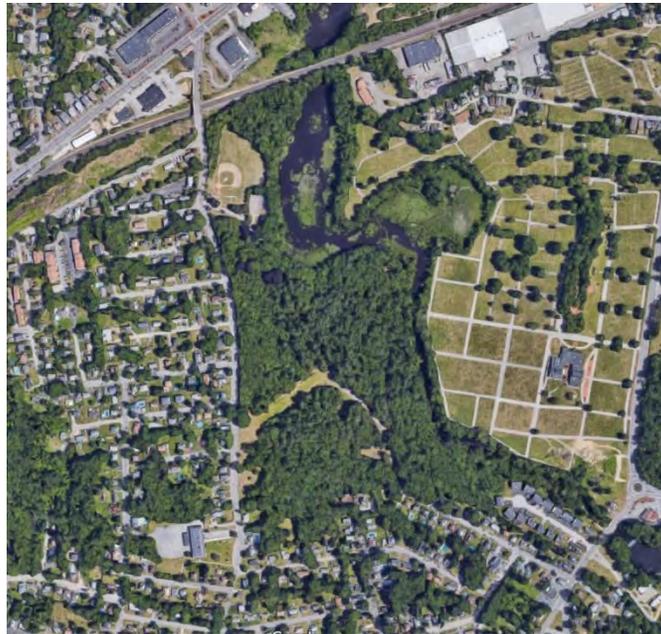

Hadwen Park 2018 Master Plan



City of Worcester Department of Public Works and Parks

Parks, Recreation and Cemetery Division
50 Skyline Drive
Worcester, MA 01605



BEALS + THOMAS

BEALS AND THOMAS, INC.
Reservoir Corporate Center
144 Turnpike Road
Southborough, MA 01772-2104

T 508.366.0560
F 508.366.4391
mail@bealsandthomas.com | www.bealsandthomas.com
Regional Office: Plymouth, MA

Table of Contents

TABLE OF CONTENTS I

1.0 ACKNOWLEDGEMENTS1

2.0 INTRODUCTION2

3.0 BACKGROUND2

4.0 COMMUNITY PARTICIPATION.....3

5.0 EXISTING CONDITIONS4

5.1 NEIGHBORHOOD CONTEXT4

5.2 TOPOGRAPHY4

5.3 SOILS4

5.4 VEGETATION AND WILDLIFE4

5.5 SITE UTILITIES5

5.6 ACCESS AND CIRCULATION.....5

5.7 SITE AMENITIES AND RECREATIONAL USES6

6.0 SITE CONSTRAINTS AND GOALS6

7.0 MASTER PLAN SPECIFIC SITE IMPROVEMENTS.....7

7.1 PLAYGROUND AREA8

7.2 BASKETBALL COURT.....8

7.3 POND OVERLOOK / KAYAK LAUNCH.....8

7.4 PARKING8

7.5 BASEBALL FIELD8

7.6 TRAILS / BOARDWALK.....9

7.7 COMMUNITY GARDENS9

7.8 ACCESSIBLE WALK9

7.9 ADDITIONAL SITE IMPROVEMENTS9

7.10 NEARBY PARCELS.....10

8.0 PHASING AND IMPLEMENTATION.....10

9.0 PRELIMINARY COST ESTIMATE.....10

From the beginning of the master planning process it has been indicated and understood that all of the desired improvements would not be economically feasible in a single capital improvement project. Two public meetings were conducted to discuss and reach a consensus on the community's and the City's top priorities for the first phase of implementation. The goal was to determine the most logical and immediately necessary improvements that would be acceptable to the neighborhood, be accomplished with funds currently available, and coordinate with other projects desired for the City. Beyond Phase 1 it is difficult to determine phases for the remaining project improvements as they will be developed as a function of future available funding.

1.0 **ACKNOWLEDGEMENTS**

We wish to thank the City of Worcester’s Department of Public Works and Parks and more specifically, the Parks, Recreation, and Cemetery Division for their guidance throughout this project.

Worcester City Council:

Joseph M. Petty, Mayor

Morris A. Bergman
Anthony J. Economou
Michael T. Gaffney
Konstantina B. Lukes
Candy F. Mero-Carlson

Sarai Rivera
Gary Rosen
Khrystian E. King
George J. Russell
Kathleen M. Toomey

Worcester Parks & Recreation Commission:

Scott Cashman
Lawrence Sullivan
Meg Mulhern
Matthew Wally

John P. Lauring
Nicholas D. Chacharone
George Sedares

City Administration

Edward J. Augustus, Jr., City Manager
Paul J. Moosey, P.E., Commissioner of Public Works and Parks
Robert C. Antonelli, Jr., CPRP, Assistant Commissioner of Public Works and Parks

Additionally we are grateful for the neighbors and community representatives, for their interest and input throughout the master planning process. Their support and participation was essential in the creation of a functional, appropriate, and attainable Master Plan to excite and to best suit the needs of the community.

2.0 INTRODUCTION

In May 2017, Beals and Thomas, Inc. (B+T) submitted a proposal for survey services and for the preparation of a comprehensive Master Plan for Hadwen Park to the Department of Public Works and Parks. This master planning process is a continuation of the Parks Department initiative to prepare master plans for each of its properties, in order to best identify, maintain, manage, and prioritize the critical needs of its parks. The Master Plan is used as a general guide for future improvements. All improvements outlined in the Master Plan are recommendations only and are subject to refinement and adjustment as necessary to meet actual site conditions and funding availability.

Beginning in October 2017, and for the following three months, the Parks Division and B+T worked with neighborhood residents, and other community groups and interested parties to develop a conceptual master plan for Hadwen Park. The preliminary plan was generated based upon initial community discussion of the needs and concerns of the neighborhood during a public forum. The preliminary plan was then refined into a final preferred Master Plan based upon feedback and further discussion. Prior to this process, B+T prepared a topographic and boundary plan of the approximately 50 acre park in order to best assess the condition of the park and site resources, as well as identify property line and ownership issues.

The final Master Plan, which was presented to the Parks Commission on February 15, 2018, represents the collaborative efforts of the community to reinvigorate this park by providing a safer active and passive recreation area and by updating its amenities and overall appearance. The Master Plan addresses the critical concerns and needs of this community in the most practical and efficient way possible. Descriptions of the community's goals, specific site improvements, and a preliminary cost estimate are outlined in further detail later in this report.

3.0 BACKGROUND

Hadwen Park is named after the late Park Commissioner Obadiah B. Hadwen, who had become a member of the Worcester County Horticultural Society in 1847, where he served as its trustee, vice president and president. Once two parcels: the original 45.4 acres were donated to the City by Obadiah B. Hadwen in 1902 and an additional smaller parcel from Charles C. Mann in 1918.

Located in the densely populated Hadwen neighborhood, this park (45.5 ac) is a gem in the southwest portion of the city. The baseball field hosts frequent games throughout the summer and fall seasons; and the park also features a playground and basketball court. A large park with hiking trails and steep slopes, yet small enough to not get lost, many residents consider this park their backyard and escape from the hustle and bustle of the city.

4.0 COMMUNITY PARTICIPATION

In order to best understand and assess the current condition of Hadwen Park, the demographic of the park, the recreational needs of the community, and to discuss what the priorities of the Master Plan should be, the Parks Department and B+T conducted a series of community engagement meetings. Over a period of three months, the project team met with the public including members of the City Council, residential abutters, and other interested parties. The initial meeting was to introduce the project and solicit ideas, concerns, and comments from the group. At the second meeting, the Parks Division and B+T presented a conceptual master plan based upon input from the attendees, objectives and preliminary goals derived from the initial meeting.

Schedule of Public Meetings		
Date	Location	Meeting Objective
October 19, 2017	Heard Street Elementary School (220 Heard Street)	Project Introduction
November 15, 2017	Heard Street Elementary School (220 Heard Street)	Present Master Plan Concept
December 14, 2017	Heard Street Elementary School (220 Heard Street)	Present Preferred Master Plan
February 15, 2018	50 Skyline Drive	Present Master Plan to Parks & Recreation Commission

1. 445 public hearing notices (post cards) sent out 2½ to 3 weeks prior to public hearing.

Public hearing notices (post cards) are fluorescent green for high-visibility and contrast from typical mail envelopes.

Public hearing notices are sent out to home owners within the Hadwen Neighborhood area.

2. Public hearings are posted as part of the City Council Agenda.
3. Public hearings are posted on City Clerk’s website.
4. The public hearings were held at Heard Street Elementary School (220 Heard Street) which is located less than one-half mile from the main entrance to Hadwen Park.
5. Hadwen Park is located in an Environmental Justice (Minority status) area.

5.0 **EXISTING CONDITIONS**

B+T began the master planning process by performing an on-the-ground survey of the park property to understand and evaluate the existing conditions and resources of the park.

5.1 **Neighborhood Context**

Located in Worcester's Hadwen Park neighborhood, Hadwen Park (45.5 ac) has frontage along Heard Street to the west and Curtis Pond with associated rivers and bordering wetland areas to the eastern border. The park is bounded to the south by developed properties, primarily single and multi-family residences. The park is bounded to the north by an active rail line (Boston and Albany Railroad). The Hadwen neighborhood includes the Notre Dame Cemetery and Curtis Ponds, yet the park is the only formal park or recreation area centrally located for the entire neighborhood. Consequently, the park master plan must consider the multi-generational and multi-cultural interests of the community.

5.2 **Topography**

In general, the site slopes down from southwest to northeast, with an approximate 100 foot elevation change across the park. More specifically, the park is divided into two distinct areas as a result of the topography. The northernmost portion of the property, adjacent to Heard Street and the Boston Albany Railroad, is at a middle elevation and slopes down north easterly to the edge of the Curtis Pond. There is an approximate ten foot (10') change in elevation across this area which is used for passive recreation, including a playground with various pieces of equipment, a basketball court and a baseball field. The southernmost portion, defined by residential abutters and Knox Street, has steep terrain throughout, sloping from Heard Street towards Curtis Ponds, located on the northeastern edge of the park. Notre Dame Cemetery abuts the eastern edge of the property, on the opposite banks of Curtis Pond.

5.3 **Soils**

The entire property is comprised of a variety of soil types including:

- Hinckley loamy sand
- Merrimac fine sandy loam
- Windsor Loamy Sand
- Agawam fine sandy loam
- Paxton fine sandy loam
- Urban land and Hinckley-Urban land complex (along railroad)
- Udorthents (baseball field)

5.4 **Vegetation and Wildlife**

In general, the existing vegetation at Hadwen Park is comprised of evergreen and deciduous trees through the park. The majority of the trees are primarily oak, maple and pine species (*quercus*, *acer*, and *pinus*) varying in size from 2"-36" in diameter. The site

is well vegetated with thick shrubs and underbrush, with clusters of wild rhododendrons throughout the park.

Despite the location and heavily developed surroundings, the park does appear to support wildlife such as hawks, deer, and other small mammals and birds.

5.5 Site Utilities

Minimal on-site utilities exist including lighting near the ball field and the existing parking lot; four (4) light poles along the edge of the sledding hill; utility poles run along the park edge on Heard Street; five (5) catch basins near the parking lot which daylight at a headwall that flows into the abutting pond; and overhead wires cross a small portion of the property near the driveway to the parking lot. Water, sewer, gas, telephone, cable, and electrical services are located in the surrounding streets. A concession stand building is located near the Heard Street entrance with overhead wires connecting it to a utility pole located along Heard Street.

5.6 Access and Circulation

Hadwen Park is surrounded on the south and west sides by public streets and sidewalks. There is designated parking near the playground and existing basketball courts, but no on-street parking is allowed on Heard Street.

There are four pedestrian access points to the park. Crosswalks at the intersection of Heard Street and Carleton Street, on the west side of the site, provide safe pedestrian circulation to the main entrance. A five foot (5') wide passageway break in the guardrail connects the southwestern most edge of the property to Heard Street. Despite the existence of this passageway, this is not an official entrance to the park, as it only connects to the undeveloped portion of the site where the sledding hill is located.

Two six foot (6') high stone piers define the pedestrian entrance at Knox Street, along with five (5) concrete bollards and a large stone to prevent vehicles from entering at this entrance.



The circulation system within the park is comprised of a paved asphalt road, which is gated at either end and is inaccessible to unauthorized vehicles. This road cuts through the middle of the park and eventually connects with the main driveway and parking lot near the baseball field, basketball courts and playground. Unpaved trails run throughout the southern half of the park.

5.7 Site Amenities and Recreational Uses

The existing playground equipment is in poor condition. Any improvements to the playground will require accessible unitary safety surfacing to meet the City of Worcester's standard for all new and renovated playgrounds. The basketball court backboards and asphalt surfaces are also in poor condition. Due to its condition, the basketball court should be reconstructed and the hoops should be replaced.



The sledding hill is open lawn space with wooded edges. There was a desire from some residents and community members to have the tow rope re-installed and running like it did in years past. However because of maintenance and other logistical issues, the idea was deemed infeasible. However, the sledding hill will remain and be maintained as a wide open lawn area.

The baseball field is in need of improvements and upgrades to better suit the increasing number of games that are played here during the season, and to accommodate the increasing number of spectators, as well.

The concession stand will need to be updated to become ADA accessible as well as the paths leading up to structure. The restrooms in that same building will also need to be updated to conform to ADA requirements.

Large areas of open lawn exist, which are used for picnicking or other passive recreation. Additional site furnishings include benches and a few trash barrels.

During the community meeting process, several ideas were discussed to increase the functionality of the park and provide more options to the park users. Discussion items included: shade structures, additional parking spaces, pedestrian lighting and security, picnic area, community gardens, and improvements to the trail system. Due to the limiting factor of the topography, some ideas such as additional playing fields or even significantly expanding the parking areas, were ruled out.



6.0 SITE CONSTRAINTS AND GOALS

During the public meetings, a series of neighborhood concerns and site constraints were discussed and assessed. Although consensus is often difficult to achieve in a public setting

where community members have different perceptions and priorities, all were able to agree on the issues that need addressing at Hadwen Park. Major site constraints and issues were summarized into the following categories:

- Physical Features: The topography divides the property into two separate areas; the overall size of the property (*visibility and accessibility to lower level of property, limited space, etc.*)
- Safety and security (*minimal/no existing lighting or cameras, no gates or continuous fencing to secure site*)
- Maintenance (*vandalism, trash, limited Parks Division resources*)
- Undersized or inadequate amenities (*minimal number of park activities/features*)

Once the group identified the major site constraints and topics of concern, the discussion was ultimately transitioned into a discussion of the ways to resolve and work around these limitations, consequently resulting in a series of general Master Plan goals and focus areas.

- Create a park identity through a single focal feature and unifying elements throughout the park, including signage, paving, benches, etc.
- Cluster and rearrange activities in a way to appropriately locate the active and passive recreational elements in the park so as to enhance the functionality and capacity of each element without hindering the experience of other park users or abutting residences.
- Provide flexibility in the design in order to accommodate various types of people and inevitable changes in park use.
- Rejuvenate and supplement existing site amenities.
- Develop an overall site security plan.
- Design so as to retain a natural feel with little to no environmental impacts and minimal maintenance requirements.

In summary, the community and the Parks Division recognize the potential and necessity of this park. Being located in such an active neighborhood, they envision that the implementation of the Master Plan and associated improvements will further create a desirable amenity within the City that can be engaged by many.

7.0 MASTER PLAN SPECIFIC SITE IMPROVEMENTS

With the basic goals in mind and particular requests from the Parks Division and the community, a complete Master Plan has been established which includes site improvements ranging from specific components to general park-wide enhancements and maintenance requirements. The Master Plan strives to retain passive areas of the park as they function today with general upgrades and additions to lighting, security, seating, etc. while grouping the active areas of the park within close proximity to each other but with adequate separation between different user groups. The various site improvements as identified are intended to be a guide for future development and are subject to change as

specific implementation plans are commenced. The Master Plan site improvements have been broken into multiple categories as outlined below.

7.1 Playground Area

The existing playground shall be demolished and replaced with new equipment to suit children of different ages. The playground area shall utilize accessible unitary safety surfacing beneath the play equipment for the safety of the children using the equipment and for the ease of maintenance by the Parks Division. The new playground equipment should consist of play structures for different age groups, including one structure for children ages 2-5 years old and one structure for children ages 5-12 years old. In addition, a web climber type structure should be included in the design. Specific details of the play structures will be determined as the design of the park improvements is advanced.

7.2 Basketball Court

As previously noted, the existing basketball court is in poor condition and is in need of being reconstructed. In addition, the incorporation of sports lighting into a reconstructed court would extend the amount of time available that the court could be used.

7.3 Pond Overlook / Kayak Launch

An overlook to allow visitors an opportunity to enjoy views of the pond and participate in passive recreational activities such as bird watching and photography is desired. Also, access shall be provided for users to launch car-top watercraft such as canoes, kayaks and row boats, into Curtis Pond to enjoy these boating activities as well as fishing and other activities.

