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GENESEE COUNTY PLANNING BOARD REFERRALS NOTICE OF FINAL ACTION

1602	GCDP Referral ID	T-08-BAT-05-23
BEDERORDONDONDONO	Review Date	5/11/2023
Municipality	BATAVIA, T.	
Board Name	PLANNING BOARD	
Applicant's Name	David Mazur (Countrys	de Apartments)
Referral Type	Special Use Permit	
Variance(s)		
Description:	Special Use Permit and Sir residential complex.	e Plan Review to construct an 80-unit multifamily
Location	Assemblyman R. Steph Planned Unit Developm	
Zoning District		

PLANNING BOARD RECOMMENDS:

APPROVAL WITH MODIFICATION(S)

EXPLANATION:

The required modification is that the applicant work with the Genesee County Highway Department and Genesee Community College to provide safe pedestrian crossings on Hawley Dr. With this required modification, the proposed multifamily residential complex should pose no significant county-wide or intercommunity impact. It is recommended that the applicant submits the attached application for 9-1-1 Address Verification to the Genesee County Sheriff's Office to ensure that addresses are assigned that meet Enhanced 9-1-1 standards.

May 11, 2023

Director

Date

If the County Planning Board disapproved the proposal, or recommends modifications, the referring agency shall NOT act contrary to the recommendations except by a vote of a majority plus one of all the members and after the adoption of a resolution setting forth the reasons for such contrary action. Within 30 days after the final action the referring agency shall file a report of final action with the County Planning Board. An action taken form is provided for this purpose and may be obtained from the Genesee County Planning Department.

SEND OR DELIVER TO: GENESEE COUNTY DEPARTMENT OF PL 3837 West Main Street Road Batavia, NY 14020-9404	ANNING	DEPAR GCDP Referral # <mark>1</mark>	TMENT USE ONLY: -08-BAT-05-23
W YOL GO	* GENESEE CO PLANNING BOARD Required Accordi UNICIPAL LAW ARTICLE (Please answer ALL questions	REFERRAL ing to: 2 12B, SECTION 2 as fully as possible)	RECEIVED Genesee County Dept. of Planning 5/4/2023 239 L, M, N
1. <u>Referring Board(s) Inform</u>		NT INFORMATION	
Board(s) Town of Batavia Planning		d Mazur (Countryside	· ·
Address 3833 West Main Street Ro		80 Grand Island Blvd	
City, State, Zip Batavia, NY, 14020		ip Grand Island, NY	
Phone (585) 343 - 1729	Ext. Phone (716) 773	3-7707 Ext.	Email Expert@empiredismantle.c
MUNICIPALITY: City	Town Village of Ba	atavia	
3. <u>TYPE OF REFERRAL:</u> (Check all app	plicable items)		
 Area Variance Use Variance Special Use Permit Site Plan Review 	 Zoning Map Change Zoning Text Amendments Comprehensive Plan/Upda Other:	Prelin	on Proposal ninary
4. LOCATION OF THE REAL PROPI	ERTY PERTAINING TO THIS RE	EFERRAL:	
A. Full Address Med Tech Park			
B. Nearest intersecting road Step	hen Hawley Drive		
C. Tax Map Parcel Number 91-2	213, 91-214, 91-215 and 9	-1-216.21	
D. Total area of the property 9.47	' acres Area of pr	roperty to be disturbed	9.47 acres
E. Present zoning district(s) PUD	i		
5. <u>REFERRAL CASE INFORMATION</u> A. Has this referral been previously NO YES If yes, give	y reviewed by the Genesee County	Planning Board?	
B. Special Use Permit and/or Varia		n(s) of the present zonir	g ordinance and/or law
Town of Batavia Code section	0		0
C. Please describe the nature of thi	s request Applicant is requestin	g to build a multifam	ily dwelling unit complex
containing 80 dwelling units ar	nd garages		
6. <u>ENCLOSURES</u> – Please enclose copy	y(s) of all appropriate items in rega	rd to this referral	
 Local application Site plan Subdivision plot plans SEQR forms 	 Zoning text/map amendme Location map or tax maps Elevation drawings Agricultural data statement 	Photos Other:	updated comprehensive plan
7. <u>CONTACT INFORMATION</u> of the p	erson representing the community	in filling out this form	(required information)
Name Daniel Lang	Title CEO/ZEO	Phone (585)	343 - 1729 Ext. 222

Address, City, State, Zip 3833 West Main St. Rd. Batavia NY 14020	Email dlang@townofbatavia.com
---	-------------------------------

Building and Zoning Application Permit No._

Town of Batavia 3833 West Main Rd. Batavia NY 14020 PH. 585-343-1729

Date <u>3</u> / <u>31</u> / <u>2023</u> Zone Flood Zone Wellhead Protection Corner Lot
New Construction X Fence Pond Sign Alteration(s) Addition Demolition
Accessory Bldg. Mobile Home Fill Permit Home Occupation Land Separation Site Plan Approval X
Special Use Permit Temporary Use Subdivision Zoning Variance Request Other Specify:
Tax Map No. 9-1-213,9-1-214,9-1-215, and 9-1-216.21
Owners Name David Mazur Phone No. (⁷¹⁶) 773-7707
Address2680 Grand Island Blvd Grand Island NY 14072 Project Road Widthft
Applicants Name_David Mazur (Countryside Apts) Project Address Lots 9-1-213,9-1-214, 9-1-215, 9-4-216.21
E Mail Address manager@djsproperties.net Phone No (716 773-7707
Description of Project: New Construction of 6 - 12 unit buildings and 1 - 8 unit buildings = total 80 apts
24 -3 bedroom units, 42-2 bedroom units, 14 - 1 bedroom units and 36 single car detached garage
Existing Use Vacant Land Proposed Use Multifamily Residential
Electrical Estimated Cost Building10,000,000.00اumbing\$900,000.00 Mechanical\$650,000.00 Mix کالمی \$1,000,000.00
SEQR CLASSIFICATION Type 1 Type 2 Unlisted
Review completed by Planning Board 🛛 Zoning Board of Appeals 🗆
Permit Fee \$ Application Date/ Permit Expires On//
Issuing Officer Date/
IN SIGNING THIS DOCUMENT I HEARBY GIVE THE RIGHT OF AN ON SITE INSPECTION TO THE TOWN OF BATAVIA CODE ENFORCEMENT OFFICIAL OR THEIR DESIGNE. ALL PROVISIONS OF LAWS AND ORDINANCES GOVERNING THIS TYPE OF WORK WILL BE COMPLIED WITH WHETHER SPECIFIED HEREIN OR NOT. THE GRANTING OF A PERMIT DOES NOT PRESUME TO GIVE AUTHORITY TO VIOLATE OR CANCEL THE PROVISIONS OF ANY OTHER STATE OR LOCAL LAW REGULATING CONSTRUCTION OR THE PREFORMANCE OF CONSTRUCTION.
I, David Mazur, as Owner or Authorized Agent hereby declare that
the statements and information on the foregoing application are true and accurate, to the best of my knowledge.
1 Jun 2023

Signature of Owner or Authorized Agent

Date

Date05/04/2023
ication for a special use permit, site plan approval, use og municipal review that would occur on property within 50 Dept. of Ag & Markets certified Agricultural District.
Owner if Different from Applicant
Name: Genesee Gateway Local Development Address: 99 Med Tech Drive Batavia NY 14020 90
e Plan Approval ; Use Variance; / Town homes/ Garages
<u>-213,91-214, 91-215, 9</u> YES (Check with your local assessor if you do not know) YES cel. Attach additional sheets if necessary.
Name: Jeffery Thompson Address: 8212 Batavia Stafford Townline Rd Batavia NY 14020 Is this parcel actively farmed? NO ZYES
Name: Address:
Is this parcel actively farmed? INO YES
Signature of Owner (if other than applicant)
- 5/4/2023

T-08-BAT-05-23



Countryside Apartments

Lots 9-1-213, 9-1-214, 9-1-215, and 9-1-216.21 Town of Batavia, Genesee County, New York

Engineer's Report



March 2023

Company: E&B Squared Consulting LLC Engineer: Matthew Zarbo, P.E.

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Appendices

Appendix A – Site Plans Appendix B – Calculations

1. Introduction

1.1. Background Information

Project Name:	Countryside Apartments (Multifamily Residential)	
Project Location:	<i>t Location:</i> Lots 9-1-213, 9-1-214, 9-1-215, and 9-1-216.21	
	Town of Batavia, Genesee County, New York	
County:	Genesee County	
Latitude/Longitude:	Latitude: 43° 00'51.79" N	Longitude: 78° 08'33.52" W

1.2. Contact Information

Owner:	David Mazur 2680 Grand Island Blvd., Grand Island, NY 14072 716-773-7707 Expert@empiredismantle.com
Engineer:	E&B Squared Consulting LLC Matthew J. Zarbo, P.E. 716-208-4534 182 Saranac Avenue, Buffalo, NY 14216 mattzarbo@gmail.com

1.3. Site Description

The project is located on four lots (Lots 9-1-213, 9-1-214, 9-1-215, and 9-1-216.21) in the Upstate New York MedTech Park Planned Unit Development off Stephen Hawley Drive (County Route 48) in the Town of Batavia. The entire project area is approximately 9.47 acres and currently primarily consists of undeveloped mowed grass/farmland. Existing topography, boundary lines, and site conditions are shown on the project plans attached as Appendix A.

1.4. Project Description

The proposed Countryside Apartments Project is includes the construction of multifamily development containing 80 dwelling units as shown on the site plans. In total Countryside Apartments project will include the construction of six (6) 12-unit buildings, one (1) 8-unit building, six (6) detached garage banks each containing six (6) garages, and associated driving/parking areas. The property can be accessed off of two entrances on Stephen Hawley Drive (County Route 48). Water, sanitary sewer, storm drainage, natural gas, cable, and electric utilities will be required to be extended to the site as part of this project. Locations of new and existing utilities are shown on the project site plan. The proposed project plans the project attached as Appendix A.

2. Site Layout

2.1. Zoning

The Project is zoned as PUD (planned unit development). The Town of Batavia Town Board approved the Multifamily Residential use with a board resolution on 11/16/22.

2.2. Lot Sizes and Setbacks

Min. Required By Code

Front Yard Setback (Stephen Hawley Dr.) - 30 Feet Side/Rear Yard Setback - 30 Feet Parking Lot Setbacks - 10 Feet Maximum Building Height - 50 ft. or 3 Stories Max. Impervious Coverage - 75%

Provided

Front Yard Setback (Stephen Hawley Dr.) - 45 Feet Side/Rear Yard Setback (Building) - 30 Feet Min. Side/Rear Yard Setback (Porch/Patio) - 25 Feet Min. Parking Lot Setbacks - 30 Feet Maximum Building Height - ~30 ft (2 Stories) Impervious Coverage - 40%

2.3. Roadway

Access to the development will be provided by a 24-foot wide private driveway. In total, there will be three entrances to the project site as shown on the site plans.

2.4. Traffic:

The Project is not anticipated to generate a substantial amount of additional traffic along Stephen Hawley Blvd.. Trip generation calculation results based on Institute of Transportation Engineers (ITE) Trip Generation Manual guidelines for peak hour trips are as follows (See Appendix B for full calculations):

Weekday Morning (One hour between 7 AM and 9 AM) Enter: 9.6 vehicles Exit: 36.1 vehicles

Weekday Afternoon (One hour between 4 PM and 6 PM) Enter: 19.4 vehicles Exit: 36.1 vehicles

As shown above, this project will generate minimal additional traffic and will not have a notable impact on the traffic in the surrounding area.

3. Utilities

3.1. Water

As shown on the utility plans, an existing 12-inch water main owned by the Town of Batavia runs across the front of the Project site along Stephen Hawley Drive. This project proposes to connect to the existing 12-inch water main with a 2" Domestic Water service and a 2" fire service for each apartment building. Fire hydrants are located along the existing 12-inch water main and will provide adequate fire protection to the project area as every building is less than 300 feet from the nearest hyrant. Water service average daily demands have been estimated to be 7,755 gallons per day with a peak hour flow of 22 gpm. See Appendix B for water calculations.

3.2. Sanitary Sewer

As depicted on the utility plan, an existing Town-owned sanitary sewer main is currently located on the Project site along Stephen Hawley Drive. It is proposed to connect to this sanitary sewer through existing manhole structures. A combination of 6-inch and 8-inch sewer laterals will service the buildings as depicted on the site plans. All proposed sewer lines will adhere to the minimum slope requirements to achieve minimum 2.0 feet/second mean velocity under full-pipe flow as dictated by 10 States Standards Recommended Standards for Wastewater Facilities 2014 Edition. The anticipated average daily sanitary flow from the Project site has been calculated to be 7,755 gallons per day with a peak hour flow of 22 gpm (See Appendix B).

3.3. Stormwater Infrastructure and SWPPP

The Project's stormwater infrastructure includes catch basins, culverts, swales (vegetated and dry), gutter curbs, and a detention ponds. Existing and proposed stormwater infrastructure is detailed on the grading plans. A portion of the apartment buildings will have their rooftop gutters disconnected. Rooftop disconnection is highly encouraged by the NYSDEC for water quality and control purposes. The design of the stormwater systems (existing and proposed) is further detailed in the Project's Stormwater Pollution Prevention Plan.

