontal Scale: 1" = 20'
Vertical Scale: 1" = 5'

0 20 40 60 FT
SCALE

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
mjinc.com

PROJECT MILESTONE
SITE PLAN SUBMISSION

NO.	DATE	DESCRIPTION
1	04/16/20	CITY COMMENTS
2	05/05/20	CLARIFICATIONS
3	08/10/20	BUILDING REVISION

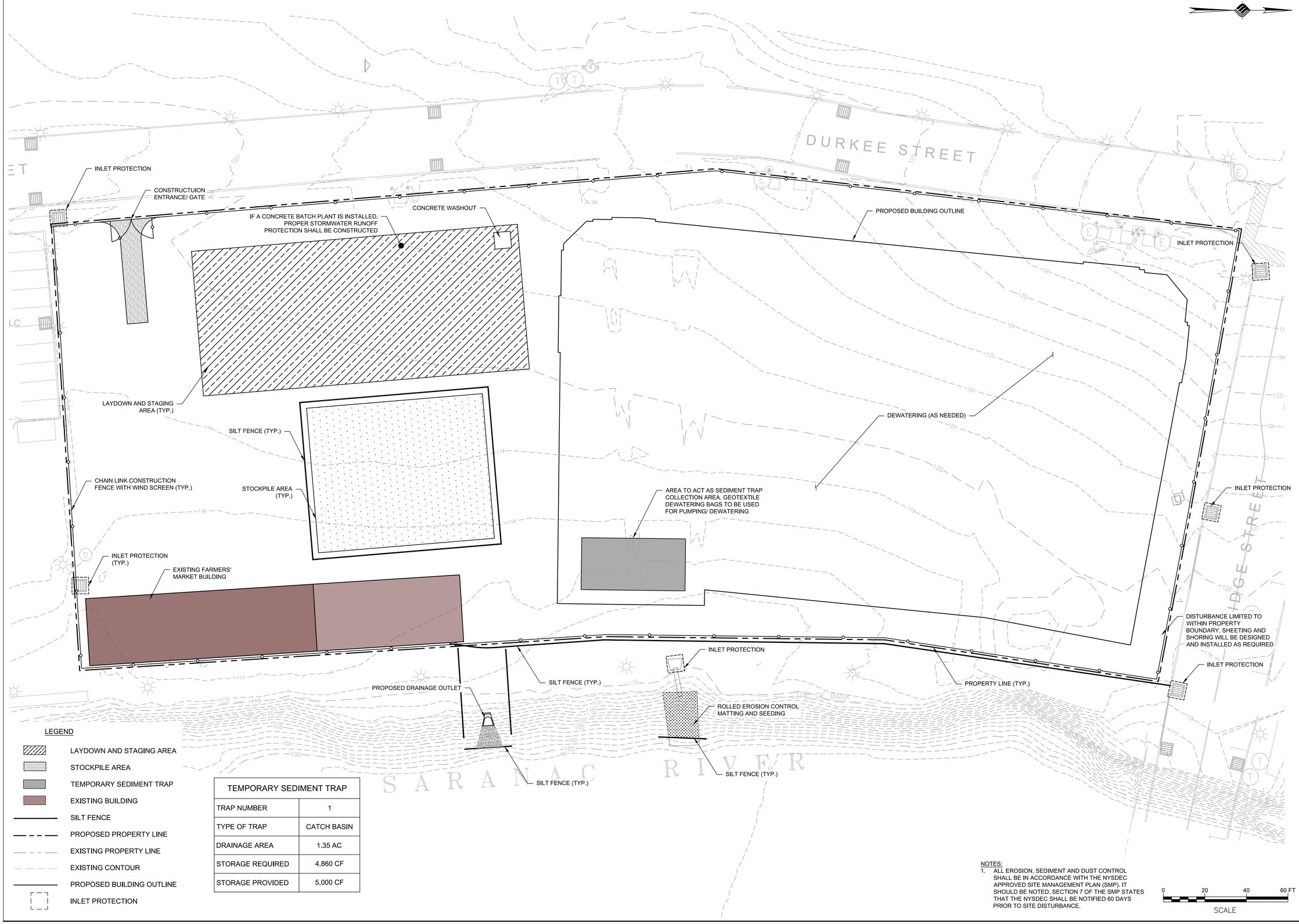
CLIENT: PRIME PLATTSBURGH, LLC
CITY OF PLATTSBURGH, NEW YORK

PROJECT: DURKEE STREET MIXED USE DEVELOPMENT

DRAWN	TCH
DESIGNED	TCH
CHECKED	TCB
SCALE	1"=20'
DATE	FEBRUARY 2020
PROJECT	18491.00

DRAWING TITLE
WATER PROFILES

DRAWING NUMBER
UT-04



LEGEND

- LAYDOWN AND STAGING AREA
- STOCKPILE AREA
- TEMPORARY SEDIMENT TRAP
- EXISTING BUILDING
- SILT FENCE
- PROPOSED PROPERTY LINE
- EXISTING PROPERTY LINE
- EXISTING CONTOUR
- PROPOSED BUILDING OUTLINE
- INLET PROTECTION

TEMPORARY SEDIMENT TRAP	
TRAP NUMBER	1
TYPE OF TRAP	CATCH BASIN
DRAINAGE AREA	1.35 AC
STORAGE REQUIRED	4,860 CF
STORAGE PROVIDED	5,000 CF

NOTES:
1. ALL EROSION, SEDIMENT AND DUST CONTROL SHALL BE IN ACCORDANCE WITH THE NYSDEC APPROVED SITE MANAGEMENT PLAN (SMP). IT SHOULD BE NOTED, SECTION 7 OF THE SMP STATES THAT THE NYSDEC SHALL BE NOTIFIED 60 DAYS PRIOR TO SITE DISTURBANCE.

0 20 40 60 FT
SCALE

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
mjinc.com

PROJECT MILESTONE
SITE PLAN SUBMISSION

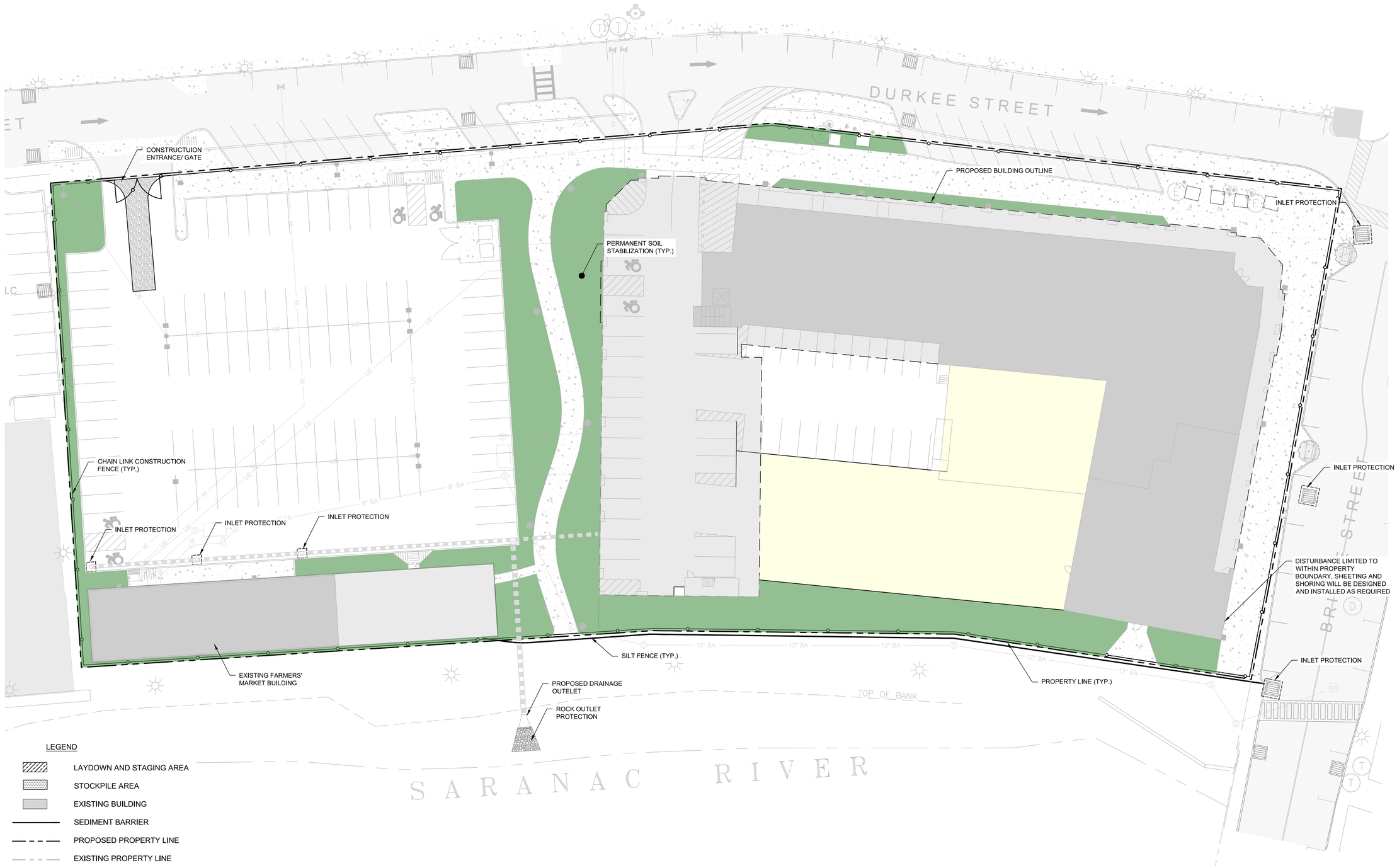
NO.	DATE	DESCRIPTION
1	04/16/20	CITY COMMENTS
2	05/05/20	CLARIFICATIONS
3	08/10/20	BUILDING REVISION

CLIENT: PRIME PLATTSBURGH, LLC
CITY OF PLATTSBURGH, NEW YORK
PROJECT: DURKEE STREET MIXED USE DEVELOPMENT

DRAWN	NSO
DESIGNED	NSO
CHECKED	TCB
SCALE	1"=20'
DATE	FEBRUARY 2020
PROJECT	18491.00

DRAWING TITLE
EROSION AND SEDIMENT CONTROL PLAN PHASE I

DRAWING NUMBER
EC-01



LEGEND

- LAYDOWN AND STAGING AREA
- STOCKPILE AREA
- EXISTING BUILDING
- SEDIMENT BARRIER
- PROPOSED PROPERTY LINE
- EXISTING PROPERTY LINE
- EXISTING CONTOUR
- PROPOSED BUILDING OUTLINE
- INLET PROTECTION

NOTES:

1. ALL EROSION, SEDIMENT AND DUST CONTROL SHALL BE IN ACCORDANCE WITH THE NYSDEC APPROVED SITE MANAGEMENT PLAN (SMP). IT SHOULD BE NOTED, SECTION 7 OF THE SMP STATES THAT THE NYSDEC SHALL BE NOTIFIED 60 DAYS PRIOR TO SITE DISTURBANCE.

0 20 40 60 FT

SCALE

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
mjinc.com

PROJECT MILESTONE

SITE PLAN SUBMISSION

NO.	DATE	DESCRIPTION
1	04/16/20	CITY COMMENTS
2	05/05/20	CLARIFICATIONS
3	08/10/20	BUILDING REVISION

CLIENT: PRIME PLATTSBURGH, LLC
CITY OF PLATTSBURGH, NEW YORK

PROJECT: DURKEE STREET MIXED USE DEVELOPMENT

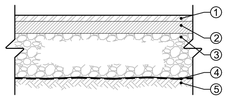
DRAWN	NSO
DESIGNED	NSO
CHECKED	TCB
SCALE	1"=20'
DATE	FEBRUARY 2020
PROJECT	18491.00

DRAWING TITLE

EROSION AND SEDIMENT CONTROL PLAN PHASE II

DRAWING NUMBER

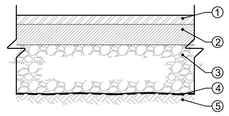
EC-02



① 1" ASPHALTIC CONCRETE TOP, NYSDOT 402.127303
② 2" ASPHALTIC CONCRETE BINDER, NYSDOT ITEM 402.257903
③ 10" CRUSHER-RUN STONE BASE, NYSDOT ITEM 304.12
④ MIRAFI 500X GEOTEXTILE FABRIC
⑤ COMPACTED SUBGRADE

NOTES:
1. COMPACT SUBGRADE TO A MODIFIED PROCTOR DENSITY OF 95%
2. SUBBASE COURSE SHALL HAVE NO MORE THAN (10%) TEN PERCENT BY WEIGHT FINER THAN NO. 200 SIEVE.
3. REFER TO GEOTECHNICAL ENGINEERING REPORT FOR SUBGRADE PREPARATION/COMPACTION REQUIREMENTS.

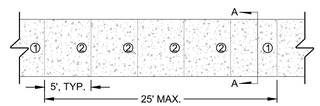
STANDARD DUTY ASPHALT PAVEMENT SECTION



① 1.5" ASPHALTIC CONCRETE TOP, NYSDOT 402.127303
② 2.5" ASPHALTIC CONCRETE BINDER, NYSDOT ITEM 402.257903
③ 12" CRUSHER-RUN STONE BASE, NYSDOT ITEM 304.12
④ MIRAFI 500X GEOTEXTILE FABRIC
⑤ COMPACTED SUBGRADE

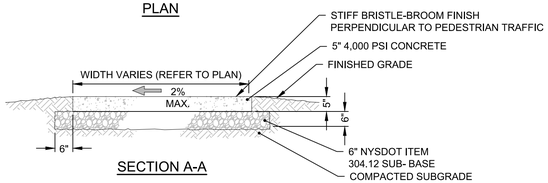
NOTES:
1. COMPACT SUBGRADE TO A MODIFIED PROCTOR DENSITY OF 95%
2. SUBBASE COURSE SHALL HAVE NO MORE THAN (10%) TEN PERCENT BY WEIGHT FINER THAN NO. 200 SIEVE.
3. REFER TO GEOTECHNICAL ENGINEERING REPORT FOR SUBGRADE PREPARATION/COMPACTION REQUIREMENTS.

HEAVY DUTY ASPHALT PAVEMENT SECTION



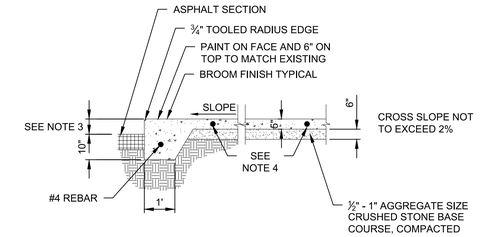
①EXPANSION JOINT WITH JOINT FILLER AND SEALANT
②CONTRACTION JOINT

PLAN



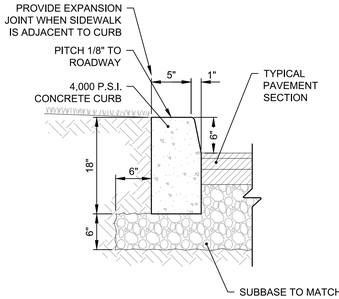
SECTION A-A

SIDEWALK PLAN DETAIL



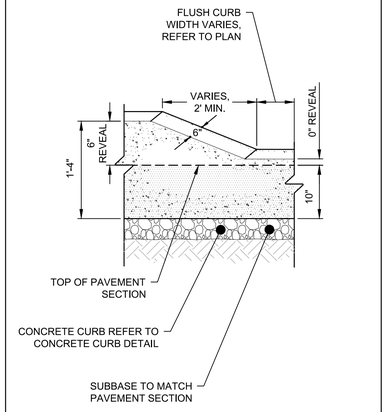
NOTES:
1. PROVIDE 6X6 #6 WWF, MINIMUM 2" COVER, NOT SHOWN.
2. USE MINIMUM 4000 PSI CONCRETE.
3. CURB REVEAL VARIES, 6" MAXIMUM.
4. TO BOND NEW SECTION TO EXISTING, PROVIDE #3 REBAR (2 EACH SIDE), 24" LONG. DRILL AND INSERT AND GROUT ONE END 12" INTO EXISTING SIDEWALK; THE REMAINING 12" LENGTH SHALL PROTRUDE INTO NEW SECTION. PLACE REBARS 5 FEET APART.

SIDEWALK SECTION WITH CURB

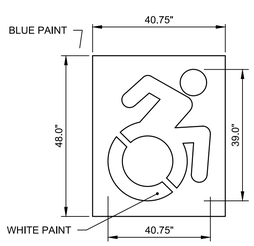


NOTES:
1. CONTRACTION JOINT 10' O.C. MAX.
2. EXPANSION JOINTS 100' O.C. MAX.

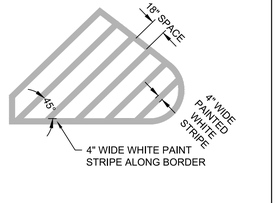
6" CONCRETE CURB DETAIL



TRANSITION CURB DETAIL

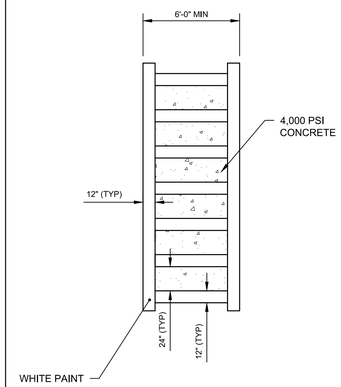


HANDICAPPED PARKING PAINTING

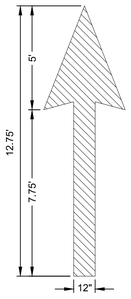


NOTES:
1. PAINT SHALL BE WATERBORNE PAINT MEETING THE REQUIREMENTS OF THE NYSDOT STANDARD SPECIFICATIONS SECTION 685 FOR EPOXY REFLECTORIZED PAVEMENT MARKINGS (ITEM 685.01)

'NO PARKING' PAVEMENT MARKING

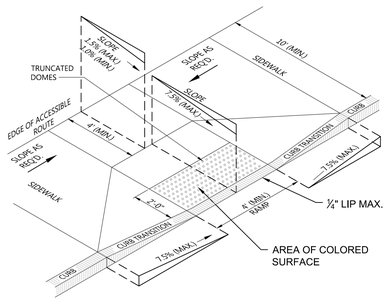


CROSSWALK DETAIL

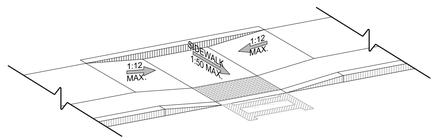


NOTES:
1. PAINT MARKINGS SHALL BE APPLIED ACCORDING TO THE REQUIREMENTS OUTLINED IN SECTION 3B OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.
2. MARKINGS SHALL BE APPLIED USING A REFLECTIVE WHITE PAINT.
3. THE 'STRAIGHT AND TURNS' PORTION OF THIS DETAIL DEPICTS THE GEOMETRY FOR A STRAIGHT DIRECTIONAL ARROW, A TURNING DIRECTIONAL ARROW AND THE COMBINATION OF BOTH.

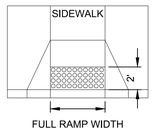
TRAFFIC FLOW PAVEMENT MARKING



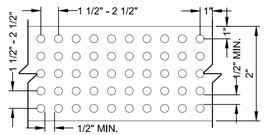
CURB RAMP WITH SIDE FLARES (TYPE 11)



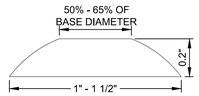
COMBINED PARALLEL/PERPENDICULAR CURB RAMP (TYPE 11)



DETECTABLE WARNING AT CURB RAMP



DOME SPACING



DOME SECTION

NOTES:
1. THE DETECTABLE WARNING DETAILS PROVIDED ARE NOT DRAWN TO SCALE. THE QUANTITY OF DOMES DEPICTED ON THE DETECTABLE WARNING FIELD (THE DOMES AND THE ENTIRE 2' LEVEL SURFACE) IS FOR ILLUSTRATION ONLY.
2. LOCATION OF DETECTABLE WARNINGS. DETECTABLE WARNINGS SHALL BE LOCATED SO THAT THE EDGE OF THE WARNING FIELD NEAREST TO THE ROADWAY OR STREET SURFACE IS 6" TO 9" (1' WHERE TRANSVERSABLE CURB IS USED) FROM THE EDGE OF THE ROADWAY/STREET, OR FROM THE FACE OF THE DROPPED CURB, WHERE A DROPPED CURB CONTINUES ACROSS THE BOTTOM OF THE SIDEWALK CURB RAMP, THE DETECTABLE WARNINGS SHALL EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE.
3. DETECTABLE WARNING STRIP SHALL BE HEAVY DUTY FIBERGLASS COMPOSITE MATERIAL.
4. DOME ALIGNMENT. DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL.
5. PAYMENT LINES ARE THE 2' DIMENSION SHOWN IN THE DETAILS EXTENDING THE FULL WIDTH OF THE CURB RAMP AND/OR APPLICABLE SURFACES. LANDINGS SHALL HAVE A MINIMUM CLEAR DIMENSION OF A 5' BY 5' SQUARE.
6. LANDINGS MAY OVERLAP WITH ADJACENT LANDINGS OR A SINGLE LANDING MAY SERVE MULTIPLE CURB RAMPS OR PARALLEL OR PARALLEL/PERPENDICULAR RAMPS. LANDINGS MAY OVERLAP WITH THE CLEAR GROUND SPACE REQUIRED AT PEDESTRIAN SIGNAL PUSH BUTTONS.
7. CROSS SLOPES: THE MAXIMUM CROSS SLOPE OF CURB RAMPS SHALL BE 2 PERCENT. THE MAXIMUM CROSS SLOPE AT LANDINGS IS 2 PERCENT IN ANY DIRECTION. SURFACES SHALL GENERALLY LIE IN CONTINUOUS PLANES WITH A MINIMUM OF SURFACE WARP.
8. THE RUNNING GRADE OF CURB RAMPS SHOULD BE AS FLAT AS PRACTICABLE. THE MAXIMUM RUNNING GRADE OF ANY PORTION OF ANY CURB RAMP SHALL BE 1:12 (8.3%). CURB RAMPS ARE NOT REQUIRED TO BE LONGER THAN 15'.
9. THE SURFACE OF ALL CURB RAMPS SHALL BE STABLE, FIRM AND SLIP RESISTANT. A COARSE BROOM FINISH RUNNING PERPENDICULAR TO THE SLOPE IS RECOMMENDED ON CONCRETE RAMP SURFACES, EXCLUSIVE OF THE DETECTABLE WARNING FIELDS.
10. CURB RAMPS LOCATED WHERE PEDESTRIANS MAY WALK ACROSS THE CURB RAMP SHALL HAVE FLARED SIDES. THE LENGTH OF THE FLARES SHALL BE AT LEAST TEN (10) THE TIMES THE CURB HEIGHT, MEASURED ALONG THE CURB LINE. WHEN INFEASIBLE OR IMPRACTICABLE TO PROVIDE A LANDING THAT IS AT LEAST 4' WIDE (MEASURED FROM THE TOP OF THE RAMP TO THE BACK OF THE SIDEWALK), THE LENGTH OF THE FLARES SHALL BE TWELVE (12) TIMES THE CURB HEIGHT MEASURED ALONG THE CURB LINE.
11. COORDINATE ALL TRAFFIC CONTROL DEVICES, UTILITY LOCATIONS, SIGNS, STREET FURNITURE AND DRAINAGE TO ENSURE A CONTINUOUS PEDESTRIAN ACCESS ROUTE AT ALL CURB RAMP LOCATIONS. GUIDANCE FOR CROSSWALK MARKINGS AND TRAFFIC CONTROL DEVICES IS PROVIDED IN THE MUTCD. DRAINAGE GRATES AND UTILITY ACCESS COVERS ARE NOT ALLOWED IN RAMP WALKING SURFACES OR LANDINGS.
12. AT MARKED CROSSINGS, THE FULL WIDTH OF THE RAMP SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS. THE SIDES OF THE RAMPS (THE FLARES) NEED NOT BE WITHIN THE WIDTH OF THE MARKINGS.
13. RAMP TRANSITIONS BETWEEN WALKS, GUTTERS, OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT VERTICAL CHANGES (1/4" MAX).

ACCESSBILE RAMPS WITH DETECTABLE WARNING STRIP DETAILS

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
mjinc.com

PROJECT MILESTONE

SITE PLAN SUBMISSION

NO.	DATE	DESCRIPTION
1	04/16/20	CITY COMMENTS
2	05/05/20	CLARIFICATIONS
3	06/05/20	ADDED SIGNAGE
4	08/10/20	BUILDING REVISION

CLIENT:
PRIME PLATTSBURGH, LLC
CITY OF PLATTSBURGH, NEW YORK

PROJECT:
DURKEE STREET MIXED USE DEVELOPMENT

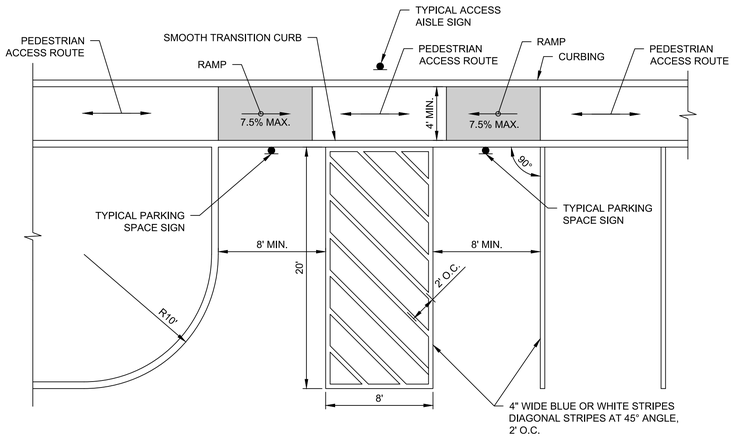
DRAWN	NSO
DESIGNED	NSO
CHECKED	TCB
SCALE	N.T.S.
DATE	FEBRUARY 2020
PROJECT	18491.00

DRAWING TITLE

DETAILS

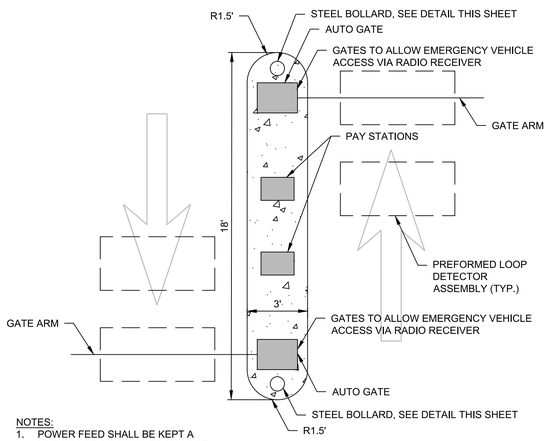
DRAWING NUMBER

DT-01



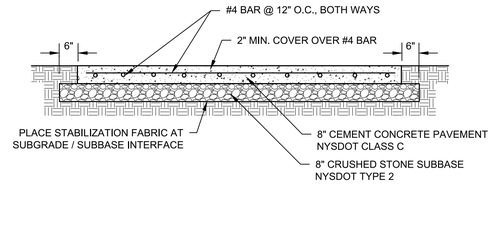
NOTES:
1. THIS SHEET IS INTENDED TO DEPICT THE DIMENSIONAL REQUIREMENTS OF TYPICAL ACCESSIBLE PARKING LOT SPACES. SEE SITE PLAN FOR COMPLETE LAYOUT.
2. ACCESSIBLE PARKING SPACES SHALL BE AT LEAST 8' WIDE AND SHALL HAVE AN ADJACENT ACCESS AISLE 8' WIDE MEASURED PERPENDICULAR TO THE STALL STRIPE TO ACCOMMODATE VANS WITH LIFTS.
3. EACH ACCESSIBLE PARKING SPACE SHALL BE MARKED BY PERMANENTLY INSTALLED GROUND MOUNTED SINGS WHICH DISPLAY THE INTERNATIONAL SYMBOL FOR ACCESS. EACH ACCESS AISLE SHALL BE MARKED BY PERMANENTLY INSTALLED GROUND MOUNTED SIGNS INDICATING THAT STOPPING IS NOT PERMITTED IN THE AISLE. SIGNS SHALL NOT BLOCK THE ACCESSIBLE CLEAR WIDTH OF ADJACCENT WALKWAYS. SIGNS LOCATED WHERE THEY MAY BE HIT BY VEHICLES BEING PARKED SHALL BE INSTALLED AS SHOWN IN THE ACCESSIBLE PARKING SIGN DETAIL. THE BOTTOMS OF THE SIGNS LOCATED ON POSTS INSTALLED IN PAVED AREAS SHALL BE 7' MINIMUM ABOVE THE WALKWAY SURFACE.
4. SLOPES AT ACCESSIBLE PARKING SPACES, ACCESS AISLES, AND ADJOINING WALKWAYS SHALL NOT EXCEED 1.5% MAXIMUM IN ANY DIRECTION FOR DESIGN AND LAYOUT, AND 2.0% MAXIMUM FOR WORK ACCEPTANCE, WHILE PROVIDING POSITIVE DRAINAGE.
5. REQUIRED ACCESSIBLE PARKING SPACE AND ACCESS AISLE STRIPING AND OTHER OPTIONAL PAVEMENT ARKINGS, SUCH AS THE INTERNATIONAL ACCESS SYMBOL, SHALL BE PAINTED WHITE OR BLUE.
6. A SMOOTH, FLUSH TRANSITION MUST BE PROVIDED BETWEEN ALL PEDESTRIAN WALKWAYS, ACCESSIBLE PARKING SPACES AND AISLES.
7. CONTACT THE LOCAL MUNICIPALITY TO VERIFY THE SPECIFIED PARKING LAYOUT MEETS LOCAL REQUIREMENTS.

TYPICAL ACCESSIBLE PARKING LOT LAYOUT



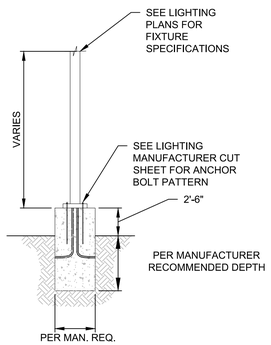
NOTES:
1. POWER FEED SHALL BE KEPT A MNIMUM OF 24" AWAY FROM LOOP DETECTOR ASSEMBLY.

ACCESS CONTROL

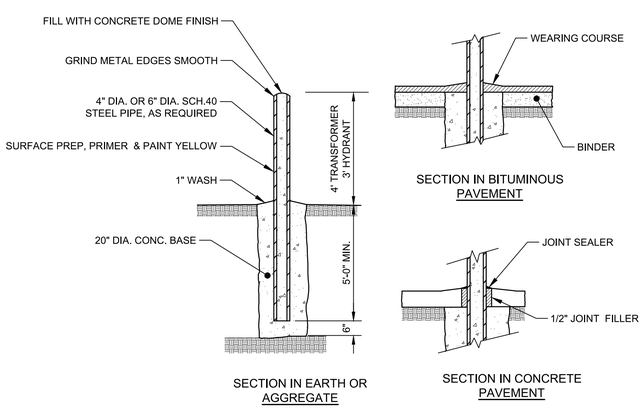


NOTES:
1. STEEL REINFORCING SHALL BE IN THE UPPER THIRD OF THE CONCRETE.
2. CONTROL JOINTS SHALL BE SPACED EVERY 10'.

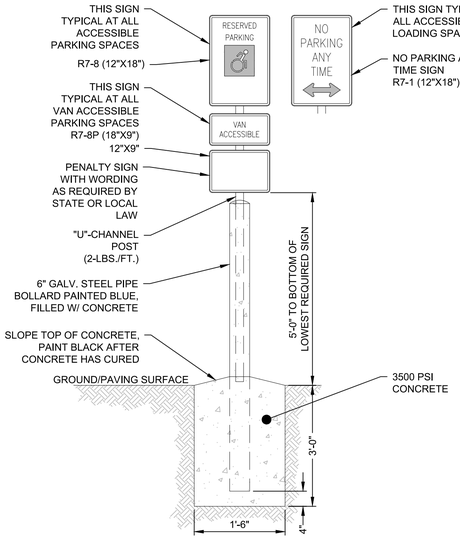
CONCRETE DUMPSTER PAD DETAIL



EXTERIOR LIGHT POLE BASE

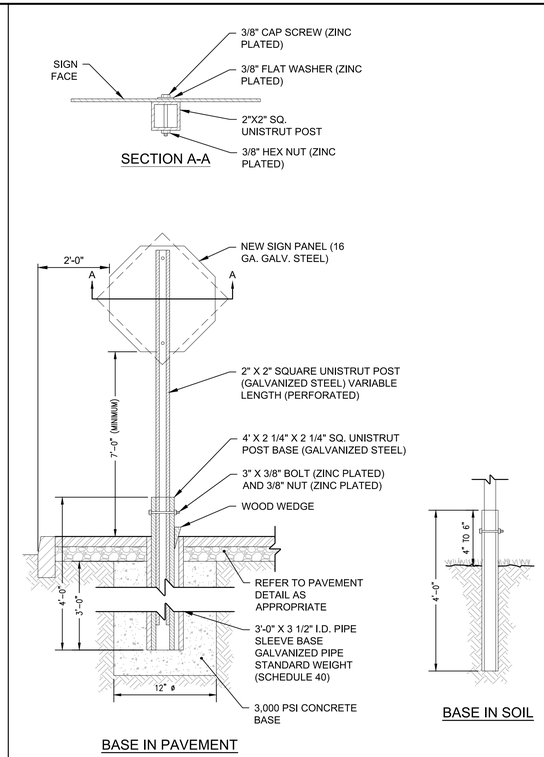


BOLLARD

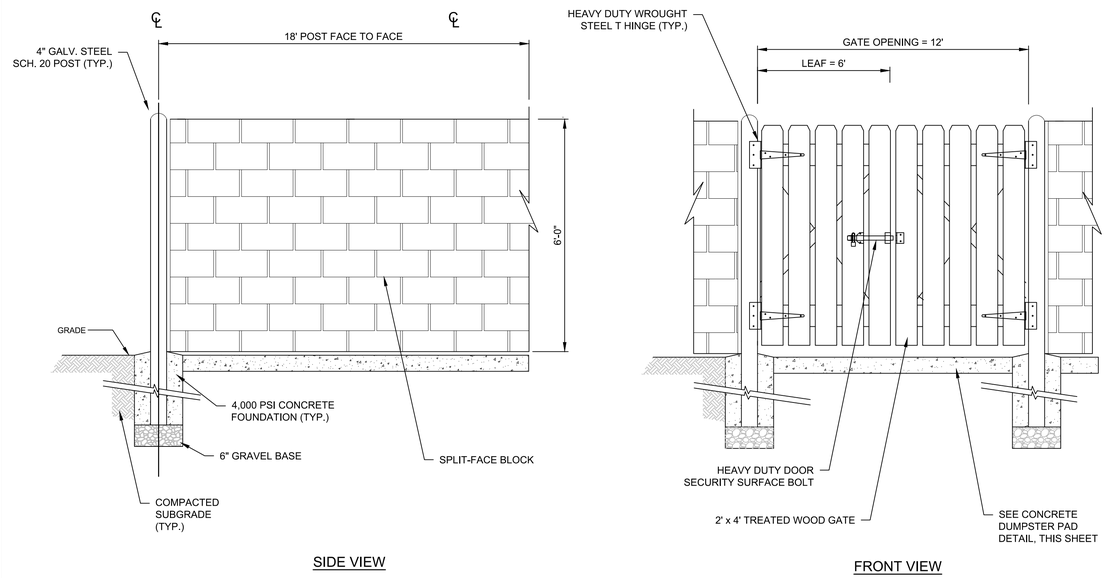


NOTES:
1. SIGN TO BE PLACED AT EACH HANDICAP SPACE.
2. WHERE HANDICAP SPACES FACE EACH OTHER WITHOUT WALKWAY, THERE SHALL BE ONE POST WITH SIGNS MOUNTED ON BOTH SIDES.

ACCESSIBLE PARKING SIGN DETAIL



TYPICAL POST MOUNT SIGN INSTALLATION



NOTES:
1. ALL WOOD TO BE PRESSURE TREATED.

DUMPSTER ENCLOSURE DETAIL

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
mjinc.com

PROJECT MILESTONE
SITE PLAN SUBMISSION

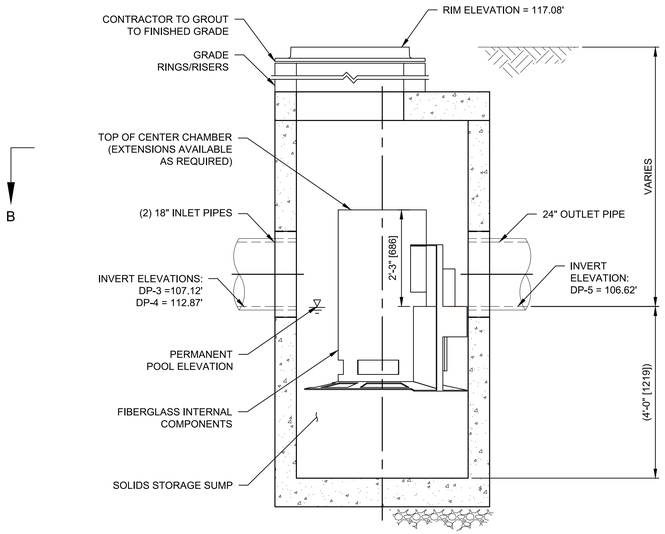
NO.	DATE	DESCRIPTION
1	04/16/20	CITY COMMENTS
2	05/05/20	CLARIFICATIONS
3	08/05/20	BUILDING REVISION

CLIENT: PRIME PLATTSBURGH, LLC
CITY OF PLATTSBURGH, NEW YORK
PROJECT: DURKEE STREET MIXED USE DEVELOPMENT

DRAWN	NSO
DESIGNED	NSO
CHECKED	TCB
SCALE	N.T.S.
DATE	FEBRUARY 2020
PROJECT	18491.00

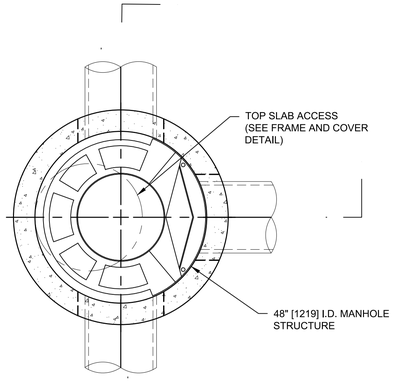
DRAWING TITLE
DETAILS

DRAWING NUMBER
DT-02



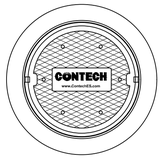
ELEVATION A-A

GENERAL NOTES:
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS, LLC REPRESENTATIVE. WWW.CONTECHES.COM
3. CASCADE SEPARATOR WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. CASCADE SEPARATOR STRUCTURE SHALL MEET AASHTO HS20 LOAD RATINGS, ASSUMING EARTH COVER OF 0' - 2'[610], AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
5. CASCADE SEPARATOR STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C478 AND AASHTO LOAD FACTOR DESIGN METHOD.
6. ALTERNATE UNITS ARE SHOWN IN MILLIMETERS [mm].
7. SPDES GENERAL PERMIT NUMBER TO BE DETERMINED ONCE THE SWPPP IS FILED.

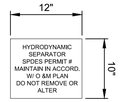


PLAN VIEW B-B

INSTALLATION NOTES:
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CASCADE SEPARATOR MANHOLE STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.
F. STORMWATER MANAGEMENT PRACTICE SIGN TO BE POSTED IN THE IMMEDIATE VICINITY OF THE HYDRODYNAMIC SEPARATOR.



FRAME AND COVER
(DIAMETER VARIES)



SIGN

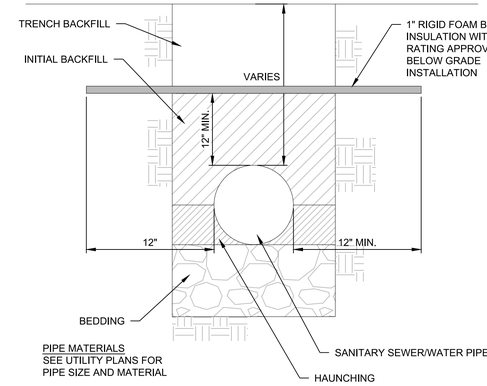
SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	D-4
WATER QUALITY FLOW RATE (cfs [L/s])	3.30 CFS
PEAK FLOW RATE (cfs [L/s])	
RETURN PERIOD OF PEAK FLOW (yrs)	
RIM ELEVATION	117.08'

PIPE DATA:	INVERT	MATERIAL	DIAMETER
INLET PIPE 1	107.12'	HDPE	18"
INLET PIPE 2	112.87'	HDPE	18"
OUTLET PIPE	106.62'	HDPE	24"

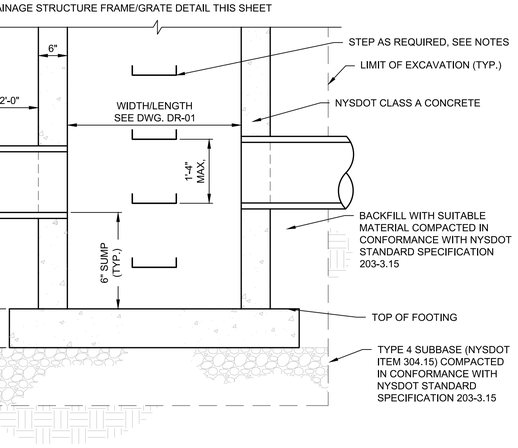
NOTES / SPECIAL REQUIREMENTS:

HYDRODYNAMIC SEPARATOR DETAIL



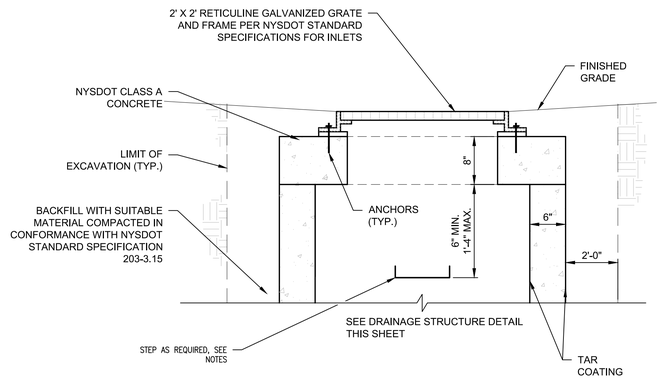
NOTES:
1. ALL TRENCHING TO BE IN ACCORDANCE WITH OSHA STANDARDS AND NYS DEPT. OF LABOR INDUSTRIAL CODE 23
2. BEDDING, HAUNCHING AND INITIAL BACKFILL SHALL CONSIST OF #1 AND #2 CRUSHED STONE BEDDING PER NYSDOT SPECIFICATION 703-02
3. TRENCH BACKFILL - BACKFILL UNDER ROADS, DRIVES, SIDEWALKS, CURBS AND UTILITIES SHALL BE SELECT GRANULAR FILL PER NYSDOT SPECIFICATION 203-2.06, PLACED AND COMPACTED IN LIFTS NOT TO EXCEED 6", BACKFILL IN OTHER AREAS SHALL BE A SUITABLE EXCAVATED MATERIAL (NO STONES LARGER THAN 6"), PLACED AND COMPACTED IN LIFTS NO GREATER THAN 6" TO SAFETY COVER.
4. SEE WATER MAIN AND SANITARY SEWER TRENCH DETAILS FOR PER TYPE TRENCH SPECIFICATIONS.

TYPICAL INSULATED PIPE TRENCH



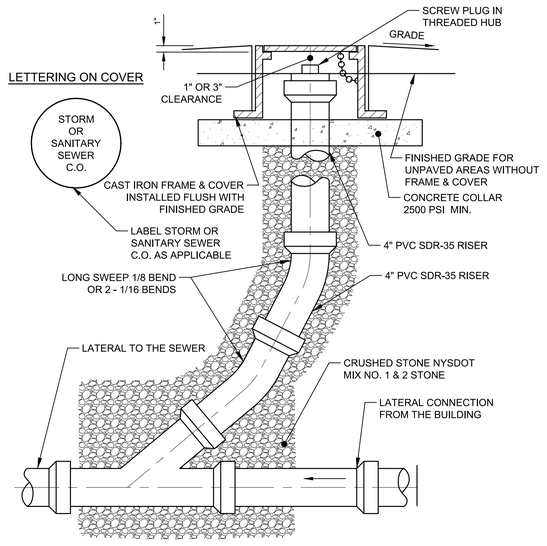
NOTES:
1. ALL SPECIFIED DRAINAGE STRUCTURE ITEMS SHALL BE SUPPLIED AND PLACED IN ACCORDANCE WITH NYSDOT STANDARD SPECIFICATIONS - SECTION 604, DRAINAGE STRUCTURES.
2. DRAINAGE STRUCTURES SHALL BE CAST IN PLACE (RECTANGULAR ONLY) OR PRECAST UNITS (RECTANGULAR OR ROUND).
3. THE CONTRACTOR MAY SUBSTITUTE ROUND, PRECAST STRUCTURES USING SIZES INDICATED ON NYSDOT STANDARD SHEET 604-02, DRAINAGE STRUCTURE DETAILS (SHEET 4 OF 4)
4. ALL DRAINAGE STRUCTURES SHALL BE DESIGNED TO WITHSTAND H-20 LOADING.
5. STEPS SHALL BE REQUIRED IN ALL STRUCTURES DEEPER THAN 4'-0".

DRAINAGE STRUCTURE



NOTES:
1. ALL SPECIFIED STORM STRUCTURE ITEMS SHALL BE SUPPLIED AND PLACED IN ACCORDANCE WITH NYSDOT STANDARD SPECIFICATIONS - SECTION 604, DRAINAGE STRUCTURES.
2. ALL DRAINAGE STRUCTURES SHALL BE DESIGNED TO WITHSTAND H-20 LOADING.
3. STEPS SHALL BE REQUIRED IN ALL STRUCTURES DEEPER THAN 4'-0".

DRAINAGE STRUCTURE FRAME AND GRATE



NOTES:
1. THIS DETAIL APPLIES TO BOTH SANITARY AND STORM SEWERS.

SEWER CLEANOUT DETAIL

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
mjinc.com

PROJECT MILESTONE
SITE PLAN SUBMISSION

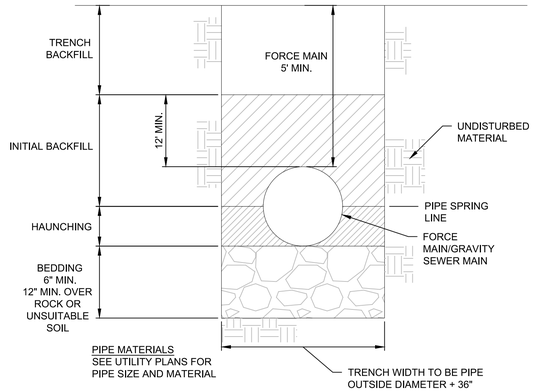
NO.	DATE	DESCRIPTION
1	04/16/20	CITY COMMENTS
2	05/05/20	CLARIFICATIONS
3	08/05/20	BUILDING REVISION

CLIENT: PRIME PLATTSBURGH, LLC
CITY OF PLATTSBURGH, NEW YORK
PROJECT: DURKEE STREET MIXED USE DEVELOPMENT

DRAWN	NSO
DESIGNED	NSO
CHECKED	TCB
SCALE	N.T.S.
DATE	FEBRUARY 2020
PROJECT	18491.00

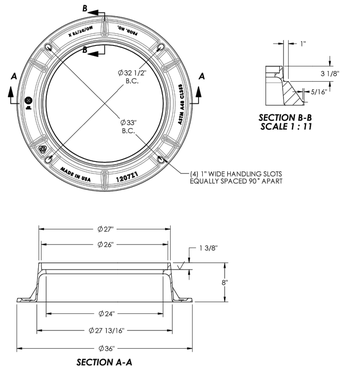
DRAWING TITLE
DETAILS

DRAWING NUMBER
DT-03



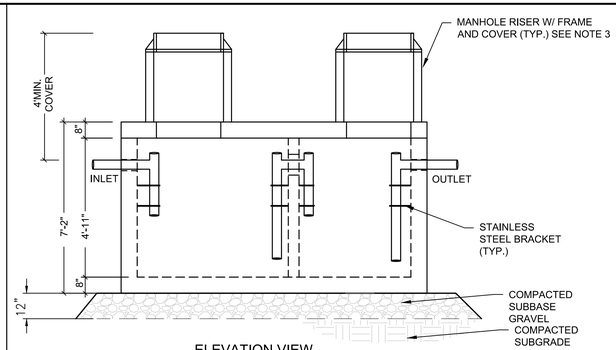
NOTES:
1. ALL TRENCHING TO BE IN ACCORDANCE WITH OSHA STANDARDS AND NYS DEPT. OF LABOR INDUSTRIAL CODE 23
2. BEDDING, HAUNCHING AND INITIAL BACKFILL SHALL CONSIST OF #1 AND #2 CRUSHED STONE BEDDING PER NYSDOT SPECIFICATION 703-02
3. TRENCH BACKFILL - BACKFILL UNDER ROADS, DRIVES, SIDEWALKS, CURBS AND UTILITIES SHALL BE SELECT GRANULAR FILL PER NYSDOT SPECIFICATION 203-2.06, PLACED AND COMPACTED IN LIFTS NOT TO EXCEED 6". BACKFILL IN OTHER AREAS SHALL BE A SUITABLE EXCAVATED MATERIAL (NO STONES LARGER THAN 6"), PLACED AND COMPACTED IN LIFTS NO GREATER THAN 6" TO SAFETY COVER.

GRAVITY SEWER MAIN TRENCH

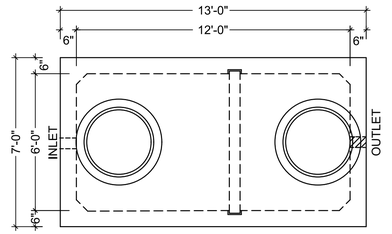


NOTES:
1. MANHOLE COVER SHALL CONFORM WITH THE CITY OF PLATTSBURGH DPW. COVER SHALL BE EJ, PRODUCT NUMBER: 00120715.

MANHOLE COVER



ELEVATION VIEW



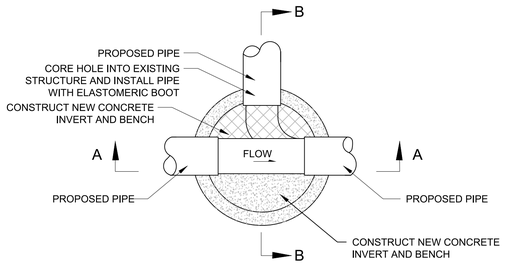
PLAN VIEW

NOTES:
1. EXTERIOR SURFACES SHALL BE GIVEN TWO COATS OF BITUMINOUS WATER PROOFING MATERIAL.
2. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
3. STANDARD 30" SEWER MANHOLE FRAME AND COVER SHALL BE LOCATED OVER TEES AND SET IN FULL MORTAR BED, ADJUST TO GRADE WITH SEWER BRICKS AND MORTAR (2 BRICK COURSES TYPICAL, 5 BRICK COURSES MAXIMUM).
4. PIPING SHALL BE PVC, INTERNAL PIPING SHALL BE SAME SIZE AS OUTLET PIPE.

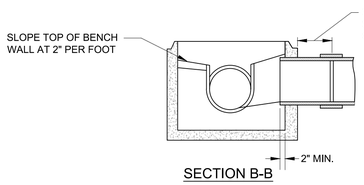
CONCRETE STRUCTURE SPECIFICATIONS:

MODEL:	2500 GAL. "K-SEP" GREASE INTERCEPTOR - TRAFFIC (OR APPROVED EQUAL)
MANUFACTURER:	KISTNER CONCRETE PRODUCTS INC. 8713 READ ROAD E. PEMBROKE, N.Y.
DESIGN CRITERIA:	5000 PSI @ 28 DAYS
ENTRAINED AIR:	5%-8%
DESIGN LOADING:	AASHTO HS-20
REINFORCEMENT:	ASTM A496-A615 GR60-80 KSI

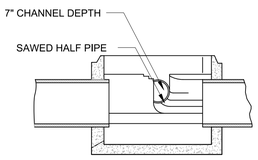
GREASE TRAP DETAIL



PLAN



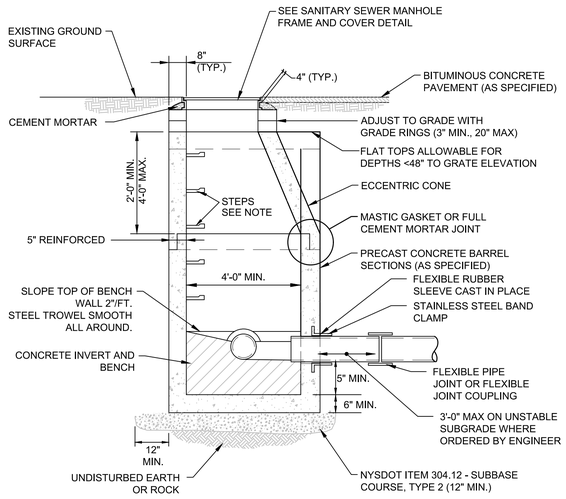
SECTION B-B



SECTION A-A

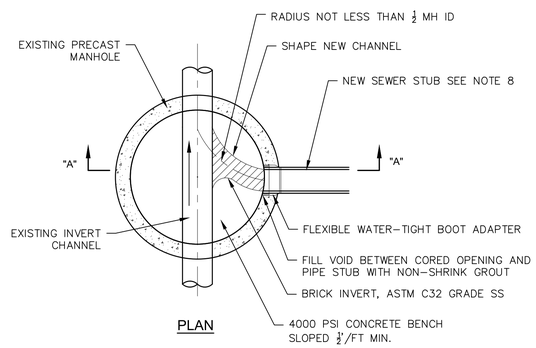
NOTES:
1. CARE SHALL BE TAKEN TO ENSURE THAT THE INVERTS ARE A SMOOTH CONTINUATION.
2. INVERT AND SHELF SHALL BE CAST-IN-PLACE CONCRETE 3000 PSI MIN. AND AIR ENTRAINED.

SEWER BOTTOM WITH CHANNEL

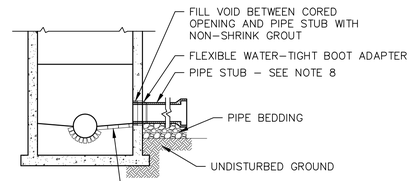


NOTES:
1. ALUMINUM OR PLASTIC MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
2. PRECAST REINFORCED CONCRETE MANHOLE SHALL CONFORM TO ASTM C478.
3. CONCRETE SHALL BE 4000 PSI AT 28 DAYS, 5% AIR ENTRAINED, AND MEET AASHTO H-20 LOADING AS MANUFACTURED BY FORT MILLER CO. OR APPROVED EQUAL.
4. REINFORCING STEEL SHALL CONFORM TO ASTM A615 - A497.

PRECAST CONCRETE GRAVITY SEWER MANHOLE



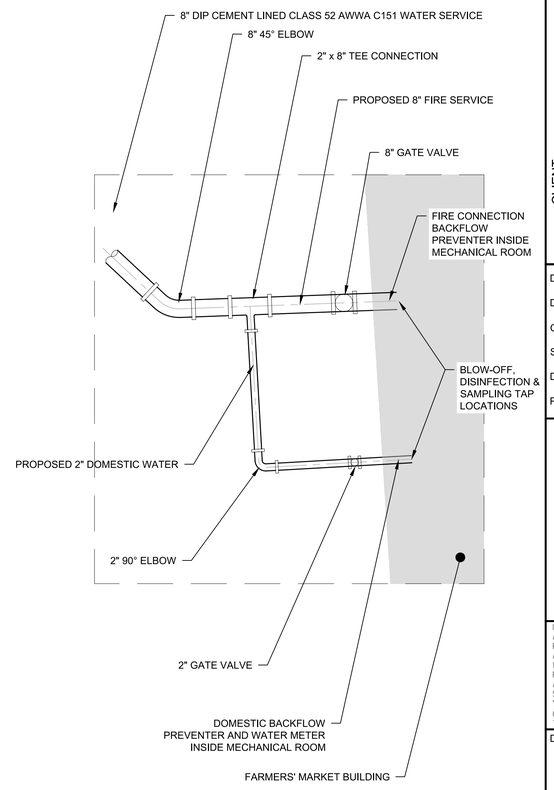
PLAN



SECTION "A-A"

NOTES:
1. THE DISTRICT MUST BE NOTIFIED 48 HOURS IN ADVANCE OF CONSTRUCTION FOR INSPECTION OF CONNECTION.
2. CONTRACTOR SHALL CORE A NEW OPENING IF REQUIRED. NO IMPACT DEVICES WILL BE ALLOWED TO BE USED FOR MAKING NEW HOLES IN EXISTING MANHOLES.
3. CORED OPENINGS IN MANHOLE RISER SECTIONS SHALL NOT BE LESS THAN 6" FROM A RISER JOINT.
4. EXISTING MANHOLE STRUCTURE SHALL BE SUFFICIENTLY BRACED AND PROTECTED TO PREVENT ANY SHIFTING OR DAMAGE TO THE MANHOLE.
5. THE CROWN OF THE NEW SEWER SHALL NOT BE CONSTRUCTED LOWER THAN THE CROWN OF THE EXISTING MAIN SEWER. THE INVERT OF THE NEW SEWER SHALL BE CONSTRUCTED AT LEAST 3" ABOVE THE EXISTING MAIN SEWER INVERT.
6. THE ALIGNMENT OF THE NEW CONNECTION AT MANHOLE SHALL NOT EXCEED 100 DEGREES FROM THE EXISTING UPSTREAM SEWER.
7. CONTRACTOR MUST COAT ALL DISTURBED AREAS OF MANHOLE WITH TWO (2) COATS OF SIKAGARD NO. 62 FOR INTERIOR OF BASE AND TWO (2) COATS OF SUPER SERVICE BLACK FOR ALL OTHER SURFACES.
8. STUBS 1' MIN, 3' MAX FROM OUTSIDE FACE.
9. PAYMENT TO BE MADE UNDER BID ITEM 603.98100804.

NEW SEWER CONNECTION TO EXISTING MANHOLE



FARMERS' MARET BUILDING WATER CONNECTION

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
mjinc.com

PROJECT MILESTONE

SITE PLAN SUBMISSION

NO.	DATE	DESCRIPTION
1	04/16/20	CITY COMMENTS
2	05/05/20	CLARIFICATIONS
3	08/05/20	BUILDING REVISION

CLIENT: PRIME PLATTSBURGH, LLC
CITY OF PLATTSBURGH, NEW YORK

PROJECT: DURKEE STREET MIXED USE DEVELOPMENT

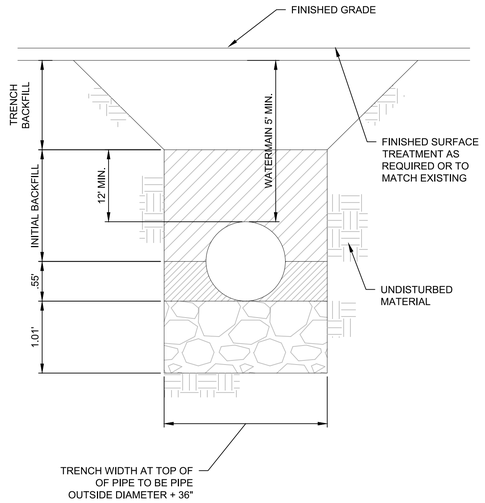
DRAWN	NSO
DESIGNED	NSO
CHECKED	TCB
SCALE	N.T.S.
DATE	FEBRUARY 2020
PROJECT	18491.00

DRAWING TITLE

DETAILS

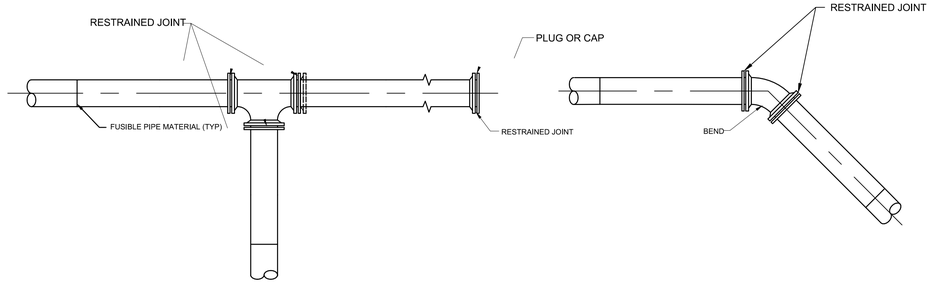
DRAWING NUMBER

DT-04



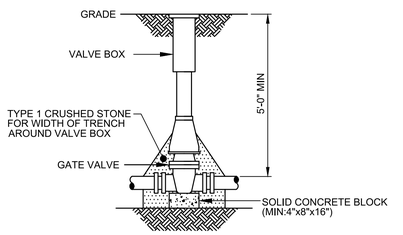
NOTES:
1. ALL TRENCHING TO BE IN ACCORDANCE WITH OSHA STANDARDS AND NYS DEPT. OF LABOR INDUSTRIAL CODE 23
2. BEDDING - CLASS I OR II MATERIAL; WASHED SAND, SEA GRAVEL OR CRUSHED STONE. COMPACT CLASS II MATERIAL TO 85% STANDARD PROCTOR DENSITY.
3. HAUNCHING AND INITIAL BACKFILL - CLASS II MATERIAL; COARSE SAND OR SELECT GRAVEL. PLACE IN LIFTS; TO PIPE SPRING LINE, TO TOP OF PIPE AND TO 12" MINIMUM OVER TOP OF PIPE. COMPACT EACH LIFT TO 85% STANDARD PROCTOR DENSITY.
4. TRENCH BACKFILL - APPROVED ON SITE OR IMPORTED MATERIAL. PLACE IN 8" LIFTS AND COMPACT TO 95% STANDARD PROCTOR DENSITY.

WATER MAIN TRENCH



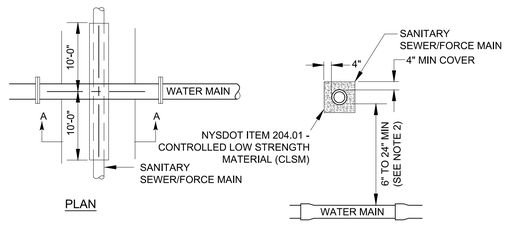
NOTES:
1. RESTRAINED JOINTS AND THRUST BLOCKS SHALL BE PROVIDED AT ALL BENDS, TEES AND DEAD ENDS.
2. PIPE TRENCH AND INSTALLATION SHALL BE AS SHOWN ON DETAILS.
3. RETAINER GLANDS SHALL BE MEGALUG SERIES 2000PV JOINT RESTRAINTS AS MANUFACTURED BY EBBA IRON, INC. OR APPROVED EQUAL.

RESTRAINED JOINT DETAIL



NOTES:
1. VALVE BOX SHALL BE CENTERED ON VALVE AND SET ON COMPACTED BACKFILL.
2. VALVE SHALL NOT SUPPORT VALVE BOX.
3. ALL BODY AND BONNET BOLTS SHALL BE STAINLESS STEEL.
4. ALL VALVES SHALL BE OPEN LEFT EXCEPT VALVES 12" AND SMALLER (WHICH SHALL BE OPEN RIGHT).

VALVE

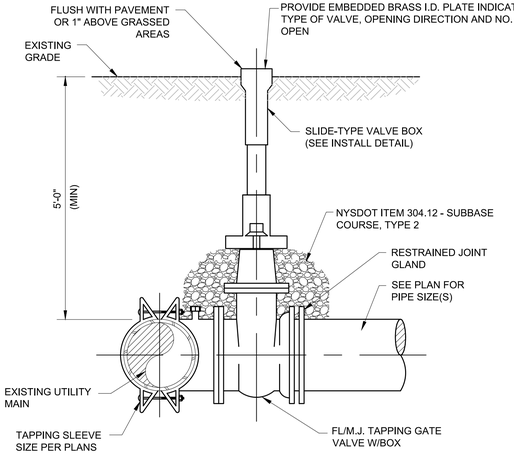


PLAN

SECTION A-A

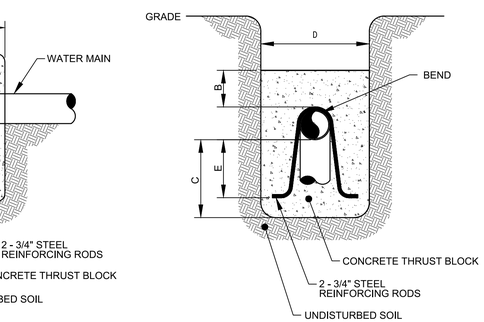
NOTES:
1. WHENEVER POSSIBLE WATER MAIN PIPE JOINTS SHALL BE STAGGERED SO AS NOT TO BE LOCATED AT THE POINT OF CROSSING.
2. CONCRETE ENCASEMENT NOT REQUIRED IF VERTICAL SEPARATION IS 24" OR GREATER

WATER MAIN/SEWER CROSSING DETAIL



NOTES:
1. TAPPING VALVES SHALL BE IRON BODY, BRONZE MOUNTED, RESILIENT WEDGE CONFORMING TO AWWA C509 AND SHALL HAVE A MINIMUM OPERATING PRESSURE OF 200 PSI AND BE FACTORY TESTED AT 400 PSI. ALL TAPPING VALVES SHALL BE MODEL T-2360 AS MANUFACTURED BY MUELLER CO OR APPROVED EQUAL.
2. TAPPING SLEEVES SHALL BE JCM 412 OR APPROVED EQUAL. THE TOWN OF SCHODACK WATER AND SEWER DEPARTMENT SHALL APPROVE MODEL PRIOR TO INSTALLATION.
3. OTHER TYPES OF TAPPING SLEEVES MAY BE REQUIRED AS DIRECTED BY THE TOWN OF SCHODACK WATER AND SEWER DEPARTMENT ON A CASE-BY-CASE BASIS.

WET TAP DETAIL



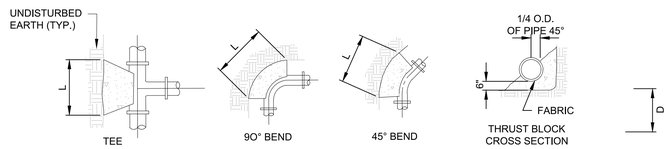
PLAN

ELEVATION

BEND	MINIMUM VOLUME OF CONCRETE	MINIMUM ALLOWABLE DIMENSIONS FOR VERTICAL THRUST BLOCKS (IN FEET)				
	DIMENSIONS	A	B	C	D	E
6" x 11-1/4°	1.00 CY	3.0	1.0	1.3	3.0	1.0
6" x 22-1/2°	1.50 CY	4.0	1.0	1.8	3.0	1.5
6" x 45°	2.00 CY	6.0	1.5	2.0	3.0	1.7
8" x 11-1/4°	1.00 CY	3.0	1.0	1.3	3.0	1.0
8" x 22-1/2°	1.50 CY	4.0	1.0	1.8	3.0	1.5
8" x 45°	2.50 CY	6.0	1.5	2.0	3.0	1.7

NOTES:
1. CONCRETE FOR THRUST BLOCKS SHALL BE CONCRETE CLASS A (OR CLASS G IF UNDERWATER) IN ACCORDANCE WITH NYSDOT SECTION 501.
2. CONCRETE NOT TO OVERLAP ANY JOINT.

VERTICAL THRUST BLOCK DETAILS



REQUIRED BEARING AREAS & DIMENSIONS FOR CONCRETE THRUST BLOCKS (DIMENSIONS SHOWN IN FT)										
	TEE		90° BEND		45° BEND		22-1/2° BEND		11-1/4° BEND	
PIPE SIZE (IN)	AREA (SQFT)	DIM D X L	AREA (SQFT)	DIM D X L	AREA (SQFT)	DIM D X L	AREA (SQFT)	DIM D X L	AREA (SQFT)	DIM D X L
6	3.2	1.5 X 2.5	4.5	2.0 X 2.5	2.4	1.5 X 2.0	1.2	1.0 X 1.5	0.6	0.5 X 1.5
8	5.7	2.0 X 3.0	8	2.0 X 4.0	4.3	2.0 X 2.5	2.2	1.5 X 1.5	1.1	1.0 X 1.5
12	12.7	3.5 X 3.5	18.0	4.0 X 4.5	9.7	2.5 X 4.0	5.0	2.0 X 2.5	2.5	1.5 X 2.0

NOTES:
1. CONCRETE FOR THRUST BLOCKS SHALL BE CONCRETE CLASS A (OR CLASS G IF UNDERWATER) IN ACCORDANCE WITH NYSDOT SECTION 501.
2. CONCRETE NOT TO OVERLAP ANY JOINT.
3. VALUES FOR TEE ALSO APPLY TO END PLUGS, CAPS, AND TAPPING SLEEVES.
4. REQUIRED BEARING AREAS ARE DUE TO THRUSTS CAUSED BY 150 PSI WORKING PRESSURE PLUS 50% (75 PSI) SURGE ALLOWANCE RESULTING IN 225 PSI TOTAL INTERNAL PRESSURE.
5. REQUIRED BEARING AREAS ARE BASED ON ALLOWABLE SOIL BEARING CAPACITY OF 2000 POUNDS PER SQUARE FOOT FOR SAND. DUE TO OTHER SOIL CONDITIONS ENCOUNTERED, BEARING AREAS MAY BE MODIFIED BY THE ENGINEER BY MULTIPLYING THE AREA GIVEN IN THE TABLE FOR THE APPROPRIATE PIPE SIZE AND FITTING BY THE CORRECTION FACTORS LISTED BELOW.

SOIL	ALLOWABLE SOIL PRESSURE (LBS/SQFT)	CORRECTION FACTOR
SOFT CLAY	1,000	2.00
SAND	2,000	1.00
SAND & GRAVEL	3,000	0.67
SAND AND GRAVEL CEMENTED WITH CLAY	4,000	0.50
HARD SHALE	10,000	0.20

6. IN MUCK, PEAT, OR RECENTLY PLACED FILL ALL THRUST BLOCKS SHALL BE RESISTED BY PILES OF TIE RODS TO SOLID FOUNDATIONS, OR BY REMOVAL OF SUCH UNSTABLE MATERIAL AND REPLACEMENT WITH BALLAST OF SUFFICIENT STABILITY TO RESIST THE THRUSTS, ALL AS REQUIRED BY THE ENGINEER.

HORIZONTAL THRUST BLOCK DETAILS

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
mjinc.com

PROJECT MILESTONE

SITE PLAN SUBMISSION

NO.	DATE	DESCRIPTION
1	04/16/20	CITY COMMENTS
2	05/05/20	CLARIFICATIONS
3	08/05/20	BUILDING REVISION

CLIENT: PRIME PLATTSBURGH, LLC
CITY OF PLATTSBURGH, NEW YORK

PROJECT: DURKEE STREET MIXED USE DEVELOPMENT

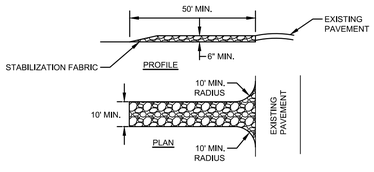
DRAWN	NSO
DESIGNED	NSO
CHECKED	TCB
SCALE	N.T.S.
DATE	FEBRUARY 2020
PROJECT	18491.00

DRAWING TITLE

DETAILS

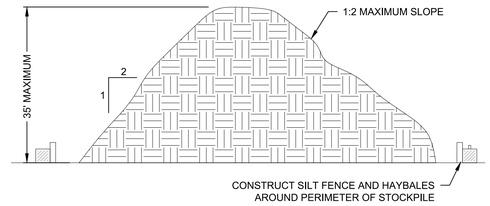
DRAWING NUMBER

DT-05



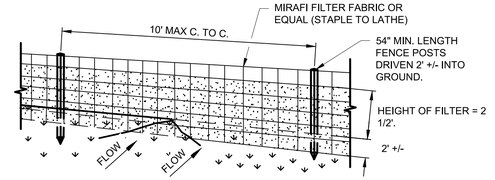
NOTES:
1. STONE SIZE - USE #3 CRUSHED STONE OR GRAVEL (PER NYSDOT SECTION 209).
2. LENGTH - NOT LESS THAN 50 FEET.
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
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 AN 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.

STABILIZED CONSTRUCTION ENTRANCE

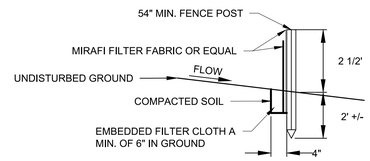


NOTES:
1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1V:2H.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.
4. APPLICATION OF SOIL STABILIZATION MEASURES, I.E. SEEDING AND MULCH APPLICATION, SHALL BE COMPLETED WITHIN FOURTEEN (14) DAYS FROM THE DATA SOIL ACTIVITY HAS CEASED.

STOCK PILE DETAIL



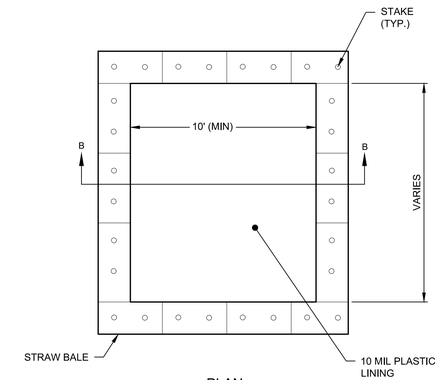
PERSPECTIVE VIEW



SECTION VIEW

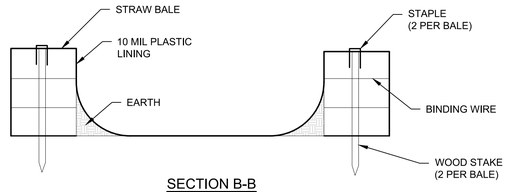
NOTES:
1. MIRAFI FILTER FABRIC TO BE SECURED TO FENCE POSTS WITH STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED.
3. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

SILT FENCE

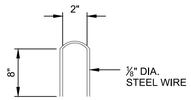


PLAN

GENERAL NOTES:
1. ACTUAL SIZE TO BE DETERMINED IN FIELD. A MINIMUM OF 10' WIDE BY 10' LONG AND SIZED TO CONTAIN ALL LIQUID AND SOLID WASTE. A MINIMUM OF 12" FREEBOARD SHALL BE INCLUDED.
2. THE CONCRETE WASHOUT SHALL NOT BE PLACED WITHIN 50' OF STORM DRAINS.
3. EXCESS AND SLUMP TEST SOLIDS SHALL BE PLACED ON PLASTIC LINER UNTIL HARDENED. CONTRACTOR MAY CONSIDER INSTALLING WIRE OR REBAR HOOK FOR LATER PICKUP REMOVAL.
4. INSPECTORS SHALL USE THE WASHOUT FACILITY OR PLASTIC FOR CLEANING OF THEIR TOOLS.



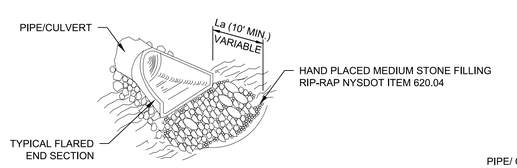
SECTION B-B



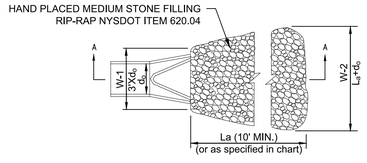
STAPLE DETAIL

MAINTENANCE NOTES:
1. CHECK ALL CONCRETE WASHOUT FACILITIES DAILY TO DETERMINE IF THEY HAVE BEEN FILLED TO 75% CAPACITY. THE FACILITY SHALL BE CLEANED OUT OR CHANGED WHEN 75% FULL.
2. INSPECT LINERS DAILY TO ENSURE THAT LINERS ARE INTACT AND SIDEWALLS HAVE NOT BEEN DAMAGED BY CONSTRUCTION ACITIVITIES. LINERS SHALLBE REPLACED IF THERE ARE HOLES OR TEARS OBSERVED.
3. CONCRETE WASTE SHALL BE WASHED INTO THE DESIGNATED AREA AND ALLOWED TO HARDEN. THE HARDENED CONCRETE SHALL BE BROKEN UP AND DISPOSED OF OFFSITE PER APPLICABLE NYSDEC RULES AND REGULATIONS. LIQUIDS SHALL NOT BE DISCHARGED DIRECTLY INTO WATERWAYS, STORM DRAINS, SWALES OR DIRECTLY ONTO THE GROUND.
4. REMOVE LIQUIDS OR COVER STRUCTURE BEFORE PREDICTED STORMS TO PREVENT OVERFLOWS.
5. INSTALL A NEW PLASTIC LINER AFTER EVERY CLEANING.

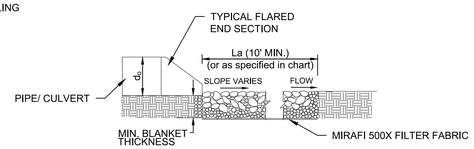
CONCRETE TRUCK WASHOUT DETAIL



ISOMETRIC VIEW



PLAN



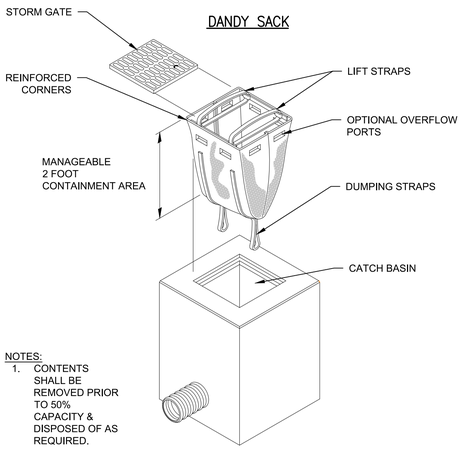
SECTION A-A

RIP RAP SIZING CHART						
PIPE DIAMETER	W-1 MINIMUM	W-2 MINIMUM	L_a MINIMUM	D_{50}	d_{max}	MIN. BLANKET THICKNESS
24"	6'	13'	11'	5"	7.5"	11.25"

NOTES:
1. MINIMUM BLANKET THICKNESS IS 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NO LESS THAN 6".
2. INSTALL FILTER MIRAFI 500X OR APPROVED EQUAL FILTER FABRIC BETWEEN RIP-RAP AND SUBGRADE.