7.4 Parking

The community voiced the desire for additional parking within the park to help with the overflow demand needed during ball games. In addition, there was a desire to add several extra parking spaces, with an accessible space located at the Knox Street entrance, so that visitors are not parking directly on Knox Street. These parking improvements have been depicted on the Master Plan.

7.5 Baseball Field

The baseball field is in need of improvements. Such improvements include shifting the left field fence line to make the field symmetrical; adding additional bleachers for spectators; and installing a shade structure or two to provide relief from the sun during the summer months. Field improvements such as re-grading and re-seeding shall also be considered. In addition, upgrades to the existing light fixtures shall be included to replace the current outdated lighting system with more efficient sports lighting. A batting cage for players to safely warm up, as well as improving accessibility to the field for spectators is a priority.

7.6 Trails / Boardwalk

Many neighbors voiced a desire to have the trails improved and maintained. One trail shall be reconstructed to meet ADA accessibility requirements, even if it is just a short loop. A boardwalk to bring visitors closer to the water's edge was also included in the Master Plan and may be incorporated into the abovementioned ADA accessible trail. In addition, trail signage shall be upgraded to replace or improve the existing signs that have become vandalized or weathered.

7.7 Community Gardens

Community gardens were requested to be incorporated into the master plan design. The area near the Knox Street entrance was deemed appropriate for this new amenity. The terrain in this area is fairly flat which would allow the area to be ADA accessible. Large bins for organic matter and soil shall be installed as well as several elevated ADA accessible planter beds. Picnic tables and benches should also be incorporated for users of this area. Work on this area would not commence until a partner is identified and approved by the City. An organization such as Regional Environmental Council (REC) is an example of this type of partner.

7.8 Accessible Walk

The existing road that bisects the park property from the parking area adjacent to the playground and leads to Knox Street, is not currently accessible for mobility impaired pedestrians due to the steepness of the grade. Consistent with the Parks Division goal of making City parks properties accessible, significant work would be required to re-grade the road to make it accessible. In an effort to make the road an accessible 12' wide walk, reduced from the current approximately 20' wide road, retaining walls would be required to limit the off-grading and minimize the limit of disturbance and tree clearing.

7.9 Additional Site Improvements

Aside from the aforementioned specific areas, a series of overall site improvements are proposed for throughout Hadwen Park. These improvements include:

- Entry improvements including relocation of stone piers
- Pavilion near baseball field to provide shade for spectators / picnicking
- Security cameras on light poles
- Pedestrian lighting
- Additional tree planting throughout the park where possible
- Water connections for residents to care for the proposed community gardens
- Park benches and picnic tables, where needed.
- As the opportunity becomes available, incorporate temporal art feature utilizing natural on site materials and found objects such as but not limited to dead wood, stone cultural artifacts, and sustainably collected vegetation. These elements are intend for use as functional art feature such as but not limited to site amenities, furnishings and signage. Features must be approved for safety and contextual durability and appropriate setting relative to selected location.

7.10 Nearby Parcels

The DPW&P has been in discussions with the Greater Worcester Land Trust (GWLTT) regarding access to two parcels nearby to Hadwen Park that could provide additional recreational opportunities. One parcel is located to the north of Hadwen Park, north of the railroad, and behind the Walgreens located at the corner of Heard Street and Stafford Street. The other parcel is located approximately one-half mile to the northeast of Hadwen Park, off of Webster Street and Curtis Street, across Curtis Pond. These parcels are not contiguous to Hadwen Park and are currently not accessible via land from the park property. They could both be accessed from the park property utilizing a boat to cross the pond. If access via land was desired, easements or some other access rights would need to be obtained from adjacent properties.

8.0 PHASING AND IMPLEMENTATION

The basketball court and playground will be replaced and updated as soon as funds are available. The remainder of the park improvements will be made as funds become available over the coming years.

9.0 PRELIMINARY COST ESTIMATE

A breakdown of the proposed project program elements (in no particular order of completion) and associated cost estimates are listed below.

Hadwen Park Improvement Program - Target Budget	
Work Description	Budget
Playground Area (equipment, surfacing, fencing)	\$400,000
Lighted Basketball Court	\$400,000
Pond overlook / kayak launch	\$200,000
Parking	\$200,000
Baseball field improvements with upgrades to lights	\$500,000
Trails / Boardwalk / Signage	\$250,000
Community Gardens	\$150,000
Accessible Walk	\$1,000,000-\$1,500,000
Electrical / Lighting / Utilities	\$400,000
Landscaping	\$50,000
Building upgrades	\$500,000
Miscellaneous Site Amenities (benches and picnic tables)	\$200,000
Design and Permitting	\$500,000
Soft Costs and Contingency*	\$545,000
Total Estimated Cost (February 2018)	\$4,750,000-\$5,250,000

*Soft costs equal approximately 20% of the total construction cost and typically include engineering and project management services, construction contingency, printing and advertising, and other efforts associated with implementation of a project.

Appendices

Appendix A: Maps

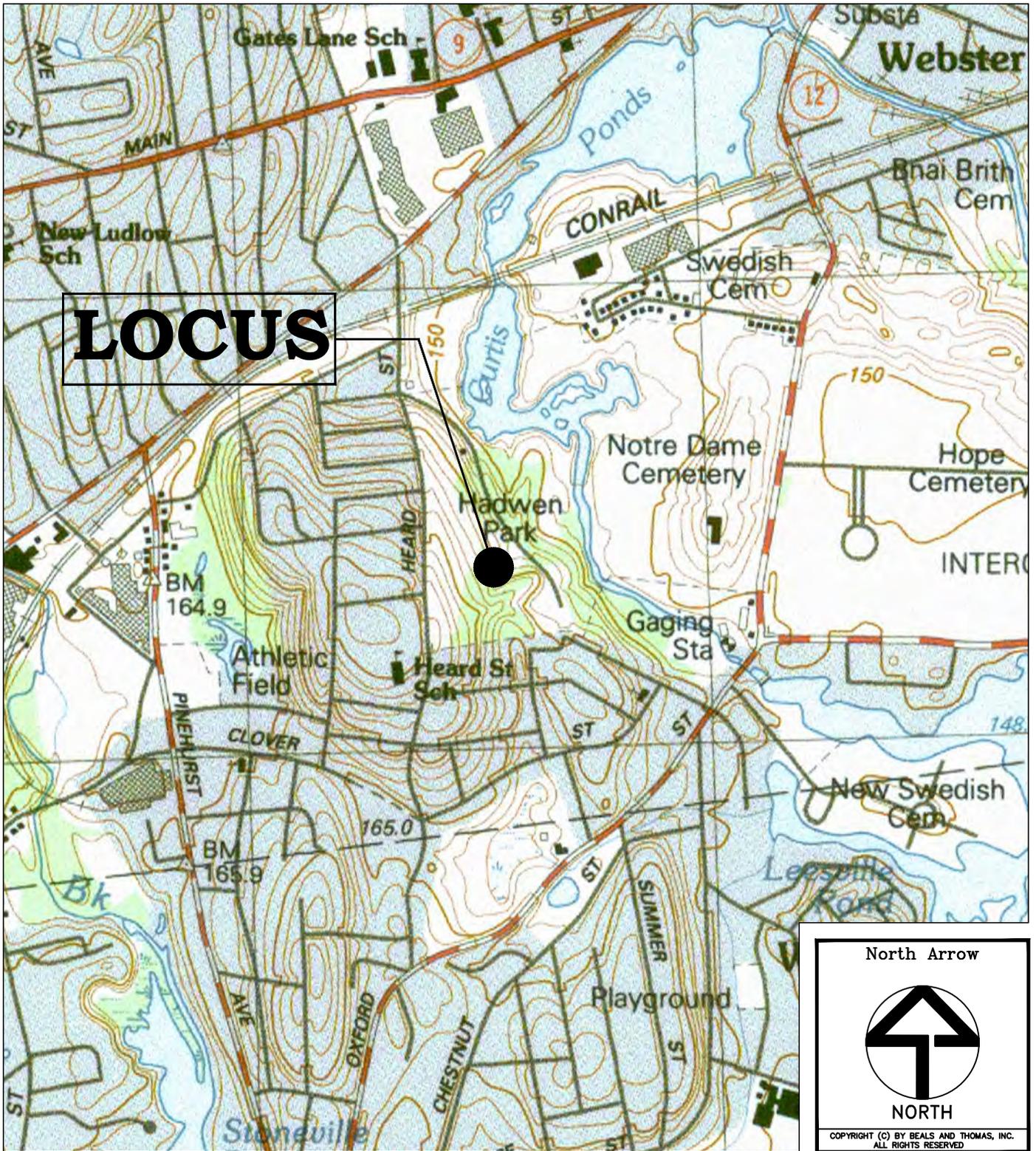
Appendix B: Public Meetings

Appendix C: Topographic Plans

Appendix D: Master Plan Exhibit

Appendix A

Locus Map
Environmental Justice Map



LOCUS

Hadwen Park
 Worcester, Massachusetts

City of Worcester
 50 Skyline Drive
 Worcester, Massachusetts

Locus Map

Scale: 1" = 1000' Date: 02/09/2018

B+T Drawing No. 292100P002A
 B+T Project No. 2921.00

2010 Environmental Justice Populations

Central Region

Massachusetts
Environmental Justice Criteria:

Environmental Justice (EJ) populations are determined by identifying all Census 2010 block groups that meet any of the following criteria:

Income	25% or more of households earn 65% or less than the MA median household income
Minority population	25% or more of residents identify as a race other than white
English language isolation	25% or more of households have no one over the age of 14 who speaks English only or very well

Populations meeting one EJ criterion

- income
- minority population
- English isolation

Populations meeting two EJ criteria

- income and minority population
- income and English isolation
- minority population and English isolation

Populations meeting three EJ criteria

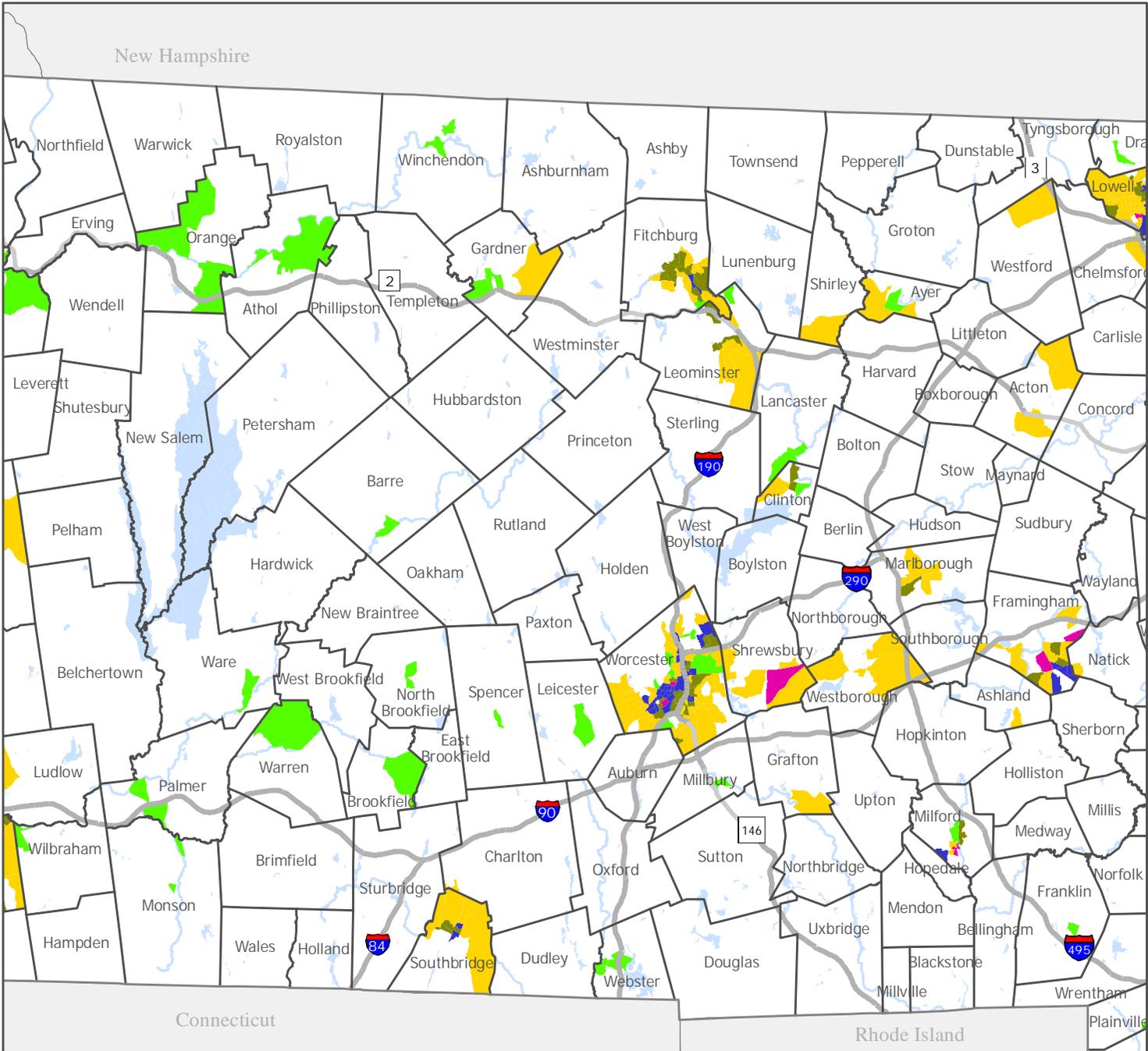
- income, minority population and English isolation

For more information contact:
EEA EJ Policy Program Coordinator
617-626-1000



0 5 10 miles
0 10 kilometers





Appendix B

Public Hearing Notices (Post Cards)
Public Hearing Calendar Notices
Attendance Sheets



City of Worcester DPW and Parks
Parks, Recreation and Cemetery Division
Date: October 19, 2017 Time: 6:30 PM
Place: Heard St. School
1st Floor Hallway
200 Heard Street, Worcester, MA 01603

Hadwen Park Master Plan Public Meeting #1

Topics to include: The presentation of all existing conditions, existing uses and history of the Park. This presentation will be followed by an open public discussion/question and comment period to allow the Department to better understand and ascertain the needs, wants and desires of the neighbors, citizens and organizations that currently use the facility. The information and public comments will be synthesized to develop a Master Plan, to guide all proposed future community/neighborhood endorsed improvements.

Invitation

All are Invited and Encouraged to Attend.

Phone: (508) 799-1190
Fax: (508) 799-1293
E-Mail: parks@worcestermma.gov

Call (508) 799-1294 in the event of severe weather, for up-to-date meeting status.

The City of Worcester does not discriminate on the basis of disability. The Parks, Recreation and Cemetery Division will provide auxiliary aids and services, written materials in alternative formats, and reasonable modifications in policies and procedures to persons with disabilities upon advance request.

Please contact the Parks Division at parks@worcestermma.gov or phone (508) 799-1190 or the City ADA Coordinator at disabilities@worcestermma.gov.

PARKS, RECREATION AND CEMETERY COMMISSION

EVENT DETAILS

[← PREVIOUS](#) | [NEXT →](#)

Description

Hadwen Park Master Plan Public Meeting #1

Time

Thursday, October 19, 2017 · 6:30 PM

Where?

Heard Street Discovery Academy, 200 Heard Street - [Map It](#)



Worcester offers a wealth of educational opportunities for young people. Worcester is proud to have one of the strongest urban public school systems in the state with numerous quality public elementary and secondary schools.

AGENDA NOT AVAILABLE

PARKS, RECREATION AND CEMETERY DIVISION

EVENT DETAILS

[← PREVIOUS](#) [NEXT →](#)

Time

Wednesday, November 15, 2017 · 6:30 PM

Where?

Heard Street Discovery Academy, 200 Heard Street - [📍 Map It](#)



Worcester offers a wealth of educational opportunities for young people. Worcester is proud to have one of the strongest urban public school systems in the state with numerous quality public elementary and secondary schools.

PARKS, RECREATION AND CEMETERY COMMISSION

EVENT DETAILS

[← PREVIOUS](#) [NEXT →](#)

Time

Thursday, December 14, 2017 · 6:30 PM

Where?

Heard Street Discovery Academy, 200 Heard Street - [Map It](#)



Worcester offers a wealth of educational opportunities for young people. Worcester is proud to have one of the strongest urban public school systems in the state with numerous quality public elementary and secondary schools.

