



May 11, 2022

Alice Livdahl, Chair  
Hubbardston Planning Board  
7 Main Street, Box 7  
Hubbardston MA 01452

RE: Development Feasibility Study  
Lots Map 6, parcels, 43,44 & 45  
Off Streeter Road and Old Westminster Road, Hubbardston MA  
Project No 5560

Dear Chair Livdahl and Members of the Board;

Thank you for utilizing the professional services of Places Associates, Inc. for a professional services for an assessment of the development potential for the above properties located off of Old Westminster and Streeter Roads Highway in Hubbardston.

In conducting this assessment, we have utilized a variety of on-line sources of information including:

1. Town of Hubbardston
  - a. Assessor's Maps
  - b. Zoning Bylaws,
  - c. Subdivision Regulations,
  - d. Board of Health Regulations
  - e. Local Wetlands Bylaws
  - f. General Bylaws
2. State Regulations:
  - a. Massachusetts Title 5 of the State Sanitary Code (310 CMR 15.00) for on-site sewage disposal system regulations.
  - b. Massachusetts Drinking Water Regulations (310 CMR 22.00) for wells and public water supplies
  - c. Massachusetts Watershed Protection Act (313 CMR 11.00) for wetlands protection
  - d. Massachusetts State Building Code (780 CMR), as applicable to site related criteria
  - e. Massachusetts General Laws, Chapter 40B, (760 CMR 56.00), Comprehensive Permits
3. Massachusetts GIS, MassMapper.
4. Conducted a drive-by of the site

## **The Property:**

The property consists of three separate parcels, all located to the south of Old Westminster Road and to the east of Streeter Road. They are identified as Map 6, parcels, 43 (6 ac±), 44 (31.2 ac) and 45 (0.63 ac)s north-eastern portion of the Town of Hubbardston, Massachusetts. It is not clear from available maps that the Townline is the property line.

Parcel 43: This parcel has approximately 440' of frontage on Old Westminster Road. While being listed as having 6 acres of lot area, a substantial portion of the lot (~ 3.8 acres) contains wetlands. Wetlands exist along the entire frontage of the site and extend to the south (into the site) some 325' to a small upland area in the property's north-easterly side. The wetland in this area is an impediment to gaining access to the rear of the site. The site is fully wooded, the wetlands being bog, red maple swamp. Uplands contain a mixture of successful second growth hard and soft woods (oaks, maples, hemlocks and white pine).

Parcel 44. This large parcel has no frontage but has an access strip (parcel 45) that provides a 50' wide corridor to Streeter Road. The parcel is trapezoidal-shaped with the south-westerly corner projecting in an acute angle. This large parcel is bisected by wetlands through its middle, though the Town of Hubbardston GIS does not depict the northerly and southerly wetlands connecting. Mass GIS maps indicate that the two wetlands do connect. The easterly corner of this parcel connects to land of the adjacent Westminster State Forest. Of the approximate 31.2 acres there are two upland areas. The larger upland area is approximately 12.4 acres on the site's westerly side. Opposite that this approximately 7.5 acres on the easterly side. This indicates that approximately 11.3 acres are wetland areas on this parcel. The site drains from the high points along the easterly and westerly sides toward an intermittent stream in the lot's center. This stream ultimately drains to Lovewell Pond to the south. The topographic relief is moderate with a 19' drop from the highpoint on the westerly parcel to the low point. The easterly parcel has a 10' drop in elevation from its easterly high point to the low point on the site.

The intermittent stream may pose an impediment to access to the rear most parcel, but any determination would need to be based on an infield evaluation of the wetlands/stream. As with the previous site the uplands contain a mixture of second growth forest of hard and soft woods.

Parcel 45: This parcel is a 50' wide strip of land that connect parcel 44 to Streeter Road and contains ~ 0.6 acres. It is located between 32 and 34 Streeter Road ( land of Nason and Raitto respectively) and connects to parcel 44's midpoint on the westerly property line. This parcel has a small knoll against Streeter Road, where it rises up from the road and then pitches downward in an easterly direction. A foot path exists along the strip. Like the other parcels it is wooded. This access strip is depicted on a plan filed at the Worcester County Registry of Deeds, Plan Bk 599, plan 41. The access strip is depicted as having a width of 50' and 25' rounding easements on Streeter Road are also depicted on the plan. The depth of the access strip is 398' on the northerly side and 416' on the southerly side.

### **Common Features of Both Lots:**

All Parcels: All parcels are located in the Town of Hubbardston's Residential-Agricultural Zoning District. Old Westminster Road is a scenic road.

The following environmental constraints do not affect any of the three parcels:

- a. The sites do not contain any certified or potential vernal pools.
- b. None of the sites contain protected Cold Water Fisheries
- c. None of the land is considered Prime Farm Land
- d. No public water supplies from adjacent wells or well fields overlap or exist on the property.
- e. No historic aspects are noted to exist on the property from Mass Historical Commission
- f. The site is not located in the Town of Hubbardston's Aquifer Favorability District.

All of the parcels are tributary to Outstanding Resource Waters, which requires that stormwater be treated to a higher degree prior to discharge. The wetland located in the property's south-east and central area are mapped as protected by the Watershed Protection Act. The protected area is fully contained in the wetlands area, see DCR Watershed Map, Figure 3. The uplands outside of the Zone A, connected to

Streeter Road is approximately 8 acres in size. All buildings, drainage systems and sewage disposal systems must fit within that footprint. Other developable area (~3.9 acres) exist on the site, however crossing of wetlands and other protected areas would be required to access them.

Access: Parcel 43 has ~ 440' of access on Old Westminster Road, however that access is obstructed by wetlands that span the lot's entire frontage and extends back at least 400' into the site (southerly). Parcel 44 utilizes Parcel 45 as it's access strip to Streeter Road. Streeter Road is a variable width, gravel road which is narrow in some locations and over 30' wide in others. Prior to utilizing Streeter Road for access, the Board should make a determination that it is suitable to support additional traffic. We are aware that the Town recently accepted Streeter Road as a Town Way.

Natural Conditions:

Soils: The upland portions of the parcels are comprised of a Becket-Skerry soil type of fine sandy loam, wetlands contain muck soils. This is a silty soil that usually has seasonally high groundwater at shallow depths, being 2-4' down in the spring. This soil type also will contain many small rocks and boulders. It is suitable for development and not considered prime farmland. This soil type is marginal for on-site sewage disposal systems, due to the fine nature of the soils and shallow depths to groundwater. The design of drainage systems will be impacted by these soil types as any drainage systems will likely need to be in fill, as opposed to below grade recharge or similar systems.