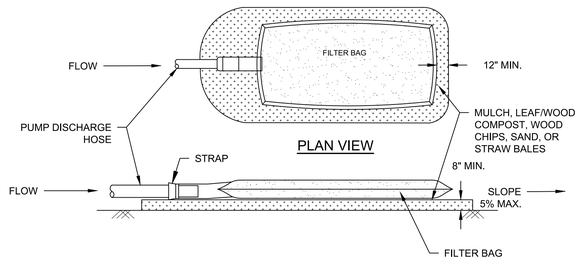
d_o = PIPE DIAMETER, SEE PLANS
L_a = APRON LENGTH
W = APRON WIDTH (CENTERED ON PIPE)
D_{50} = ROCK SIZE THAT WHICH 50% SHALL BE LARGER THAN
d_{max} = MAXIMUM ROCK DIAMETER

OUTLET PROTECTION - RIP RAP APRON



NOTES:
1. CONTENTS SHALL BE REMOVED PRIOR TO 50% CAPACITY & DISPOSED OF AS REQUIRED.

INLET PROTECTION

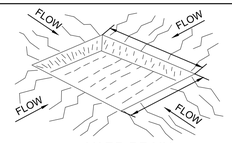


ELEVATION VIEW

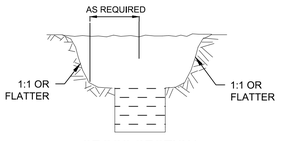
MIN. GRAB TENSILE STRENGTH	200 LBS.
MIN. GRAB TENSILE ELONGATION	50%
MIN. TRAPEZOID TEAR STRENGTH	80 LBS.
MULLEN BURST STRENGTH	380 PSI
MIN. PUNCTURE STRENGTH	130 LBS.
APPARENT OPENING SIZE	40-80 US SIEVE
MIN. UV RESISTANCE	70%
MIN. FLOW THRU RATE	70 GPM/SQ FT

NOTES:
1. TIGHTLY SEAL SLEEVE AROUND THE PUMP DISCHARGE HOSE WITH A STRAP OR SIMILAR DEVICE.
2. PLACE FILTER BAG ON SUITABLE BASE (E.G. GRAVEL, WOOD CHIPS, SAND, OR STRAW BALES) LOCATED ON A LEVEL OR 5% MAXIMUM SLOPING SURFACE. DISCHARGE TO A STABILIZED AREA. EXTEND BASE A MINIMUM OF 12 INCHES FROM EDGES OF BAG.
3. CONTROL PUMPING RATE TO CONTROL EXCESSIVE PRESSURE WITHIN THE FILTER BAG IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. AS THE BAG FILLS WITH SEDIMENT, REDUCE PUMPING RATE.
4. REMOVE AND PROPERLY DISPOSE OF FILTER BAG UPON COMPLETION OF PUMPING OPERATIONS OR AFTER BAG HAS REACHED CAPACITY, WHICHEVER OCCURS FIRST. SPREAD THE DEWATERED SEDIMENT FROM THE BAG IN AN APPROVED, UPLAND AREA AND STABILIZE WITH SEED AND MULCH BY THE END OF THE WORK DAY. RESTORE THE SURFACE AREA BENEATH THE BAG TO ORIGINAL CONDITION UPON REMOVAL OF THE DEVICE.
5. REPLACE FILTER BAG IF BAG CLOGS OR HAS RIPS, TEARS, OR PUNCTURES. DURING OPERATION KEEP CONNECTION BETWEEN PUMP HOSE AND FILTER BAG WATER TIGHT. REPLACE BEDDING IF IT BECOMES DISPLACED.
6. ALL EROSION, SEDIMENT AND DUST CONTROL SHALL BE IN ACCRODANCE WITH THE NYSDEC APPROVED SITE MANAGEMENT PLAN (SMP). IT SHOULD BE NOTES, SECTION 7 OF THE SMP STATES THAT THE NYSDEC SHALL BE NOTIFIED 60 DAYS PRIOR TO SITE DISTURBANCE.

SEDIMENT FILTER BAG DETAIL



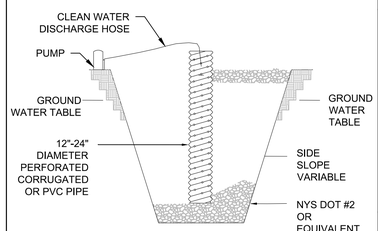
YARD DRAIN



CROSS SECTION

NOTES:
1. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ½ 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.
2. THE VOLUME OF SEDIMENT STORAGE SHALL BE 3,600 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 WATER POLLUTION SHALL BE MINIMIZED.
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.
7. MAXIMUM DRAINAGE AREA IS 3 ACRES.

SEDIMENT TRAP



NOTES:
1. PIT DIMENSIONS ARE VARIABLE.
2. THE STANDPIPE SHOULD BE CONSTRUCTED BY PERFORATING A 12-24" DIAMETER CORRUGATED OR PVC PIPE.
3. A BASE OF NYSDOT #2 OR EQUIVALENT ASGREGATE SHOULD BE PLACED IN THE PIT TO A DEPTH OF 12". AFTER INSTALLING THE STANDPIPE, THE PIT SURROUNDING THE STANDPIPE SHOULD BE BACKFILLED WITH NYSDOT #2 OR EQUIVALENT 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. IT IS RECOMMENDED THAT ¼" - ½" HARDWARE CLOTH MAY BE PLACED AROUND THE STANDPIPE, PRIOR TO ATTACHING THE FILTERCLOTH.

DEWATERING SUMP PIT

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
mjinc.com

PROJECT MILESTONE

SITE PLAN SUBMISSION

NO.	DATE	DESCRIPTION
1	04/16/20	CITY COMMENTS
2	05/05/20	CLARIFICATIONS
3	08/05/20	BUILDING REVISION

CLIENT: PRIME PLATTSBURGH, LLC

CITY OF PLATTSBURGH, NEW YORK

PROJECT: DURKEE STREET MIXED USE DEVELOPMENT

DRAWN	NSO
DESIGNED	NSO
CHECKED	TCB
SCALE	N.T.S.
DATE	FEBRUARY 2020
PROJECT	18491.00

DRAWING TITLE

DETAILS

DRAWING NUMBER

DT-06

SITE LIGHTING SCHEDULE

SYMBOL	LABEL	QTY	LUMENS PER LAMP	LLF	WATTAGE	MANUFACTURER	DESCRIPTION
	F1	5	16359	0.9	266.28	LITHONIA LIGHTING	RSX1 LED P4 40K R3 - 20' MOUNTING HEIGHT
	F2	4	9878	0.9	72.9467	LITHONIA LIGHTING	RSX1 LED P2 40K R2 - 20' MOUNTING HEIGHT
	F4	12	9446	0.9	79	LITHONIA LIGHTING	KAXW LED P3 40K R3 MVOLT - 15' MOUNTING HEIGHT
	F5	4	3545	0.9	29	LITHONIA LIGHTING	KAXW LED P1 40K R3 MVOLT - 12' MOUNTING HEIGHT
	F6	5	5664	0.9	53.6184	LITHONIA LIGHTING	RADPT P3 40K PATH - 12' MOUNTING HEIGHT

STATISTICS

DESCRIPTION	AVG	MAX	MIN	MAX/MIN	AVG/MIN
TOTAL SITE CALCULATION	2.3 FC	10.6 FC	1.0 FC	10.6 FC	2.3 FC

NOTE:
PHOTOMETRIC LAYOUT AND DATA PROVIDED BY POINT SOURCE GROUP, INC, 3495 WINSTON PLACE, BLDG. C #3, ROCHESTER, NY 14623.

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
mjinc.com

PROJECT MILESTONE
SITE PLAN SUBMISSION

NO.	DATE	DESCRIPTION
1	04/16/20	CITY COMMENTS
2	05/05/20	CLARIFICATIONS
3	08/10/20	BUILDING REVISION

CLIENT: PRIME PLATTSBURGH, LLC
CITY OF PLATTSBURGH, NEW YORK

PROJECT: DURKEE STREET MIXED USE DEVELOPMENT

DRAWN	NSO
DESIGNED	NSO
CHECKED	TCB
SCALE	1"=20'
DATE	FEBRUARY 2020
PROJECT	18491.00

DRAWING TITLE
SITE LIGHTING PLAN

DRAWING NUMBER
SL-01

RSX1 LED
Area Luminaire

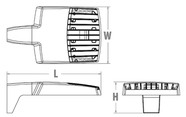
Catalog Number

Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications



EPA (ft²@0°): 0.57 ft² (0.05 m²)

Length: 21.8" (55.4 cm) (SPA mount)

Width: 13.3" (33.8 cm)

Height: 3.0" (7.6 cm) Main Body, 7.2" (18.4 cm) Arm

Weight (max): 31.0 lbs (14.1 kg)

Introduction

The new RSX LED Area family delivers maximum value by providing significant energy savings, long life and outstanding photometric performance at an affordable price. The RSX1 delivers 7,000 to 17,000 lumens allowing it to replace 70W to 400W HID luminaires.

The RSX features an integral universal mounting mechanism that allows the luminaire to be mounted on most existing drill hole patterns. This "no-drill" solution provides significant labor savings. An easy-access door on the bottom of mounting arm allows for wiring without opening the electrical compartment. A mast arm adaptor, adjustable integral slipfitter and other mounting configurations are available.

Ordering Information

EXAMPLE: RSX1 LED P4 40K R3 MVOLT SPA DDBXD

RSX1 LED

Series	Performance Package	Color Temperature	Distribution	Voltage	Mounting
RSX1 LED	P1 P2 P3 P4	30K 3000K 40K 4000K 50K 5000K	R2 Type 2 Wide R3 Type 3 Wide R3S Type 3 Short R4 Type 4 Wide R4S Type 4 Short R5 Type 5 Wide [1] R5S Type 5 Short [1] AFR Automotive Front Row AFRR90 Automotive Front Row Right Rotated AFRL90 Automotive Front Row Left Rotated	MVOLT (120V-277V) [2] HVOLT (347V-480V) [2] **(use specific voltage for options as noted)** 120 [3] 277 [4] 208 [3] 347 [4] 240 [3] 480 [4]	SPA Square pole mounting (3.0" min. SQ pole for 1 at 90°, 3.5" min. SQ pole for 2, 3, 4 at 90°) RPA Round pole mounting (3.2" min. dia. RND pole for 2, 3, 4 at 90°, 3.0" min. dia. RND pole for 1 at 90°, 2 at 180°, 3 at 120°) MA Mast arm adaptor (fits 2-3/8" OD horizontal tenon) IS Adjustable slipfitter (fits 2-3/8" OD tenon) [5] WBA Wall bracket [6] WBASC Wall bracket with surface conduit box AASP Adjustable tilt arm square pole mounting [5] AARP Adjustable tilt arm round pole mounting [5] AAWB Adjustable tilt arm with wall bracket [6] AAWSC Adjustable tilt arm wall bracket and surface conduit box [6]

Options		Finish	
Shipped Installed		DDBXD	Dark Bronze
HS House-side shield [4]		DBLXD	Black
PE Photocontrol, button style [7,8]		DNAXD	Natural Aluminum
PEX Photocontrol external threaded, adjustable [8,9]		DWHXD	White
PER7 Seven-wire twist-lock receptacle only (no controls) [4,10,11,12]		DDBTXD	Textured Dark Bronze
CE34 Conduit entry 3/4" NPT (Qty 2)		DBLBXD	Textured Black
SF Single fuse (120, 277, 347) [4]		DNATXD	Textured Natural Aluminum
DF Double fuse (208, 240, 480) [4]		DWHGXD	Textured White
SPD20KV 20KV Surge pack (10KV standard)			
FAO Field adjustable output [8,12]			
DMG 0-10V dimming extend out back of housing for external control (control ordered separate) [8,13]			
Shipped Installed			
***Standalone and Networked Sensors/Controls (factory default settings, see table page 9)**			
NLTAIR2 nLight AIR generation 2 [8,12,14]			
PIRHN Networked, Bi-Level motion/ambient sensor (for use with NLTAIR2) [12,14,15]			
***Note: PIRHN with nLight Air can be used as a standalone or networked solution. Sensor coverage pattern is affected when luminaire is tilted.**			
Shipped Separately (requires some field assembly)			
EGS External glare shield [4]			
EGFV External glare full visor (360° around light aperture) [4]			
BS Bird spikes [16]			

KAXW
LED Wall Luminaire

Catalog Number

Notes

Type

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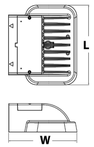
Specifications



Length: 14" (35.6 cm)

Width: 12" (35.6 cm)

Height: 5" (12.7 cm)

Weight (max): 19.7 lbs (8.9 kg)

A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability†
- This luminaire is part of an A+ Certified solution for ROAM® or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background†

To learn more about A+, visit www.acuitybrands.com/aplus.

1. See ordering tree for details.

A+ Capable options indicated by this color background.

Ordering Information

EXAMPLE: KAXW LED P3 40K R3 MVOLT DDBXD

KAXW LED

Series	Performance package	Color temperature	Distribution	Voltage	Mounting	Control options	Other options	Finish (required)
KAXW LED	P1 P2 P3	30K 3000 K 40K 4000 K 50K 5000 K	R3 Type 3 R4 Type 4	MVOLT [1] 120 [1] 208 [1] 240 [1] 277 [1] 347 [1] 480 [1]	**Shipped included** (blank) Surface mounting bracket	**Shipped installed** PER NEMA twist-lock receptacle only (controls ordered separate) [2,3] PER5 Five-wire receptacle only (controls ordered separate) [2,3] PER7 Seven-wire receptacle only (controls ordered separate) [2,3] PIR 180° motion/ambient light sensor, <15' mtg ht [4] FAO Field adjustable output [5] PIRH Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 5fc [6] PIR1FC3V Bi-level, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc [6] PIRH1FC3V Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc [6]	**Shipped installed** SF Single fuse (120, 277 or 347V) [1] DF Double fuse (208, 240 or 480V) [1] HS House-side shield [7] LCE Left Conduit Entry [8] RCE Right Conduit Entry [8] **Shipped separately** BSW Bird-deterrent spikes [9] EGS External glare shield [9]	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DSSXD Sandstone DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white DSSTXD Textured sandstone

NOTES

1. MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
2. Not available in the P1 performance package.
3. Not available with ROAMB. See PER5 or PER7 option.
4. Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See Accessories information.
5. If ROAMB node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls.
6. Specifies the Sensor Switch MSQD-7-DGP control see Outdoor Control Interface Module for details. Dimming driver standard. Not available with PER5 or PER7. Must specify 120V or 277V. Requires PER or separate on/off.
7. Not available with PER5 or PER7 options.
8. Must specify 120, 277, or 347V option.
9. Must specify 208, 240, or 480V option.
10. Also available as a separate accessory; see Accessories information.
11. Requires a contractor supplied 1½" EMT raintight fitting.
12. Requires luminaire to be specified with PER, PER5 or PER7 option. Ordered and shipped as a separate line item from Acuity Brands Controls.

Accessories

Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) [1]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) [1]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) [1]
DSHORT SBK U	Shorting cap
KAXWHS U	House-side shield
KAXWBW U	Bird-deterrent spikes
KAXWEGS U	External glare shield

Radean Post Top
LED Area Luminaire

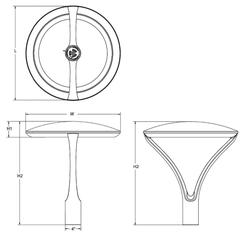
Catalog Number

Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications



EPA: 1.02 ft² (0.105 m²)

Length: 24" (61cm)

Width: 24" (61cm)

H1 Luminaire Height: 4" (10.16cm)

H2 Luminaire Height: 26" (66.04cm)

Weight: 38lbs (17.24Kg)

Introduction

The architecturally-inspired shape of the RADEAN™ post top area luminaire embodies the grace and strength of the RADEAN family. The twin copper-core cast aluminum arms support the slender superstructure, creating a beautiful sculpture by day transforming into a beacon of comfort by night. Triangular arms redirect reflection maintaining its visually quiet appearance. With sleek lines and simple silhouettes, these LED luminaires use specialized lighting and visual comfort to transform common areas like courtyards, outdoor retail locations, universities and corporate campuses into pedestrian-friendly nighttime environments.

Ordering Information

EXAMPLE: RADPT LED P3 30K SYM MVOLT PT4 PIR DNAXD

RADPT LED

Series	Performance package	Color temperature	Distribution	Voltage	Mounting (required)
RADPT LED	P1 3,000 Lumens P2 5,000 Lumens P3 7,000 Lumens P4 10,000 Lumens P5 15,000 Lumens	27K 2700K 30K 3000K 35K 3500K 40K 4000K 50K 5000K	SYM Symmetric type V ASY Asymmetric type IV PATH Pathway Type III	MVOLT [1] 277 [1] 120 [1] 347 208 [1] 480 240 [1]	PT4 [2] Slips inside ø 4" OD round metal pole RADPT20 Slips over a 2 3/8" diameter tenon RADPT25 Slips over a 2 7/8" diameter tenon

Control options	Other options		Finish (required)	
Shipped installed	SF Single Fuse [1]	**Shipped installed**	DDBXD Dark bronze	DDBTXD Textured dark bronze
NLTAIR2 nLight AIR 2.0 enabled [3]	DF Double Fuse [1]	HS Houseside shield [4]	DBLXD Black	DBLBXD Textured black
PIR Bi-level motion/sensor (100% to 30%) [4,5,6]	R90 Rotated optics [7]		DNAXD Natural aluminum	DNATXD Textured natural aluminum
PE Button photocell [8]			DWHXD White	DWHGXD Textured white
FAO Field adjustable output [9,10]				

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
mjinc.com

PROJECT MILESTONE

SITE PLAN SUBMISSION

NO.	DATE	DESCRIPTION
1	04/16/20	CITY COMMENTS
2	05/05/20	CLARIFICATIONS
3	08/10/20	BUILDING REVISION

CLIENT: PRIME PLATTSBURGH, LLC
CITY OF PLATTSBURGH, NEW YORK

PROJECT: DURKEE STREET MIXED USE DEVELOPMENT

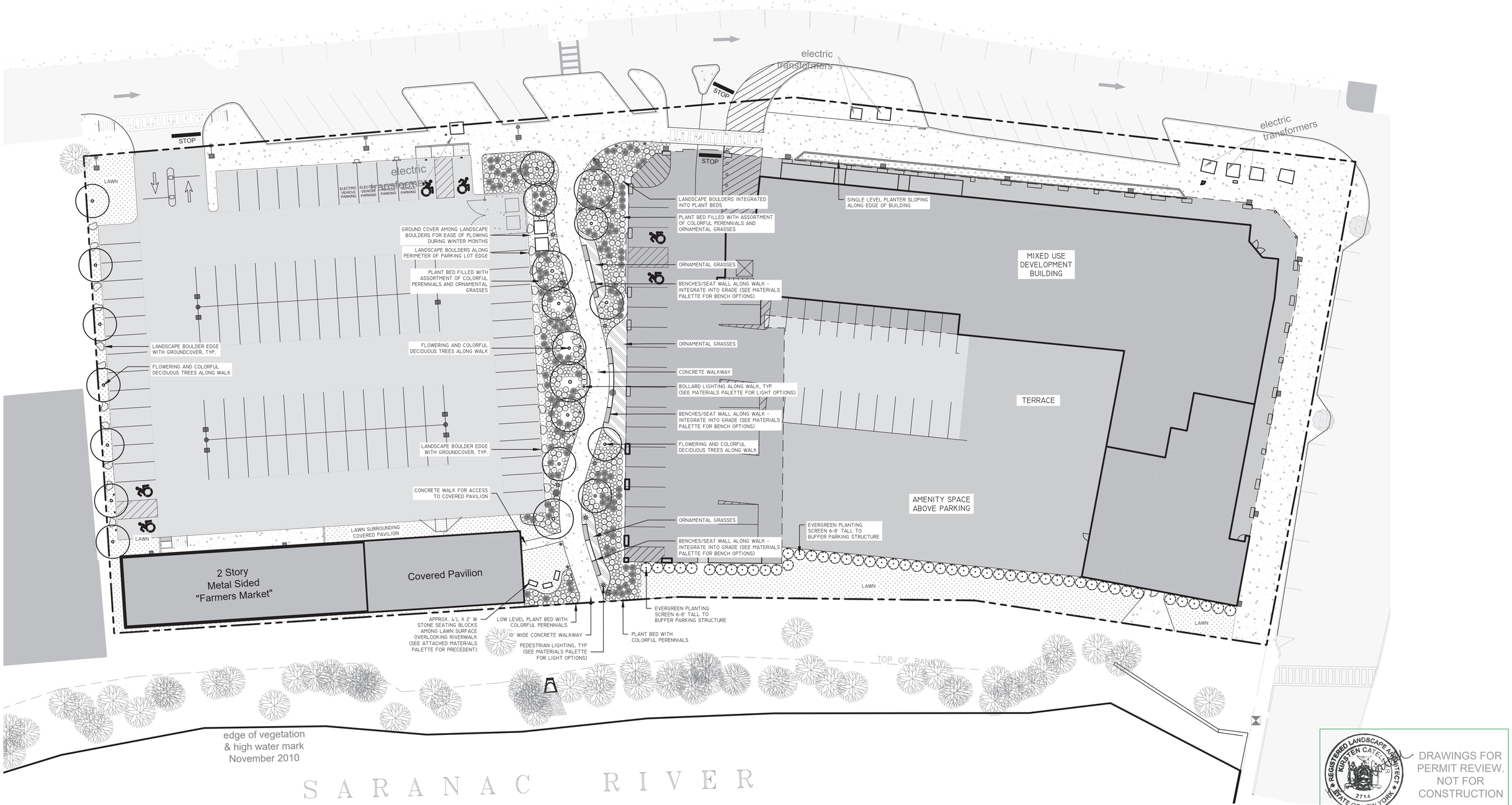
DRAWN	NSO
DESIGNED	NSO
CHECKED	TCB
SCALE	N.T.S.
DATE	FEBRUARY 2020
PROJECT	18491.00

DRAWING TITLE

SITE LIGHTING DETAILS

DRAWING NUMBER

SL-02



REGISTERED LANDSCAPE ARCHITECT · KIRSTEN CATELLIER · 2714 · STATE OF NEW YORK

DRAWINGS FOR PERMIT REVIEW. NOT FOR CONSTRUCTION

GRAPHIC SCALE

20 0 10 20 40

1 INCH = 20 FEET

Durkee Street Mixed Use

PLATTSBURGH NY

Conceptual Site Plan (Revised Building)

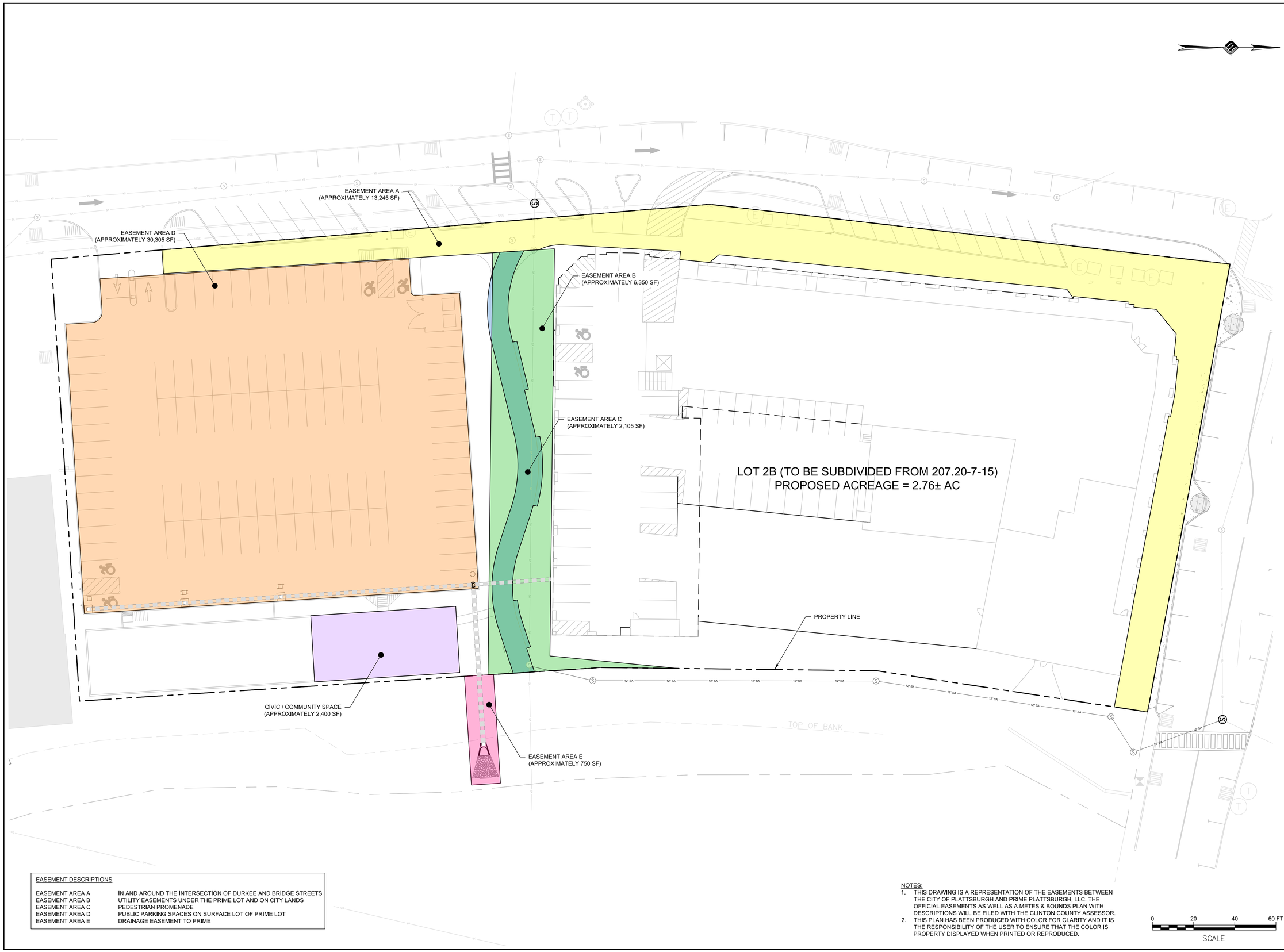
AUG 05 2020 · SA PROJECT NO. 19033

480 BROADWAY SUITE 324 · SARATOGA SPRINGS NY · 12866

P 518 832 4005 · STUDIOADPC.COM

studioA

Landscape Architecture + Engineering, DPC



EASEMENT DESCRIPTIONS

EASEMENT AREA A	IN AND AROUND THE INTERSECTION OF DURKEE AND BRIDGE STREETS
EASEMENT AREA B	UTILITY EASEMENTS UNDER THE PRIME LOT AND ON CITY LANDS
EASEMENT AREA C	PEDESTRIAN PROMENADE
EASEMENT AREA D	PUBLIC PARKING SPACES ON SURFACE LOT OF PRIME LOT
EASEMENT AREA E	DRAINAGE EASEMENT TO PRIME

NOTES:
1. THIS DRAWING IS A REPRESENTATION OF THE EASEMENTS BETWEEN THE CITY OF PLATTSBURGH AND PRIME PLATTSBURGH, LLC. THE OFFICIAL EASEMENTS AS WELL AS A METES & BOUNDS PLAN WITH DESCRIPTIONS WILL BE FILED WITH THE CLINTON COUNTY ASSESSOR.
2. THIS PLAN HAS BEEN PRODUCED WITH COLOR FOR CLARITY AND IT IS THE RESPONSIBILITY OF THE USER TO ENSURE THAT THE COLOR IS PROPERTY DISPLAYED WHEN PRINTED OR REPRODUCED.

0 20 40 60 FT
SCALE

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
mjinc.com

PROJECT MILESTONE
SITE PLAN SUBMISSION

NO.	DATE	DESCRIPTION
1	04/16/20	CITY COMMENTS
2	05/05/20	CLARIFICATIONS
3	08/10/20	BUILDING REVISION

CLIENT: PRIME PLATTSBURGH, LLC
CITY OF PLATTSBURGH, NEW YORK
PROJECT: DURKEE STREET MIXED USE DEVELOPMENT

DRAWN	NSO
DESIGNED	NSO
CHECKED	TCB
SCALE	1"=20'
DATE	FEBRUARY 2020
PROJECT	18491.00

DRAWING TITLE
EASEMENT PLAN

DRAWING NUMBER
EM-01

Revised SWPPP Report

STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

For

DURKEE STREET MIXED USE DEVELOPMENT

PREPARED FOR:

Prime Plattsburgh, LLC
621 Columbia Street
Cohoes, NY 12047

PREPARED BY:

McFarland Johnson
60 Railroad Place, Suite 402
Saratoga Springs, NY 12866

FINAL SITE PLAN SUBMISSION

FEBRUARY 2020

REIVSED 08/10/2020 – BUILDING REVISION

TABLE OF CONTENTS

APPENDIX LIST

1. INTRODUCTION

A stormwater management assessment has been conducted for the proposed project in order to protect the waters of the State of New York from the adverse impacts of stormwater runoff. This report presents an analysis of the project in accordance with the *New York State Department of Environmental Conservation SPDES General Permit for Stormwater Discharges from Construction Activity Permit No. GP-0-20-001* and the *New York State Stormwater Management Design Manual* ("The Manual"). As required, the Stormwater Pollution Prevention Plan is designed, where appropriate, to incorporate green infrastructure techniques that preserve natural resources and utilize the existing hydrology of the site, provide runoff reduction practices, water quality treatment practices, apply volume and peak control practices for channel protection, overbank flood control, and extreme flood control as appropriate.

In accordance with Appendix B, Table 2 of the SPDES General Permit for Construction Activity, GP-0-20-001, multi-family residential developments; includes townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks that involve a soil disturbance of one or more acres require the preparation of a full SWPPP that includes post-construction stormwater management practices. In total, approximately 2.76 acres of soil disturbance is expected during the construction of this project. Therefore, this project includes the development of erosion and sediment controls, green infrastructure site planning techniques, runoff reduction volume practices and post-construction stormwater management practices.

The general contractor and subcontractors performing any activity that involves soil disturbance will be required to comply with the terms and conditions of the SWPPP for the project identified as a condition of authorization to discharge stormwater. The Contractor shall provide signed certifications (Form CONR 5) for itself and all applicable subcontractors at the preconstruction meeting. These signed certifications shall be included as part of the SWPPP. The SPDES General Permit and SWPPP must be kept on file at the Project Field Office.

As required by the conditions described in the SPDES general permit, the SWPPP shall be kept current and changes made to reflect changes in the design, construction, and operation or in the maintenance of the project.

The complete set of construction drawings and specifications are provided as separate documents; however, they should be considered an integral component of the SWPPP and are referenced throughout this document. The applicant must retain all documentation for 5 years after NYSDEC accepts the Notice of Termination (NOT).

1.1 Scope of the Project

The site is being developed in response to an RFP from the City of Plattsburgh entitled "Mixed-Use Development Opportunity for the Durkee Street Site in Downtown Plattsburgh". The proposed project includes the construction of a 5-story mixed-use building with basement parking and the redevelopment of the existing Farmers' Market building. The site will have 290 parking spaces and an open space pedestrian corridor.

1.2 Location of Project

The project site is the Durkee Street Public Parking Lot, located downtown in the City of Plattsburgh, Clinton County, New York. It is bound by Durkee Street the west, Bridge Street to the north, the Saranac

River to the east, and an existing office building to the south. Refer to the Location Map in Appendix A. The project is not located within a TMDL and does not discharge into a 303(d) listed waterbody.

Table 1 - Location Table

Approximate Coordinate Position @ Center of Project	
Latitude	44° 41’ 48.4”N
Longitude	73° 27’ 7.0”W

1.3 Project Type and Size

The project is a redevelopment construction project that has a disturbance area of approximately 2.76 acres and a reduction of impervious area.

1.4 Project Description

The Durkee Street Mixed Use Development project consists of one five story building with below grade parking and the redevelopment of the 5,800 sf Farmers' Market building, which includes 3,400 sf of commercial/restaurant space and 2,400 sf of civic space (the “Project”). The five story building will have 104 residential units (42 one-bedroom, 59 two-bedroom, 3 three-bedroom). Within the lot, there will be 290 parking spaces (92 in the surface lot, 44 spaces in the courtyard, and 154 spaces in the below grade lot beneath the building). The Project site, tax lot 207.20-7-15, is currently owned by the City of Plattsburgh.

In addition to the buildings, the project will provide on-grade parking as well as an open space corridor to connect Durkee Street to a new pedestrian Riverwalk (by others). The site is being developed in response to an RFP from the City of Plattsburgh entitled "Mixed-Use Development Opportunity for the Durkee Street Site in Downtown Plattsburgh". The City has commenced the SEQRA process by requiring that a Generic Environmental Impact Statement be prepared to assess the potential impacts of the Project and related improvements.

The existing property has 2.75 acres of impervious cover, 99.6% of the total site area. The proposed site redevelopment has 2.41 acres of impervious cover, 87.3% of the total site area. Therefore, through the redevelopment of the Durkee Street lot, there is a 12.3% reduction in impervious cover of the site.

1.5 Cultural Resources

A Draft Generic Environmental Impact Statement (DGEIS) has been developed as part of the SEQR process for all of the Downtown Plattsburgh Revitalization projects of which this a part. A SHPO review was conducted and the current status reflects “No Adverse Effect”. The Phase 1A Archaeological Survey prepared for the Durkee Street Mixed Use Development, dated June 2019, and the SHPO review letter, dated December 23, 2019, are included as Appendix I to this SWPPP.

1.6 On-site Wetlands

As part of the DGEIS, impact to aquatic resources, including wetlands, were evaluated. According to NYSDEC wetland and stream information available through GIS and the Environmental Resource Mapper, there are no mapped NYSDEC wetlands or adjacent areas or significant natural communities on or adjacent to the Durkee Street Lot.

2. PROJECT MAPS AND PLANS

2.1 Location Map

See Appendix A

2.2 Soil Maps

See Appendix B

2.3 Erosion and Sediment Control Plans

See Appendix C

2.4 Existing and Proposed Subcatchment Maps

See Appendix D

3. PROJECT SOILS

3.1 NRCS Soil Map

See Appendix B

3.2 Soil Types

The following soil type(s) and hydrologic group(s) are present within the project area of disturbance:

Table 2 – Soil Types

Soil Symbol	Name	Hydrologic Group (HSG)
Un	Urban Land	-

3.3 Discussion of Soil Characteristics and Soil Erosion Hazard Potential

The Project sites is anticipated to feature Urban Land soil types. This soil series varies and is made up of mostly gravel, sand, silt and clay, pieces of wood, brick, and cinders. The site has been consistently developed over the past hundred years, making up the variable soil type found in the area. This soil type has high runoff potential due to its unfavorable drainage and infiltration characteristics. Slopes range from 0 to 8 percent.

A geotechnical study was completed (see Appendix B), which revealed that the average depth to groundwater is approximately 20 feet, with the exception of an area(s) where groundwater was found to be perched above the glacial till layer approximately six feet below grade. The average depth to bedrock is approximately 25 feet. The topsoil on-site was confirmed to be an urban land soil type with alluvial sand and glacial till below. Half of the site features moderately well drained soils and half of the site features poorly drained soils. Slopes range from 0 to 10 percent.

The Project sites has a history of varied uses including commercial, residential, manufacturing, auto repair steam laundering, sign painting and milling. The City of Plattsburgh applied for the property's inclusion in the New York State Environmental Restoration Program. As a result, C.T. Male created a Site Management Plan (SMP) that was adopted by the New York State DEC. The full SMP and Environmental Easement are included as Appendix J.

4. CONSTRUCTION PHASING

4.1 Sequence of Construction Activities

The Contractor's work schedule and methods shall be consistent with the SWPPP or amended SWPPP. Once approved, the progress schedule shall become a part of the SWPPP. It should be noted that there is a NYSDEC approved SMP for this site, which is included as Appendix J. Any disturbance of the site must comply with the SMP.

The following list is a suggested sequence of major construction activities for the project to meet the NYSDEC Phase II erosion control requirements:

1. Conduct a pre-construction meeting with all required parties to review the SWPPP.
2. Notify the NYSDEC 60 days prior to any site disturbance, as required by Section 7.1 of the SMP.
3. Clearly identify project work limits, identifying all areas where construction disturbance shall be permitted.
4. Install erosion control measures prior to commencing earthwork operations. Construct temporary earthen berms, diversion swales, sediment control dams and associated erosion control measures necessary to divert runoff from entering planned areas of disturbance and to protect the adjacent waterway.
5. Established temporary/permanent storm water management ponds/erosion control basins.
    a. Consult the SMP for any necessary contaminated soil measures
6. Remove and dispose of all removed vegetation off-site.
7. Strip and stockpile topsoil from proposed pavement, structural fill and cut areas. (stockpile locations as directed by owner's representative).
    a. Consult the SMP for any necessary contaminated soil measures
8. Establish mass grade elevations.
    a. Consult the SMP for any necessary contaminated soil measures
9. All temporary erosion and sediment control measures as well as stock-piles are to be mulched and seeded for temporary vegetative cover immediately following grading.
10. Construct utility lines (water/electric/gas/communications/sanitary sewers/storm sewers), construct building and install infrastructure improvements.
11. Box out roadway and pavement areas and install concrete curbing.
12. Construct asphalt pavement section, up to binder course.
13. Fine grade and spread topsoil, install landscaping plantings and hardscapes, site amenities and permanent seeding.
14. Remove temporary erosion and sediment control features upon establishment of permanent ground cover and inspection/approval from a Town official or representative.
15. Notify owner's representative of completion of final site stabilization.
16. File Notice of Termination.

5. EROSION AND SEDIMENT CONSTROL MEASURES

5.1 Erosion Control Plan

An erosion control plan has been developed in accordance with the "New York Standards and Specifications for Erosion and Sediment Control". The erosion control plan employs permanent and temporary erosion and sediment control methods including silt fence, erosion control matting, construction entrances, and other appropriate measures. It should be noted that there is a NYSDEC approved SMP for this site, which is included as Appendix J. Any disturbance of the site must comply with the SMP. As stated in Section 7.1 of the SMP, NYSDEC notification shall precede any site disturbance by 60 days.

5.1.1 Temporary Surface Stabilization

All work and prior NYSDEC notification shall be in accordance with the SMP. Areas within the project limits that may be disturbed more than once during the construction activities will be stabilized using temporary seed and mulch item or as directed by the Engineer. Areas remaining unpaved and undisturbed for more than seven (7) days during construction operations shall be stabilized temporarily. Other areas that might need to be stabilized temporarily will be at the discretion of the Engineer.

5.1.2 Drainage Pipe Inlet / Outlet Stabilization

As part of the permanent erosion control measure, the inlet and outlet of the culvert pipes will be provided with either stone riprap apron or an apron consisting of erosion control product with vegetation to provide the required erosion control which blends in with the surrounding natural features and topography. The location and type of stabilization to be provided is shown on project plans.

5.1.3 De-watering

Any groundwater that is suspected of being contaminated shall be handled in accordance with Section 5.1.3 of the SMP. As stated in Section 7.1 of the SMP, NYSDEC notification shall precede any site disturbance by 60 days. If required, de-watering of miscellaneous areas within the site will be performed utilizing a pump and filter bag system. The filter bags should be made of non-woven geotextile material capable of trapping particles larger than 150 microns. Filter bags should be replaced when they are half full or a no longer functioning per the manufacturer's requirements. Filter bags should be located in a well vegetated/grassy area and discharge into stable erosions resistant areas. Where this is not possible a geotextile flow path should be established. Bags shall not be placed on slopes greater than 5%. The pump discharge hose shall be inserted into the bags in the manner specified by the manufacturer and securely clamped. Pumping rate shall not be greater than 750 GPM or ½ the maximum specified by the manufacturer, whichever is less. Pump intakes shall be floated and screened.

5.1.4 Construction Entrance

As required, at least one (1) stabilized construction entrance will be constructed to access the Contractors Staging/Storage Area. This entrance/area shall conform to the details. See plans for location of construction entrance(s).

5.1.5 Concrete Truck Washout / Concrete Batch Plant Protection

As required, a temporary excavated or above ground lined pit where concrete truck mixers and equipment can be washed after their loads have been discharged, to prevent highly alkaline runoff from entering storm drainage systems or leaching into soil shall be constructed. See plans for location of concrete

washout. If a concrete batch plant is installed at the site, temporary containment to prevent discharge of runoff from entering storm drainage systems or leaching into soil shall be constructed.

5.1.6 Permanent Stabilization

Stabilizing of the graded surfaces will be accomplished by using various seed mix for vegetation.

5.1.7 Dust Control

Dust shall be controlled in accordance with Sections 5.6 of the SMP, and Dust Control Monitoring shall be in accordance with Section 5.7 of the SMP As stated in Section 7.1 of the SMP, NYSDEC notification shall precede any site disturbance by 60 days. The contractor will be required to minimize dust generation during the construction activities. Provisions such as watering, the use of cover materials, and the application of calcium chloride have proven effective in dust control and can be approved by the Engineer for use in the affected areas. The project perimeter chain-link fence will also include a wind screen to prevent dust from leaving the site.

5.1.8 Silt Fence

Silt fence will be placed per the Erosion and Sediment Control Plans, down slope of all disturbed areas, soil stockpiles, and spoil areas. The purpose of the silt fence is to remove sediment from sheet flow in these areas. Silt fence shall remain in place and functional until the contributing area has been permanently stabilized. Sediment socks may be used in lieu of silt fence. Erosion Control shall be in accordance with the SMP.

5.1.9 Weekly Inspections

A qualified inspector shall conduct site inspections at least once every seven (7) calendar days. The qualified inspector shall inspect all erosion and sediment control practices and pollution prevention measures to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved final stabilization, all points of discharge to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site, and all points of discharge from the construction site. The qualified construction inspector shall also prepare an inspection report subsequent to every inspection. Complete inspection and maintenance requirements can be found in Part IV of the SPDES General Permit GP-0-20-001 (Appendix G).

5.1.10 Final Inspection

Prior to the project being finally accepted, it shall be inspected for any evidence of erosion or slope failure. If any such condition becomes apparent upon final inspection, temporary soil erosion and sediment controls shall be installed immediately as directed by the Engineer. The situation shall be corrected per a schedule agreed to by the NYSDEC, Owner, and the Contractor.

The Erosion Control Plans are included in Appendix C.

5.2 Permanent Erosion and Sediment Control Measures

Table 3 – List of Permanent Erosion & Sediment Control Measures

Permanent Feature	Converted Temporary Practice?	Location: ESC Plan	Receiving Waterbody Protected (where applicable)
Riprap outlet protection	Yes	See Plans	Saranac River
Soil Stabilization	Yes	See Plans	Saranac River

5.3 Installation Sequence

See the intended sequence of construction activities noted in Section 4 above.

5.4 Maintenance Schedule

The Contractor is required to inspect all E&SC devices in their active work area daily and repair any deficiencies in accordance with the SPDES permit.

5.5 SWPPP Implementation Responsibilities

Implementation of all E&SC devices will be by the Contractor as indicated in the contract documents.

6. POLLUTION PREVENTION MEASURES

6.1 Material Management Practices

All waste materials, including construction debris and trash that occur onsite shall be handled and disposed of in a manner that is in accordance with state and local regulations. No waste material shall be buried on site.

- An effort will be made to store only enough products required for the project.
- All materials stored within the site will be stored in a neat orderly manner in their appropriate containers and if possible, an enclosed area.
- Products shall be kept in their original containers with the original manufacturer's labels. Manufacturer's recommendations for proper use and disposal shall be followed.
- Hazardous materials shall be disposed of in accordance with State and Local regulations.
- Sanitary waste will be collected from portable units as required.

The following materials are expected to be on-site during construction:

- Concrete
- Asphalt
- Masonry Block
- Wood
- Paints (Enamel and Latex)
- Petroleum based products
- Fertilizers
- Metal Studs
- Detergents
- Cleaning Solvents
- Roofing Materials
- Tar

These materials and other materials used during construction with the potential to impact stormwater will be stored, managed, used, and disposed of in a manner that minimizes the potential for releases to the environment and especially into stormwater.

Emergency contacts for the project will be posted at the project office and are included at the end of this section.

6.2 Spill Control Practices

The contractor will be responsible for preparing a project area specific spill control plan in accordance with Local and NYSDEC regulations. At a minimum, this plan shall:

1. Reduce stormwater contact if there is a spill.
2. Contain the spill.
3. Stop the source of the spill.
4. Dispose of contaminated material in accordance with manufacturer's procedures and NYSDEC regulations.
5. Identify responsible trained personnel.
6. Ensure spill area is well ventilated.

6.3 General Material Handling Practices

The following general practices will be used throughout the project to reduce the potential for spills:

1. Potential pollutants will be stored and used in a manner consistent with the manufacturer's instructions in a secure location. To the extent practicable, material storage areas should not be located near storm drain inlets and should be equipped with covers, roofs, or secondary containment as needed to prevent stormwater from contacting stored materials. Chemicals that are not compatible shall be stored in segregated areas so that spilled materials cannot combine and react.
2. Materials disposal will be in accordance with manufacturer's instructions and applicable local state and federal regulations.
3. Materials no longer required for construction will be removed from the site as soon as practicable.
4. Adequate garbage, construction waste, and sanitary waste handling and disposal facilities will be provided to the extent necessary to keep the site clear of obstruction and BMPs clear and functional.

6.4 Product Specific Practices

The following product specific practices will be followed within the project area.

6.4.1 Petroleum Products

All project related vehicles shall be monitored for leaks and receive regular preventative maintenance to reduce chance of leakage. Petroleum products shall be stored in tightly sealed containers, which are clearly labeled. Any asphalt substances used during construction shall be applied according to manufacturer's recommendations.

6.4.2 Fertilizers

Fertilizers used shall be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer shall be worked into the soil to limit exposure to stormwater. Fertilizers shall be stored in covered or other contained areas.

6.4.3 Paints

All containers shall be tightly sealed and stored when not required for use. Excess paint shall not be discharged into the storm sewer system but shall be disposed of according to manufacturer's instructions or State regulations.

6.4.4 Concrete Trucks

Concrete Trucks shall be allowed to wash out within project areas provided that the contractor provides an area which collects and contains any concrete / slurry material washed from trucks for recovery and disposal at a later time. No concrete or slurry shall be discharged from the property at any time of construction. The concrete washout area shall conform to the detail found on sheet DT-05 (Appendix C).

6.5 Spill Response

The primary objective in responding to a spill is to quickly contain the material(s) and prevent or minimize their migration into stormwater runoff or conveyance systems. If the release has impacted on-site stormwater, it is critical to contain the released material on-site and prevent their release into receiving waters.

If a spill of pollutants threatens stormwater on-site, the spill response procedures outlines below must be

implemented in a timely manner to prevent release of the pollutant:

1. The site superintendent will be notified immediately when a spill or the threat of a spill is observed. The superintendent will assess the situation and determine the appropriate response.
2. If spills represent an imminent threat of escaping ESC facilities and entering the receiving waters, facility personnel will respond immediately to contain the release and notify the superintendent after the situation has been stabilized.
3. Spill kits containing materials and equipment for spill response and clean-up will be maintained onsite. Each spill kit may contain:
    - Oil absorbent pads (one bale)
    - Oil absorbent booms (40 feet)
    - 55-gallon drums (2)
    - 9-mil plastic bags (10)
    - Personal protective equipment including gloves and goggles
4. If an oil sheen is observed on surface water, absorbent pads and/or booms will be applied to contain and remove the oil. The source of the oil sheen will also be identified and removed or repaired as necessary to prevent further releases.
5. The site superintendent, or their designee, will be responsible for completing a spill reporting form to the appropriate state or local agency.
6. Spill response equipment will be inspected and maintained as necessary to replace any materials used in spill response activities.

6.6 Notification

In the event of a spill, make the appropriate notification(s) consistent with the following procedures:

1. Any spill of oil which a) violates water quality standards, b) produces a sheen on a surface water, c) causes a sludge or emulsion must be reported immediately by telephone to the National Response Center Hotline at (800) 424-8802.
2. Any oil, hazardous substance, or hazardous waste release which exceeds the reportable quantity must be reported immediately by telephone to the National Response Center Hotline at (800) 424-8802.
3. Any spill of oil or hazardous substance to waters of the state must be reported immediately by telephone to the NYSDEC.
4. Any release of hazardous substance that may be a threat to human health or the environment must be reported to the NYSDEC immediately upon discovery.

7. EXISTING SITE CONDITIONS

The existing site is the Durkee Street Public Parking Lot. The majority of the site is asphalt impervious cover. There is also an existing 5,800 sf building located on the southeast corner of the site.

7.1 Existing Watershed Information

The project area is located in close proximity to the Saranac River, which is the receiving waterbody for runoff from the current site. Catchment area 1A is 0.60 acres and is made up of the southern portion of the parking lot. Stormwater runoff is collected in a catch basin which is connected to a stormwater system on the adjacent property to the south. The runoff is routed directly to the Saranac River, without treatment.

Catchment area 1B is 2.11 acres and consists of the northern portion of the parking lot. Runoff flows across the parking lot and is collected in an onsite drainage pipe which drains directly to the Saranac River. No stormwater quality measures are currently in place.

Catchment area 1C is 0.64 acres and contains a portion of the roof runoff from the existing building as well as the bank adjacent to the east end of the project site. Stormwater runoff from this area flows via sheet flow directly into the Saranac River. Refer to Appendix D for HydroCAD analysis reports and subcatchment maps.

7.2 Table of Receiving Waterbodies

Table 4: Receiving Waterbodies

Stormwater Structure	*Receiving Waterbody*	*NYSDEC Regulated*
18" Site Outlet Pipe	Saranac River	Yes – Class C (TS)

8. STORMWATER MANAGEMENT ASSESSMENT

This project falls under Chapter 9 of the Manual, "Redevelopment Activity". Chapter 9 provides the provision of stormwater practices during a redevelopment. This approach balances maximizing improvements in site design that can reduce the impacts to stormwater runoff and providing a maximum level of on-site treatment that is feasible given the site constraints present where the redevelopment activities are occurring.

8.1 Methodology

To analyze the hydrologic impacts of the proposed development, a storm water management model was developed in accordance with the Manual. HydroCAD™, by HydroCAD Software Solutions LLC was used to model both the existing and proposed conditions: soil data from the NRCS Web Soil Survey was entered into the software; land coverage areas were estimated using aerial photography and site visits; watershed areas were developed using the surveyed topography; time of concentrations were estimated using USDA, Urban Hydrology for Small Watersheds, TR-55 (TR-55) methodology; and finally runoff and routing calculations were performed using the SCS Unit Hydrograph method.

Green Infrastructure practices were evaluated in accordance with the Manual using the NYSDEC Runoff Reduction Worksheets available through the NYSDEC's Construction Stormwater Toolbox, available on their website.

The following general steps are followed when conducting a stormwater design:

1. **Site Planning:** The existing natural resource areas and drainage patterns including wetlands, waterways, floodplains, and soils are identified. Conservation of natural resources are maximized given the proposed site.
2. **Pre and Post-Development Conditions Analysis:** The pre and post-development stormwater runoff conditions for the 1, 10, and 100-year storm events are determined using HydroCAD (detailed HydroCAD reports for this project can be found in Appendix D).
3. **Water Quality:** The Water Quality Volume and Runoff Reduction Volume are calculated using Chapter 4 of the Manual and Green Infrastructure Worksheets (provided in Appendix D).
4. **Water Quantity:** Peak runoff and stormwater retention/detention are evaluated using the Manual.

8.1.1 Water Quality Volume (WQv) / Runoff Reduction Volume (RRv)

Section 4.2 of the Manual states that Water Quality Volume (WQv) is intended to improve the water quality by capturing and treating runoff from small, frequent storm events that contain higher pollutant levels created through the increase of impervious surfaces. Impervious surfaces accumulate pollutants that quickly wash off and rapidly enter downstream waters as well as prevent natural groundwater recharge.

The WQv required for the proposed site is based upon the 90% rainfall event number, percent of impervious cover, and the total site area. WQv treatment by an Alternative practice requires the alternative SMP to treat a percentage of the WQv from the disturbed, impervious area as well as any additional runoff from tributary areas that are not within the disturbed, impervious area. The percentage of WQv required to be treated is based on the percentage of impervious cover reduction, percentage of water quality treated through standard practice and percentage of runoff reduction. The calculations for determining the required WQv can be found in Appendix D. The total WQv required to be treated is 3,838 cubic feet.

Runoff Reduction Volume (RRv) is the reduction of the total WQv by application of green infrastructure techniques and stormwater management practices to more closely replicate pre-development hydrology. The intent of RRv is to recognize the water quality benefits of certain site design practices to address flow as a pollutant of concern. Although encouraged, meeting the RRv sizing criteria is not required due to the reduced impervious area of the redevelopment project.

8.1.2 Channel Protection Volume (CPv)

Stream Channel Protection Volume Requirements (CPv) are designed to protect stream channels from erosion. The Manual was used to determine the water quantity requirements of CPv; specifically, providing 24-hour extended detention for the 1-year storm event or discharging directly to tidal waters. According to Section 4.4, Stream Channel Protection Volume Requirements (CPv) of the Manual the CPv requirement does not apply when the site discharges to a fifth order waterbody.

The CPv requirement does not apply in certain conditions, including the following:

- Reduction of the entire CPv is achieved at a site through green infrastructure of infiltration systems.
- The site discharges directly into tidal waters or fifth order (fifth downstream) or larger streams.

The Saranac River, adjacent to the project site, is classified as a fifth order stream. Therefore, the project site discharges directly to a fifth order stream in both the existing and proposed conditions and 24-hour extended detention of the 1-year storm event is not required for this project.

8.1.3 Overbank Flood Control (Qp)

The primary purpose of the overbank flood control sizing criterion is to prevent an increase in the frequency and magnitude of out-of-bank flooding generated by urban development. The Manual was used to determine the water quantity requirements of Qp; specifically, providing sufficient retention volume to discharge all runoff from the proposed 10-year storm event at a rate equal to or less than the existing peak 10-year runoff rate or discharging directly to tidal waters.

According to Section 4.5, Overbank Flood Control Criteria (Qp) of the Manual the Qp requirement does not apply when the site discharges to a fifth order stream.

The Qp requirement does not apply in certain conditions, including:

- The site discharges directly into tidal waters or fifth order (fifth downstream) or larger streams.

8.1.4 Extreme Flood Control (Qf)

The intent of the extreme flood criteria is to prevent the increased risk of flood damage from large storm events, maintain the boundaries of the predevelopment 100-year floodplain, and protect the physical integrity of stormwater management practices. The Manual was used to determine the water quantity requirements of Qf; specifically, providing sufficient retention volume to discharge all runoff from the proposed 100-year storm event at a rate equal to or less than the existing peak 100-year runoff rate or discharging directly to tidal waters.

According to Section 4.6, Extreme Flood Control Criteria (Qf) the Manual the Qf requirement does not apply when the site discharges to a fifth order stream.

The 100-year storm control requirement can be waived if:

- The site discharges directly into tidal waters or fifth order (fifth downstream) or larger streams.

8.2 Evaluation of Green Infrastructure

According to Section 9.2 of the Manual, meeting the RRv (through green infrastructure) is not required for a redevelopment project. However, green infrastructure practices were evaluated for the potential use on the project site.

8.2.1 Conservation of Natural Areas

The existing site is an already developed parking lot in an urban environment. The added development maintains the existing hydrologic and water quality characteristics.

8.2.2 Sheetflow to Riparian Buffers and Filter Strips

Sheetflow is not used as there is too much sheet length to meet the criteria, while the vegetated areas would not meet the Riparian and/or Filter Strip requirement.

8.2.3 Vegetated Swales

The developed site does not have sufficient room for vegetated swales.

8.2.4 Tree Planting / Tree Pits

New landscaping will complement the existing environment. No credit has been applied for proposed tree planting.

8.2.5 Disconnection of Rooftop Runoff

Rooftop disconnection was not considered for this project, as the buildings are located within large paved areas.

8.2.6 Stream Daylighting

Stream daylighting is not available for the proposed project.

8.2.7 Rain Gardens / Bioretention

The developed site does not have sufficient room for Rain Gardens or Bioretention.

8.2.8 Green Roofs

Green roofs were not considered to be feasible for this project.

8.2.9 Stormwater Planter

Stormwater Planters were not considered due to the poor soils and rooftop runoff volume.

8.2.10 Rain Barrels and Cisterns

Rain barrels and cisterns were not considered for this project due to the commercial nature of the use.

8.2.11 Porous Pavement

Porous pavement was not considered due to the poor soils.

8.2.12 Infiltration System

An infiltration system was not considered due to the poor soils not meeting the minimum infiltration rate.

9. POST CONSTRUCTION STORMWATER CONTROL PRACTICES

9.1 Table of Post Construction Practices

See Table 4 above.

9.2 Post Construction Practices Plan

See Table 4 for location of Post Construction Practices and Appendix C for Erosion & Sediment Control Plans and Details.

In order to control the post-development runoff conditions to match the existing conditions, stormwater management facilities will be constructed to collect and treat runoff. Stormwater on the project site will be treated through a hydrodynamic separation device (CS-6 Cascade Separator), which is an alternative stormwater management practice. This device moves water in a circular, centrifugal manner to accelerate the separation and deposition of sediment while also capturing hydrocarbons, trash and debris from the water.

The hydrodynamic separation device (S1) will be located on the southwest side of the site, within the surface parking lot. The catchment area routed to this device is broken up into two parts, 1A and 1B. Catchment area 1A is 0.87 acres and consists of the surface parking lot as well as the Farmers' Market building. This area has a coverage value of 98. Stormwater runoff from 1A will be collected in three catch basins that connect to the hydrodynamic separation device. After being treated, the water is discharged into the Saranac River.

Catchment area 1B is 1.20 acres and consists of the stormwater collected from the roof of the mixed-use building and courtyard parking lot. This area has a coverage value of 98 as it is entirely impervious. Stormwater runoff from 1B will be collected in a series of roof drains to be funneled through a gutter system. All of the runoff collected will be piped to the hydrodynamic separation device, treated and discharged into the Saranac River.

Catchment area 1C is 1.29 acres and is made up of the walkway area as well as the bank adjacent to the east side of the project site. Stormwater runoff from this area is not collected and will flow via sheet flow into the Saranac River.

For the 90% storm event, the water quality flow rate through the treatment system is 3.30 cubic feet per second (cfs). The structure provides 7,675 cubic feet (cf) of water quality volume, which exceeds the requirement of 3,345 cf.

9.3 Hydraulic Analysis of Pre- and Post-Development Conditions

In analyzing pre- and post-construction stormwater conditions, the Saranac River was used as the comparison point. Both the pre- and post-construction stormwater is discharged into the River. Using Chapter 9 of the Manual for redevelopment, the project meets all stormwater requirements.

The below table summarizes the impervious cover of the pre- and post-development conditions.

Table 6 – Impervious Cover

	Pre-Development	Post-Development
Impervious Area	2.75 ac	2.41 ac
% Impervious Cover	99.6%	87.3%
% IC Reduction	**12.3%**	

The existing site has no water quality treatment measures, and all stormwater runoff is directly discharged into the Saranac River. Per Chapter 9 of the Manual, redevelopment projects are required to provide water quality treatment and ensure the project runoff flow does not exceed the current condition. The table below summarizes the stormwater management plan.

Table 7 - Stormwater Management Plan Summary

Storm Event	Pre-Development	Post-Development
1-yr Discharge	7.42 cfs	6.75 cfs
10-yr Discharge	13.08 cfs	12.46 cfs
100-yr Discharge	22.89 cfs	22.47 cfs
Area of soil disturbance	2.76 ac	
WQv Target	3,345 cf	
WQv Provided	**7,675 cf**	

9.4 Maintenance Schedule of Post-Construction Stormwater Control Practices

Table 6 – Maintenance Schedule of Post-Construction Stormwater Management Facilities

Maintained by	Name of entity
Name, Address, Phone of Responsible Party	Prime Plattsburgh, LLC 621 Columbia Street Cohoes, NY 12047 (518) 785-9000 x126
Facilities to be Maintained	CS-6 Cascade Separator
Description of Maintenance Activity for each Facility and Frequency	See Appendix F for maintenance guidelines, as recommended by the manufacturer.
Description of Applicable Easements	An easement for the outlets of the stormwater devices will be needed.
Access and safety issues	Maintenance forces have access to all drainage facilities within the site.
Local and non-local permits	Article 15: Protection of Waters Permit
Legal agreements	N/A

The Cascade Separator Inspection and Maintenance Guide can be found in Appendix F.

9.5 Drainage Structure Catchment Areas

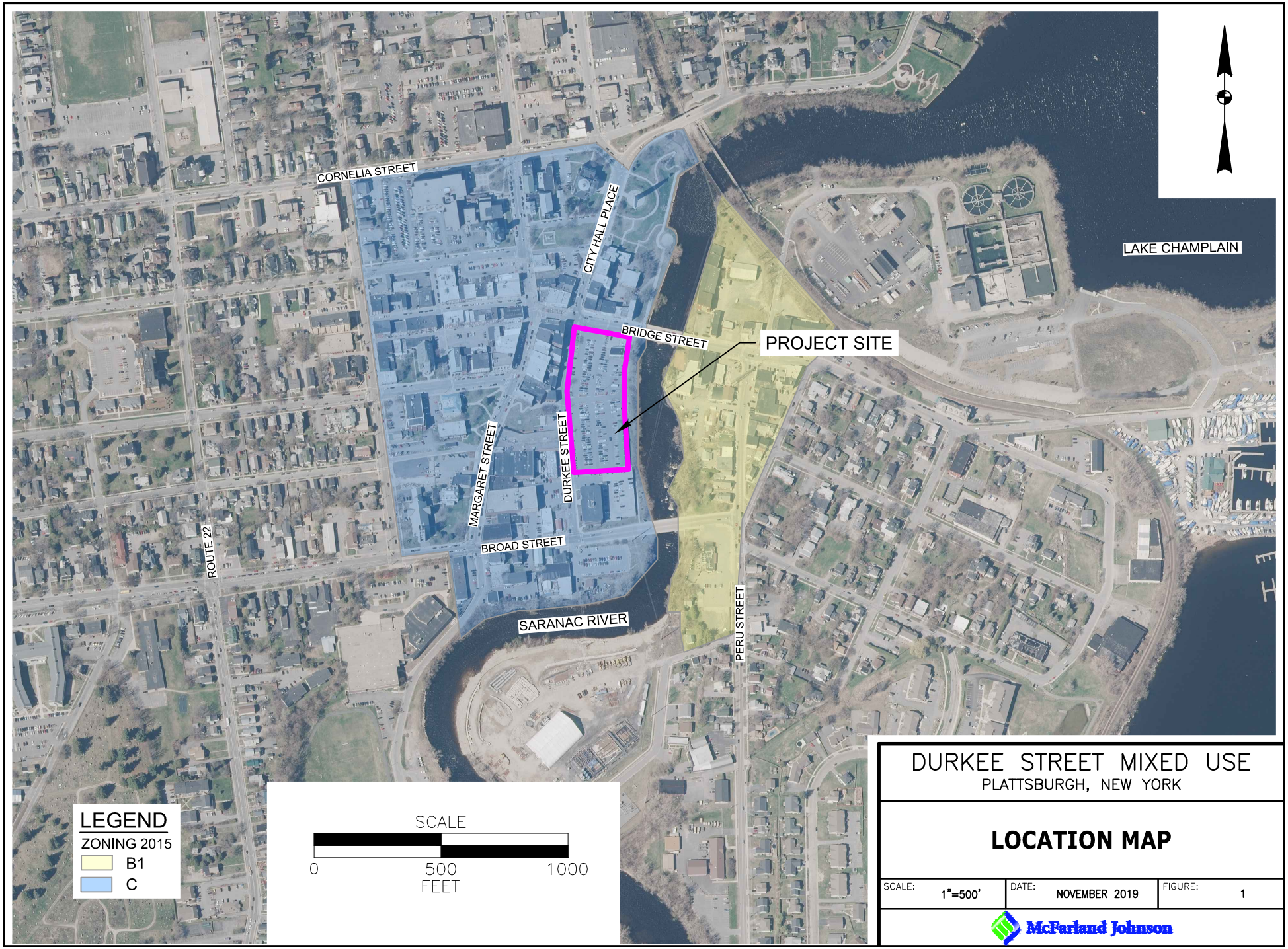
See Drainage Structure Area Figure in Appendix D.

9.6 Hydraulic Analysis of Stormwater Sewer System

See the storm sewer profiles with the hydraulic grade lines for the 10-year storm event. The profiles were created in AutoCAD Civil 3D which incorporates the rational method and Manning's Equation to iteratively calculate the hydraulic capacity, grade lines, and inlet spreads. Printouts are provided in Appendix D.

APPENDIX A

LOCATION MAP



DURKEE STREET MIXED USE

PLATTSBURGH, NEW YORK

LOCATION MAP

SCALE:	DATE:	FIGURE:
1"=500'	NOVEMBER 2019	1

McFarland Johnson

APPENDIX B

NRCS SOILS MAP

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Clinton County, New York

September 18, 2019

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:1,070 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 15 30 60 90

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Clinton County, New York
Survey Area Data: Version 19, Mar 7, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 28, 2012—Oct 13, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Un	Urban land	3.6	100.0%
Totals for Area of Interest		**3.6**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Clinton County, New York

Un—Urban land

Map Unit Setting

National map unit symbol: 9r0w
Mean annual precipitation: 31 to 42 inches
Mean annual air temperature: 39 to 45 degrees F
Frost-free period: 105 to 165 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Typical profile

H1 - 0 to 6 inches: variable

Minor Components

Udipsamments

Percent of map unit: 3 percent
Hydric soil rating: No

Udorthents

Percent of map unit: 3 percent
Hydric soil rating: No

Deerfield

Percent of map unit: 1 percent
Hydric soil rating: No

Covert

Percent of map unit: 1 percent
Hydric soil rating: No

Grattan

Percent of map unit: 1 percent
Hydric soil rating: No

Plainfield

Percent of map unit: 1 percent
Hydric soil rating: No

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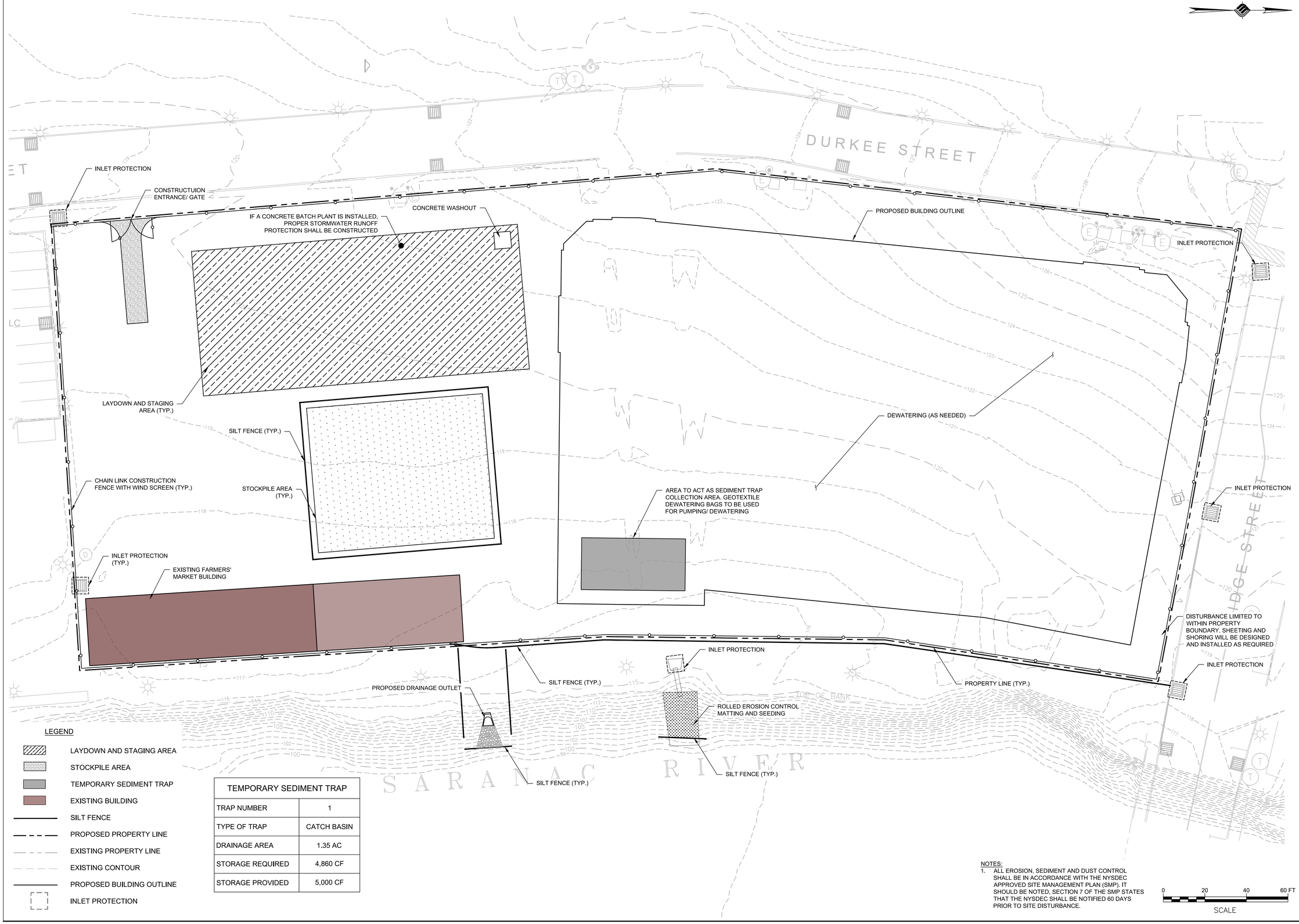
United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

APPENDIX C

EROSION & SEDIMENT CONTROL PLANS, DETAILS & NOTES



LEGEND

- LAYDOWN AND STAGING AREA
- STOCKPILE AREA
- TEMPORARY SEDIMENT TRAP
- EXISTING BUILDING
- SILT FENCE
- PROPOSED PROPERTY LINE
- EXISTING PROPERTY LINE
- EXISTING CONTOUR
- PROPOSED BUILDING OUTLINE
- INLET PROTECTION

TEMPORARY SEDIMENT TRAP	
TRAP NUMBER	1
TYPE OF TRAP	CATCH BASIN
DRAINAGE AREA	1.35 AC
STORAGE REQUIRED	4,860 CF
STORAGE PROVIDED	5,000 CF

NOTES:
1. ALL EROSION, SEDIMENT AND DUST CONTROL SHALL BE IN ACCORDANCE WITH THE NYSDEC APPROVED SITE MANAGEMENT PLAN (SMP). IT SHOULD BE NOTED, SECTION 7 OF THE SMP STATES THAT THE NYSDEC SHALL BE NOTIFIED 60 DAYS PRIOR TO SITE DISTURBANCE.

0 20 40 60 FT
SCALE

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
mjinc.com

PROJECT MILESTONE
SITE PLAN SUBMISSION

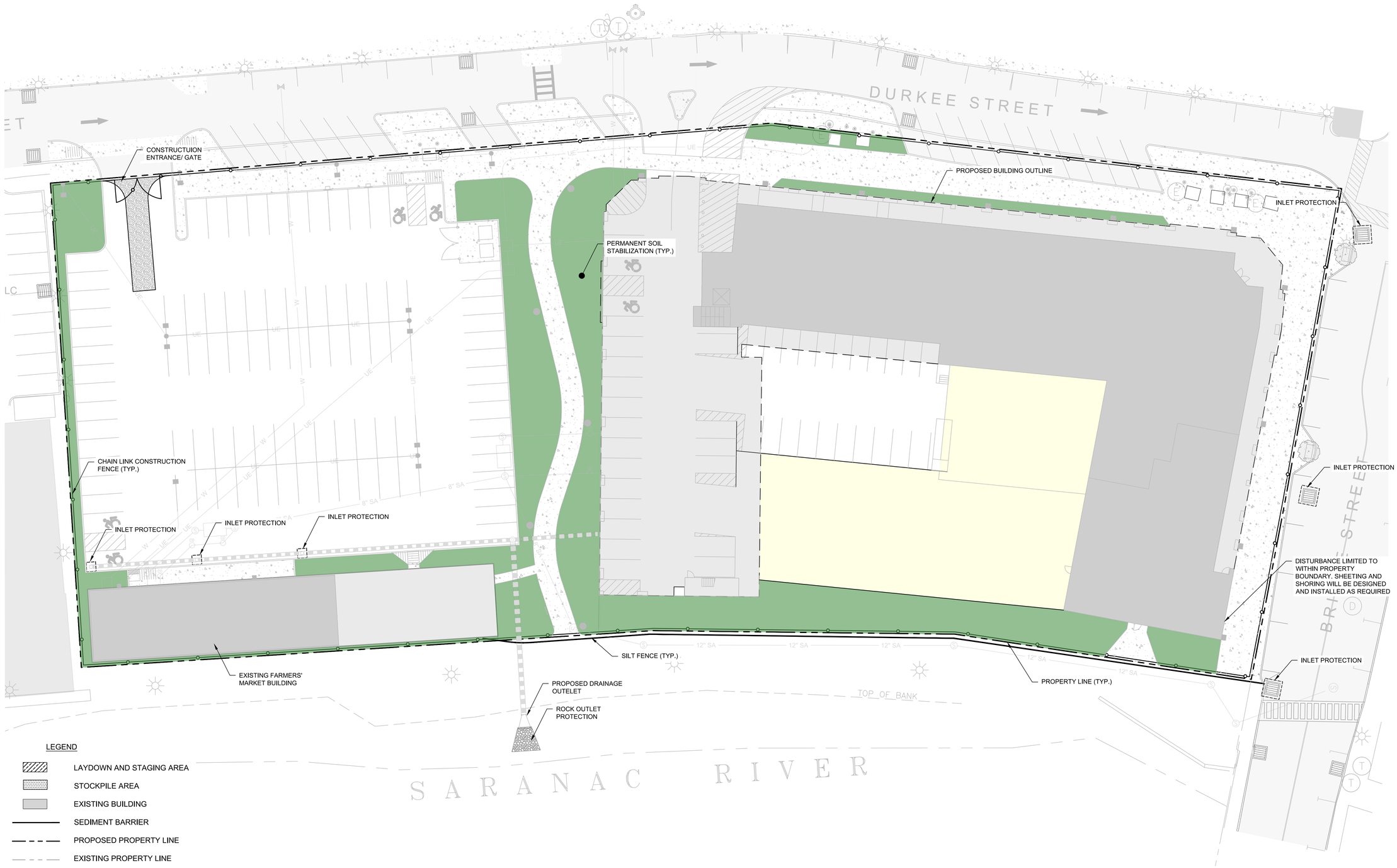
NO.	DATE	DESCRIPTION
1	04/16/20	CITY COMMENTS
2	05/05/20	CLARIFICATIONS
3	08/10/20	BUILDING REVISION

CLIENT: PRIME PLATTSBURGH, LLC
CITY OF PLATTSBURGH, NEW YORK
PROJECT: DURKEE STREET MIXED USE DEVELOPMENT

DRAWN	NSO
DESIGNED	NSO
CHECKED	TCB
SCALE	1"=20'
DATE	FEBRUARY 2020
PROJECT	18491.00

DRAWING TITLE
EROSION AND SEDIMENT CONTROL PLAN PHASE I

DRAWING NUMBER
EC-01



LEGEND

- LAYDOWN AND STAGING AREA
- STOCKPILE AREA
- EXISTING BUILDING
- SEDIMENT BARRIER
- PROPOSED PROPERTY LINE
- EXISTING PROPERTY LINE
- EXISTING CONTOUR
- PROPOSED BUILDING OUTLINE
- INLET PROTECTION

NOTES:

1. ALL EROSION, SEDIMENT AND DUST CONTROL SHALL BE IN ACCORDANCE WITH THE NYSDEC APPROVED SITE MANAGEMENT PLAN (SMP). IT SHOULD BE NOTED, SECTION 7 OF THE SMP STATES THAT THE NYSDEC SHALL BE NOTIFIED 60 DAYS PRIOR TO SITE DISTURBANCE.

0 20 40 60 FT

SCALE

McFarland Johnson
60 RAILROAD PLACE
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mjinc.com

PROJECT MILESTONE

SITE PLAN SUBMISSION

NO.	DATE	DESCRIPTION
1	04/16/20	CITY COMMENTS
2	05/05/20	CLARIFICATIONS
3	08/10/20	BUILDING REVISION

CLIENT: PRIME PLATTSBURGH, LLC
CITY OF PLATTSBURGH, NEW YORK

PROJECT: DURKEE STREET MIXED USE DEVELOPMENT

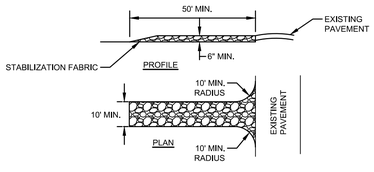
DRAWN	NSO
DESIGNED	NSO
CHECKED	TCB
SCALE	1"=20'
DATE	FEBRUARY 2020
PROJECT	18491.00

DRAWING TITLE

EROSION AND SEDIMENT CONTROL PLAN PHASE II

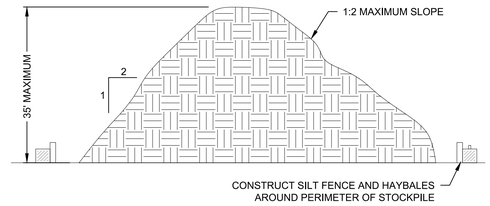
DRAWING NUMBER

EC-02



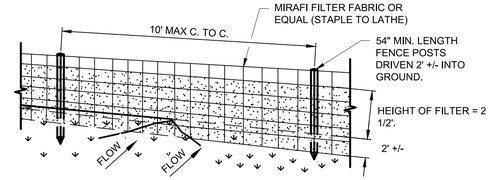
NOTES:
1. STONE SIZE - USE #3 CRUSHED STONE OR GRAVEL (PER NYSDOT SECTION 209).
2. LENGTH - NOT LESS THAN 50 FEET.
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
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 AN 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.

STABILIZED CONSTRUCTION ENTRANCE

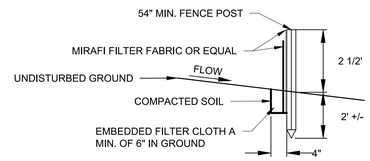


NOTES:
1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1V:2H.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.
4. APPLICATION OF SOIL STABILIZATION MEASURES, I.E. SEEDING AND MULCH APPLICATION, SHALL BE COMPLETED WITHIN FOURTEEN (14) DAYS FROM THE DATA SOIL ACTIVITY HAS CEASED.

