



TOWN OF GREENWICH

Town Hall ~ 101 Field Point Road ~ Greenwich, CT 06830
Planning & Zoning Department ~ 203-622-7894 ~ Fax.203-622-3795

Site Plan Application

Property Address: _____ Tax ID: _____

Property Owner: _____ Address: _____

Email: _____ Cell Phone: _____ Other Phone: _____

Applicant: _____ Address: _____

Email: _____ Cell Phone: _____ Other Phone: _____

Authorized Agent: _____ Address: _____

Email: _____ Cell Phone: _____ Other Phone: _____

Select One: ☐ Pre-Application ☐ Final ☐ Preliminary

Zone(s): _____ Lot Area: _____

Lighting Zone: _____ (refer to Section 6-152)

Please select all relevant items below:

- ☐ Special Permit – Complete special permit application form
- ☐ Coastal Overlay Zone
- ☐ Property is within 500 feet of a Municipal Boundary of _____ (for notification)
- ☐ Amendment to Building Zone Regulations – Section(s) _____
- ☐ Amendment to Building Zone Map – Zone(s) affected _____
- ☐ Health Department review needed
- ☐ Sewer Department review needed
- ☐ Architectural Review Committee Application attached or Review needed
- ☐ Planning & Zoning Board of Appeals review needed
- ☐ Inland Wetlands and Watercourses Agency Review / Approval Required
- ☐ Scenic Road Designation
- ☐ Old Greenwich Village District (OGVD) Zone

To be completed by P&Z staff only:

Check # _____ Check Amount: \$ _____

Application # _____

pzSitePlanApp 2022

	<u>EXISTING</u>	<u>PROPOSED</u>	<u>PERMITTED/ REQUIRED</u>
COMMERCIAL/OFFICE			
Gross Floor Area	_____	_____	_____
Usable Floor Area	_____	_____	_____
Parking Spaces	_____	_____	_____
COMMERCIAL/RETAIL			
Gross Floor Area	_____	_____	_____
Usable Floor Area	_____	_____	_____
Parking Spaces	_____	_____	_____
OTHER USES			
Gross Floor Area	_____	_____	_____
Usable Floor Area	_____	_____	_____
Parking Spaces	_____	_____	_____
RESIDENTIAL			
Number of Units	_____	_____	_____
Number of Bedrooms	_____	_____	_____
Gross Floor Area	_____	_____	_____
Parking Spaces	_____	_____	_____
TOTAL SQUARE FOOTAGE	_____	_____	_____
BUILDING HEIGHT	_____	_____	_____
FLOOR AREA RATIO	_____	_____	_____
BUILDING COVERAGE	_____	_____	_____
LOT COVERAGE	_____	_____	_____
TOTAL PARKING SPACES	_____	_____	_____
GREEN AREA	_____	_____	_____
AGE OF STRUCTURE	_____		
THIS SITE PLAN INVOLVES:			
☐ Additions	☐ Alterations	☐ Demolition	☐ Re-Construction



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Special Permit Application

Property Address: _____ Tax ID: _____

Property Owner: _____ Address: _____

Email: _____ Cell Phone: _____ Other Phone: _____

Applicant: _____ Address: _____

Email: _____ Cell Phone: _____ Other Phone: _____

Authorized Agent: _____ Address: _____

Email: _____ Cell Phone: _____ Other Phone: _____

Zone(s): _____ Lot Area: _____

PLEASE SELECT ALL RELEVANT ITEMS BELOW:

- ☐ **Section 6-17** — Special Permit standards and procedure
- ☐ **Section 6-30** — Conservation Zone special provisions
- ☐ **Section 6-94** — Non-residential Uses and Group Living Facilities permitted in Residential Zones including Resident Medical Professional Office
- ☐ **Section 6-98** — RMF Zone
- ☐ **Section 6-99(a)(3)(E)** — Accessory Dwelling Units larger than provided in Section 6-99(a)(3)(D) or on a nonconforming lot
- ☐ **Section 6-100**— Use Groups for Business Zones
- ☐ **Section 6-101, 107** — Buildings over 40,000 c.f. in Central Greenwich Impact Overlay Zone, Post Road Impact Overlay Zone, WB, LB or LBR Zones; and over 150,000 c.f. in all other zones
- ☐ **Section 6-103.1** — Parking deficient uses in CGBR
- ☐ **Section 6-104** — Parking Structures incl. underground in LB Zone and Height exceptions
- ☐ **Section 6-105, 106** — Front Yard Parking in GB or GBO Zone
- ☐ **Section 6-109** — HO & HRO Zones
- ☐ **Section 6-110** — Dwellings under special requirements for Business Zones
- ☐ **Section 6-112** — IND-RE Zone applications
- ☐ **Section 6-113** — In Hospital Zones: certain accessory uses, expansions exceeding 4,000 s.f. or interior alterations or changes of use exceeding 20,000 s.f. (cumulative within 2 years)
- ☐ **Section 6-114** — CCRC (Continuing Care Retirement Community)
- ☐ **Section 6-115** — MCRO (Managed Residential Community Overlay Zone)
- ☐ **Section 6-118.1** — Uses within railroad rights of way
- ☐ **Section 6-123** — Setbacks from Connecticut Turnpike in Business Zones
- ☐ **Section 6-140.1** — Telecommunication Facilities and Sites
- ☐ **Section 6-141** — Changes in non-conforming uses, buildings
- ☐ **Section 6-205** — Historic structures in CBG Zone exceeding FAR And Notes 7, 8 & 9
- ☐ **Section 6-95 (a)(7)** - Indoor athletic uses occupying more than 1,200 square feet of floor area



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Application Signature Page

Property Address: _____ Tax ID: _____

Property Owner 1: _____ Address: _____

Email: _____ Cell Phone: _____ Other Phone: _____

Signature: _____ Date: _____

Property Owner 2: _____ Address: _____

Email: _____ Cell Phone: _____ Other Phone: _____

Signature: _____ Date: _____

Property Owner 3: _____ Address: _____

Email: _____ Cell Phone: _____ Other Phone: _____

Signature: _____ Date: _____

Property Owner 4: _____ Address: _____

Email: _____ Cell Phone: _____ Other Phone: _____

Signature: _____ Date: _____

Applicant: _____ Address: _____

Email: _____ Cell Phone: _____ Other Phone: _____

Signature: _____ Date: _____

Authorized Agent: _____ Address: _____

Email: _____ Cell Phone: _____ Other Phone: _____

Signature: _____ Date: _____



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Site Plan Review Checklist

Property Address: _____ Tax ID: _____

Anticipated Type of Application: _____

All applications for preliminary and final site plan approval shall be made on the appropriate forms as provided by the Planning Staff. The following items must also be provided with the application. If any of the following items are not filed at the time of application, the application may be returned to the applicant in order that it may be filed in the entirety at an appropriate future date. Required Items: (Sec. 6-14)