3.4. Gas, Cable, and Electric

The proposed buildings will be served by gas, cable/phone, and electric. Existing utilities are located within and adjacent to the project site. The extension of these utilities to buildings are generally proposed to be installed on-site, primarily below grade. Final design of these utilities will be provided by each individual utility company.

4. Environmental

4.1. Wetlands

A wetland delineation was completed during the original development of the Planned Unit Development. Wetlands were found in the wooded area to the west of the project site. This project is not disturbing the area where wetlands were previously mapped.

- 4.2. New York State Historic Preservation Office (SHPO) According to the New York State Historic Preservation Office Cultural Resource Information System, the project site is not located in an archeological sensitive area and there are no historic buildings that will be impacted by this project.
- 4.3. New York's State Environmental Quality Review Act (SEQR)

The proposed Project will be subject to a coordinated review under SEQR to ensure there are no adverse environmental impacts caused as a result of the Project's actions. SEQR Environmental Assessment Forms have been prepared and provided with the Site Plan for the Town of Batavia to conduct a coordinated review. Appendix A – Site Plans and Building Elevations

SITE PLAN REVIEW DRAWINGS COUNTRYSIDE APARTMENTS SBL NOS. 9-1-213, 9-1-214, 9-1-215, 9-1-216.21 TOWN OF BATAVIA, GENESEE COUNTY, NEW YORK

ZONING INFORMATION ZONING:

PUD (PLANNED UNIT DEVELOPMENT) UPSTATE NY MEDTECH PARK PUD

30 FT

30 FT

10 FT

50 FT OR 3 STORIES

PROPOSED USE: MULTIFAMILY RESIDENTIAL BOARD APPROVAL GRANTED RES. 201 (11/16/22)

SETBACK REQUIREMENTS PER TOWN	CODE
MIN. FRONT YARD DEPTH:	30 FT

MIN. FRONT YARD DEPTH:
MIN SIDE YARD DEPTH:
MIN. REAR YARD DEPTH:
PARKING LOT SETBACKS:
MAX. BUILDING HEIGHT:
MAX. IMPERVIOUS COVERAGE:



PROJECT LOCATION ——



PROJECT LOCATION MAPS NOT TO SCALE

SHEET	TITLE
-	COVER SHEET
C-101	EXISTING SITE PLAN
C-102	OVERALL SITE LAYOUT
C-103	SITE GRADING PLAN
C-104	SITE GRADING PLAN
C-105	SITE UTILITY PLAN
C-106	SITE UTILITY PLAN
C-107	EROSION AND SEDIMENT CONTROL PLAN
C-201	MISCELLANEOUS DETAILS
C-202	MISCELLANEOUS DETAILS
C-203	EROSION AND SEDIMENT CONTROL DETAILS
C-204	WORK ZONE TRAFFIC CONTROL



MARCH 2023





		REVI	SIONS	
DATE			REVISION	
LORE	со	NTACT INFORMA	TION	■ つ
f * JE		OWNER:	DAVID MAZUR	
THOMEER STATE		ENGINEER:	e&b Squared Consulting LLC MATTHEW ZARBO 716-208-4534 MATTZARBO@GMAIL.COM	e&b squared



LEGEND

CS	SANTARY SEWER COMBINED SEWER STORM SEWER WATER LINE OVERHEAD TELEPHONE WIRES UNDERGROUND TELEPHONE UNDERGROUND TELEPHONE UNDERGROUND TELEPHONE UNDERGROUND ELECTRIC WIRES CONTOUR LINE CENTERLINE OF DITCH CROWN OF PAVEMENT HIGHWAY LINE
■ O YD O E.T. O EHH T T O WSV @ WSV	SANITARY MANHOLE CLEANOUT CATCH BASIN DRAINAGE NLET STORM MANHOLE YARD DRAIN ELECTRIC TRANSFORMER POWER POLE ELECTRIC HANDHOLE TELEPHONE RISER FRE HYDRAIT WATER VALVE GAS MARKER GAS VALVE GAS SERVICE VALVE STREET SIGN METAL POST
	HANDICAP PARKING
(T) O THH (E)	TRAFFIC MANHOLE TRAFFIC HANDHOLE ELECTRIC MANHOLE
○ E.M.	ELECTRIC METER
•	BOLLARD
🖂 G.M.	GAS METER

NOTES:

1) NORTH AS SHOWN ON THIS MAP IS TRUE NORTH AT 78°35' MERIDIAN WEST LONGITUDE, BASED ON THE NEW YORK STATE PLANE COORDINATE SYSTEM NAD 83, WEST ZONE 3103, AS ESTABLISHED FROM THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION REAL TIME NETWORK. (NYSDOT RTN)

2) ELEVATIONS AS SHOWN ON THIS MAP OF SURVEY ARE BASED ON NAVD88 DATUM, AS ESTABLISHED FROM THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION REAL TIME NETWORK. (NYSDOT RTN)

3) THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM VISIBLE STRUCTURES, SURFACE MARKINGS. TERRA POINTE LAND SURVEYING PLLC DOES NOT GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN ARE ALL OF THE UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. ALTHOUGH THE SURVEYOR DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES UPON INSTALLATION. EACH CONTRACTOR MUST CALL DIG SAFELY NEW YORK AT 1-800-962-7962 THREE DAYS PRIOR TO ANY EXCAVATION.

4) CONTOUR INTERVAL IS 1.0 FOOT.

5) THE BOUNDARY LINES AS SHOWN ON THIS MAP OF SURVEY WERE TAKEN FROM A SUBDIVSION MAP ENTITLED "MED TECH PARK MINOR SUBDIVISION" THAT WAS PREPARED BY WELCH & O'DONAGHUE LAND SURVEYORS, P.C., DATED FEBRUARY 29, 2008 AND IDENTIFIED AS PROJECT NO. G07-3254S-1.

SCALE: 1" = 60'









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No.	D	Date	
Project	#: 2023.1.1	Date: 2/16/2023	
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Checked by: MJZ		Set: CONTRACT	OWGS

EXISTING SITE PLAN COUNTRYSIDE APTS





- 17 EXTERIOR LIGHTING SHALL BE DARK SKY ERIENDLY LIGHTS TO BE LOCATED AT BUILDING ENTRANCES FOR SAFETY.
- 18. ALL WORK IN HIGHWAY ROW SHALL BE IN CONFORMANCE WITH THE ROW OWNERS APPLICABLE STANDARDS.

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SI	Project	#: 2023.1.1		Date: 2/16/2023	
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e&b squared





- BUILDING DESIGNER SHALL REVIEW SITE GEOTECHNICAL INFORMATION. SHALLOW BEDROCK MAY BE PRESENT.
- BUILDING DESIGNER SHALL TAKE NOTE OF GRADING AT REAR OF GARAGES MAY BE HIGHER THAN FLOOR OF GARAGE. TOP OF GARAGE WALL FOUNDATION WALL SHALL BE HIGHER THAN GARAGE FLOOR AND EXTEND ABOVE GRADE TO ACCOMMODATE SITE GRADING.





Project	#: 2023.1.1	Date: 2/16/2023	
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Checked by: MJZ

Set: CONTRACT DWGS



- LOCATION OF EXISTING AND PROPOSED UTILITIES ARE APPROXIMATE. CONTRACTOR TO VERIFY LOCATION AND OBTAIN OWNER APPROVAL PRIOR TO INSTALLATION OF NEW UTILITIES.
- EARTHWORK SURROUNDING UTILITY STRUCTURES SHALL BE BLENDED SMOOTHLY AND EVENLY INTO SURROUNDING GRADING. CONTRACTOR SHALL FILL AREAS AS REQUIRED TO PROVIDE ADEQUATE
- 3.
- PROTECTIVE COVER OVER INSTALLED UTILITIES PRIOR TO UTILITY INSTALLATION. ALL DISTURBED AREAS NOT CALLED UTILITIES PRIOR TO UTILITY INSTALLATION. ALL DISTURBED AREAS NOT CALLED UUT FOR A SPECIFIC SURFACE COVER SHALL RECEIVE A MINIMUM OF 6-INCHES OF TOP SOIL APPLIED AND SEEDED WITH APPROVED GRASS SEED
- APPROVED GRASS SEED. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH TOWN OF BATAVIA CODE AND STANDARDS, AS APPLICABLE. ALL CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED IN ACCORDANCE WITH THE DOD GOT ADDROVED ADDROVED AND ADDROVED AND ADDROVED ADDROVE
- ALL EDUSTING ACTION ACTIVITIES SHALL BE CONDUCTED IN ACCORDANCE WITH H PROJECTS APPROVED SWPPP. ALL ENDS OF STORM DRAINAGE PIPES SHALL BE EQUIPPED WITH END SECTIONS UNLESS CONNECTED TO A DRAINAGE STRUCTURE OR OTHERWISE NOTED.

1"=30'

- UTILITY NOTES: 1. FIRE PROTECTION/SPRINKLER SYSTEM DESIGNER SHALL CONFIRM SIZE OF FIRE SERVICE WATER LINE SIZE. SIZE HAS BEEN ESTIMATED BASED ON SIMILAR PREVIOUS SERVICE WATER LINE SIZE. SIZE HAS BEEN ESTIMATED BASED ON SIMILAR PREVIOUS PROJECTS.
- BUILDING DESIGNER SHALL CONFIRM EXACT REQUIRED LOCATIONS OF WATER AND SEWER SERVICES. LOCATIONS HAVE BEEN ESTIMATED BASED ON SIMILAR PREVIOUS PROJECTS.
- WATER SERVICES SHALL HAVE A MINIMUM COVER OF 4 FEET. 4.
- WATER SERVICES SHALL HAVE A MINIMUM COVER OF 4 FEET. WATER AND SANITARY/STORM SERVICES SHALL HAVE A 10 FOOT HORIZONTAL SEPARATION AND A 18 INCH VERTICAL SEPARATION (AT CROSSINGS). WATER AND SEWER UTILITIES SHALL BE INSTALLED IN CONFORMANCE WITH THE TOWN
- 5. OF BATAVIA STANDARDS 6.
- WATER AND SEWER MAIN CONNECTIONS SHALL BE COORDINATED WITH THE TOWN OF BATAVIA.
- 7. GAS AND ELECTRIC SERVICE LOCATIONS WILL BE DESIGNED AND LOCATED BY
- ASSOCIATED UTILITY. UTILITIES ARE SHOWN FOR CONCEPTUAL PROPOSES ONLY. THE MINIMUM ACCEPTABLE SLOPE OF 8-INCH SANITARY SEWER PIPING IS 0.4%. THE 8. MINIMUM ACCEPTABLE SLOPE OF 6-INCH SANITARY SEWER PIPING IS 1/8-INCH PER FOOT.
- FOOT. BUILDING CONDUCTORS LINES ARE NOT SHOWN AND SHALL BE COORDINATED WITH BUILDING/DOWNSPOUT DESIGN. CONDUCTORS SHALL BE DISCHARGED TO STORM SEWER OR DAYLIGHTED TO SWALES/POND. SIDE/REAR BUILDING DOWNSPOUTS CAN BE DISCONNECTED AND DISCHARGE TO GRADE VIA SPLASH BLOCKS.

SCALE: 1" = 30'



- W = WATER LINE
- SS = SANITARY SEWER
- G = GAS
 UGE = UNDERGROUND ELECTRIC OHE = OVERHEAD ELECTRIC

	No. D	escription	Date
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MER	Project #: 2023.1.1	Date: 2/16/2023	
/	Drawn by: MJZ	Scale: As Show	n
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SITE UTILITY PLAN COUNTRYSIDE APTS

C-105



e&b squared

Checked by: MJZ

Set: CONTRACT DWGS



EROSION AND SEDIMENT CONTROL PLAN

SCALE: 1" = 60'

NOTES:

- 1. THE CONTRACTOR SHALL FAMILIARIZE HIMHER SELF WITH SITE CONDITIONS PRIOR TO THE BID.
- 2. ALL CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED IN ACCORDANCE WITH THE PROJECT'S APPROVED SWPPP.
- EROSION AND SEDIMENT CONTROL AND STORMWATER MANAGEMENT INFRASTRUCTURE PRACTICES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE PROJECTS SWPPP AND NYSDEC STANDARDS.
- 4. ALL STORM DRAINAGE PIPES SHALL BE EQUIPPED WITH END SECTIONS UNLESS OTHERWISE NOTED.
- 5. EROSION AND SEDIMENT CONTROL PLAN IS ESTIMATED BASED ON PROJECTED DISTURBANCES. CONTRACTOR IS RESPONSIBLE IMPLEMENTING ADDITIONAL MEASURES AS REQUIRED TO PREVENT A WATER QUALITY VIOLATION.





