

# Memo

To: Town Clerk

From: Peter D. Gillespie, Town Planner/Economic Development Manager

Date: August 19, 2020

Re: Approved Low Impact Development (LID) Regulations (Various Sections) and Revisions to Appendix A Site Plan Requirements, Appendix B Plot Plan Requirements and Appendix E As-Built Plan Requirements – Wethersfield Zoning Regulations

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At their August 18, 2020 meeting the Wethersfield Planning and Zoning Commission approved the following amendments to the Wethersfield zoning regulations.

In summary, the proposed amendments to the regulations include the following provisions:

1. Section 2.3. – LID related definitions.
2. Section 6.1. – Landscaping regulations that encourage bioretention areas, filter strips and/or other low impact development (LID) practices.
3. Section 6.1. – Landscaping regulations that eliminate the need for curbing for planting islands.
4. Section 6.2. – Parking regulations that encourage the minimalization of impervious coverage.
5. Section 6.2. – Parking regulations that provide for a 15% reduction if LID's used.
6. Section 6.2. – Parking regulations that encourage the use of pervious materials.
7. Section 6.2. – Parking regulations – Clarification.
8. Section 6.4. – Performance criteria to require LID in site development plans.
9. Section 6.13. – New stormwater management regulations.
10. Appendix A. – New site plan requirements that encourage LID's.
11. Appendix B. – New plot plan requirements that require MS4 impervious area calculations.
12. Appendix E. – New As-Built Plan requirements that require MS4 Impervious area calculations.

The following zoning regulation amendments require developers and property owners to consider the use of low impact development (“LID”) and runoff reduction site planning and development practices as part of the development permit process.

Additionally, zoning regulation amendments were approved to the Appendix Section that would revise the Site Plan, Plot Plan and As-Built Plan Requirements.

The various changes are highlighted in yellow:

## 1. SECTION 2.3. – DEFINITIONS (New) (Language Highlighted)

**Directly Connected Impervious Area or DCIA** – means that impervious areas from which stormwater runoff discharges directly to waters of the state or directly to a storm sewer system that discharges to waters of the state. Impervious areas that discharge through a system designed to retain the appropriate portion of the Water Quality Volume (pursuant to Section 6(a)(5)(b)(i) or (ii) of the General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems Issued: January 20, 2016. Effective: July1, 2017. Expires: June 30, 2022 or as amended are not considered DCIA.

**Low Impact Development or LID** – Means a site design strategy that maintains, mimics or replicates pre-development hydrology through the use of numerous site design principles and small-scale treatment practices distributed throughout a site to manage runoff volume and water quality at the source.

**Maximum Extent Practicable (MEP)** - MEP is a technology-based standard established by Congress in the Clean Water Act Section 402(p)(3)(B)(iii). Since no precise definition of MEP exists, it allows for maximum flexibility on the part of MS4 operators as they develop their programs. (40CFR 122.2, See also: Stormwater Phase II Compliance Assistance Guide EPA 833-R-00-002, March 2000). When trying to reduce pollutants to the MEP, there must be a serious attempt to comply, and practical solutions may not be lightly rejected. Factors such as the conditions of receiving waters, specific local concerns, MS4 size, climate, implementation schedules, current ability to finance the program, beneficial uses of receiving water, hydrology, geology, and capacity to perform operation and maintenance should be considered in determining whether a permittee has complied with this general permit to the Maximum Extent Practicable.

**Stormwater** - Means waters consisting of rainfall runoff, including snow or ice melt during a rain event.

**Impervious Surface.** The area of a building site or lot that is covered by materials that prevent the infiltration of surface water into the ground beneath. Such surfaces may include, but are not limited to, parking lots, roofs, walkways, sidewalks, paved driveways, patios, concrete slabs, sealed-joint paving blocks or stones, and pools that are paved or made of other surfaces that similarly impede the natural infiltration of surface and storm water. Impervious surface shall be expressed in terms of square footage or acreage, and percentage of total site or lot area.

**Pervious Surface** – A surface that allows water to percolate through.

## 2. SECTION 6.1. LANDSCAPING REQUIREMENTS

### SUBSECTION C. GENERAL LANDSCAPING REGULATIONS (New Language Highlighted)

11. The Commission strongly encourages that the design and construction of required parking lot landscaping areas incorporate bioretention areas, filter strips and/or other low impact development (LID) practices.

**3. SECTION 6.1. LANDSCAPING REQUIREMENTS**

**SUBSECTION G. PARKING AREA LANDSCAPING REQUIREMENTS (Revised)**

**(New Highlighted Language)**

1. Unless modified by the Commission, any parking area accommodating 10 or more cars shall provide landscaped areas consisting of islands, peninsulas or medians within the parking lot equal to at least 15 percent of the gross paved parking lot area.
2. Such internal landscaped areas shall be provided with not less than one tree for each 10 cars in the parking area, suitably located in landscaped islands within the parking area so as to enhance the appearance of the lot.
3. Any planting islands used to satisfy this requirement shall have an area of not less than 160 feet and a width not less than 8 feet. and shall be protected by curbing **unless such curbing would inhibit function of LID practices.**

**4. SECTION 6.2 PARKING AND LOADING REGULATIONS**

**SUBSECTION A. PURPOSE (Revised) (New Language Highlighted)**

This section is intended to provide sufficient off-street parking spaces to serve all existing and proposed uses, buildings and structures and alterations, enlargements or intensification thereto. It is the intent of these Regulations to allow the minimal amount of parking **and impervious areas** needed to serve the proposed development

**5. SECTION 6.2. PARKING AND LOADING REGULATIONS**

**SUBSECTION D.3. REDUCTION OF REQUIRED PARKING SPACES (Revised) (New Language Highlighted)**

Excellence In Building and Site Design – The Commission may, by Special Permit, permit a reduction of up to 15 percent of the required parking spaces due to excellence in building and site design **including the use of low impact development (LID) techniques.**

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**6. SECTION 6.2. PARKING AND LOADING REGULATIONS**

**SUBSECTION G.1. SURFACE TREATMENT (Revised) (New Language Highlighted)**

Unless modified by the Commission, with a showing of good cause for uses that are seasonal such as recreation, all parking spaces, loading facilities, and access roadways for all uses other than single- and two-family dwellings shall be improved to the standards established by the Town Engineer and shall have a durable all-weather surface of bituminous, concrete, cement or other properly bound pavement that will inhibit dust. **The use of pervious materials is encouraged.**

**7. SECTION 6.2. PARKING AND LOADING REGULATIONS**

**SUBSECTION H.6. PARKING AREA CONSTRUCTION STANDARDS (Revised) (New Language Highlighted)**

All parking areas shall include landscaped areas satisfying the requirements of Section 6.1. of these regulations.

**8. SECTION 6.4. PERFORMANCE CRITERIA**

**SUBSECTION G. (New) (New Language Highlighted)**

Stormwater Management shall be incorporated into site development plans and all plans shall incorporate LID, to the maximum extent practicable providing opportunities for groundwater recharge and stormwater renovation.

**9. SECTION 6.13 STORMWATER MANAGEMENT (New) (New Language Highlighted)**

**A. PURPOSE**

This Section of the Regulations is intended to protect and preserve the waters within the Town of Wethersfield and the Connecticut River from non-point sources of pollution and flooding through the proper management of stormwater flows and minimization of suspended solids, pathogens, toxic contaminants, heavy metals, petroleum hydrocarbons, nitrogen and floatable debris to these flows transported by stormwater and discharging to wetlands and watercourses within Wethersfield.

Water is a valuable natural, economic, recreational, cultural and aesthetic resource. The protection and preservation of ground and surface water is in the public interest and essential to the health, welfare and safety of the citizens of Wethersfield. As such, changes to land cover due to development without proper consideration of stormwater impacts can permanently alter the hydrologic response of local watersheds and potentially increase stormwater runoff rates and volumes, which in turn has the potential to increase flooding, stream channel erosion, sediment transport and deposition, and to impact water quality. Increases to impervious surfaces associated with development result in increases to stormwater runoff and have been directly linked to the degradation of water quality and decrease in ground water recharge of aquifers and base flow of watercourses.