The ability of the site to support septic systems is critical to any determination of its buildability. This can only be confirmed by on site test holes and percolation tests. The presence of houses along Streeter Road is an indication that the soils can support septic systems but is not determinative.

Slopes: The site contains moderate slopes with topographic relief of 10 – 20 feet from the high points to the centrally located stream in parcel 44.

Flood Plain: None of the site is in a mapped flood plain, though to the south Lovewell Pond does have flood plain areas.

Wetlands: As noted above, both parcels 43 and 44 contain Bordering Vegetated Wetlands and likely intermittent streams which are tributary to Lovewell Pond. The bordering vegetated wetlands and intermittent streams are all regulated by the Hubbardston Conservation Commission under both the Massachusetts Wetlands Protection Act and Local Wetlands Bylaw. No riverfront areas appear to exist on the sites. The ability to cross a wetland area for access is strictly limited by the Wetlands Protection Act. It requires that a determination that no other feasible access can be made to get to the uplands area, except by crossing the wetland. In crossing a wetland, there are various degrees of impacts that are allowed. Usually, the disturbance of 5,000 sf or more wetlands is a threshold that will require other state reviews and permits to achieve.

As noted above, the DCR has mapped the wetlands that exist on the southerly-central border of Parcel 44. This area is mapped as outer watershed protection 200-400' zone. Some alterations are allowed in this zone, but direct wetlands alterations are not. A more restrictive overlay area on the site is the Zone A, tributary to water supply that is not a DCR regulated area, but a DEP regulated area. This is discussed below in further detail.

If an application is made to the Hubbardston Zoning Board of Appeals to gain access to the lot, not through its frontage, and that is denied. That denial may be sufficient proof to the Conservation Commission and the Massachusetts Department of Environmental Protection (DEP), that the only feasible way to gain access to the developable portions of the lot is through the wetlands. This would be an extraordinary finding by the Commission and DEP, but technically possible. We do not believe that crossing

the large wetlands off of Old Westminster Road to get to the uplands to the south is a reasonable plan of action.

Endangered Species: No endangered species or species of special concern are noted to be on or near the site. No potential or certified vernal pools are noted to be on the site.

#### Utilities:

Water: The Town of Hubbardston does not have a public water supply system. Accordingly, any water supplies will need to be generated by on-site wells. Depending on the number and density of units on the site, individual private wells can likely be developed. Single family homes and duplex type developments usually have a single well on site and only require local permitting.

Pursuant to Massachusetts Drinking Water Regulations (310 CMR 22.00) for wells and public water supplies any development that serves 15 or more water supply connections or 25 people or more for 60 or more days in a year, must develop that water supply as a "Non-Transient Public Water Supply Well". It is our opinion that there is sufficient space on this site to support a public water supply well and its protective radius.

Sewer: The Town of Hubbardston does not have a public sewer collection or disposal system. As such, on site wastewater disposal must be via on-site septic systems. As noted above, the ability of the site to support on site systems is dependent, in large part, on the on-site soils and depth to seasonal groundwater. We anticipate that the septic leach field will be in fill. Fill systems generally cost more due to the need to import soils. Also as noted above, the ability of the site's soils is critical in determining whether this site can support septic systems.

Sewer flows in excess of 10,000 gallons per day (~22 bedrooms @ 440 gallons per day per bedroom) require an on-site sewer treatment plan if the development is to be something other than single or two family homes. Individual lots are not combined in the calculation of sewer flows, multifamily structures are.

Drainage: Because the site is tributary to Outstanding Resource Waters (ORW), the stormwater from any development on this site must be "treated" to a higher standard than is normally provided. Stormwater treatment systems are usually detention basins, water quality basins, rain gardens and similar low tech, gravity driven systems. We anticipate that this site will be able to support a suitable stormwater system within its limits. A permit from the DEP is required for drainage discharges from a site to ORW's, this is explained in further detail below.

Gas: Natural gas distribution system is not located in this portion of Hubbardston.

Electrical: Three Phase electrical power is located overhead on old Westminster Road, Single phase electrical services are located overhead in Streeter Road. The overhead wires are located on the easterly side (this project's side) of the street. Electrical service is provided by National Grid.

Communications: CATV and Telephone are available on the utility poles on Old Westminster Road. The cable provider is Charter Communications. Verizon provides at home phone service. Multiple wireless service providers work in the Hubbardston area.

#### Regulatory Areas:

Zoning: The site is in the Residential-Agricultural zoning district. This district principally allows single family and two-family houses by right. Other non-residential uses are allowed as described in Article 4, Section (§) 4.1 a. to p. Section 4.2 lists other uses allowed by Special Permit in this district. Included in this list is Multi-Family Residences [§ 4.2., e.]). Multi Family residences allows up to four family units provided that the minimum lot area is increased 30,000 sq. ft for each additional unit and the lot frontage is

increased 50' beyond the standard 200' frontage for each additional unit. Multi family residences are defined in Article 2, § 2.22 of Zoning.

Special Permit Criteria: Special Permit granting criteria are defined in Article 7 of the Zoning Bylaws. § 7.5 states, *"The Planning board's decision will be based upon a determination that the proposed use, as approved or modified will have an acceptable environmental Impact, will be consistent with the land use objectives of the town, will comply with these zoning bylaws and in particular, Section 1.2 Purpose, and will comply with bylaws or regulations of the town and applicable laws and regulations of the Commonwealth."*

Site Plan Criteria: Site Plan criteria are defined in Article 9 and include a demonstration that the plan of development as proposed meets development criteria for infrastructure, zoning compliance and use requirements of the zoning bylaws. In this case, any item listed in § 4.2 is categorically required to file for both a Site Plan and Special Permit. § 9.7, of this Article notes that the Planning Board may waive or modify the requirements of this Article sections 9.2 (Site Plan Submission Requirements), 9.3 (Site Plan Form) and 9.4 (Site Plan Content).

Community & Environmental Analysis Criteria: When a Site Plan is required, § 9.2.f. also categorically requires that a Community and Environmental Analysis also be submitted as part of the Site Plan Submittal. Article 8 of the zoning bylaws describes the various topics that are to be addressed in the analysis. This article specifically lists various sections of the Zoning Bylaw that will require a Community and Environmental Analysis because of the specific nature of the use. This feasibility assessment is to determine the potential development of the subject property for residential uses. If a residential use requires a Special Permit or Site Plan, then a Community and Environmental Analysis will be required.