STOCK PILE DETAIL



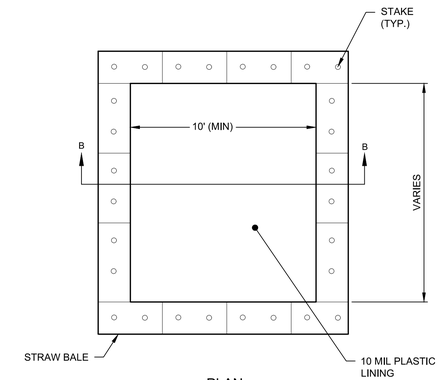
PERSPECTIVE VIEW



SECTION VIEW

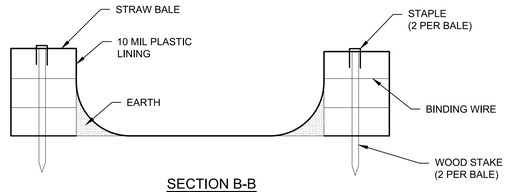
NOTES:
1. MIRAFI FILTER FABRIC TO BE SECURED TO FENCE POSTS WITH STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED.
3. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

SILT FENCE

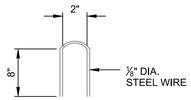


PLAN

GENERAL NOTES:
1. ACTUAL SIZE TO BE DETERMINED IN FIELD. A MINIMUM OF 10' WIDE BY 10' LONG AND SIZED TO CONTAIN ALL LIQUID AND SOLID WASTE. A MINIMUM OF 12" FREEBOARD SHALL BE INCLUDED.
2. THE CONCRETE WASHOUT SHALL NOT BE PLACED WITHIN 50' OF STORM DRAINS.
3. EXCESS AND SLUMP TEST SOLIDS SHALL BE PLACED ON PLASTIC LINER UNTIL HARDENED. CONTRACTOR MAY CONSIDER INSTALLING WIRE OR REBAR HOOK FOR LATER PICKUP REMOVAL.
4. INSPECTORS SHALL USE THE WASHOUT FACILITY OR PLASTIC FOR CLEANING OF THEIR TOOLS.



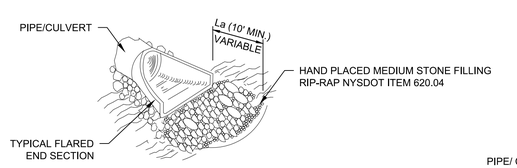
SECTION B-B



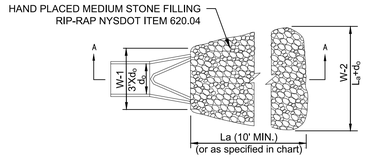
STAPLE DETAIL

MAINTENANCE NOTES:
1. CHECK ALL CONCRETE WASHOUT FACILITIES DAILY TO DETERMINE IF THEY HAVE BEEN FILLED TO 75% CAPACITY. THE FACILITY SHALL BE CLEANED OUT OR CHANGED WHEN 75% FULL.
2. INSPECT LINERS DAILY TO ENSURE THAT LINERS ARE INTACT AND SIDEWALLS HAVE NOT BEEN DAMAGED BY CONSTRUCTION ACITIVITIES. LINERS SHALLBE REPLACED IF THERE ARE HOLES OR TEARS OBSERVED.
3. CONCRETE WASTE SHALL BE WASHED INTO THE DESIGNATED AREA AND ALLOWED TO HARDEN. THE HARDENED CONCRETE SHALL BE BROKEN UP AND DISPOSED OF OFFSITE PER APPLICABLE NYSDEC RULES AND REGULATIONS. LIQUIDS SHALL NOT BE DISCHARGED DIRECTLY INTO WATERWAYS, STORM DRAINS, SWALES OR DIRECTLY ONTO THE GROUND.
4. REMOVE LIQUIDS OR COVER STRUCTURE BEFORE PREDICTED STORMS TO PREVENT OVERFLOWS.
5. INSTALL A NEW PLASTIC LINER AFTER EVERY CLEANING.

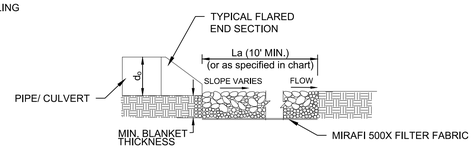
CONCRETE TRUCK WASHOUT DETAIL



ISOMETRIC VIEW



PLAN



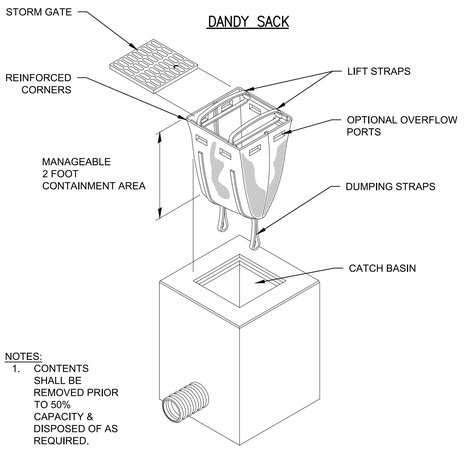
SECTION A-A

RIP RAP SIZING CHART						
PIPE DIAMETER	W-1 MINIMUM	W-2 MINIMUM	L_a MINIMUM	D_{50}	d_{max}	MIN. BLANKET THICKNESS
24"	6'	13'	11'	5"	7.5"	11.25"

NOTES:
1. MINIMUM BLANKET THICKNESS IS 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NO LESS THAN 6".
2. INSTALL FILTER MIRAFI 500X OR APPROVED EQUAL FILTER FABRIC BETWEEN RIP-RAP AND SUBGRADE.

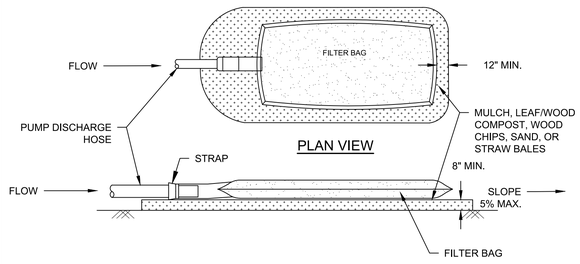
d_o = PIPE DIAMETER, SEE PLANS
L_a = APRON LENGTH
W = APRON WIDTH (CENTERED ON PIPE)
D_{50} = ROCK SIZE THAT WHICH 50% SHALL BE LARGER THAN
d_{max} = MAXIMUM ROCK DIAMETER

OUTLET PROTECTION - RIP RAP APRON



NOTES:
1. CONTENTS SHALL BE REMOVED PRIOR TO 50% CAPACITY & DISPOSED OF AS REQUIRED.

INLET PROTECTION

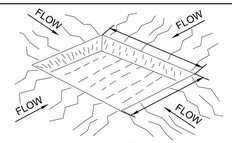


ELEVATION VIEW

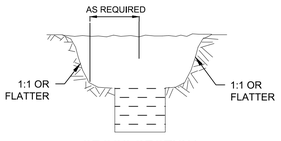
MIN. GRAB TENSILE STRENGTH	200 LBS.
MIN. GRAB TENSILE ELONGATION	50%
MIN. TRAPEZOID TEAR STRENGTH	80 LBS.
MULLEN BURST STRENGTH	380 PSI
MIN. PUNCTURE STRENGTH	130 LBS.
APPARENT OPENING SIZE	40-80 US SIEVE
MIN. UV RESISTANCE	70%
MIN. FLOW THRU RATE	70 GPM/SQ FT

NOTES:
1. TIGHTLY SEAL SLEEVE AROUND THE PUMP DISCHARGE HOSE WITH A STRAP OR SIMILAR DEVICE.
2. PLACE FILTER BAG ON SUITABLE BASE (E.G. GRAVEL, WOOD CHIPS, SAND, OR STRAW BALES) LOCATED ON A LEVEL OR 5% MAXIMUM SLOPING SURFACE. DISCHARGE TO A STABILIZED AREA. EXTEND BASE A MINIMUM OF 12 INCHES FROM EDGES OF BAG.
3. CONTROL PUMPING RATE TO CONTROL EXCESSIVE PRESSURE WITHIN THE FILTER BAG IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. AS THE BAG FILLS WITH SEDIMENT, REDUCE PUMPING RATE.
4. REMOVE AND PROPERLY DISPOSE OF FILTER BAG UPON COMPLETION OF PUMPING OPERATIONS OR AFTER BAG HAS REACHED CAPACITY, WHICHEVER OCCURS FIRST. SPREAD THE DEWATERED SEDIMENT FROM THE BAG IN AN APPROVED, UPLAND AREA AND STABILIZE WITH SEED AND MULCH BY THE END OF THE WORK DAY. RESTORE THE SURFACE AREA BENEATH THE BAG TO ORIGINAL CONDITION UPON REMOVAL OF THE DEVICE.
5. REPLACE FILTER BAG IF BAG CLOGS OR HAS RIPS, TEARS, OR PUNCTURES. DURING OPERATION KEEP CONNECTION BETWEEN PUMP HOSE AND FILTER BAG WATER TIGHT. REPLACE BEDDING IF IT BECOMES DISPLACED.
6. ALL EROSION, SEDIMENT AND DUST CONTROL SHALL BE IN ACCRODANCE WITH THE NYSDEC APPROVED SITE MANAGEMENT PLAN (SMP). IT SHOULD BE NOTES, SECTION 7 OF THE SMP STATES THAT THE NYSDEC SHALL BE NOTIFIED 60 DAYS PRIOR TO SITE DISTURBANCE.

SEDIMENT FILTER BAG DETAIL



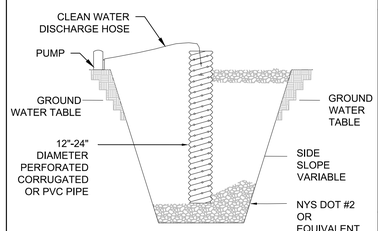
YARD DRAIN



CROSS SECTION

NOTES:
1. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ½ 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.
2. THE VOLUME OF SEDIMENT STORAGE SHALL BE 3,600 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 WATER POLLUTION SHALL BE MINIMIZED.
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.
7. MAXIMUM DRAINAGE AREA IS 3 ACRES.

SEDIMENT TRAP



NOTES:
1. PIT DIMENSIONS ARE VARIABLE.
2. THE STANDPIPE SHOULD BE CONSTRUCTED BY PERFORATING A 12-24" DIAMETER CORRUGATED OR PVC PIPE.
3. A BASE OF NYSDOT #2 OR EQUIVALENT ASGREGATE SHOULD BE PLACED IN THE PIT TO A DEPTH OF 12". AFTER INSTALLING THE STANDPIPE, THE PIT SURROUNDING THE STANDPIPE SHOULD BE BACKFILLED WITH NYSDOT #2 OR EQUIVALENT 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. IT IS RECOMMENDED THAT ¼" - ½" HARDWARE CLOTH MAY BE PLACED AROUND THE STANDPIPE, PRIOR TO ATTACHING THE FILTERCLOTH.

DEWATERING SUMP PIT

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
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PROJECT MILESTONE

SITE PLAN SUBMISSION

NO.	DATE	DESCRIPTION
1	04/16/20	CITY COMMENTS
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3	08/05/20	BUILDING REVISION

CLIENT: PRIME PLATTSBURGH, LLC

CITY OF PLATTSBURGH, NEW YORK

PROJECT: DURKEE STREET MIXED USE DEVELOPMENT

DRAWN	NSO
DESIGNED	NSO
CHECKED	TCB
SCALE	N.T.S.
DATE	FEBRUARY 2020
PROJECT	18491.00

DRAWING TITLE

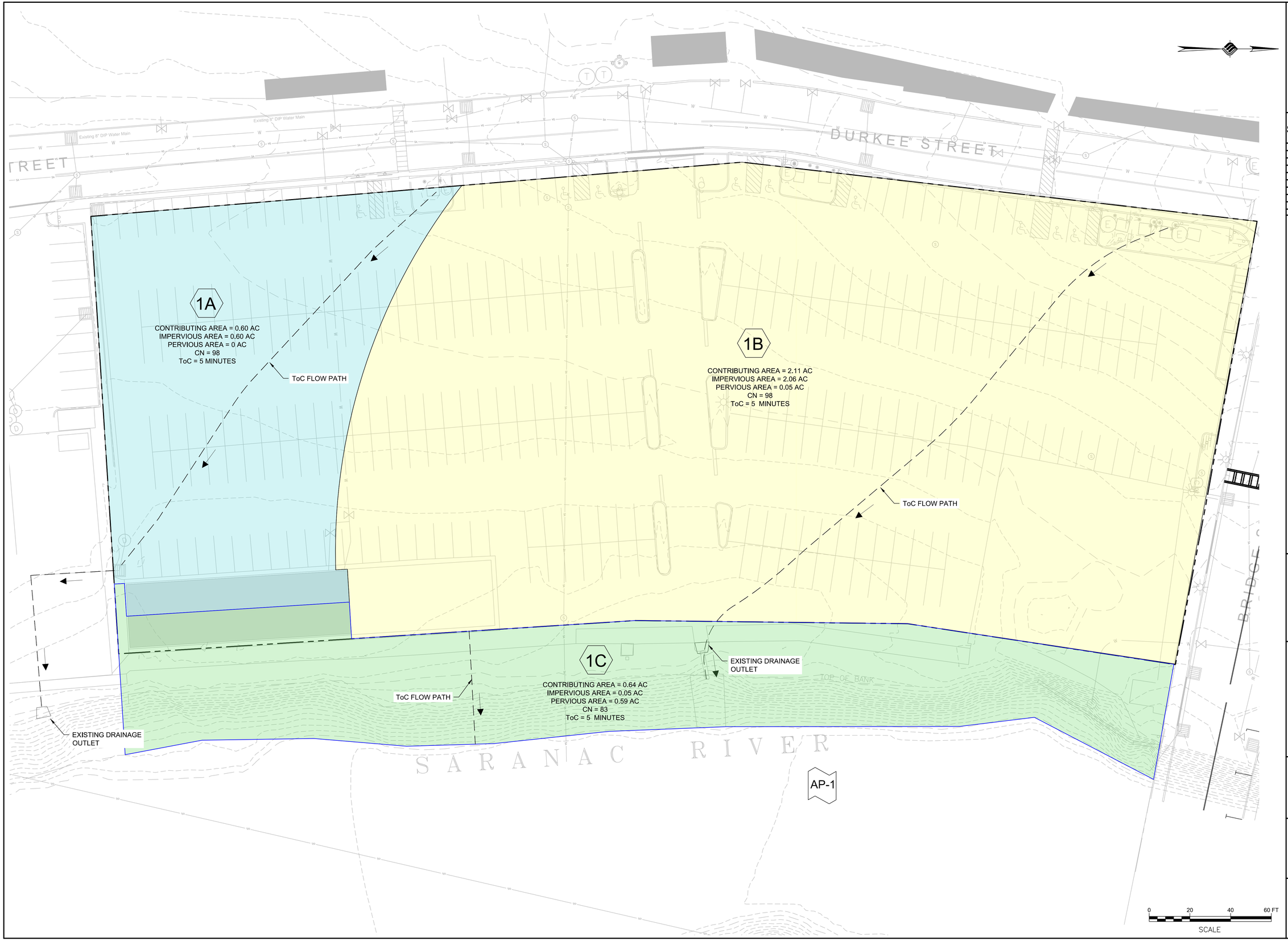
DETAILS

DRAWING NUMBER

DT-06

APPENDIX D

STORMWATER MANAGEMENT, HYDROLOGIC ANALYSIS & SUBCATCHMENT MAPS



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PROJECT MILESTONE

SITE PLAN SUBMISSION

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CLIENT: PRIME PLATTSBURGH, LLC

CITY OF PLATTSBURGH, NEW YORK

PROJECT: DURKEE STREET MIXED USE DEVELOPMENT

DRAWN	NSO
DESIGNED	NSO
CHECKED	TCB
SCALE	1"=20'
DATE	FEBRUARY 2020
PROJECT	18491.00

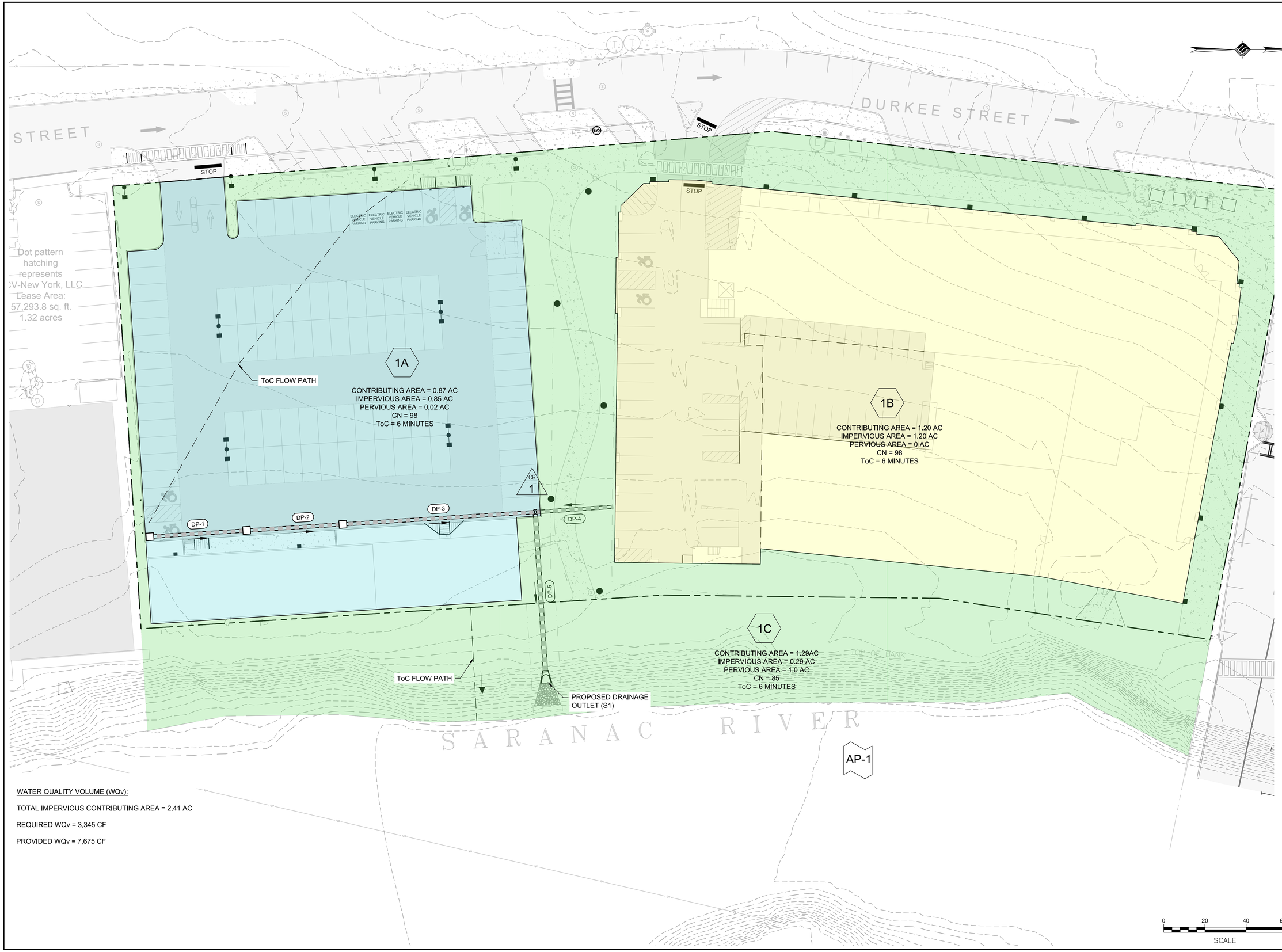
DRAWING TITLE

EXISTING DRAINAGE FIGURE

DRAWING NUMBER

SWPPP-01

01 OF 02



WATER QUALITY VOLUME (WQv):

TOTAL IMPERVIOUS CONTRIBUTING AREA = 2.41 AC

REQUIRED WQv = 3,345 CF

PROVIDED WQv = 7,675 CF

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
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PROJECT MILESTONE

SITE PLAN SUBMISSION

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CITY OF PLATTSBURGH, NEW YORK

PROJECT: DURKEE STREET MIXED USE DEVELOPMENT

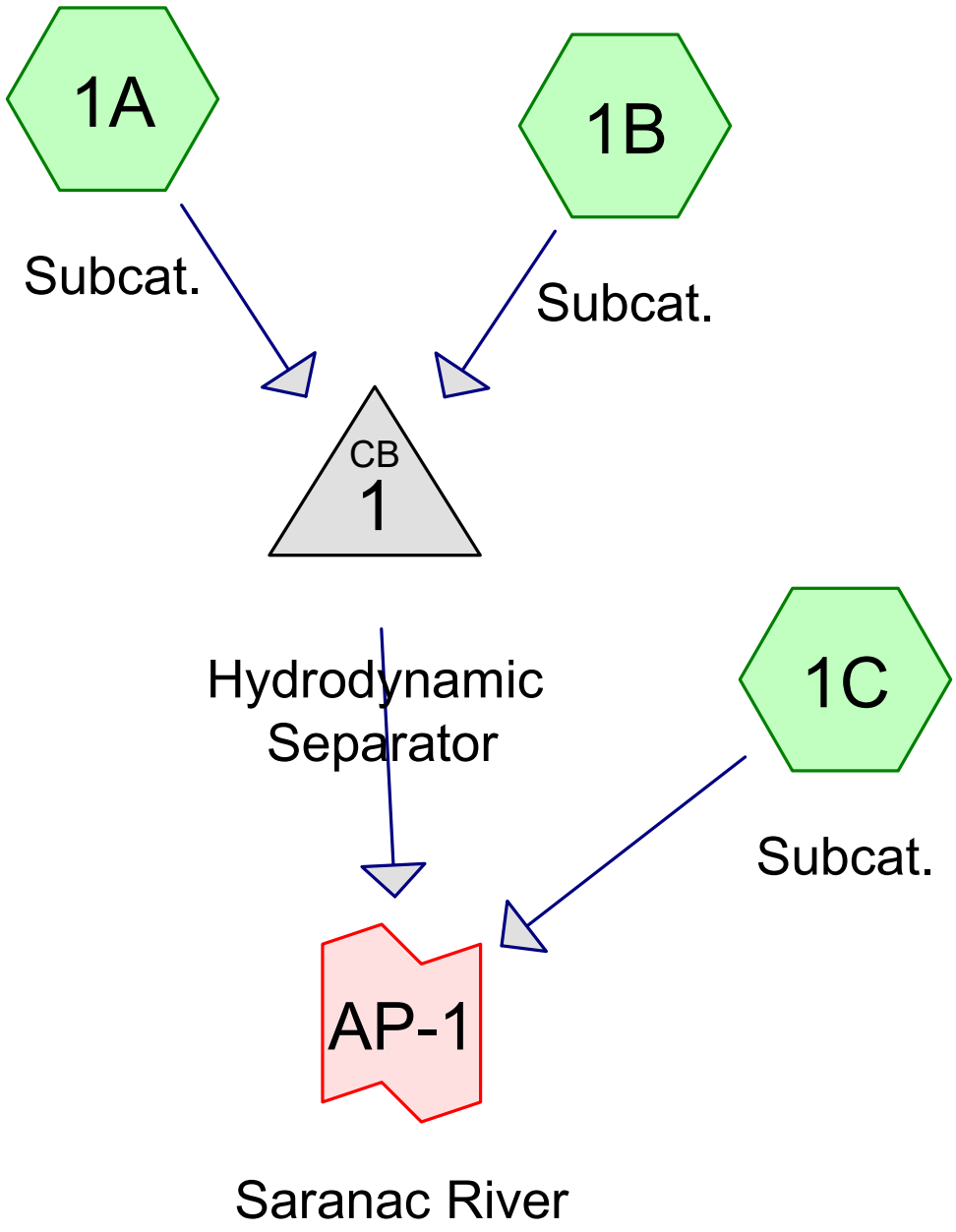
DRAWN	NSO
DESIGNED	NSO
CHECKED	TCB
SCALE	1"=20'
DATE	FEBRUARY 2020
PROJECT	18491.00

DRAWING TITLE

PROPOSED DRAINAGE FIGURE

DRAWING NUMBER

SWPPP-02



Subcat Reach Pond Link

Routing Diagram for PROPOSED
Prepared by McFarland Johnson, Printed 8/7/2020

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.430	80	>75% Grass cover, Good, HSG D (1A, 1C)
1.490	98	Paved parking, HSG D (1B, 1C)
0.590	82	Woods/grass comb., Fair, HSG D (1C)
0.850	98	asphalt (1A)
3.360	**93**	**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.000	0.430	0.000	0.430	>75% Grass cover, Good	1A, 1C
0.000	0.000	0.000	1.490	0.000	1.490	Paved parking	1B, 1C
0.000	0.000	0.000	0.590	0.000	0.590	Woods/grass comb., Fair	1C
0.000	0.000	0.000	0.000	0.850	0.850	asphalt	1A
0.000	**0.000**	**0.000**	**2.510**	**0.850**	**3.360**	**TOTAL AREA**	

Summary for Subcatchment 1A: Subcat.

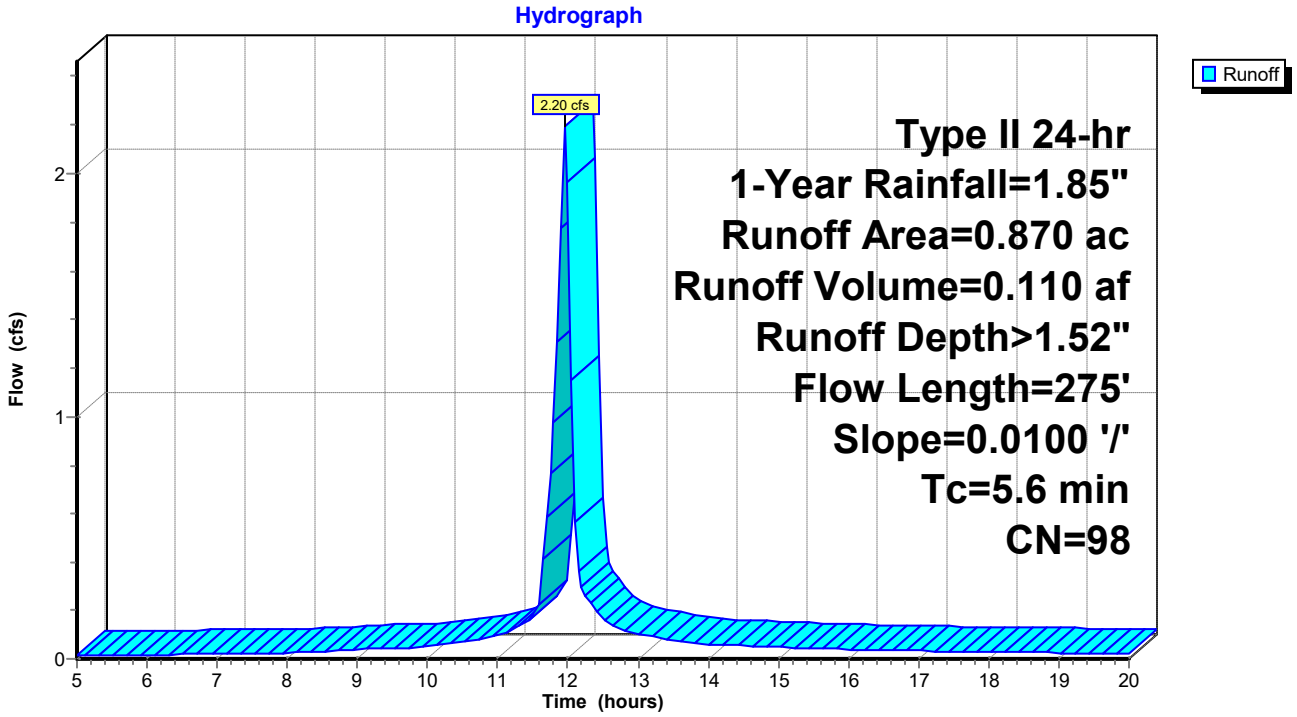
Runoff = 2.20 cfs @ 11.96 hrs, Volume= 0.110 af, Depth> 1.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=1.85"

	Area (ac)	CN	Description
*	0.850	98	asphalt
	0.020	80	>75% Grass cover, Good, HSG D
	0.870	98	Weighted Average
	0.020		2.30% Pervious Area
	0.850		97.70% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, min**
0.6	275	0.0100	7.73	13.66	**Pipe Channel, Pipe Flow** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.010 PVC, smooth interior
5.6	275	Total			

Subcatchment 1A: Subcat.



Summary for Subcatchment 1B: Subcat.

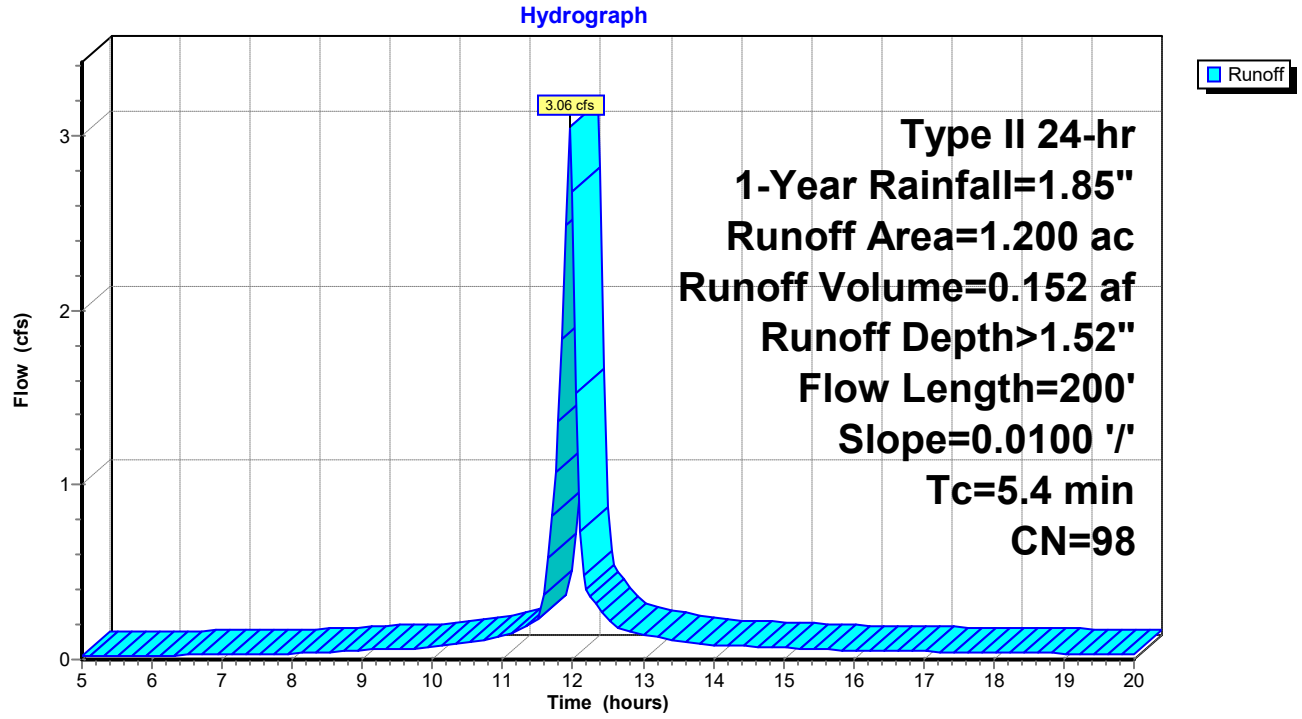
Runoff = 3.06 cfs @ 11.95 hrs, Volume= 0.152 af, Depth> 1.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=1.85"

Area (ac)	CN	Description
1.200	98	Paved parking, HSG D
1.200		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Minimum**
0.4	200	0.0100	7.73	13.66	**Pipe Channel, Storm Pipe Flow** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.010 PVC, smooth interior
5.4	200	Total			

Subcatchment 1B: Subcat.



Summary for Subcatchment 1C: Subcat.

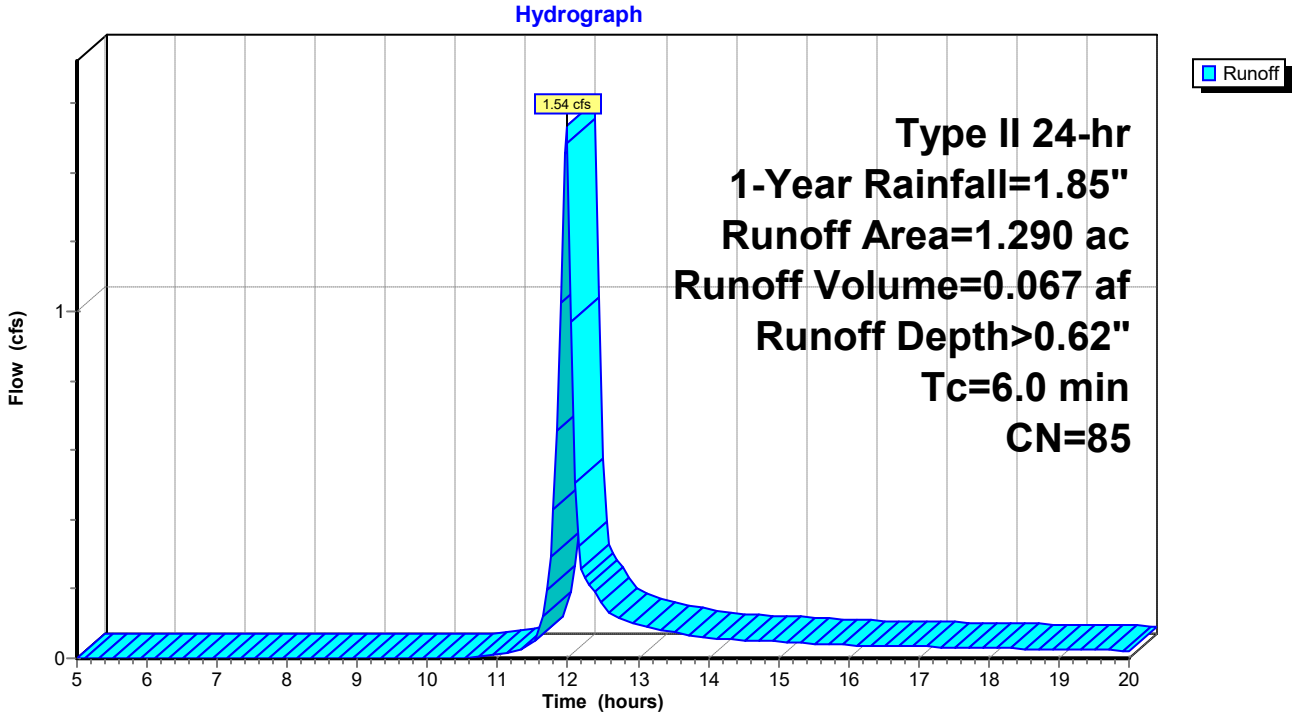
Runoff = 1.54 cfs @ 11.98 hrs, Volume= 0.067 af, Depth> 0.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-Year Rainfall=1.85"

Area (ac)	CN	Description
0.290	98	Paved parking, HSG D
0.590	82	Woods/grass comb., Fair, HSG D
0.410	80	>75% Grass cover, Good, HSG D
1.290	85	Weighted Average
1.000		77.52% Pervious Area
0.290		22.48% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Sheet Flow**

Subcatchment 1C: Subcat.



Summary for Pond 1: Hydrodynamic Separator

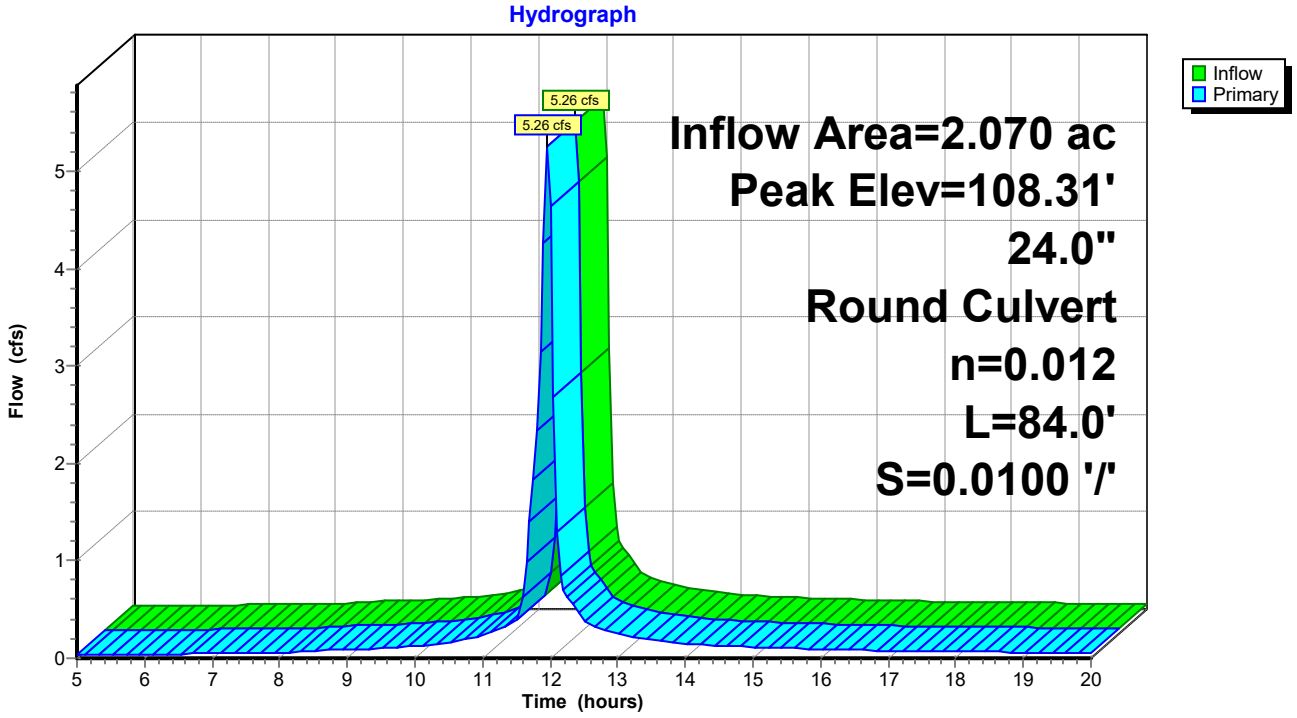
Inflow Area = 2.070 ac, 99.03% Impervious, Inflow Depth > 1.52" for 1-Year event
Inflow = 5.26 cfs @ 11.96 hrs, Volume= 0.262 af
Outflow = 5.26 cfs @ 11.96 hrs, Volume= 0.262 af, Atten= 0%, Lag= 0.0 min
Primary = 5.26 cfs @ 11.96 hrs, Volume= 0.262 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 108.31' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	107.32'	**24.0" Round Culvert** L= 84.0' Ke= 0.500 Inlet / Outlet Invert= 107.32' / 106.48' S= 0.0100 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=5.18 cfs @ 11.96 hrs HW=108.30' (Free Discharge)
1=Culvert (Inlet Controls 5.18 cfs @ 3.37 fps)

Pond 1: Hydrodynamic Separator

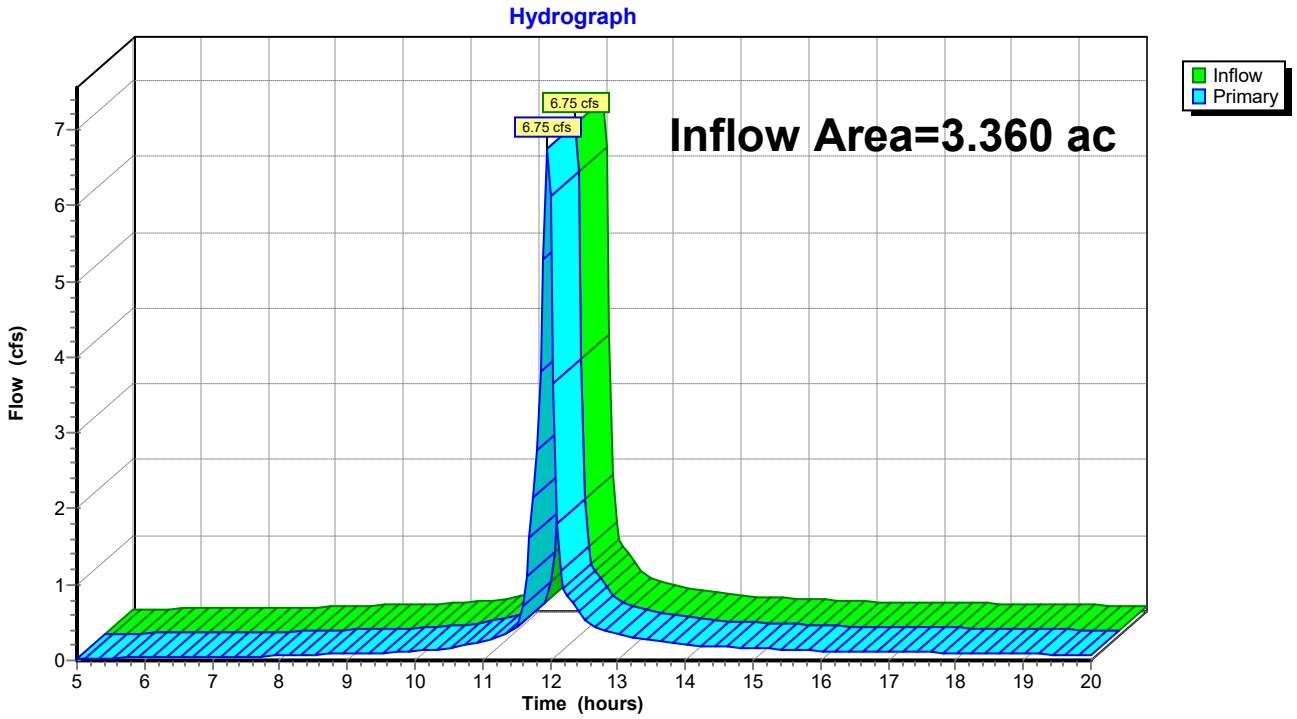


Summary for Link AP-1: Saranac River

Inflow Area = 3.360 ac, 69.64% Impervious, Inflow Depth > 1.17" for 1-Year event
Inflow = 6.75 cfs @ 11.96 hrs, Volume= 0.329 af
Primary = 6.75 cfs @ 11.96 hrs, Volume= 0.329 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link AP-1: Saranac River



Summary for Subcatchment 1A: Subcat.

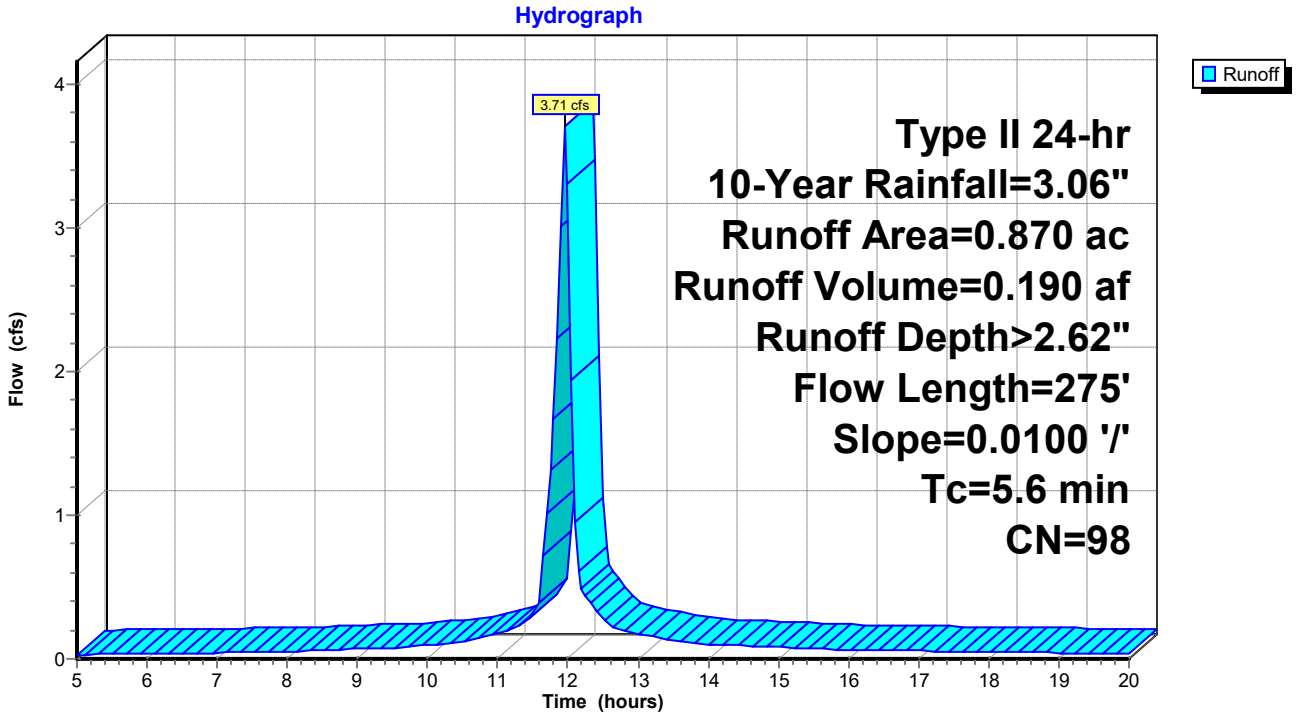
Runoff = 3.71 cfs @ 11.96 hrs, Volume= 0.190 af, Depth> 2.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.06"

	Area (ac)	CN	Description
*	0.850	98	asphalt
	0.020	80	>75% Grass cover, Good, HSG D
	0.870	98	Weighted Average
	0.020		2.30% Pervious Area
	0.850		97.70% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, min**
0.6	275	0.0100	7.73	13.66	**Pipe Channel, Pipe Flow** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.010 PVC, smooth interior
5.6	275	Total			

Subcatchment 1A: Subcat.



Summary for Subcatchment 1B: Subcat.

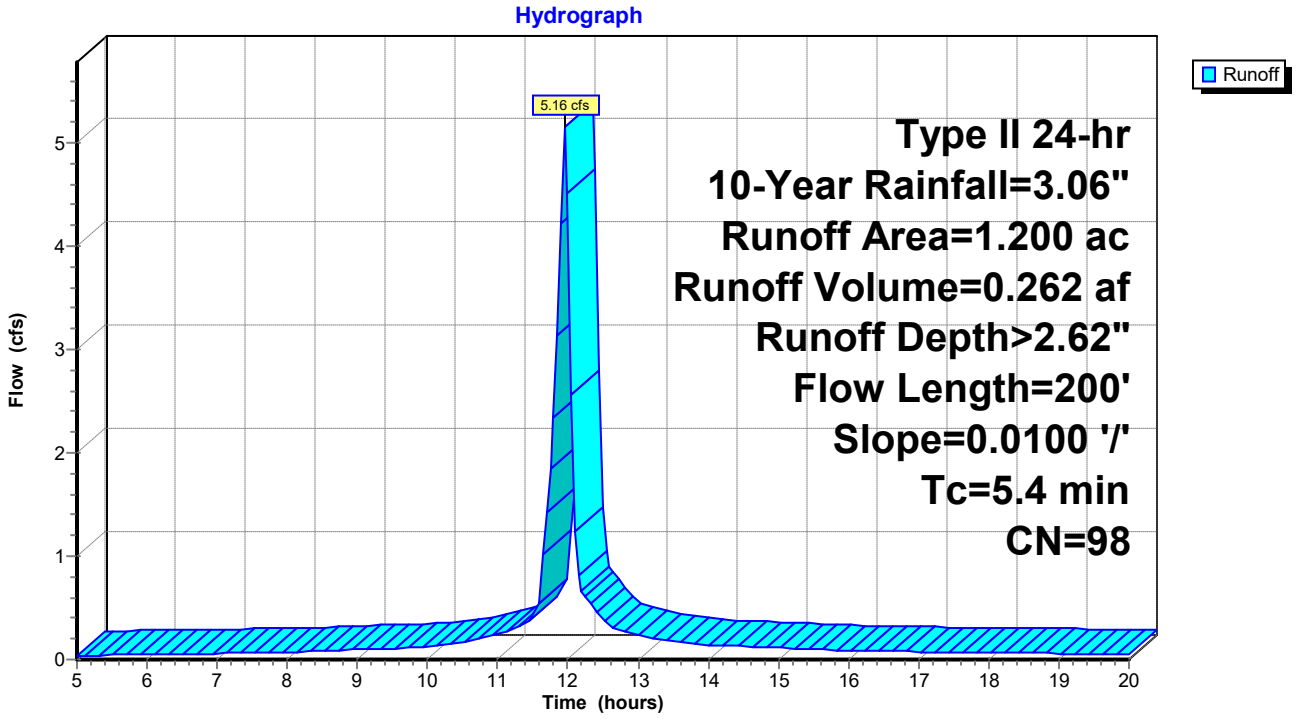
Runoff = 5.16 cfs @ 11.95 hrs, Volume= 0.262 af, Depth> 2.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.06"

Area (ac)	CN	Description
1.200	98	Paved parking, HSG D
1.200		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Minimum**
0.4	200	0.0100	7.73	13.66	**Pipe Channel, Storm Pipe Flow** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.010 PVC, smooth interior
5.4	200	Total			

Subcatchment 1B: Subcat.



Summary for Subcatchment 1C: Subcat.

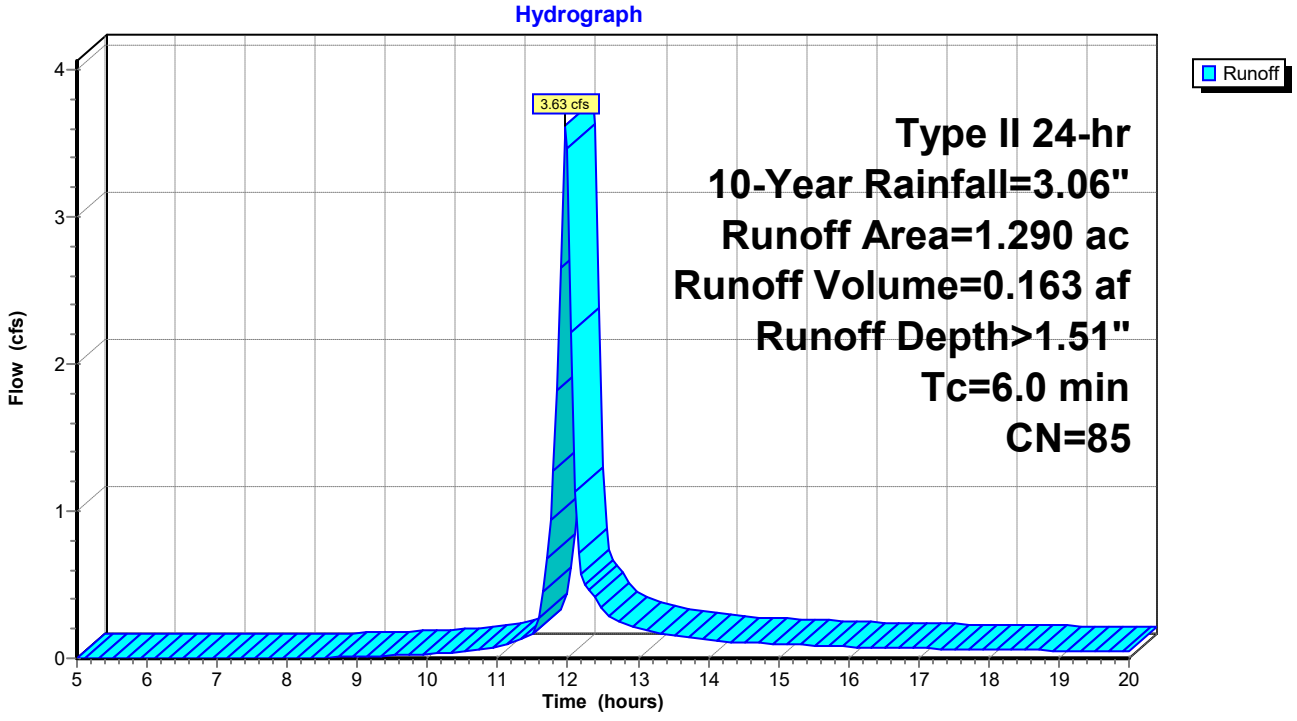
Runoff = 3.63 cfs @ 11.97 hrs, Volume= 0.163 af, Depth> 1.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-Year Rainfall=3.06"

Area (ac)	CN	Description
0.290	98	Paved parking, HSG D
0.590	82	Woods/grass comb., Fair, HSG D
0.410	80	>75% Grass cover, Good, HSG D
1.290	85	Weighted Average
1.000		77.52% Pervious Area
0.290		22.48% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Sheet Flow**

Subcatchment 1C: Subcat.



Summary for Pond 1: Hydrodynamic Separator

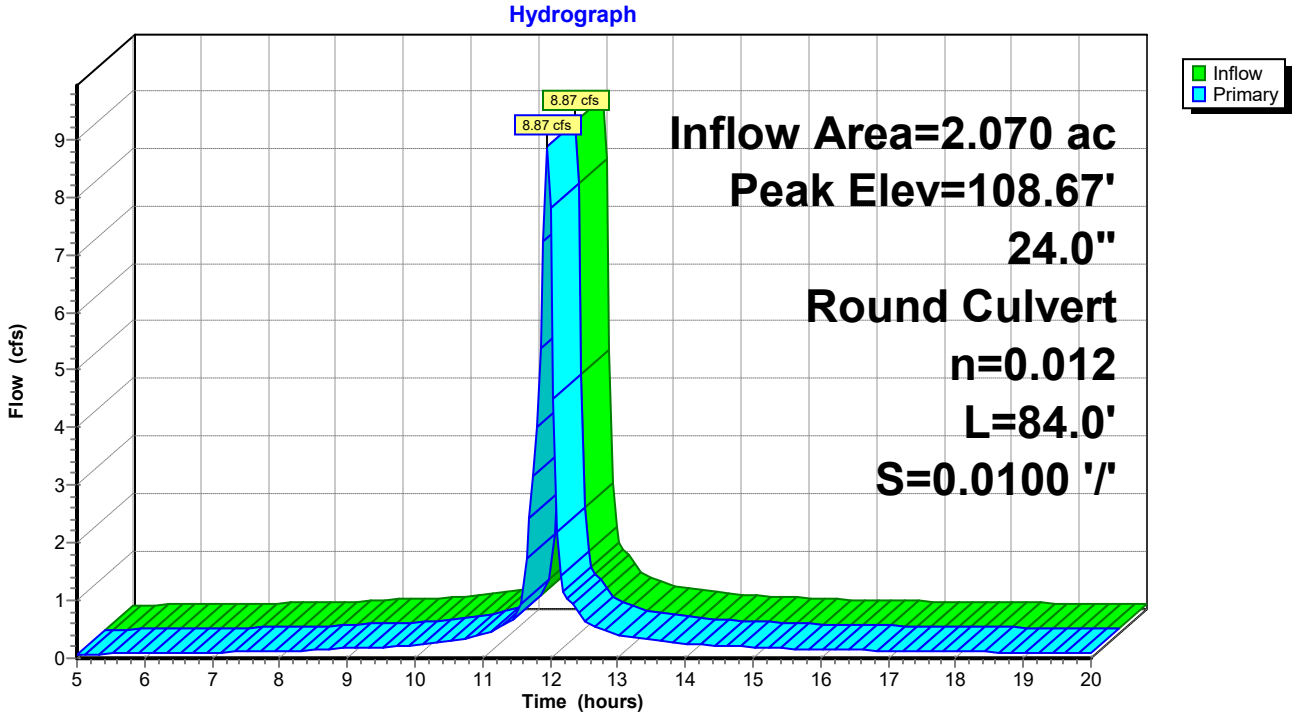
Inflow Area = 2.070 ac, 99.03% Impervious, Inflow Depth > 2.62" for 10-Year event
Inflow = 8.87 cfs @ 11.96 hrs, Volume= 0.452 af
Outflow = 8.87 cfs @ 11.96 hrs, Volume= 0.452 af, Atten= 0%, Lag= 0.0 min
Primary = 8.87 cfs @ 11.96 hrs, Volume= 0.452 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 108.67' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	107.32'	**24.0" Round Culvert** L= 84.0' Ke= 0.500 Inlet / Outlet Invert= 107.32' / 106.48' S= 0.0100 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=8.74 cfs @ 11.96 hrs HW=108.65' (Free Discharge)
1=Culvert (Inlet Controls 8.74 cfs @ 3.93 fps)

Pond 1: Hydrodynamic Separator

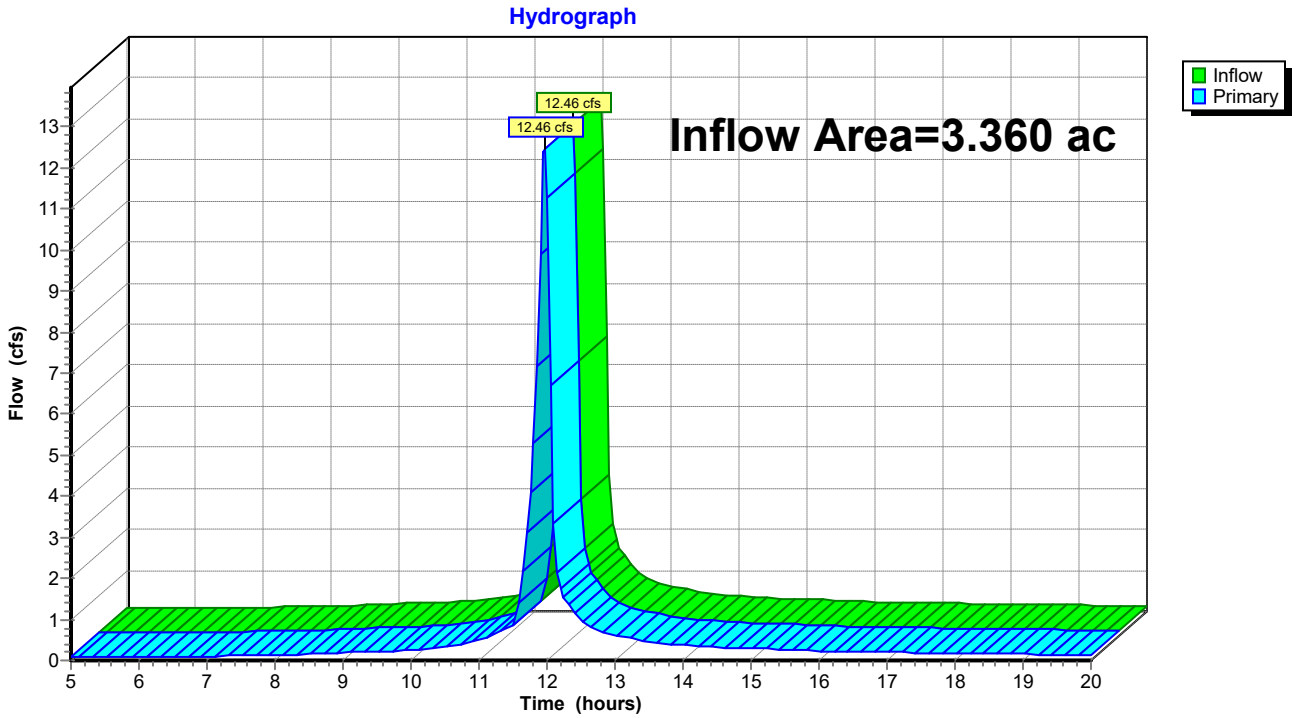


Summary for Link AP-1: Saranac River

Inflow Area = 3.360 ac, 69.64% Impervious, Inflow Depth > 2.19" for 10-Year event
Inflow = 12.46 cfs @ 11.96 hrs, Volume= 0.614 af
Primary = 12.46 cfs @ 11.96 hrs, Volume= 0.614 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link AP-1: Saranac River



Summary for Subcatchment 1A: Subcat.

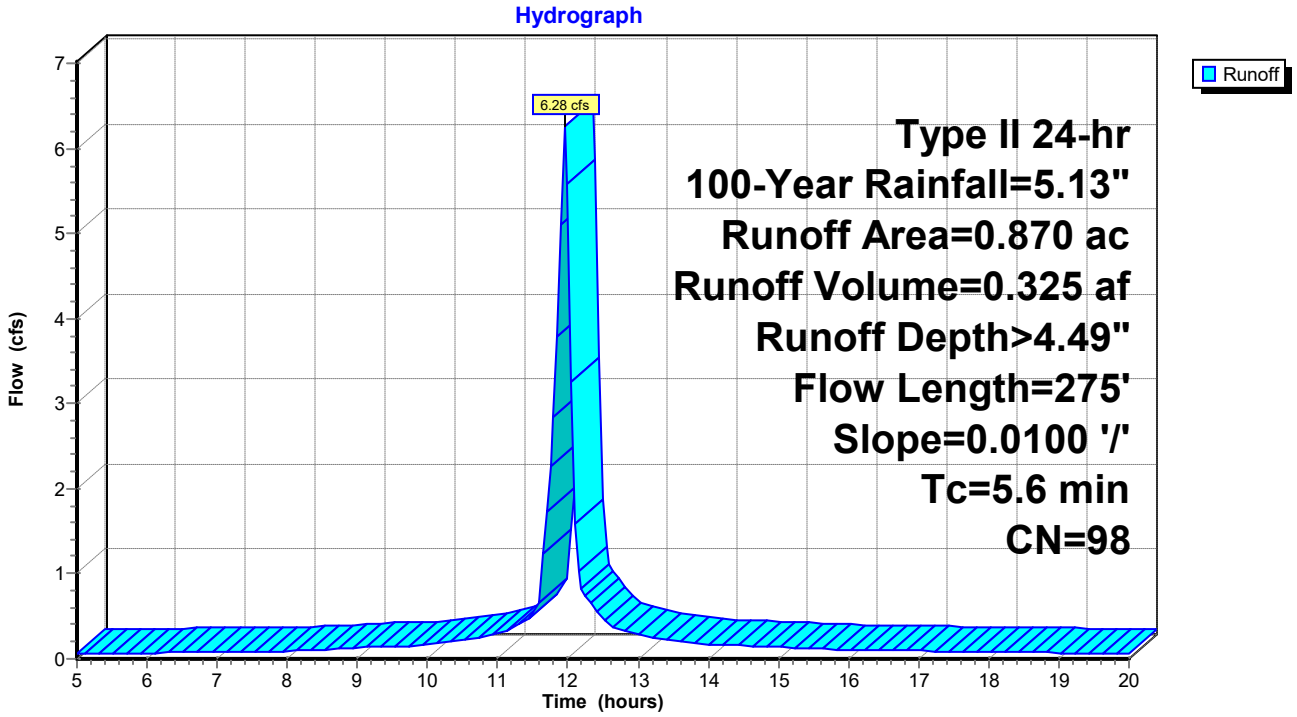
Runoff = 6.28 cfs @ 11.96 hrs, Volume= 0.325 af, Depth> 4.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=5.13"

	Area (ac)	CN	Description
*	0.850	98	asphalt
	0.020	80	>75% Grass cover, Good, HSG D
	0.870	98	Weighted Average
	0.020		2.30% Pervious Area
	0.850		97.70% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, min**
0.6	275	0.0100	7.73	13.66	**Pipe Channel, Pipe Flow** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.010 PVC, smooth interior
5.6	275	Total			

Subcatchment 1A: Subcat.



Summary for Subcatchment 1B: Subcat.

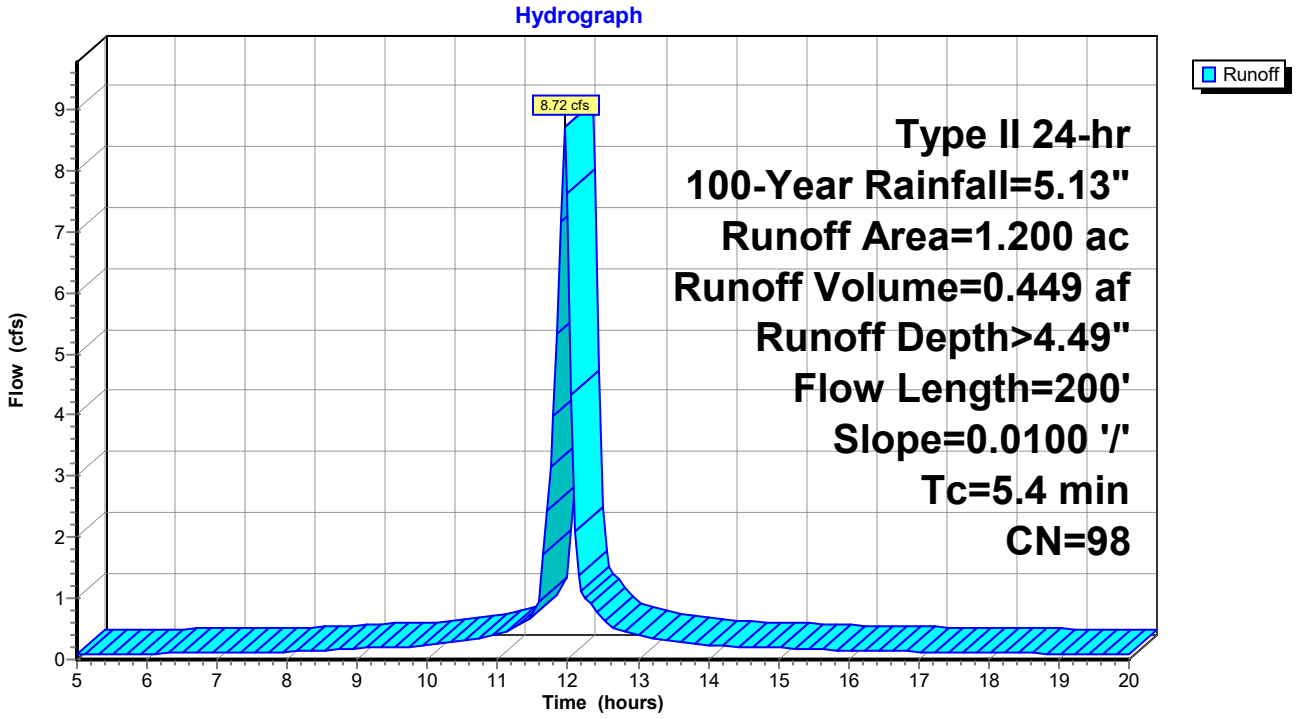
Runoff = 8.72 cfs @ 11.95 hrs, Volume= 0.449 af, Depth> 4.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=5.13"

Area (ac)	CN	Description
1.200	98	Paved parking, HSG D
1.200		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Minimum**
0.4	200	0.0100	7.73	13.66	**Pipe Channel, Storm Pipe Flow** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.010 PVC, smooth interior
5.4	200	Total			

Subcatchment 1B: Subcat.



Summary for Subcatchment 1C: Subcat.

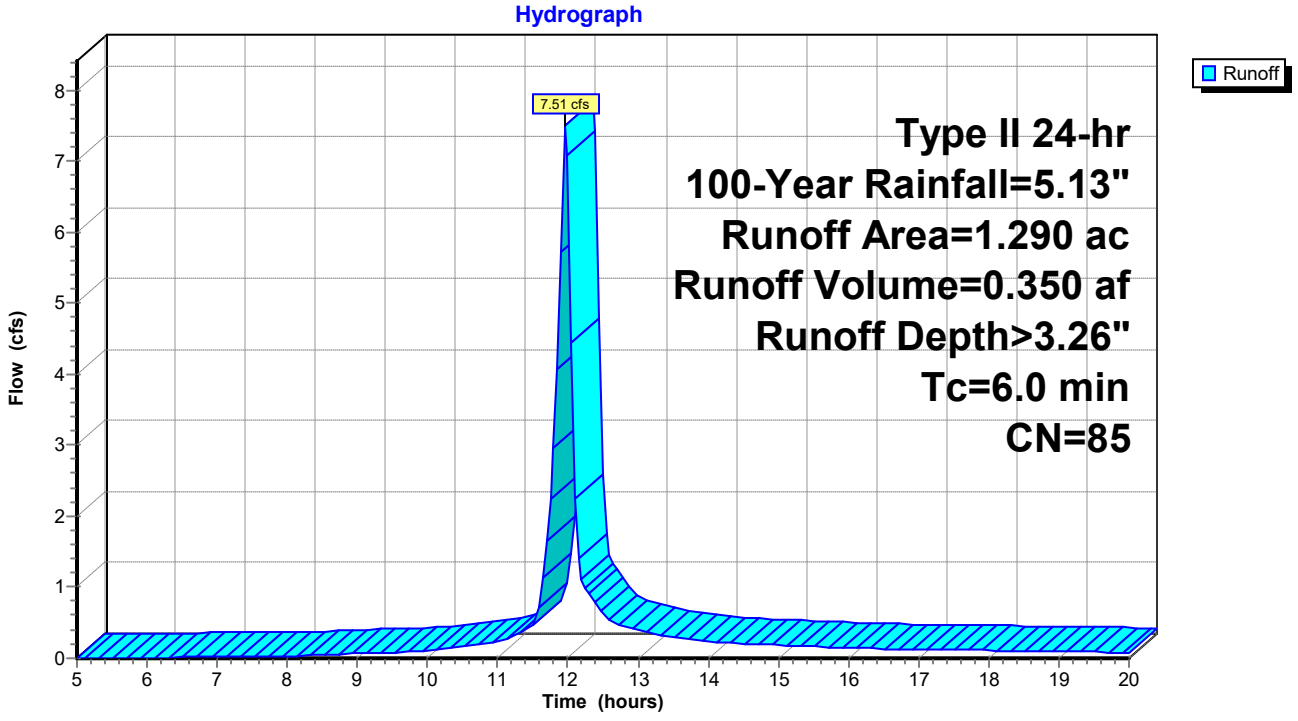
Runoff = 7.51 cfs @ 11.97 hrs, Volume= 0.350 af, Depth> 3.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-Year Rainfall=5.13"

Area (ac)	CN	Description
0.290	98	Paved parking, HSG D
0.590	82	Woods/grass comb., Fair, HSG D
0.410	80	>75% Grass cover, Good, HSG D
1.290	85	Weighted Average
1.000		77.52% Pervious Area
0.290		22.48% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, Sheet Flow**

Subcatchment 1C: Subcat.