**B. APPLICABILITY**

1. Unless exempted as provided below, a stormwater management plan shall be included as a part of any application for a Subdivision, Erosion and Sediment Control Plan, Special Permit or Site Plan review where:
  - a. the application pertains to a development or construction project that will result in an increase in the amount of impervious cover or disturbance of one half acre or more of total land area on a lot; or
  - b. the Commission or its agent determines that the activity proposed has the potential to cause significant non-point source pollution to any waters of the state, cause or exacerbate downstream flooding or discharges stormwater runoff that could affect public roadways or drainage systems.

**C. STORMWATER MANAGEMENT PLAN REQUIREMENTS**

1. Reference to the latest edition of the Connecticut Department of Energy and Environmental Protection (DEEP) Stormwater Quality Manual, or other design standards, shall be made as appropriate.
2. Opportunities for stormwater retrofits of existing roads and other existing impervious areas on or adjacent to the site shall be explored.
3. The Stormwater Management Plan shall be prepared by an engineer licensed to practice in the State of Connecticut and shall provide, at a minimum, the following information.
  - a. A narrative of the design objectives including potential impacts resulting from the proposal or activity and a description of the practices, techniques, structures and facilities proposed to mitigate such impacts. The pre- and post peak rate of runoff shall be calculated using the 2-, 10-, 25-, and 100-year storm events.
  - b. Existing Site Conditions Map inclusive of soil characteristics based on USDA soil surveys including soil names, map unit, erodibility, permeability, depth, texture and soil structure, and results of any on-site testing for the proposed development site.
  - c. Limits of the 100 year flood elevation based on FEMA Flood Profiles w/ Base flood elevations and Inland Wetland boundaries as de
  - d. Proposed Site Conditions narrative including description of proposed stormwater management system for construction and post-construction phases, total disturbed area, proposed groundcover conditions, the increase in impervious surface area and DCIA, the percentage of the area of the development site that will be impervious, and identification of the potential impacts to wetlands, watercourses, and groundwater on or off site. The Commission may request information relative to the impact on downstream waterbodies and wetlands.
  - e. Existing Drainage Area Plan showing watershed drainage areas and analysis points with total area, groundcover, time of concentration flow paths including identification of presumed types of flow along the path, impervious surface area and runoff coefficients used to calculate pre-development peak runoff rates and volumes for the proposed development parcel. In addition to drainage related features, wells, topography, soil types, vegetation, wetlands and watercourses, and floodplains and floodways shall also be shown.
  - f. Proposed Drainage Area Plan showing watershed drainage areas and analysis points with total area, groundcover, including impervious surface areas, time of concentration flow paths including identification of presumed types of flow, and runoff coefficients used to calculate post-development peak runoff rates and volumes, location and description of receiving stormwater conveyance systems, surface waters, wetlands and other sensitive receptors for the proposed development site. Proposed wells, on-site wastewater disposal systems, topography, vegetation, easements, and maintenance access locations shall also be shown.
  - g. A description of design methodologies, hydrologic, hydraulic, and water quality computations for all practices and techniques, and structures and facilities.
  - h. Drawings including plan views, profiles, cross-sections, typical details, and calculated water surface elevations for each design storm, for all stormwater management system components at adequate scale(s) and containing sufficient detail to clearly depict the intent of the design; details, including any phasing requirements for

construction and/or installation, dimensions and materials including planting and landscape plans and details associated with stormwater management system components.

- i. Structural design, geotechnical design and supporting information, as required by the Town Engineer for stormwater management system components including but not limited to, storm sewers, detention/retention systems channels, outlet protection measures, culverts, bridges, dams, spillways, outlet weirs, and other structures.
- j. Location of all easements stating the specific responsibilities of the grantor and grantee as to the access and maintenance of the stormwater system. Easements shall be a minimum of 20' wide (10' each side of buried pipes), and shall extend 10' beyond outfalls and 10' outside both sides of open drainageways and 10' beyond buried and unburied non-linear stormwater management features.
- k. Proposed operation, inspection and maintenance program for the stormwater management system. The program shall include a general schematic of the stormwater management system, annual maintenance costs, inspection and maintenance schedules, and checklists for each proposed stormwater management measure and the designation of the proposed responsible party for the operation, inspection and maintenance of the stormwater management system.

#### l. Stormwater Maintenance Agreement

### D. STORMWATER MANAGEMENT DESIGN CRITERIA

1. Stormwater management systems shall be designed to manage site runoff to minimize or eliminate surface and groundwater pollution, prevent or mitigate flooding, and control peak discharges from the site and at critical downstream locations.

#### 2. Standards –

a. All designs shall meet the criteria as herein specified using, to the maximum extent practicable, low impact development to:

i. Minimize the amount of impervious surfaces and DCIA (roads, parking lots, roofs, etc.) within each municipality by minimizing the creation, extension, and widening of parking lots, roads, and associated development and encourage the use of low impact development or green infrastructure practices.

ii. Preserve, protect, create and restore ecologically sensitive areas that provide water quality benefits and serve critical watershed functions. These areas may include, but are not limited to; riparian corridors, headwaters, floodplains and wetlands.

iii. Implement stormwater management practices that prevent or reduce thermal impacts to streams, including requiring vegetated buffers along waterways, and disconnecting discharges to surface waters from impervious surfaces such as parking lots.

iv. Seek to avoid or prevent hydromodification of streams and other water bodies caused by development, including roads, highways, and bridges.

v. Implement standards to protect trees, and other vegetation with important evapotranspirative qualities.

vi. Implement policies to protect native soils, prevent topsoil stripping, and prevent compaction of soils.

b. To the maximum extent practicable (MEP), the applicant shall consider the use of low impact development (LID) and runoff reduction site planning and development practices to meet or exceed the LID and runoff reduction practices identified in the 2004 Connecticut Stormwater Quality Manual as amended, including:

i. for redevelopment of sites that are currently developed with Directly Connected Impervious Area (DCIA) of forty percent or more, retain on-site half the water quality volume for the site, or

ii. for new development and redevelopment of sites with less than forty percent DCIA, retain the entire water quality volume for the site, or

iii. an alternate retention/treatment standard as outlined in subsections 5(B)(i)-(ii) of the General permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems issued: January 20, 2016, Effective: July 1, 2017, Expires June 30, 2022 or as amended.

**10. APPENDIX A. – SITE PLAN REQUIREMENTS (Revised) (Entire Section is replaced with the following revised Language Highlighted)**

**APPENDIX A – SITE PLAN REQUIREMENTS**

**1. NUMBER OF DRAWING SETS AND SHEET SIZE**

- a. All permit applications must include a total of sixteen (16) copies of the plans folded to not larger than 9"x12"
- b. Four (4) copies shall be submitted as full size sets (24" x 36") in landscape view
- c. Twelve (12) copies shall be submitted as reduced size sets (11" x 17")
- d. Sixteen (16) copies of all associated reports and information
- e. Digital copy of the application form, plans and supporting documents shall also be submitted. All electronic plans and documents submitted as a "Portable Document Format" (PDF) via email, CD or flash drive

**2. GENERAL PLAN REQUIREMENTS - All plan sheets shall include, the following Information:**

- a. Title Block that includes the following information:
- b. Project name, description and proposed use
- c. Sheet Title to indicate purpose/information content of the sheet
- d. Sheet number/identifier and total # of sheets in the plan set
- e. Note regarding type of survey prepared
- f. Date of original plan preparation, revision dates and content
- g. Street address of property
- h. Property owner's name and address

