TOWN OF CARMEL
PLANNING BOARD

60 McAlpin Avenue
Mahopac, New York 10541
Tel. (845) 628-1500 – Ext.190
www.ci.carmel.ny.us

PLANNING BOARD AGENDA
OCTOBER 14, 2021 – 7:00 P.M.

		TAX MAP #	PUB. HEARING	MAP DATE	COMMENTS
SITE PLAN					
1.	Fante Subdivision – 419 Union Valley Road	87.7-1-22		10/04/21	Final Plat (2 Lots)
2.	Hamlet at Carmel – Stoneleigh Ave, Carmel	66.-2-58		9/29/21	Amended Site Plan
MISCELLANEOUS					
3.	70 Old Route 6, LLC – 70 Old Route 6, Carmel (formerly Tompkins Recycling Facility)	55.11-1-15		12/8/16	Re-Approval of Final Site Plan Approval
4.	Minutes – 08/25/21 & 09/09/21				

JOHN KARELL, JR., P.E.
121 CUSHMAN ROAD
PATTERSON, NEW YORK, 12563
845-878-7894 FAX 845 878 4939
jack4911@yahoo.com

October 1, 2021

RESPONSE TO TOWN CONSULTANT COMMENTS
Fante, 419 Union Valley Road, Carmel (T)
TM # 87.7-1-22

Attached please find plans and documents revised in accordance Town comments as follows. It is noted that only sheets that have been revised have been submitted. :

Richard Franzetti, P.E., Town Engineer dated August 12, 2021
PRELIMINARY COMMENTS

- Preliminary Subdivision plat attached.
- Variance granted on September 23, 2021
- Driveway easement provided.
- Colorized steep slope analysis provided. It is not believed that the State prohibits construction on steep slopes. Agencies do have suggestions that steep slopes be avoided to the extent possible depending on the extent of the steep slopes. In this case the intrusion into the steep slopes is minimal and mitigated by erosion control measures.
- With respect to open space reservation , no land is being reserved for open space dedication., the recreation fee will be paid in lieu of an offer of land..
- Noted relative to Section 131-13. It is believed that the submitted plans comply with this Code section.

GENERAL COMMENTS

1. Noted.
2. Noted except for the need for a ECB permit and DEP permit.
3. The plans indicate a limit of disturbance line and total area of disturbance. The need for a DEC Stormwater permit is noted. An NOI and SWPPP is attached.
4. No public improvements are necessary or proposed therefore it is not believed that a bond is necessary.
5. The possible need for a stormwater bond is noted.

Pat Cleary, undated

1. Open development and lot depth line variances were granted by the ZBA on September 23, 2021.
2. The variance has been indicated on the Zoning Schedule.
3. The applicant wishes to maintain the house location as previously shown on the plan.
4. Well setbacks noted.

5. The applicant requests a waiver from the requirement to provide a tree plan. It should be noted that at my inspection indicated approximately 12 trees 6" or greater in width at breast height are within the limit of disturbance, most at 6-8 inches.
6. The driveway easement has been provided to the Planning Department previously by the owner.
7. The wetland has been flagged by Ted Kozlowski and survey located by Baxter. The area of disturbance for the new house construction is approximately 100 feet from the 100 foot wetland setback therefore a wetland permit is not required. A copy of Mr. Kozlowski's report is attached.

Michael Carnazza, Building Inspector dated August 23, 2021

1. The Town of Carmel ZBA has issued the necessary variances on September 23, 2021.
2. Driveway easement has been provided to the Planning Department previously by the owner.

Very truly yours,

John Karell, Jr., P.E.

I. INTRODUCTION

1.1. Project background

The project site is at 419 Union Valley Road in the Town of Carmel, NY, Putnam County, New York. The site presently contains a single family house, driveway, septic system and well. It is proposed to subdivide the property to create two lots and construct a single family house with asphalt driveway, septic system and well on the vacant second parcel. The property is identified as tax map #.87.7-1-22

Site Description

The site is approximately 12 acres in size. The existing house parcel will contain 8 acres and the vacant lot 4 acres. The proposed house construction will result in an increase in impervious area of 4,420 square feet and 0.55 acres (23,900 square feet) of total disturbance.

1.2. SWPPP Overview

It is proposed to construct a single family house on the vacant parcel that will be 3,400 square feet in size. A drilled well and septic system will provide water and sewer service to the proposed house. The purpose of this report is to address Storm Water Pollution Prevention and Management for the proposed improvements.

In accordance with the Code of the Town of Carmel and NYSDEC SPDES General Permit for Storm water Discharges from Construction Activities, General Permit GP-0-20-001, because the proposed disturbance for the project exceeds 5,000 square feet, coverage under the General Permit is required, a Notice of Intent (NOI) must be filed and a storm water pollution prevention plan is required for this project.

Construction will begin immediately after receiving approval from the Town of Carmel Building Department of a SWPPP in accordance with the provisions of the Town Code.

II. EXISTING SITE CONDITIONS

2.0 General

The existing property contains a single family house located on the southeast side of Union Valley Road in the Town of Carmel.

Generally the topography on the site flows from west to east. The subject property is located in the NYC Watershed.

2.1 Surface Water

A pond and associated wetland is on this property.

2.2 Soils

2.1.1. Hydrologic Soils/NRCS Web Soils Survey

Soils on the entire property are classified by the United States Department of Agriculture Soil Conservation Service as Chatfield Charlton Complex (CsD) Hydrologic soil group B from the Web Soil Survey.

The pre developed site consists the existing house and associated improvements and woods in good condition.

2.1.2. Site Geotechnical Evaluation

Review of the soil characteristics indicates a general rock and groundwater depth of greater than 7.feet below grade.

2.3. Groundwater

Groundwater is greater than 7 feet below grade.

2.4. Natural Resources

Natural resources contained on the site is the pond, wetland and woodland area. A small portion of the woodland will be removed for the construction of the house, septic system and driveway.

2.5. New York State Register of Historic Places Assessment

There are no Historic places on this property.

2.6. Critical Habitat

There are no critical habitats on this property.

2.7. Offsite Drainage

No changes in drainage patterns are proposed.

2.8 Pre-construction Drainage Areas

No changes to pre construction runoff patterns will result from the construction of this project.

2.9 Potential sources of pollution

Potential sources of pollution which may be reasonably expected to affect the quality of stormwater discharges.

- Sediment – all disturbed areas will be stabilized

III. Stormwater Management, Treatment and Conveyance

A. Storm water treatment is not required. Management of stormwater from this property will be discharging roof and driveway drainage to adjacent lawn areas.

B. Stormwater conveyance for this project consists of sheet flow onto adjacent lawn areas.

IV. Stormwater Management

Treatment of stormwater is not required.

V. Erosion and Sediment Control

A. Temporary Erosion and Sediment Control Measures

1. Temporary erosion and sediment control measures in the design of this project are silt fence. The driveway will be provided with a stabilized construction entrance. The contractor will be responsible for daily sediment cleanup on the driveway, if any. Silt fence are proposed to be installed along the downslope of all areas of disturbance as shown on the site plan, or as determined to be necessary during construction.

2. Runoff will be controlled within the project area. Bare soil areas, disturbed areas, will be seeded and mulched to control possible erosion and slow the velocity of runoff. Such activities shall be initiated by the end of the next business day and completed within 7 days from the date the current soil disturbance activity ceased.

3. Initial grading shall take place to install the sediment control measures. Soil stockpiles shall be stabilized away from any drainage structures or natural drainage paths. Once final grading has been achieved in any area that area shall be seeded and mulched and not redisturbed again.

4. Soil stockpiles must be protected with seeding and/or mulching as soon as possible but no longer than 7 days after ceasing activity. (see item # 2 above)

5. Measures must be in place prior to disturbance of a particular area in order to prevent sediment from traveling off site. This is accomplished on this site by the proper installation of silt fence.

6. Dust shall be controlled to keep the amount of particles/sediment generation by construction

activity to a minimum. This will be accomplished by seeding and mulching of disturbed areas and wetting areas prone to airborne dust.

7. All temporary and permanent sediment and erosion control measures must be checked on a weekly basis for functionality and stability. This includes the silt fencing and the stabilized construction entrance. Any bare spots in areas previously seeded will be reseeded and remulched as soon as necessary. In areas where soil erosion and sedimentation is found to be a problem and measures are not in place, appropriate measures must be installed as required by the supervising engineer.

8. Final grading shall match approximately the cut and fill lines as shown on the plans. This must be accomplished within 7 days of the end of the construction activity unless otherwise specified under the Town or DEC permits. (see item # 2 above)

9. Temporary measures shall not be removed until all disturbed areas protected by such measures are fully and properly stabilized.

10. Permanent non structural measures to remain in place are re-established areas of grass and landscaping within the non impervious areas.

11. Pollution prevention measures that will be utilized to prevent construction debris from becoming a pollutant source include:
...Litter control – refuse containers will be provided on the site for the deposition of any debris. The contractor shall police the site at the end of each day, collect litter and deposit litter in the refuse containers.
...Construction chemicals – all construction chemicals including but not limited to equipment fuels and oils and cleaning solvents shall be stored in appropriate containers and within a locked facility overnight.

Any spills of construction chemicals will be immediately cleaned up in accordance with appropriate procedures.

Any significant spill will be immediately reported to the NYSDEC pursuant to State Regulations, procedures and requirements.
...Construction debris will be collected and placed in roll off containers and disposed off site in at an appropriate disposal facility. (Part III.B.1.j)

B. Permanent Erosion Control Measures

1. Permanent erosion control measures employed in the design of the project include stabilization of all disturbed areas with grass.

VI. Inspection & Maintenance of Stormwater and Erosion Control Measures

A. Inspection and Reporting Requirements

All erosion control measures are to be inspected weekly. In the case of a rain event, measures must be checked immediately after. Inspections shall be made by a qualified professional and reports will be kept on site in a dedicated mailbox labeled, "Stormwater Documents".

B. Responsibilities

The project contractor and/or subcontactors shall be responsible to install, construct, repair, replace, inspect and maintain the temporary erosion and sediment control practices included in the SWPPP. The project contractor/subcontractor shall be responsible for constructing the post construction storm water management practices included in the SWPPP. Such measures will be maintained by the project contractor/subcontractor during the entire construction period.

Permanent measures will be maintained by the owner of the property.
(Part III.A.6) (Part IV)

Developer:

Frank Fante
419 Union Valley Road
Mahopac, NY< 10541

Owner/ Applicant
Same as developer

The *owner or operator* shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the *trained contractor*. The *owner or operator* shall ensure that at least one *trained contractor* is on site on a daily basis when soil disturbance activities are being performed.

The *owner or operator* shall have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before they commence any *construction activity*:

"I hereby certify that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with the terms and

conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for storm water 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. "

In addition to providing the certification statement above, the certification page must also identify the specific elements of the SWPPP that each contractor and subcontractor will be responsible for and include the name and title of the person providing the signature; the name and title of the *trained contractor* responsible for SWPPP implementation; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification statement is signed.

The *owner or operator* shall attach the certification statement(s) to the copy of the SWPPP that is maintained at the construction site. If new or additional contractors are hired to implement measures identified in the SWPPP after construction has commenced, they must also sign the certification statement and provide the information listed above.

C. Temporary Measures

1. Construction Entrance(s)

The construction entrances shall be maintained in a condition which will prevent tracking or flowing of sediment onto the public right of way. This will require, sweeping and washing the driveway surfaces, periodic top dressing with addition stone or additional length as conditions demand based on daily inspections and repair and/or clean out of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights of way must be immediately removed.

2. Silt Fence

Silt fence is proposed down gradient from all disturbed areas proposed on the site. Silt fence is used to collect the transported sediment load due to runoff and to slow said runoff, in an effort to prevent erosion. The silt fence is a temporary barrier of geotextile fabric supported by fence posts at a 10 foot maximum interval.

Sediments shall be removed from behind the fence when it becomes 0.5 feet deep at the fence. It should also be inspected regularly, at least once a week and repaired as needed to maintain a barrier.

D. Permanent Measures

1. Permanent vegetation

All grassed areas shall be maintained to provide a vegetative cover to hold soils in place.

VII. General Requirements for Owners or Operators with Permit Coverage

A. The *owner or operator* shall maintain a copy of the General Permit (GP-0-20-002), NOI, *NOI Acknowledgment Letter*, SWPPP, MS4 SWPPP Acceptance form and inspection reports at the construction site until all disturbed areas have achieved *final stabilization* and the NOT has been submitted to the Department.

The documents must be maintained in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection. (Part II.B.C.2)

B. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4,* the *owner or operator* shall notify the *MS4* in writing of any planned amendments or modifications to the post-construction stormwater management practice component of the SWPPP required by Part III.A. 4. and 5. of this permit. Unless otherwise notified by the *MS4,* the *owner or operator* shall have the SWPPP amendments or modifications reviewed and accepted by the *MS4* prior to commencing construction of the post-construction stormwater management practice. (Part II.C.5)

C. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4* and meet subdivision 2a. or 2b. of this Part, the *owner or operator* shall also have the MS4 sign the "MS4 Acceptance" statement on the NOT. The *owner or operator* shall have the principal executive officer, ranking elected official, or duly authorized representative from the *regulated, traditional land use control MS4*, sign the "MS4 Acceptance" statement. The MS4 official, by signing this statement, has determined that it is acceptable for the *owner or operator* to submit the NOT in accordance with the requirements of this Part. The MS4 can make this determination by performing a final site inspection themselves or by accepting the *qualified inspector's* final site inspection certification(s) required in Part V.3. (Part V.A.4)

D. Within 10 days after the installation of all erosion control plan measures, the applicant shall submit to the Building Inspector a letter from the qualified professional who designed the plan for Frank Fante, stating that all erosion control measures have been constructed and installed in compliance with the approved plans.

E. Various certifications are required to be completed as follows:

1. SWPPP Modification Summary Sheet
2. SWPPP Preparer Certification
3. Contractor and Sub-contractor Certification

These documents are appended to this SWPPP.

VIII. Conclusions

In conclusion, the proposed project shall not result in any negative impact to existing hydrologic condition at the vicinity of the property and proposed storm water management practices conforms to NYSDEC Stormwater Management Design Manual and GP-0-20-001. In addition, the design of all storm water management practices meets the requirements of the Town of Carmel.

JOHN KARELL, JR., P.E.
121 CUSHMAN ROAD
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SWPPP

FRANK FANTE

419 Union Valley Road
Carmel (T)

September 30, 2021

FANTE STORMWATER POLLUTION PREVENTION PLAN
SEQUENCE OF CONSTRUCTION
Frank Fante, 419 Union Valley Road, Carmel (T)

The following are sequence and methods of construction for the construction of a single family house on property owned by Frank Fante, 419 Union Valley Road, Carmel (T), PutnamCounty, New York. Erosion and sediment control measures are incorporated into the construction program. Construction of this project will be in one phase.

Proposed erosion and sediment control methods are found on the Site Plan. The erosion controls are designed in accordance with the State of New York, "Guidelines for Urban Erosion and Sediment Control". The project is expected to start in the Winter of 2021 and continue over a one year period.

A. General Construction Notes

1. The site shall be disturbed only when and where necessary. Only the smallest practical area of land shall be exposed at any one time during development. When land is exposed, the exposure shall be kept to the shortest practical period of time by immediate stabilization per the stabilization notes, unless specified otherwise. All disturbed areas that are seeded with appropriate seed mixture and procedure are considered stabilized when 80% of the vegetation is achieved.
2. Where ever feasible, natural vegetation shall be retained and protected.
3. The contractor shall inspect all erosion and sediment control devices during all storm events, prior to weekends and prior to all forecasted storm events.
4. The Contractor shall grade and provide stabilization of newly graded and disturbed areas per item 8 of this sequence.

B. Construction Sequence

1. Install all erosion control measures.
2. Perform site grading for the house,utilities and driveway.
3. Begin house construction.
4. Install proposed utilities including, water, septic system, electric and other underground utilities.
5. Topsoil, seed and mulch all disturbed areas in accordance with the stabilization notes.
6. Remove all temporary erosion control measures. Restore/backfill to final grade and provide stabilization is necessary.
7. Contractor to perform final site clean up and dispose of all debris properly.
8. STABILIZATION NOTES
   A. Grade to finished slopes
   B. Soils shall be scarified.
   C. Topsoil with not less than four inches of suitable topsoil material
   D. Seed as follows:

Spring/Fall Planting:	Tall fescue	100
	Kobe Gespedza	10
	Bahi Grass	25
	Rye Grass	40
Temporary Summer Planting		
	German Millet	40

All above units in lbs/sc

0644089821

NOTICE OF INTENT

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

NYR _____ (for DEC use only)

Stormwater Discharges Associated with Construction Activity Under State Pollutant Discharge Elimination System (SPDES) General Permit # GP-0-20-001

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

-IMPORTANT-

RETURN THIS FORM TO THE ADDRESS ABOVE

OWNER/OPERATOR MUST SIGN FORM

Owner/Operator Information

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

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

Owner/Operator Contact Person First Name
FRANK

Owner/Operator Mailing Address
419 UNION VALLEY ROAD

City
CARMEL

State
NY

Zip
10541-____

Phone (Owner/Operator)
845-216-2348

Fax (Owner/Operator)
___-___-____

Email (Owner/Operator)
cfante@comcast.net

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

Project Site Information

Project/Site Name
FANTE HOUSE CONSTRUCTION

Street Address (NOT P.O. BOX)
419 UNION VALLEY ROAD

Side of Street
○ North ○ South ● East ○ West

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

State NY Zip 10541- County PUTNAM DEC Region 3

Name of Nearest Cross Street
WATERMELON HILL ROAD

Distance to Nearest Cross Street (Feet)
1000

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

Tax Map Numbers
Section-Block-Parcel
87.7-1-22

Tax Map Numbers

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

www.dec.ny.gov/imsmaps/stormwater/viewer.htm

Zoom into your Project Location such that you can accurately click on the centroid of your site. Once you have located your project site, go to the tool boxes on the top and choose "i"(identify). Then click on the center of your site and a new window containing the X, Y coordinates in UTM will pop up. Transcribe these coordinates into the boxes below. For problems with the interactive map use the help function.

X Coordinates (Easting): 607841

Y Coordinates (Northing): 4578889

2. What is the nature of this construction project?

● New Construction

○ Redevelopment with increase in impervious area

○ Redevelopment with no increase in impervious area

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

Pre-Development Existing Land Use

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

Post-Development Future Land Use

- ○ SINGLE FAMILY HOME
- ● SINGLE FAMILY SUBDIVISION — Number of Lots: 2
- ○ TOWN HOME RESIDENTIAL
- ○ MULTIFAMILY RESIDENTIAL
- ○ INSTITUTIONAL/SCHOOL
- ○ INDUSTRIAL
- ○ COMMERCIAL
- ○ MUNICIPAL
- ○ ROAD/HIGHWAY
- ○ RECREATIONAL/SPORTS FIELD
- ○ BIKE PATH/TRAIL
- ○ LINEAR UTILITY (water, sewer, gas, etc.)
- ○ PARKING LOT
- ○ CLEARING/GRADING ONLY
- ○ DEMOLITION, NO REDEVELOPMENT
- ○ WELL DRILLING ACTIVITY *(Oil, Gas, etc.)
- ○ OTHER

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

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

Total Site Area	Total Area To Be Disturbed	Existing Impervious Area To Be Disturbed	Future Impervious Area Within Disturbed Area
12.1	0.6	0.	0.1

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

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

A	B	C	D
%	100 %	%	%

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

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

Start Date	End Date
12/01/2021	12/31/2022

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

Name

UN NAMED LAKE

9a. Type of waterbody identified in Question 9?

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

9b. How was the wetland identified?

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

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

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

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

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

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

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

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

CARMEL

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

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

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

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

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

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

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

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

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

SWPPP Preparer
JOHN KARELL, JR., P.E.

Contact Name (Last, Space, First)
KARELL, JOHN, JR.

Mailing Address
121 CUSHMAN ROAD

City
PATTERSON

State Zip
NY 12563-

Phone
845-72-104

Fax

Email
JACK4911@YAHOO.COM

SWPPP Preparer Certification

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0-20-001. 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.

First Name
JOHN

MI

Last Name
KARELL

Signature

Date
10/01/2021

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

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

Temporary Structural

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

Biotechnical

- ○ Brush Matting
- ○ Wattling

Vegetative Measures

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

Permanent Structural

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

Other

Post-construction Stormwater Management Practice (SMP) Requirements

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

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

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

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

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

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

Total WQv Required

[ ][ ][ ].[ ][ ][ ] **acre-feet**

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

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

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

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

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

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

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

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

Name

Manufacturer

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

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

Total RRv provided

. acre-feet

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

○ Yes ○ No

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

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

Minimum RRv Required

. acre-feet

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

○ Yes ○ No

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

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

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

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

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

WQv Provided

[ ][ ][ ].[ ][ ][ ] acre-feet

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

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

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

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

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

CPv Required

[ ][ ][ ].[ ][ ][ ] acre-feet

CPv Provided

[ ][ ][ ].[ ][ ][ ] acre-feet

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

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

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

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

Total Overbank Flood Control Criteria (Qp)

Pre-Development

[ ][ ][ ].[ ][ ][ ] CFS

Post-development

[ ][ ][ ].[ ][ ][ ] CFS

Total Extreme Flood Control Criteria (Qf)

Pre-Development

[ ][ ][ ].[ ][ ][ ] CFS

Post-development

[ ][ ][ ].[ ][ ][ ] CFS

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

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

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

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

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.

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

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

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

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

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

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

Owner/Operator Certification

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

Print First Name: FRANK

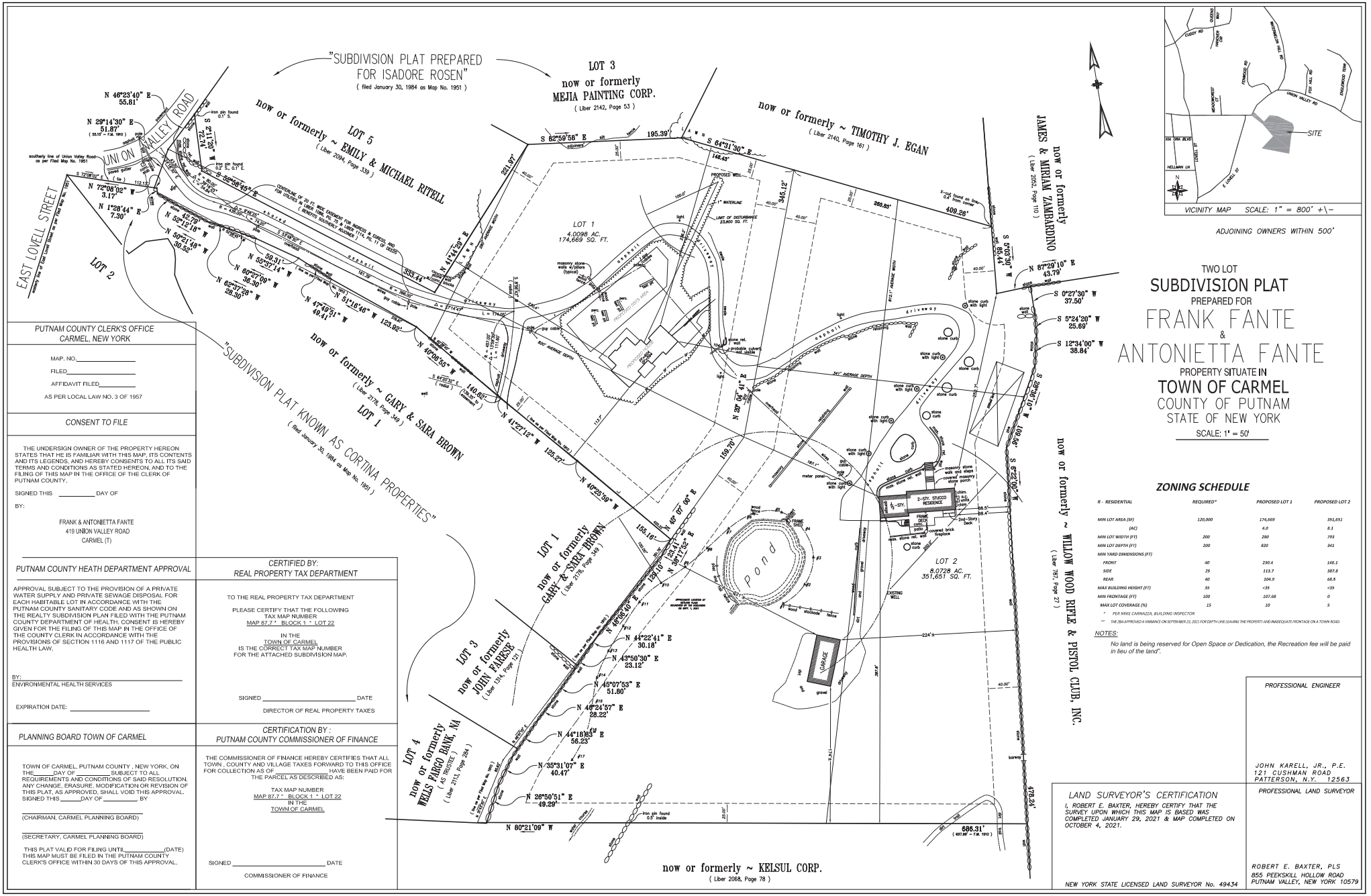
MI:

Print Last Name: FANTE

Owner/Operator Signature: Frank Fante

Date: 09/21/2021

Contract #	Scope of Work	Contract Cost	Bond/BAN Notes as of Oct 2021	
C265	CWD2 Relining Phase I	3,152,200	3,152,200	
C265	CWD2 Relining Phase II	3,248,400	500,000	
C266	CWD2 Water line	589,995	590,000	
C268	Storage Tanks & Rehab	2,624,850	2,624,850	
C275	Classifier/Clarifier/Bar Screen	438,000	300,000	**** funded through district fund balance
		10,053,445	7,167,050	



PUTNAM COUNTY CLERK'S OFFICE
CARMEL, NEW YORK

MAP. NO._____

FILED_____

AFFIDAVIT FILED_____

AS PER LOCAL LAW NO. 3 OF 1957

CONSENT TO FILE

THE UNDERSIGN OWNER OF THE PROPERTY HEREON STATES THAT HE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS, AND HEREBY CONSENTS TO ALL ITS SAID TERMS AND CONDITIONS AS STATED HEREON, AND TO THE FILING OF THIS MAP IN THE OFFICE OF THE CLERK OF PUTNAM COUNTY.

SIGNED THIS _____ DAY OF

BY:

FRANK & ANTONIETTA FANTE
419 UNION VALLEY ROAD
CARMEL (T)

PUTNAM COUNTY HEATH DEPARTMENT APPROVAL

APPROVAL SUBJECT TO THE PROVISION OF A PRIVATE WATER SUPPLY AND PRIVATE SEWAGE DISPOSAL FOR EACH HABITABLE LOT IN ACCORDANCE WITH THE PUTNAM COUNTY SANITARY CODE AND AS SHOWN ON THE REALTY SUBDIVISION PLAN FILED WITH THE PUTNAM COUNTY DEPARTMENT OF HEALTH. CONSENT IS HEREBY GIVEN FOR THE FILING OF THIS MAP IN THE OFFICE OF THE COUNTY CLERK IN ACCORDANCE WITH THE PROVISIONS OF SECTION 1116 AND 1117 OF THE PUBLIC HEALTH LAW.

BY:_____
ENVIRONMENTAL HEALTH SERVICES

EXPIRATION DATE: _____

CERTIFIED BY:
REAL PROPERTY TAX DEPARTMENT

TO THE REAL PROPERTY TAX DEPARTMENT

PLEASE CERTIFY THAT THE FOLLOWING TAX MAP NUMBER
MAP 87.7 * BLOCK 1 * LOT 22

IN THE
TOWN OF CARMEL
IS THE CORRECT TAX MAP NUMBER FOR THE ATTACHED SUBDIVISION MAP.

SIGNED _____ DATE

DIRECTOR OF REAL PROPERTY TAXES

PLANNING BOARD TOWN OF CARMEL

TOWN OF CARMEL, PUTNAM COUNTY , NEW YORK, ON THE _____DAY OF _____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL. SIGNED THIS _____DAY OF _____ BY

_____
(CHAIRMAN, CARMEL PLANNING BOARD)

_____
(SECRETARY, CARMEL PLANNING BOARD)

THIS PLAT VALID FOR FILING UNTIL_____(DATE)
THIS MAP MUST BE FILED IN THE PUTNAM COUNTY CLERK'S OFFICE WITHIN 30 DAYS OF THIS APPROVAL.

CERTIFICATION BY :
PUTNAM COUNTY COMMISSIONER OF FINANCE

THE COMMISSIONER OF FINANCE HEREBY CERTIFIES THAT ALL TOWN , COUNTY AND VILLAGE TAXES FORWARD TO THIS OFFICE FOR COLLECTION AS OF _____ HAVE BEEN PAID FOR THE PARCEL AS DESCRIBED AS:

TAX MAP NUMBER
MAP 87.7 * BLOCK 1 * LOT 22
IN THE
TOWN OF CARMEL

SIGNED _____ DATE

COMMISSIONER OF FINANCE

ZONING SCHEDULE

R - RESIDENTIAL	REQUIRED*	PROPOSED LOT 1	PROPOSED LOT 2
MIN LOT AREA (SF)	120,000	174,669	351,651
(AC)		4.0	8.1
MIN LOT WIDTH (FT)	200	280	793
MIN LOT DEPTH (FT)	200	820	341
MIN YARD DIMENSIONS (FT)			
FRONT	40	230.4	146.1
SIDE	25	113.7	387.8
REAR	40	104.9	68.5
MAX BUILDING HEIGHT (FT)	35	<35	<35
MIN FRONTAGE (FT)	100	107.68	0
MAX LOT COVERAGE (%)	15	10	5

* PER MIKE CARNAZZA, BUILDING INSPECTOR

** THE ZBA APPROVED A VARIANCE ON SEPTEMBER 23, 2021 FOR DEPTH LINE LEAVING THE PROPERTY AND INADEQUATE FRONTAGE ON A TOWN ROAD.

NOTES:

No land is being reserved for Open Space or Dedication, the Recreation fee will be paid in lieu of the land".

PROFESSIONAL ENGINEER

JOHN KARELL, JR., P.E.
121 CUSHMAN ROAD
PATTERSON, N.Y. 12563

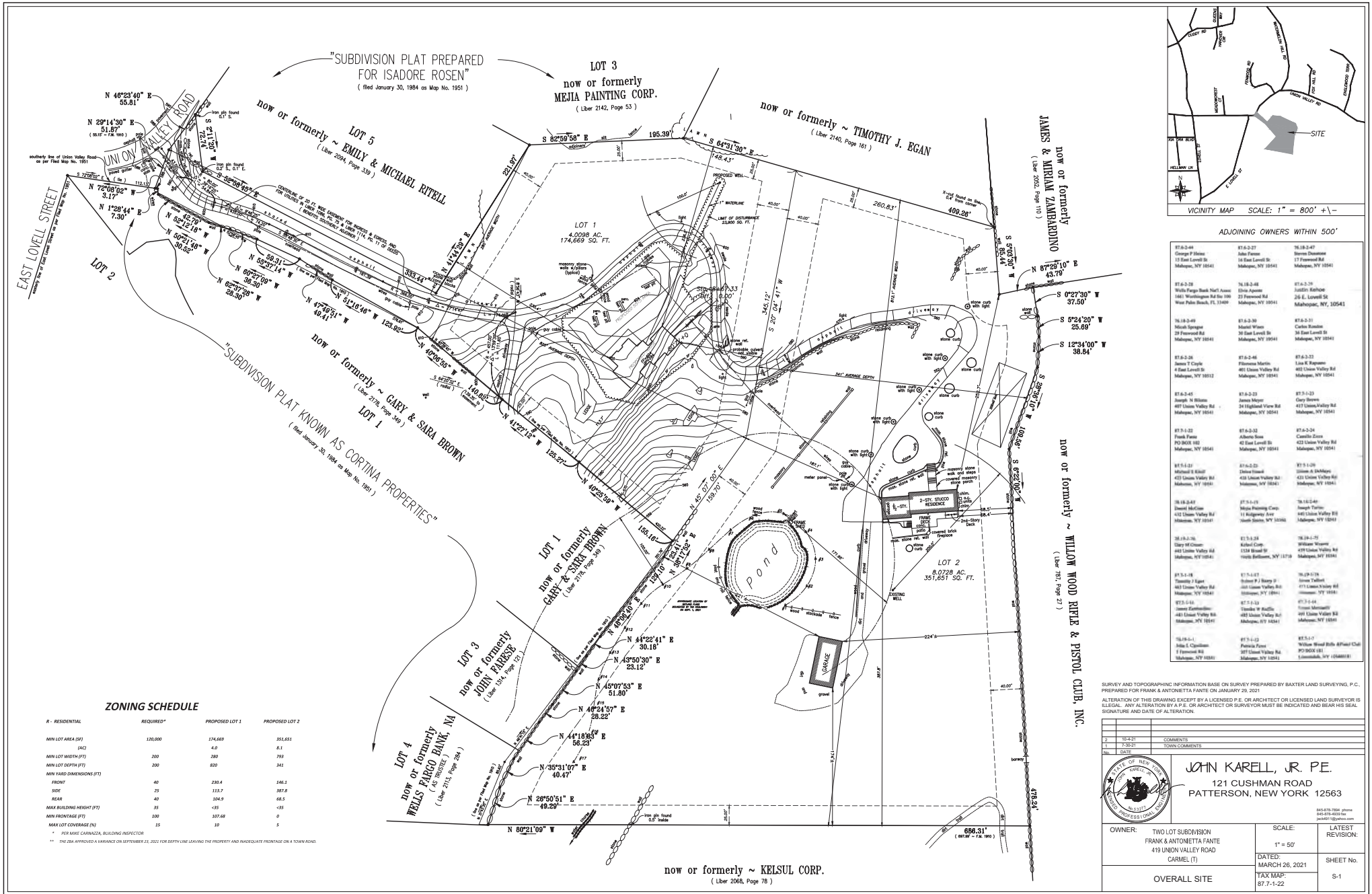
LAND SURVEYOR'S CERTIFICATION

I, ROBERT E. BAXTER, HEREBY CERTIFY THAT THE SURVEY UPON WHICH THIS MAP IS BASED WAS COMPLETED JANUARY 29, 2021 & MAP COMPLETED ON OCTOBER 4, 2021.