Summary for Pond 1: Hydrodynamic Separator

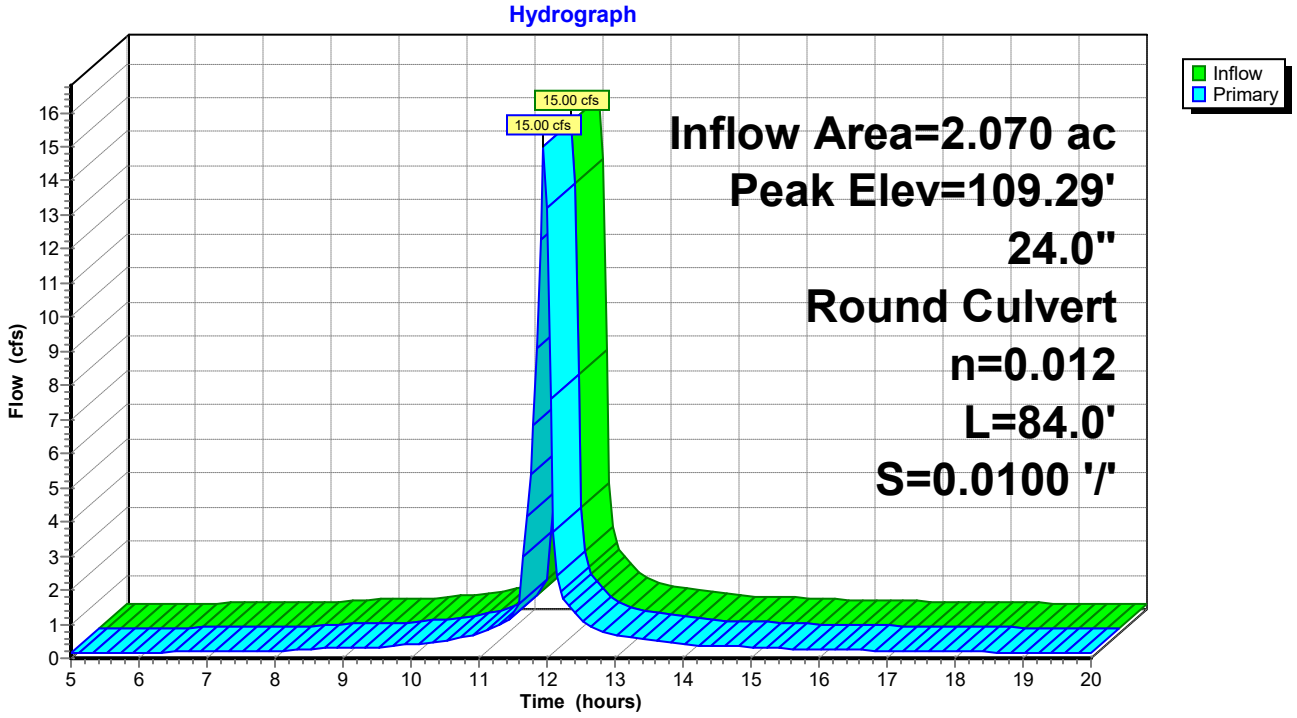
Inflow Area = 2.070 ac, 99.03% Impervious, Inflow Depth > 4.49" for 100-Year event
Inflow = 15.00 cfs @ 11.96 hrs, Volume= 0.774 af
Outflow = 15.00 cfs @ 11.96 hrs, Volume= 0.774 af, Atten= 0%, Lag= 0.0 min
Primary = 15.00 cfs @ 11.96 hrs, Volume= 0.774 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 109.29' @ 11.95 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	107.32'	**24.0" Round Culvert** L= 84.0' Ke= 0.500 Inlet / Outlet Invert= 107.32' / 106.48' S= 0.0100 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=14.83 cfs @ 11.96 hrs HW=109.27' (Free Discharge)
1=Culvert (Inlet Controls 14.83 cfs @ 4.75 fps)

Pond 1: Hydrodynamic Separator

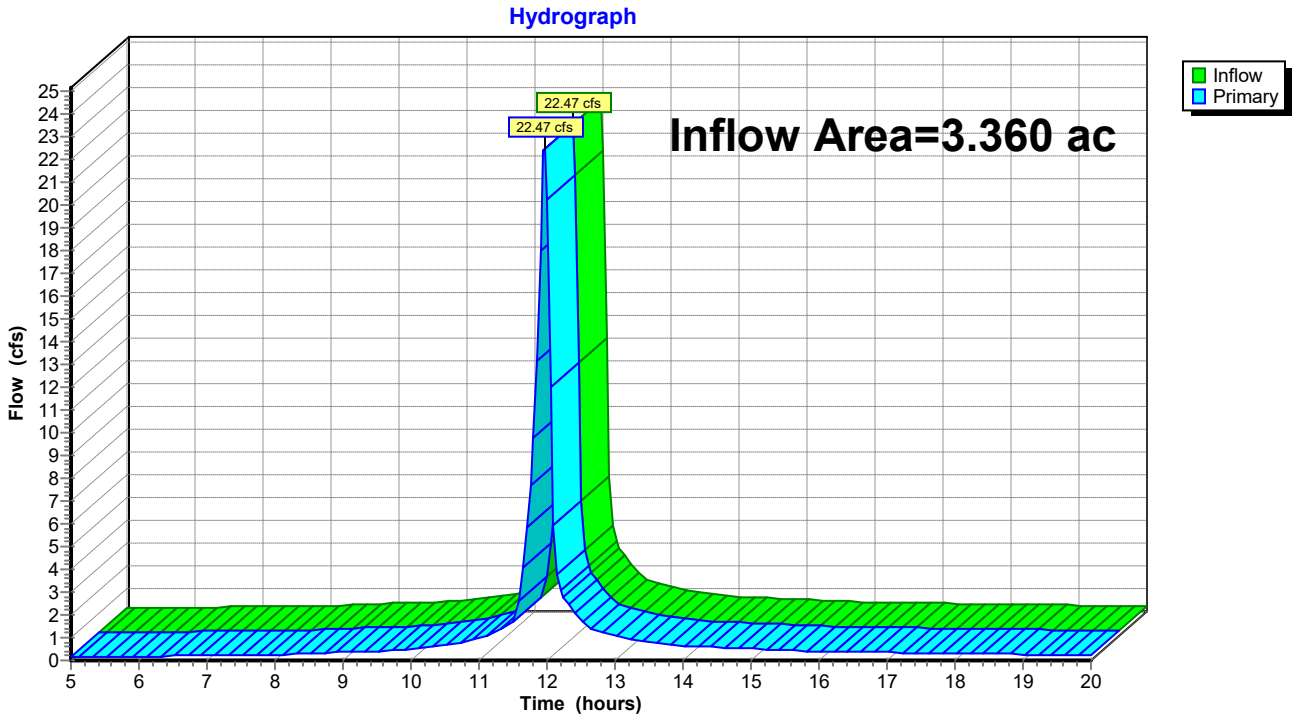


Summary for Link AP-1: Saranac River

Inflow Area = 3.360 ac, 69.64% Impervious, Inflow Depth > 4.01" for 100-Year event
Inflow = 22.47 cfs @ 11.96 hrs, Volume= 1.124 af
Primary = 22.47 cfs @ 11.96 hrs, Volume= 1.124 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link AP-1: Saranac River



2-YEAR STORM ANALYSIS

#Line	Pipe	From	To	3D Length - Center to Center	Drainage Area Inc	Drainage Area Total	Runoff Coeff "C"	Area X "C" Inc	Area X "C" Total	Time of Concentration Inlet	Time of Concentration System	Rain "I"	Runoff "Q"	Known Q	Total Q	Pipe Dia.	Full Q	Velocity Full	Velocity Design	Sec Time	Invert Elevation U/S	Invert Elevation D/S	Crown Drop	Slope
				(ft)	(sq. ft)	(sq. ft)		(sq. ft)	(sq. ft)	(min)	(min)	(inch/hr)	(cu. ft/sec)	(cu. ft/sec)	(cu. ft/sec)	(ft)	(cu. ft/sec)	(ft/s)	(ft/s)	(min)	(ft)	(ft)	(ft)	
1	P1-1	S1-1	S1-2	47.01	11937.86	11937.86	0.95	11340.96	11340.96	6	6	4.156	1.091	0	1.091	1.5	10.505	5.944	3.83	0.205	109.5	109.03	N/A	1.00%
2	P1-2	S1-2	S1-3	46.83	4733	16670.86	0.95	4496.35	15837.31	6	6.204	4.123	1.511	0	1.511	1.5	10.524	5.955	4.214	0.185	108.93	108.46	N/A	1.00%
3	P1-3	S1-3	S1-4	93.6	13074.81	29745.66	0.95	12421.07	28258.38	6	6.389	4.092	2.677	0	2.677	1.5	10.514	5.95	4.955	0.315	108.36	107.42	N/A	1.00%
4	P1-4	NULL	S1-4	38.12	58873.42	58873.42	0.95	55929.75	55929.75	6	6	4.156	5.381	0	5.381	1.5	10.514	5.95	5.974	0.106	107.8	107.42	N/A	1.00%
5	P1-5	S1-4	S1-5	84.11	0	88619.08	0	0	84188.13	0	6.703	4.041	7.875	0	7.875	2	22.655	7.211	6.551	0.214	107.32	106.48	N/A	1.00%

#Line	Struct. ID	D	Q	L	V	d	dc	v^2/2g	EGLo	HGLo	Sf	Total Pipe Loss	EGLi	HGLi	Ea	EGLa	U/S TOC	Surface Elev.
		(ft)	(cu. ft/sec)	(ft)	(ft/s)	(ft)	(ft)	(ft)	(ft)	(ft)		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
1	S1-1	1.5	1.091	46.92	3.83	0.33	0.39	0.23	109.61	109.56	0	0	110.06	109.83	0.56	110.06	---	114.5
2	S1-2	1.5	1.511	46.92	4.214	0.39	0.46	0.28	109.27	109.24	0	0	109.59	109.32	0.66	109.59	110.53	114.85
3	S1-3	1.5	2.677	93.6	4.955	0.52	0.62	0.38	108.82	108.78	0	0	109.26	108.88	0.9	109.26	109.96	115.2
4	S1-4	2	7.875	84.19	6.551	0.81	1	0.67	107.96	107.29	0	0	108.8	108.13	1.48	108.8	108.92	117
5	NULL	1.5	5.381	38.12	5.974	0.76	0.89	0.55	108.86	108.71	0	0	109.12	108.56	1.38	109.18	---	117.63

#Line	Struct. ID	Exit Ho	Hf	Hb	Hc	He	Hj	Total	Ei	y+(P/gamma)	DI	Eai	CB	C-theta	Cp	Ha	Ea
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)		(ft)				(ft)	(ft)
1	S1-1	0.02	0	0	0	0	0	0	0.56	0.33	0.089	0.47	0	0	3.015	0	0.56
2	S1-2	0.02	0	0	0	0	0	0	0.66	0.39	0.123	0.59	0	0.006	1.009	0	0.66
3	S1-3	0.02	0	0	0	0	0	0	0.9	0.52	0.218	0.87	0	0.002	1.751	0	0.9
4	S1-4	0	0	0	0	0	0	0	1.48	0.81	0.313	1.47	0	3.262	0	0	1.48
5	NULL	0.06	0	0	0	0	0	0	1.32	0.76	0.438	1.38	0	0	0	0	1.38

No.	Name	Stat.	Drain. Area A	Runoff Coeff. C	Time of Conc.	Rainfall Intens.	Q=CIA/Kc	Known Q	Longitudinal Slope SL	Cross Slope Sx	Cross Slope Sw	Prev. Bypass Flow	Total Gutter Flow	Depth d	Gutter Width	Spread T	W / T	Inlet Type	Grate Length	Grate Width	Curb Opening Length	Curb Opening Height	Intercept Flow Qi	Bypass Flow Qb	Bypass Structure
		(ft)	(sq. ft)		(min)	(inch/hr)	(cu. ft/sec)	(cu. ft/sec)				(cu. ft/sec)	(cu. ft/sec)	(ft)	(ft)	(ft)			(ft)	(ft)	(ft)	(ft)	(cu. ft/sec)	(cu. ft/sec)	
1	S1-1	---	11937.86	0.95	6	4.156	1.091	0	-1	0.025	0.025	0.131	1.222	0.19	2	7.66	0.261	Grate inlet	2	2	---	---	1.222	0	---
2	S1-2	---	4733	0.95	6	4.156	0.433	0	0.02	0.02	0.02	0.173	0.606	0.1	2	4.85	0.412	Grate inlet	2	2	---	---	0.475	0.131	S1-1
3	S1-3	---	13074.81	0.95	6	4.156	1.195	0	0.02	0.04	0.04	0	1.195	0.16	2	4.06	0.493	Grate inlet	2	2	---	---	1.022	0.173	S1-2

10-YEAR STORM ANALYSIS

#Line	Pipe	From	To	3D Length - Center to Center	Drainage Area Inc	Drainage Area Total	Runoff Coeff "C"	Area X "C" Inc	Area X "C" Total	Time of Concentration Inlet	Time of Concentration System	Rain "I"	Runoff "Q"	Known Q	Total Q	Pipe Dia.	Full Q	Velocity Full	Velocity Design	Sec Time	Invert Elevation U/S	Invert Elevation D/S	Crown Drop	Slope
				(ft)	(sq. ft)	(sq. ft)		(sq. ft)	(sq. ft)	(min)	(min)	(inch/hr)	(cu. ft/sec)	(cu. ft/sec)	(cu. ft/sec)	(ft)	(cu. ft/sec)	(ft/s)	(ft/s)	(min)	(ft)	(ft)	(ft)	
1	P1-1	S1-1	S1-2	47.01	11937.86	11937.86	0.95	11340.96	11340.96	6	6	5.551	1.457	0	1.457	1.5	10.505	5.944	4.164	0.188	109.5	109.03	N/A	1.00%
2	P1-2	S1-2	S1-3	46.83	4733	16670.86	0.95	4496.35	15837.31	6	6.188	5.513	2.021	0	2.021	1.5	10.524	5.955	4.591	0.17	108.93	108.46	N/A	1.00%
3	P1-3	S1-3	S1-4	93.6	13074.81	29745.66	0.95	12421.07	28258.38	6	6.357	5.479	3.584	0	3.584	1.5	10.514	5.95	2.028	0.769	108.36	107.42	N/A	1.00%
4	P1-4	NULL	S1-4	38.12	58873.42	58873.42	0.95	55929.75	55929.75	6	6	5.551	7.187	0	7.187	1.5	10.514	5.95	4.067	0.156	107.8	107.42	N/A	1.00%
5	P1-5	S1-4	S1-5	84.11	0	88619.08	0	0	84188.13	0	6.647	5.42	10.563	0	10.563	2	22.655	7.211	7.077	0.198	107.32	106.48	N/A	1.00%

#Line	Struct. ID	D	Q	L	V	d	dc	v^2/2g	EGLo	HGLo	Sf	Total Pipe Loss	EGLi	HGLi	Ea	EGLa	U/S TOC	Surface Elev.
		(ft)	(cu. ft/sec)	(ft)	(ft/s)	(ft)	(ft)	(ft)	(ft)	(ft)		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
1	S1-1	1.5	1.457	46.92	4.164	0.38	0.45	0.27	109.73	109.67	0	0	110.15	109.88	0.65	110.15	---	114.5
2	S1-2	1.5	2.021	46.92	4.591	0.45	0.54	0.33	109.45	109.41	0	0	109.7	109.38	0.77	109.7	110.53	114.85
3	S1-3	1.5	3.584	93.6	2.028	0.6	0.72	0.06	109.29	109.22	0.001	0.11	109.4	109.33	1.08	109.44	109.96	115.2
4	S1-4	2	10.563	84.19	7.077	0.96	1.16	0.78	108.22	107.44	0	0	109.06	108.28	1.94	109.26	108.92	117
5	NULL	1.5	7.187	38.12	4.067	0.91	1.04	0.26	109.37	109.11	0.005	0.18	109.54	109.29	1.79	109.6	---	117.63

#Line	Struct. ID	Exit Ho	Hf	Hb	Hc	He	Hj	Total	Ei	y+(P/gamma)	DI	Eai	CB	C-theta	Cp	Ha	Ea
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)		(ft)				(ft)	(ft)
1	S1-1	0.02	0	0	0	0	0	0	0.65	0.38	0.119	0.58	0	0	2.948	0	0.65
2	S1-2	0.02	0	0	0	0	0	0	0.77	0.45	0.165	0.72	0	0.006	0.985	0	0.77
3	S1-3	0.03	0.11	0	0	0	0	0.11	1.04	0.97	0.292	1.05	0	0.002	1.697	0.02	1.08
4	S1-4	0	0	0	0	0	0	0	1.74	0.96	0.419	1.79	0	3.251	0	0.16	1.94
5	NULL	0.1	0.18	0	0	0	0	0.18	1.74	1.49	0.586	1.79	0	0	0	0	1.79

No.	Name	Stat.	Drain. Area A	Runoff Coeff. C	Time of Conc.	Rainfall Intens.	Q=CIA/Kc	Known Q	Longitudinal Slope SL	Cross Slope Sx	Cross Slope Sw	Prev. Bypass Flow	Total Gutter Flow	Depth d	Gutter Width	Spread T	W / T	Inlet Type	Grate Length	Grate Width	Curb Opening Length	Curb Opening Height	Intercept Flow Qi	Bypass Flow Qb	Bypass Structure
		(ft)	(sq. ft)		(min)	(inch/hr)	(cu. ft/sec)	(cu. ft/sec)				(cu. ft/sec)	(cu. ft/sec)	(ft)	(ft)	(ft)			(ft)	(ft)	(ft)	(ft)	(cu. ft/sec)	(cu. ft/sec)	
1	S1-1	---	11937.86	0.95	6	5.551	1.457	0	-1	0.025	0.025	0.245	1.702	0.23	2	9.3	0.215	Grate inlet	2	2	---	---	1.702	0	---
2	S1-2	---	4733	0.95	6	5.551	0.578	0	0.02	0.02	0.02	0.302	0.88	0.11	2	5.58	0.358	Grate inlet	2	2	---	---	0.635	0.245	S1-1
3	S1-3	---	13074.81	0.95	6	5.551	1.596	0	0.02	0.04	0.04	0	1.596	0.18	2	4.52	0.442	Grate inlet	2	2	---	---	1.294	0.302	S1-2

100-YEAR STORM ANALYSIS

#Line	Pipe	From	To	3D Length - Center to Center	Drainage Area Inc	Drainage Area Total	Runoff Coeff "C"	Area X "C" Inc	Area X "C" Total	Time of Concentration Inlet	Time of Concentration System	Rain "I"	Runoff "Q"	Known Q	Total Q	Pipe Dia.	Full Q	Velocity Full	Velocity Design	Sec Time	Invert Elevation U/S	Invert Elevation D/S	Crown Drop	Slope
				(ft)	(sq. ft)	(sq. ft)		(sq. ft)	(sq. ft)	(min)	(min)	(inch/hr)	(cu. ft/sec)	(cu. ft/sec)	(cu. ft/sec)	(ft)	(cu. ft/sec)	(ft/s)	(ft/s)	(min)	(ft)	(ft)	(ft)	
1	P1-1	S1-1	S1-2	47.01	11937.86	11937.86	0.95	11340.96	11340.96	6	6	7.772	2.04	0	2.04	1.5	10.505	5.944	4.585	0.171	109.5	109.03	N/A	1.00%
2	P1-2	S1-2	S1-3	46.83	4733	16670.86	0.95	4496.35	15837.31	6	6.17	7.726	2.833	0	2.833	1.5	10.524	5.955	1.603	0	108.93	108.46	N/A	1.00%
3	P1-3	S1-3	S1-4	93.6	13074.81	29745.66	0.95	12421.07	28258.38	6	6.325	7.685	5.027	0	5.027	1.5	10.514	5.95	2.845	0.548	108.36	107.42	N/A	1.00%
4	P1-4	NULL	S1-4	38.12	58873.42	58873.42	0.95	55929.75	55929.75	6	6	7.772	10.062	0	10.062	1.5	10.514	5.95	5.694	0.112	107.8	107.42	N/A	1.00%
5	P1-5	S1-4	S1-5	84.11	0	88619.08	0	0	84188.13	0	6.59	7.614	14.838	0	14.838	2	22.655	7.211	7.682	0.182	107.32	106.48	N/A	1.00%

#Line	Struct. ID	D	Q	L	V	d	dc	v^2/2g	EGLo	HGLo	Sf	Total Pipe Loss	EGLi	HGLi	Ea	EGLa	U/S TOC	Surface Elev.
		(ft)	(cu. ft/sec)	(ft)	(ft/s)	(ft)	(ft)	(ft)	(ft)	(ft)		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
1	NULL	1.5	10.062	38.12	5.694	1.5	0	0.5	110.24	109.73	0.009	0.35	110.59	110.08	2.89	110.69	---	117.63
2	S1-1	1.5	2.04	46.92	4.585	0.45	0.54	0.33	110.44	110.41	0	0	110.44	110.11	0.94	110.44	---	114.5
3	S1-2	1.5	2.833	46.92	1.603	0.53	0.64	0.04	110.38	110.34	0.001	0.03	110.41	110.37	1.5	110.43	110.53	114.85
4	S1-3	1.5	5.027	93.6	2.845	1.5	0	0.13	110.09	109.96	0.002	0.21	110.3	110.17	2	110.36	109.96	115.2
5	S1-4	2	14.838	84.19	7.682	1.18	1.39	0.92	108.58	107.66	0	0	109.42	108.5	2.72	110.04	108.92	117

#Line	Struct. ID	Exit Ho	Hf	Hb	Hc	He	Hj	Total	Ei	y+(P/gamma)	DI	Eai	CB	C-theta	Cp	Ha	Ea
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)		(ft)				(ft)	(ft)
1	NULL	0.2	0.35	0	0	0	0	0.35	2.79	2.28	0.82	2.89	0	0	0	0	2.89
2	S1-1	0.01	0	0	0	0	0	0	0.94	0.61	0.166	0.72	0	0	2.851	0	0.94
3	S1-2	0.02	0.03	0	0	0	0	0.03	1.48	1.44	0.231	1.49	0	0.006	0.839	0.01	1.5
4	S1-3	0.05	0.21	0	0	0	0	0.21	1.94	1.81	0.41	1.97	0	0.002	1.429	0.04	2
5	S1-4	0	0	0	0	0	0	0	2.1	1.18	0.589	2.24	0	3.242	0	0.47	2.72

No.	Name	Stat.	Drain. Area A	Runoff Coeff. C	Time of Conc.	Rainfall Intens.	Q=CIA/Kc	Known Q	Longitudinal Slope SL	Cross Slope Sx	Cross Slope Sw	Prev. Bypass Flow	Total Gutter Flow	Depth d	Gutter Width	Spread T	W / T	Inlet Type	Grate Length	Grate Width	Curb Opening Length	Curb Opening Height	Intercept Flow Qi	Bypass Flow Qb	Bypass Structure
		(ft)	(sq. ft)		(min)	(inch/hr)	(cu. ft/sec)	(cu. ft/sec)				(cu. ft/sec)	(cu. ft/sec)	(ft)	(ft)	(ft)			(ft)	(ft)	(ft)	(ft)	(cu. ft/sec)	(cu. ft/sec)	
1	S1-1	---	11937.86	0.95	6	7.772	2.04	0	-1	0.025	0.025	0.474	2.515	0.29	2	11.77	0.17	Grate inlet	2	2	---	---	2.515	0	---
2	S1-2	---	4733	0.95	6	7.772	0.809	0	0.02	0.02	0.02	0.546	1.355	0.13	2	6.56	0.305	Grate inlet	2	2	---	---	0.88	0.474	S1-1
3	S1-3	---	13074.81	0.95	6	7.772	2.235	0	0.02	0.04	0.04	0	2.235	0.21	2	5.13	0.39	Grate inlet	2	2	---	---	1.689	0.546	S1-2

APPENDIX E

WATER QUALITY WORKSHEETS

McFarland Johnson

PROJ.	Durkee Street Mixed Use Development		
SHEET NO.	1	OF	1
CALCULATED BY	NSO	DATE	1/13/2020
CHECKED BY		DATE	
TITLE	Water Quality Volume		

Initial Water Quality Volume

WQv = [(P)(Rv)(A)]/12

Where:

Rv = 0.05 + 0.009(I)

I = impervious cover in percent

P = 90% rainfall (see Figure 4.1)

A = site area in acres

% WQv Treatment by Alternative Practice

%WQv = (25 - (% IC Reduction + %WQv treatment by Standard practice + %runoff reduction))*3

Where:

%WQv treatment by Standard practice = 0

%runoff reduction = 0

Target Water Quality Volume for Redevelopment Projects with Alternative SMPs

WQv(target) = (N) (WQv) + (0.75)(R)(WQv)

Where:

N = New Impervious Area/Total Impervious Area

R = Replaced Impervious Area/Total Impervious Area

Site Area (ac)	Existing Impervious Area (ac)	New Impervious Area (ac)	Replaced Impervious Area (ac)	% Impervious	Rv	Rainfall (P) (inches)	% IC Reduction	% WQv by Alt. Practice	Initial WQv (ac-ft)	Target WQv (ac-ft)	Target WQv (cf)
2.76	2.75	0.00	2.41	87.3%	0.84	1.05	12.3%	38%	0.202	0.077	**3345**

Date: 1/8/2020
Project: Durkee Street Development
Location: Plattsburgh, NY
Prepared For: Natalie

Purpose: To calculate the water quality flow rate (Qwq) over a given site area. In this situation the WQv to be analyzed is the runoff produced by the first 1.05 inch(es) of rainfall, per Fig 4.1 of the New York State Stormwater Management Design Manual

Reference: United States Department of Agriculture Natural Resources Conservation Service TR-55 Manual, New York State Stormwater Management Design Manual - 2015

Formulas:

$$WQv = \frac{(P)(R_v)(A)}{12}$$

$$R_v = (0.05+0.009(I)$$

$$CN = 1000/[10+5P+10Qa-10(Qa^2+1.25QaP)^{1/2}]$$

$$Qwq = (q_u)*(A)*(Qa)$$

Structure: Area 1

P	1.05	in.
A	2.120	ac
I	100.00	%
t_c	6.0	min.
t_c	0.100	hr.
R_v	0.95	
90% WQv	0.176	ac-ft
90% WQv	7675.27	ft^3
Qa	0.997	in.
CN	99.55	
I_a	0.041	
I_a/P	0.039	
qu	1000	(csm/in)
A	0.00331	$miles^2$
Qwq	3.30	cfs

APPENDIX F

MAINTENANCE INSPECTION CHECKLIST

CONTECH®
ENGINEERED SOLUTIONS

Cascade Separator™ Inspection and Maintenance Guide

CASCADE
separator™

Maintenance

The Cascade Separator™ system should be inspected at regular intervals and maintained when necessary to ensure optimum performance. The rate at which the system collects sediment and debris will depend upon on-site activities and site pollutant characteristics. For example, unstable soils or heavy winter sanding will cause the sediment storage sump to fill more quickly but regular sweeping of paved surfaces will slow accumulation.

Inspection

Inspection is the key to effective maintenance and is easily performed. Pollutant transport and deposition may vary from year to year and regular inspections will help ensure that the system is cleaned out at the appropriate time. At a minimum, inspections should be performed twice per year (i.e. spring and fall). However, more frequent inspections may be necessary in climates where winter sanding operations may lead to rapid accumulations, or in equipment wash-down areas. Installations should also be inspected more frequently where excessive amounts of trash are expected.

A visual inspection should ascertain that the system components are in working order and that there are no blockages or obstructions in the inlet chamber, flumes or outlet channel. The inspection should also quantify the accumulation of hydrocarbons, trash and sediment in the system. Measuring pollutant accumulation can be done with a calibrated dipstick, tape measure or other measuring instrument. If absorbent material is used for enhanced removal of hydrocarbons, the level of discoloration of the sorbent material should also be identified during inspection. It is useful and often required as part of an operating permit to keep a record of each inspection. A simple form for doing so is provided in this Inspection and Maintenance Guide.

Access to the Cascade Separator unit is typically achieved through one manhole access cover. The opening allows for inspection and cleanout of the center chamber (cylinder) and sediment storage sump, as well as inspection of the inlet chamber and slanted skirt. For large units, multiple manhole covers allow access to the chambers and sump.

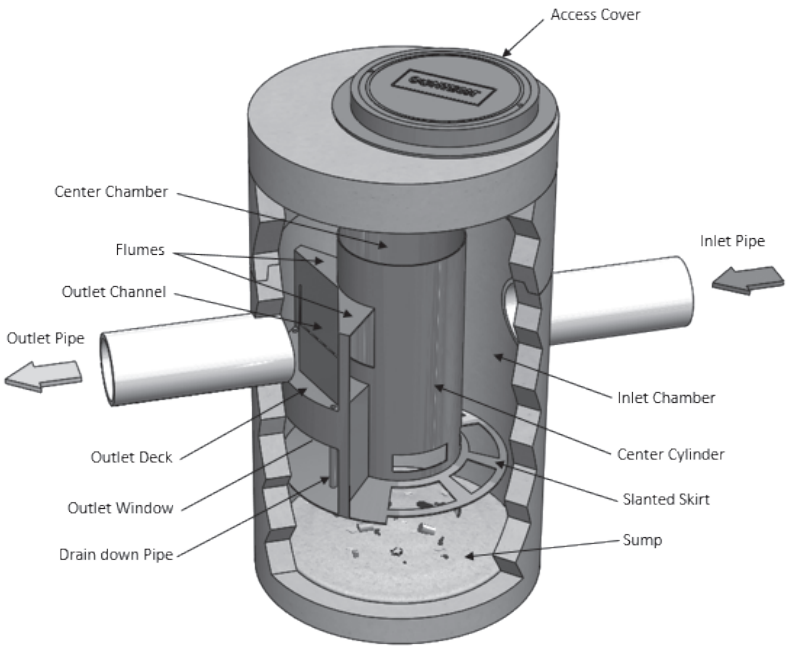
The Cascade Separator system should be cleaned before the level of sediment in the sump reaches the maximum sediment depth and/or when an appreciable level of hydrocarbons and trash has accumulated. If sorbent material is used, it must be replaced when significant discoloration has occurred. Performance may be impacted when maximum sediment storage capacity is exceeded. Contech recommends maintaining the system when sediment level reaches 50% of maximum storage volume. The level of sediment is easily determined by measuring the distance from the system outlet invert (standing water level) to the top of the sediment pile. To avoid underestimating the level of sediment in the chamber, the measuring device must be lowered to the top of the sediment pile carefully. Finer, silty particles at the top of the pile typically offer less resistance to the end of the rod than larger particles toward the bottom of the pile. Once this measurement is recorded, it should be compared to the chart in this document to determine if the height of the sediment pile off the bottom of the sump floor exceeds 50% of the maximum sediment storage.

Cleaning

Cleaning of a Cascade Separator system should be done during dry weather conditions when no flow is entering the system. The use of a vacuum truck is generally the most effective and convenient method of removing pollutants from the system. Simply remove the manhole cover and insert the vacuum tube down through the center chamber and into the sump. The system should be completely drained down and the sump fully evacuated of sediment. The areas outside the center chamber and the slanted skirt should also be washed off if pollutant build-up exists in these areas.

In installations where the risk of petroleum spills is small, liquid contaminants may not accumulate as quickly as sediment. However, the system should be cleaned out immediately in the event of an oil or gasoline spill. Motor oil and other hydrocarbons that accumulate on a more routine basis should be removed when an appreciable layer has been captured. To remove these pollutants, it may be preferable to use absorbent pads since they are usually less expensive to dispose than the oil/water emulsion that may be created by vacuuming the oily layer. Trash and debris can be netted out to separate it from the other pollutants. Then the system should be power washed to ensure it is free of trash and debris.

Manhole covers should be securely seated following cleaning activities to prevent leakage of runoff into the system from above and to ensure proper safety precautions. Confined space entry procedures need to be followed if physical access is required. Disposal of all material removed from the Cascade Separator system must be done in accordance with local regulations. In many locations, disposal of evacuated sediments may be handled in the same manner as disposal of sediments removed from catch basins or deep sump manholes. Check your local regulations for specific requirements on disposal. If any components are damaged, replacement parts can be ordered from the manufacturer.



Cascade Separator™ Maintenance Indicators and Sediment Storage Capacities

Model Number	Diameter		Distance from Water Surface to Top of Sediment Pile		Sediment Storage Capacity	
	ft	m	ft	m	y^3	m^3
CS-4	4	1.2	1.5	0.5	0.7	0.5
CS-5	5	1.3	1.5	0.5	1.1	0.8
CS-6	6	1.8	1.5	0.5	1.6	1.2
CS-8	8	2.4	1.5	0.5	2.8	2.1
CS-10	10	3.0	1.5	0.5	4.4	3.3
CS-12	12	3.6	1.5	0.5	6.3	4.8

Note: The information in the chart is for standard units. Units may have been designed with non-standard sediment storage depth.

A Cascade Separator unit can be easily cleaned in less than 30 minutes.

A vacuum truck excavates pollutants from the systems.

Cascade Separator™ Inspection & Maintenance Log

Cascade Model:			Location:		
Date	Depth Below Invert to Top of Sediment[1]	Floatable Layer Thickness[2]	Describe Maintenance Performed	Maintenance Personnel	Comments

1. The depth to sediment is determined by taking a measurement from the manhole outlet invert (standing water level) to the top of the sediment pile. Once this measurement is recorded, it should be compared to the chart in the maintenance guide to determine if the height of the sediment pile off the bottom of the sump floor exceeds 50% of the maximum sediment storage. Note: to avoid underestimating the volume of sediment in the chamber, the measuring device must be carefully lowered to the top of the sediment pile.
2. For optimum performance, the system should be cleaned out when the floating hydrocarbon layer accumulates to an appreciable thickness. In the event of an oil spill, the system should be cleaned immediately.

SUPPORT

- Drawings and specifications are available at www.ContechES.com.
- Site-specific design support is available from our engineers.

Contech Engineered Solutions LLC provides site solutions for the civil engineering industry. Contech's portfolio includes bridges, drainage, sanitary sewer, stormwater, and earth stabilization products. For information, visit www.ContechES.com or call 800.338.1122

CONTECH® ENGINEERED SOLUTIONS
800.925.5240
www.ContechES.com

APPENDIX G

NOI, SPDES PERMIT, AND ACKNOWLEDGEMENT LETTER

0644089821

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-0-15-002

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 NOI. Applicants are responsible for identifying and obtaining other DEC permits that may be required.

-IMPORTANT-
RETURN THIS FORM TO THE ADDRESS ABOVE

OWNER/OPERATOR MUST SIGN FORM

Owner/Operator Information

Owner/Operator (Company Name/Private Owner Name/Municipality Name)
PRIME PLATTSBURGH, LLC

Owner/Operator Contact Person Last Name (NOT CONSULTANT)

Owner/Operator Contact Person First Name

Owner/Operator Mailing Address
621 COLUMBIA STREET

City
COHOES

State
NY

Zip
12047-____

Phone (Owner/Operator)
518-785-9000

Fax (Owner/Operator)
___-___-____

Email (Owner/Operator)

FED TAX ID
__-_____ (not required for individuals)

Project Site Information

Project/Site Name
DURKEE STREET MIXED USE

Street Address (NOT P.O. BOX)

Side of Street
○ **North** ○ **South** ● **East** ○ **West**

City/Town/Village (THAT ISSUES BUILDING PERMIT)
PLATTSBURGH

State: NY
Zip: 12901-
County: CLINTON
DEC Region: 5

Name of Nearest Cross Street
BRIDGE STREET

Distance to Nearest Cross Street (Feet)
0

Project In Relation to Cross Street
○ **North** ● **South** ○ **East** ○ **West**

Tax Map Numbers
Section-Block-Parcel
207.20-7-15

Tax Map Numbers

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.ny.gov/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 tool boxes on the top and choose "i"(identify). Then click on the center of your site and a new 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): 622663

Y Coordinates (Northing): 4950445

2. What is the nature of this construction project?

○ **New Construction**

○ **Redevelopment with increase in impervious area**

● **Redevelopment with no increase in impervious area**

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

Pre-Development Existing Land Use

- ○ FOREST
- ○ PASTURE/OPEN LAND
- ○ CULTIVATED LAND
- ○ SINGLE FAMILY HOME
- ○ SINGLE FAMILY SUBDIVISION
- ○ TOWN HOME RESIDENTIAL
- ○ MULTIFAMILY RESIDENTIAL
- ○ INSTITUTIONAL/SCHOOL
- ○ INDUSTRIAL
- ○ COMMERCIAL
- ○ ROAD/HIGHWAY
- ○ RECREATIONAL/SPORTS FIELD
- ○ BIKE PATH/TRAIL
- ○ LINEAR UTILITY
- ● PARKING LOT
- ○ OTHER

Post-Development Future Land Use

- ○ SINGLE FAMILY HOME
- ○ SINGLE FAMILY SUBDIVISION — Number of Lots
- ○ TOWN HOME RESIDENTIAL
- ● MULTIFAMILY RESIDENTIAL
- ○ INSTITUTIONAL/SCHOOL
- ○ INDUSTRIAL
- ○ COMMERCIAL
- ○ MUNICIPAL
- ○ ROAD/HIGHWAY
- ○ RECREATIONAL/SPORTS FIELD
- ○ BIKE PATH/TRAIL
- ○ LINEAR UTILITY (water, sewer, gas, etc.)
- ○ PARKING LOT
- ○ CLEARING/GRADING ONLY
- ○ DEMOLITION, NO REDEVELOPMENT
- ○ WELL DRILLING ACTIVITY *(Oil, Gas, etc.)
- ○ OTHER

***Note**: for gas well drilling, non-high volume hydraulic fractured wells only

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

Total Site Area	Total Area To Be Disturbed	Existing Impervious Area To Be Disturbed	Future Impervious Area Within Disturbed Area
2.8	2.8	2.6	2.4

5. Do you plan to disturb more than 5 acres of soil at any one time? ○ **Yes** ○ **No**

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

A	B	C	D
%	%	%	100 %

7. Is this a phased project? ○ **Yes** ○ **No**

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

Start Date / / - **End Date** / /

9. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge.

Name

SARANAC RIVER

9a. Type of waterbody identified in Question 9?

- ○ Wetland / State Jurisdiction On Site (Answer 9b)
- ○ Wetland / State Jurisdiction Off Site
- ○ Wetland / Federal Jurisdiction On Site (Answer 9b)
- ○ Wetland / Federal Jurisdiction Off Site
- ○ Stream / Creek On Site
- ○ Stream / Creek Off Site
- ○ River On Site
- ● River Off Site
- ○ Lake On Site
- ○ Lake Off Site
- ○ Other Type On Site
- ○ Other Type Off Site

9b. How was the wetland identified?

- ○ Regulatory Map
- ○ Delineated by Consultant
- ○ Delineated by Army Corps of Engineers
- ○ Other (identify)

10. Has the surface waterbody(ies) in question 9 been identified as a 303(d) segment in Appendix E of GP-0-15-002? ○ **Yes** ● **No**

11. Is this project located in one of the Watersheds identified in Appendix C of GP-0-15-002? ○ **Yes** ● **No**

12. Is the project located in one of the watershed areas associated with AA and AA-S classified waters? ○ **Yes** ● **No**
If no, skip question 13.

13. Does this construction activity disturb land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey? ○ **Yes** ○ **No**
If Yes, what is the acreage to be disturbed?

.

14. Will the project disturb soils within a State regulated wetland or the protected 100 foot adjacent area? ○ **Yes** ● **No**

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

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

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

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

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

20. Is this a remediation project being done under a Department approved work plan? (i.e. CERCLA, RCRA, Voluntary Cleanup Agreement, etc.) ○ **Yes** ● **No**

21. 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**

22. Does this construction activity require the development of a SWPPP that includes the post-construction stormwater management practice component (i.e. Runoff Reduction, Water Quality and Quantity Control practices/techniques)? ● **Yes** ○ **No**
If No, skip questions 23 and 27-39.

23. Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the current NYS Stormwater Management Design Manual? ● **Yes** ○ **No**

24. 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

Contact Name (Last, Space, First)

Mailing Address

City

State Zip -

Phone - -

Fax - -

Email

SWPPP Preparer Certification

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0-15-002. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

First Name **MI**

Last Name

Signature

Date / /

25. Has a construction sequence schedule for the planned management practices been prepared? ● Yes ○ No

26. 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

Post-construction Stormwater Management Practice (SMP) Requirements

Important: Completion of Questions 27-39 is not required if response to Question 22 is No.

27. Identify all site planning practices that were used to prepare the final site plan/layout for the project.

- ○ **Preservation of Undisturbed Areas**
- ○ **Preservation of Buffers**
- ○ **Reduction of Clearing and Grading**
- ○ **Locating Development in Less Sensitive Areas**
- ○ **Roadway Reduction**
- ○ **Sidewalk Reduction**
- ○ **Driveway Reduction**
- ○ **Cul-de-sac Reduction**
- ○ **Building Footprint Reduction**
- ● **Parking Reduction**

27a. Indicate which of the following soil restoration criteria was used to address the requirements in Section 5.1.6("Soil Restoration") of the Design Manual (2010 version).

- ● All disturbed areas will be restored in accordance with the Soil Restoration requirements in Table 5.3 of the Design Manual (see page 5-22).
- ○ Compacted areas were considered as impervious cover when calculating the **WQv Required**, and the compacted areas were assigned a post-construction Hydrologic Soil Group (HSG) designation that is one level less permeable than existing conditions for the hydrology analysis.

28. Provide the total Water Quality Volume (WQv) required for this project (based on final site plan/layout).

Total WQv Required

0.152 **acre-feet**

29. Identify the RR techniques (Area Reduction), RR techniques(Volume Reduction) and Standard SMPs with RRv Capacity in Table 1 (See Page 9) that were used to reduce the Total WQv Required(#28).

Also, provide in Table 1 the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

Note: Redevelopment projects shall use Tables 1 and 2 to identify the SMPs used to treat and/or reduce the WQv required. If runoff reduction techniques will not be used to reduce the required WQv, skip to question 33a after identifying the SMPs.

Table 1 - Runoff Reduction (RR) Techniques and Standard Stormwater Management Practices (SMPs)

	Total Contributing Area (acres)		Total Contributing Impervious Area(acres)
RR Techniques (Area Reduction)			
○ Conservation of Natural Areas (RR-1)	___.___	and/or	___.___
○ Sheetflow to Riparian Buffers/Filters Strips (RR-2)	___.___	and/or	___.___
○ Tree Planting/Tree Pit (RR-3)	___.___	and/or	___.___
○ Disconnection of Rooftop Runoff (RR-4)	___.___	and/or	___.___
RR Techniques (Volume Reduction)			
○ Vegetated Swale (RR-5)			___.___
○ Rain Garden (RR-6)			___.___
○ Stormwater Planter (RR-7)			___.___
○ Rain Barrel/Cistern (RR-8)			___.___
○ Porous Pavement (RR-9)			___.___
○ Green Roof (RR-10)			___.___
Standard SMPs with RRv Capacity			
○ Infiltration Trench (I-1)			___.___
○ Infiltration Basin (I-2)			___.___
○ Dry Well (I-3)			___.___
○ Underground Infiltration System (I-4)			___.___
○ Bioretention (F-5)			___.___
○ Dry Swale (O-1)			___.___
Standard SMPs			
○ Micropool Extended Detention (P-1)			___.___
○ Wet Pond (P-2)			___.___
○ Wet Extended Detention (P-3)			___.___
○ Multiple Pond System (P-4)			___.___
○ Pocket Pond (P-5)			___.___
○ Surface Sand Filter (F-1)			___.___
○ Underground Sand Filter (F-2)			___.___
○ Perimeter Sand Filter (F-3)			___.___
○ Organic Filter (F-4)			___.___
○ Shallow Wetland (W-1)			___.___
○ Extended Detention Wetland (W-2)			___.___
○ Pond/Wetland System (W-3)			___.___
○ Pocket Wetland (W-4)			___.___
○ Wet Swale (O-2)			___.___

Table 2 - Alternative SMPs (DO NOT INCLUDE PRACTICES BEING USED FOR PRETREATMENT ONLY)

Alternative SMP	Total Contributing Impervious Area(acres)
● **Hydrodynamic**	1.97
○ **Wet Vault**	
○ **Media Filter**	
○ **Other**	

Provide the name and manufacturer of the Alternative SMPs (i.e. proprietary practice(s)) being used for WQv treatment.

Name

Manufacturer

Note: Redevelopment projects which do not use RR techniques, shall use questions 28, 29, 33 and 33a to provide SMPs used, total WQv required and total WQv provided for the project.

30. Indicate the Total RRv provided by the RR techniques (Area/Volume Reduction) and Standard SMPs with RRv capacity identified in question 29.

Total RRv provided

0.0 **acre-feet**

31. Is the Total RRv provided (#30) greater than or equal to the total WQv required (#28).

○ **Yes** ● **No**

If Yes, go to question 36.
If No, go to question 32.

32. Provide the Minimum RRv required based on HSG.
[Minimum RRv Required = (P)(0.95)(Ai)/12, Ai=(S)(Aic)]

Minimum RRv Required

0.0 **acre-feet**

32a. Is the Total RRv provided (#30) greater than or equal to the Minimum RRv Required (#32)?

● **Yes** ○ **No**

If Yes, go to question 33.
Note: Use the space provided in question #39 to summarize the specific site limitations and justification for not reducing 100% of WQv required (#28). A detailed evaluation of the specific site limitations and justification for not reducing 100% of the WQv required (#28) must also be included in the SWPPP.
If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

33. Identify the Standard SMPs in Table 1 and, if applicable, the Alternative SMPs in Table 2 that were used to treat the remaining total WQv(=Total WQv Required in 28 - Total RRv Provided in 30).

Also, provide in Table 1 and 2 the total impervious area that contributes runoff to each practice selected.

Note: Use Tables 1 and 2 to identify the SMPs used on Redevelopment projects.

33a. Indicate the Total WQv provided (i.e. WQv treated) by the SMPs identified in question #33 and Standard SMPs with RRv Capacity identified in question 29.

WQv Provided

0.164 **acre-feet**

Note: For the standard SMPs with RRv capacity, the WQv provided by each practice = the WQv calculated using the contributing drainage area to the practice - RRv provided by the practice. (See Table 3.5 in Design Manual)

34. Provide the sum of the Total RRv provided (#30) and the WQv provided (#33a). 0.164

35. Is the sum of the RRv provided (#30) and the WQv provided (#33a) greater than or equal to the total WQv required (#28)? ◉ **Yes** ○ **No**

If Yes, go to question 36.
If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

36. Provide the total Channel Protection Storage Volume (CPv) required and provided or select waiver (36a), if applicable.

CPv Required

0.0 **acre-feet**

CPv Provided

0.0 **acre-feet**

36a. The need to provide channel protection has been waived because:

○ Site discharges directly to tidal waters or a fifth order or larger stream.

○ Reduction of the total CPv is achieved on site through runoff reduction techniques or infiltration systems.

37. Provide the Overbank Flood (Qp) and Extreme Flood (Qf) control criteria or select waiver (37a), if applicable.

Total Overbank Flood Control Criteria (Qp)

Pre-Development

11.63 **CFS**

Post-development

10.71 **CFS**

Total Extreme Flood Control Criteria (Qf)

Pre-Development

19.95 **CFS**

Post-development

18.61 **CFS**

37a. The need to meet the Qp and Qf criteria has been waived because:

- (●) Site discharges directly to tidal waters or a fifth order or larger stream.
- ( ) Downstream analysis reveals that the Qp and Qf controls are not required

38. Has a long term Operation and Maintenance Plan for the post-construction stormwater management practice(s) been developed? (●) **Yes** ( ) **No**

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

PRIME PLATTSBURGH, LLC

39. Use this space to summarize the specific site limitations and justification for not reducing 100% of WQv required(#28). (See question 32a) This space can also be used for other pertinent project information.

This project was designed in accordance with the NYSDEC Stormwater Design Manual - Chapter 9 for Redevelopment. As per the Manual, the use of an alternative SMP requires 75% of the total WQv for the site to be met.

40. Identify other DEC permits, existing and new, that are required for this project/facility.

- ○ Air Pollution Control
- ○ Coastal Erosion
- ○ Hazardous Waste
- ○ Long Island Wells
- ○ Mined Land Reclamation
- ○ Solid Waste
- ● Navigable Waters Protection / Article 15
- ○ Water Quality Certificate
- ○ Dam Safety
- ○ Water Supply
- ○ Freshwater Wetlands/Article 24
- ○ Tidal Wetlands
- ○ Wild, Scenic and Recreational Rivers
- ○ Stream Bed or Bank Protection / Article 15
- ○ Endangered or Threatened Species(Incidental Take Permit)
- ○ Individual SPDES
- ○ SPDES Multi-Sector GP [N][Y][R][ ][ ][ ][ ][ ][ ]
- ○ Other [ ]
- ○ None

41. Does this project require a US Army Corps of Engineers Wetland Permit? ○ **Yes** ● **No**
If Yes, Indicate Size of Impact. [ ][ ][ ][ ][ ].[ ]

42. Is this project subject to the requirements of a regulated, traditional land use control MS4? ○ **Yes** ● **No**
(If No, skip question 43)

43. Has the "MS4 SWPPP Acceptance" form been signed by the principal executive officer or ranking elected official and submitted along with this NOI? ○ **Yes** ○ **No**

44. If this NOI is being submitted for the purpose of continuing or transferring coverage under a general permit for stormwater runoff from construction activities, please indicate the former SPDES number assigned. [N][Y][R][ ][ ][ ][ ][ ][ ]

Owner/Operator Certification

I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I hereby certify that this document and the corresponding documents were prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting this NOI and can be as long as sixty (60) business days as provided for in the general permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction, and agreeing to comply with all the terms and conditions of the general permit for which this NOI is being submitted.

Print First Name **MI**

Print Last Name

Owner/Operator Signature

Date / /

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SPDES GENERAL PERMIT
FOR STORMWATER DISCHARGES

From

CONSTRUCTION ACTIVITY

Permit No. GP- 0-20-001

Issued Pursuant to Article 17, Titles 7, 8 and Article 70

of the Environmental Conservation Law

Effective Date: January 29, 2020

Expiration Date: January 28, 2025

John J. Ferguson

Chief Permit Administrator

1-23-20

Authorized Signature

Date

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

PREFACE

Pursuant to Section 402 of the Clean Water Act ("CWA"), stormwater *discharges* from certain *construction activities* are unlawful unless they are authorized by a *National Pollutant Discharge Elimination System ("NPDES")* permit or by a state permit program. New York administers the approved State Pollutant Discharge Elimination System (SPDES) program with permits issued in accordance with the New York State Environmental Conservation Law (ECL) Article 17, Titles 7, 8 and Article 70.

An *owner or operator* of a *construction activity* that is eligible for coverage under this permit must obtain coverage prior to the *commencement of construction activity*. Activities that fit the definition of "*construction activity*", as defined under 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), constitute construction of a *point source* and therefore, pursuant to ECL section 17-0505 and 17-0701, the *owner or operator* must have coverage under a SPDES permit prior to *commencing construction activity*. The *owner or operator* cannot wait until there is an actual *discharge* from the *construction site* to obtain permit coverage.

***Note: The italicized words/phrases within this permit are defined in Appendix A.**

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

Table of Contents

Part 1. PERMIT COVERAGE AND LIMITATIONS

A. Permit Application

This permit authorizes stormwater *discharges* to *surface waters of the State* from the following *construction activities* identified within 40 CFR Parts 122.26(b)(14)(x), 122.26(b)(15)(i) and 122.26(b)(15)(ii), provided all of the eligibility provisions of this permit are met:

1. *Construction activities* involving soil disturbances of one (1) or more acres; including disturbances of less than one acre that are part of a *larger common plan of development or sale* that will ultimately disturb one or more acres of land; excluding *routine maintenance activity* that is performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility;

2. *Construction activities* involving soil disturbances of less than one (1) acre where the Department has determined that a *SPDES* permit is required for stormwater *discharges* based on the potential for contribution to a violation of a *water quality standard* or for significant contribution of *pollutants* to *surface waters of the State.*

3. *Construction activities* located in the watershed(s) identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

B. Effluent Limitations Applicable to Discharges from Construction Activities

*Discharge*s authorized by this permit must achieve, at a minimum, the effluent limitations in Part I.B.1. (a) – (f) of this permit. These limitations represent the degree of effluent reduction attainable by the application of best practicable technology currently available.

1. Erosion and Sediment Control Requirements - The *owner or operator* must select, design, install, implement and maintain control measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. The selection, design, installation, implementation, and maintenance of these control measures must meet the non-numeric effluent limitations in Part I.B.1.(a) – (f) of this permit and be in accordance with the New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, using sound engineering judgment. Where control measures are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must include in the *Stormwater Pollution Prevention Plan* (“SWPPP”) the reason(s) for the

deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

a. **Erosion and Sediment Controls.** Design, install and maintain effective erosion and sediment controls to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such controls must be designed, installed and maintained to:

   (i) *Minimize* soil erosion through application of runoff control and soil stabilization control measure to *minimize pollutant discharge*s;

   (ii) Control stormwater *discharge*s, including both peak flowrates and total stormwater volume, to *minimize* channel and *streambank* erosion and scour in the immediate vicinity of the *discharge* points;

   (iii) *Minimize* the amount of soil exposed during *construction activity*;

   (iv) *Minimize* the disturbance of *steep slopes*;

   (v) *Minimize* sediment *discharge*s from the site;

   (vi) Provide and maintain *natural buffer*s around surface waters, direct stormwater to vegetated areas and maximize stormwater infiltration to reduce *pollutant discharge*s, unless *infeasible*;

   (vii) *Minimize* soil compaction. Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted;

   (viii) Unless *infeasible*, preserve a sufficient amount of topsoil to complete soil restoration and establish a uniform, dense vegetative cover; and

   (ix) *Minimize* dust. On areas of exposed soil, *minimize* dust through the appropriate application of water or other dust suppression techniques to control the generation of pollutants that could be discharged from the site.

b. **Soil Stabilization**. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the current soil disturbance activity ceased. For construction sites that *directly discharge* to one of the 303(d) segments

listed in Appendix E or is located in one of the watersheds listed in Appendix C, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. See Appendix A for definition of *Temporarily Ceased*.

c. **Dewatering**. *Discharge*s from *dewatering* activities, including *discharge*s from *dewatering* of trenches and excavations, must be managed by appropriate control measures.

d. **Pollution Prevention Measures**. Design, install, implement, and maintain effective pollution prevention measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such measures must be designed, installed, implemented and maintained to:

(i) *Minimize* the *discharge* of *pollutants* from equipment and vehicle washing, wheel wash water, and other wash waters. This applies to washing operations that use clean water only. Soaps, detergents and solvents cannot be used;

(ii) *Minimize* the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, hazardous and toxic waste, and other materials present on the site to precipitation and to stormwater. Minimization of exposure is not required in cases where the exposure to precipitation and to stormwater will not result in a *discharge* of *pollutants*, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use) ; and

(iii) Prevent the *discharge* of *pollutants* from spills and leaks and implement chemical spill and leak prevention and response procedures.

e. **Prohibited *Discharges*.** The following *discharge*s are prohibited:

(i) Wastewater from washout of concrete;

(ii) Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;

(iii) Fuels, oils, or other *pollutants* used in vehicle and equipment operation and maintenance;

(iv) Soaps or solvents used in vehicle and equipment washing; and

(v) Toxic or hazardous substances from a spill or other release.

f. Surface Outlets. When discharging from basins and impoundments, the outlets shall be designed, constructed and maintained in such a manner that sediment does not leave the basin or impoundment and that erosion at or below the outlet does not occur.

C. Post-construction Stormwater Management Practice Requirements

1. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must select, design, install, and maintain the practices to meet the *performance criteria* in the New York State Stormwater Management Design Manual ("Design Manual"), dated January 2015, using sound engineering judgment. Where post-construction stormwater management practices ("SMPs") are not designed in conformance with the *performance criteria* in the Design Manual, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

2. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must design the practices to meet the applicable *sizing criteria* in Part I.C.2.a., b., c. or d. of this permit.

a. Sizing Criteria for New Development

(i) Runoff Reduction Volume ("RRv"): Reduce the total Water Quality Volume ("WQv") by application of RR techniques and standard SMPs with RRv capacity. The total WQv shall be calculated in accordance with the criteria in Section 4.2 of the Design Manual.

(ii) Minimum RRv and Treatment of Remaining Total WQv: Construction activities that cannot meet the criteria in Part I.C.2.a.(i) of this permit due to site limitations shall direct runoff from all newly constructed impervious areas to a RR technique or standard SMP with RRv capacity unless infeasible. The specific site limitations that prevent the reduction of 100% of the WQv shall be documented in the SWPPP.

For each impervious area that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered infeasible.

In no case shall the runoff reduction achieved from the newly constructed impervious areas be less than the Minimum RRv as calculated using the criteria in Section 4.3 of the Design Manual. The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

(iii) Channel Protection Volume ("Cpv"): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
(1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
(2) The site discharges directly to tidal waters, or fifth order or larger streams.

(iv) *Overbank* Flood Control Criteria ("Qp"): Requires storage to attenuate the post-development 10-year, 24-hour peak discharge rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
(1) the site discharges directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

(v) Extreme Flood Control Criteria ("Qf"): Requires storage to attenuate the post-development 100-year, 24-hour peak discharge rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
(1) the site discharges directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

b. *Sizing Criteria* for *New Development* in Enhanced Phosphorus Removal Watershed

(i) Runoff Reduction Volume (RRv): Reduce the total Water Quality Volume (WQv) by application of RR techniques and standard SMPs with RRv capacity. The total WQv is the runoff volume from the 1-year, 24 hour design storm over the post-developed watershed and shall be

calculated in accordance with the criteria in Section 10.3 of the Design Manual.

(ii) Minimum RRv and Treatment of Remaining Total WQv: *Construction activities* that cannot meet the criteria in Part I.C.2.b.(i) of this permit due to *site limitations* shall direct runoff from all newly constructed *impervious areas* to a RR technique or standard SMP with RRv capacity unless *infeasible*. The specific *site limitations* that prevent the reduction of 100% of the WQv shall be documented in the SWPPP. For each *impervious area* that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered *infeasible.*

In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRv as calculated using the criteria in Section 10.3 of the Design Manual. The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

(iii) Channel Protection Volume (Cpv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
(1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
(2) The site *discharge*s directly to tidal waters, or fifth order or larger streams.

(iv) *Overbank* Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak *discharge* rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
(1) the site *discharge*s directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

(v) Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
(1) the site *discharge*s directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

c. Sizing Criteria for Redevelopment Activity

(i) Water Quality Volume (WQv): The WQv treatment objective for *redevelopment activity* shall be addressed by one of the following options. *Redevelopment activities* located in an Enhanced Phosphorus Removal Watershed (see Part III.B.3. and Appendix C of this permit) shall calculate the WQv in accordance with Section 10.3 of the Design Manual. All other *redevelopment activities* shall calculate the WQv in accordance with Section 4.2 of the Design Manual.

(1) Reduce the existing *impervious cover* by a minimum of 25% of the total disturbed, *impervious area*. The Soil Restoration criteria in Section 5.1.6 of the Design Manual must be applied to all newly created pervious areas, or

(2) Capture and treat a minimum of 25% of the WQv from the disturbed, *impervious area* by the application of standard SMPs; or reduce 25% of the WQv from the disturbed, *impervious area* by the application of RR techniques or standard SMPs with RRv capacity., or

(3) Capture and treat a minimum of 75% of the WQv from the disturbed, *impervious area* as well as any additional runoff from tributary areas by application of the alternative practices discussed in Sections 9.3 and 9.4 of the Design Manual., or

(4) Application of a combination of 1, 2 and 3 above that provide a weighted average of at least two of the above methods. Application of this method shall be in accordance with the criteria in Section 9.2.1(B) (IV) of the Design Manual.

If there is an existing post-construction stormwater management practice located on the site that captures and treats runoff from the *impervious area* that is being disturbed, the WQv treatment option selected must, at a minimum, provide treatment equal to the treatment that was being provided by the existing practice(s) if that treatment is greater than the treatment required by options 1 – 4 above.

(ii) Channel Protection Volume (Cpv): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.

(iii) *Overbank* Flood Control Criteria (Qp): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.

(iv) Extreme Flood Control Criteria (Qf): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site

d. Sizing Criteria for Combination of Redevelopment Activity and New Development

Construction projects that include both New Development and Redevelopment Activity shall provide post-construction stormwater management controls that meet the sizing criteria calculated as an aggregate of the Sizing Criteria in Part I.C.2.a. or b. of this permit for the New Development portion of the project and Part I.C.2.c of this permit for Redevelopment Activity portion of the project.

D. Maintaining Water Quality

The Department expects that compliance with the conditions of this permit will control *discharge*s necessary to meet applicable *water quality standards*. It shall be a violation of the *ECL* for any discharge 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, such as:

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 or 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.

If there is evidence indicating that the stormwater *discharge*s authorized by this permit are causing, have the reasonable potential to cause, or are contributing to a violation of the *water quality standards*; the *owner or operator* must take appropriate corrective action in accordance with Part IV.C.5. of this general permit and document in accordance with Part IV.C.4. of this general permit. To address the *water quality standard* violation the *owner or operator* may need to provide additional information, include and implement appropriate controls in the SWPPP to correct the problem, or obtain an individual SPDES permit.

If there is evidence indicating that despite compliance with the terms and conditions of this general permit it is demonstrated that the stormwater *discharge*s authorized by this permit are causing or contributing to a violation of *water quality standards*, or if the Department determines that a modification of the permit is necessary to prevent a violation of *water quality standards*, the authorized *discharge*s will no longer be eligible for coverage under this permit. The Department may require the *owner or operator* to obtain an individual SPDES permit to continue discharging.

E. Eligibility Under This General Permit

1. This permit may authorize all *discharges* of stormwater from *construction activity* to *surface waters of the State* and *groundwaters* except for ineligible *discharges* identified under subparagraph F. of this Part.

2. Except for non-stormwater *discharges* explicitly listed in the next paragraph, this permit only authorizes stormwater *discharge*s; including stormwater runoff, snowmelt runoff, and surface runoff and drainage, from *construction activities*.

3. Notwithstanding paragraphs E.1 and E.2 above, the following non-stormwater discharges are authorized by this permit: those listed in 6 NYCRR 750-1.2(a)(29)(vi), with the following exception: "Discharges from firefighting activities are authorized only when the firefighting activities are emergencies/unplanned"; waters to which other components have not been added that are used to control dust in accordance with the SWPPP; and uncontaminated *discharge*s from *construction site* de-watering operations. All non-stormwater discharges must be identified in the SWPPP. Under all circumstances, the *owner or operator* must still comply with *water quality standards* in Part I.D of this permit.

4. The *owner or operator* must maintain permit eligibility to *discharge* under this permit. Any *discharges* that are not compliant with the eligibility conditions of this permit are not authorized by the permit and the *owner or operator* must either apply for a separate permit to cover those ineligible *discharges* or take steps necessary to make the *discharge* eligible for coverage.

F. Activities Which Are Ineligible for Coverage Under This General Permit

All of the following are **not** authorized by this permit:

1. *Discharge*s after *construction activities* have been completed and the site has undergone *final stabilization*;

2. *Discharge*s that are mixed with sources of non-stormwater other than those expressly authorized under subsection E.3. of this Part and identified in the SWPPP required by this permit;

3. *Discharges* that are required to obtain an individual SPDES permit or another SPDES general permit pursuant to Part VII.K. of this permit;

4. *Construction activities* or *discharges* from *construction activities* that may adversely affect an *endangered or threatened species* unless the *owner or*

operator has obtained a permit issued pursuant to 6 NYCRR Part 182 for the project or the Department has issued a letter of non-jurisdiction for the project. All documentation necessary to demonstrate eligibility shall be maintained on site in accordance with Part II.D.2 of this permit;

5. *Discharges* which either cause or contribute to a violation of *water quality standards* adopted pursuant to the *ECL* and its accompanying regulations;

6. *Construction activities* for residential, commercial and institutional projects:

   a. Where the *discharge*s from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and

   b. Which are undertaken on land with no existing *impervious cover*; and

   c. Which disturb one (1) or more acres of land designated on the current United States Department of Agriculture ("USDA") Soil Survey as Soil Slope Phase "D", (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase "E" or "F" (regardless of the map unit name), or a combination of the three designations.

7. *Construction activities* for linear transportation projects and linear utility projects:

   a. Where the *discharge*s from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and

   b. Which are undertaken on land with no existing *impervious cover*; and

   c. Which disturb two (2) or more acres of land designated on the current USDA Soil Survey as Soil Slope Phase "D" (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase "E" or "F" (regardless of the map unit name), or a combination of the three designations.

8. *Construction activities* that have the potential to affect an *historic property*, unless there is documentation that such impacts have been resolved. The following documentation necessary to demonstrate eligibility with this requirement shall be maintained on site in accordance with Part II.D.2 of this permit and made available to the Department in accordance with Part VII.F of this permit:

   a. Documentation that the *construction activity* is not within an archeologically sensitive area indicated on the sensitivity map, and that the *construction activity* is not located on or immediately adjacent to a property listed or determined to be eligible for listing on the National or State Registers of Historic Places, and that there is no new permanent building on the *construction site* within the following distances from a building, structure, or object that is more than 50 years old, or if there is such a new permanent building on the *construction site* within those parameters that NYS Office of Parks, Recreation and Historic Preservation (OPRHP), a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determined that the building, structure, or object more than 50 years old is not historically/archeologically significant.

      - 1-5 acres of disturbance - 20 feet
      - 5-20 acres of disturbance - 50 feet
      - 20+ acres of disturbance - 100 feet, or

   b. DEC consultation form sent to OPRHP, and copied to the NYS DEC Agency Historic Preservation Officer (APO), and
      (i) the State Environmental Quality Review (SEQR) Environmental Assessment Form (EAF) with a negative declaration or the Findings Statement, with documentation of OPRHP's agreement with the resolution; or
      (ii) documentation from OPRHP that the *construction activity* will result in No Impact; or
      (iii) documentation from OPRHP providing a determination of No Adverse Impact; or
      (iv) a Letter of Resolution signed by the owner/operator, OPRHP and the DEC APO which allows for this *construction activity* to be eligible for coverage under the general permit in terms of the State Historic Preservation Act (SHPA); or

   c. Documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area:

(i) No Affect
(ii) No Adverse Affect
(iii) Executed Memorandum of Agreement, or

d. Documentation that:

(i) SHPA Section 14.09 has been completed by NYS DEC or another state agency.

9. *Discharge*s from *construction activities* that are subject to an existing SPDES individual or general permit where a SPDES permit for *construction activity* has been terminated or denied; or where the *owner or operator* has failed to renew an expired individual permit.

Part II. PERMIT COVERAGE

A. How to Obtain Coverage

1. An *owner or operator* of a *construction activity* that is not subject to the requirements of a regulated, traditional land use control MS4 must first prepare a SWPPP in accordance with all applicable requirements of this permit and then submit a completed Notice of Intent (NOI) to the Department to be authorized to discharge under this permit.

2. An *owner or operator* of a *construction activity* that is subject to the requirements of a *regulated, traditional land use control MS4* must first prepare a SWPPP in accordance with all applicable requirements of this permit and then have the SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department. The *owner or operator* shall have the “MS4 SWPPP Acceptance” form signed in accordance with Part VII.H., and then submit that form along with a completed NOI to the Department.

3. The requirement for an *owner or operator* to have its SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department does not apply to an *owner or operator* that is obtaining permit coverage in accordance with the requirements in Part II.F. (Change of *Owner or Operator*) or where the *owner or operator* of the *construction activity* is the *regulated, traditional land use control MS4* . This exemption does not apply to *construction activities* subject to the New York City Administrative Code.

B. Notice of Intent (NOI) Submittal

1. Prior to December 21, 2020, an owner or operator shall use either the electronic (eNOI) or paper version of the NOI that the Department prepared. Both versions of the NOI are located on the Department's website (http://www.dec.ny.gov/). The paper version of the NOI shall be signed in accordance with Part VII.H. of this permit and submitted to the following address:

   NOTICE OF INTENT
   NYS DEC, Bureau of Water Permits
   625 Broadway, 4th Floor
   Albany, New York 12233-3505

2. Beginning December 21, 2020 and in accordance with EPA's 2015 NPDES Electronic Reporting Rule (40 CFR Part 127), the *owner or operator* must submit the NOI electronically using the *Department's* online NOI.

3. The *owner or operator* shall have the SWPPP preparer sign the "SWPPP Preparer Certification" statement on the NOI prior to submitting the form to the Department.

4. As of the date the NOI is submitted to the Department, the *owner or operator* shall make the NOI and SWPPP available for review and copying in accordance with the requirements in Part VII.F. of this permit.

C. Permit Authorization

1. An *owner or operator* shall not *commence construction activity* until their authorization to *discharge* under this permit goes into effect.

2. Authorization to *discharge* under this permit will be effective when the *owner or operator* has satisfied all of the following criteria:

   a. project review pursuant to the State Environmental Quality Review Act ("SEQRA") have been satisfied, when SEQRA is applicable. See the Department's website (http://www.dec.ny.gov/) for more information,

   b. where required, all necessary Department permits subject to the *Uniform Procedures Act ("UPA")* (see 6 NYCRR Part 621), or the equivalent from another New York State agency, have been obtained, unless otherwise notified by the Department pursuant to 6 NYCRR 621.3(a)(4). *Owners or operators* of *construction activities* that are required to obtain *UPA* permits

must submit a preliminary SWPPP to the appropriate DEC Permit Administrator at the Regional Office listed in Appendix F at the time all other necessary *UPA* permit applications are submitted. The preliminary SWPPP must include sufficient information to demonstrate that the *construction activity* qualifies for authorization under this permit,

c. the final SWPPP has been prepared, and

d. a complete NOI has been submitted to the Department in accordance with the requirements of this permit.

3. An *owner or operator* that has satisfied the requirements of Part II.C.2 above will be authorized to *discharge* stormwater from their *construction activity* in accordance with the following schedule:

   a. For *construction activities* that are <u>not</u> subject to the requirements of a *regulated, traditional land use control MS4*:

      (i) Five (5) business days from the date the Department receives a complete electronic version of the NOI (eNOI) for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.; or

      (ii) Sixty (60) business days from the date the Department receives a complete NOI (electronic or paper version) for *construction activities* with a SWPPP that has <u>not</u> been prepared in conformance with the design criteria in technical standard referenced in Part III.B.1. or, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C., the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, or;

      (iii) Ten (10) business days from the date the Department receives a complete paper version of the NOI for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.

b. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*:

(i) Five (5) business days from the date the Department receives both a complete electronic version of the NOI (eNOI) and signed "*MS4* SWPPP Acceptance" form, or

(ii) Ten (10) business days from the date the Department receives both a complete paper version of the NOI and signed "MS4 SWPPP Acceptance" form.

4. Coverage under this permit authorizes stormwater *discharges* from only those areas of disturbance that are identified in the NOI. If an *owner or operator* wishes to have stormwater *discharges* from future or additional areas of disturbance authorized, they must submit a new NOI that addresses that phase of the development, unless otherwise notified by the Department. The *owner or operator* shall not *commence construction activity* on the future or additional areas until their authorization to *discharge* under this permit goes into effect in accordance with Part II.C. of this permit.

D. General Requirements For Owners or Operators With Permit Coverage

1. The *owner or operator* shall ensure that the provisions of the SWPPP are implemented from the *commencement of construction activity* until all areas of disturbance have achieved *final stabilization* and the Notice of Termination ("NOT") has been submitted to the Department in accordance with Part V. of this permit. This includes any changes made to the SWPPP pursuant to Part III.A.4. of this permit.

2. The *owner or operator* shall maintain a copy of the General Permit (GP-0-20-001), NOI, *NOI Acknowledgment Letter*, SWPPP, MS4 SWPPP Acceptance form, inspection reports, responsible contractor's or subcontractor's certification statement (see Part III.A.6.), and all documentation necessary to demonstrate eligibility with this permit at the *construction site* until all disturbed areas have achieved *final stabilization* and the NOT has been submitted to the Department. The documents must be maintained in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection.

3. The *owner or operator* of a *construction activity* shall not disturb greater than five (5) acres of soil at any one time without prior written authorization from the Department or, in areas under the jurisdiction of a *regulated, traditional land*

use control MS4, the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*). At a minimum, the *owner or operator* must comply with the following requirements in order to be authorized to disturb greater than five (5) acres of soil at any one time:

a. The *owner or operator* shall have a *qualified inspector* conduct **at least** two (2) site inspections in accordance with Part IV.C. of this permit every seven (7) calendar days, for as long as greater than five (5) acres of soil remain disturbed. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

b. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016.

c. The *owner or operator* shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.

d. The *owner or operator* shall install any additional site-specific practices needed to protect water quality.

e. The *owner or operator* shall include the requirements above in their SWPPP.

4. In accordance with statute, regulations, and the terms and conditions of this permit, the Department may suspend or revoke an *owner's or operator's* coverage under this permit at any time if the Department determines that the SWPPP does not meet the permit requirements or consistent with Part VII.K..

5. Upon a finding of significant non-compliance with the practices described in the SWPPP or violation of this permit, the Department may order an immediate stop to all activity at the site until the non-compliance is remedied. The stop work order shall be in writing, describe the non-compliance in detail, and be sent to the *owner or operator*.

6. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*, the *owner or operator* shall notify the

regulated, traditional land use control MS4 in writing of any planned amendments or modifications to the post-construction stormwater management practice component of the SWPPP required by Part III.A. 4. and 5. of this permit. Unless otherwise notified by the *regulated, traditional land use control MS4*, the *owner or operator* shall have the SWPPP amendments or modifications reviewed and accepted by the *regulated, traditional land use control MS4* prior to commencing construction of the post-construction stormwater management practice.

E. Permit Coverage for Discharges Authorized Under GP-0-15-002

1. Upon renewal of SPDES General Permit for Stormwater Discharges from *Construction Activity* (Permit No. GP-0-15-002), an *owner or operator* of *a construction activity* with coverage under GP-0-15-002, as of the effective date of GP- 0-20-001, shall be authorized to *discharge* in accordance with GP- 0-20-001, unless otherwise notified by the Department.

   An *owner or operator* may continue to implement the technical/design components of the post-construction stormwater management controls provided that such design was done in conformance with the technical standards in place at the time of initial project authorization. However, they must comply with the other, non-design provisions of GP-0-20-001.

F. Change of Owner or Operator

1. When property ownership changes or when there is a change in operational control over the construction plans and specifications, the original *owner or operator* must notify the new *owner or operator*, in writing, of the requirement to obtain permit coverage by submitting a NOI with the Department. For *construction activities* subject to the requirements of a *regulated, traditional land use control MS4,* the original *owner or operator* must also notify the MS4, in writing, of the change in ownership at least 30 calendar days prior to the change in ownership.

2. Once the new *owner or operator* obtains permit coverage, the original *owner or operator* shall then submit a completed NOT with the name and permit identification number of the new *owner or operator* to the Department at the address in Part II.B.1. of this permit. If the original *owner or operator* maintains ownership of a portion of the *construction activity* and will disturb soil, they must maintain their coverage under the permit.

3. Permit coverage for the new *owner or operator* will be effective as of the date the Department receives a complete NOI, provided the original *owner or*

operator was not subject to a sixty (60) business day authorization period that has not expired as of the date the Department receives the NOI from the new *owner or operator*.

Part III. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

A. General SWPPP Requirements

1. A SWPPP shall be prepared and implemented by the *owner or operator* of each *construction activity* covered by this permit. The SWPPP must document the selection, design, installation, implementation and maintenance of the control measures and practices that will be used to meet the effluent limitations in Part I.B. of this permit and where applicable, the post-construction stormwater management practice requirements in Part I.C. of this permit. The SWPPP shall be prepared prior to the submittal of the NOI. The NOI shall be submitted to the Department prior to the *commencement of construction activity*. A copy of the completed, final NOI shall be included in the SWPPP.

2. The SWPPP shall describe the erosion and sediment control practices and where required, post-construction stormwater management practices that will be used and/or constructed to reduce the *pollutants* in stormwater *discharges* and to assure compliance with the terms and conditions of this permit. In addition, the SWPPP shall identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater *discharges*.

3. All SWPPPs that require the post-construction stormwater management practice component shall be prepared by a *qualified professional* that is knowledgeable in the principles and practices of stormwater management and treatment.

4. The *owner or operator* must keep the SWPPP current so that it at all times accurately documents the erosion and sediment controls practices that are being used or will be used during construction, and all post-construction stormwater management practices that will be constructed on the site. At a minimum, the *owner or operator* shall amend the SWPPP, including construction drawings:

    a. whenever the current provisions prove to be ineffective in minimizing *pollutants* in stormwater *discharges* from the site;

b. whenever there is a change in design, construction, or operation at the *construction site* that has or could have an effect on the *discharge* of *pollutants*;

c. to address issues or deficiencies identified during an inspection by the *qualified inspector,* the Department or other regulatory authority; and

d. to document the final construction conditions.

5. The Department may notify the *owner or operator* at any time that the SWPPP does not meet one or more of the minimum requirements of this permit. The notification shall be in writing and identify the provisions of the SWPPP that require modification. Within fourteen (14) calendar days of such notification, or as otherwise indicated by the Department, the *owner or operator* shall make the required changes to the SWPPP and submit written notification to the Department that the changes have been made. If the *owner or operator* does not respond to the Department's comments in the specified time frame, the Department may suspend the *owner's or operator's* coverage under this permit or require the *owner or operator* to obtain coverage under an individual SPDES permit in accordance with Part II.D.4. of this permit.

6. Prior to the *commencement of construction activity*, the *owner or operator* must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP. The *owner or operator* shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the *trained contractor.* The *owner or operator* shall ensure that at least one *trained contractor* is on site on a daily basis when soil disturbance activities are being performed.

   The *owner or operator* shall have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before they commence any *construction activity*:

   "I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with

the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater *discharge*s from *construction activities* and that it is unlawful for any person to cause or contribute to a violation of *water quality standards*. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations"

In addition to providing the certification statement above, the certification page must also identify the specific elements of the SWPPP that each contractor and subcontractor will be responsible for and include the name and title of the person providing the signature; the name and title of the *trained contractor* responsible for SWPPP implementation; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification statement is signed. The *owner or operator* shall attach the certification statement(s) to the copy of the SWPPP that is maintained at the *construction site*. If new or additional contractors are hired to implement measures identified in the SWPPP after construction has commenced, they must also sign the certification statement and provide the information listed above.

7. For projects where the Department requests a copy of the SWPPP or inspection reports, the *owner or operator* shall submit the documents in both electronic (PDF only) and paper format within five (5) business days, unless otherwise notified by the Department.

B. Required SWPPP Contents

1. Erosion and sediment control component - All SWPPPs prepared pursuant to this permit shall include erosion and sediment control practices designed in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Where erosion and sediment control practices are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must demonstrate *equivalence* to the technical standard. At a minimum, the erosion and sediment control component of the SWPPP shall include the following:

    a. Background information about the scope of the project, including the location, type and size of project

b. A site map/construction drawing(s) for the project, including a general location map. At a minimum, the site map shall 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); floodplain/floodway boundaries; wetlands and drainage patterns that could be affected by the *construction activity*; existing and final contours ; locations of different soil types with boundaries; material, waste, borrow or equipment storage areas located on adjacent properties; and location(s) of the stormwater *discharge*(s);

c. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG);

d. A construction phasing plan and sequence of operations describing the intended order 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;

e. A description of the minimum erosion and sediment control practices to be installed or implemented for each *construction activity* that will result in soil disturbance. Include a schedule that identifies the timing of initial placement or implementation of each erosion and sediment control practice and the minimum time frames that each practice should remain in place or be implemented;

f. A temporary and permanent soil stabilization plan that meets the requirements of this general permit and the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, for each stage of the project, including initial land clearing and grubbing to project completion and achievement of *final stabilization*;

g. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice;

h. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any temporary sediment basins and structural practices that will be used to divert flows from exposed soils;

i. A maintenance inspection schedule for the contractor(s) identified in Part III.A.6. of this permit, to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection

schedule shall be in accordance with the requirements in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016;

j. 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 stormwater *discharges*;

k. A description and location of any stormwater *discharges* associated with industrial activity other than construction at the site, including, but not limited to, stormwater *discharges* from asphalt plants and concrete plants located on the *construction site*; and

l. Identification of any elements of the design that are not in conformance with the design criteria in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

2. Post-construction stormwater management practice component – The *owner or operator* of any construction project identified in Table 2 of Appendix B as needing post-construction stormwater management practices shall prepare a SWPPP that includes practices designed in conformance with the applicable *sizing criteria* in Part I.C.2.a., c. or d. of this permit and the *performance criteria* in the technical standard, New York State Stormwater Management Design Manual dated January 2015

   Where post-construction stormwater management practices are not designed in conformance with the *performance criteria* in the technical standard, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

   The post-construction stormwater management practice component of the SWPPP shall include the following:

   a. Identification of all post-construction stormwater management practices to be constructed as part of the project. Include the dimensions, material specifications and installation details for each post-construction stormwater management practice;

b. A site map/construction drawing(s) showing the specific location and size of each post-construction stormwater management practice;

c. A Stormwater Modeling and Analysis Report that includes:
   (i) Map(s) showing pre-development conditions, including watershed/subcatchments boundaries, flow paths/routing, and design points;

   (ii) Map(s) showing post-development conditions, including watershed/subcatchments boundaries, flow paths/routing, design points and post-construction stormwater management practices;

   (iii) Results of stormwater modeling (i.e. hydrology and hydraulic analysis) for the required storm events. Include supporting calculations (model runs), methodology, and a summary table that compares pre and post-development runoff rates and volumes for the different storm events;

   (iv) Summary table, with supporting calculations, which demonstrates that each post-construction stormwater management practice has been designed in conformance with the *sizing criteria* included in the Design Manual;

   (v) Identification of any *sizing criteria* that is not required based on the requirements included in Part I.C. of this permit; and

   (vi) Identification of any elements of the design that are not in conformance with the *performance criteria* in the Design Manual. Include the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the Design Manual;

d. Soil testing results and locations (test pits, borings);

e. Infiltration test results, when required; and

f. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each post-construction stormwater management practice. The plan shall identify the entity that will be responsible for the long term operation and maintenance of each practice.

3. Enhanced Phosphorus Removal Standards - All construction projects identified in Table 2 of Appendix B that are located in the watersheds identified in Appendix C shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the applicable *sizing criteria* in Part I.C.2. b., c. or d. of this permit and the *performance criteria,* Enhanced Phosphorus Removal Standards included in the Design Manual. At a minimum, the post-construction stormwater management practice component of the SWPPP shall include items 2.a - 2.f. above.

C. Required SWPPP Components by Project Type

Unless otherwise notified by the Department, *owners or operators* of *construction activities* identified in Table 1 of Appendix B are required to prepare a SWPPP that only includes erosion and sediment control practices designed in conformance with Part III.B.1 of this permit. *Owners or operators* of the *construction activities* identified in Table 2 of Appendix B shall prepare a SWPPP that also includes post-construction stormwater management practices designed in conformance with Part III.B.2 or 3 of this permit.

Part IV. INSPECTION AND MAINTENANCE REQUIREMENTS

A. General Construction Site Inspection and Maintenance Requirements

1. The *owner or operator* must ensure that all erosion and sediment control practices (including pollution prevention measures) and all post-construction stormwater management practices identified in the SWPPP are inspected and maintained in accordance with Part IV.B. and C. of this permit.

2. The terms of this permit shall not be construed to prohibit the State of New York from exercising any authority pursuant to the ECL, common law or federal law, or prohibit New York State from taking any measures, whether civil or criminal, to prevent violations of the laws of the State of New York or protect the public health and safety and/or the environment.

B. Contractor Maintenance Inspection Requirements

1. The *owner or operator* of each *construction activity* identified in Tables 1 and 2 of Appendix B shall have a *trained contractor* inspect the erosion and sediment control practices and pollution prevention measures being implemented within the active work area daily to ensure that they are being maintained in effective operating condition at all times. If deficiencies are identified, the contractor shall

begin implementing corrective actions within one business day and shall complete the corrective actions in a reasonable time frame.

2. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *trained contractor* can stop conducting the maintenance inspections. The *trained contractor* shall begin conducting the maintenance inspections in accordance with Part IV.B.1. of this permit as soon as soil disturbance activities resume.

3. For construction sites where soil disturbance activities have been shut down with partial project completion, the *trained contractor* can stop conducting the maintenance inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational.

C. Qualified Inspector Inspection Requirements

The *owner or operator* shall have a *qualified inspector* conduct site inspections in conformance with the following requirements:

[Note: The *trained contractor* identified in Part III.A.6. and IV.B. of this permit **cannot** conduct the *qualified inspector* site inspections unless they meet the *qualified inspector* qualifications included in Appendix A. In order to perform these inspections, the *trained contractor* would have to be a:

- licensed Professional Engineer,
- Certified Professional in Erosion and Sediment Control (CPESC),
- New York State Erosion and Sediment Control Certificate Program holder
- Registered Landscape Architect, or
- someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity].

1. A *qualified inspector* shall conduct site inspections for all *construction activities* identified in Tables 1 and 2 of Appendix B, with the exception of:

   a. the construction of a single family residential subdivision with 25% or less *impervious cover* at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located

in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;

b. the construction of a single family home that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;

c. construction on agricultural property that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres; and

d. *construction activities* located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

2. Unless otherwise notified by the Department, the *qualified inspector* shall conduct site inspections in accordance with the following timetable:

a. For construction sites where soil disturbance activities are on-going, the *qualified inspector* shall conduct a site inspection at least once every seven (7) calendar days.

b. For construction sites where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part II.D.3 to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

c. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *qualified inspector* shall conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4,* the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to reducing the frequency of inspections.

d. For construction sites where soil disturbance activities have been shut down with partial project completion, the *qualified inspector* can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4,* the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to the shutdown. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the *owner or operator* shall have the *qualified inspector* perform a final inspection and certify that all disturbed areas have achieved *final stabilization,* and all temporary, structural erosion and sediment control measures have been removed*;* and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP by signing the "*Final Stabilization*" and "Post-Construction Stormwater Management Practice" certification statements on the NOT. The *owner or operator* shall then submit the completed NOT form to the address in Part II.B.1 of this permit.

e. For construction sites that directly *discharge* to one of the 303(d) segments listed in Appendix E or is located in one of the watersheds listed in Appendix C, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

3. At a minimum, the *qualified inspector* shall inspect all erosion and sediment control practices and pollution prevention measures to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved *final stabilization,* all points of *discharge* to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site*, and all points of *discharge* from the *construction site*.

