Table of Contents

TOWN OF ACTON
FY 2017
MUNICIPAL BUDGET

VOLUME II

CAPITAL EQUIPMENT
NEW PERSONNEL
NEW PROGRAMS

DECEMBER 21, 2015

1 TOWN MANAGER'S MESSAGE

2 MANAGER'S RECOMMENDED PRIORITY LIST

3 DEPARTMENT HEADS' PRIORITIZED LIST

4 DEPARTMENTAL CAPITAL REQUESTS FY 17 WITH SUPPORTING MATERIAL

5 FINANCIAL PLANS

6 CAPITAL IMPROVEMENT PLANNING COMMITTEE CHARGE

7

8

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TOWN OF ACTON
472 Main Street
Acton, Massachusetts, 01720
Telephone (978) 929-6611
Fax (978) 929-6350

Steven L. Ledoux
Town Manager

Dear Honorable Board of Selectmen:

Enclosed herein, is the Town Manager's recommended Capital requests for FY 2017. As has been typical for Massachusetts municipalities because of the Constraints of Proposition 2 ½ and other fiscal pressures, replacing and updating assets in a timely fashion has been a challenge. The enclosed capital requests represent an attempt to move important community projects forward such as: the design of Kelley's Corner; Design of a new Senior Center; the painting of Town Hall; a study to determine the best way to link the two upcoming rail trails; and to improve the landscaping at the South Acton Train Station.

In addition, three emergency vehicles are slated in the Ambulance Enterprise Fund as well as the capital listed below from other non-General Fund sources.

As mentioned in the Budget message at the front of this budget document, the need for long term capital planning is becoming more and more essential. It is my hope that we reach consensus on how we can move forward on a method for the long range capital planning, particularly in light of both the Town and Schools facilities assessment studies.

Respectfully Submitted,

Steven L Ledoux

Town Manager

Recommended General Fund Capital	Amount
Paint Town Hall	$162,000
Bike Lane Rail Trail Study	$60,000
Total	$222,000

General Fund Capital to be Bonded	Amount
Kelley's Corner 100% Engineering Design	$756,000
Senior Center Design	$300,000
South Acton Commuter Lot Landscaping	$90,000
Total	$1,146,000

Enterprise Fund Capital to be Bonded	Source	Amount
Engine 24 Replacement	Ambulance Ent. Fund	$650,000
Ambulance	Ambulance Ent. Fund	$245,000
Fire – Vehicle	Ambulance Ent. Fund	$60,000
Total		$2,101,000

Non-General Fund Capital	Source	Amount
Food Service Revolving	New Inspectional Vehicle	$30,000
Transfer Station Enterprise Fund	Yard Tractor Replacement	$90,000
Sewer Enterprise Fund	Capital – Machinery & Equipment	$60,000
Chapter 90	Prospect & Main St. Study	$40,000
Chapter 90	Utility Truck	$90,000
Chapter 90	Parker Street Bridge	$850,000
Energy Efficiency Fund	Complete Street Lights	$52,252
Total		$1,212,252.00

Town of Acton FY 2017 Capital and Personnel Proposals **10/9/2015 2:37 PM**

Department	Department Rank	Project	Total Cost
Council On Aging	1	Senior Center Design	500,000
Engineering	1	Bike Lane - Rail Trail Connection Study	60,000
Engineering	2	Prospect & Main Street Intersection Study	40,000
Engineering	3	Traffic Calming / Complete Street Improvement Project	45,000
Engineering	4	South Acton Commuter Lot Landscaping	180,000
Fire	1	Car 30 Replacement	60,000
Fire	1	Engine 24 Replacement	650,000
Fire	2	Rescue 34 Replacement	245,000
Fire	3	Paramedic Program Startup	70,000
Fire	4	Paramedic School	137,280
Health	1	New Inspectional Vehicle	30,000
Highway	1	Parker Street Bridge Replacement	850,000
Highway	2	New Utility Tool Truck	90,000
Municipal Properties	1	Paint Town Hall	162,000
Municipal Properties	2	Replace Memorial Library Entrance Doors	55,000
Municipal Properties	3	Replace HVAC System at Fire Station 3	555,192
Municipal Properties	4	Replace HVAC System at Fire Station 1	530,000
Municipal Properties	5	Replace HVAC System at Fire Station 2	597,058
Municipal Properties	6	AML Roof & HVAC replacement	1,000,000
Municipal Properties	7	Complete Streetlight Conversion to LED	52,252
Natural Resources	1	Nara Parking Control	150,000
Natural Resources	2	Recreation Van Replacement	50,000
Natural Resources	3	Jones Playground Renovation	150,000
Natural Resources	4	F350 Replacement	54,595
Natural Resources	5	Skate Park Phase II	175,000
Natural Resources	6	Nara Rail Trail Comfort Station	487,500
Natural Resources	7	Miracle Field Comfort Station	652,357
Planning	1	Kelley's Corner Improvement Initiative	756,000
Planning	2	Zoning Bylaw Re-Codification	80,000
Planning	3	LED Public Message Sign	60,000
Sewer	1	Sewer Capital Replacement Plan	60,000
Transfer Station	1	Building Maintenance	35,000
Transfer Station	2	Yard Tractor Replacement	75,000
		Totals	**$8,694,234**

Department	Department Rank	Project	Total Cost
Building	1	New Full Time Building Inspector	82,942
Building	2	New Part Time Administrative Assistant	24,000
Council On Aging	1	Program Coordinator - Additional 5hrs/wk.	7,400
Fire	1	Assistant Chief of Operations/Training	38,500
Fire	1	EMS Coordinator	38,500
Fire	2	Swing Personnel (4)	154,000
Health	1	Community Coordinator Administrative Assistant	25,000
Human Resources	1	New Part Time Administrative Assistant	16,039
Natural Resources	1	Recreation Secretary - Additional 20hrs/wk.	27,000
Nursing	1	Part Time Marketing Liaison	18,200
Planning	1	Assistant Planner	91,000
	1	Recreation Business and Project Manager	55,327
		Totals	**$577,908**

Personnel Improvement Program Proposal – Detail

Department Name	**Building**	***Project***				
		Fiscal Year	**2017**			
Department Head	**Frank Ramsbottom**	***Cost***	**$82,942**			
		Priority	**1**	*of*	**2**	

1. Create new full time building inspector position

2. Useful Life

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

	Schedule Replacement	***Increase Personnel Efficiency***
X	***New or Expanded Service***	***Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)***
	Other (Please Explain)	

4. Justification Over past seven years the state building code has grown from 2 volumes to nine volumes, At the same time the overall scope of the regulations has increased resulting in more permits required where permits were not required previously. There has also been an increase in The level or detail and work where permits were previously required. From 2000 to 2010 the building department averaged 660 permits per year. The most comprehensive codes changes came in 2011. In 2011 – 2013 the building department averaged 977 building permits / year. For 2014 we issued 1227 building permits. So far this year the building department has issued 1143 building permits, that works out to about 1600 permits for the year at the current rate.

While the number of permits has increased the number and type of inspections related to each permit has also increased.

Additionally the requirements for annual periodic inspections required for public buildings and multifamily residential buildings.

In addition to this the demands of the Historic District Commission and the Commission on Disabilities on the building department has also increased.

The additional work to keep up with the permit reviews, building inspections & building code changes make it necessary to add additional staff.

5. How Was this Project's Priority Determined? Proper staffing is necessary for the continued high level of service in the building department.

6. Estimated Cost: $82,942 This includes salary of $59,244 and overhead..

Less Trade-In (If Applicable)

Net Cost

7. Are Non-Town Revenues Available to Reduce Cost? Building department fees.

8. If this Project is Delayed, What will be the Effect on your Department?

Reduced services to the citizens and longer waits for permits and inspections.

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget		***Expense Budget***
Increase	This will result in an increase in the personal budget of $59,244	Increase
Decrease		Decrease

10. Attachments, if Applicable.

Personnel Improvement Program Proposal – Detail

Department Name	**Building**	*Project*			
		Fiscal Year	**2017**		
Department Head	**Frank Ramsbottom**	*Cost*	**$24,000**		
		Priority	**2**	*of*	**2**

1. Create new Part Time Administrative Assistant Position

2. Useful Life

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

	Schedule Replacement	***Increase Personnel Efficiency***
X	***New or Expanded Service***	***Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)***
	Other (Please Explain)	

4. Justification Over past seven years the state building code has grown from 2 volumes to nine volumes, At the same time the overall scope of the regulations has increased resulting in more permits required where permits were not required previously. There has also been an increase in The level or detail and work where permits were previously required. From 2000 to 2010 the building department averaged 660 permits per year. The most comprehensive codes changes came in 2011. In 2011 – 2013 the building department averaged 977 building permits / year. For 2014 we issued 1227 building permits. So far this year the building department has issued 1143 building permits, that works out to about 1600 permits for the year at the current rate.

While the number of permits has increased the number and type of inspections related to each permit has also increased.

Additionally the requirements for annual periodic inspections required for public buildings and multifamily residential buildings.

In addition to this the demands of the Historic District Commission and the Commission on Disabilities on the building department has also increased.

This new and increased work has placed additional demands on the administrative assistant more hours are needed to keep up with the work load. The administrative assistant directly supports the building inspectors, as the building inspectors work increases the admin work also increases.

5. How Was this Project's Priority Determined? Proper staffing is necessary for the continued high level of service in the building department.

6. Estimated Cost: $24,000.

Less Trade-In (If Applicable)

Net Cost

7. Are Non-Town Revenues Available to Reduce Cost? Building department fees.

8. If this Project is Delayed, What will be the Effect on your Department?

Reduced services to the citizens and longer waits for permits and inspections.

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget		***Expense Budget***
Increase	This will result in an increase in the personal budget of $24,000	Increase
Decrease		Decrease

10. Attachments, if Applicable.

Capital Improvement Program Proposal – Detail

Department Name	**Council On Aging**	***Project***	**Senior Center Design**
		Fiscal Year	**2017**
Department Head	**Sharon Mercurio**	***Cost***	**$500,000**
		Priority	**1** *of* **1**

1. Description

Funds for the schematic design, design development, an Owner's Project Manager and budget estimate for a new Senior Center/Human Service building.

2. Useful Life 20 – 30 year +

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

	Schedule Replacement	***Increase Personnel Efficiency***
x	***New or Expanded Service***	***Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)***
	Other (Please Explain)	

4. Justification

The existing Senior Center is inadequate in many ways as it was not originally built as a Senior Center. The lack of parking, program space, private meeting space and the location of the offices continue to be problematic. Renovations to the existing space cannot rectify all of these issues.

The COA works very closely with the Nursing department and the VSO. The Senior Service Coordinator and Community Resource Coordinator perform similar duties but with different age groups. To have all these services located in the same building would be an asset to the community.

5. How Was this Project's Priority Determined?

The senior population in Acton, has more than doubled from 2000 in 1994 when the current Senior Center was built to over 4,400 in 2012, and continues to grow each year. Space restrictions in the existing site limit the ability to offer the wide range of programs and services that seniors request and could benefit from.

6. Estimated Cost ***$500,000***

Less Trade-In (If Applicable)

7. Are Non-Town Revenues Available to Reduce Cost?

Not at present.

8. If this Project is Delayed, What will be the Effect on your Department?

COA programs will continue in an inadequate facility, providing less than optimum services to seniors.

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget		***Expense Budget***	
Increase	x	Increase	x
Decrease		Decrease	

10. Attachments, if Applicable.

Personnel Proposal – Detail

Department Name	**Council On Aging**	***Project***	**Personnel - Program Coordinator 30 to 35 hours per week**
		Fiscal Year	**2017**
Department Head	**Sharon Mercurio**	***Cost***	**$7,400**
		Priority	**1** *of* **1**

1. Description

Increase existing benefitted 30 hour per week Program Coordinator position to 35 hours per week. Expanded programs necessitate the need for an increase in hours.

2. Useful Life N/A

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

	Schedule Replacement	***Increase Personnel Efficiency***
x	***New or Expanded Service***	***Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)***
	Other (Please Explain)	

4. Justification

The Program Coordinator is responsible for planning and supervising multiple programs, activities and trips. With each class or program, the Program Coordinator needs to interview instructors, schedule and publicize events, develop registration and attendance sheets, and determine a funding source (Friends of the Acton COA, operating budget and/or grants). The attendance sheets (which are vital to our data collection) are constantly in flux and keeping them up-to-date has become a time-consuming task. Especially with our ever popular exercise classes.

5. How Was this Project's Priority Determined?

Due to lack of space, the COA is scheduling programs later in the afternoon. The Program Coordinator's current hours do not allow for setting up for these programs, assessing the programs in person, developing a rapport with instructors, or addressing issues that may arise putting that responsibility on others.

6. Estimated Cost ***$7,400***

Less Trade-In (If Applicable)

7. Are Non-Town Revenues Available to Reduce Cost?

Not at present.

8. If this Project is Delayed, What will be the Effect on your Department?

It could result in an increase of stress and burn out within the department as other staff try to accommodate the increasing needs of the seniors. Possibly a decrease in satisfaction from seniors and instructors who do not feel they are getting the attention they need or that their questions and suggestions are heard.

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget		***Expense Budget***
Increase	x	Increase
Decrease		Decrease

10. Attachments, if Applicable. See examples of program calendars.

June

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1 8:30 Aerobics 12:30 Movie 1:00 Poker	**2**
3	**4** 8:30 Stretch and Flex 9:30 Drop-in One Stroke 10:00 Drop in Bridge 12:00 SIGN UPS BEGIN 1:00-3:00 SHINE 1:00 Poker	**5** 8:30/9:45 Aerobics 12:30 Mah Jongg	**6** 8:30 Aerobics 9:00 Watercolor - Last 10:00 Quilting 12:30 Knit/Crochet 1:00 Drop-in Pool	**7** 8:30/9:45 Aerobics 2:00 Volunteer Reception	**8** 8:30 Aerobics 11:45 Deaconess Lunch 12:30 Movie 1:00 Poker	**9**
10	**11** 8:30 Stretch and Flex 9:30 Drop-in One Stroke 10:00 Drop in Bridge 1:00-3:00 SHINE 1:00 Poker	**12** 8:20-11:00 Podiatry Clinic 8:30/9:45 Aerobics 9:30-11:30 Wellness Clinic/BP 11:45 Indian Meal 12:30 Mah Jongg	**13** 8:30 Aerobics 9:00 Drop in Watercolor 10:00 Quilting 11:45 Birthday Lunch 12:30 Knit/Crochet 1:00 Drop-in Pool	**14** 8:30/9:45 Aerobics 11:45 Father's Day Lunch 12:30 The Golden Tones 1:00 Hearing Clinic	**15** 8:30 Aerobics 11:45 Life Care Lunch 12:30 Movie 1:00 Poker	**16**
17	**18** 8:30 Stretch & Flex (last) 9:30 Drop-in One Stroke 10:00 Drop in Bridge 1:00-3:00 SHINE 1:00 Poker	**19** 8:30/9:45 Aerobics 11:45 Meal site 30th Anniversary Party 12:30 Mah Jongg 3:45 COA Board Mtg.	**20** 8:30 Aerobics 9:00 Drop in Watercolor 10:00 Quilting 1:00 Elder Law Program 1:00 Drop-in Pool	**21** 8:30/9:45 Aerobics (last) 1:00 Identity Theft Program	**22** 8:30 Aerobics (last) 12:30 Movie 1:00 Poker	**23**
24	**25** 9:30 Drop-in One Stroke 10:00 Drop in Bridge 1:00-3:00 SHINE 1:00 Poker	**26** 9:30-11:30 Wellness Clinic/BP 12:30 Mah Jongg 1:00 Chiropractic Program	**27** 8:00am Trip to Newport 9:00 Drop in Watercolor 10:00 Quilting 12:30 Knit/Crochet 1:00 Drop-in Pool	**28**	**29** 12:30 Movie 1:00 Poker	**30**

2007

June 2015

Mon	Tue	Wed	Thu	Fri
1 8:30-9:30 Active Aging 9:30-11:00 Drop-in Art 9:30-11:30 Drop-in Bridge 10:00-11:30 Watercolor Class **1:00 Program Registration Begins** 1:00-4:00 SHINE 3:30-5:00 Beat the Blues	**2** 8:30-9:30 Senior Fitness 9:00 Golf@Quail Ridge 9:45-10:45 Active Aging 11:00-12:00 Beginner Tai Chi 2:30-3:30 Stretch and Flex	**3** 8:30-9:30 Senior Fitness 9:30-11:00 Drop-in Art 10:00-10:30 Chair Exercise 10:45-12:15 Yoga 12:30-2:15 Yarn & Thread Ladies 2:30-4:30 Drop-in Bridge	**4** 8:30-9:30 Senior Fitness 9:45-10:45 Active Aging 11:00-12:00 Senior Tai Chi 11:00-11:30 Chair Exercise 11:45 Town Employees Lunch 1:00/2:00 Beg./Inter. Chess Class 2:00-4:00 Chess Club Match	**5** 8:30-9:30 Senior Fitness 9:30-11:00 One Stroke - last 10:00-10:45 Zumba 12:30-2:15 Movie
8 8:30-9:30 Active Aging 9:30-11:00 Drop-in Art 9:30-11:30 Drop-in Bridge 10:00-11:30 Watercolor Class 12:30 Friends of the COA Mtg. 1:00-4:00 SHINE 3:30-5:00 Beat the Blues **4:00 Exercise Registration Deadline**	**9** 8:30-9:30 Senior Fitness 9:00 Golf@Quail Ridge 9:00-11:00 Wellness Clinic/BP 9:45-10:45 Active Aging 10:00-2:30 Taza Chocolate Trip 11:00-12:00 Beginner Tai Chi 2:30-3:30 Stretch and Flex	**10** 8:30-9:30 Senior Fitness 9:30-11:00 Drop-in Art 10:00-10:30 Chair Exercise 10:45-12:15 Yoga 11:45 Newbury Ct/Birthday Lunch 12:30-2:15 Yarn & Thread Ladies 1:30-3:00 Computer Club 2:30-4:30 Drop-in Bridge	**11** 11:00-12:00 Senior Tai Chi 11:00-11:30 Chair Exercise 1:00-2:00 Concord Players 1:00/2:00 Beg./Inter. Chess Class-last 2:00-4:15 Chess Club 2:30-3:15 Meditation	**12** 8:00 Exercise Class Lists Posted 8:30-9:30 Senior Fitness 10:00-10:45 Zumba 1:00-2:30 Genealogy
15 9:30-11:00 Drop-in Art 9:30-11:30 Drop-in Bridge 10:00-11:30 Watercolor Class 1:00-2:00 Laughter Yoga 1:00-4:00 SHINE 3:30-5:00 Beat the Blues - last	**16** 8:30-9:30 Senior Fitness - last 9:00 Golf@Quail Ridge 9:45-10:45 Active Aging- last 11:00-12:00 Beginner Tai Chi - last 11:45 Benchmark/RB Lunch 12:30-1:30 The Little Wars 2:30-3:30 Stretch and Flex- last	**17** 8:30-9:30 Senior Fitness - last 9:30-11:00 Drop-in Art 10:00-10:30 Chair Exercise 10:45-12:15 Yoga- last 11:45 MMSS Father's Day Lunch 12:15 Ice Cream Social 12:30-2:15 Yarn & Thread Ladies 2:30-4:30 Drop-in Bridge	**18** 8:30-9:30 Senior Fitness - last 9:45-10:45 Active Aging- last 11:00-12:00 Senior Tai Chi - last 11:00-11:30 Chair Exercise - last 12:30-2:00 Trivia Contest 2:00-4:00 Chess Club Match 3:00-4:00 Clear the Clutter	**19** 8:30-9:30 Senior Fitness - last 9:00 Breakfast 10:00-10:45 Zumba - last 10:30-11:30 Tablet Support Group 12:30-2:10 Movie
22 9:30-11:30 Drop-in Bridge 9:30-11:00 Drop-in Art 10:00-11:30 Watercolor - last 1:00-4:00 SHINE 2:30 COA Board Meeting	**23** 8:30-9:30 Senior Fitness Begins 9:00 Golf@Quail Ridge 9:45-10:45 Active Aging Begins 9:00-11:00 Wellness Clinic/BP 1:00-3:00 Ask the Lawyer 1:00-2:30 Retirement Planning	**24** 8:30-9:30 Senior Fitness Begins 9:30-11:00 Drop-in Art 10:00-10:30 Drop-in Chair Exercise 12:30-2:15 Yarn & Thread Ladies 1:30-3:00 Computer Club 2:30-4:30 Drop-in Bridge	**25** 8:30-9:30 Senior Fitness Begins 9:45-10:45 Active Aging Begins 1:00-2:30 Kite Making Class 2:00-4:15 Chess Club 2:30-3:15 Meditation	**26** 12:30-2:20 Movie
29 8:30-9:30 Active Aging Begins 9:30-11:30 Drop-in Bridge 9:30-11:00 Drop-in Art 12:30-1:30 History of Britain DVD 1:00-4:00 SHINE	**30** 8:30-9:30 Senior Fitness 9:00 Golf@Quail Ridge 9:45-10:45 Active Aging	**July 1** 8:30-9:30 Senior Fitness 9:30-11:00 Drop-in Art 10:00-10:30 Drop-in Chair Exercise 11:45 MMSS 4th of July Lunch 12:30-2:15 Yarn & Thread Ladies 2:30-4:30 Drop-in Bridge	**2** 8:30-9:30 Senior Fitness 9:45-10:45 Active Aging 12:30-1:30 History of Britain DVD 2:00-4:15 Chess Club	**3** **COA Closed**

Capital Improvement Program Proposal – Detail

Department Name	**Engineering Department**	***Project***	**Prospect & Main Street Intersection Study**
		Fiscal Year	**2017**
Department Head	**Corey York**	***Cost***	**$40,000**
		Priority	*of*

1. Description

This project will fund the traffic study to analyze and propose roadway improvements on Main Street at the intersection with Prospect Street. The traffic study will include the collection and analysis of the existing conditions, projections for future traffic growth and public input. The consultant will then formulate a final report incorporating all this information to recommend improvements that will improve safety and enhance the overall movement of all modes of transport at this location.