Please check the items submitted below:

1. Fifteen copies of a survey, folded to 9" x 12", showing existing conditions, including:
 - a. Locations and dimensions of all existing buildings, structures, fences, retaining walls, utility facilities, trees of six (6) inches or more in diameter at breast height, and other similar features.
 - b. Existing contours at no more than a two-foot vertical interval, unless waived by the commission Staff in circumstances where such contours may not be necessarily pertinent. The survey shall indicate topographic conditions of property immediately adjoining the subject parcel.
 - c. The location of all existing watercourses, intermittent streams wetlands as required by IWWA, Flood Hazard Lines as determined by FEMA, springs and rock outcrops or a note indicating that none exist, with the sources of information listed.
 - d. The zone in which the land to be developed falls and the location of any town and zone boundary lines within or adjoining the tract, and yard dimensions to existing buildings. Lot area, by zone, shall be indicated.
 - e. The title of the development, date, revision date if any and nature of revision, north arrow, scale, and the name and address of owner and names of owners of adjacent land.
 - f. Street and property lines, curbs, edges of pavement, sidewalks, easements, right-of-way, covenants, and deed restrictions.
 - g. Traffic lights and controls, public trees, catch basins, hydrants, and power and telephone lines in adjacent streets.
 - h. Certification with the signature and seal or registration number of a registered land surveyor licensed in the State of Connecticut that the drawing is substantially correct to A-2 Standards, and that the property is in a designated zone under the zoning regulations.
2. Fifteen sets of a detailed Site development plan, at a readable scale, folded to 9" x 12", prepared in accordance with all applicable Town standards including the Roadway Design and Drainage Design Manuals, and signed by a professional architect, land surveyor, or engineer licensed in the State of Connecticut, showing:
 - a. Location, dimension, and elevation of all proposed buildings, structures, walls, fences.
 - b. Location dimensions and surface treatment of all existing and proposed parking and loading spaces, traffic access and circulation drives, and pedestrian walks. Sidewalks are to be provided as required by the Building Zone Regulations.
 - c. Approximate location of proposed utility lines, including water, gas, electricity, sewer and the location of any transformers.
 - d. Note specifying source of water supply and method of sewage disposal.
 - e. Existing and proposed contours at units of no more than a two-foot interval unless waived by the Commission's staff. Cuts and fills and estimates of blasting to be submitted at time of final site plan.
 - f. Location, size and type of proposed landscaping and buffer planting and the designation of those areas of natural vegetation not to be disturbed.
 - g. Any other similar information determined by the Commission staff to provide for the proper enforcement of the Building Zone Regulations.
 - h. Zoning statistics including: Gross Floor Area, Floor Area Ratio, Usable Floor Area, Required Parking, Actual Parking Provided, Building Height, Building Footprint, and Area Devoted to Surface parking, Building and Drives.
 - i. Provisions for compliance with Americans with Disabilities Act (Handicap Access) and State Building Code
 - j. Coastal Area Management Application for projects within the Coastal Overlay Zone

3. Eight sets of architectural plans, signed and sealed by an architect registered in the State of Connecticut, of all floors, all exterior elevations showing existing and proposed grade conditions. Elevations are to detail architectural elements by labeling materials, color and dimensions. Each architectural elevation shall show the absolute building height as well as building height for zoning purposes. All HVAC facilities are to be shown on architectural elevations.
4. Three copies of Floor Plan Work Sheets with the dimensions and calculated floor areas for each floor prepared in accordance with Sec. 6-5(22). Consult Commission Staff for required format.
5. Three copies of "building coverage" computation sheets.
6. Three copies of "area devoted to surface parking, building, and drives" worksheets.
7. Five copies of sight distance certification reports when required by a preliminary site plan review or when advised by the commission staff pursuant to item 2(g) of this checklist.
8. Three copies of Volume calculations per 6-101.
9. Completed Traffic Impact Evaluation Form if applicable. Submission requirements are defined on the form, available at the Commission office. A traffic report may be required.
10. Ten copies of completed application form signed by applicant or authorized agent, owners and contract purchasers, as applicable.
11. Ten copies of completed Special Permit form, if required by Building Zone Regulations.
12. Fifteen copies of detailed, inclusive narrative description of the proposed project. For those projects involving amendments to the Building Zone Regulations and/or amendments to the Building Zone Regulation Map, the narrative description must provide the section number and text for the proposed amendments(s) to the BZR and an explanation providing justification for the proposal. For map changes, a scaled drawing at 1" to 400' needs to be provided for affected areas(s).
13. Two copies of a brief narrative addressing:
 - Energy efficiency including overall energy efficiency performance, as well as how a development project's features and systems will contribute to minimizing greenhouse gas emissions;
 - The potential and use of renewable energy systems, as well as highly energy efficient equipment such as air and ground source heat pumps, hot water heat pumps and fuel cells. Renewable energy systems generate energy from wind, solar radiation, geothermal steam, and biogas. Such information shall include a description of the site's relevant features (including but not limited to: site slope, ground composition, shading), as well as the proposed building's potential for renewable energy generation (including but not limited to: orientation, scale, roofing, and systems.);
 - Any available energy efficiency modeling and metrics that outline a project's energy profile. Examples of such information would include an Energy Use Index (EUI), and greenhouse gas emissions in terms of carbon equivalents, as well as the heating ventilation and air conditioning (HVAC) and hot water equipment's efficiency, calculated as a Coefficient of Performance (COP). Residential projects (including multifamily homes) of 10,000 sf or larger in size could highlight their energy efficiency by providing a Home Energy Rating System (HERS) index rating on an as designed basis. Commercial and Industrial projects of 10,000 sf or larger in size could highlight their energy efficiency and renewables use by providing a source ENERGY STAR Portfolio Manager (ESPM) score, also on an as designed basis.
 - Please refer to Section 6-14(a)(22) of the BZR for exemptions and pages 12-19 of this package for examples.
14. Eight copies of reductions in, 11 x 17 size, or other appropriate size, providing a readable, clear plan of proposed site development and architectural plans.
15. A showing that an adequate source of potable water is available to satisfy the needs of the proposed development as per Sec. 6-15(a)(5), signed by a C.A.W.C.
16. Nine copies of a landscape plan meeting the requirements of Sec. 6-179 for any uses which require a landscape plan per Sec. 6-177, including:
 - (a) Business uses in business zones.
 - (b) Multi-family uses in any zone.
 - (c) Mixed use residential in business zones.
 - (d) Parking for more than ten (10) cars.
 - (e) Any use requiring a special permit or special exception.
 - (f) Non-residential uses in residential zones.
 - (g) Residential property permitted for full demolition and re-build.