- i. Applicant and/or developer, phone # and/or email
- j. Name, address and phone number of surveyor, engineer, architect or landscape architect
- k. Certification, seal, signature and registration number of land surveyor and/or professional engineer responsible for preparation of the plan
- l. Graphic and word scale – Plans shall generally be drawn at 20' scale (but not more than 40' scale)
- m. All drawings shall be north-oriented to the extent possible and shall contain a north arrow with reference to grid, true or magnetic north
- n. Legend calling out the meaning of all abbreviations and symbols
- o. All plan notes, statements and map references
- p. Approval Signature Block on all plan sheets

**3. COVER/INDEX SHEET - A cover sheet is required for all multi-page drawing sets and in addition to the general plan requirements shall include the following information:**

- a. Permit application type
- b. Location map at 500' scale showing adjoining streets and intersections
- c. Index of plan sheets with corresponding sheet numbers and description
- d. Placeholders for the Commission's approval letter(s)

**4. EXISTING CONDITIONS SURVEY - The plan shall include a boundary and topographic survey prepared, signed and sealed by a land surveyor licensed in the State of Connecticut to a Class A-2 and T-2 standard of accuracy for property boundaries and topography**

- a. Zoning district for the parcel and for adjoining properties
- b. Distances along boundary and easement lines to the nearest .01 of a foot, directions, defined by angles, bearings or azimuths, along boundary or easement lines to the nearest 10 seconds, curved lines defined with the central angle, radius, arc length and tangent and the radius of all curves
- c. All monuments and markers found along the property line with accurate descriptions (i.e. 1/2" metal rod)
- d. Coordinates for a minimum of two monuments or markers
- e. Rights-of-way, easements, or other property encumbrances and restrictions, including but not limited to conservation, drainage and access including the names of the affected party, the purpose and the vol/page evidencing recording in the Town Land Records
- f. Subdivision name and lot number
- g. Total area of the parcel in both square feet and acres
- h. Intersecting property lines for all adjoining properties
- i. Names and addresses for all adjoining property owners
- j. Front, side and rear yard setback lines
- k. Name of streets and State highways that front the property

l. Assessor's map and lot number

m. Topography

- 1) Topography at a 2' max contour interval and spot elevations
- 2) Elevations for top of foundation, basement, garage and first floor for any existing buildings or structures
- 3) Location, type and top and bottom of retaining wall elevations
- 4) Location of project benchmark (minimum of two)
- 5) Highlight any areas of steep slopes >4:1 or 25%

n. Development Information

- 1) Location, description, height, square footage and dimensions of all buildings, foundations and accessory structures
- 2) A minimum of three (3) dimensions from existing buildings to property lines (front, sides and rear)
- 3) Type and height of guide rails, handrails, walls, and fences, and stairs and ramps

o. Natural Resource Information

- 1) Identify types and limits of ground cover and the limits of the canopy of existing wooded/forest areas
- 2) Rock outcrops
- 3) Location of any existing trees equal to or larger than 12" in diameter at breast height identified by species. Include all street trees on public rights-of-way along property frontage
- 4) The location and limits of inland wetlands, water bodies and watercourses from the Town's Inland Wetlands Map or as delineated by a soil scientist with flag numbers, the direction of flow, and water surface elevations, or a note stating that no wetlands are present
- 5) The location of the limits of FEMA one-hundred (100) year flood limits, (both Flood zone and Floodway, as appropriate) based on Base Flood Elev's (BFE's), or a note stating that no flood zone is present

p. Utility Information - Location, size, material and description of existing overhead and underground utilities on-site and along the property frontage:

- 1) All water mains, laterals, curb boxes and valves
- 2) All fire service lines, standpipes, sprinkler connections and hydrants.
- 3) Sanitary sewer mains, manhole structures and laterals, including top of frame and invert elevations
- 4) Potable water supply wells and septic systems on site or on adjacent properties if within the separating distances to these facilities established by the Connecticut Public Health Code
- 5) Utility and street light poles

- 6) All other utilities (above or below ground) such as gas, electric, telephone and cable with above ground utility boxes, transformer pads, manholes, junction boxes, cabinets, vaults and handholds
- 7) Storm drainage pipes, roof and foundation drains, catch basins, rip-rap and other structures, including top of frame and invert elevations
- 8) Vegetated swales
- 9) Limits and types of any storage tanks whether above or below ground
- q. Streets, Parking and Driveways - The location, dimensions and description of all paved streets, parking, sidewalks and driveways including:
  - 1) Sidewalks, walkways, patios and any other paved areas
  - 2) Streets, curbs, edge of pavement, driveways and driveway aprons with material type and dimensions
  - 3) Transit/bus stops adjacent to the property
  - 4) Traffic Control signs, pavement markings with traffic circulation
  - 5) Traffic and pedestrian signals
  - 6) Parking areas showing the number of spaces
- r. Other Information - The following additional information may be required depending upon the nature of the project or the property:
  - 1) National, State or Local Historic Property Designations
  - 2) Archaeological features, including whether the site is located within an area of sensitivity or pre-history
  - 3) Subsurface Conditions - Location of exploratory soil borings and test pits with supporting information, if applicable
  - 4) Area of known or suspected contamination or narrative of site history if none expected

**5. SITE DEMOLITION PLAN - The Site Demolition Plan shall be prepared by a professional land surveyor or engineer licensed in the State of Connecticut and shall be based upon the required existing conditions survey as detailed above and shall include the following additional information:**

- a. Building(s) or structures to be demolished with method of demolition to be performed
- b. Any structures and/or impervious surfaces to remain
- c. Locations of all utility terminations (water, sewer, gas, electricity, etc.)
- d. Tree preservation plan for all trees that are to be retained
- e. Locations of staging, material storage and loading areas and notations if materials are to be reused on site
- f. Location of any portable toilet and construction trailers
- g. Location of any proposed construction fencing

- h. Traffic control and parking plan. This plan should identify contractor parking areas, construction entrance and identify truck routes for delivery of material entering or leaving the site
- i. Erosion and sediment controls showing all required best management practices with associated notes
- j. Storm Water Management Plan during the demolition phase of the project

**6. SITE LAYOUT PLAN - The Site Layout Plan shall include the details, location and description of all proposed improvements:**

- a. All information shown on the “Existing Conditions Survey”.
- b. Any proposed property lines changes
- c. Zoning table containing the following requirements from the Town’s Zoning Regulations and proposed improvements to document compliance with the following:
  - 1) Planned use of existing and proposed structures
  - 2) Zoning designation for the site
  - 3) Lot area in both acres and square feet
  - 4) Lot frontage
  - 5) Building Area Coverage %
  - 6) Impervious Coverage %
  - 7) Front, side and rear yards
  - 8) Building height and number of stories
  - 9) Any variances, subdivisions, site plans special permits or other approvals previously granted for the property
- d. Depending upon the type of project the following additional information may be required for the zoning table:
  - 1) Required buffers
  - 2) Open Space and/or Recreation Areas/Facilities (Total and by Type)
  - 3) Number of residential units including bedroom/units
  - 4) Number and type of Affordable Residential Dwelling Units
  - 5) Number and type of Congregate Residential Units or Beds
  - 6) Proposed residential density
  - 7) Notations regarding any requested waiver, exception or modifications from the regulations
- e. Proposed Buildings and Structures
  - 1) Buildings and structures with square footage and dimensions
  - 2) Location of building entrances and exits
  - 3) Use of each building or portion thereof