	No.	De	scription	Date	
NEWYOD			·		EROSION AND SEDIMENT
T TEL					CONTROL PLAN
E E					COUNTRYSIDE APTS
	Project #:	2023.1.1	Date: 2/16/2023		
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SSIUM	Checked		Set: CONTRACT	WGS	C-106





GENERAL NOTES

- ALL CONSTRUCTION TO COMPLY WITH THE APPLICABLE NYSDOH, LOCAL DOH, NYSDOT, OSHA, AND TOWN OF BATAVIA STANDARDS AND SPECIFICATIONS AS APPLICABLE
- CONTRACTOR SHALL SECURE ALL PERMITS AT HIS OWN EXPENSE. CONTRACTOR RESPONSIBLE FOR VERIFYING, BEFORE CONSTRUCTION, THAT THE LATEST STANDARD TOWN OF BATAVIA DETAILS AS APPLICABLE TO THIS PROJECT.
- CONTRACTOR WILL BE RESPONSIBLE FOR ALL TESTING AND/OR DISINFECTING OF UTILITIES IN ACCORDANCE WITH TOWN OF BATAVIA STANDARDS. SHEETING, IF NECESSARY, WILL BE AS REQUIRED BY NYSDOT, COUNTY, OR ANY LOCAL, STATE, OR
- 5. FEDERAL REGULATIONS.
- ALL EXISTING UTILITY LINES NEAR OR CROSSING NEW UTILITY INSTALLATIONS SHALL BE PROTECTED, PRESERVED, AND SUPPORTED AS NECESSARY. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AHEAD OF CONSTRUCTION OPERATIONS SO 6
- THAT IF MINOR ADJUST BALE LAY OGE LATING OT ILET ALLED A LICK ON ON THE AND THAT IF MINOR ADJUST MENTS MUST BE MADE IN ELEVATION AND/OR ALIGNMENT, DUE TO INTERFERENCE, THESE CHANGES CAN BE MADE IN ADVANCE OF THE WORK. HIGHWAY DRAINAGE SHALL BE MAINTAINED THROUGHOUT THE PERIOD OF CONSTRUCTION. THE
- ROADS SHALL BE KEPT CLEAN OF MUD AND DEBRIS AT ALL TIMES. CONTRACTOR RESPONSIBLE FOR ANY DAMAGE TO HIGHWAYS
- SAFE AND CONTINUOUS THROUGH TRAFFIC AND INGRESS AND EGRESS FOR ADJACENT OWNER DRIVEWAYS, SERVICE ROADS, AND PUBLIC STREETS SHALL BE MAINTAINED THROUGHOUT THE PERIOD OF CONSTRUCTION.
- MINIMUM VERTICAL SEPARATION BETWEEN WATER MAINS AND SEWER LINES SHALL BE 18 INCHES MEASURED FROM THE OUTSIDE OF THE PIPE AT THE POINT OF CROSSING. MINIMUM HORIZONTAL SEPARATION BETWEEN PARALLEL WATER MAINS AND SEWER PIPE (INCLUDING MANHOLES AND 10 VAULTS) SHALL BE 10 FEET MEASURED FROM THE OUTSIDE OF THE PIPES, MANHOLES OR VAULTS VAULTS) SHALL BE TO FEET MEASURED FROM THE OUTSIDE OF THE TIPES, MAINFDUES OR VAULTS ONE FULL STANDARD LAYING 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. IN ADDITION, WHEN THE ONE UTILITY PASSES UNDER ANOTHER, ADEQUATE STRUCTURAL SUPPORT (COMPACTED SELECTED FILL) SHALL BE PROVIDED FOR THE UPPER UTILITY TO PREVENT EXCESSIVE DEFLECTION
- OF THE JOINTS AND SETTLING. 11. ALL DRIVEWAY/PARKING AREA UTILITY CROSSINGS TO BE BACKFILLED TO THE SUBBASE COURSE WITH NYSDOT 304.12 TYPE STONE AND THOROUGHLY COMPACTED IN 6^s LIFTS TO PREVENT FUTURE SETTLING.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE TO EXISTING PUBLIC AND PRIVATE ROADWAYS, PAVEMENT, LAWN AREAS, TREES, UTILITIES, STRUCTURES, SIGNS, AND OTHER EXISTING FEATURES CAUSED BY CONSTRUCTION OPERATIONS. ALL SUCH DAMAGE SHALL BE REPAIRED OR
- REPLACED IN KIND BY THE CONTRACTOR. 13. A CRITICAL RESPONSIBILITY OF THE CONTRACTOR: EROSION CONTROL DEVICES SHALL BE ESTABLISHED PRIOR TO COMMENCING WORK.
- 14. UTILITY POLES SHALL BE SUPPORTED WHERE NECESSARY
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER DISPOSAL OF EXCAVATED MATERIAL FROM THE SITE. DISPOSAL WITHIN THE TOWN OF BATAVIA REQUIRES A FILL PERMIT. 16. THE CONTROL OF DUST ORIGINATING FROM THE CONSTRUCTION OPERATIONS IS CONSIDERED A
- CRITICAL RESPONSIBILITY OF THE CONTRACTOR.



PARKING LOT/DRIVEWAY AREA

TRASH AREA AND DUMPSTER PAD DETAILS

NOT TO SCAL

No.	De	escription	Date
Project #	#: 2023.1.1	Date: 2/16/2023	
Drawn b	y: MJZ	Scale: As Showr	n
Checked	d by: MJZ	Set: CONTRAC	TDWGS
	Project a	No. De Project #: 2023.1.1 Drawn by: MJZ Checked by: MJZ	Project #: 2023.1.1 Date: 2/16/2023 Drawn by: MJZ Scale: As Showr

MISCELLANEOUS DETAILS COUNTRYSIDE APTS

C-201





- 1. WOVEN WIRE FENCE (OPTIONAL) TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
- 2. FILTER CLOTH TO BE TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. MAX WOVEN WIRE MESH OPENING 6". 3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN FACH OTHER THEY SHALL BE OVER-
- LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
- 4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT
- 5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.



ANY DEBRIS OR EXCESS MATERIALS FROM CONSTRUCTION SHALL BE

IMMEDIATELY AND COMPLETELY REMOVED FROM THE BED OF AND BANKS OF ALL WATER AREAS TO APPROPRIATE UPLAND AREAS FOR DISPOSAL.

2 INSPECTION PERIODIC CLEANING AND MAINTENANCE OF TEMPORARY SOIL

3. ALL CONTROLS SHALL BE PLACED PRIOR TO STARTING EARTHWORK OPERATIONS AND SHALL REMAIN IN PLACE UNTIL THE NEW SLOPES ARE STABILIZED WITH SEEDING AND/OR SLOPE PROTECTION AND A.O.B.E.

4. FILTER FABRIC SHALL SATISFY THE REQUIREMENTS OF SECTION 207-11 OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD

5. ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED, MAINTAINED, AND INSPECTED IN ACCORDANCE WITH THE

6. NO ADDITIONAL PAYMENTS SHALL BE MADE FOR INSTALLING. CLEANING.

7. ROLLED EROSION CONTROL PRODUCT INSTALLATION SHALL FOLLOW

AND REMOVING TEMPORARY SOIL EROSION AND WATER POLLUTION

CONTROL DEVICES. NO SEPARATE PAYMENT SHALL BE MADE FOR WORK ON

NORTH AMERICAN GREEN, OR APPROVED EQUAL, PRODUCT INSTALLATION SPECIFICATIONS FOR SLOPE OR CHANNEL INSTALLS.

8. CARE SHALL BE TAKEN TO RETAIN VEGETATION AND PREVENT DAMAGE TO

TREES AND ORNAMENTAL PLANT MATERIAL WITHIN AND OUTSIDE THE LIMITS OF CONSTRUCTION, AND NOT SCHEDULED FOR REMOVAL.

SITE SPECIFIC STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

EROSION AND WATER POLLATING CONTROL DEVICES SHALL BE CONDUCTED AT LEAST ONCE PER 7 CALENDAR DAYS.

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

- NOTES:
- 1. STONE SIZE USE 1-4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT
- 2. LENGTH NOT LESS THAN 50 FEE

EDGE OF

CONSTRUCTION DISTURBANCE

FILTER STRIP

BUFFER FILTER STRIP

NOT TO SCALE

- 3. THICKNESS NOT LESS THAN 6 INCHES
- 4 WIDTH- 24 FOOT MINIMUM BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS
- 5. PROPOSED DRAINAGE PIPES SHALL BE SIZED WITH SUFFICIENT CAPACITY TO CARRY DITCH FLOW
- ALL WORK TO CONSTRUCT THE STABILIZED ENTRANCE, INCLUDING GRADING, DRAINAGE PIPE, EXCAVATION, FILL, GEOTEXTILE, CRUSHED STONE, AND GRAVEL SHALL BE INCLUDED IN THE UNIT PRICE BID.
- GEOTEXTILE SHALL BE PLACED OVER THE ENTIRE AREA OF STABILIZED CONSTRUCTION ENTRANCE PRIOR TO PLACING STONE. STONE SHALL BE 2" DIAMETER OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
- ALL SURFACE WATER SHALL BE DIVERTED AWAY FROM CONSTRUCTION ENTRANCE. A MOUNTABLE BERM WITH 5: SLOPE IS PERMITTED.
- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING O SEDIMENT ONTO PUBLIC RIGHT OF WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONT RIGHT OF WAY MUST BE REMOVED IMMEDIATELY.
- 10. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA WITH STONE AND WHICH DRAINS ONTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- 11. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE DONE REGULARLY AND FOLLOWING EACH RAINFALL

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE



FINE STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION 2' UPSTREAM AND DOWNSTREAM OF TOE TO A MINIMUM (MIN) DEPTH OF 4".

- 2. SET SPACING OF CHECK DAMS SUCH THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
- 3. EXTEND THE STONE A MINIMUM OF 18" BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM
- PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE AND LINER AS DIRECTED BY ENGINEER.
- ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECTED TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.
- 6. MAXIMUM DRAINAGE AREA 2 ACRES. 7. PERIODIC INSPECTION AND MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN
 - STONE CHECK DAM

NOT TO SCALE



NOTES:



N.Y.S.D.O.T. 620.03 STONE FILLING (LIGHT)

END SECTION RIP RAP DETAIL







PREPARED FOR THIS PROJECT.

SECTION 404 OF THE CLEAN WATER ACT (33 U.S.C. 1344) PROHIBITS THE DISCHARGE OF DREDGED OR FILL MATERIALS INTO THE WATERS OF THE UNITED STATES WITHOUT A PERMIT FROM THE U.S. ARMY CORPS OF ENGINEERS.

NYSDEC

NOTES

SPECIFICATIONS.

THE CONTRACTOR SHALL COMPLY WITH ALL PROVISIONS OF THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION SECTION 401 BLANKET WATER QUALITY CERTIFICATION PERMIT, AND THE SPDES GENERAL PERMIT (GP-0-15-002) FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY. ANY PENALTIES OR VIOLATIONS FROM FAILURE TO FOLLOW THE SPDES PERMIT OR SWPPP SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR

GENERAL NOTE

CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING ADDITIONAL PRACTICES NOT INCLUDED IN THE SWPPP AS NECESSARY TO PREVENT WATER QUALITY VIOLATIONS.



STREAM

ITEMS 610.0203 AND 613.02 ADD SEED AND TOP SOIL IF SLOPE IS BROUGHT TO FINISHED GRADE.

FIBER ROLL EROSION AND SEDIMENT CONTROL

















Appendix B – Calculations

	Peak Hour	Trip Ger	neration	Data
Numbe	r of Apartment U	Inits	80	units
Wee	kday Morning ((<u> One hour b</u>	etween 7	AM and 9 AM)
	Enter %	21%		
	Exit %	79%		
	Ln (Trips)	=	.82 Ln(l	Jnits) + .23
	Ln (Trips)	=	3.8	,
	Trips	=	45.8	Trips
	Enter	=	9.6	
		=	9.6 36.1	
<u>Weel</u>	Enter Exit Kday Afternoon Enter %	= (One hour 65%	36.1	PM and 6 PM)
<u>Weel</u>	Enter Exit kday Afternoon	= (One hour)	36.1	PM and 6 PM)
<u>Weel</u>	Enter Exit Kday Afternoon Enter %	= (One hour 65%	36.1 between 4	PM and 6 PM)
<u>Weel</u>	Enter Exit Kday Afternoon Enter % Exit %	= (<u>One hour</u> 65% 35%	36.1 between 4	
<u>Weel</u>	Enter Exit Kday Afternoon Enter % Exit % Ln (Trips)	= (<u>One hour</u> 65% 35% =	36.1 between 4 .88 Ln(U	
<u>Wee</u> ł	Enter Exit Enter % Exit % Ln (Trips) Ln (Trips)	= (<u>One hour</u> 65% 35% = =	36.1 between 4 .88 Ln(U 4.0	nits) + .16

Water/Sewer Use Calculation

10 State Standards

11.243 Hydraulic Capacity for Wastewater Facilities to Serve New Collection Systems

a. The sizing of wastewater facilities receiving flows from new wastewater collection systems shall be based on an average daily flow of 100 gallons (380L) per capita plus wastewater flow from industrial plants and major institutional and commercial facilities <u>unless water use data or other justification upon which to better estimate flow is provided</u>. >>> Note: Plumbing Fixture Standards have considerably change since this code in 10 State Standards was first published. They are much lower flow today.