17. An affidavit certifying that all abutting property owners have been notified, as evidenced by the submission of a certificate of mailing or certified or registered mail receipts about said application. A schedule of names, addresses, shown on a GIS map with lot lines indicating the location of the notified property owners. Owners of lots, or portions of lots, which are across a public or private street shall be deemed to be abutting property owners. For projects which require the preliminary review by the Conservation Commission, the notice shall be sent by the applicant to abutting owners two weeks prior to any scheduled hearing date of the Conservation Commission.
18. Authorization for the agent and contract purchasers to act on behalf of the certified property owner(s).
19. A separate schematic plan at a scale no larger than 1"-100" indicating buildings, parking and drives on the site and all adjoining properties, including those across the street, and the nearest cross street.
20. Authorization for the agent and contract purchasers to act on behalf of the certified property owner(s).
21. A separate schematic plan at a scale no larger than 1"-100" indicating buildings, parking and drives on the site and all adjoining properties, including those across the street, and the nearest cross street.
22. Five copies of a Drainage Summary Report as per Department of Public Works and the Town Drainage Design Manual. The summary report must be prepared in accordance with the following formats: PRELIMINARY: Existing and proposed storm water distribution, existing and proposed runoff rates, capability of off-site drainage facilities to accommodate proposed runoff, capability of off-site soils to accommodate percolation or detention if proposed, and identification of proposed drainage structures. FINAL: Final structure design details, prior approval from IWWA, Engineering Division and Conservation Commission as appropriate, and all information required by the preliminary report or two copies of drainage exemption forms.
23. In accordance with Sec. 6-183.1 to 6-183.10 of the Building Zone regulations, tree protection and sedimentation and erosion control plans shall be submitted with all site plan applications.
24. All applications for final site plans shall be in the form of a survey prepared by a registered Connecticut land surveyor having metes and bounds, dimensions of all buildings, parking and drives, setbacks of all structures from property lines, setbacks between buildings, and certification that building dimensions shown thereon are the same as the approved architectural plans. Architectural and drainage plans are to be references by title, date(s) and sheet numbers.
25. Required fee submitted at time of application (see fee schedule).
26. "It is the belief of the PZC staff that this application is incomplete because of the failure of the applicant to provide the materials
27. **For OGVD Overlay Applications:** Any proposed new construction, substantial reconstruction or rehabilitation of properties and alterations to building facades visible from public vantage points within the Old Greenwich Village District Overlay required Design Review through both the Architectural Review Committee (ARC) and the Planning and Zoning Commission (PZC). Specifically, **Design Review** requires that applicants submit the following:
 - a. GIS map showing the property location;
 - b. Landscape Plan, consistent with Division 17 of these regulations;
 - c. Site Plan prepared to scale
 - d. Color photos of the existing building and site conditions
 - e. Color photos of adjacent properties, including properties across the street
 - f. Scaled Building plans and elevations, etc. for both new and existing buildings to be retained
 - g. Specification for any proposed fixtures, and swatches and color chips for all proposed fabric, material and colors.
 - h. Any additional appropriate material per Section 6-14 of the Greenwich Building Regulations

Additional Materials for Applications Related to Existing Historic Buildings:

- a. For the purposes of this overlay regulation and guidelines, historic buildings are herein defined as those constructed on or before 1940, consistent with the designation of the Greenwich Historical Society.
- b. Documentation of the original style of the building
- c. Narrative describing how:
 - i. improvements are consistent with or vary relative to original
 - ii. proposed building changes or additions are consistent with the context and treatments of facades facing public streets or public areas
- d. Photographs of the original building(s) (if applicable), the buildings to either side of the proposed project and the view from across the street

All applications must be submitted digitally to pznappl@greenwichct.org, followed by a physical submission of hardcopies and payment.

NOTE: Any new documentation presented at Planning and Zoning Meetings shall be submitted to staff so that they can be made part of the record. Please ensure all documents can easily be removed from presentation boards.



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Certificate of Mailing

An affidavit pursuant to Sec. 6-14(a)(16), certifying that all abutting property owners have been notified by mail as evidenced by a certificate of mailings or certified or registered mail receipts, about said application. Owners of lots, or portions of lots, which are across a public or private street shall be deemed to be abutting property. For projects which require preliminary review by the Conservation Commission, the notice shall be sent by the applicant two weeks prior to any scheduled hearing date by the Conservation Commission.

U.S. POSTAL SERVICE	CERTIFICATE OF MAILING
MAY BE USED FOR DOMESTIC AND INTERNATIONAL MAIL, DOES NOT PROVIDE FOR INSURANCE-POSTMASTER	
Received From: _____ _____	
One piece of ordinary mail addressed to: _____ _____ _____	

Affix fee here in stamps or meter postage and post mark. Inquire of Postmaster for current fee.

PS Form **3817**, January 2001

Submit the Following for All P+Z Applications:

EXHIBIT A

A schedule of names and addresses shown on a GIS map with lot lines indicating the location of the notified property owners. (This may be obtained from the GIS Office in Town Hall, Ground Floor)

EXHIBIT B: Sample notification letter

To whom it may concern:

Notice is hereby given that (name of the applicant) has filed an application with the Town of Greenwich Planning and Zoning Commission for (type of application) approval for (address).

This application (give a brief description of the proposed project).

Further information concerning this application may be obtained by contacting the Planning and Zoning Commission at 203-622-7894.

Signature



TOWN OF GREENWICH

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Planning & Zoning Department ~ 203-622-7894 ~ Fax.203-622-3795

Affidavit of Notification of Application for Rezoning / Special Permit / Site Plan / Subdivision Applications

(STATE OF CONNECTICUT)
(COUNTY OF FAIRFIELD)): GREENWICH

I (name), being first duly sworn, do hereby certify that on (date), I caused to be mailed, postage prepaid, to those persons whose names are set forth on Exhibit A attached hereto a copy of the notice attached hereto as Exhibit B. Said persons were the record owners, as of (date) as shown on the Town Tax Assessor's Office records of property abutting (as said term defined in Sec. 6-14 (a)(3) of the Greenwich Building Zone Regulations) the property belonging to (owner name) for which an application for (type of application) has been filled with the Greenwich Planning and Zoning Commission.

Subscribed and sworn to
Before me on

Notary Public



TOWN OF GREENWICH

Town Hall ~ 101 Field Point Road ~ Greenwich, CT 06830

Inland Wetlands & Watercourse Agency ~ 203-622-7736 ~ email: wetlands@greenwichct.org

PERMIT-NEED QUESTIONNAIRE

This form is NOT an IWWA Application

Project Address: _____ Tax ID: _____

Property Owner: _____ Address: _____

Contact information – Email or Cell Phone: _____

Authorized Agent: _____ Address: _____

Contact information – Email or Cell Phone: _____

Has there ever been an IWWA application for this site? YES NO Appl. # _____

ACTIVITY: (Circle) Addition Demolition Deck Garage Interior renovations New residence Generator
Tennis Court Pool Site Work/Landscaping Septic Other (specify) _____

Will this activity require an addition to the septic system or a B100a? YES NO

EEE: \$65 for reviews requiring a site visit

A PLOT PLAN IS REQUIRED SHOWING THE PROPOSED ACTIVITY.