- 4) Outdoor seating, decks or patio areas
- 5) At least three (3) dimensions from buildings and structures to the front, side and rear property lines
- 6) Distances between adjoining structures
- 7) Building overhangs/canopies
- 8) Location, type and height of fences, guide rails, railing, etc.
- 9) Location, type and height of retaining walls
- 10) Building height and number of stories
- 11) Any variances, subdivisions, site plans, special permits or other approvals previously granted for the property

f. Parking, Driveway, Loading and Circulation

- 1) Location, dimensions and type of all exterior sidewalks, pedestrian walkways, crosswalks, stairs and handicap ramps (on-site and along frontage)
- 2) Location, arrangement and dimension of all parking areas, drive aisles, parking stalls (numbered), wheel stops that clearly indicate from where the dimensions are taken (e.g., edge of pavement, face of curb or back of curb)
- 3) Location, dimensions and annotations of all handicap accessible parking stalls, and ramps compliant with the Americans with Disabilities Act (ADA) and State Building Code
- 4) Street driveway curb cut radii and width including any changes to roadway and lane widths/designations (right turn, left turn, bicycle lanes, etc.)
- 5) Location and dimensions of all curbed islands, peninsulas and medians within parking areas
- 6) Location, arrangement, and dimensions of truck loading areas
- 7) Location of required fire lanes and signage
- 8) Parking lot signage and pavement markings
- 9) Pedestrian and/or traffic signals and all appurtenances
- 10) Onsite traffic circulation pattern
- 11) Vehicle turning templates for all parking areas, delivery and trash removal areas and fire lanes
- 12) Sight distance visibility at all street intersections and driveways
- 13) Location and details of all proposed bicycle parking areas
- 14) Other structures such as mail boxes, etc...
- 15) Location of all proposed exterior lighting
- 16) Refuse disposal and recycling area(s) and associated concrete pads, enclosures and screening details

- 17) Exterior advertising signs with description, dimensions, areas, type, color, materials and illumination
- 18) Location, design, dimensions, data, and details of all existing and proposed outdoor display and storage areas including screening
- 19) Any exterior machines or devices to be appended to or project from any building or structure
- 20) Pervious pavement areas
- 21) Bus stops and shelters adjacent to the property
- 22) Location and details for any off-site parking
- 23) Location of any reserved parking areas
- g. MS4 Permit Table with pre and post development impervious area, directly connected impervious area (DCIA) and net changes in acres
- h. Parking and Loading Table that lists the following requirements from the Town's zoning regulations and proposed improvements to document compliance with the following:
  - 1) It is the Town's intent to minimize the amount of impervious surfaces and allow the minimum amount of parking to serve the development
  - 2)
  - 3) Number of required and proposed parking spaces including handicap spaces
  - 4) Gross Square Feet of Building Area (Total)
  - 5) Gross Square Feet of Building Area (By Use)
  - 6) Parking Space Computation
  - 7) Loading spaces
  - 8) Compact parking spaces
  - 9) Proposed shared parking (if applicable)
  - 10) Any requested parking reduction

**7. UTILITY PLAN - The Utility Plan shall identify the location of all underground and above ground utility features on-site and along the property frontage with size, slope, and type of proposed utility services and mains, pipe alignments, and critical elevations necessary for layout including:**

- a. Proposed rights-of-way, easements, or other property encumbrances and restrictions, including but not limited to conservation, drainage and access including the names of the affected party and the purpose
- b. Water mains, meters, gate valves and water services
- c. Fire service water main, stand pipe connections and hydrants
- d. Sanitary sewer mains, laterals, manhole structures, and cleanouts, including top of frame and invert elevations

- e. Septic system and wells including tank, primary leaching area, reserve leaching area and minimum clearances (contact the Central Connecticut Health District for specific requirements if the property requires a septic system and/or potable well)
- f. Utility poles, light poles and fixtures
- g. Natural gas, electric, telephone, or other utility lines with location of utility boxes, transformer pads, storage tanks, manholes, junction boxes, vaults, meters, HVAC equipment, condensers, cabinets or other mechanical equipment
- h. Mechanical room and/or service entrance locations
- i. Grease traps located external to buildings
- j. Location of radio towers, wind-powered generators, satellite dish, antennas, solar energy collection panels and similar structures
- k. Alternative or renewable energy equipment
- l. Note stating: "All new utilities will be located underground."
- m. Statement that the MDC has confirmed that the proposed uses for the development project will be adequately served by the proposed water distribution and sanitary sewer systems

**8. GRADING AND DRAINAGE PLAN - This Plan shall contain the following information necessary to identify grades and elevations for the proposed storm water management system. The plan shall include measures to protect/improve water quality and shall consider the use of low impact development (LID) practices with reference made to the Connecticut Stormwater Quality Manual:**

- a. Existing topography (dashed) and spot elevations
- b. Proposed topography (solid) contours @ 2' max intervals and spot elevations including corners of parking lot, property corners, retaining walls, top of berms, handicap ramps and other critical locations
- c. Building finished floor elevations
- d. Benchmark elevations (minimum of two)
- e. Location, size and type of storm drainage pipes and structures, including top of frame and invert elevations, headwall locations, dimensions, pipe size, material and slopes
- f. Location, size and type of roof and/or foundation drains with invert elevations at the building and outlet
- g. Vegetated Roof Systems
- h. Vegetated Drainage swales and channels
- i. Drywells or infiltration systems/basins
- j. All storm water treatment systems with appropriate top, bottom and invert elevations including labels for hydrodynamic separators, with manufacturer and model number.
- k. Short and long term inspection and maintenance plan and schedule to ensure performance of storm water treatment system
- l. Above and below ground detention basins including topography, top of berm, emergency spillway and bottom of basin elevations, and invert elevations for all inlet and outlet

structures, and the locations and dimensions of any trash racks and other components that are critical to proper operation of the system

- m. Bio-retention areas, rain gardens and similar infiltration or other retention systems that include pipe or other structure sizes and limits, bottom of system elevation, and invert elevations for inlet and outlet structures, and other components that are critical to proper operation of the system
- n. Rainwater harvesting methods such as rain barrels or cisterns.
- o. Location, specifications and details for any other Low Impact Development (LID) practices
- p. Proposed landscape berms and contours to be coordinated with landscape plan
- q. Any wetlands habitat mitigation or creation
- r. Any floodplain compensation

**9. LANDSCAPING PLAN - The Plan shall be prepared by a licensed landscaped architect or professional engineer. The landscape plan shall show the location and details of all areas to be landscaped and shall include the following information:**

- a. Any trees that are to be preserved along with tree protection measures
- b. Name, location and size of vegetation to be preserved with notations indicating when the vegetation is to be used for landscape credits
- c. Wooded areas identified by a canopy line
- d. Maximum limits of proposed tree clearing and site disturbance.
- e. Significant rock outcrops
- f. Street trees
- g. Location of fences and walls, including stone walls
- h. Limits of lawn areas, planting beds and any gardens
- i. Location and dimensions of all areas to be landscaped including: islands, strips, buffers, peninsulas and medians within parking areas specifying the location of individual trees, shrubs, and ground cover plants
- j. Plant and tree schedule and legend that includes the type, quantity, common name, botanical name, size (caliper) at planting (Indicate initial planting and mature height/size for trees, shrubs and ground cover). The use of indigenous plants is recommended. Non-native invasive plant species as identified by the State DEEP shall not be permitted as part of any landscaping plan approved by the Commission
- k. Required landscape buffer areas and means of screening new development from the view of public streets and nearby properties
- l. Parking perimeter requirements showing screening design and height, trees, shrubs, mounds, fences, and walls as required
- m. Landscaping used to meet screening requirements for dumpsters, mechanical units, loading areas, utility features, outdoor storage, and proposed sign foundations
- n. Edge treatment and ground cover/plantings in detention ponds, bio retention area and similar infrastructure

- o. Amenities associated with the landscape plan (specialty paving/details, walls, fences, recreation facilities/details, site furniture including benches, trash receptacles, bike racks, art work/details, etc...)
- p. Any other proposed landscape features
- q. Proposed irrigation system
- r. Relevant planting specifications and details
- s. A landscape table showing the quantity of trees, shrubs and perennials and compliance with all landscaping requirements:
  - 1) Overall landscape area
  - 2) Perimeter landscape areas (front, side and rear yards)
  - 3) Internal parking areas
  - 4) Landscape islands
  - 5) Sign areas
  - 6) Required buffer for adjoining uses
  - 7) Total quantity of all plantings
  - 8) Notation if existing trees are to be retained for credit
  - 9) Notation if a landscape modification or waiver is being requested