AGENDA NOT AVAILABLE

DPW & Parks - Parks, Recreation and Cemetery Division

Hadwen Park Master Plan Public Meeting # 1

Heard St. School, 200 Heard St. - Monday, October 19, 2017 @ 6:30 PM

Robert C. Antonelli Jr., Assistant Commissioner



	Name	Address	Phone No.	Affiliation/Resident
1	Jennifer Cesar			South Side Babe Ruth
2	Mike + Jan Parent			Res.
3	Judy Griffin			RES.
4	Elizabeth Ichten			0 Res
5	THURSDAY MAUD BRIAN MCGON			Res
6	GARY ROSEN			
7	Edith Burke			
8	Ilda Johnston			Res.
9	MARK BENSON			RES.
10	Megan Wong			Res
11	SAUDY BRENNAN			1 Res
12	MIKE BRENNAN			RES
13	Mike Brennan			Res
14	Denise Mundy			RES
15	Mike Jessiel			Res
16	Larry Sullivan			Res
17	Rick Munn			Park Spirit
18	Beth Bachand			
19	Karen Derby			Resident
20	BRITTANY REHASEN			PARK SPIRIT

DPW & Parks - Parks, Recreation and Cemetery Division

Hadwen Park Master Plan Public Meeting # 2

Heard St. School, 200 Heard St. - November 15, 2017 @ 6:30 PM

Robert C. Antonelli Jr., Assistant Commissioner



	Name	Address	Phone No.	Affiliation/Resident
1	Conway Keawale			Resident
2	Iida Johnston			
3	Edie Burke			
4	Judy Muffen			
5	Phil Nickerson			
6	Denise Mundy			Resident
7	Mike Brennan			Resident
8	Mike Brennan			
9	Rick Munch			PARK SPIRIT
10	PAUL FULLEN			resident
11	RANDY DERRY			Resident
12	MARK A BINNALL			
13				
14				
15				
16				
17				
18				
19				
20				

DPW & Parks - Parks, Recreation and Cemetery Division

Hadwen Park Master Plan Public Meeting # 3

Heard St. School, 200 Heard St. - December 14, 2017 @ 6:30 PM

Robert C. Antonelli Jr., Assistant Commissioner



	Name	Address	Phone No.	Affiliation/Resident
1	Judith Griffin			R
2	Patricia Blake			R
3	MATT WAITY			Council
4	Mik Brennan			R
5	MARK BENSON			R
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

MARK T BINNALL

	Name	Address	Phone No.	Affiliation/Resident
21	Richard + Susan Kupfer			Res
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				

CITY OF WORCESTER

DEPARTMENT OF PUBLIC WORKS AND PARKS

Parks, Recreation and Cemetery Division 50 Skyline Drive Worcester, MA 01605-2898

Paul J. Moosey, P.E.
Commissioner



Robert C. Antonelli, Jr., CPRP
Assistant Commissioner

(508) 799-1190
(508) 799-1293 FAX

Edward M. Augustus, Jr., City Manager

PARKS AND RECREATION COMMISSION MEETING Sign-in Sheet

Thursday, February 15, 2018
6:30 p.m.

(PRINT ONLY)

	<u>Name</u>	<u>Address/Organization</u>	<u>Item of Interest</u>	<u>Email</u>
1.	Ashley Carter	Regional Environmental Council		
2.				
3.	MATT WAHLY		HADWEN	
4.	Jan Parent			
5.	Rick Munn		HADWEN PARK	
6.	Mike Parent		H.P.	
7.	Mark Bimall		Hadwen Park	
8.	MARK GALLANT		Green Hill Park	
9.	Jonathan Handy-Loveis			
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				

Appendix C

Topographic Plans

NOTES

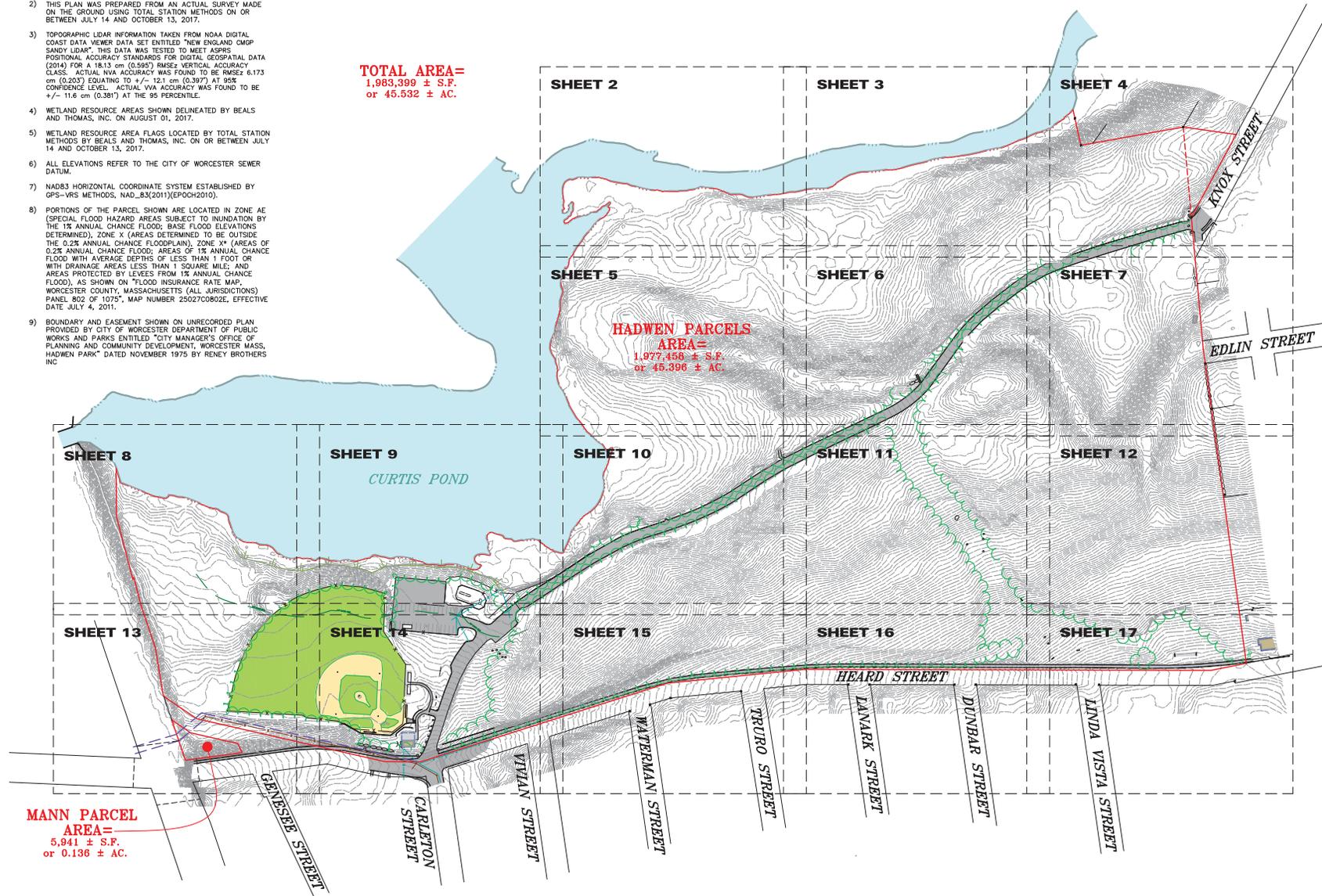
- 1) UNDERGROUND UTILITIES SHOWN ARE FROM OBSERVED SURFACE AND SUBSURFACE INDICATIONS AND ARE APPROXIMATE ONLY. BEFORE CONSTRUCTION CALL "DIG SAFE" 1-888-344-7233.
- 2) THIS PLAN WAS PREPARED FROM AN ACTUAL SURVEY MADE ON THE GROUND USING TOTAL STATION METHODS ON OR BETWEEN JULY 14 AND OCTOBER 13, 2017.
- 3) TOPOGRAPHIC LIDAR INFORMATION TAKEN FROM NOAA DIGITAL COAST DATA VIEWER DATA SET ENTITLED "NEW ENGLAND CMG SANDY LIDAR". THIS DATA WAS TESTED TO MEET ASPRS POSITIONAL ACCURACY STANDARDS FOR DIGITAL GEOSPATIAL DATA (2014) FOR A 18.13 cm (0.595') RMSEz VERTICAL ACCURACY CLASS. ACTUAL NVA ACCURACY WAS FOUND TO BE RMSEz 6.173 cm (0.203') EQUATING TO +/- 12.1 cm (0.397') AT 95% CONFIDENCE LEVEL. ACTUAL NVA ACCURACY WAS FOUND TO BE +/- 11.6 cm (0.381') AT THE 95 PERCENTILE.
- 4) WETLAND RESOURCE AREAS SHOWN DELINEATED BY BEALS AND THOMAS, INC. ON AUGUST 01, 2017.
- 5) WETLAND RESOURCE AREA FLAGS LOCATED BY TOTAL STATION METHODS BY BEALS AND THOMAS, INC. ON OR BETWEEN JULY 14 AND OCTOBER 13, 2017.
- 6) ALL ELEVATIONS REFER TO THE CITY OF WORCESTER SEWER DATUM.
- 7) NAD83 HORIZONTAL COORDINATE SYSTEM ESTABLISHED BY GPS-VRS METHODS, NAD_83(2011)(EPOCH2010).
- 8) PORTIONS OF THE PARCEL SHOWN ARE LOCATED IN ZONE AE (SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD; BASE FLOOD ELEVATIONS DETERMINED), ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN), ZONE X* (AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD), AS SHOWN ON "FLOOD INSURANCE RATE MAP, WORCESTER COUNTY, MASSACHUSETTS (ALL JURISDICTIONS) PANEL R02 OF 10725 - MAP NUMBER 2502709062, EFFECTIVE DATE JULY 4, 2011.
- 9) BOUNDARY AND EASEMENT SHOWN ON UNRECORDED PLAN PROVIDED BY CITY OF WORCESTER DEPARTMENT OF PUBLIC WORKS AND PARKS ENTITLED "CITY MANAGER'S OFFICE OF PLANNING AND COMMUNITY DEVELOPMENT, WORCESTER MASS, HADWEN PARK" DATED NOVEMBER 1975 BY RENEY BROTHERS INC.



TOTAL AREA=
1,983,399 ± S.F.
or 45,532 ± AC.

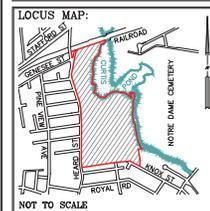
HADWEN PARCELS
AREA=
1,977,456 ± S.F.
or 45,396 ± AC.

MANN PARCEL
AREA=
5,941 ± S.F.
or 0.136 ± AC.



PREPARED FOR:
CITY OF WORCESTER
DEPARTMENT OF PUBLIC WORKS AND PARKS
 50 SKYLINE DRIVE
 WORCESTER, MA 01605

RECORD OWNER:
CITY OF WORCESTER
 1727/262
 1889/275
 2164/374



5				
4				
3				
2				
1				
0	10/19/2017	INITIAL	ISSUE	
	TGS	CEM	CEM/TGS	ICW
	FLD	CALC	DWN	CHK'D



TOPOGRAPHIC PLAN
HADWEN PARK
WORCESTER, MA
 (WORCESTER COUNTY)

PREPARED BY:
BEALS + THOMAS
 Civil Engineers + Landscape Architects +
 Land Surveyors + Planners +
 Environmental Specialists

BEALS AND THOMAS, INC.
 Reservoir Corporate Center
 144 Turnpike Road
 Southborough, Massachusetts 01772-2104
 T 508.366.0560 | www.bealsandthomas.com

DATE: OCTOBER 19, 2017
 Reservoir Corporate Center
 144 Turnpike Road
 Southborough, Massachusetts 01772-2104
 T 508.366.0560 | www.bealsandthomas.com

DATE: OCTOBER 19, 2017
 Reservoir Corporate Center
 144 Turnpike Road
 Southborough, Massachusetts 01772-2104
 T 508.366.0560 | www.bealsandthomas.com

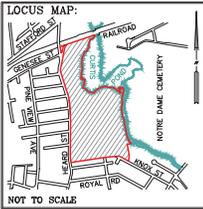
B+T JOB NO. 2921.00
 B+T PLAN NO.
 292100P001A-001
TP-1
 SHEET NO. 1 OF 17

SEE SHEET 17 OF 17 FOR LEGEND

MASSACHUSETTS STATE PLANE NAD83 2011 (EPOCH2010)

PREPARED FOR:
CITY OF WORCESTER
 DEPARTMENT OF PUBLIC WORKS AND PARKS
 50 SKYLINE DRIVE
 WORCESTER, MA 01605

RECORD OWNER:
CITY OF WORCESTER
 1727/262
 1889/275
 2164/374



5		
4		
3		
2		
1		
0	10/19/2017	INITIAL ISSUE
	ISSUE DATE	DESCRIPTION
TGS	CEM	CEM/TGS
ICW	FLD	CALC
	DWN	CHK'D

TOPOGRAPHIC PLAN

HADWEN PARK
WORCESTER, MA
 (WORCESTER COUNTY)

PREPARED BY:
BEALS + THOMAS
 Civil Engineers + Landscape Architects +
 Land Surveyors + Planners +
 Environmental Specialists

BEALS AND THOMAS, INC.
 Reservoir Corporate Center
 144 Turnpike Road
 Southborough, Massachusetts 01772-2104
 T 508.366.0560 | www.bealsandthomas.com

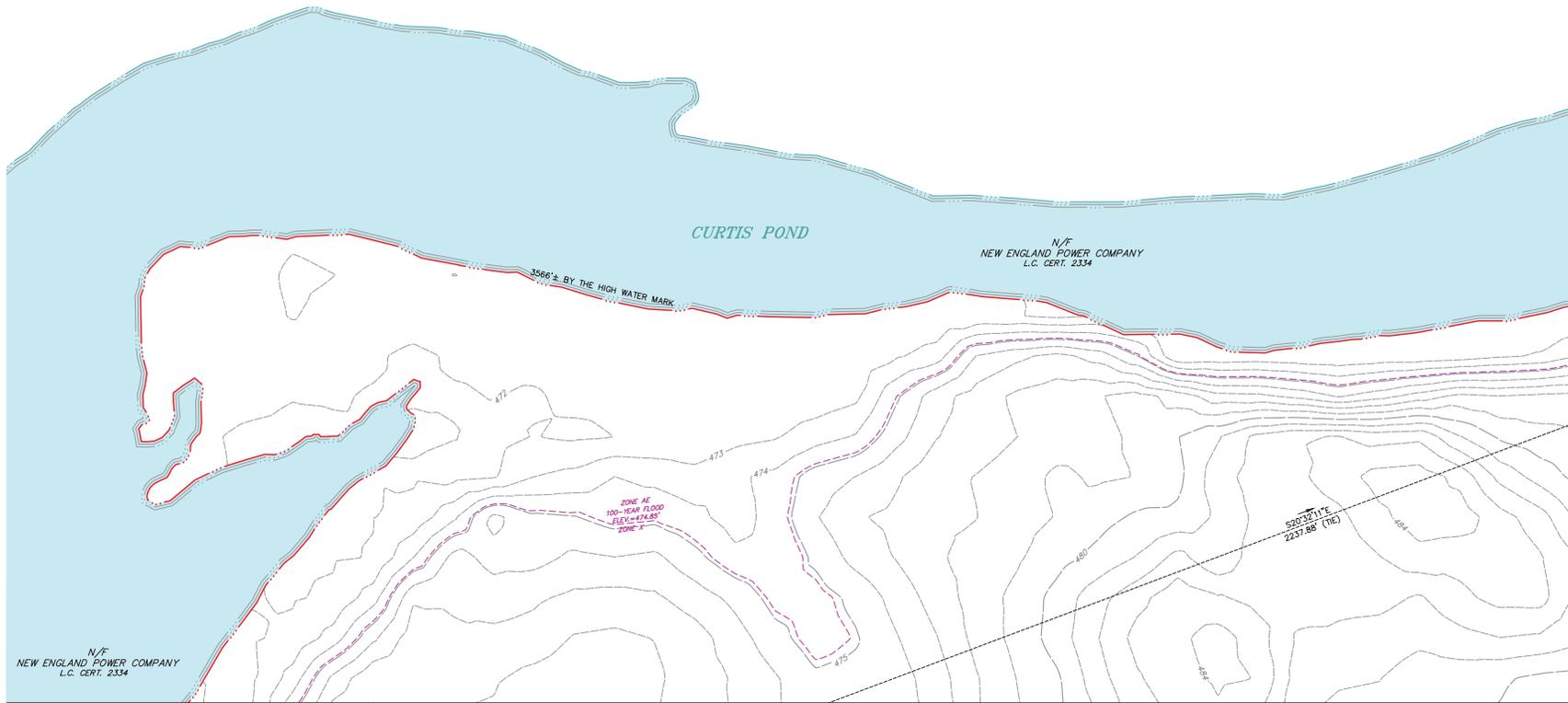
DATE: OCTOBER 19, 2017 METERS
 0 10 20 30 40 50
 SCALE: 1" = 20' FEET