4. The *qualified inspector* shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the following:

a. Date and time of inspection;

b. Name and title of person(s) performing inspection;

c. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;

d. A description of the condition of the runoff at all points of *discharge* from the *construction site*. This shall include identification of any *discharges* of sediment from the *construction site*. Include *discharges* from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;

e. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site* which receive runoff from disturbed areas. This shall include identification of any *discharges* of sediment to the surface waterbody;

f. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance;

g. Identification of all erosion and sediment control practices and pollution prevention measures that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;

h. Description and sketch of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection;

i. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;

j. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices and pollution prevention measures; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s);

k. Identification and status of all corrective actions that were required by previous inspection; and

l. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.

5. Within one business day of the completion of an inspection, the *qualified inspector* shall notify the *owner or operator* and appropriate contractor or subcontractor identified in Part III.A.6. of this permit of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.

6. All inspection reports shall be signed by the *qualified inspector.* Pursuant to Part II.D.2. of this permit, the inspection reports shall be maintained on site with the SWPPP.

Part V. TERMINATION OF PERMIT COVERAGE

A. Termination of Permit Coverage

1. An *owner or operator* that is eligible to terminate coverage under this permit must submit a completed NOT form to the address in Part II.B.1 of this permit. The NOT form shall be one which is associated with this permit, signed in accordance with Part VII.H of this permit.

2. An *owner or operator* may terminate coverage when one or more the following conditions have been met:

   a. Total project completion - All *construction activity* identified in the SWPPP has been completed; and all areas of disturbance have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices have been constructed in conformance with the SWPPP and are operational;

b. Planned shutdown with partial project completion - All soil disturbance activities have ceased; and all areas disturbed as of the project shutdown date have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational;

c. A new *owner or operator* has obtained coverage under this permit in accordance with Part II.F. of this permit.

d. The *owner or operator* obtains coverage under an alternative SPDES general permit or an individual SPDES permit.

3. For *construction activities* meeting subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *qualified inspector* perform a final site inspection prior to submitting the NOT. The *qualified inspector* shall, by signing the "*Final Stabilization*" and "Post-Construction Stormwater Management Practice certification statements on the NOT, certify that all the requirements in Part V.A.2.a. or b. of this permit have been achieved.

4. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4* and meet subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *regulated, traditional land use control MS4* sign the "MS4 Acceptance" statement on the NOT in accordance with the requirements in Part VII.H. of this permit. The *regulated, traditional land use control MS4* official, by signing this statement, has determined that it is acceptable for the *owner or operator* to submit the NOT in accordance with the requirements of this Part. The *regulated, traditional land use control MS4* can make this determination by performing a final site inspection themselves or by accepting the *qualified inspector*'s final site inspection certification(s) required in Part V.A.3. of this permit.

5. For *construction activities* that require post-construction stormwater management practices and meet subdivision 2a. of this Part, the *owner or operator* must, prior to submitting the NOT, ensure one of the following:

   a. the post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain such practice(s) have been deeded to the municipality in which the practice(s) is located,

b. an executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s),

c. for post-construction stormwater management practices that are privately owned, the *owner or operator* has a mechanism in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the *owner or operator's* deed of record,

d. for post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university, hospital), government agency or authority, or public utility; the *owner or operator* has policy and procedures in place that ensures operation and maintenance of the practices in accordance with the operation and maintenance plan.

Part VI. REPORTING AND RETENTION RECORDS

A. Record Retention

The *owner or operator* shall retain a copy of the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form and any inspection reports that were prepared in conjunction with this permit for a period of at least five (5) years from the date that the Department receives a complete NOT submitted in accordance with Part V. of this general permit.

B. Addresses

With the exception of the NOI, NOT, and MS4 SWPPP Acceptance form (which must be submitted to the address referenced in Part II.B.1 of this permit), all written correspondence requested by the Department, including individual permit applications, shall be sent to the address of the appropriate DOW Water (SPDES) Program contact at the Regional Office listed in Appendix F.

Part VII. STANDARD PERMIT CONDITIONS

A. Duty to Comply

The *owner or 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 non-compliance with this permit constitutes a violation of the Clean Water

Act (CWA) and the ECL and is grounds for an enforcement action against the *owner or operator* and/or the contractor/subcontractor; permit revocation, suspension 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 *owner or operator*.

If any human remains or archaeological remains are encountered during excavation, the *owner or operator* must immediately cease, or cause to cease, all *construction activity* in the area of the remains and notify the appropriate Regional Water Engineer (RWE). *Construction activity* shall not resume until written permission to do so has been received from the RWE.

B. Continuation of the Expired General Permit

This permit expires five (5) years from the effective date. If a new general permit is not issued prior to the expiration of this general permit, an *owner or operator* with coverage under this permit may continue to operate and *discharge* in accordance with the terms and conditions of this general permit, if it is extended pursuant to the State Administrative Procedure Act and 6 NYCRR Part 621, until a new general permit is issued.

C. Enforcement

Failure of the *owner or operator,* its contractors, subcontractors, agents and/or assigns to strictly adhere to any of the permit requirements contained herein shall constitute a violation of this permit. There are substantial criminal, civil, and administrative penalties associated with violating the provisions of this permit. Fines of up to $37,500 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 an *owner or operator* 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 *owner or operator* 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 *owner or operator* shall furnish to the Department, within a reasonable specified time period of a written request, all documentation necessary to demonstrate eligibility and any information to determine compliance with this permit or to determine whether cause exists for modifying or revoking this permit, or suspending or denying coverage under this permit, in accordance with the terms and conditions of this permit. The NOI, SWPPP and inspection reports required by this permit are public documents that the *owner or operator* must make available for review and copying by any person within five (5) business days of the *owner or operator* receiving a written request by any such person to review these documents. Copying of documents will be done at the requester's expense.

G. Other Information

When the *owner or operator* becomes aware that they failed to submit any relevant facts, or submitted incorrect information in the NOI or in any of the documents required by this permit , or have made substantive revisions to the SWPPP (e.g. the scope of the project changes significantly, the type of post-construction stormwater management practice(s) changes, there is a reduction in the sizing of the post-construction stormwater management practice, or there is an increase in the disturbance area or *impervious area*), which were not reflected in the original NOI submitted to the Department, they shall promptly submit such facts or information to the Department using the contact information in Part II.A. of this permit. Failure of the *owner or operator* to correct or supplement any relevant facts within five (5) business days of becoming aware of the deficiency shall constitute a violation of this permit.

H. Signatory Requirements

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

    a. For a corporation these forms shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

(i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or

(ii) the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

b. For a partnership or sole proprietorship these forms shall be signed by a general partner or the proprietor, respectively; or

c. For a municipality, State, Federal, or other public agency these forms shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

(i) the chief executive officer of the agency, or

(ii) 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 other information requested by the Department shall be signed by a person described in Part VII.H.1. of this permit 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 in Part VII.H.1. of this permit;

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 plant manager, operator of a well or a well field,

superintendent, 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) and,

c. The written authorization shall include the name, title and signature of the authorized representative and be attached to the SWPPP.

3. All inspection reports shall be signed by the *qualified inspector* that performs the inspection.

4. The MS4 SWPPP Acceptance form shall be signed by the principal executive officer or ranking elected official from the *regulated, traditional land use control MS4,* or by a duly authorized representative of that person.

   It shall constitute a permit violation if an incorrect and/or improper signatory authorizes any required forms, SWPPP and/or inspection reports.

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. *Owners or operators* must obtain any applicable conveyances, easements, licenses and/or access to real property prior to *commencing construction activity*.

J. Severability

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

K. Requirement to Obtain Coverage Under an Alternative Permit

1. The Department may require any owner or operator authorized by this permit to apply for and/or obtain either an individual SPDES permit or another SPDES general permit. When the Department requires any discharger authorized by a general permit to apply for an individual SPDES permit, it shall notify the discharger in writing that a permit application is required. This notice shall

include a brief statement of the reasons for this decision, an application form, a statement setting a time frame for the owner or operator to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from owner or operator receipt of the notification letter, whereby the authorization to discharge under this general permit shall be terminated. Applications must be submitted to the appropriate Permit Administrator at the Regional Office. The Department may grant additional time upon demonstration, to the satisfaction of the Department, that additional time to apply for an alternative authorization is necessary or where the Department has not provided a permit determination in accordance with Part 621 of this Title.

2. When an individual SPDES permit is issued to a discharger authorized to *discharge* under a general SPDES permit for the same *discharge*(s), the general permit authorization for outfalls authorized under the individual SPDES permit is automatically terminated on the effective date of the individual permit unless termination is earlier in accordance with 6 NYCRR Part 750.

L. Proper Operation and Maintenance

The *owner or operator* 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 *owner or operator* to achieve compliance with the conditions of this permit and with the requirements of the SWPPP.

M. Inspection and Entry

The *owner or operator* shall allow an authorized representative of the Department, EPA, applicable county health department, 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 owner’s or operator'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), practices or operations regulated or required by this permit.

4. Sample or monitor at reasonable times, for purposes of assuring permit compliance or as otherwise authorized by the Act or ECL, any substances or parameters at any location.

N. Permit Actions

This permit may, at any time, be modified, suspended, revoked, or renewed by the Department in accordance with 6 NYCRR Part 621. The filing of a request by the *owner or operator* for a permit modification, revocation and reissuance, termination, a notification of planned changes or anticipated noncompliance does not limit, diminish and/or stay compliance with any terms of this permit.

O. Definitions

Definitions of key terms are included in Appendix A of this permit.

P. Re-Opener Clause

1. If there is evidence indicating potential or realized impacts on water quality due to any stormwater discharge associated with construction activity covered by this permit, the owner or operator of such discharge may be required to obtain an individual permit or alternative general permit in accordance with Part VII.K. of this permit or the permit may be modified to include different limitations and/or requirements.

2. Any Department initiated permit modification, suspension or revocation will be conducted in accordance with 6 NYCRR Part 621, 6 NYCRR 750-1.18, and 6 NYCRR 750-1.20.

Q. Penalties for Falsification of Forms and Reports

In accordance with 6NYCRR Part 750-2.4 and 750-2.5, any person who knowingly makes any false material statement, representation, or certification in any application, record, report or other document filed or required to be maintained under this permit, including reports of compliance or noncompliance shall, upon conviction, be punished in accordance with ECL §71-1933 and or Articles 175 and 210 of the New York State Penal Law.

R. Other Permits

Nothing in this permit relieves the *owner or operator* from a requirement to obtain any other permits required by law.

APPENDIX A – Acronyms and Definitions

Acronyms

APO – Agency Preservation Officer
BMP – Best Management Practice
CPESC – Certified Professional in Erosion and Sediment Control
Cpv – Channel Protection Volume
CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq)
DOW – Division of Water
EAF – Environmental Assessment Form
ECL - Environmental Conservation Law
EPA – U. S. Environmental Protection Agency
HSG – Hydrologic Soil Group
MS4 – Municipal Separate Storm Sewer System
NOI – Notice of Intent
NOT – Notice of Termination
NPDES – National Pollutant Discharge Elimination System
OPRHP – Office of Parks, Recreation and Historic Places
Qf – Extreme Flood
Qp – Overbank Flood
RRv – Runoff Reduction Volume
RWE – Regional Water Engineer
SEQR – State Environmental Quality Review
SEQRA - State Environmental Quality Review Act
SHPA – State Historic Preservation Act
SPDES – State Pollutant Discharge Elimination System
SWPPP – Stormwater Pollution Prevention Plan
TMDL – Total Maximum Daily Load
UPA – Uniform Procedures Act
USDA – United States Department of Agriculture
WQv – Water Quality Volume

Definitions

All definitions in this section are solely for the purposes of this permit.

Agricultural Building – a structure designed and constructed to house farm implements, hay, grain, poultry, livestock or other horticultural products; excluding any structure designed, constructed or used, in whole or in part, for human habitation, as a place of employment where agricultural products are processed, treated or packaged, or as a place used by the public.

Agricultural Property –means the land for construction of a barn, *agricultural building*, silo, stockyard, pen or other structural practices identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State" prepared by the Department in cooperation with agencies of New York Nonpoint Source Coordinating Committee (dated June 2007).

Alter Hydrology from Pre to Post-Development Conditions - means the post-development peak flow rate(s) has increased by more than 5% of the pre-developed condition for the design storm of interest (e.g. 10 yr and 100 yr).

Combined Sewer - means a sewer that is designed to collect and convey both "sewage" and "stormwater".

Commence (Commencement of) Construction Activities - means the initial disturbance of soils associated with clearing, grading or excavation activities; or other construction related activities that disturb or expose soils such as demolition, stockpiling of fill material, and the initial installation of erosion and sediment control practices required in the SWPPP. See definition for "*Construction Activity(ies)*" also.

Construction Activity(ies) - means any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

Construction Site – means the land area where *construction activity(ies)* will occur. See definition for "*Commence (Commencement of) Construction Activities"* and "*Larger Common Plan of Development or Sale" also.*

Dewatering – means the act of draining rainwater and/or groundwater from building foundations, vaults or excavations/trenches.

Direct Discharge (to a specific surface waterbody) - means that runoff flows from a *construction site* by overland flow and the first point of discharge is the specific surface waterbody, or runoff flows from a *construction site* to a separate storm sewer system

and the first point of discharge from the separate storm sewer system is the specific surface waterbody.

Discharge(s) - means any addition of any pollutant to waters of the State through an outlet or *point source*.

Embankment –means an earthen or rock slope that supports a road/highway.

Endangered or Threatened Species – see 6 NYCRR Part 182 of the Department's rules and regulations for definition of terms and requirements.

Environmental Conservation Law (ECL) - means chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law.

Equivalent (Equivalence) – means that the practice or measure meets all the performance, longevity, maintenance, and safety objectives of the technical standard and will provide an equal or greater degree of water quality protection.

Final Stabilization - means that all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other equivalent stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

General SPDES permit - means a SPDES permit issued pursuant to 6 NYCRR Part 750-1.21 and Section 70-0117 of the ECL authorizing a category of discharges.

Groundwater(s) - means waters in the saturated zone. The saturated zone is a subsurface zone in which all the interstices are filled with water under pressure greater than that of the atmosphere. Although the zone may contain gas-filled interstices or interstices filled with fluids other than water, it is still considered saturated.

Historic Property – means any building, structure, site, object or district that is listed on the State or National Registers of Historic Places or is determined to be eligible for listing on the State or National Registers of Historic Places.

Impervious Area (Cover) - means all impermeable surfaces that cannot effectively infiltrate rainfall. This includes paved, concrete and gravel surfaces (i.e. parking lots, driveways, roads, runways and sidewalks); building rooftops and miscellaneous impermeable structures such as patios, pools, and sheds.

Infeasible – means not technologically possible, or not economically practicable and achievable in light of best industry practices.

Larger Common Plan of Development or Sale - means a contiguous area where multiple separate and distinct *construction activities* are occurring, or will occur, under one plan. The term “plan” in “larger common plan of development or sale” is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, marketing plan, advertisement, drawing, permit application, State Environmental Quality Review Act (SEQRA) environmental assessment form or other documents, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating that *construction activities* may occur on a specific plot.

For discrete construction projects that are located within a larger common plan of development or sale that are at least 1/4 mile apart, each project can be treated as a separate plan of development or sale provided any interconnecting road, pipeline or utility project that is part of the same “common plan” is not concurrently being disturbed.

Minimize – means reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices.

Municipal Separate Storm Sewer (MS4) - a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

(i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to surface waters of the State*;*
(ii) Designed or used for collecting or conveying stormwater;
(iii) Which is not a *combined sewer*; and
(iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

National Pollutant Discharge Elimination System (NPDES) - means the national system for the issuance of wastewater and stormwater permits under the Federal Water Pollution Control Act (Clean Water Act).

Natural Buffer –means an undisturbed area with natural cover running along a surface water (e.g. wetland, stream, river, lake, etc.).

New Development – means any land disturbance that does not meet the definition of Redevelopment Activity included in this appendix.

New York State Erosion and Sediment Control Certificate Program – a certificate program that establishes and maintains a process to identify and recognize individuals who are capable of developing, designing, inspecting and maintaining erosion and sediment control plans on projects that disturb soils in New York State. The certificate program is administered by the New York State Conservation District Employees Association.

NOI Acknowledgment Letter - means the letter that the Department sends to an owner or operator to acknowledge the Department's receipt and acceptance of a complete Notice of Intent. This letter documents the owner's or operator's authorization to discharge in accordance with the general permit for stormwater discharges from *construction activity*.

Nonpoint Source - means any source of water pollution or pollutants which is not a discrete conveyance or *point source* permitted pursuant to Title 7 or 8 of Article 17 of the Environmental Conservation Law (see ECL Section 17-1403).

Overbank –means flow events that exceed the capacity of the stream channel and spill out into the adjacent floodplain.

Owner or Operator - means the person, persons or legal entity which owns or leases the property on which the *construction activity* is occurring; an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications; and/or an entity that has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit conditions.

Performance Criteria – means the design criteria listed under the "Required Elements" sections in Chapters 5, 6 and 10 of the technical standard, New York State Stormwater Management Design Manual, dated January 2015. It does not include the Sizing Criteria (i.e. WQv, RRv, Cpv, Qp and Qf) in Part I.C.2. of the permit.

Point Source - means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or other floating craft, or landfill leachate collection system from which *pollutants* are or may be discharged.

Pollutant - means dredged spoil, filter backwash, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, agricultural waste and ballast discharged into water; which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards or guidance values adopted as provided in 6 NYCRR Parts 700 et seq .

Qualified Inspector - means a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder or other Department endorsed individual(s).

It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Note: Inspections of any post-construction stormwater management practices that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

Qualified Professional - means a person that is knowledgeable in the principles and practices of stormwater management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other Department endorsed individual(s). Individuals preparing SWPPPs that require the post-construction stormwater management practice component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics. All components of the SWPPP that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

Redevelopment Activity(ies) – means the disturbance and reconstruction of existing impervious area, including impervious areas that were removed from a project site within five (5) years of preliminary project plan submission to the local government (i.e. site plan, subdivision, etc.).

Regulated, Traditional Land Use Control MS4 - means a city, town or village with land use control authority that is authorized to discharge under New York State DEC's

SPDES General Permit For Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s) or the City of New York's Individual SPDES Permit for their Municipal Separate Storm Sewer Systems (NY-0287890).

Routine Maintenance Activity - means *construction activity* that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, including, but not limited to:

- Re-grading of gravel roads or parking lots,
- Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and hydraulic capacity of the ditch,
- Cleaning and shaping of existing roadside ditches that does not maintain the approximate original grade, hydraulic capacity and purpose of the ditch if the changes to the line and grade, hydraulic capacity or purpose of the ditch are installed to improve water quality and quantity controls (e.g. installing grass lined ditch),
- Placement of aggregate shoulder backing that stabilizes the transition between the road shoulder and the ditch or *embankment*,
- Full depth milling and filling of existing asphalt pavements, replacement of concrete pavement slabs, and similar work that does not expose soil or disturb the bottom six (6) inches of subbase material,
- Long-term use of equipment storage areas at or near highway maintenance facilities,
- Removal of sediment from the edge of the highway to restore a previously existing sheet-flow drainage connection from the highway surface to the highway ditch or *embankment*,
- Existing use of Canal Corp owned upland disposal sites for the canal, and
- Replacement of curbs, gutters, sidewalks and guide rail posts.

Site limitations – means site conditions that prevent the use of an infiltration technique and or infiltration of the total WQv. Typical site limitations include: seasonal high groundwater, shallow depth to bedrock, and soils with an infiltration rate less than 0.5 inches/hour. The existence of site limitations shall be confirmed and documented using actual field testing (i.e. test pits, soil borings, and infiltration test) or using information from the most current United States Department of Agriculture (USDA) Soil Survey for the County where the project is located.

Sizing Criteria – means the criteria included in Part I.C.2 of the permit that are used to size post-construction stormwater management control practices. The criteria include; Water Quality Volume (WQv), Runoff Reduction Volume (RRv), Channel Protection Volume (Cpv), *Overbank* Flood (Qp), and Extreme Flood (Qf).

State Pollutant Discharge Elimination System (SPDES) - means the system established pursuant to Article 17 of the ECL and 6 NYCRR Part 750 for issuance of permits authorizing discharges to the waters of the state.

Steep Slope – means land area designated on the current United States Department of Agriculture ("USDA") Soil Survey as Soil Slope Phase "D", (provided the map unit name is inclusive of slopes greater than 25%) , or Soil Slope Phase E or F, (regardless of the map unit name), or a combination of the three designations.

Streambank – as used in this permit, means the terrain alongside the bed of a creek or stream. The bank consists of the sides of the channel, between which the flow is confined.

Stormwater Pollution Prevention Plan (SWPPP) – means a project specific report, including construction drawings, that among other things: describes the construction activity(ies), identifies the potential sources of pollution at the *construction site*; describes and shows the stormwater controls that will be used to control the pollutants (i.e. erosion and sediment controls; for many projects, includes post-construction stormwater management controls); and identifies procedures the *owner or operator* will implement to comply with the terms and conditions of the permit. See Part III of the permit for a complete description of the information that must be included in the SWPPP.

Surface Waters of the State - shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface waters), which are wholly or partially within or bordering the state or within its jurisdiction. Waters of the state are further defined in 6 NYCRR Parts 800 to 941.

Temporarily Ceased – means that an existing disturbed area will not be disturbed again within 14 calendar days of the previous soil disturbance.

Temporary Stabilization - means that exposed soil has been covered with material(s) as set forth in the technical standard, New York Standards and Specifications for Erosion and Sediment Control, to prevent the exposed soil from eroding. The materials can include, but are not limited to, mulch, seed and mulch, and erosion control mats (e.g. jute twisted yarn, excelsior wood fiber mats).

Total Maximum Daily Loads (TMDLs) - A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and *nonpoint source*s. It is a calculation of the maximum amount of a pollutant that a waterbody can receive on a daily basis and still meet *water quality standards*, and an allocation of that amount to the pollutant's sources. A TMDL stipulates wasteload allocations (WLAs) for *point source* discharges, load allocations (LAs) for *nonpoint source*s, and a margin of safety (MOS).

Trained Contractor - means an employee from the contracting (construction) company, identified in Part III.A.6., that has received four (4) hours of Department endorsed

training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the *trained contractor* shall receive four (4) hours of training every three (3) years.

It can also mean an employee from the contracting (construction) company, identified in Part III.A.6., that meets the *qualified inspector* qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity).

The *trained contractor* is responsible for the day to day implementation of the SWPPP.

Uniform Procedures Act (UPA) Permit - means a permit required under 6 NYCRR Part 621 of the Environmental Conservation Law (ECL), Article 70.

Water Quality Standard - means such measures of purity or quality for any waters in relation to their reasonable and necessary use as promulgated in 6 NYCRR Part 700 et seq.

APPENDIX B – Required SWPPP Components by Project Type

Table 1
Construction Activities that Require the Preparation of a SWPPP That Only Includes Erosion and Sediment Controls

The following construction activities that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres:

- Single family home not located in one of the watersheds listed in Appendix C or not *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions with 25% or less impervious cover at total site build-out and not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E
- Construction of a barn or other *agricultural building*, silo, stock yard or pen.

The following construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land:

All construction activities located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Installation of underground, linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains
- Environmental enhancement projects, such as wetland mitigation projects, stormwater retrofits and stream restoration projects
- Pond construction
- Linear bike paths running through areas with vegetative cover, including bike paths surfaced with an impervious cover
- Cross-country ski trails and walking/hiking trails
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are not part of residential, commercial or institutional development;
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that include incidental shoulder or curb work along an existing highway to support construction of the sidewalk, bike path or walking path.
- Slope stabilization projects
- Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics

Table 1 (Continued) CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Spoil areas that will be covered with vegetation
- Vegetated open space projects (i.e. recreational parks, lawns, meadows, fields, downhill ski trails) excluding projects that *alter hydrology from pre to post development* conditions,
- Athletic fields (natural grass) that do not include the construction or reconstruction of *impervious area* and do not *alter hydrology from pre to post development* conditions
- Demolition project where vegetation will be established, and no redevelopment is planned
- Overhead electric transmission line project that does not include the construction of permanent access roads or parking areas surfaced with *impervious cover*
- Structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State", excluding projects that involve soil disturbances of greater than five acres and construction activities that include the construction or reconstruction of impervious area
- Temporary access roads, median crossovers, detour roads, lanes, or other temporary impervious areas that will be restored to pre-construction conditions once the construction activity is complete

Table 2

CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Single family home located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family home that disturbs five (5) or more acres of land
- Single family residential subdivisions located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions that involve soil disturbances of between one (1) and five (5) acres of land with greater than 25% impervious cover at total site build-out
- Single family residential subdivisions that involve soil disturbances of five (5) or more acres of land, and single family residential subdivisions that involve soil disturbances of less than five (5) acres that are part of a larger common plan of development or sale that will ultimately disturb five or more acres of land
- Multi-family residential developments; includes duplexes, townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- Airports
- Amusement parks
- Breweries, cideries, and wineries, including establishments constructed on agricultural land
- Campgrounds
- Cemeteries that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Commercial developments
- Churches and other places of worship
- Construction of a barn or other *agricultural building* (e.g. silo) and structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State" that include the construction or reconstruction of *impervious area*, excluding projects that involve soil disturbances of less than five acres.
- Golf courses
- Institutional development; includes hospitals, prisons, schools and colleges
- Industrial facilities; includes industrial parks
- Landfills
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTW's, water treatment plants, and water storage tanks
- Office complexes
- Playgrounds that include the construction or reconstruction of impervious area
- Sports complexes
- Racetracks; includes racetracks with earthen (dirt) surface
- Road construction or reconstruction, including roads constructed as part of the construction activities listed in Table 1

Table 2 (Continued)

CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Parking lot construction or reconstruction, including parking lots constructed as part of the construction activities listed in Table 1
- Athletic fields (natural grass) that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Athletic fields with artificial turf
- Permanent access roads, parking areas, substations, compressor stations and well drilling pads, surfaced with *impervious cover,* and constructed as part of an over-head electric transmission line project, wind-power project, cell tower project, oil or gas well drilling project, sewer or water main project or other linear utility project
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a residential, commercial or institutional development
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a highway construction or reconstruction project
- All other construction activities that include the construction or reconstruction of *impervious area* or *alter the hydrology from pre to post development* conditions, and are not listed in Table 1

APPENDIX C – Watersheds Requiring Enhanced Phosphorus Removal

Watersheds where *owners or operators* of construction activities identified in Table 2 of Appendix B must prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the technical standard, New York State Stormwater Management Design Manual ("Design Manual").

- Entire New York City Watershed located east of the Hudson River **-** Figure 1
- Onondaga Lake Watershed **-** Figure 2
- Greenwood Lake Watershed **-**Figure 3
- Oscawana Lake Watershed – Figure 4
- Kinderhook Lake Watershed – Figure 5

Figure 1 - New York City Watershed East of the Hudson

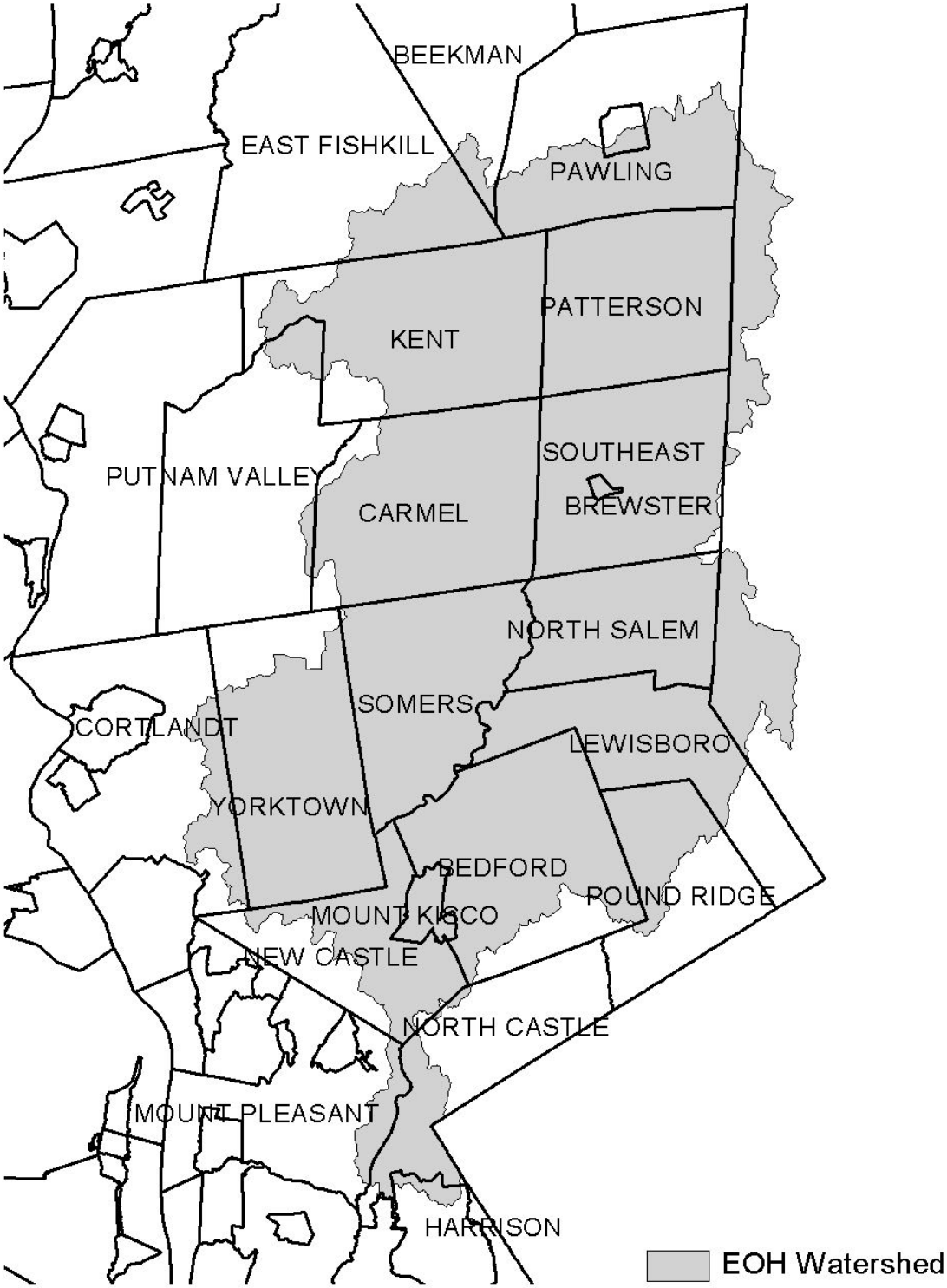


Figure 2 - Onondaga Lake Watershed

Figure 3 - Greenwood Lake Watershed

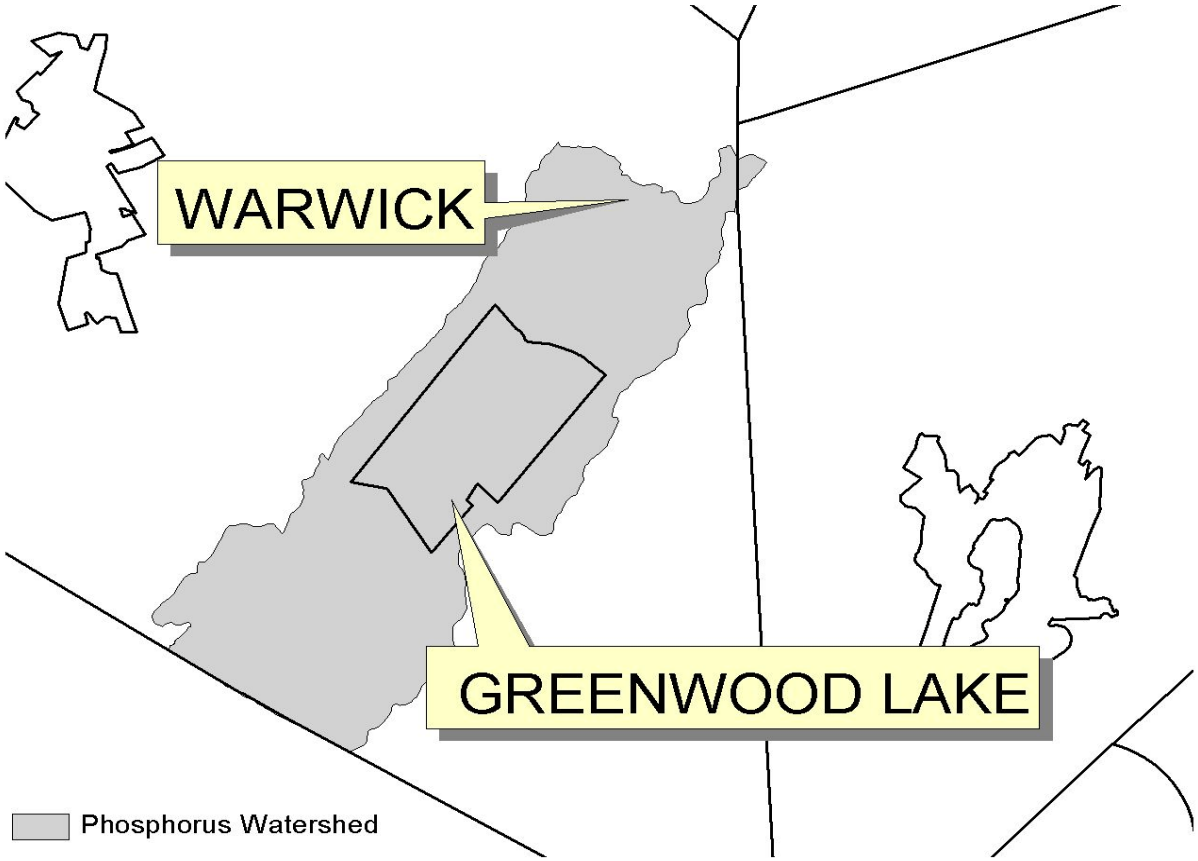


Figure 4 - Oscawana Lake Watershed

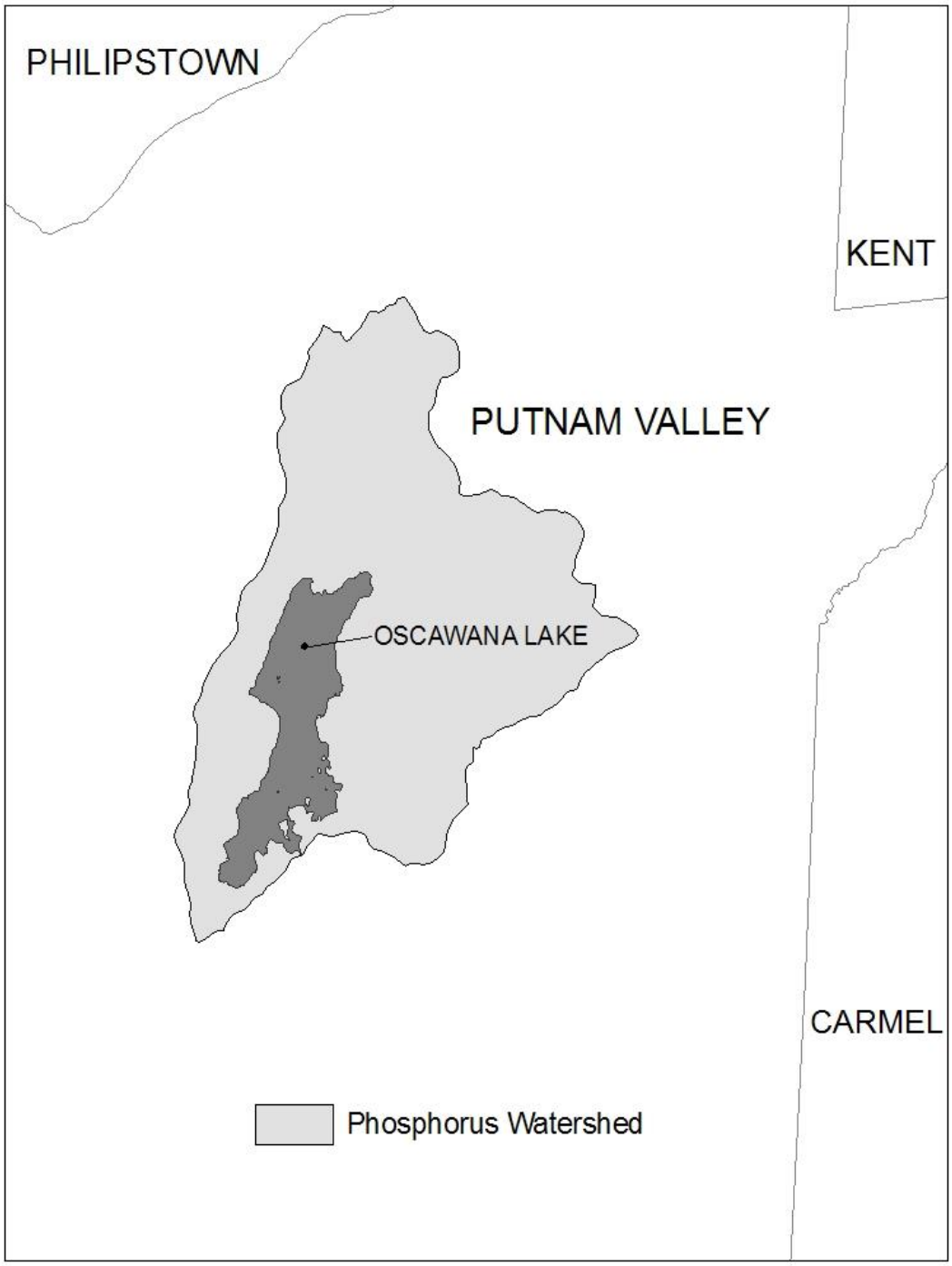
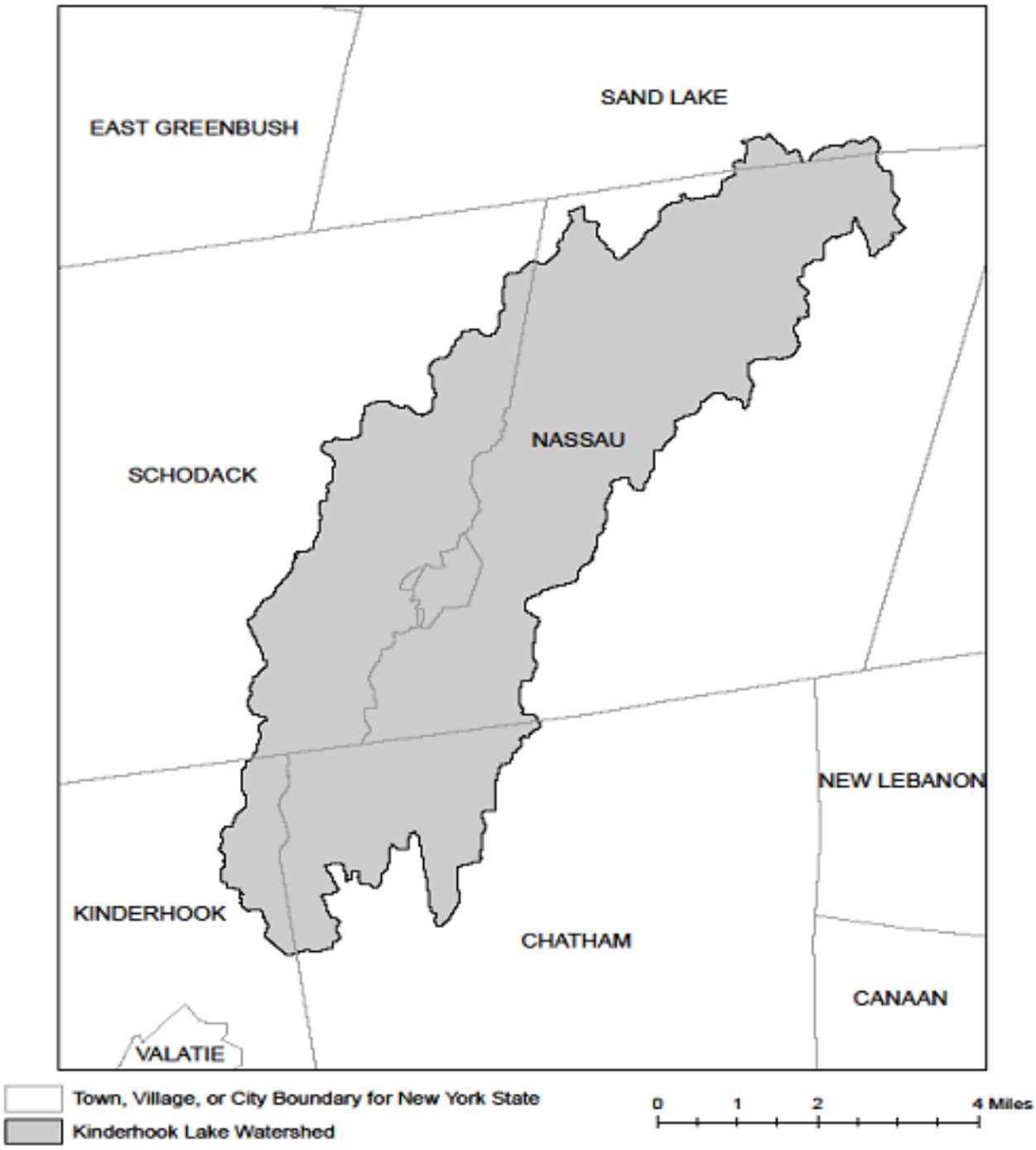


Figure 5 - Kinderhook Lake Watershed



APPENDIX D – Watersheds with Lower Disturbance Threshold

Watersheds where *owners or operators* of construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land must obtain coverage under this permit.

Entire New York City Watershed that is located east of the Hudson River **-** See Figure 1 in Appendix C

APPENDIX E – 303(d) Segments Impaired by Construction Related Pollutant(s)

List of 303(d) segments impaired by pollutants related to *construction activity* (e.g. silt, sediment or nutrients). The list was developed using "The Final New York State 2016 Section 303(d) List of Impaired Waters Requiring a TMDL/Other Strategy" dated November 2016. *Owners or operators* of single family home and single family residential subdivisions with 25% or less total impervious cover at total site build-out that involve soil disturbances of one or more acres of land, but less than 5 acres, and *directly discharge* to one of the listed segments below shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the New York State Stormwater Management Design Manual ("Design Manual"), dated January 2015.

COUNTY	WATERBODY	POLLUTANT
Albany	Ann Lee (Shakers) Pond, Stump Pond	Nutrients
Albany	Basic Creek Reservoir	Nutrients
Allegany	Amity Lake, Saunders Pond	Nutrients
Bronx	Long Island Sound, Bronx	Nutrients
Bronx	Van Cortlandt Lake	Nutrients
Broome	Fly Pond, Deer Lake, Sky Lake	Nutrients
Broome	Minor Tribs to Lower Susquehanna (north)	Nutrients
Broome	Whitney Point Lake/Reservoir	Nutrients
Cattaraugus	Allegheny River/Reservoir	Nutrients
Cattaraugus	Beaver (Alma) Lake	Nutrients
Cattaraugus	Case Lake	Nutrients
Cattaraugus	Linlyco/Club Pond	Nutrients
Cayuga	Duck Lake	Nutrients
Cayuga	Little Sodus Bay	Nutrients
Chautauqua	Bear Lake	Nutrients
Chautauqua	Chadakoin River and tribs	Nutrients
Chautauqua	Chautauqua Lake, North	Nutrients
Chautauqua	Chautauqua Lake, South	Nutrients
Chautauqua	Findley Lake	Nutrients
Chautauqua	Hulburt/Clymer Pond	Nutrients
Clinton	Great Chazy River, Lower, Main Stem	Silt/Sediment
Clinton	Lake Champlain, Main Lake, Middle	Nutrients
Clinton	Lake Champlain, Main Lake, North	Nutrients
Columbia	Kinderhook Lake	Nutrients
Columbia	Robinson Pond	Nutrients
Cortland	Dean Pond	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Dutchess	Fall Kill and tribs	Nutrients
Dutchess	Hillside Lake	Nutrients
Dutchess	Wappingers Lake	Nutrients
Dutchess	Wappingers Lake	Silt/Sediment
Erie	Beeman Creek and tribs	Nutrients
Erie	Ellicott Creek, Lower, and tribs	Silt/Sediment
Erie	Ellicott Creek, Lower, and tribs	Nutrients
Erie	Green Lake	Nutrients
Erie	Little Sister Creek, Lower, and tribs	Nutrients
Erie	Murder Creek, Lower, and tribs	Nutrients
Erie	Rush Creek and tribs	Nutrients
Erie	Scajaquada Creek, Lower, and tribs	Nutrients
Erie	Scajaquada Creek, Middle, and tribs	Nutrients
Erie	Scajaquada Creek, Upper, and tribs	Nutrients
Erie	South Branch Smoke Cr, Lower, and tribs	Silt/Sediment
Erie	South Branch Smoke Cr, Lower, and tribs	Nutrients
Essex	Lake Champlain, Main Lake, South	Nutrients
Essex	Lake Champlain, South Lake	Nutrients
Essex	Willsboro Bay	Nutrients
Genesee	Bigelow Creek and tribs	Nutrients
Genesee	Black Creek, Middle, and minor tribs	Nutrients
Genesee	Black Creek, Upper, and minor tribs	Nutrients
Genesee	Bowen Brook and tribs	Nutrients
Genesee	LeRoy Reservoir	Nutrients
Genesee	Oak Orchard Cr, Upper, and tribs	Nutrients
Genesee	Tonawanda Creek, Middle, Main Stem	Nutrients
Greene	Schoharie Reservoir	Silt/Sediment
Greene	Sleepy Hollow Lake	Silt/Sediment
Herkimer	Steele Creek tribs	Silt/Sediment
Herkimer	Steele Creek tribs	Nutrients
Jefferson	Moon Lake	Nutrients
Kings	Hendrix Creek	Nutrients
Kings	Prospect Park Lake	Nutrients
Lewis	Mill Creek/South Branch, and tribs	Nutrients
Livingston	Christie Creek and tribs	Nutrients
Livingston	Conesus Lake	Nutrients
Livingston	Mill Creek and minor tribs	Silt/Sediment
Monroe	Black Creek, Lower, and minor tribs	Nutrients
Monroe	Buck Pond	Nutrients
Monroe	Cranberry Pond	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Monroe	Lake Ontario Shoreline, Western	Nutrients
Monroe	Long Pond	Nutrients
Monroe	Mill Creek and tribs	Nutrients
Monroe	Mill Creek/Blue Pond Outlet and tribs	Nutrients
Monroe	Minor Tribs to Irondequoit Bay	Nutrients
Monroe	Rochester Embayment - East	Nutrients
Monroe	Rochester Embayment - West	Nutrients
Monroe	Shipbuilders Creek and tribs	Nutrients
Monroe	Thomas Creek/White Brook and tribs	Nutrients
Nassau	Beaver Lake	Nutrients
Nassau	Camaans Pond	Nutrients
Nassau	East Meadow Brook, Upper, and tribs	Silt/Sediment
Nassau	East Rockaway Channel	Nutrients
Nassau	Grant Park Pond	Nutrients
Nassau	Hempstead Bay	Nutrients
Nassau	Hempstead Lake	Nutrients
Nassau	Hewlett Bay	Nutrients
Nassau	Hog Island Channel	Nutrients
Nassau	Long Island Sound, Nassau County Waters	Nutrients
Nassau	Massapequa Creek and tribs	Nutrients
Nassau	Milburn/Parsonage Creeks, Upp, and tribs	Nutrients
Nassau	Reynolds Channel, west	Nutrients
Nassau	Tidal Tribs to Hempstead Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Silt/Sediment
Nassau	Tribs to Smith/Halls Ponds	Nutrients
Nassau	Woodmere Channel	Nutrients
New York	Harlem Meer	Nutrients
New York	The Lake in Central Park	Nutrients
Niagara	Bergholtz Creek and tribs	Nutrients
Niagara	Hyde Park Lake	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Oneida	Ballou, Nail Creeks and tribs	Nutrients
Onondaga	Harbor Brook, Lower, and tribs	Nutrients
Onondaga	Ley Creek and tribs	Nutrients
Onondaga	Minor Tribs to Onondaga Lake	Nutrients
Onondaga	Ninemile Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Middle, and tribs	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Onondaga	Onondaga Lake, northern end	Nutrients
Onondaga	Onondaga Lake, southern end	Nutrients
Ontario	Great Brook and minor tribs	Silt/Sediment
Ontario	Great Brook and minor tribs	Nutrients
Ontario	Hemlock Lake Outlet and minor tribs	Nutrients
Ontario	Honeoye Lake	Nutrients
Orange	Greenwood Lake	Nutrients
Orange	Monhagen Brook and tribs	Nutrients
Orange	Orange Lake	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Oswego	Lake Neatahwanta	Nutrients
Oswego	Pleasant Lake	Nutrients
Putnam	Bog Brook Reservoir	Nutrients
Putnam	Boyd Corners Reservoir	Nutrients
Putnam	Croton Falls Reservoir	Nutrients
Putnam	Diverting Reservoir	Nutrients
Putnam	East Branch Reservoir	Nutrients
Putnam	Lake Carmel	Nutrients
Putnam	Middle Branch Reservoir	Nutrients
Putnam	Oscawana Lake	Nutrients
Putnam	Palmer Lake	Nutrients
Putnam	West Branch Reservoir	Nutrients
Queens	Bergen Basin	Nutrients
Queens	Flushing Creek/Bay	Nutrients
Queens	Jamaica Bay, Eastern, and tribs (Queens)	Nutrients
Queens	Kissena Lake	Nutrients
Queens	Meadow Lake	Nutrients
Queens	Willow Lake	Nutrients
Rensselaer	Nassau Lake	Nutrients
Rensselaer	Snyders Lake	Nutrients
Richmond	Grasmere Lake/Bradys Pond	Nutrients
Rockland	Congers Lake, Swartout Lake	Nutrients
Rockland	Rockland Lake	Nutrients
Saratoga	Ballston Lake	Nutrients
Saratoga	Dwaas Kill and tribs	Silt/Sediment
Saratoga	Dwaas Kill and tribs	Nutrients
Saratoga	Lake Lonely	Nutrients
Saratoga	Round Lake	Nutrients
Saratoga	Tribs to Lake Lonely	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Schenectady	Collins Lake	Nutrients
Schenectady	Duane Lake	Nutrients
Schenectady	Mariaville Lake	Nutrients
Schoharie	Engleville Pond	Nutrients
Schoharie	Summit Lake	Nutrients
Seneca	Reeder Creek and tribs	Nutrients
St.Lawrence	Black Lake Outlet/Black Lake	Nutrients
St.Lawrence	Fish Creek and minor tribs	Nutrients
Steuben	Smith Pond	Nutrients
Suffolk	Agawam Lake	Nutrients
Suffolk	Big/Little Fresh Ponds	Nutrients
Suffolk	Canaan Lake	Silt/Sediment
Suffolk	Canaan Lake	Nutrients
Suffolk	Flanders Bay, West/Lower Sawmill Creek	Nutrients
Suffolk	Fresh Pond	Nutrients
Suffolk	Great South Bay, East	Nutrients
Suffolk	Great South Bay, Middle	Nutrients
Suffolk	Great South Bay, West	Nutrients
Suffolk	Lake Ronkonkoma	Nutrients
Suffolk	Long Island Sound, Suffolk County, West	Nutrients
Suffolk	Mattituck (Marratooka) Pond	Nutrients
Suffolk	Meetinghouse/Terrys Creeks and tribs	Nutrients
Suffolk	Mill and Seven Ponds	Nutrients
Suffolk	Millers Pond	Nutrients
Suffolk	Moriches Bay, East	Nutrients
Suffolk	Moriches Bay, West	Nutrients
Suffolk	Peconic River, Lower, and tidal tribs	Nutrients
Suffolk	Quantuck Bay	Nutrients
Suffolk	Shinnecock Bay and Inlet	Nutrients
Suffolk	Tidal tribs to West Moriches Bay	Nutrients
Sullivan	Bodine, Montgomery Lakes	Nutrients
Sullivan	Davies Lake	Nutrients
Sullivan	Evens Lake	Nutrients
Sullivan	Pleasure Lake	Nutrients
Tompkins	Cayuga Lake, Southern End	Nutrients
Tompkins	Cayuga Lake, Southern End	Silt/Sediment
Tompkins	Owasco Inlet, Upper, and tribs	Nutrients
Ulster	Ashokan Reservoir	Silt/Sediment
Ulster	Esopus Creek, Upper, and minor tribs	Silt/Sediment
Warren	Hague Brook and tribs	Silt/Sediment

303(d) Segments Impaired by Construction Related Pollutant(s)

Warren	Huddle/Finkle Brooks and tribs	Silt/Sediment
Warren	Indian Brook and tribs	Silt/Sediment
Warren	Lake George	Silt/Sediment
Warren	Tribs to L.George, Village of L George	Silt/Sediment
Washington	Cossayuna Lake	Nutrients
Washington	Lake Champlain, South Bay	Nutrients
Washington	Tribs to L.George, East Shore	Silt/Sediment
Washington	Wood Cr/Champlain Canal and minor tribs	Nutrients
Wayne	Port Bay	Nutrients
Westchester	Amawalk Reservoir	Nutrients
Westchester	Blind Brook, Upper, and tribs	Silt/Sediment
Westchester	Cross River Reservoir	Nutrients
Westchester	Lake Katonah	Nutrients
Westchester	Lake Lincolndale	Nutrients
Westchester	Lake Meahagh	Nutrients
Westchester	Lake Mohegan	Nutrients
Westchester	Lake Shenorock	Nutrients
Westchester	Long Island Sound, Westchester (East)	Nutrients
Westchester	Mamaroneck River, Lower	Silt/Sediment
Westchester	Mamaroneck River, Upper, and minor tribs	Silt/Sediment
Westchester	Muscoot/Upper New Croton Reservoir	Nutrients
Westchester	New Croton Reservoir	Nutrients
Westchester	Peach Lake	Nutrients
Westchester	Reservoir No.1 (Lake Isle)	Nutrients
Westchester	Saw Mill River, Lower, and tribs	Nutrients
Westchester	Saw Mill River, Middle, and tribs	Nutrients
Westchester	Sheldrake River and tribs	Silt/Sediment
Westchester	Sheldrake River and tribs	Nutrients
Westchester	Silver Lake	Nutrients
Westchester	Teatown Lake	Nutrients
Westchester	Titicus Reservoir	Nutrients
Westchester	Truesdale Lake	Nutrients
Westchester	Wallace Pond	Nutrients
Wyoming	Java Lake	Nutrients
Wyoming	Silver Lake	Nutrients

APPENDIX F – 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	50 Circle Road Stony Brook, NY 11790 Tel. (631) 444-0365	50 Circle Road Stony Brook, NY 11790-3409 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	100 Hillside Avenue, Suite 1w White Plains, NY 10603 Tel. (914) 428 - 2505
4	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady and Schoharie	1150 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2069	1130 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2045
5	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren and Washington	1115 State Route 86, Po Box 296 Ray Brook, NY 12977-0296 Tel. (518) 897-1234	232 Golf Course Road Warrensburg, NY 12885-1172 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 ROADAVON, 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 AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7070

APPENDIX H

BMP SPECIFICATIONS

STANDARD AND SPECIFICATIONS FOR CONCRETE TRUCK WASHOUT

Definition & Scope

A temporary excavated or above ground lined constructed pit where concrete truck mixers and equipment can be washed after their loads have been discharged, to prevent highly alkaline runoff from entering storm drainage systems or leaching into soil.

Conditions Where Practice Applies

Washout facilities shall be provided for every project where concrete will be poured or otherwise formed on the site. This facility will receive highly alkaline wash water from the cleaning of chutes, mixers, hoppers, vibrators, placing equipment, trowels, and screeds. Under no circumstances will wash water from these operations be allowed to infiltrate into the soil or enter surface waters.

Design Criteria

Capacity: The washout facility should be sized to contain solids, wash water, and rainfall and sized to allow for the evaporation of the wash water and rainfall. Wash water shall be estimated at 7 gallons per chute and 50 gallons per hopper of the concrete pump truck and/or discharging drum. The minimum size shall be 8 feet by 8 feet at the bottom and 2 feet deep. If excavated, the side slopes shall be 2 horizontal to 1 vertical.

Location: Locate the facility a minimum of 100 feet from drainage swales, storm drain inlets, wetlands, streams and other surface waters. Prevent surface water from entering the structure except for the access road. Provide appropriate access with a gravel access road sloped down to the structure. Signs shall be placed to direct drivers to the facility after their load is discharged.

Liner: All washout facilities will be lined to prevent leaching of liquids into the ground. The liner shall be plastic sheeting with a minimum thickness of 10 mils with no holes or tears, and anchored beyond the top of the pit with an earthen berm, sand bags, stone, or other structural appurtenance except at the access point.

If pre-fabricated washouts are used they must ensure the capture and containment of the concrete wash and be sized based on the expected frequency of concrete pours. They shall be sited as noted in the location criteria.

Maintenance

- All concrete washout facilities shall be inspected daily. Damaged or leaking facilities shall be deactivated and repaired or replaced immediately. Excess rainwater that has accumulated over hardened concrete should be pumped to a stabilized area, such as a grass filter strip.
- Accumulated hardened material shall be removed when 75% of the storage capacity of the structure is filled. Any excess wash water shall be pumped into a containment vessel and properly disposed of off site.
- Dispose of the hardened material off-site in a construction/demolition landfill. On-site disposal may be allowed if this has been approved and accepted as part of the projects SWPPP. In that case, the material should be recycled as specified, or buried and covered with a minimum of 2 feet of clean compacted earthfill that is permanently stabilized to prevent erosion.
- The plastic liner shall be replaced with each cleaning of the washout facility.
- Inspect the project site frequently to ensure that no concrete discharges are taking place in non-designated areas.

STANDARD AND SPECIFICATIONS FOR DUST CONTROL

Definition & Scope

The control of dust resulting from land-disturbing activities, 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 NYSDEC.

No polymer application shall take place without written approval from the NYSDEC.

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 route to provide short term limited dust control.

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 geo-textiles 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.

Maintenance

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

STANDARD AND SPECIFICATIONS FOR SITE POLLUTION PREVENTION

Definition & Scope

A collection of management practices intended to control non-sediment pollutants associated with construction activities to prevent the generation of pollutants due to improper handling, storage, and spills and prevent the movement of toxic substances from the site into surface waters.

Conditions Where Practice Applies

On all construction sites where the earth disturbance exceeds 5,000 square feet, and involves the use of fertilizers, pesticides, petroleum based chemicals, fuels and lubricants, as well as sealers, paints, cleared woody vegetation, garbage, and sanitary wastes.

Design Criteria

The variety of pollutants on a particular site and the severity of their impacts depend on factors such as the nature of the construction activity, the physical characteristics of the construction site, and the proximity of water bodies and conveyances to the pollutant source.

1. All state and federal regulations shall be followed for the storage, handling, application, usage, and disposal of pesticides, fertilizers, and petroleum products.

2. Vehicle and construction equipment staging and maintenance areas will be located away from all drainage ways with their parking areas graded so the runoff from these areas is collected, contained and treated prior to discharge from the site.

3. Provide sanitary facilities for on-site personnel.

4. Store, cover, and isolate construction materials including topsoil, and chemicals, to prevent runoff of pollutants and contamination of groundwater and surface waters.

5. Develop and implement a spill prevention and control plan. The plan should include NYSDEC's spill reporting and initial notification requirements.

6. Provide adequate disposal for solid waste including woody debris, stumps, and other construction waste and include these methods and directions in the construction details on the site construction drawings. Fill, woody debris, stumps and construction waste shall not be placed in regulated wetlands, streams or other surface waters.

7. Distribute or post informational material regarding proper handling, spill response, spill kit location, and emergency actions to be taken, to all construction personnel.

8. Refueling equipment shall be located at least 100 feet from all wetlands, streams and other surface waters.

STANDARD AND SPECIFICATIONS FOR STABILIZED CONSTRUCTION ACCESS

Definition & Scope

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

Conditions Where Practice Applies

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

Design Criteria

See Figure 2.1 on page 2.31 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 Burst Strength (lbs)	190	430	ASTM D3786
Puncture Strength (lbs)	40	125	ASTM D751 Modified
Equivalent	40-80	40-80	US Std Sieve
Opening Size			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.

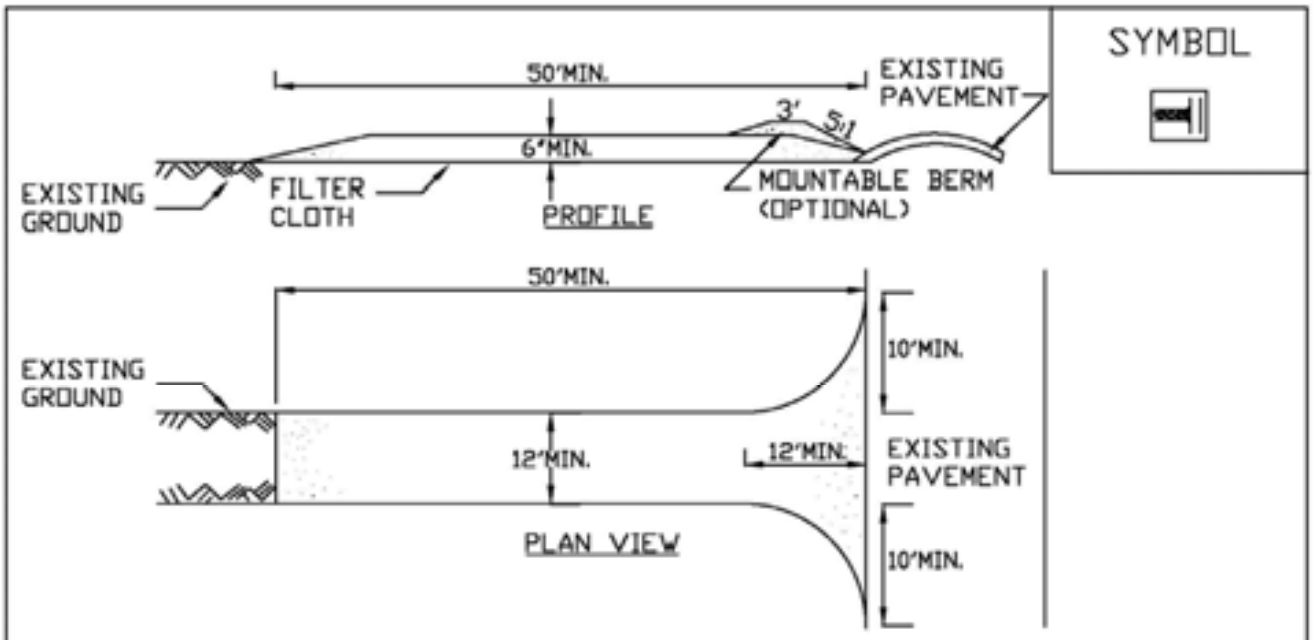
[3]Fabrics not meeting these specifications may be used only when design procedure and supporting documentation are supplied to determine aggregate depth and fabric strength.

Maintenance

The access 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.

Figure 2.1
Stabilized Construction Access



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 ACCESS 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 TRACKED 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 ACCESS

STANDARD AND SPECIFICATIONS FOR WINTER STABILIZATION

Definition & Scope

A temporary site specific, enhanced erosion and sediment control plan to manage runoff and sediment at the site during construction activities in the winter months to protect off-site water resources.

Conditions Where Practice Applies

This standard applies to all construction activities involved with ongoing land disturbance and exposure between November 15th to the following April 1st.

Design Criteria

1. Prepare a snow management plan with adequate storage for snow and control of melt water, requiring cleared snow to be stored in a manner not affecting ongoing construction activities.

2. Enlarge and stabilize access points to provide for snow management and stockpiling. Snow management activities must not destroy or degrade installed erosion and sediment control practices.

3. A minimum 25 foot buffer shall be maintained from all perimeter controls such as silt fence. Mark silt fence with tall stakes that are visible above the snow pack.

4. Edges of disturbed areas that drain to a waterbody within 100 feet will have 2 rows of silt fence, 5 feet apart, installed on the contour.

5. Drainage structures must be kept open and free of snow and ice dams. All debris, ice dams, or debris from plowing operations, that restrict the flow of runoff and meltwater, shall be removed.

6. Sediment barriers must be installed at all appropriate perimeter and sensitive locations. Silt fence and other practices requiring earth disturbance must be installed before the ground freezes.

7. Soil stockpiles must be protected by the use of established vegetation, anchored straw mulch, rolled stabilization matting, or other durable covering. A barrier must be installed at least 15 feet from the toe of the stockpile to prevent soil migration and to capture loose soil.

8. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures should be initiated by the end of the next business day and completed within three (3) days. Rolled erosion control blankets must be used on all slopes 3 horizontal to 1 vertical or steeper.

9. If straw mulch alone is used for temporary stabilization, it shall be applied at double the standard rate of 2 tons per acre, making the application rate 4 tons per acre. Other manufactured mulches should be applied at double the manufacturer's recommended rate.

10. To ensure adequate stabilization of disturbed soil in advance of a melt event, areas of disturbed soil should be stabilized at the end of each work day unless:

    a. work will resume within 24 hours in the same area and no precipitation is forecast or;

    b. the work is in disturbed areas that collect and retain runoff, such as open utility trenches, foundation excavations, or water management areas.

11. Use stone paths to stabilize access perimeters of buildings under construction and areas where construction vehicle traffic is anticipated. Stone paths should be a minimum 10 feet in width but wider as necessary to accommodate equipment.

Maintenance

The site shall be inspected frequently to ensure that the erosion and sediment control plan is performing its winter stabilization function. If the site will not have earth disturbing activities ongoing during the "winter season", **all** bare exposed soil must be stabilized by established vegetation, straw or other acceptable mulch, matting, rock, or other approved material such as rolled erosion control products. Seeding of areas with mulch cover is preferred but seeding alone is not acceptable for proper stabilization.

Compliance inspections must be performed and reports filed properly in accordance with the SWPPP for all sites under a winter shutdown.

STANDARD AND SPECIFICATIONS FOR DEWATERING SUMP PIT

Discharge of turbid water pumped from the standpipe should be to a sediment trap, sediment basin, filter bag 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 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.

Definition & Scope

A **temporary** pit which is constructed using pipe and stone for pumping excessive water from excavations to a suitable discharge area.

Conditions Where Practice Applies

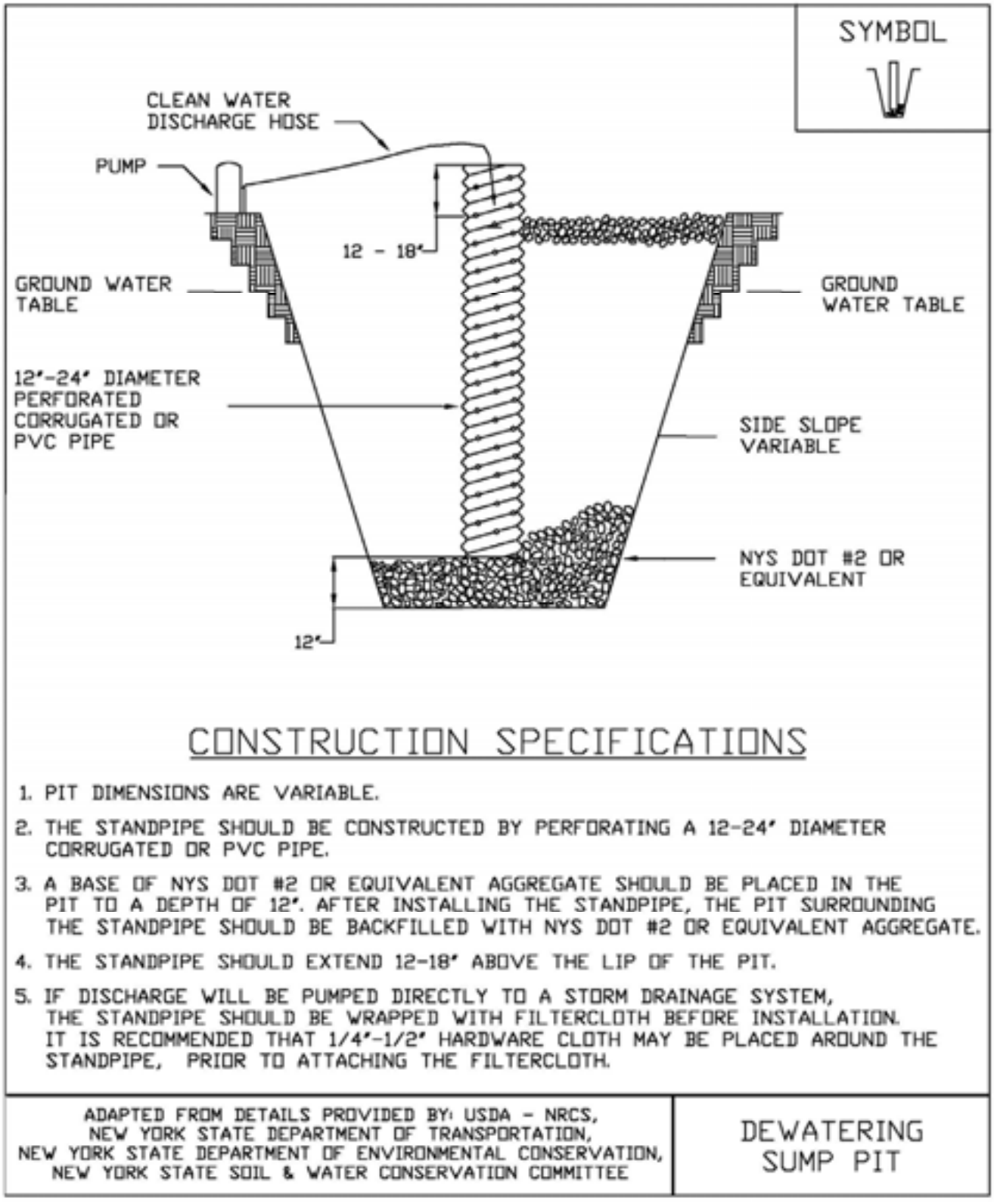
Sump pits are constructed when water collects during the excavation phase of construction. This practice is particularly useful in urban areas during excavation for building foundations. It may also be necessary during construction activities that encounter high ground water tables in floodplain locations.

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 3.3 on page 3.8.

A perforated vertical standpipe is placed in the center of the pit and surrounded with a stone screening material to collect filtered water. Water is then pumped from the center of the pipe to a suitable discharge area.

Figure 3.3
Dewatering Sump Pit Detail



STANDARD AND SPECIFICATIONS FOR ROCK OUTLET PROTECTION

Definition & Scope

A **permanent** section of rock protection placed at the outlet end of the culverts, conduits, or channels to reduce the depth, velocity, and energy of water, such that the flow will not erode the receiving downstream reach.

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 3.16 on page 3.42 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 3.17 on page 3.43 as an example. Pipes which outlet onto flat areas with no defined channel may be assumed to have a Minimum Tailwater Condition; see Figure 3.16 on page 3.42 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 3.16 on page 3.42
Maximum Tailwater – Use Figure 3.17 on page 3.43

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. Outlets constructed on the bank of a stream or wetland shall not use grouted rip-rap, gabions or concrete.

Riprap shall be composed of a well-graded mixture of rock 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 rock sizes, but with a sufficient mixture of other sizes to fill the smaller voids between the rocks. The diameter of the largest rock 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 rock diameter for d_{50} of 15 inches or less; and 1.2 times the maximum rock 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

Rock Quality

Rock for riprap shall consist of field rock or rough unhewn quarry rock. The rock 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 rocks shall be at least 2.5.

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 Anchored Slope and Channel Stabilization on page 4.7.

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 manufacturer's 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 rocks. 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. Use the appropriate chart with the design discharge to 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.

Design Examples are demonstrated in Appendix B.