IWWA staff will review the project proposal to determine if *regulated activities* are associated with the proposal and whether an IWWA permit is required. If an IWWA permit *is required*, the appropriate permit application packet will be provided.

Do not apply for a Building Permit until this review is complete.

No work may begin until an IWWA permit is issued and/or the “Building Permit Application Sign-Off Sheet” has been signed.

The issuance of a building permit alone does not constitute an authorization to proceed.

As the *property owner* ☐ or, *authorized agent* ☐ [check one] I believe the information I have submitted is correct.

Signature _____ Date _____ / _____ / _____

STAFF NOTES

Office Rev Date _____ / _____ / _____ Field Inv Date _____ / _____ / _____ WET/WC? YES NO TIDAL ☐

Action Required? YES NO If yes, DR AA AR SIA Staff _____

Soils Report Date _____ / _____ / _____ Author _____ Soils _____

Comments: _____

Received

Declaratory Ruling

(To be filled out only when directed to by IWWA staff)

There is a \$30 fee for Declaratory Ruling

1. Purpose and description of proposed activity:

2. Present use of property in area of proposed activity: _____

3. Distance of closest disturbance to Wetlands/Watercourses: _____

4. Site acreage: _____ Wetland acreage: _____ Linear feet of watercourse: _____

5. Submit **one (1) copy** of the following information:

- a. _____ Site plan showing:
- i. _____ existing and proposed features, with detail and accuracy sufficient to understand full scope of proposed work.
 - ii. _____ the location of any wetlands or watercourses and the upland review area for each.
- b. _____ Written consent of owner to the proposed activity, if the applicant is not the property owner.

By signing this application, the applicant or his/her agent certifies that he is familiar with the information provided in this application and is aware of the penalties for obtaining a permit or ruling through deception or by submission of inaccurate or misleading information.

By signing this application, permission is hereby given to conduct necessary and proper inspection of the subject property by the Agency members and designated agents of the Agency, at reasonable times, both before and after a final decision has been rendered.

Owner's Signature: _____

DATE: _____

Agent's Signature: _____

DATE: _____

(When applicant is not owner, owner's authorization is required)

By signing this form, the IWWA Authorized Agent acknowledges a regulated activity is proposed within an upland review area. However, the activity is so minor as to have no potential effect on the wetland or watercourse. The activity is therefore authorized.

IWWA Authorized Agent's Signature: _____ **DATE:** _____

Town of Greenwich
101 Field Point Road
Greenwich, CT 06830

Re: Energy/Renewables Narrative

TO: Building Applicants
FROM: Greenwich P&Z Commission

Dear Building Permit applicant - please use the following template and narrative prompts as a guide for use as, or in addition to, your required Energy Narrative.

Project Name and address:

Narrative by: Firm Name, Inc., dated Month XX, 2023

Energy Efficiency Modeling & Metrics	Existing	Proposed ¹	Recommended “Good”	Recommended “Better”
Site Energy Usage Intensity (Site EUI – annual kBtu/ft ²) ²			Residential <45, Non-res <35	Residential <35, Non-res <25
Home Energy Rating System Score (HERS) (residential)			<52	<42
ENERGY STAR score ³ (any building)			>80	>90
Air Leakage (Blower door test)			<0.3cfm/ft ² @50PA	< 0.1cfm/ft ² @50PA
Energy Source			HVAC All Electric	All Electric – no fossil fuels
Use of Renewables			Yes	Yes + battery storage
Level 2 or higher EV Charging Station ⁴			Greater of 1 or 20% of spaces	Greater of 1 or ≥30% of spaces

I. Project Description

Brief project description

II. Energy efficiency and overall performance

Narrative here.

III. Project features and systems driving energy efficiency minimizing greenhouse gas emissions

Narrative here.

IV. Potential and proposed use of renewable energy systems

Narrative here.

¹ As a reminder, all applicants must comply with the CT 2022 Building Code and the incorporated IECC 2021. For a summary of *Key Changes in the 2021 IECC for the Northeast and Mid-Atlantic* please see link [here](#).

² Site EUI is equal to the annual energy equivalent of all electricity, natural gas, fuel oil or propane consumed on site, divided by building square footage (gross floor area).

³ A building's Energy Star score is derived from modeling using Energy Star Portfolio Manager, a free, easy to use software program from the Department of Energy. Learn more [here](#).

⁴ Please refer to the Greenwich Municipal Code, new Section 162.1, ELECTRIC VEHICLE OFF-STREET PARKING REQUIREMENTS, an amendment to Sec. 6-5(a) which can be found [here](#).

EXAMPLE OF ENERGY EFFICIENCY NARRATIVE - COMMERCIAL BUILDING

Section 6-14 (22) of the Greenwich Building Zone Regulations

I. Project Type, Address, Site Characteristics, Developer, Square Footage

This project will be a new construction commercial building located at (______). The site has abundant natural light and a soil analysis has been completed which confirms 1) the lack of ledges and 2) the soil is suitable for a ground source heat pump vertical wells or horizontal loops. (_____) purchased the site and hired (_____) to build a (_____) commercial building that will be all electric.

Overall Energy Objectives & Anticipated Results

Overall construction objectives as designed

Energy efficiency levels expressed as EUI, ACH, COP, ESPM, HERS, either modeled or tested. Energy source(s)

The commercial building is targeted to produce following modeling results on an as designed basis:

- *Max EUI of 20 kBtu / sqft per year (inclusive of all loads – including plug loads).*
- *Minimum of 0.6 air changes per hour at 50 or under Pascals.*
- *An all-electric design.*

Upon completion, the project will be blower door tested to ensure compliance with the above energy efficiency targets. Additionally, the project will be added to ENERGY STAR Portfolio Manager (ESPM) to monitor EUI and BTU demand on an ongoing basis and for benchmarking purposes. The building's ESPM rating will be included in all listings or disclosures to prospective tenants. Included along with the ESPM rating will be an explanation of how the property compares with a national average for this climate zone. We expect an ENERGY STAR score of 85 or higher for this project. The energy statistics will be compared to the national medians and, if necessary, steps will be taken to ensure the building remains among the top 10-15% energy efficient commercial buildings. The ongoing ESPM scores will be made available to existing and prospective tenants during the building's life as well as the Town of Greenwich Energy Management Advisory Committee.

Building Operating Strategy

How key aspects of design, energy systems and sources, will work together

Example of key aspects driving energy efficiency: orientation, scale, envelope, lighting

The building will be all electric. The site has abundant natural light. The site can allow the building to be oriented 5 degrees from directly facing the street, which is also within 30 degrees of due South. This shift maximizes daylighting. The roof is flat and 80% will be available for the use of solar panels. Windows will be sized to allow abundant sunlight in and glazed to maintain energy efficiency. The envelope will be very well insulated to minimize heat loss in winter and heat invasion in summer. LED lighting will be installed throughout the interior of the building and lighting will automatically turn off when not in use.