**10. SOIL EROSION AND SEDIMENT CONTROL PLAN – Reference is hereby made to the 2002 CT Guidelines for Soil Erosion and Sedimentation Control, as amended. It is the Town’s intent to protect native soils, prevent topsoil stripping and prevent the compaction of soils, to that end and where a soil erosion and sedimentation control plan is required, the Plan shall include, but not be limited to:**

- a. Narrative describing the following:
  - 1) Proposed development
  - 2) Schedule for grading and construction activities including:
  - 3) Anticipated start and completion dates
  - 4) Detailed sequence of grading and construction activities
  - 5) Sequence for installation and/or application of soil erosion and sediment control measures and storm water management facilities
  - 6) Any proposed construction phasing and limits
  - 7) Sequence for final stabilization of the project site
  - 8) Design criteria for proposed soil erosion and sediment control measures and storm water management facilities
  - 9) Construction details for proposed soil erosion and sedimentation control measures and storm water management facilities
  - 10) Installation and/or application procedures for proposed soil erosion and sediment control measures and storm water management facilities

- 11) Operations and maintenance program for proposed soil erosion and sediment control measures and storm water management facilities, including dewatering measures and controls (when applicable)
  - 12) Method and locations for disposal of clearing debris and materials and any excess or waste materials to be removed from the site
  - 13) Assignment of responsibility for implementing and maintaining control measures with name and phone number
  - 14) Any notes related to the proposed soil and erosion control plan and associated measures
- b. In addition to the other site plan requirements contained in this check list a Site Plan at a scale of not less than 1" = 40' scale that includes the location of and design details for all proposed permanent and temporary soil erosion and sediment control measures and storm water management facilities including:
- 1) Storm drain inlet and outlet protection
  - 2) Silt fence, hay bales and check dams
  - 3) Construction entrance(s)
  - 4) Tree protection fencing and location of all protected trees
  - 5) Temporary and permanent vegetation
  - 6) Stockpile and material storage areas
  - 7) Permanent and temporary diversion swales
  - 8) Sediment traps or basins
  - 9) Retaining walls or cribbing
  - 10) Any other information deemed necessary and appropriate by the applicant or requested by the Commission or Town staff

**11. FLOODPLAIN MANAGEMENT PLAN - Where any portion of a proposed site contains a FEMA Special Flood Hazard Area (SFHA) or a regulated floodway, the following additional information is required:**

- a. The location of the limits of the FEMA one-hundred (100) year flood elevation (Special Flood Hazard Area based on Base Flood Elevations (BFE'S) and site topography
- b. Where compensatory storage is required, such storage shall be appropriately shown and earthwork calculations shall be provided
- c. All new construction and substantial improvements to a building or structure or any other facility or equipment shall include the existing and proposed elevations and the details of the proposed anchoring system to prevent flotation, collapse, lateral movement and buoyancy
- d. All new and replacement utility services or systems (water, sanitary sewage, electrical, heating, ventilation, plumbing, air conditioning and on-site waste disposal) shall include details to demonstrate that the design and location of the system will minimize or eliminate infiltration of floodwaters or contamination from the facilities during flooding
- e. Elevation for the top of foundation for any proposed storage tanks and the top of the fill pipe or other such openings

- f. Top of foundation or the corresponding ground elevation, for any significant external utility, mechanical, or other service equipment, or facility
- g. Proposed elevation of the finished floor for, as may be applicable, basement, garage, first floor or any subgrade enclosures

**12. LIGHTING PLAN - Where site lighting is required or proposed, provide a lighting plan prepared by a qualified lighting consultant stamped by a Professional Engineer that contains the following information:**

- a. Site plan showing the location of all proposed buildings, parking and pedestrian areas on the site and indicating the location and type of all existing and proposed light poles, decorative lighting, building/wall mounted light fixtures and canopy lighting
- b. Site plan showing the location and description of any light fixtures on adjacent properties or the street right-of-way within 10 feet of the property
- c. Detailed description, drawing, elevation, cut sheet or the manufacturers catalog information sheet for each type of light standard. Only full cut off compliant fixtures shall be accepted. The detail for pole mounted light standards shall consist of the foundation, pole base, pole, mounting arm, or other attachment device, mounting height and the fixture
- d. A site lighting summary table shall be provided that include the following:
  - 1) Quantity of fixtures by type
  - 2) Mounting height above grade for all light fixtures
  - 3) Manufacturer and model number
  - 4) Lamp type
  - 5) Lumens rating
  - 6) Level of wattage
  - 7) Any shielding
  - 8) If canopy lighting is proposed provide details that the fixture is recessed and mounted flush with the bottom surface of the canopy
  - 9) Data provided by the manufacturer or a qualified source, showing the angle of cut off and light levels throughout the site to assure that there will not be light trespass on adjacent properties
- e. An Isolux Diagram that indicates:
  - 1) The maximum light levels measured in foot candles on a grid not to exceed ten (10) feet by ten (10) feet across the entire site, carried out a minimum of ten (10) feet beyond the parcel property line to tenths of a foot candle (0.0)
  - 2) The average illuminance on the site
  - 3) The maximum and minimum lighting levels on the site
  - 4) A statement on the plans of the proposed hours when the luminaries will be on and when they will be extinguished
  - 5) Description of controls such as timer, motion sensor, time clock, etc...

**13. DETAIL AND NOTES - Detail sheet(s) shall show all construction details, including profiles and cross-sections where appropriate, shall be submitted:**

- a. Site Improvements – Fences, guide rails, railings, retaining walls, stone walls, refuse disposal enclosures, concrete pads, signs, bus shelters and outdoor storage
- b. Parking and Loading – Sidewalks, ramps, pavement, parking stalls, pavement markings, aprons, curbs, wheel stops, bollards, traffic control signs, stairs, driveways, crosswalks and ADA compliance details
- c. Utilities – Trenches, storage tanks, mains, services, manholes, cleanouts, meters, gate valves, grease traps, standpipes and hydrants
- d. Drainage – Trenches, drains, swales, catch basins, manholes, riprap aprons, storm water quality equipment, pipe inlet/outlet details and oil/water separators
- e. Landscaping – Tree protection, specialty paving, site furniture, bicycle facilities, artwork, mail boxes and planting details
- f. Soil Erosion Control – Silt fence barriers, hay bale check dams, construction entrances, sediment traps, swales, inlet protection, slope stabilization and silt sacks
- g. Floodplain Development – Anchoring, infiltration prevention and flood-proofing
- h. Lighting – Light poles, fixtures and luminaires
- i. Any other site improvements
- j. Contact the Engineering Division at 860-721-2850 for standard details of proposed improvements within the public right-of-way

**14. POSSIBLE ADDITIONAL INFORMATION - The following additional information shall be submitted if deemed necessary to make a reasonable review of the application:**

- a. Traffic analysis or parking demand study prepared by a Connecticut licensed professional engineer with traffic engineering expertise containing at a minimum , the following information:
  - 1) Current roadway and intersection conditions
  - 2) Existing traffic volumes during the peak hours
  - 3) Accident analysis of the study area roadways and intersections
  - 4) Expected average daily vehicular trips and peak hour volumes to be generated by all of the proposed uses on the site
  - 5) Distribution of generated traffic for the roadway network, including vehicle approach and exit routes
  - 6) Level of service (LOS) and capacity of the study area roadways and intersections and the site access points prior to and after development
  - 7) Vehicle queue analysis for critical lane movements in study area intersections