2. Useful Life 30 years

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

Schedule Replacement		***Increase Personnel Efficiency***	
New or Expanded Service		***Replace Obsolete or Unsafe Infrastructure***	***x***
Other (Please Explain)			

4. Justification

The intersection of Main Street and Prospect Street was identified in the Town's Master Plan with one of the higher accident rates. It has also been the target of many residents concerns as traffic has been discussed at other public forums. Based on our analysis of the recent accident history from the Police Department, we noted the Main/Prospect Street intersection is one of our next highest priority locations for an un-signalized, town-controlled intersection.

5. How Was this Project's Priority Determined?

Safety

6. Estimated Cost ***$40,000***

Less Trade-In (If Applicable) ***Na***

Net Cost ***$40,000***

7. Are Non-Town Revenues Available to Reduce Cost?

8. If this Project is Delayed, What will be the Effect on your Department?

The existing traffic conditions will continue as they exist today

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget		***Expense Budget***	
Increase	None	Increase	none
Decrease	None	Decrease	none

10. Attachments, if Applicable.

Capital Improvement Program Proposal – Detail

Department Name	**Engineering Department**	***Project***	**Prospect & Main Street Intersection Study**
		Fiscal Year	**2017**
Department Head	**Corey York**	***Cost***	**$40,000**
		Priority	*of*

10. Attachments, if Applicable.

PUBLIC INFRASTRUCTURE IMPROVEMENT PLAN

The Town of Acton, Massachusetts, through its Engineering Department, would like to request proposals for professional traffic planning and preliminary design services. These services are to be performed by a qualified traffic planning and engineering firm (The Consultant) to identify suitable and effective improvements at these intersections that will enhance the operation and safety of the intersections, minimize the potential impacts on the nearby residential neighborhoods and intersections along Route 27 while improving mobility for all modes of transport in accordance with our Complete Streets policy.

III. SCOPE OF SERVICES

1. OVERVIEW

The services to be performed by the consultant shall include, but not necessarily be limited to those outlined in the scope of services.

The Consultants shall use the Tasks listed below as a guideline when formulating their proposals. However consultants are encouraged to propose appropriate changes which in their professional opinion would better achieve the specific project objectives and enable them to deliver a superior product.

2. TASKS AND WORK SCHEDULE

Task 1. Review Existing Information

Utilize previous plans and studies to the extent practicable. In addition, http://www.acton2020.info/ contains information about the Acton 2020, Acton's recently completed Comprehensive Community Plan. Acton 2020 outlines goals and objectives specifically relating to Acton Center, transportation and public safety. The Town of Acton home page http://www.acton-ma.gov/ has general information on the Town of Acton. The Town of Acton Geographic Information System is at http://www.acton-ma.gov/gis.

Task 2. Hold public meeting to obtain input from citizens.

Hold an initial public meeting. The Town is looking to continuously engage many of its residents who usually do not participate in Town affairs and to reach out to all stakeholders; property owners, neighbors, etc. The Consultant will record the concerns and ideas of the public and answer questions concerning the study scope and methods. This should include but not be

limited to the method of traffic data/count collection including the statistical confidence limits of this data as it applies to this study, utilization of existing information. The Consultant should use effective and efficient methods of gathering informed public input throughout the planning process.

Task 3. Prepare list of possible options (including no build option)

The Consultant's list of possible options shall give due consideration to suggestions made at the public meeting. Provide Acton and all stakeholders with a clear understanding of existing conditions and future projections. Assess the condition of the existing infrastructure and identify potential improvement(s). The Consultant shall provide a preliminary cost estimate of the options being considered. Within the cost estimate, the Consultant should identify and prioritize public infrastructure improvement elements by need, safety and cost. Some consideration should be given to the feasibility of burying/relocating of existing utilities.

Task 4. Update previous traffic counts, accident history and take counts/accident history in additional locations

The Town of Acton anticipates that the Consultant will conduct traffic counts when schools are in session with a full schedule of extracurricular activities. Turning counts shall include morning and afternoon peak counts.

Counts of each intersection within the study area shall be conducted at the same times and dates to assure consistency of the data. Details of the proposed data collection proposed by the consultant shall be fully described in the proposal.

Accident data shall be collected for all the intersections in the study area.

Task 5. Consider changes in the area since previous studies

The Consultant should determine the addition of any new developments in the area that might have a significant impact on the study area such as the new commuter rail station. Mitigation measures, if warranted, shall be proposed. Sources of possible funding for this work should be identified.

Task 6. Explore the impact of each option (including no build option) on the surrounding neighborhood and nearby roads and intersections.

The impacts to be considered for each option in this area include: blocking of nearby intersections caused by changes, increase/decrease in cut-through traffic, changes in vehicle speed, impact on accident rates, plus impacts raised at the public meeting that can be professionally addressed by a Traffic Planning and Engineering Consultant.

Task 7. Hold Public Information meeting to review the options considered.

Task 8. Prepare final report with recommendations and present to the Town

The Consultant shall fully detail the options considered, including the no build option, with the advantages and disadvantages for each. Within the parameters of the Traffic Planning Profession, the Consultant shall provide a cost/benefit analysis for the options considered.

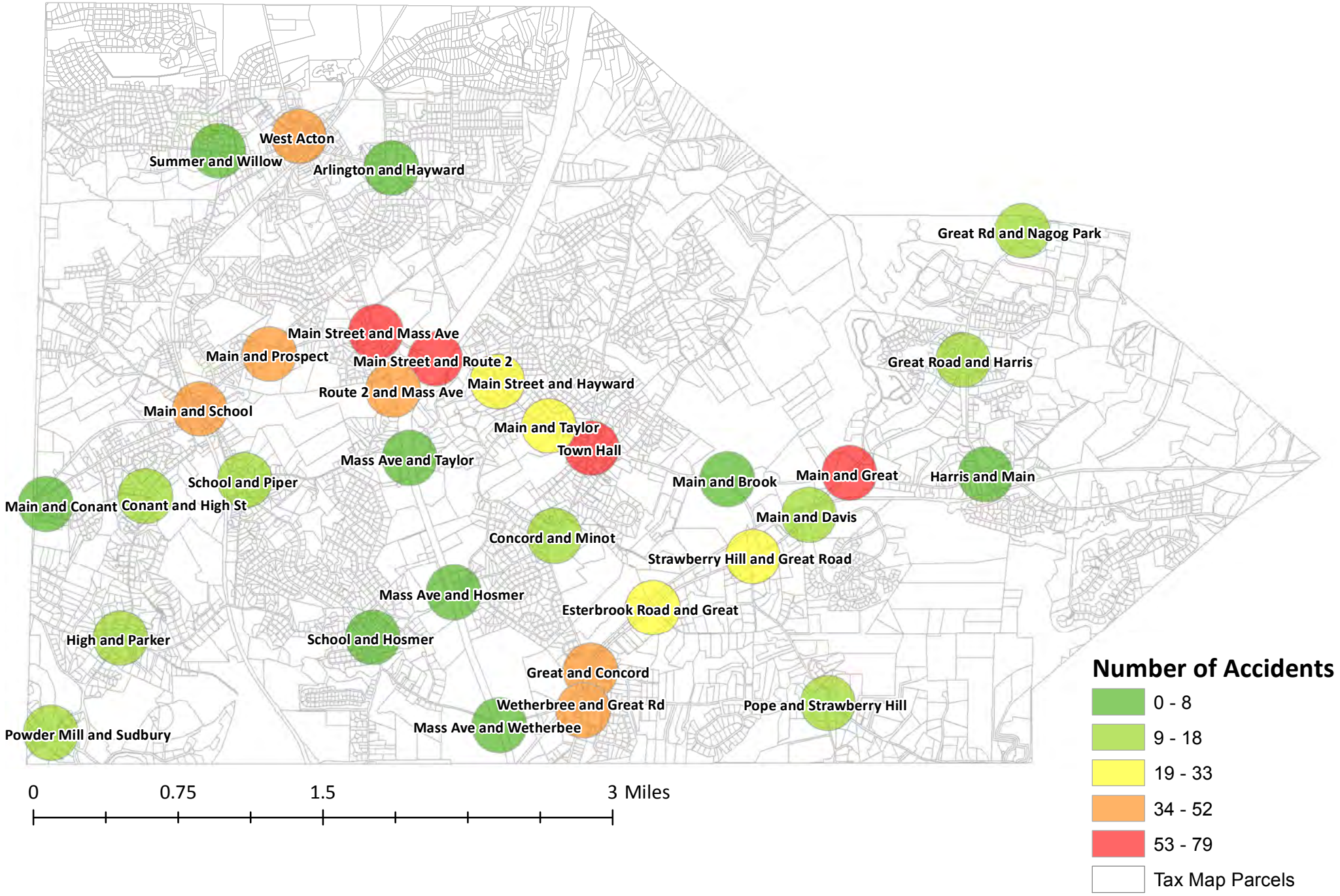
Property Information

Property ID
Location

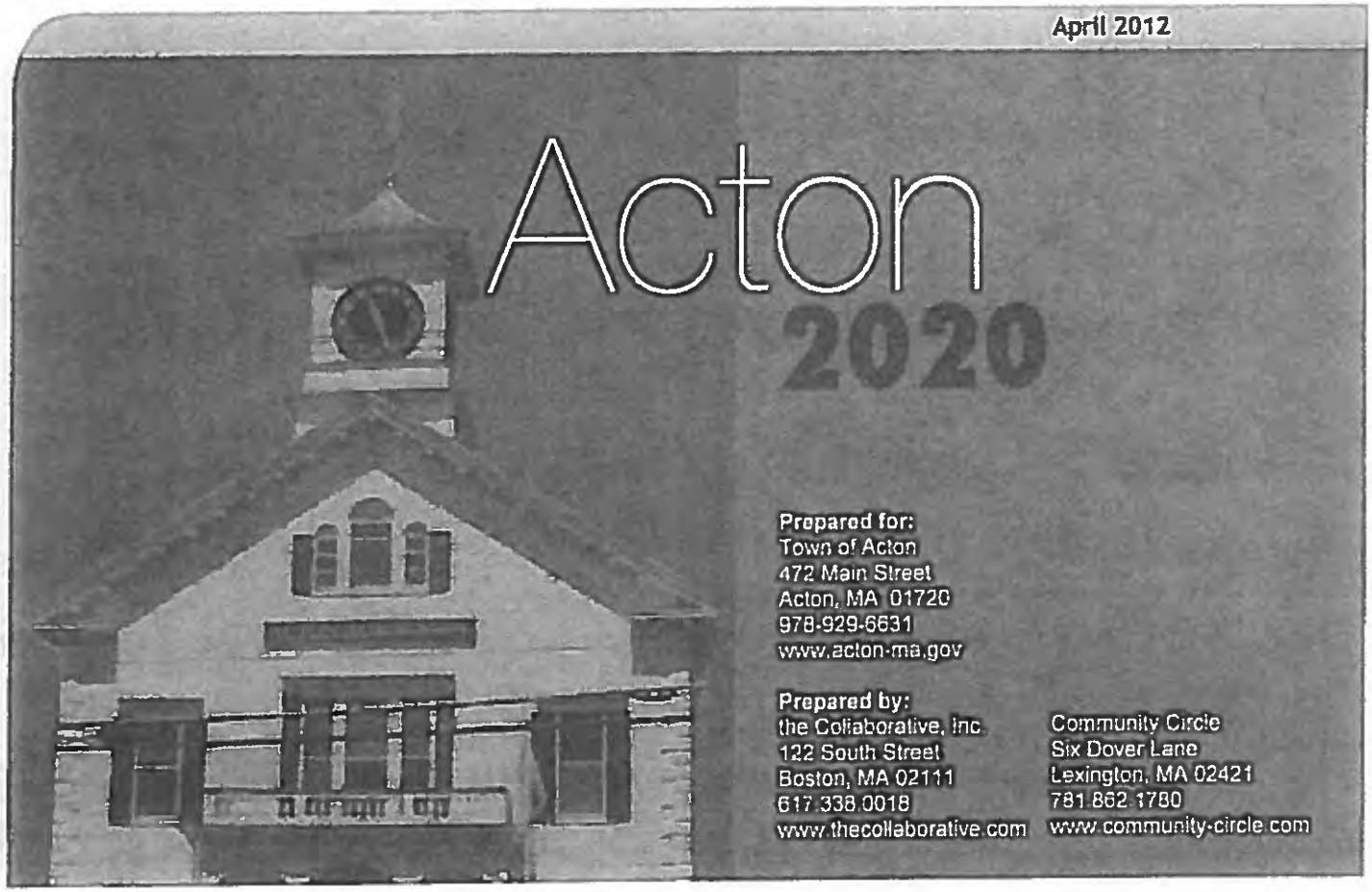
MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT

This data set/map is for planning purposes only and should not be used for larger scale analysis. The Town of Acton shall not be held liable for any use of the data or images shown on this map, nor is any warranty of accuracy expressed. All uses of this data set/map are subject to field verification.

Acton, MA Accidents by Intersection 2010-2013



Acton 2020 Comprehensive Community Plan



Today. Tomorrow. Together.

Goals and Objectives

GOAL 1:	**Preserve and Enhance Town Character**
Objective 1.1:	Strengthen planning tools to manage growth pro-actively.
Objective 1.2:	Preserve and enhance key centers.
Objective 1.3:	Preserve rural characteristics and open space.
Objective 1.4:	Preserve historic buildings and landscapes.
Objective 1.5:	Foster an understanding and appreciation for what makes Acton unique, including its history.
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Objective 2.1:	Protect the quality and quantity of Acton's water.
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Objective 2.3:	Reduce emissions of carbon dioxide and other greenhouse gases.
Objective 2.4:	Move toward patterns of land use and land protection that support broad biodiversity, soil preservation, and healthy local agriculture.
GOAL 3:	**Improve Connections**
Objective 3.1:	Make walking and biking easier and safer.
Objective 3.2:	Improve transportation around Town.
Objective 3.3:	Promote communication among Town govern ment, citizens, schools, and the business community.
Objective 3.4:	Support and strengthen neighborhoods.
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Implementation Strategies for:

GOAL 3 Improve Connections

Goal Statement:

We recognize that a community that is connected is safer, stronger, and provides more opportunities for meaningful interaction. We envision supporting these connections through physical means including sidewalks, bike paths, trails and public transportation to connect people and places, and to support independent and safe travel for all. We also envision open communication as a means to further connect residents (e.g. through the web, cable TV, community bulletin boards, etc.)

Relationship to Vision

Actonians expressed a strong desire to improve connections, both physical and virtual, so that they have safe and pleasant ways to travel and so that communication is improved. Residents recognized that extending sidewalks, providing safe biking and extending the Town shuttle improve connections between people and places, provide opportunities to meet fitness and wellness goals, and takes better care of the environment. The strategies listed under this goal are ways of addressing these needs and desires.

Overview of Priority Action Steps

The following were identified as priority action steps to meet this goal.

- Construct new sidewalks according to the sidewalk priority list. Follow the sidewalk design guidelines when constructing new sidewalks or updating existing ones.
- Continue to fund the MinuteVan shuttle, and later expand the system with more vehicles, more frequent service, and longer service hours. Consider making it a fixed route system.

> "A shuttle should absolutely be available all day for all citizens with frequent runs. Teenage use should be promoted."
>
> Acton Resident

GOAL Improve Connections cont.

Youth Art Contest Winners:

Luca Ilic

"My artwork is a drawing of me (at bottom) thinking of 4 ways to improve transportation and connections around Town."

Meghna Sundaram

"Goal 3.2. & 3.3.: Improve Transportation around Town using existing resources and improve communication

Goal 6 & 7: Manage Town facilities efficiently by reusing buses. Promote fiscal responsibility - lesser Town vehicles to maintain."

Peter Busse

"Picture of a boy on a bike."

Goal 3: Improve Connections		
Objective 3.1: Make walking and biking easier and safer.	**Priority/Timing**	**Owner**
Strategy 3.1.1: Build appropriate sidewalks See Also: Village-specific sidewalk guidelines Non-motorized access to open space		
Action Item 3.1.1.1: Maintain sidewalk priority list Continue to update the Sidewalk Construction Priority List. Emphasize projects that provide safe access to schools, recreation areas, the train station, and the villages, particularly the designated growth centers. As public transportation options grow, provide sidewalk access to transit access spots. See Also: Non-car access requirements in commercial development Village-specific sidewalk guidelines	Ongoing	Sidewalk Committee
Action Item 3.1.1.2: Construct more sidewalks Construct new sidewalks according to the priority list. Follow the *Guidelines for Acton Sidewalk Design* when constructing new sidewalks or updating existing ones.[1] **$**	Highest Ongoing	Engineering Department
Action Item 3.1.1.3: CPA funding for some sidewalks Investigate opportunities to use CPA funds for some sidewalk connections. Consider historic characteristics or recreational opportunities. See Also: Document and prioritize rural characteristics **$**	Short-Term	Planning Department Sidewalk Committee
Strategy 3.1.2: Increase opportunities for safe biking See Also: Non-motorized access to open space		
Action Item 3.1.2.1: Planning for bicycle improvements Develop guidelines for bike lanes and off-road paths. Identify locations and develop a construction plan for off-road multi-use paths and bike lanes to improve the ability of people to bicycle to destinations in Town.	2nd Highest Short-Term	Transportation Advisory Committee
Action Item 3.1.2.2: Assabet River Rail Trail Complete the construction of the Assabet River Rail Trail. Need to influence MassDOT and Boston MPO.	Ongoing	Planning Department
Action Item 3.1.2.3: Bruce Freeman Rail Trail Complete the construction of the Bruce Freeman Rail Trail. Need to influence MassDOT and Boston MPO.	Ongoing	Planning Department

			Action Item 3.1.2.4: Connect ARRT and BFRT Explore ways to connect the Assabet River Rail Trail and the Bruce Freeman Rail Trail.	Long-Term	Planning Department Transportation Advisory Committee
			Action Item 3.1.2.5: Provide more bike racks Locate bike racks where feasible and where they will be used.	Short-Term	Planning Department
			Action Item 3.1.2.6: Multi-use path planning Identify locations for off-road multi-use paths, bike lanes, and wider shared lanes and shoulders where appropriate to improve the ability of people to bicycle to destinations in Town. Prepare town-wide recommendations for locations, and construct improvements.[2] $	2nd Highest Medium-Term	Engineering Department Planning Department Transportation Advisory Committee
			Action Item 3.1.2.7: Multi-use paths through open space Consider making some paths in town open space usable by bikes, wheelchairs and strollers, in order to create safe bicycle paths between neighborhoods and other destinations. $	Long-Term	Transportation Advisory Committee
			Action Item 3.1.2.8: Developers provide off-road multi-use paths Increase the requirement in the subdivision regulations for developer contributions to off-road multi-use paths and sidewalks.	Medium-Term	Planning Board Planning Department
		Strategy 3.1.3: Improve communications about walking and biking paths			
			Action Item 3.1.3.1: Update pedestrian and bike maps Keep maps current showing sidewalks, bike paths and hiking paths. Make these available on the town website. Consider providing updated information to Google Maps for incorporation in their database.	2nd Highest Short-Term	Engineering Department Land Stewardship Committee
			Action Item 3.1.3.2: Non-car access requirements in commercial development Consider incorporating requirements for pedestrian and bicycle accommodation in new commercial development.[3]	Medium-Term	Planning Department

Action Item 3.1.3.3: Pedestrian safety at town facilities Improve accessibility and safety at Town facilities, particularly the libraries and schools, for pedestrians, people with wheelchairs, and bicyclists. $	Short-Term	Municipal Properties
Action Item 3.1.3.4: Increase awareness regarding sharing the road issues Provide outreach to drivers and cyclists to increase awareness of their responsibility to share the road safely.	Short-Term	Transportation Advisory Committee
Objective 3.2: Improve transportation around town.		
Strategy 3.2.1: Provide and encourage public transportation See Also: Concentrate growth Provide more transportation service for seniors Teen activities accessible without cars		
Action Item 3.2.1.1: Expand MinuteVan Expand the MinuteVan shuttle system with more vehicles, more frequent service, and longer service hours. Provide more options for the disabled community. Consider making it a fixed route system.[4] $$(operating cost)	Highest Medium-Term	Selectmen Transportation Advisory Committee
Action Item 3.2.1.2: Coordinate MinuteVan and CoA Van Coordinate the MinuteVan and Council on Aging shuttles, and consider combining them into a single system with both fixed route and demand-responsive capabilities.[5]	Short-Term	Selectmen
Action Item 3.2.1.3: Coordinate shuttles with neighboring communities Consider opportunities to work with neighboring communities to expand ridership of the shuttles.[6]	Medium-Term	Manager Department Selectmen Transportation Advisory Committee
Action Item 3.2.1.4: Public/private funding for shuttle Explore public/private funding opportunities for the expanded shuttle system.[7]	Medium-Term	Selectmen Transportation Advisory Committee