The building's envelope is such that an HVAC system using air or ground source heat pumps will be suitable for the building's cooling and heating loads.

The building will feature the subdivided areas for larger tenants to furnish and build to their custom specifications while also including some prebuilt spaces for smaller tenants to easily move in at a low cost. We anticipate a rental premium by marketing the energy efficiency and sustainability aspects of the property: reduced utility operating costs, less exposure to cost volatility associated with fossil fuels, and higher amounts of outdoor air to improve tenant health. Outdoor air ventilation levels will exceed the ASHRAE 62.1 – 2010 by 30% or more.

Building Operating Features

Role additional key features will play in energy efficiency, e.g.; HVAC, appliances, use of renewables (solar PV, air and ground source heat pumps)

Re renewables; if PV, system size and output as share of total energy use

A central plant design was chosen due to the efficiencies realized in consolidating the entire building's various loads. A central plant using multiple water to water source heat pumps proved to be the most efficient design and the one that would be able to dynamically adjust to the building's changing loads while also recovering as much energy as possible. The water to water source heat pump units are able to individually switch from providing chilled water to providing low temperature hot water in response to the heating or cooling loads in the building. All water to water source heat pumps are using a common condenser water loop and thus provides the ability to recover energy between the units that are heating and others that are cooling.

The condenser water is serviced by a ground source loop, an air source heat pump system, or a combination of the two. Should the condenser water loop get too hot or too cold the HVAC system will engage the ground loop, the air source heat pump system, or both in order to get the condenser water temperatures within a suitable range for the water to water heat pump plant.

A hydronic system was chosen in order to limit the use of refrigerants as much as possible and to contain that use within the mechanical rooms. This design choice was made to limit the consumption and use of refrigerants. A hydronic design was also chosen to future proof the building for upcoming refrigerant phase outs.

An electric heat pump, which utilizes the condenser water for source heat, will provide domestic hot water. Electricity generated from the solar panels will provide lighting for the interior and exterior common spaces. Exterior lighting will cut off fully at 11pm and automatically turns off/on when natural light is sufficient/ insufficient. Excess solar electricity will be stored in batteries to provide common lighting at night. The batteries will be sized to provide back up electricity in the event of a three day outage assuming no replenishment from the solar panels during that period.

Revenue grade BTU meters or energy valves will be used to track energy use for individual tenants for utility billing or for the landlord's energy management and capital investment planning. All appliances will be ENERGY STAR approved. The project will provide underground parking for its tenants including EV charging at the rate of 1 charger for 25% of the spaces that the solar panels will service.

Order of Magnitude Budget Impacts

Anticipated impact of energy efficiency in construction and sale; % increase in cost/sf, anticipated result in price premium

Anticipated impact in owner or tenant annual operating costs savings

The builder expects to secure a rental premium by marketing the energy efficiency and sustainability aspects of the property, reduced utility operating costs, lower exposure to utility cost volatility, and ability to bring in higher amounts of outdoor air for improved public health.

EXAMPLE OF ENERGY EFFICIENCY NARRATIVE – MULTI-FAMILY

Section 6-14 (22) of the Greenwich Building Zone Regulations

I. Project Type, Address, Site Characteristics, Developer, Square Footage

New construction at 10 Walnut Street, Cos Cob. The site has abundant natural light and a soil analysis has been completed which confirms 1) the lack of ledges and 2) the soil is suitable for a ground source heat pump. Popular Homes, LLC purchased the site and hired Turner Construction to build a 15 unit, 32,000sf multi-family residence that meets Passive House standards. The residence will consist of five 1, 2 and 3 bedroom rental units.

Overall Energy Objectives & Anticipated Results

Overall construction objectives as designed.

Energy efficiency levels expressed as EUI, ACH, COP, ESPM, HERS, either modeled or tested. Energy source(s)

Overall objective is to develop high quality apartments consistent with premium housing in the area that are also highly energy efficient and inexpensive to operate and maintain.

The building will be all electric and will not require gas meters.

This residence is targeted to produce following modeling results on an as designed basis:

- *Max HERS Index Score of 35.*
- *Max Source EUI of 37 per sf per year.*
- *Max heating and cooling demand of 4.7 BTUs per sf per year.*
- *Minimum of 0.6 air changes per hour at 50 or under Pascals.*
- *Min COP rating for both ground source and hot water heat pumps of 2.7 times.*

Upon completion, the project will be tested (HERS and blower door) to ensure compliance with the above energy efficiency targets. Additionally, the project will be added to ENERGY STAR Portfolio Manager (ESPM) for ongoing benchmarking purposes. We expect an ENERGY STAR score of 85 or higher for this project. That means that this building will be more efficient than 85% of multi-family buildings in the same climate zone.

EUI, BTU usage and greenhouse gas emissions will be monitored by ESPM. The energy statistics will be compared to the national medians and, if necessary, steps will be taken to ensure the building remains among the top 10-15% energy efficient multi-family residences. The ongoing ESPM scores will be made available to existing and prospective tenants during the building's life.

Building Operating Strategy & Features

- How key aspects of design, energy systems and sources, will work together
- Role key features will play in energy efficiency, e.g.; orientation, scale, envelope, glazing, lighting, HVAC, appliances
- Role of renewables in meeting energy needs, e.g.; solar PV, air and ground source heat pumps, size, output, share of total energy use

The building will be oriented within 30 degrees of due South in order to maximize daylighting. Windows will be sized to allow abundant sunlight in and glazed to maintain energy efficiency. The envelope will be very well insulated to minimize heat loss in winter and heat invasion in summer, while allowing for above Code levels of air circulation per hour.

With this envelope, a ground source heat pump will provide sufficient heating and cooling through forced air ductwork. The HVAC unit will be sized at 1 ton of HVAC per 1,000 sf of conditioned space. An electric heat pump will provide hot water.

This highly efficient building is expected to consume ~120,000kWh's /year in total.

The roof is flat and 80% will be available for the use of solar panels. Electricity generated from a X W solar PV rooftop system will be sufficient to provide 100,000kWhs on an annual basis. Excess solar electricity will be stored in batteries to provide common lighting and supplemental power at night. The batteries will be sized to provide back up electricity in the event of a three day outage assuming no replenishment from the solar panels during that period.

LED lighting and motion sensors will be installed throughout the interior of the building, turning lighting off automatically when not in use. Exterior lighting will turn on/off automatically when natural light is sufficient/ insufficient, and cutoff fully at 11pm.

All appliances will be ENERGY STAR approved and will include an electric stove. Each unit will have its own sub meter to encourage conservation thru monitoring and allocating utility costs to the end users (the tenants). The project will provide underground parking for its tenants including 3 EV charging stations that the solar panels will service.