- 8) Analysis of truck traffic and any provisions made to ensure the safety of residents
  - 9) Impact of any proposals approved but not yet constructed in the study area
  - 10) Narrative explaining all assumptions utilized in preparing the analysis
  - 11) Recommended improvements both on and off site to address any level of service (LOS) reductions anticipated by the proposal as well as recommended improvements to improve any existing substandard or undesirable LOS conditions
- b. Geotechnical report related to required ledge removal, structural building or wall design, subsurface soils, high groundwater elevations, etc.
  - c. Solar access plan and narrative
  - d. Map and narrative for a telecommunication facility
  - e. Analysis and supporting documentation regarding the availability of off-site parking, shared parking or joint use parking
  - f. When requesting an exception to any of the area or dimensional requirements of the zoning regulations as an incentive for mixed-use, SRD, consolidated parcels, redevelopment or renovation of business properties a statement supporting the request
  - g. Any other studies or impact analysis (including fiscal) that would allow the Commission to adequately determine the potential impacts of the proposed development to the site and to the community

**15. ARCHITECTURAL PLAN/DESIGN REVIEW - Architectural plans at an appropriate scale prepared by a professional architect to demonstrate compliance with design guidelines and principles. The following items are required:**

- a. Demonstrate how the criteria in Section 6.12 of the zoning regulations are achieved by submitting street views of the property and surrounding properties showing buildings, parking, loading and landscape areas in relationship to the public street and adjoining properties
- b. Overall architectural design of the proposed structure(s), including elevations of all exterior elevations, showing all fenestrations, signs and other architectural features, including the color and style of the building materials (and samples, if necessary) and any architectural peculiarities
- c. Schematic floor plans for each floor level (including basements and roofs) with dimensions, floor area and all proposed interior and exterior alterations, seating arrangements, ingress and egress
- d. Number of dwelling units by room count and by bedroom count
- e. Color renderings and views from all directions, if requested
- f. Exterior building elevations for all building faces that detail architectural elements, materials, colors and dimensions
- g. Proposed changes to existing structures

- h. All provisions for and design of balconies, sunshades, awnings, louvers, roof leaders, downspouts and utility lines/meters/boxes
- i. Elevation drawings from all streets abutting the site with all proposed plantings superimposed, which shall be shown at the height at which they are proposed to be installed (Applicant is also encouraged to provide elevations showing expected height of plantings in ten years)
- j. Building dimensions, building height, number of stories, fenestrations and roof lines
- k. Signage plan That includes the height, location and design of all signs
- l. Any proposed building illumination. The height, locations, fixture design, and intensity of all exterior lighting and expected illumination off the site
- m. Any proposed rooftop enclosures, rooftop mechanical equipment, chimneys, stacks, towers, tanks, shafts, vegetated roof systems or other roof mounted structures
- n. Any proposed accessory structures
- o. All artwork sculpture, fountains and other ornamental or decorative features visible from surrounding properties
- p. When warranted by the size, location or the nature of a proposal, or when determined to be in the public interest, the Commission may require a perspective drawing or a three dimensional physical model representation or a computer simulation of the proposal and portions of the neighboring properties and structure at an appropriate scale to show relationship after development of the site to off-site features

**16. ZONE CHANGE MAP REQUIREMENTS - Sixteen (16) copies of a Compilation survey map prepared at 24" x 36" at no less than 100 scale for the entire parcel showing:**

- a. Boundaries of the property certified to an A-2 Survey standard
- b. Boundaries of the existing and proposed zoning
- c. Location of significant natural features (wetlands, watercourses, steep slopes, flood plain)
- d. Key map at the scale of the current zoning map showing the proposed change
- e. The existing street limits and properties with the names and addresses of all parcel owners as per the latest Assessor's records, keyed by parcel number, located within 500 feet
- f. North arrow and location key map at a scale of 1" = 1000'

**17.EARTH FILLING & REMOVAL PLAN REQUIREMENTS - For applications involving the excavation, removal or filling of earth materials, the following additional information shall be submitted unless specifically waived by the Commission:**

- a. Limits of the proposed excavation, removal, filling, grading or processing
- b. Quantity of material to be removed, the total earthwork volumes calculated for the site based on the design, including stripping, cut, fill, borrow, waste and export (cubic yards)
- c. Proposed location of a permanent bench mark plus an additional permanent elevation reference for every five acres, or part thereof
- d. Storm drainage data showing all existing and proposed drainage facilities to ensure proper drainage of the premises both during and after completion of the proposed operation

- e. Buffer areas and adequate provision for lateral support of adjacent properties
- f. Fences or embankments where necessary for the protection and safety of vehicular and pedestrian traffic
- g. Vehicular access to and egress from the site and proposed work roadways within the site
- h. The limits of any proposed processing and the specific location and type of proposed processing equipment
- i. Location of soil test pits together with individual soil profiles

**11. APPENDIX B – PLOT PLAN REQUIREMENTS (Revised) (Entire Section is deleted and replaced with the following Language Highlighted)**

**APPENDIX B – PLOT PLAN REQUIREMENTS**

**1. General Requirements**

A. The Town of Wethersfield requires that all Building and Zoning Permit applications shall be accompanied by a plot plan for the purposes of determining zoning compliance and for approval of site design. All plot plans shall include the information listed below:

B. All drawings shall be north-oriented to the extent possible.

**C. Certifications**

- 1. The plot plan shall be prepared, signed and sealed by a licensed land surveyor and/or professional engineer (when appropriate) licensed in the State of Connecticut that shows existing and proposed conditions to Class A-2 (horizontal control) and T-2 (vertical control) standards for accuracy for property boundaries and topography, respectively.
- 2. The plans shall contain a statement signed by the surveyor attesting to the accuracy of the survey.
- 3. Plans shall be developed in accordance with the Regulations of Connecticut State Agencies, Section 20-300b-1 through 20-300b-20, and the “Minimum Standards for Surveys and Maps in the State of Connecticut”, as adopted by the Connecticut Association of Land Surveyors, Inc. on September 26, 1996 (as amended).
- 4. The horizontal datum shall be based on NAD 83 and shall be noted on the plan.
- 5. The vertical datum shall be based on NAVD 88 and shall be noted on the plan.

**D. Number of Drawing Sets and Sheet Size**

- 1. Four (4) paper copies, on either 18" x 24" or 24" x 36" paper.
- 2. A digital copy of the final approved plot plan that is an identical copy of the drawing in the form of a PDF (Portable Digital Format), with a digital signature on the plan set pursuant to Section 20-300-10 of the Regulations of Connecticut State Agencies.
- 3. Plot Plans shall be submitted at a scale of 1"=20' and in no case smaller than 1"=40'.

**2. Plot Plan Requirements**

At a minimum, all plot plans shall include, but not be limited to the following information:

A. Title Block containing:

1. Project name
2. Plan title indicating purpose/information content of the sheet
3. Note regarding type of survey prepared
4. Date of plan preparation (incl. revision numbers with associated dates and content).
5. Street address of parcel
6. Subdivision lot number and subdivision name (if applicable).
7. Property owner and/or builder/developer's name.
8. Name of Surveyor and/or Engineer, address and phone number.
9. Certification, seal and signature of land surveyor and/or professional engineer responsible for preparation of the plan.
10. A note regarding the boundary determination category (first, resurvey or original survey).
11. A graphic and word scale.

**B. Complete legend calling out the meaning of all abbreviations and symbols**

C. A north arrow with reference to grid, magnetic or true north

D. All plan notes, statements and map references (as appropriate)

E. A location map at a scale of 500 feet to the inch showing the subject property and the nearby street system.

F. A zoning schedule that lists the required standards and the proposed dimensions to document compliance with the following zoning requirements:

1. Proposed use of existing and proposed structures,
2. Zoning designation for the site,
3. Lot area in both acres and square feet,
4. Lot frontage,
5. Building area coverage %,
6. Impervious coverage \*,
7. Front yard,
8. Side yards
9. Rear yard
10. Building height,
11. Number of stories,
12. Garage area in square feet,
13. Accessory building requirements,
14. Notes regarding any variances or special permits granted with volume and page indicated.