		Action Item 3.2.1.5: Increase resident use of commuter rail Increase the number of Acton residents who use the commuter rail system.[8] **See Also:** Consider ways to increase the amount of parking at the train station.	New Sustained Effort	Planning Department Transportation Advisory Committee
		Action Item 3.2.1.6: Consider ways to increase the amount of parking at the train station	2nd Highest Medium-Term	Transportation Advisory Committee
	Strategy 3.2.2: Improve traffic circulation and reduce traffic impacts **See Also:** Organize web-based car pooling and ride sharing Increase resident use of commuter rail			
		Action Item 3.2.2.1: Traffic and parking in centers Address local traffic circulation and parking in planning for key centers.	Short-Term	Planning Department
		Action Item 3.2.2.2: Reconfigure street layouts Consider reconfiguring specific street layouts to provide alternate routes for congested areas and/or one-way streets to improve traffic flow.	Long-Term	Planning Department Selectmen
		Action Item 3.2.2.3: Traffic calming Consider traffic calming at locations where speeds are inconsistent with residential areas and village centers. $	Medium-Term	Engineering Department
		Action Item 3.2.2.4: Improve Business access Continue to make improvements to business access and transportation safety. $	Ongoing	Selectmen
	Strategy 3.2.3: Work with MassDOT to improve access to and from Acton			
		Action Item 3.2.3.1: Concord Rotary improvements Work through the Boston Metropolitan Planning Organization to promote the completion of planned improvements at the Concord Rotary.[9]	Long-Term	Selectmen
		Action Item 3.2.3.2: Improve commuter rail Work with the MBTA and surrounding communities to promote continued and improved commuter rail service.	Ongoing	Manager Department

	Action Item 3.2.3.3: Regional public transit Work through the Boston MPO to explore regional public transportation options. See Also: New Regional Transit Authority	Long-Term	Planning Department Selectmen
	Action Item 3.2.3.4: New Regional Transit Authority Work with MassDOT and surrounding communities to explore the formation of a Regional Transit Authority. See Also: Regional public transit	Long-Term	Manager Department
Objective 3.3: Promote communication among town government, citizens, schools, and the business community.			
	Strategy 3.3.1: Promote citizen engagement in town government Promote active engagement of citizens and the transparency of town government. Improve communication and centralized information regarding existing resources and events. See Also: One-stop reservations and calendar More multilingual staff and materials		
	Action Item 3.3.1.1: Publicize town information sources Continue to disseminate information about existing Town resources and services, such as Dial-a-Ride and Social Safety Net, using the Town Website, mailings, and posters/flyers at locations such as the Senior Center, libraries, and on shuttle vehicles.	Ongoing	Memorial Library
	Action Item 3.3.1.2: Citizen's academy Encourage citizen education efforts such as the formation of an Acton Citizens Academy providing classes, information, and events, where participants (both newcomers and established residents) learn about the different functions of local government including volunteer opportunities.[10]	Ongoing	Citizens and citizen groups
	Action Item 3.3.1.3: Usable video archives of key meetings Broadcast meetings of key boards (Board of Selectmen, School Committee, Finance Committee, Planning Board) and place copies of these broadcast videos on the Town website.	Ongoing	Acton TV
	Strategy 3.3.2: Attract more volunteers to help with town affairs by conducting broad-based outreach.		
	Action Item 3.3.2.1: Publicize volunteer opportunities. Use town website and other Acton media to publicize volunteer opportunities.	Short-Term	Volunteer Coordinating Committee
	Action Item 3.3.2.2: More flexibility in volunteer opportunities Provide flexibility in scheduling/timing of volunteer opportunities and consider creating opportunities for shorter-term volunteering (single event, single task, etc).	Short-Term	Volunteer Coordinating Committee

	Objective 3.4: Support and strengthen neighborhoods. **See Also:** Make walking and biking easier and safer Outdoor spaces near neighborhoods				
			Action Item 3.4.1: Encourage private efforts to organize neighborhoods Encourage private efforts to organize communication among neighbors and group activities.[11]	Short-Term	Citizens and citizen groups
			Action Item 3.4.2: Provide contact info for new residents to connect with organized neighborhood groups.	Short-Term	Memorial Library
			Action Item 3.4.3: Encourage the business community to organize providing new residents with business information, such as provided by Welcome Wagon(tm) in other communities.	Short-Term	Economic Development Committee

[1] See Guidelines for Acton Sidewalk Design at http://www.acton-ma.gov/DocumentView.aspx?DID=856

[2] The primary purpose of these improvements is transportation rather than recreational cycling.

[3] Pedestrian and bicycle accommodation includes safe walkways from the public sidewalk to building entrances and bike racks.

[4] The system could have stops but also route deviations on either side of the fixed routes. Stops could include the train station, the schools, Kelley's Corner, West Acton Village, Acton Center, East Acton, and the proposed community center. The CoA shuttle can specialize in demand-responsive service and destinations outside Acton

[5] The expanded MinuteVan could become a scheduled fixed route system with limited deviations from the route in response to customer requests, the CoA shuttle is a door-to-door on-request service.

[6] Coordination can include high traffic destinations such as the commuter rail station and Emerson Hospital

[7] An example is the joint funding of Lexington's Lexpress shuttle by the town and developers (including Avalon).

[8] Ways to encourage commuter rail ridership include:

- Complete the connection of the Assabet River Rail Trail to the commuter rail station to encourage commuting by bicycle
- Consider guiding growth to South Acton near the station (see Objective 1.1).
- Develop partnerships with local businesses to provide van shuttles to the train station.
- Facilitate car-pooling to the station.

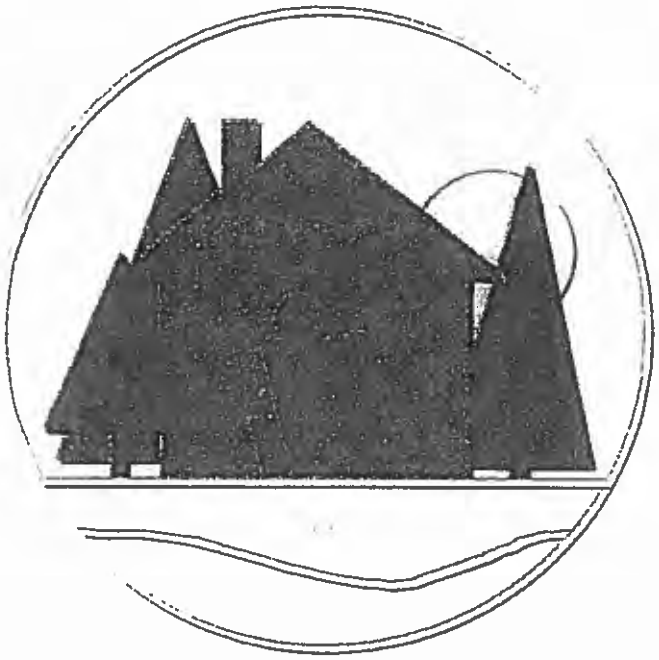
[9] The Boston MPO process for updating the regional transportation plan and Transportation Improvement Program is one means to increase priority for the Concord Rotary project. The project would reduce cut-through traffic caused by back-ups as well as provide the access needed for economic development.

[10] The League of Women Voters has been doing education in this area for some time.

[11] Communication and interaction among neighbors might include email lists, Google groups, newsletters, etc. Group activities might include block parties, neighborhood books groups, walking groups, etc.

Master Plan Update

Town of Acton, Massachusetts



Acton Planning Board
December 1998

Consulting Assistance Provided By:

Whiteman & Taintor
LandUse, Incorporated
TAMS Consultants, Inc.
and
Howard/Stein-Hudson Associates, Inc.

Action SF-2 Plan and implement new construction, and expansions and renovations of the elementary school, junior and senior high schools. Continue community deliberations to reach agreement on implementing improvements to schools.

Action SF-3 Plan and implement sewer service for West Acton Village and East Acton Village.

Action SF-4 Continue assisting the Water District in promoting water-conserving practices throughout Acton, with special attention to low water using landscape techniques.

Action SF-5 Incorporate in the site plan review process standards and criteria relating to the use of low water landscape techniques .

Action SF-6 Continue assisting the Water District in achieving needed raising of the cap on water withdrawal.

Action SF-7 Continue assisting the Water District in its efforts to develop new sources of water for the community.

Action SF-8 Schedule and carry out an examination of the needs for a second facility to serve seniors, and implement the resulting recommendations.

Traffic and Circulation

Action TC-1 Implement safety studies to identify appropriate improvements at the Route 2/Massachusetts Avenue intersection.

Action TC-2 Implement a program in coordination with the local or state police department to track accident trends in different areas of town.

Action TC-3 Implement studies of accidents at highest accident locations on a regular basis to develop design improvements at these locations.

Action TC-4 Develop a town wide traffic calming program to discourage cut-through traffic and enhance the residential environment. Establish guidelines for the specific villages, and explore the possibility of incorporating into the village zoning bylaws.

Action TC-5 Conduct a comprehensive study of Route 27 from Great Road to High Street.

Action TC-6 Conduct a comprehensive study of Route 2A from the Concord Town Line to the Littleton Town Line.

Action TC-7 Monitor traffic operations and accident frequency at completed roadway improvement locations.

Town of Acton
Master Plan

RECEIVED
AUG 20 1991
ACTON ENGINEERING DEPT.

February 1991

Prepared For:

Town of Acton
Acton, Massachusetts

Prepared By:

IEP, Inc.
6 Maple Street
Northborough, Massachusetts 01532
(508) 393-8558

and

Vanasse Hangen Brustlin, Inc.
101 Walnut Street
Watertown, Massachusetts 02172
(617) 924-1770

in cooperation with:

The Town of Acton
Planning Department

and

The Planning Council of the
Town of Acton

Table 3

Accident Summary 1984 to 1987

Location	Accidents Per Year	Possible Cause
Route 111 at Central Street	30	• Lack of appropriate traffic control (signalization) • Limited sight distance for exiting Central Street southbound
Route 27 at Route 111 (Kelley's Corner)	23	• Multiple curb cuts on intersection approach and departure lanes • Lack of exclusive turn lanes • Advance warning signs on Route 27 in disrepair
Route 27 at Routes 2A/119	17	• Outdated post-mounted traffic signal layout provides poor visibility • Undefined right-turn lane on Route 27 southbound at Shell Station
Route 2 at Taylor Road and Piper Road	16	• High volume intersection • Free right-turn lane on Route 2 eastbound approach leads to single lane departure • Old signal installation • Inadequate signing and signal head indications
Route 2 Ramps at Route 27	14	• Heavy side street volumes merging with high volume main-line traffic flows
Route 2 at School and Wetherbee Street	14	• Side street volumes crossing heavy mainline traffic flows
Route 27 at Concord Road and Newtown Road	13	• Side street vehicles using unsafe gaps to turn onto Route 27

Capital Improvement Program Proposal – Detail

Department Name	**Engineering Department**	***Project***	**Bike Lane Safety Rail Trail Connection Study**
		Fiscal Year	**2017**
Department Head	**Corey York**	***Cost***	**$60,000**
		Priority	*of*

1. Description

This project will fund a feasibility study to analyze existing routes and develop a safe bike route that connects the Assabet River Rail Trail to the Bruce Freeman Rail Trail. This feasibility study would be used to advance the project to a final design.

2. Useful Life 30 years

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

Schedule Replacement		***Increase Personnel Efficiency***	
New or Expanded Service		***Replace Obsolete or Unsafe Infrastructure***	***x***
Other (Please Explain)			

4. Justification

Improving bike lane safety in Town and a plan to connect the Bruce Freeman and Assabet River Rail Trails was identified as their second short term goal as voted on July 8, 2005. This study will identify the most preferred route that will improve safety and enhance the overall movement of all modes of transport through these areas.

5. How Was this Project's Priority Determined?

Safety

6. Estimated Cost ***$60,000***

Less Trade-In (If Applicable) ***Na***

Net Cost ***$60,000***

7. Are Non-Town Revenues Available to Reduce Cost?

8. If this Project is Delayed, What will be the Effect on your Department?

The existing traffic conditions will continue as they exist today

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget		***Expense Budget***	
Increase	None	Increase	none
Decrease	None	Decrease	none

10. Attachments, if Applicable.

TOWN OF ACTON
472 Main Street
Acton, Massachusetts, 01720
Telephone (978) 929-6611
Fax (978) 929-6350

Steven L. Ledoux
Town Manager

To: Board of Selectmen
From: Steven L. Ledoux, Town Manager
Date: July 9, 2015
Re: Final Results of Goal Setting

The Board of Selectmen met to set annual goals, utilizing the Nominal Group Technique on July 8, 2015.

Goals were divided into Short and Long Term. Short Term being defined as something that can be accomplished within the year and Long Term defined as taking more than one year to accomplish.

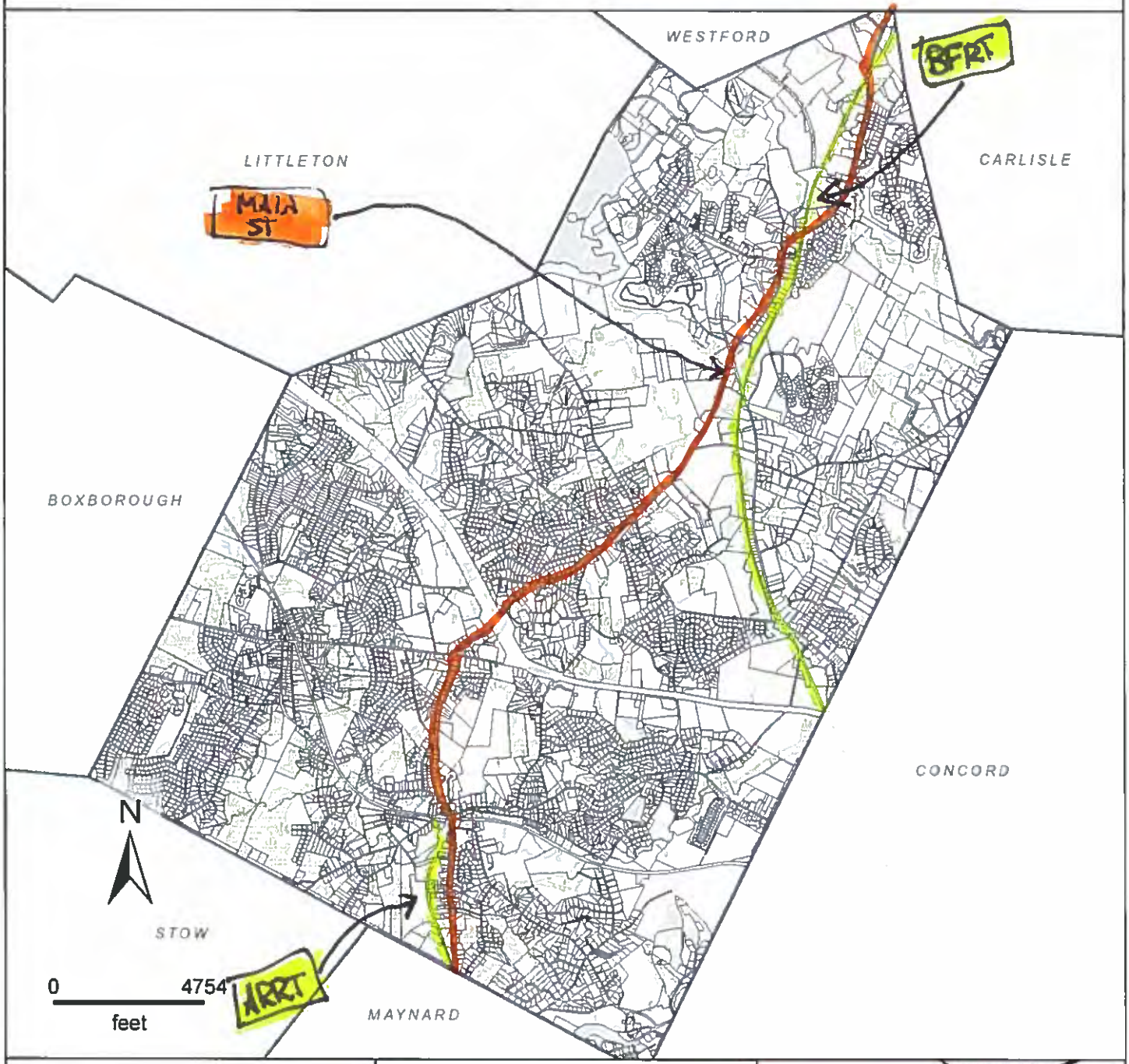
SHORT TERM GOALS

1. (Tie) (9 Points)
   - Start Overhaul of the Town Website
   - Bring the Senior Center Study Committee Proposal to Spring Town Meeting
2. (7 Points)
   - Improve Bike Safety in Town and a Plan to Connect the Bruce Freeman Rail Trail and the Assabet River Rail Trail also Look at Bike Trails for Great Hill, Route 27 and the Schools
3. (6 Points)
   - Activate a Committee for the North Acton Fire Station Task Force and Update Charge
4. (Tie) (5 Points)
   - Resolve the Walker Property purchase/litigation and determine re-use for the property
   - Complete Study for West Acton Sewer and Commence implementation
   - Implement and Evaluate the Fixed Route Shuttle, Evening and Weekend Solutions and Utilize a Smaller Vehicle
5. (Tie) (4 Points)
   - Create a Voluntary Email List used for Surveys and General Information
   - Implement Goals of Housing Production Plan
   - Pass the Minuteman School Building Project and Initiate Discussion with Other Towns on Regional Agreement

Other items receiving points: Resolve Morrison Farmhouse, Update the Board of Selectmen Policy and Procedure and Associated Handbooks, Boards and Committee Handbook, Consider Creation of a Licensing Board for Alcohol License Violations, Improve Communication to Public Regarding Available

LONG TERM

Explore Other Opportunities for Senior Tax Relief, Become the Go-To Suburb to Retire In.

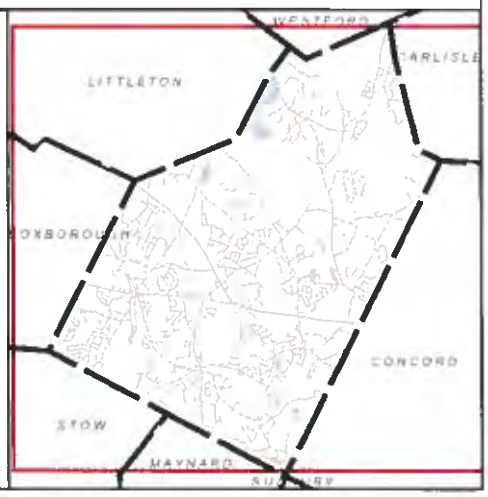


Property Information

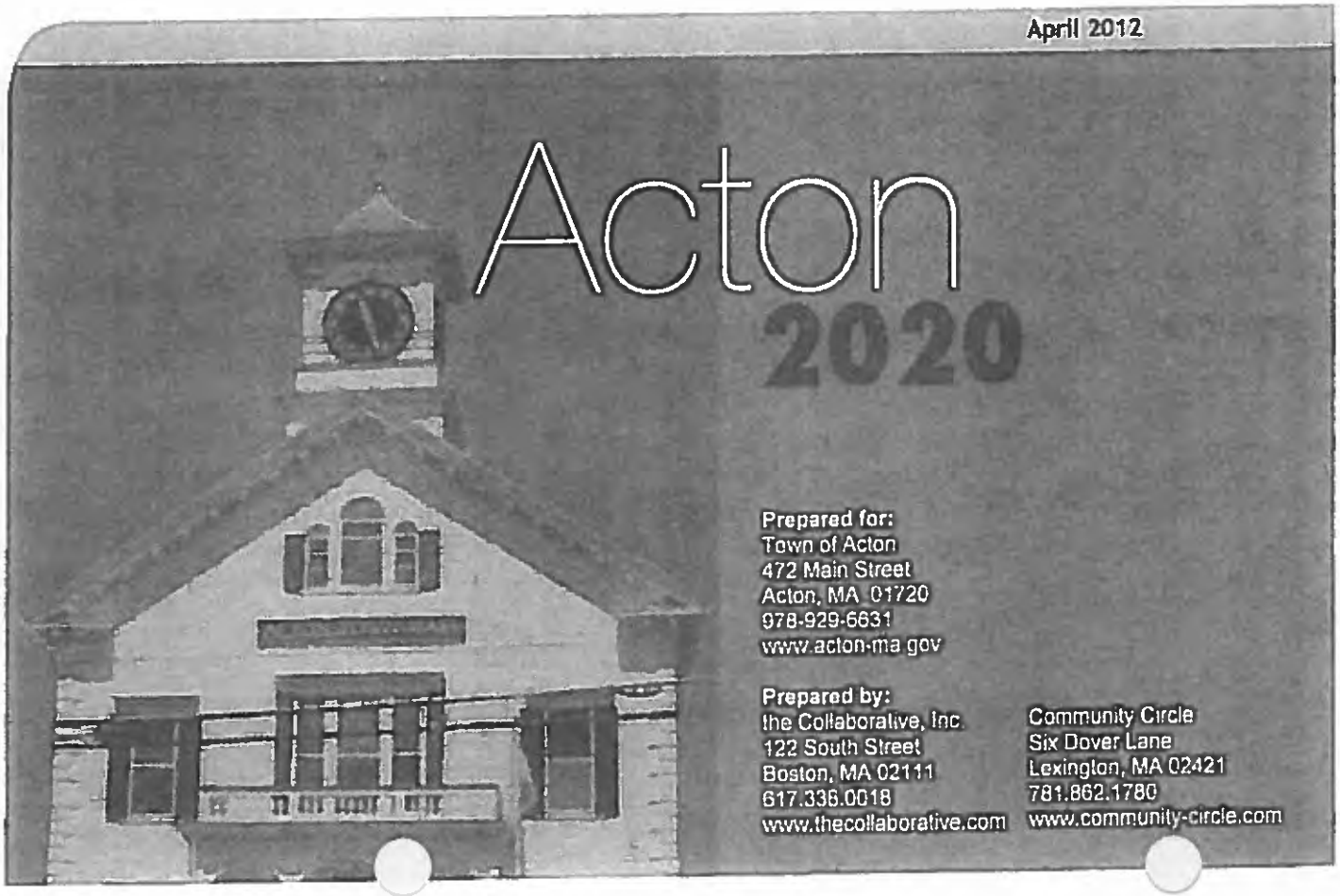
Property ID
Location

MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT

This data set/map is for planning purposes only and should not be used for larger scale analysis. The Town of Acton shall not be held liable for any use of the data or images shown on this map, nor is any warranty of accuracy expressed. All uses of this data set/map are subject to field verification.