Zoning, Access through Frontage: Article 5, § 5.3. e. Access Drives, 2, states, *"...The driveway or access road to a lot shall be through its frontage."*

Dimensional Requirements:

	<u>Area (sf.)</u>	<u>Frontage(ft.)</u>	<u>Offsets:</u>				<u>Bldg Cover</u>
			<u>Front</u>	<u>Side</u>	<u>Rear</u>	<u>Bldg Ht.</u>	
Residential-Agricultural	80,000	200'	75'	30'	30'	30'	25%
Multi-Family	30,000 <sup>1</sup> /unit	+50'/unit	75'	30'	30'	30'	25%

Footnote:

1. For multifamily structures, each unit after the first shall add 30,000 sf to the lot area. Each unit shall add 50' of frontage to the base of 200' required for the lots in the underlying district.

## **Other Residential Development Options:**

**Zoning Article 16 Open Space Residential Development (OSRD):** An OSRD is allowed by Special Permit from the Planning Board. The goal of this type of development is to permit more compact development, thereby preserving a significant percentage of a large lot as being undeveloped. § 16.4 requires that the overall parcel for an OSRD contain 20 or more contiguous acres and have at least 200' of frontage on an existing town way.

§ 16.5 requires that the number of building lots in an OSRD shall not exceed the number achieved using a standard subdivision in full compliance with the Subdivision Regulations, Zoning, Health, Wetlands and Applicable Regulations.

**Zoning, § 16.4 requires that the overall parcel have at least 200' of frontage on an existing town way.** The property has ~ 440' of frontage on Old Westminster Road, but it is not accessible due to the extensive wetlands. The Article 5, § 5.3. e. Access Drives, 2, states, "...*The driveway or access road to a lot shall be through its frontage.*" Accordingly, no access from Old Westminster Road is reasonably available.

**Zoning, § 16.5 states, "The number of building lots in an OSRD shall not exceed the total number of building lots which could be reasonably expected to be developed upon the site under a conventional plan in full conformance with all zoning, subdivision regulations, health regulations, wetland regulations and other applicable requirements."** As described below, a conventional subdivision cannot be built on this site without the grant of a waiver for the length of a cul de sac, as the entrance strip is too long to allow for a compliant cul-de-sac.

Based on the above, an OSRD type of development cannot be permitted on this site without relief from portions of the zoning bylaws.

We would also like to note that the requirements for granting a variance in the Zoning Bylaws, § 2.32 and Article 10 could apply to this lot.

Art 10, § 10.1 states the granting of a variance to the Zoning Bylaws must prove the following:

- a. **"Owing to circumstances relating to the soil conditions, shape or topography of such land or structure and especially affecting such land and structures but not affecting generally the zoning district in which it is located, a literal enforcement of the zoning bylaw would involve substantial hardship, financial or otherwise, to the petitioner or appellant, and**
- b. ***desirable relief may be granted without substantial detriment to the public good and without nullifying or substantially derogating from the land use and environmental objectives of these zoning bylaws.*** "

***It is our belief that a variance application to allow access off of Streeter Road may meet the above standards.***

**Article 19: Senior Residential Development (SRD):** A SRD is allowed by grant of a Special Permit from the Planning Board. Like the OSRD, it requires a minimum of 20 acres of land area and at least 200' of frontage on an existing way. Unlike the OSRD, it does not rely on a conceptual subdivision to establish the number of allowable units. The number of units is restricted to 1.5 units per acre of "developable land." (§ 19.5). It also requires that 30% of the total tract area be set aside a Common Land, which is to be used for open space, agriculture, recreation, park purposes, horticulture, forestry or a combination of such uses.

The regulations do not require the creation of individual lots. Units are allowed to be single family homes to a maximum of four units per building if multifamily structures are proposed.

The regulations require that streets serving the SRD meet the Town's Subdivision regulations; however the regulations specifically grant the Planning Board the ability to waive those requirements if, *"..the Board determines that such waiver(s) are in the best interest of the Town..."* (§ 19.5).

**§ 19.10, a & b. describe the Planning Board's review criteria and findings needed to grant the Special Permit. These generally require that the project is in harmony with the environment and the bylaws, as applicable. It does appear that the flexibility granted to the Planning Board by the SRD regulations, would allow this type of development to be permitted on this land. The Board would have to grant waivers to some of the regulations, but as noted, that is allowed. The principal developable area on the site is the westerly 8 acres immediately off of Streeter Road. There do exist on the site two other upland areas which total 3.9± acres. It is our belief that the "developable land." (§ 19.5) is the combination of the two areas equaling 11.9± acres. Given the density formula for SRD's of 1.5 units per acre = 8 units. This number of units is supportable by septic and well requirements not to exceed a total of 22 bedrooms site-wide.**

#### Subdivision Regulations:

A residential subdivision is allowed to create access and frontage for a proposed development. A subdivision is principally the creation of a new road, which in turn creates frontage for new lots. The criteria for the design of a new roadway is specified in the Subdivision Regulations, Section 7.

In Hubbardston, dead end subdivision roadways of any type are limited to a total length of 500'. The Planning Board does have the authority to extend the dead-end length for reasons relating to topography or other local conditions. The maximum grade of a residential street is 9%, which would limit some of the cut/fill needed to develop the road. The diameter of a cul-de-sac under standard regulations is a 120' diameter circle; however, Subdivision Regulations do allow the Planning Board to Permit a 200' diameter cul-de-sac as long as an island is proposed in its center (Subdiv. § 7.09, D, 4.). The right of way width is dependent on the number of residential units to be served. A "Lane" is the smallest type of road, requiring a right of way width of 50' and pavement of 22' wide. A "Lane" may only serve 10 dwelling units or less (Subdiv. § 2, 2.2, P). The next category of road is a minor street, which also requires a right of way width of 50' and pavement of 22' but requires flatter roadway grades than a lane and may serve no more than 40 dwelling units (Subdiv. § 2, 2.2, S).

Section 6.04 of the Subdivision Regulations requires any residential subdivision that creates more than 400' of new roadway, is required to submit a Community and Environmental Analysis, meeting the standards outlined in that section.

Section 7.09, A. requires, *"...No street shall be constructed within 100' of any wetland, on any 100 yr. floodplain or on any land subject to the jurisdiction of the Hubbardston Conservation Commission and the Massachusetts Wetlands Protection Act or regulations thereunder or local wetlands bylaw."* This is an extraordinary requirement that appears to be unique to Hubbardston.