B+T JOB NO. 2921.00

B+T PLAN NO.
 292100P001A-002

SHEET NO. 2 OF 17

TP-2



N/E
 NEW ENGLAND POWER COMPANY
 L.C. CERT. 2334

N/E
 NEW ENGLAND POWER COMPANY
 L.C. CERT. 2334

3566'± BY THE HIGH WATER MARK

ZONE AT
 100-YEAR FLOOD
 FLEV.=424.85'
 ZONE

520.37'± E
 2237.88' (TIE)

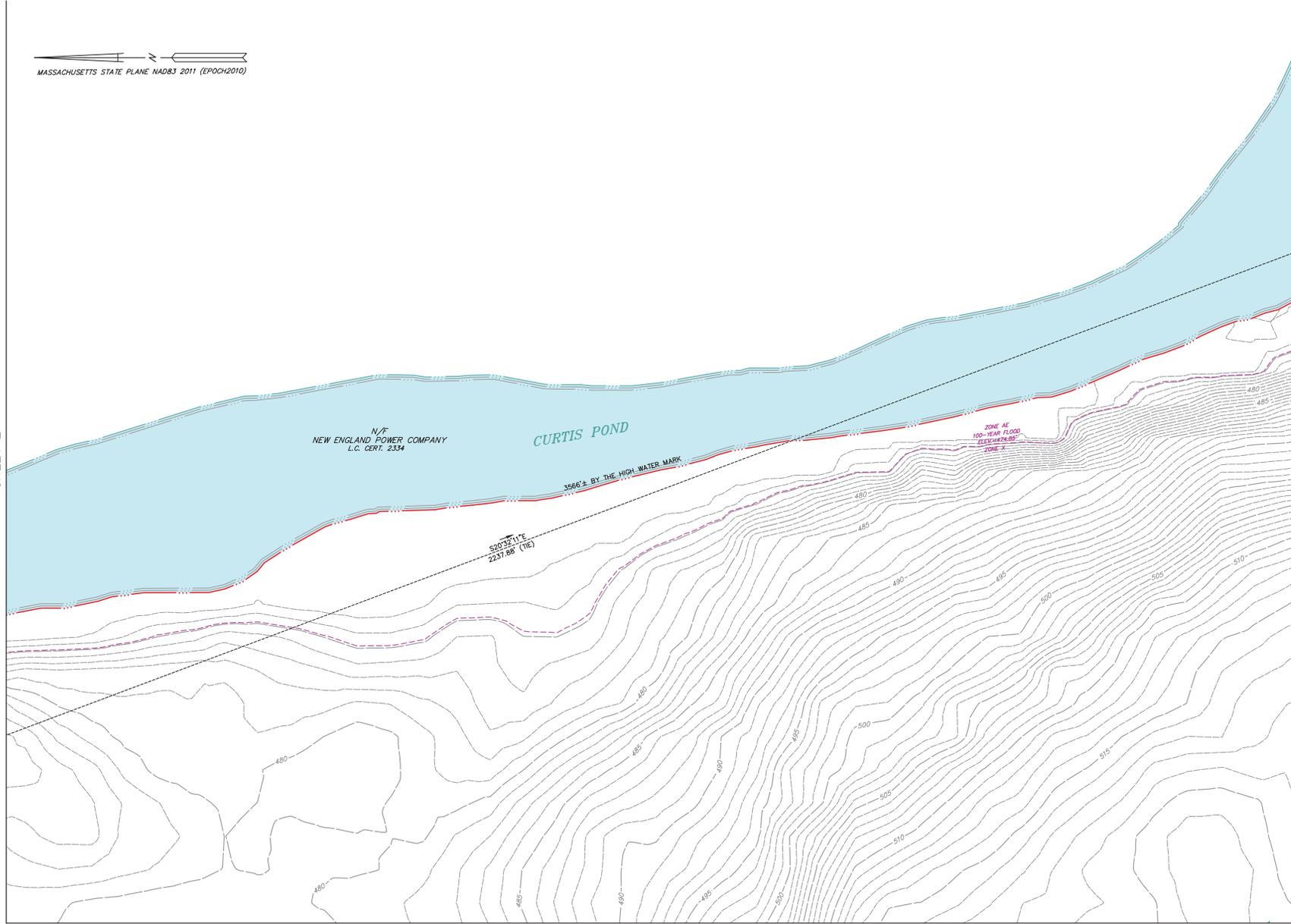
SHEET 5

SHEET 3

SEE SHEET 1 OF 17 FOR NOTES, SEE SHEET 17 OF 17 FOR LEGEND

MASSACHUSETTS STATE PLANE NAD83 2011 (EPOCH2010)

SHEET 2

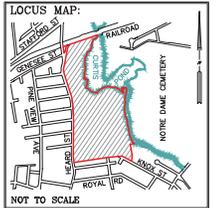


SHEET 6

SHEET 4

PREPARED FOR:
CITY OF WORCESTER
 DEPARTMENT OF PUBLIC WORKS AND PARKS
 50 SKYLINE DRIVE
 WORCESTER, MA 01605

RECORD OWNER:
CITY OF WORCESTER
 1727/262
 1889/275
 2164/374



5			
4			
3			
2			
1			
0	10/19/2017	INITIAL ISSUE	
	ISSUE DATE	DESCRIPTION	
TGS	CEM	CEM/TGS	ICW
FLD	CALC	DWN	CHK'D

TOPOGRAPHIC PLAN

HADWEN PARK
WORCESTER, MA
 (WORCESTER COUNTY)

PREPARED BY:
BEALS + THOMAS
 Civil Engineers + Landscape Architects +
 Land Surveyors + Planners +
 Environmental Specialists

BEALS AND THOMAS, INC.
 Reservoir Corporate Center
 144 Turnpike Road
 Southborough, Massachusetts 01772-2104
 T 508.366.0560 | www.bealsandthomas.com

DATE: OCTOBER 19, 2017 METERS
 0 5 10 15 20
 SCALE: 1" = 20' FEET

B+T JOB NO. 2921.00

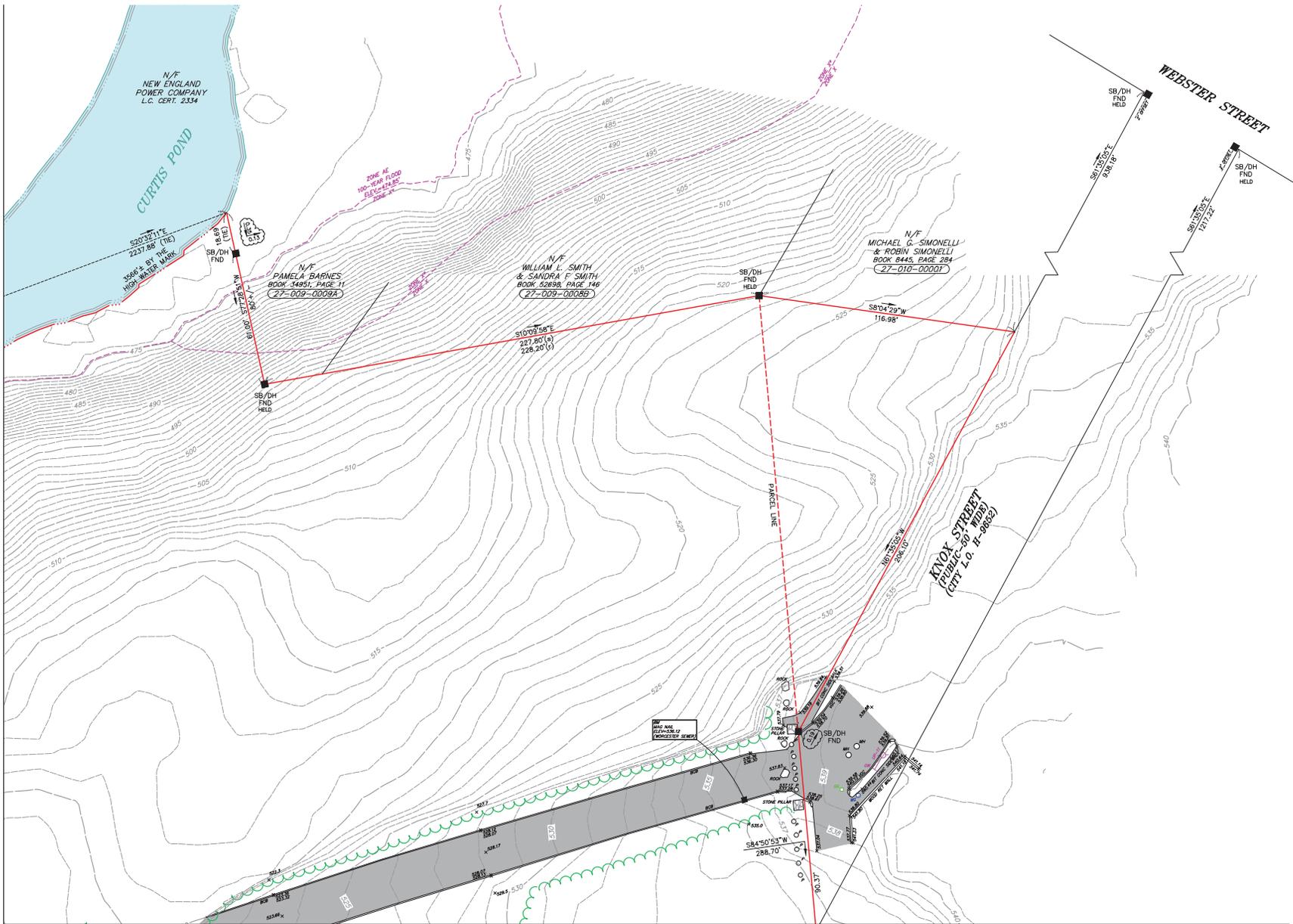
B+T PLAN NO. 292100P001A-003

SHEET NO. 3 OF 17

TP-3

SEE SHEET 1 OF 17 FOR NOTES, SEE SHEET 17 OF 17 FOR LEGEND

MASSACHUSETTS STATE PLANE MADS3 2011 (EPOCH2010)



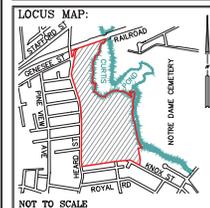
SHEET 3

SHEET 7

SEE SHEET 1 OF 17 FOR NOTES, SEE SHEET 17 OF 17 FOR LEGEND

PREPARED FOR:
CITY OF WORCESTER
 DEPARTMENT OF PUBLIC WORKS AND PARKS
 50 SKYLINE DRIVE
 WORCESTER, MA 01605

RECORD OWNER:
CITY OF WORCESTER
 1727/262
 1889/275
 2164/374



5				
4				
3				
2				
1				
0	10/19/2017	INITIAL ISSUE		
	ISSUE DATE	DESCRIPTION		
TGS	CEM	CEM/TGS	ICW	
FLD	CALC	DWN	CHK'D	

TOPOGRAPHIC PLAN

HADWEN PARK
WORCESTER, MA
 (WORCESTER COUNTY)

PREPARED BY:
BEALS + THOMAS
 Civil Engineers + Landscape Architects +
 Land Surveyors + Planners +
 Environmental Specialists

BEALS AND THOMAS, INC.
 Reservoir Corporate Center
 144 Turnpike Road
 Southborough, Massachusetts 01772-2104
 T 508.366.0560 | www.bealsandthomas.com

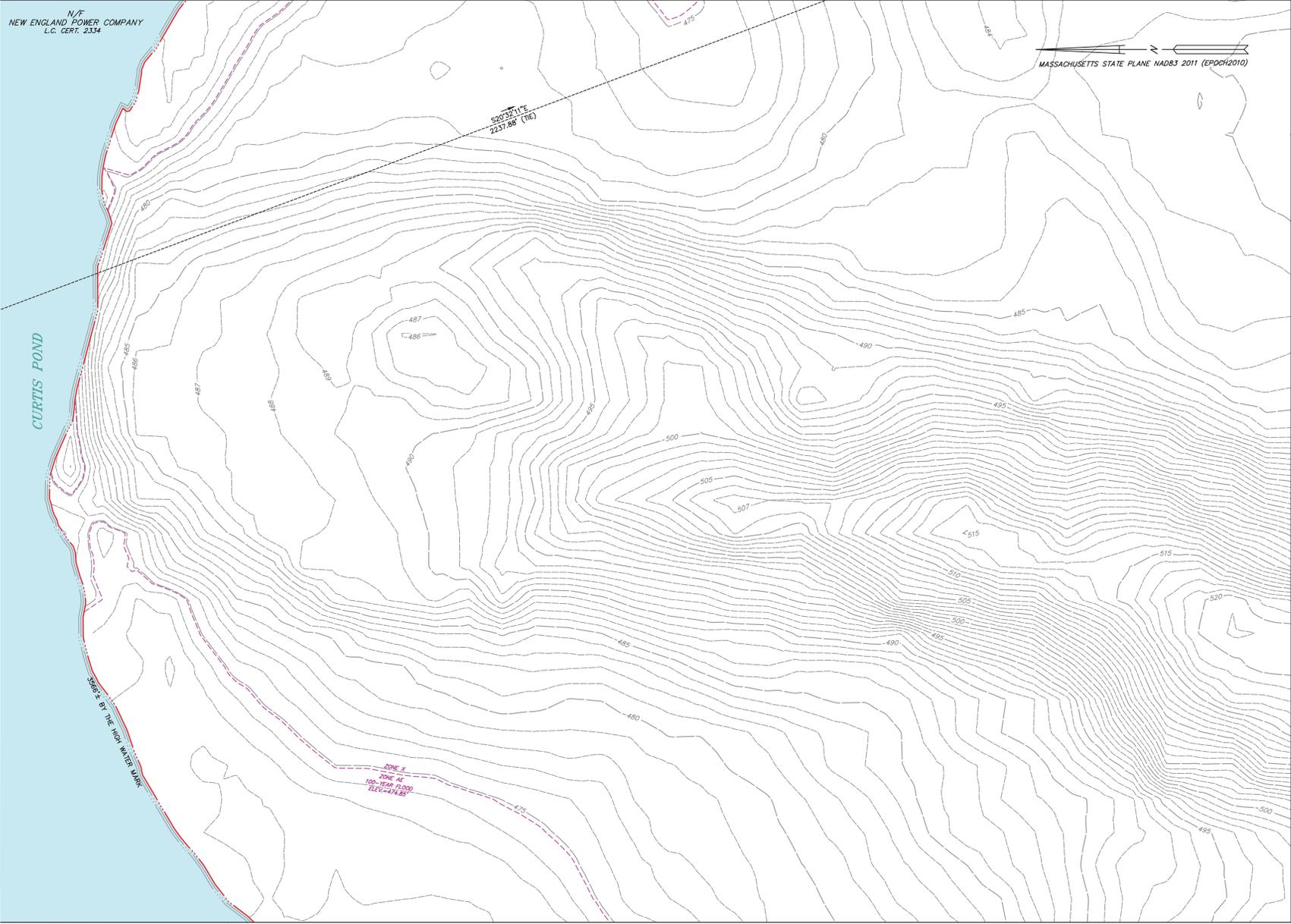
DATE: OCTOBER 19, 2017 METERS
 SCALE: 1" = 20' FEET

B+T JOB NO. 2921.00
 B+T PLAN NO. 292100P001A-004
 SHEET NO. 4 OF 17

TP-4

SHEET 2

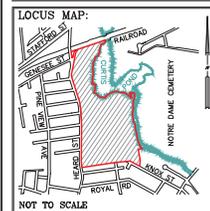
N/E
NEW ENGLAND POWER COMPANY
L.C. CERT. 2334



SHEET 10

PREPARED FOR:
CITY OF WORCESTER
 DEPARTMENT OF PUBLIC WORKS AND PARKS
 50 SKYLINE DRIVE
 WORCESTER, MA 01605

RECORD OWNER:
CITY OF WORCESTER
 1727/262
 1889/275
 2164/374

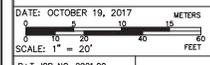


5		
4		
3		
2		
1		
0	10/19/2017	INITIAL ISSUE
	ISSUE DATE	DESCRIPTION
TGS	CEM	CEM/TGS
ICW	FLD	CALC
	DWN	CHK'D

TOPOGRAPHIC PLAN
HADWEN PARK
WORCESTER, MA
 (WORCESTER COUNTY)

PREPARED BY:
BEALS + THOMAS
 Civil Engineers + Landscape Architects +
 Land Surveyors + Planners +
 Environmental Specialists