Acton 2020 Comprehensive Community Plan



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Action Item 2.3.5.4: Energy 'barn raisings' Support and expand on existing energy-saving 'barn raisings' by community organizations and individuals.[22]	Ongoing	Citizens and citizen groups
Strategy 2.3.6: Continue planning for reducing Acton's carbon footprint.		
Action Item 2.3.6.1: Leverage Green Communities grants Continue to leverage Green Community grants for energy-reduction activities.	Ongoing	Green Advisory Board
Action Item 2.3.6.2: Expand GAB role Expand the role of the Green Advisory Board to include researching and advocating for energy savings in residential, commercial, and industrial sectors.	2nd Highest Short-Term	Selectmen
Action Item 2.3.6.3: Carbon Footprint measurement and reduction plan Conduct town-wide carbon footprint tracking and prepare and implement an energy reduction plan.[23]	Short-Term	Green Advisory Board
Action Item 2.3.6.4: Joint community and town effort to use less fossil fuels Evaluate supporting a "Transition Initiative," a community-wide collaborative effort of citizens and Town government, using education, planning, and action steps to move Acton toward local resilience and energy autonomy.[24]	New Sustained Action	Citizens and citizen groups Green Advisory Board
Objective 2.4: Healthy Patterns of Land Use Move toward patterns of land use and land protection that support broad biodiversity, soil preservation, and healthy local agriculture.		
Strategy 2.4.1: Adopt land use strategies that reduce the development of open land. See Also: Concentrate growth Zoning to support Key Centers Plan Protect open space Provide and encourage public transportation		
Strategy 2.4.2: Biodiversity Maintain and increase biodiversity on Town conservation land and private land.		
Action Item 2.4.2.1: Remove invasive plants Organize efforts to remove invasive plant species from public and private land.[25]	Long-Term	Conservation Commission

Implementation Strategies for:

GOAL 3 Improve Connections

Goal Statement:

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The following were identified as priority action steps to meet this goal.

- Construct new sidewalks according to the sidewalk priority list. Follow the sidewalk design guidelines when constructing new sidewalks or updating existing ones.
- Continue to fund the MinuteVan shuttle, and later expand the system with more vehicles, more frequent service, and longer service hours. Consider making it a fixed route system.

> *"A shuttle should absolutely be available all day for all citizens with frequent runs. Teenage use should be promoted."*
>
> *- Acton Resident*

GOAL Improve Connections cont.

Youth Art Contest Winners:

Luca Ilic

"My artwork is a drawing of me (at bottom) thinking of 4 ways to improve transportation and connections around Town."

Meghna Sundaram

"Goal 3.2. & 3.3.: Improve Transportation around Town using existing resources and improve communication

Goal 6 & 7: Manage Town facilities efficiently by reusing buses. Promote fiscal responsibility - lesser Town vehicles to maintain."

Peter Busse

"Picture of a boy on a bike."

Goal 3: Improve Connections		
Objective 3.1: Make walking and biking easier and safer.	**Priority/Timing**	**Owner**
Strategy 3.1.1: Build appropriate sidewalks See Also: Village-specific sidewalk guidelines Non-motorized access to open space		
Action Item 3.1.1.1: Maintain sidewalk priority list Continue to update the Sidewalk Construction Priority List. Emphasize projects that provide safe access to schools, recreation areas, the train station, and the villages, particularly the designated growth centers. As public transportation options grow, provide sidewalk access to transit access spots. See Also: Non-car access requirements in commercial development Village-specific sidewalk guidelines	Ongoing	Sidewalk Committee
Action Item 3.1.1.2: Construct more sidewalks Construct new sidewalks according to the priority list. Follow the *Guidelines for Acton Sidewalk Design* when constructing new sidewalks or updating existing ones.[1] **$**	Highest Ongoing	Engineering Department
Action Item 3.1.1.3: CPA funding for some sidewalks Investigate opportunities to use CPA funds for some sidewalk connections. Consider historic characteristics or recreational opportunities. See Also: Document and prioritize rural characteristics **$**	Short-Term	Planning Department Sidewalk Committee
Strategy 3.1.2: Increase opportunities for safe biking See Also: Non-motorized access to open space		
Action Item 3.1.2.1: Planning for bicycle improvements Develop guidelines for bike lanes and off-road paths. Identify locations and develop a construction plan for off-road multi-use paths and bike lanes to improve the ability of people to bicycle to destinations in Town.	2nd Highest Short-Term	Transportation Advisory Committee
Action Item 3.1.2.2: Assabet River Rail Trail Complete the construction of the Assabet River Rail Trail. Need to influence MassDOT and Boston MPO.	Ongoing	Planning Department
Action Item 3.1.2.3: Bruce Freeman Rail Trail Complete the construction of the Bruce Freeman Rail Trail. Need to influence MassDOT and Boston MPO.	Ongoing	Planning Department

			Action Item 3.1.2.4: Connect ARRT and BFRT Explore ways to connect the Assabet River Rail Trail and the Bruce Freeman Rail Trail.	Long-Term	Planning Department Transportation Advisory Committee
			Action Item 3.1.2.5: Provide more bike racks Locate bike racks where feasible and where they will be used.	Short-Term	Planning Department
			Action Item 3.1.2.6: Multi-use path planning Identify locations for off-road multi-use paths, bike lanes, and wider shared lanes and shoulders where appropriate to improve the ability of people to bicycle to destinations in Town. Prepare town-wide recommendations for locations, and construct improvements.[2] $	2nd Highest Medium-Term	Engineering Department Planning Department Transportation Advisory Committee
			Action Item 3.1.2.7: Multi-use paths through open space Consider making some paths in town open space usable by bikes, wheelchairs and strollers, in order to create safe bicycle paths between neighborhoods and other destinations. $	Long-Term	Transportation Advisory Committee
			Action Item 3.1.2.8: Developers provide off-road multi-use paths Increase the requirement in the subdivision regulations for developer contributions to off-road multi-use paths and sidewalks.	Medium-Term	Planning Board Planning Department
		Strategy 3.1.3: Improve communications about walking and biking paths			
			Action Item 3.1.3.1: Update pedestrian and bike maps Keep maps current showing sidewalks, bike paths and hiking paths. Make these available on the town website. Consider providing updated information to Google Maps for incorporation in their database.	2nd Highest Short-Term	Engineering Department Land Stewardship Committee
			Action Item 3.1.3.2: Non-car access requirements in commercial development Consider incorporating requirements for pedestrian and bicycle accommodation in new commercial development.[3]	Medium-Term	Planning Department

Action Item 3.1.3.3: Pedestrian safety at town facilities Improve accessibility and safety at Town facilities, particularly the libraries and schools, for pedestrians, people with wheelchairs, and bicyclists. $	Short-Term	Municipal Properties
Action Item 3.1.3.4: Increase awareness regarding sharing the road issues Provide outreach to drivers and cyclists to increase awareness of their responsibility to share the road safely.	Short-Term	Transportation Advisory Committee
Objective 3.2: Improve transportation around town.		
Strategy 3.2.1: Provide and encourage public transportation See Also: Concentrate growth Provide more transportation service for seniors. Teen activities accessible without cars		
Action Item 3.2.1.1: Expand MinuteVan Expand the MinuteVan shuttle system with more vehicles, more frequent service, and longer service hours. Provide more options for the disabled community. Consider making it a fixed route system.[4] $$(operating cost)	Highest Medium-Term	Selectmen Transportation Advisory Committee
Action Item 3.2.1.2: Coordinate MinuteVan and CoA Van Coordinate the MinuteVan and Council on Aging shuttles, and consider combining them into a single system with both fixed route and demand-responsive capabilities.[5]	Short-Term	Selectmen
Action Item 3.2.1.3: Coordinate shuttles with neighboring communities Consider opportunities to work with neighboring communities to expand ridership of the shuttles.[6]	Medium-Term	Manager Department Selectmen Transportation Advisory Committee
Action Item 3.2.1.4: Public/private funding for shuttle Explore public/private funding opportunities for the expanded shuttle system.[7]	Medium-Term	Selectmen Transportation Advisory Committee

Action Item 3.2.1.5: Increase resident use of commuter rail Increase the number of Acton residents who use the commuter rail system.[8] See Also: Consider ways to increase the amount of parking at the train station.	New Sustained Effort	Planning Department Transportation Advisory Committee
Action Item 3.2.1.6: Consider ways to increase the amount of parking at the train station	2nd Highest Medium-Term	Transportation Advisory Committee
Strategy 3.2.2: Improve traffic circulation and reduce traffic impacts See Also: Organize web-based car pooling and ride sharing. Increase resident use of commuter rail		
Action Item 3.2.2.1: Traffic and parking in centers Address local traffic circulation and parking in planning for key centers.	Short-Term	Planning Department
Action Item 3.2.2.2: Reconfigure street layouts Consider reconfiguring specific street layouts to provide alternate routes for congested areas and/or one-way streets to improve traffic flow.	Long-Term	Planning Department Selectmen
Action Item 3.2.2.3: Traffic calming Consider traffic calming at locations where speeds are inconsistent with residential areas and village centers. $	Medium-Term	Engineering Department
Action Item 3.2.2.4: Improve Business access Continue to make improvements to business access and transportation safety. $	Ongoing	Selectmen
Strategy 3.2.3: Work with MassDOT to improve access to and from Acton		
Action Item 3.2.3.1: Concord Rotary improvements Work through the Boston Metropolitan Planning Organization to promote the completion of planned improvements at the Concord Rotary.[9]	Long-Term	Selectmen
Action Item 3.2.3.2: Improve commuter rail Work with the MBTA and surrounding communities to promote continued and improved commuter rail service.	Ongoing	Manager Department

Action Item 3.2.3.3: Regional public transit Work through the Boston MPO to explore regional public transportation options. See Also: New Regional Transit Authority	Long-Term	Planning Department Selectmen
Action Item 3.2.3.4: New Regional Transit Authority Work with MassDOT and surrounding communities to explore the formation of a Regional Transit Authority. See Also: Regional public transit	Long-Term	Manager Department
Objective 3.3: Promote communication among town government, citizens, schools, and the business community.		
Strategy 3.3.1: Promote citizen engagement in town government Promote active engagement of citizens and the transparency of town government. Improve communication and centralized information regarding existing resources and events. See Also: One-stop reservations and calendar More multilingual staff and materials		
Action Item 3.3.1.1: Publicize town information sources Continue to disseminate information about existing Town resources and services, such as Dial-a-Ride and Social Safety Net, using the Town Website, mailings, and posters/flyers at locations such as the Senior Center, libraries, and on shuttle vehicles.	Ongoing	Memorial Library
Action Item 3.3.1.2: Citizen's academy Encourage citizen education efforts such as the formation of an Acton Citizens Academy providing classes, information, and events, where participants (both newcomers and established residents) learn about the different functions of local government including volunteer opportunities.[10]	Ongoing	Citizens and citizen groups
Action Item 3.3.1.3: Usable video archives of key meetings Broadcast meetings of key boards (Board of Selectmen, School Committee, Finance Committee, Planning Board) and place copies of these broadcast videos on the Town website.	Ongoing	Acton TV
Strategy 3.3.2: Attract more volunteers to help with town affairs by conducting broad-based outreach.		
Action Item 3.3.2.1: Publicize volunteer opportunities. Use town website and other Acton media to publicize volunteer opportunities.	Short-Term	Volunteer Coordinating Committee
Action Item 3.3.2.2: More flexibility in volunteer opportunities Provide flexibility in scheduling/timing of volunteer opportunities and consider creating opportunities for shorter-term volunteering (single event, single task, etc).	Short-Term	Volunteer Coordinating Committee

	Objective 3.4: Support and strengthen neighborhoods. See Also: Make walking and biking easier and safer Outdoor spaces near neighborhoods				
			Action Item 3.4.1: Encourage private efforts to organize neighborhoods Encourage private efforts to organize communication among neighbors and group activities.[11]	Short-Term	Citizens and citizen groups
			Action Item 3.4.2: Provide contact info for new residents to connect with organized neighborhood groups.	Short-Term	Memorial Library
			Action Item 3.4.3: Encourage the business community to organize providing new residents with business information, such as provided by Welcome Wagon(tm) in other communities.	Short-Term	Economic Development Committee

[1] See Guidelines for Acton Sidewalk Design at http://www.acton-ma.gov/DocumentView.aspx?DID=856

[2] The primary purpose of these improvements is transportation rather than recreational cycling.

[3] Pedestrian and bicycle accommodation includes safe walkways from the public sidewalk to building entrances and bike racks.

[4] The system could have stops but also route deviations on either side of the fixed routes. Stops could include the train station, the schools, Kelley's Corner, West Acton Village, Acton Center, East Acton, and the proposed community center. The CoA shuttle can specialize in demand-responsive service and destinations outside Acton.

[5] The expanded MinuteVan could become a scheduled fixed route system with limited deviations from the route in response to customer requests, the CoA shuttle is a door-to-door on-request service

[6] Coordination can include high traffic destinations such as the commuter rail station and Emerson Hospital.

[7] An example is the joint funding of Lexington's Lexpress shuttle by the town and developers (including Avalon).

[8] Ways to encourage commuter rail ridership include.

- Complete the connection of the Assabet River Rail Trail to the commuter rail station to encourage commuting by bicycle.
- Consider guiding growth to South Acton near the station (see Objective 1.1).
- Develop partnerships with local businesses to provide van shuttles to the train station.
- Facilitate car-pooling to the station.

[9] The Boston MPO process for updating the regional transportation plan and Transportation Improvement Program is one means to increase priority for the Concord Rotary project. The project would reduce cut-through traffic caused by back-ups as well as provide the access needed for economic development.

[10] The League of Women Voters has been doing education in this area for some time.

[11] Communication and interaction among neighbors might include email lists, Google groups, newsletters, etc. Group activities might include block parties, neighborhood books groups, walking groups, etc.

Town of Acton **COMPLETE STREET POLICY**	
Effective Date	July 28, 2014
Expiration Date	None
Date Last Revised	
Planning Board vote to recommend	May 20, 2014
Selectmen vote to adopt policy	July 28, 2014

COMPLETE STREETS POLICY

WHEREAS, Goal #3 of the Acton 2020 Comprehensive Community Plan is to improve connections, particularly emphasizing safe and pleasant ways to travel through walking, biking, and public transportation; and

WHEREAS, Integrating existing and proposed off-road paths, conservation and recreation trails and ways, including the Assabet River Rail Trail and the Bruce Freeman Trail with Town streets create a safe network for transportation would help realize Goal #3; and

WHEREAS, Goal #2 of the Acton 2020 Comprehensive Community Plan is to ensure environmental sustainability by reducing emissions of carbon dioxide and other greenhouse gases; and

WHEREAS, Complete Streets is an approach to community transportation using design principles to ensure the safety, comfort, and accessibility for users of all ages, abilities, and income levels and for all the users of our streets, trails and transit systems, including pedestrians, bicyclists, transit riders, motorists, users of wheelchairs and other power-driven mobility devices, commercial and emergency vehicles; and

WHEREAS, Complete Streets can reduce congestion by providing safe travel choices that encourage non-motorized transportation options, increasing the overall capacity of the transportation network as well as decreasing consumer transportation costs and overall carbon footprint; and

WHEREAS, Complete Streets support economic growth and community stability by providing accessible and efficient connections between home, school, work, recreation and retail destinations by improving the pedestrian and vehicular environments throughout communities; and

WHEREAS, Complete Streets enhance safe walking and bicycling options for school-age children, in recognition of the objectives of the national Safe Routes to School program and Physical Activity Guidelines; and

WHEREAS, Complete Streets can help reduce crashes and injuries and their costs

NOW, THEREFORE, the Board of Selectmen adopts this Complete Streets Policy.

Vision and Purpose:

Complete Streets are designed and operated to provide safety and accessibility for all the users of our streets, trails and transit systems, including pedestrians, bicyclists, transit riders, motorists, commercial vehicles, and emergency vehicles and for people of all ages and of all abilities. Furthermore, Complete Streets principles contribute toward the safety, health, economic viability, and quality of life in a community by providing accessible and efficient connections between home, school, work, recreation and retail destinations by improving the pedestrian and vehicular environments throughout communities. Complete Streets can also reduce the Town's carbon footprint and contribute to a more sustainable built environment. The purpose of the Town of Acton's Complete Streets Policy, therefore, is to accommodate all street users by creating a street network that meets the needs of individuals utilizing a variety of transportation modes. It is the intent of the Town of Acton to formalize the planning, design, operation and maintenance of streets so that they are safe for all users of all ages and abilities as a matter of routine. This Policy directs decision-makers to consistently plan, design, construct and maintain streets to accommodate all anticipated users including, but not limited to pedestrians, bicyclists, motorists, emergency vehicles, and freight and commercial vehicles.

Core Commitment:

The Town of Acton recognizes that users of various modes of transportation, including, but not limited to, pedestrians, cyclists, transit and school bus riders, motorists, users of wheelchairs and other power-driven mobility devices, delivery and service personnel, freight haulers, and emergency responders, are legitimate users of streets and deserve safe facilities. "All Users" includes users of all ages and abilities.

The Town recognizes that all building and infrastructure projects, both new or reconstruction, as well as routine maintenance projects, are potential opportunities to apply Complete Streets design principles. The Town will, to the maximum extent practical, design, construct, maintain, and operate all properties over which it has any control to provide for comprehensive and integrated networks of travel consistent with Complete Streets principles.

Complete Streets design principles shall be incorporated into all publicly and privately funded projects. To the maximum extent practical:

(1) All transportation infrastructure, and street design and construction projects requiring funding or approval by the Town of Acton shall adhere to the Town of Acton Complete Streets Policy.

(2) Projects funded by the State or Federal government, including but not limited, Chapter 90 funds, Transportation Improvement Program (TIP), MassWorks Infrastructure Program, Community Development Block Grants (CDBG), or other State and Federal funds for street and infrastructure design shall adhere to the Town of Acton Complete Streets Policy, subject to and as may be modified by funding agency guidelines and standards.

(3) Private developments and related or corresponding street design and construction components shall adhere to the Town of Acton Complete Streets Policy.

(4) To the extent possible, state-owned streets shall comply with the Town of Acton Complete Streets Policy, including the design, construction, and maintenance of such streets within Town boundaries, subject to and as may be modified by MassDOT guidelines and standards.

Exemptions:

(1) State Route 2 through the Town of Acton.

(2) All transportation facilities that are limited to non-motorized transportation modes, such as multi-use paths, pedestrian paths and malls, bicycle paths, and walking and hiking trails.

(3) Other transportation infrastructure may be exempt from this Policy, upon approval by the Board of Selectmen, where documentation and data indicate that:

(A) The cost or impacts of implementing this Policy are excessively disproportionate to the need for this Policy and the benefits derived from its implementation.

(B) Other Town policies, regulations, or requirements contradict or preclude the implementation of this Policy, after such policies, regulations, and requirements have been examined and updated to be consistent with the Town of Acton Complete Streets Policy

Best Practices:

The Town of Acton Complete Streets Policy will focus on developing a connected, integrated network that serves all street users. Complete Streets principles will be integrated into policies, planning, and design of all types of public and private projects, including new construction, reconstruction, rehabilitation, redevelopment, repair, and maintenance of transportation facilities on, adjacent to, and related to streets, as allowed by law and regulation.

To the greatest extent possible, implementation of the Town of Acton Complete Streets Policy will be carried out cooperatively within and between all departments in the Town of Acton, private developers, and State, regional – including the Acton Boxborough Regional School District – and federal agencies.

Complete Streets principles include the development and implementation of projects in a manner that is sensitive to the community's physical, economic, and social setting. The context-sensitive approach to process and design includes a range of goals by considering stakeholder and community values on a level plane with the project need. It includes goals related to livability, connectivity and sustainability with greater participation of those affected in order to gain project consensus. The overall goal of this approach is to preserve and enhance scenic, aesthetic, historical, and environmental resources while improving or maintaining safety, mobility, and infrastructure conditions.

The Town of Acton recognizes that Complete Streets principles may be achieved through single elements incorporated into a particular project or incrementally through a series of smaller improvements or maintenance activities over time.

The latest design guidance, standards, and recommendations available will be used in the implementation of Complete Streets including:

- The Massachusetts of Department of Transportation Project Design and Development Guidebook http://www.massdot.state.ma.us/highway/DoingBusinessWithUs/ManualsPublicationsForms/ProjectDevelopmentDesignGuide.aspx
- The latest edition of American Association of State Highway Transportation Officials (AASHTO) A Policy on Geometric Design of Highway and Streets (A copy is available at the Health Department Office)
- The United States Department of Transportation Federal Highway Administration's Manual on Uniform Traffic Design Controls. http://wwwcf.fhwa.dot.gov/exit.cfm?link=http://edocket.access.gpo.gov/2009/pdf/E9-28322.pdf

- The Architectural Access Board (AAB) 521CMR Rules and Regulations http://www.mass.gov/eopss/consumer-prot-and-bus-lic/license-type/aab/aab-rules-and-regulations-pdf.html
- Documents and plans created by and for the Town of Acton, such as bicycle/pedestrian network plans and conservation/recreation trails plans.