In this case, the access strip off of Streeter Road is noted on the 1986 Szoc Plan (Figure 1) to be 50' and has easements reserved for 25' radius rounding as is required for either a lane or minor road. The length of the access strip is 416' from Streeter, which would not allow for the bulb of a cul-de sac of 120' diameter to be added to the end, without exceeding the 500' maximum length for a cul-de-sac. A waiver in the length from the Planning Board would be required to permit the construction. As noted above, the Planning Board may waive the length requirements, so that may not be a significant factor. The property has significant frontage off Old Westminster Road, however it is impacted by the presence of wetlands

that extend from Old Westminster Road to the south (into the site) more than 400'. Any attempt to gain access from Old Westminster Road would create a conflict with the above cited 7.09.

Based on the above, it does appear that the property could be developed as a subdivision but only if the Planning Board is willing to grant a waiver for the length of the dead-end street beyond the maximum of 500' length contained in the Subdivision Regulations. The Board is allowed to grant that waiver, "*because of topography or other local conditions*" (Subdiv. §7.9, D,3.). The frontage created would only be that provided by the rounded cul-de-sac at the end of the road. The site contains more than 30 acres of land, so lot area is not a concern in any of the below assessments.

There are three likely scenarios:

1. Two family units (Duplex) are allowed by right, if the frontage is increased by 50' in addition to the standard lot frontage of 200' (250' total) and an additional 30,000 sf of lot area is added. In this case a 120' diameter cul-de-sac (minimum diameter allowed) at the end of the access strip would result in the creation of ~ 327' of new frontage, meeting the minimum requirement of 250'. So, a duplex unit can be built on the property utilizing a standard subdivision process.
2. Multifamily use is permitted in zoning by the Special Permit process [Zoning Art 4, §4.2, e)] and similar to the above criteria, each additional dwelling unit proposed must add 50' to the required minimum frontage and 30,000sf to the minimum lot area. There are two possibilities for development using this portion of the zoning bylaw. Both require a subdivision waiver to the length of the dead-end road.
  - a. 120' diameter cul-de-sac: A 120' diameter cul-de-sac creates ~ 327' of new frontage.  $327 - 200 = 127'$  of excess frontage.  $127'/50 = 2.5$ . Using this configuration an additional two units could be created under the bylaws for a total of three units on the site.
  - b. Larger' diameter cul-de-sac: A 200' diameter cul-de-sac is allowed by special consideration from the Planning Board. It would create ~ 578' of new frontage, would allow up to 7 units total on the property; however, Art. 4, §4.2, e, limits the number of units to a maximum of 4, making a 200' diameter excessive. The total required frontage for 4 units would be a 130' diameter cul-de-sac, which would provide more than 350' of total new frontage.

Comprehensive Permit: Under the provisions of MGL Chapter 40B and its associated regulations (760 CMR 56.0), an applicant can file an application to the Hubbardston Zoning Board of Appeals to permit an affordable development, known as a Comprehensive Permit. Under Mass General Laws, communities are supposed to have 10% of the total residential units classified as "affordable." The Massachusetts Department of Housing and Community Development (DHCD) tracks the affordable units for each community in the state. In Dec of 2021, the Town of Hubbardston is listed as having 1,627 residential units and only 49 of that total qualify as "affordable", equaling 3%. Because the town does not meet the base standard units and we have not received a waiver of compliance from the DHCD, the Town must accept the filing of a project submitted under the provisions of a Comprehensive Permit.

Under the provisions of the Comprehensive Permit process, an applicant files with a Listed Subsidizing Agency, which can be a state, regional or federal agency (of which there are dozens), who review applications and issue a Project Eligibility Letter. This letter indicates that the Agency believes that the project will address local housing needs and appears to be financially viable. Once a Project Eligibility Letter is issued, the applicant (developer, non-profit, for profit or other organization) applies to the Zoning Board of Appeals of the town. The application is general in nature, not all architectural drawing, site drawing or plans are complete. The intent is that a general concept is presented to the Zoning Board, who are the Permit Granting Authority. Under the Comprehensive regulations, local bylaws, zoning and related requirements are able to be waived for the benefit of the project. State regulations are not able to be waived, such as Title 5 for septic systems or well regulations. The Zoning Board of Appeals, acts on

behalf of all local permitting agencies, excluding only those that administer state regulations (e.g. Wetlands Protection Act, Title 5, etc.). The law is written such that

All Comprehensive Permit projects must provide 25% of the proposed units as “affordable”. The regulations require that the affordable units cannot appear to be outwardly dissimilar in appearance from the market rate units (for sale projects). The regulations do not require that units be “for sale”, apartment-type projects are permitted as are condominium- based projects. Affordable units can only be sold to qualifying families or individuals. The re-sale of the units is deed restricted to keep the unit affordable.

The number of units allowed is usually restricted by site-related conditions such as water supplies or septic flows, however the regulations do contain limitations as to the number of units based on a variety of factors.

**It is our belief that if a Comprehensive Permit is considered, the site will be able to be developed and maximized for development. There are many not for profit agencies that take on project’s similar to this one and act as the developer. The profit potential for a comprehensive permit for any developer is restricted. It is based on multiple aspects of the project’s financials and other considerations contained in the law. During the process a CPA review of the project’s financials is required as is an appraisal of the land. A Comprehensive Permit project has many checks and balances as part of the pre-approval submittal through the administration of the project.**

**Without detailed assessment, it is our belief that 11, 2-bedroom, multi-family units (or some other combination of units not exceeding 22 bedrooms) could be constructed on the western-most portion of the site (8 acres±). As noted previously, exceeding a total of 22 bedrooms site-wide would require the construction of a wastewater treatment plant, which might make the development financially impractical.**

#### Other Permitting:

In developing land a variety of permits are usually needed, in addition to the local zoning/planning permits.

**Wetlands:** The site contains significant wetland areas that are regulated under the Wetlands Protection Act and the Town of Hubbardston’s Wetlands Bylaw. All land within 100’ of a wetland resource area is within the jurisdiction of the Hubbardston Conservation Commission who administer both regulations. Alterations are allowed within the 100’ but, generally, the closer an activity is to a protected wetland area, the more intensive the review and more of the required protective measures are mandated. Residential development projects that work within the 100’ must comply with the DEP Stormwater Standards to ensure that stormwater impacts (downstream flooding, erosion, etc.) are mitigated and stormwater leaving a development is treated to be as clean as is possible.

Because of the large amount of wetlands on this site, it is likely that a filing with the Hubbardston Conservation Commission will be required. The application is known as a Notice of Intent. The issued permit is an Order of Conditions. The permit once issued is valid for only three years but may be extended.