NEW YORK STATE LICENSED LAND SURVEYOR No. 49434

PROFESSIONAL LAND SURVEYOR

ROBERT E. BAXTER, PLS
855 PEEKSKILL HOLLOW ROAD
PUTNAM VALLEY, NEW YORK 10579



ZONING SCHEDULE

R - RESIDENTIAL	REQUIRED*	PROPOSED LOT 1	PROPOSED LOT 2
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* PER MIKE CARNAZZA, BUILDING INSPECTOR

** THE ZBA APPROVED A VARIANCE ON SEPTEMBER 23, 2021 FOR DEPTH LINE LEAVING THE PROPERTY AND INADEQUATE FRONTAGE ON A TOWN ROAD.

ADJOINING OWNERS WITHIN 500'

87.6-2-44 George P Heins 15 East Lovell St Mahopac, NY 10541	87.6-2-27 John Farese 16 East Lovell St Mahopac, NY 10541	76.18-2-47 Steven Donatone 17 Fawwood Rd Mahopac, NY 10541
87.6-2-28 Wells Fargo Bank Nat'l Assoc 1661 Worthington Rd Ste 100 West Palm Beach, FL 33409	76.18-2-48 Elvis Aponte 23 Fawwood Rd Mahopac, NY 10541	87.6-2-29 Justin Kehoe 26 E. Lovell St Mahopac, NY, 10541
76.18-2-49 Micah Sprague 29 Fawwood Rd Mahopac, NY 10541	87.6-2-30 Muriel Wiser 30 East Lovell St Mahopac, NY 10541	87.6-2-31 Carlos Rondon 36 East Lovell St Mahopac, NY 10541
87.6-2-26 James T Coyle 4 East Lovell St Mahopac, NY 10512	87.6-2-46 Filomena Martin 401 Union Valley Rd Mahopac, NY 10541	87.6-2-32 Lisa K Rapuano 403 Union Valley Rd Mahopac, NY 10541
87.6-2-45 Joseph St Hilaire 407 Union Valley Rd Mahopac, NY 10541	87.6-2-23 James Meyer 24 Highland View Rd Mahopac, NY 10541	87.7-1-23 Gary Brown 417 Union Valley Rd Mahopac, NY 10541
87.7-1-22 Frank Fanto PO BOX 102 Mahopac, NY 10541	87.6-2-32 Alberto Sosa 42 East Lovell St Mahopac, NY 10541	87.6-2-24 Camillo Zoro 423 Union Valley Rd Mahopac, NY 10541
87.7-1-21 Michael J Kloff 423 Union Valley Rd Mahopac, NY 10541	87.6-2-22 Debra Girard 428 Union Valley Rd Mahopac, NY 10541	87.7-1-20 Diane A DeMayo 431 Union Valley Rd Mahopac, NY 10541
76.18-2-43 Daniel McGinn 432 Union Valley Rd Mahopac, NY 10541	87.7-1-19 Mejia Painting Corp. 11 Ridgeway Ave North Salem, NY 10560	76.18-2-46 Joseph Turino 440 Union Valley Rd Mahopac, NY 10541
76.18-1-76 Gary M Grant 443 Union Valley Rd Mahopac, NY 10541	87.7-1-18 Kebel Corp. 1134 Broad St Verona, NJ 07044	76.18-1-75 William Weaver 459 Union Valley Rd Mahopac, NY 10541
87.7-1-18 Timothy J Egan 463 Union Valley Rd Mahopac, NY 10541	87.7-1-17 Robert P J Barry II 469 Union Valley Rd Mahopac, NY 10541	76.19-1-74 Irene Talbot 473 Union Valley Rd Mahopac, NY 10541
87.7-1-16 James Zambardino 481 Union Valley Rd Mahopac, NY 10541	87.7-1-15 Tamika W Ruffin 485 Union Valley Rd Mahopac, NY 10541	87.7-1-14 Vince Mercanti 495 Union Valley Rd Mahopac, NY 10541
76.19-1-1 John L Cipollone 1 Fawwood Rd Mahopac, NY 10541	87.7-1-13 Patricia Fiore 507 Union Valley Rd Mahopac, NY 10541	87.7-1-7 Willow Wood Rifle &Pistol Club PO BOX 181 Lincolndale, NY 1540[illegible]

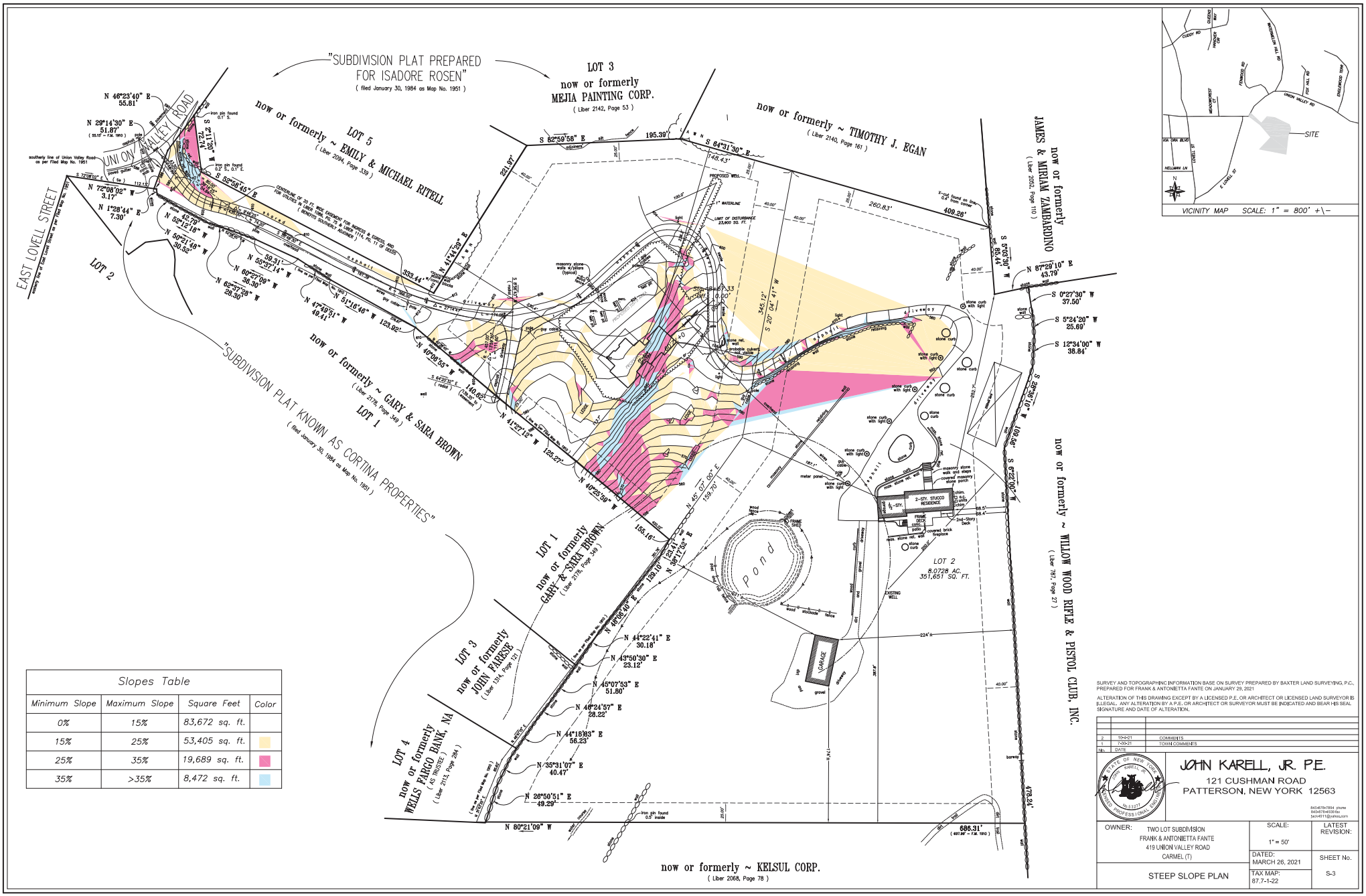
SURVEY AND TOPOGRAPHINC INFORMATION BASE ON SURVEY PREPARED BY BAXTER LAND SURVEYING, P.C., PREPARED FOR FRANK & ANTONIETTA FANTE ON JANUARY 29, 2021

ALTERATION OF THIS DRAWING EXCEPT BY A LICENSED P.E. OR ARCHITECT OR LICENSED LAND SURVEYOR IS ILLEGAL. ANY ALTERATION BY A P.E. OR ARCHITECT OR SURVEYOR MUST BE INDICATED AND BEAR HIS SEAL SIGNATURE AND DATE OF ALTERATION.

No.	DATE	
2	10-4-21	COMMENTS
1	7-30-21	TOWN COMMENTS

JOHN KARELL, JR. P.E.
121 CUSHMAN ROAD
PATTERSON, NEW YORK 12563
845-878-7894 phone
845-878-4033 fax
jack401@yahoo.com

OWNER: TWO LOT SUBDIVISION FRANK & ANTONIETTA FANTE 419 UNION VALLEY ROAD CARMEL (T)	SCALE: 1" = 50'	LATEST REVISION:
	DATED: MARCH 26, 2021	SHEET No. S-1
OVERALL SITE	TAX MAP: 87.7-1-22	



Slopes Table			
Minimum Slope	Maximum Slope	Square Feet	Color
0%	15%	83,672 sq. ft.	
15%	25%	53,405 sq. ft.	
25%	35%	19,689 sq. ft.	
35%	>35%	8,472 sq. ft.	

SURVEY AND TOPOGRAPHINC INFORMATION BASE ON SURVEY PREPARED BY BAXTER LAND SURVEYING, P.C. PREPARED FOR FRANK & ANTONIETTA FANTE ON JANUARY 29, 2021

ALTERATION OF THIS DRAWING EXCEPT BY A LICENSED P.E. OR ARCHITECT OR LICENSED LAND SURVEYOR IS ILLEGAL. ANY ALTERATION BY A P.E. OR ARCHITECT OR SURVEYOR MUST BE INDICATED AND BEAR HIS SEAL, SIGNATURE AND DATE OF ALTERATION.

No.	DATE	
2	10-14-21	COMMENTS
1	7-09-21	TOWN COMMENTS

JOHN KARELL, JR. P.E.
121 CUSHMAN ROAD
PATTERSON, NEW YORK 12563
845-878-7894 phone
845-878-4039 fax
jkarell11@yahoo.com

OWNER: TWO LOT SUBDIVISION FRANK & ANTONIETTA FANTE 419 UNION VALLEY ROAD CARMEL (T)	SCALE: 1" = 50'	LATEST REVISION:
	DATED: MARCH 26, 2021	SHEET No. S-3
STEEP SLOPE PLAN	TAX MAP: 87.7-1-22	

INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.

September 29, 2021

Town of Carmel Planning Board
60 McAlpin Avenue
Mahopac, New York 10541

RE: Amended Site Plan
Hamlet at Carmel
TM# 66.-2-58

Dear Chairman Paeprer and Members of the Board:

Please find enclosed the following plans and documents in support of an application for an amended site plan approval for the above referenced project:

- Ten (10) sheet Amended Site Plan Set, dated September 29, 2021. (5 copies)
- Project Comparison Figure (CF-1), dated September 29, 2021. (5 copies)
- Amended Stormwater Pollution Prevention Plan, revised September 29, 2021. (11 copies)
- Water and Wastewater Report, dated September 29, 2021. (11 copies)
- Architectural Plans and Elevations prepared by Coppola Associates, dated September 24, 2021 (5 copies)
- Hamlet at Carmel Community Services EAF Excerpt, School District Information plus Fiscal Analysis, provided by Tim Miller Associates, dated September 29, 2021. (11 copies)
- HCR Funding Application & Project Financial Information provided by the applicant. (11 copies)

The applicant seeks amended site plan approval for 150 units of multifamily housing development in accordance with Town Code §156-28. Note that the responses provided in this letter will be incorporated into a revised Expanded EAF document, including updated traffic data and analysis, which will be provided with a future submission.

In response to the comments received from Director of Code Enforcement, Michael Carnazza, dated July 27, 2021, we provide the following response:

1. Per the Town code definition of a "Story," a "basement shall be deemed to be a story when the finished floor immediately above is seven feet or more above the average elevation of the finished grade." In the cases where there is an exposed basement for a portion of the building, in no case is the average grade greater than 7' lower than the floor elevation of the first floor. For Building 4 the average grade is approximately 5' below finished floor. For Building 5 the average grade is approximately 5.5' bellow the finished floor. For Buildings 6 & 7 the average grade is approximately 5.5' below finished floor. For building 8 the finished floor is approximately 3' below finished floor. And, on Building 9 the average grade sits approximately 2.5' below finished floor. Therefore, all buildings are two stories according to the zoning code.

   The buildings also all meet the requirement of a maximum height of 35'.

2. Stormwater will be managed as depicted on drawing SP-3 of the Site Plans. A collection system has been designed with drain inlets, catch basins, yard drains, and roof and footing drains that will be conveyed to stormwater basins to the west of the site.

In response to the comments received from Town Planner, Patrick Cleary, dated July 28, 2021, we provide the following responses:

1. This comment is noted.

2. The applicant has indicated that middle-income funding is not applicable to this development. It is most applicable to transitional neighborhoods in Urban Areas. Affordable housing is provided as a community benefit to provide housing for community service workers, ie fire, police, teachers, municipal workers etc. It also enables families starting out to remain in their community prior to purchasing a home and provides housing for others on a limited income. Eligibility must be established, and is typically based upon the Income Limit guidelines as published by the Housing and Urban Development (HUD) annually and are based upon a percentage of the Area Median Income or AMI. In Putnam County, which is part of the NY HUD Metro FMR Area, the 2021 AMI is $81,700. This area also considered to be an area of High Housing Cost which provides an adjustment from the income limit being a straight percentage of the AMI. The Income Limits also vary depending upon housing size, calculations are done based on a family size of four persons and adjusted up or down as needed.

   Of the 75 units of affordable housing being proposed 57 of the units will be affordable to households whose income is 60% of the AMI, adjusted for High Housing Cost. The 2021 AMI for Putnam County is set at $81,700, thus a family of four that would be eligible for a unit restricted to a 60% AMI would have an income limit of about $69,000.

   An additional 9 affordable units will have income limits to be affordable to households whose income is between 80-90% AMI. These units will serve households with incomes up to approximately $99,000.

   Normally households that can afford the housing costs on an income of 60% of the AMI guidelines, depending upon family size, would be considered in the midrange of affordable rental values. However, in the NY HUD Metro FMR Area, based on the High Housing Cost adjustment the Income limits tend to be higher.

   Currently, HCR has a policy to allow for a preference for essential workers on a number of the units. The applicant has requested a 15% or 12 units have an occupancy preference for essential workers subject to HCR approval.

3. This comment is noted.

4. The applicant has indicated that the number of affordable units proposed under the NYS Homes and Community Renewal program requirements are set, no changes are anticipated. This statement of flexibility was included to allow for any necessary adjustments to the site plan, which are typical during the site plan approval process. No additional changes are anticipated and this statement can be removed from the EAF at the Board's discretion.

5. The HCR funding application is herewith submitted for the Board's review.

6. The EAF language will be revised to state "According to the US Census, the Town of Carmel 2010 population was 34,305 persons. ESRI demographic forecasts indicate this population declined to 34,113 persons by 2020. The current ratio of Town of Carmel police officers (35) to population (34,113) is within the ULI recommended standard of 1 officer to 1,000 persons."

7. The office of Tim Miller Associates has indicated that, based upon location the response time is estimated to be 5 minutes, this language will be added to the EAF text.

8. The office of Tim Miller Associates has indicated that, demand for community services is the same for residents of market rate housing and residents of affordable housing. There is no distinction.

9. The office of Tim Miller Associates has indicated that, demographic multipliers published by the Rutgers University Center for Urban Policy Research (CUPR) were used to project the future population of the proposed Hamlet at Carmel community. Population projections are based upon the

geographic region, type of unit, number of bedrooms, and the anticipated rental value. Although there are other published demographic multipliers, the CUPR multipliers are more specific because they are calculated based upon the specifics of geographic location, bedroom count and unit type. The researchers, Burchell and Listoken are considered the experts in demographic projections and the CUPR multipliers are considered the standard in this field of study. The multipliers have been widely used and found to be reliable.

10. The office of Tim Miller Associates has indicated that the trip generation rates are determined by the Trip Generation Manuel (ITE, 10th edition, 2017). The residential trip generation rates do not consider bedrooms per unit, but rather building type. In developing trip generation rates, there is substantially more data using dwelling units as compared to using residents. For example, the low-rise multi-family rate using residents is based on a single study for the a.m. peak hour of traffic compared to 42 studies using dwelling units. Furthermore, while dwelling units are a distinct number, the residents would need to be estimated depending upon the bedroom count. Similarly, the mid-rise multifamily rates using residents are based on only two or three studies. Therefore, the use of dwelling units for trip generation is generally a more acceptable variable to use.

    As shown in Table 3.3 of the Expanded EAF, the proposed development will have 72 units in multi-family low rise buildings (2-story) and 78 units in mid-rise buildings (2.5 story). The low-rise buildings have a slightly higher trip generation rate (trips per dwelling unit) than mid-rise buildings. Therefore, if more of the buildings were low-rise (1 to 2-stories) then the overall project trip generation rates would be slightly higher than presented. As described in the Expanded EAF, the taller buildings in the current plan were proposed to reduce the development footprint of the project. The building type proposed is not expected to change and therefore the estimated trip generation is likely to remain unchanged.

11. The office of Tim Miller Associates has indicated that in order to determine the added seconds of delay for certain movements through the studied intersections, current traffic counts would be collected, and each movement would be analyzed for the Level-of-Service with the new existing, no-build and build conditions. Essentially the 2007 traffic study would be updated. Following discussions with Mr. Patrick Cleary, the Planning Board's Consultant Planner, the applicant has scheduled traffic counts at the Drewville Road and Stoneleigh Avenue intersection during the final two weeks of September. The results are not yet available. Generally, traffic counts are collected when schools are back in session and outside of any holidays. Therefore, the second half of September was the appropriate period to collected traffic counts, and not earlier.

    Current traffic volumes can be assessed and compared to the 2007 traffic volumes. If the current volumes are substantially higher, then a full traffic analysis of the three intersections studied in 2007 would be completed. If the traffic volumes are stable or declining, then an assessment will be completed regarding how the traffic from the project may affect each intersection. The current traffic counts and further analysis will be provided to the Planning Board and shared with Putnam County Department of Highways and Facilities.

    NYSDEC recognized the Institute of Transportation recommended practice by setting a minimum 100 vehicle threshold to eliminate unnecessary capacity analysis as delays are not substantial unless the intersection is already operating under congested conditions.

12. The office of Tim Miller Associates has indicated that long-term trends related to the pandemic affecting remote working and resulting traffic conditions are being studied by planning and transportation professionals nationwide. Upwork, a large human resource marketplace completed a survey of over 1000 hiring managers in December of 2020. At that time 41.8 percent of the workforce was still working remotely. The survey findings indicate that by 2025 remote workers will be approximately 22 percent of the workforce (36.2 million), as compared to 12 percent of the workforce (19.4 million) prior to the pandemic. This is an 87 percent increase from pre-pandemic to post-pandemic conditions. These estimates will vary by region, locality, and type of work but the trend is towards increased remote work opportunities. With such large shifts in work and commuting habits, it is likely that less commuter trips will occur during peak traffic periods in the near future.

13. The proposed site disturbance and the area of impervious surface for the current plan are provided on page 2-2 of the Expanded EAF. The current plan would result in approximately 20.3 acres of disturbance and 6.1 acres of impervious surface. This is a substantial reduction from the 2008 plan which involved approximately 23.9 acres of disturbance and 6.3 acres of impervious surface.

14. The project proposes water usage of approximately half of the flow allocation provided in the Out of Water District Agreement. For more information see the attached Water and Wastewater Report.

15. The project proposes water usage of approximately half of the flow allocation provided in the Out of Water District Agreement. For more information see the attached Water and Wastewater Report.

16. Stormwater will be managed as depicted on drawing SP-3 of the Site Plans. A collection system has been designed with drain inlets, catch basins, yard drains, and roof and footing drains that will be conveyed to stormwater basins to the west of the site.

17. See attached revised excerpts from the EAF Community Services Section.

18. A visual analysis was conducted for the 2008 site plan and is documented in the DEIS. The Findings Statement provided the following conclusions regarding potential visual impacts:

    Construction of the project as proposed will remove some 25.3 acres of existing woods and successional field along the back (east) and central portions of the site and replace it with buildings, pavement, and new plantings, thus creating a change to the visual character of the site. The buildings will be situated on the east side and in the central portion of the property along and on the west side of the ridge between two lobes of the Croton Falls Reservoir. Stormwater detention basins will be site further down slope toward Stoneleigh Avenue and near the intersection of the access road with Stoneleigh Avenue.

    Given the orientation of the project site on the west side of a ridge, the lack of residences and other visual receptors in the immediate vicinity, the presence intervening woodland vegetation and the variability of the local topography, visibility of the site from local vantage points is notably limited. The potential viewshed of the project site, due to its higher topographic position in the landscape, includes West Shore Drive to the west and Lower Mine Road and Reservoir Road to the east, although the views are also obscured by existing trees. The most direct view to the site is from the Croton Falls Reservoir itself, which provides an open view across the water to the site from the east and west.

    The current site plan would result in the clearing of trees and residential development in generally the same area as the 2008 plan but with a smaller footprint (5.0 acres less disturbance) and greater preservation of existing trees at the edges of the development. The current plan would include 2 to 2.5 story multifamily buildings instead of the two-story cottage buildings proposed in the 2008 plan. Therefore, the height of building rooflines at the higher elevations of the property would be greater than the previous 2008 site plan. The DEIS and Findings Statement indicated the proposed building rooflines would be visible from certain vantage points in the vicinity of the site, but mostly softened or obscured by existing vegetation around the development. These conditions would remain with the current site plan.

In response to the comments received from Town Engineer, Richard Franzetti, PE, dated July 22, 2021, we provide the following responses:

I. General Comments:

1. This comment is acknowledged.

2. This comment is acknowledged.

3. An Existing Conditions Plan, Drawing EX-1, has been added to the site plan set.

4. A standalone figure of the current and previous proposals has been provided.

5. The office of Tim Miller Associates has indicated that a review of the Findings for the original SEQRA process confirms that no wetlands were found on the site during the previous review. A wetland scientist from Tim Miller Associates re-visited the site on September 23, 2021 and confirmed that this is still the case. The regulated areas on site consist of a series of intermittent watercourses that drain the lower part of the property (primarily during rain events), carrying runoff from the higher elevations to the rock wall along Stoneleigh Avenue. This collected water then filters through the rock wall into the drainage system along Stoneleigh, crossing under the road in several locations and ultimately to the Croton Falls Reservoir. These watercourses have been mapped and confirmed by the New York City DEP. For the most part the channels are wide and poorly defined, but clearly carry flows during and immediately after storm events. No hydric soils or a dominance of hydrophytic vegetation were observed.

6. The Water and Wastewater report has been updated based on comments received from the Town Engineer. The applicant will obtain Town board approval to amend the current water & sewer agreements, lowering the capacity allowance from 72,000 gallons per day to 32,230 gallons per day.

7. There is currently General Permit Coverage for the previously proposed project. As such, the original SWPPP remains valid. The SWPPP has been amended to address the current proposal.

8. Following discussions with Mr. Patrick Cleary, the Planning Board's Consultant Planner, the applicant has scheduled traffic counts at the Drewville Road and Stoneleigh Avenue intersection during the final two weeks of September. The results are not yet available. Generally, traffic counts are collected when schools are back in session and outside of any holidays. Therefore, the second half of September was the appropriate period to collected traffic counts, and not earlier.

   Current traffic volumes can be assessed and compared to the 2007 traffic volumes. If the current volumes are substantially higher, then a full traffic analysis of the three intersections studied in 2007 would be completed. If the traffic volumes are stable or declining, then an assessment will be completed regarding how the traffic from the project may affect each intersection. The current traffic counts and further analysis will be provided to the Planning Board and shared with Putnam County Department of Highways and Facilities.

9. This comment is noted.

10. This comment is noted.

II. Detailed Comments:

1. See Response to Comment 8, above.

2. Overall Site Plan

   a. A vehicle maneuvering plan has been added to drawing SP-1 for the existing entrance drive, and an additional maneuvering plan has been added to drawing D-2 for maneuvers within the project site.

   b. Turning radii for the fire truck that is modeled is depicted in a diagram on drawings SP-1 and D-2.

c. The slope at the entry to the site has been identified on drawing SP-3. The entrance to the site is an extension of an existing road through the Putnam Hospital site which follows the existing grade up into the subject property at about 10%. The roadways flatten to between 1.5% and 5% around the proposed buildings and the internal connecting driveways have maximum slopes of 8%.

3. It is understood that the site landscaping will be reviewed by the Town Wetland Inspector.

4. Rim and invert elevations and hydraulic sizing calculations for proposed drainage structures will be provided in a future submission. The proposed water and sewer infrastructure have been shown on Drawing SP 3.

5. Rim and invert elevations for the drainage system will be provided on the Grading and Utilities Plan in future submissions. An Amended SWPPP has been enclosed herewith. The extents of each phase of construction are shown on Drawing SP-4. The planimetric information and details are provided throughout the 10-sheet drawing set.

6. These comments have been addressed.

7. An amended SWPPP has been provided.

Regarding a question that was raised regarding school bus access, the board should be aware that discussions are underway with the Transportation Division of the Carmel Central School District (CCSD) to identify a practical access plan for transportation of school age children. Based on a preliminary meeting with CCSD a bus shelter and pickup location has been shown in the northern area of the site.

Please place the project on the October 14 Planning Board agenda for a discussion with the Board. Should you have any questions or comments regarding this information, please feel free to contact our office.

Very truly yours,

INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.

By: _____

Jeffrey J. Contelmo, PE
Senior Principal Engineer

JJC/adt/amk

Enclosures (all via email)

cc: Ken Kearney
Sean Kearney
Jon Dahlgren
Mario Salpepi
Charles Martabano, Esq.

Insite File No. 14211.100

INSITE
ENGINEERING, SURVEYING &
LANDSCAPE ARCHITECTURE, P.C.

The Hamlet at Carmel

(Formerly The Putnam Community Foundation)

Amended Stormwater Pollution Prevention Plan (ASWPPP)

Town of Carmel, New York

September 29, 2021

1.0 INTRODUCTION

The Hamlet at Carmel (HAC) project is proposed on a 35 ± acre parcel of vacant land designated as Town of Carmel Tax Map Parcel #66.-2-58. Access to the HAC project is provided through the adjoining Putnam Hospital Center (PHC) property to the north. The hospital parcel is designated as Town of Carmel Tax Map Parcel #66.-2-57. The subject parcels are located in the R (residential) zoning district. The parcels and their surroundings are delineated on the Overall Site Plan.

A SWPPP approval was obtained for the subject project (formerly known as The Putnam Community Foundation) from the NYCDEP on March 23, 2010, with the most recent renewal dated November 18, 2019, valid through March 23, 2025. The approved SWPPP is titled "Stormwater Pollution Prevention Plan for The Putnam Community Foundation" and dated March 9, 2010. This document is a supplement to the approved SWPPP. The previously proposed project consisted of 120 single bedroom senior housing units, access driveway, sports court, community building and parking. The current proposed project for the project site consists of the construction of a multifamily residential development of ten (10) buildings totaling 150 units and associated parking, recreation and utility areas. The current project scope is proposed to consist of less impervious cover and disturbance on the project site than the previously approved project.

The project received coverage under the New York State Department of Environmental Conservation General Permit GP-0-10-001. The identification number is NYR11C513. As noted in Part II.E of GP-0-20-001, "owner operator of a construction activity with coverage under GP-0-15-002, as of the effective date of GP-0-20-001, shall be authorized to discharge in accordance with GP-0-20-001, unless otherwise notified by the Department". The permit also notes that "the owner or operator may continue to implement the technical/design components of the post-construction stormwater management controls provided that such design was done in conformance with the technical standards in place at the time of initial project authorization". The current stormwater design will meet the requirements for stormwater treatment in accordance with the General Permit GP-0-10-001.

The following sections of this report have been prepared to address the proposed site changes from the approved SWPPP for The Hamlet at Carmel from the approved Putnam Community Foundation project and assess the stormwater management practices within the framework of the previously approved SWPPP.

2.0 STORMWATER ASSESSMENT

This section of the SWPPP amendment discusses the proposed modifications from the approved SWPPP to the current proposed project. As previously discussed, the proposed site development has been modified from the approved SWPPP. The overall general layout of the site has not changed but proposed development has changed from 120 senior housing units to the construction of a multifamily residential development including ten (10) buildings totaling 150 units and associated appurtenances. The type and number of stormwater management practices as approved in the SWPPP prepared for The Putnam Community Foundation (PCF) project have not been altered.

The approved PCF project consisted of 7.7 acres of 1/8 acre lots (65% impervious) and 1.3 acres of impervious surfaces associated with the proposed driveway, parking areas and appurtenances. The Hamlet at Carmel development proposes a decrease in impervious area from the approved SWPPP. The project also proposes to decrease the overall limit of disturbance associated with the development from the approved SWPPP. See table below for a comparison between the overall impervious area and limit of disturbance for the approved PCF project and the Hamlet at Carmel development.

Table 2.1 – Impervious Area and Limit of Disturbance Summary Table

	Approved SWPPP	**Amended SWPPP**
Overall Proposed Impervious Area (ac.)	6.3	6.1
Overall Proposed Limit of Disturbance (ac.)	23.9	20.3

As the project site is mostly wooded, by reducing the overall limit of disturbance for the subject project, the proposed tree removal for the project will decrease as well. By decreasing the tree removal and proposed impervious for the subject project, the stormwater runoff from the site will decrease which will reduce the water quality treatment volumes required for stormwater management. With less impervious area for the subject project, the water quality and quantity requirements for stormwater treatment will be reduced from the approved SWPPP, thereby decreasing the required size of the proposed stormwater management practices. As the proposed stormwater management practices have not been altered and the stormwater quality and quantity treatment requirements have been reduced, the approved stormwater management practices are adequate to treat the stormwater runoff from the proposed Hamlet at Carmel development in accordance with the NYCDEP and NYSDEC requirements during the time of the original approval.

3.0 CONCLUSION

The proposed stormwater management practices sized for the original scope of the approved SWPPP for the Putnam Community Foundation project and are adequately sized and potentially even oversized for the proposed modifications to the site improvements for The Hamlet of Carmel project. Reduction of the proposed stormwater management practices may be practical and will be addressed at a later date. As previously stated, the proposed modifications have no impact on the approved stormwater management practices on the project site and all modifications meet the requirements of the NYCDEP and NYSDEC within the framework of the original approved SWPPP.

INSITE
ENGINEERING, SURVEYING &
LANDSCAPE ARCHITECTURE, P.C.

WATER AND WASTEWATER ENGINEERING REPORT

For

The Hamlet at Carmel
Stoneleigh Avenue
Town of Carmel, New York

September 29, 2021

Prepared By

Insite Engineering, Surveying & Landscape Architecture, P.C.
3 Garrett Place
Carmel, New York 10512

1.0 INTRODUCTION

The Hamlet at Carmel (HAC) project is proposed on a 35 ± acre parcel of vacant land designated as Town of Carmel Tax Map Parcel #66.-2-58. Access to the HAC project is provided through the adjoining Putnam Hospital Center (PHC) property to the north. The hospital parcel is designated as Town of Carmel Tax Map Parcel #66.-2-57. The subject parcels are located in the R (residential) zoning district. The parcels and their surroundings are delineated on the Overall Site Plan.

Previous Wastewater Collection System and Water Main Extension Approvals were obtained from the Putnam County Health Department (PCDOH) on March 22, 2010, for the subject project (formerly known as The Putnam Community Foundation) for a design flow of 14,400 gpd. The approvals are valid through March 16, 2026. A sewage collection system approval was also obtained from the NYCDEP on March 24, 2010 for a design of flow of 14,400 gpd. The approval is valid through January 15, 2025. All prior approvals for the Putnam Community Foundation project were granted for a 120 single bedroom unit senior housing development with a total proposed design flow of 14,400 gpd. The current property owner proposes to construct one hundred and fifty (150) housing units with a total bedroom count of 293 (average of less than 2 bedrooms/unit), for which design flow calculations are provided in section 2.0. This report addresses the water and wastewater system sizing, connections and components proposed to accommodate the Hamlet at Carmel project (formerly known as the Putnam Community Foundation).

Out of District Service Agreements for Water and Sewer Service Agreements for the property were executed in July of 2002 for 72,000 gpd. The agreements included payment of back capital charges. The agreements far exceed the currently proposed design flows. The applicant will obtain Town Board approval to amend the current water and sewer agreements, lowering the capacity allowance from 72,000 gpd to 32,230 gpd.

2.0 PROJECT DESIGN FLOWS

The average daily design flow for the project is based on the hydraulic loading rates listed in the Putnam County Department of Health Bulletin CS-31. For domestic water and residential wastewater uses, Bulletin CS-31 references the loading rates given in the New York State Department of Environmental Conservation's (NYSDEC) publication *Design Standards for Wastewater Treatment Works – 1988* (DSWTF). The NYSDEC has issued an updated document entitled New York State Standards for Intermediate Sized Wastewater Treatment Systems - March 2014, which was utilized to determine the subject project's design flows. The following table lists the proposed use, associated hydraulic loading rate, and the design flow rate (gallons per day or gpd) for the project. The NYSDEC publication specifies three hydraulic loading rates for the proposed use depending on the age of the plumbing fixtures, the table below specifies a hydraulic loading rate based on the use of post 1994 plumbing fixtures.

MAXIMUM DAILY DESIGN FLOW

Proposed Use	Hydraulic Loading Rate	Average Daily Design Flow (gpd)
293 Bedrooms	110 gpd/unit	32,230 gpd
Total	-	**32,230 gpd**

As noted in the table below, the Hamlet at Carmel design flow is less than half of the flow allotted for the property by the Out of District User Agreement.

The actual daily flow for the project is expected to be significantly less than the design average daily design flow. The design maximum daily flows represent conservative flows to ensure that the proposed water works are designed with an ample factor of safety. The anticipated actual flows are based

on anticipated occupancy rates and measured data for water use. The expected number of residents anticipated for the project is 372. Data from the American Water Works Association (AWWA) shows that the average in home water use is 69 gpd per person. This number is reduced to 45 gpd per person when water saving fixtures are used, which is the case for this project. Based on a projected population of 372, the average daily flow is anticipated to be 16,740 gpd.