Complete Streets implementation and effectiveness should be constantly evaluated for success and opportunities for improvement.

Implementation:

The Town shall make Complete Streets practices a routine part of everyday operations, shall approach every transportation project and program as an opportunity to improve streets and the transportation network for all users, and shall work in coordination with other departments, agencies, and jurisdictions to achieve Complete Streets.

The Town shall review and either revise or develop proposed revisions to all appropriate planning documents (master plans, open space and recreation plan, etc.), zoning and subdivision rules and regulations, laws, procedures, rules, regulations, guidelines, programs, and templates to integrate Complete Streets principles so as to be consistent with the Town of Acton Complete Streets Policy. A Complete Streets Advisory Group of relevant stakeholders selected by the Town Manager or his/her designee will facilitate the implementation of this initiative.

The Town shall maintain a comprehensive map and inventory of pedestrian and bicycle facility infrastructure that will prioritize projects to eliminate gaps in the sidewalk, bikeway, and conservation/recreation trails network.

The Town will reevaluate prioritizations of Capital Improvement Projects to encourage implementation of this Policy.

The Town will train pertinent town staff and decision-makers on the content of the Town of Acton Complete Streets Policy and best practices for implementing this Policy through workshops and other appropriate means.

The Town will conduct a needs assessment to determine and appropriately plan for future financial costs, capital or otherwise associated with implementation of this Policy.

The Town will seek out appropriate sources of funding and grants for implementation of Complete Streets policies.

Evaluation:

The Town will develop performance measures to periodically assess the rate, success and effectiveness of implementing the Town of Acton Complete Streets Policy. The advisory group of relevant stakeholders designated by the Town Manager will determine the frequency of assessment and utilize appropriate metrics for analyzing the success of this ordinance. These metrics may include the total number of new bicycle lanes, the linear feet of new pedestrian accommodation, number of retrofitted pedestrian facilities or amenities, number intersection improvements made to improve Level of Service (LOS) and safety for vehicles, pedestrians and bicyclists, rate of crashes by mode, rate of children walking or bicycling to school, and/or number of trips by mode.

Complete Streets Policy Overview

Acton , MA
Board of Selectmen
Adopted - July 28, 2014

Complete Streets Policy Overview

- Project Background
- Complete Streets Overview
- Complete Streets Legislation
- Acton Complete Streets Policy
- Questions

Project Background

Purpose

To assist interested communities with developing an official complete streets policy that is appropriately tailored to reflect each community's goals

Project Background

Community Transformation Grant

Goal of grant: to tackle root causes of chronic diseases

Complete Streets

Complete Streets Overview

What is a complete street?

Streets that are safe, comfortable, and accessible for:

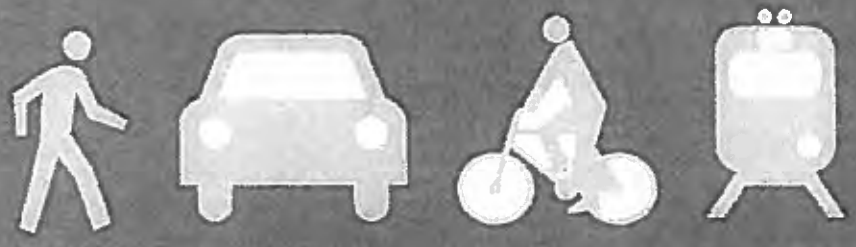
All Users

Complete Streets Overview

What is a complete street?

Streets that are safe, comfortable, and accessible for:

Multiple Forms of Travel



Complete Streets Overview

What is a complete street?

Streets that are context sensitive

City Streets

VS

Rural Roads

Complete Streets Overview

What is a complete street?

Streets that are context sensitive

Retail Areas

VS

Residential Areas

Complete Streets Overview

What is NOT a Complete Street

Complete Streets Overview

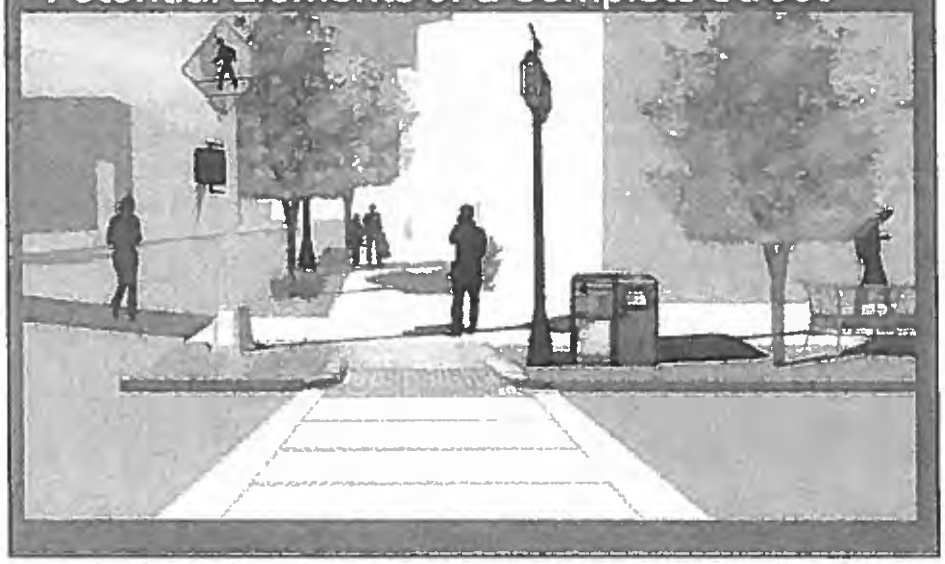
What is NOT a Complete Street

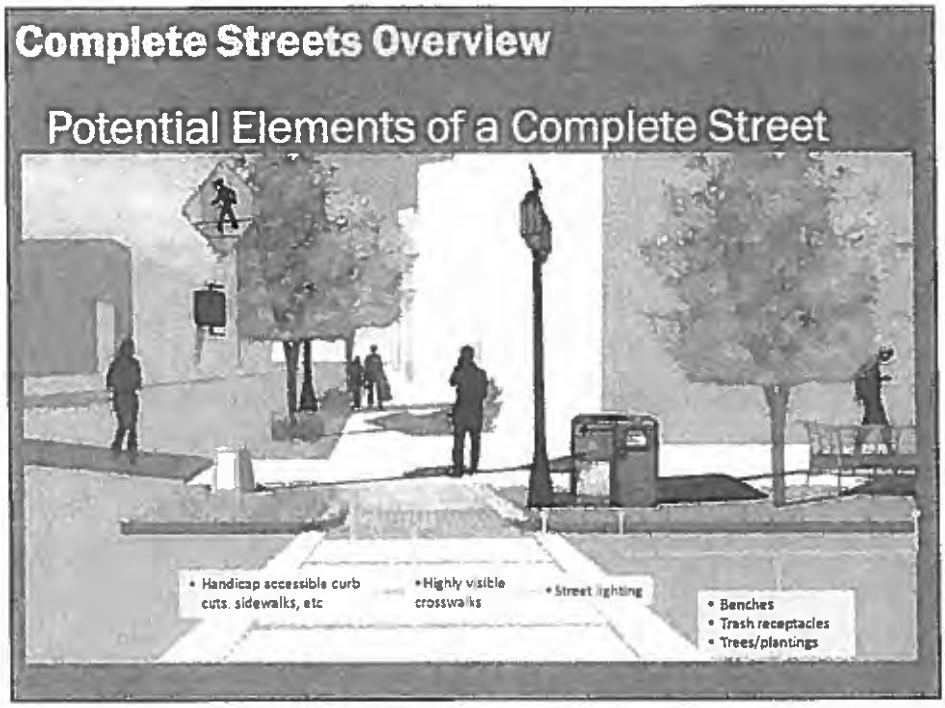
Complete Streets Overview

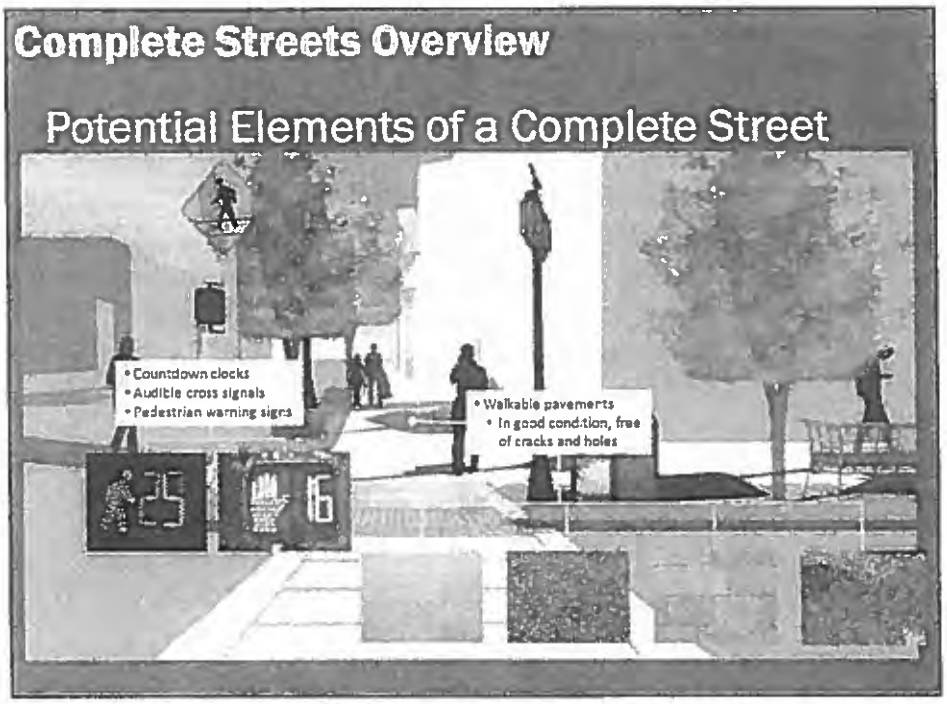
Potential Elements of a Complete Street

Complete Streets Overview

Potential Elements of a Complete Street




Complete Streets Overview
Potential Elements of a Complete Street
• Handicap accessible curb cuts, sidewalks, etc
• Highly visible crosswalks
• Street lighting
• Benches
• Trash receptacles
• Trees/plantings


Complete Streets Overview
Potential Elements of a Complete Street
• Countdown clocks
• Audible cross signals
• Pedestrian warning signs
• Walkable pavements
• In good condition, free of cracks and holes

Complete Streets Overview

Potential Elements of a Complete Street

Bike lanes or buffered bike lanes

Bike racks

Wide shoulders

Markings for shared lanes

Adequate bike signage and education

Cycle track

Complete Streets Overview

Potential Elements of a Complete Street

Rumble strips

Reduced speed limits

Elevated speed tables

Neck-downs

Bump outs

- **Narrower lanes**
- **Tight curb radii**
- **Reduced # lanes**

Other considerations

Complete Streets Benefits

Benefits to Complete Streets

- Improved health
- Improved safety
- Increased economic development
- Reduced personal transportation costs
- Reduced congestion
- Improved environment and air quality
- Improved connections

- Potential access to funding from proposed Complete Streets Legislation

Complete Streets Overview

Complete Streets Policy

A policy does:

- Provide high-level direction
- Change the everyday decision-making processes and systems
- Create an incremental changes
- Achieve long-term results

A policy is not:

- A one-size fits all design prescription
- A requirement for bike/ped facilities on every single road
- Only appropriate for cities
- A silver bullet

Complete Streets Overview

1. **Vision and intent:** The policy outlines a vision for how and why the community wants to complete its streets and takes into account Acton's goals and plans.
2. **All users and modes:** The policy specifies that "all users" includes pedestrians, bicyclists and transit passengers of all ages and abilities, as well as trucks, buses and automobiles.
3. **All projects and phases:** Both new and retrofit projects are subject to the policy, including design, planning, maintenance and operations, for the entire right-of-way.
4. **Clear, accountable exceptions:** Any exceptions are specified and must be approved by a high-level official.
5. **Network:** The policy encourages street connectivity and creates a comprehensive, integrated and connected network for all modes across the network.
6. **Jurisdiction:** All other agencies can clearly understand the policy and may be involved in the process.
7. **Design:** The policy recommends the latest and best design criteria and guidelines, while recognizing the need for flexibility in balancing user needs.
8. **Context sensitivity:** Community context is considered in planning and design solutions.
9. **Performance measures:** Performance standards with measurable outcomes are included.
10. **Implementation next steps:** Specific next steps for implementing the policy are described.

Complete Streets Legislation

Purpose

Creates a program to encourage MA municipalities to routinely include contextually appropriate complete streets design elements in locally funded road projects

What the Legislation Does

Creates the Active Streets Certification Program

Certified communities will be eligible to apply for funding to implement complete streets projects

- Adoption of a complete streets policy is key component for certification
- Proposed amount of funding to draw from is $50,000,000 over 5 years

Capital Improvement Program Proposal – Detail

Department Name	**Engineering Department**	***Project***	**Traffic Calming / Complete Street Improvement Project**
		Fiscal Year	**2017**
Department Head	**Corey York**	***Cost***	**$45,000**
		Priority	*of*

1. Description

This project will allow the Town to hire a traffic consultant to study and design traffic calming and Complete Street measures on an existing Town way.

2. Useful Life 10 years

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

Schedule Replacement		***Increase Personnel Efficiency***
New or Expanded Service	***X***	***Replace Obsolete or Unsafe Infrastructure***
Other (Please Explain)		

4. Justification

The Engineering Department constantly receives numerous requests for traffic calming measures to be installed on their roads. This project will allow the Town to formulate a traffic calming design to be incorporated on a road to improve the roadway safety and to analyze its effectiveness. The project will also help to initiate a Complete Street plan in accordance with our new policy.

5. How Was this Project's Priority Determined?

Safety

6. Estimated Cost ***$45,000***

Less Trade-In (If Applicable) ***Na***

Net Cost ***$45,000***

7. Are Non-Town Revenues Available to Reduce Cost?

No

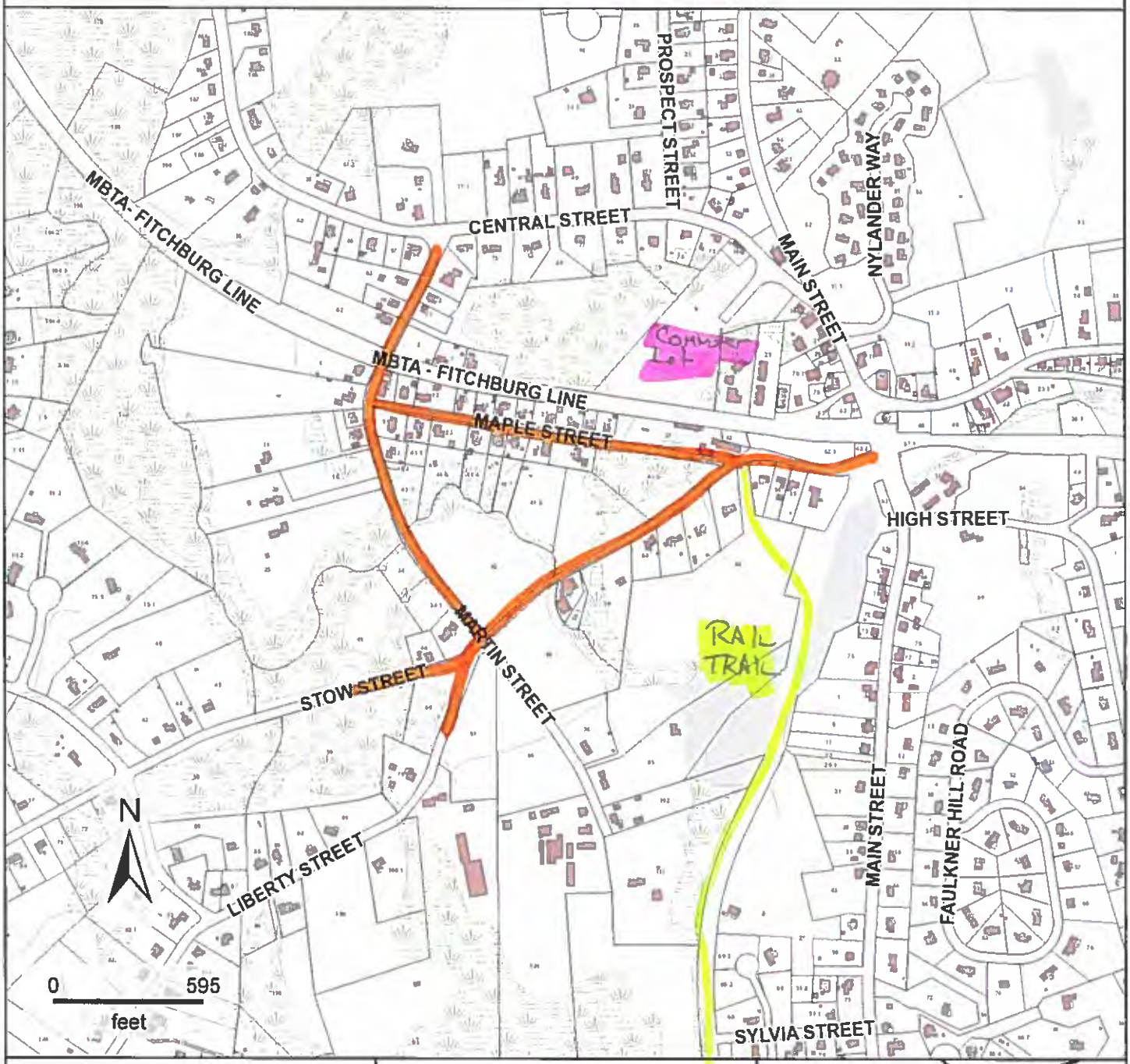
8. If this Project is Delayed, What will be the Effect on your Department?

None

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget		***Expense Budget***	
Increase	None	Increase	none
Decrease	None	Decrease	none

10. Attachments, if Applicable.



Property Information

Property ID
Location

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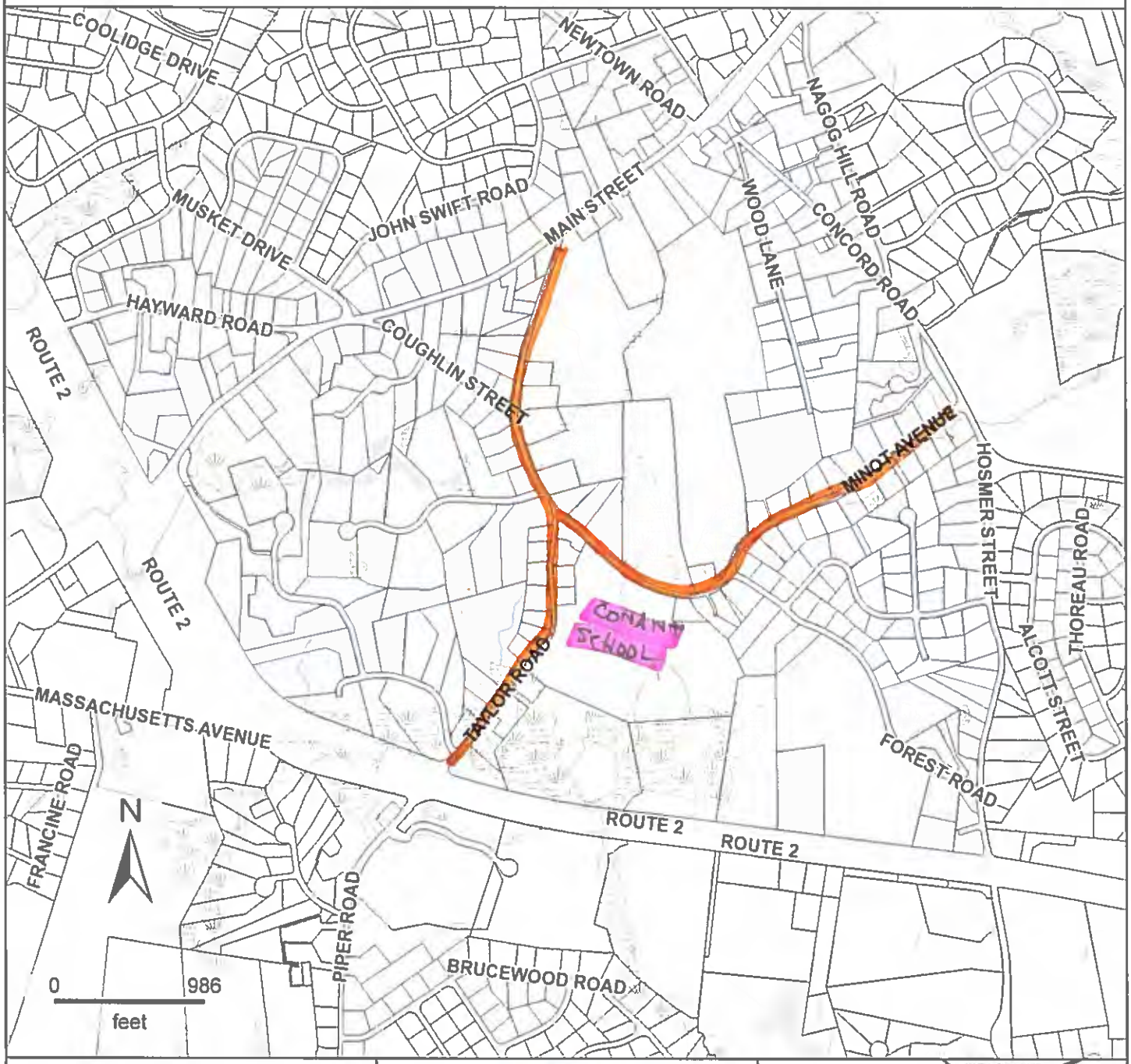