**Board of Health:** The Board of Health administers the requirements of Title 5- the State Sanitary Code, well regulations and the more restrictive Local Board Regulations. However, when certain thresholds for sewage flow or water well supplies are exceeded, the DEP becomes the permit granting authority.

**Septic System:** As noted previously, the development of an on-site sewage disposal system is regulated by Title 5. Prior to any system design, the land must be assessed for suitable soils through deep observation holes, assessed by a DEP Certified Soils Evaluator and witnessed by an agent of the Board of Health. Additionally, percolation tests must also be conducted in any proposed leaching area to determine the soil’s permeability. No septic system can be designed or permitted without this testing be performed.

Septic systems with a design flow of 10,000 gallons per day or more require a treatment plant and are permitted by the State, not the local board of health. Based on this requirement the maximum number of bedrooms on the site (without the need for a treatment plant) is 22.

Septic system designs must accommodate a variety of factors:

1. Soil permeability
2. Depth of soil
3. Offset to seasonally high groundwater.
4. Loading (based on use and occupancy)
5. Offsets to wells and property lines
6. Location on land (slopes/cover)
7. Pumping vs. not
8. Local bylaw criteria

**Wells and Water Supplies:** The Board of Health also administers and permits water supply sources. Because Hubbardston does not have a public water supply and distribution system, properties in town rely on well water supplies. The Board of Health requires that a well be drilled, and the water tested prior to the issuance of a building permit to ensure that potable water is available for all residences. Wells have defined setbacks from septic systems, property lines and other site features. Drilled wells are the most common type of water supply in Hubbardston. It is common for a drilled well to have minerals in the water that do not affect the water's safety but do affect its aesthetic, such as iron or manganese. These types of issues can usually be treated with water softening systems or other treatment systems.

If a single well serves 15 connections or serves 25 or more people, 60 days or more a year, then the well is considered to be a "public water supply." A public water supply well is permitted by the DEP and must meet a much larger variety of assessment and protective offsets in its siting. There is sufficient area on this site to place a public water supply, as it can be placed in proximity to wetlands and other protected areas.

**Zone A:** While the site is listed as being regulated by the Department of Conservation and Recreation (DCR) under the Watershed Protection Act (WsPA), the intermittent stream that flows from the north (at Old Westminster Road) to the south (to Lovewell Pond) is a protected water. It is mapped as a tributary to a water supply and has a 200' protected area on either side of the stream, Zone A. The Zone A protected uplands is much larger than the DCR mapped area and is as restrictive. Accordingly, it is the Zone A restrictions that will impact development more than the DCR restrictions. Limited construction and use of these areas is allowed; however, no portion of a septic system and no stormwater treatment systems are allowed within this Zone A area. The uplands outside of the Zone A, connected to Streeter Road is approximately 8 acres in size. All buildings, drainage systems and sewage disposal systems must fit within that footprint.

**National Pollutant Discharge Elimination System (NPDES) & DEP WM15:** The US EPA administers the NPDES permit system. A Notice of Intent filing is required for all construction activities that will disturb one or more acres of land. The filing is made on-line and requires that the applicant prepare a Stormwater Pollution Prevention Plan (SPPP) and then follow the plan throughout all construction of the project until all surfaces are stabilized. The plan is required to be developed using a series of soil erosion and runoff mitigation measures that have been developed by the US EPA. When the runoff from a construction site flows to Outstanding Resource Waters (ORW's), a separate but related State application must be made, a WM15. A WM 15 must be applied for after the EPA filing is made, as the state filing requires inclusion of the SPPP as part of the application.

#### Limitations of this Assessment:

This assessment of the development potential of the listed properties is based on research conducted using the noted online sources and a cursory site visit only. No on-site assessments, soil observations, wetland delineations or other detailed studies have been made.

Any conclusions or recommendations presented herein are based on the above-described sources of data and should be considered as potential development options and opinions of the same. Financial decisions

and final development conclusions must be made based on actual on-site assessments, surveys and additional research. Recommendations regarding permitting are based on the opinion of the writer and are not guarantees that any permits can or will be granted.

The following are assumptions that must be further verified to support any conclusions presented herein:

- a. The soils on the site are suitable for both wastewater and stormwater disposal.
- b. Wetland lines and associated protective areas should be field verified for accuracy and location, as these areas significantly impact the developable area of the site.
- c. The access strip from Streeter Road is critical to the potential development of the site. The ability of Streeter Road, as a marginally improved gravel road, needs to be assessed for its suitability to support additional development that would rely on the road for all forms of access.

**Summary:**

The development potential of land in Hubbardston is regulated by a variety of Federal, State and Local requirements, which must be assessed in combination. This property has extensive wetlands and protected areas relating to the wetlands and the waterways which drain them. Using the Town of Hubbardston's current regulations, we have determined that development of:

1. An Open Space Residential Development is not allowed, based on the basic zoning criteria not being able to be met. If a variance to the Zoning Bylaw can be obtained from the Zoning Board of Appeals, this development type should be re-assessed for its feasibility.
2. A Senior Residential Development can be permitted if waivers to the Zoning Bylaws are granted. Such waivers can be granted by the Planning Board under the provisions of Zoning §19.10. We believe that the maximum number of units would be 8±.
3. A duplex unit is allowed, if a wavier to subdivision regulations is issued for length of dead-end road.
4. Up to 4 multi-family units can be constructed under the provisions of a Special Permit, if a wavier to subdivision regulations is issued for length of dead-end road.
5. The use of the Comprehensive Permit process will allow for the maximization of units on the site. This will require a third party to become involved to act as a developer. Local zoning and other criteria would not apply and the development of the site, could be maximized. The restrictions to number of units would be the soils, Zone A areas and costs to develop.

We appreciate your consideration of the professional services offered by our firm and the provision of this study. After a review of the above, if you would like this office to undertake an assessment of any particular type of development, we would be happy to do so.

Very truly yours,  
Places Associates, Inc.