BEALS AND THOMAS, INC.
 Reservoir Corporate Center
 144 Turnpike Road
 Southborough, Massachusetts 01772-2104
 T 508.366.0560 | www.bealsandthomas.com



B+T JOB NO. 2921.00
 B+T PLAN NO. 292100P001A-005
 SHEET NO. 5 OF 17

TP-5

SEE SHEET 1 OF 17 FOR NOTES, SEE SHEET 17 OF 17 FOR LEGEND

SHEET 3



SHEET 11

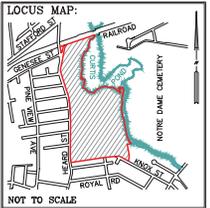
SHEET 5

SHEET 7

SEE SHEET 1 OF 17 FOR NOTES, SEE SHEET 17 OF 17 FOR LEGEND

PREPARED FOR:
CITY OF WORCESTER
 DEPARTMENT OF PUBLIC WORKS AND PARKS
 50 SKYLINE DRIVE
 WORCESTER, MA 01605

RECORD OWNER:
CITY OF WORCESTER
 1727/262
 1889/275
 2164/374



5			
4			
3			
2			
1			
0	10/19/2017	INITIAL ISSUE	
	ISSUE DATE	DESCRIPTION	
TGS	CEM	CEM/TGS	ICW
FLD	CALC	DWN	CHK'D

TOPOGRAPHIC PLAN
HADWEN PARK
WORCESTER, MA
 (WORCESTER COUNTY)

PREPARED BY:
BEALS + THOMAS
 Civil Engineers + Landscape Architects +
 Land Surveyors + Planners +
 Environmental Specialists

BEALS AND THOMAS, INC.
 Reservoir Corporate Center
 144 Turnpike Road
 Southborough, Massachusetts 01772-2104
 T 508.366.0560 | www.bealsandthomas.com

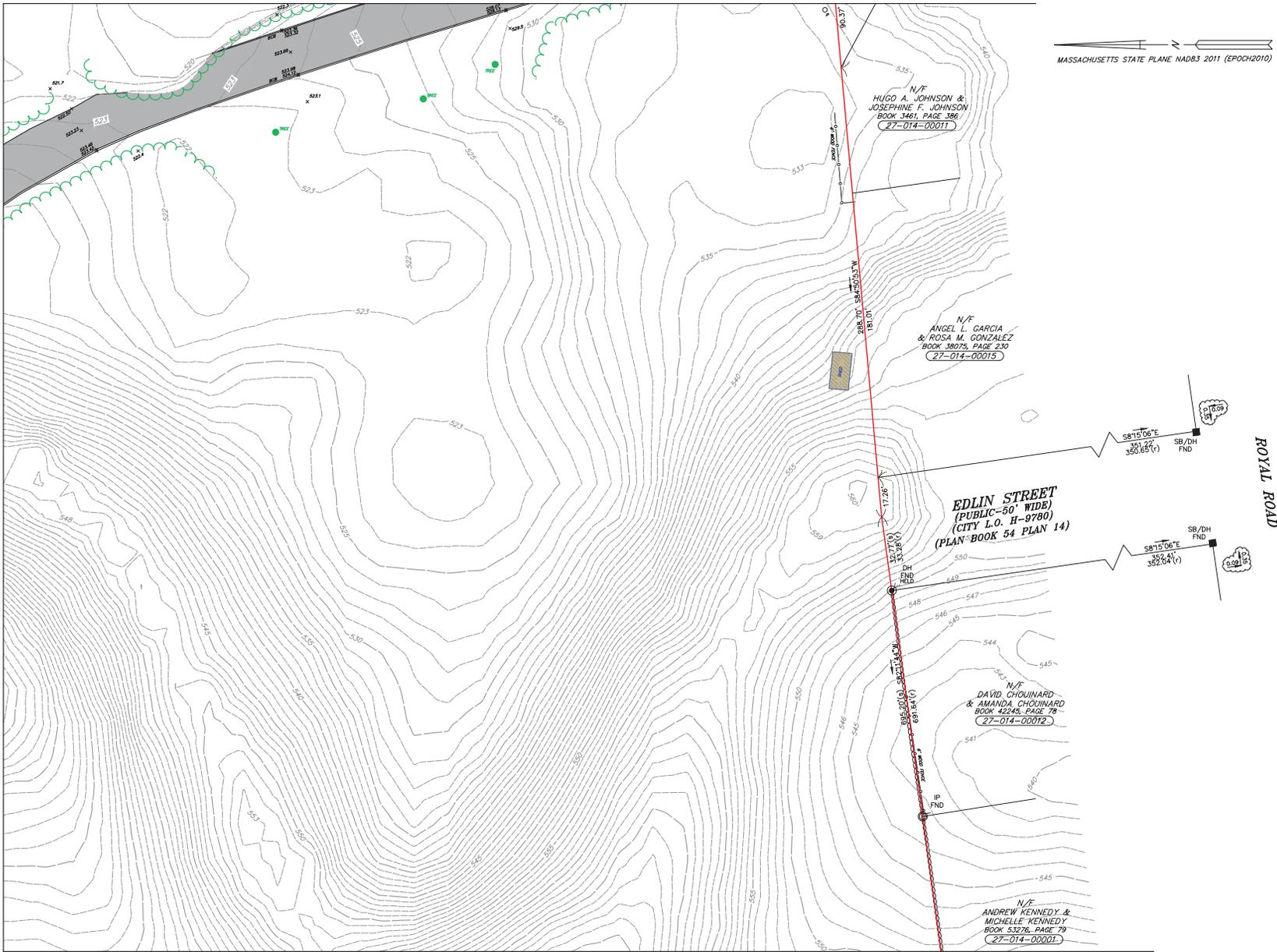
DATE: OCTOBER 19, 2017 METERS
 0 10 20 30 40 50
 SCALE: 1" = 20' FEET

B+T JOB NO. 2921.00
 B+T PLAN NO. 292100P001A-006
 SHEET NO. 6 OF 17

TP-6

SHEET 4

SHEET 6

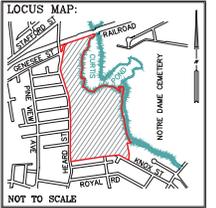


SHEET 12

MASSACHUSETTS STATE PLANE NAD83 2011 (EPOCH2010)

PREPARED FOR:
CITY OF WORCESTER
 DEPARTMENT OF PUBLIC WORKS AND PARKS
 50 SKYLINE DRIVE
 WORCESTER, MA 01605

RECORD OWNER:
CITY OF WORCESTER
 1727/262
 1889/275
 2164/374



5				
4				
3				
2				
1				
0	10/19/2017	INITIAL ISSUE		
	ISSUE DATE	DESCRIPTION		
TGS	CEM	CEM/TGS	ICW	
FLD	CALC	DWN	CHK'D	

TOPOGRAPHIC PLAN
 HADWEN PARK
 WORCESTER, MA
 (WORCESTER COUNTY)

PREPARED BY:
BEALS + THOMAS
 Civil Engineers + Landscape Architects +
 Land Surveyors + Planners +
 Environmental Specialists

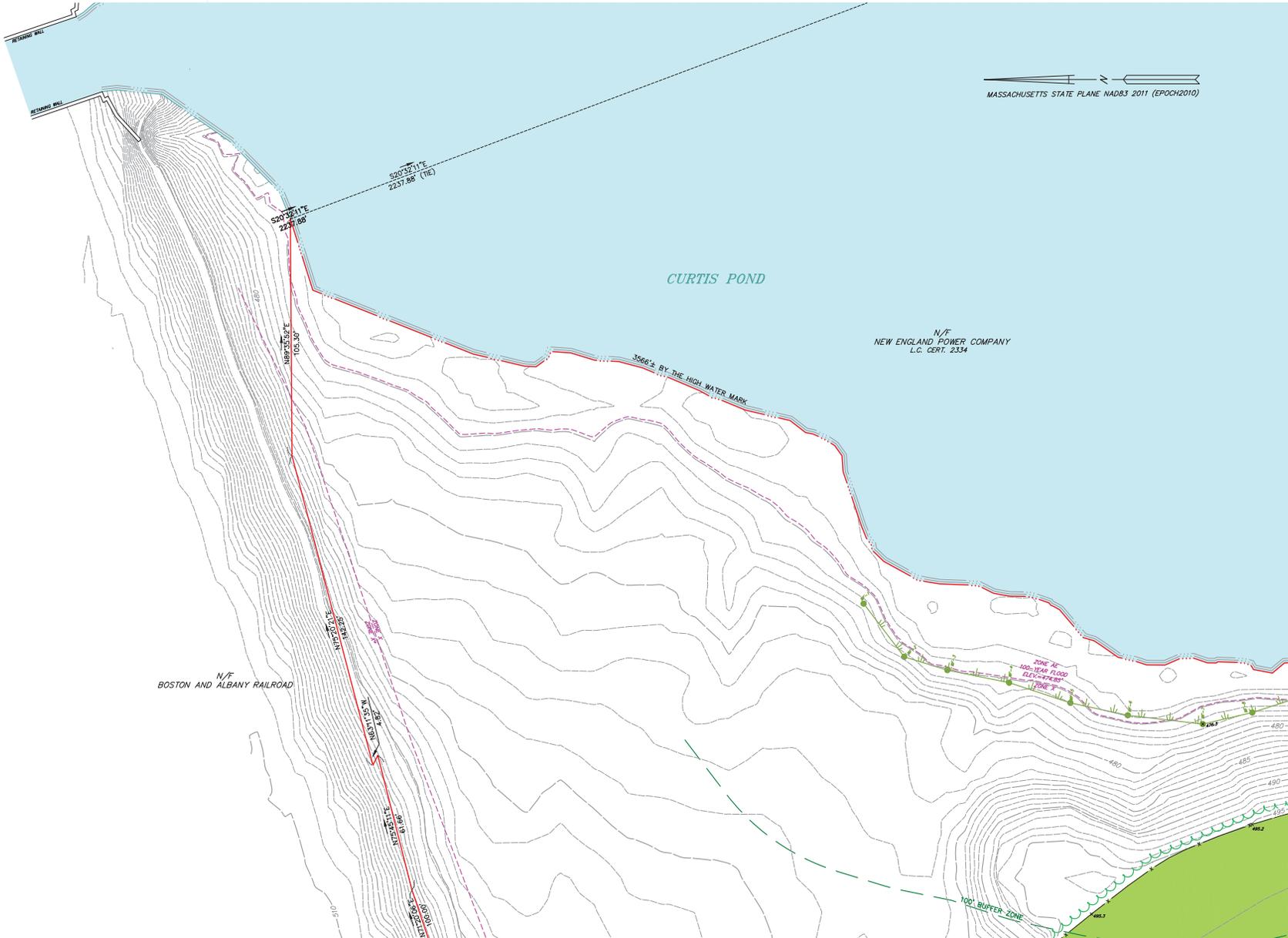
BEALS AND THOMAS, INC.
 Reservoir Corporate Center
 144 Turnpike Road
 Southborough, Massachusetts 01772-2104
 T 508.366.0560 | www.bealsandthomas.com

DATE: OCTOBER 19, 2017 METERS
 0 10 20 30 40 50
 SCALE: 1" = 20' FEET

B+T JOB NO. 2921.00
 B+T PLAN NO. 292100P001A-007
 SHEET NO. 7 OF 17

TP-7

SEE SHEET 1 OF 17 FOR NOTES, SEE SHEET 17 OF 17 FOR LEGEND

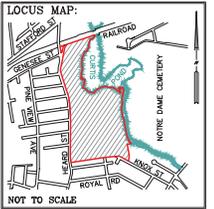


SHEET 13

SEE SHEET 1 OF 17 FOR NOTES, SEE SHEET 17 OF 17 FOR LEGEND

PREPARED FOR:
CITY OF WORCESTER
 DEPARTMENT OF PUBLIC WORKS AND PARKS
 50 SKYLINE DRIVE
 WORCESTER, MA 01605

RECORD OWNER:
CITY OF WORCESTER
 1727/262
 1889/275
 2164/374



SHEET 9

5		
4		
3		
2		
1		
0	10/19/2017	INITIAL ISSUE
	ISSUE DATE	DESCRIPTION
TGS	CEM	CEM/TGS
ICW	FLD	CHK'D
	CALC	DWN

TOPOGRAPHIC PLAN

HADWEN PARK
WORCESTER, MA
 (WORCESTER COUNTY)

PREPARED BY:
BEALS + THOMAS
 Civil Engineers + Landscape Architects +
 Land Surveyors + Planners +
 Environmental Specialists

BEALS AND THOMAS, INC.
 Reservoir Corporate Center
 144 Turnpike Road
 Southborough, Massachusetts 01772-2104
 T 508.366.0560 | www.bealsandthomas.com

DATE: OCTOBER 19, 2017 METERS
 0 5 10 15 20
 SCALE: 1" = 20' FEET

B+T JOB NO. 2921.00
 B+T PLAN NO. 292100P001A-008
 SHEET NO. 8 OF 17

TP-8

MASSACHUSETTS STATE PLANE NAD83 2011 (EPOCH2010)

CURTIS POND

N/E
NEW ENGLAND POWER COMPANY
L.C. CERT. 2334

3566'± BY THE HIGH WATER MARK
ZONE A-E
100-YEAR FLOOD
ELEVATIONS
WINDING SLIP



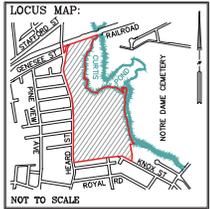
SHEET 14

SHEET 8

SHEET 10

PREPARED FOR:
CITY OF WORCESTER
DEPARTMENT OF PUBLIC WORKS AND PARKS
50 SKYLINE DRIVE
WORCESTER, MA 01605

RECORD OWNER:
CITY OF WORCESTER
1727/262
1889/275
2164/374



5				
4				
3				
2				
1				
0	10/19/2017	INITIAL ISSUE		
	ISSUE DATE	DESCRIPTION		
TGS	CEM	CEM/TGS	ICW	
FLD	CALC	DWN	CHK'D	

TOPOGRAPHIC PLAN

HADWEN PARK
WORCESTER, MA
(WORCESTER COUNTY)

PREPARED BY:
BEALS + THOMAS
Civil Engineers + Landscape Architects +
Land Surveyors + Planners +
Environmental Specialists

BEALS AND THOMAS, INC.
Reservoir Corporate Center
144 Turnpike Road
Southborough, Massachusetts 01772-2104
T 508.366.0560 | www.bealsandthomas.com