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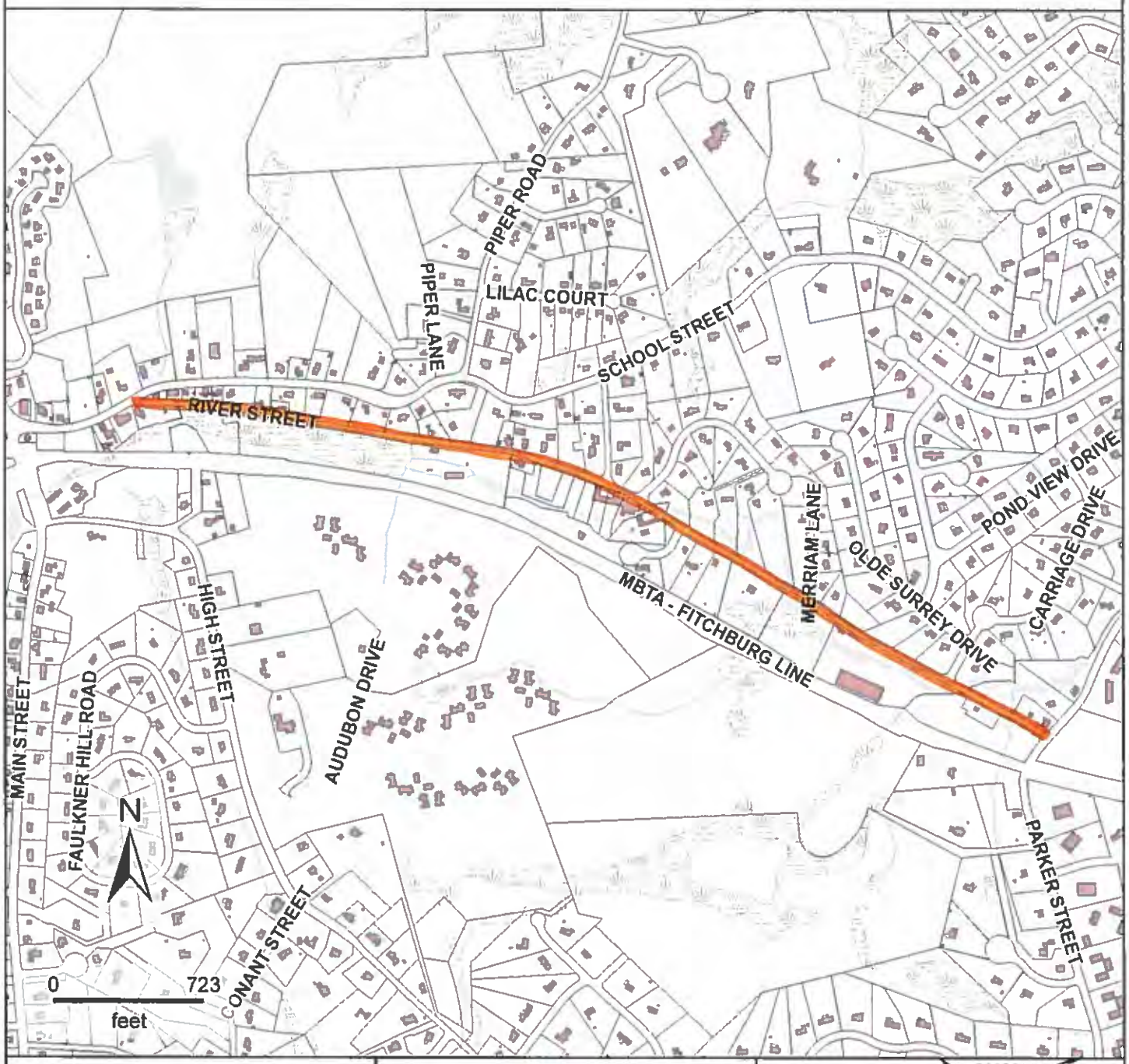

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Town of Acton **COMPLETE STREET POLICY**	
Effective Date	July 28, 2014
Expiration Date	None
Date Last Revised	
Planning Board vote to recommend	May 20, 2014
Selectmen vote to adopt policy	July 28, 2014

COMPLETE STREETS POLICY

WHEREAS, Goal #3 of the Acton 2020 Comprehensive Community Plan is to improve connections, particularly emphasizing safe and pleasant ways to travel through walking, biking, and public transportation; and

WHEREAS, Integrating existing and proposed off-road paths, conservation and recreation trails and ways, including the Assabet River Rail Trail and the Bruce Freeman Trail with Town streets create a safe network for transportation would help realize Goal #3; and

WHEREAS, Goal #2 of the Acton 2020 Comprehensive Community Plan is to ensure environmental sustainability by reducing emissions of carbon dioxide and other greenhouse gases; and

WHEREAS, Complete Streets is an approach to community transportation using design principles to ensure the safety, comfort, and accessibility for users of all ages, abilities, and income levels and for all the users of our streets, trails and transit systems, including pedestrians, bicyclists, transit riders, motorists, users of wheelchairs and other power-driven mobility devices, commercial and emergency vehicles; and

WHEREAS, Complete Streets can reduce congestion by providing safe travel choices that encourage non-motorized transportation options, increasing the overall capacity of the transportation network as well as decreasing consumer transportation costs and overall carbon footprint; and

WHEREAS, Complete Streets support economic growth and community stability by providing accessible and efficient connections between home, school, work, recreation and retail destinations by improving the pedestrian and vehicular environments throughout communities; and

WHEREAS, Complete Streets enhance safe walking and bicycling options for school-age children, in recognition of the objectives of the national Safe Routes to School program and Physical Activity Guidelines; and

WHEREAS, Complete Streets can help reduce crashes and injuries and their costs

NOW, THEREFORE, the Board of Selectmen adopts this Complete Streets Policy.

Vision and Purpose:

Complete Streets are designed and operated to provide safety and accessibility for all the users of our streets, trails and transit systems, including pedestrians, bicyclists, transit riders, motorists, commercial vehicles, and emergency vehicles and for people of all ages and of all abilities. Furthermore, Complete Streets principles contribute toward the safety, health, economic viability, and quality of life in a community by providing accessible and efficient connections between home, school, work, recreation and retail destinations by improving the pedestrian and vehicular environments throughout communities. Complete Streets can also reduce the Town's carbon footprint and contribute to a more sustainable built environment. The purpose of the Town of Acton's Complete Streets Policy, therefore, is to accommodate all street users by creating a street network that meets the needs of individuals utilizing a variety of transportation modes. It is the intent of the Town of Acton to formalize the planning, design, operation and maintenance of streets so that they are safe for all users of all ages and abilities as a matter of routine. This Policy directs decision-makers to consistently plan, design, construct and maintain streets to accommodate all anticipated users including, but not limited to pedestrians, bicyclists, motorists, emergency vehicles, and freight and commercial vehicles.

Core Commitment:

The Town of Acton recognizes that users of various modes of transportation, including, but not limited to, pedestrians, cyclists, transit and school bus riders, motorists, users of wheelchairs and other power-driven mobility devices, delivery and service personnel, freight haulers, and emergency responders, are legitimate users of streets and deserve safe facilities. "All Users" includes users of all ages and abilities.

The Town recognizes that all building and infrastructure projects, both new or reconstruction, as well as routine maintenance projects, are potential opportunities to apply Complete Streets design principles. The Town will, to the maximum extent practical, design, construct, maintain, and operate all properties over which it has any control to provide for comprehensive and integrated networks of travel consistent with Complete Streets principles.

Complete Streets design principles shall be incorporated into all publicly and privately funded projects. To the maximum extent practical:

(1) All transportation infrastructure, and street design and construction projects requiring funding or approval by the Town of Acton shall adhere to the Town of Acton Complete Streets Policy.

(2) Projects funded by the State or Federal government, including but not limited, Chapter 90 funds, Transportation Improvement Program (TIP), MassWorks Infrastructure Program, Community Development Block Grants (CDBG), or other State and Federal funds for street and infrastructure design shall adhere to the Town of Acton Complete Streets Policy, subject to and as may be modified by funding agency guidelines and standards.

(3) Private developments and related or corresponding street design and construction components shall adhere to the Town of Acton Complete Streets Policy.

(4) To the extent possible, state-owned streets shall comply with the Town of Acton Complete Streets Policy, including the design, construction, and maintenance of such streets within Town boundaries, subject to and as may be modified by MassDOT guidelines and standards.

Exemptions:

(1) State Route 2 through the Town of Acton.

(2) All transportation facilities that are limited to non-motorized transportation modes, such as multi-use paths, pedestrian paths and malls, bicycle paths, and walking and hiking trails.

(3) Other transportation infrastructure may be exempt from this Policy, upon approval by the Board of Selectmen, where documentation and data indicate that:

(A) The cost or impacts of implementing this Policy are excessively disproportionate to the need for this Policy and the benefits derived from its implementation.

(B) Other Town policies, regulations, or requirements contradict or preclude the implementation of this Policy, after such policies, regulations, and requirements have been examined and updated to be consistent with the Town of Acton Complete Streets Policy

Best Practices:

The Town of Acton Complete Streets Policy will focus on developing a connected, integrated network that serves all street users. Complete Streets principles will be integrated into policies, planning, and design of all types of public and private projects, including new construction, reconstruction, rehabilitation, redevelopment, repair, and maintenance of transportation facilities on, adjacent to, and related to streets, as allowed by law and regulation.

To the greatest extent possible, implementation of the Town of Acton Complete Streets Policy will be carried out cooperatively within and between all departments in the Town of Acton, private developers, and State, regional – including the Acton Boxborough Regional School District – and federal agencies.

Complete Streets principles include the development and implementation of projects in a manner that is sensitive to the community's physical, economic, and social setting. The context-sensitive approach to process and design includes a range of goals by considering stakeholder and community values on a level plane with the project need. It includes goals related to livability, connectivity and sustainability with greater participation of those affected in order to gain project consensus. The overall goal of this approach is to preserve and enhance scenic, aesthetic, historical, and environmental resources while improving or maintaining safety, mobility, and infrastructure conditions.

The Town of Acton recognizes that Complete Streets principles may be achieved through single elements incorporated into a particular project or incrementally through a series of smaller improvements or maintenance activities over time.

The latest design guidance, standards, and recommendations available will be used in the implementation of Complete Streets including:

- The Massachusetts of Department of Transportation Project Design and Development Guidebook http://www.massdot.state.ma.us/highway/DoingBusinessWithUs/ManualsPublicationsForms/ProjectDevelopmentDesignGuide.aspx
- The latest edition of American Association of State Highway Transportation Officials (AASHTO) A Policy on Geometric Design of Highway and Streets (A copy is available at the Health Department Office)
- The United States Department of Transportation Federal Highway Administration's Manual on Uniform Traffic Design Controls.
  http://wwwcf.fhwa.dot.gov/exit.cfm?link=http://edocket.access.gpo.gov/2009/pdf/E9-28322.pdf

- The Architectural Access Board (AAB) 521CMR Rules and Regulations http://www.mass.gov/eopss/consumer-prot-and-bus-lic/license-type/aab/aab-rules-and-regulations-pdf.html
- Documents and plans created by and for the Town of Acton, such as bicycle/pedestrian network plans and conservation/recreation trails plans.

Complete Streets implementation and effectiveness should be constantly evaluated for success and opportunities for improvement.

Implementation:

The Town shall make Complete Streets practices a routine part of everyday operations, shall approach every transportation project and program as an opportunity to improve streets and the transportation network for all users, and shall work in coordination with other departments, agencies, and jurisdictions to achieve Complete Streets.

The Town shall review and either revise or develop proposed revisions to all appropriate planning documents (master plans, open space and recreation plan, etc.), zoning and subdivision rules and regulations, laws, procedures, rules, regulations, guidelines, programs, and templates to integrate Complete Streets principles so as to be consistent with the Town of Acton Complete Streets Policy. A Complete Streets Advisory Group of relevant stakeholders selected by the Town Manager or his/her designee will facilitate the implementation of this initiative.

The Town shall maintain a comprehensive map and inventory of pedestrian and bicycle facility infrastructure that will prioritize projects to eliminate gaps in the sidewalk, bikeway, and conservation/recreation trails network.

The Town will reevaluate prioritizations of Capital Improvement Projects to encourage implementation of this Policy.

The Town will train pertinent town staff and decision-makers on the content of the Town of Acton Complete Streets Policy and best practices for implementing this Policy through workshops and other appropriate means.

The Town will conduct a needs assessment to determine and appropriately plan for future financial costs, capital or otherwise associated with implementation of this Policy.

The Town will seek out appropriate sources of funding and grants for implementation of Complete Streets policies.

Evaluation:

The Town will develop performance measures to periodically assess the rate, success and effectiveness of implementing the Town of Acton Complete Streets Policy. The advisory group of relevant stakeholders designated by the Town Manager will determine the frequency of assessment and utilize appropriate metrics for analyzing the success of this ordinance. These metrics may include the total number of new bicycle lanes, the linear feet of new pedestrian accommodation, number of retrofitted pedestrian facilities or amenities, number intersection improvements made to improve Level of Service (LOS) and safety for vehicles, pedestrians and bicyclists, rate of crashes by mode, rate of children walking or bicycling to school, and/or number of trips by mode.

Complete Streets Policy Overview

Acton , MA
Board of Selectmen
Adopted - July 28, 2014

Complete Streets Policy Overview

- Project Background
- Complete Streets Overview
- Complete Streets Legislation
- Acton Complete Streets Policy
- Questions

Project Background

Purpose

To assist interested communities with developing an official complete streets policy that is appropriately tailored to reflect each community's goals

Project Background

Community Transformation Grant

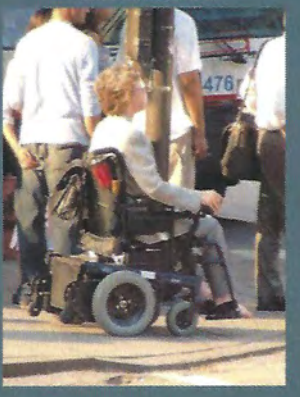
Goal of grant: to tackle root causes of chronic diseases

Complete Streets Overview

What is a complete street?

Streets that are safe, comfortable, and accessible for:

All Users



Complete Streets Overview

What is a complete street?

Streets that are safe, comfortable, and accessible for:

Multiple Forms of Travel

Walking Driving Biking Commuter Rail

Complete Streets Overview

What is a complete street?

Streets that are context sensitive

City Streets

VS

Rural Roads

Complete Streets Overview

What is a complete street?

Streets that are context sensitive

Retail Areas

VS

Residential Areas

Complete Streets Overview

What is NOT a Complete Street

Complete Streets Overview

What is NOT a Complete Street

Complete Streets Overview

Potential Elements of a Complete Street

Complete Streets Overview

Potential Elements of a Complete Street

Complete Streets Overview

Potential Elements of a Complete Street

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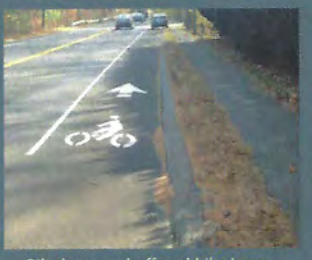
Potential Elements of a Complete Street

Complete Streets Overview

Potential Elements of a Complete Street


Bike lanes or buffered bike lanes

Bike racks

Wide shoulders

Markings for shared lanes

Adequate bike signage and education

Cycle track

Complete Streets Overview

Potential Elements of a Complete Street

Rumble strips

Reduced speed limits

Elevated speed tables

Neck-downs

Bow-outs

- **Narrower lanes**
- **Tight curb radii**
- **Reduced # lanes**

Other considerations

Complete Streets Benefits

Benefits to Complete Streets

- Improved health
- Improved safety
- Increased economic development
- Reduced personal transportation costs
- Reduced congestion
- Improved environment and air quality
- Improved connections

- Potential access to funding from proposed Complete Streets Legislation

Complete Streets Overview

Complete Streets Policy

A policy does:

- Provide high-level direction
- Change the everyday decision-making processes and systems
- Create an incremental changes
- Achieve long-term results

A policy is not:

- A one-size fits all design prescription
- A requirement for bike/ped facilities on every single road
- Only appropriate for cities
- A silver bullet

Complete Streets Overview

1. **Vision and intent**: The policy outlines a vision for how and why the community wants to complete its streets and takes into account Acton's goals and plans.
2. **All users and modes**: The policy specifies that "all users" includes pedestrians, bicyclists and transit passengers of all ages and abilities, as well as trucks, buses and automobiles.
3. **All projects and phases**: Both new and retrofit projects are subject to the policy, including design, planning, maintenance and operations, for the entire right-of-way.
4. **Clear, accountable exceptions**: Any exceptions are specified and must be approved by a high-level official.
5. **Network**: The policy encourages street connectivity and creates a comprehensive, integrated and connected network for all modes across the network.
6. **Jurisdiction**: All other agencies can clearly understand the policy and may be involved in the process.
7. **Design**: The policy recommends the latest and best design criteria and guidelines, while recognizing the need for flexibility in balancing user needs.
8. **Context sensitivity**: Community context is considered in planning and design solutions.
9. **Performance measures**: Performance standards with measurable outcomes are included.
10. **Implementation next steps**: Specific next steps for implementing the policy are described.

Complete Streets Legislation

Purpose

Creates a program to encourage MA municipalities to routinely include contextually appropriate complete streets design elements in locally funded road projects

What the Legislation Does

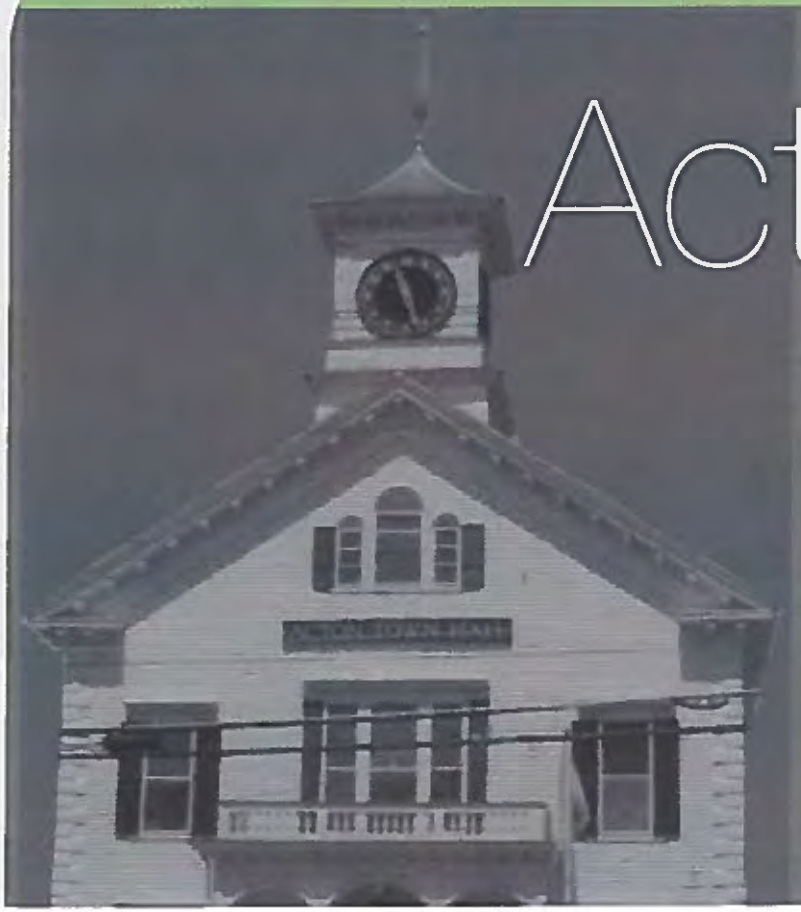
Creates the Active Streets Certification Program

Certified communities will be eligible to apply for funding to implement complete streets projects

- Adoption of a complete streets policy is key component for certification
- Proposed amount of funding to draw from is $50,000,000 over 5 years

Acton 2020 Comprehensive Community Plan

April 2012



Acton
2020

Prepared for:
Town of Acton
472 Main Street
Acton, MA 01720
978-929-6631
www.acton-ma.gov

Prepared by:
the Collaborative, Inc.
122 South Street
Boston, MA 02111
617.338.0018
www.thecollaborative.com

Community Circle
Six Dover Lane
Lexington, MA 02421
781.862.1780
www.community-circle.com

Today. Tomorrow. Together.