SUMMARY OF FLOWS

Proposed Use	Daily Design Flow (gpd)
Out of District User Agreement	72,000 gpd
Previous Approval	14,400 gpd
Current Application (HAC)	32,230 gpd

Though the flows are anticipated to be less than the Maximum Daily Design Flow (MDF), the MDF will be used for system sizing.

The peak hourly flow for domestic water is calculated using a peaking factor that is based on the population of the subject project. *Recommended Standards for Wastewater Facilities - 2014*[1] was used to determine a peaking factor of four.

Peak Hourly Flow

33,000 gpd ÷ (24 hr/day) ÷ (60 min/hr) = 23 gallons per minute (gpm)

Peak Hourly Flow = 23 gpm x 4 **≈ 92 gpm**

The fire sprinkler demand for this style of apartment building is typically between 350 gpm to 450 gpm. To confirm the available flow is not exceeded a 500 gpm allowance for a fire sprinkler system is analyzed below. Final sprinkler demands will be confirmed by the fire protection engineer.

3.0 PROPOSED CONNECTION TO CARMEL WATER DISTRICT #2

An Out of District Water Service Agreement made between Carmel Water District # 2 (CWD #2) and the previous owner of the subject property was executed on July 9, 2002. In which CWD # 2 agreed to supply up to 72,000 gallons of water per day to the subject property to accommodate 240 two (2) bedroom senior housing units, far exceeding the design flows generated by the current proposal.

The project will connect to CWD #2 by a connection to the existing 10” water line, which provides service to the Putnam Hospital Center (PHC). This water line will connect to CWD #2 water main along Stoneleigh Avenue. The connection to PHC water line will be made through an existing easement between the PHC and The Hamlet at Carmel in favor of The Hamlet at Carmel.

RSWW recommends that the normal working pressure not be below 35 psi, and both the Recommended Standards for Water Works (RSWW) and the American Water Works Association (AWWA) M31 recommend that a minimum of 20 psi be maintained at all points in the water distribution system during fire flows.

A flow test on the existing water main in Stoneleigh Avenue was performed on May 3, 2009, by Insite Engineering, Surveying & Landscape Architecture, P.C. The test yielded a static pressure of 165 psi and a residual pressure of 65 psi at the observation hydrant at a flow of 1,405 gpm. More recent hydrant flow data will be sought to confirm system conditions.

[1] Published by the Great Lakes – Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers

The static pressure at the highest point in the proposed project is calculated by finding the change in pressure head between the observation hydrant (372.0 ft) and the high point in the system (516.0 ft) and converting it to psi.

165 psi – (516.0 ft-372.0 ft)/ 2.31 ft/psi = 103 psi

Since the static pressure is greater than the RSWW 60 to 80 psi recommended working pressure range, pressure-reducing valves will be necessary.

The total flow in the water system consists of existing and proposed flows. The existing hospital center calculated peak flow of 180 gpm and the estimated peak flow to the existing residential development across Stoneleigh Avenue of 55 gpm are combined with the proposed domestic and fire flow for the HAC. The Hamlet at Carmel design flow consists of 92 gpm domestic flow with a fire flow of 500 gpm. This results in a total combined design flow of 827 gpm.

The equation below is taken from AWWA M17. The equation is used to calculate differences in the residual pressure that would result from different flow rates. Here the equation is used to calculate the residual pressure (at the observation hydrant) at the total combined design flow (827 gpm) using the pressures and flow rates measured during the flow test.

$Q_R = Q_F * h_r^{0.54} / h_f^{0.54}$

Where:

- Q_R = total combined design flow (827 gpm)
- Q_F = flow from hydrant during test (1,405 gpm)
- h_r = the difference in pressure between the static pressure measured at the observation hydrant and the residual pressure at the total combined flow
- h_f = the difference between the static pressure and residual pressure measured at the observation hydrant during the flow test, (100 psi)

827 gpm= 1,405 gpm * $h_r^{0.54}$/100psi $^{0.54}$

h_r= 37 psi

Now that we have calculated the difference between the static and residual pressures for the total combined design flow (801 gpm), we can calculate the residual pressure at the observation hydrant using the static pressure measured at the observation hydrant as follows:

165 psi - 37 psi = 128.0 psi

This pressure will be input at the observation hydrant in the EPANET 2 model described below.

An EPANET 2 model was developed for the distribution system. Important parameters to developing the model included assigning the proper elevation and water demand to the nodes representing the hospital, the existing residential area and the proposed development. Additionally, values for pipe length, diameter, and friction were assigned to the links representing the existing and proposed water mains. The EPANET 2 schematic model, along with pipe flows and pressures can be found in Appendix.

The model was exercised with the total combined design flow of 827 gpm and a pressure of 130.0 psi at the observation hydrant. The unit with the highest fixture corresponds to the unit that is farthest from the existing hydrant. The model showed that under the fire flow conditions this unit would have a pressure of 55 psi at its highest fixture. The flow meter is not modeled in EPANET 2. An additional 3 psi loss will occur in the flow meter at a flow of 592 gpm. The head loss for the meter pit components is taken from the manufacturer's information sheets found in Appendix B. When the meter pit is taken into account, the pressure under fire flow conditions at the highest fixture is 52 psi. This is greater than the 20 psi required for all flows and 35 psi required for domestic flows. There is enough pressure and flow in the existing water system to meet the regulatory requirements.

4.0 PROPOSED CONNECTION TO CARMEL SEWER DISTRICT #8

An Out of District Sewer Service Agreement made between Carmel Sewer District # 8 (CSD #8) and the previous owner of the subject property was executed on July 9, 2002. In which CSD # 8 agrees to accept up to 72,000 gallons of sewerage per day from the subject property for 240 two (2) bedroom senior housing units, far exceeding the design flows generated by the current proposal.

Wastewater from the project will be collected and conveyed to the existing 8” gravity sewer on the lands of The Putnam Hospital Center (PHC) that currently connects to CSD #8 in Stoneleigh Avenue. The 8" gravity sewer main on the property of the PHC has been constructed up to the shared property boundary between the Hamlet at Carmel and the Putnam Hospital Center.

5.0 PROPOSED WATER SYSTEM COMPONENTS

The proposed water system and improvements will consist of approximately 1,800± feet of 8” Class 52 Ductile Iron water pipe and associated isolation valves and fire hydrants. A meter pit containing a Sensus FireLine meter will measure the flows for the project the existing main. Pressure reducing valves will be installed inside each building on the domestic service line to protect the domestic plumbing fixtures from high pressures. Double check valves will be installed inside each building on the fire sprinkler system to provide back flow prevention.

6.0 PROPOSED SEWER SYSTEM COMPONENTS

The proposed sewer for the project will be composed on approximately 2,000 linear feet of 8” PVC SDR 35 sewer pipe and 10 pre-cast concrete manholes.

Appendix A

EPANET 2 Model Schematic

Appendix B

Manufacturers Information Sheets

Summer 2021
The Kearney Realty & Development Group, Inc.
The Hamlet at Carmel

EXHIBIT B-1: HCR MULTIFAMILY FINANCE 9% PROGRAMS

City/Town/Borough: Carmel
County: Putnam

Indicate the requested funding amounts and the proposed length of the corresponding DHCR/HTFC regulatory period. If the amounts listed on this form differ from those indicated in the Underwriting Model, the application will be evaluated based on the amounts requested below. Consult the Multifamily Term Sheets on the HCR website for financing terms and requirements.

Financing Source	Amount Requested	Regulatory Term (Years)
9% Low-Income Housing Credit (LIHTC)	$ 1,430,000	50
State Low Income Housing Credit Program (SLIHC)	$ 396,000	50
Federal Housing Trust Fund Program (FHTF)		
Low-Income Housing Trust Fund Program (HTF)	$ 3,400,000	30
Rural and Urban Community Investment Fund (CIF)		
Supportive Housing Opportunity Program (SHOP)		
Public Housing Preservation Program (PHP)		
Middle Income Housing Program (MIHP)		
Housing Development Fund (HDF)		
Senior Housing Program (SENR)		
HOME Program (HOME)		

Project Units per Funding Source

For each permanent funding source (including non-HCR sources), indicate the regulatory term length (if applicable) and the number of existing and/or new construction units to be financed. In the "Exist/Rehab" column, only include existing units that will be rehabilitated or preserved.

		Residential Units		Community Room Units		Community Service Facility Units		Civic Units		Commercial Units	
Funding Source (name)	Regulatory Term (Years)	Exist/ Rehab	New Construction	Exist/ Rehab	New Construction	Exist/ Rehab	New Construction	Exist/ Rehab	New Construction	Exist/ Rehab	New Construction
LIHTC	50		65								
SLIHC	50		74								
-Income Housing Trust Fund	30		74								

For LIHTC/SLIHC Projects:

9% LIHTC Program Set-Aside Designations *(Refer to the RFP for details)*

- ☐ Not Applicable
- ☐ Empire State Supportive Housing Initiative (ESSHI) Projects
- ☐ Supportive Housing Projects
- ☑ Housing Opportunity Projects
- ☐ NYCHA Seniors First
- ☐ Public Housing Redevelopment Projects
- ☐ Vital Brooklyn

Will the project elect the Income Averaging minimum set-aside?	No
Will the project bifurcate and/or transfer SLIHC?	No
Will there be a tenant buy-out plan?	No
Will a right of first refusal be offered to a qualified non-profit organization?	No

State Housing Goals

Complete the appropriate box(es) for the State Housing Goal(s) met by the Project. Refer to the RFP for further Housing Goal details.

	Explanation of how the project meets the Housing Goal:
mmunity Renewal and Revitalization Projects: Projects that address a component ated in the municipality's most recent comprehensive plan, or other municipal approved plan, as demonstrated by one or more of the following: • Demonstrate site control of land acquired through Land Banks, established pursuant to Article 16 of New York State Not-for-Profit Corporation Law, in neighborhoods that have experienced a high incidence of abandoned and/or "zombie" properties; •Demonstrate the donation of one or more of the project sites from the municipality in which the project is located at either $0 or $1 acquisition; •Demonstrate the rezoning of, or the granting of a zoning variance/special use permit for, at least one project site necessary to complete the project; •Demonstrate the project municipality has committed capital financing to the project as evidenced in the application sources and uses; •A draft commitment for a PILOT for the project (at a level greater than Section 581-A of Real Property Tax Law); •Listed as a priority project in the municipality's latest Action Plan; •Utilizing a site for the project which has been designated for redevelopment by an Urban Renewal Plan; or, •Applicant, or its affiliate, has been identified as the Designated Developer for the project by the municipality.	
Integrated Supportive Housing Projects: Projects that provide permanent supportive housing to one or more special needs populations, and that can show evidence of a service and operating subsidy from a governmental agency, such as Empire State Supportive Housing Initiative (ESSHI).	
Housing Opportunity Projects: Family projects in an area of opportunity linked to schools that meet or exceed minimum performance standards and that meet or exceed other measures of opportunity, including, but not limited to, the rate of poverty, as defined in a list of census tracts published by HCR. At least 10% of the project units must be targeted to and serve households at or below 30% of AMI. Additionally, average unit size must be at least 2 bedrooms.	The Hamlet at Carmel (The Hamlet) meets this state housing goal. The Hamlet is located in Census Tract 116.00, which was designated by New York State Homes and Community Renewal (HCR) as a Housing Opportunity Census Tract. Residents of The Hamlet will be enrolled in Carmel Central School District, ranked at the highest level of 4 by the New York State Education Department for college, career and civic readiness. Eight (8) units or 10.67% are set aside for households at 30% of AMI. The average unit size is two (2) bedrooms.
Workforce Opportunity Projects: Projects that propose housing within a safe half-mile walk of frequently occurring public transportation (available 7 days a week on a repetitive, fixed-route schedule that is regular and continuing).	
lects Advancing State Revitalization and Economic Development Initiatives, ding: owntown Revitalization Initiative Projects: Projects that propose residential and/or mixed-use projects located in Downtown Revitalization Initiative plan areas that clearly advance the objectives of an approved Downtown Revitalization Initiative Strategic Investment Plan. •Economic Development Projects: Projects specifically endorsed in the Regional Economic Council Strategic Plans that will support the construction and/or rehabilitation of affordable housing. •Brownfield Cleanup Program Projects: Projects resulting in the cleanup/redevelopment of property that has been determined to be eligible to participate in the New York State Brownfield Cleanup Program (BCP). The application must propose a plan of finance fully utilizing all BCP tax credits generated from the cleanup/redevelopment of the property. •Projects which will be implemented in a neighborhood located in a designated Empire State Poverty Reduction Initiative (ESPRI) locality and coordinated with the ESPRI activities underway. At least 15% of the project units must be targeted to and serve households at or below 30% of AMI.	
Senior Housing: Projects that allow low-income seniors to live independently in the community. Preference will be given to projects that also meet at least one of the following State Housing Goals: 1) Community Renewal and Revitalization, 2) Workforce Opportunity, 3) Economic Development, or 4) Downtown Revitalization Initiative.	

Kearney Realty & Development Group, LLC (Kearney Group) is proud to develop The Hamlet at Carmel (The Hamlet) in the Town of Carmel, Putnam County. The Hamlet is an unprecedented housing development as the first non-age restricted affordable housing development in Putnam County History. The Hamlet is an innovative, mixed-income and Housing Opportunity residential housing development. The Hamlet will advance the New York State Homes & Community Renewal's (HCR) state housing goal by being a Housing Opportunity Project. The Hamlet will consist of five (5) new construction buildings comprising of seventy-five (75) residential units.

The land upon which The Hamlet will be constructed is unimproved and serviced by central water and sewer and is appropriately zoned ("as of right"), in the Residential (R) District.

Kearney Realty & Development Group, Inc. (The Applicant) has site control by way of a 99-year land-lease. Kearney Group has entered into a 99-year land-lease with The Hamlet at Carmel Associates, LLC (The Owner) in which the land lease is assignable to the HDFC. The Owner has ownership by way of deed and purchased the land in December 2014. The site is an excellent location, convenient to shopping centers, banking facilities and a variety of restaurants. Additionally, the site is three (3) miles from the Croton Falls Metro North train station and is adjacent to Putnam Hospital.

The project site underwent a Full Environmental Impact Statement (FEIS) that has been approved by the town of Carmel. The Applicant currently has full site plan approval for 120 senior housing units, including water and sewer approvals. The applicant has since amended the site plan following a collaborative effort between the applicant and the Town of Carmel's Zoning Board of Appeals (ZBA). Historically, interpretations of the zoning code were that non-age restricted multifamily development was not permitted in any zoning district in the Town of Carmel, including the Residential (R) district where the project site is located. However, there were conflictions in the zoning code, which included language that allowed non-age restricted multifamily housing in the Residential (R) district. The applicant, based on their experience in similar municipalities and with the help of legal professionals, formulated a strong legal opinion that non-age restricted multifamily housing was permitted "as of right" in the Residential (R) district; an interpretation which would ensure that the municipality is taking steps to Affirmatively Further Fair Housing. Based on the advisory of the applicant, the Town of Carmel's Zoning Board of Appeals voted unanimously (7-0) in agreement with the applicant's interpretation of the zoning code to allow for non-age restricted multifamily in the Residential (R) district. Following the ZBA's interpretation, the applicant filed an amended site plan with a long form EAF for the site specific SEQRA review for the revised site plan. The Hamlet at Carmel will not only be the first non-age restricted affordable housing development in Carmel, but will also be the first non-age restricted affordable housing development in the entirety of Putnam County.

The Hamlet will bring much needed affordable, workforce housing to Putnam County. Putnam County Pattern for Progress performed a housing cost burden analysis for Putnam County. It was found that 69% of renters in Putnam County are cost burdened (spending 30%-50% of their income on housing) and, furthermore, 37.7% of renters in Putnam County are severely cost burdened (spending 50% or more of their income on housing). Putnam County Housing Corporation recently performed a Housing Needs Assessment in January 2014 which identified a high demand for more affordable housing. "Putnam County is faced with limited choice and an insufficient supply of affordable and market rate rental housing… There is an overwhelming need to develop new affordable housing at all income levels, especially at lower-income levels. Bolstering the supply of housing that is affordable to working class and middle-income households is

critical to building and retaining talent for the local economy." The Hamlet's location makes it an ideal location for affordable housing with a preference for, essential workers, who are rent burdened at a higher-than-average rate. The Hamlet is adjacent to and within walking distance of Putnam Hospital. Subject to approval by HCR's Fair and Equitable Housing Office (FEHO) The Hamlet will include a set-aside of 15% or twelve (12) units for essential workers in accordance with the NYS essential worker's occupancy preference effective May 7, 2021. The essential worker's set-aside will be in accordance with NYS HCR's "List of Essential Workers" which includes: Food Industry Workers, Health Care Professionals, Hotel Workers, Child Care Providers, P-12 School Faculty, Group Living Facilities Staff, Public Transit Drivers, Corrections workers and First Responders and Support Staff. This essential workers preference request is subject to any HCR modifications and FEHO approval.

The Hamlet will comprise of five (5) new construction buildings. Building 1, which is 17,606 square feet, will have four (4) one-bedroom apartments, eight (8) two-bedroom apartments, four (4) three-bedroom apartments. Building 2, which is 8,770 square feet, will have eight (8) two-bedroom apartments. Building 3, which is 17,606 square feet, will have four (4) one-bedroom apartments, eight (8) two-bedroom apartments, four (4) three-bedroom apartments. Building 4, which is 24,660 square feet, will have five (5) one-bedroom apartments, Seven (7) two-bedroom apartments, three (3) three-bedroom apartments, and common facilities. Building 5, which is 23,975 square feet, will have four (4) one-bedroom apartments, ten (10) two-bedroom apartments, six (6) three-bedroom apartments. The Hamlet is designed to provide housing to individuals and families at numerous income levels. Utilizing LIHTC, SLIHTC, and HTF subsidy, The Hamlet will comprise of eight (8) units at 30% of Putnam County Area Median Income (AMI), fifty-seven (57) units at 60% of Putnam County AMI, six (6) units at 80% of Putnam County AMI, and three (3) units at 90% of Putnam County AMI. Of these units, seventeen (17) will be one-bedroom, forty (40) will be two-bedrooms, seventeen (17) will be three-bedrooms, and one non-rent bearing two (2) bedroom apartment for a super-intendent. In addition, The Hamlet will consist of eight (8) mobility adapted apartments and four (4) audio and visually adapted apartments.

The Hamlet will be designed to include high-quality amenities for the residents, which are important compliments to the objectives of the State Housing Goal; Housing Opportunity Projects. The Hamlet will offer; an on-site management office that will be staffed during the week; an on-site superintendent; a large common room for social events; on-site laundry facilities; and interior bike storage. In addition, The Hamlet will offer exterior amenities such as a gazebo, playground, and a patio area with benches. Furthermore, the residents will have access to Wi-Fi throughout the building and broadband internet connections will be available to residents in the common room. The Residents of The Hamlet will also have access to one hundred and forty-nine (149) on-site parking spaces. In accordance with HCR's Design Guidelines, The Hamlet will provide five (5) EV charging stations.

The Hamlet will accomplish the State Housing Goal; Housing Opportunity Projects. The Hamlet is located in Census Tract 116.00, which was designated by New York State Homes and Community Renewal (HCR) as a Housing Opportunity Census Tract. Residents of The Hamlet will be enrolled in Carmel Central School District (CCSD). CCSD is a high-achieving school district, ranked at the highest level of four (4) by the New York State Education Department (NYSED) for college, career, and civic readiness. The college, career, and civic readiness index measures school quality and student success. The indicators included in the index measure how well students are prepared to be involved in activities important to being a productive

citizen. This would be the case whether they plan to attend college or whether they plan to enter the workforce after high school. The quality of CCSD is evidenced by assessment results as presented by different New York State Standardized tests. Students of CCSD scored at a proficient level at high rates; 96% in Regents English; 95% in Regents Algebra I; 89% in Regents Algebra II; 90% in Regents Living Environment; 93% in Regents Earth Science; 100% in Regents Physics; and 93% in Regents U.S. History & Government. Residents of The Hamlet, especially school-age children, will be offered a tremendous opportunity to grow and prosper as a member of the CCSD.

As a Housing Opportunity project, The Hamlet will provide families with much needed affordable housing and better access to job opportunities, while simultaneously giving the children access to healthier living environments and high-quality education.

The Hamlet will help advance the Fair Housing Matters NY initiative, which looks to analyze and address segregated living patterns and housing disparities in New York. This initiative seeks to continue to follow the Obama-era regulations and uphold the Fair Housing Act by working to address the root, historical causes of segregation and housing inequality that harm New York's most vulnerable populations. These regulations include the Affirmatively Furthering Fair Housing Rule, or AFFH, enacted in 2015, that requires states and local municipalities to analyze and develop meaningful actions to reduce segregated living patterns and concentrated areas of poverty, address unequal opportunity in neighborhoods, increase accessibility and strengthen fair housing enforcement. Limitations of where someone can live has profound impacts on an individual's access to quality education, a good job, and adequate healthcare. As a Housing Opportunity Project, located in Putnam County, The Hamlet supplies much needed, affordable, mixed-income, and workforce housing with access to the highly ranked Carmel Central School District and nearby medical facilities.

The residents of The Hamlet will benefit greatly from the partnership with one of the leading not-for-profits in the area of affordable housing, Housing Action Council, Inc. (HAC). HAC, incorporated in 1974, is a not-for-profit organization dedicated to expanding housing opportunities for low and moderate-income households throughout the Hudson Valley. HAC has developed or facilitated the development of over 4,000 affordable housing units in New York State. To date, Kearney Group and/or its affiliates, and HAC have successfully partnered in the construction and management of over three hundred and seventy-five (375) affordable housing units. HAC will work with Kearney Group in establishing linkages to support services, marketing, and qualifying applicants. In addition, Kearney Group and HAC will set aside 15% of the affordable apartments, or twelve (12), apartments for special needs population of individuals or families with physical disabilities/traumatic brain injury.

The Hamlet will benefit from a project team with substantial development and management experience, and an outstanding track record and reputation in affordable housing. The developers, Kenneth Kearney and Sean K. Kearney, President and Vice President, respectively, of Kearney Realty & Development Group, Inc. (Kearney Group), are highly regarded developers with an outstanding regional reputation for quality and integrity. Kearney Group and their affiliates have developed fifteen (15) affordable housing developments and currently manage over one thousand three hundred (1,300) units of affordable and mixed-income housing. Kearney Group will also be responsible for all marketing and rent-up activities, as well as the ongoing management of The Hamlet.

The project architect, A.J. Coppola of Coppola Associates, has designed and completed twenty (20) affordable housing complexes. Mr. Coppola will be responsible for preparation of all design documents and specifications, as well as the oversight of mechanical, structural and site engineering, and will ensure compliance with all NYSHCR Project Design Handbook requirements and code related issues, including compliance with the Americans with Disabilities Act.

The project engineer, Jeffrey Contelmo of Insite Engineering, has experience in all phases of site development, both large and small. The Hamlet's general contractor, Tern Construction & Development, LLC, has built fifteen (15) affordable projects and has an excellent reputation. Tern Construction & Development, LLC will be contracted through a pre-negotiated/fixed-price contract.

The Hamlet's counsel, Melissa Beskid of Cannon Heyman & Weiss, LLP, practices in the area of multi-family finance and real estate development, and focuses his practice in the construction, rehabilitation and financing of affordable housing using tax credits and other subsidy programs.

The Hamlet will be owned by The Hamlet at Carmel Limited Partnership (the "Owner"), the managing general partner of which shall be named The Hamlet at Carmel Associates, LLC, a New York limited liability company, the members and managers will The Hamlet at Carmel Managers II, LLC and JUCCA Company LLC. HAC, through The Hamlet at Carmel Housing Development Fund Company, Inc., a housing development fund company organized under Articles XI of the New York Private Housing Finance Law shall be the co-general partner. Each general partner will own a .005% interest in the Owner. HAC will materially participate in The Hamlet's operations through (i) its agreement to provide referrals to The Hamlet's residents, (ii) integration of The Hamlet's residents into its community programs, and (iii) its right, as co-general partner of the Owner, to consent to selection of The Hamlet's management agent.

The Applicant, Kearney Group, and its affiliates and subsidiaries, have ample capacity to successfully develop the Hamlet. Currently, Kearney Group and its affiliates and subsidiaries, have two developments under construction. Copper City Lofts and The Woods at Pawling, both of which were recently funded through HCR's Fall 2020 funding round, are anticipated to begin construction in Fall of 2021. Kearney Group and its affiliates have the capacity to successfully manage six active HCR funded developments at any given time.

In keeping with Kearney Group's commitment for sustainable development, The Hamlet will be fully compliant with NYSERDA's New Construction – Housing Program, NYSERDA compliant, and LEED certified. In addition, The Hamlet has contracted with a benchmarking firm to provide annual benchmarking data. The cost of the benchmarking service is included in the operating budget.

Sources of construction financing for The Hamlet are anticipated to consist of: (i) a construction loan from Sterling Bank in the amount of $16,400,000; (ii) tax credit in the amount of $6,922,306, raised from the syndication of LIHTC; (iii) tax credit in the amount of $1,373,361, raised from the syndication of SLIHTC; (iv) deferred developer fee in the amount of $3,246,252; and (v) unfunded reserves of $289,067.

Sources of permanent financing for The Hamlet are anticipated to consist of: (i) a permanent loan from Sterling Bank in the amount $7,350,000; (ii) tax credit in the amount of $13,844,613, raised from the syndication of LIHTC; (iii) tax credit in the amount of $2,746,722, raised from the syndication of SLIHTC; (iv) Low-Income Housing Trust Fund in the amount of $3,400,000; (v) deferred developer fee in the amount of $814,651; and (vi) NYSERDA funding in the amount of $75,000.

Summer 2021
The Kearney Realty & Development Group, Inc.
The Hamlet at Carmel

EXHIBIT B-3: PROJECT SUMMARY

Complete this form to describe the project **as a whole**, unless otherwise specified. The summary below **must be consistent with the rest of the application.**

Project Type (select all that apply)

- [x] New Construction
- [ ] Adaptive Reuse
- [ ] Preservation
- [ ] Public Housing
- [ ] Senior Housing
- [ ] Supportive Housing
- [ ] Occupied Rehabilitation

Project Use (select all that apply)

- [x] Residential
- [ ] Community (Service) Facility
- [ ] Civic
- [ ] Commercial

Is the project subject to:

Davis-Bacon wage rates?	No
Section 3 requirements?	No
Section 504 requirements?	No

Location Summary

Does the project include multiple sites?	No
Does the site include multiple buildings?	Yes

If the project includes multiple sites or buildings, complete and attach Exhibit B-3a: Multiple Sites and/or Buildings.

Community Board (NYC Only): N/A

Complete the following box for the project as a whole. List multiple census tract numbers where applicable.

HUD QCT?	No
HUD DDA?	No
Housing Opportunity Census Tract?	Yes
Qualified Opportunity Zone?	No
CHDO Eligible?	No

HOCT #: 116

Any other special project locality designation(s):

Is the project...

located in a flood plain area?	No
located in a waterfront revitalization area?	No
located in or adjacent to a coastal area?	No
eligible for/listed in the National Register of Historic Places?	No

If yes to any of the above, attach a description.

Communities under Court Order/Court Decision

Is the project located in a community in which a court decision or court-ordered plan to address desegregation or remedy a violation of law has been issued?	No

If yes, attach evidence that the proposed project is consistent with such court decision or court-entered plan.

Finance Summary

TDC	$	28,230,986	Total Residential Development Cost	$	28,230,986
TDC/SF	$	305	Total Residential Hard Costs	$	17,289,169
TDC/DU	$	376,413	Residential Hard Costs/SF	$	187
Total Developer Fee	$	3,364,210	Residential Hard Costs/DU	$	230,522

Residential Unit Summary

	Unit Size									
Target AMI	**0 BR**	**1 BR**	**2 BR**	**3 BR**	**4 BR**	**5+ BR**	**Applicable HCR Programs**	**# of Units**	**% of Project**	**Targets**
30%		2	5	1			LIHTC, SLIHC, HTF	**8**	**11%**	**30% AMI**
40%										
50%										
60%		15	28	14			LIHTC, SLIHC, HTF	**57**	**76%**	**60% AMI**
70%										
80%			5	1			SLIHC, HTF	**6**	**8%**	**80% AMI**
90%			2	1			SLIHC, HTF	**3**	**4%**	**90% AMI**
100%										
110%										
120%										
130%										
Market										
Super/Mgr			1					**1**	**1%**	**Super**
Total #		**17**	**41**	**17**				**75**		
% of Project		**23%**	**55%**	**23%**						
		1 BR	**2 BR**	**3 BR**						

Target Populations for Residential Units	**# of Units**	**% of Project**
Special Needs Populations (non-ESSHI)		
Persons with Physical Disability/Traumatic Brain Injury	12	16%
(select)		
(select)		
(select)		
(select)		
ESSHI Populations		
(select)		
(select)		
(select)		
(select)		
(select)		
Total Units Targeted to Special Populations:	**12**	**16%**
Other Populations		
Senior/Elderly (non-frail) (select age restriction)		
Not targeted to specific populations	63	84%
Total Units Targeted to Other Populations:	**63**	**84%**
Total Units in Project:	75	

Included in the residential rent/carrying charge:

Equipment:
- [x] Range & oven
- [ ] Microwave oven
- [x] Refrigerator
- [x] Cable TV hook-up
- [x] Laundry facilities in common area
- [ ] Laundry facilities in living unit
- [x] Central air conditioning (equipment)
- [ ] Broadband internet

Services:
- [ ] Heat
- [ ] Hot water
- [ ] Central air conditioning

Parking:
- [x] Surface
- [ ] Covered/enclosed
- [ ] Other (specify):

Residential Tenant-Paid Utilities:
- [x] Electricity
- [x] Heat
- [x] Gas
- [ ] Water
- [ ] Repairs
- [ ] Other (specify):

Architectural Summary

Number of Buildings:	5
Number of Floors (Total):	12
Construction Method:	Wood frame
Façade Materials:	Fiber-cement planks and shakes
Number of Elevators:	0
Cellar Excavation (Full, Partial, or Minimal):	Bldg 1-3 slab on grade. Bldg 4-5 partial basement

Units and Square Footages (Entire Project)	# of Existing Units	Include all units in the project, regardless of funding source. # of New Units	Total # of Units	Total Usable SF	% of Total (by SF)
Residential Dwellings		75	75	72,359	81%
Community Rooms		1	1		
Residential Common Space				16,856	19%
Community Service Facility			0		0%
Civic Space			0		0%
Commercial Space			0		0%
Enclosed Parking (if applicable)			0		0%
Other _____			0		0%
Total				89,215	

Community rooms: For the exclusive use of the residential tenants.

Community Service Facility: Not for the exclusive use of residential tenants.

Civic space: Non-residential, non-commercial space used for activities engaged by the local community for conducting municipal affairs or for general public

Current Use(s) of Project Site(s) at the Time of Application Submission

# of existing buildings on the project site(s) at the time of application submission: 0 (Enter "0" for vacant land)

Describe the use(s) of any existing buildings on the site at the time of application submission:

Vacant land

Describe any existing accessory structures, recreational facilities, and parking on the site at the time of application submission:

No existing structures.

Is the project occupied at the time of application submission? No

# of occupied residential units:
# of occupied non-residential units:
Will relocation of tenants be necessary?
How many? Residential: Non-residential:

Project History

Has this project previously received DHCR/HTFC funding? No SHARS ID number(s):

Has the project ever been under the supervision of DHCR Housing Operations? No

Original name of the project, if different from the project name proposed in this application:

Supervision Start Date: Supervision End Date:

DHCR Contact: Project Contact:

Has an application previously been submitted to DHCR/HTFC for this project? No

Month and Year of submission(s)/Project ID if known: N/A

Project name(s) previously submitted under: N/A

Project Name: The Hamlet at Carmel
Applicant: Kearney Realty & Development Group
Project County: Putnam County

SUMMARY	Amount	Percentage	Per Unit	
Total Units	75			
Total LIHTC Units	65	86.67%		
Income Mix: 20%	-	0%		
30%	8	11%		
40%	-	0%		
50%	-	0%		
60%	57	77%		
70%	-	0%		
80%	6	8%		
90%	3	4%		74
Over 90%	-	0%		100.00%
Studios	-	0%		
One-Bedrooms	17	23%		
Two-Bedrooms	40	53%		
Three-Bedrooms	17	23%		
Four-Bedrooms	-	0%		
Five-Bedrooms	-	0%		74
Residential Gross Square Footage	92,617		1,235	
Community Service Facility Gross Square Footage	-			
Other Non-residential Gross Square Footage	-			
Parking Spaces	-			
Total Project Income	1,273,836		16,984	
Residential Vacancy Rate		5.00%		
CSF Vacancy Rate		10.00%		
Other Non-residential Vacancy Rate		10.00%		
CSF + Non-Residential Income as % of Total		0.47%		
Total Expenses	679,174		9,056	
Net Operating Income	530,970		7,080	
Total Construction Term	24			
Income to Expense Year 1	1.05			
DSCR Year 1	1.11			
Residential Income Inflation		2.00%		
Operating Expense Inflation (Excluding Mgmt. Fee)		3.00%		
Management Fee Expense Inflation		2.00%		
Net Cash Flow 15 Years	1,243,778		16,584	
Sterling Bank	7,350,000	26%	98,000	
LIHTC Equity	13,844,613	49%	184,595	
SLIHC Equity	2,746,722	10%	36,623	
Low-Income Housing Trust Fund	3,400,000	12%	45,333	
NYSERDA	75,000	0%	1,000	
Deferred Developer Fee	814,651	3%	10,862	
0	-	0%	-	
0	-	0%	-	
0	-	0%	-	
0	-	0%	-	
0	-	0%	-	
0	-	0%	-	
0	-	0%	-	
	-	0%	-	
	-	0%	-	
Acquisition	2,784,000	10%	37,120	
Construction Costs	17,289,169	61%	230,522	
Soft Costs	4,504,540	16%	60,061	
Reserves & Escrow	289,067	1%	3,854	
Developer Fee	3,364,210	12%	44,856	
Total Development Costs	28,230,986		376,413	
Total Residential Development Costs	28,230,986		376,413	

Hamlet at Carmel

Community Services EAF Excerpt
School District Information plus Fiscal Analysis

Town of Carmel, Putnam County, New York

Prepared for:
Kearney Realty & Development Group
57 Route 6, Suite 207
Baldwin Place, NY 10505

Prepared by:
Tim Miller Associates, Inc.
10 North Street
Cold Spring, NY 10516

Submitted:
September 29, 2021

2.2.3 Schools

Existing Conditions

The project site is served by the Carmel Central School District. The District includes three K-4 elementary schools, one middle school (grades 5, 6, 7 and 8), and one high school. The Carmel Central School District geographically includes the majority of the Town of Carmel, the Carmel Hamlet Area, portions of the Town of Philipstown and portions of the Town of Kent.