DATE: OCTOBER 19, 2017 METERS
0 10 20 30 40 50
SCALE: 1" = 20' FEET

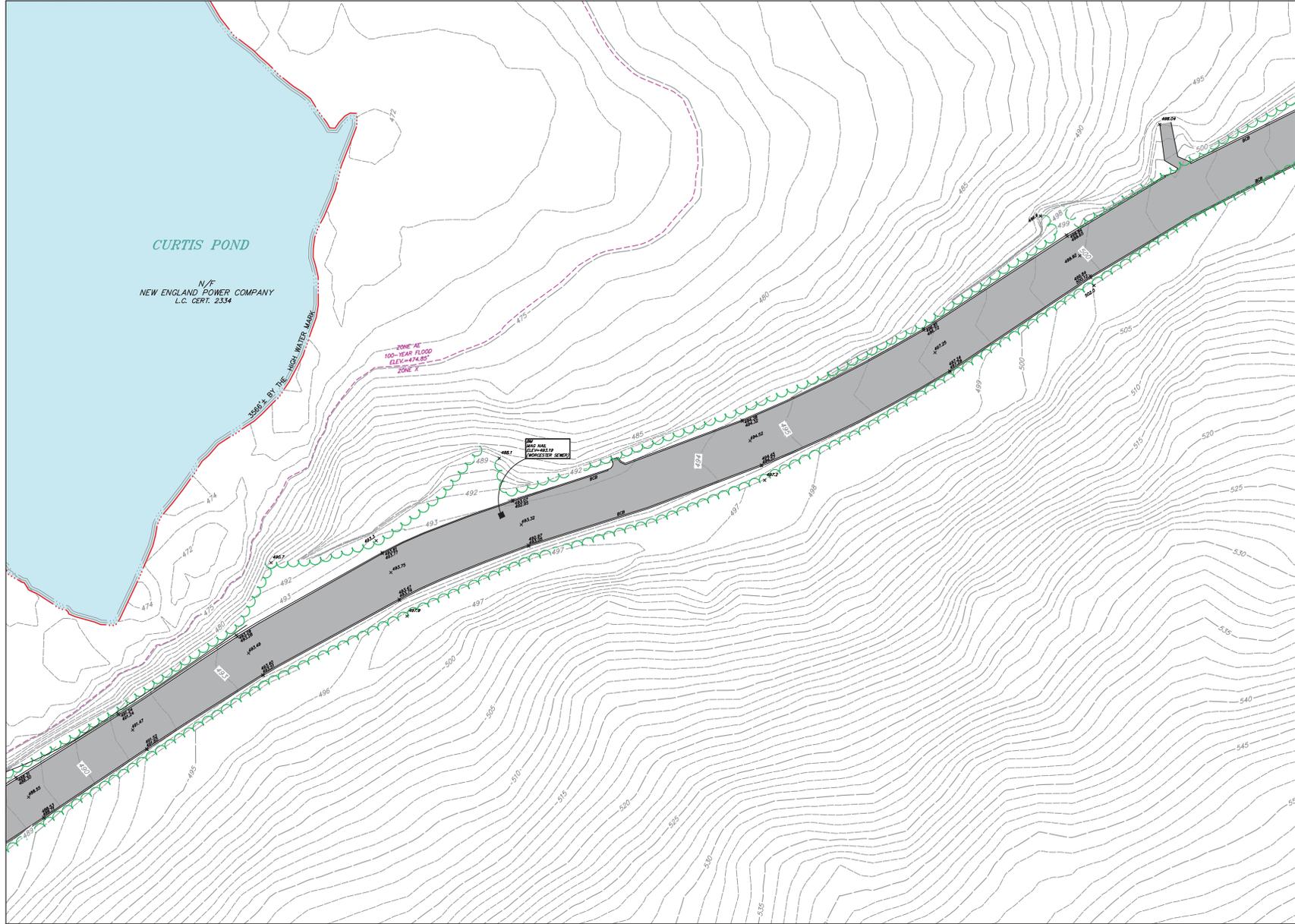
B+T JOB NO. 2921.00

B+T PLAN NO.
292100P001A-009

SHEET NO. 9 OF 17

TP-9

SEE SHEET 1 OF 17 FOR NOTES, SEE SHEET 17 OF 17 FOR LEGEND

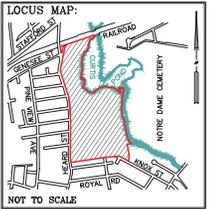


SHEET 9

SHEET 11

PREPARED FOR:
CITY OF WORCESTER
 DEPARTMENT OF PUBLIC WORKS AND PARKS
 50 SKYLINE DRIVE
 WORCESTER, MA 01605

RECORD OWNER:
CITY OF WORCESTER
 1727/262
 1889/275
 2164/374



5				
4				
3				
2				
1				
0	10/19/2017	INITIAL ISSUE		
	ISSUE DATE	DESCRIPTION		
TGS	CEM	CEM/TGS	ICW	
FLD	CALC	DWN	CHK'D	

TOPOGRAPHIC PLAN

HADWEN PARK
WORCESTER, MA
 (WORCESTER COUNTY)

PREPARED BY:
BEALS + THOMAS
 Civil Engineers + Landscape Architects +
 Land Surveyors + Planners +
 Environmental Specialists

BEALS AND THOMAS, INC.
 Reservoir Corporate Center
 144 Turnpike Road
 Southborough, Massachusetts 01772-2104
 T 508.366.0560 | www.bealsandthomas.com

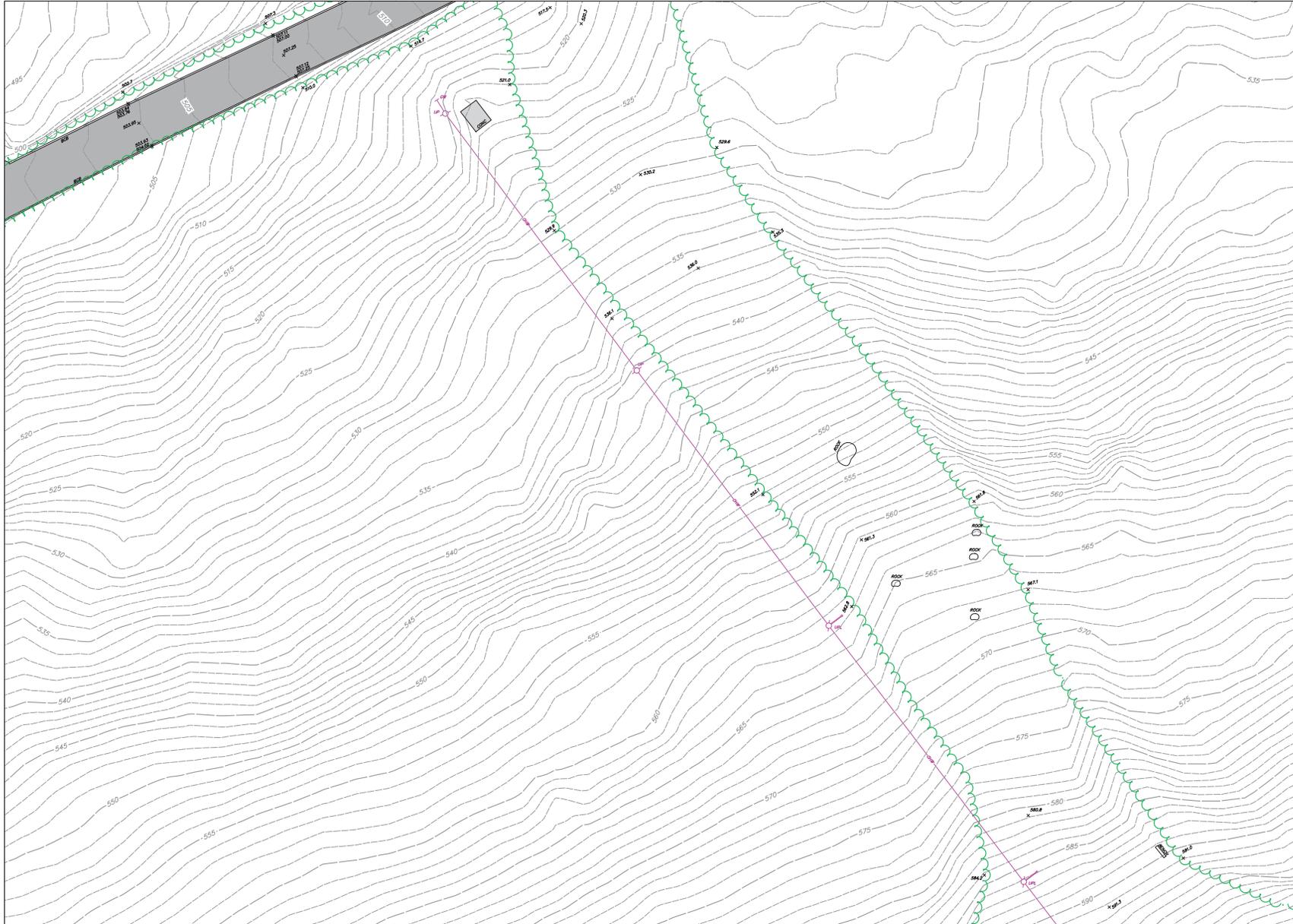
DATE: OCTOBER 19, 2017 METERS
 0 5 10 15 20
 SCALE: 1" = 20' FEET

B+T JOB NO. 2921.00
 B+T PLAN NO. 292100P001A-010

TP-10

MASSACHUSETTS STATE PLANE NAD83 2011 (EPOCH2010)

SHEET 6

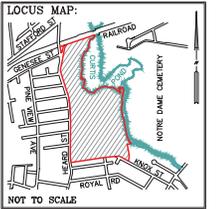


SHEET 16

SEE SHEET 1 OF 17 FOR NOTES, SEE SHEET 17 OF 17 FOR LEGEND

PREPARED FOR:
CITY OF WORCESTER
 DEPARTMENT OF PUBLIC WORKS AND PARKS
 50 SKYLINE DRIVE
 WORCESTER, MA 01605

RECORD OWNER:
CITY OF WORCESTER
 1727/262
 1889/275
 2164/374



5		
4		
3		
2		
1		
0	10/19/2017	INITIAL ISSUE
	ISSUE DATE	DESCRIPTION
TGS	CEM	CEM/TGS
FLD	CALC	DWN
		CHK'D

TOPOGRAPHIC PLAN

HADWEN PARK
WORCESTER, MA
 (WORCESTER COUNTY)

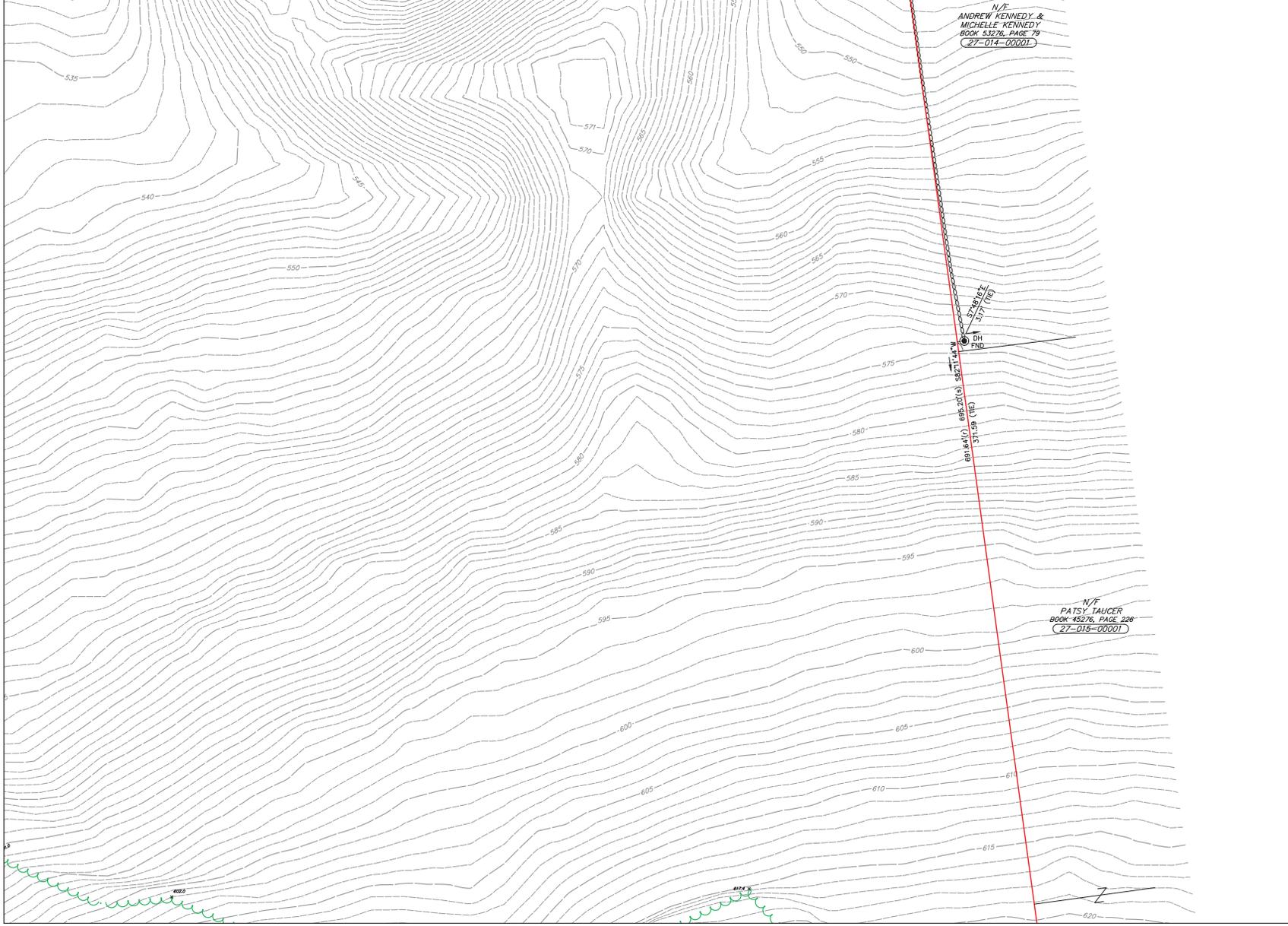
PREPARED BY:
BEALS + THOMAS
 Civil Engineers + Landscape Architects +
 Land Surveyors + Planners +
 Environmental Specialists

BEALS AND THOMAS, INC.
 Reservoir Corporate Center
 144 Turnpike Road
 Southborough, Massachusetts 01772-2104
 T 508.366.0560 | www.bealsandthomas.com

DATE: OCTOBER 19, 2017 METERS
 0 10 20 30 40 50
 SCALE: 1" = 20' FEET

B+T JOB NO. 2921.00
 B+T PLAN NO. 292100P001A-011
 SHEET NO. 11 OF 17

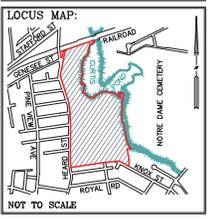
TP-11



SHEET 11

PREPARED FOR:
CITY OF WORCESTER
 DEPARTMENT OF PUBLIC WORKS AND PARKS
 50 SKYLINE DRIVE
 WORCESTER, MA 01605

RECORD OWNER:
CITY OF WORCESTER
 1727/262
 1889/275
 2164/374



5		
4		
3		
2		
1		
0	10/19/2017	INITIAL ISSUE
	ISSUE DATE	DESCRIPTION
TGS	CEM	CEM/TGS
ICW	FLD	CALC
	DWN	CHK'D

TOPOGRAPHIC PLAN
HADWEN PARK
WORCESTER, MA
 (WORCESTER COUNTY)

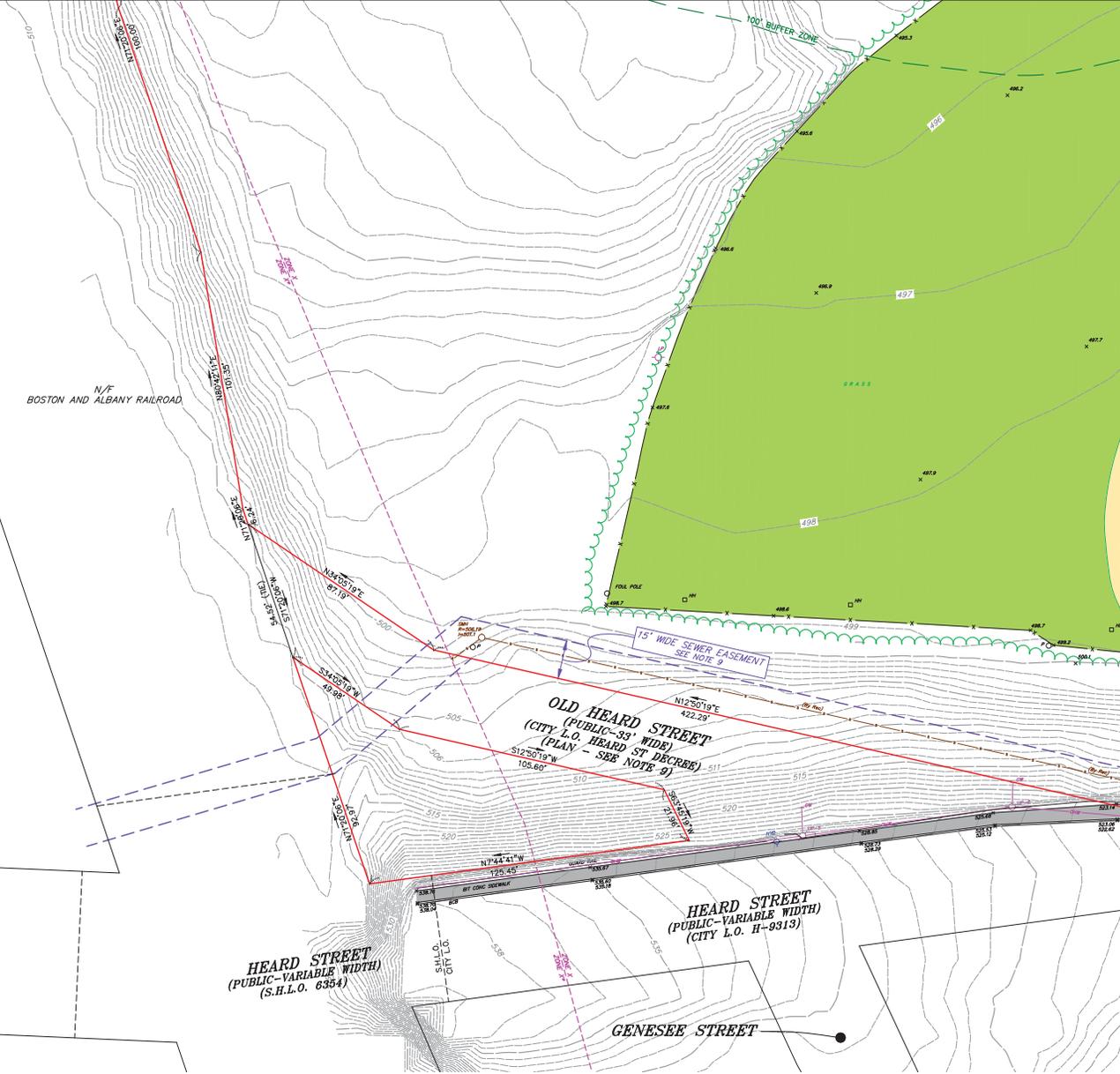
PREPARED BY:
BEALS + THOMAS
 Civil Engineers + Landscape Architects +
 Land Surveyors + Planners +
 Environmental Specialists