Goals and Objectives

GOAL 1:	**Preserve and Enhance Town Character**
Objective 1.1:	Strengthen planning tools to manage growth pro-actively.
Objective 1.2:	Preserve and enhance key centers.
Objective 1.3:	Preserve rural characteristics and open space.
Objective 1.4:	Preserve historic buildings and landscapes.
Objective 1.5:	Foster an understanding and appreciation for what makes Acton unique, including its history.
GOAL 2:	**Ensure Environmental Sustainability**
Objective 2.1:	Protect the quality and quantity of Acton's water.
Objective 2.2:	Reduce waste and the accumulation of toxins.
Objective 2.3:	Reduce emissions of carbon dioxide and other greenhouse gases.
Objective 2.4:	Move toward patterns of land use and land protection that support broad biodiversity, soil preservation, and healthy local agriculture.
GOAL 3:	**Improve Connections**
Objective 3.1:	Make walking and biking easier and safer.
Objective 3.2:	Improve transportation around Town.
Objective 3.3:	Promote communication among Town govern ment, citizens, schools, and the business community.
Objective 3.4:	Support and strengthen neighborhoods.
GOAL 4:	**Provide More Opportunities for Community Gathering and Recreation**
Objective 4.1:	Create new gathering spaces and make better use of existing ones.
Objective 4.2:	Provide more playgrounds, fields for team sports, parks, and conservation lands.
Objective 4.3:	Support additional cultural activities.
GOAL 5:	**Support Inclusion and Diversity**
Objective 5.1:	Support residents of all ages.
Objective 5.2:	Support households of all income levels.
Objective 5.3:	Embrace cultural diversity.
Objective 5.4:	Support citizens with disabilities in participating fully in the life of the community.
GOAL 6:	**Preserve and Enhance Town-Owned Assets and Services**
Objective 6.1:	Protect Town-owned open space.
Objective 6.2:	Support excellence in schools.
Objective 6.3:	Manage the Town's facilities efficiently.
Objective 6.4:	Provide high quality services that are responsive to community needs.
Objective 6.5:	Provide excellent public health and safety services.
GOAL 7:	**Maintain and Improve the Financial Well-Being of the Town**
Objective 7.1:	Promote fiscal responsibility.
Objective 7.2:	Promote economic development that supports other Acton 2020 planning goals.
Objective 7.3:	Improve existing commercial areas.
Objective 7.4:	Support the financial ability of all residents to stay in Acton for a lifetime.

Action Item 2.3.5.4: Energy 'barn raisings' Support and expand on existing energy-saving 'barn raisings' by community organizations and individuals.[22]	Ongoing	Citizens and citizen groups
Strategy 2.3.6: Continue planning for reducing Acton's carbon footprint.		
Action Item 2.3.6.1: Leverage Green Communities grants Continue to leverage Green Community grants for energy-reduction activities.	Ongoing	Green Advisory Board
Action Item 2.3.6.2: Expand GAB role Expand the role of the Green Advisory Board to include researching and advocating for energy savings in residential, commercial, and industrial sectors.	2nd Highest Short-Term	Selectmen
Action Item 2.3.6.3: Carbon Footprint measurement and reduction plan Conduct town-wide carbon footprint tracking and prepare and implement an energy reduction plan.[23]	Short-Term	Green Advisory Board
Action Item 2.3.6.4: Joint community and town effort to use less fossil fuels Evaluate supporting a "Transition Initiative," a community-wide collaborative effort of citizens and Town government, using education, planning, and action steps to move Acton toward local resilience and energy autonomy.[24]	New Sustained Action	Citizens and citizen groups Green Advisory Board
Objective 2.4: Healthy Patterns of Land Use Move toward patterns of land use and land protection that support broad biodiversity, soil preservation, and healthy local agriculture.		
Strategy 2.4.1: Adopt land use strategies that reduce the development of open land. See Also: Concentrate growth Zoning to support Key Centers Plan Protect open space Provide and encourage public transportation		
Strategy 2.4.2: Biodiversity Maintain and increase biodiversity on Town conservation land and private land.		
Action Item 2.4.2.1: Remove invasive plants Organize efforts to remove invasive plant species from public and private land.[25]	Long-Term	Conservation Commission

Implementation Strategies for:

GOAL 3 Improve Connections

Goal Statement:

We recognize that a community that is connected is safer, stronger, and provides more opportunities for meaningful interaction. We envision supporting these connections through physical means including sidewalks, bike paths, trails and public transportation to connect people and places, and to support independent and safe travel for all. We also envision open communication as a means to further connect residents (e.g. through the web, cable TV, community bulletin boards, etc.)

Relationship to Vision

Actonians expressed a strong desire to improve connections, both physical and virtual, so that they have safe and pleasant ways to travel and so that communication is improved. Residents recognized that extending sidewalks, providing safe biking and extending the Town shuttle improve connections between people and places, provide opportunities to meet fitness and weiiness goals, and takes better care of the environment. The strategies listed under this goal are ways of addressing these needs and desires.

Overview of Priority Action Steps

The following were identified as priority action steps to meet this goal.

- Construct new sidewalks according to the sidewalk priority list. Follow the sidewalk design guidelines when constructing new sidewalks or updating existing ones.
- Continue to fund the MinuteVan shuttle, and later expand the system with more vehicles, more frequent service, and longer service hours. Consider making it a fixed route system.

> *"A shuttle should absolutely be available all day for all citizens with frequent runs. Teenage use should be promoted."*
>
> *- Acton Resident*

GOAL 3 Improve Connections cont.

Youth Art Contest Winners:

Luca Ilic

"My artwork is a drawing of me (at bottom) thinking of 4 ways to improve transportation and connections around Town."

Meghna Sundaram

"Goal 3.2. & 3.3.: Improve Transportation around Town using existing resources and improve communication

Goal 6 & 7: Manage Town facilities efficiently by reusing buses. Promote fiscal responsibility - lesser Town vehicles to maintain."

Peter Busse

"Picture of a boy on a bike."

Goal 3: Improve Connections		
Objective 3.1: Make walking and biking easier and safer.	Priority/Timing	Owner
Strategy 3.1.1: Build appropriate sidewalks See Also: Village-specific sidewalk guidelines Non-motorized access to open space		
Action Item 3.1.1.1: Maintain sidewalk priority list Continue to update the Sidewalk Construction Priority List. Emphasize projects that provide safe access to schools, recreation areas, the train station, and the villages, particularly the designated growth centers. As public transportation options grow, provide sidewalk access to transit access spots. See Also: Non-car access requirements in commercial development Village-specific sidewalk guidelines	Ongoing	Sidewalk Committee
Action Item 3.1.1.2: Construct more sidewalks Construct new sidewalks according to the priority list. Follow the *Guidelines for Acton Sidewalk Design* when constructing new sidewalks or updating existing ones.[1] **$**	Highest Ongoing	Engineering Department
Action Item 3.1.1.3: CPA funding for some sidewalks Investigate opportunities to use CPA funds for some sidewalk connections. Consider historic characteristics or recreational opportunities. See Also: Document and prioritize rural characteristics **$**	Short-Term	Planning Department Sidewalk Committee
Strategy 3.1.2: Increase opportunities for safe biking See Also: Non-motorized access to open space		
Action Item 3.1.2.1: Planning for bicycle improvements Develop guidelines for bike lanes and off-road paths. Identify locations and develop a construction plan for off-road multi-use paths and bike lanes to improve the ability of people to bicycle to destinations in Town.	2nd Highest Short-Term	Transportation Advisory Committee
Action Item 3.1.2.2: Assabet River Rail Trail Complete the construction of the Assabet River Rail Trail. Need to influence MassDOT and Boston MPO.	Ongoing	Planning Department
Action Item 3.1.2.3: Bruce Freeman Rail Trail Complete the construction of the Bruce Freeman Rail Trail. Need to influence MassDOT and Boston MPO.	Ongoing	Planning Department

			Action Item 3.1.2.4: Connect ARRT and BFRT Explore ways to connect the Assabet River Rail Trail and the Bruce Freeman Rail Trail.	Long-Term	Planning Department Transportation Advisory Committee
			Action Item 3.1.2.5: Provide more bike racks Locate bike racks where feasible and where they will be used.	Short-Term	Planning Department
			Action Item 3.1.2.6: Multi-use path planning Identify locations for off-road multi-use paths, bike lanes, and wider shared lanes and shoulders where appropriate to improve the ability of people to bicycle to destinations in Town. Prepare town-wide recommendations for locations, and construct improvements.[2] **$**	2nd Highest Medium-Term	Engineering Department Planning Department Transportation Advisory Committee
			Action Item 3.1.2.7: Multi-use paths through open space Consider making some paths in town open space usable by bikes, wheelchairs and strollers, in order to create safe bicycle paths between neighborhoods and other destinations. **$**	Long-Term	Transportation Advisory Committee
			Action Item 3.1.2.8: Developers provide off-road multi-use paths Increase the requirement in the subdivision regulations for developer contributions to off-road multi-use paths and sidewalks.	Medium-Term	Planning Board Planning Department
		Strategy 3.1.3: Improve communications about walking and biking paths			
			Action Item 3.1.3.1: Update pedestrian and bike maps Keep maps current showing sidewalks, bike paths and hiking paths. Make these available on the town website. Consider providing updated information to Google Maps for incorporation in their database.	2nd Highest Short-Term	Engineering Department Land Stewardship Committee
			Action Item 3.1.3.2: Non-car access requirements in commercial development Consider incorporating requirements for pedestrian and bicycle accommodation in new commercial development.[3]	Medium-Term	Planning Department

Action Item 3.1.3.3: Pedestrian safety at town facilities Improve accessibility and safety at Town facilities, particularly the libraries and schools, for pedestrians, people with wheelchairs, and bicyclists. **$**	Short-Term	Municipal Properties
Action Item 3.1.3.4: Increase awareness regarding sharing the road issues Provide outreach to drivers and cyclists to increase awareness of their responsibility to share the road safely.	Short-Term	Transportation Advisory Committee
Objective 3.2: Improve transportation around town.		
Strategy 3.2.1: Provide and encourage public transportation See Also: Concentrate growth Provide more transportation service for seniors. Teen activities accessible without cars		
Action Item 3.2.1.1: Expand MinuteVan Expand the MinuteVan shuttle system with more vehicles, more frequent service, and longer service hours. Provide more options for the disabled community. Consider making it a fixed route system.[4] **$$**(operating cost)	Highest Medium-Term	Selectmen Transportation Advisory Committee
Action Item 3.2.1.2: Coordinate MinuteVan and CoA Van Coordinate the MinuteVan and Council on Aging shuttles, and consider combining them into a single system with both fixed route and demand-responsive capabilities.[5]	Short-Term	Selectmen
Action Item 3.2.1.3: Coordinate shuttles with neighboring communities Consider opportunities to work with neighboring communities to expand ridership of the shuttles.[6]	Medium-Term	Manager Department Selectmen Transportation Advisory Committee
Action Item 3.2.1.4: Public/private funding for shuttle Explore public/private funding opportunities for the expanded shuttle system.[7]	Medium-Term	Selectmen Transportation Advisory Committee

			Action Item 3.2.1.5: Increase resident use of commuter rail Increase the number of Acton residents who use the commuter rail system.[8] See Also: Consider ways to increase the amount of parking at the train station.	New Sustained Effort	Planning Department Transportation Advisory Committee
			Action Item 3.2.1.6: Consider ways to increase the amount of parking at the train station	2nd Highest Medium-Term	Transportation Advisory Committee
		Strategy 3.2.2: Improve traffic circulation and reduce traffic impacts **See Also:** Organize web-based car pooling and ride sharing. Increase resident use of commuter rail			
			Action Item 3.2.2.1: Traffic and parking in centers Address local traffic circulation and parking in planning for key centers.	Short-Term	Planning Department
			Action Item 3.2.2.2: Reconfigure street layouts Consider reconfiguring specific street layouts to provide alternate routes for congested areas and/or one-way streets to improve traffic flow.	Long-Term	Planning Department Selectmen
			Action Item 3.2.2.3: Traffic calming Consider traffic calming at locations where speeds are inconsistent with residential areas and village centers. **$**	Medium-Term	Engineering Department
			Action Item 3.2.2.4: Improve Business access Continue to make improvements to business access and transportation safety. **$**	Ongoing	Selectmen
		Strategy 3.2.3: Work with MassDOT to improve access to and from Acton			
			Action Item 3.2.3.1: Concord Rotary improvements Work through the Boston Metropolitan Planning Organization to promote the completion of planned improvements at the Concord Rotary.[9]	Long-Term	Selectmen
			Action Item 3.2.3.2: Improve commuter rail Work with the MBTA and surrounding communities to promote continued and improved commuter rail service.	Ongoing	Manager Department

			Action Item 3.2.3.3: Regional public transit Work through the Boston MPO to explore regional public transportation options. See Also: New Regional Transit Authority	Long-Term	Planning Department Selectmen
			Action Item 3.2.3.4: New Regional Transit Authority Work with MassDOT and surrounding communities to explore the formation of a Regional Transit Authority. See Also: Regional public transit	Long-Term	Manager Department
	Objective 3.3: Promote communication among town government, citizens, schools, and the business community.				
		Strategy 3.3.1: Promote citizen engagement in town government Promote active engagement of citizens and the transparency of town government. Improve communication and centralized information regarding existing resources and events. See Also: One-stop reservations and calendar More multilingual staff and materials			
			Action Item 3.3.1.1: Publicize town information sources Continue to disseminate information about existing Town resources and services, such as Dial-a-Ride and Social Safety Net, using the Town Website, mailings, and posters/flyers at locations such as the Senior Center, libraries, and on shuttle vehicles.	Ongoing	Memorial Library
			Action Item 3.3.1.2: Citizen's academy Encourage citizen education efforts such as the formation of an Acton Citizens Academy providing classes, information, and events, where participants (both newcomers and established residents) learn about the different functions of local government including volunteer opportunities.[10]	Ongoing	Citizens and citizen groups
			Action Item 3.3.1.3: Usable video archives of key meetings Broadcast meetings of key boards (Board of Selectmen, School Committee, Finance Committee, Planning Board) and place copies of these broadcast videos on the Town website.	Ongoing	Acton TV
		Strategy 3.3.2: Attract more volunteers to help with town affairs by conducting broad-based outreach.			
			Action Item 3.3.2.1: Publicize volunteer opportunities. Use town website and other Acton media to publicize volunteer opportunities.	Short-Term	Volunteer Coordinating Committee
			Action Item 3.3.2.2: More flexibility in volunteer opportunities Provide flexibility in scheduling/timing of volunteer opportunities and consider creating opportunities for shorter-term volunteering (single event, single task, etc).	Short-Term	Volunteer Coordinating Committee

	Objective 3.4: Support and strengthen neighborhoods. See Also: Make walking and biking easier and safer Outdoor spaces near neighborhoods				
			Action Item 3.4.1: Encourage private efforts to organize neighborhoods Encourage private efforts to organize communication among neighbors and group activities.[11]	Short-Term	Citizens and citizen groups
			Action Item 3.4.2: Provide contact info for new residents to connect with organized neighborhood groups.	Short-Term	Memorial Library
			Action Item 3.4.3: Encourage the business community to organize providing new residents with business information, such as provided by Welcome Wagon(tm) in other communities.	Short-Term	Economic Development Committee

[1] See Guidelines for Acton Sidewalk Design at http://www.acton-ma.gov/DocumentView.aspx?DID=856

[2] The primary purpose of these improvements is transportation rather than recreational cycling.

[3] Pedestrian and bicycle accommodation includes safe walkways from the public sidewalk to building entrances and bike racks.

[4] The system could have stops but also route deviations on either side of the fixed routes. Stops could include the train station, the schools, Kelley's Corner, West Acton Village, Acton Center, East Acton, and the proposed community center. The CoA shuttle can specialize in demand-responsive service and destinations outside Acton.

[5] The expanded MinuteVan could become a scheduled fixed route system with limited deviations from the route in response to customer requests; the CoA shuttle is a door-to-door on-request service.

[6] Coordination can include high traffic destinations such as the commuter rail station and Emerson Hospital.

[7] An example is the joint funding of Lexington's Lexpress shuttle by the town and developers (including Avalon).

[8] Ways to encourage commuter rail ridership include:

- Complete the connection of the Assabet River Rail Trail to the commuter rail station to encourage commuting by bicycle.
- Consider guiding growth to South Acton near the station (see Objective 1.1).
- Develop partnerships with local businesses to provide van shuttles to the train station.
- Facilitate car-pooling to the station.

[9] The Boston MPO process for updating the regional transportation plan and Transportation Improvement Program is one means to increase priority for the Concord Rotary project. The project would reduce cut-through traffic caused by back-ups as well as provide the access needed for economic development.

[10] The League of Women Voters has been doing education in this area for some time.

[11] Communication and interaction among neighbors might include email lists, Google groups, newsletters, etc. Group activities might include block parties, neighborhood books groups, walking groups, etc.

Capital Improvement Program Proposal – Detail

Department Name	**Engineering Department**	***Project***	**South Acton Commuter Lot Additional Landscaping**
		Fiscal Year	**2017**
Department Head	**Corey York**	***Cost***	**$ 180,000**
		Priority	*of*

1. Description

In assessing the progress of the construction at the South Acton Train Station, SATSAC has begun to focus their energies on reviewing and finalizing plans for life after construction - and specifically the continued beautification of South Acton. SATSAC feels that all of the steel, glass, asphalt, and concrete will create a stark imbalance between the station and surrounding area and suggest that softening the impact with landscape materials would provide a much more calming transition.

2. Useful Life

25 years

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

	Schedule Replacement		***Increase Personnel Efficiency***
	New or Expanded Service		***Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)***
X	***Other (Please Explain)***		

4. Justification

Upon completion of the station and opening of the second track, the MBTA has plans to finish the area with a small landscaping budget. Early on in the planning phase of the train station construction, SATSAC was able to coordinate a local landscape architect and CPC contributor, Peter Lukacic, to put together a conceptual design on how to both temper the commercial feel of the steel and cement while allowing it to better assimilate with the surrounding neighborhood and historic district, including screening views from nearby Jones Tavern and Exchange Halls.

5. How Was this Project's Priority Determined?

SATSAC would like to ask the town to appropriate funding for the design, purchase and installation of planting material. SATSAC feel unanimously that these enhancements are worth the investment and the timing of the work to coincide with the completion of the station makes sense on many levels.

6. Estimated Cost	*$180*,000
Less Trade-In (If Applicable)	***Unknown at this time***
Net Cost	$180,000

7. Are Non-Town Revenues Available to Reduce Cost?

Yes, Parking Meter funds could potentially be used to offset the cost.

8. If this Project is Delayed, What will be the Effect on your Department?

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget		***Expense Budget***	
Increase	X	Increase	X
Decrease		Decrease	

10. Attachments, if Applicable.

Corey York

From: David D. Martin [dmartin@marzak.org]
Sent: Saturday, July 18, 2015 2:24 PM
To: Board of Selectmen
Cc: South Acton Train Station Advisory Committee
Subject: Train Station Landscaping
Attachments: SATSAC Letter to BOS - 07.16.15.docx

Hello Board of Selectman,

At Thursday Night's meeting SATSAC voted to send you the attached memo about additional landscaping at the train station. Please take this into consideration, when discussing the issue at Monday's meeting of the Board of Selectman.

Thanks very much,

David

South Acton Train Station Advisory Committee
Cafeteria at the Senior Center
Audubon Hill
Acton, MA 01720

July 16, 2015

Acton Board of Selectmen
Town Hall
472 Main St
Acton, MA 01720

Dear Selectmen,

In assessing the progress of the construction at the South Acton Train Station, we have begun to focus our energies on reviewing and finalizing plans for life after construction - and specifically the continued beautification of South Acton. No doubt the new train station is going to become an iconic element of the area, with its highly designed T logo transom, 800' platforms, and free wifi, but we feel that all of the steel, glass, asphalt, and concrete will create a stark imbalance between the station and surrounding area and suggest that softening the impact with landscape materials would provide a much more calming transition.

Upon completion of the station and opening of the second track later this year, the MBTA has plans to finish the area with a small (and shrinking) landscaping budget, which by all indications will be allocated to site work and pedestrian traffic flow. Early on in the planning phase of the train station construction, SATSAC was able to coordinate a local landscape architect and CPC contributor, Peter Lukacic, to put together a conceptual design on how to both temper the commercial feel of the steel and cement while allowing it to better assimilate with the surrounding neighborhood and historic district, including screening views from nearby Jones Tavern and Exchange Halls.

The situation we find ourselves in at this moment is finding a way to bring the ideas, concepts, and vision provided by Mr. Lukacic to fruition in the train station site. The MBTA has assured us that they are not going to be able to participate in the resolution of the designs, but have endorsed the concept and are open to us moving forward with installation once the station is complete. We are asking the town to appropriate funding for the purchase and installation of plants, shrubs, and trees this fall in order to properly finish off the train station, and surrounding area making it a welcome addition to South Acton and to the town as a whole.

Implementation has been estimated to cost $180,000, and this cost would include finalization of the design and purchase, installation, and guarantee of the materials detailed in the plan attached. As an advisory committee, we feel unanimously that these enhancements are worth the investment and the timing of the work to coincide with the completion of the station makes sense on many levels.

We ask you to consider this proposal, reach out for any elaboration and discussion on the design, and move to appropriate the funding. Thank you.

Sincerely,

The esteemed Members of the South Acton Train Station Advisory Committee

PROJECT APPLICATION FORM – 2012

Applicant: **Town of Acton Historic District Commission (HDC) and South Acton Train Station Advisory Committee (SATSAC)**

Submission Date: 11/2/11

Applicant's Address, Phone Number and Email

Historic District Commission

Town of Acton, 472 Main Street

Acton, MA 01720

hdc@acton-ma.gov

South Acton Train Station Advisory Committee

Town of Acton, 472 Main Street

Acton, MA 01720

satsac@acton-ma.gov

Kathy Acerbo-Bachmann, Chair, Historic District Commission

kacerbobachmann@trinitychurchboston.org

David Martin, Chair, South Acton **Station Advisory Committee**

dmartin@marzak.org

Purpose: Historic Preservation

Town Committee (if applicable): Historic District Commission and South Acton Train Station

Project Name: Landscape to Mitigate Impact on Historic Resources, South Acton Train Station

Project Location/Address: South Acton Commuter Rail Station and Surrounding Area

Amount Requested: $ 150,000

Project Summary:

As part of the Fitchburg Line Improvements, including a new train station and platform, the MBTA has set aside $60,000 for all landscaping, which will only cover minimal plantings, basic brushed concrete for the drop-off sidewalk paving and pipe bollards. The HDC and SATSAC jointly seek $150,000 to augment the MBTA's basic landscaping budget of $60,000 in order to provide an appropriate amount of trees and other landscaping elements to help blend the station seamlessly into the existing environment and architecture. Enhanced landscaping money will allow more appropriate paving material as well as large trees and perhaps more outdoor seating and decorative bollards. While we cannot return the site to its historic and original condition and aesthetic, we therefore propose mitigating measures; that is, to disguise the platforms through additional landscaping and provide similar pedestrian amenities that will return the site to a condition that will simulate what used to be there while visually protecting and enhancing the site itself. The HDC and SATSAC strongly support funding this project under Historic Preservation, specifically *Preservation of Historic Resources*, for the reasons outlined below.