According to information provided by the School District[3], enrollments have been steadily decreasing for more than the past 10 years. A study entitled School Age Children, Carmel Central School District Student Enrollment, dated July 14, 2021, was prepared by Tim Miller Associates. The study documents the continued decline in student enrollment and identifies the available capacity to handle an increase in student enrollment.

As of October 2020, 3,979 students were enrolled in the District. Table 2.2-2 below summarizes the current 2020/2021 grade distributions and enrollments of the various schools within the District:

Table 2.2-2
Carmel Central School District (2020-2021 School Year)

School	Grades Served	2014 Enrollment
Kent Primary School	K-4	378
Kent Elementary School	K-4	372
Matthew Patterson Elementary School	K-4	476
George Fisher Middle School	5-8	1,194
Carmel High School	9-12	1,410
TOTAL		**3,979**

Carmel Central School District 2021.

[3]NYS Department of Education BEDS Enrollment Data for Central School District 2019/2020, July 2021.

Potential Impacts

As shown in Table 2.2-1, based upon demographic multipliers published by the Rutgers University Center for Urban Policy Research, approximately 46 students are projected to reside in the Hamlet at Carmel residential development. The addition of 46 students to a population of more than 3,900 students represents an increase of less than 1.2 percent. The Carmel CSD has availability in its existing infrastructure to accommodate this increase in student population.

The school budget for the 2021/2022 school year was defeated twice by the residents of the school district. The contingency budget for 2021-2022 school year for the Carmel Central School District totals $106,836,349. The portion of the budget to be raised through taxation is $74,686,091 - approximately 70 percent of the budget is met through the property tax levy.

This anticipated increase in student population will not have a significant impact on administrative or capital needs of the district. The School Age Children Enrollment Study referenced above, demonstrates the district's existing facilities have capacity to handle up to approximately 1,000 additional students.

An increase in residential development would result in an increase in the assessed valuation of the School District, which translates into additional school tax revenues. Since the infrastructure and staff resources are already in place, the costs for new students associated with multi-family housing would be minimal. It should also be noted that while market-rate multifamily housing would provide a significant increase in the districts assessed valuation, the ratio of students associated with multifamily housing is low compared to traditional single-family housing - and as such would not over-burden the schools.

A review of current school enrollment and school enrollment projections for the next 5 years are included in the School Enrollment Study included as Attachment B. This study indicates continuing declines for the Carmel School District by more than 30% compared to peak enrollments. This substantial declining enrollment trend has the potential to result in excess infrastructure, where the number of students is significantly lower than the enrollment capacity. The potential for the elimination of school clubs, sports teams and other extra-curricular activities will increase as enrollments continue to decline.

School District Costs Associated with the Proposed Project

The provision of affordable housing opportunities is a community benefit that meets the needs of community service workers, police, fire, teachers, nurses, municipal workers etc. It also meets the needs of young families starting out and seniors or others living on a limited income. A well-balanced community provides for the needs of a diversity in population. Currently, HCR has a policy to allow for a preference for Essential workers on a number of the units. The applicant has requested 15% or 12 units have an occupancy preference for essential workers subject to HCR approval.

Based upon the reduced rental or market value of an affordable unit, the assessed valuation and thus the taxes generated by the unit are reduced compared to market rate residential development. The Hamlet at Carmel has been designed to include affordable housing which may not pay the full burden of costs associated with development, and market rate development, which has been provided to increase the overall assessed valuation of the development as a whole, thereby mitigating the reduced taxes paid by the affordable housing.

As already discussed, the Carmel School District has sufficient infrastructure to accommodate the anticipated increase in student population. Any costs to the School District would be related specifically to instruction, which is referred to as marginal cost. District wide, instructional costs are estimated to total $68,169,209. Since 70 percent of the Budget is to be raised by the tax levy, the portion of the instructional costs to be raised by the tax levy are estimated to total $47,718,446[4].

With an enrollment of 3,979 students, the per-student marginal cost to be raised by the tax levy are calculated to be up to $11,993, ($47,718,446 / 3,979). This full cost is likely overstated given the small percentage of new students compared to the existing student population. Projected costs to the school district are likely to be approximately $275,000 to $550,000 annually based on an estimated 46 students that would reside in the community.

New construction within the School District will result in an increase in assessed valuation in the district, resulting in an increase in tax revenue to the School District. These funds may be used to off-set any increased costs as necessary.

At today's tax rates, the proposed Hamlet at Carmel would generate a total of $613,357 in annual property revenues to the school district. Thus, the overall impact on the district's budget is expected to be positive, generating between $60,000 and $325,000 in tax revenue ***after covering the cost*** of educating the students who reside at Hamlet at Carmel. The proposed residential development will generate $566,272 above current taxes.

Construction is projected to take 12 to 18 months which is likely to be spread over two school years. The increased student population is also expected to be distributed throughout the grade levels, resulting in an several new students per grade. The multi-year phasing and distribution of students will allow for an additional 46 students to be integrated to the local schools with minimal impact. Conversation with the Business Administrator for the Carmel Central School District indicated absorption of the new students should not present a capacity problem for the school district, particularly in light of the declining enrollment trend the district is experiencing.

[4]Carmel Central School District Adopted Contingency Budget 2021/2022. June 2021

2.2.3 Fiscal Resources

Current and Projected Assessed Value

The Hamlet at Carmel development site is contained on the Town of Carmel tax parcel 66.-2-58.

The current assessed value of the total project site is $1,804,900. According to a review of the 2021 tax bills for the subject parcel, the total annual property taxes generated by the project site and paid to the Town of Carmel are $8,773. The municipal taxes paid to Putnam County are $5,468. Thus, the total municipal taxes paid are $11,542 while the annual property taxes paid to the Carmel Central School District are $47,085.

Based upon the income value of the market rate townhouse units the market rate portion of the project, is valued at $16,230,995. Based upon the income value of the affordable residences, the value of the affordable rental apartments is estimated to be $7,280,681. Using the current 2021 equalization rate of 100 percent, the total Assessed Value of the project used for this analysis is $23,511,676.

Current and Projected Revenues

Table 2.2-2 compares the revenues generated currently by the property to the revenues to be generated after the Hamlet at Carmel development is complete. Revenues are based on 2021 municipal tax rates and the 2021-2022 tax rate for the Carmel Central School District.

According to the Town of Carmel annual budget, the Town's tax rate includes governmental services, Justice Court, Sewer and water capital expenses, refuse collection, street maintenance, public parking, lighting and parks & recreation.

As presented in Table 2.2-2, at today 's tax rates, annual revenues to the Town of Carmel would be approximately $261,349. The project-generated annual revenues to Putnam County would be approximately $71,234 annually.

Table 2.2-2
Current & Projected Taxes Generated by Hamlet at Carmel Development

Taxing Authority	Current Taxes ($)	Hamlet at Carmel Projected Taxes Total ($)	Net Increase Between Current & Projected Taxes ($)
Total Putnam County	**$5,468**	**$71,234**	**$65,766**
Total Town of Carmel	**$11,542**	**$261,349**	**$249,807**
Total Municipal	**$17,010**	**$332,583**	**$315,573**
Carmel Central School District	**$47,085**	**$613,357**	**$566,272**
TOTAL	**$156,465**	**$945,940**	**$881,845**

Notes:
(1) Tax Rate per $1,000 of Assessed Valuation.
Municipal taxes are based upon Town of Carmel 2020/2021 Tax Rates.
Carmel Central School Taxes are for the 2021-2022 Contingency Budget.

As stated earlier, annual revenues to the Carmel Central School District would be approximately $613,357. The net *increase* between the current tax revenues generated by the site and paid to the School District and the total future project-generated revenues to the school district are projected to be approximately $566,272.

Table 2.2-2 also indicates the combined net increase in revenues to each jurisdiction, which in total is projected to be more than $800,000 annually.

Municipal Costs Associated with the Proposed Project

An approximate estimate of costs to the Town of Carmel associated with the Hamlet at Carmel development may be determined by obtaining a reasonable composite of current costs on a per capita basis and multiplying this amount by the anticipated population of the proposed project.

Through a review of the Town's operating budget, the amount of expenditures can be derived and, by dividing the population into the amount of expenditures, an estimate of per capita costs can be determined. To calculate the portion of the per capita cost which is paid for by property tax revenues (as opposed to other forms of income to the Village), the per capita cost is multiplied by the proportion that property tax revenue comprises of the overall income stream.

This generalized methodology estimates the overall costs. The incremental costs which would be applicable specifically to this project are anticipated to be substantially lower. Certain fixed costs would not actually be affected by an increase in population. For example, the Supervisor’s salary or the cost of running Town Hall are expenses that are paid by the Town’s Budget, but would not be expected to increase based on an increase in population. It is also noted that commercial and other land uses in the Town place demand on the various governmental services which contributes to the per capita costs being overstated. The majority of services provided by the Town would not be directly affected by an increase in population.

In this instance, the adopted 2021 municipal budget for the Town of Carmel amounts to $49,239,061. The total amount to be raised by taxes is $24,405,122. The tax levy represents 50 percent of the total municipal budget.

According to the US Census data, the 2010 estimated population for the Town is 34,305 persons. Dividing the budget to be raised by taxes by the population, results in an estimated impact to the Town budget of $561 per capita.

As described earlier, the proposed project would add approximately 372 persons to the population of the Town. Based on a per capita expenditure of $561, the additional costs to the Town of Carmel are projected to be up to approximately $208,708. As presented in Table 2.2-2, the revenues to the Town from the proposed Hamlet at Carmel Development would amount to a minimum of $52,641, thus, the project will result in a net benefit to the Town. The increase in tax revenue to the Town, upon completion of development is projected to increase by $249,807 compared to existing tax revenues.

Table 2.2-4 presents a summary of the conservatively anticipated revenues compared to an estimate of costs of the proposed Hamlet at Carmel development project. The combined net positive revenues, after considering the generalized costs to the Town and the School District is an annual amount of $113,978 to all taxing jurisdictions, while providing affordable housing for the community.

Table 2.2-4
Revenue & Cost Summary: Hamlet at Carmel

Jurisdiction	Projected Taxes ($)	Projected Costs ($)	Net Tax Revenue
Town of Carmel	$261,349	($208,708)	$52,641
Carmel Central Schools	$613,357	($552,020)	$61,337
Total	**$874,706**	**($760,728)**	**$113,978**

Source: Tim Miller Associates, Inc., 2021

2.2.5 Fiscal Benefits

The project will induce construction employment in the short term. In the long-term, the new resident population would introduce consumer demand for retail and service establishments located within the Town of Carmel, as well as the larger commercial area within the region.

Short Term Employment Opportunities

The construction value of the proposed project would total approximately $28 million. Construction of the project would require a commitment of person hours of labor, which can be viewed as beneficial to the community, the local economy, and the construction industry with respect to the generation of jobs. Based on labor hour estimates published by the Urban Land Institute, and accounting for secondary employment resulting from the construction, this project would generate 155 full time equivalent jobs in the various construction trades associated with this project.

It is anticipated that a number of construction workers would come from Putnam County and nearby counties in the region. These workers are expected to have a positive impact on existing local businesses that provide such services as food convenience shopping, gasoline, etc.

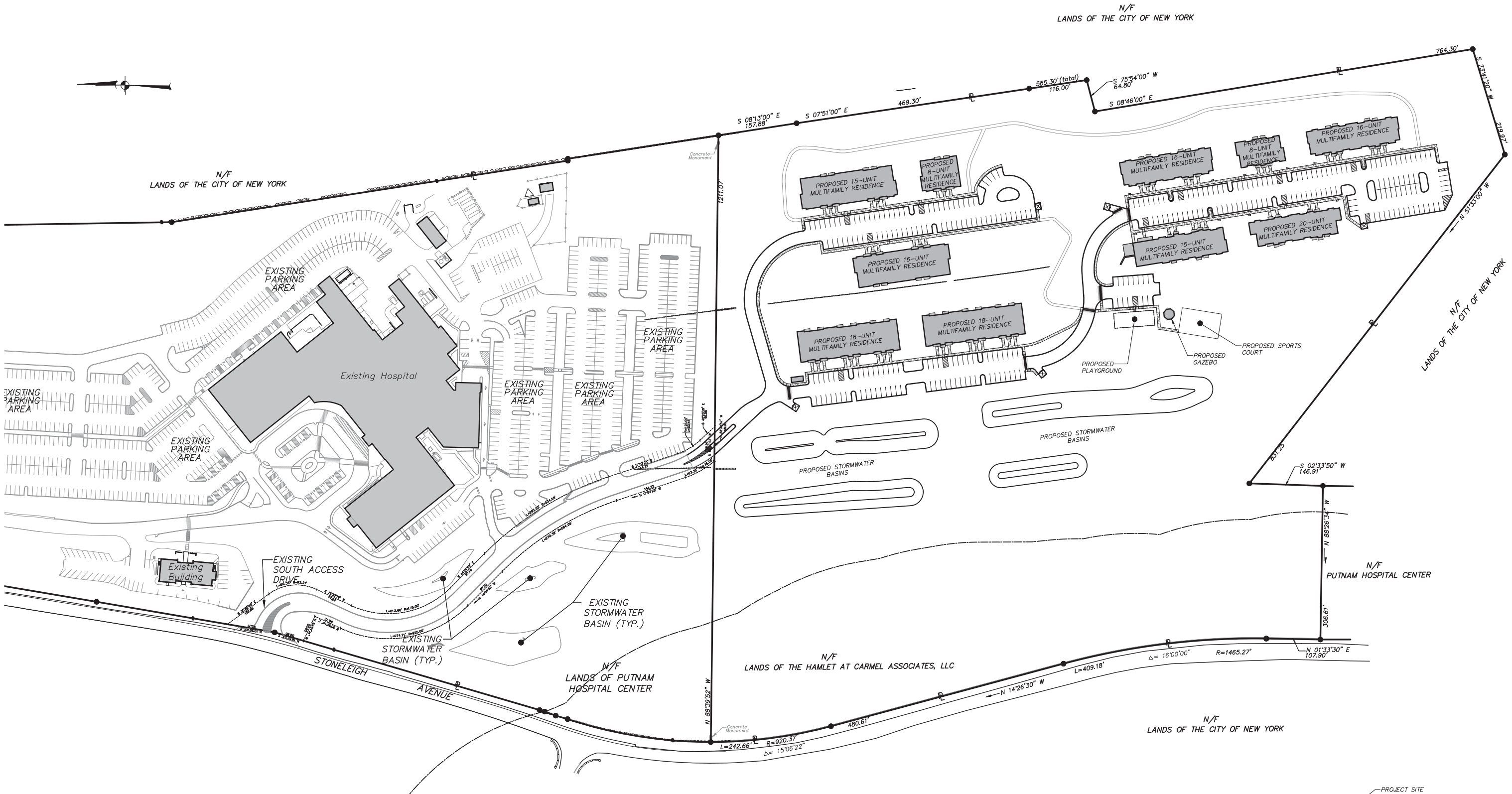
Local Economy Spending

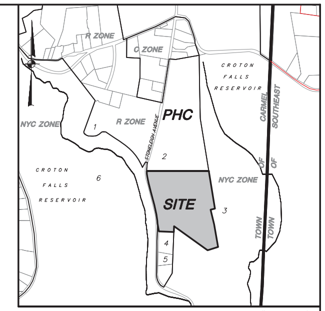
Future residents would utilize retail, personal service, and other commercial uses located in the project vicinity. Businesses within the project vicinity, especially those located within the Town, would benefit from new resident expenditures. Approximately 30 percent of household income is typically spent on retail goods and services.

A household income ranging from $69,000 to $99,000 annually, would be required to afford renting the proposed affordable housing. Using a conservative household income of $69,000, it is estimated that 75 households would spend more than $1.5 million annually. A household income of approximately $125,000, would be required to afford renting the proposed market rate housing, thus the 75 market rate units would generate an additional $2.8 million in expenditures annually. When combined more than $4.3 million in sales can be expected. A substantial portion of these expenditures would be made at supermarkets, local convenience stores, apparel stores, restaurants and service businesses such as gas stations and hair salons in the area.

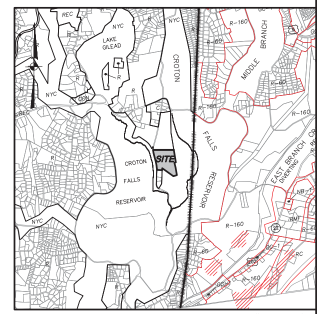
500' ADJOINERS

1. N/F VISTA ON THE LAKES, INC
2. N/F PUTNAM HOSPITAL CENTER
3. N/F CITY OF NEW YORK
4. N/F PUTNAM HOSPITAL CENTER
5. N/F SADKI, A. & KAORU, N.
6. N/F CITY OF NEW YORK





AREA MAP SCALE: 1" = 1000'



LOCATION MAP SCALE: 1" = 3000'

RECORD OWNER/APPLICANT:

The Hamlet at Carmel Associates, LLC
1777 Route 6
Carmel, NY 10152

SITE DATA:

Total Area:	35.28 AC. ±
Tax Map No.:	66-2-58
Zoning District:	R (Residential)
Proposed Use:	Multifamily Residential

GENERAL NOTES:

1. Property boundary shown hereon taken from subdivision plat entitled 'Boundary Line Adjustment Map prepared for Putnam Community Foundation and Putnam Hospital Center..." filed January 4, 2006 as map no. 3008."
2. Existing conditions and topography shown hereon taken from survey entitled "Topographic Survey prepared for The Putnam Community Foundation", prepared by Terry Bergendorff Collins, L.S., last revised April 25, 2007.

R – ZONE REQUIREMENTS:

	Required:	Provided:
Min. Lot Area:	120,000 SF	1,536,611 SF ±
Min. Lot Width:	200'	1,170' ±
Min. Lot Depth:	200'	1,161' ±
Min. Yard Setbacks:		
Front:	40'	655'
Side:	25'	102'
Rear:	40'	170'
Max. Building Height:	35'	<35'
Max. Building Coverage:	15 %	6.0%

* See §156–28 Multi–Family Dwellings Zoning Requirements below.

§156–28 MULTI–FAMILY DWELLINGS ZONING REQUIREMENTS: *

	Required/Permitted:	Provided:
Min. Lot Area	217,800 SF (10.0 AC)	1,536,611 SF ± (35.28 AC)
Max. Density (Units/Acre)	5.0	4.25
Max. Dwelling Units	150	150
Max. Building Coverage	30%	5.6%
Min. Property Line Setback	100'	102'
Max. Building Height/ Stories	35' / 2	less than 35' / 2
Distance Between Buildings	50'	50'
Max. Building Length	200'	200'
Min. Recreation Space	300 SF / unit	332 SF / unit

PARKING REQUIREMENTS: *

2.0 spaces per unit x 150 units – Required	= 300 spaces
Total spaces Provided	= 300 spaces

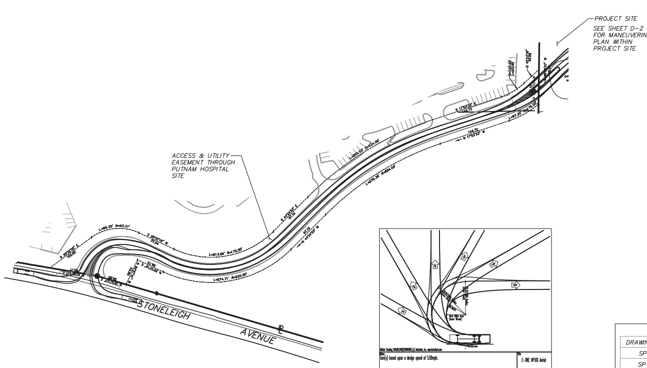
* Per §156–28 of the Town of Carmel Zoning Code.

RECREATION REQUIREMENTS:

1. Indoor Common Space: 10,885 SF±
2. Patio Area: 470 SF±
3. Active Recreation Area: (Playground, Sports Court) 10,500 SF±
3. Walking Path Area: 10,000 SF±
4. Common Green: 18,000 SF±

TOTAL RECREATION PROVIDED: 49,855 SF

TOTAL RECREATION REQUIRED: (300 SF/Unit x 150 Units) 45,000 SF



MANEUVERING PLAN
E-ONE AERIAL FIRE TRUCK
1" = 50'

LIST OF DRAWINGS

DRAWING NO.	DRAWING NAME	SHEET
SP–1	Overall Site Plan	1
SP–2	Layout, Landscape, & Lighting Plan	2
SP–3	Grading & Utilities Plan	3
SP–4	Erosion Control & Phasing Plan	4
D–1	Site Details	5
D–2	Site Details	6
D–3	Site Details	7
D–4	Stormwater Pond Details	8
D–5	Stormwater Pond Details	9

GRAPHIC SCALE
0 50 100 200
(IN FEET)
1 inch = 100 ft.

NO.	DATE	REVISION	BY
2	9–29–21	GENERAL REVISION	MEU
1	7–19–21	GENERAL REVISION	MEU

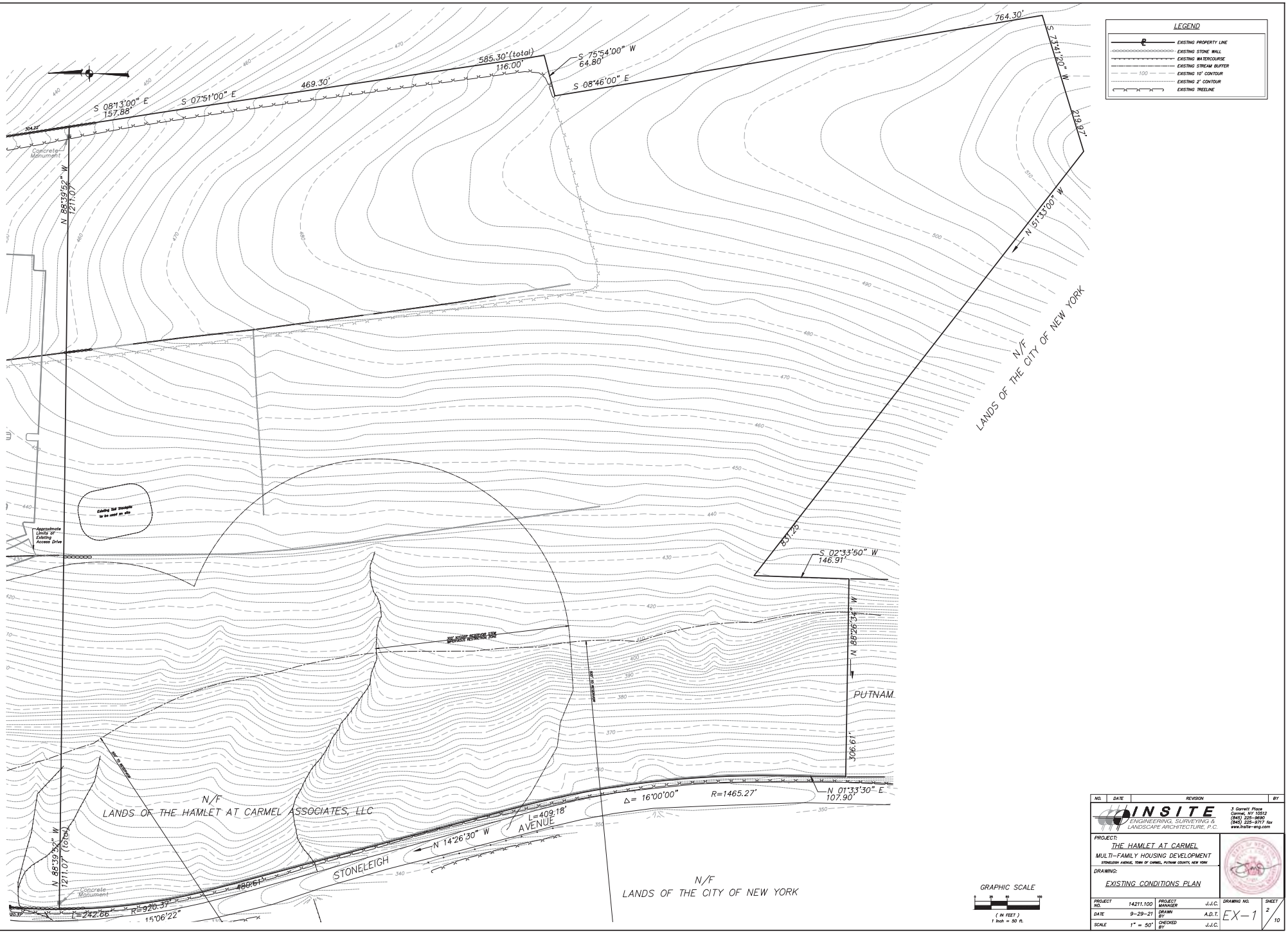
INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225–9690
(845) 225–9717 fax
www.insite–eng.com

PROJECT:
THE HAMLET AT CARMEL
MULTI–FAMILY HOUSING DEVELOPMENT
STONELEIGH AVENUE, TOWN OF CARMEL, PUTNAM COUNTY, NEW YORK

DRAWING:
OVERALL SITE PLAN

PROJECT NO.	14211.100	PROJECT MANAGER	J.J.C.
DATE	2–10–21	DRAWN BY	M.E.U.
SCALE	1" = 100'	CHECKED BY	J.J.C.

DRAWING NO. SP–1
SHEET 1 / 10



NO.	DATE	REVISION	BY

INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.

3 Garrett Place
Carmel, NY 10512
(845) 225-9690
(845) 225-9717 fax
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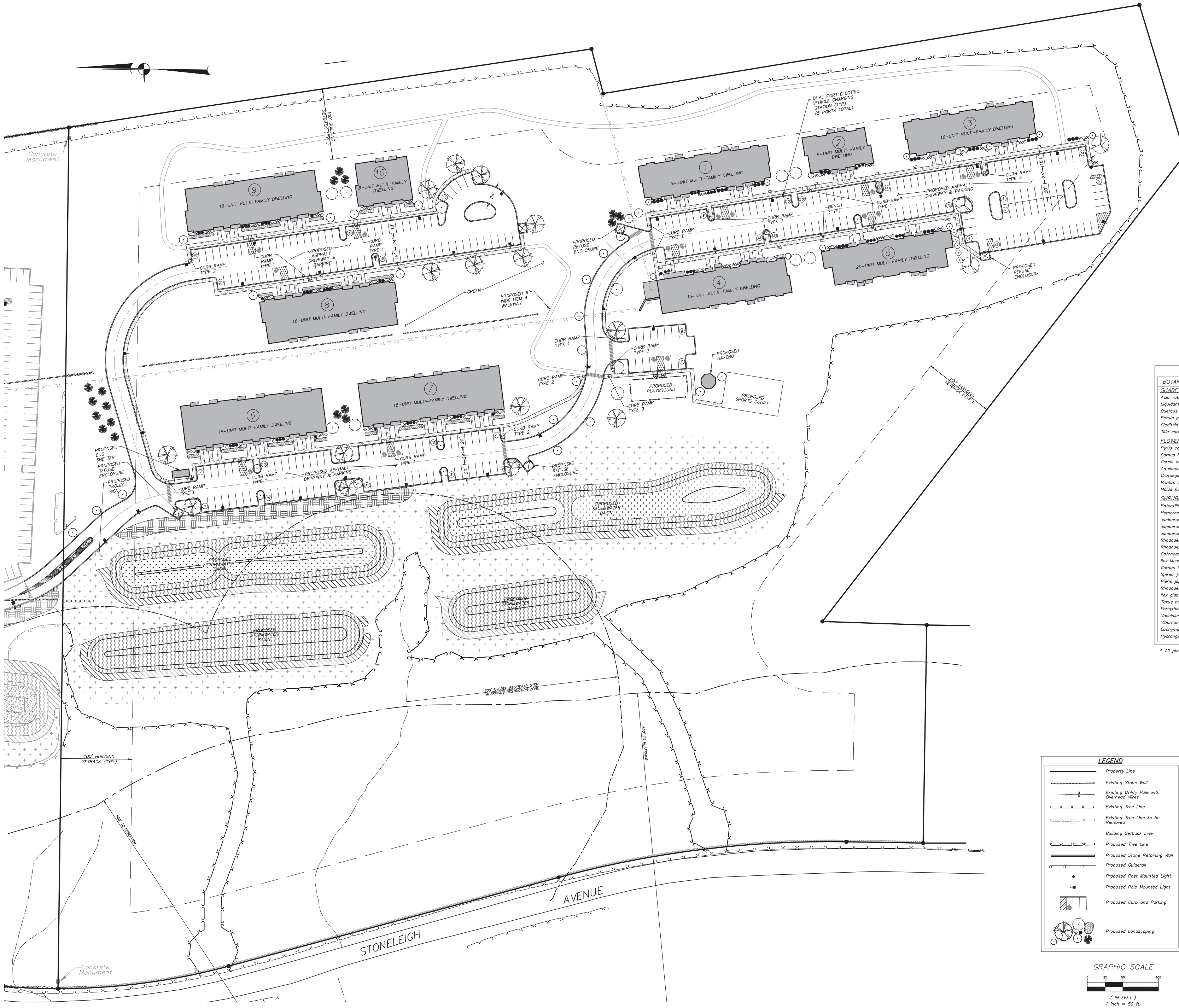
PROJECT:
THE HAMLET AT CARMEL
MULTI-FAMILY HOUSING DEVELOPMENT
STONELEIGH AVENUE, TOWN OF CARMEL, PUTNAM COUNTY, NEW YORK

DRAWING:
EXISTING CONDITIONS PLAN

PROJECT NO.	14211.100	PROJECT MANAGER	J.J.C.
DATE	9-29-21	DRAWN BY	A.D.T.
SCALE	1" = 50'	CHECKED BY	J.J.C.

DRAWING NO. EX-1
SHEET 2 / 10



PLANT LIST

BOTANICAL/COMMON NAME	SIZE	ROOT	REMARKS
SHADE TREES			
Acer rubrum 'October Glory' / October Glory Red Maple	2 1/2" – 3" CAL.	B & B	
Liquidamber styracifolia / Sweetgum	2 1/2" – 3" CAL.	B & B	
Quercus palustris / Pin Oak	2 1/2" – 3" CAL.	B & B	
Betula papyrifera / Paper Birch	8' – 10' HT.	B & B	Multi–stem
Gleditsia Tricanthos / Honey Locust	8' – 10' HT.	B & B	
Tilia cordata / Little Leaf Linden	8' – 10' HT.	B & B	
FLOWERING TREES			
Pyrus callaryana 'Bradford' / Bradford Pear	2" – 2 1/2" CAL	B & B	
Cornus Kousa / Kousa Dogwood	7' – 8' HT.	B & B	
Cercis canadensis / Eastern Redbud	8' – 10' HT.	B & B	
Amelanchier canadensis / Shadblow Serviceberry	8' – 10' HT.	B & B	Multi–stem
Crataegus phaenopyrum / Washington Hawthorn	2" – 2 1/2" CAL.	B & B	
Prunus cerasifera / Purple Leaf Plum	2" – 2 1/2" CAL.	B & B	
Malus floribunda / Japanese Flowering Crabapple	2" – 2 1/2" CAL.	B & B	
SHRUBS & GROUNDCOVERS			
Potentilla fruiticosa 'Sunset' / Sunset Potentilla	2 GAL.	CONT.	
Hemerocallis 'Stella D'Oro' / Miniature Daylilies	2 GAL.	CONT.	
Juniperus horizontalis 'Plumosa Nana' / Dwarf Andorra Juniper	3 GAL.	CONT.	
Juniperus sargentii / Sargent's Juniper	3 GAL.	CONT.	
Juniperus horizontalis 'Blue Rug' / Blue Rug Juniper	2 GAL.	CONT.	
Rhododendron 'PJM' / PJM Rhododendron	2' – 2 1/2' HT.	B & B	
Rhododendron 'Purple Gem' / Purple Gem Rhododendron	3 GAL.	CONT.	
Cotoneaster apiculata / Cranberry Cotoneaster	3 GAL.	CONT.	
Ilex Meservae / Holly	4' – 5' HT.	B & B	
Cornus Sericea / Red Twig Dogwood	4' – 5' HT.	B & B	
Spirea japonica 'Anthony Waterer' / Anthony Waterer Spirea	3' – 4' HT.	CONT.	
Pieris japonica 'Mt. Fire' / Mt. Fire Andromeda	2' – 2 1/2' HT.	CONT.	
Rhododendron catawbiense / Catawba Rhododendron	2 1/2' – 3' HT.	CONT.	
Ilex glabra compacta / Dwarf Inkberry	18" – 24" HT.	CONT.	
Taxus baccata 'rependens'/ English Yew	18" – 24" HT.	CONT.	
Forsythia x intermedia / Border Forsythia	4' – 5' HT.	CONT.	
Vaccinium angustifolium / Lowbush Blueberry	3 GAL.	CONT.	
Viburnum prunifolium / Blackhaw Viburnum	2 1/2' – 3' HT.	B & B	
Euonymus alatus 'compacta'/ Dwarf Burning Bush	2 1/2' – 3' HT.	CONT.	
Hydrangea arborescens "Annabelle" / Hydrangea	5 GAL.	CONT.	

* All plantings to be verified by the Town of Carmel Wetland Inspector.

Planting Notes:

1. All plant material to be nursery grown.
2. Plants shall conform with the American Association of Nurseryman Standards in all ways including dimensions.
3. Plants shall be planted in all locations designed on the plan or as staked in the field by the project Landscape Architect.
4. All plants shall be hardy under climate conditions similar to those in the locality of the project.
5. 4" pine bark mulch shall be spread over all landscaped areas.
6. All proposed seeded areas to receive 4" min. depth of topsoil and all proposed planting beds to receive a 12" min. depth of topsoil.
7. For all additional notes see detail sheets.
8. In addition to these standards, all plantings will be installed per §142 of the Town of Carmel Code.

LIGHTING NOTES:

1. All site lighting shall be solar powered.
2. Model, style and finish of all luminaires to be selected by owner and approved by the Planning Board.
3. Proposed lights will run on photocells.
4. Type, location, and shading of all proposed lighting shall prevent the spillover of light onto all adjacent residential properties.
5. All light fixtures to be full cutoff to comply with dark sky guidelines.