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 grad-

ing 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. Rock 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 rock for riprap or gabion outlets shall be delivered and placed in a manner that will ensure that it is reasonably homogenous with the smaller rocks and spalls filling the voids between the larger rocks. 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 3.16
Outlet Protection Design—Minimum Tailwater Condition Chart (Design of Outlet Protection from a Round Pipe Flowing Full, Minimum Tailwater Condition: $T_w < 0.5D_o$) (USDA - NRCS)

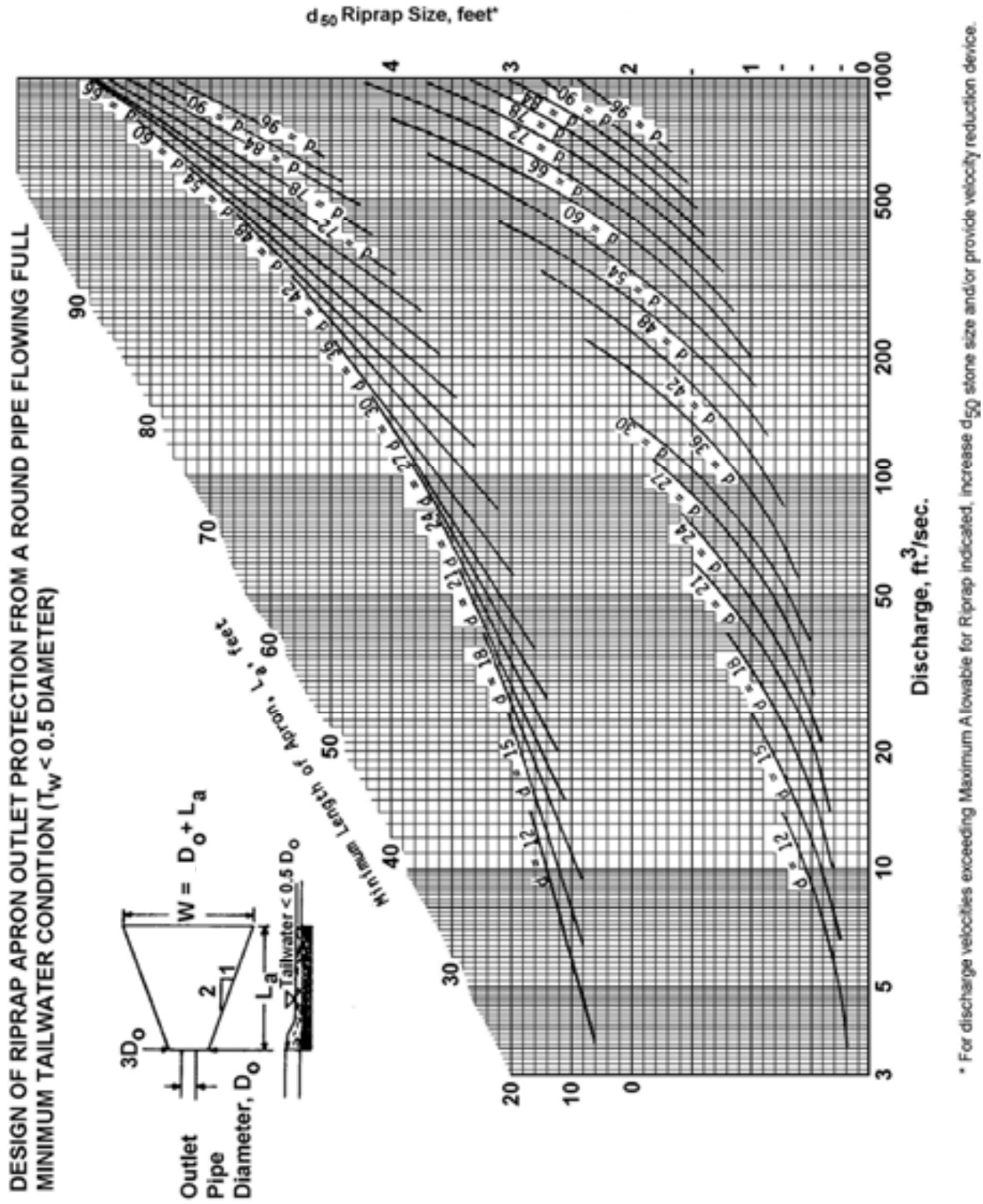


Figure 3.17
Outlet Protection Design—Maximum Tailwater Condition Chart (Design of Outlet Protection from a Round Pipe Flowing Full, Maximum Tailwater Condition: $T_w \geq 0.5D_o$) (USDA - NRCS)

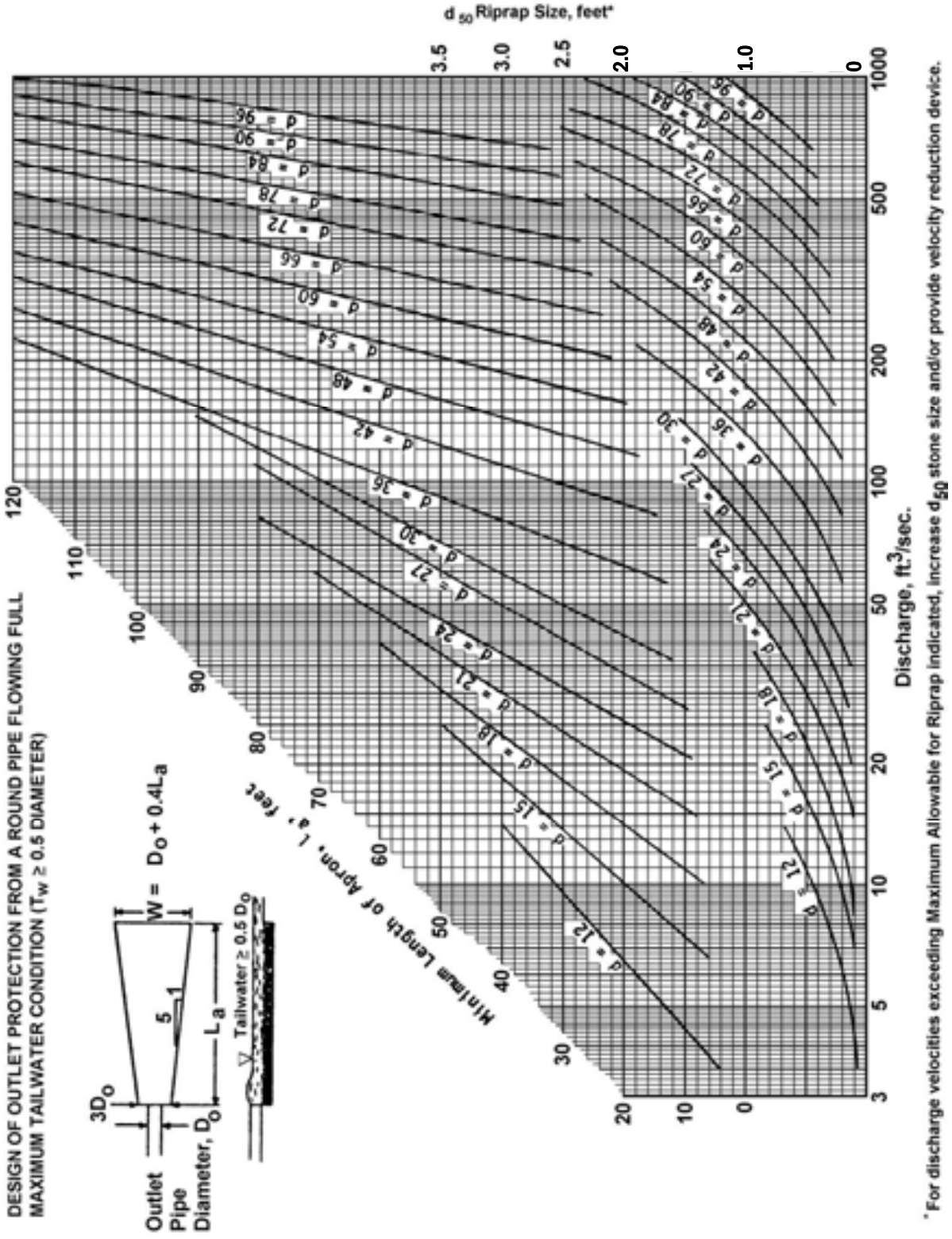


Figure 3.18
Riprap Outlet Protection Detail (1)

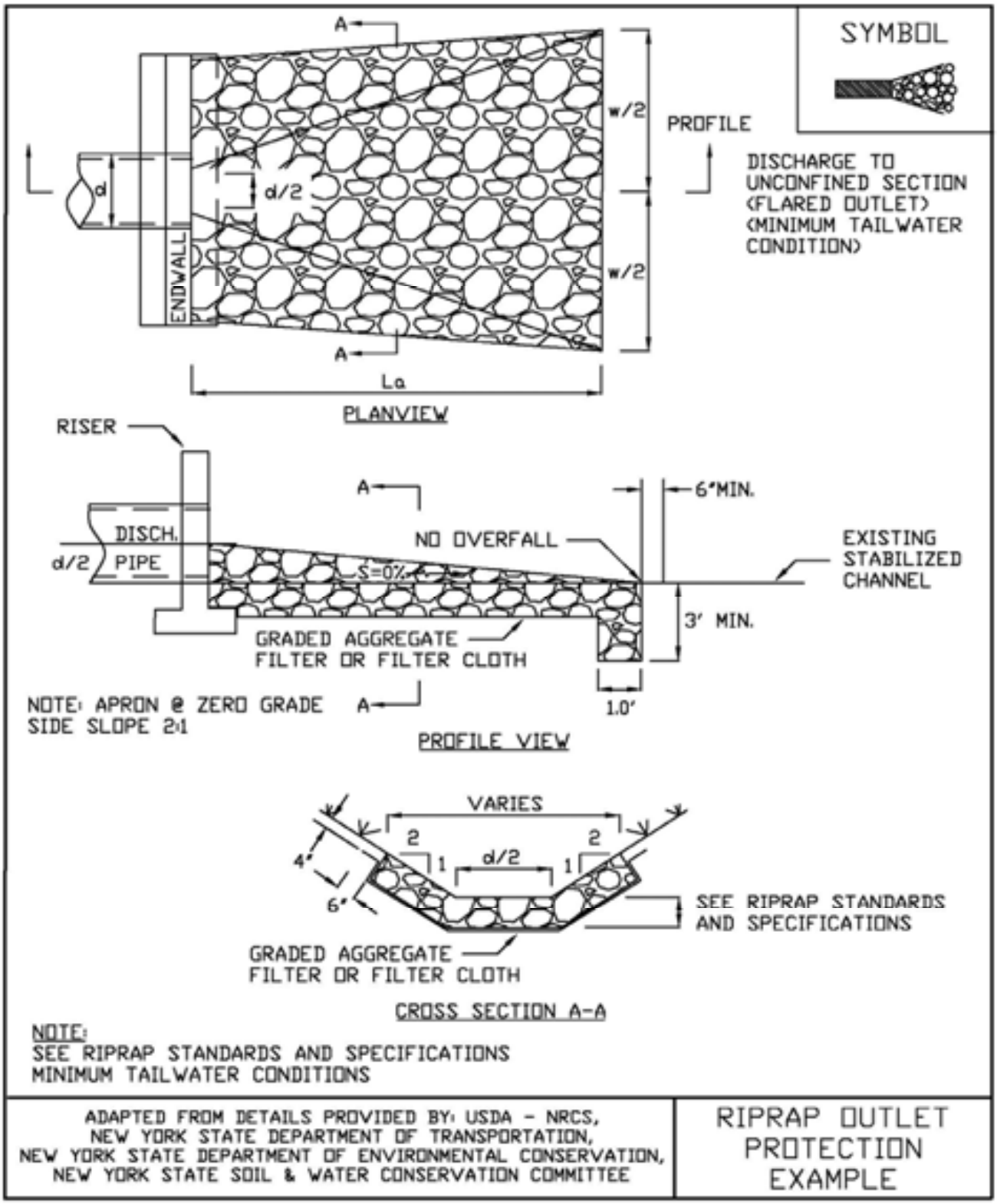


Figure 3.19
Riprap Outlet Protection Detail (2)

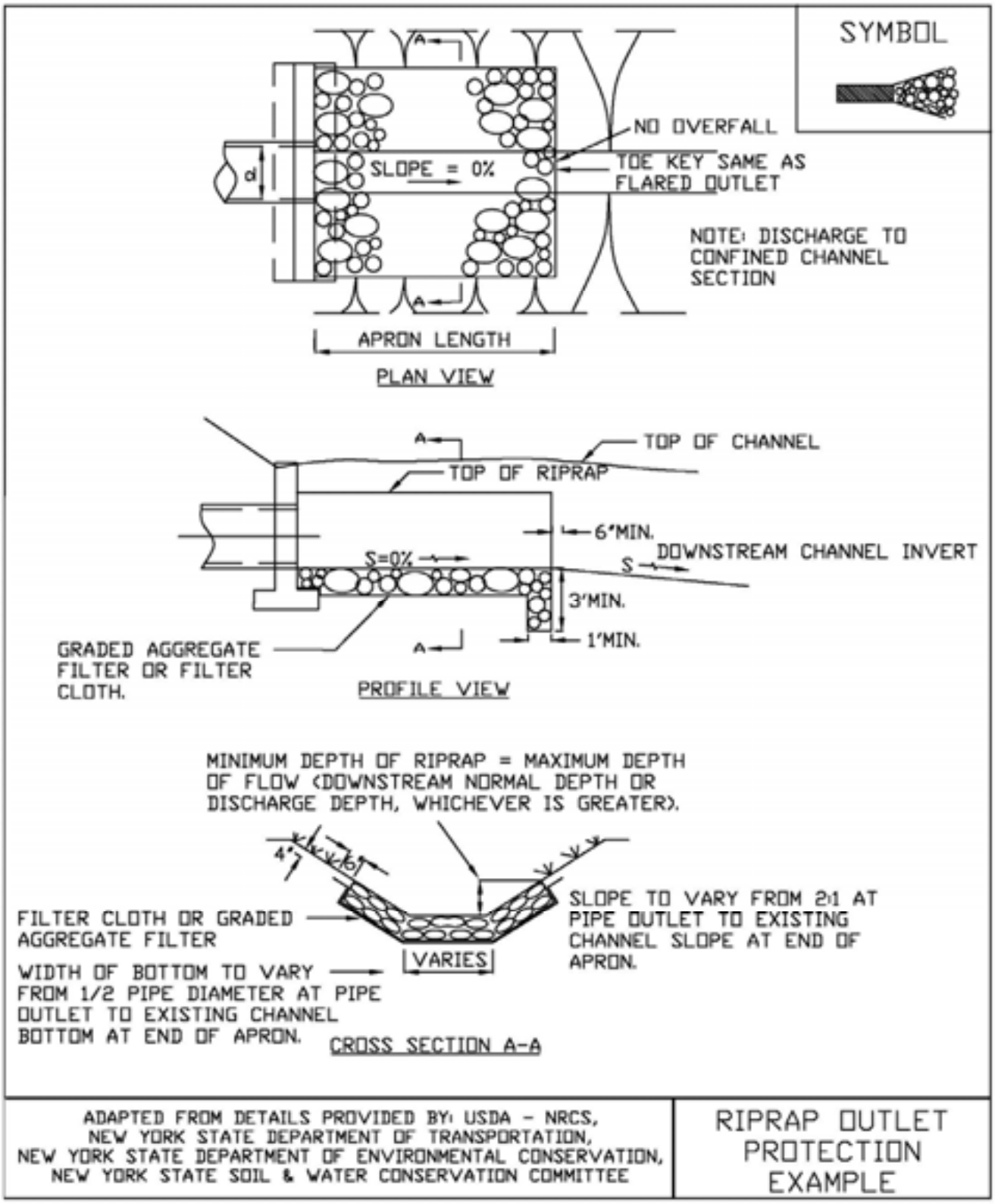
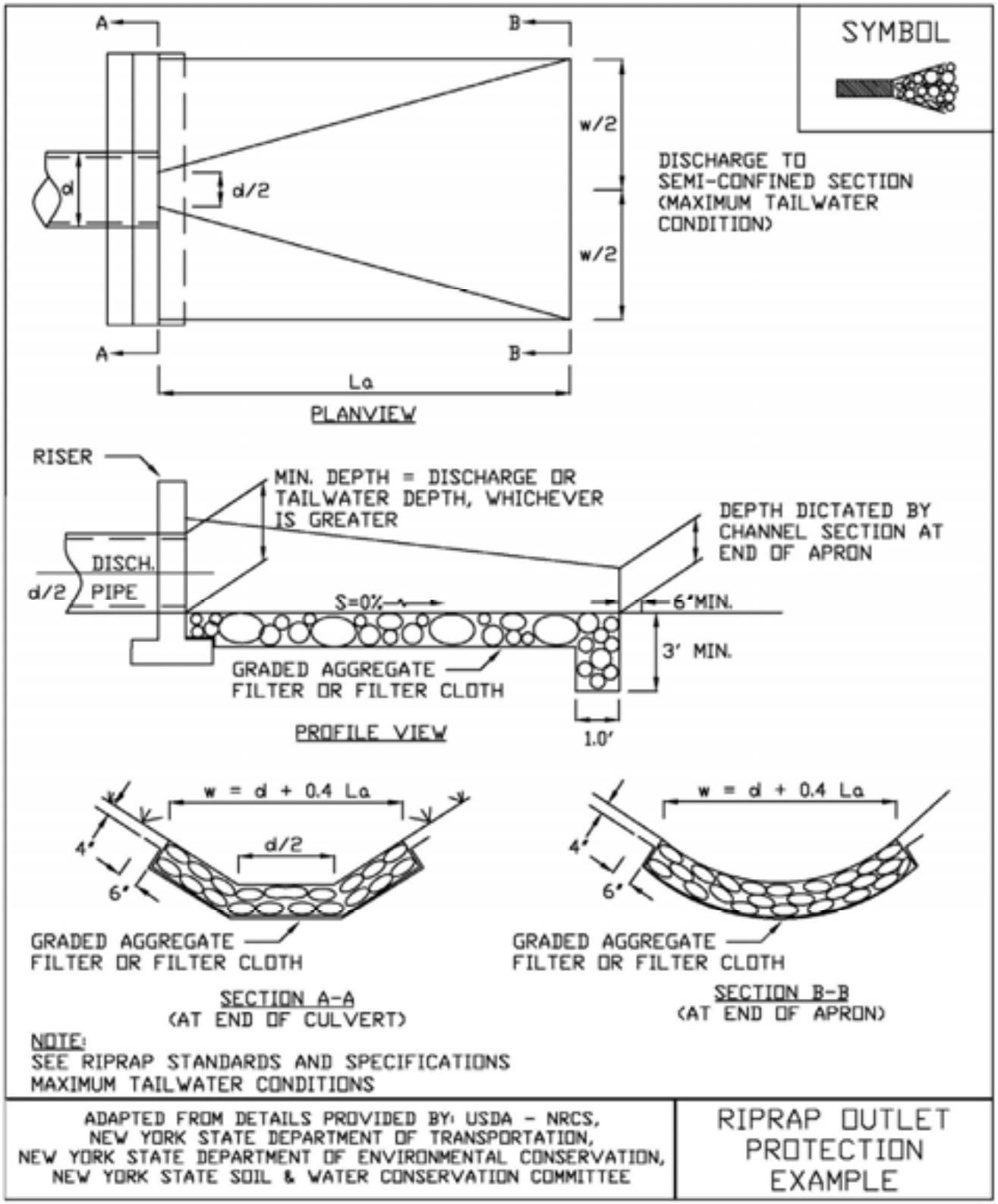


Figure 3.20
Riprap Outlet Protection Detail (3)



STANDARD AND SPECIFICATIONS FOR FERTILIZER APPLICATION

Definition & Scope

The **permanent** incorporation of fertilizer into the planting zone of the soil profile to provide nutrient amendments to the soil for vigorous support to plant and vegetation growth.

Conditions Where Practice Applies

This standard applies to all areas where permanent seeding, sodding, and plant establishment is required. All application of fertilizer shall be in accordance with Nutrient Runoff Law - ECL Article 17, Title 21. Phosphorus runoff poses a threat to water quality. Therefore, under New York Law, fertilizer containing phosphorus may only be applied to lawn or non-agricultural turf when:

1. A soil test indicates that additional phosphorus is needed for growth of that lawn or non-agricultural turf, or

2. The fertilizer is used for newly established lawn or non -agricultural turf during the first growing season.

For projects located within watersheds where enhanced phosphorus removal standards are required as part of its post-construction stormwater management plan, use of any fertilizer containing more than 0.67 percent phosphate ($P_2 0_5$) content will be done only with a valid soil test demonstrating the need for that formulation.

Design Criteria

Fertilizer is sold with an analysis printed on the tag or bag shown as three numbers separated by a dash, such as 5-10-5. The first number is the percent of the total weight of the bag that is nitrogen (N), the second is the percent of phosphate (phosphorus, P), and the third is the percent of potash (potassium, K). Other elements are sometimes included and are listed with these three basic components.

For example a 40 lb bag of 5-10-5 fertilizer contains 5% of 40 lbs of Nitrogen which equals 2 lbs. There is 10% of 40 lbs of phosphate (phosphorus) which equals 4 lbs, and there is 5% of potash (potassium), another 2 lbs., for a total of 8 lbs of active fertilizer in the 40 lb bag. The rest is filler to aid in spreading the material over the area to be treated.

Specify the design fertilizer mix and application rates based on the results of the soil tests.

Specifications

1. In no case shall fertilizer be applied between December 1 and April 1 annually.

2. Fertilizer shall not be spread within 20 feet of a surface water.

3. Any fertilizer falling or spilled into impervious surface areas such as parking lots, roadways, and sidewalks should be immediately contained and legally applied or placed in an appropriate container.

4. Incorporate the fertilizer, and lime if specified, into the top 2-4 inches of the topsoil or soil profile.

5. When applying fertilizer by hydro seeding care should be taken to apply mix only to seed bed areas at an appropriate flow rate to prevent erosion and spraying onto impervious areas.

STANDARD AND SPECIFICATIONS FOR LANDGRADING

Definition & Scope

Permanent reshaping of the existing land surface by grading in accordance with an engineering topographic plan and specification to provide for erosion control and vegetative establishment on disturbed, reshaped areas.

Design Criteria

The grading plan should be based upon the incorporation of building designs and street layouts that fit and utilize existing topography and desirable natural surrounding to avoid extreme grade modifications. Information submitted must provide sufficient topographic surveys and soil investigations to determine limitations that must be imposed on the grading operation related to slope stability, effect on adjacent properties and drainage patterns, measures for drainage and water removal, and vegetative treatment, etc.

Many municipalities and counties have regulations and design procedures already established for land grading and cut and fill slopes. Where these requirements exist, they shall be followed.

The plan must show existing and proposed contours of the area(s) to be graded. The plan shall also include practices for erosion control, slope stabilization, safe disposal of runoff water and drainage, such as waterways, lined ditches, reverse slope benches (include grade and cross section), grade stabilization structures, retaining walls, and surface and subsurface drains. The plan shall also include phasing of these practices. The following shall be incorporated into the plan:

1. Provisions shall be made to safely convey surface runoff to storm drains, protected outlets, or to stable water courses to ensure that surface runoff will not damage slopes or other graded areas; see standards and specifications for Grassed Waterway, Diversion, or Grade Stabilization Structure.

2. Cut and fill slopes that are to be stabilized with grasses shall not be steeper than 2:1. When slopes exceed 2:1, special design and stabilization consideration are required and shall be adequately shown on the plans. (Note: Where the slope is to be mowed, the slope should be no steeper than 3:1, although 4:1 is preferred because of safety factors related to mowing steep slopes.)

3. Reverse slope benches or diversion shall be provided whenever the vertical interval (height) of any 2:1 slope exceeds 20 feet; for 3:1 slope it shall be increased to 30 feet and for 4:1 to 40 feet. Benches shall be located to divide the slope face as equally as possible and shall convey the water to a stable outlet. Soils, seeps, rock outcrops, etc., shall also be taken into consideration when designing benches.

   A. Benches shall be a minimum of six feet wide to provide for ease of maintenance.

   B. Benches shall be designed with a reverse slope of 6:1 or flatter to the toe of the upper slope and with a minimum of one foot in depth. Bench gradient to the outlet shall be between 2 percent and 3 percent, unless accompanied by appropriate design and computations.

   C. The flow length within a bench shall not exceed 800 feet unless accompanied by appropriate design and computations; see Standard and Specifications for Diversion on page 3.9

4. Surface water shall be diverted from the face of all cut and/or fill slopes by the use of diversions, ditches and swales or conveyed downslope by the use of a designed structure, except where:

   A. The face of the slope is or shall be stabilized and the face of all graded slopes shall be protected from surface runoff until they are stabilized.

   B. The face of the slope shall not be subject to any concentrated flows of surface water such as from natural drainage ways, graded ditches, downspouts, etc.

   C. The face of the slope will be protected by anchored stabilization matting, sod, gravel, riprap, or other stabilization method.

5. Cut slopes occurring in ripable rock shall be serrated as shown in Figure 4.9 on page 4.26. The serrations shall be made with conventional equipment as the excavation is made. Each step or serration shall be constructed on the contour and will have steps cut at nominal two-foot intervals with nominal three-foot horizontal shelves. These steps will vary depending on the slope ratio or the cut slope. The nominal slope line is 1 ½: 1. These steps will weather and act to hold moisture, lime, fertilizer, and seed thus producing a much quicker and longer-lived vegetative cover and better slope stabilization. Overland flow shall be diverted from the top of all serrated cut slopes and carried to a suitable outlet.

6. Subsurface drainage shall be provided where necessary to intercept seepage that would otherwise adversely affect slope stability or create excessively wet site conditions.

7. Slopes shall not be created so close to property lines as to endanger adjoining properties without adequately protecting such properties against sedimentation, erosion, slippage, settlement, subsidence, or other related damages.

8. Fill material shall be free of brush, rubbish, rocks, logs, stumps, building debris, and other objectionable material. It should be free of stones over two (2) inches in diameter where compacted by hand or mechanical tampers or over eight (8) inches in diameter where compacted by rollers or other equipment. Frozen material shall not be placed in the fill nor shall the fill material be placed on a frozen foundation.

9. Stockpiles, borrow areas, and spoil shall be shown on the plans and shall be subject to the provisions of this Standard and Specifications.

10. All disturbed areas shall be stabilized structurally or vegetatively in compliance with the Permanent Construction Area Planting Standard on page 4.42.

Construction Specifications

See Figures 4.9 and 4.10 for details.

1. All graded or disturbed areas, including slopes, shall be protected during clearing and construction in accordance with the erosion and sediment control plan until they are adequately stabilized.

2. All erosion and sediment control practices and measures shall be constructed, applied and maintained in accordance with the erosion and sediment control plan and these standards.

3. Topsoil required for the establishment of vegetation shall be stockpiled in amount necessary to complete finished grading of all exposed areas.

4. Areas to be filled shall be cleared, grubbed, and stripped of topsoil to remove trees, vegetation, roots, or other objectionable material.

5. Areas that are to be topsoiled shall be scarified to a minimum depth of four inches prior to placement of topsoil.

6. All fills shall be compacted as required to reduce erosion, slippage, settlement, subsidence, or other related problems. Fill intended to support buildings, structures, and conduits, etc., shall be compacted in accordance with local requirements or codes.

7. All fill shall be placed and compacted in layers not to exceed 9 inches in thickness.

8. Except for approved landfills or nonstructural fills, fill material shall be free of frozen particles, brush, roots, sod, or other foreign objectionable materials that would interfere with, or prevent, construction of satisfactory fills.

9. Frozen material or soft, mucky or highly compressible materials shall not be incorporated into fill slopes or structural fills.

10. Fill shall not be placed on saturated or frozen surfaces.

11. All benches shall be kept free of sediment during all phases of development.

12. Seeps or springs encountered during construction shall be handled in accordance with the Standard and Specification for Subsurface Drain on page 3.48 or other approved methods.

13. All graded areas shall be permanently stabilized immediately following finished grading.

14. Stockpiles, borrow areas, and spoil areas shall be shown on the plans and shall be subject to the provisions of this Standard and Specifications.

Figure 4.9
Typical Section of Serrated Cut Slope

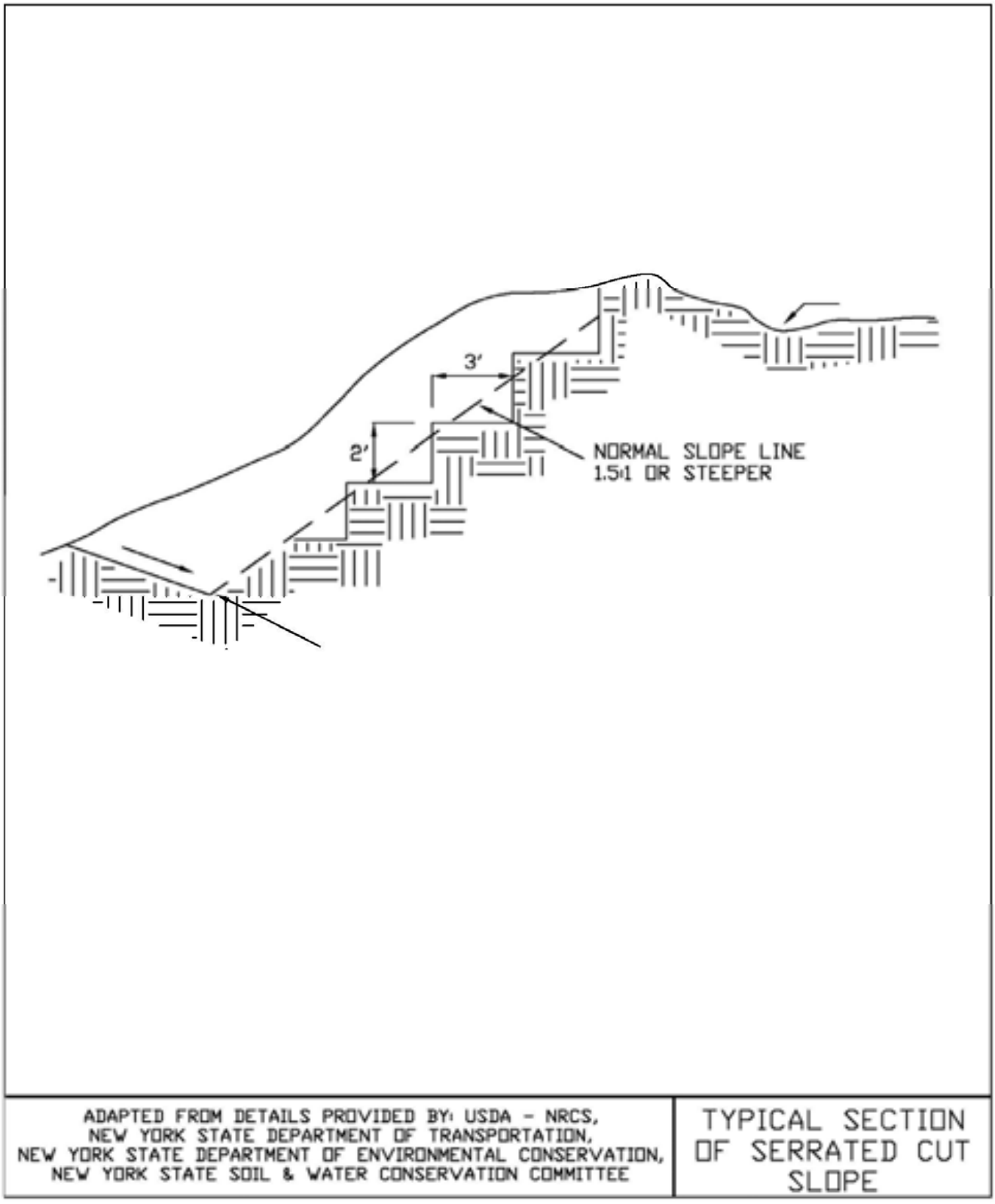


Figure 4.10
Landgrading

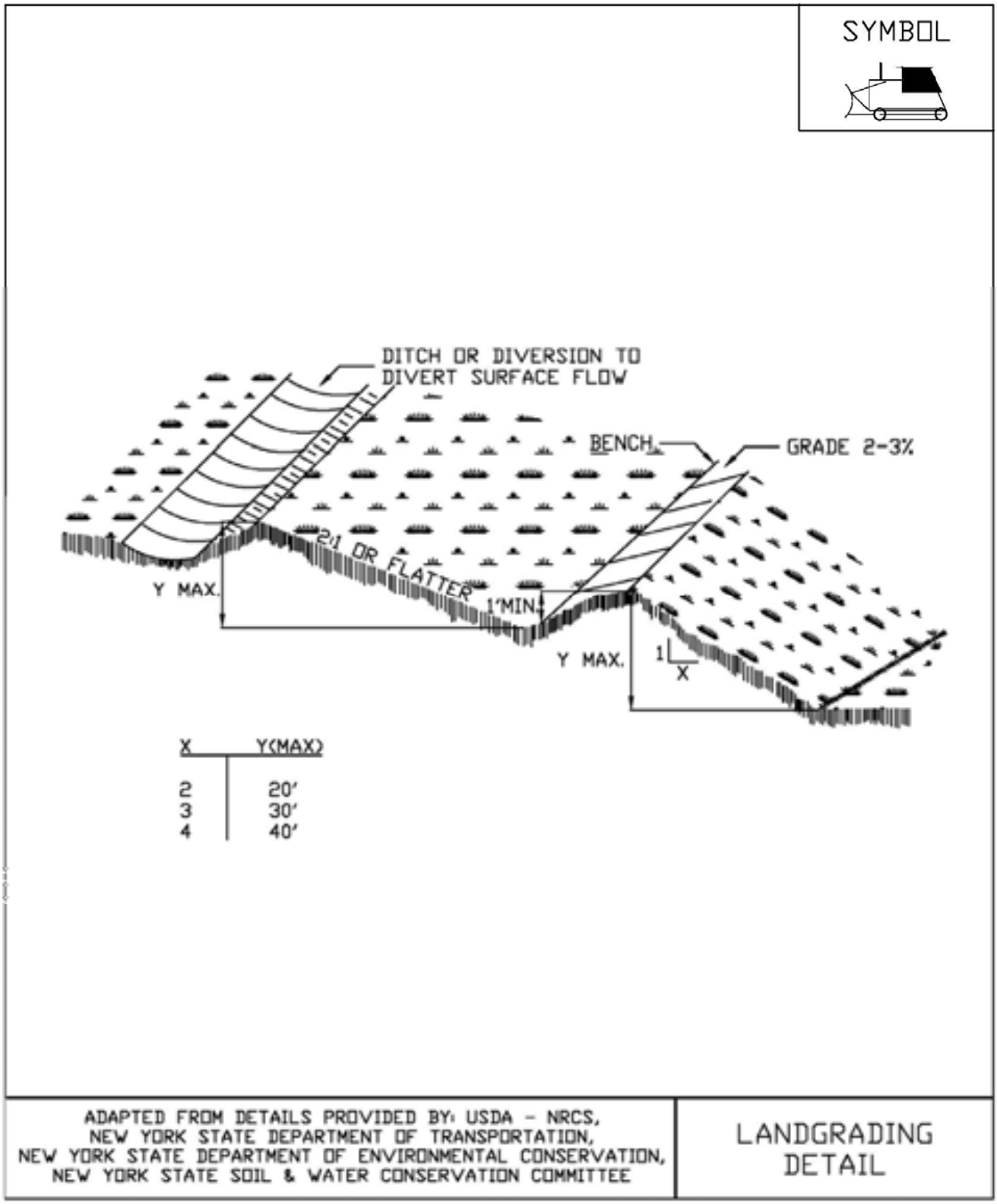


Figure 4.11
Landgrading - Construction Specifications

CONSTRUCTION SPECIFICATIONS

1. ALL GRADED OR DISTURBED AREAS INCLUDING SLOPES SHALL BE PROTECTED DURING CLEARING AND CONSTRUCTION IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN UNTIL THEY ARE PERMANENTLY STABILIZED.
2. ALL SEDIMENT CONTROL PRACTICES AND MEASURES SHALL BE CONSTRUCTED, APPLIED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
3. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED IN AMOUNT NECESSARY TO COMPLETE FINISHED GRADING OF ALL EXPOSED AREAS.
4. AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS OR OTHER OBJECTIONABLE MATERIAL.
5. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF FOUR INCHES PRIOR TO PLACEMENT OF TOPSOIL.
6. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
7. ALL FILL SHALL BE PLACED AND COMPACTED IN LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
8. EXCEPT FOR APPROVED LANDFILLS, FILL MATERIAL SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OTHER OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
9. FROZEN MATERIALS OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED IN FILLS.
10. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
11. ALL BENCHES SHALL BE KEPT FREE OF SEDIMENT DURING ALL PHASES OF DEVELOPMENT.
12. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
13. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISHED GRADING.
14. STOCKPILES, BORROW AREAS AND SPOIL AREAS SHALL BE SHOWN ON THE PLANS AND SHALL BE SUBJECT TO THE PROVISIONS OF THIS STANDARD AND SPECIFICATION.

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

LANDGRADING
SPECIFICATIONS

STANDARD AND SPECIFICATIONS FOR PERMANENT CONSTRUCTION AREA PLANTING

Definition & Scope

Establishing **permanent** grasses with other forbs and/or shrubs to provide a minimum 80% perennial vegetative cover on areas disturbed by construction and critical areas to reduce erosion and sediment transport. Critical areas may include but are not limited to steep excavated cut or fill slopes as well as eroding or denuded natural slopes and areas subject to erosion.

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", see Soil Restoration Standard. 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 5-5 -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 seeding is preferred. See Table 4.4, "Permanent Construction Area Planting Mixture Recommendations" for additional seed mixtures.

General Seed Mix:	**Variety**	**lbs./ acre**	**lbs/1000 sq. ft.**
Red Clover[1] OR	Acclaim, Rally, Red Head II, Renegade	8[2]	0.20
Common white clover[1]	Common	8	0.20
PLUS			
Creeping Red Fescue	Common	20	0.45
PLUS			
Smooth Bromegrass OR	Common	2	0.05
Ryegrass (perennial)	Pennfine/Linn	5	0.10

[1] add inoculant immediately prior to seeding
[2] Mix 4 lbs each of Empire and Pardee OR 4 lbs of Birdsfoot and 4 lbs white clover per acre. All seeding rates are given for Pure Live Seed (PLS)

Pure Live Seed, or (PLS) refers to the amount of live seed in a lot of bulk seed. Information on the seed bag label includes the type of seed, supplier, test date, source of seed, purity, and germination. Purity is the percentage of pure seed. Germination is the percentage of pure seed that will produce normal plants when planted under favorable conditions.

To compute Pure Live Seed multiply the "germination percent" times the "purity" and divide that by 100 to get Pure Live Seed.

$$\text{Pure Live Seed (PLS)} = \frac{\%\,\text{Germination} \times \%\,\text{Purity}}{100}$$

For example, the PLS for a lot of Kentucky Blue grass with 75% purity and 96% germination would be calculated as follows:

$$\frac{(96) \times (75)}{100} = 72\%\ \text{Pure Live Seed}$$

For 10lbs of PLS from this lot =

$$\frac{10}{0.72} = 13.9\ \text{lbs}$$

Therefore, 13.9 lbs of seed is the actual weight needed to meet 10lbs PSL from this specific seed lot.

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 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 Standard and Specifications for Mulching 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.

80% Perennial Vegetative Cover

50% Perennial Vegetative Cover

Table 4.4
Permanent Construction Area Planting Mixture Recommendations

Seed Mixture	Variety	Rate in lbs./acre (PLS)	Rate in lbs./ 1, 000 ft^2
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	.50
*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	.10
Big bluestem	Niagara	4	.10
Little bluestem	Aldous or Camper	2	.05
Indiangrass	Rumsey	4	.10
Coastal panicgrass	Atlantic	2	.05
Sideoats grama	El Reno or Trailway	2	.05
Wildflower mix		.50	.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
Chewings Fescue	Common	20	.45
Perennial ryegrass	Pennfine, Linn	5	.10
Red Clover	Common	10	.45
*General purpose erosion control mix. Not to be used for a turf planting or play grounds.			

STANDARD AND SPECIFICATIONS FOR RECREATION AREA SEEDING

Definition & Scope

Establishing **permanent** grasses, legumes, vines, shrubs, trees, or other plants, or selectively reducing stand density and trimming woody plants, to improve an area for recreation. To increase the attractiveness and usefulness of recreation areas and to protect the soil and plant resources.

Conditions Where Practice Applies

On any area planned for recreation use, lawns, and areas that will be maintained in a closely mowed condition.

Specifications

ESTABLISHING GRASSES (Turfgrass)

The following applies for playgrounds, parks, athletic fields, camping areas, picnic areas, passive recreation areas such as lawns, and similar areas.

1. Time of Planting

Fall planting is preferred. Seed after August 15. In the spring, plant until May 15.

If seeding is done between May 15 and August 15, irrigation may be necessary to ensure a successful seeding.

2. Site Preparation

   A. Install needed water and erosion control measures and bring area to be seeded to desired grades. A minimum of 4 in. topsoil is required.

   B. Prepare seedbed by loosening soil to a depth of 4-6 inches and decompacting required areas per Soil Restoration Standard.

   C. See Standard and Specification of Topsoiling.

   D. Lime to a pH of 6.5. See Lime Application Standard.

   E. **Fertilize as per soil test** or, if soil must be fertilized before results of a soil test can be obtained to determine fertilizer needs, apply commercial fertilizer at 850 pounds of 5-5-10 or equivalent per acre (20 lbs/1,000 sq. ft.). See Fertilizer Application Standard.

   F. Incorporate lime and fertilizer in top 2-4 inches of topsoil.

   G. Smooth. Remove sticks, foreign matter, and stones over 1 inch in diameter, from the surface. Firm the seedbed.

3. Planting

Use a cultipacker type seeder if possible. Seed to a depth of 1/8 to 1/4 inch. If seed is to be broadcast, cultipack or roll after seeding. If hyroseeded, lime and fertilizer may be applied through the seeder, and rolling is not practical.

4. Mulching

Mulch all seedings in accordance with Standard and Specifications for Mulching. Small grain straw is the best material.

5. Seed Mixtures

Select seed mixture for site conditions and intended use from Table 4.5.

6. Contact Cornell Cooperative Extension Turf Specialist for suitable varieties.

Turf-type tall fescues have replaced the old KY31 tall fescues. New varieties have finer leaves and are the most resistant grass to foot traffic. Do not mix it with fine textured grasses such as bluegrass and red fescue.

Common ryegrass and redtop, which are relatively short lived species, provide quick green cover. Improved lawn cultivars of perennial ryegrass provide excellent quality turf, but continue to lack winter hardiness.

Common white clover can be added to mixtures at the rate of 1-2 lbs/acre to help maintain green color during the dry summer period; however, they will not withstand heavy traffic. Avoid using around swimming areas as flowers attract bees which can be easily stepped on.

Table 4.5
Recreation Turfgrass Seed Mixture

Site - Use	Species (% by weight)	lbs/1.000 ft^2 (PLS)	lbs/acre (PLS)
Sunny Sites (well, moderately well, and somewhat poorly drained soils)	***Athletic fields and similar areas***		
	80% Hard fescue	2.4-3.2	105-138
	20% Perennial ryegrass	0.6-0.8	25-37
		3.0-4.0	130-175
	OR, for southern and eastern, NY 50% Hard fescue	1.5-2.0	65-88
	50% perennial ryegrass	1.5-2.0	65-87
		3.0-4.0	130-175
	OR, 100% Creeping Red Fescue	3.4-4.6	150-200
	General recreation areas and lawns (Medium to high maintenance)		
	65% Creeping red fescue	2.0-2.6	85-114
	20% Perennial ryegrass	0.6-0.8	26-35
	15% Fine fescue	0.4-0.6	19-26
		3.0-4.0	130-175
	OR, 100% Creeping red fescue	3.4-4.6	150-200
Sunny Droughty Sites (general recreation areas and lawns, low maintenance) (somewhat excessively to excessively drained soils, excluding Long Island)	65% Fine fescue	2.6-3.3	114-143
	15% Perennial ryegrass	0.6-0.7	26-33
	20% Creeping red fescue	0.8-1.0	35-44
		4.0-5.0	175-220
	OR, 100% Creeping red fescue	3.4-4.6	150-200
Shady Dry Sites (well to somewhat poorly drained soils)	65% fine fescue	2.6-3.3	114-143
	15% perennial ryegrass	0.6-0.7	26-33
	20% Creeping red fescue	0.8-1.0	35-44
	OR	4.0-5.0	174-220
	80% blend of shade-tolerant Ceral rye	2.4-3.2	105-138
	20% perennial ryegrass	0.6-0.8	25-37
	OR	3.0-4.0	130-175
	100% Creeping red fescue	3.4-4.6	150-200
Shady Wet Sites (somewhat poor to poorly drained soils)	70% Creeping red fescue	1.4-2.1	60-91
	30% blend of shade-tolerant Hard fescue	0.6-0.9	25-39
	OR	2.0-3.0	85-130
	100% Chewings fescue	3.4-4.6	150-200

For varieties suitable for specific locations, contact Cornell Cooperative Extension Turf Specialist.

Reference: Thurn, M.C., N.W. Hummel, and A.M. Petrovic. Cornell Extension Pub. Info. Bulletin 185 Revised. HomeLawns Establishment and Maintenance. 1994.

7. Fertilizing—First Year

Apply fertilizer as indicated by the soil test three to four weeks after germination (spring seedlings). If test results have not been obtained, apply 1 pound nitrogen/1,000 square feet using a complete fertilizer with a 2-1-1 or 4-1-3 ratio. Summer and early fall seedings, apply as above unless air temperatures are above 85ºF for an extended period. Wait for cooler temperatures to fertilize. Late fall/ winter seedings, fertilize in spring.

8. Restrict Use

New seedlings should be protected from use for one full year or a spring and fall growth cycle where possible to allow development of a dense sod with good root structure.

MAINTAINING GRASSES

1. Maintain a pH of 6.0 - 7.0.

2. Fertilize in late May to early June as follows with 5-5-10 analysis fertilizer at the rate of 5 lbs./1,000 sq. ft. and repeat in late August if sod density is not adequate. Avoid fertilizing when heat is greater than 85ºF. Top dress weak sod annually in the spring, but at least once every 2 to 3 years. **Fertilize in accordance with soil test analysis**, after determining adequate topsoil depth exists.

3. Aerate compacted or heavily used areas, like athletic fields, annually as soon as soil moisture conditions permit. Aerate area six to eight times using a spoon or hollow tine type aerator. Do not use solid spike equipment.

4. Reseed bare and thin areas annually with original seed mix.

STANDARD AND SPECIFICATIONS FOR STABILIZATION WITH SOD

Definition & Scope

Stabilizing restored, exposed soil surfaces by establishing long term stands of grass with sod to reduce damage from sediment and runoff to downstream areas and enhance natural beauty.

Conditions Where Practice Applies

On exposed soils that have a potential for causing off site environmental damage where a quick vegetative cover is desired. Moisture, either applied or natural, is essential to success.

Design Criteria

1. Sod shall be bluegrass or a bluegrass/red fescue mixture or a perennial ryegrass for average sites. (CAUTION: Perennial ryegrass has limited cold tolerance and may winter kill.) Use turf type cultivars of tall fescue for shady, droughty, or otherwise more critical areas. For variety selection, contact Cornell Cooperative Extension Turf Specialist.

2. Sod shall be machine cut at a uniform soil thickness of 3/4 inch, plus or minus 1/4 inch. Measurement for thickness shall exclude top growth and thatch.

3. Standard size sections of sod shall be strong enough to support their own weight and retain their size and shape when suspended vertically from a firm grasp on the upper 10 percent of the section.

4. Sod shall be free of weeds and undesirable coarse weedy grasses. Wild native or pasture grass sod shall not be used unless specified.

5. Sod shall not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.

6. Sod shall be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period shall be inspected and approved by the contracting officer or his designated representative prior to its installation.

Site Preparation

Fertilizer and lime application rates shall be determined by soil tests. Under unusual circumstances where there is insufficient time for a complete soil test and the contracting officer agrees, fertilizer and lime materials may be applied in amounts shown in subsection 2 below. Slope land such as to provide good surface water drainage. Avoid depressions or pockets.

1. Prior to sodding, the surface shall be smoothed and cleared of all trash, debris, and of all roots, brush, wire, grade stakes and other objects that would interfere with planting, fertilizing or maintenance operations.

2. **The soil should be tested to determine the amounts of amendments needed.** Where the soil is acid or composed of heavy clays, ground limestone shall be spread to raise the pH to 6.5. If the soil must be fertilized before results of a soil test can be obtained to determine fertilizer needs, apply commercial fertilizer at 20 lbs. of 5-5-10 (or equivalent) and mix into the top 3 inches of soil with the required lime for every 1,000 square feet. Soil should be moist prior to sodding. Arrange for temporary storage of sod to keep it shaded and cool.

Sod Installation

1. For the operation of laying, tamping, and irrigating for any areas, sod shall be completed within eight hours. During periods of excessively high temperature, the soil shall be lightly moistened immediately prior to laying the sod.

2. The first row of sod shall be laid in a straight line with subsequent rows placed parallel to, and tightly wedged against, each other. Lateral joints shall be staggered to promote more uniform growth and strength. Ensure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause air drying of the roots. On sloping areas where erosion may be a problem, sod shall be laid with the long edges parallel to the contour and with

staggered joints.

3. Secure the sod by tamping and pegging, or other approved methods. As sodding is completed in any one section, the entire area shall be rolled or tamped to ensure solid contact of roots with the soil surface.

4. Sod shall be watered immediately after rolling or tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. Keep sod moist for at least two weeks.

Sod Maintenance

1. In the absence of adequate rainfall, watering shall be performed daily, or as often as deemed necessary by the inspector, during the first week and in sufficient quantities to maintain moist soil to a depth of 4 inches. Watering should be done in the morning. Avoid excessive watering during applications.

2. After the first week, sod shall be watered as necessary to maintain adequate moisture and ensure establishment.

3. The first mowing should not be attempted until sod is firmly rooted. No more than 1/3 of the grass leaf shall be removed by the initial cutting or subsequent cuttings. Grass height shall be maintained between 2 and 3 inches unless otherwise specified. Avoid heavy mowing equipment for several weeks to prevent rutting.

4. If the soil must be fertilized before results of a soil test can be obtained to determine fertilizer needs, apply fertilizer three to four weeks after sodding, at a rate of 1 pound nitrogen/1,000 sq.ft. Use a complete fertilizer with a 2-1-1 ratio.

5. Weed Control: Target herbicides for weeds present. Consult current Cornell Pest Control Recommendations for Commercial Turfgrass Management or consult the local office of Cornell Cooperative Extension.

6. Disease Control: Consult the local office of the Cornell Cooperative Extension.

Additional References

1. Home Lawns, Establishment and Maintenance, CCE Information Bulletin 185, Revised November 1994. Cornell University, Ithaca, NY.

2. Installing a Sod Lawn. CCE Suffolk County, NY. Thomas Kowalsick February 1994, Revised January 1999. www.cce.cornell.edu/counties/suffolk/grownet

STANDARD AND SPECIFICATIONS FOR TEMPORARY CONSTRUCTION AREA SEEDING

Definition & Scope

Providing temporary erosion control protection to disturbed areas and/or localized critical areas for an interim period by covering all bare ground that exists as a result of construction activities or a natural event. Critical areas may include but are not limited to steep excavated cut or fill slopes and any disturbed, denuded natural slopes subject to erosion.

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 and can be a hazard to young wildlife species.

STANDARD AND SPECIFICATIONS FOR TOPSOILING

Definition & Scope

Spreading a specified quality and quantity of topsoil materials on graded or constructed subsoil areas 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. Topsoil stockpiles must be stabilized. Stockpile surfaces can be stabilized by vegetation, geotextile or plastic covers. This can be aided by orientating the stockpile lengthwise into prevailing winds.

3. Refer to USDA 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 and sediment 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 in accordance with the Soil Restoration Standard.

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.

6. Topsoil may be manufactured as a mixture of a mineral component and organic material such as compost.

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.

3. Apply topsoil in the amounts shown in Table 4.7 below:

Table 4.7 - Topsoil Application Depth		
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, clay loam, loam, or silt	Mowed lawn	4 in.
	Tall legumes, unmowed	1 in.
	Tall grass, unmowed	1 in.

STANDARD AND SPECIFICATIONS FOR COMPOST FILTER SOCK

Definition & Scope

A **temporary** sediment control practice composed of a degradable geotextile mesh tube filled with compost filter media to filter sediment and other pollutants associated with construction activity to prevent their migration offsite.

Condition Where Practice Applies

Compost filter socks can be used in many construction site applications where erosion will occur in the form of sheet erosion and there is no concentration of water flowing to the sock. In areas with steep slopes and/or rocky terrain, soil conditions must be such that good continuous contact between the sock and the soil is maintained throughout its length. For use on impervious surfaces such as road pavement or parking areas, proper anchorage must be provided to prevent shifting of the sock or separation of the contact between the sock and the pavement. Compost filter socks are utilized both at the site perimeter as well as within the construction areas. These socks may be filled after placement by blowing compost into the tube pneumatically, or filled at a staging location and moved into its designed location.

Design Criteria

1. Compost filter socks will be placed on the contour with both terminal ends of the sock extended 8 feet upslope at a 45 degree angle to prevent bypass flow.

2. Diameters designed for use shall be 12" – 32" except that 8" diameter socks may be used for residential lots to control areas less than 0.25 acres.

3. The flat dimension of the sock shall be at least 1.5 times the nominal diameter.

4. The **Maximum Slope Length** (in feet) above a compost filter sock shall not exceed the following limits:

Dia. (in.)	Slope %						
	2	**5**	**10**	**20**	**25**	**33**	**50**
8	225*	200	100	50	20	—	—
12	250	225	125	65	50	40	25
18	275	250	150	70	55	45	30
24	350	275	200	130	100	60	35
32	450	325	275	150	120	75	50
* Length in feet							

5. The compost infill shall be well decomposed (matured at least 3 months), weed-free, organic matter. It shall be aerobically composted, possess no objectionable odors, and contain less than 1%, by dry weight, of man-made foreign matter. The physical parameters of the compost shall meet the standards listed in Table 5.2 - Compost Standards Table. **Note: All biosolids compost produced in New York State (or approved for importation) must meet NYS DEC's 6 NYCRR Part 360 (Solid Waste Management Facilities) requirements. The Part 360 requirements are equal to or more stringent than 40 CFR Part 503 which ensure safe standards for pathogen reduction and heavy metals content. When using compost filter socks adjacent to surface water, the compost should have a low nutrient value.**

6. The compost filter sock fabric material shall meet the

7. Compost filter socks shall be anchored in earth with 2" x 2" wooden stakes driven 12" into the soil on 10 foot centers on the centerline of the sock. On uneven terrain, effective ground contact can be enhanced by the placement of a fillet of filter media on the disturbed area side of the compost sock.

8. All specific construction details and material specifications shall appear on the erosion and sediment control constructions drawings when compost filter socks are included in the plan.

Maintenance

1. Traffic shall not be permitted to cross filter socks.

2. Accumulated sediment shall be removed when it reaches half the above ground height of the sock and disposed of in accordance with the plan.

3. Socks shall be inspected weekly and after each runoff event. Damaged socks shall be repaired in the manner required by the manufacturer or replaced within 24 hours of inspection notification.

4. Biodegradable filter socks shall be replaced after 6 months; photodegradable filter socks after 1 year. Polypropylene socks shall be replaced according to the manufacturer's recommendations.

5. Upon stabilization of the area contributory to the sock, stakes shall be removed. The sock may be left in place and vegetated or removed in accordance with the stabilization plan. For removal the mesh can be cut and the compost spread as an additional mulch to act as a soil supplement.

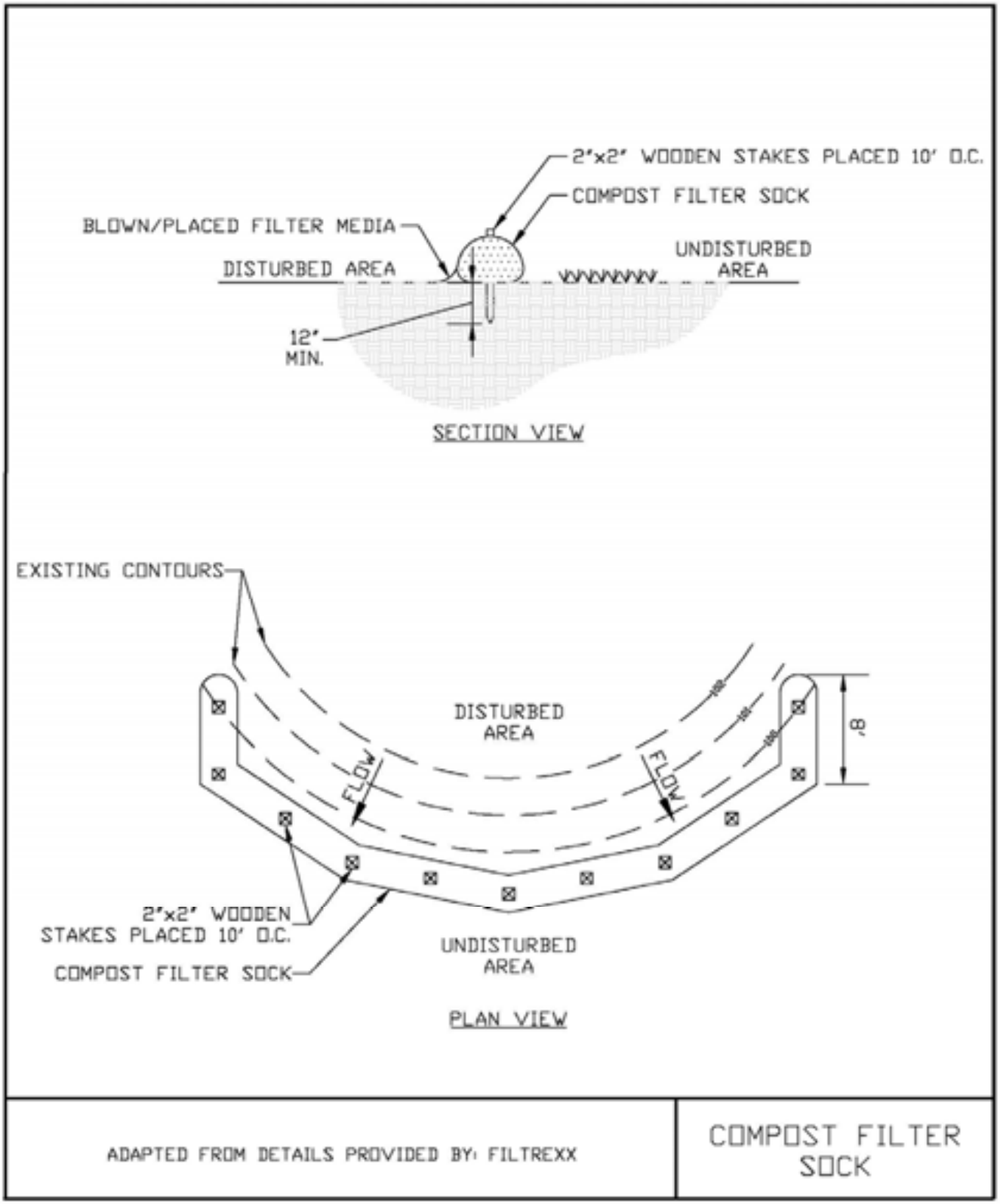
Table 5.1 - Compost Sock Fabric Minimum Specifications Table

Material Type	3 mil HDPE	5 mil HDPE	5 mil HDPE	Multi-Filament Polypropylene (MFPP)	Heavy Duty Multi-Filament Polypropylene (HDMFPP)
Material Characteristics	Photodegradable	Photodegradable	Biodegradable	Photodegradable	Photodegradable
Sock Diameters	12" 18"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"
Mesh Opening	3/8"	3/8"	3/8"	3/8"	1/8"
Tensile Strength		26 psi	26 psi	44 psi	202 psi
Ultraviolet Stability % Original Strength (ASTM G-155)	23% at 1000 hr.	23% at 1000 hr.		100% at 1000 hr.	100% at 1000 hr.
Minimum Functional Longevity	6 months	9 months	6 months	1 year	2 years

Table 5.2 - Compost Standards Table

Organic matter content	25% - 100% (dry weight)
Organic portion	Fibrous and elongated
pH	6.0 – 8.0
Moisture content	30% - 60%
Particle size	100% passing a 1" screen and 10 - 50% passing a 3/8" screen
Soluble salt concentration	5.0 dS/m (mmhos/cm) maximum

Figure 5.2
Compost Filter Sock



STANDARD AND SPECIFICATIONS FOR DEWATERING DEVICE

Definition & Scope

An appurtenance to a sediment trapping structure such as a basin or trap that allows sediment laden water to pond allowing sediment to settle out while removing relatively clean water to a suitable, stable outlet.

Condition Where Practice Applies

Dewatering devices are appropriate where the discharge from a trap or basin will be by gravity flow through a riser and pipe outlet system. The skimmer dewatering device is the preferred option. A fixed pipe dewatering device, configured as a perforated vertical riser surrounded by filter fabric and stone material is an alternate option for small structures.

Design Criteria

Skimmer Device

1. Skimmers must be designed so as to float just beneath the water surface to remove the least sediment laden water effectively.
2. Skimmer shall be constructed with a 4 foot long flexible pipe elbow to allow for vertical movement of the skimmer for its designated range of operation.
3. The designer will provide a table that shows all required dimensions for the skimmer. An example of this table is shown in Figure 5.4 on page 5.12. See design example in Appendix B.
4. The skimmer will be provided with vertical travel guides and a resting stone pad set at the appropriate design elevation.
5. The orifice plate will be at the "T" intersection of the perforated skimmer section with the non-perforated extension arm.

Riser-Pipe Device

1. The riser-pipe device is constructed as a fixed rigid structure with a larger diameter pipe as the vertical riser connected to a smaller diameter horizontal pipe barrel.
2. The joint of these two conduits will be anchored by means of a concrete block or welded steel plate to prevent flotation.
3. The riser will be perforated above the bottom of the dewatering zone elevation and wrapped with a geotextile filter fabric to filter out sediment.
4. The filter fabric shall be covered with stone graded as NYSDOT #1, #2, or a blend of both, to protect the fabric from deterioration.
5. An orifice plate shall be placed in the riser at the bottom of the dewatering zone elevation to control the dewatering rate.

Dewatering Drawdown

As a minimum, sediment traps and basins should have their temporary storage dewatered over a 48 hour period to maximize sediment retention. If the soils disturbed within the drainage area will have 60% - 80% fines the settling time should be increased to 4 days. Soils containing greater than 80% fines will need longer settling times but in no case longer than 7 days to maintain the hydraulic performance of the basin for recurring runoff events.

1. Skimmer orifices may be sized by using the design chart shown in Figure 5.3 on page 5.11.
2. Riser-pipe orifice sizes may be approximated by the following formula:

$$A_0 = \frac{A_s \times 2h^{0.5}}{T \times C_d \times 20{,}428}$$

Where:

A_0 = Areas of the dewatering orifice (ft^2)

As = Surface area of the basin/trap (ft^2)

h = head of water above the orifice (ft)

C_d = 0.6 (contraction coefficient of an orifice)

T = Detention time needed to dewater basin (48 hours minimum)

Therefore, the minimum A_o formula for 48 hrs. reduces to:

$$A_o = \frac{A_s \times 2h^{0.5}}{588{,}326}$$

Material Specifications

1. Skimmer Devices - These devices shall be constructed with Schedule 40 PVC pipe with diameters of 4 to 6 inches. The flexible arm shall be equal diameter of non -perforated, corrugated, plastic tubing.

2. Riser-pipe Devices - These devices shall be constructed of Schedule 40 PVC if plastic pipe is used or galvanized corrugated steel or aluminum pipe. The minimum diameter shall be 6 inches if the device is used in conjunction with another permanent riser. All perforations will be at the interior of the corrugations.

Maintenance

1. Dewatering devices shall be inspected weekly and after each runoff event.

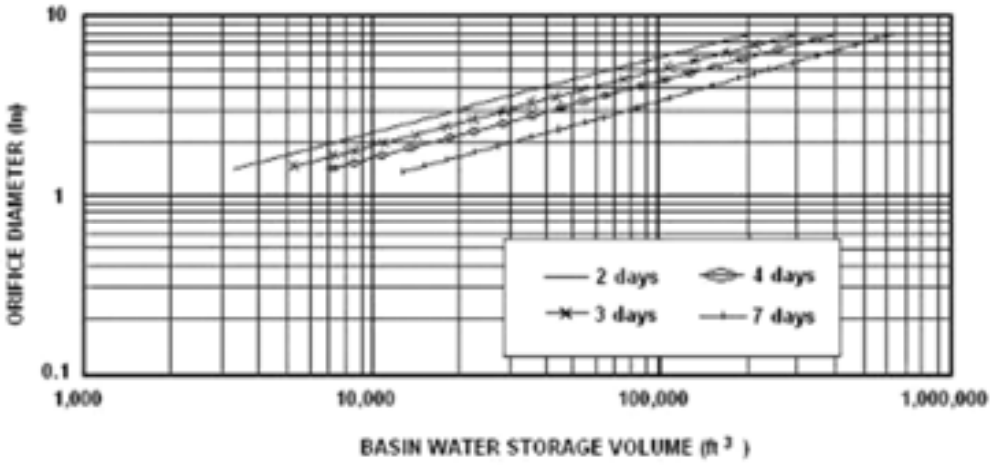
2. Filter fabric or media will be replaced as needed.

3. Any malfunctioning skimmer or its components shall be repaired or replaced within 24 hours of inspection notification.

4. Sediment shall be removed from the system when it reaches the level marked in a sediment cleanout stake or the top of the skimmer landing area.

5. The structure shall only be removed when the tributary area has been properly stabilized.

Figure 5.3 - Skimmer Orifice Design Chart



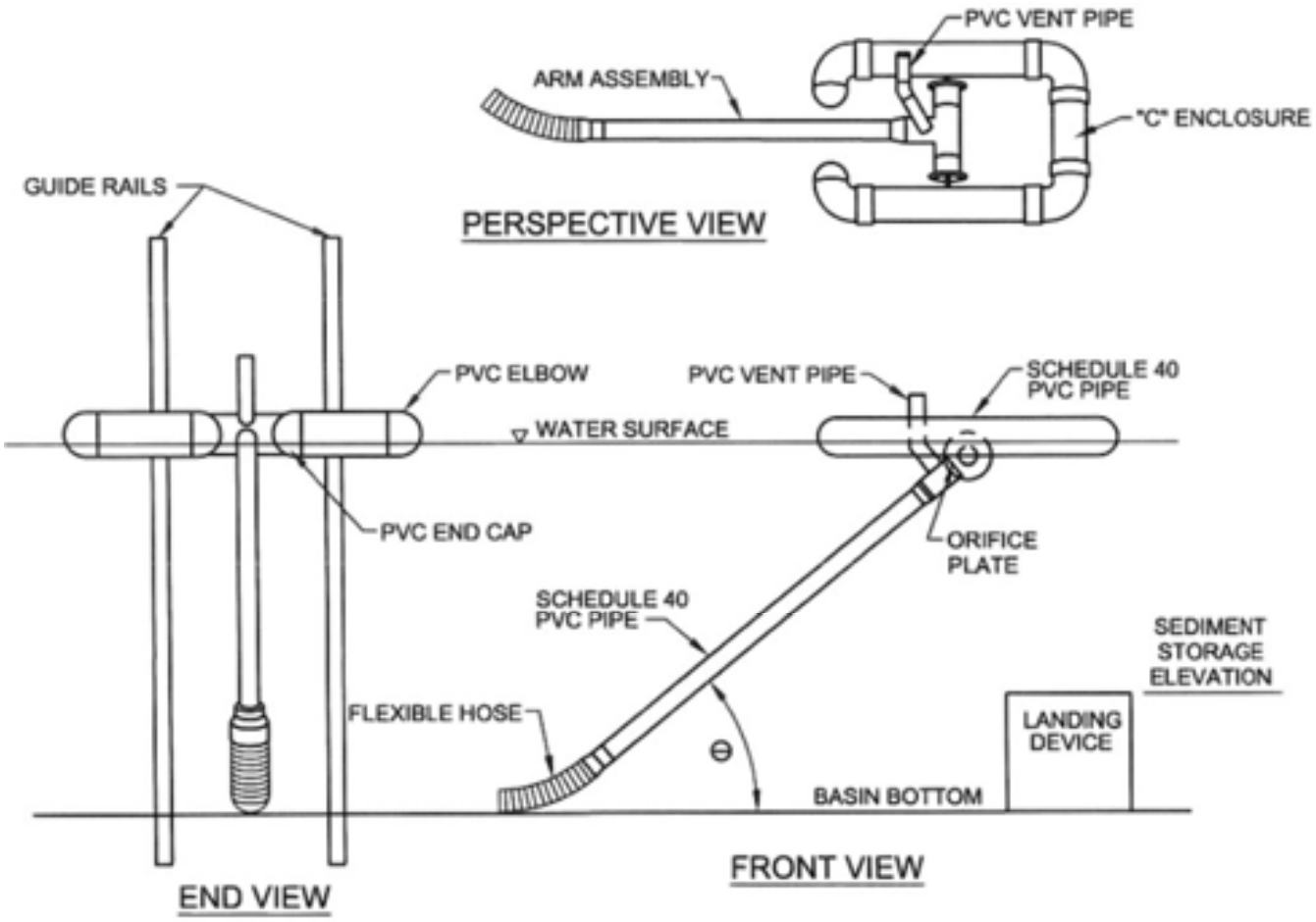
* Figure adapted from Penn State Agricultural and Biological Fact Sheet F-253

Notes:

1. Figure 5.3 is for use in designing the orifice plate for the skimmer shown in Figure 5.4. It assumes 3" to 5" head (depending upon the size of the skimmer). The required head for use of Figure 5.3 varies as follows: For a skimmer with a dewatering tube ≤ 2 1/2" diameter, use a 2" head. For a 3" diameter tube, use a 2.5" head; 4" tube, use 3.3" head, 5" tube use 4" head, and 6" diameter tube use 5" head.

2. Find the vertical line representing the basin's dewatering zone volume. At the intersection of the vertical line with the desired dewatering time, read horizontally to the left to find the required skimmer orifice diameter.

Figure 5.4
Skimmer Dewatering Device



* Figure adapted from Penn State Agricultural and Biological Fact Sheet F-253

Basin No.	Water Surface Elevation (ft.)	Arm Length* (ft.)	Arm Dia. (in.)	Orifice Size** (in.)	Top of Landing Device Elevation (ft.)	Flexible Hose Length (in.)	Flexible Hose Attachment Elevation (ft.)

* Minimum Arm length = Full design storage depth x 1.414 (for 45 degree angle)
** Must be equal to or less than arm diameter

Skimmer Construction Notes

1. Pipe flotation section shall be solvent welded to ensure an airtight assembly. The contractor is required to conduct a test to check for leaks prior to installation.

2. Skimmer section shall have 12 rows of 1/2" diameter holes, 1 1/4" on center. If additional filtration is necessary, the filtering media shall consist of a Type GD-II geotextile fabric wrapped around the perforated portion of the skimmer and attached with plastic snap ties, bands, etc.

3. Flexible pipe shall be inserted into solid pipe and fastened with 2 #8 wood screws.

4. At a minimum, the structure shall be inspected after each rain and repairs made as needed. If vandalism is a problem, more frequent inspection may be necessary.

5. Construction operations shall be carried out in such a manner that erosion and water pollution are minimized.

6. The structure shall only be removed when the contributing drainage area has been properly stabilized.

Materials

(Note: materials for a 4" diameter arm assembly)

1. Solid Pipe - 4" Schedule 40 PVC

2. Perforated Pipe - 4" Schedule 40 PVC

3. 90º Tee (1 each) - 4" Schedule 40 PVC

4. 90º Elbow (4 each) - 4" Schedule 40 PVC

5. Cap (2 each) - 4" Schedule 40 PVC, solid

6. Flexible pipe - 4" Corrugated Plastic Tubing (non-perforated)

Figure 5.5
Riser Pipe Dewatering Device

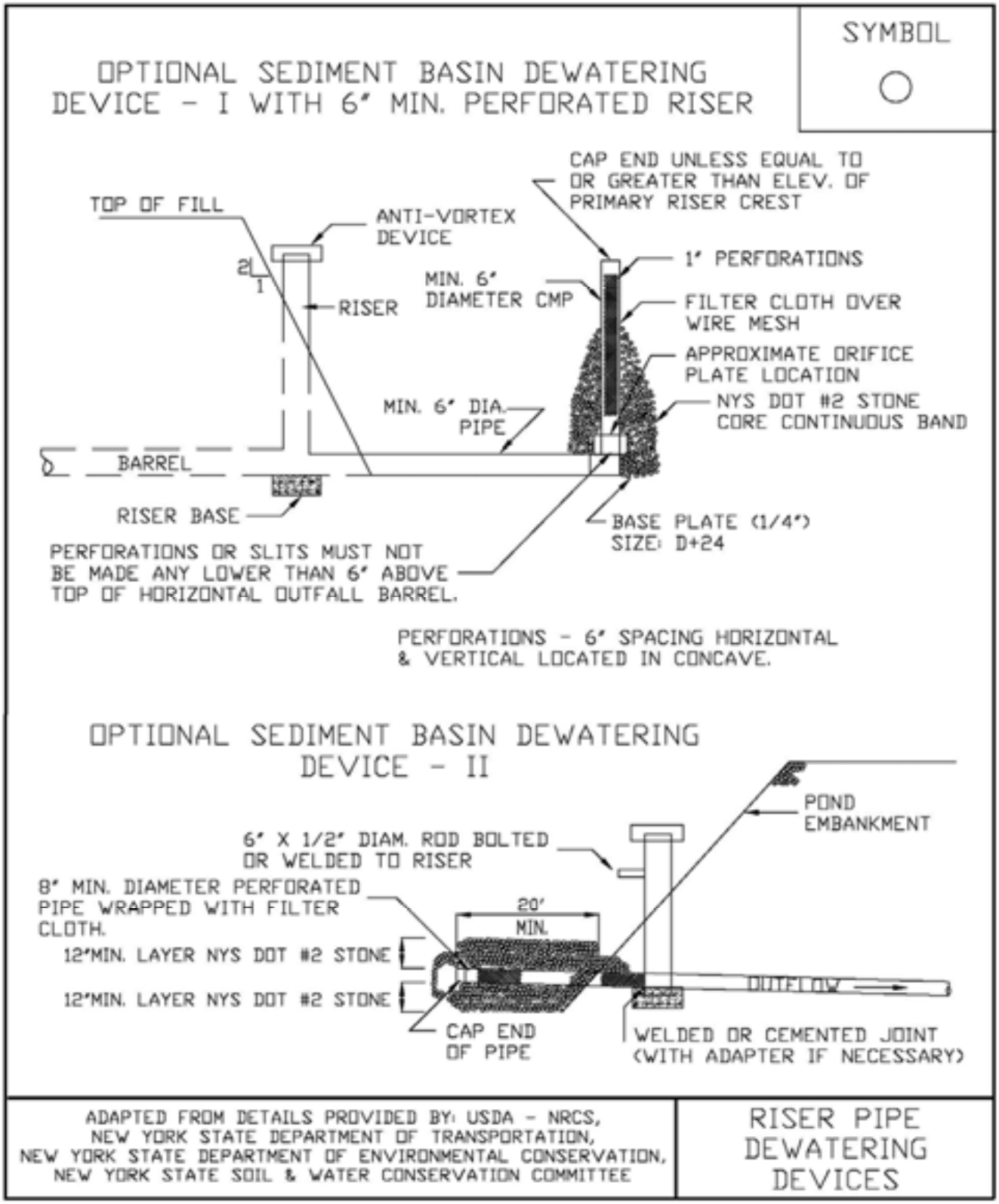


Figure 5.6
Riser Pipe Dewatering Device Construction Notes

Riser Pipe Construction Notes

1. Standpipe and connector pipe shall be a minimum of 6 inches diameter.

2. Metal pipe may be galvanized steel or aluminum; plastic pipe may be Schedule 40 PVC or HDPP.

3. Construction operations shall be carried out in such a manner that erosion and water pollution are minimized.

4. The structure shall only be removed when the contributing drainage area has been properly stabilized.

5. All pipe connections shall be watertight. The lower portion of the standpipe, at a point above the barrel connection, shall be fitted with an internal orifice plate sized to release the volume of the basin no sooner than 48 hours.

6. The top 2/3 of the standpipe shall be perforated with 1 inch diameter hole or slit spaced 6 inches vertically and horizontally and placed in the concave portion of the pipe. No holes will be allowed within 6 inches inches of the horizontal connector pipe.

7. The riser shall be wrapped with a Type GD-II geotextile fabric. The fabric shall extend 6inches above the highest hole and 6" below the lowest hole. Where ends of fabric come together, they shall be overlapped, folded and stapled to prevent bypass.

8. Straps or connecting bands shall be used to hold the fabric and wire mesh (as needed) in place. They shall be placed at the top and bottom of the cloth.

9. The standpipe shall be anchored with either concrete base or steel plate base to prevent flotation. Concrete bases shall be 12 inches thick with the standpipe embedded nine inches. Steel plate bases will be 1/4 inch minimum thickness attached to the standpipe by a continuous weld around the bottom to form a watertight connection. The plate shall have 2.5 feet of stone, gravel or tampered earth placed on it.

10. The perforated standpipe shall be surrounded by NYSDOT #1 or #2 stone or a blend of both to protect the filter fabric.

STANDARD AND SPECIFICATIONS FOR GEOTEXTILE FILTER BAG

Definition & Scope

A **temporary** portable device through which sediment laden water is pumped to trap and retain sediment prior to its discharge to drainageways or off-site.

Condition Where Practice Applies

On sites where space is limited such as urban construction or linear projects (e.g. roads and utility work) where rights-of-way are limited and larger de-silting practices are impractical.

Design Criteria

1. Location - The portable filter bag should be located to minimize interference with construction activities and pedestrian traffic. It should also be placed in a location that is vegetated, relatively level, and provides for ease of access by heavy equipment, cleanout, disposal of trapped sediment, and proper release of filtered water.

   The filter bag shall also be placed at least 50 feet from all wetlands, streams or other surface waters.

2. Size - Geotextile filter bag shall be sized in accordance with the manufacturers recommendations based on the pump discharge rate.

Materials and Installation

1. The geotextile material will have the following attributes:

Minimum Grab Tensile Strength	200 lbs.
Minimum Grab Tensile Elongation	50 %
Minimum Trapezoid Tear Strength	80 lbs.
Mullen Burst Strength	380 psi
Minimum Puncture Strength	130 lbs
Apparent Opening Size	40 - 80 US sieve
Minimum UV Resistance	70%
Minimum Flow Thru Rate	70 gpm/sq ft

2. The bag shall be sewn with a double needle machine using high strength thread, double stitched “Joe” type capable of minimum roll strength of 100 lbs/inch (ASTM D4884).

3. The geotextile filter bag shall have an opening large enough to accommodate a 4 inch diameter discharge hose with an attached strap to tie off the bag to the hose to prevent back flow.

4. The geotextile shall be placed on a gravel bed 2 inches thick, a straw mat 4 inches thick, or a vegetated filter strip to allow water to flow out of the bag in all directions.

Maintenance

1. The geotextile filter bag is considered full when remaining bag flow area has been reduced by 75%. At this point, it should be replaced with a new bag.

2. Disposal may be accomplished by removing the bag to an appropriate designated upland area, cut open, remove the geotextile for disposal, and spread sediment contents and seeded and mulched according to the vegetative plan.

STANDARD AND SPECIFICATIONS FOR SILT FENCE

Definition & Scope

A **temporary** barrier of geotextile fabric installed on the contours across a slope used to intercept sediment laden runoff from small drainage areas of disturbed soil by temporarily ponding the sediment laden runoff allowing settling to occur. The maximum period of use is limited by the ultraviolet stability of the fabric (approximately one year).

Conditions Where Practice Applies

A silt fence may be used subject to the following conditions:

1. Maximum allowable slope length and fence length will not exceed the limits shown in the Design Criteria for the specific type of silt fence used ; and
2. 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; and
5. Soil conditions allow for proper keying of fabric, or other anchorage, to prevent blowouts.

Design Criteria

1. Design computations are not required for installations of 1 month or less. Longer installation periods should be designed for expected runoff.
2. All silt fences shall be placed as close to the disturbed area as possible, but at least 10 feet from the toe of a slope steeper than 3H:1V, to allow for maintenance and roll down. The area beyond the fence must be undisturbed or stabilized.
3. The type of silt fence specified for each location on the plan shall not exceed the maximum slope length and maximum fence length requirements shown in the following table:

		Slope Length/Fence Length (ft.)		
Slope	Steepness	Standard	Reinforced	Super
<2%	< 50:1	300/1500	N/A	N/A
2-10%	50:1 to 10:1	125/1000	250/2000	300/2500
10-20%	10:1 to 5:1	100/750	150/1000	200/1000
20-33%	5:1 to 3:1	60/500	80/750	100/1000
33-50%	3:1 to 2:1	40/250	70/350	100/500
>50%	> 2:1	20/125	30/175	50/250

Standard Silt Fence (SF) is fabric rolls stapled to wooden stakes driven 16 inches in the ground.
Reinforced Silt Fence (RSF) is fabric placed against welded wire fabric with anchored steel posts driven 16 inches in the ground.
Super Silt Fence (SSF) is fabric placed against chain link fence as support backing with posts driven 3 feet in the ground.

4. Silt fence shall be removed as soon as the disturbed area has achieved final stabilization.

The silt fence shall be installed in accordance with the appropriate details. Where ends of filter cloth come together, they shall be overlapped, folded and stapled to prevent sediment bypass. Butt joints are not acceptable. A detail of the silt fence shall be shown on the plan. See Figure 5.30 on page 5.56 for Reinforced Silt Fence as an example of details to be provided.

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)	110	ASTM D 4632
Elongation at Failure (%)	20	ASTM D 4632
Mullen Burst Strength (PSI)	300	ASTM D 3786
Puncture Strength (lbs)	60	ASTM D 4833
Minimum Trapezoidal Tear Strength (lbs)	50	ASTM D 4533
Flow Through Rate (gal/ min/sf)	25	ASTM D 4491
Equivalent Opening Size	40-80	US Std Sieve ASTM D 4751
Minimum UV Residual (%)	70	ASTM D 4355

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 3.5 square inches. Steel posts will be standard T and U section weighing not less than 1.00 pound per linear foot. Posts for super silt fence shall be standard chain link fence posts.