By:

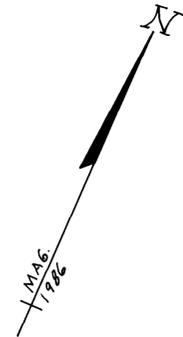
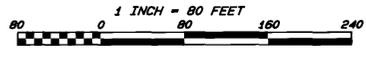
*William E. Murray*

William E. Murray, ASLA, APA, CLARB  
Project Manager

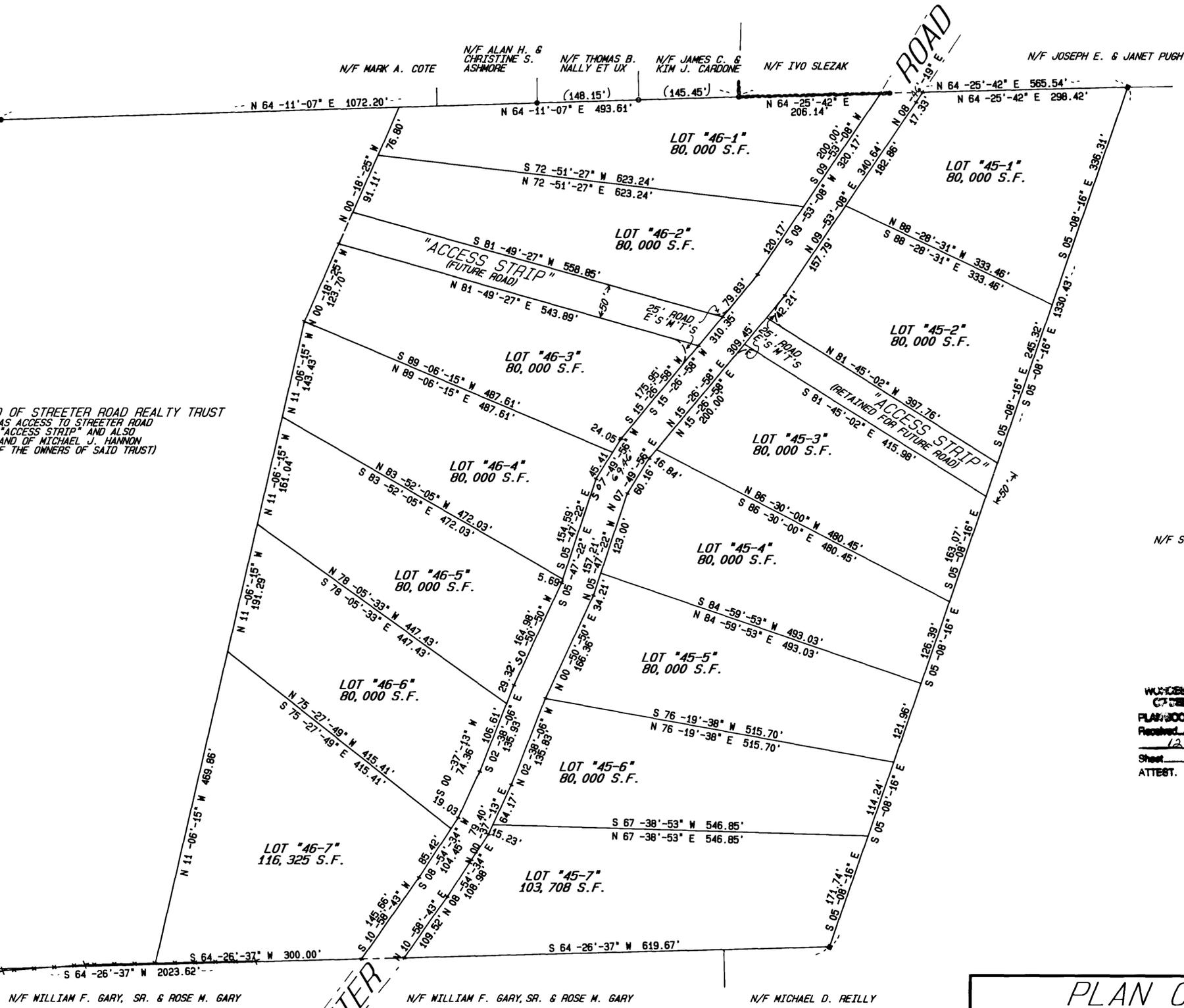
- Enc: Figure 1 – Survey Plan, 1986  
Figure 2 – MassMapper Map with Locus, Upland areas, Zone A and DCR areas  
Figure 3 - DCR Overlay Map  
Figure 4 – Zone A Overlay Map

I CERTIFY THAT THIS PLAN CONFORMS TO THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.  
*B.M. Szoc*

OTHER LAND OF STREETER ROAD REALTY TRUST (THIS LAND HAS ACCESS TO STREETER ROAD THROUGH THE "ACCESS STRIP" AND ALSO OVER OTHER LAND OF MICHAEL J. HANNON WHO IS ONE OF THE OWNERS OF SAID TRUST)



- Legend:**
- Fence
  - Stone Wall
  - o Iron Pin Set
  - o Iron Pin Fd.
  - x Elevation Point
  - + Point
  - o Well
  - Monument Found
  - Existing Markhole



WORCESTER DISTRICT REGISTRY  
 67 DEEDS - WORCESTER, MA  
 PLAN BOOK 539 PLAN 41  
 Received Aug. 13, 1986  
 12h 52m PM  
 Sheet 1 of 1  
 ATTEST: *[Signature]*  
 Registrar

REMAINING LAND OF STREETER ROAD REALTY TRUST SHOULD BE CONSIDERED AS NON-CONFORMING. "ACCESS STRIPS" ARE INTENDED TO PROVIDE ACCESS FOR OTHER DEVELOPMENT. THE "ACCESS STRIP" ON THE EAST SIDE OF STREETER ROAD IF NOT USED FOR SAME, WILL BE DEEDED TO AN ADJUTING OWNER. THE "ACCESS STRIP" ON THE WEST SIDE OF STREETER ROAD PROVIDES ACCESS TO REMAINING LAND THAT IS NON-CONFORMING UNTIL EITHER DEVELOPED INTO AN APPROVED DEVELOPMENT OBTAINING A ZONING VARIANCE, OR IS COMBINED WITH OTHER LAND TO CREATE A CONFORMING LOT.