LEGEND

- Property Line
- Existing Stone Wall
- Existing Utility Pole with Overhead Wires
- Existing Tree Line
- Existing Tree Line to be Removed
- Building Setback Line
- Proposed Tree Line
- Proposed Stone Retaining Wall
- Proposed Guiderail
- Proposed Post Mounted Light
- Proposed Pole Mounted Light
- Proposed Curb and Parking
- Proposed Landscaping

GRAPHIC SCALE

0 25 50 100

(IN FEET)
1 inch = 50 ft.

NO.	DATE	REVISION	BY
3	9–29–21	GENERAL REVISION	MEU
2	8–30–21	GENERAL REVISION	MEU
1	7–19–21	GENERAL REVISION	MEU

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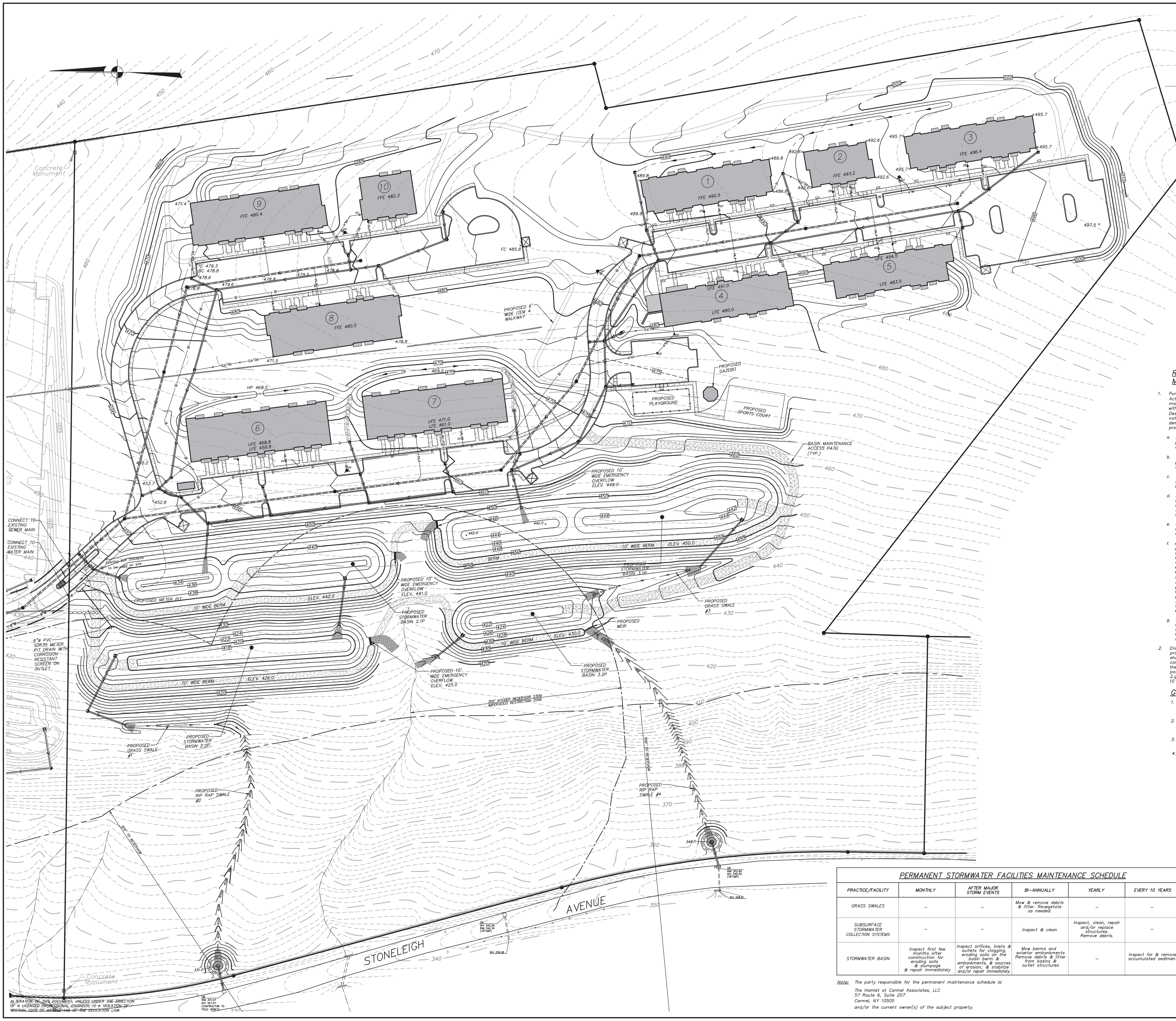
PROJECT:
THE HAMLET AT CARMEL
MULTI–FAMILY HOUSING DEVELOPMENT
STONELEIGH AVENUE, TOWN OF CARMEL, PUTNAM COUNTY, NEW YORK

DRAWING:
LAYOUT, LANDSCAPING, & LIGHTING PLAN

PROJECT NO.	14211.100	PROJECT MANAGER	J.J.C.
DATE	2–10–21	DRAWN BY	M.E.U.
SCALE	1" = 50'	CHECKED BY	J.J.C.

DRAWING NO. SP–2

SHEET 3 / 10



LEGEND

- Property Line
- Existing 2' Contour
- Existing 10' Contour
- Existing Spot Grade
- Existing Drain Inlet and Drainage Pipe
- Proposed 2' Contour
- Proposed 10' Contour
- Existing Stone Wall
- Existing Stone Wall to be Removed
- Proposed Retaining Wall
- Proposed 8"Ø PVC SDR 35 Sewer Main With Sewer Manhole
- Proposed HDPE Drainage Pipe
- Proposed Roof/Footing Drain
- Proposed Sewer Manhole
- Proposed Catch Basin/ Drain Inlet
- Proposed Drainage Manhole
- Proposed Outlet Structure
- Proposed End Section With Rip Rap Apron
- Proposed Grass Swale
- Proposed Riprap Swale
- Proposed 8"Ø PVC DR14 Water Main
- Proposed Fire Hydrant and Gate Valve
- Proposed 4"Ø PVC SDR 35 Sewer Service Line W/Clean Out
- Proposed 6"Ø PVC SDR 35 Sewer Service Line W/Clean Out
- Proposed 6"Ø PVC DR 14 (Main to Service Valve) or Ductile Iron Water (Service Valve to Building) Service Line (Final Size Per Fire Protection System Requirements)
- Proposed Gate Valve

REQUIRED POST-CONSTURCTION STORMWATER MANAGEMENT PRACTICE COMPONENTS:

1. Pursuant to the NYSDEC "SPDES General Permit for Stormwater Discharges from Construction Activity" (GP-0-20-001), all construction projects needing post-construction stormwater management practices shall prepare a SWPPP that also includes practices designed in conformance with the most current version of the technical standard, New York State Stormwater Management Design Manual ("Design Manual"). Where post-construction stormwater management practices are not designed in conformance with this technical standard, the owner or operator must demonstrate equivalence to the technical standard. The following list of SWPPP components is provided in accordance with Part III.B.2a-g and III.B.3:

   a. Identification of all post-construction stormwater management practices to be constructed as part of the project; This plan, and details/notes shown hereon serve to satisfy this SWPPP requirement.

   b. A site map/construction drawing(s) showing the specific location and size of each post-construction stormwater management practice; This plan, and details/notes shown hereon serve to satisfy this SWPPP requirement.

   c. The dimensions, material specifications and installation details for each post-construction stormwater management practice; This plan, and details/notes shown hereon serve to satisfy this SWPPP requirement.

   d. Identification of any elements of the design that are not in conformance with the Design Manual. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is equivalent to the technical standards; All post-construction stormwater management practices are in conformance with the Design Manual.

   e. A hydrologic and hydraulic analysis for all structural components of the stormwater management control system; The required analysis is provided in the report titled Stormwater Pollution Prevention Plan for The Putnam Community Foundation.

   f. A detailed summary (including calculations) of the sizing criteria that was used to design all post-construction stormwater management practices. At a minimum, the summary shall address the required design criteria from the applicable chapter of the Design Manual; including the identification of and justification for any deviations from the Design Manual, and identification of any design criteria that are not required based on the redevelopment criteria or waiver criteria included in the Design Manual; The stormwater practices are sized in accordance with the Design Manual, specifically chapters 4, 6, and 10. The stormwater facilities have been designed to provide water quality volume treatment (treatment of the 1 year 24-hour design storm per the Enhanced Phosphorus Removal Standards). Channel Protection Volume is provided through 24-hour center of mass detention of the 1 year 24-hour design storm. Overbank Flood Control and Extreme Flood Control are provided by attenuating post-development peak stormwater discharges to below pre-development levels for the 10-year and 100-year 24-hour design storm. Calculations are provided in report entitled Stormwater Pollution Prevention Plan for Putnam Community Foundation. All practices are designed in accordance with the Design Manual.

   g. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each post-construction stormwater management practice. The plan shall identify the entity that will be responsible for the long term operation and maintenance of each practice. The Permanent Stormwater Facilities Maintenance Schedule provided on these plans serves to satisfy this requirement.

2. Enhanced Phosphorus Removal Standards – Beginning on September 30, 2008, all construction projects identified in Table 2 of Appendix B that are located in the watersheds identified in Appendix C shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the most current version of the technical standard, New York Stormwater Management Design Manual. At a minimum, the post-construction stormwater management practice component of the SWPPP shall include items 2.a – 2.g above. The permanent stormwater practices for this project have been sized according to chapter 10 of the Design Manual Enhanced Phosphorus Removal Standards. Please see 2.a – 2.g above.

General Notes:

1. Property boundary shown hereon taken from subdivision plat entitled 'Boundary Line Ajustment Map prepared for Putnam Community Foundation and Putnam Hospital Center..." filed January 4, 2006 as map no. 3008 ."
2. Existing conditions and topography shown hereon taken from survey entitled "Topographic Survey prepared for The Putnam Community Foundation", prepared by Terry Begendorf Collins, L.S., last revised April 25, 2007.
3. Cleaning of existing drainage structures along Stoneleigh Avenue shall be accomplished as part of the required Highway Work Permit for the connection to the existing drainage structure.
4. Due to high pressures in the water main, pressure reducing valves shall be installed to protect domestic plumbing fixtures.

GRAPHIC SCALE

0 25 50 100

(IN FEET)
1 inch = 50 ft.

PERMANENT STORMWATER FACILITIES MAINTENANCE SCHEDULE

PRACTICE/FACILITY	MONTHLY	AFTER MAJOR STORM EVENTS	BI-ANNUALLY	YEARLY	EVERY 10 YEARS
GRASS SWALES	–	–	Mow & remove debris & litter. Revegetate as needed.	–	–
SUBSURFACE STORMWATER COLLECTION SYSTEMS	–	–	Inspect & clean	Inspect, clean, repair and/or replace structures. Remove debris.	–
STORMWATER BASIN	Inspect first few months after construction for eroding soils & slumpage & repair immediately	Inspect orifices, inlets & outlets for clogging, eroding soils on the basin berm & embankments, & sources of erosion; & stabilize and/or repair immediately.	Mow berms and exterior embankments Remove debris & litter from basins & outlet structures	–	Inspect for & remove accumulated sediment

Note: The party responsible for the permanent maintenance schedule is:

The Hamlet at Carmel Associates, LLC
57 Route 6, Suite 207
Carmel, NY 10505
and/or the current owner(s) of the subject property.

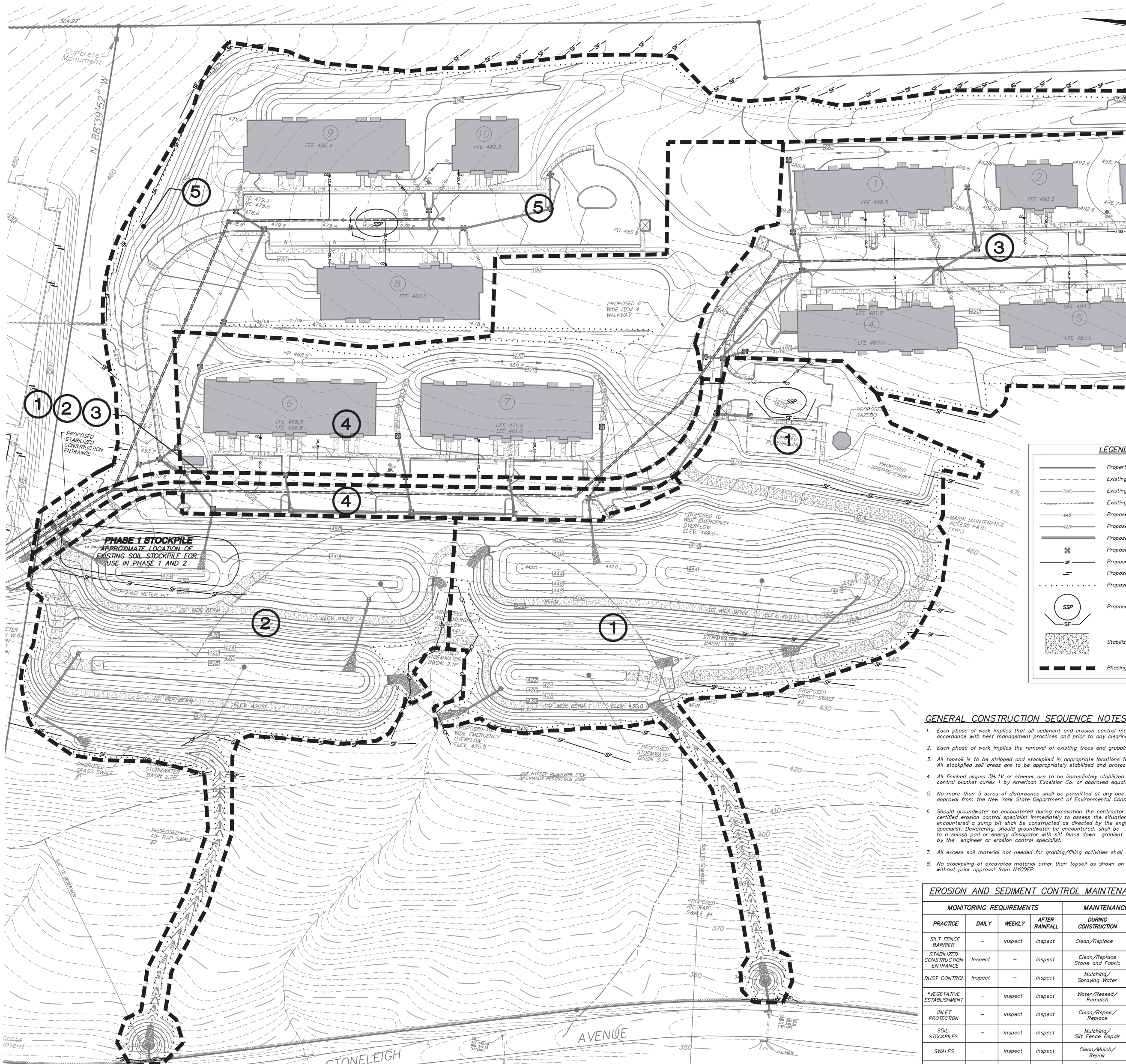
NO.	DATE	REVISION	BY
3	9-29-21	GENERAL REVISION	MEU
1	7-19-21	GENERAL REVISION	MEU

INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225-9690
(845) 225-9717 fax
www.insite-eng.com

PROJECT:
THE HAMLET AT CARMEL
MULTI-FAMILY HOUSING DEVELOPMENT
STONELEIGH AVENUE, TOWN OF CARMEL, PUTNAM COUNTY, NEW YORK

DRAWING:
GRADING & UTILITIES PLAN

PROJECT NO.	14211.100	PROJECT MANAGER	J.J.C.	DRAWING NO. SP-3	SHEET 4 / 10
DATE	2-10-21	DRAWN BY	M.E.U.		
SCALE	1" = 50'	CHECKED BY	J.J.C.		



LEGEND

- Property Line
- Existing 2' Contour
- Existing 10' Contour
- Existing Stone Wall
- Proposed 2' Contour
- Proposed 10' Contour
- Proposed Stone Retaining Wall
- Proposed Drain Inlet Protection
- Proposed Silt Fence
- Proposed Stone Check Dams
- Proposed Limits of Disturbance
- Proposed Soil Stockpile
- Stabilized Construction Entrance
- Phasing Line

REQUIRED EROSION CONTROL SWPPP CONTENTS:

Pursuant to the NYSDEC "SPDES General Permit for Stormwater Discharges from Construction Activity" (GP-0-20-001), all Stormwater Pollution Prevention Plan's (SWPPP) shall include erosion and sediment control practices designed in conformance with the most current version of the technical standard, "New York Standards and Specifications for Erosion and Sediment Control." Where erosion and sediment control practices are not designed in conformance with this technical standard, the owner or operator must demonstrate equivalence to the technical standard. The following list of required SWPPP components is provided in accordance with Part III.B.1a-l of General Permit GP-0-20-001:

a. Background Information: The subject project consists of the construction of 120 single bedroom senior housing units, a clubhouse and associated appurtenances.

b. Site map / construction drawing: This plan serves to satisfy this SWPPP requirement for planimetric design and details.

c. Description of the soils present at the site: Onsite soils located within the proposed limits of disturbance consist of Paxton fine sandy loams (PnB, PnC, PnD) and Charlton loam (ChE), as identified on the Soil Conservation Service Web Soil Survey. The Paxton type belongs to the Hydrologic Soil Group "C" and the Charlton soil belongs to Hydrologic Soil Group "B".

d. Construction phasing plan / sequence of operations: A Construction Sequence and Erosion and Sediment Control Maintenance Schedule has been provided. The Sedimentation and Erosion Control Notes contained hereon outline a general sequence of operations for the proposed project. In general all erosion and sediment control facilities shall be installed prior to commencement with land disturbing activities, and areas of disturbance shall be limited to the shortest period of time as practicable. As greater than five acres of disturbance is proposed, the project will be completed in phases with disturbance of less than five acres. Description of erosion and sediment control practices: This plan, and details / notes shown hereon serve to satisfy this SWPPP requirement.

e. Temporary and permanent soil stabilization plan: The Sedimentation and Erosion Control Notes and Details provided heron identify temporary and permanent stabilization measures to be employed with respect to specific elements of the project, and at the various stages of development.

f. Site map / construction drawing: This plan serves to satisfy this SWPPP requirement for erosion control notes and details.

g. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices: The Details, Sedimentation and Erosion Control Notes and Erosion and Sediment Control Maintenance Schedule serve to satisfy this SWPPP requirement.

h. An inspection schedule: Inspections are to be performed weekly and by a qualified professional as required by the General Permit GP-0-20-001. In addition the NYSDEC Trained Contractor shall perform additional inspections as cited in the Sedimentation and Erosion Control Notes.

i. A description of pollution prevention measures that will be used to control litter, construction chemicals and construction debris: In general, all construction litter / debris shall be collected and removed from the site. The general contractor shall supply either waste barrels or dumpster for proper waste disposal. Any construction chemicals utilized during construction shall either be removed from site daily by the contractor or stored in a structurally sound and weatherproof building. No hazardous waste shall be disposed of onsite, and shall ultimately be disposed of in accordance with all federal, state and local regulations. Material Safety Data Sheets (MSDS), material inventory, and emergency contact numbers shall be maintained by the general contractor for all construction chemicals utilized onsite. Finally, temporary sanitary facilities (portable toilets) shall be provided onsite during the entire length of construction, and inspected weekly for evidence of leaking holding tanks.

j. A description and location of any stormwater discharges associated with industrial activity other than construction at the site: There are no known industrial stormwater discharges present or proposed at the site.

k. Identification of any elements of the design that are not in conformance with the technical standard, "New York Standards and Specifications for Erosion and Sediment Control." All proposed elements of this SWPPP have been designed in accordance with the "New York Standards and Specifications for Erosion and Sediment Control."

GENERAL CONSTRUCTION SEQUENCE NOTES:

1. Each phase of work implies that all sediment and erosion control measures will be installed in accordance with best management practices and prior to any clearing and grubbing operations.
2. Each phase of work implies the removal of existing trees and grubbing of all tree root systems.
3. All topsoil is to be stripped and stockpiled in appropriate locations for future use on the site. All stockpiled soil areas are to be appropriately stabilized and protected.
4. All finished slopes 3H:1V or steeper are to be immediately stabilized and covered with erosion control blanket curlex 1 by American Excelsior Co. or approved equal.
5. No more than 5 acres of disturbance shall be permitted at any one time without prior written approval from the New York State Department of Environmental Conservation.
6. Should groundwater be encountered during excavation the contractor shall contact the project's certified erosion control specialist immediately to assess the situation. If groundwater is encountered a sump pit shall be constructed as directed by the engineer or erosion control specialist. Dewatering, should groundwater be encountered, shall be discharged from the sump to a splash pad or energy dissapator with silt fence down gradient. Final location as directed by the engineer or erosion control specialist.
7. All excess soil material not needed for grading/filling activities shall be removed from the site.
8. No stockpiling of excavated material other than topsoil as shown on these plans shall be done without prior approval from NYCDEP.

EROSION AND SEDIMENT CONTROL MAINTENANCE SCHEDULE

MONITORING REQUIREMENTS				MAINTENANCE REQUIREMENTS	
PRACTICE	DAILY	WEEKLY	AFTER RAINFALL	DURING CONSTRUCTION	AFTER CONSTRUCTION
SILT FENCE BARRIER	–	Inspect	Inspect	Clean/Replace	Remove
STABILIZED CONSTRUCTION ENTRANCE	Inspect	–	Inspect	Clean/Replace Stone and Fabric	Remove
DUST CONTROL	Inspect	–	Inspect	Mulching/ Spraying Water	N/A
*VEGETATIVE ESTABLISHMENT	–	Inspect	Inspect	Water/Reseed/ Remulch	Reseed to 80% Coverage
INLET PROTECTION	–	Inspect	Inspect	Clean/Repair/ Replace	Remove
SOIL STOCKPILES	–	Inspect	Inspect	Mulching/ Silt Fence Repair	Remove
SWALES	–	Inspect	Inspect	Clean/Mulch/ Repair	Mow Permanent Grass/Replace/ Repair Rip Rap
CHECK DAMS	–	Inspect	Inspect	Clean/Replace Stones/Repair	Clean/Replace Stones/Repair
CONCRETE DRAINAGE STRUCTURES	–	Inspect	Inspect	Clean Sumps/ Remove Debris/ Repair/Replace	Clean Sumps/ Remove Debris/ Repair/Replace
DRAINAGE PIPES	–	Inspect	Inspect	Clean/Repair	Clean/Repair
ROAD & PAVEMENT	–	Inspect	Inspect	Clean	Clean
*STORMWATER TRAP/BASIN	–	Inspect	Inspect	Clean/Mulch/ Repair/Reseed	See Permanent Stormwater Facilities Maintenance Schedule on Drawing SP-3.1

* Permanent vegetation is considered stabilized when 80% of the plant density is established. Erosion control measures shall remain in place until all disturbed areas area permanently stabilized.

Note: The party responsible for implementation of the maintenance schedule during and after construction is:
The Hamlet at Carmel Associates, LLC
57 Route 6, Suite 207
Carmel, NY 10505
and/or the current owner(s) of the subject property.

GRAPHIC SCALE
0 25 50 100
(IN FEET)
1 inch = 50 ft.

GENERAL NOTES:

1. Property boundary shown hereon taken from subdivision plat entitled 'Boundary Line Ajustment Map prepared for Putnam Community Foundation and Putnam Hospital Center..." filed January 4, 2006 as map no. 3008 ."
2. Existing conditions and topography shown hereon taken from survey entitled "Topographic Survey prepared for The Putnam Community Foundation", prepared by Terry Begendorf Collins, L.S., last revised April 25, 2007.

ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW.

SEDIMENTATION & EROSION CONTROL NOTES:

1. The Erosion Control Plan is only to be referred to for the installation of sedimentation and erosion control measures. For all other construction related activities, including, but not limited to, grading and utilities, refer to the appropriate drawings.
2. All soil erosion and sediment control practices shall be installed in accordance with New York-Standards and Specifications for Erosion & Sediment Control, latest edition.
3. Wherever feasible, natural vegetation should be retained and protected.
4. When land is exposed during development, the exposure shall be kept to the shortest practical period of time.
5. Silt fence and hay bales shall be installed as shown on drawing prior to beginning any clearing and grubbing or earthwork.
6. All topsoil to be stripped from the area being developed shall be stockpiled and immediately seeded with K-31 Perennial Tall Fescue.
7. Any graded areas not subject to further disturbance or construction traffic shall, within 10 days of final grading, receive permanent vegetation cover in combination with a suitable mulch. All seeded areas to receive a minimum 4" topsoil (from Seed mixture to be planted between April 1 and May 15, or between August stockpile area) and be seeded and mulched as follows:
15 and October 15 or as directed by project representative at a rate of 50 pounds per acre in the following proportions:

Kentucky Bluegrass	20%
Creeping Red Fescue	40%
Perennial Ryegrass	20%
Annual Ryegrass	20%

Mulch: Salt hay or small grain straw applied at a rate of 90 lbs./1000 s.f. or 2 tons/acre, to be applied and anchored according to New York-Guidelines for Urban Erosion & Sediment Control, latest edition.

8. Grass seed mix may be applied by either mechanical or hydroseeding methods. Hydroseeding shall be performed in accordance with the current edition of the NYSDOT Standard Specification, Construction and Materials, Section 610-3.02, Method No. 1.
9. Cut or fill slopes steeper than 3:1 shall be stabilized immediately after grading.
10. Paved roadways shall be kept clean at all times.
11. The site shall at all times be graded and maintained such that all stormwater runoff is diverted to soil erosion and sediment control facilities.
12. All storm drainage outlets shall be stabilized, as required, before the discharge points become operational.
13. Stormwater from disturbed areas must be passed through erosion control device before discharge beyond disturbed areas or discharged into other drainage systems.
14. Sedimentation and erosion control measures shall be inspected and maintained on a daily basis by NYSDEC Trained Contractor to insure that channels, temporary and permanent ditches and pipes are clear of debris, that embankments and berms have not been breached and that all straw bales and silt fences are intact. Any failure of sediment and erosion control measures shall be immediately repaired by the contractor and inspected for approval by the NYSDEC Trained Contractor and/or site engineer.
15. Dust shall be controlled by sprinkling or other approved methods as necessary, or as directed by the NYSDEC Trained Contractor.
16. Cut and fills shall not endanger adjoining property, nor divert water onto the property of others.
17. All fills shall be compacted to provide stability of material and to prevent settlement.
18. The NYSDEC Trained Contractor shall inspect downstream conditions for evidence of sedimentation on a weekly basis and after rainstorms.
19. As warranted by field conditions, special additional sedimentation and erosion control measures, as specified by the site engineer and/or Town Engineer shall be installed by the contractor.
20. Erosion control measures shall remain in place until all disturbed areas are suitably stabilized.

NO.	DATE	REVISION	BY
2	9-29-21	GENERAL REVISION	MEU
1	7-19-21	GENERAL REVISION	MEU

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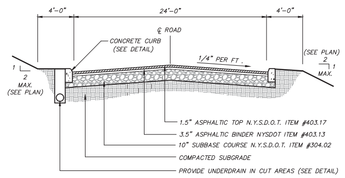
www.insite-eng.com

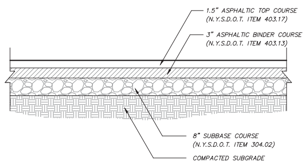
PROJECT:
THE HAMLET AT CARMEL
MULTI-FAMILY HOUSING DEVELOPMENT
STONELEIGH AVENUE, TOWN OF CARMEL, PUTNAM COUNTY, NEW YORK

DRAWING:
EROSION CONTROL & PHASING PLAN

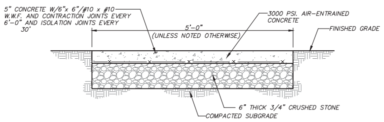
PROJECT NO.	14211.100	PROJECT MANAGER	J.J.C.	DRAWING NO.	SHEET
DATE	2-10-21	DRAWN BY	M.E.U.	SP-4	5 / 10
SCALE	1" = 50'	CHECKED BY	J.J.C.		



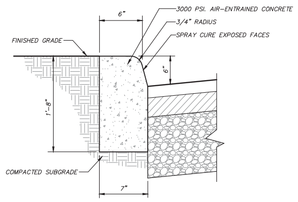
ACCESS ROAD DETAIL
(N.T.S.)



MULTI-FAMILY DRIVEWAY / PARKING SPACE DETAILS
(N.T.S.)

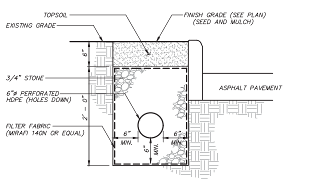


CONCRETE SIDEWALK DETAIL
(N.T.S.)

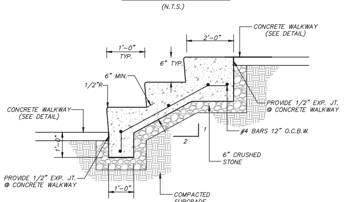


NOTE: ISOLATION JOINTS 1/2" WIDE SHALL BE INSTALLED IN THE CURB 20'-0" APART AND SHALL BE FILLED WITH CELLULAR COMPRESSION MATERIALS AS SPECIFIED, RECESSED 1/4" IN FROM FRONT FACE AND TOP OF CURB.

CONCRETE CURB DETAIL
(N.T.S.)

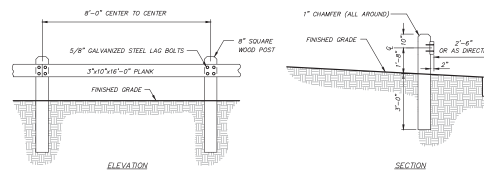


UNDERDRAIN DETAIL
(N.T.S.)



NOTES:
1. REFER TO PLAN FOR NUMBER OF RISERS AND TREADS.

CONCRETE STEPS DETAIL
(N.T.S.)

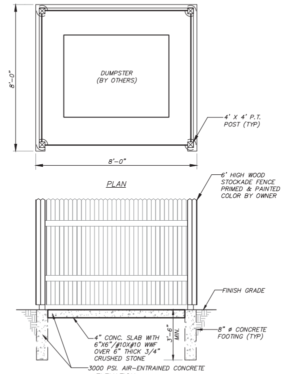


ELEVATION

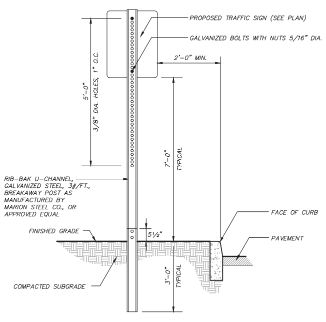
SECTION

NOTES:
1. ALL WOOD TO BE SEASONED NO.1 DOUGLAS FIR, SOUTHERN PINE OR OTHER APPROVED STRUCTURAL LUMBER.
2. ALL WOOD TO BE TREATED WITH AN APPROVED WOOD PRESERVATIVE SUITABLE FOR INSTALLATION IN AND ADJACENT TO GROUND SURFACES.

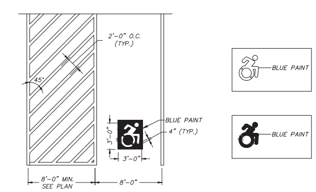
WOOD GUIDE RAIL DETAIL
(N.T.S.)



DUMPSTER ENCLOSURE DETAIL
(N.T.S.)

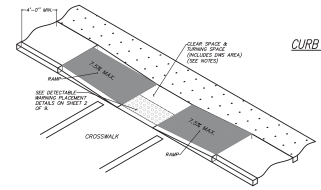


TRAFFIC SIGN DETAIL
(N.T.S.)



NOTES:
ALL HANDICAP STRIPING SHALL BE 4" WIDE BLUE PAINT.

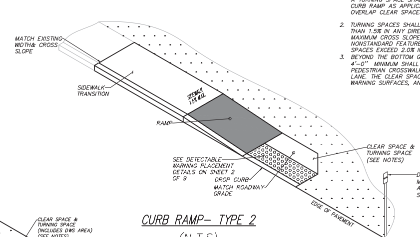
PAINTED NYS ACCESSIBLE PARKING DETAIL
(N.T.S.)



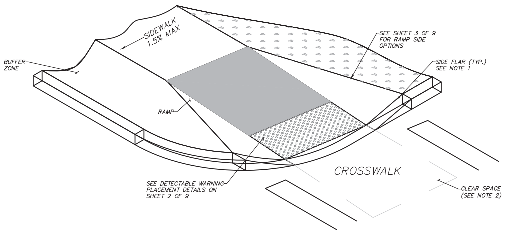
CURB RAMP- TYPE 1
(N.T.S)

NOTES:
1. WHERE A CHANGE IN DIRECTION IS REQUIRED TO UTILIZE A CURB RAMP, A TURNING SPACE SHALL BE PROVIDED AT THE BASE OR THE TOP OF CURB RAMP AS APPLICABLE. TURNING SPACES SHALL BE PERMITTED TO OVERLAP CLEAR SPACES.
2. TURNING SPACES SHALL NOT BE DESIGNED WITH CROSS SLOPE GREATER THAN 1.5% IN ANY DIRECTION, WHILE PROVIDING POSITIVE DRAINAGE. THE MAXIMUM CROSS SLOPE FOR WORK ACCEPTANCE IS 2.0% A NONSTANDARD FEATURE JUSTIFICATION IS REQUIRED WHERE TURNING SPACES EXCEED 2.0% IN ANY DIRECTION.
3. BEYOND THE BOTTOM GRADE BREAK, A CLEAR SPACE OF 4'-0" x 4'-0" MINIMUM SHALL BE PROVIDED WITHIN THE WIDTH OF THE PEDESTRIAN CROSSWALK, AND OUTSIDE THE PARALLEL VEHICLE TRAVEL LANE. THE CLEAR SPACE MAY OVERLAP TURNING SPACES, DETECTABLE WARNING SURFACES, AND DROP CURBS.

NOTES:
1. WHERE A CHANGE IN DIRECTION IS REQUIRED TO UTILIZE A CURB RAMP, A TURNING SPACE SHALL BE PROVIDED AT THE BASE OR THE TOP OF CURB RAMP AS APPLICABLE. TURNING SPACES SHALL BE PERMITTED TO OVERLAP CLEAR SPACES.
2. TURNING SPACES SHALL NOT BE DESIGNED WITH CROSS SLOPE GREATER THAN 1.5% IN ANY DIRECTION, WHILE PROVIDING POSITIVE DRAINAGE. THE MAXIMUM CROSS SLOPE FOR WORK ACCEPTANCE IS 2.0% A NONSTANDARD FEATURE JUSTIFICATION IS REQUIRED WHERE TURNING SPACES EXCEED 2.0% IN ANY DIRECTION.
3. BEYOND THE BOTTOM GRADE BREAK, A CLEAR SPACE OF 4'-0" x 4'-0" MINIMUM SHALL BE PROVIDED WITHIN THE WIDTH OF THE PEDESTRIAN CROSSWALK, AND OUTSIDE THE PARALLEL VEHICLE TRAVEL LANE. THE CLEAR SPACE MAY OVERLAP TURNING SPACES, DETECTABLE WARNING SURFACES, AND DROP CURBS.