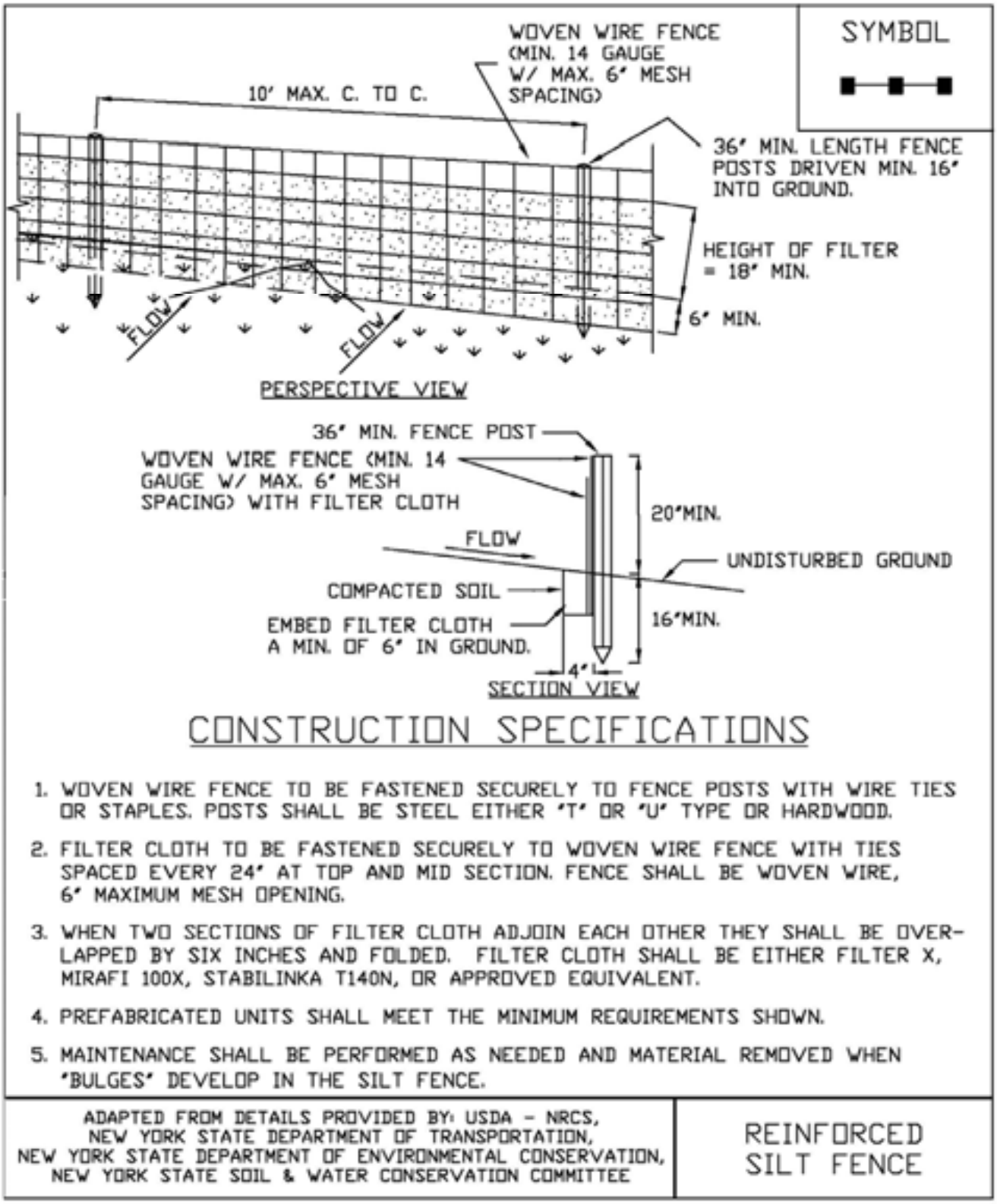
3. Wire Fence for reinforced silt fence: Wire fencing shall be a minimum 14 gage with a maximum 6 in. mesh opening, or as approved.

4. Prefabricated silt fence is acceptable as long as all material specifications are met.

Super Silt Fence

Reinforced Silt Fence

Figure 5.30
Reinforced Silt Fence



STANDARD AND SPECIFICATIONS FOR STORM DRAIN INLET PROTECTION

Definition & Scope

A **temporary** barrier with low permeability, installed around inlets in the form of a fence, berm or excavation around an opening, detaining water and thereby reducing the sediment content of sediment laden water by settling thus preventing heavily sediment laden water from entering a storm drain system.

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 practice shall be used with an upstream buffer strip if placed at a storm drain inlet on a paved surface. It 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 five (5) 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. Paved Surface Inlet Protection
V. Manufactured Insert Inlet Protection

Design Criteria

Drainage Area – The drainage area for storm drain inlets shall not exceed one acre. Erosion control/temporary stabilization measures must be implemented on the disturbed drainage area tributary to the inlet. The crest elevations of these practices shall provide storage and minimize bypass flow.

Type I – Excavated Drop Inlet Protection

This practice is generally used during initial overlot grading after the storm drain trunk line is installed.

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

This practice is generally used during final elevation grading phases after the storm drain system is completed.

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 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.

Type III – Stone and Block Drop Inlet Protection

This practice is generally used during the initial and intermediate overlot grading of a construction site.

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 stabilize in a manner appropriate to the site.

Type IV – Paved Surface Inlet Protection

This practice is generally used after pavement construction has been done while final grading and soil stabilization is occurring. These practices should be used with upstream buffer strips in linear construction applications, and with temporary surface stabilization for overlot areas, to reduce the sediment load at the practice. This practice includes sand bags, compost filter socks, geo-tubes filled with ballast, and manufactured surface barriers. Pea gravel can also be used in conjunction with these practices to improve performance. When the inlet is not at a low point, and is offset from the pavement or gutter line, protection should be selected and installed so that flows are not diverted around the inlet.

The drainage area should be limited to 1 acre at the drain inlet. All practices will be placed at the inlet perimeter or beyond to maximize the flow capacity of the inlet. Practices shall be weighted, braced, tied, or otherwise anchored to prevent movement or shifting of location on paved surfaces. Traffic safety shall be integrated with the use of this practice. All practices should be marked with traffic safety cones as appropriate. Structure height shall not cause flooding or by-pass flow that would cause additional erosion.

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

Type V - Manufactured Insert Inlet Protection

The drainage area shall be limited to 1 acre at the drain inlet. All inserts will be installed and anchored in accordance with the manufacturers recommendations and design details. The fabric portion of the structure will equal or exceed the performance standard for the silt fence fabric. The inserts will be installed to preserve a minimum of 50 percent of the open, unobstructed design flow area of the storm drain inlet opening to maintain capacity for storm events.

Figure 5.31
Excavated Drop Inlet Protection

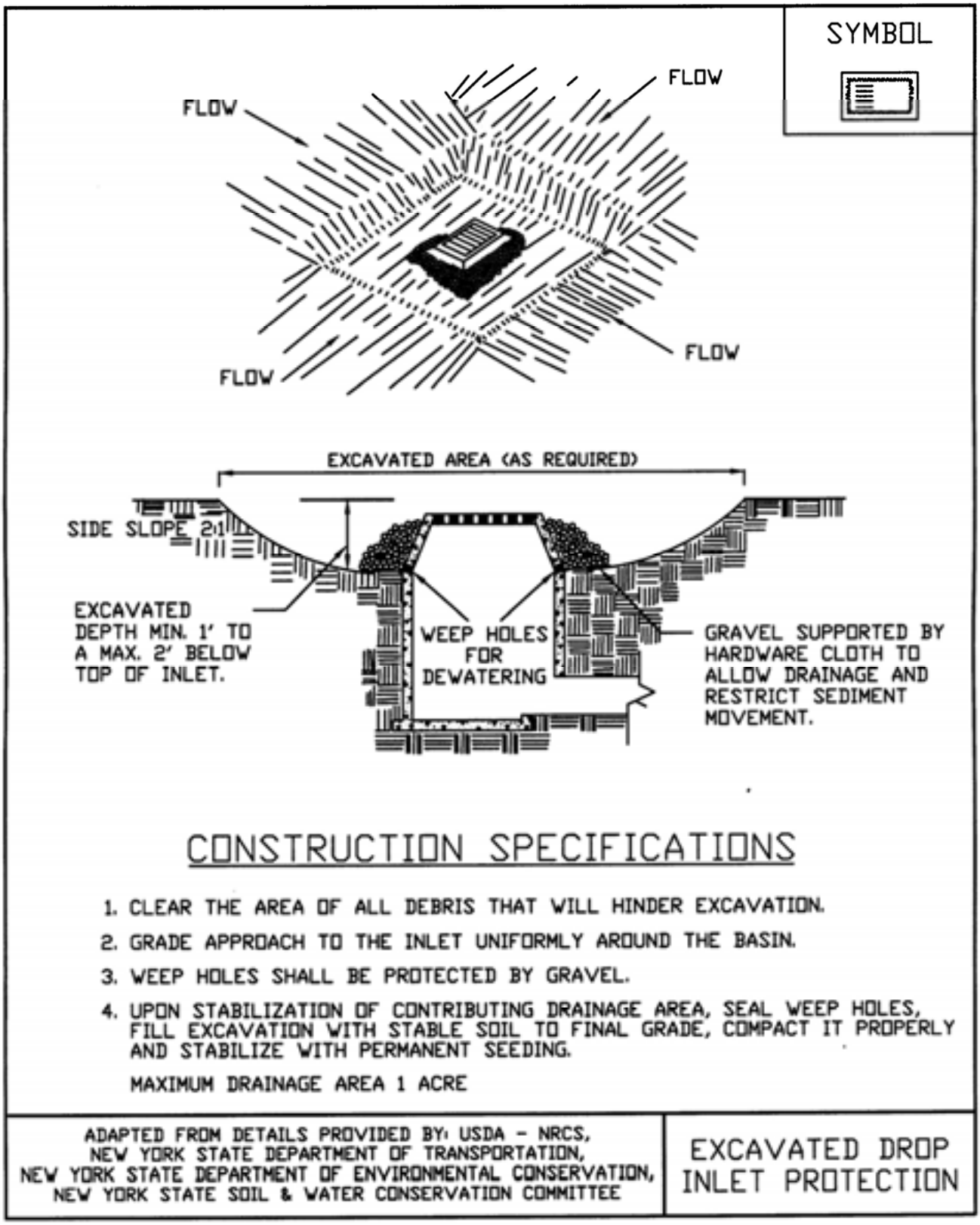


Figure 5.32
Fabric Drop Inlet Protection

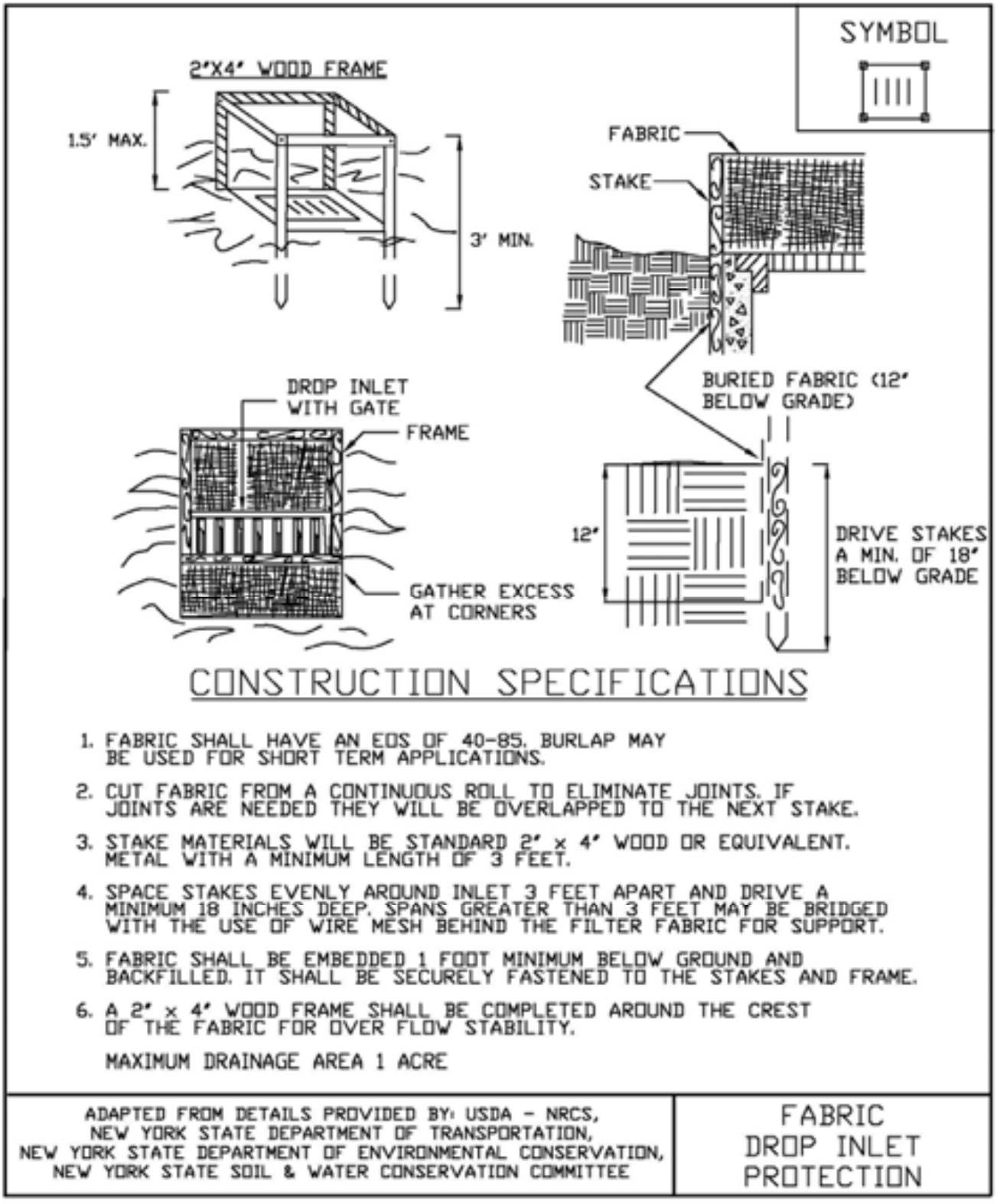
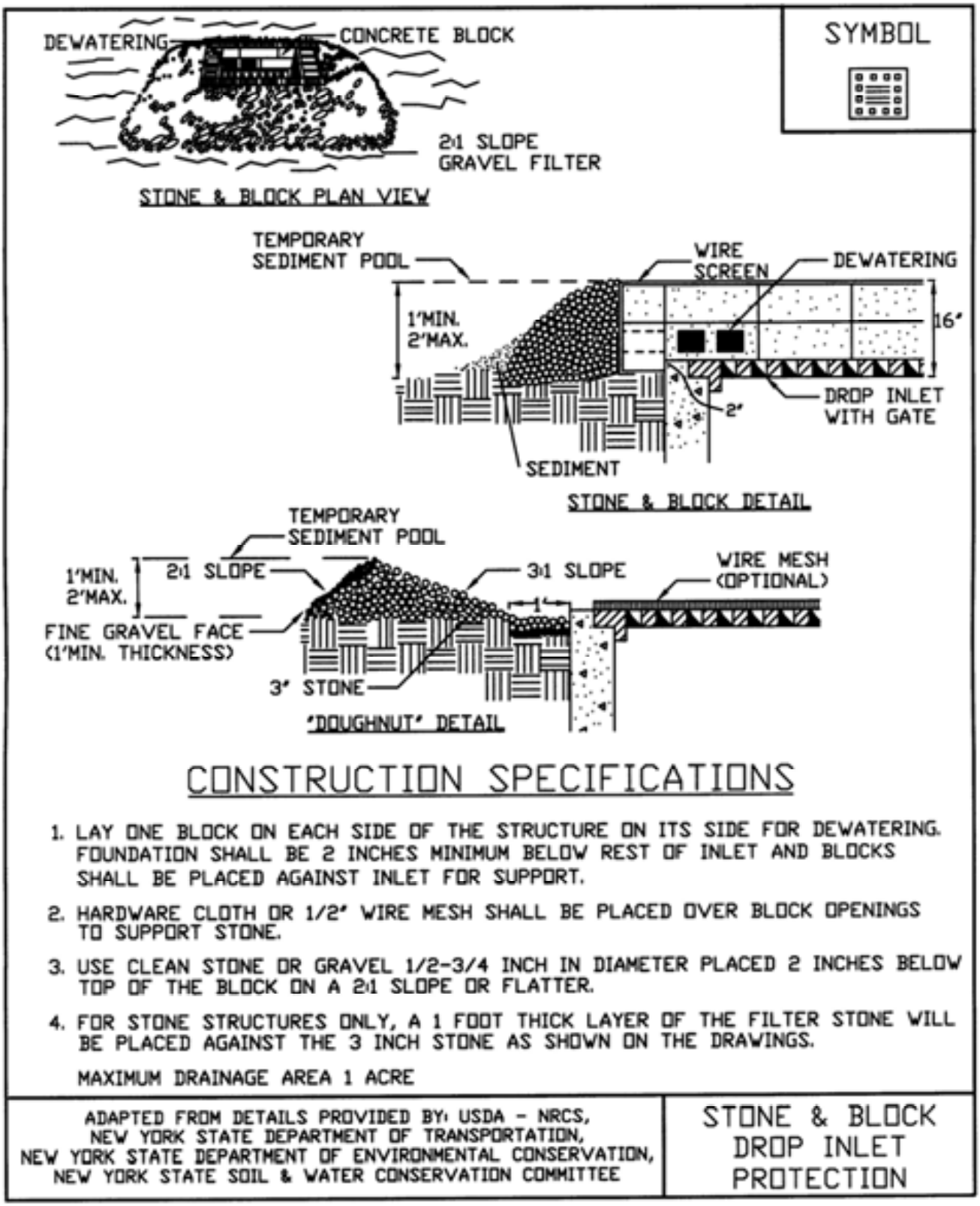


Figure 5.33
Stone & Block Drop Inlet Protection



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

APPENDIX I

NEW YORK STATE HISTORIC PRESERVATION OFFICE (SHPO) “NO EFFECT LETTER”

NEW YORK STATE OF OPPORTUNITY. | Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ERIK KULLESEID
Commissioner

December 23, 2019

Mr. Ethan Vinson, Project Coordinator
City of Plattsburgh
41 City Hall Place
Plattsburgh, NY 12901

Re: NYSHCR
City of Plattsburgh Downtown Area Improvement Projects
Plattsburgh, Clinton County, NY
19PR05584

Dear Mr. Vinson:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the provided documentation in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include other environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8).

Based upon our review the reports prepared by Curtin Archaeological Consulting, Inc (Curtin & Dymond, June 2019) and Hudson valley Cultural Resource Consultants (Selig, October 2019) and the response to our request for additional information/clarifications about the project, it is the opinion of the New York SHPO that this undertaking will result in No Adverse Effect to historic properties, including archaeological and/or historic resources. This recommendation pertains only to the Area of Potential Effects (APE) examined during the above-referenced investigation. It is not applicable to any other portion of the project property. Should the project design be changed SHPO recommends further consultation with this office.

If you have any questions, I can be reached at 518-268-2218or via e-mail at Josalyn.Ferguson@parks.ny.gov.

Sincerely,

Josalyn Ferguson, Ph.D.
Scientist Archaeology

via e-mail only

c.c. Beth Selig, HVCRC
c.c. Charles Vandrei & Region 5, DEC
c.c. Patricia O'Reilly, NYSHCR
c.c. Caren LoBrutto, Chazen Companies
c.c. Malana Tamer, City of Plattsburgh

APPENDIX J

SITE MANAGEMENT PLAN

August 2007

Environmental Restoration Program

Site Management Plan

Plattsburgh Gateway Project/
Durkee Street Site
Durkee Street
City of Plattsburgh
Clinton County, New York

ERP Site No. E510020

Prepared for:

CITY OF PLATTSBURGH
OFFICE OF COMMUNITY DEVELOPMENT
41 City Hall Place
Plattsburgh, New York 12901

Prepared by:

C.T. MALE ASSOCIATES, P.C.
50 Century Hill Drive
P.O. Box 727
Latham, New York 12110
(518) 786-7400
FAX (518) 786-7299

C.T. Male Project No: 04.9498

ENVIRONMENTAL RESTORATION PROGRAM
SITE MANAGEMENT PLAN
PLATTSBURGH GATEWAY PROJECT/DURKEE STREET SITE
CITY OF PLATTSBURGH
CLINTON COUNTY, NEW YORK

TABLE OF CONTENTS

ENVIRONMENTAL RESTORATION PROGRAM
SITE MANAGEMENT PLAN
PLATTSBURGH GATEWAY PROJECT/DURKEE STREET SITE
CITY OF PLATTSBURGH
CLINTON COUNTY, NEW YORK

TABLE OF CONTENTS

FIGURES

APPENDICES

EXHIBITS

1.0 INTRODUCTION

The City of Plattsburgh (the City) Office of Community Development submitted an application to the New York State Department of Environmental Conservation (DEC) for participation in the NYS Environmental Restoration Program (ERP) in relationship to the Durkee Street Parking Lot located along the east side of Durkee Street in the City of Plattsburgh, Clinton County, New York. A Site Location Map is presented as Figure 1.

To date, the site has been investigated inclusive of an Interim Remedial Measure (IRM) that was undertaken to address impacted soil/fill and groundwater at the site. Results of the remedial investigations and IRM were incorporated in Remedial Investigation (RI) and Alternatives Analysis (AA) Reports which are available for review at the document repositories. Based on information contained in the RI and AA reports and public comments solicited via a public meeting held in response to the NYS Department of Environmental Conservation (DEC or Department) Proposed Remedial Action Plan (PRAP) for the site, the DEC has issued a Record of Decision (ROD) for the site, dated March 2007. The ROD is attached hereto as Exhibit 1.

In the ROD, the Department promulgated the remedy for the site as "No Further Action with Site Management, and Institutional and Engineering Controls". As part of the remedy, the Department has required the development of a Site Management Plan (SMP) which will include the following institutional and engineering controls:

- Notice to the Department of any ground intrusive work or change in use, management of the final cover system to restrict excavation below the pavement layer, or buildings. Excavated soil would be tested, properly handled to protect the health and safety of workers and the nearby community, and would be properly managed in a manner acceptable to the Department;
- Evaluation of the potential for vapor intrusion for any buildings developed on the site, including provisions for mitigation of any impacts identified;
- Monitoring of groundwater; and

- Provisions for the operation, maintenance, and monitoring of the installed sub-slab vapor mitigation system in the office building presently under construction.

In addition to the SMP, the ROD states that the property owner would provide periodic certification that the institutional and engineering controls were being maintained as prepared by and submitted to the Department by a professional engineer or such other expert acceptable to the Department, until the Department notifies the property owner in writing that this certification is no longer needed.

1.1 Background

According to historical sources, the site was improved with several buildings associated with commercial, residential and manufacturing activities prior to its conversion into a parking lot and farmer's market. Historical land-use activities included automotive repair, steam laundering, sign painting and milling. Since historical practices at the site had the potential to degrade the site's environmental quality, the City of Plattsburgh made application for inclusion into the New York State Environmental Restoration Program.

At the onset of the RI, the site was subdivided into two Operable Units (OUs) to accommodate the redevelopment schedule (office building and parking deck) for the southern portion of the site. Operable Unit 1 (OU1), later renamed by the Department in the ROD as the "Office Building Parcel", consists of a three-story office building and open-air parking deck which occupies the southern portion of the site. Operable Unit 2 (OU2), later renamed by the Department in the ROD as the "Municipal Parking Lot", consists of an asphalt-paved public parking lot with farmer's market and occupies the central and northern portions of the site.

Each of the operable units was investigated as part of the RI. The investigations involved the collection and laboratory analysis of near-surface soil, subsurface soil, and groundwater samples, the drilling and installation of monitoring wells, and the completion of a soil gas survey. The investigative methods employed were derived in part from information contained in a limited subsurface investigation report of the Site conducted by others in May 2004, and from review of historical maps and regulatory databases. As part of the RI, an Interim Remedial Measure (IRM) was completed within the boundaries of the Office Building Parcel (OU1). The IRM involved: the excavation

for off-site disposal of impacted soils and fill materials; the dewatering, treatment and disposal of impacted groundwater within the excavations; and the closure by removal of underground storage tanks within the excavations. Furthermore, detections of chlorinated volatile organic compounds exceeding regulatory guidelines in groundwater sampled from monitoring wells installed as part of the RI dictated the installation of additional monitoring wells within the boundaries of the Municipal Parking Lot parcel (OU2) to further delineate the extent of these contaminants.

The City of Plattsburgh currently owns the subject site. There are no current redevelopment plans for the central and northern portions of the site.

1.2 Nature and Extent of Contamination

Contaminants of Concern (COCs) detected at concentrations exceeding DEC standards, criteria and guidance (SCGs) during the RI of the site included seven (7) semi-volatile organic compounds and four (4) metals in subsurface soils; six (6) volatile organic compounds (5 of which were chlorinated), one (1) semi-volatile organic compound, and five (5) metals in groundwater; and several volatile and semi-volatile organic compounds in soil gas. The frequencies that the COCs exceeded their respective SCGs are detailed in the attached DEC ROD (Exhibit 1) and the RI reports (document repositories).

1.3 Purpose and Objectives

The purpose of the SMP is to mitigate potential future impacts to human health and the environment via the institution and adherence to site specific institutional and engineering controls promulgated by the Department (see Section 1.1 and Exhibit 1). Additionally, the property owner is required to provide a periodic certification of institutional and engineering controls until the Department notifies the property owner in writing that this certification is no longer needed.

The objective of this SMP is to describe the requirements for the management of subsurface soil/fill material beneath the existing surface cover system; groundwater monitoring; vapor intrusion assessments for future buildings; and the currently existing vapor mitigation system in the office building. The SMP also presents site specific SCGs (Section 2.0) as determined through the RI and AA completed for the site.

The SMP is not intended to serve as a design document for construction activities relating to redevelopment activities, it is the developer's responsibility to prepare a design that incorporates the requirements set forth in this SMP.

1.4 Contemplated Use and Property Use Limitations

The contemplated use of the subject site, as described in the DEC ROD, is restricted residential in conformance with local zoning which permits commercial use, including the continued use as a parking lot. Restricted residential is defined as: "residential uses such as homes, apartments, mobile home parks, dormitories, schools, and day-care facilities are allowed, but require engineering and/or institutional controls for the use to be protective".

Property use limitations for the site's contemplated use as restricted residential will be established in deed restrictions and/or the environmental easement for the property as filed with the City of Plattsburgh clerk and/or the Clinton County clerk. Deed restrictions and/or the environmental easement are applicable to successors and assigns of the property. The deed restrictions and/or environmental easement, when finalized, will be attached as Exhibit 2.

1.5 Summary of the Remedy

The contaminants of concern (COCs) for soil, groundwater and soil gas have been identified in section 1.2 of this document. The identification of the remedial action objectives for the site are based primarily on the human health and environmental risks posed by the site as identified in the RI and AA Reports prepared by C.T. Male which are available in the document repositories and the DEC ROD (Exhibit 1). Based on the site's contemplated use as restricted residential with permitted commercial use, the remedial action objectives for the site are to minimize potential exposure to on-site subsurface soil/fill, groundwater, and subsurface soil gas.

To achieve the remedial action objectives, the site's existing surface cover system will be utilized as a barrier to contact; long term groundwater monitoring and groundwater use restrictions will be instituted; a subsurface vapor mitigation system will be installed within the newly constructed office building; and a vapor intrusion assessment will be conducted should habitable buildings be developed on the site in the future.

1.6 Site Management Plan Responsibility

The current property owner and any future property owners will be responsible for implementing and monitoring the requirements of this SMP. The property owner will not authorize their employees, agents, or assigns to disturb site soils, except in accordance with the SMP. The property owner will be responsible for proper notification and reporting to regulatory agencies (i.e., NYSDEC Region 5) prior to and following any site maintenance and/or development.

It is expected that the Department will provide periodic oversight and monitoring during site maintenance and/or potential future development activities to document that the requirements of this SMP are followed.

2.0 STANDARDS, CRITERIA AND GUIDANCE

In order to identify which site soils require special handling and management, SCGs have been determined for the site. SCGs are promulgated requirements and non-promulgated guidance that govern site activities. Based on the contemplated use of the site as restricted residential with permitted commercial use, the site SCGs to be used for this project are the 6 NYCRR Part 375 Restricted (Residential) Use Soil Cleanup Objectives (December 14, 2006).

It has been assumed, based on the RI findings, that the soil and fill within the boundaries of the site contain concentrations of metals and semi-volatile organic compounds above SCGs. As such, all of the site soils must be handled in accordance with this SMP. Disposition of soil/fill (i.e., natural soils mixed with non-native materials) and native soils will be managed in accordance with the following general guidelines:

- Soil/fill which exists on-site with low level metals and semi-volatile organic compounds above site SCGs will be managed under the existing asphalt pavement and building footprint surface cover systems.

- Soil/fill which exists on-site with low level metals and semi-volatile organic compounds above site SCGs, and is disturbed can be reused on-site, provided it is placed beneath an acceptable surface cover system.

- Soil/fill which exists on-site with low level metals and semi-volatile organic compounds above site SCGs that can not be managed on-site will be required to be properly transported and disposed of at a disposal/treatment facility permitted to accept such material.

- Soil/fill which exists on-site with low level metals and semi-volatile organic compounds below site SCGs can be reused on-site as general fill, provided it is placed beneath an acceptable surface cover system, or may be transported off-site provided the proposed disposal location is approved by the Department prior to disposal.

- Native soils which have not been commingled with non-native materials, and do not reveal subjective evidence of contamination (i.e., staining or odors) do not require special handling or management.

3.0 SURFACE COVER SYSTEM

3.1 Purpose

The purpose of the surface cover system is to mitigate the potential for human contact with site soils containing COCs above SCGs and mitigate the potential for contaminated runoff from the property. The site's existing asphalt and building footprint surface cover system must be protected and maintained in accordance with this SMP as more specifically described in Section 5.0.

3.2 Acceptable Surface Cover Materials

According to the DEC ROD, the site's existing asphalt pavement and the farmer's market, office building and parking garage structures are considered as suitable existing surface cover materials to protect human populations from underlying soils and groundwater containing COCs at concentrations above SCGs.

4.0 SUB-SLAB VAPOR BARRIER SYSTEM

4.1 General

Based on the analytical results for soil gas sampling conducted on the Parking Lot parcel (OU2), as presented in the RI (document repositories), a soil vapor mitigation system will be designed and installed beneath any future habitable site structures to prevent soil vapors from entering the structures. Mitigation systems must be designed by a professional engineer or environmental professional acceptable to the Department and the DOH. The design and installation of the mitigation system will be documented and reported to the Department and the NYS Department of Health (DOH). As applicable, an information package on the mitigation system's operation, maintenance and monitoring will be given to the appropriate personnel (i.e., building owner, building tenant, etc.).

4.2 Design/Installation Requirements

The goal of the mitigation systems is to minimize and possibly eliminate the infiltration of subsurface organic vapors into habitable site buildings. Mitigation systems should be designed and installed in general accordance with the following:

- NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006
- USEPA Radon Mitigation Standards, EPA 402-R-93-078, Revised April 1994
- USEPA Model Standards and Techniques for Control of Radon in New Residential Buildings EPA 402-R-94-009, March 1994

5.0 MANAGEMENT OF SOILS BELOW SURFACE COVER SYSTEM

The purpose of this section is to provide environmental guidelines for management of site soil/fill beneath the surface cover system. The repair/replacement of the surface cover system during any future intrusive site work should also follow these guidelines.

5.1 General Guidelines

The following are general guidelines for management of surface and subsurface soil/fill at the site containing COCs above Site SCGs.

- Any breach of the site's surface cover system, including for the purposes of construction or utilities work, must be replaced or repaired.
- Control surface erosion and run-off of the entire property at all times, including during construction activities.
- Site soil/fill which is excavated may be reused as backfill material or relocated on-site provided it contains no visual or olfactory evidence of contamination and it is placed beneath an acceptable surface cover material that meets the definition as described in Section 3.2. Hazardous soil/fill (on the basis of TCLP testing) will not be allowed to be placed on-site, but will be required to be disposed off-site at a permitted waste disposal facility.
- Site soil/fill that is excavated and intended for removal from the property must be characterized, managed and properly disposed of in accordance with DEC regulations and directives.
- Prior to ground invasive activities, workers are to be notified of the site conditions with respect to the COCs. The scope of work to be implemented must be reviewed and approved by the Owner or its designated representative. Invasive work must be performed in accordance with all applicable local, state and federal regulations to protect worker health and safety.

5.2 Potentially Contaminated Soil

Based on the RI, soils within the site include fill composed of brick, concrete, cinder, slag and ash, which vary in color and appearance. Soil that is unnaturally discolored, tinted, dyed, and has an unnatural sheen and exhibits petroleum or chemical odors and/or produces elevated Photo-ionization Detector (PID) readings (i.e., sustained 5 ppm or greater) will be considered potentially contaminated and stockpiled on the property for further assessment. The property owner will be notified and will retain a qualified consultant to observe excavation activities, field screen soil samples to determine level of excavation required to remove the observed contamination and, as necessary, collect samples for laboratory analysis. The potentially contaminated soil will be stockpiled on two layers of 6-mil polyethylene sheeting. The stockpiled, potentially contaminated soil will also be completely covered using polyethylene sheeting to reduce the infiltration of precipitation and the migration of dust. Sampling and analysis will be completed in accordance with applicable NYSDEC guidance documents for reuse, treatment, or disposal determination. Soil that exhibits elevated PID readings containing one or more constituents in excess of site SCGs for semi-volatile organic compounds and metals will be transported off-site to a permitted waste management facility.

5.3 Excavated Soil Reuse and Disposal

Excavated soil/fill may be used on-site below the surface cover system. Soil/fill that is excavated as part of any ground invasive activities that can't be reused as fill below the surface cover system will be characterized prior to transportation off-site for disposal at a permitted facility or otherwise DEC approved location. The frequency and parameters of the characterization will be based on the desired disposal facility. The soil analyses will be performed by a DOH Environmental Laboratory Assurance Program (ELAP) certified analytical laboratory.

Soil/fill that exhibits elevated PID readings may also be used on-site as fill below the surface cover system if characterized and found to contain semi-volatile organic compounds and metals at concentrations less than site SCGs. This soil/fill may not be used as a replacement surface cover material, or as backfill in any future landscape areas for the planting of trees and shrubs.

Native soils which have not been commingled with non-native materials, and do not reveal subjective evidence of contamination (i.e., staining or odors) do not require special handling or management.

5.4 Underground Storage Tanks and Buried Drums

Buried underground storage tanks were encountered during the IRM and were removed and disposed of off-site. Additional tanks, and drums, may still be present beneath the site. If buried drums or tanks are encountered during any ground intrusive work, excavation activities must cease and the property owner and the Department will be notified. The drums and tanks will be handled, removed and cleaned by appropriately trained personnel in accordance with all applicable federal, state and local regulations. The contents of the drums and/or tanks will be characterized and properly disposed off-site. Soils surrounding the tanks and drums will be assessed for impacts in accordance with applicable guidance documents (i.e., PBS regulations, NYSDEC Part 375, etc.).

5.5 Erosion Controls

Should the surface cover system be disturbed by future ground invasive activities, all erosion & sediment control measures and pollution prevention measures will be evaluated, designed and implemented by the contractor in compliance with the "New York Guidelines for Urban Erosion and Sediment Control" and the "New York State Stormwater Management Design Manual".

5.6 Dust Controls

Soil/fill handling, depending on the moisture content of the soil, has the potential for generating dust or particles in which COCs, if present, may be adhered to and released into the environment. Dust suppression techniques will be employed as necessary to prevent, control and mitigate fugitive dust during any maintenance and/or development work that penetrates the surface cover system. All reasonable attempts will be made to keep visible and/or fugitive dust to a minimum. Techniques to be utilized may include one or more of the following:

- Applying water to access roads.
- Restricting construction and other vehicle speeds on-site.

- Hauling materials in tarped containers or construction vehicles.
- Spraying or misting excavations and equipment prior to and during soil/fill disturbances.

5.7 Dust Control Monitoring

Visual assessment for visible/respirable dust must be implemented during ground intrusive activities beneath the surface cover material. Misting/wetting the area must be performed, as needed, on the basis of the visual assessment to assure no visible dust migrates beyond the immediate work area. If dust does not appear to be controlled by this or other typical construction methods, dust monitoring would be required to determine if particulate action levels are being exceeded. Particulate monitoring should be performed in accordance with the applicable sections of the NYSDOH Generic Community Air Monitoring Plan (Appendix A) and NYSDEC TAGM 4031, Fugitive Dust Suppression and Particulate Monitoring Program at Inactive Hazardous Waste Sites (Appendix B).

5.8 Construction Water Management

Due to the subsurface soil/fill conditions observed during the RI, groundwater infiltration may be significant on western portions of the site closest to Durkee Street and will require management if excavations reach four to six feet below grade. Water pumped from excavations, if any, will be managed properly in accordance with all applicable federal, state and local regulations.

If any sheens are observed on the water surface, the water will be pumped from the excavations and containerized and analyzed in general accordance with Surface Water and Groundwater Standards set forth in 6NYCRR Part 703.5 and applicable local sewer authority discharge requirements. If the water meets the water quality standards, it may be discharged to the publicly owned treatment works. If the water does not meet the water quality standards, the water will be discharged to the local sewer under the necessary permits, treated and discharged under proper permitting, or properly disposed off-site.

5.9 Management and Long-term Maintenance of Surface Cover System

The purpose of this section is to provide environmental guidelines for management of subsurface soil/fill and the long-term maintenance of the surface cover system during any future intrusive work which breaches the acceptable surface cover. Maintenance of the surface cover at the site will be the responsibility of the property owner, or its successors and assigns.

- Control surface erosion and run-off during maintenance and/or construction activities that breach the cover system.
- Replace or repair any breach of the surface cover system, including the installation of utilities and construction work, using a similar surface cover material than that existing. A certification that work required to replace or repair the surface cover system was performed in conformance with the DEC approved SMP will be required in the annual reporting for the year it was completed.
- Annually inspect the surface cover system for sloughing, cracks, settlement, erosion, damage or other items that affect the integrity of the surface cover system.
- Repair any deficiencies observed in the surface cover in a timely manner.
- Prepare and submit to the Department an Annual Report by January 15th of each year. The Annual Report shall contain certification by a P.E. or environmental professional that the institutional controls put in place, pursuant to the DEC approved SMP are still in place, have not been altered and are still effective; that the remedy and protective cover have been maintained throughout the year; and that the conditions of the site remain protective of human health and the environment.

6.0 LONG-TERM GROUNDWATER MONITORING

The DEC ROD states that long-term groundwater monitoring will be conducted of select monitoring wells installed as part of the RI. The monitoring wells that require long-term monitoring are identified as monitoring wells MW-9 (new replacement well), MW-10, MW-17, MW-21, MW-23, MW-25 and MW-26. The monitoring well locations are depicted on the attached Figure 2.

The monitoring wells will be sampled to verify the persistence of chlorinated and non-chlorinated volatile organic compounds at these locations. The long term monitoring will also aid in part in determining the effectiveness of the IRM and to determine if the contaminant persistence is diminishing via bio-degradation. The monitoring wells will be sampled and analyzed for volatile organic compounds by EPA Method 8260.

The site owner will be required to perform long-term groundwater monitoring at a frequency to be determined by the Department. The Department will be notified at least 60 days prior to the commencement of site maintenance and/or future redevelopment activities having the potential to physically alter and/or destroy the monitoring wells. The physical integrity of the monitoring wells and the groundwater sampling analytical results will be included in the Annual Report to the Department.

7.0 NOTIFICATION AND REPORTING REQUIREMENTS

7.1 Notification

There shall be no construction, use or occupancy of the property that results in the disturbance or excavation of the property, which threatens the integrity of the acceptable surface cover system or which would result in human exposure to contaminated soils, unless prior written approval by the DEC is obtained. Therefore, notification of DEC at the address listed below should precede any such work by at least 60 days, to allow time for review and any necessary revisions of a work plan, if applicable.

- Ms. Alicia Thorne, P.E.
  NYS Department of Environmental Conservation (Region 5 Office)
  232 Golf Course Road, P.O. Box 220
  Warrensburg, New York 12885
  Telephone No.: (518) 623-1238

For emergency repairs or alterations that require excavation at the site, notification and reporting will occur in a timely manner after completion of work.

For general repairs or alterations (i.e. utility work), a certification that the work was performed in conformance with this SMP will be incorporated in the Annual Report for the year that the work was completed.

Other notification requirements for this site include the following:

- The Department will be immediately notified if buried drums or underground storage tanks are encountered during soil excavation activities.
- Under State Law, all petroleum and most hazardous material spills must be reported to NYSDEC Hotline (1-800-457-7362) within New York State. Petroleum spills must be reported to DEC unless they meet all of the following criteria; the spill is known to be less than 5 gallons; the spill is contained and under the control of the spiller; the spill has not and will not reach the State's water or any land; and the spill is cleaned up within 2 hours of discovery. For spills not deemed reportable, it is

recommended that the facts concerning the incident be documented by the spiller and a record maintained for one year.

7.2 Reporting

The following minimum reporting requirements shall be followed by the owner, as appropriate:

The Owner shall complete and submit to the Department an Annual Report by January 15th of each year. The Annual Report shall contain certification that the institutional controls put in place, pursuant to the DEC approved SMP are still in place, have not been altered and are still effective; that the remedy and protective cover have been maintained throughout the year; provide analytical results for long-term groundwater monitoring; and that the conditions of the site remain protective of human health and the environment.

If the surface cover system has been breached during the year covered by that Annual Report, the Owner of the property shall include the following in such Annual Report:

- A certification that work was performed in conformance to the DEC approved SMP.
- Plans showing areas and depth of fill removal.
- Copies of daily observation reports for soil/fill related issues.
- Description of erosion and or dust control measures.
- A text narrative describing the excavation activities performed, health and safety monitoring performed, quantities and locations of soil/fill excavated and disposed on-site, sampling locations and results, if any, description of problems encountered, location and acceptability of test results for backfill sources, if any, and other pertinent information necessary to document that the site activities were properly performed.

7.3 Analytical Data

All characterization sampling and other necessary sampling during any site redevelopment activities will be conducted in accordance with the most recent

NYSDEC Analytical Services Protocol (ASP), and in part consistent with Section 2 of DER-10 Technical Guidance for Site Investigation and Remediation. The laboratory utilized for laboratory analyses will be certified through the DOH Environmental Laboratory Approval Program (ELAP) to perform Contract Laboratory Program (CLP) analysis and Solid Waste and Hazardous Waste Analytical testing on all media to be sampled. The laboratory will maintain these certifications for the duration of the project.

Procedures for chain of custody, laboratory instrumentation calibration, laboratory analyses, reporting of data, internal quality control, and corrective actions shall be followed as per NYSDEC ASP and as per the laboratory's Quality Assurance Plan. Where appropriate, trip blanks, field blanks, field duplicates, and matrix spike/matrix spike duplicate shall be performed at a rate of 5% (1 per up to 20 samples) and will be used to assess the quality of the data. The laboratory's in-house quality assurance/quality control limits will be utilized whenever they are more stringent than those suggested by the EPA methods.

8.0 HEALTH AND SAFETY PROCEDURES

8.1 General

Invasive work at the property will be performed in accordance with applicable local, state, and federal regulations to protect worker health and safety. If intrusive work is expected to breach the surface cover system at the property, contractors performing redevelopment or maintenance activities will be required to prepare and follow a site specific, activity specific, Health and Safety Plan (HASP). The HASP will also include provisions for protection of the community (i.e., Community Air Monitoring Plan). The HASP will be prepared in accordance with the regulations contained in OSHA 29CFR 1910.120 and inclusive of the components of the NYSDOH Generic Community Air Monitoring Plan and in part NYSDEC TAGM 4031.

8.2 Construction Personnel

Contractors engaged in subsurface construction or maintenance activities (e.g., utility workers) will be required to implement appropriate health and safety procedures for handling site soil/fill. These procedures may involve, donning adequate personal protective equipment, performing appropriate air monitoring, and implementing other engineering controls as necessary to mitigate potential ingestion, inhalation and contact with residual constituents in the soil/fill. Recommended health and safety procedures include, but may not be limited to, the following:

- While conducting invasive work at the Site, the Contractor shall provide safe and healthful working conditions. The Contractor shall comply with all New York State Department of Labor regulations and published recommendations and regulations promulgated under the Federal Occupational Safety and Health Act of 1970 and the Construction Safety Act of 1969, as amended, and with laws, rules, and regulations of other authorities having jurisdiction. Compliance with governmental requirements is mandated by law and considered only a minimum level of safety performance. The Contractor shall insure that all work is performed in accordance with recognized safe work practices.

- The Contractor shall be responsible for the safety of the Contractor's employees and the public. The Contractor shall be solely responsible for the adequacy and

safety of all construction methods, materials, equipment and the safe prosecution of the work.

- The Contractor is responsible to ensure that all project personnel have been trained in accordance with 29 CFR 1910.120, if required.

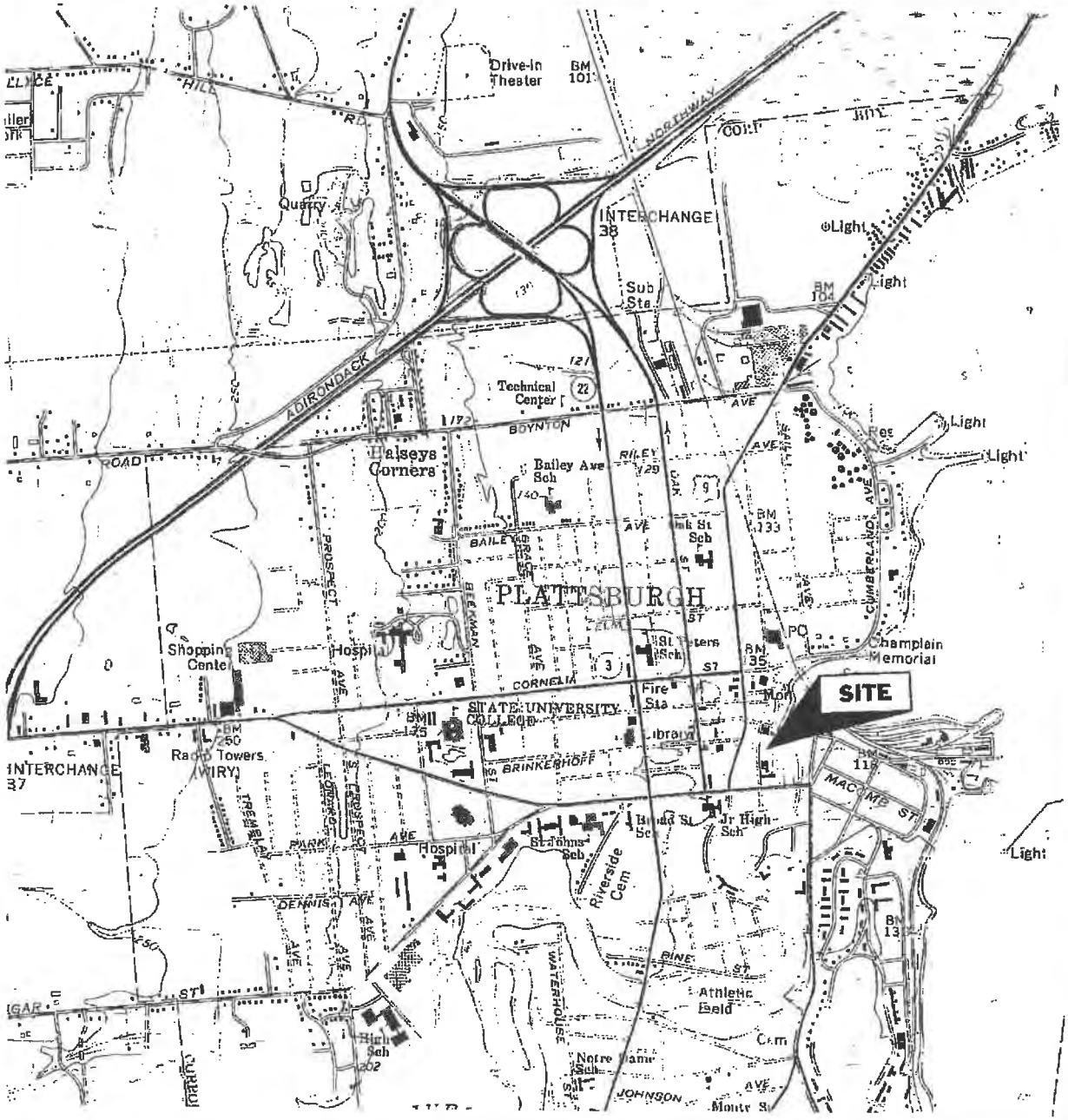
- The Contractor shall have a site specific HASP, written in accordance with 29 CFR 1926.65, prepared, signed and sealed by a safety professional; a safety professional and/or a trained safety representative(s) active on the job whenever the work is in progress; an effective and documented safety training program; and a safety work method check list system.

- Recognition as a safety professional shall be based on a minimum of certification by the Board of Certified Safety Professionals as a Certified Safety Professional and 5 years of professional safety management experience in the types of construction and conditions expected to be encountered on the Site.

- All personnel employed by the Contractor or his subcontractors or any visitors whenever entering the job site, shall be required to wear appropriate personal protection equipment required for that area.

FIGURE 1

SITE LOCATION MAP



MAP REFERENCE
United States Geological Survey
7.5 Minute Series Topographic Map
Quadrangles: Plattsburgh, NY
Date: 1966

ARCHITECTURE & BUILDING SYSTEMS
ENGINEERING
CIVIL ENGINEERING
ENVIRONMENTAL SERVICES
SURVEY & LAND INFORMATIONAL SERVICES

C.T. MALE ASSOCIATES, P.C.

50 CENTURY HILL DRIVE, PO BOX 727, LATHAM, NY 12110
PHONE (518) 786-7400 FAX (518) 786-7299

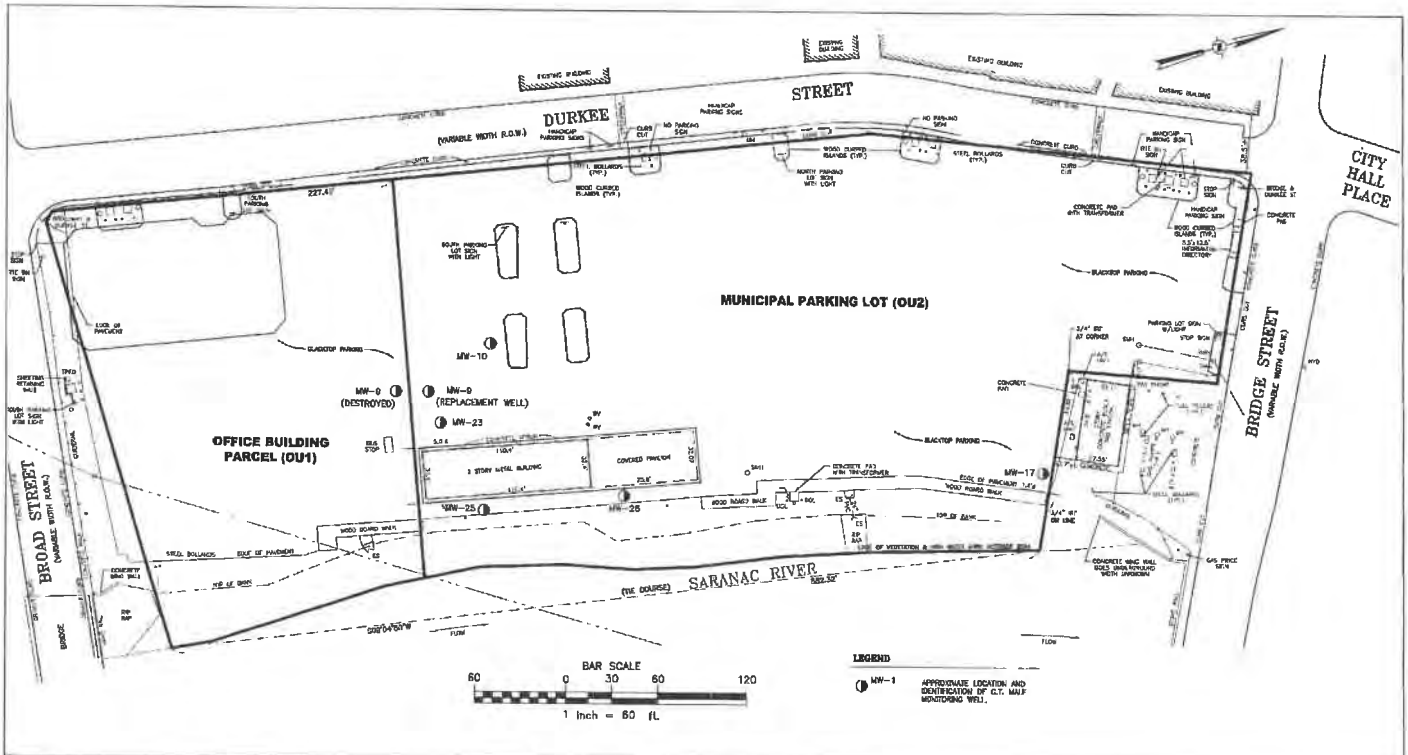
SITE LOCATION MAP

DURKEE STREET PARKING LOT

CITY OF PLATTSBURGH	CLINTON COUNTY, NY
SCALE: 1" = 2000'	
DRAFTER: SHB	
PROJECT No. 04.9498	

FIGURE 2

LONG-TERM GROUNDWATER MONITORING WELL LOCATIONS MAP



NOTE:
1. THE LOCATIONS AND FEATURES DEPICTED ON THIS MAP ARE APPROXIMATE AND DO NOT REPRESENT AN ACTUAL FIELD SURVEY.

MAP REFERENCE:
1. SHEET SP-1, PREPARED BY RABIDEAU ARCHITECTS OF BURLINGTON, VT, DATED 12/15/03, LAST REVISED 3/17/04.

2. BOUNDARY SURVEY, PORTION OF LANDS OF CITY OF PLATTSBURGH DURKEE STREET PARKING LOT, PREPARED BY C.T. MALE ASSOCIATES, P.C., DWG NO. 04-0670, DATED OCTOBER 5, 2004, REVISED 11/30/04.

DATE	REVISIONS RECORD/DESCRIPTION	DRAFTED	CHECK	APPR.
	1			
	2			
	3			
	4			
	5			
	6			
	7			
	8			

DESIGNED :
DRAFTED : S.WUNSCH
CHECKED : S.BIEBER
PROJ. NO: 04.9498
SCALE : 1"=60'
DATE : JULY 2007

FIGURE 2
LONG-TERM GROUNDWATER MONITORING WELL LOCATIONS MAP
PLATTSBURGH GATEWAY PROJECT
DURKEE STREET PARKING LOT (OU1 AND OU2)

CITY OF PLATTSBURGH — CLINTON COUNTY, NY

C.T. MALE ASSOCIATES, P.C.
50 CENTURY HILL DRIVE, P.O. BOX 727, LATHAM, NY 12110
518.786.7400 * FAX 518.786.7299
ARCHITECTURE & BUILDING SYSTEMS ENGINEERING * CIVIL ENGINEERING
ENVIRONMENTAL SERVICES * SURVEY & LAND INFORMATION SERVICES

FIG-2
SHEET 1 OF 1
DWG. NO:07-0119

APPENDIX A

NYSDOH GENERIC COMMUNITY AIR MONITORING PLAN

Appendix 1A
New York State Department of Health
Generic Community Air Monitoring Plan

Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or

individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

December 2009

APPENDIX B

NYSDEC TAGM #4031, FUGITIVE DUST AND PARTICULATE MONITORING PROGRAM AT INACTIVE HAZARDOUS WASTE SITES

NEW YORK STATE
DEPARTMENT OF
ENVIRONMENTAL CONSERVATION

Fugitive Dust Suppression and Particulate Monitoring Program (TAGM - 4031)

To:	Regional Hazardous Waste Remediation Engrs., Bur. Directors & Section Chiefs
From:	Michael J. O'Toole, Jr., Director, Division of Hazardous Waste Remediation (signed)
Subject:	Technical and Administrative Guidance Memorandum – Fugitive Dust Suppression and Particulate Monitoring Program at Inactive Hazardous Waste Sites
Date:	Oct 27, 1989

1. Introduction

Fugitive dust suppression, particulate monitoring, and subsequent action levels for such must be used and applied consistently during remedial activities at hazardous waste sites. This guidance provides a basis for developing and implementing a fugitive dust suppression and particulate monitoring program as an element of a hazardous waste site's health and safety program.

2. Background

Fugitive dust is particulate matter--a generic term for a broad class of chemically and physically diverse substances that exist as discrete particles, liquid droplets or solids, over a wide range of sizes--which becomes airborne and contributes to air quality as a nuisance and threat to human health and the environment.

On July 1, 1987, the United States Environmental Protection Agency (USEPA) revised the ambient air quality standard for particulates so as to reflect direct impact on human health by setting the standard for particulate matter less than ten microns in diameter (PM_{10}); this involves fugitive dust whether contaminated or not. Based upon an examination of air quality composition, respiratory tract deposition, and health effects, PM_{10} is considered conservative for the primary standard--that requisite to protect public health with an adequate margin of safety. The primary standards are 150 ug/m^3 over a 24-hour averaging time and 50 ug/m^3 over an annual averaging time. Both of these standards are to be averaged arithmetically.

There exists real-time monitoring equipment available to measure PM_{10} and capable of integrating over a period of six seconds to ten hours. Combined with an adequate fugitive dust suppression program, such equipment will aid in preventing the off-site migration of contaminated soil. It will also protect both on-site personnel from exposure to high levels of dust and the public around the site from any exposure to any dust. While specifically intended for the protection of on-site personnel as well as the public, this program is not meant to replace long-term monitoring which may be required given the contaminants inherent to the site and its air quality.

3. Guidance

A program for suppressing fugitive dust and monitoring particulate matter at hazardous waste sites can be developed without placing an undue burden on remedial activities while still being protective of health and environment. Since the responsibility for implementing this program ultimately will fall on the party performing the work, these procedures must be incorporated into appropriate work plans. The following fugitive dust suppression and particulate monitoring program will be employed at hazardous waste sites during construction and other activities which warrant its use:

asonable fugitive dust suppression techniques must be employed during all site activities
ich may generate fugitive dust.

rticulate monitoring must be employed during the handling of waste or contaminated soil or
en activities on site may generate fugitive dust from exposed waste or contaminated soil.
ch activities shall also include the excavation, grading, or placement of clean fill, and control
asures therefore should be considered.

rticulate monitoring must be performed using real-time particulate monitors and shall
nitor particulate matter less than ten microns (PM_{10}) with the following minimum
formance standards:

ject to be measured: Dust, Mists, Aerosols

e range: <0.1 to 10 microns

nsitivity: 0.001 mg/m^3

nge: 0.001 to 10 mg/m^3

erall Accuracy: ±10% as compared to gravimetric analysis of stearic acid or reference dust

erating Conditions:

mperature: 0 to 40°C

midity: 10 to 99% Relative Humidity

wer: Battery operated with a minimum capacity of eight hours continuous operation

tomatic alarms are suggested.

rticulate levels will be monitored immediately downwind at the working site and integrated
er a period not to exceed 15 minutes. Consequently, instrumentation shall require necessary
eraging hardware to accomplish this task; the P-5 Digital Dust Indicator as manufactured by
)A Scientific, Inc. or similar is appropriate.

order to ensure the validity of the fugitive dust measurements performed, there must be
opriate Quality Assurance/Quality Control (QA/QC). It is the responsibility of the entity
erating the equipment to adequately supplement QA/QC Plans to include the following
ical features: periodic instrument calibration, operator training, daily instrument performance
an) checks, and a record keeping plan.

e action level will be established at 150 ug/m^3 over the integrated period not to exceed 15
nutes. While conservative, this short-term interval will provide a real-time assessment of on-
e air quality to assure both health and safety. If particulate levels are detected in excess of
) ug/m^3, the upwind background level must be measured immediately using the same
table monitor. If the working site particulate measurement is greater than 100 ug/m^3 above
background level, additional dust suppression techniques must be implemented to reduce
generation of fugitive dust and corrective action taken to protect site personnel and reduce
potential for contaminant migration. Corrective measures may include increasing the level
personal protection for on-site personnel and implementing additional dust suppression
hniques (see Paragraph 7). Should the action level of 150 ug/m^3 be exceeded, the Division
Air Resources must be notified in writing within five working days; the notification shall
lude a description of the control measures implemented to prevent further exceedences.

nust be recognized that the generation of dust from waste or contaminated soil that migrates
-site, has the potential for transporting contaminants off-site. There may be situations when

st is being generated and leaving the site and the monitoring equipment does not measure PM_{10} at or above the action level. Since this situation has the potential to migrate ntaminants off-site, it is unacceptable. While it is not practical to quantify total suspended rticulates on a real-time basis, it is appropriate to rely on visual observation. If dust is served leaving the working site, additional dust suppression techniques must be employed. tivities that have a high dusting potential--such as solidification and treatment involving terials like kiln dust and lime--will require the need for special measures to be considered.

e following techniques have been shown to be effective for the controlling of the generation d migration of dust during construction activities:

ing water on haul roads.

ng equipment and excavation faces.

ing water on buckets during excavation and dumping.

g materials in properly tarped or watertight containers.

cting vehicle speeds to 10 mph.

ing excavated areas and material after excavation activity ceases.

cing the excavation size and/or number of excavations.

perience has shown that utilizing the above-mentioned dust suppression techniques, within ison as not to create excess water which would result in unacceptable wet conditions, the ance of exceeding the 150 ug/m^3 action level at hazardous waste site remediations is note. Using atomizing sprays will prevent overly wet conditions, conserve water, and provide effective means of suppressing the fugitive dust.

ne dust suppression techniques being utilized at the site do not lower particulates to an ceptable level (that is, below 150 ug/m^3 and no visible dust), work must be suspended until opropriate corrective measures are approved to remedy the situation. Also, the evaluation of ather conditions will be necessary for proper fugitive dust control--when extreme wind nditions make dust control ineffective, as a last resort remedial actions may need to be spended.

There may be situations that require fugitive dust suppression and particulate monitoring requirements with action levels more stringent than those provided above. Under some circumstances, the contaminant concentration and/or toxicity may require appropriate toxics monitoring to protect site personnel and the public. Additional integrated sampling and chemical analysis of the dust may also be in order. This must be evaluated when a health and safety plan is developed and when appropriate suppression and monitoring requirements are established for protection of health and the environment.

EXHIBIT 1

NYSDEC RECORD OF DECISION

Department of Environmental Conservation

Division of Environmental Remediation

Environmental Restoration
Record of Decision
Plattsburgh Gateway Project/
Durkee Street Site
City of Plattsburgh,
Clinton County, New York
Site Number E510020

March 2007

New York State Department of Environmental Conservation
ELIOT SPITZER, *Governor*

DECLARATION STATEMENT
ENVIRONMENTAL RESTORATION RECORD OF DECISION

Plattsburgh Gateway Project/Durkee Street
Environmental Restoration Site
City of Plattsburgh, Clinton County, New York
Site No. E510020

Statement of Purpose and Basis

The Record of Decision (ROD) presents the selected remedy for the Plattsburgh Gateway Project/Durkee Street site, an environmental restoration site. The selected remedial program was chosen in accordance with the New York State Environmental Conservation Law and is consistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300), as amended.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the Plattsburgh Gateway Project/Durkee Street environmental restoration site, and the public's input to the Proposed Remedial Action Plan (PRAP) presented by the Department. A listing of the documents, as a part of the Administrative Record, is included in Appendix B of the ROD.

Assessment of the Site

Actual or threatened release of hazardous substances and petroleum products from this site have been addressed by implementing the interim remedial measures identified in this ROD. The removal of contaminated soil from the site has significantly reduced the threat to public health and the environment. Therefore, a groundwater monitoring program will be implemented to monitor the effectiveness of previous remedial actions in preventing further contamination of the groundwater.

Description of Selected Remedy

Based on the results of the Remedial Investigation/Remedial Alternatives Report (RI/RAR) for the Plattsburgh Gateway Project/Durkee Street site and the criteria identified for evaluation of alternatives, the Department has selected No Further Action with institutional controls in the form of an environmental easement limiting use of the site to restricted residential activity in conformance with local zoning, including the continued use as a parking lot. The components of the remedy are as follows:

1. Imposition of an institutional control in the form of an environmental easement that will require: (a) limiting the use and development of the property to restricted residential use, which will also permit commercial use in conformance with local zoning; (b) compliance

with the approved site management plan; (c) restricting the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by NYSDOH; and (d) submission by the property owner to the Department a periodic certification of institutional and engineering controls.

2. Development of a site management plan which will include the following institutional and engineering controls: (a) notice to the Department of any ground intrusive work or change in use, management of the final cover system to restrict excavation below the pavement layer, or buildings. Excavated soil would be tested, properly handled to protect the health and safety of workers and the nearby community, and would be properly managed in a manner acceptable to the Department; (b) evaluation of the potential for vapor intrusion for any buildings developed on the site, including provision for mitigation of any impacts identified; (c) monitoring of groundwater; and (d) provisions for the operation, maintenance, and monitoring of the of the installed sub-slab vapor mitigation system in the office building presently under construction.

3. The property owner would provide a periodic certification of institutional and engineering controls, prepared and submitted by a professional engineer or such other expert acceptable to the Department, until the Department notifies the property owner in writing that this certification is no longer needed. This submittal would: (a) contain certification that the institutional controls and engineering controls put in place are still in place and are either unchanged from the previous certification or are compliant with Department-approved modifications; (b) allow the Department access to the site; and (c) state that nothing has occurred that would impair the ability of the control to protect public health or the environment, or constitute a violation or failure to comply with the site management plan unless otherwise approved by the Department.

New York State Department of Health Acceptance

The New York State Department of Health (NYSDOH) concurs that the remedy selected for this site is protective of human health.

Declaration

The selected remedy is protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost effective.

MAR 2 8 2007

Date

Dale A. Desnoyers, Director
Division of Environmental Remediation

TABLE OF CONTENTS

Environmental Restoration
RECORD OF DECISION

Plattsburgh Gateway Project/Durkee Street Site
City of Plattsburgh, Clinton County, New York
Site No. E510020
March 2007

SECTION 1: SUMMARY OF THE RECORD OF DECISION

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected this remedy for the Plattsburgh Gateway Project/Durkee Street site.

The 1996 Clean Water/Clean Air Bond Act provides funding to municipalities for the investigation and cleanup of brownfields. Under the Environmental Restoration Program, the state provides grants to municipalities to reimburse up to 90 percent of eligible costs for site investigation and remediation activities. Once remediated, the property can then be reused.

As more fully described in Sections 3 and 5 of this document, former commercial and manufacturing activities such as automotive repair, steam laundering, and milling resulted in the disposal of hazardous substances, including volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals. These hazardous substances contaminated the subsurface soils and groundwater at the site, and resulted in:

- a threat to human health associated with potential exposure to contaminated subsurface soils and groundwater.

During the course of the investigation certain actions, known as interim remedial measures (IRMs), were undertaken at the Plattsburgh Gateway Project/Durkee Street site in response to the threats identified above. An IRM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the remedial investigation/remedial alternatives report (RI/RAR). The IRM undertaken at this site included an extensive source soil excavation and underground storage tank removal.

Based on the implementation of the above IRM, the findings of the investigation of this site indicate that the site no longer poses a threat to human health or the environment; therefore, No Further Action with institutional controls in the form of an environmental easement limiting use of the site to restricted residential activity in conformance with local zoning, including the continued use as a parking lot, was selected as the remedy for this site.

The selected remedy, discussed in detail in Section 6, is intended to attain the remediation goals identified for this site in Section 6. The remedy must conform with officially promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The

selection of a remedy must also take into consideration guidance, as appropriate. Standards, criteria and guidance are hereafter called SCGs.

SECTION 2: SITE LOCATION AND DESCRIPTION

The Plattsburgh Gateway Project/Durkee Street site is approximately a 5.1-acre lot on the eastern side of Durkee Street in the City of Plattsburgh, Clinton County, New York. The site lies in an urban area in downtown Plattsburgh, adjacent to the Saranac River as indicated in Figure 1. Lake Champlain lies approximately ½ mile to the east of the site.

The site's geology consists primarily of urban fill to approximately 8 feet deep, followed by glacial till to approximately 18 feet below ground surface (bgs). The fill consisted of various amounts of sand, gravel, silt, brick, ash, wood, cinder and concrete. During onsite drilling activities, auger refusal was encountered at approximately 18 ft bgs, which based on information obtained from another nearby remedial project, this is indicative of the presence of bedrock. The site's hydrogeology consisted of groundwater perched atop the glacial till layer, at approximately 8 ft bgs. Overall groundwater flow is from west to east toward the Saranac River. Surface water drains into the Saranac River then flows northerly into Lake Champlain, entering into the lake approximately ½ mile to the northeast of the site.

SECTION 3: SITE HISTORY

3.1: Operational/Disposal History

The site has been occupied since the late 1800s with primarily tenement residences and auto repair until 1927. After 1927, manufacturing became more prominent with rug cleaning, dry cleaning, sign painting, and milling activities associated with the site. In addition, over the years, several petroleum spills were reported and properly closed under the oil spill program. These former manufacturing activities and spill events may have resulted in the disposal of hazardous substances on site. The City slowly acquired the deeds for the Durkee Street lots from approximately 1964 through 1991. The buildings were demolished over that time period. The current municipal public parking lot was established in the early 1980s.

3.2: Remedial History

A Limited Subsurface Investigation was performed in May 2004 on behalf of the City of Plattsburgh. This investigation detected metals, VOC, and SVOC soil contamination in the subsurface. In October 2004, an Environmental Database Report was also conducted on behalf of the City. The RI was conducted between July 2004 and December 2006.

SECTION 4: ENFORCEMENT STATUS

Potentially Responsible Parties (PRPs) are those who may be legally liable for contamination at a site. This may include past owners and operators, waste generators, and haulers. Since no viable PRPs have been identified, there are currently no ongoing enforcement actions. However, legal action may be initiated at a future date by the state to recover state response costs should PRPs be

identified. The City of Plattsburgh will assist the state in its efforts by providing all information to the state which identifies PRPs. The City will also not enter into any agreement regarding response costs without the approval of the Department.

SECTION 5: SITE CONTAMINATION

The City of Plattsburgh has recently completed remedial investigation/remedial alternatives reports (RI/RARs) to determine the nature and extent of any contamination by hazardous substances at this environmental restoration site.

5.1: Summary of the Remedial Investigation

The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site. The RI was conducted between July 2004 and December 2006. The field activities and findings of the investigation are described in the RI reports.

Investigative tasks performed as part of the RI include surface soil sampling and analysis, soil boring and monitoring well installation, subsurface soil sampling and analysis, groundwater sampling and analysis, and the performance of a soil gas survey.

5.1.1: Standards, Criteria, and Guidance (SCGs)

To determine whether the soil, groundwater, and soil gas contain contamination at levels of concern, data from the investigation were compared to the following SCGs:

- Groundwater, drinking water, and surface water SCGs are based on the Department's "Ambient Water Quality Standards and Guidance Values" and Part 5 of the New York State Sanitary Code.

- Soil SCGs are based on the Department's Cleanup Objectives ("Technical and Administrative Guidance Memorandum [TAGM] 4046; Determination of Soil Cleanup Objectives and Cleanup Levels," and 6 NYCRR Subpart 375-6 - Remedial Program Soil Cleanup Objectives").

- Concentrations of VOCs in air were evaluated using the air guidelines provided in the NYSDOH guidance document titled "Guidance for Evaluating Soil Vapor Intrusion in the State of New York."

Based on the RI results, in comparison to the SCGs and potential public health and environmental exposure routes, certain media and areas of the site required remediation. These are summarized in Section 5.1.2. More complete information can be found in the RI reports.

5.1.2: Nature and Extent of Contamination

This section describes the findings of the investigation for all environmental media that were investigated.

As described in the RI reports, many soil, groundwater and soil vapor samples were collected to characterize the nature and extent of contamination. As seen in Figures 2 through 7 and summarized in Tables 1 through 3, the main categories of contaminants that exceed their SCGs were volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and inorganics (metals). For comparison purposes, where applicable, SCGs were provided for each medium.

Chemical concentrations are reported in parts per billion (ppb) for water, and parts per million (ppm) for soil. Air samples are reported in micrograms per cubic meter ($\mu g/m^3$).

Figures 2 through 7 and Tables 1 through 3 summarize the degree of contamination for the contaminants of concern in soil, and groundwater, and compare the data with the SCGs for the site. The following are the media which were investigated and a summary of the findings of the investigation.

Surface Soil

The Plattsburgh Gateway Project/Durkee Street site comprises of a large municipal parking lot with a farmer's market pavilion and a future office building with adjacent parking garage. Because the entire site is either completely paved or covered with concrete, there was no surface soil sampling conducted at the site.

Subsurface Soil

During the Remedial Investigation, both subsurface soil samples and near surface soil samples immediately below the pavement were taken. The following discussion summarizes the analytical results for these samples.

Six SVOCs were detected above their respective SCGs, as indicated on Table 1. These SVOCs include benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, and dibenzo(a,h)anthracene. All of the SVOC contaminants are considered carcinogenic polycyclic aromatic hydrocarbons (cPAHs). These cPAHs were all detected in the historic fill material at approximately 8 to 10 foot depth and potentially associated with the ash and cinder components of the fill material. The SVOC contamination is depicted in Figures 3 and 5, with the highest exceedance being benzo(a)pyrene at 14 ppm at MW-14 at the 8 to 10 foot depth.

Four metals were detected above their respective SCGs as indicated on Table 1. Of the four detected, calcium; and magnesium were the only contaminants found to be above their respective Eastern USA Background concentration. As indicated in Figures 4 and 6, the metals contamination appeared to be spread randomly throughout the site at varying depths, with the greatest exceedance being calcium at 117,000 ppm at MW-11 at the 0.5 to 2 foot depth. In general, the subsurface soil contaminants of concern are SVOCs, mainly cPAHs, and metals. Pesticides, PCBs, and VOCs were not detected in any of the soil samples collected. Subsurface soil contamination identified during the RI/RAR was partially addressed during the IRM soil excavation and underground storage tank (UST) removal as described in Section 5.2.

Groundwater

Five metals were detected at concentrations above SCGs in the site groundwater. These detections included iron, lead, magnesium, manganese, and sodium as indicated in Table 3. These detections are attributed to the elevated turbidity levels measured during the groundwater sampling event. The historic fill material may have contributed to the elevated turbidity levels.

Only one SVOC, bis(2-Ethylhexyl)phthalate, was detected slightly above its SCG in 8 of the 12 monitoring wells onsite with the highest exceedance detected at 9.7 ppb in MW-4. Bis(2-Ethylhexyl)phthalate is a common laboratory contaminant, and was also detected in the equipment blank during this sampling event. However, the data usability summary report (DUSR) did not identify the compound as a laboratory contaminant.

Six VOCs were detected in the onsite monitoring wells above SCGs. Five of these chlorinated VOCs or CVOCs were detected in monitoring wells MW-9, MW-10, MW-23, MW-25, and MW-26 as indicated in Figure 7. The five CVOCs were all detected at their highest concentration at MW-10 at the following concentrations: vinyl chloride at 170 ppb; 1,1-dichloroethene at 6.0 ppb; trans-1,2-dichloroethene at 410 ppb; cis-1,2-dichloroethene at 680 ppb; and trichloroethene at 99 ppb. Dichloroethene and vinyl chloride are created through the degradation of trichloroethene. MW-10 was the only monitoring well to exhibit trichloroethene and its breakdown products, while the downgradient monitoring wells exhibited significantly lower concentrations of the breakdown products of vinyl chloride and dichloroethenes. Because no VOC contamination was detected in the soil borings at these corresponding areas, there does not appear to be a soil source for this VOC groundwater contamination. The other VOC detected in the groundwater was methyl tert-butyl ether (MTBE) at 57 ppb at monitoring well MW-17. As depicted in Figure 7, monitoring well MW-17 straddles the site's northeast property border. Since no other detections of MTBE were revealed during the RI, it does not appear that MTBE is a site related groundwater contaminant of concern.

These impacted monitoring wells, MW-10, MW-23, MW-25, and MW-26, were re-sampled in December 2006 to determine the effectiveness of the soil excavation IRM that was performed adjacent to the VOC groundwater contamination plume. The levels of trichloroethene and its breakdown products all decreased in MW-10 to the following concentrations: trichloroethylene at 11 ppb, vinyl chloride at non-detect; 1,1-dichloroethene at non-detect; trans-1,2-dichloroethene at non-detect; and cis-1,2-dichloroethene at 8.2 ppb. The levels of breakdown products (vinyl chloride, trans-1,2-dichloroethene, and cis-1,2-dichloroethene) slightly increased in MW-23, while there was a decrease in cis-1,2-dichloroethene and vinyl chloride in MW-25, and the concentrations of contaminants in MW-26 generally remained the same. This decrease in trichloroethene in MW-10, along with the increase of breakdown products in MW-23, suggest evidence of biodegradation. The most downgradient VOC-impacted monitoring wells, MW-25 and MW-26, showed no increase in contamination, indicating that the VOC groundwater contamination plume appears to be contained on site.

Groundwater contamination identified during the RI/RAR was partially addressed during the IRM soil excavation and UST removal as described in Section 5.2.

Soil Vapor/Sub-Slab Vapor/Air

The soil vapor intrusion evaluation included the collection of sub-slab soil vapor and outdoor air samples to evaluate the potential for exposures via soil vapor intrusion. Three soil gas samples were collected within the area of the future office building foundation as indicated in Figure 2. Six soil gas samples were collected within the municipal parking lot area, as indicated in Figure 2, to determine the potential for vapor intrusion in the event that the site should undergo future redevelopment. There were detections of VOCs and SVOCs above the NYSDOH guidance values and EPA BASE Data Background Levels as provided in the NYSDOH "Guidance for Evaluating Soil Vapor Intrusion in the State of New York".

5.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the RI/RAR. In response to the preliminary findings of the Remedial Investigation in October 2005, a soil excavation and UST removal IRM was performed to address the subsurface contamination on site. During the excavation activities, excavation dewatering and active groundwater treatment via carbon filtration was performed. Approximately 12,360 gallons of groundwater was evacuated and treated from the excavation prior to discharge to the sanitary sewer system.

During the excavation activities, four USTs were located, ranging from 275-gallon to 1000-gallon capacity, and were subsequently emptied, cleaned, and properly disposed of off-site. The vertical extent of excavation varied across the site, with depths ranging from approximately 5 feet deep to approximately 20 feet deep in the areas of deeper contamination. In total, approximately 9,614 tons of contaminated soil was excavated and transported for off-site disposal.

The post-excavation confirmatory samples were analyzed for VOCs and SVOCs only, as the preliminary results from the RI revealed that SVOCs and VOCs were the primary contaminants of concern. Seventy-two (72) post-excavation soil samples were collected. As indicated in Table 2, only seven VOCs were detected slightly above SCGs. These results confirm that a majority of the site's SVOC and VOC contamination was addressed through the implementation of the IRM.

To prevent exposures to soil gas concentrations beneath the soon to be occupied building on site, the developer of the four-story office building that is currently under construction, installed a sub-slab vapor abatement system in the future office building. This sub-slab vapor abatement system will be in operation upon completion of the building construction.

5.3: Summary of Human Exposure Pathways:

This section describes the types of human exposures that may present added health risks to persons at or around the site. A more detailed discussion of the human exposure pathways can be found in Section 7.0 of the RI reports, which are located in the document repositories.

An exposure pathway describes the means by which an individual may be exposed to contaminants originating from a site. An exposure pathway has five elements: [1] a contaminant source, [2] contaminant release and transport mechanisms, [3] a point of exposure, [4] a route of exposure, and [5] a receptor population.