PLANNING BOARD APPROVAL OF PLAN UNDER THE SUBDIVISION CONTROL LAW IS NOT REQUIRED.  
 DATE: 8/12/86  
 BY: *[Signature]*  
 BEING A MAJORITY OR AGENT

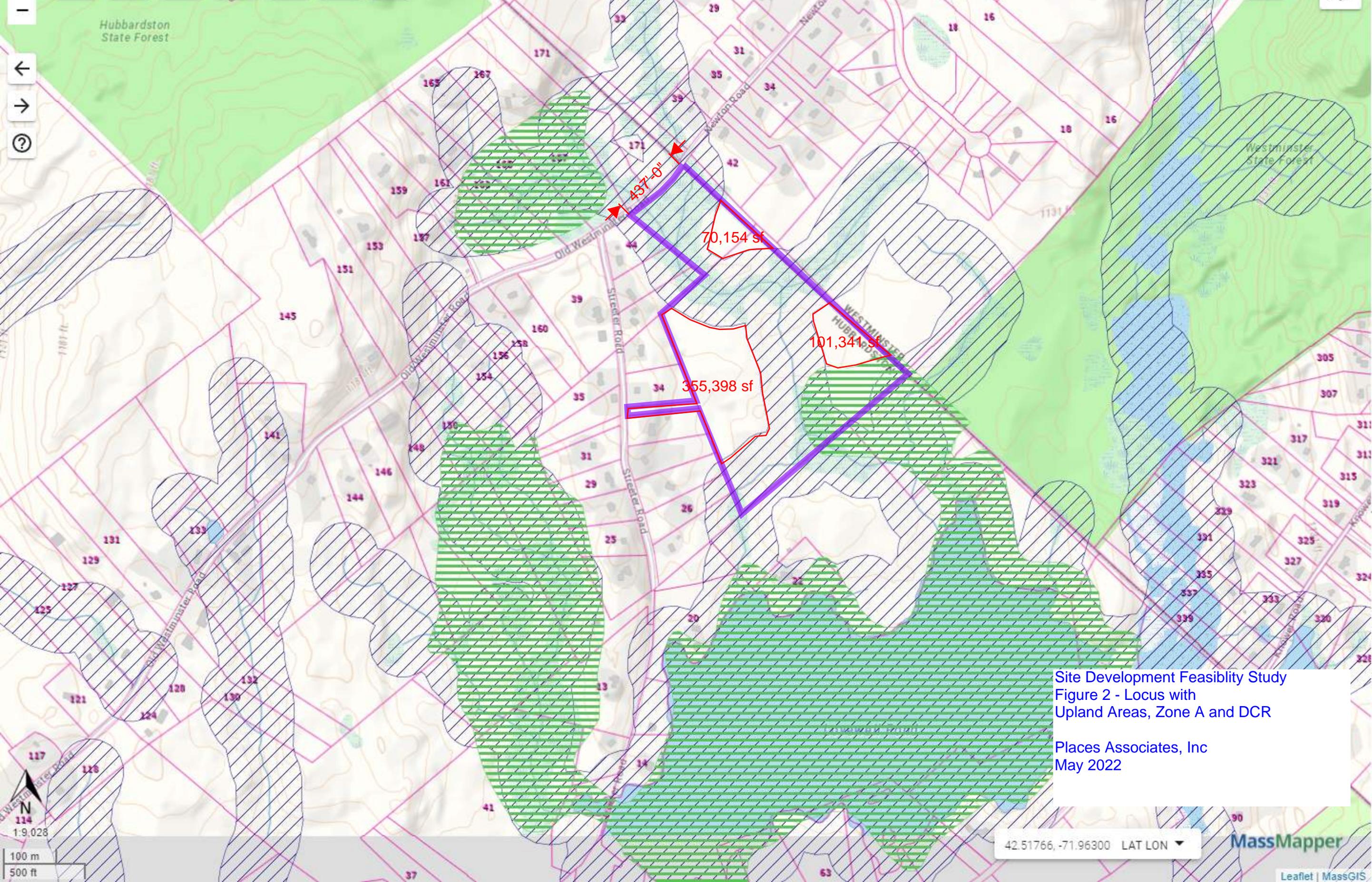
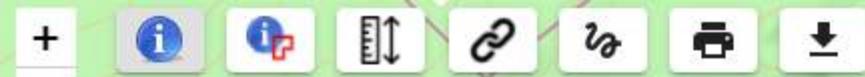
STREETER

STREETER ROAD IS A PRIVATE ROAD OR WAY, THERE IS NO LAYOUT AND THE CENTER-LINE OF THE TRAVELED WAY WAS TAKEN AS THE CENTER OF A 50' WIDE LAYOUT. THIS ROAD HAS BEEN IN EXISTENCE FOR AT LEAST 50 YEARS AND FALLS WITHIN SECTION II, PARAGRAPH A. OF HUBBARDSTON SUBDIVISION REGULATIONS. THIS PLAN ALSO FALLS UNDER SECTION "B1-P" WHICH IS FOR "FORM A" LOTS AND FITS THE DEFINITION OF A "WAY" IN SECTION "B1-L", PARAGRAPH "C".



August 12, 1986  
*Brian M. Szoc*

PLAN OF LOTS SURVEYED FOR  
**STREETER ROAD REALTY TRUST**  
 HUBBARDSTON, MA  
 AUGUST 11, 1986 SZOC SURVEYORS  
 32 PLEASANT ST., GARDNER, MA



Site Development Feasibility Study  
 Figure 2 - Locus with  
 Upland Areas, Zone A and DCR