CURB RAMP- TYPE 2
(N.T.S)

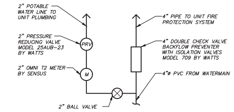


CURB RAMP- TYPE 3
(N.T.S)

NOTES:
1. RAMP SIDE OPTIONS ARE DETAILED ON SHEET 3 OF 9 FOR USE WITH THE BUFFER ZONE. WHERE A PEDESTRIAN CIRCULATION PATH CROSSES THE CURB RAMP, FLARED SIDES, SHALL BE INSTALLED WITH A MAX. SLOPE OF 9.5% FOR DESIGN AND LAYOUT, AND 10% MAX. FOR WORK ACCEPTANCE. THE SLOPE OF FLARED SIDES IS MEASURED PARALLEL TO THE CURB LINE.
2. BEYOND THE BOTTOM GRADE BREAK, A CLEAR SPACE OF 4'-0" X 4'0" MIN. SHALL BE PROVIDED WITHIN THE WIDTH OF PEDESTRIAN CROSSWALK, AND OUTSIDE THE PARALLEL VEHICLE TRAVEL LANE. THE CLEAR SPACE MAY OVERLAP TURNING SPACES, DETECTABLE WARNING SURFACES, AND DROP CURBS.

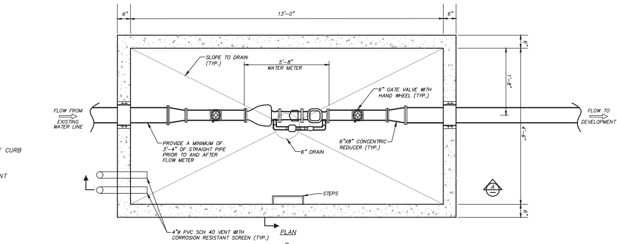
GENERAL NOTES FOR ACCESSIBLE ROUTES ON THE SITE:

1. Accessible routes on the site include marked accessible parking spaces and access aisles, sidewalk curb ramps, walkways and ramps.
2. Marked accessible parking spaces and access aisles shall have surface slopes not steeper than 1:50. (2%)
3. Sidewalk curb ramps shall comply with the following items as applicable:
   a. Walking surfaces of sidewalk curb ramps shall be stable, firm and slip resistant.
   b. The running slope shall not exceed 8.0%.
   c. The cross slope shall not exceed 1:50 (2%).
   d. Landings and blended transitions shall be constructed to prevent the accumulation of water.
   e. Where provided, side flares for curb ramps shall not be steeper than 1:10 (10%).
   f. Curb ramps at marked crosswalks shall be wholly contained within the markings, excluding any flared sides.
   g. Landings shall be provided at the top of curb ramps. the clear length of the landing shall be 36 inches minimum. the clear width of the landing shall be at least as wide as the curb ramp, excluding flared sides, leading to the landing.
   h. Where detectable warnings are provided on curb ramps, they shall be 24 inches minimum in depth in the direction of travel, shall extend the full width of the curb ramp or flush surface, and be located so that the edge nearest the curb line is 6 inches minimum and 8 inches maximum from the curb line.
   i. Refer to sidewalk curb ramp details for additional information.
4. Walkways along an accessible route shall comply with the following items as applicable:
   a. Walking surfaces shall be stable, firm and slip resistant.
   b. Vertical changes in level along walking surface shall not exceed 1/4". Changes in level greater than 1/4" in height and not more than 1/2" shall be beveled with a slope not steeper than 1:2.
   c. The running slope of the walking surfaces shall not be steeper than 1:20 (5%).
   d. The cross slope of a walking surface shall not be steeper than 1:50 (2%).
   e. The clear width of an accessible route shall be 36" minimum.
   f. An accessible route with a clear width less than 60 inches shall provide passing spaces at intervals of 200 feet maximum. passing spaces shall be 60 inch minimum by 60 inch minimum.
5. Ramps along an accessible route shall comply with the following items:
   a. Ramp runs shall have a running slope greater than 1:20 (5%) and not steeper than 8.0%..
   b. The cross slope of ramp runs shall not exceed 1:50 (2%).
   c. Walking surfaces of ramp runs and associated landings shall be stable, firm and slip resistant.
   d. The clear width of a ramp run shall be 36 inches minimum or as shown. handrails and handrail supports that are provided on the ramp run shall not project into the required clear width of the ramp run or associated landing.
   e. The maximum rise for any ramp is 2'-6".
   f. The maximum run for any ramp is 30'-0".
   g. Ramps shall have landings at the bottom and top of each ramp run. landings shall have a slope not to exceed 1:50 (2%) and shall have a clear length and width of 60" minimum.
   h. Adjacent finished grades along sides of ramp shall not have a vertical dropoff of 1/2" within 10" of the edge of the concrete.
   i. Refer to concrete handicap ramp detail for additional information.



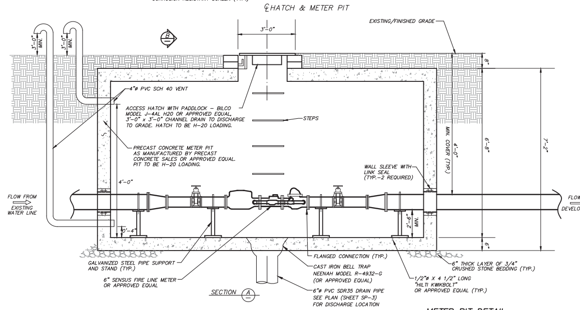
MULTIPLE FAMILY WATER SERVICE SCHEMATIC DETAIL
(N.T.S.)

NOTES:
1. THIS DETAIL SHOWS SCHEMATIC WATER SERVICE, FINAL DESIGN AND LOCATION BY MECHANICAL ENGINEER.
2. THE DOUBLE CHECK VALVE (DCV) BACKFLOW PREVENTER SHALL HAVE THE FOLLOWING CLEARANCES:
   8" MINIMUM BEHIND
   30" MINIMUM IN FRONT
   30" MINIMUM OFF FLOOR
   60" MAXIMUM ABOVE FLOOR
   24" MINIMUM CLEAR DISTANCE ABOVE

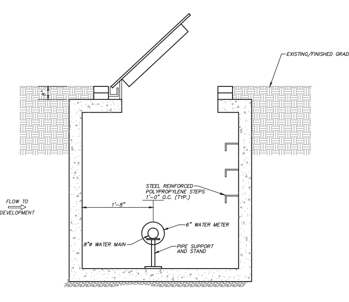


PLAN

HATCH & METER PIT



SECTION A

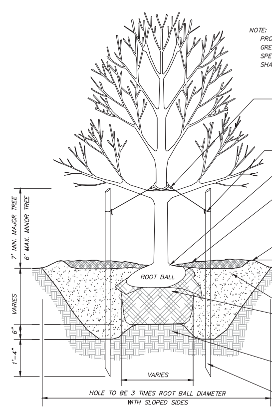


SECTION B

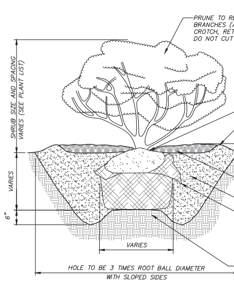
METER PIT NOTES:
1. CONCRETE VAULTS TO TEST AT 5,000 PSI FOR 28 DAYS. PLASTIC TO EXCEED 20,000 LB. VERTICAL CRUSH LIMIT.
2. 36"x36" BILCO DOORS WILL BE EMPLOYED ON NON DRIVE AREAS OTHERWISE A 30" MANHOLE COVER AND FRAME, H20 LOADING WITH BRICK CHIMNEY TO GRADE ABOVE SLOPE AND WILL GRADE AWAY FROM MANHOLE COVER IN ALL DIRECTIONS. ENTRANCE TO METER VAULT SHALL BE CLOSEST TO METER IF POSSIBLE. PVC OR ALUMINUM RUNGS MUST BE TO THE TOP OF THE ENTRANCE.
3. ALL PIPES SHALL HAVE A STRAIGHT RUN THROUGH VAULT.
4. VENT PIPES WILL BE 4" PLASTIC (SCHEDULE 40) WITH SCREENED OPENINGS ONLY. VENTS WILL BE PLACED OPPOSITE OF OPENING AND HAVE ONE 4" FROM FLOOR AND OTHER 4' FROM FLOOR.
5. VAULTS SHALL HAVE A MINIMUM 6" OF 3/4" CRUSHED STONE, LEVELED AND LAID OVER STABLE NATIVE SOIL. IF EXCAVATION REVEALS UNSTABLE SOIL, BEDDING REQUIREMENT SHALL BE MODIFIED BY PROJECT ENGINEER.
6. GALVANIZED STEEL SUPPORTS FOR METER SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
7. NO BYPASS IS ALLOWED AROUND METER.

METER PIT DETAIL
(N.T.S.)

NOTE:
PROVIDE STAKING AND GUYING FOR TREES PLANTED ON SLOPES GREATER THAN 3H:1V, IN EXPOSED, WINDY AREAS AND AS SPECIFIED BY LANDSCAPE ARCHITECT. GUY WIRES AND STAKES SHALL BE REMOVED WITHIN TWELVE (12) MONTHS OF PLANTING.



TREE PLANTING DETAIL
(N.T.S.)



NOTE:
CONTRACTOR SHALL HAVE OPTION OF PLANTING SHRUBS IN INDIVIDUAL PITS AS SHOWN OR IN UNINTERRUPTED EXCAVATION FOR ENTIRE BED. IN EITHER CASE BACKFILL WITH TOPSOIL MIX AS SPECIFIED.

SHRUB PLANTING DETAIL
(N.T.S.)

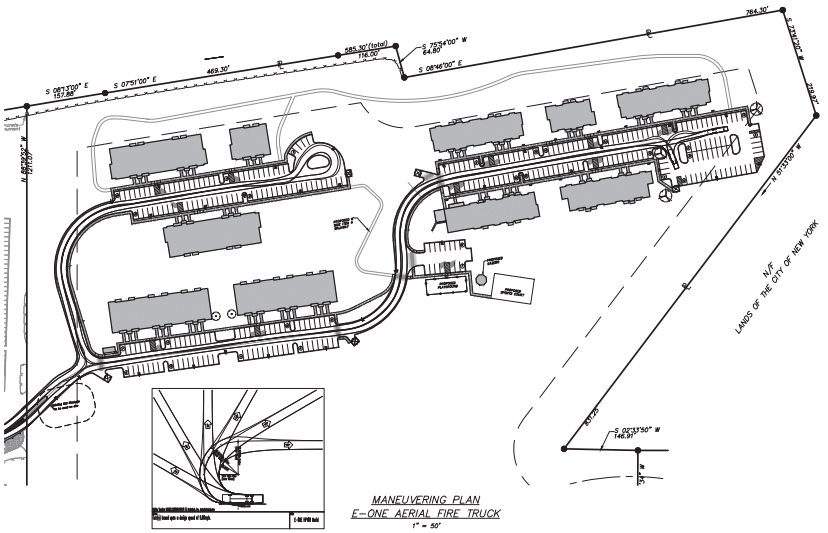
NO.	DATE	REVISION	BY
2	9-29-21	GENERAL REVISION	MEU
1	7-19-21	GENERAL REVISION	MEU

INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225-9690
(845) 225-9717 fax
www.insite-eng.com

PROJECT:
THE HAMLET AT CARMEL
MULTI-FAMILY HOUSING DEVELOPMENT
STONELEIGH AVENUE, TOWN OF CARMEL, PUTNAM COUNTY, NEW YORK

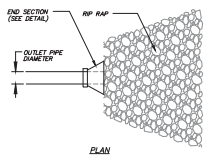
DRAWING:
SITE DETAILS

PROJECT NO.	14211.100	PROJECT MANAGER	J.J.C.	DRAWING NO. D-1	SHEET 6 / 10
DATE	2-10-21	DRAWN BY	M.E.U.		
SCALE	AS SHOWN	CHECKED BY	J.J.C.		

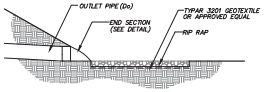


MANEUVERING PLAN
E-ONE AERIAL FIRE TRUCK
1" = 50'

Note: See drawing SP-1 for maneuvers through Putnam Hospital site to Stoneleigh Avenue.

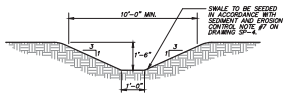


PLAN



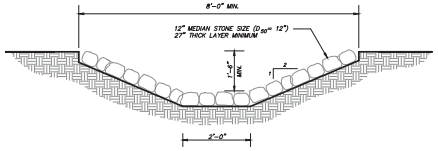
SECTION

RIP RAP APRON DETAIL
(N.T.S.)

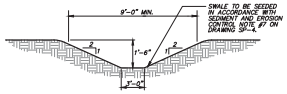


GRASS SWALE TO BE LINED WITH CHANNEL LINER C-125 AS MANUFACTURED BY "NORTH AMERICAN GREEN" OR APPROVED EQUAL

GRASS SWALE #1 DETAIL
(N.T.S.)

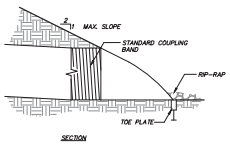


RIP RAP SWALE #2 DETAIL
(N.T.S.)

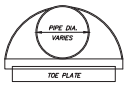


GRASS SWALE TO BE LINED WITH CHANNEL LINER C-125 AS MANUFACTURED BY "NORTH AMERICAN GREEN" OR APPROVED EQUAL

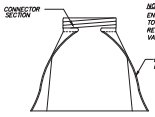
GRASS SWALE #3 DETAIL
(N.T.S.)



SECTION

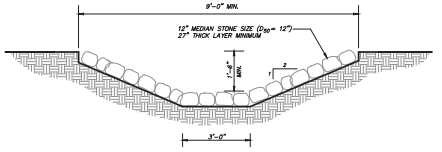


ELEVATION

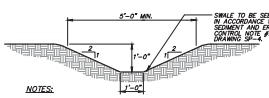


PLAN

END SECTION DETAIL
(N.T.S.)

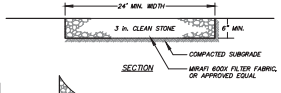


RIP RAP SWALE #4 DETAIL
(N.T.S.)

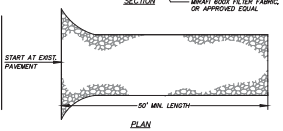


NOTES:
1. GRASS SWALE TO BE LINED WITH CHANNEL LINER C-125 AS MANUFACTURED BY "NORTH AMERICAN GREEN" OR APPROVED EQUAL.
2. ALL GRASS SWALES NOT LABELED #1, #2, #3, OR #4 IN THE DRAWING SET SHALL CONFORM TO THIS DETAIL.

GRASS SWALE DETAIL
(N.T.S.)



SECTION

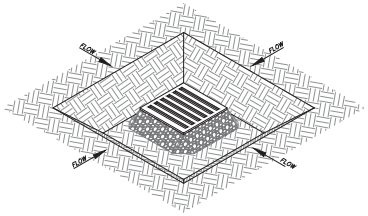


PLAN

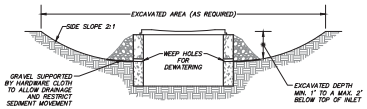
INSTALLATION NOTES

1. STONE SIZE – USE 3" STONE
2. LENGTH – AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.)
3. THICKNESS – NOT LESS THAN SIX (6) INCHES.
4. WIDTH – 10 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCUR.
5. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER CLOTH WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING – WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

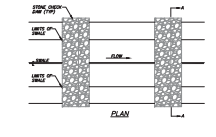
STABILIZED CONSTRUCTION ENTRANCE DETAIL
(N.T.S.)



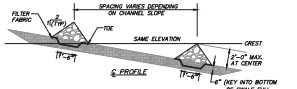
EXCAVATED DROP INLET PROTECTION DETAIL
(N.T.S.)



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



PLAN



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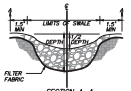
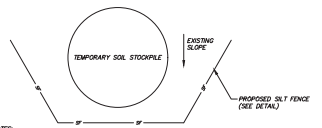


SECTION A-A

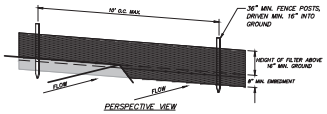
NOTES:
1. STONE SHALL BE PLACED ON A FILTER FABRIC FOUNDATION. STONE TO BE WELL-GRADED 2" TO 12" DIAMETER.
2. SET SPACING OF CHECK DAMS SO THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE LINER AS APPROPRIATE.
5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.

STONE CHECK DAM DETAIL
(N.T.S.)

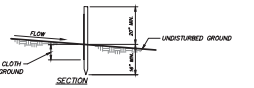


NOTES:
1. AREA CHOSEN FOR STOCKPILE LOCATION SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 2:1.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE IMMEDIATELY SEEDED WITH K31 PERENNIAL TALL FESCUE.
4. ALL STOCKPILES SHALL BE PROTECTED WITH SILT FENCING INSTALLED ON THE DOWNGRADIENT SIDE.

TEMPORARY SOIL STOCKPILE DETAIL
(N.T.S.)



PERSPECTIVE VIEW



SECTION

CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

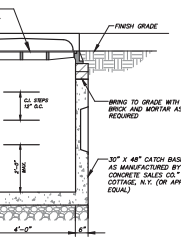
1. FILTER CLOTH TO BE FASTENED SECURELY TO POSTS AT TOP AND MID SECTION.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
3. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD

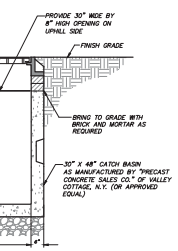
FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUAL

PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL

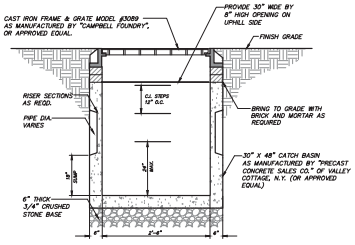
SILT FENCE DETAIL
(N.T.S.)



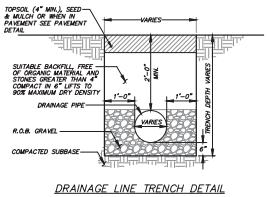
CATCH BASIN DETAIL
(N.T.S.)
(STRUCTURE AND GRATE TO BE DESIGNED FOR H-20 LOADING)



DEEP SUMP SIDE DRAIN INLET DETAIL
(N.T.S.)
(STRUCTURE AND GRATE TO BE DESIGNED FOR H-20 LOADING)



SIDE DRAIN INLET DETAIL
(N.T.S.)
(STRUCTURE AND GRATE TO BE DESIGNED FOR H-20 LOADING)



DRAINAGE LINE TRENCH DETAIL
(N.T.S.)

NO.	DATE	REVISION	BY
2	9-29-21	GENERAL REVISION	MEU
1	7-19-21	GENERAL REVISION	MEU

INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
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www.insite-eng.com

PROJECT:
THE HAMLET AT CARMEL
MULTI-FAMILY HOUSING DEVELOPMENT
STONELEIGH AVENUE, TOWN OF CARMEL, PUTNAM COUNTY, NEW YORK

DRAWING:
SITE DETAILS

PROJECT NO.	14211.100	PROJECT MANAGER	J.J.C.
DATE	2-10-21	DRAWN BY	M.E.U.
SCALE	AS SHOWN	CHECKED BY	J.J.C.

DRAWING NO. D-2
SHEET 7 / 10

WATER MAIN NOTES:

1. All water mains shall be either Class 52 cement lined tyton joint ductile iron pipe or PVC Class 200 DR 14 pipe with factory installed push-on gaskets unless otherwise noted. All pipe shall be in conformance with the latest edition AWWA C600 or C900.
2. All water main fittings shall be Class 350 ductile iron mechanical joints in accordance with the latest edition of AWWA/ANSI Standards C111/A21.11. "GRIP RING" restrained joint connections shall be provided at every fitting (as manufactured by PONAM Industries, Inc. or approved equal).
3. Thrust blocks shall be installed at all changes in horizontal or vertical alignment.
4. All water mains and appurtenances shall be installed in accordance with the latest edition of AWWA C600 or C605.
5. Gate valves shall be "Mueller" or approved equal, iron body, non-rising stem conventional (solid wedge), resilient seated, mechanical joint with restrained joint gaskets, pressure class 350, opening shall be left (CCW) and operation shall be by 2" square wrench nut.
6. All water mains and appurtenances (including water service lines up to the curb stop) shall be pressure tested and leakage tested to the satisfaction of the Design Engineer, and the Putnam County Department of Health. This shall be done in accordance with the latest edition of AWWA Standard C600 & C605.
7. All water mains and appurtenances shall be flushed, disinfected, and tested to the satisfaction of the Design Engineer, and the Putnam County Department of Health. This shall be done in accordance with the latest edition of AWWA Standard C651, section 4.4.3, the "Continuous Feed Method". The "Tablet method" will not be allowed.
8. Water mains shall be laid at least 10 feet horizontally from any existing or proposed sanitary or storm sewer main. The distance shall be measured edge to edge. In cases where it is not practical to maintain a 10 foot separation, the Design Engineer and Putnam County Department of Health may allow deviation with prior approval on a case-by-case basis, if supported by data from the Design Engineer prior to the installation of the water lines. The horizontal separation also applies to water service connections.
9. Water mains crossing sanitary or storm sewer mains shall be laid to provide a minimum vertical distance of 18 inches between the outside of the water main and the outside of the sewer. This shall be the case where the water main is either above or below the sewer. The crossing shall be arranged so that the sewer joints will be equidistant and as far as possible from the water main joints. Where a water main crosses under a sewer, adequate structural support shall be provided for the sewer to maintain line and grade. In cases where it is not practical to maintain the 18 inch vertical separation, the Design Engineer and Putnam County Department of Health may allow deviation with prior approval on a case-by-case basis, if supported by data from the Design Engineer prior to the installation of the water lines. The vertical separation also applies to water service connections.
9. The Design Engineer, Putnam County Department of Health, and Town's Authorized Representative shall be notified forty eight (48) hours before construction is started.
10. The water mains shall not be placed into service until a certificate of construction compliance has been submitted to and accepted by the Putnam County Department of Health.
11. The Putnam County Department of Health and the New York City Department of Environmental Protection must be notified forty eight (48) hours prior to pressure testing the water main improvements.

WATER MAIN TESTING PROCEDURES

TESTS ON PRESSURE PIPING FOR TRANSPORT OF WATER

A. Hydrostatic Pressure Test
Hydrostatic testing shall be performed in accordance with the revision of AWWA C600, Section 5.2,"Hydrostatic Testing" or AWWA C605, Section 7.3, "Hydrostatic Testing".

1. Test pressure shall be as scheduled or, where no pressure is scheduled, shall be 150 psi, or 1.25 times the static operating pressure, whichever is higher.
2. Test pressure shall be held on the piping for a period of at least 2 hours, unless a longer period is requested by the Engineer.
3. The test medium shall be water.

B. Hydrostatic Leakage Test

1. The leakage test shall be conducted concurrently with the pressure test.
2. The rate of leakage shall be determined at 15-minute intervals by means of volumetric measurement of the makeup water added to maintain the test pressure. The test shall proceed until the rate of leakage has stabilized or is decreasing below an allowable value, for three consecutive 15-minute intervals. After this, the test pressure shall be maintained for at least another 15 minutes.
   a. At the completion of the test, the pressure shall be released at the furthermost point from the point of application.
3. All exposed piping shall be examined during the test and all leaks, defective material or joints shall be repaired or replaced before repeating the tests.
4. The allowable leakage will be determined by the following formula.

$$Q = \frac{LD\sqrt{P}}{148,000}$$

Where:
Q = quantity of makeup water, in gallons per hour
L = length of pipe tested, in feet
D = nominal diameter of the pipe, in inches
P = average test pressure during the hydrostatic test, in pounds per square inch (gauge)

5. Regardless of the above allowables, any visible leaks shall be permanently stopped.
6. The test medium shall be water.

C. Disinfection
Prior to placing the water main into service, the new pipe shall be cleaned and disinfected in accordance with the latest revision of AWWA C651, Section 4.4.3, "The Continuous Feed Method". The "Tablet Method" will not be accepted.

1. All work under this section shall be performed in the presence of the Design Engineer, and a representative of the public health authority having jurisdiction, as required.
2. Chlorination shall be scheduled such that sampling and flushing will be performed during normal daylight working hours. The contractor shall provide acceptable backflow prevention on all supply water to prevent any potential backflow contamination or cross connection.
3. Chlorination shall be by the use of a solution of water and liquid chlorine, calcium hypochlorite or sodium hypochlorite and the solution shall be contained in the pipe or structure as specified.
4. Prior to chlorination, all dirt and foreign matter shall be removed by a thorough cleaning and flushing of the pipeline or structure.
5. The chlorine solution shall be introduced to pipelines through corporation stops placed in the horizontal axis of the pipe, to structures by means of tubing extending directly into the structure, or other approved methods.
6. The application of the chlorine solution shall be by means of a controlled solution feed device. The rate of chlorine solution flow shall be in such proportion to the rate of water entering the pipe or structure that the resulting free chlorine residual shall be between 25 and 50 parts per million (PPM) or milligrams per liter (mg/l).
7. The chlorine treated water shall be retained in the pipe or structure at least 24 hours, unless otherwise directed. During the retention period, all valves and hydrants within the treated sections shall be operated.
8. The chlorine residual shall be not less than 10 PPM (or mg/l) at any point in the pipe or structure at the end of the 24-hour retention period.
9. When making repairs to, or when specified, structures and portions of pipelines shall be chlorinated by a concentrated chlorine solution containing not less than 200 PPM (mg/l) of free chlorine. The solution shall be applied with a brush or sprayed on the entire inner surface of the empty pipes or structures. The structures disinfected shall remain in contact with the strong chlorine solution for at least 30 minutes.
10. After the required retention of chlorinated water in the pipe or structures, they shall be thoroughly flushed until the replacement water shall, upon test, both chemically and bacteriological, be proven equal to water quality served by the public from the existing water supply system.
11. The disposal of chlorinated water from any pipe or structure shall be such that it will not cause damage to any vegetation, fish, or animal life.
12. The Contractor shall make all arrangements for the testing of water quality by an approved independent laboratory. Two acceptable bacteriological test, taken at least 24 hours apart, shall be collected from the new water main. At least 1 set of samples must be collected from every 1,000 LF of the new water main, plus one set from the end of the line and at least one set from each branch. The results for all tests shall be forwarded to the Design Engineer and the public health authority having jurisdiction.
13. All water quality requirements shall be fulfilled prior to the passage of any water through the new system to a public supply or the use of the new system.

SEWER TESTING PROCEDURES

TESTS FOR NON-PRESSURE PIPELINES FOR TRANSPORT OF SEWAGE

The leakage shall be determined by exfiltration, infiltration or low pressure air.

A. Exfiltration Testing
1. Exfiltration tests shall be made by filling a section of pipeline with water and measuring the quantity of leakage.
2. The head of water at the beginning of the test shall be at least 2 feet above the highest pipe within the section being tested.
   a. Should groundwater be present within the section being tested, the head of water for the test shall be 2 feet above the hydraulic gradient of the groundwater.
   b. Should the requirement of 2 feet of water above the highest pipe subject any joint at the lower end of the test section to a differential head of greater than 11.5 feet, another method of testing shall be employed.

B. Prior to any testing, the Town Engineer and Department of Health must be notified at least 48 hours in advance.

C. Infiltration Testing
1. Infiltration tests will be allowed only when the water table gauges determine the groundwater level to be 2 feet or more above the highest pipe of the section being tested.
2. Infiltration test shall be made by measuring the quantity of water leaking into a section of pipeline.
3. Measurement of the infiltration shall be by means of a calibrated weir constructed at the outlet of the section being tested.

C. Allowable Leakage for Non-Pressure Pipelines
1. The allowable leakage (exfiltration or infiltration) for non-pressure pipelines shall not exceed the following in gallons per 24 hours per inch of diameter per 1000 feet of pipe:

Type of Pipe	Leakage
Ductile Iron – mechanical or push-on joints	100
Polyvinyl chloride, thermal plastic or fiberglass with rubber gaskets	100
Cast Iron soil pipe	0

2. Regardless of the above allowable leakage, any spurting leaks detected shall be permanently stopped.

D. Low Pressure Air Testing
1. Air testing for acceptance shall not be performed until the backfilling has been completed.
2. Low pressure air tests shall conform to ASTM C 828 or ASTM F1417–92, Section 8.2.2, Time–Pressure Drop Method for a 0.5 psi drop, except as specified herein and shall not be limited to type or size of pipe.
3. All sections of pipelines shall be cleaned and flushed prior to testing.
4. The air test shall be based on the starting pressure of 3.5 to 4.0 psi gauge. The time allowed for the 0.5 psi drop in pressure, measured in seconds, will be computed based on the size and length of the test section by the Engineer.
   a. When groundwater is present, the average test pressure of 3 psig shall be above any back pressure due to the groundwater level.
   b. The maximum pressure allowed under any condition in an air testing shall be 10 psig. The maximum groundwater level for air testing is 1.3 feet above the top of the pipe.
5. The equipment required for air testing shall be furnished by the Contractor and shall include the necessary compressor, valves, gauges and plugs to allow for the monitoring of the pressure, release of pressure and a separate test gauge.
   a. The test gauge shall be sized to allow for the measuring of the 0.5 psig loss allowed during the test period and shall be on a separate line to the test section.

E. Deflection Testing
1. Deflection testing shall be performed 30 days after backfilling. The test shall be made by passing a ball or cylinder no less than 95% of the pipe diameter through the pipe. The test shall be performed without mechanical pulling devices.

F. Manhole Testing
1. General
   a. Each manhole shall be tested by either exfiltration, infiltration or vacuum testing.
   b. A manhole shall be acceptable if the leakage does not exceed an allowance of one gallon per vertical foot of depth for 24 hours. Regardless of the allowable leakage, any leaks detected shall be permanently stopped.
2. Exfiltration tests shall be performed after backfilling. The test shall be made by filling the manhole with water and observing the level for a minimum of eight hours.
3. Infiltration tests shall be performed after backfilling when the groundwater level is above the joint of the top section of a precast manhole.
4. Vacuum testing shall be performed after backfilling in accordance with the latest revision of ASTM C1244–02 as follows:
   a. The test head shall be placed at the top of the manhole in accordance with the manufacturer's recommendations.
   b. A vacuum of 10 in. of mercury shall be drawn on the manhole, the valve on the vacuum line to the test head shall close, and the vacuum pump shut off. The time shall be measured for the vacuum to drop to 9 in. of mercury.
   c. The manhole shall pass if the time for the vacuum reading to drop from 10 in. of mercury to 9 in. of mercury meets or exceeds the values indicated below:

Minimum Test Times for Various Manhole Diameters in Seconds:

Depth (ft)	Diameter (inches) 48	60
	Time (seconds)	
8 or less	20	26
10	25	33
12	30	39
14	35	46
16	40	52
18	45	59
20	50	65

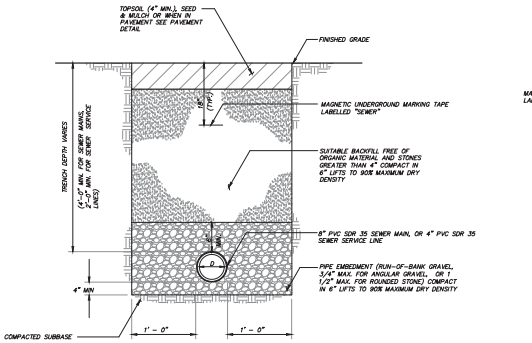
   d. If the manhole fails the initial test, necessary repairs shall be made by an approved method. The manhole shall then be retested until a satisfactory test is obtained.

TOWN OF CARMEL WATER NOTES:

1. All water service connections shall be of a size and type as shown on the plans.
2. Gate valves shall be AWWA non-rising stem type, as manufactured by Mueller Company, Model A-2360-23, or approved equal, conforming to the latest AWWA Standard for Gate Valves – 3" through 48" – for Water and Other Liquids, AWWA Designation C-509.
3. Sizes up to and including 12" shall be 250 psi working pressure. The valve body and bonnet shall be ductile iron. All interior and exterior metal surfaces shall be coated with a two-part thermosetting epoxy complying with AWWA C550.
4. Valves shall have dual "O" ring seals, inside screw, resilient wedge seats in accordance with AWWA Designation C-550 and shall be constructed so as to provide unobstructed full port clearance when fully open and immediate complete closure when closed. The ends of the valves shall be mechanical joint.
5. All valves shall be arranged to open in counter clockwise direction unless otherwise specifically indicated and operating nuts shall be 2" square.
6. Valves shall be tested to a pressure of not less than two times the working pressure.
7. Where water Service Saddles are used , they shall be equal to those manufactured by Mueller, Model 7.5" x 1" SS Series Stainless Steel Saddle, Double Stud.
8. Where corporation stops are used, they shall be equal to those as manufactured by Mueller Company, Model B-25000Series, NRS and of the size required. Such corporation stops shall meet the requirements of AWWA Specification No. C800.
9. Curb valves (stops) shall be equal to those as manufactured by Mueller Company, Model H-15214 and shall conform to AWWA Specification No. C800.
10. Curb boxes shall be equal to those as manufactured by Mueller Company and similar to Mueller extension type with arch pattern base model H-15314 all extension rods shall be stainless steel.
11. All fire hydrants shall be the approved AWWA type fire hydrants in conformance with the American Water Works Association Standard for Fire Hydrants for Ordinary Water Works Service, AWWA Designation C502, and shall have a 5-1/4" valve opening, a 6" mechanical joint inlet complete with an auxiliary gate valve (close coupled), a 6" mechanical joint shoe, and all appurtenances.