Order of Magnitude Budget Impacts

Anticipated impact of energy efficiency in construction and sale (% increase in cost/sf, anticipated impact on price). Anticipated impact in owner or tenant annual operating costs savings

The builder expects to gain a rental premium by offering low cost utilities, sustainability and fresh indoor air. The energy profile and utilities cost savings will be communicated to prospective tenants.

Upon the building's completion, the HERS test results will be displayed in a label outside the front entrance. The label will explain what elements go into the HERS score. The HERS score will be shown but also converted into an easy to understand 1-10 scale with 10 being the top score. The same information will be available online for prospective tenants.

Prior to renting out a unit, the prospective tenant will be provided with either estimated annual utility costs broken out by type – heating, cooling, lighting etc. Or if the unit has already been rented, the previous twelve months utility bills.

EXAMPLE OF ENERGY EFFICIENCY NARRATIVE – SINGLE FAMILY

Section 6-14 (22) of the Greenwich Building Zone Regulations

I. Project Type, Address, Site Characteristics, Developer, Square Footage

New Construction at 10 Knowhow Lane, Greenwich. Site acquired by Popular Homes LLC (applicant) for development and sale.

Site is a 16,400-sf lot in a R12 zone with flat land, stable soil, and mature, peripheral trees. Applicant will develop a 4,450sf (27% FAR) single family residence as designed.

Overall Energy Objectives & Anticipated Results

Overall construction objectives as designed

Energy efficiency levels expressed as EUI, ACH, COP, ESPM, HERS, either modeled or tested. Energy source(s)

Popular Homes has contracted for an architectural design that maximizes owner comfort and energy efficiency within the prescribed \$/sf budget. This will be achieved through an all-electric design, including an induction stove. The home will not require a gas meter.

The design plan results in three important efficiency metrics, as shown in the Energy Modeling materials (Attachment A), specifically

- 1) 0.6 air changes per hour (ACH) at <50 Pascals*
- 2) Source EUI = 39 as designed*
- 3) HVAC 4.7k BTU/sf/year*

Upon completion, the project will be tested (HERS and blower door) to ensure compliance with the above energy efficiency targets, which exceed IECC code requirements. Results will be included in owner manual/home marketing materials.

Building Operating Strategy & Features

- How key aspects of design, energy systems and sources, will work together
- Role key features will play in energy efficiency, e.g., orientation, scale, envelope, glazing, lighting, HVAC, appliances
- Role of renewables in meeting energy needs, e.g., solar PV, air and ground source heat pumps, size, output, share of total energy use

The all electric, efficient design is achieved through various features which reinforce each other. For example, the envelope minimizes thermal loss, enabling a right-sized electric HVAC system using heat pumps. Low overall energy intensity enables a solar PV system to generate a high proportion of overall energy use. Interrelated features include:

- 1) *Placing the residence facing the street at a 30-degree south orientation. Passive heat gain will be captured by glazing on 42% of the envelope and heat-capturing flooring at key locations, along with interior wood blinds to reduce heat invasion in summer*
- 2) *Building envelope minimizes thermal breaks, walls R 55, roof R70, slab R-40*
- 3) *Glazing provides abundant natural light, reducing slightly the number of light fixtures. Lighting is all LEDs with motion sensors throughout and solar tubes in the garage, entry, and family room*
- 4) *Heating, cooling, lighting, and power are all electric*
- 5) *Air source heat pump for heating and cooling, sized at 1 ton HVAC per 1,000sf of conditioned space*
- 6) *Tankless electric hot water heater*
- 7) *All Energy Star appliances (e.g., dishwasher, refrigerator, washer/dryer)*

The home will be marketed with a rooftop solar PV system as an add-on purchase. Popular Homes has contracted with local solar system installer SunnySavings for as designed system

- *sized to provide 30% of annual total electricity usage, reflecting energy efficiency features discussed above, and lower cooling load from panels' insulation.*
- *Shading prevents the garage roof from being cost effective for PV, hence the use of that roof for solar tubes and ventilation system outlets.*
- *90% of the main roof is available and favorable for PV with a 42-degree pitch and east/west orientation*
- *The main roof PV system would reduce building EUI from 39 to 28.*
- *Electrical conduits and panels are solar PV-ready*
- *Garage equipped with a level 2, 240-volt EV charging station, excluded from EUI calculations*

Order of Magnitude Budget Impacts

Anticipated impact of energy efficiency in construction and sale (% increase in cost/sf, anticipated impact on price). Anticipated impact in owner or tenant annual operating costs savings

Design incorporates construction features which we estimate will add <3% additional construction cost/sf, stabilize and reduce homeowner's utility cost by ~70%, for which we expect to achieve a 3-4% price premium. HERS ratings and solar system production will be included in marketing and owner materials and displayed in the mechanical room.

Engineer of Record Certification

Project Name: _____

Project Address: _____

Engineer's Name: _____

Engineering Firm's Name: _____

Street Address: _____ City: _____ State: _____ Zip: _____

Phone: _____ Fax: _____ Email: _____

The undersigned Registered Professional Engineer of Record certifies that the Stormwater Management Report and Plans submitted herewith entitled:

Stormwater Management Report Last Revision Date: _____

Number of Plan Sheets: _____ Last Revision Date: _____

complies with all applicable provisions of the latest edition of the Town of Greenwich Roadway Design Manual, Drainage Manual, Construction Standards, and Greenwich Municipal Code Chapter 6. Land Use.

Engineer's Signature _____ Date _____

Engineer's Seal

STORMWATER MANAGEMENT STANDARDS – DRAINAGE REPORT EXEMPTION

Project Name _____

Project Address _____

Project Lot Number(s) _____

Property Owner(s) _____

Tax Account Number(s) _____ Zone(s) _____ Lot Area _____

1. Check all that apply to the proposed project:

- ☐ This is a new development or redevelopment project,
- ☐ The project will result in an increased amount of stormwater runoff and/or water pollutants flowing from a parcel of land (prior to the application of stormwater Best Management Practices),
- ☐ The project will alter the drainage characteristics of a parcel of land (prior to the application of stormwater Best Management Practices).