Comparison	Water Meter Data from Two Identical 12 Unit apartment Buildings located in Grand Island, NY. These
Comparison	Buildings have exact same layout as proposed.

	Water Use in The	ousands of Ga	Illons Per Qua	arter (i.e. 10 =	10,000 gallor	ns)		
Start Date	End Date	Bldg.	Days	Units	Use	Avg. Water Use (Avg. Gal/Day/Unit)		
11/7/2018	2/5/2019	А	90	12	70	64.8		
11/7/2018	2/5/2019	В	90	12	116	107.4		
2/5/2019	5/7/2019	А	91	12	94	86.1		
2/5/2019	5/7/2019	В	91	12	121	110.8		
5/7/2019	8/9/2019	А	94	12	86	76.2		
5/7/2019	8/9/2019	В	94	12	117	103.7		
8/9/2019	11/15/2019	А	98	12	82	69.7		
8/9/2019	11/15/2019	В	98	12	98	83.3		
11/15/2019	2/4/2020	А	81	12	112	115.2		
11/15/2019	2/4/2020	В	81	12	120	123.5		
2/4/2020	5/5/2020	А	91	12	138	126.4		
2/4/2020	5/5/2020	В	91	12	131	120.0		
5/5/2020	8/6/2020	А	93	12	114	102.2		
5/5/2020	8/6/2020	В	93	12	133	119.2		
8/6/2020	11/9/2020	А	95	12	118	103.5		
8/6/2020	11/9/2020	В	95	12	118	103.5		
11/8/2021	2/8/2022	А	92	12	104	94.2		
11/8/2021	2/8/2022	В	92	12	106	96.0		
2/8/2022	5/9/2022	А	90	12	99	91.7		
2/8/2022	5/9/2022	В	90	12	96	88.9		
5/9/2022	8/10/2022	А	93	12	110	98.6		
5/9/2022	8/10/2022	В	93	12	88	78.9		
8/10/2022	11/8/2022	А	90	12	89	82.4		
8/10/2022	11/8/2022	В	90	12	87	80.6		
	Avg. Daily Water Use Per Unit (Gal.)							
	Total Number of Units Proposed							
	Total Estimated Average Daily Water/Sewer Use (GPD)							
				Pe	eaking Factor	4.0		
			Pea	k Hour Flow/D	emand GPM	21.5		

Gravity Sewer Capacity Calculations - 6" and 8" pipe

Partial Pipe Flow Calculator (Mannings)

Pipe Size (in)	Minimum Slope (Ft/100 Ft)
6	1.042
8	0.4
10	0.28
12	0.22
14	0.17
15	0.15
16	0.14
18	0.12

Assume:					
N =	0.013		N =	0.013	
Diameter =	8	in	Diameter =	6	in
	0.67	ft		0.50	ft
Radius =	4	in	Radius =	3	in
=	0.33	ft	=	0.25	ft

6-Inch

Slope = 1.042

Depth of Flow	Depth of Flow	Angle	Area	Wetted Perimeter	Hydraulic Radius	FLOW			Velocity
(in)	(ft)	(Rad)	(ft^2)	(ft)	(ft)	(cfs)	(cfs) (mgd) (gpm)		(ft/s)
1	0.08	1.682	0.0215	0.421	0.051	0.021	0.014	9.6	0.11
2	0.17	2.462	0.0573	0.615	0.093	0.085	0.055	38.2	0.43
3	0.25	3.142	0.0982	0.785	0.125	0.177	0.115	79.7	0.90
4	0.33	3.821	0.1391	0.955	0.146	0.278	0.180	124.9	1.42
5	0.42	4.601	0.1748	1.150	0.152	0.360	0.233	161.6	1.83
6	0.50	6.283	0.1963	1.571	0.125	0.355	0.229	159.3	1.81

8-Inch

Slope = 0.004

Depth of Flow	Depth of Flow	Angle	Area	Wetted Perimeter	Hydraulic Radius	FLOW			Velocity
(in)	(ft)	(Rad)	(ft^2)	(ft)	(ft)	(cfs)	(cfs) (mgd) (gpm)		(ft/s)
1	0.08	1.445	0.0252	0.482	0.052	0.025	0.016	11.4	0.07
2	0.17	2.094	0.0682	0.698	0.098	0.105	0.068	47.0	0.3
3	0.25	2.636	0.1196	0.879	0.136	0.229	0.148	102.7	0.7
4	0.33	3.142	0.1745	1.047	0.167	0.382	0.247	171.6	1.1
5	0.42	3.647	0.2295	1.216	0.189	0.546	0.353	245.2	1.6
6	0.50	4.189	0.2808	1.396	0.201	0.697	0.450	312.9	2.0
7	0.58	4.838	0.3239	1.613	0.201	0.803	0.519	360.6	2.3
8	0.67	6.283	0.3491	2.094	0.167	0.764	0.494	343.2	2.2

The above table shows that both the 6" and 8" inch gravity sewer pipes are more than capable to handle all the flows from the proposed project.

	Sanitary Sewer Structure and Pipe Table															
			F	Pipe Ou	t		Pipe In	l		Pipe Ir	า	Downstr	ream Pipe	Do	wnstrea	im MH
MH#	Rim	Depth	Inv.	Dir.	Size	Inv.	Dir.	Size	Inv.	Dir.	Size	Pipe Dis.	Slope	#	Invert	CL to CL
MH-1	885.20	5.50	879.70	E	8"	880.00	W	6" Lat	880.00	S	6" Lat	371	0.404%	2	878.20	375
MH-2	883.50	5.40	878.10	NE	8"	878.20	W	8"	878.20	SE	6" Lat	111	1.171%	EX.	876.80	115
MH-3	883.70	5.50	878.20	Ν	8"	878.30	W	6" Lat	878.30	E	6" Lat	132	1.060%	EX.	876.80	136

	Storm Sewer Structure and Pipe Table											
Struct.	Rim	Pipe Out				Pipe In		Downstream Pipe				
Struct.	Kiin	Invert	Dir.	Size	Invert	Dir.	Size	Pipe Dis.	Slope			
CB-1	883.20	880.60	E	12"	-	-	-	139	0.576%			
CB-2	882.40	879.80	E	12"	879.80	W	12"	80	0.375%			
CB-3	881.90	879.50	S	12"	879.50	W	15"	112	0.446%			
CB-4	881.60	879.00	SW	15"	879.00	Ν	15"	67	0.597%			
END	-	-	-	-	878.60	NE	15"	-	-			
START	-	878.50	S	24"x2	-	-	-	60	0.500%			
END	-	-	-	-	878.20	Ν	24"x2	-	-			
START	-	879.50	S	18"	-	-	-	60	0.833%			
END	-	-	-	-	879.00	Ν	18"	-	-			
CB-5	881.90	879.80	E	12"	-	-	-	151	0.265%			
CB-6	882.70	879.40	S	12"	879.40	W	15"	99	0.505%			
CB-7	882.50	878.90	SE	15"	878.90	Ν	15"	100	0.500%			
END	-	-	-	-	878.40	NW	15"	-	-			
START	-	882.20	S	15"	-	-	-	90	2.222%			
EX. CB	882.53	880.18	W	15"	880.20	Ν	15"	-	-			

Short Environmental Assessment Form Part 1 - Project Information

Instructions for Completing

Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 - Project and Sponsor Information

Name of Action or Project:

Countryside Apartments

Project Location (describe, and attach a location map):

Lots 9-1-213, 9-1-214, 9-1-215, and 9-1-216.21, Town of Batavia, Genesee County, New York

Brief Description of Proposed Action:

The proposed Countryside Apartments Project is includes the construction of multifamily development containing 80 dwelling units. In total Countryside Apartments project will include the construction of six (6) 12-unit buildings, one (1) 8-unit building, six (6) detached garage banks each containing six (6) garages, and associated driving/parking areas. The property can be accessed off of two entrances on Stephen Hawley Drive (County Route 48). Water, sanitary sewer, storm drainage, natural gas, cable, and electric utilities will be required to be extended to the site as part of this project.

Name of Applicant or Sponsor:	Telephone: 716-773-7707						
David Mazur E-Mail: Expert@empiredismantle.com							
Address:							
2680 Grand Island Blvd							
City/PO:	State:	Zip Coc	de:				
Grand Island	NY	14072					
 Does the proposed action only involve the legislative adoption of a plan, loca administrative rule, or regulation? 	l law, ordinance,		NO	YES			
If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.							
2. Does the proposed action require a permit, approval or funding from any oth	er government Agency?		NO	YES			
If Yes, list agency(s) name and permit or approval: Batavia Town Board, Batavia Plan		Dept.		\checkmark			
3. a. Total acreage of the site of the proposed action? 9.47 acres b. Total acreage to be physically disturbed? 9.47 acres c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 9.47 acres							
 4. Check all land uses that occur on, are adjoining or near the proposed action: □ Urban □ Rural (non-agriculture) □ Industrial ☑ Commerci □ Forest ☑ Agriculture □ Aquatic ☑ Other(Spe □ Parkland 		rban)					

Is the proposed action,	NO	YES	N/A
a. A permitted use under the zoning regulations?		$\overline{\mathbf{V}}$	
b. Consistent with the adopted comprehensive plan?		$\overline{\mathbf{V}}$	F
		NO	YES
5. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	-		\checkmark
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?		NO	YES
f Yes, identify:	-		
. a. Will the proposed action result in a substantial increase in traffic above present levels?		NO	YES
	-		
	L		
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?		\checkmark	
. Does the proposed action meet or exceed the state energy code requirements?	-	NO	YES
f the proposed action will exceed requirements, describe design features and technologies:			
			\checkmark
0. Will the proposed action connect to an existing public/private water supply?	-	NO	YES
If No, describe method for providing potable water:			
			V
1. Will the proposed action connect to existing wastewater utilities?		NO	YES
If No, describe method for providing wastewater treatment:			
			\checkmark
2. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the	-	NO	YES
Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the		\checkmark	
tate Register of Historic Places?		_	
b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for		\checkmark	
rchaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?			
3. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	F	NO	YE
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	F		
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres:	ł		
1 1 cs, identify the wettand of waterbody and extent of antifations in square feet of actes.			

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:		
Shoreline Forest 🗹 Agricultural/grasslands 🗌 Early mid-successional		
Wetland Urban Suburban		
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or	NO	YES
Federal government as threatened or endangered?	$\overline{\mathbf{A}}$	\square
16. Is the project site located in the 100-year flood plan?	NO	YES
	$\overline{\mathbf{V}}$	
17. Will the proposed action create storm water discharge, either from point or non-point sources?	NO	YES
If Yes,		\checkmark
a. Will storm water discharges flow to adjacent properties?		\checkmark
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)? If Yes, briefly describe:		\checkmark
The original Upstate NY MedTech Park completed a SWPPP and installed infrastructure to manage stormwater flows from the development of the property. This project complies with the original SWPPP.		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)? If Yes, explain the purpose and size of the impoundment:	NO	YES
If i es, explain the purpose and size of the impoundment	\checkmark	
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste	NO	YES
management facility? If Yes, describe:		
	\checkmark	
20.Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or	NO	YES
completed) for hazardous waste? If Yes, describe:		
I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BI	L EST OF	
MY KNOWLEDGE		
Applicant/sponsor/name: David Mazur Date: 3 31 2	-023	<u> </u>
Signature: Title: Dwner		

Countryside Apartments

Lots 9-1-213, 9-1-214, 9-1-215, and 9-1-216.21 Town of Batavia, Genesee County, New York

Stormwater Pollution Prevention Plan



March 2023

Company: E&B Squared Consulting LLC Engineer: Matthew Zarbo, P.E.

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Appendix D - Notice of Termination

1. Introduction

1.1. Background Information

Project Name:	Countryside Apartments (Mult	tifamily Residential)
Project Location:	Lots 9-1-213, 9-1-214, 9-1-215, and 9-1-216.21	
	Town of Batavia, Genesee Cou	inty, New York
County:	Genesee County	
Latitude/Longitude:	Latitude: 43° 00'51.79" N	Longitude: 78° 08'33.52" W

1.2. Contact Information

Owner:	David Mazur 2680 Grand Island Blvd., Grand Island, NY 14072 716-773-7707 Expert@empiredismantle.com
Engineer:	E&B Squared Consulting LLC Matthew J. Zarbo, P.E. 716-208-4534 182 Saranac Avenue, Buffalo, NY 14216 mattzarbo@gmail.com

1.3. Site Description

The project is located on four lots (Lots 9-1-213, 9-1-214, 9-1-215, and 9-1-216.21) in the Upstate New York MedTech Park Planned Unit Development off Stephen Hawley Drive (County Route 48) in the Town of Batavia. The entire project area is approximately 9.47 acres and currently primarily consists of undeveloped mowed grass/farmland. The 9.47 acre project site is effectively divided into distinct project areas; a 5.02 acre western section, a 2.94 acre central section, and a 1.51 acre eastern section. The western and central project areas are divided by a central drainage ditch, while the central and eastern areas are divided by an access road to the Genesee County Economic Development Center. The western project area contains unutilized preexisting stormwater management facilities and the entire western project area eventually drains to the drainage ditch that separates the western and central project areas. The central project area contains partially utilized preexisting stormwater management facilities and the entire central project area also eventually drains to the drainage ditch that separates the western and central project areas. The eastern project area drains to a catch basin which is pipe to the partially utilized preexisting stormwater management facilities in the central project area (that drains to the drainage ditch that separates the western and central project areas). Refer to Figure 1 for existing topography, boundary lines, and site conditions.