\* in accordance with the Town's Municipal Separate Storm Sewer System (MS4) Permit and Storm water Management Plan, provide the standard table summarizing the total pre- and post-development impervious area at the site. This table is available in electronic drawing format at [www.wethersfieldct.com/engineering](http://www.wethersfieldct.com/engineering) or by contacting the Engineering Division.

**G. Property/Boundary Survey**

1. Distances along boundary or easement lines to the nearest .01 of a foot,
2. Directions, defined by angles, bearings or azimuths along boundary or easement lines to the nearest 10 seconds, curved lines defined with the central angle, radius, arc length and tangent and radius of all curves.
3. All existing and proposed monuments and markers along the property lines with accurate descriptions (i.e. ½" metal rod).
4. Coordinates for a minimum of two monuments or markers shown on the plan.
5. Location of project benchmark (minimum of two).
6. Location of all existing and proposed rights-of-way, easements, or other property encumbrances on or abutting the property, including the names of the affected party and the volume and page evidencing such rights as recorded in the Town's Land Records

7. Subdivision name and lot number.
8. Lot area in both square feet and acres.
9. Intersecting property lines and the names and addresses for all adjoining property owners
10. Show and label all front, side and rear yard setback lines.
11. Name of streets that front the property.
12. Assessor's map and lot number.

#### I. Topography and Grading

1. Existing topography at not more than 2 foot intervals with spot elevations.
2. Proposed grading with contour intervals of two (2) feet or less and spot elevations.
3. Existing and proposed retaining walls with type and top and bottom of wall elevations (if applicable).
4. Proposed finished first floor, basement floor, garage floor and top of foundation elevations.
5. Project benchmarks and datum reference (minimum of two).
6. Provide a spot elevation at driveway curb line.

#### J. Development Information

1. Location and dimensions of all existing and proposed building and accessory structures including pools, sheds, porches, patios, decks, garages etc... and total area (sq.ft.) for each individual structure.
2. Show any building projections and roof and/or eave overhangs.
3. At least three (3) dimensions noted from proposed buildings and accessory buildings and structures to front, rear and side(s) property lines.
4. Dimensions between adjacent structures,
5. Location and extent of all walks, patios and other paved areas with associated material descriptions.
6. Location and details of existing and proposed fencing.
7. For proposals utilizing Section 3.7.B.1. (front yard setback averaging) provide at least two (2) front yard dimensions for the adjoining lots.

#### K. Natural Resource Information

1. Existing tree lines, maximum limits of proposed tree clearing and location of trees to be retained.
2. Limits of all soil types designated as inland wetlands delineated by a soil scientist in accordance with the Town's Inland Wetlands and Watercourses Regulations with the associated certification, limits as shown on the Town's Inland Wetlands and Watercourses Map or prior plan approval, or a note stating that no wetlands are present.
3. Delineation of all streams, brooks, ponds, lakes or other surface waters.
4. Limits of FEMA 100-year flood zone derived from base flood elevations (BFEs) shown on the FEMA Flood Profiles or a note stating that no flood zone exists.

#### L. Utilities

The location, size and description of existing and proposed overhead and underground utilities on-site and in the street along the property frontage with labels for pipe sizes and materials, structure type, and top of frame and invert elevations at the house.

1. Existing and proposed water distribution systems, lateral service, curb gate/box,
2. All fire hydrants and all fire service lines, standpipes and sprinkler connections
3. Existing and proposed sanitary sewer mains, laterals, manholes and clean outs.
4. Location of any wells or septic systems.
5. All utility and light poles including owner and pole numbers.
6. Location of proposed gas, electric, cable, telephone and any other utility services including meter locations.
7. Location of any existing or proposed above ground utility boxes, transformer pads, manholes junction boxes, vaults, HVAC units, condensers or other mechanical equipment etc...

8. Proposed foundation, roof drains, yard drains with invert elevations at the building and at the outlet.
9. Location and design details for existing or proposed storm water drainage or storm water treatment improvements to manage storm runoff from impacting down-gradient properties.
10. Any existing or proposed storage tanks whether above or below ground.

#### M. Parking and Driveways

The location, dimensions and description of existing and proposed sidewalks, walkways, driveways and parking areas on-site and in the street along the property frontage

1. Limits of existing and proposed sidewalks, walkways, handicapped ramps with description and dimensions.
2. Limits of existing and proposed curbs, driveways and driveway aprons with description and dimensions.
3. Location of parking areas showing the number of spaces, including those reserved for handicapped parking.

#### N. Soil Erosion and Sediment Control Measures

1. All soil erosion and sediment control measures and facilities to minimize soil erosion and sedimentation during construction activities shall be shown on the plot plan including silt fences, silt sacks, hay bales, construction entrances (anti-tracking pad), soil stockpiles and all associated details.

#### O. Construction Details

1. Provide all applicable construction details and the Town of Wethersfield standard construction details for all public improvements.

### **3. Waivers**

A. The Zoning Enforcement Official (ZEO) may waive a particular plot plan or survey requirement as being inapplicable or unnecessary for projects where the proposed improvements are completely within the limits of existing improvements and have small probability of encroaching upon property setback lines and/or where updated topographic information is of minimal relevance to the review and construction of the proposed improvements.

B. In addition, existing older survey maps may be used, at the discretion of the ZEO, to comply with some or all of the survey information requirements of these regulations:

1. The information meets all of the applicable requirements.
2. The information is still correct and can be verified.
3. If the applicant has provided enough information to show compliance with the Zoning Regulations of the Town of Wethersfield.
4. If the application is for an improvement such as a deck addition, accessory structure or other minor improvement.

#### Notes:

1. *These are minimum submission requirements; the Town reserves the right to require additional information as deemed necessary to conduct a complete review of the application.*
2. *Contact the Engineering Division for the specific Town of Wethersfield construction details.*
3. *Contact the Central Connecticut Health District for specific requirements if the property requires a septic system and/or potable well.*
4. *No permit will be issued where there is a tax delinquency for the subject property per the requirements of Town Ordinance Section 63-1.*
5. *Lot splits require submission of two separate plot plans with associated deed references.*
6. *A foundation As-Built (or Record) Drawing must be submitted to the Zoning Enforcement Official prior to framing.*

7. Any questions regarding plot plan requirements should be directed to the Zoning Enforcement Official or the Engineering Division.
8. All buildings shall have a building number affixed to the building in compliance with Town Ordinance Section 65-3.
9. Lot grading shall demonstrate that storm water runoff from the proposed or as-built construction will not adversely affect abutting properties or drainage from or to the street. Plans shall show contours, flow arrows and spot grades as required to demonstrate that runoff from the entire front yard and driveway will flow into the roadway gutters and away from building foundations. Alternate flow patterns may be approved by the Town Engineer.
10. A note stating "Existing curbing, sidewalks and pavement shall be repaired at no cost to the Town should the owner/contractor damage these during construction."
11. A note stating "No trees shall be removed within the Town Right-of-Way without permission of the Town Tree Warden."