BEALS AND THOMAS, INC.
 Reservoir Corporate Center
 144 Turnpike Road
 Southborough, Massachusetts 01772-2104
 T 508.366.0560 | www.bealsandthomas.com

DATE: OCTOBER 19, 2017 METERS
 0 10 20 30 40 50 60
 SCALE: 1" = 20' FEET

B+T JOB NO. 2921.00
 B+T PLAN NO. 292100P001A-012
 SHEET NO. 12 OF 17

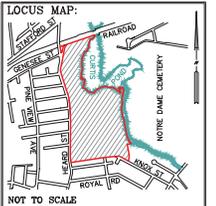
TP-12



SHEET 14

PREPARED FOR:
CITY OF WORCESTER
 DEPARTMENT OF PUBLIC WORKS AND PARKS
 50 SKYLINE DRIVE
 WORCESTER, MA 01605

RECORD OWNER:
CITY OF WORCESTER
 1727/262
 1889/275
 2164/374



5			
4			
3			
2			
1			
0	10/19/2017	INITIAL ISSUE	
	ISSUE DATE	DESCRIPTION	
TGS	CEM	CEM/TGS	ICW
FLD	CALC	DWN	CHK'D

TOPOGRAPHIC PLAN
 HADWEN PARK
 WORCESTER, MA
 (WORCESTER COUNTY)

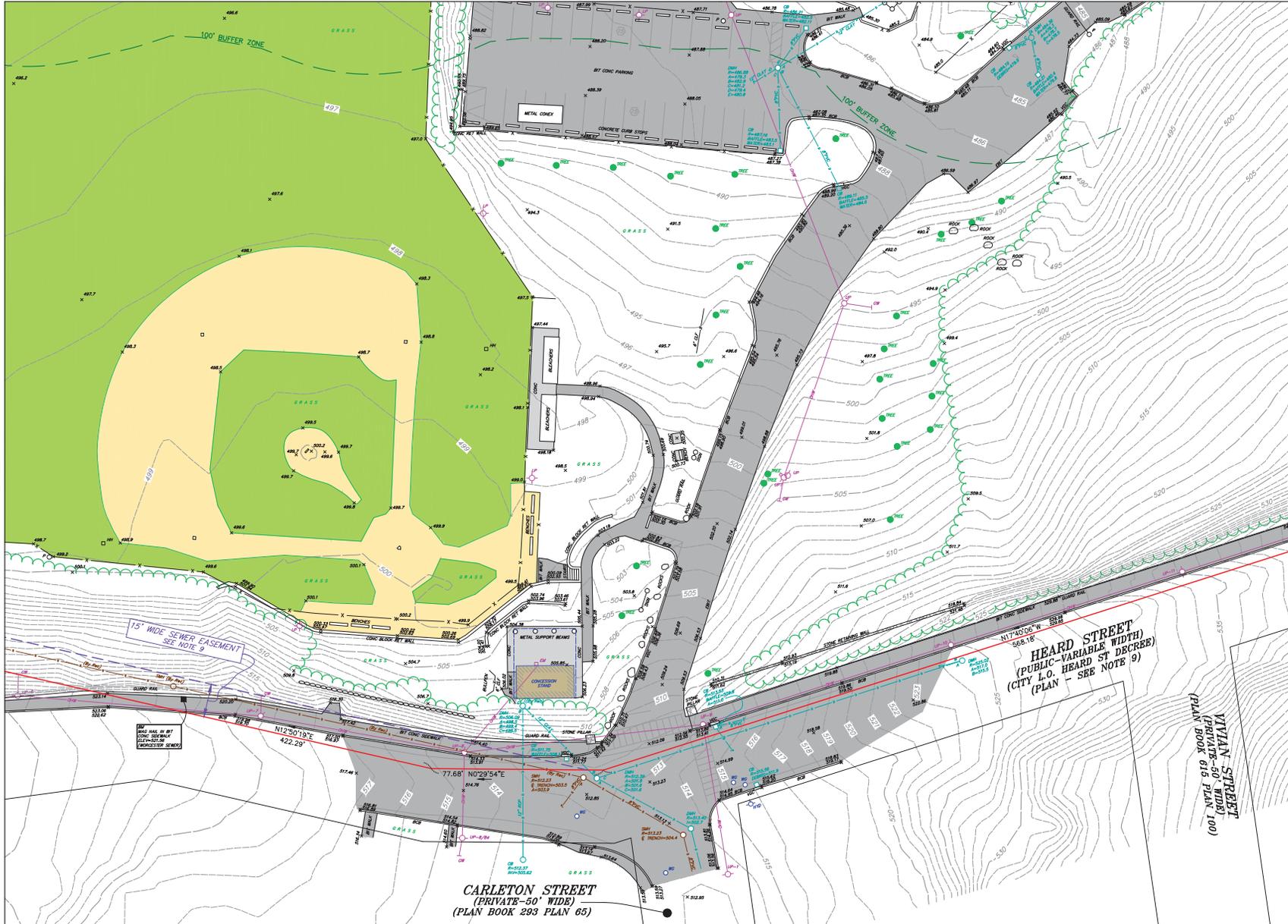
PREPARED BY:
BEALS + THOMAS
 Civil Engineers + Landscape Architects +
 Land Surveyors + Planners +
 Environmental Specialists

BEALS AND THOMAS, INC.
 Reservoir Corporate Center
 144 Turnpike Road
 Southborough, Massachusetts 01772-2104
 T 508.366.0560 | www.bealsandthomas.com

DATE: OCTOBER 19, 2017 METERS
 SCALE: 1" = 20' FEET

B+T JOB NO. 2921.00
 B+T PLAN NO. 292100P001A-013
 SHEET NO. 13 OF 17

TP-13

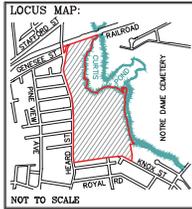


SHEET 13

SHEET 15

PREPARED FOR:
CITY OF WORCESTER
 DEPARTMENT OF PUBLIC WORKS AND PARKS
 50 SKYLINE DRIVE
 WORCESTER, MA 01605

RECORD OWNER:
CITY OF WORCESTER
 1727/262
 1889/275
 2164/374



5				
4				
3				
2				
1				
0	10/19/2017	INITIAL ISSUE		
	ISSUE DATE	DESCRIPTION		
	TGS	CEM	CEM/TGS	ICW
	FLD	CALC	DWN	CHK'D

TOPOGRAPHIC PLAN
 HADWEN PARK
 WORCESTER, MA
 (WORCESTER COUNTY)

PREPARED BY:
BEALS + THOMAS
 Civil Engineers + Landscape Architects +
 Land Surveyors + Planners +
 Environmental Specialists

BEALS AND THOMAS, INC.
 Reservoir Corporate Center
 144 Turnpike Road
 Southborough, Massachusetts 01772-2104
 T 508.366.0560 | www.bealsandthomas.com

DATE: OCTOBER 19, 2017 METERS
 SCALE: 1" = 20' FEET

B+T JOB NO. 2921.00
 B+T PLAN NO. 292100P001A-014
 SHEET NO. 14 OF 17

TP-14

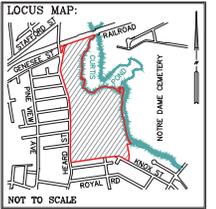


SHEET 14

SHEET 16

PREPARED FOR:
CITY OF WORCESTER
 DEPARTMENT OF PUBLIC WORKS AND PARKS
 50 SKYLINE DRIVE
 WORCESTER, MA 01605

RECORD OWNER:
CITY OF WORCESTER
 1727/262
 1889/275
 2164/374



5				
4				
3				
2				
1				
0	10/19/2017	INITIAL ISSUE		
	ISSUE DATE	DESCRIPTION		
	TGS	CEM	CEM/TGS	ICW
	FLD	CALC	DWN	CHK'D

TOPOGRAPHIC PLAN

HADWEN PARK
WORCESTER, MA
 (WORCESTER COUNTY)

PREPARED BY:
BEALS + THOMAS
 Civil Engineers + Landscape Architects +
 Land Surveyors + Planners +
 Environmental Specialists

BEALS AND THOMAS, INC.
 Reservoir Corporate Center
 144 Turnpike Road
 Southborough, Massachusetts 01772-2104
 T 508.366.0560 | www.bealsandthomas.com

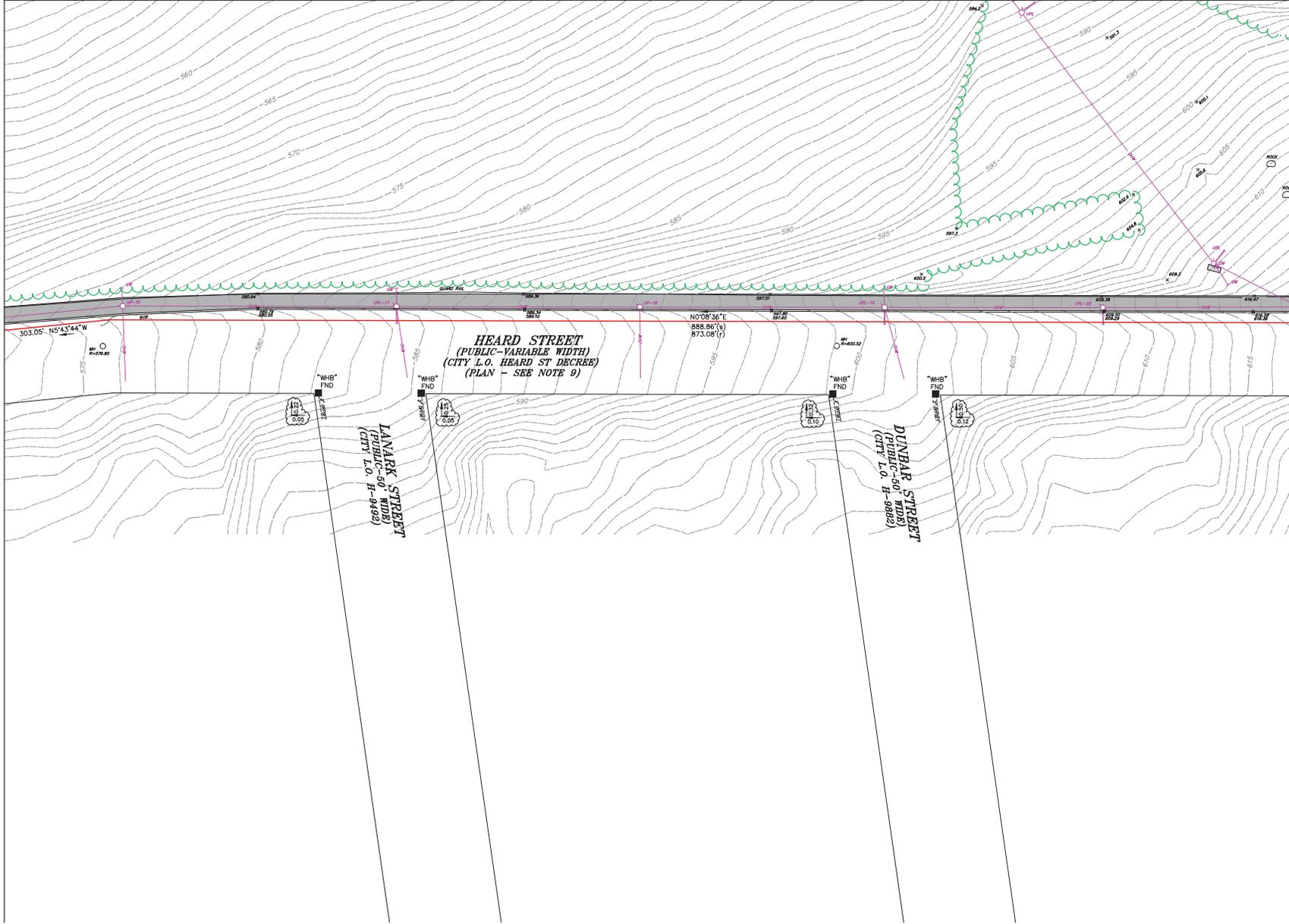
DATE: OCTOBER 19, 2017 METERS
 0 5 10 15 20
 FEET
 SCALE: 1" = 20'

B+T JOB NO. 2921.00

B+T PLAN NO.
 292100P001A-015

TP-15

SHEET NO. 15 OF 17

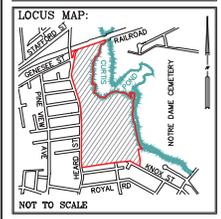


SHEET 15

SHEET 17

PREPARED FOR:
CITY OF WORCESTER
 DEPARTMENT OF PUBLIC WORKS AND PARKS
 50 SKYLINE DRIVE
 WORCESTER, MA 01605

RECORD OWNER:
CITY OF WORCESTER
 1727/262
 1889/275
 2164/374



5				
4				
3				
2				
1				
0	10/19/2017	INITIAL	ISSUE	
	ISSUE DATE	DESCRIPTION		
TGS	CEM	CEM/TGS	ICW	
FLD	CALC	DWN	CHK'D	

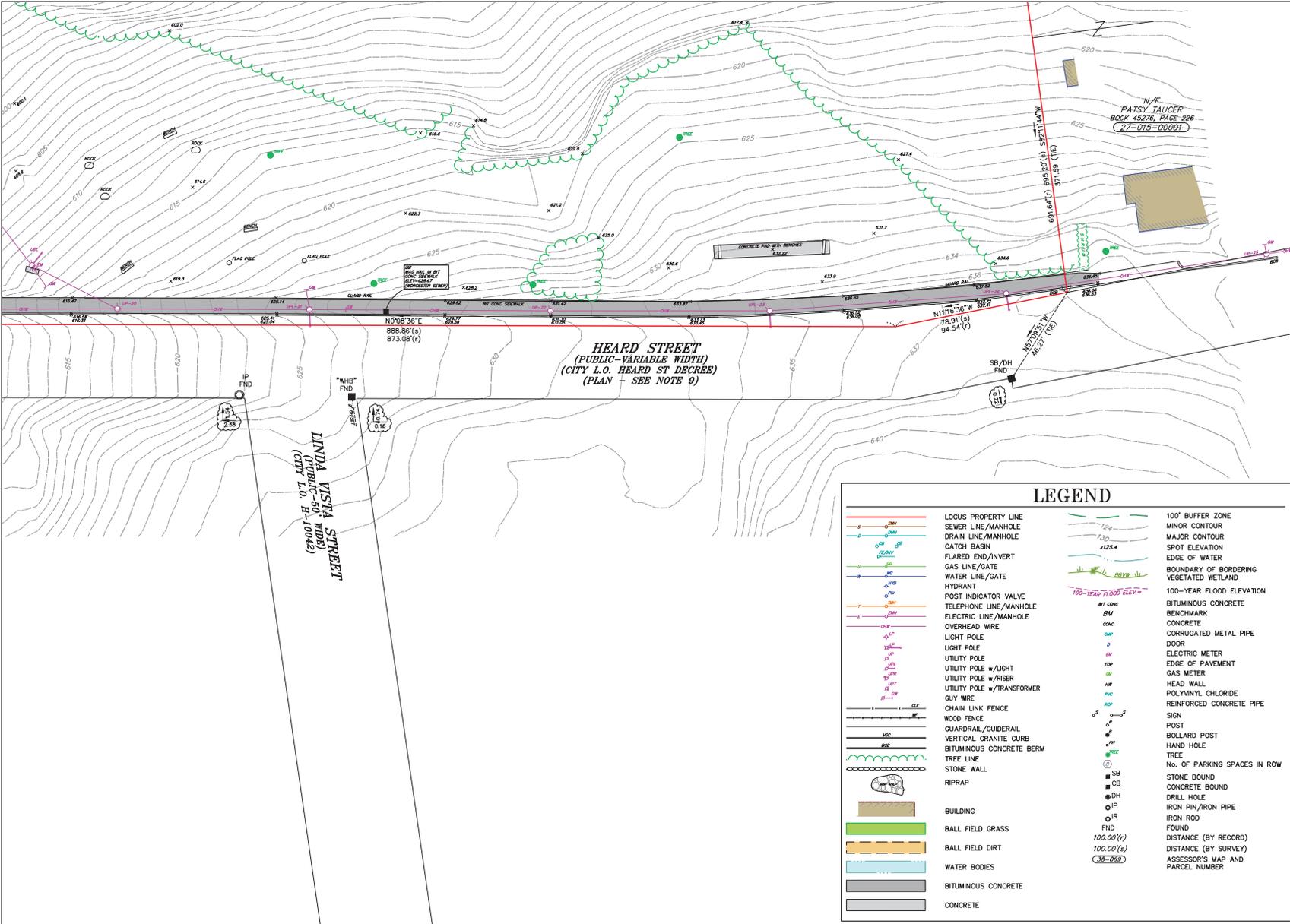
TOPOGRAPHIC PLAN
HADWEN PARK
WORCESTER, MA
 (WORCESTER COUNTY)