1.4. Previous SWPPP's and Existing Stormwater Management Facilities

The original Upstate New York MedTech Park Planned Unit Development Stormwater Pollution Prevention Plan was completed by Clark Patterson Lee Engineers in June of 2008. The 2008 SWPPP designed stormwater management facilities for the entire Planned Unit Development. After approval, the stormwater management facilities were constructed along with utility extensions to attract potential economic development. Theses stormwater management facilities are the existing facilities described in Section 1.3. The constructed stormwater management facilities included one micropool extended detention pond that was constructed for development of the western project area, as well as, one micropool extended detention pond constructed for the central and eastern project areas (in addition to a parcel east of the eastern project area). The text of the SWPPP report was provided by Clark Patterson Lee and reviewed during the preparation of this SWPPP.

In April of 2009, Clark Patterson Lee Engineers completed a second SWPPP for construction of the Med Tech Centre (now known as the Genesee County Economic Development Center). The Med Tech Centre is located on the parcel to the east of the eastern project area and utilizes the micropool extended detention pond constructed for the central and eastern project areas. Based the text of the SWPPP provided by Clark Patterson Lee, Med Tech Centre consisted of approximately 2.5 acres of impervious surface that was drained to the pond constructed for the central and eastern project areas. The SWPPP text also stated the pond constructed for the central and eastern project areas was designed for a total impervious coverage of approximately 4.9 acres leaving a 2.4 more acres more of impervious cover than could be conveyed to the central/eastern pond. The latest April 2009 did not discuss the western stormwater management pond as the Med Tech Centre did not drain to it, but based on all the information provided by Clark Patterson Lee and the original SWPPP text, it appears that this western project area pond was designed to handle at least 2.8 acres of impervious surface.

This project was designed under the assumption the information provided by the original engineers Clark Patterson Lee was accurate. A significant investment was made by Genesee County in the Upstate New York MedTech Park Planned Unit Development and stormwater facilities were constructed to allow for easy development of the parcels included in this project. Considering the existing onsite facilities appear to be the same facilities designed by Clark Patterson Lee, there is no reason to believe any of the provided information is inaccurate. This SWPPP and project design is based on the assumption that the stormwater management facilities were appropriately designed by the original Engineer of Record (Clark Patterson Lee). In conclusion, it appears that the existing micropool extended detention ponds can be used to provide water quality and quantity controls for this project provided that new impervious areas do not exceed 2.8 acres in the western project area and a combined 2.4 acres in the central/eastern project areas.

1.5. Project Description

The proposed Countryside Apartments Project is includes the construction of multifamily development containing 80 dwelling units as shown on the site plan attached as Figure 2. In total Countryside Apartments project will include the construction of six (6) 12-unit buildings, one (1) 8-unit building, six (6) detached garage banks each containing six (6) garages, and

associated driving/parking areas. The property can be accessed off of two entrances on Stephen Hawley Drive (County Route 48). Water, sanitary sewer, storm drainage, natural gas, cable, and electric utilities will be required to be extended to the site as part of this project. Locations of new and existing utilities are shown on the project site plan.

Area of Project Site	New Impervious Area	Allowable New Impervious Area	Note
Western	1.97 acers	2.8 acres	New Impervious within Original SWPPP Design Limits
Central/Eastern	1.83 acres	2.4 acres	New Impervious within Original SWPPP Design Limits

1.6. SPDES General Permit

The project will disturbance over one acre soil and will therefore be subject to the requirements in the NYSDEC's State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity. This SWPPP has been prepared to comply with the approved original SWPPP and erosion and sediment control plans have been prepared in accordance with the 2015 Edition of the NYS Stormwater Management Design Manual. The project and all construction activates must comply with the original SPDES permit and this SPDES permit until construction has completed and the permit is terminated. NYSDEC's The Notice of Intent (permit application) for this SPDES Permit is attached as Appendix A. Refer to original Upstate Medical and Technology Park SWPPP for additional details. This SWPPP addresses associated project impacts, with key objectives consisting of the following:

1. Prevent potential stormwater quality impacts and erosion and sedimentation resulting from the proposed project.

2. Preserve existing approved drainage patterns to the extent practicable

These key objectives will be achieved through the design and implementation of approved practices to control potential pollutants in the runoff from the project site during and after construction.

2. Soil Conditions

Based on the USDA National Resource Conservation Service NRCS Web Soil Survey, the project site consists of the following soils:

Aurora silt loam	23.4%
Benson soils	4.4%
Kendaia silt loam	30.5%
Lamson very fine sandy loam	12.4%
Lima silt loam	14.4%
Wassaic silt loam	14.8%

A Soil Survey Map of the property is attached as Figure 3. Slopes of specific existing areas on the project site can be interpolated off of the Existing Site Plan attached as Figure 1.

3. Construction Sequence of Operations

Estimated Project Start:	Fall 2023/Spring 2024
Estimated Project Completion:	Fall 2025

The estimated sequence of construction will be generally similar to as follows:

- 1. Obtain Site Plan Approval and all applicable permits.
- 2. Install sedimentation controls (i.e. silt fence, stabilized construction entrance, etc.) downgradient from construction activities.
- 3. Generally grade site, install site utilities, and access roads.
- 4. Construct buildings.
- 5. Continue site grading, install paved driveway, and perform final grading and seeding.
- 6. Remove temporary erosion and sediment control measures when turf is established.
- 4. Construction Stormwater Pollution Prevention Notes
 - Erosion and sediment control practices shall be installed and maintained in accordance with the New York State Standards and Specifications for Erosion and Sediment Control. All erosion and sediment control measures will be required to be in place prior to any soil disturbance.
 - 2. No more than five (5) acres of soil disturbance shall occur at any time without stabilizing disturbed areas.
 - 3. All erosion and sediment control practices shall be inspected on daily basis to ensure the measures are working as intended. Necessary repairs shall be addressed immediately and repaired before daily work shutdown.
 - 4. A qualified inspector shall inspect all erosion and sediment controls measures at least once per week and after rain/snow melt events. A weekly inspection report shall be completed and kept on file through the duration of the project.
 - 5. Vegetation shall be established on all disturbed areas of the site as soon as practical. When approximately 80% of the entire site is stabilized, temporary erosion and sediment control practices can be removed.
- 5. Drainage Conditions
 - 5.1. Existing Drainage Conditions

The existing drainage patterns of the site can be seen on Figure 1. The entire site eventually drains to a drainage ditch that bisects the western portion of the site from the central/eastern portions of the site.

5.2. Proposed Drainage Conditions

Proposed onsite drainage conditions can be seen on Figure 2. Flow from developed impervious areas will largely be directed to the existing stormwater ponds that were constructed to allow for new site development. Both stormwater ponds discharge to the drainage ditch that bisects

the western portion of the site from the central/eastern portions of the site. As previously detailed, the stormwater ponds were constructed to allow for new impervious development and based on the information provided, the new impervious development does not appear to exceed original design thresholds

6. Site Discharge

The entire site (currently and after the proposed project) eventually drains to a drainage ditch that bisects the western portion of the site from the central/eastern portions of the site.

7. Potential Sources of Stormwater Runoff Pollution

Pollution of stormwater runoff may occur from the following sources:

- Installation of Utilities
- Installation of Site Structures
- Installation of Stormwater Infrastructure
- On-site Soil Stockpiles
- Construction Equipment Staging Areas

It is intended for Erosion and Sediment Control measures to be installed to protect nearby drainage and waterways from pollution. Estimated Erosion and Sediment Controls that may be required on this project are discussed in a later section of this report.

8. Flood Plains

The project site is not located in any FEMA mapped flood plains. All buildings have been located away from and well up gradient of any areas that have a potential for flooding.

9. Erosion and Sediment Control Practices

The following Erosion and Sediment Control practices may be required to be utilized on this project. Additional details and specifications on the Erosion and Sediment Control features are included in Appendix B.

9.1. Stabilized Construction Entrance

A stabilized construction entrance shall be installed prior to all major ground disturbing activities. This will be used to help ensure sediment is not tracked off site.

9.2. Silt Fence

Silt fence will be constructed in areas where earthwork is proposed in order to prevent and reduce sediment from migrating from the construction site and entering off-site drainage systems.

9.3. Rip Rap Outlet Protection

Rip rap outlet protection will be provided where concentrated pipe flow discharges. Rip rap outlet protection not only will protect the ground surface from erosion, but will also help reduce velocities and spread concentrated flow.

9.4. Stone Check Dams

Stone check dams will be constructed to slow stormwater velocity along slopes and channels, where required.

9.5. Rolled Erosion Control Product (RECP)

Rolled Erosion Control Products (RECP) can be utilized on disturbed slope areas ahead of drainage ways to prevent erosion and sedimentation caused by overland stormwater flows. RECP may also be required certain portions of newly graded swales.

9.6. Land Grading

Land Grading on sloped areas will utilize "tracking" with a bulldozer to prevent erosion of grading. Tracking shall be completed up and down the slope (as opposed to side to side of the slope).

9.7. Temporary Seeding and Mulching

Temporary seeding and mulching may be required to stabilize newly graded areas.

9.8. Topsoil

Stripped and stockpiled topsoil will be reapplied to a minimum depth of 6 inches to promote vegetation growth and permanent site stabilization prior to the end of construction.

9.9. Concrete Washout

Concrete washout or other washing areas will be located away from streams and ditches to prevent contaminants from polluting nearby waterways.

9.10. Soil Stockpile Areas

Additional erosion and sediment control practices such as silt fencing may be necessary to control sediment migration from designated on-site soil stockpile areas. Soil stockpile areas will be strategically located to minimize risk of sediment polluting nearby waterways.

9.11. Permanent Seeding and Site Stabilization

At the end of construction, all areas of the site shall be seeded and stabilized. Erosion and Sediment control practices cannot be removed until the areas contributing to these practices are stabilized.

9.12. Implementation and Maintenance of Erosion and Sediment Control Practices The above listed Erosion and Sediment Control (ESC) practices are anticipated for use on this Project. Figure 4 shows estimated locations of the ESC practices. Actual installed locations of ESC practices may vary slightly from plan during construction if differing site conditions are encountered. Site contractors shall coordinate any deviations from this Erosion and Sediment Control Plan with SWPPP preparer to help ensure compliance. Site contractor is solely responsible for preventing a water quality discharge violation.

Practice	Duration	Time of Implementation	Time of Removal
Stabilized Construction Entrance	Temp.	Prior to major disturbance	Completion of Construction
Silt Fence	Temp.	Prior to major disturbance	Post higher gradient stabilization
Stone Check Dams	Temp.	Prior to upper elevation disturbance	Post higher gradient stabilization
Rip Rap Outlet Protection	Perm.	After Culvert installation	Not to be removed
Catch Basin Inlet Protection	Temp.	After Catch Basin installation	Post higher gradient stabilization
Rolled Erosion Control Product	Temp.	After disturbance near waterways/ditches	After Stabilization. Remove only if necessary
Temporary Seeding and Mulching	Temp.	As needed	After Stabilization. Remove only if necessary
Concrete Washout	Temp.	Prior to concrete construction	After Concrete Construction
Stockpile Areas Practices	Temp.	During soil stockpiling	After stockpiles are removed
Permanent Seeding	Perm.	After final disturbance	Not to be removed

Erosion and Sediment Control Implementation Plan Table

Erosion and Sediment Control Maintenance Plan Table

Practice	Maintenance	Frequency	Responsible
Stabilized Construction Entrance	Replace/Add gravel	Inspect weekly and additional as needed.	Contractor
Silt Fence	Temporary	Inspect weekly/post rain events and additional as needed.	Contractor
Stone Check Dams	Remove sediment when 50% capacity is full	Inspect weekly/post rain events and additional as needed.	Contractor
Rip Rap Outlet Protection	Remove Sediment from Rip Rap	Inspect weekly/post rain events and additional as needed.	Contractor

Catch Basin Inlet Protection	Remove Sediment around Inlet or inside filter bags	Inspect weekly/post rain events and additional as needed.	Contractor
Rolled Erosion Control Product	Replace failed sections.	Inspect weekly/post rain events and additional as needed.	Contractor
Temporary Seeding and Mulching	Reseed bare spots	Inspect weekly and additional as needed.	Contractor
Concrete Washout	Clean/Relocate Washout Area	Inspect after each concrete pour and additional as needed.	Contractor
Stockpile Areas Practices	Check ESC practices used to control runoff	Inspect weekly/post rain events and additional as needed.	Contractor
Permanent Seeding	Reseed and Topsoil Bare Spots	As needed	Contractor

10. Post Construction Stormwater Management Practices

As previously stated, post construction stormwater facilities were already constructed to allow for easy development of the parcels included in this project. The original site SWPPP (completed by Clark Patterson Lee), designed the existing micropool extended detention ponds based on a maximum new impervious surface area. This project has been designed to be compliant with the original SWPPP and not exceed the allotted maximum impervious surface area. The original SWPPP included calculations for water quality volumes, runoff reduction volumes, and existing/proposed runoff rates including the channel protection volume, overbank flood protection volume, and the extreme storm protection volume.