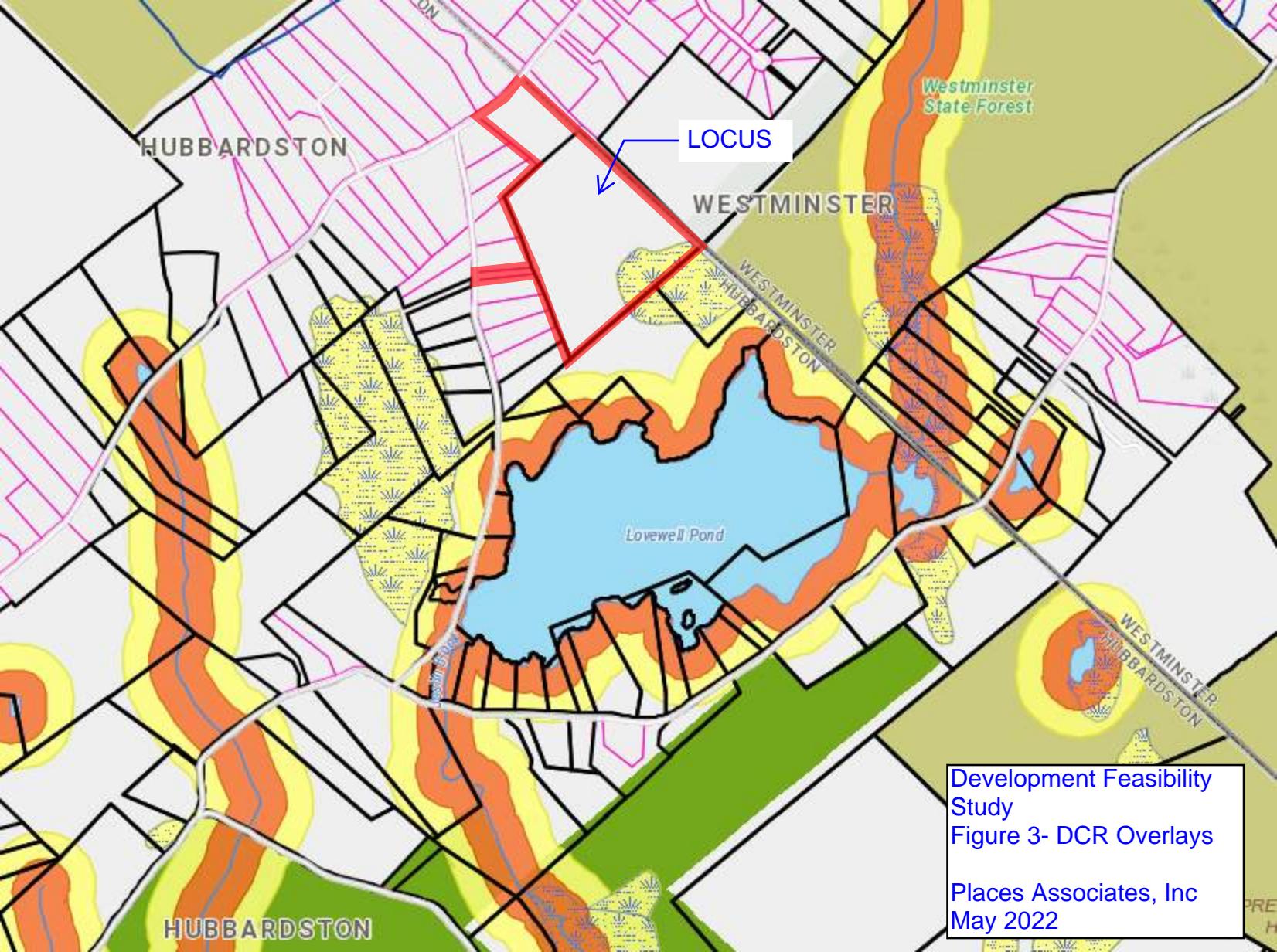
Places Associates, Inc  
 May 2022



42.51766, -71.96300 LAT LON

MassMapper

Leaflet | MassGIS



HUBBARDSTON

LOCUS

Westminister  
State Forest

WESTMINSTER

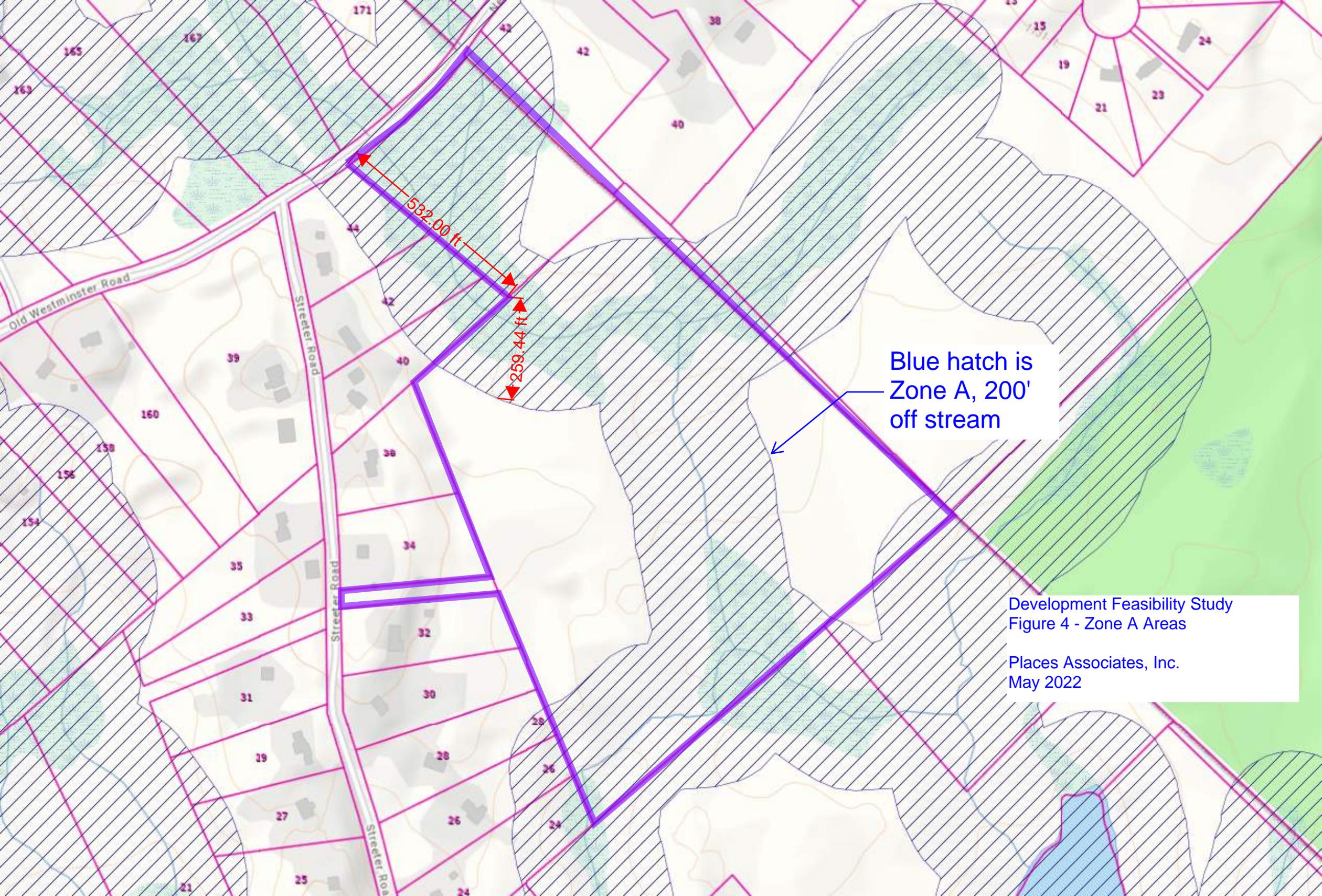
WESTMINSTER  
HUBBARDSTON

Lovewell Pond

WESTMINSTER  
HUBBARDSTON

HUBBARDSTON

Development Feasibility  
Study  
Figure 3- DCR Overlays  
Places Associates, Inc  
May 2022



Blue hatch is  
Zone A, 200'  
off stream

Development Feasibility Study  
Figure 4 - Zone A Areas

Places Associates, Inc.  
May 2022