PREPARED BY:
BEALS + THOMAS
 Civil Engineers + Landscape Architects +
 Land Surveyors + Planners +
 Environmental Specialists

BEALS AND THOMAS, INC.
 Reservoir Corporate Center
 144 Turnpike Road
 Southborough, Massachusetts 01772-2104
 T 508.366.0560 | www.bealsandthomas.com

DATE: OCTOBER 19, 2017 METERS
 0 10 20 40 60 80
 SCALE: 1" = 20' FEET

B+T JOB NO. 2921.00
 B+T PLAN NO. 292100P001A-016
TP-16
 SHEET NO. 16 OF 17



HEARD STREET
(PUBLIC-VARIABLE WIDTH)
(CITY L.O. HEARD ST DECREE)
(PLAN - SEE NOTE 9)

LINDA VISTA STREET
(PUBLIC-50' WIDE)
(CITY L.O. H-10092)

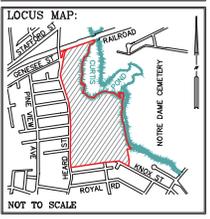
N/T
PATSY TAUCER
BOOK 45275, PAGES 226
(27-015-00001)

LEGEND

- | | | | |
|--|----------------------------|--|----------------------------------|
| | LOCUS PROPERTY LINE | | 100' BUFFER ZONE |
| | SEWER LINE/MANHOLE | | MINOR CONTOUR |
| | DRAIN LINE/MANHOLE | | MAJOR CONTOUR |
| | CATCH BASIN | | SPOT ELEVATION |
| | FLARED END/INVERT | | EDGE OF WATER |
| | GAS LINE/GATE | | BOUNDARY OF BORDERING |
| | WATER LINE/GATE | | VEGETATED WETLAND |
| | HYDRANT | | 100-YEAR FLOOD ELEVATION |
| | POST INDICATOR VALVE | | BITUMINOUS CONCRETE |
| | TELEPHONE LINE/MANHOLE | | BENCHMARK |
| | ELECTRIC LINE/MANHOLE | | CONCRETE |
| | OVERHEAD WIRE | | CORRUGATED METAL PIPE |
| | LIGHT POLE | | DOOR |
| | LIGHT POLE | | ELECTRIC METER |
| | UTILITY POLE w/LIGHT | | EDGE OF PAVEMENT |
| | UTILITY POLE w/RISER | | GAS METER |
| | UTILITY POLE w/TRANSFORMER | | HEAD WALL |
| | GUY WIRE | | POLYVINYL CHLORIDE |
| | CHAIN LINK FENCE | | REINFORCED CONCRETE PIPE |
| | WOOD FENCE | | SIGN |
| | GUARDRAIL/GUIDERAIL | | POST |
| | VERTICAL GRANITE CURB | | BOLLARD POST |
| | BITUMINOUS CONCRETE BERM | | HAND HOLE |
| | TREE LINE | | TREE |
| | STONE WALL | | No. OF PARKING SPACES IN ROW |
| | RIPRAP | | STONE BOUND |
| | BUILDING | | CONCRETE BOUND |
| | BALL FIELD GRASS | | DRILL HOLE |
| | BALL FIELD DIRT | | IRON PIN/IRON PIPE |
| | WATER BODIES | | IRON ROD |
| | BITUMINOUS CONCRETE | | FOUND |
| | CONCRETE | | DISTANCE (BY RECORD) |
| | | | DISTANCE (BY SURVEY) |
| | | | ASSESSOR'S MAP AND PARCEL NUMBER |

PREPARED FOR:
CITY OF WORCESTER
DEPARTMENT OF PUBLIC WORKS AND PARKS
50 SKYLINE DRIVE
WORCESTER, MA 01605

RECORD OWNER:
CITY OF WORCESTER
1727/262
1889/275
2164/374



5				
4				
3				
2				
1				
0	10/19/2017	INITIAL ISSUE		
		ISSUE DATE		DESCRIPTION
TGS	CEM	CEM/TGS	ICW	
FLD	CALC	DWN	CHK'D	

TOPOGRAPHIC PLAN
HADWEN PARK
WORCESTER, MA
(WORCESTER COUNTY)

PREPARED BY:
BEALS + THOMAS
Civil Engineers + Landscape Architects +
Land Surveyors + Planners +
Environmental Specialists

BEALS AND THOMAS, INC.
Reservoir Corporate Center
144 Turnpike Road
Southborough, Massachusetts 01772-2104
T 508.366.0560 | www.bealsandthomas.com

DATE: OCTOBER 19, 2017 METERS
SCALE: 1" = 20' FEET

B+T JOB NO. 2921.00
B+T PLAN NO. 292100P001A-017
SHEET NO. 17 OF 17

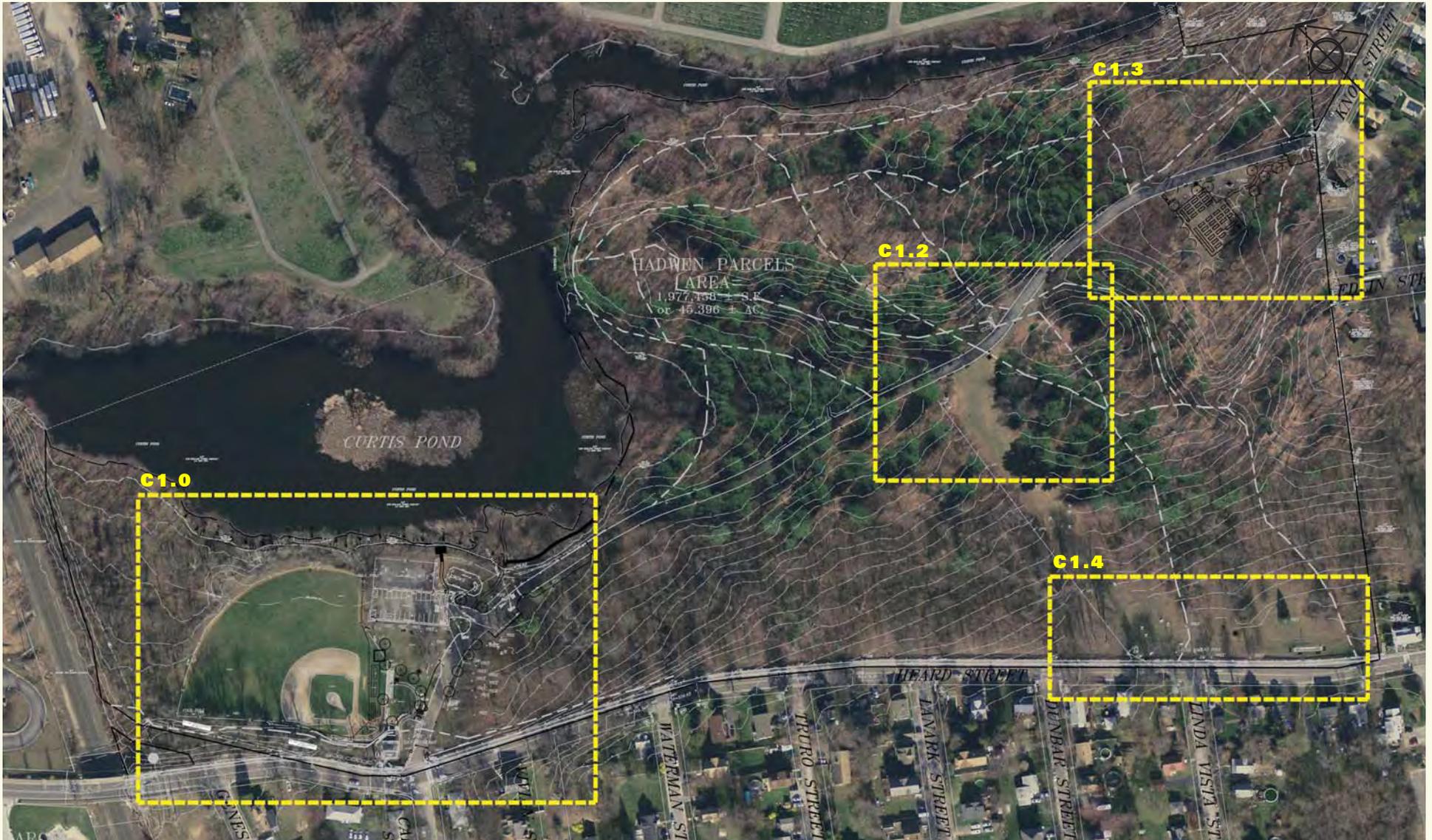
TP-17

Appendix D

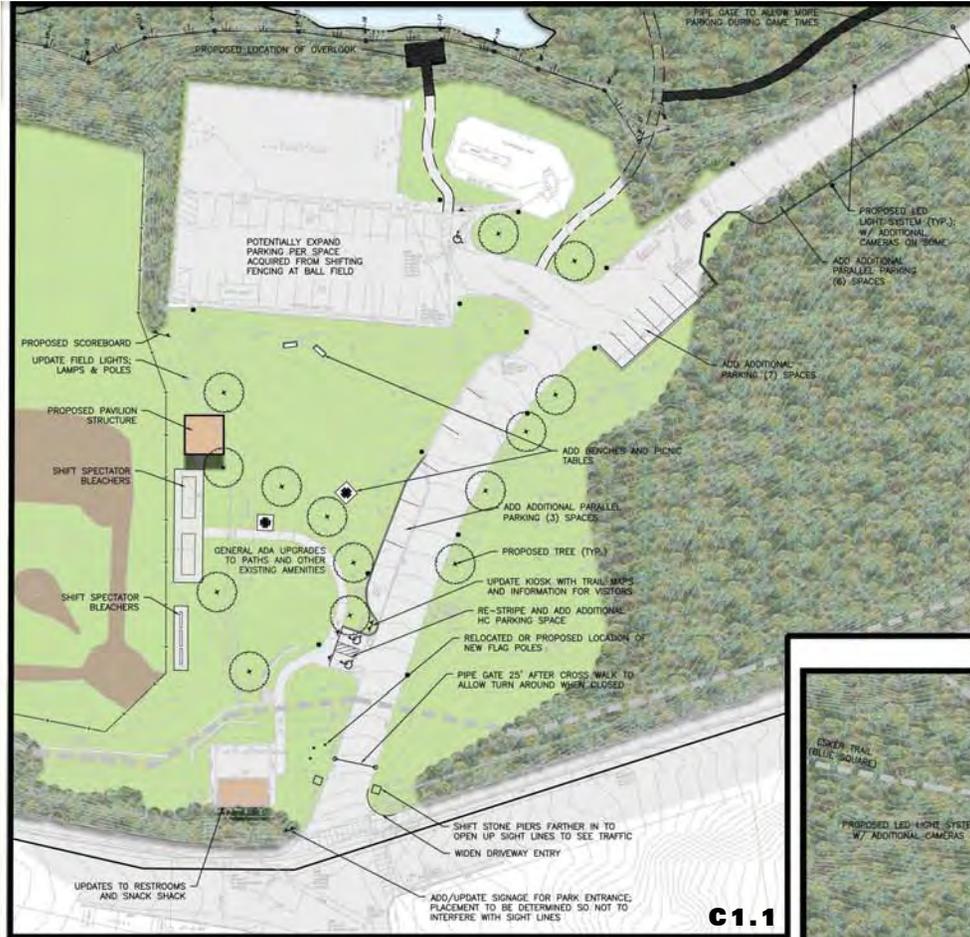
Master Plan Exhibits

Hadwen Park Master Plan

Overall Aerial & Enlargement Areas



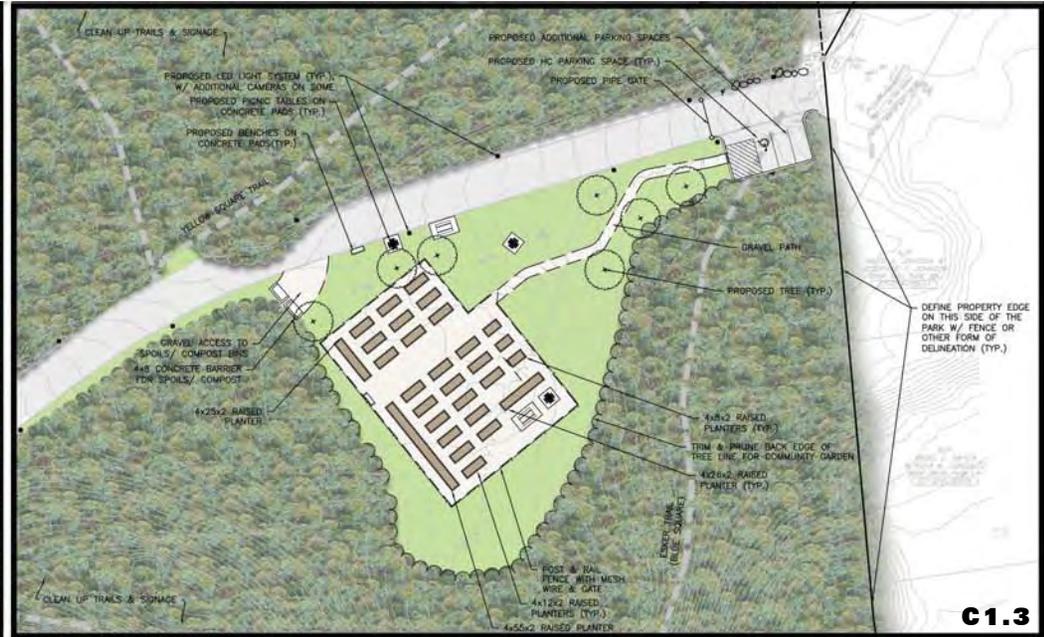
Hadwen Park Master Plan



HEARD STREET ENTRANCE, PLAYGROUND, PARKING LOT AND BASKETBALL COURT



BOTTOM OF SLEDDING HILL + ACCESS ROAD



KNOX STREET ENTRANCE



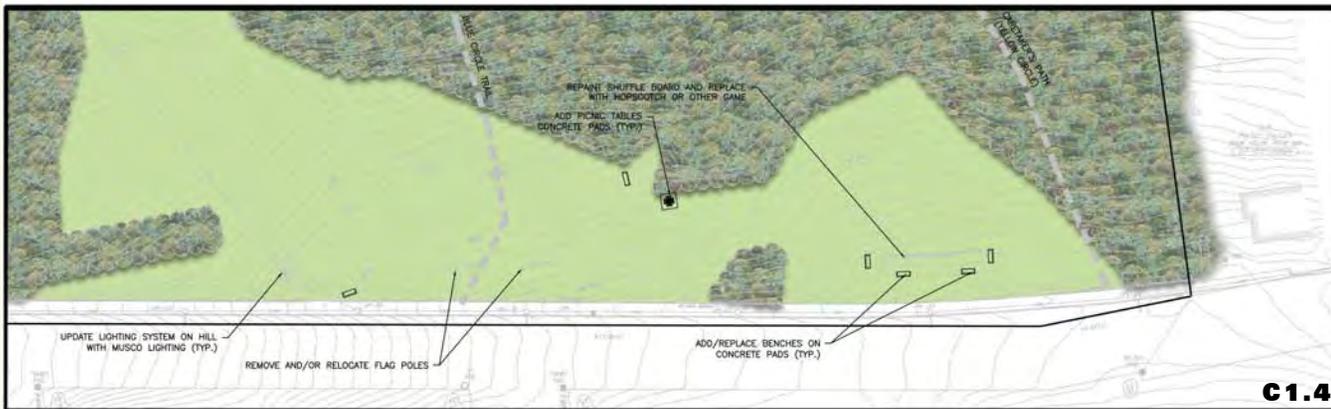
Hadwen Park Master Plan



BALL FIELD



PROPOSED CANOE/KAYAK LAUNCH AREA



TOP OF SLED HILL



Master Plan Approved by
**Worcester Parks and
Recreation Commission**

February 15, 2018

Master Plan Approved by
**Worcester
City Council**

September 25, 2018