11. Construction Protocol

11.1. Site Inspections

Inspections are required to be performed by a Qualified Inspector as defined in the General Permit. Inspections shall be performed at a minimum in accordance with the following schedule:

- At least once every seven calendar days.
- For construction sites where soil disturbance activities are ongoing and have NYSDEC approval to disturb greater than five acres of soil at any one time, the qualified inspector shall conduct at least two site inspections every seven calendar days. When performing just two inspections every seven calendar days, the inspections shall be separated by a minimum of two full calendar days.
- 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 30 calendar days.

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 qualified inspection will be responsible for inspecting all erosion and sediment control practices are working as intended, all disturbed areas that do not have final stabilization, and all points of discharge from the construction site. An inspection report containing the following shall be completed after each inspection:

- 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 water bodies located within or immediately adjacent to the construction site which receive runoff from disturbed areas, including identification of any discharges of sediment to the surface water body;
- f. Identification of all erosion and sediment control practices that need repair or maintenance;
- Identification of all erosion and sediment control practices that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;
- h. Description and sketch of areas that are disturbed 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 to correct deficiencies identified with the construction of the post-construction stormwater management practice(s); and
- k. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective action. Color copies of the digital photographs shall be attached to the inspection report maintained on-site within seven calendar days of the date of inspection. The qualified inspector shall also take digital photographs, with date stamp, that

clearly show the condition of the practices after the corrective action has been completed, and color copies of the photos shall be attached to the inspection report that documents the completion of the corrective action work within seven calendar days of the date of that inspection.

The SWPPP Inspector shall notify the Owner and Contractor (or Subcontractor) of any corrective actions within one day of discovery. The corrective actions shall be completed within seven days of initial notification. All inspection reports shall be signed by the qualified inspector. A sample inspection form is included as Appendix C. The SWPPP inspector shall also keep a log of all corrective action suggestions, with the date the Contractor was notified, and the dates the correction actions were completed.

11.2. Records

The following is a list of records that shall be kept onsite or at a nearby field office, available for inspectors to review:

- Construction Activity logs;
- A copy of the construction general permit (included in this document);
- The signed and certified NOI form or permit application form (included in this document);
- A copy of the letter from the NYSDEC notifying receipt of the complete NOI/application (to be attached upon receipt);
- SWPPP inspection reports;
- Contractor Certifications.

12. Owner Certification

The owner-operator certification from is located in Appendix A with the Notice of Intent form.

13. Contractor Certification

Each Contractor responsible for implementing the SWPPP, as presented herein, must sign the following:

"I hereby certify 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 New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings. "

Contractor is responsible for installing additional control measures as needed to prevent water quality violations and to maintain compliance with all applicable permits. Contractor is responsible for any penalties and violations associated with water quality violations or non-compliance with SPDES Permits.

Name

Title*

Address

Date

Telephone Number

Specific Elements of the SWPPP that Contractor is Responsible for:

Name and Title of Contractor's *Trained Individual(s)* Responsible for SWPPP Implementation:

14. Notice of Termination

When the project is completed, turf has been established, and the permanent stormwater management facilities are being utilized in accordance with the plans, a Notice of Termination (NOT) shall be filed with the NYSDEC. The proper NOT form is included in Appendix D.

15. Engineer Certification

To the best of my knowledge, the development of the Stormwater Pollution Prevention Plan (SWPPP) for the proposed Countryside Apartments was performed in accordance with applicable state and local regulations.

Reviewed and Approved by:

Altt Zel
Signature
Matthew J. Zarbo, P.E.
Printed Name
SWPPP Preparer
Title

Appendix A - Notice of Intent

NOI for coverage under Stormwater General Permit for Construction Activity

version 1.35

(Submission #: HPS-8R7K-SYDJS, version 1)

Details

- Originally Started By Matthew Zarbo
- Alternate Identifier Countryside Apartments
- Submission ID HPS-8R7K-SYDJS
- Submission Reason New
- Status Draft

Form Input

Owner/Operator Information

Owner/Operator Name (Company/Private Owner/Municipality/Agency/Institution, etc.) David Mazur

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

Owner/Operator Contact Person First Name David

Owner/Operator Mailing Address

2680 Grand Island Blvd

City Grand Island

State NY

Zip 14072

Phone 716-773-7707

Email Expert@empiredismantle.com

Federal Tax ID NONE PROVIDED

Project Location

Project/Site Name Countryside Apartments

Street Address (Not P.O. Box) SBL NOS. 9-1-213, 9-1-214, 9-1-215, 9-1-216.21 STEPHEN HAWLEY DRIVE (CTY RT 48)

Side of Street South City/Town/Village (THAT ISSUES BUILDING PERMIT) batavia

State

NY

Zip

14020

DEC Region

8

County GENESEE

Name of Nearest Cross Street BATAVIA STAFFORD TOWNLINE RD

Distance to Nearest Cross Street (Feet) 1500

Project In Relation to Cross Street West

Tax Map Numbers Section-Block-Parcel 9-1-213

Tax Map Numbers 9-1-213

1. Coordinates

Provide the Geographic Coordinates for the project site. The two methods are:

- Navigate to the project location on the map (below) and click to place a marker and obtain the XY coordinates.

- The "Find Me" button will provide the lat/long for the person filling out this form. Then pan the map to the correct location and click the map to place a marker and obtain the XY coordinates.

Navigate to your location and click on the map to get the X,Y coordinates 43.01434886503903,-78.14317180214505

Project Details

2. What is the nature of this project? New Construction

3. Select the predominant land use for both pre and post development conditions.

Pre-Development Existing Landuse Pasture/Open Land

Post-Development Future Land Use Multifamily Residential

3a. If Single Family Subdivision was selected in question 3, enter the number of subdivision lots. NONE PROVIDED

4. In accordance with the larger common plan of development or sale, enter the total project site acreage, the acreage to be disturbed and the future impervious area (acreage) within the disturbed area.

*** ROUND TO THE NEAREST TENTH OF AN ACRE. ***

Total Site Area (acres) 9.47

Total Area to be Disturbed (acres) 9.47

Existing Impervious Area to be Disturbed (acres) 0.0

Future Impervious Area Within Disturbed Area (acres) 3.8

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

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

A (%) 0 B (%) 15 C (%) 15

D (%) 70

7. Is this a phased project? No

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

Start Date

04/01/2022

End Date

10/10/2025

9. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge. Bigelow Creek and Tribs (0402-0016)

9a. Type of waterbody identified in question 9? Stream/Creek Off Site Other Waterbody Type Off Site Description NONE PROVIDED

9b. If "wetland" was selected in 9A, how was the wetland identified? NONE PROVIDED

10. Has the surface waterbody(ies in question 9 been identified as a 303(d) segment in Appendix E of GP-0-20-001? No

11. Is this project located in one of the Watersheds identified in Appendix C of GP-0-20-001? No

12. Is the project located in one of the watershed areas associated with AA and AA-S classified waters? 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 D (provided the map unit name is inclusive of slopes greater than 25%), E or F on the USDA Soil Survey?

No

If Yes, what is the acreage to be disturbed? NONE PROVIDED

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

15. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)?

No

16. What is the name of the municipality/entity that owns the separate storm sewer system? NONE PROVIDED

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

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

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

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

Required SWPPP Components

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

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)?

If you answered No in question 22, skip question 23 and the Post-construction Criteria and Post-construction SMP Identification sections.

23. Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the current NYS Stormwater Management Design Manual? NONE PROVIDED

24. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by: Professional Engineer (P.E.)

SWPPP Preparer E&B Squared Consulting (Matthew Zarbo P.E.)

Contact Name (Last, Space, First) Matt Zarbo

Mailing Address

182 Saranac Avenue

City

Buffalo

State

NY

Zip

14216

Phone

7162084534

Email

mattzarbo@gmail.com

Download SWPPP Preparer Certification Form

Please take the following steps to prepare and upload your preparer certification form:

Click on the link below to download a blank certification form
 The certified SWPPP preparer should sign this form
 Scan the signed form
 Upload the scanned document
 <u>Download SWPPP Preparer Certification Form</u>

Please upload the SWPPP Preparer Certification

<u>Appendix B - SWPPP Preparer Form.pdf - 03/19/2023 05:56 PM</u> Comment NONE PROVIDED

Erosion & Sediment Control Criteria

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

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 Silt Fence Stabilized Construction Entrance Storm Drain Inlet Protection

Biotechnical None

Vegetative Measures Protecting Vegetation Seeding Topsoiling

Permanent Structural Land Grading Rock Outlet Protection

Other NONE PROVIDED

Post-Construction Criteria

* 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. NONE PROVIDED

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). NONE PROVIDED

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

NONE PROVIDED

29. Post-construction SMP Identification

Use the Post-construction SMP Identification section to identify the RR techniques (Area Reduction), RR techniques(Volume Reduction) and Standard SMPs with RRv Capacity that were used to reduce the Total WQv Required (#28).

Identify the SMPs to be used by providing 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 the Post-Construction SMP Identification section 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.

30. Indicate the Total RRv provided by the RR techniques (Area/Volume Reduction) and Standard SMPs with RRv capacity identified in question 29. (acre-feet) NONE PROVIDED

31. Is the Total RRv provided (#30) greater than or equal to the total WQv required (#28)? NONE PROVIDED

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)] (acre-feet) NONE PROVIDED

32a. Is the Total RRv provided (#30) greater than or equal to the Minimum RRv Required (#32)? NONE PROVIDED

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; therefore, NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

33. SMPs

Use the Post-construction SMP Identification section to identify the Standard SMPs and, if applicable, the Alternative SMPs to be used to treat the remaining total WQv (=Total WQv Required in #28 - Total RRv Provided in #30).

Also, provide the total impervious area that contributes runoff to each practice selected.

NOTE: Use the Post-construction SMP Identification section 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. (acre-feet) NONE PROVIDED

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 - 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). NONE PROVIDED

35. Is the sum of the RRv provided (#30) and the WQv provided (#33a) greater than or equal to the total WQv required (#28)? NONE PROVIDED

If Yes, go to question 36.

If No, sizing criteria has not been met; therefore, 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 (acre-feet) NONE PROVIDED

CPv Provided (acre-feet) NONE PROVIDED

36a. The need to provide channel protection has been waived because: NONE PROVIDED

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

Overbank Flood Control Criteria (Qp)

Pre-Development (CFS) NONE PROVIDED

Post-Development (CFS) NONE PROVIDED

Total Extreme Flood Control Criteria (Qf)

Pre-Development (CFS) NONE PROVIDED

Post-Development (CFS) NONE PROVIDED

37a. The need to meet the Qp and Qf criteria has been waived because: NONE PROVIDED

38. Has a long term Operation and Maintenance Plan for the post-construction stormwater management practice(s) been developed? NONE PROVIDED

If Yes, Identify the entity responsible for the long term Operation and Maintenance NONE PROVIDED

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. NONE PROVIDED

Post-Construction SMP Identification

Runoff Reduction (RR) Techniques, Standard Stormwater Management Practices (SMPs) and Alternative SMPs Identify the Post-construction SMPs to be used by providing 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.