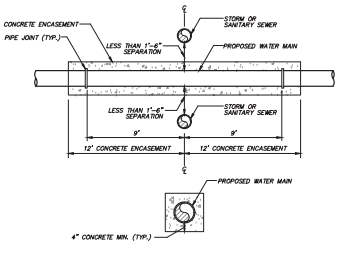
SEWER MAIN NOTES

1. All sewer mains & sewer services shown on these plans shall be polyvinyl chloride (PVC) SDR 35. SDR 35 meets the Town of Carmel Town Code 129-29.
2. Sewers shall be laid at least 10 feet horizontally from any existing or proposed water main. The distance shall be measured edge to edge. In cases where it is not practical to maintain a 10 foot horizontal separation, the Design Engineer and Putnam County Department of Health may allow deviation with prior approval on a case-by-case basis, if supported by data from the Design Engineer prior to sewer line installation. The horizontal separation also applies to service connections.
3. Sewers crossing water mains shall be laid to provide a minimum vertical distance of 18 inches between the outside of the water main and the sewer. The crossing shall be arranged so that the sewer joints will be equidistant and as far as possible from the water main joints. Where a water main crosses under a sewer, adequate structural support shall be provided for the sewer to maintain line and grade. In cases where it is not practical to maintain a 10 foot horizontal separation, the Design Engineer and Putnam County Department of Health may allow deviation with prior approval on a case-by-case basis, if supported by data from the Design Engineer prior to the installation. The vertical separation also applies to service connections.
4. Sanitary sewer service lines shall be tested in conjunction with the sewer mains to the property line or easement line, and in accordance with the latest Putnam County Department of Health Rules & Regulations.
5. Testing of the manholes with the pipeline shall not be permitted. Manholes & sanitary sewer lines shall be tested independently of each other.
6. The owner/applicant shall be responsible for acquiring supervision of the construction of the sanitary sewer main system by a person or firm qualified to practice professional engineering in the state of New York.
7. The owner/applicant shall be responsible for providing three (3) copies of as-built drawings signed and sealed by a licensed and registered New York State Professional Engineer to the Putnam County Department of Health at the completion of the construction.
8. The Design Engineer, Putnam County Department of Health, and Town Engineering Department shall be notified forty eight (48) hours before construction is started.
9. The sanitary sewer mains shall not be placed into service until a certificate of construction compliance has been submitted to and accepted by the Putnam County Department of Health.
10. The Putnam County Department of Health and the New York City Department of Environmental Protection must be notified forty eight (48) hours prior to pressure testing the sewer main improvements.
11. Manhole frames & covers to be campbell pattern #1007D for 24" opening or approved equal. M.H. covers to be marked "SEWER" and to have six 3/4"ø hole vents. (use solid covers where necessary.)
12. The exterior of all manholes shall be covered with an approved asphalt waterproofing.
13. Concrete base slabs shall be air entrained concrete with a minimum design strength of 3,000 psi.
15. The contractor shall submit shop drawings of the precast manholes to the Design Engineer for review and acceptance.
16. Precast manholes shall have minimum reinforcement of 0.12 sq. in. per lin. ft. for 48" barrel & be designed in accordance with A.S.T.M. C-478, and withstand an H-20 design loading.
17. Precast base sections to have the required number of gaskets and openings as shown and specified.
18. Precast manhole sections shall employ a watertight gasket arrangement between each section approved by the Design Engineer.
19. Openings for pipes shall be precast or machine cored. Gaskets or collars for pipe connections to manholes shall be resilient and watertight and compatible with the type of pipe being used.
20. The length of pipes entering or leaving any manhole shall be greater than 2'-0".
21. Precast manholes under 6'-0" deep shall have a "Flat Top" slab roof.
22. Gaskets or collars for pipe connections to manhole shall provide a minimum of 0.1" drop across the manhole.
23. The contractor shall notify the Design Engineer every day that sewer main installation shall occur.

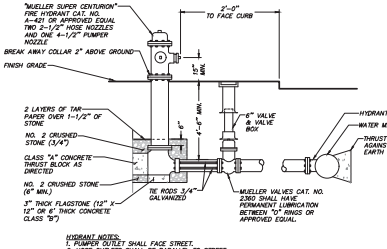


SEWER LINE TRENCH DETAIL
(N.T.S.)

WATER MAIN TRENCH DETAIL
(N.T.S.)

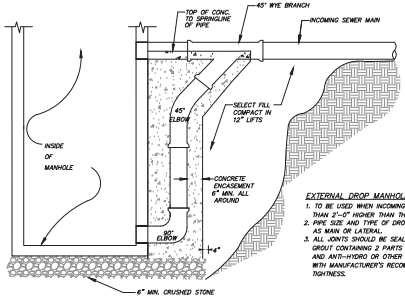


CONCRETE ENCASEMENT DETAIL
(N.T.S.)



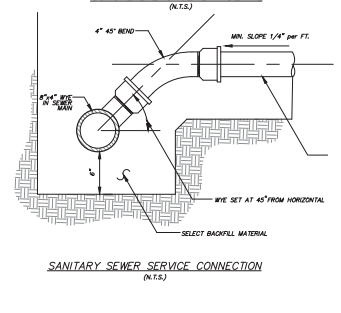
HYDRANT NOTES:
1. PUMPER OUTLET SHALL FACE STREET.
2. HOSE OUTLETS SHALL BE PARALLEL TO STREET.
3. 1-1/2" STONE SHALL BE PLACED AROUND THE HYDRANT FROM THE BOTTOM OF THE TRENCH, BUT AT LEAST 6" BELOW THE BASE OF THE HYDRANT TO 6" ABOVE THE WASTE OPENING AND TO A DISTANCE OF 12" AROUND THE ELBOW.
4. IF GROUND WATER IS ENCOUNTERED WITHIN 7' OF SURFACE, THEN HYDRANT DRAINS SHOULD BE PLUGGED. THE HYDRANT BARRELS MUST BE PUMPED DRY AFTER USE DURING FREEZING WEATHER. WHERE HYDRANT DRAINS ARE NOT PLUGGED, A GRAVEL POCKET OR DRY WELL SHALL BE PROVIDED UNLESS THE NATURAL SOILS WILL PROVIDE ADEQUATE DRAINAGE. HYDRANT DRAINS SHALL NOT BE CONNECTED TO OR LOCATED WITHIN 10 FEET OF SANITARY SEWERS OR STORM DRAINS.
5. ALL FIRE HYDRANTS SHALL BE RATED FOR A WORKING PRESSURE OF 250 PSI AND SHALL BE THE APPROVED AWWA TYPE FIRE HYDRANTS IN CONFORMANCE WITH THE AMERICAN WATER WORKS ASSOCIATION STANDARD FOR FIRE HYDRANTS FOR ORDINARY WATER WORKS SERVICE, AWWA DESIGNATION C502, AND SHALL HAVE A 5-1/4" VALVE OPENING, A 6" MECHANICAL JOINT INLET COMPLETE WITH AN AUXILIARY GATE VALVE (CLOSE COUPLED), A 6" MECHANICAL JOINT SHOE, AND ALL APPURTENANCES
6. "FIRE HYDRANT SHALL BE RATED FOR A WORKING PRESSURE OF 250 PSI.

HYDRANT DETAIL
(N.T.S.)



EXTERNAL DROP MANHOLE NOTES:
1. TO BE USED WHEN INCOMING SEWER IS MORE THAN 2'-0" HIGHER THAN THE OUTGOING SEWER.
2. PIPE SIZE AND TYPE OF DROP CONNECTION TO BE SAME AS MAIN OR LATERAL.
3. ALL JOINTS SHOULD BE SEALED INSIDE AND OUT WITH CEMENT GROUT CONTAINING 2 PARTS CEMENT AND 1 PART SAND AND ANTI-HYDRO OR OTHER APPROVED ADDITIVE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS TO INSURE WATER TIGHTNESS.

EXTERNAL DROP MANHOLE DETAIL
(N.T.S.)



SANITARY SEWER SERVICE CONNECTION
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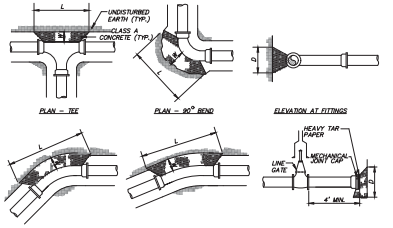
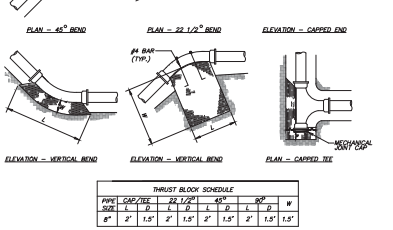
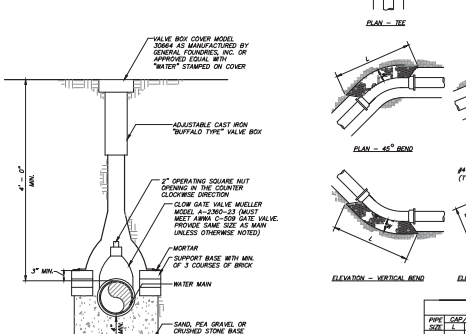




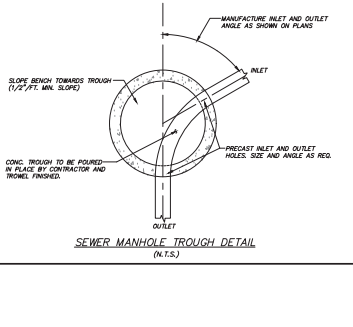
THRUST BLOCK SCHEDULE

PIPE SIZE	CAP/TEE L	CAP/TEE D	22 1/2° L	22 1/2° D	45° L	45° D	90° L	90° D	W
8"	2'	1.5'	2'	1.5'	2'	1.5'	2'	1.5'	1.5'

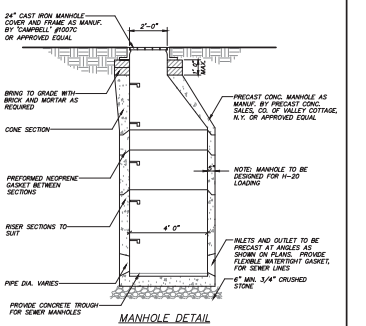
THRUST BLOCK DETAILS
(N.T.S.)



WATER MAIN GATE VALVE DETAIL
(N.T.S.)



SEWER MANHOLE TROUGH DETAIL
(N.T.S.)



MANHOLE DETAIL
(N.T.S.)

NO.	DATE	REVISION	BY
2	9-29-21	GENERAL REVISION	MEU
1	7-19-21	GENERAL REVISION	MEU

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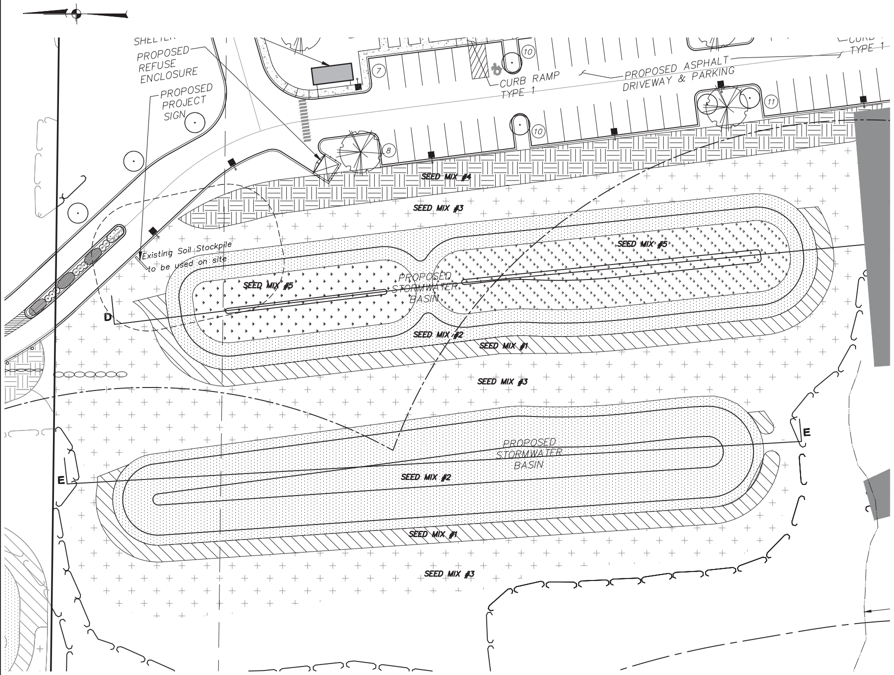
PROJECT: THE HAMLET AT CARMEL
MULTI-FAMILY HOUSING DEVELOPMENT
STONEGLEN AVENUE, TOWN OF CARMEL, PUTNAM COUNTY, NEW YORK

DRAWING: SITE DETAILS

PROJECT NO.	14211.100	PROJECT MANAGER	J.J.C.
DATE	2-10-21	DRAWN BY	M.E.U.
SCALE	AS SHOWN	CHECKED BY	J.J.C.

DRAWING NO. D-3
SHEET 8 / 10



STORMWATER BASINS 2.1P AND 2.2P ENLARGED PLAN VIEW

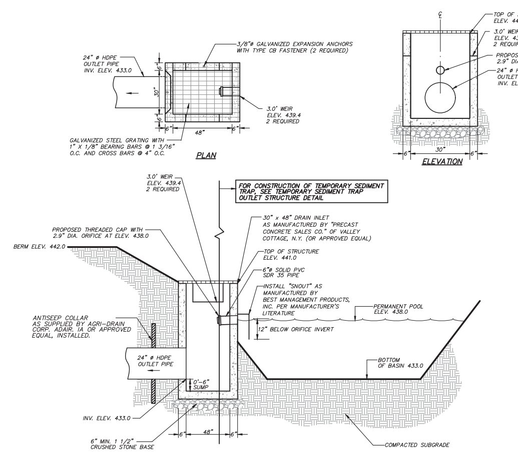
Scale: 1"=30'

STORMWATER BASIN OUTLET NOTES

1. THE BASINS ARE PROPOSED TO BE UTILIZED AS TEMPORARY SEDIMENT TRAPS (TST's) DURING CONSTRUCTION.
2. AFTER THE CONTRIBUTING AREAS TO THE BASINS HAVE BEEN PERMANENTLY STABILIZED, THE FOLLOWING SHALL BE ACCOMPLISHED:
   - A. CLEAN BASINS AND OUTLET STRUCTURES AND REMOVE 6"ø PERFORATED VERTICAL RISER PIPE, CRUSHED STONE AND FILTER FABRIC.
   - B. ADD THREADED CAP WITH ORIFICE AT DISCHARGE END OF 6"ø SOLID PVC SDR 35 PIPES PER DETAIL.
   - C. REPLACE THE PERFORATED PIPE AND CRUSHED STONE. DO NOT REPLACE FILTER FABRIC.
   - D. ESTABLISH THE FINAL VEGETATION IN THE BASINS IN ACCORDANCE WITH THE STORMWATER BASIN PLANTING DETAILS.
   - E. FOR BASINS 2.1P AND 3.1P EXCAVATE BOTTOM OF TST TO PERMANENT STORMWATER BASIN BOTTOM. ANY EXCESS SOIL SHALL BE TRUCKED OFF SITE AND BE PLACED IN A MANOR SO IT WILL NOT ERODE OR CAUSE EROSION.
   - F. CONVERSION OF TST's SHALL BE ACCOMPLISHED ONE AT A TIME. THIS WILL ALLOW FOR THE TRAP UNDERGOING CONVERSION TO BE DEWATERED TO A STABILIZED TRAP OR BASIN. THE SECOND BASIN SHALL NOT START CONVERSION UNTIL THE FIRST BASIN IS STABILIZED AND THE THIRD AND FOURTH BASINS SHALL NOT START CONVERSION UNTIL THE PREVIOUS BASIN IS STABILIZED.
3. THE 6"ø PERFORATED VERTICAL RISER SHALL BE CONSTRUCTED AS FOLLOWS:
   * WHEN INITIALLY USED AS THE TEMPORARY SEDIMENT TRAP DEWATERING DEVICE THE RISER SHALL BE WRAPPED WITH TYPAR 3201 GEOTEXTILE OR APPROVED EQUAL AND SURROUNDED WITH 2"ø STONE. THE TOP OF THE RISER SHALL BE SET AT THE SAME ELEVATION AS THE WEIRS AS SHOWN IN THE STORMWATER BASIN OUTLET STRUCTURE DETAILS.
   * WHEN THE PERMANENT RISER FOR BASIN IS CONSTRUCTED THE RISER SHALL BE UNWRAPPED WITH THE TOP ELEVATION SET AT SPECIFIED ELEVATIONS.

PLANTING NOTES:

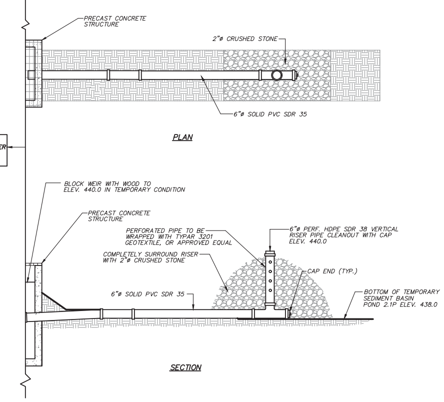
1. All proposed planting beds to receive a 12" min. depth of topsoil. Soil amendments and fertilizer application rates shall be determined based on specific testing of topsoil material.
2. Any new soils added will be amended as required by results of soil testing and placed using a method that will not cause compaction.
3. No fertilizer shall be added in stormwater basin plantings. Nutrient requirements to be met by incorporation of acceptable organic matter.
4. All plant material to be nursery grown.
5. Plants shall conform with ANSI Z60.1 American Standard for Nursery Stock in all ways including dimensions.
6. Plant material shall be taken from healthy nursery stock.
7. All plants shall be grown under climate conditions similar to those in the locality of the project.
8. Plants shall be planted in all locations designed on the plan or as staked in the field by the Landscape Architect.
9. The location and layout of landscape plants shown on the site plan shall take precedence in any discrepancies between the quantities of plants shown on the plans and the quantity of plants in the Plant List.
10. Provide a 3" layer of shredded pine bark mulch (or as specified) over entire watering saucer at all tree pits or over entire planting bed. Do not place mulch within 3" of tree or shrub trunks.
11. All landscape plantings shall be maintained in a healthy condition at all times. Any dead or diseased plants shall immediately be replaced "in kind" by the contractor (during warranty period) or project owner.
12. For all areas to be planted with emergent vegetation, soil shall be decompacted using tilling or other method approved by Landscape Architect and amended as required by results of soil testing to a depth of at least 12".
13. Upon final grading and placement of topsoil and any required soil amendments, areas to receive permanent vegetation cover in combination with suitable mulch as follows:
    - select seed mixture per drawings and seeding notes.
    - fertilizer applied at the manufacturer's recommended rate using Lesco 10–0–18 (no phosphorous) fertilizer or equivalent.
    - mulch: salt hay or small grain straw applied at a rate of 90 lbs./1000 s.f. or 2 tons/acre, to be applied and anchored according to New York State Standards and Specifications for Erosion and Sediment Control, August 2005.
    - if the season prevents the establishment of a permanent vegetation cover, the disturbed areas will be mulched with straw or equivalent.
14. All proposed seeded areas to stormwater basins to receive 4" min. depth of topsoil. Soil amendments and fertilizer application rates shall be determined based on specific testing of topsoil material.
15. The Stormwater Basin seed mixes as specified on these drawings from New England Wetland Plants, Inc. of Amherst, MA. are as follows:
    - A. Seed Mix #1 at a rate of 35 lbs. per acre: New England Erosion Control/Restoration Mix (for Detention basins and Moist Sites).
    - B. Seed Mix #2 at a rate of 23 lbs. per acre: New England Wildflower Mix.
    - C. Seed Mix #3 at a rate of 25 lbs. per acre: New England Conservation/Wildlife Mix.
    - D. Seed Mix #4 at a rate of 35 lbs. per acre New England Roadside Matrix Upland Seed Mix.
    - E. Seed Mix #5 at a rate of 18 lbs. per acre: New England Wetmix.
16. Interiors of ponds including aquatic bench to be seeded. Permanent water to be drawn down below seeded areas until vegetation establishes.



PERMANENT STORMWATER BASIN 2.1P OUTLET STRUCTURE DETAIL

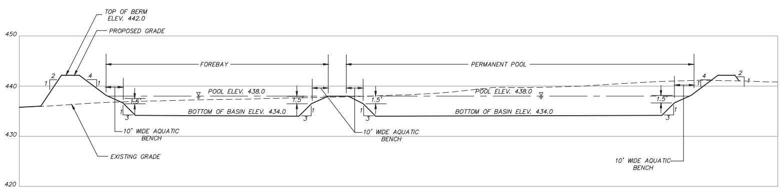
(N.T.S.)

FOR ADDITIONAL BASIN CONSTRUCTION DETAILS, SEE THE PERMANENT STORMWATER BASIN OUTLET STRUCTURE DETAIL FOR BASIN 2.1P.



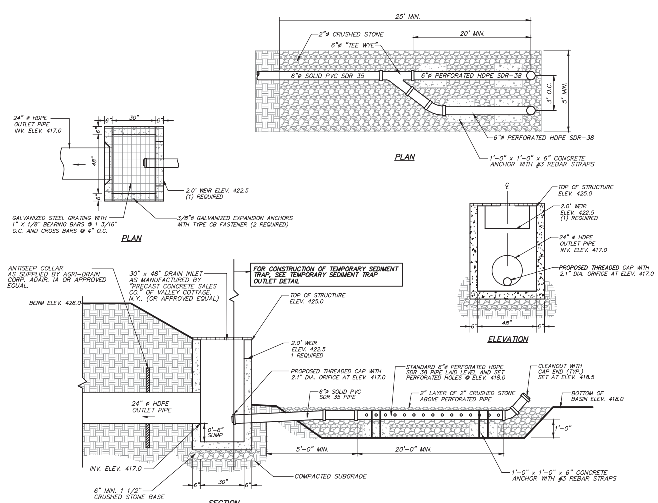
TEMPORARY SEDIMENT BASIN TRAP 2.1P OUTLET DETAIL

(N.T.S.)



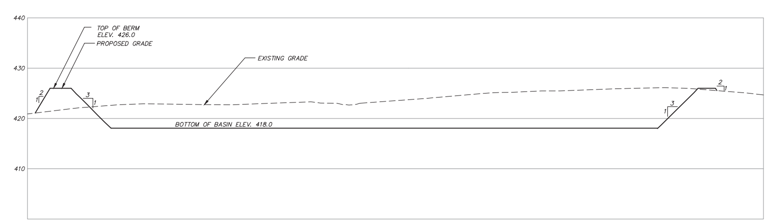
STORMWATER BASIN 2.1P SCHEMATIC SECTION D–D

N.T.S.



PERMANENT STORMWATER BASIN 2.2P OUTLET STRUCTURE DETAIL

(N.T.S.)



STORMWATER BASIN 2.2P SCHEMATIC SECTION E–E

N.T.S.

ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW.

NO.	DATE	REVISION	BY
2	9–29–21	GENERAL REVISION	MEU
1	7–19–21	GENERAL REVISION	MEU

INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
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Carmel, NY 10512
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PROJECT:

THE HAMLET AT CARMEL

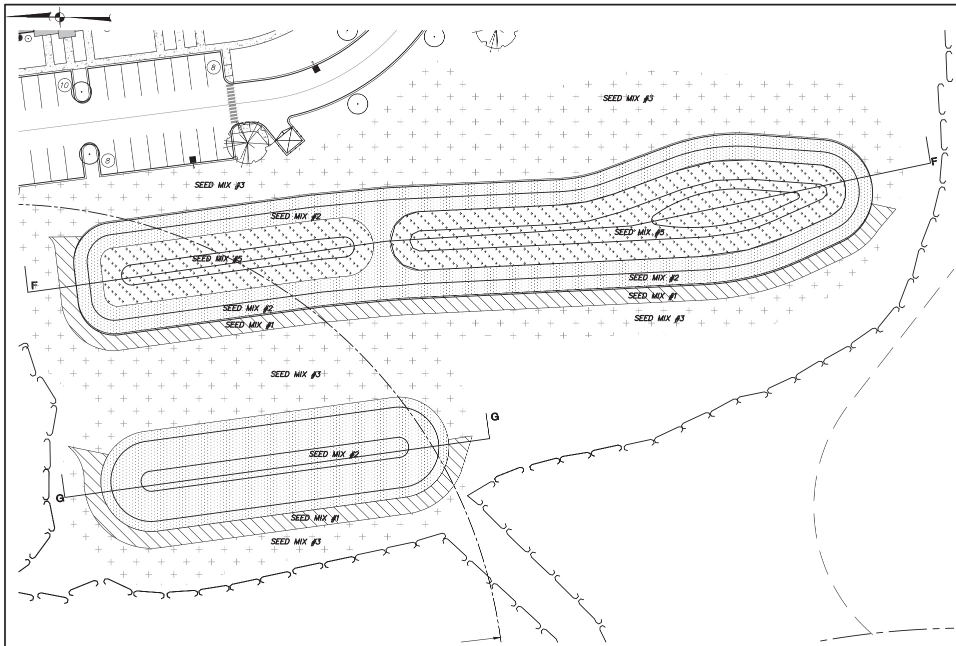
MULTI–FAMILY HOUSING DEVELOPMENT

STONELEIGH AVENUE, TOWN OF CARMEL, PUTNAM COUNTY, NEW YORK

DRAWING:

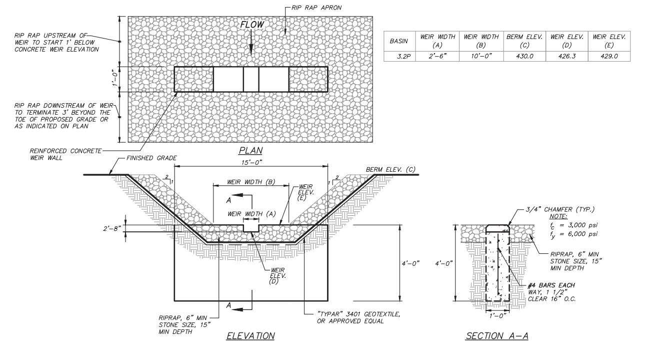
STORMWATER POND DETAILS

PROJECT NO.	14211.100	PROJECT MANAGER	J.J.C.	DRAWING NO. D–4	SHEET 9/10
DATE	2–10–21	DRAWN BY	M.E.U.		
SCALE	AS SHOWN	CHECKED BY	J.J.C.		



STORMWATER BASINS 3.1P AND 3.2P ENLARGED PLAN VIEW

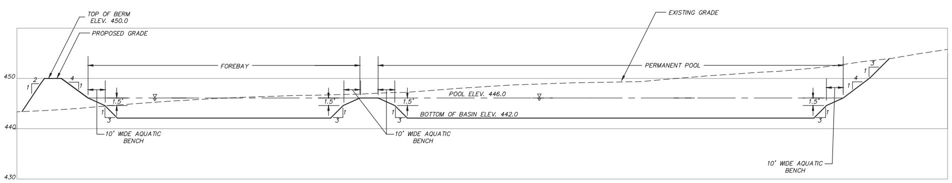
Scale: 1"=30'



BASIN	WEIR WIDTH (A)	WEIR WIDTH (B)	BERM ELEV. (C)	WEIR ELEV. (D)	WEIR ELEV. (E)
3.2P	2'-6"	10'-0"	430.0	426.3	429.0

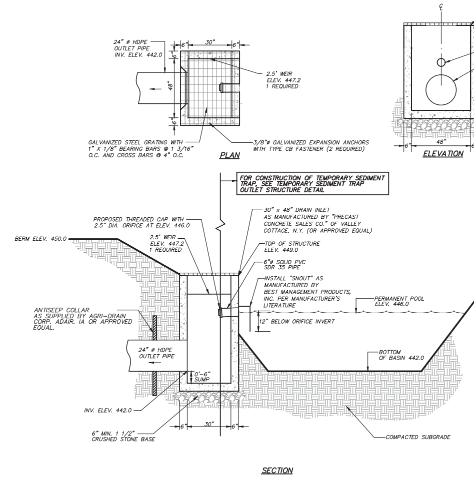
STORMWATER BASIN 3.2P OUTLET WEIR DETAIL

(N.T.S.)



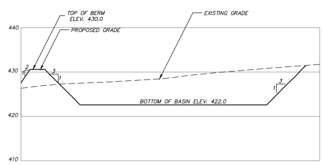
STORMWATER BASIN 3.1P SCHEMATIC SECTION F-F

N.T.S.



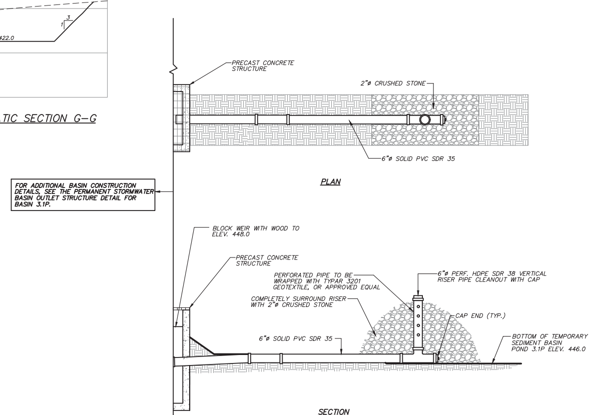
PERMANENT STORMWATER BASIN 3.1P OUTLET STRUCTURE DETAIL

(N.T.S.)



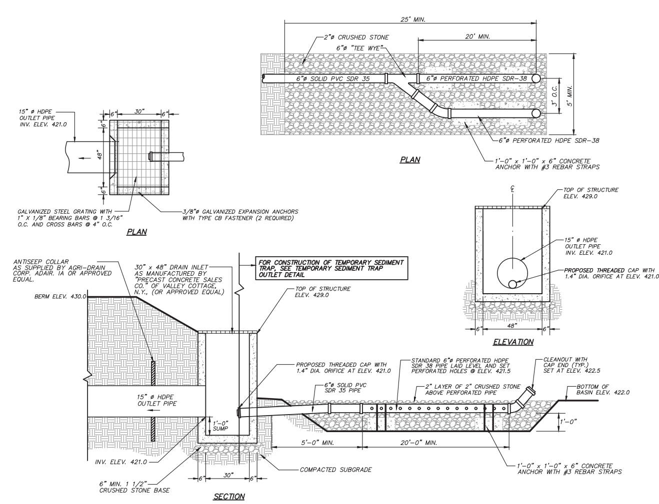
STORMWATER BASIN 3.2P SCHEMATIC SECTION G-G

N.T.S.



TEMPORARY SEDIMENT TRAP 3.1P OUTLET DETAIL

(N.T.S.)



PERMANENT STORMWATER BASIN 3.2P OUTLET STRUCTURE DETAIL

(N.T.S.)

STORMWATER BASIN OUTLET NOTES

1. THE BASINS ARE PROPOSED TO BE UTILIZED AS TEMPORARY SEDIMENT TRAPS (TST's) DURING CONSTRUCTION.
2. AFTER THE CONTRIBUTING AREAS TO THE BASINS HAVE BEEN PERMANENTLY STABILIZED, THE FOLLOWING SHALL BE ACCOMPLISHED:
   A. CLEAN BASINS AND OUTLET STRUCTURES AND REMOVE 6"ø PERFORATED VERTICAL RISER PIPE, CRUSHED STONE AND FILTER FABRIC.
   B. ADD THREADED CAP WITH ORIFICE AT DISCHARGE END OF 6"ø SOLID PVC SDR 35 PIPES PER DETAIL.
   C. REPLACE THE PERFORATED PIPE AND CRUSHED STONE. DO NOT REPLACE FILTER FABRIC.
   D. ESTABLISH THE FINAL VEGETATION IN THE BASINS IN ACCORDANCE WITH THE STORMWATER BASIN PLANTING DETAILS.
   E. FOR BASINS 2.1P AND 3.1P EXCAVATE BOTTOM OF TST TO PERMANENT STORMWATER BASIN BOTTOM. ANY EXCESS SOIL SHALL BE TRUCKED OFF SITE AND BE PLACED IN A MANOR SO IT WILL NOT ERODE OR CAUSE EROSION.
   F. CONVERSION OF TST's SHALL BE ACCOMPLISHED ONE AT A TIME. THIS WILL ALLOW FOR THE TRAP UNDERGOING CONVERSION TO BE DEWATERED TO A STABILIZED TRAP OR BASIN. THE SECOND BASIN SHALL NOT START CONVERSION UNTIL THE FIRST BASIN IS STABILIZED AND THE THIRD AND FOURTH BASINS SHALL NOT START CONVERSION UNTIL THE PREVIOUS BASIN IS STABILIZED.
3. THE 6"ø PERFORATED VERTICAL RISER SHALL BE CONSTRUCTED AS FOLLOWS:
   * WHEN INITIALLY USED AS THE TEMPORARY SEDIMENT TRAP DEWATERING DEVICE THE RISER SHALL BE WRAPPED WITH TYPAR 3201 GEOTEXTILE OR APPROVED EQUAL AND SURROUNDED WITH 2"ø STONE. THE TOP OF THE RISER SHALL BE SET AT THE SAME ELEVATION AS THE WEIRS AS SHOWN IN THE STORMWATER BASIN OUTLET STRUCTURE DETAILS.
   * WHEN THE PERMANENT RISER FOR BASIN IS CONSTRUCTED THE RISER SHALL BE UNWRAPPED WITH THE TOP ELEVATION SET AT SPECIFIED ELEVATIONS.