**12. APPENDIX E – AS-BUILT PLAN REQUIREMENTS (New) (Entire Section is new with Language Highlighted)**

**APPENDIX E – ZONING LOCATION SURVEY - AS-BUILT (RECORD) DRAWING REQUIREMENTS**

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**1. General Requirements**

- A. The Town of Wethersfield requires that a survey be made and a map be drawn to document the completed location of improvements to verify compliance with the Town’s zoning regulations and other required improvements. Prior to the issuance of a certificate of zoning compliance or a certificate of occupancy an as-built drawing shall be approved by the ZEO.
- B. All drawings shall be north-oriented to the extent possible.
- C. Certifications
  1. The as-built drawings shall be prepared, thoroughly reviewed, signed and sealed by a land surveyor licensed in the State of Connecticut to a Class A-2 and T-2 standard of accuracy for property boundaries and topography, respectively;
  2. The plans shall contain a statement signed by the surveyor attesting to the accuracy of the survey.
  3. Plans shall be developed in accordance with the Regulation for Connecticut State Agencies, Section 20-300b, and should include all information required in an Improvement Location Survey as described in the “Standards for Surveys and Maps in the State of Connecticut”, as adopted by the CT Association of Land Surveyors on September 26, 1996 (as amended).
  4. The horizontal datum shall be based on NAD 83 and shall be noted on the plan.
  5. The vertical datum shall be based on NAVD 88 and shall be noted on the plan.
- D. Number of Drawing Sets and Sheet Size
  1. Two (2) paper copies of an as-built (record) drawing on either 18” x 24” or 24” x 36” paper sheets shall be submitted to the ZEO for review and approval.
  2. Once approved by the Town, two (2) signed and sealed final as-built drawings shall be submitted.
  3. A digital copy of the final approved as-built record drawing that is an identical copy of the drawing in the form of a PDF (Portable Digital Format), with a digital signature on the plan set pursuant to Section 20-300-10 of the Regulations of Connecticut State Agencies.
  4. The As-Built drawing shall be submitted at a scale of 1”=20’ (1”=40’ maximum)

**2. As-Built Plan Requirements**

At a minimum, all as-built drawings shall include, but not be limited to the following information:

- A. A title block containing:

1. Project name
2. Plan title indicating purpose/information content of the sheet
3. Note regarding type of survey prepared (first, resurvey or original survey).
4. Date of plan preparation (incl. revisions with associated dates and content)
5. Street address of parcel,
6. Subdivision name and lot number (if applicable)
7. Property owner's name
8. Surveyor's name, address and phone number
9. Certification, seal and signature of land surveyor responsible for preparation of the plan.
10. A graphic and word scale.

B. Complete legend calling out the meaning of all abbreviations and symbols

C. A north arrow with reference to grid, true or magnetic north shall be noted,

D. All plan notes, statements and map references (as appropriate)

E. A location map at a scale of 500 feet to the inch showing the subject property and the nearby street system

F. A zoning schedule that lists the required standards and the as-built dimensions to document compliance with the following zoning requirements:

1. Use,
2. Zoning district,
3. Lot area in acres and square feet,
4. Lot frontage,
5. Building area coverage %
6. Impervious coverage\*
7. Front yard,
8. Side yards
9. Rear yards
10. Building heights,
11. Number of stories,
12. Garage area in square feet,
13. Accessory building requirements,
14. Notes regarding any variances or special permits granted with volume and page indicated.

\* in accordance with the Town's Municipal Separate Storm Sewer System (MS4) Permit and Storm water Management Plan, provide the standard table summarizing the total pre- and post-development impervious area at the site. This table is available in electronic drawing format at [www.wethersfieldct.com/engineering](http://www.wethersfieldct.com/engineering) or by contacting the Engineering Division.

G. Property/Boundary Survey

1. Distances along boundary or easement lines to the nearest .01 of a foot,
2. Directions, defined by angles, bearings or azimuths, along boundary or easement lines to the nearest 10 seconds, curved lines defined with the central angle, radius, arc length and tangent and radius of all curves.
3. All monuments and markers found along the property line with accurate descriptions (i.e. ½" metal rod).
4. Coordinates for a minimum of two monuments or markers shown on the plan
5. Location of project benchmark (minimum of two).
6. Rights-of-way, easements, or other property encumbrances on the property including the names of the affected party, the purpose and the volume and page evidencing such right as recorded in the Town Land Records.
7. Subdivision name and lot number
8. Lot area in both square feet and acres.
9. Intersecting property lines and the names and addresses for all adjoining property owners.
10. Show and label all front, side and rear yard setback lines.
11. Name of streets that front the property.
12. Assessor's map and lot number.

#### H. Topography

1. Topography at 2' maximum intervals that is supplemented with spot elevations in the vicinity of proposed improvements such as top and bottom elevations of retaining walls, and at all high points, low points, and spot elevation at driveway curb line.
2. Elevations for top of foundation, basement, garage and first floor.
3. Benchmarks and elevations (minimum of two).

#### I. Development Information

1. Location and dimensions of all buildings and accessory structures including pools, sheds, porches, decks, garages etc... and square footage for each individual structure.
2. Location of any projections such as roof overhangs, eaves, pilasters, sills, cornices, and bay windows, porches, decks, hatchways, steps, stairs, chimneys
3. At least three (3) dimensions from the closest point of each building or structure to the front, side(s) and rear property lines.
4. Dimensions between adjacent structures,
5. Location and extent of all walks, patios and other paved areas with associated material descriptions.

#### J. Natural Resource Information

1. Tree clearing limits
2. Location of inland wetlands, watercourses, water bodies or a note stating that no wetlands exist.
3. Location of flood zones or a note stating that flood zoning exists.
4. Any stream channel encroachment lines

#### K. Utility Information

The following utility information shall be shown including the location, size and description of all overhead and underground utilities on-site and in the street along the property frontage with labels for pipe sizes and materials, structure type, and top of frame and invert elevations at the house:

1. All water mains, laterals, curb boxes and valve boxes,
2. All fire hydrants and all fire service lines, standpipes and sprinkler connections.
3. Sanitary sewer mains and laterals, manholes and clean outs
4. Location of any wells and septic systems (as appropriate).
5. All utility and light poles with owners and pole numbers and any associated cabinets, vaults, etc...
6. All other utilities (i.e. electric, gas, cable, telephone, cable or other utility).
7. All above ground utility boxes, transformer pads, manholes, junction boxes, vaults, HVAC units, condensers or other mechanical equipment etc...
8. Location of foundation and roof drains with invert elevations at the building and at the outlet.
9. Limits and dimensions of all storm water drainage structures and pipes, riprap aprons and/or scour holes at drainage outlet pipes. (Note that submission of revised design calculations may be required by the Town Engineer if the constructed system differs from the approved drawings)
10. Any storm water treatment systems with appropriate top, bottom and invert elevations and labels for hydrodynamic separators specifying the manufacturer and model number.
11. Detention basins that include topography, and labels for the top of berm, emergency spillway and bottom of basin elevations, and invert elevations for all inlet and outlet structures, including the locations and dimensions of any trash racks and other components that are critical to proper operation of the system
12. Limits of bio-retention areas, rain gardens and similar infiltration or other retention systems that include pipe or other structure sizes and limits, bottom of system elevation, and invert elevations for inlet and outlet structures, and other components that are critical to proper operation of the system.
13. Location and size of any storage tanks whether above or below ground.

#### L. Parkings and Driveways

All types of pavement including associated dimensions and material descriptions:

1. Sidewalks and walkways,
2. Parking areas, driveways, curbs and driveway entrances,
3. The location of any required handicap parking spaces and ramps.

4. The dimensions of major features, such as width of the roadway, driveways, parking lot aisles and parking spaces, sidewalk, etc... and any existing pavement markings or striping.
5. A parking table that documents compliance with the off-street parking requirements of the zoning regulations.
6. The location and dimensions of all off-street loading areas.
7. Traffic signs, pavement markings, traffic signals and appurtenant features.

M. Where applicable, the following additional information may be required;

1. Location, type and size of all advertising signs.
2. Location of all fire lanes and standpipes or other fire protection equipment.
3. Location of all outdoor lighting fixtures.
4. Location and type of stone walls, fences, guide rails, handrails, etc.
5. Location and dimensions of all refuse storage areas.
6. Existing tree lines and location and types of trees and shrubs planted at the site.
7. A table that documents compliance with required landscape area requirements including any required buffer areas.
8. For Multi-Family development the following information shall be added to the zoning table:
  - a. The type of development.
  - b. The project density.
  - c. The number of dwelling units.
  - d. The minimum floor area of units by bedroom count.
  - e. The open space area.
9. Any additional information as deemed necessary by Town staff to demonstrate compliance with the approved plan.

Notes:

1. *These are minimum submission requirements; the Town reserves the right to require additional information as deemed necessary to conduct a complete review of the application.*