Categorical Exemptions:

2. Does the proposed project meet one of the following categorical exemptions? Check all that apply:

- ☐ Normal maintenance and improvement of land in agricultural use (as defined by Connecticut General Statutes), provided such activity conforms to acceptable management practices for pollution control approved by the Connecticut Department of Energy and Environmental Protection and the Greenwich Inland Wetlands and Watercourses Commission. This exemption does not apply to construction activities that are not directly related to the farming or agricultural operation.
- ☐ Routine maintenance of existing landscaping, gardens (excluding structural modifications to stormwater BMPs including rain gardens) or lawn areas including those maintained by the Town of Greenwich Parks and Recreation Department and Board of Education.
- ☐ Resurfacing of an existing impervious area on a non-residential lot such as repaving an existing parking lot or drive with no increase in impervious cover.
- ☐ Routine maintenance to existing town roads that is performed to maintain the original width, line, grade, hydraulic capacity, or original purpose of the roadway.
- ☐ Customary cemetery management.
- ☐ Emergency repairs to any stormwater management facility or practice that poses a threat to public health or safety, or as deemed necessary by the approving authority.
- ☐ Any emergency activity that is immediately necessary for the protection of life, property, or the environment, as determined by the approving authority.
- ☐ Repair of an existing septic system.
- ☐ Construction of utilities (gas, water, electric, telephone, etc.), other than drainage, which will not permanently alter terrain, ground cover, or drainage patterns.
- ☐ Repair or replacement of an existing roof of a single-family dwelling.
- ☐ Construction of a second (or higher) floor addition on an existing building.
- ☐ Construction of a maximum 12 foot x 12 foot shed. The construction must include the installation of a 1 foot wide x 1 foot deep crushed stone trench along the sides of the shed that discharge the roof runoff.
- ☐ The repair of an existing wood, composite, or plastic deck with no proposed enlargement of the deck surface.

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- ☐ The reconstruction or construction of a wood, composite, or plastic deck with the decking boards spaced at least 3/16 of an inch and a pervious surface below the deck. The pervious area below the deck must have the soil tilled 12 to 16 inches and finished with grass seed, sod, or crushed stone. The minimum depth for the crushed stone is 4 inches. A site plan showing the proposed location of the deck and construction details for the deck must be submitted.
- ☐ The construction of any fence that will not alter existing terrain or drainage patterns.

If so, the Greenwich Stormwater Management Standards shall not apply, and submittal of a Stormwater Management Report is not required. However, application of the standards is still strongly encouraged.

OWNERS' CERTIFICATION

Owners' Name _____

Street Address _____ City _____ State _____ Zip _____

Phone _____ FAX _____

Owners' Signature _____ Date _____

CONTRACTOR'S CERTIFICATION

Company Name _____

Street Address _____ City _____ State _____ Zip _____

Phone _____ FAX _____

Contractor's Signature _____ Date _____

Conditional Exemptions Requiring Certification from a Professional Engineer:

3. **For projects adding up to 500 square feet of impervious surfaces¹:**

The project design, including the proposed drainage design, if any, will not have an adverse effect on offsite properties or offsite drainage infrastructure, as certified by a professional engineer.

At least one of the following measures shall be implemented on the project site to help mitigate the effects of site disturbance and new impervious surfaces within its on site watershed and point of concern:

- ☐ Disconnection of roof down spouts that meet the Simple Disconnection standards in the Town of Greenwich Drainage Manual February 2012 as amended
- ☐ A zero increase in peak flow to all points of concern for the 1, 2, 5, 10, and 25-year design storms
- ☐ The runoff volume from the new impervious surfaces shall be infiltrated for the 10-year design storm
- ☐ Constructing a bioretention area for the Water Quality Volume of the contributing watershed of the project area. The design standards in the Town of Greenwich Drainage Manual February 2012 as amended must be met
- ☐ Creating a buffer with a length greater than or equal to the length of the project area and a minimum width of 10 feet planted as a meadow
- ☐ Restoring a riparian buffer (may require IWWA permit)

For projects that meet the above criteria, the project proponent shall submit Pages 1, 2, 3, 5, and 8 of this exemption request form and all computations and any additional drainage documents (Soil Evaluation Test Results, Watershed Maps, Etc.), in lieu of a Stormwater Management Report. The application of the Greenwich Stormwater Management Standards is still strongly encouraged.

For projects that meet the above criteria, the project proponent needs to submit construction plans as required on the Checklist for Projects Submitting a Stormwater Management Standards – Drainage Report Exemption – Form CL-101.

For projects that meet the above criteria, the project proponent needs to submit the items on the Checklist for Operations and Maintenance Plan Report – Form CL-104.

For projects that meet the above criteria, the project proponent needs to submit the Certificate of Occupancy documents on the Checklist for Projects Submitting a Stormwater Management Standards – Drainage Report Exemption – Form CL-101.

Residential teardowns are not exempt unless the project meets the Conditional Residential Teardown Exemption Requirements.

Commercial teardowns are not exempt.

PROFESSIONAL ENGINEER

Company Name _____

Street Address _____ City _____ State _____ Zip _____

Phone _____ FAX _____

Professional Engineer's Name _____

Conditional Exemptions Requiring Certification from a Professional Engineer:

4. For projects adding between 500 and 1,000 square feet of impervious surfaces¹:

The project design, including the proposed drainage design, if any, will not have an adverse effect on offsite properties or offsite drainage infrastructure, as certified by a professional engineer.

At least one of the following measures shall be implemented on the project site to help mitigate the effects of site disturbance and new impervious surfaces within its on site watershed and point of concern:

- ☐ Disconnection of roof down spouts that meet the Simple Disconnection standards in the Town of Greenwich Drainage Manual February 2012 as amended
- ☐ A zero increase in peak flow to all points of concern for the 1, 2, 5, 10, and 25-year design storms
- ☐ The runoff volume from the new impervious surfaces shall be infiltrated for the 10-year design storm
- ☐ Constructing a bioretention area for the Water Quality Volume of the contributing watershed of the project area. The design standards in the Town of Greenwich Drainage Manual February 2012 as amended must be met
- ☐ Creating a buffer with a length greater than or equal to the length of the project area and a minimum width of 10 feet planted as a meadow
- ☐ Restoring a riparian buffer (may require IWWA permit)

At least one of the following measures shall be implemented on the project site using LID or conventional stormwater BMPs to help mitigate the effects of site disturbance and new impervious surfaces:

- ☐ A zero increase in peak flow to all points of concern for the 1, 2, 5, 10, and 25-year design storms
- ☐ The runoff volume from the new impervious surfaces shall be infiltrated for the 10-year design storm

For projects that meet the above criteria, the project proponent shall submit Pages 1, 2, 4, 5, and 8 of this exemption request form and all computations and any additional drainage documents (Soil Evaluation Test Results, Watershed Maps, Etc.), in lieu of a Stormwater Management Report. The application of the Greenwich Stormwater Management Standards is still strongly encouraged.

For projects that meet the above criteria, the project proponent needs to submit construction plans as required on the Checklist for Projects Submitting a Stormwater Management Standards – Drainage Report Exemption – Form CL-101.

For projects that meet the above criteria, the project proponent needs to submit the items on the Checklist for Operations and Maintenance Plan Report – Form CL-104.

For projects that meet the above criteria, the project proponent needs to submit the Certificate of Occupancy documents on the Checklist for Projects Submitting a Stormwater Management Standards – Drainage Report Exemption – Form CL-101.

Residential teardowns are not exempt unless the project meets the Conditional Residential Teardown Exemption Requirements.