RR Techniques (Area Reduction)

Round to the nearest tenth

Total Contributing Acres for Conservation of Natural Area (RR-1) NONE PROVIDED

Total Contributing Impervious Acres for Conservation of Natural Area (RR-1) NONE PROVIDED

Total Contributing Acres for Sheetflow to Riparian Buffers/Filter Strips (RR-2) NONE PROVIDED

Total Contributing Impervious Acres for Sheetflow to Riparian Buffers/Filter Strips (RR-2) NONE PROVIDED

Total Contributing Acres for Tree Planting/Tree Pit (RR-3) NONE PROVIDED

Total Contributing Impervious Acres for Tree Planting/Tree Pit (RR-3) NONE PROVIDED

Total Contributing Acres for Disconnection of Rooftop Runoff (RR-4) NONE PROVIDED

RR Techniques (Volume Reduction)

Total Contributing Impervious Acres for Disconnection of Rooftop Runoff (RR-4) NONE PROVIDED

Total Contributing Impervious Acres for Vegetated Swale (RR-5) NONE PROVIDED

Total Contributing Impervious Acres for Rain Garden (RR-6) NONE PROVIDED

Total Contributing Impervious Acres for Stormwater Planter (RR-7) NONE PROVIDED

Total Contributing Impervious Acres for Rain Barrel/Cistern (RR-8) NONE PROVIDED

Total Contributing Impervious Acres for Porous Pavement (RR-9) NONE PROVIDED

Total Contributing Impervious Acres for Green Roof (RR-10) NONE PROVIDED

Standard SMPs with RRv Capacity

Total Contributing Impervious Acres for Infiltration Trench (I-1) NONE PROVIDED

Total Contributing Impervious Acres for Infiltration Basin (I-2) NONE PROVIDED

Total Contributing Impervious Acres for Dry Well (I-3) NONE PROVIDED **Total Contributing Impervious Acres for Underground Infiltration System (I-4)** NONE PROVIDED

Total Contributing Impervious Acres for Bioretention (F-5) NONE PROVIDED

Total Contributing Impervious Acres for Dry Swale (O-1) NONE PROVIDED

Standard SMPs

Total Contributing Impervious Acres for Micropool Extended Detention (P-1) NONE PROVIDED

Total Contributing Impervious Acres for Wet Pond (P-2) NONE PROVIDED

Total Contributing Impervious Acres for Wet Extended Detention (P-3) NONE PROVIDED

Total Contributing Impervious Acres for Multiple Pond System (P-4) NONE PROVIDED

Total Contributing Impervious Acres for Pocket Pond (P-5) NONE PROVIDED

Total Contributing Impervious Acres for Surface Sand Filter (F-1) NONE PROVIDED

Total Contributing Impervious Acres for Underground Sand Filter (F-2) NONE PROVIDED

Total Contributing Impervious Acres for Perimeter Sand Filter (F-3) NONE PROVIDED

Total Contributing Impervious Acres for Organic Filter (F-4) NONE PROVIDED

Total Contributing Impervious Acres for Shallow Wetland (W-1) NONE PROVIDED

Total Contributing Impervious Acres for Extended Detention Wetland (W-2) NONE PROVIDED

Total Contributing Impervious Acres for Pond/Wetland System (W-3) NONE PROVIDED

Total Contributing Impervious Acres for Pocket Wetland (W-4) NONE PROVIDED

Total Contributing Impervious Acres for Wet Swale (O-2) NONE PROVIDED

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

Total Contributing Impervious Area for Hydrodynamic NONE PROVIDED

Total Contributing Impervious Area for Wet Vault NONE PROVIDED

Total Contributing Impervious Area for Media Filter NONE PROVIDED

"Other" Alternative SMP? NONE PROVIDED

Total Contributing Impervious Area for "Other" NONE PROVIDED Provide the name and manufaturer of the alternative SMPs (i.e. proprietary practice(s)) being used for WQv treatment.

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.

Manufacturer of Alternative SMP NONE PROVIDED

Name of Alternative SMP NONE PROVIDED

Other Permits

40. Identify other DEC permits, existing and new, that are required for this project/facility. None

If SPDES Multi-Sector GP, then give permit ID NONE PROVIDED

If Other, then identify NONE PROVIDED

41. Does this project require a US Army Corps of Engineers Wetland Permit? No

If "Yes," then indicate Size of Impact, in acres, to the nearest tenth NONE PROVIDED

42. 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. NONE PROVIDED

MS4 SWPPP Acceptance

43. Is this project subject to the requirements of a regulated, traditional land use control MS4? No

If No, skip question 44

44. Has the "MS4 SWPPP Acceptance" form been signed by the principal executive officer or ranking elected official and submitted along with this NOI? NONE PROVIDED

MS4 SWPPP Acceptance Form Download Download form from the link below. Complete, sign, and upload. MS4 SWPPP Acceptance Form

MS4 Acceptance Form Upload NONE PROVIDED Comment NONE PROVIDED

Owner/Operator Certification

Owner/Operator Certification Form Download

Download the certification form by clicking the link below. Complete, sign, scan, and upload the form. <u>Owner/Operator Certification Form (PDF, 45KB)</u>

Upload Owner/Operator Certification Form

NONE PROVIDED Comment NONE PROVIDED

Attachments

Date	Attachment Name	Context	User
3/19/2023 5:56 PM	Appendix B - SWPPP Preparer Form.pdf	Attachment	Matthew Zarbo



Department of Environmental Conservation

SWPPP Preparer Certification Form

SPDES General Permit for Stormwater Discharges From Construction Activity (GP-0-20-001)

Project Site Information Project/Site Name

Countryside Apartments

Owner/Operator Information

Owner/Operator (Company Name/Private Owner/Municipality Name)

David Mazur

Certification Statement – SWPPP Preparer

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-0-20-001. 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.

Matthew	J	Zarbo
First name	MI	Last Name
Signature Signature		3/16/2023 Date



Owner/Operator Certification Form

SPDES General Permit For Stormwater Discharges From Construction Activity (GP-0-20-001)

Project/Site Name: Countryside Apartments

eNOI Submission Number:			
eNOI Submitted by:	Owner/Operator	SWPPP Preparer	Other

Certification Statement - Owner/Operator

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.

Owner/Operator First Name

M.I. Last Name

Signature

Date

Appendix B– Erosion and Sediment Control Details
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 Proper- ties ³	Light Duty ¹ Roads Grade Sub- grade	Heavy Duty ² Haul Roads Rough Graded	Test Meth- od
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	-

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

²Heavy 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.

³Fabrics 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 sedimenttrapping device. All sediment shall be prevented from entering storm drains, ditches, or watercourses.

Figure 2.1 Stabilized Construction Access



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 Ler	ngth/Fence Le	ength (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

Super Silt Fence



- 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.

Reinforced Silt Fence



Figure 5.30 Reinforced Silt Fence



STANDARD AND SPECIFICATIONS FOR **CHECK DAM**



Therefore:

$$S = \frac{h}{s}$$

Where:

$$S =$$
 spacing interval (ft.)
h = height of check dam (ft.)
s = channel slope (ft./ft.)

Example:

For a channel with and 2 ft. high stone they are spaced as $S = \frac{2 \text{ ft}}{0.04 \frac{\text{ft}}{\text{A}}} = 50 \text{ ft}$ check dams, follows:



Definition & Scope

Small barriers or dams constructed of stone, bagged sand or gravel, or other durable materials across a drainageway to reduce erosion in a drainage channel by reducing the velocity of flow in the channel.

Conditions Where Practice Applies

This practice is used as a temporary and, in some cases, a permanent measure to limit erosion by reducing velocities in open channels that are degrading or subject to erosion or where permanent stabilization is impractical due to short period of usefulness and time constraints of construction.

Design Criteria

Drainage Area: Maximum drainage area above the check dam shall not exceed two (2) acres.

Height: Not greater than 2 feet. Center shall be maintained 9 inches lower than abutments at natural ground elevation.

Side Slopes: Shall be 2:1 or flatter.

Spacing: The check dams shall be spaced as necessary in the channel so that the crest of the downstream dam is at the elevation of the toe of the upstream dam. This spacing is equal to the height of the check dam divided by the channel slope.

For stone check dams: Use a well graded stone matrix 2 to 9 inches in size (NYS - DOT Light Stone Fill meets these requirements).

The overflow of the check dams will be stabilized to resist erosion that might be caused by the check dam. See Figure 3.1 on page 3.3 for details.

Check dams should be anchored in the channel by a cutoff trench 1.5 ft. wide and 0.5 ft. deep and lined with filter fabric to prevent soil migration.

For filter sock or fiber roll check dams: The check dams will be anchored by staking the dam to the earth contact surface. The dam will extend to the top of the bank. The check dam will have a splash apron of NYS DOT #2 crushed stone extending a minimum 3 feet downstream from the dam and 1 foot up the sides of the channel. The compost and materials for a filter sock check dam shall meet the requirements shown in the standard for Compost Filter Sock on page 5.7.

Maintenance

The check dams should be inspected after each runoff event. Correct all damage immediately. If significant erosion has occurred between structures, a liner of stone or other suitable material should be installed in that portion of the channel or additional check dams added.

Remove sediment accumulated behind the dam as needed to allow channel to drain through the stone check dam and prevent large flows from carrying sediment over the dam.

Figure 3.1 Stone Check Dam 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 Thick- ness (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 3.17

Outlet Protection Design—Maximum Tailwater Condition Chart (Design of Outlet Protection from a Round Pipe Flowing Full, Maximum Tailwater Condition: $T_w \ge 0.5D_o$) (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 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 MULCHING



Definition and Scope

Applying coarse plant residue or chips, or other suitable materials, to cover the soil surface to provide initial erosion control while a seeding or shrub planting is establishing. Mulch will conserve moisture and modify the surface soil temperature and reduce fluctuation of both. Mulch will prevent soil surface crusting and aid in weed control. Mulch can also be used alone for temporary stabilization in nongrowing months. Use of stone as a mulch could be more permanent and should not be limited to non-growing months.

Conditions Where Practice Applies

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

<u>Criteria</u>

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

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

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

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

Select appropriate mulch material and application rate or material needs. Hay mulch shall not be used in wetlands or in areas of permanent seeding. Clean straw mulch is preferred alternative in wetland application. Determine local availability.

Select appropriate mulch anchoring material.

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



Table 4.2Guide to Mulch Materials, Rates, and Uses

Mulch Material	Quality Standards	per 1000 Sq. Ft.	per Acre	Depth of Application	Remarks
Wood chips or shavings	Air-dried. Free of objectionable coarse material	500-900 lbs.	10-20 tons	2-7''	Used primarily around shrub and tree plantings and recreation trails to inhibit weed competition. Resistant to wind blowing. Decomposes slowly.
Wood fiber celluloseMade from natural(partly digestedusually with greenwood fibers)and dispersing age	Made from natural wood usually with green dye and dispersing agent	50 lbs.	2,000 lbs.		Apply with hydromulcher. No tie down required. Less erosion control provided than 2 tons of hay or straw.
Gravel, Crushed Stone or Slag	Washed; Size 2B or 3A—1 1/2"	9 cu. yds.	405 cu. yds.	3"	Excellent mulch for short slopes and around plants and ornamentals. Use 2B where subject to traffic. (Approximately 2,000 lbs./cu. yd.). Frequently used over filter fabric for better weed control.
Hay or Straw	Air-dried; free of undesirable seeds & coarse materials	90-100 lbs. 2-3 bales	2 tons (100- 120 bales)	cover about 90% surface	Use small grain straw where mulch is maintained for more than three months. Subject to wind blowing unless anchored. Most commonly used mulching material. Provides the best micro-environment for germinating seeds.
Jute twisted yarn	Undyed, unbleached plain weave. Warp 78 ends/yd., Weft 41 ends/ yd. 60-90 lbs./roll	48" x 50 yds. or 48" x 75 yds.			Use without additional mulch. Tie down as per manufacturers specifications. Good for center line of concentrated water flow.
Excelsior wood fiber mats ceclsior fibers with photodegradable pla netting	Interlocking web of excelsior fibers with photodegradable plastic netting	4' x 112.5' or 8' x 112.5'.			Use without additional mulch. Excellent for seeding establishment. Anchor as per manufacturers specifications. Approximately 72 lbs./roll for excelsior with plastic on both sides. Use two sided plastic for centerline of waterways.
Straw or coconut fiber, or combination	Photodegradable plastic net on one or two sides	Most are 6.5 ft. x 3.5 ft.	81 rolls		Designed to tolerate higher velocity water flow, centerlines of waterways, 60 sq. yds. per roll.

Table 4.3Mulch Anchoring Guide

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

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

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 $\frac{1}{2}$ 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



Appendix C - SWPPP Inspection Form

Stormwater Construction Site Inspection Report

	General Information					
Project Name						
NPDES Tracking No.		Location				
Date of Inspection		Start/End Time				
Inspector's Name(s)						
Inspector's Title(s)						
Inspector's Contact Information						
Inspector's Qualifications						
Describe present phase of construction						
Type of Inspection:RegularPre-storm event	During storm event	Dest-storm e	vent			
Weather Information						
Has there been a storm event since the last inspection? □Yes □No						
If yes, provide: Storm Start Date & Time: S	torm Duration (hrs):	Approximate	Amount of Precipitation (in):			
Weather at time of this inspection?						
□ Clear □Cloudy □ Rain □ Other:	□ Sleet □ Fog □ Snc Temperature:	wing 🗖 High Win	ds			
Have any discharges occurred since the last inspection? Yes No If yes, describe:						
Are there any discharges at the tin If yes, describe:	ne of inspection?	No				

Site-specific BMPs

- Number the structural and non-structural BMPs identified in your SWPPP on your site map and list them below (add as many BMPs as necessary). Carry a copy of the numbered site map with you during your inspections. This list will ensure that you are inspecting all required BMPs at your site.
- Describe corrective actions initiated, date completed, and note the person that completed the work in the Corrective Action Log.