PLANTING NOTES:

1. All proposed planting beds to receive a 12" min. depth of topsoil. Soil amendments and fertilizer application rates shall be determined based on specific testing of topsoil material.
2. Any new soils added will be amended as required by results of soil testing and placed using a method that will not cause compaction.
3. No fertilizer shall be added in stormwater basin plantings. Nutrient requirements to be met by incorporation of acceptable organic matter.
4. All plant material to be nursery grown.
5. Plants shall conform with ANSI Z60.1 American Standard for Nursery Stock in all ways including dimensions.
6. Plant material shall be taken from healthy nursery stock.
7. All plants shall be grown under climate conditions similar to those in the locality of the project.
8. Plants shall be planted in all locations designed on the plan or as staked in the field by the Landscape Architect.
9. The location and layout of landscape plants shown on the site plan shall take precedence in any discrepancies between the quantities of plants shown on the plans and the quantity of plants in the Plant List.
10. Provide a 3" layer of shredded pine bark mulch (or as specified) over entire watering saucer at all tree pits or over entire planting bed. Do not place mulch within 3" of tree or shrub trunks.
11. All landscape plantings shall be maintained in a healthy condition at all times. Any dead or diseased plants shall immediately be replaced "in kind" by the contractor (during warranty period) or project owner.
12. For all areas to be planted with emergent vegetation, soil shall be decompacted using tilling or other method approved by Landscape Architect and amended as required by results of soil testing to a depth of at least 12".
13. Upon final grading and placement of topsoil and any required soil amendments, areas to receive permanent vegetation cover in combination with suitable mulch as follows:
    – select seed mixture per drawings and seeding notes.
    – fertilizer applied at the manufacturer's recommended rate using Lesco 10–0–18 (no phosphorous) fertilizer or equivalent.
    – mulch: salt hay or small grain straw applied at a rate of 90 lbs./1000 s.f. or 2 tons/acre, to be applied and anchored according to New York State Standards and Specifications for Erosion and Sediment Control, August 2005.
    – if the season prevents the establishment of a permanent vegetation cover, the disturbed areas will be mulched with straw or equivalent.
14. All proposed seeded areas to stormwater basins to receive 4" min. depth of topsoil. Soil amendments and fertilizer application rates shall be determined based on specific testing of topsoil material.
15. The Stormwater Basin seed mixes as specified on these drawings from New England Wetland Plants, Inc. of Amherst, MA. are as follows:
    A. Seed Mix #1 at a rate of 35 lbs. per acre:
       New England Erosion Control/Restoration Mix (for Detention basins and Moist Sites).
    B. Seed Mix #2 at a rate of 23 lbs. per acre:
       New England Wildflower Mix.
    C. Seed Mix #3 at a rate of 25 lbs. per acre:
       New England Conservation/Wildlife Mix.
    D. Seed Mix #4 at a rate of 35 lbs. per acre
       New England Roadside Matrix Upland Seed Mix.
    E. Seed Mix #5 at a rate of 18 lbs. per acre:
       New England Wetmix.
16. Interiors of ponds including aquatic bench to be seeded. Permanent water to be drawn down below seeded areas until vegetation establishes.

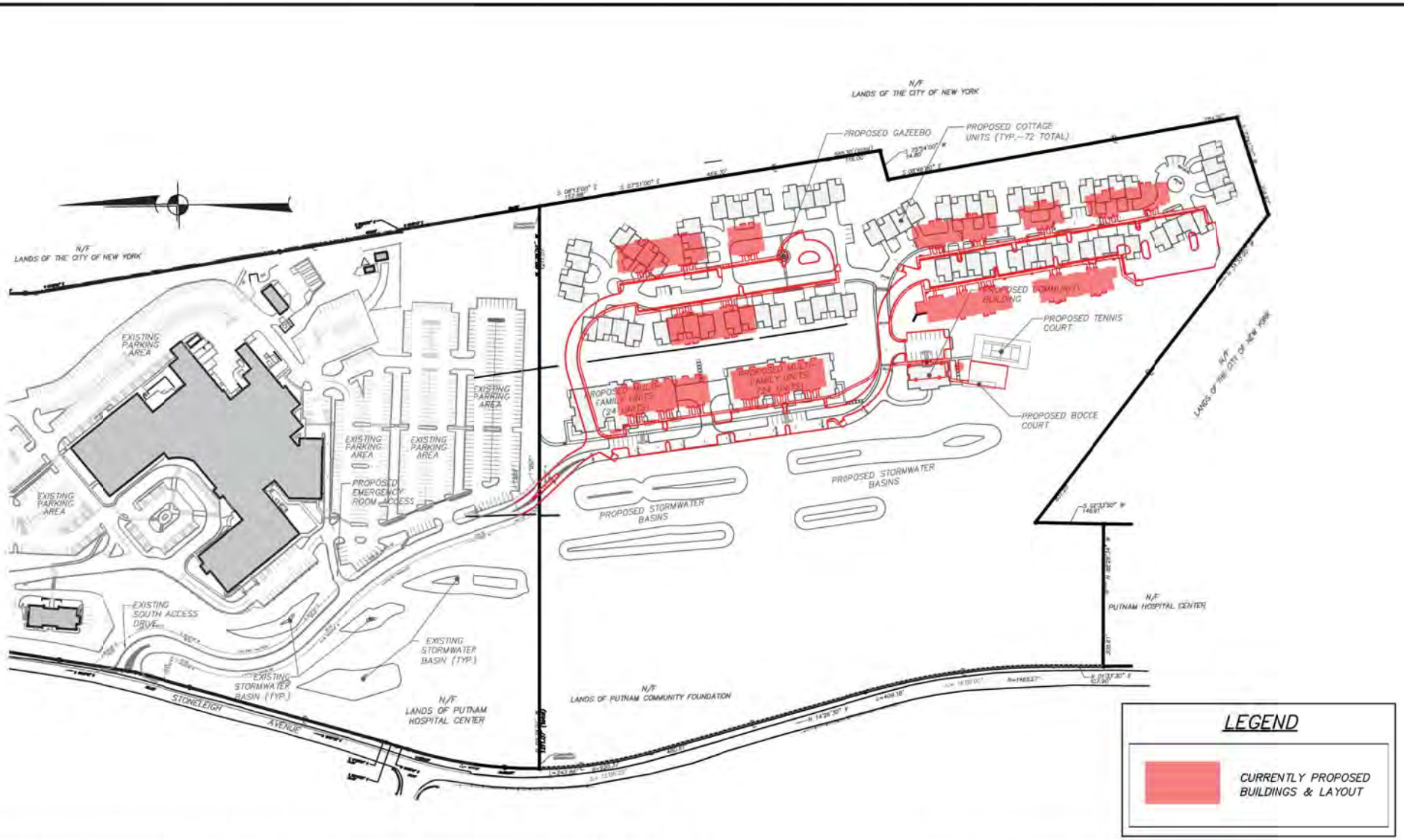
NO.	DATE	REVISION	BY
2	9-29-21	GENERAL REVISION	MEU
1	7-19-21	GENERAL REVISION	MEU

INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225-9690
(845) 225-9717 fax
www.insite-eng.com

PROJECT:
THE HAMLET AT CARMEL
MULTI-FAMILY HOUSING DEVELOPMENT
STONELEIGH AVENUE, TOWN OF CARMEL, PUTNAM COUNTY, NEW YORK

DRAWING:
STORMWATER POND DETAILS

PROJECT NO.	14211.100	PROJECT MANAGER	J.J.C.	DRAWING NO.	SHEET
DATE	2-10-21	DRAWN BY	M.E.U.	D-5	10/10
SCALE	AS SHOWN	CHECKED BY	J.J.C.		



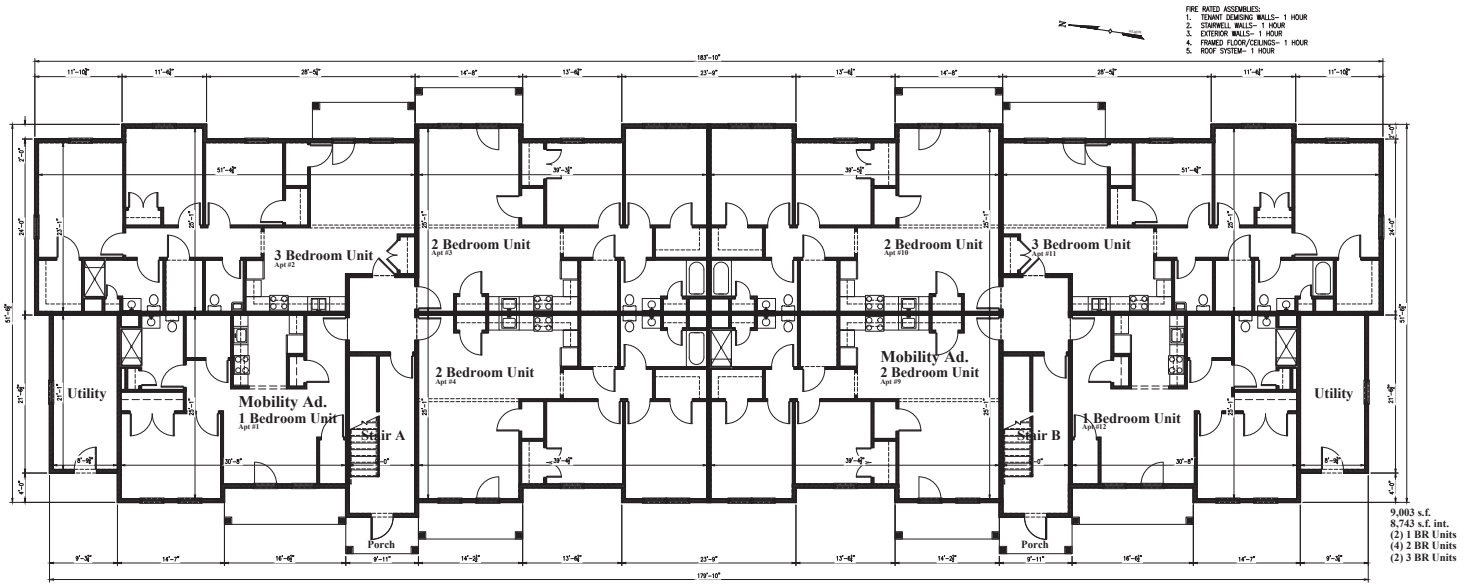
PROJECT:
THE HAMLET AT CARMEL
STONELEIGH AVENUE, TOWN OF CARMEL, PUTNAM COUNTY, NEW YORK

DRAWING:
PROJECT COMPARISON FIGURE

PREPARED BY:
INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place • Cornel, New York 10512
Phone (845) 225-9690 • Fax (845) 225-9717
www.insite-eng.com

GRAPHIC SCALE
0 100 200 400
(IN FEET)
1 inch = 200 ft.

DATE:	9-29-2021
SCALE:	1" = 200'
PROJECT NO.:	14211.100
FIGURE:	CF-1



1 / A1 **Building #1 First Floor Plan**

Scale: 1/8"=1'-0"

Typical Exterior Finishes:
Fibercement Siding
Fibercement Shakes
Fiberglass Shingles
Composite Trim Boards
Energy Star Windows
Fiberglass Columns

2 / A1 **Building #1 West (Front) Elevation**

Scale: 1/8"=1'-0"

COPPOLA ASSOCIATES
Design, Architecture & Planning
6 Old North Plank Road
Suite 101
Newburgh, NY 12550
TEL: 845-561-3559
FAX: 845-561-2051
ajcoppola@coppola-associates.com

LICENSE NUMBER: 018849

° PROPOSED MULTIFAMILY DWELLINGS FOR °

The Hamlet at Carmel

Town of Carmel, NY

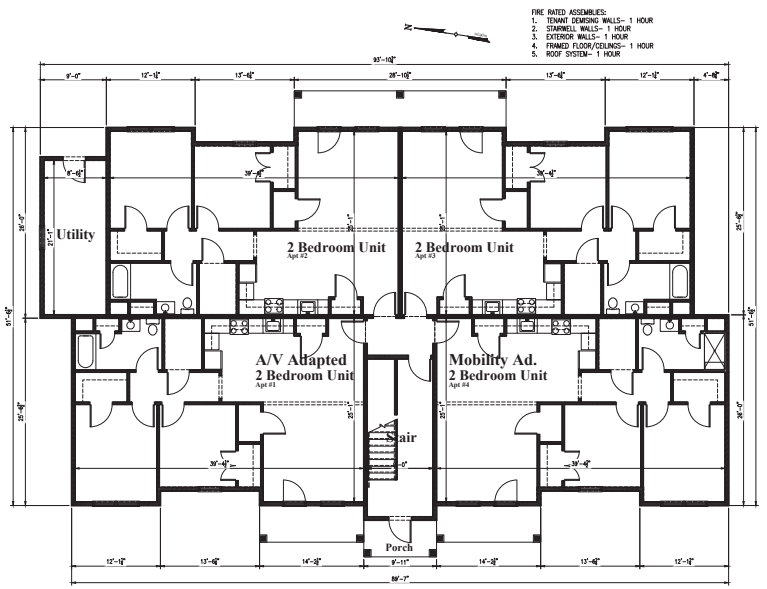
Building #1 First Floor Plan & Front Elevation

REVISIONS

DATE
9/24/21

PROJECT NUMBER
21-27

SHEET NUMBER
A1



4,483 s.f.
4,326 s.f. int.
(4) 2 BR Units

1/A2 Building #2 First Floor Plan

Scale: 1/8"=1'-0"

2/A2 Building #2 West (Front) Elevation

Scale: 1/8"=1'-0"

Typical Exterior Finishes:
Fibercement Siding
Fibercement Shakes
Fiberglass Shingles
Composite Trim Boards
Energy Star Windows
Fiberglass Columns

COPPOLA ASSOCIATES
Design, Architecture & Planning
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ajcoppola@coppola-associates.com

LICENSE NUMBER: 018849

° PROPOSED MULTIFAMILY DWELLINGS FOR °

The Hamlet at Carmel

Town of Carmel, NY

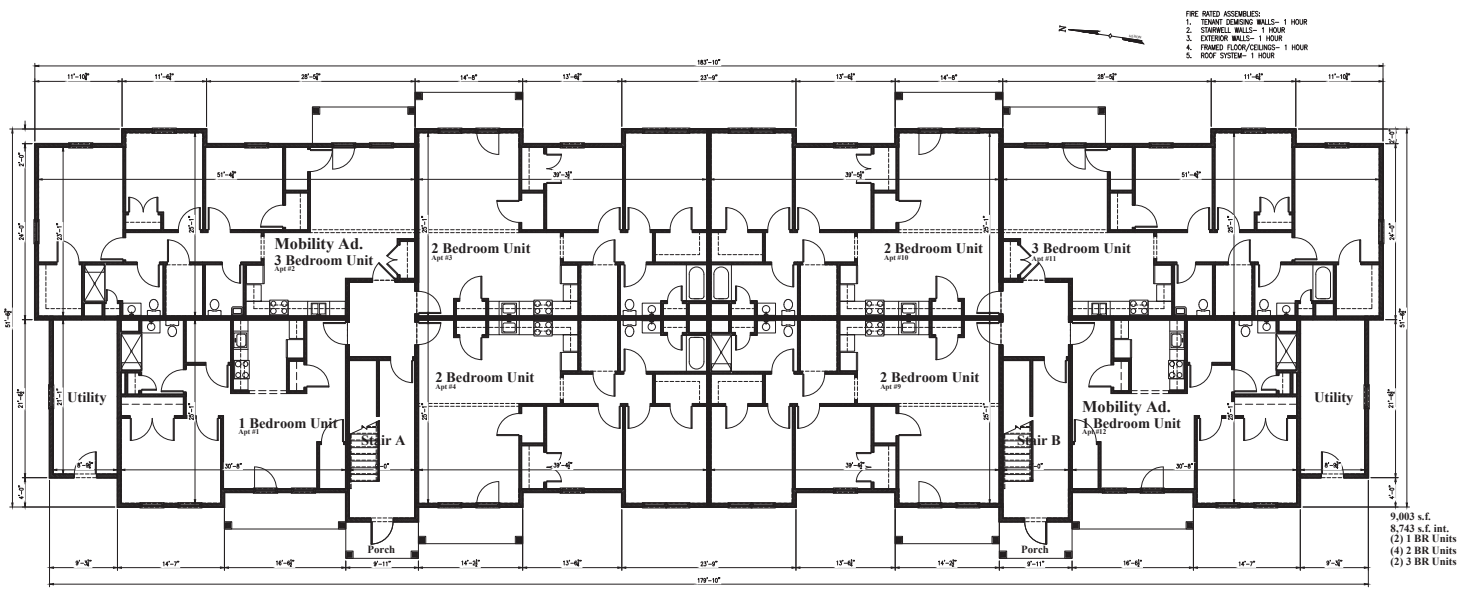
Building #2 First Floor Plan & Front Elevation

REVISIONS

DATE
9/24/21

PROJECT NUMBER
21-27

SHEET NUMBER
A2



1 / A3 **Building #3 First Floor Plan**

Scale: 1/8"=1'-0"

Typical Exterior Finishes:
Fibercement Siding
Fibercement Shakes
Fiberglass Shingles
Composite Trim Boards
Energy Star Windows
Fiberglass Columns

2 / A3 **Building #3 West (Front) Elevation**

Scale: 1/8"=1'-0"

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LICENSE NUMBER: 018849

° PROPOSED MULTIFAMILY DWELLINGS FOR °

The Hamlet at Carmel

Town of Carmel, NY

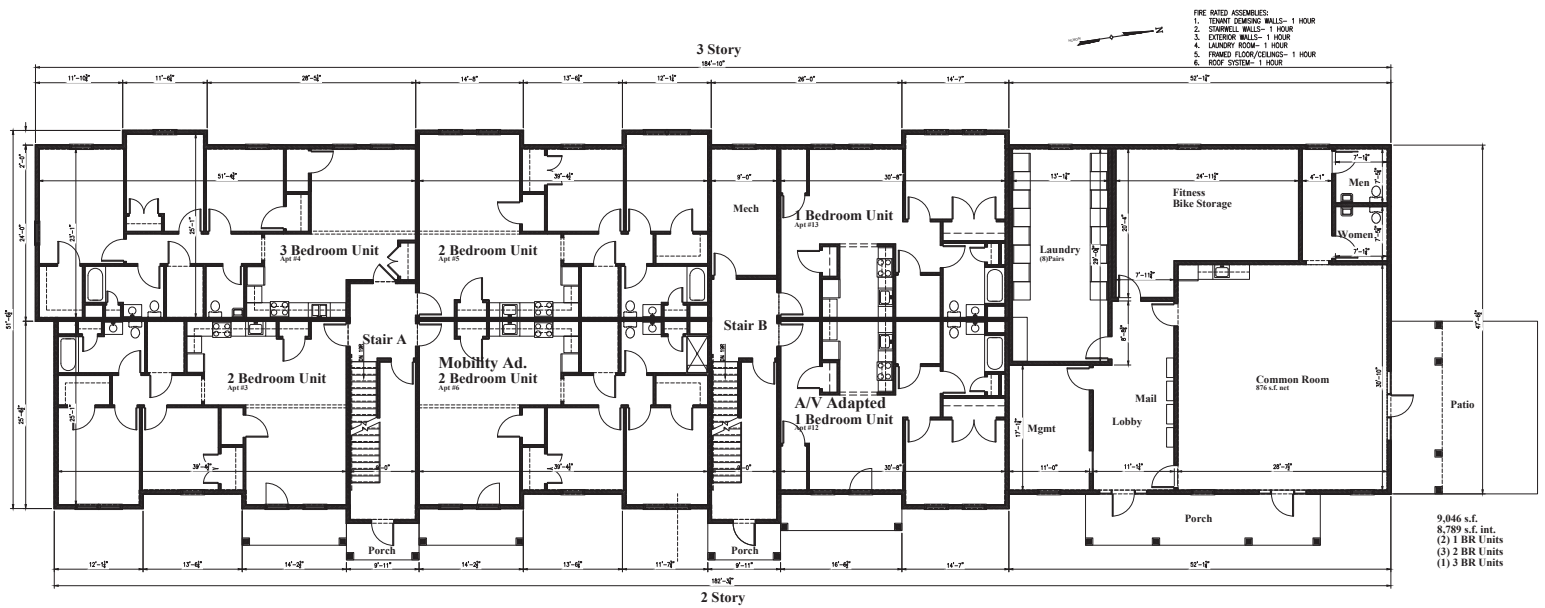
Building #3 First Floor Plan & Front Elevation

REVISIONS

DATE
9/24/21

PROJECT NUMBER
21-27

SHEET NUMBER
A3



1 / A4 Building #4 Second Floor Plan

Scale: 1/8"=1'-0"

Typical Exterior Finishes:
Fibercement Siding
Fibercement Shakes
Fiberglass Shingles
Composite Trim Boards
Energy Star Windows
Fiberglass Columns

2 / A4 Building #4 East (Front) Elevation

Scale: 1/8"=1'-0"

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FAX: 845-561-2051
ajcoppola@coppola-associates.com

LICENSE NUMBER: 018849

° PROPOSED MULTIFAMILY DWELLINGS FOR °

The Hamlet at Carmel

Town of Carmel, NY

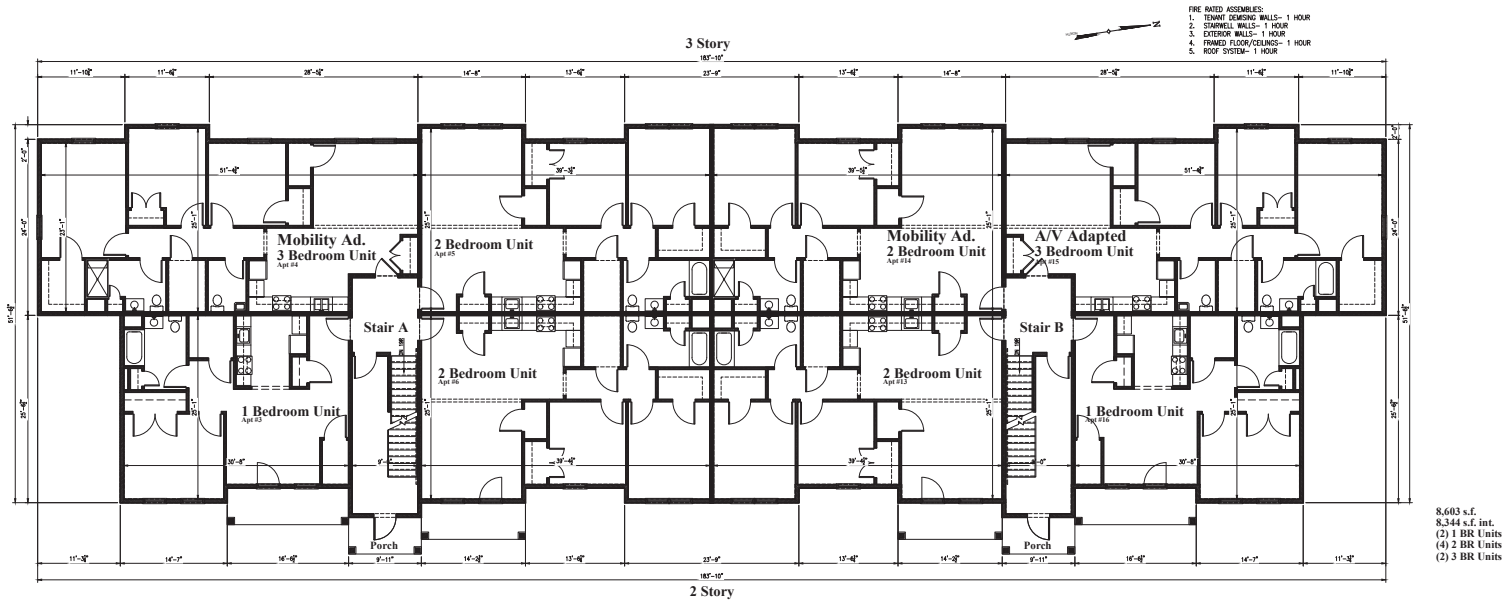
Building #4 Second Floor Plan & Front Elevation

REVISIONS

DATE
9/24/21

PROJECT NUMBER
21-27

SHEET NUMBER
A4



8,603 s.f.
8,344 s.f. int.
(2) 1 BR Units
(4) 2 BR Units
(2) 3 BR Units

1/A5 Building #5 Second Floor Plan

Scale: 1/8"=1'-0"

Typical Exterior Finishes:
Fibercement Siding
Fibercement Shakes
Fiberglass Shingles
Composite Trim Boards
Energy Star Windows
Fiberglass Columns

2/A5 Building #5 East (Front) Elevation

Scale: 1/8"=1'-0"

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ajcoppola@coppola-associates.com

LICENSE NUMBER: 018849

° PROPOSED MULTIFAMILY DWELLINGS FOR °

The Hamlet at Carmel

Town of Carmel, NY

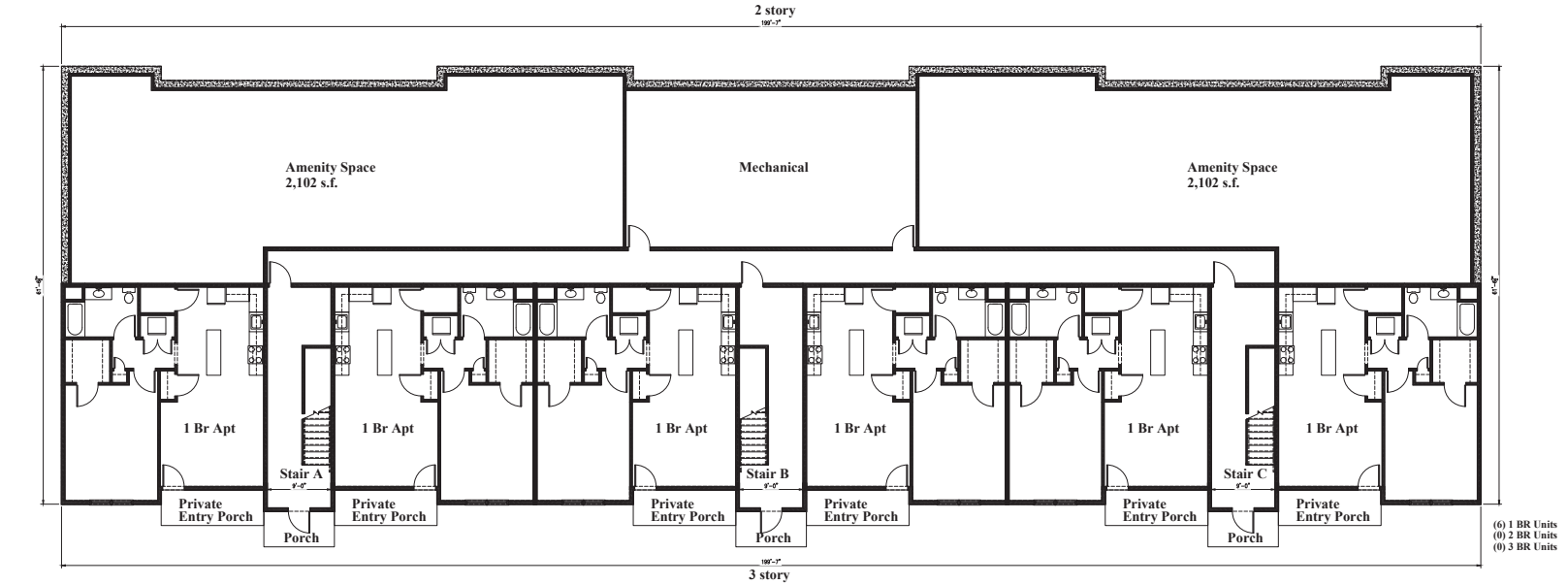
Building #5 Second Floor Plan & Front Elevation

REVISIONS

DATE
9/24/21

PROJECT NUMBER
21-27

SHEET NUMBER
A5



1 A6 Buildings #6 & #7 First Floor Plan

Scale: 1/8"=1'-0"

Typical Exterior Finishes:
- Fibercement Siding
- Fibercement Shakes
- Cultured Stone Veneer
- Fiberglass Shingles
- Composite Trim Boards
- Energy Star Windows
- Fiberglass Columns

2 A6 Buildings #6 & #7 Front Elevation

Scale: 1/8"=1'-0"

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LICENSE NUMBER: 018849

° PROPOSED MULTIFAMILY DWELLINGS FOR °

The Hamlet at Carmel

Town of Carmel, NY

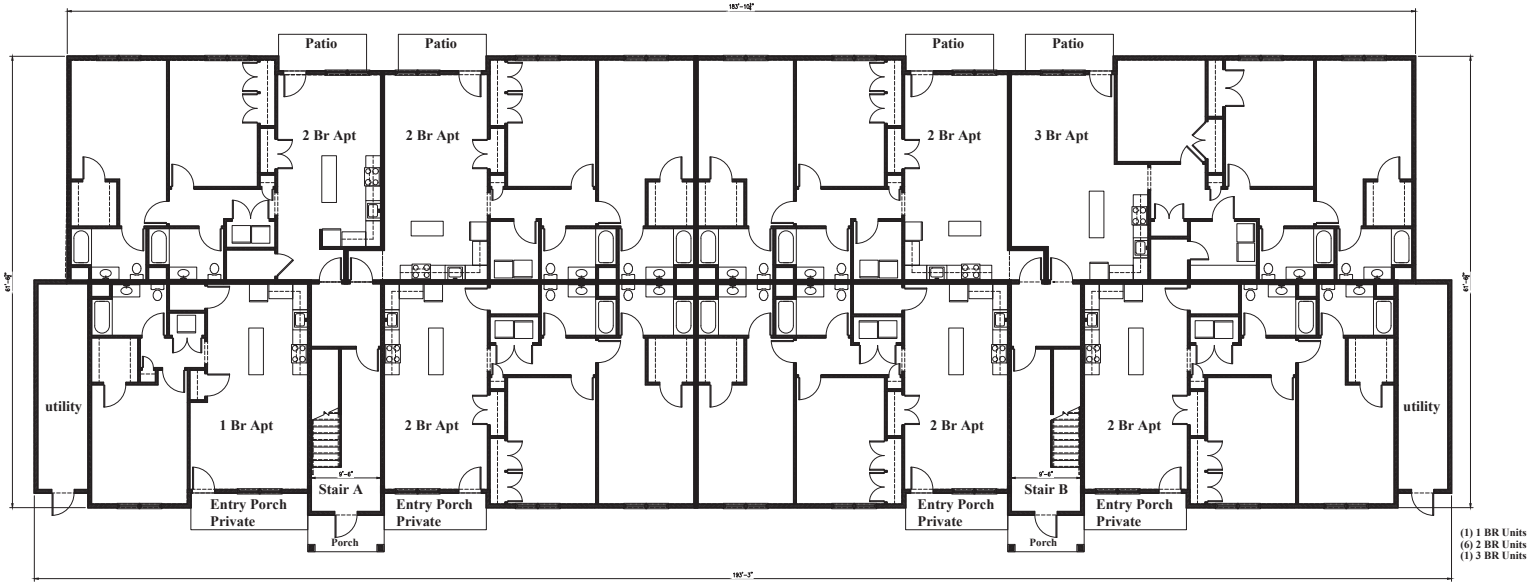
Buildings 6 & 7 First Floor Plan & Front Elevation

REVISIONS

DATE
9/24/21

PROJECT NUMBER
21-27

SHEET NUMBER
A6



1 / A7 Buildings #8 & #9 First Floor Plan

Scale: 1/8"=1'-0"

Typical Exterior Finishes:

- Fibercement Siding
- Fibercement Shakes
- Cultured Stone Veneer
- Fiberglass Shingles
- Composite Trim Boards
- Energy Star Windows
- Fiberglass Columns

2 / A7 Buildings #8 & #9 Front Elevation

Scale: 1/8"=1'-0"

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ajcoppola@coppola-associates.com

LICENSE NUMBER: 018849

° PROPOSED MULTIFAMILY DWELLINGS FOR °

The Hamlet at Carmel

Town of Carmel, NY

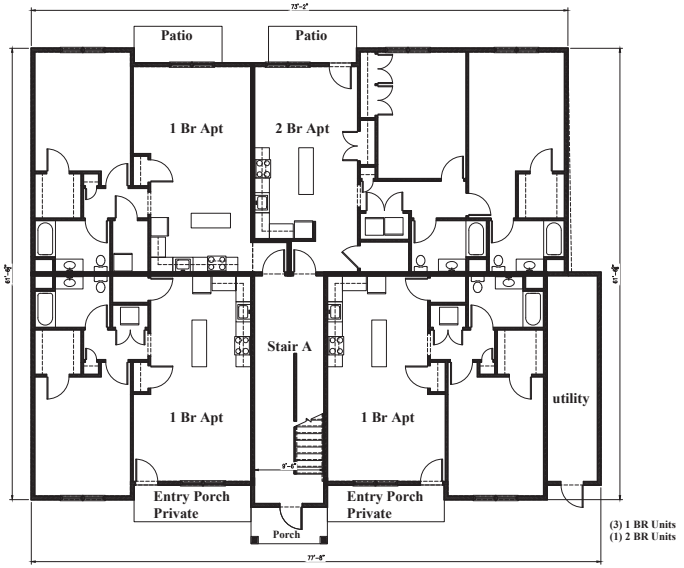
Buildings 8 & 9 First Floor Plan & Front Elevation

REVISIONS

DATE
9/24/21

PROJECT NUMBER
21-27

SHEET NUMBER
A7



1 / A8 Building #10 First Floor Plan

Scale: 1/8"=1'-0"

Typical Exterior Finishes:

- Fibercement Siding
- Fibercement Shakes
- Cultured Stone Veneer
- Fiberglass Shingles
- Composite Trim Boards
- Energy Star Windows
- Fiberglass Columns

2 / A8 Building #10 Front Elevation

Scale: 1/8"=1'-0"

COPPOLA ASSOCIATES

Design, Architecture & Planning

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ajcoppola@coppola-associates.com

LICENSE NUMBER: 018849

PROPOSED MULTIFAMILY DWELLINGS FOR

The Hamlet at Carmel

Town of Carmel, NY

Building 10
First Floor Plan & Front Elevation

REVISIONS

DATE
9/24/21

PROJECT NUMBER
21-27

SHEET NUMBER
A8

PUTNAM ENGINEERING, PLLC.
Engineers and Architects

September 30, 2021

Mr. Craig Paeprer, Chairman
Town of Carmel Planning Board
60 McAlpin Avenue
Mahopac, NY 10541

Re: Tompkins Recycling
70 Old Route 6
Carmel. NY
T.M. #55.11-1-15

Dear Chairman Paeprer and Members of the Board:

An extension of the site plan approval was granted to 70 Old Route 6, LLC for the Tompkins Recycling Project on October 21, 2020 for a period of one year. We request that the Board consider a reapproval of the site plan at this time. The Board should be aware that this property is currently in contract for sale to a buyer who is looking to construct the facility.

The project has the following permits:

1. Town of Carmel – Site Plan Approval - Expires 10/21/21
2. Town of Carmel Wetland Permit - Expires 8/19/22
3. N.Y.S.D.E.C. – Solid Waste Management Permit - Expires 2/7/24
4. N.Y.S.D.E.C. – Freshwater Wetland Permit - Expires 12/4/22
5. N.Y.C.D.E.P. – SWPPP Approval - Expires 3/29/22
6. N.Y.S.D.E.C. – General General Permit G.P.-0-10-001 Permit #NYR10Q049. This permit is valid (open) until an N.O.T. is filed to close out the project.

FEMA has issued a conditional letter of map revision (7/24/14) based on fill which will remove the property from the flood plain once as-built topographic survey is submitted verifying compliance with the design drawings.

Sincerely,

PUTNAM ENGINEERING, PLLC

Paul M. Lynch, P.E.
PML/rrm

L1939