Commercial teardowns are not exempt.

PROFESSIONAL ENGINEER

Company Name _____

Street Address _____ City _____ State _____ Zip _____

Phone _____ FAX _____

Professional Engineer's Name _____

PROFESSIONAL – EXEMPTION CERTIFICATION

I hereby declare that the proposed project will add the following amount of impervious surfaces to the project site (check the box that applies):

- ☐ 0 to 500 square feet (conditionally exempt with Professional Engineer's Certification)
- ☐ 500 to 1,000 square feet (conditionally exempt with Professional Engineer's Certification)

It is my professional opinion that the project design, including the proposed drainage system, if any, will not have an adverse effect on offsite properties or offsite drainage infrastructure.

I further declare that at least one of the following measures shall be implemented on the project site to help mitigate the effects of site disturbance and new impervious cover for 0 to 1,000 square feet (check all that apply):

- ☐ Disconnection of roof down spouts that meet the Simple Disconnection standards in the Town of Greenwich Drainage Manual February 2012 as amended
- ☐ A zero increase in peak flow to all points of concern for the 1, 2, 5, 10, and 25-year design storms
- ☐ The runoff volume from the new impervious surfaces shall be infiltrated for the 10-year design storm
- ☐ Constructing a bioretention area for the Water Quality Volume of the contributing watershed of the project area. The design standards in the Town of Greenwich Drainage Manual February 2012 as amended must be met
- ☐ Creating a buffer with a length greater than or equal to the length of the project area and a minimum width of 10 feet planted as a meadow
- ☐ Restoring a riparian buffer (may require IWWA permit)

I further declare that at least one of the following measures shall be implemented on the project site to help mitigate the effects of site disturbance and new impervious cover for 500 to 1,000 square feet (check all that apply)

- ☐ A zero increase in peak flow to all points of concern for the 1, 2, 5, 10, and 25-year design storms
- ☐ The runoff volume from the new impervious surfaces shall be infiltrated for the 10-year design storm

Professional Engineer's Signature _____ Date _____

Professional Engineer's Seal

Conditional Residential Teardown Exemption Requiring Certification by a Professional Engineer:

5. **For residential teardowns that reconstruct where the impervious surfaces within each point of concern is less than or equal to pre-development conditions and the peak flow and runoff volume for the 1, 2, 5, 10, 25, 50, and 100-Year Storms has a zero increase to all points of concern the following must be submitted:**

A Stormwater Management Report must be submitted with the following included:

1. Project Narrative
2. Site Inventory & Evaluation
 - a. Topography
 - b. Soil Evaluation (Soil Evaluation Test Results (Form SC-101) Shall Be Used)
 - i. Initial Feasibility Evaluation (NRCS Web Soil Survey and similar sources of information)
 - ii. Concept Design Testing (test pits/borings and saturated hydraulic conductivity testing, as per Appendix B)
3. Evaluate Pre-Development Site Hydrology to all points of concern (Runoff Volume and Peak Flow Rate – 1, 2, 5, 10, 25, 50 and 100-Year Storms)
 - a. Watershed Map Pre-Development
 - b. NRCS Runoff Curve Numbers Pre-Development
 - c. Time of Concentration Pre-Development
4. Evaluate Post-Development Site Hydrology to all points of concern (Runoff Volume and Peak Flow Rate – 1, 2, 5, 10, 25, 50 and 100-Year Storms)
 - a. Watershed Map Post-Development
 - b. NRCS Runoff Curve Numbers Post-Development
 - c. Time of Concentration Post-Development
5. Peak Runoff to all points of concern must have a zero increase for the 1, 2, 5, 10, 25, 50, and 100-Year Storms
6. Runoff volume to all points of concern must have a zero increase for the 1, 2, 5, 10, 25, 50, and 100-Year Storms
7. Compare & Summarize Pre-& Post Development Site Hydrology for peak flow and runoff volume to all points of concern
8. Conveyance Protection: 10, 25, 50 & 100-Year Depending on Peak Flow Rate for Downstream Stormwater Facilities
9. Outlet Protection Calculations – Based on Conveyance Protection
10. Emergency Outlet Sizing: Safely Pass the 100-Year
11. Supporting Documents
12. Sealed and Signed By a Professional Engineer

For projects that meet the above criteria, the project proponent shall submit Pages 1, 2, 6, 7, and 8 of this exemption request form and a Stormwater Management Report. The application of the Greenwich Stormwater Management Standards is still strongly encouraged.

For projects that meet the above criteria, the project proponent needs to submit plans which include all items on the:

1. Checklist for Construction Plans – Form CL-102
2. Checklist for Driveway Profile and Sight Distance Plan – Form CL-103

For projects that meet the above criteria, the project proponent must submit an Operations and Maintenance Plan Report. The Operations and Maintenance Plan must be submitted following the Checklist for Operations & Maintenance Plan Report CL-104.

For projects that meet the above criteria, the project proponent needs to submit the items on the Checklist for Certificate of Occupancy – Form CL-105 with the request for Certificate of Occupancy. The Improvement Location Survey must include the items on the Checklist for Improvement Locations Survey Depicting ‘As-Built’ Conditions CL-106.

The use of this exemption removes any future additional construction on the property from using the Conditional Exemption regardless of ownership changes.

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PROFESSIONAL ENGINEER

Company Name _____

Street Address _____ City _____ State _____ Zip _____

Phone _____ FAX _____

Professional Engineer's Name _____

PROFESSIONAL – RESIDENTIAL “teardown” EXEMPTION CERTIFICATION

I hereby declare that the proposed project will not have an increase in impervious surfaces and a zero increase in peak flow and runoff volume to all points of concern for the 1, 2, 5, 10, 25, 50, and 100-Year Storms.

It is my professional opinion that the project design, including the proposed drainage system, if any, will not have an adverse effect on offsite properties or offsite drainage infrastructure.

I further declare that the Required Stormwater Management Report and plans shall be implemented on the project site.

Professional Engineer's Signature _____ Date _____

Professional Engineer's Seal

IMPERVIOUS AREA WORKSHEET

This worksheet shall be used to quantify impervious surfaces¹ associated with existing and proposed construction on your site. Please complete columns 1, 2, and 3 below listing the first floor or ground level square footage of each existing or proposed structure or site amenity. Each point of concern shall use a separate worksheet.

POINT OF CONCERN

	(1) Existing Conditions Impervious Surfaces (sq ft)	(2) Proposed Conditions Impervious Surfaces (sq ft)	(3) Proposed New Impervious Surfaces (sq ft) [Column 2 minus column 1]
House/Buildings			
Driveways			
Sidewalks/Paths			
Swimming Pool			
Patios			
Tennis Court/Sport Court			
Other			
TOTALS:			

¹ Refer to the glossary in the Town of Greenwich Drainage Manual for a definition of “impervious surface.”