	ВМР	ВМР	BMP	Corrective Action Needed and Notes
		Installed?	Maintenance	
			Required ?	
1		□Yes □No	□Yes □No	
2		□Yes □No	□Yes □No	
3		□Yes □No	□Yes □No	
4		□Yes □No	□Yes □No	
5		□Yes □No	□Yes □No	
6		□Yes □No	□Yes □No	
7		□Yes □No	□Yes □No	
8		□Yes □No	□Yes □No	
9		□Yes □No	□Yes □No	
10		□Yes □No	□Yes □No	
11		□Yes □No	□Yes □No	
12		□Yes □No	□Yes □No	

	BMP	BMP Installed?	BMP Maintenance	Corrective Action Needed and Notes
			Required?	
13		□Yes □No	□Yes □No	
14		□Yes □No	□Yes □No	
15		□Yes □No	□Yes □No	
16		□Yes □No	□Yes □No	
17		□Yes □No	□Yes □No	
18		□Yes □No	□Yes □No	
19		□Yes □No	□Yes □No	
20		□Yes □No	□Yes □No	

Overall Site Issues

Below are some general site issues that should be assessed during inspections. Customize this list as needed for conditions at your site.

	BMP/activity	Implemented?	Maintenance Required?	Corrective Action Needed and Notes
1	Are all slopes and disturbed areas not actively being worked properly stabilized?	□Yes □No	Yes No	
2	Are natural resource areas (e.g., streams, wetlands, mature trees, etc.) protected with barriers or similar BMPs?	□Yes □No	□Yes □No	
3	Are perimeter controls and sediment barriers adequately installed (keyed into substrate) and maintained?	□Yes □No	□Yes □No	
4	Are discharge points and receiving waters free of any sediment deposits?	□Yes □No	□Yes □No	
5	Are storm drain inlets properly protected?	□Yes □No	□Yes □No	
6	Is the construction exit preventing sediment from being tracked into the street?	□Yes □No	□Yes □No	
7	Is trash/litter from work areas collected and placed in covered dumpsters?	□Yes □No	□Yes □No	
8	Are washout facilities (e.g., paint, stucco, concrete) available, clearly marked, and maintained?	□Yes □No	□Yes □No	

	BMP/activity	Implemented?	Maintenance Required?	Corrective Action Needed and Notes
9	Are vehicle and equipment fueling, cleaning, and maintenance areas free of spills, leaks, or any other deleterious material?	□Yes □No	Yes No	
10	Are materials that are potential stormwater contaminants stored inside or under cover?	□Yes □No	□Yes □No	
11	Are non-stormwater discharges (e.g., wash water, dewatering) properly controlled?	□Yes □No	□Yes □No	
12	(Other)	□Yes □No	□Yes □No	

Non-Compliance

Describe any incidents of non-compliance not described above:

CERTIFICATION STATEMENT

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

Print name and title: _____

Signature: _____ Date: _____

Appendix G – Notice of Termination

New York State Department of Environmental Conservation Division of Water 625 Broadway, 4th Floor Albany, New York 12233-3505 *(NOTE: Submit completed form to address above)* NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity		
Please indicate your permit identification number: NY	R	
I. Owner or Operator Information		
1. Owner/Operator Name:		
2. Street Address:		
3. City/State/Zip:		
4. Contact Person:	4a.Telephone:	
4b. Contact Person E-Mail:		
II. Project Site Information		
5. Project/Site Name:		
6. Street Address:		
7. City/Zip:		
8. County:		
III. Reason for Termination		
9a. □ All disturbed areas have achieved final stabilization in accord SWPPP. *Date final stabilization completed (month/year):	ordance with the general permit and	
9b. □ Permit coverage has been transferred to new owner/opera permit identification number: NYR		
9c. □ Other (Explain on Page 2)		
IV. Final Site Information:		
10a. Did this construction activity require the development of a S stormwater management practices? □ yes □ no (If no	SWPPP that includes post-construction , go to question 10f.)	
10b. Have all post-construction stormwater management practic constructed? □ yes □ no (If no, explain on Page 2)		
10c. Identify the entity responsible for long-term operation and m	naintenance of practice(s)?	

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued

10d. Has the entity responsible for long-term operation and maintenance been given a copy of the operation and maintenance plan required by the general permit? □ yes □ no

10e. Indicate the method used to ensure long-term operation and maintenance of the post-construction stormwater management practice(s):

□ Post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain practice(s) have been deeded to the municipality.

Executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s).

□ For post-construction stormwater management practices that are privately owned, a mechanism is 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.

□ For post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university or hospital), government agency or authority, or public utility; policy and procedures are in place that ensures operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.

10f. Provide the total area of impervious surface (i.e. roof, pavement, concrete, gravel, etc.) constructed within the disturbance area?

(acres)

11. Is this project subject to the requirements of a regulated, traditional land use control MS4? $\hfill\square$ yes $\hfill\square$ no

(If Yes, complete section VI - "MS4 Acceptance" statement

V. Additional Information/Explanation: (Use this section to answer questions 9c. and 10b., if applicable)

VI. MS4 Acceptance - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative (Note: Not required when 9b. is checked -transfer of coverage)

I have determined that it is acceptable for the owner or operator of the construction project identified in question 5 to submit the Notice of Termination at this time.

Printed Name:

Title/Position:

Signature:

Date:

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued

VII. Qualified Inspector Certification - Final Stabilization:	
I hereby certify that all disturbed areas have achieved final stabilization as of the general permit, and that all temporary, structural erosion and sedim been removed. Furthermore, I understand that certifying false, incorrect of violation of the referenced permit and the laws of the State of New York a criminal, civil and/or administrative proceedings.	nent control measures have or inaccurate information is a
Printed Name:	
Title/Position:	
Signature:	Date:
VIII. Qualified Inspector Certification - Post-construction Stormwat	er Management Practice(s):
I hereby certify that all post-construction stormwater management practic conformance with the SWPPP. Furthermore, I understand that certifying information is a violation of the referenced permit and the laws of the Stat subject me to criminal, civil and/or administrative proceedings.	false, incorrect or inaccurate
Printed Name:	
Title/Position:	
Signature:	Date:
IX. Owner or Operator Certification	
I hereby certify that this document was prepared by me or under my direct determination, based upon my inquiry of the person(s) who managed the persons directly responsible for gathering the information, is that the infor document is true, accurate and complete. Furthermore, I understand that inaccurate information is a violation of the referenced permit and the laws could subject me to criminal, civil and/or administrative proceedings.	construction activity, or those mation provided in this certifying false, incorrect or
Printed Name:	
Title/Position:	

Signature:

Date:

(NYS DEC Notice of Termination - January 2015)

Figure 1 - Existing Site Plan



CS ST V C OT UT UE OHE OHE	SANITARY SEWER COMBINED SEWER STORM SEWER WATER LINE GAS LINE OVERHEAD TELEPHONE WIRI UNDERGROUND ELECTRIC VERHEAD ELECTRIC WIRES CONTOUR LINE CONTRUL FOR DITCH CROWN OF PAVEMENT HIGHWAY LINE
S) O YD O E.T. Ø O EHH T Ø WSV Ø WSV Ø CSV Ø	SANITARY MANHOLE CLEANOUT CATCH BASIN DRAINAGE INLET STORM MANHOLE YARD DRAIN ELECTRIC TRANSFORMER POWER POLE ELECTRIC TRANSHOLE TELEPHONE RISER FIRE HYDRANT WATER VALVE WATER VALVE WATER VALVE GAS VALVE GAS SERVICE VALVE STREET SIGN METAL POST
	HANDICAP PARKING
(T) O THH (E)	TRAFFIC MANHOLE TRAFFIC HANDHOLE ELECTRIC MANHOLE
• E.M.	ELECTRIC METER
•	BOLLARD
🔀 G.M.	GAS METER









De	Date	
#: 2023.1.1	Date: 2/16/2023	
by: MJZ	Scale: As Shown	
ed by: MJZ	Set: CONTRACT D	WGS
	#: 2023.1.1 by: MJZ	by: MJZ Scale: As Shown

EXISTING SITE PLAN COUNTRYSIDE APTS



Figure 2 - Proposed Site Plan



- - 18. ALL WORK IN HIGHWAY ROW SHALL BE IN CONFORMANCE WITH THE ROW OWNERS APPLICABLE STANDARDS.

e&b squared

Droject # 2022.1.1	Date: 2/16/2023
F10ject #. 2023.1.1	Date: 2/10/2023
Drawn by: MJZ	Scale: As Shown
Checked by: MJZ	Set: CONTRACT DWGS





- BUILDING DESIGNER SHALL REVIEW SITE GEOTECHNICAL INFORMATION. SHALLOW BEDROCK MAY BE PRESENT.
- BUILDING DESIGNER SHALL TAKE NOTE OF GRADING AT REAR OF GARAGES MAY BE HIGHER THAN FLOOR OF GARAGE. TOP OF GARAGE WALL FOUNDATION WALL SHALL BE HIGHER THAN GARAGE FLOOR AND EXTEND ABOVE GRADE TO ACCOMMODATE SITE GRADING.





Project #: 2023.1.1		Date: 2/16/2023		
Drawn by: MJZ		Scale: As Shown		
Checked by: MJZ		Set: CONTRACT DWGS		

C-103



e&b squared

OFESSIO

Checked by: MJZ

Set: CONTRACT DWGS

Figure 3 - Soil Map



USDA Natural Resources

Conservation Service

Web Soil Survey National Cooperative Soil Survey 3/19/2023 Page 1 of 3

MA	AP LEGEND		MAP INFORMATION	
Area of Interest (AOI)	8	Spoil Area	The soil surveys that comprise your AOI were mapped at	
Area of Interest (A		Stony Spot	1:24,000.	
Soils	ñ	Very Stony Spot	Warning: Soil Map may not be valid at this scale.	
Soil Map Unit Poly	gons 💞	Wet Spot	Enlargement of maps beyond the scale of mapping can cause	
Soil Map Unit Line	s &	Other	misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of	
Soil Map Unit Poin	ts 🗸	Special Line Features	contrasting soils that could have been shown at a more detailed	
Special Point Features	Water Feat		scale.	
Blowout	water reat	Streams and Canals	Please rely on the bar scale on each map sheet for map	
Borrow Pit	Transporta	tion	measurements.	
💥 Clay Spot	+++	Rails	Source of Map: Natural Resources Conservation Service	
Closed Depression	· ~	Interstate Highways	Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857)	
Gravel Pit	~	US Routes	Maps from the Web Soil Survey are based on the Web Mercato	
Gravelly Spot	~	Major Roads	projection, which preserves direction and shape but distorts	
🔇 Landfill	~	Local Roads	distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more	
Lava Flow	Backgroun	ıd	accurate calculations of distance or area are required.	
Marsh or swamp		Aerial Photography	This product is generated from the USDA-NRCS certified data a	
Mine or Quarry			of the version date(s) listed below.	
Miscellaneous Wa	er		Soil Survey Area: Genesee County, New York Survey Area Data: Version 23, Sep 10, 2022	
Perennial Water			Soil map units are labeled (as space allows) for map scales	
Rock Outcrop			1:50,000 or larger.	
Saline Spot			Date(s) aerial images were photographed: Jun 15, 2020—Jun	
Sandy Spot			17, 2020	
Severely Eroded S	not		The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background	
	P		imagery displayed on these maps. As a result, some minor	
*			shifting of map unit boundaries may be evident.	
30				
ø Sodic Spot				

USDA

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI	
AuA	Aurora silt loam, 0 to 3 percent slopes	3.3	23.4%	
BeB	Benson soils, 0 to 8 percent slopes	0.6	4.4%	
KnA	Kendaia silt loam, 0 to 3 percent slopes	4.3	30.5%	
Ld	Lamson very fine sandy loam	1.7	12.4%	
LmA	Lima silt loam, 0 to 3 percent slopes	2.0	14.4%	
WsB	Wassaic silt loam, 2 to 8 percent slopes	2.1	14.8%	
Totals for Area of Interest		14.1	100.0%	



Figure 4 - Erosion and Sediment Control Plan



EROSION AND SEDIMENT CONTROL PLAN

SCALE: 1" = 60'

NOTES:

- 1. THE CONTRACTOR SHALL FAMILIARIZE HIMHER SELF WITH SITE CONDITIONS PRIOR TO THE BID.
- 2. ALL CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED IN ACCORDANCE WITH THE PROJECT'S APPROVED SWPPP.
- EROSION AND SEDIMENT CONTROL AND STORMWATER MANAGEMENT INFRASTRUCTURE PRACTICES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE PROJECTS SWPPP AND NYSDEC STANDARDS.
- 4. ALL STORM DRAINAGE PIPES SHALL BE EQUIPPED WITH END SECTIONS UNLESS OTHERWISE NOTED.
- 5. EROSION AND SEDIMENT CONTROL PLAN IS ESTIMATED BASED ON PROJECTED DISTURBANCES. CONTRACTOR IS RESPONSIBLE IMPLEMENTING ADDITIONAL MEASURES AS REQUIRED TO PREVENT A WATER QUALITY VIOLATION.





No.	Desc	Date		
Project #: 2023.1.1		Date: 2/16/2023		
Drawn by: MJZ		Scale: As Shown	Scale: As Shown	
Checked by: MJZ		Set: CONTRACT D	OWGS	

EROSION AND SEDIMNET CONTROL PLAN COUNTRYSIDE APTS