The source of contamination is the location where contaminants were released to the environment (any waste disposal area or point of discharge). Contaminant release and transport mechanisms carry contaminants from the source to a point where people may be exposed. The exposure point is a location where actual or potential human contact with a contaminated medium may occur. The route of exposure is the manner in which a contaminant actually enters or contacts the body (e.g., ingestion, inhalation, or direct contact). The receptor population is the people who are, or may be, exposed to contaminants at a point of exposure.

An exposure pathway is complete when all five elements of an exposure pathway exist. An exposure pathway is considered a potential pathway when one or more of the elements currently does not exist, but could in the future.

There are no known completed exposure pathways at the site. Potential exposure pathways include inhalation of contaminated soil vapors, dermal contact with impacted sub-surface soils or ingestion of groundwater containing volatile organic compounds.

Use of the site will be limited to restricted residential, but the continued commercial use is currently planned at this time. To address the potential for contaminated soil vapors to impact indoor air quality in the future on-site office building, an active sub-slab depressurization system will be installed during construction. Any changes in the use of the remainder of the site will require an evaluation of the potential for soil vapor intrusion and mitigation, if necessary.

The site is paved, therefore, contact with residual contaminated soil is unlikely. Maintenance of the pavement will be required, and the NYSDEC will require notification prior to any ground intrusive work to prevent the potential for exposures.

On-site groundwater is not used for potable or irrigation purposes, making exposures unlikely. Restrictions will be placed to prevent future use of the groundwater, and monitoring will continue.

5.4: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site prior to the IRM. Environmental impacts include existing and potential future exposure pathways to fish and wildlife receptors, as well as damage to natural resources such as aquifers and wetlands. The site, and all adjacent property, is a developed area with buildings, paved areas, and little to no vegetation. Contamination detected on site was a localized source, which was partially addressed during the IRM, that has not migrated and will not migrate from the site to impact any off-site resources. Therefore, no complete or potentially complete environmental exposure pathways or ecological risks were identified. However, site contamination has impacted the groundwater resource in the overburden aquifer.

SECTION 6: SUMMARY OF THE REMEDIATION GOALS, SELECTED REMEDY, AND THE PROPOSED USE OF THE SITE

Goals for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. At a minimum, the remedy selected must eliminate or mitigate all significant threats to public health and/or the environment presented by the hazardous substances disposed at the site through the proper application of scientific and engineering principles.

Prior to the completion of the IRM described in Section 5.2, the remediation goals for this site were to eliminate or reduce to the extent practicable:

- exposures of persons at or around the site to VOC and SVOC soil contamination exceeding SCGs.
- the release of contaminants from soil into groundwater that may create exceedances of groundwater quality standards; and
- the release of contaminants from subsurface soil under buildings, into indoor air through soil vapor.

The main SCGs applicable to this project are as follows:

- ambient groundwater quality standards: groundwater sample results indicate that the main groundwater contaminants of concern are VOCs in the municipal parking lot area. The soil excavation IRM was conducted directly adjacent to the VOC groundwater contaminant plume. The initial post-IRM groundwater sampling results indicate an improvement in groundwater quality with evidence of biodegradation. A long-term groundwater monitoring program would be needed to document the long-term effectiveness of the soil excavation IRM on the site's groundwater quality.
- TAGM 4046 and Part 375-6: the TAGM 4046 soil cleanup objectives for VOCs and SVOCs were used as the soil excavation IRM remediation goals. When compared to the 6 NYCRR Part 375-6 - Remedial Program Soil Cleanup Objectives, only seven VOCs were detected slightly above SCGs in the post-excavation confirmatory samples. These results reveal that a majority of the site's SVOC and VOC contamination was addressed through the implementation of the IRM.

The Department believes that the IRM has accomplished the remediation goals and satisfied the SCGs for the site, provided that groundwater continues to be monitored and a soil management plan is developed to address the residual contaminated soils to prevent human exposures and dispersion of contamination during potential future intrusive activities.

Based on the results of the investigations at the site, the IRM that has been performed, and the evaluation presented here, the Department has selected No Further Action as the preferred alternative for the site. The Department believes that this alternative will be protective of human

health and the environment, and will satisfy all SCGs as described above. Overall protectiveness is achieved through meeting the remediation goals listed above.

The elements of the IRM already completed are:

1. Excavation and off-site disposal of 9,614 tons of contaminated soil;

2. Dewatering and treatment, via carbon filtration, of 12,360 gallons of groundwater; and treated groundwater was discharged to the sanitary sewer system;

3. Backfilling of the excavation with clean, off-site soil; and

4. Excavation and proper closure of four USTs.

Therefore, the Department concludes that No Further Action is needed other than site management, and institutional and engineering controls. The institutional and engineering controls are:

1. Imposition of an institutional control in the form of an environmental easement that will require: (a) limiting the use and development of the property to restricted residential use, which will also permit commercial use in conformance with local zoning; (b) compliance with the approved site management plan; (c) restricting the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by NYSDOH; and (d) submission by the property owner to the Department a periodic certification of institutional and engineering controls.

2. Development of a site management plan which will include the following institutional and engineering controls: (a) notice to the Department of any ground intrusive work or change in use, management of the final cover system to restrict excavation below the pavement layer, or buildings. Excavated soil would be tested, properly handled to protect the health and safety of workers and the nearby community, and would be properly managed in a manner acceptable to the Department; (b) evaluation of the potential for vapor intrusion for any buildings developed on the site, including provision for mitigation of any impacts identified; (c) monitoring of groundwater and (d) provisions for the operation, maintenance, and monitoring of the of the installed sub-slab vapor mitigation system in the office building presently under construction.

3. The property owner would provide a periodic certification of institutional and engineering controls, prepared and submitted by a professional engineer or such other expert acceptable to the Department, until the Department notifies the property owner in writing that this certification is no longer needed. This submittal would: (a) contain certification that the institutional controls and engineering controls put in place are still in place and are either unchanged from the previous certification or are compliant with Department-approved modifications; (b) allow the Department access to the site; and (c) state that nothing has occurred that would impair the ability of the control to protect public health

or the environment, or constitute a violation or failure to comply with the site management plan unless otherwise approved by the Department.

The proposed future use for the Plattsburgh Gateway Project/Durkee Street site is commercial.

SECTION 7: HIGHLIGHTS OF COMMUNITY PARTICIPATION

As part of the environmental restoration process, a number of Citizen Participation activities were undertaken to inform and educate the public about conditions at the site and the potential remedial alternatives. The following public participation activities were conducted for the site:

- Repositories for documents pertaining to the site were established.
- A public contact list, which included nearby property owners, elected officials, local media, and other interested parties, was established.
- A public meeting was held on February 27, 2007 to present and receive comment on the PRAP.
- A responsiveness summary (Appendix A) was prepared to address the comments received during the public comment period for the PRAP.

In general, the public comments received were supportive of the selected remedy.

TABLE 1
Plattsburgh Gateway Project/Durkee Street Site
Nature and Extent of Soil Contamination
July 2004 - January 2005

SUBSURFACE SOIL (Pre-IRM[c])	Contaminants of Concern	Concentration Range Detected (ppm)[a]	SCG[b] (ppm)[a]	Frequency of Exceeding SCG
Semivolatile Organic Compounds	Benzo(a)anthracene	2.6 to 20	1	4 of 31
	Benzo(a)pyrene	2.1 to 14	1	4 of 31
	Benzo(k)fluoranthene	1.8 to 8.4	1	2 of 31
	Benzo(b)fluoranthene	2.4 to 17	1	4 of 31
	Chrysene	1.8 to 19	1	4 of 31
	Dibenzo(a,h)anthracene	0.78	0.33	1 of 31
Inorganic Compounds	Calcium	38,000 to 117,000	SB[c]	11 of 49
	Iron	3890 to 122,000	2,000	22 of 49
	Magnesium	5080 to 44,200	SB[c]	11 of 49
	Mercury	1.0	0.81	1 of 49

[a] ppb = parts per billion, which is equivalent to micrograms per liter, ug/L, in water;
ppm = parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;
ug/m^3 = micrograms per cubic meter

[b] SCG = standards, criteria, and guidance values: Ambient Water Quality Standards and Guidance Values and Part 5 of the New York State Sanitary Code; Technical and Administrative Guidance Memorandum (TAGM) 4046, Determination of Soil Cleanup Objectives and Cleanup Levels; NYCRR Subpart 375-6 - Remedial Program Soil Cleanup Objectives; and Guidance for Evaluating Soil Vapor Intrusion in New York.

[c] IRM = interim remedial measure
MDL = laboratory minimum detection limit
SB = site background
GV = guidance value

TABLE 2
Plattsburgh Gateway Project/Durkee Street Site
Post-IRM[c] Confirmatory Soil Sampling Results
October -December 2005

SUBSURFACE SOIL (Post-IRM[c])	Contaminants of Concern	Concentration Range Detected (ppm)[a]	SCG[b] (ppm)[a]	Frequency of Exceeding SCG
Semivolatile Organic Compounds	Benzo(a)anthracene	1.1 to 16	1	10 of 72
	Benzo(a)pyrene	0.085 to 15	1	9 of 72
	Benzo(b)fluoranthene	1.3 to 16	1	12 of 72
	Benzo(k)fluoranthene	1.2 to 5.9	1	5 of 72
	Chrysene	1.1 to 15	1	10 of 72
	Dibenzo(a,h)anthracene	0.39 to 1.1	0.33	3 of 72
	Indeno(1,2,3-cd)pyrene	0.65 to 7.9	0.5	6 of 72

[a] ppb = parts per billion, which is equivalent to micrograms per liter, ug/L, in water;
ppm = parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;
ug/m^3 = micrograms per cubic meter

[b] SCG = standards, criteria, and guidance values: Ambient Water Quality Standards and Guidance Values and Part 5 of the New York State Sanitary Code; Technical and Administrative Guidance Memorandum (TAGM) 4046, Determination of Soil Cleanup Objectives and Cleanup Levels; NYCRR Subpart 375-6 - Remedial Program Soil Cleanup Objectives; and Guidance for Evaluating Soil Vapor Intrusion in New York.

[c] IRM = interim remedial measure
MDL = laboratory minimum detection limit
SB = site background
GV = guidance value

TABLE 3
Plattsburgh Gateway Project/Durkee Street Site
Groundwater Nature and Extent of Contamination
July 2004

GROUNDWATER	Contaminants of Concern	Concentration Range Detected (ppb)[a]	SCG[b] (ppb)[a]	Frequency of Exceeding SCG
Volatile Organic Compounds (VOCs)	Methyl Tert-Butyl Ether	57	10	1 of 12
	Vinyl Chloride	2.2 to 170	2	3 of 12
	1,1-Dichloroethene	6.0	5	1 of 12
	Trans-1,2-Dichloroethene	8.0 to 410	5	2 of 12
	Cis-1,2-Dichloroethene	6.0 to 180	5	4 of 12
	Trichloroethene	11 to 99	5	1 of 12
Semivolatile Organic Compounds (SVOCs)	Bis(2-Ethylhexyl) Phthalate	5.3	5	1 of 12
Inorganic Compounds	Iron	1,380 to 38,200	300	6 of 7
	Lead	80.5	25	1 of 7
	Magnesium	50,400 to 128,000	35,000(GV[c])	7 of 7
	Manganese	713 to 1,720	300	6 of 7
	Sodium	224,000 to 1,790,000	20,000	6 of 7

[a] ppb = parts per billion, which is equivalent to micrograms per liter, ug/L, in water;
ppm = parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;
ug/m^3 = micrograms per cubic meter

[b] SCG = standards, criteria, and guidance values: Ambient Water Quality Standards and Guidance Values and Part 5 of the New York State Sanitary Code; Technical and Administrative Guidance Memorandum (TAGM) 4046, Determination of Soil Cleanup Objectives and Cleanup Levels; NYCRR Subpart 375-6 - Remedial Program Soil Cleanup Objectives; and Guidance for Evaluating Soil Vapor Intrusion in New York.

[c] IRM = interim remedial measure
MDL = laboratory minimum detection limit
SB = site background
GV = guidance value

TABLE 4
Plattsburgh Gateway Project/Durkee Street Site
Post-IRM[c] Groundwater Sampling Results
December 2006

GROUNDWATER (Post-IRM[c])	Contaminants of Concern	Concentration Range Detected (ppb)[a]	SCG[b] (ppb)[a]	Frequency of Exceeding SCG
Volatile Organic Compounds (VOCs)	Methyl Tert-Butyl Ether	57	10	1 of 6
	Vinyl Chloride	1.7 to 13	2	1 of 6
	Cis-1,2-Dichloroethene	4.1 to 32	5	3 of 6

[a] ppb = parts per billion, which is equivalent to micrograms per liter, ug/L, in water;
ppm = parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;
ug/m^3 = micrograms per cubic meter

[b] SCG = standards, criteria, and guidance values: Ambient Water Quality Standards and Guidance Values and Part 5 of the New York State Sanitary Code; Technical and Administrative Guidance Memorandum (TAGM) 4046, Determination of Soil Cleanup Objectives and Cleanup Levels; NYCRR Subpart 375-6 - Remedial Program Soil Cleanup Objectives; and Guidance for Evaluating Soil Vapor Intrusion in New York.

[c] IRM = interim remedial measure
MDL = laboratory minimum detection limit
SB = site background
GV = guidance value

MAP REFERENCE:
NEW YORK STATE DEPARTMENT OF TRANSPORTATION 7.5 MINUTE SERIES QUADRANGLE MAP OF PLATTSBURGH, NY, DATED 1979

NOTES:
THE LOCATIONS AND FEATURES DEPICTED ON THIS MAP ARE APPROXIMATE AND DO NOT REPRESENT AN ACTUAL FIELD SURVEY.

Date	RECORD OF WORK	Appr.

FIGURE 1
SITE LOCATION MAP
DURKEE STREET PARKING LOT

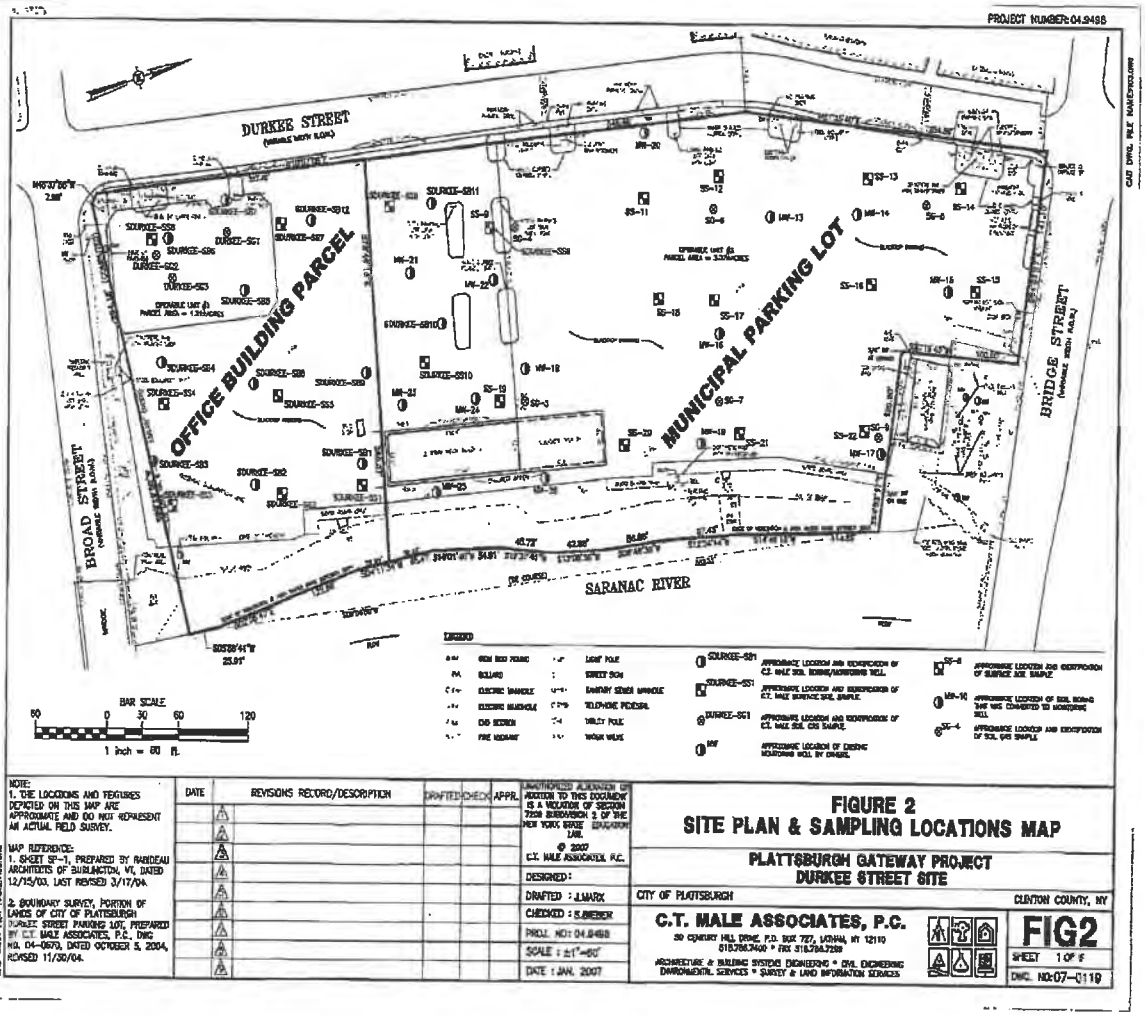
CITY OF PLATTSBURGH — CLINTON COUNTY, NY

C.T. MALE ASSOCIATES, P.C.
50 CENTURY HILL DRIVE, P.O. BOX 727, LATHAM, NY 12110
518.786.7400 • FAX 518.786.7299
Architecture & Building Systems Engineering • Civil Engineering
Environmental Services • Survey & Land Information Services

Drafter: J.MARX	Checker: K.MOLINE
Appr. by:	Proj. No. 04.9498

SCALE: NOT TO SCALE — DATE: OCTOBER 2004

CAD DWG. FILE NAME: SITE LOC MAP.DWG


PROJECT NUMBER:04.9468
DURKEE STREET
BROAD STREET
BRIDGE STREET
OFFICE BUILDING PARCEL
MUNICIPAL PARKING LOT
SARANAC RIVER
BAR SCALE
60 0 30 60 120
1 inch = 60 ft.
LEGEND
NOTE:
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MAP REFERENCE:
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2. BOUNDARY SURVEY, PORTION OF LANDS OF CITY OF PLATTSBURGH (MARKET STREET PARKING LOT), PREPARED BY C.T. MALE ASSOCIATES, P.C., DWG NO. 04-0670, DATED OCTOBER 5, 2004, REVISED 11/30/04.
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PROJ. NO: 04.9468
SCALE : ±1"=60'
DATE : JAN. 2007
FIGURE 2
SITE PLAN & SAMPLING LOCATIONS MAP
PLATTSBURGH GATEWAY PROJECT
DURKEE STREET SITE
CITY OF PLATTSBURGH
CLINTON COUNTY, NY
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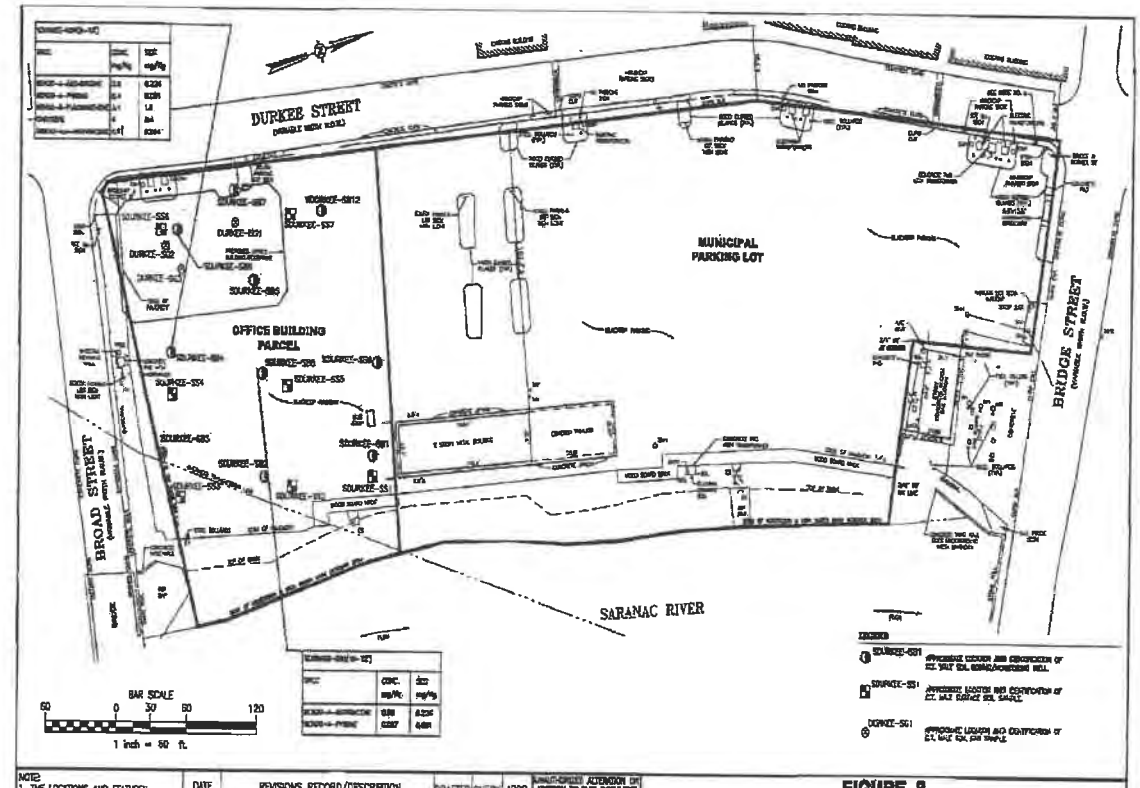
FIG2
SHEET 1 OF 5
DWG. NO:07-0119



NOTE:
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MAP REFERENCE:
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2. BOUNDARY SURVEY, PORTION OF LANDS OF CITY OF PLATTSBURGH DURKEE STREET PARKING LOT, PREPARED BY C.T. MALE ASSOCIATES, P.C., DWG NO. 04-0870, DATED OCTOBER 5, 2004, REVISED 11/30/04.

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FIGURE 3
SVOCs ABOVE SCGs IN SUBSURFACE SOIL/FILL LOCATIONS MAP
PLATTSBURGH GATEWAY PROJECT
DURKEE STREET SITE

CITY OF PLATTSBURGH — CLINTON COUNTY, NY

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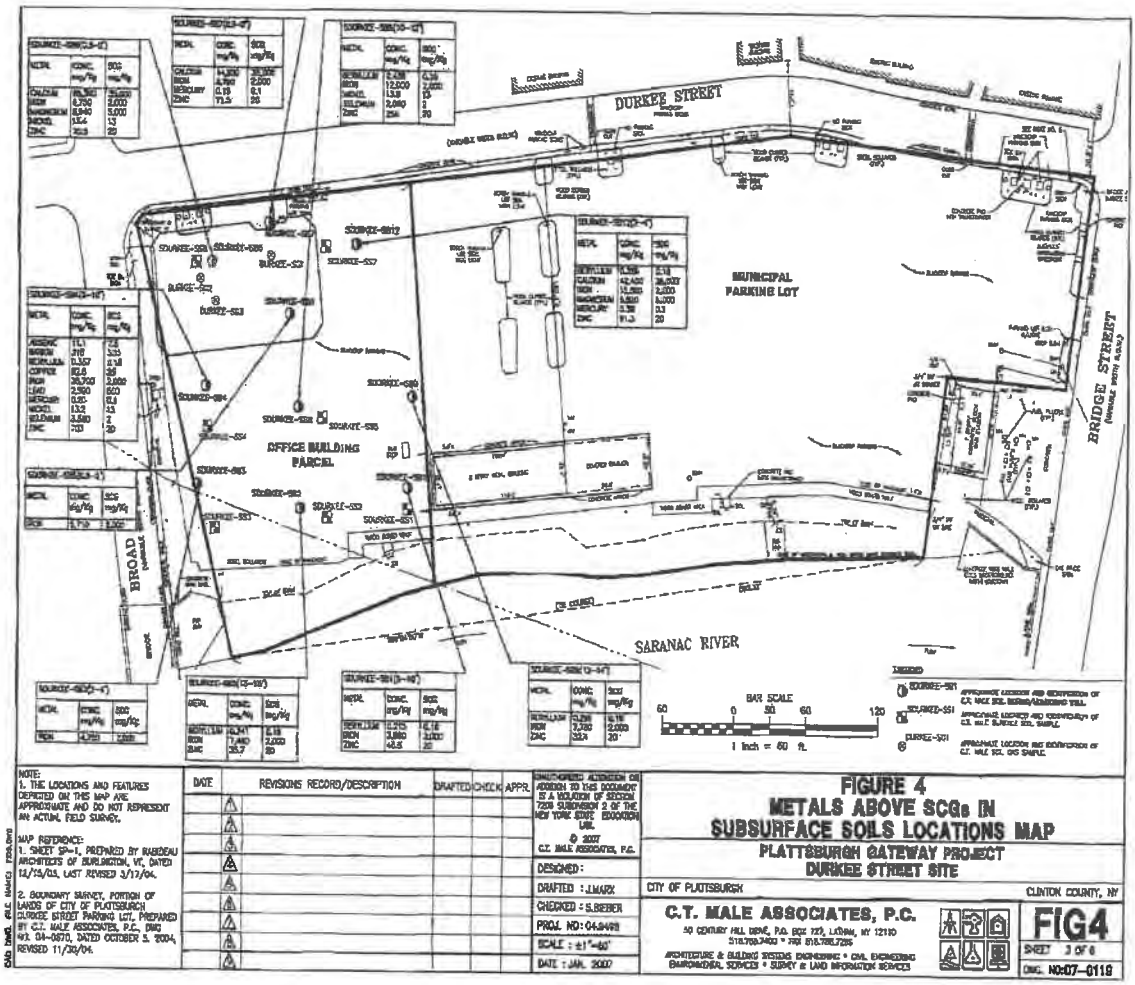
FIG3
SHEET 2 OF 6
DWG. NO: 07-0119



NOTE:
1. THE LOCATIONS AND FEATURES DEPICTED ON THIS MAP ARE APPROXIMATE AND DO NOT REPRESENT AN ACTUAL FIELD SURVEY.

MAP REFERENCE:
1. SHEET SP-1, PREPARED BY RABIDEAU ARCHITECTS OF BURLINGTON, VT, DATED 12/13/03, LAST REVISED 3/17/04.

2. BOUNDARY SURVEY, PORTION OF LANDS OF CITY OF PLATTSBURGH DURKEE STREET PARKING LOT, PREPARED BY C.T. MALE ASSOCIATES, P.C. DWG NO. 04-0870, DATED OCTOBER 5, 2004, REVISED 11/30/04.

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FIGURE 4
METALS ABOVE SCGs IN SUBSURFACE SOILS LOCATIONS MAP
PLATTSBURGH GATEWAY PROJECT
DURKEE STREET SITE

CITY OF PLATTSBURGH — CLINTON COUNTY, NY

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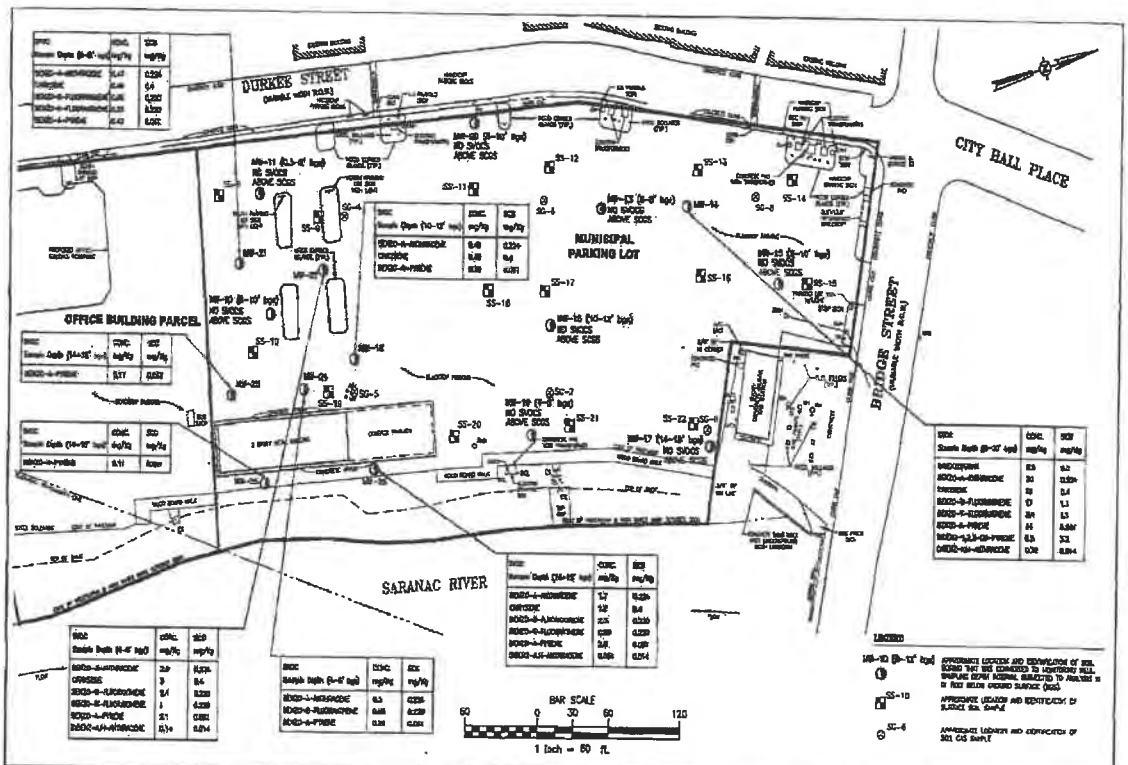
FIG4
SHEET 3 OF 8
DWG. NO:07-0118



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MAP REFERENCE:
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2. BOUNDARY SURVEY, PORTION OF LANDS OF CITY OF PLATTSBURGH DURKEE STREET PARKING LOT, PREPARED BY C.T. MALE ASSOCIATES, P.C., DWG NO. 04-0870, DATED OCTOBER 6, 2004, REVISED 11/30/04.

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FIGURE 5
SVOCs ABOVE SCGs IN SUBSURFACE SOIL/FILL LOCATIONS MAP
PLATTSBURGH GATEWAY PROJECT
DURKEE STREET SITE

CITY OF PLATTSBURGH — CLINTON COUNTY, NY

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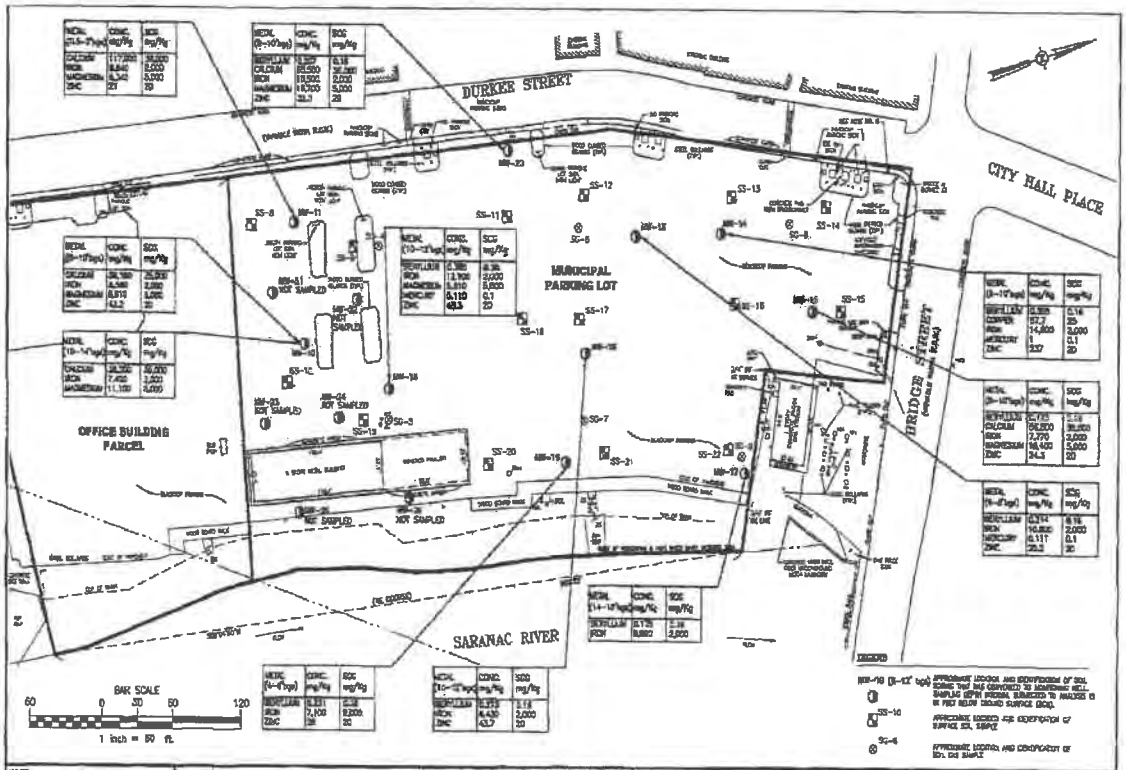
FIG5
SHEET 4 OF 8
DWG. NO: 07-0119



NOTE:
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MAP REFERENCES:
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FIGURE 6
METALS ABOVE SCGs IN SUBSURFACE SOILS LOCATIONS MAP
PLATTSBURGH GATEWAY PROJECT
DURKEE STREET SITE

CITY OF PLATTSBURGH — CLINTON COUNTY, NY

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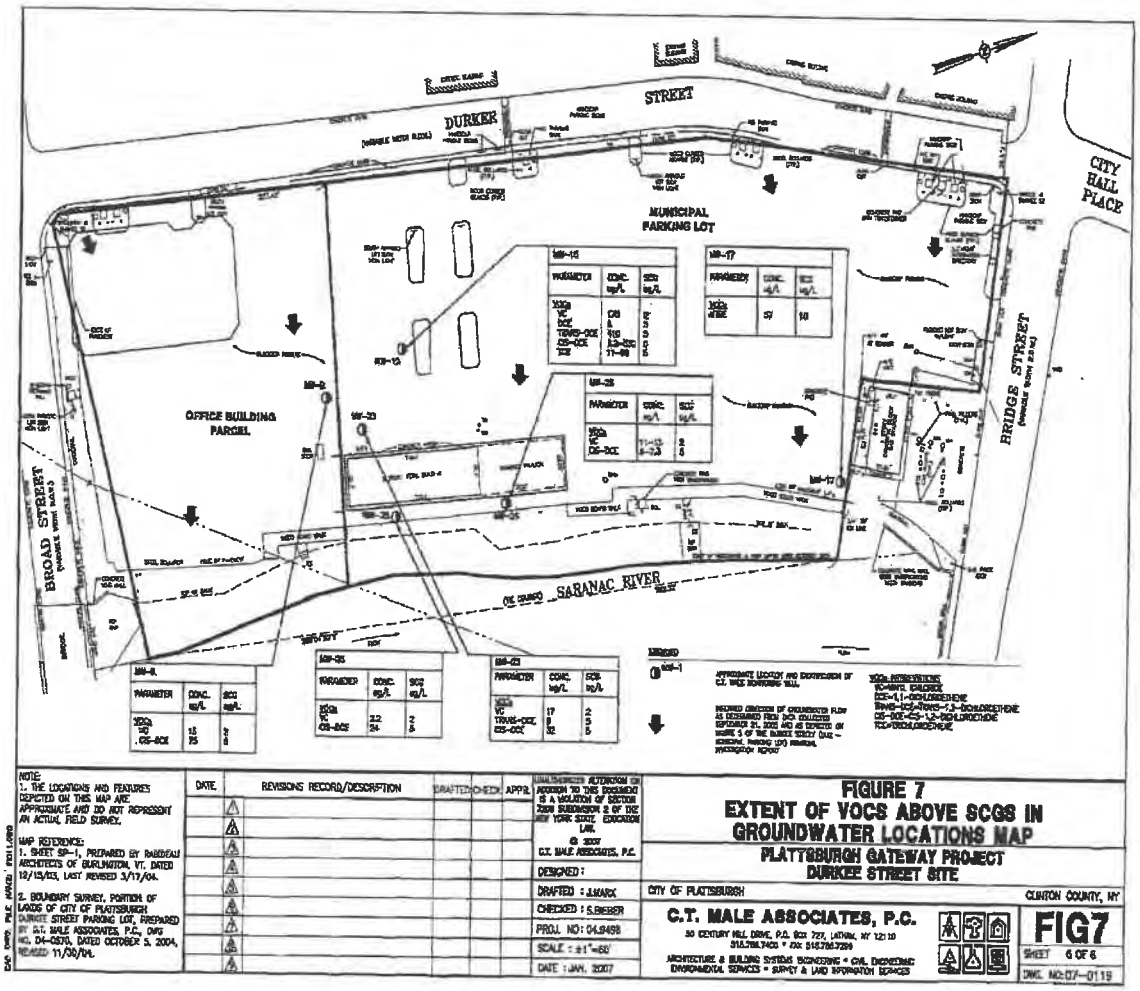
FIG6
SHEET 5 OF 6
DWG. NO:07-0119



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2. BOUNDARY SURVEY, PORTION OF LANDS OF CITY OF PLATTSBURGH DURKEE STREET PARKING LOT, PREPARED BY C.T. MALE ASSOCIATES, P.C., DWG NO. 04-0570, DATED OCTOBER 5, 2004, REVISED 11/30/04.

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DATE : JAN. 2007

FIGURE 7
EXTENT OF VOCS ABOVE SCGS IN GROUNDWATER LOCATIONS MAP
PLATTSBURGH GATEWAY PROJECT
DURKEE STREET SITE

CITY OF PLATTSBURGH — CLINTON COUNTY, NY

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50 CENTURY HILL DRIVE, P.O. BOX 727, LATHAM, NY 12110
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FIG7
SHEET 6 OF 6
DWG. NO: 07-0119

APPENDIX A

Responsiveness Summary

RESPONSIVENESS SUMMARY
Plattsburgh Gateway Project/Durkee Street Environmental Restoration Site
City of Plattsburgh, Clinton County, New York

Site No. E510020

The Proposed Remedial Action Plan (PRAP) for the Plattsburgh Gateway Project/Durkee Street site, was prepared by the New York State Department of Environmental Conservation (the Department) in consultation with the New York State Department of Health (NYSDOH) and was issued to the document repositories on February 7, 2007. The PRAP outlined the remedial measure proposed for the contaminated soil and groundwater media at the Plattsburgh Gateway Project/Durkee Street site.

The release of the PRAP was announced by sending a notice to the public contact list, informing the public of the opportunity to comment on the proposed remedy.

A public meeting was held on February 27, 2007, which included a presentation of the Remedial Investigation (RI) and the Remedial Alternatives Report (RAR), as well as a discussion of the proposed remedy. The meeting provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedy. These comments have become part of the Administrative Record for this site. The public comment period for the PRAP ended on March 25, 2007.

This responsiveness summary responds to all questions and comments raised during the public comment period. The following are the comments received, with the Department's responses:

COMMENT 1: Where are the HVAC intakes on the office building in comparison to the vapor vents?

RESPONSE 1: The vapor vent is located on the easteru side or leeward side of the building. The building code requires a minimum of ten feet of separation between the HVAC intake and the vapor discharge point. However, the actual distance will be more than ten feet by nature of the HVAC unit being located in the center of the building.

COMMENT 2: Is testing of the vapor part of the ongoing management of the project?

RESPONSE 2: The vapor ventilation system will be managed pursuant to the Site Management Plan to be developed for the site. The Site Management Plan will outline the specific testing and monitoring of the system's operating components, including the vapor exhaust system.

COMMENT 3: Is the sub-slab system difficult to maintain?

RESPONSE 3: No, the system generally requires that a negative pressure be maintained under the building slab and is typically monitored by a pressure gauge. A qualified contractor will be required to maintain the system according to the Site Management Plan.

COMMENT 4: Could you elaborate on the periodic certification of institutional and engineering controls requirement?

RESPONSE 4: The periodic certifications will need to be prepared and submitted by a professional engineer or such other expert acceptable to the Department. The expert will certify that the institutional and engineering controls put in place are still in place and are either unchanged from the previous certification or are compliant with Department-approved modifications.

COMMENT 5: Will the management requirements be described in detail in the final project plans?

RESPONSE 5: The Site Management Plan will further elaborate, specify and document the operation, long term maintenance and monitoring requirements for the site.

COMMENT 6: When will the project plan be finalized?

RESPONSE 6: It is expected that the proposed remedy will be selected and documented in the Record of Decision, which is expected to be finalized by March 31, 2007. The Site Management Plan will be developed shortly after the execution of the Record of Decision.

COMMENT 7: Will the requirements of the management plan be essentially the same as what has been described in the PRAP?

RESPONSE 7: Correct, the specifics of the management plan will be further documented in the Site Management Plan.

COMMENT 8: How high are the vapor vents on top of the office building?

RESPONSE 8: The vapor discharge vent is being incorporated into the design of the building in that it will not protrude from the rooftop and cannot be seen from the surrounding landscape.

APPENDIX B

Administrative Record

Administrative Record

Plattsburgh Gateway Project/Durkee Street Site
Site No. E510020

1. Proposed Remedial Action Plan for the Plattsburgh Gateway Project/Durkee Street site, dated February 2007, prepared by the Department.

2. PRAP Availability Fact Sheet, February 2007, prepared by the Department.

3. "Remedial Investigation Work Plan", December 2004, prepared by C.T. Male Associates.

4. Site Investigation Fact Sheet, May 2005, prepared by the Department.

5. Interim Remedial Measures Fact Sheet, July 2005, prepared by the Department.

6. "Final Remedial Investigation Report, Operable Unit No. 1", January 2007, prepared by C.T. Male Associates.

7. "Final Remedial Investigation Report, Operable Unit No. 2", January 2007, prepared by C.T. Male Associates.

8. "Final Remedial Alternatives Analysis Report, Operable Unit No. 1", January 2007, prepared by C.T. Male Associates.

9. "Remedial Alternatives Analysis Report, Operable Unit No. 2", January 2007, prepared by C.T. Male Associates.

EXHIBIT 2

DEED RESTRICTION AND/OR ENVIRONMENTAL EASEMENT

ENVIRONMENTAL EASEMENT GRANTED PURSUANT TO ARTICLE 71, TITLE 36 OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW

THIS INDENTURE made this 9th day of November, 2011, between Owner(s) The City of Plattsburgh [Fee Owner], a municipal corporation of the State of New York having an office at 41 City Hall Place, Plattsburgh, New York, 12901 and ICV-New York LLC [Lessee], a New York Limited Liability Company, having an office at 30 Main Street, Burlington, Vermont 05401 (collectively the "Grantor"), and The People of the State of New York (the "Grantee."), acting through their Commissioner of the Department of Environmental Conservation (the "Commissioner", or "NYSDEC" or "Department" as the context requires) with its headquarters located at 625 Broadway, Albany, New York 12233.

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to encourage the remediation of abandoned and likely contaminated properties ("sites") that threaten the health and vitality of the communities they burden while at the same time ensuring the protection of public health and the environment; and

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to establish within the Department a statutory environmental remediation program that includes the use of Environmental Easements as an enforceable means of ensuring the performance of operation, maintenance, and/or monitoring requirements and the restriction of future uses of the land, when an environmental remediation project leaves residual contamination at levels that have been determined to be safe for a specific use, but not all uses, or which includes engineered structures that must be maintained or protected against damage to perform properly and be effective, or which requires groundwater use or soil management restrictions; and

WHEREAS, the Legislature of the State of New York has declared that Environmental Easement shall mean an interest in real property, created under and subject to the provisions of Article 71, Title 36 of the New York State Environmental Conservation Law ("ECL") which contains a use restriction and/or a prohibition on the use of land in a manner inconsistent with engineering controls which are intended to ensure the long term effectiveness of a site remedial program or eliminate potential exposure pathways to hazardous waste or petroleum; and

WHEREAS, Grantor, is the owner of real property located at the address of 14 Durkee Street in the City of Plattsburgh, Clinton County and State of New York, known and designated on the tax map of the County Clerk of Clinton as tax map parcel numbers: Section 207.20 Block 7 Lot 15, being the same as that property conveyed to Grantor by deed dated February 27, 2003 and recorded in the Clinton County Clerk's Office on March 12, 2003 in Instrument Number: 152840 and by virtue of a Ground Lease recorded in the Clinton County Clerk's Office on November 17, 2006 as Instrument No. 2006-00200533, comprising approximately 5.11 ± acres, and hereinafter more fully described in the Land Title Survey dated November 9, 2010, revised December 9, 2010, December 21, 2010 and signed December 22, 2010 prepared by Jeffrey F. Burns, PLS of Robert M. Sutherland P.C. Engineers-Planners-Surveyors, which will be attached to the Site Management Plan. The property description and survey (the "Controlled Property") is set forth in and attached hereto as Schedule A; and

WHEREAS, the Department accepts this Environmental Easement in order to ensure the protection of human health and the environment and to achieve the requirements for remediation established for the Controlled Property until such time as this Environmental Easement is extinguished pursuant to ECL Article 71, Title 36; and

NOW THEREFORE, in consideration of the mutual covenants contained herein and the terms and conditions of State Assistance Contract Number: C302578, Grantor conveys to Grantee a permanent Environmental Easement pursuant to ECL Article 71, Title 36 in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement")

1. Purposes. Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the restriction of future uses of the land that are inconsistent with the above-stated purpose.

2. Institutional and Engineering Controls. The controls and requirements listed in the Department approved Site Management Plan ("SMP") including any and all Department approved amendments to the SMP are incorporated into and made part of this Environmental Easement. These controls and requirements apply to the use of the Controlled Property, run with the land, are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees and any person using the Controlled Property.

A. (1) The Controlled Property may be used for:

Restricted Residential as described in 6 NYCRR Part 375-1.8(g)(2)(ii), Commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and Industrial as described in 6 NYCRR Part 375-1.8(g)(2)(iv)

(2) All Engineering Controls must be operated and maintained as specified in the Site Management Plan (SMP);

(3) All Engineering Controls must be inspected at a frequency and in a manner defined in the SMP.

(4) Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;

(5) Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the SMP;

(6) All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;

(7) Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP.

(8) Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy shall be performed as defined in the SMP.

(9) Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by this Environmental Easement.

B. The Controlled Property shall not be used for raising livestock or producing animal products for human consumption, and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

C. The SMP describes obligations that the Grantor assumes on behalf of Grantor, its successors and assigns. The Grantor's assumption of the obligations contained in the SMP which may include sampling, monitoring, and/or operating a treatment system, and providing certified reports to the NYSDEC, is and remains a fundamental element of the Department's determination that the Controlled Property is safe for a specific use, but not all uses. The SMP may be modified in accordance with the Department's statutory and regulatory authority. The Grantor and all successors and assigns, assume the burden of complying with the SMP and obtaining an up-to-date version of the SMP from:

Regional Remediation Engineer
NYSDEC – Region 5
Division of Environmental Remediation
1115 NYS Route 86, P.O. Box 296
Ray Brook, NY 12977-0296
Phone: (518) 897 - 1227

or

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, New York 12233
Phone: (518) 402-9553

D. Grantor must provide all persons who acquire any interest in the Controlled Property a true and complete copy of the SMP that the Department approves for the Controlled Property and all Department-approved amendments to that SMP.

E. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of ECL Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

This property is subject to an Environmental Easement held by the New York State Department of Environmental Conservation pursuant to Title 36 of Article 71 of the Environmental Conservation Law.

F. Grantor covenants and agrees that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.

G. Grantor covenants and agrees that it shall annually, or such time as NYSDEC may allow, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury, in such form and manner as the Department may require, that:

(1) the inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under the direction of the individual set forth at 6 NYCRR Part 375-1.8(h)(3).

(2) the institutional controls and/or engineering controls employed at such site:

(i) are in-place;

(ii) are unchanged from the previous certification, or that any identified changes to the controls employed were approved b the NYSDEC and that all controls are in the Department-approved format; and

(iii) that nothing has occurred that would impair the ability of such control to protect the public health and environment;

(3) the owner will continue to allow access to such real property to evaluate the continued maintenance of such controls;

(4) nothing has occurred that would constitute a violation or failure to comply with any site management plan for such controls;

(5 the report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

(6) to the best of his/her knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and

(7) the information presented is accurate and complete.

3. Right to Enter and Inspect. Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

4. Reserved Grantor's Rights. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Property, including:

A. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;

B. The right to give, sell, assign, or otherwise transfer part or all of the underlying fee interest to the Controlled Property, subject and subordinate to this Environmental Easement;

5. Enforcement

A. This Environmental Easement is enforceable in law or equity in perpetuity by Grantor, Grantee, or any affected local government, as defined in ECL Section 71-3603, against the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this Environmental Easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

B. If any person violates this Environmental Easement, the Grantee may revoke the Certificate of Completion with respect to the Controlled Property.

C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor can cure such breach or suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach, and Grantee may take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement, including the commencement of any proceedings in accordance with applicable law.

D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar any enforcement rights.

6. Notice. Whenever notice to the Grantee (other than the annual certification) or approval from the Grantee is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information:

County, NYSDEC Site Number, NYSDEC Brownfield Cleanup Agreement, State Assistance Contract or Order Number, and the County tax map number or the Liber and Page or computerized system identification number.

Parties shall address correspondence to:

Site Number: E 510020
Office of General Counsel
NYSDEC
625 Broadway
Albany New York 12233-5500

With a copy to:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, NY 12233

All notices and correspondence shall be delivered by hand, by registered mail or by Certified mail and return receipt requested. The Parties may provide for other means of receiving and

communicating notices and responses to requests for approval.

7. Recordation. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

8. Amendment. Any amendment to this Environmental Easement may only be executed by the Commissioner of the New York State Department of Environmental Conservation or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

9. Extinguishment. This Environmental Easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation, or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

10. Joint Obligation. If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

IN WITNESS WHEREOF, Grantor has caused this instrument to be signed in its name.

Grantor: City of Plattsburgh

By: _____

Print Name: Donald M. Kasprzak

Title: Mayor Date: January, 2011

ICV-New York, LLC

By: _____

Print Name: _____

Title: _____ Date: ~~January~~ March, 2011

Grantor's Acknowledgment

STATE OF VERMONT)
) ss:
COUNTY OF CHITTENDEN)

On the 8th day of March, in the year 20 11, before me, the undersigned, personally appeared Paul Sprayregen, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Barbara L Surprenant
Notary Public - State of Vermont

Grantor's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF Clinton)

On the 20 day of January, in the year 20 11, before me, the undersigned, personally appeared Donald M. Kasper, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

John E Clute
Notary Public - State of New York

JOHN E. CLUTE
Notary Public in the State of New York
No. 02CL4676573
Residing in the County of Clinton
My Commission Expires February 28, 20 15

THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of Environmental Conservation as Designee of the Commissioner.

By: _____
Dale A. Desnoyers, Director
Division of Remediation

Grantee's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF Albany)

On the 9th day of November, in the year 2011, before me, the undersigned, personally appeared Dale A. Desnoyers, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/ executed the same in his/her/ capacity as Designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his/her/ signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

_____
Notary Public - State of New York

David J. Chiusano
Notary Public, State of New York
No. 01CH5032146
Qualified in Schenectady County
Commission Expires August 22, 2014

SCHEDULE "A" PROPERTY DESCRIPTION

14 Durkee Street
City of Plattsburgh, Clinton County, NY
Section 207.20 Block 7 Lot 15

LOT 1

ALL THAT CERTAIN PIECE OR PARCEL OF LAND, together with any buildings and improvements thereon, situate in the City of Plattsburgh, County of Clinton and State of New York more particularly described as follows:

BEGINNING at the intersection of the assumed southerly boundary of Bridge Street and the assumed easterly boundary of Durkee Street, being the northwest corner of lands owned by the City of Plattsburgh, a municipal corporation as described in a deed recorded in the Clinton County Clerk's Office as deed instrument # 2003-152840;

Thence running South 64°52' 17" East a distance of 141.10 feet along said boundary of Bridge Street to a drill hole in concrete at the northwest corner of lands now or formerly of GK Management, LLC, by virtue of deed instrument # 2006-201071;

Thence turning South 20° 19' 43" West along the westerly boundary of said lands now or formerly of GK Management, LLC and running a distance of 100.00 feet to a 3/4" iron rod found at the southwesterly corner of said lands of GK Management, LLC;

Thence turning South 64° 52'17" East along the southerly boundary of said lands now or formerly of GK Management, LLC and running through a found 3/4" iron rod a distance of 120.80 feet to a point at the mean high water mark of the Saranac River, which point is also the southeasterly corner of said lands now or formerly of GK Management, LLC;

Thence turning and running southerly along the mean high water mark of the Saranac River the following (10) ten courses and distances:

1) South 14° 49'18" West a distance of 114.88 feet to a point;
2) South 12°34'14" West a distance of 57.43 feet to a point;
3) South 08°48'36" West a distance of 56.86 feet to a point;
4) South 13°08'36" West a distance of 42.88 feet to a point;
5) South 19°37'41" West a distance of 45.72 feet to a point;
6) South 14°01'40" West a distance of 54.91 feet to a point;
7) South 04°11'34" West a distance of 38.47 feet to a point at the northeasterly corner of a leased portion of property, lessee is ICV-New York, LLC, by virtue of deed instrument # 2006-200533;
8) South 04°11'34" West a distance of 27.00 feet to a point;
9) South 02°08'47" East a distance of 122.66 feet to a point;
10) South 05°58'41" West a distance of 25.91 feet to a point at the intersection of the high water mark of the Saranac River, and lands acquired by the City of Plattsburgh by

Supreme Court Order for the construction of the "Kennedy Bridge", also known as Broad Street;

Thence turning South 89° 29' 50" West and running a distance of 294.17 feet to a point in said lands acquired by the City of Plattsburgh by Supreme Court Order for the construction of the "Kennedy Bridge", also known as Broad Street;

Thence turning North 45° 37' 58" West and running a distance of 7.98 feet to a point in the easterly boundary of Durkee Street;

Thence turning North 10° 07' 08" East along the easterly boundary of said Durkee Street and running a distance of 227.42 feet to a point at the northwesterly corner of a leased portion of property, lessee is ICV-New York, LLC, by virtue of deed instrument # 2006-200533;

Thence continuing North 10° 07' 08" East along the easterly boundary of said Durkee Street and running a distance of 321.07 feet to a point;

Thence turning North 21° 25' 40" East and continuing along the easterly boundary of said Durkee Street and running a distance of 254.66 feet to the POINT OR PLACE OF BEGINNING;

Containing herein 4.38 acres of land more or less.

HEREBY intending to describe a portion of property lying easterly of Durkee Street, southerly of Bridge Street, westerly of the high water mark of the Saranac River and northerly of Broad Street;

LOT 2

ALL THAT CERTAIN PIECE OR PARCEL OF LAND, situate in the City of Plattsburgh, County of Clinton, State of New York, more particularly described as follows:

BEGINNING at the intersection of the assumed easterly boundary of Durkee Street and the southerly boundary of land acquired by the City of Plattsburgh by Supreme Court Order for the construction of the "Kennedy Bridge", also known as Broad Street;

Thence running South 76°07'58" East along the southerly boundary of land acquired by the City of Plattsburgh by Supreme Court Order for the construction of the "Kennedy Bridge", also known as Broad Street and running a distance of 259.09 feet to a point at the top of bank of the Saranac River;

Thence continuing South 76°07'58" East along the southerly boundary of land acquired by the City of Plattsburgh by Supreme Court Order for the construction of the "Kennedy Bridge", also known as Broad Street and running a distance of 10.62 feet to a point in the mean high water mark of the Saranac River;

Thence turning and running southerly along the mean high water mark of the Saranac River the following (3) three courses and distances:

1) South 15° 01'07" West a distance of 39.17 feet to a point;
2) South 33° 58'16" West a distance of 51.72 feet to a point;

3) South 42° 39'10" West a distance of 45.74 feet to a point at the intersection of the high water mark of the Saranac River, and the northerly boundary of lands now or formerly of Steven Baker, by virtue of deed liber 629 at page 318;

Thence turning North 73°48'10" West along the northerly boundary of said lands now or formerly of Steven Baker and running a distance of 2.45 feet to a point at the top of bank of the Saranac River;

Thence continuing North 73°48'10" West along the northerly boundary of said lands now or formerly of Steven Baker and running a distance of 212.00 feet to point at the northwesterly corner of lands now or formerly of Steven Baker;

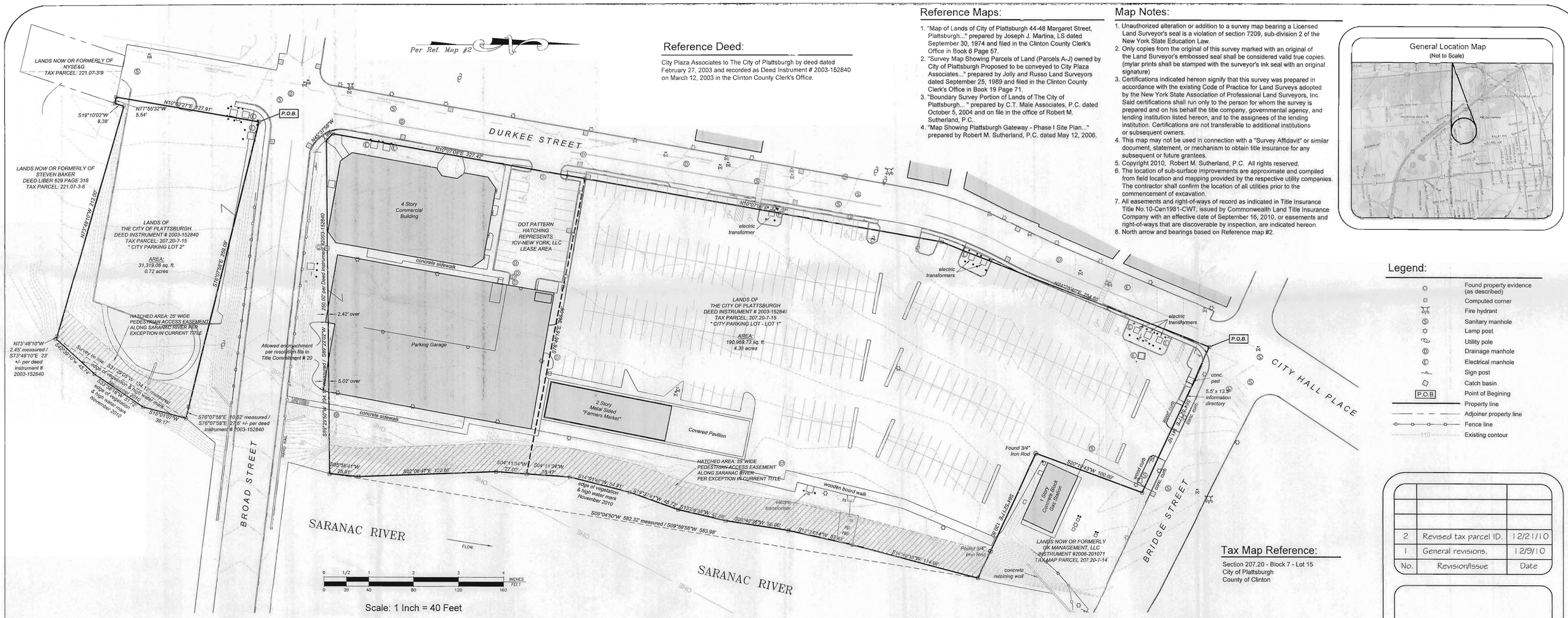
Thence turning South 19°10'02" West along the westerly boundary of said lands now or formerly of Steven Baker and running a distance of 8.38 feet to a point at the northeasterly corner of lands now or formerly of New York State Electric & Gas;

Thence turning North 77°55'32" West along the northerly boundary of said lands now or formerly of New York State Electric & Gas and running a distance of 5.54 feet to a point at the southeasterly corner of Durkee Street;

Thence turning North 10°02'27" East along the easterly boundary of said Durkee Street and running a distance of 127.91 feet to the POINT OR PLACE OF BEGINNING;

Containing herein 0.72 acres of land more or less.

HEREBY intending to describe a portion of property lying easterly of Durkee Street, southerly of Broad Street, westerly of the high water mark of the Saranac River and northerly of certain lands now or formerly of Steven Baker and New York State Electric & Gas;



Reference Deed:

City Plaza Associates to The City of Plattsburgh by deed dated February 27, 2003 and recorded as Deed Instrument # 2003-152840 on March 12, 2003 in the Clinton County Clerk's Office.

Reference Maps:

1. "Map of Lands of City of Plattsburgh 44-48 Margaret Street, Plattsburgh..." prepared by Joseph J. Martina, LS dated September 30, 1974 and filed in the Clinton County Clerk's Office in Book 6 Page 57.
2. "Survey Map Showing Parcels of Land (Parcels A-J) owned by City of Plattsburgh Proposed to be conveyed to City Plaza Associates..." prepared by Jolly and Russo Land Surveyors dated September 25, 1989 and filed in the Clinton County Clerk's Office in Book 19 Page 71.
3. "Boundary Survey Portion of Lands of The City of Plattsburgh... " prepared by C.T. Male Associates, P.C. dated October 5, 2004 and on file in the office of Robert M. Sutherland, P.C.
4. "Map Showing Plattsburgh Gateway - Phase I Site Plan..." prepared by Robert M. Sutherland, P.C. dated May 12, 2006.

Map Notes:

1. Unauthorized alteration or addition to a survey map bearing a Licensed Land Surveyor's seal is a violation of section 7209, sub-division 2 of the New York State Education Law.
2. Only copies from the original of this survey marked with an original of the Land Surveyor's embossed seal shall be considered valid true copies. (mylar prints shall be stamped with the surveyor's ink seal with an original signature)
3. Certifications indicated hereon signify that this survey was prepared in accordance with the existing Code of Practice for Land Surveys adopted by the New York State Association of Professional Land Surveyors, Inc. Said certifications shall run only to the person for whom the survey is prepared and on his behalf the title company, governmental agency, and lending institution listed hereon, and to the assignees of the lending institution. Certifications are not transferable to additional institutions or subsequent owners.
4. This map may not be used in connection with a "Survey Affidavit" or similar document, statement, or mechanism to obtain title insurance for any subsequent or future grantees.
5. Copyright 2010, Robert M. Sutherland, P.C. All rights reserved.
6. The location of sub-surface improvements are approximate and compiled from field location and mapping provided by the respective utility companies. The contractor shall confirm the location of all utilities prior to the commencement of excavation.
7. All easements and right-of-ways of record as indicated in Title Insurance Title No.10-Cen1981-CWT, issued by Commonwealth Land Title Insurance Company with an effective date of September 16, 2010, or easements and right-of-ways that are discoverable by inspection, are indicated hereon.
8. North arrow and bearings based on Reference map #2.

General Location Map
(Not to Scale)

Legend:

- Found property evidence (as described)
- Computed corner
- Fire hydrant
- Sanitary manhole
- Lamp post
- Utility pole
- Drainage manhole
- Electrical manhole
- Sign post
- Catch basin
- P.O.B. — Point of Begining
- Property line
- Adjoiner property line
- Fence line
- 110 — Existing contour

Tax Map Reference:

Section 207.20 - Block 7 - Lot 15
City of Plattsburgh
County of Clinton

Legal Description of Environmental Easement - New York State Department of Environmental Conservation Site # E510020:

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THE ENGINEERING AND INSTITUTIONAL CONTROLS for the Easement are set forth in more detail in the Site Management Plan (SMP). A copy of the SMP must be obtained by any party with an interest in the property.

The SMP may be obtained from the New York State Department of Environmental Conservation, Division of Environmental Remediation, Site Control Section, 625 Broadway, Albany, NY 12233 or at derweb@gw.dec.state.ny.us.

This property is subject to an Environmental Easement held by the New York State Department of Environmental Conservation pursuant to Title 36 of Article 71 of the New York Environmental Conservation Law

Engineering / Institutional Controls

(a) limiting the use and development of the property to restricted residential use, which will also permit commercial use in conformance with local zoning;

(b) compliance with the approved site management plan;

(c) restricting the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by NYSDOH; and

(d) submission by the property owner to the Department a periodic certification of institutional and engineering controls.

(e) notice to the Department of any ground intrusive work or change in use, management of the final cover system to restrict excavation below the pavement layer, or buildings. Excavated topsoil would be tested, properly handled to protect the health and safety of workers and the nearby community, and would be properly managed in a manner acceptable to the Department;

(f) evaluation of the potential for vapor intrusion for any buildings developed on the site, including provision for mitigation of any impacts identified;

(g) monitoring of groundwater and

(h) provisions for the operation, maintenance, and monitoring of the installed sub-slab vapor mitigation system in the office building presently under construction.

Title Commitment Information:

No.	RECORDING REFERENCE	DESCRIPTION	STATUS ON PLAT
15	DEED LIBER 219 AT PAGE 349	15' WIDE UTILITY EASEMENT GRANTED TO CITY OF PLATTSBURGH, MUNICIPAL LIGHTING DEPARTMENT	UNABLE TO PLOT
	DEED LIBER 219 AT PAGE 351	10' WIDE UTILITY EASEMENT GRANTED TO CITY OF PLATTSBURGH, MUNICIPAL LIGHTING DEPARTMENT	UNABLE TO PLOT
	DEED INSTRUMENT # 1998-101259	UTILITY EASEMENT GRANTED TO NEW YORK TELEPHONE COMPANY	DOES NOT AFFECT
20	MISC. INSTRUMENT # 2000-000029	AMENDMENTS AND TERMS	UNABLE TO PLOT
21	DEED INSTRUMENT # 2006-200524	AFFIDAVIT TERMINATING LEASE	UNABLE TO PLOT
22	DEED INSTRUMENT # 2006-200533	LEASE FROM CITY OF PLATTSBURGH AND ICV-NEW YORK, LLC	PLOTTED
22	DEED INSTRUMENT # 2006-200535	LEASEHOLD MORTGAGE FROM ICV-NEW YORK, LLC TO TD BANKNORTH	UNABLE TO PLOT
	ON FILE WITH THE CITY CLERK	CORPORATE RESOLUTION FROM THE CITY OF PLATTSBURGH AUTHORIZING ENVIRONMENTAL EASEMENT	UNABLE TO PLOT

REFERENCE: COMMONWEALTH LAND TITLE INSURANCE COMPANY
FILE NO. 10-CEN1381-CWT
EFFECTIVE DATED: SEPTEMBER 16, 2010

Surveyor's Certification:

I hereby certify to New York State - Department of Environmental Conservation, the City of Plattsburgh, Commonwealth Land Title Insurance Company, and to their successors and assigns that:

(a) I made an on the ground survey per record description of the land shown hereon located at 14 Durkee Street, City of Plattsburgh, Clinton County, New York, on November 1, 2010; and it and this map were made in accordance with the requirements for an ALTA/ACSM Land Title Survey, as defined in the 2005 Minimum Standard Detail Requirements for ALTA/ASCM Land Title Surveys.

(b) To the best of my knowledge, belief and information, except as shown hereon: there are no encroachments either way across property lines; there are no encroachments of any structures over any applicable set back lines or upon easements; title lines and lines of actual possession are the same; and the premises are free of any 100/500 year return frequency flood hazard, and such flood free condition is shown on the Federal Flood Insurance Rate Map, Community Panel No. 36019C604D

12/22/10

By: _____

Name: Jeffrey F. Burns, PLS

Date: December 22, 2010

No.	Revision/Issue	Date
2	Revised tax parcel ID.	12/21/10
1	General revisions.	12/9/10

RMS
ROBERT M. SUTHERLAND P.C.
ENGINEERS - PLANNERS - SURVEYORS
SOIL & MATERIAL TESTING
11 MacDonough Street, Plattsburgh, NY 12901
518.561.6145(PH) 518.561.2496 (FX)
RMSPC.COM

Project Name & Address

SURVEY MAP
OF CERTAIN LANDS OF
CITY OF PLATTSBURGH
SHOWING
ENVIRONMENTAL EASEMENT

~ Situate ~
Tax Map Parcel 207.2-7-15
Durkee Street
City of Plattsburgh
Clinton County State of New York

Project # 10239	Sheet 1/1
Date 11/09/2010	
Scale 1" = 40'	
Drawn AJD	Checked JFB

Revised Building Elevation - North

1 Bridge Street Elevation

SCALE: 1" = 20'

0 10' 20' 40'

MACKENZIE ARCHITECTS P.C.

162 Battery Street, Burlington, Vermont 05401 802.863.7177 (T) www.mackenziearchitects.com

Plattsburgh Mixed Use Development

Building Elevations

The City of Plattsburgh
Plattsburgh, NY
8/10/2020

Revised Building Elevation - West

2 Durkee Street Elevation

SCALE: 1" = 20'

0 10' 20' 40'

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Building Elevations

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Revised Rendering – View from Bridge Street and Durkee Street

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Plattsburgh Mixed Use Development
View from Bridge St. & Durkee St.

The City of Plattsburgh
Plattsburgh, NY
8/10/2020

1

Revised Rendering – View on Bridge Street

Note: Glass storefront at housing entry subject to cost impact confirmation.

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Plattsburgh Mixed Use Development
View on Bridge St

The City of Plattsburgh
Plattsburgh, NY
8/10/2020

Fire Department “Will Serve” Communication

DISCOVER

Plattsburgh, New York

Scott Lawliss
Fire Chief

Plattsburgh Fire Department
65 Cornelia Street
Plattsburgh, NY 12901
Tel: 518-536-7542
Fax: 518-561-8236
lawlisss@cityofplattsburgh-ny.gov

July 27, 2020

Acting Chair Derek Rosenbaum and
Members of the Planning Board
41 City Hall Place
Plattsburgh, NY 12901

RE: City of Plattsburgh Fire Department – Durkee Street Findings

Dear **Acting Chair Derek Rosembaum and Members of the Planning Board:**

The City of Plattsburgh has requested my opinion and findings related to the Durkee Street development project proposed by Prime Plattsburgh, LLC. On February 20, 2020 I provided correspondence to this Board stating that **"I have no concerns and the Fire Department will be able to provide Fire Protection to the building." I have reviewed the most recent site plan, dated July 2020 (the "Site Plan") and confirm that prior statement. Please note the following:**

1) **A review of the Site Plan and other application materials demonstrates that the City of Plattsburgh Fire Department will be able to provide Fire Protection to the proposed buildings and pedestrian areas.**

2) **It will be required that the buildings and related improvements be constructed in accordance with the NYS Fire Code.**

Regards,

Scott Lawliss

Police Department “Will Serve” Communication

Turner C. Bradford

From: Natalie S. Olivieri
Sent: Thursday, July 23, 2020 1:47 PM
To: Deborah Osterhoudt
Cc: 'Charles Gottlieb '; Turner C. Bradford
Subject: FW: Durkee Street Project

Deb,

See below for email follow up from Police Chief Ritter.

Thanks,
Natalie

From: Ritter, Levi <ritterl@cityofplattsburgh-ny.gov>
Sent: Thursday, July 23, 2020 1:21 PM
To: Natalie S. Olivieri <nolivieri@mjinc.com>
Subject: RE: Durkee Street Project

Hi Natalie,

I wanted to follow up from our call yesterday. Based on our conversation about the changes to the Durkee St site plan, I felt any concerns I had were adequately addressed. I have no further concerns or questions.

Levi Ritter
Chief of Police
Plattsburgh Police Department
45 Pine St
Plattsburgh, NY 12901
Dispatch: (518) 563-3411

From: Natalie S. Olivieri <nolivieri@mjinc.com>
Sent: Tuesday, July 21, 2020 3:25 PM
To: Ritter, Levi <ritterl@cityofplattsburgh-ny.gov>
Cc: Turner C. Bradford <tbradford@mjinc.com>; Deborah Osterhoudt <dosterhoudt@theprimecompanies.com>; Tamer, Malana <TamerM@cityofplattsburgh-ny.gov>; Miller, Matthew <MillerMa@cityofplattsburgh-ny.gov>
Subject: Durkee Street Project

Good afternoon Chief Ritter,

Regarding the Durkee Street Project, we have updated the building layout to address board comments (see attached). We're hoping to get your input as to any questions or concerns you have about the revised design. If you'd like, we'd be happy to set up a call to go through the changes with you.

It is our intent to be on the August board meeting agendas, so if you could take a look and send over any concerns by August 5th it would be greatly appreciated.

Thank you,
Natalie

Natalie Olivieri, EIT • Junior Engineer
McFarland Johnson
60 Railroad Place, Suite 402 • Saratoga Springs, NY 12866
Office: 518-580-9380 Ext. 3620 • Fax: 518-580-9383
www.mjinc.com

Whiteman, Osterman, & Hanna SEQRA impact letter

WHITEMAN
OSTERMAN
& HANNA LLP

Attorneys at Law
www.woh.com

Charles J. Gottlieb
Associate
518.487.7612 phone
cgottlieb@woh.com

One Commerce Plaza
Albany, New York 12260
518.487.7600 phone
518.487.7777 fax

August 10, 2020

VIA EMAIL

City of Plattsburgh Planning Board
41 City Hall Place
Plattsburgh, NY 12901

City of Plattsburgh Zoning Board of Appeals
41 City Hall Place
Plattsburgh, NY 12901

RE: Revised Project Submission
Prime Plattsburgh – Durkee Street Development

Dear Members of the Planning Board and Zoning Board of Appeals:

Our firm represents Prime Plattsburgh, LLC ("Prime") related to its proposed mixed-use development and related off-street parking on property that currently comprises the Durkee Street Municipal Parking Lot (the "Project"). Project will be developed on land encompassing approximately 2.8 acres and is located on a portion of tax parcel 207.20-7-15 (the "Project Site").[1] On behalf of Prime, this letter sets forth procedural requirements as a result of proposed changes and the related impact on the current State Environmental Review Act ("SEQRA") review.

The Project has undergone an extensive review before the Planning Board and the Zoning Board of Appeals ("ZBA"). As a result of this review process, Prime has revised the Project to mitigate concerns of individual Board members and members of the public (building height, building façade materials, sidewalk width, etc.). Board members have recently expressed a few remaining concerns related to the Project, which include: (1) setbacks of the proposed mixed use building to the property lines and the proposed Riverwalk, (2) the location of the parking garage entrance off of Bridge Street, (3) materials on the building façade, (4) off-street parking requirements and (5) the impact of COVID-19 on the Project and its SEQRA review.

[1] A second tax parcel, 207.20-7-14, was recently merged with parcel 207.20-7-15 and the proposed project will occupy a portion of the former footprint of tax parcel 207.20-7-14 as well

Prime redesigned the Project in a manner that would mitigate the above noted concerns to the maximum extent practicable. These changes are explained in detail in the enclosed environmental narrative prepared by McFarland Johnson.

SEQRA Findings Statements and Project Revisions

The City of Plattsburgh Common Council ("City Council"), as the lead agency for the Project, has concluded its environmental review of the Project by the adoption of a Final Environmental Impact Statement ("FGEIS") and related findings statement. Now that the City Council's environmental review is complete, the Planning Board and ZBA, as involved agencies, must issue their own findings statement. *See* 6 NYCRR 617.11.

The Planning Board and ZBA have been discussing their respective findings statement and have asked what effect project changes have on the SEQRA process. The SEQRA review process expects that projects will change as impacts are continuously mitigated. To this end, a supplemental EIS is only required if "environmentally significant modifications" are made after the issuance of the FEIS. *See Vill. of Pelham v. City of Mount Vernon Indus. Dev. Agency,* 302 A.D.2d 399, 400–01 (2d Dep't 2003). Here, the Project's changes are in direct response to Board member and public concerns. Therefore, the Project's changes are designed to mitigate perceived environmental impacts to the maximum extent possible. As demonstrated in the SEQRA narrative, because the Project's changes mitigate perceived environmental concerns they are not "environmentally significant modifications" and the Planning Board and ZBA may proceed with their findings statements without a Supplemental GEIS ("SGEIS").

To the extent that the Planning Board and ZBA members agree with our analysis, in preparing the respective involved agency findings statements, we encourage that the Planning Board and the ZBA highlight the Project's changes that have occurred since the Project has been before them and document their mitigating impacts.

SEQRA and COVID-19

The Planning Board and the ZBA have appropriately asked questions related to the impact that the COVID-19 crisis may have on the Project's development. Despite the fact that post COVID-19 economic conditions are completely speculative, Prime provided the City with an analysis of how it might impact the Project. *See* Prime Letter dated, May 27, 2020 (the "Prime Letter"). That said, we respectfully submit that additional analysis of the economic impacts of COVID-19 are too speculative to be included in the SEQRA review and thus a SGEIS is not required to examine speculative COVID-19 impacts. *See Vill. of Chestnut Ridge v. Town of Ramapo,* 99 A.D.3d 918, 925–26, 953 N.Y.S.2d 75, 82–83 (2d Dep't 2012) (holding that "generalized community objections or speculative environmental consequences are insufficient to challenge the Town's environmental review.").

Here, the Prime Letter demonstrated, to the maximum extent practicable that, based on their professional experience in the real estate market, the COVID-19 crisis will not have a significant impact on the Project. Thus, despite the fact that the COVID-19 crisis is to speculative and cannot be appropriately assessed during the SEQRA process, its anticipated impacts have been

evaluated by Prime and provided to the Planning Board and ZBA. *See Chinese Staff & Workers' Ass'n v. Burden*, 88 A.D.3d 425 (1st Dep't 2011) (holding that it is not arbitrary and capricious nor a violation of environmental laws for an agency to not fully assess speculative environmental consequences which might arise). That said, Prime is experiencing interest in the Project from prospective commercial tenants.

Conclusion

We look forward to discussing the proposed Project changes in more detail with the Planning Board and ZBA at the August meetings. We submit that the information provided above and in the enclosed SEQRA narrative should be considered by the Planning Board and ZBA while developing their findings statements.

Thank you for your consideration of the above. If you have any questions, please do not hesitate to contact my office.

Very truly yours,

/s/ Charles J Gottlieb

Charles J. Gottlieb

cc: Joe McMahon, Building Inspector, City of Plattsburgh
Corey Auerbach, Esq., ZBA Special Counsel
Ethan Vinson, Project Coordinator, Community Development, City of Plattsburgh
Matthew Miller, Director of Community Development, City of Plattsburgh
Prime Plattsburgh, LLC