- The history and nature of the site included flat tracks and a flat platforms (i.e., at grade) and canopies with pedestrian amenities such as sheltered seating. However, due to current Federal Transit Authority requirements platforms must be raised four feet above grade and the MBTA cannot afford pedestrian enhancements. There is no historical precedent for what will be essentially four foot high exposed concrete walls extending 600 feet on the north and south sides of the project site. Plantings will help integrate the platform structures into the landscape, lessening impact on its historic context. Similarly, in the older stations, the entrance would have been paving bricks- not brushed concrete. An alternate surface such as stamped concrete, pavers or similar would increase the historic character of the station.

- The Massachusetts Bay Transit Authority and Federal Transit Authority were willing (and did) stop the station design process, and accepted the HDC's premise that the indirect effects on the adjacent historic properties would be significant enough that mitigating measures (including landscaping) and redesign were necessary. The South Acton Commuter Rail product was subject to a Federal Section 106 Review; the HDC and SATSAC have been working very successfully with the MBTA and its consultants to mitigate any adverse affects. Enhanced landscaping was one of the specific recommendations made by the HDC to the Massachusetts Historical Commission as part of the Section 106 review, which they supported. The final step to completing mitigating measures is to enhance the MBTA's basic contribution.

- Although the project technically falls outside the perimeter of the South Acton Historic District created in 1990 under Chapter 40C, the project is immediately adjacent to the District and within visual proximity to three of South Acton's National Register properties (the Faulkner-Jones Homestead 1707, the Jones Tavern 1732, and Exchange Hall 1860) and a group of historic residential properties comprising the Maple and Martin street neighborhood. The new station will directly abut several small-scaled, wood- framed houses located in the Maple and Martin Street neighborhood adjacent to the south platform. Although not technically part of the South Acton historic district, this area is under serious consideration by the HDC for inclusion in the District. The new station and raised platforms will be highly visible from the north due to an exposed parking lot with direct site lines to the edge of the South Acton historic district. The new station and raised platforms will be highly visible from the east while crossing the Route 27 (Main Street) bridge which forms the South Acton historic district boundary whether by vehicle, bicycle or as a pedestrian. Exchange Hall currently characterizes this area.

- The Town of Acton and property owners have devoted considerable CPC and other funds to improving the South Acton village and historic district. For visitors, commuters and many residents this station building and its platforms will serve as a gateway to South Acton and a daily reminder of South Acton's character and identity. In conjunction with Exchange Hall, this station will have a central presence in South Acton, with far larger consequences than its physical form would suggest. It is essential that the best architectural outcome be realized.

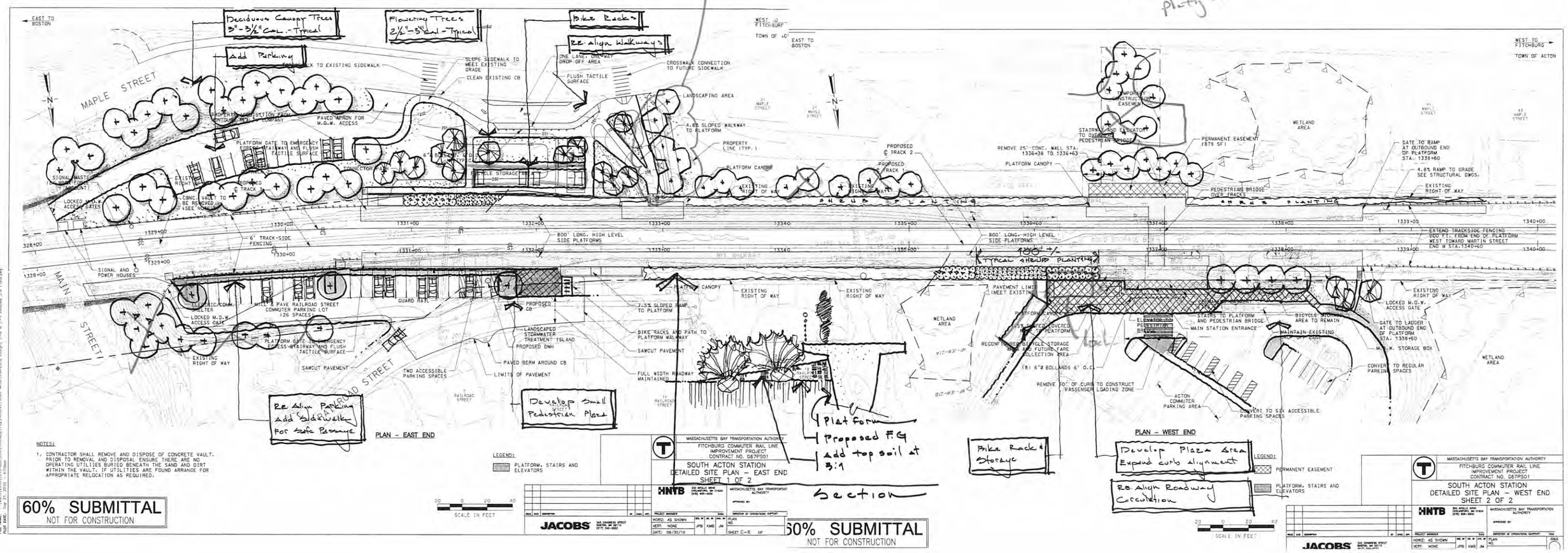
- A detailed site plan showing proposed plantings will be submitted at a later date.

Estimated Date for Commencement of Project: 2013

Estimated Date for Completion of Project: 2013-2014

More opportunity for more ornamental trees.

X Maple Street platy near S. Wk



EAST TO BOSTON

WEST TO FITCHBURG

TOWN OF ACTON

STOW STREET

MAPLE STREET

MAPLE STREET

79'-0" TYPE E3

318'-0" TYPE E1

300'-0" TYPE E1

70'-0" TYPE E1

RAILROAD STREET

1 SITE
1:500

LEGEND:

TYPE E1 — MODULE E1 PERIPHERAL

TYPE E2 — MODULE E2 CIRCULATION

TYPE E3 — MODULE E3 ENTRY ZONE

TYPE E4 — MODULE E4 SHRUB

LOAM AND SEED

0 250 500 1000

SCALE: 1:500

N

PROJECT NORTH

COMMONWEALTH OF MASSACHUSETTS — REGISTERED ARCHITECT — MICHAEL A. BASKIN — No.4453 — BOSTON MA

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

FITCHBURG COMMUTER RAIL LINE
IMPROVEMENT PROJECT
CONTRACT NO. G67PS01

SOUTH ACTON STATION LANDSCAPE PLAN

ISSUE	DATE	DESCRIPTION	BY	CHKD.	APP.

HNTB
300 APOLLO DRIVE
CHELMSFORD, MA 01824
(978) 905-4000

PROJECT MANAGER — Date 5/30/12

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

APPROVED BY: PROJECT MANAGER — Date 6/30/12

Lozano, Baskin, and Associates, Inc.
Architecture • Urban Design • City Planning
205 Mt. Auburn St. Watertown, MA 02472

HORIZ: N/A
VERT: N/A
DATE: 05/17/12

DES. BY	DR. BY	CHK. BY
MB DW	DW	MB

PLAN NO. 168636

SHEET A-8.1

ISSUE

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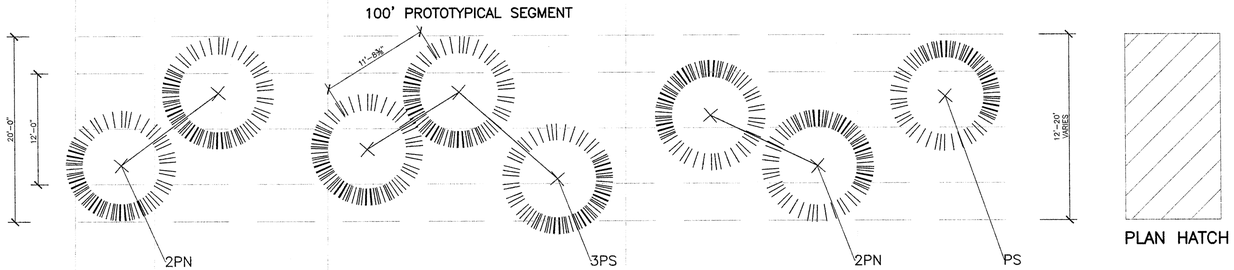
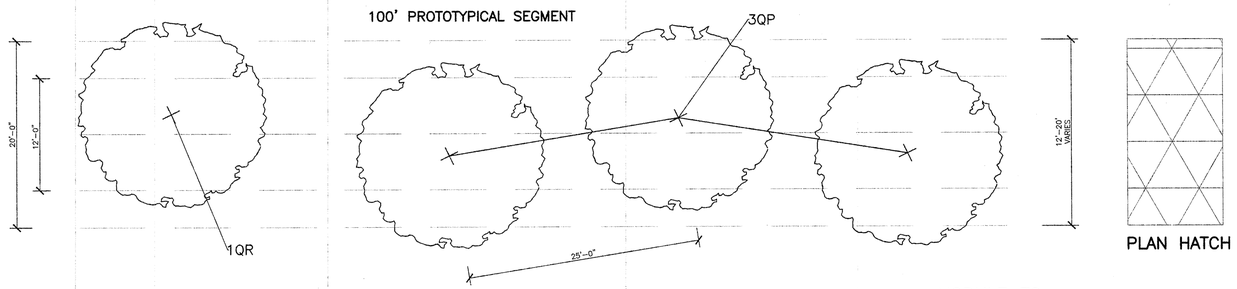
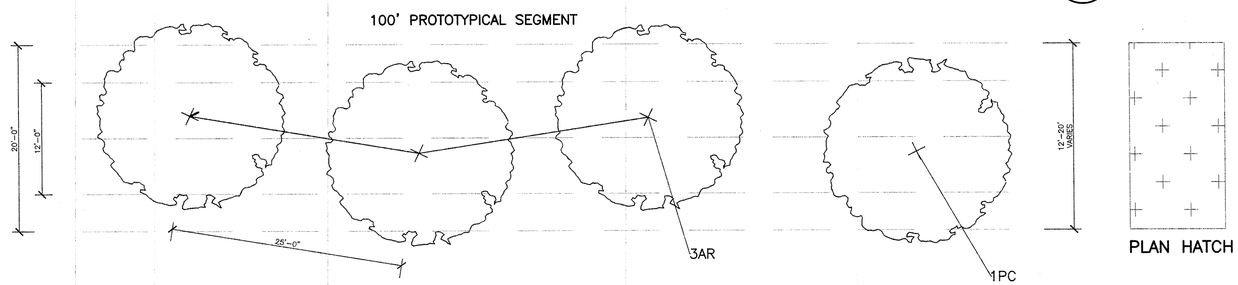


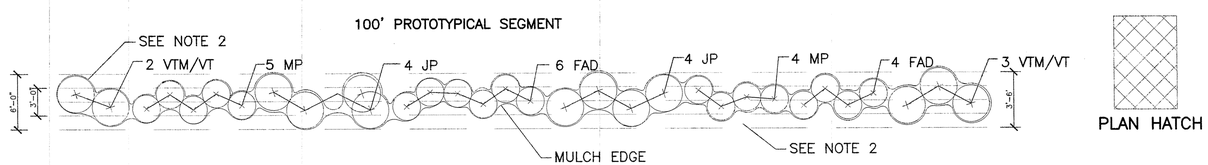
MODULE E1:
PERIPHERAL AREA TREES (A / A-11.2)
NTS



MODULE E2:
GENERAL CIRCULATION TREES (B / A-11.2)
NTS

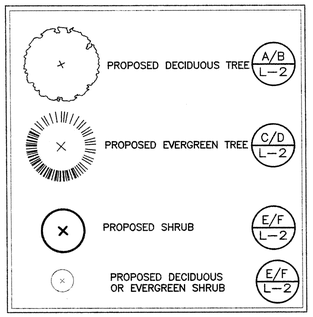


MODULE E3:
STATION ENTRY ZONE TREES (C / A-11.2)
NTS



MODULE E4:
SHRUB PLANTING (D / A-11.2)
NTS

LEGEND



PLANT SCHEDULE

Trees

SYMBOL	QTY	SCIENTIFIC NAME	COMMON NAME	BASE BID SIZE	COMMENTS
AR		Acer rubrum	Red Maple	4" cal.	B&B
PC		Pyrus calleryana	Bradford Pear	4" cal.	B&B
PS		Pinus strobus	White Pine	3"-3 1/2" cal.	B&B
PN		Pinus nigra	Austrian Pine	6' ht.	B&B
TD		Taxus media densiformis	Densiform Yew	2 1/2'-3' Sprd	B&B
QP		Quercus palustris	Pin Oak	1 1/2"-2" cal.	B&B
QR		Quercus rubra	Red Oak	1 1/2"-2" cal.	B&B

PLANT SCHEDULE

Shrubs

SYMBOL	QTY	SCIENTIFIC NAME	COMMON NAME	BASE BID SIZE	SPACING	COMMENTS
FAD		Forsythia x 'Arnold Dwarf'	Arnold Dwarf Fosythia	2' ht.	3' O.C.	CG
JP		Juniperus chinensis 'Pfitzeriana'	Pfitzer Juniper	2' ht.	4' O.C.	CG
MP		Myrica pensylvanica	Northern Bayberry	2' ht.	3' O.C.	CG
VTM		Viburnum plicatum tomentosum 'Mariesi'	Doublefile Viburnum	2' ht.	4' O.C.	CG
VT		Viburnum trilobum	American Cranberrybush	2' ht.	4' O.C.	CG
VC		Vaccinium corymbosum 'Northland'	Highbush Blueberry	2' ht.	3' O.C.	CG

NOTES:
1. PROVIDE 3" OF AGED PINE BARK MULCH AROUND THE BASE OF THE TREE/SHRUB AND LOAM AND SEED DISTURBED AREAS PER MBTA STANDARD SPECIFICATIONS – SECTION 02485.
2. UNDISTURBED AREAS OUTSIDE OF THE MULCH AREA SHALL BE LEFT NATURALLY VEGETATED.
3. PROVIDE LOAM AND SEED AS INDICATED ON DRAWING AND AS REQUIRED BY MBTA STANDARD SPECIFICATIONS – SECTION 02485.
4. AREAS DISTURBED BY CONSTRUCTION SHALL BE LOAMED AND SEEDED AS REQUIRED FOR FINISHED GRADE SLOPES IN ACCORDANCE WITH MBTA STANDARD SPECIFICATIONS – SECTION 02485.
5. SEE A-11.3 FOR PLANTING DETAILS.

PROJECT NORTH

REGISTERED ARCHITECT MICHAEL A. BASKIN No.4453 BOSTON MA COMMONWEALTH OF MASSACHUSETTS

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

FITCHBURG COMMUTER RAIL LINE
IMPROVEMENT PROJECT
CONTRACT NO. G67PS01

SOUTH ACTON STATION LANDSCAPE MODULES

ISSUE	DATE	DESCRIPTION	BY	CHKD.	APP.

HNTB
300 APOLLO DRIVE
CHELMSFORD, MA 01824
(978) 905-4000

PROJECT MANAGER 5/30/12 Date

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
APPROVED BY: 6/30/12
PROJECT MANAGER Date

Lozano, Baskin, and Associates, Inc.
Architecture•Urban Design•City Planning
205 Mt. Auburn St. Watertown, MA 02472

HORIZ: N/A
VERT: N/A
DATE: 05/17/12

DES. BY	DR. BY	CHK. BY
MB DW	DW	MB

PLAN NO. 168637
SHEET A-8.2
ISSUE

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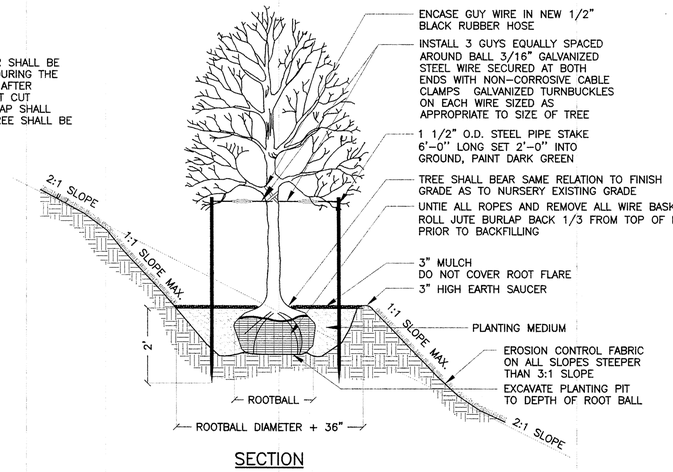
NOTE:
WATERING SAUCER SHALL BE FLOODED TWICE DURING THE FIRST 24 HOURS AFTER PLANTING. DO NOT CUT LEADER. TREE WRAP SHALL NOT BE USED. TREE SHALL BE SET PLUMB.



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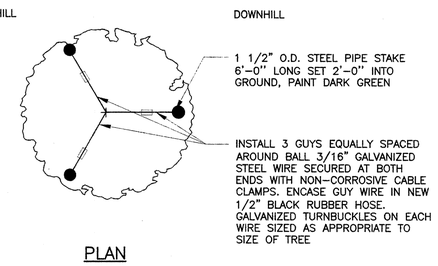


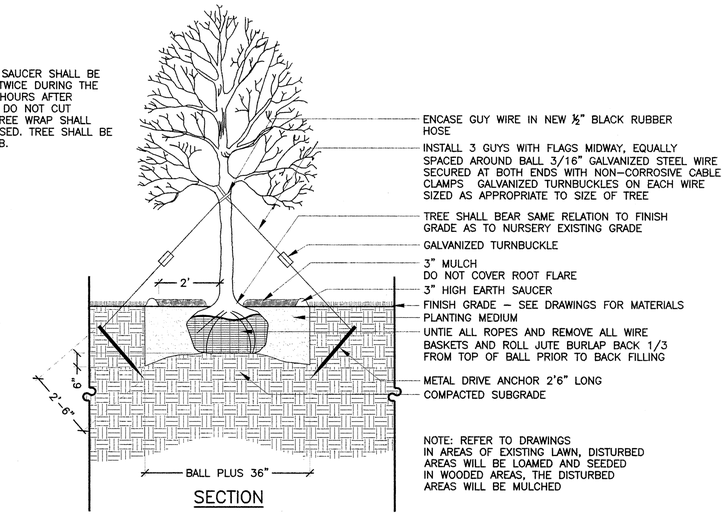
PLAN

DECIDUOUS TREE PLANTING ON A SLOPE

NTS

A
A-11.3

NOTE:
WATERING SAUCER SHALL BE FLOODED TWICE DURING THE FIRST 24 HOURS AFTER PLANTING. DO NOT CUT LEADER. TREE WRAP SHALL NOT BE USED. TREE SHALL BE SET PLUMB.



NOTE: REFER TO DRAWINGS IN AREAS OF EXISTING LAWN, DISTURBED AREAS WILL BE LOAMED AND SEEDED IN WOODED AREAS, THE DISTURBED AREAS WILL BE MULCHED

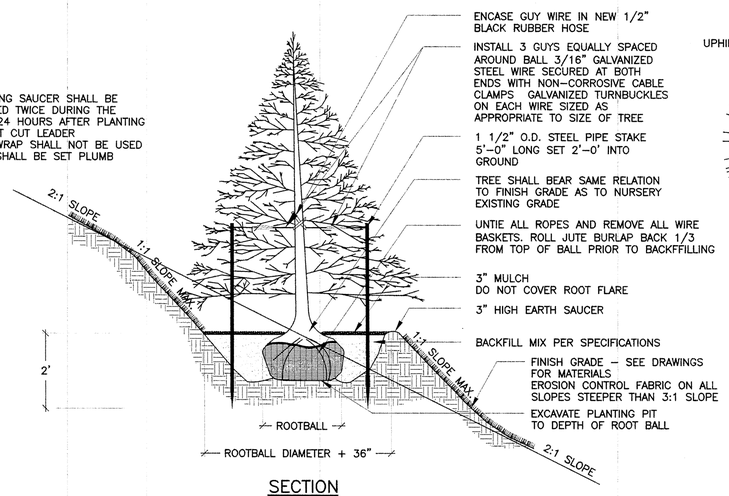
SECTION

DECIDUOUS TREE PLANTING

NTS

B
A-11.3

WATERING SAUCER SHALL BE FLOODED TWICE DURING THE FIRST 24 HOURS AFTER PLANTING DO NOT CUT LEADER TREE WRAP SHALL NOT BE USED TREE SHALL BE SET PLUMB



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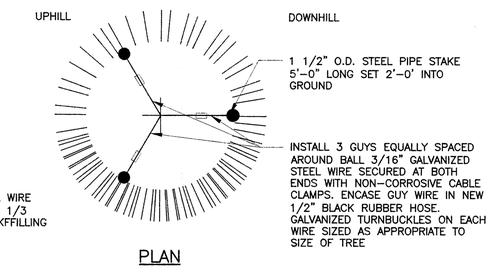


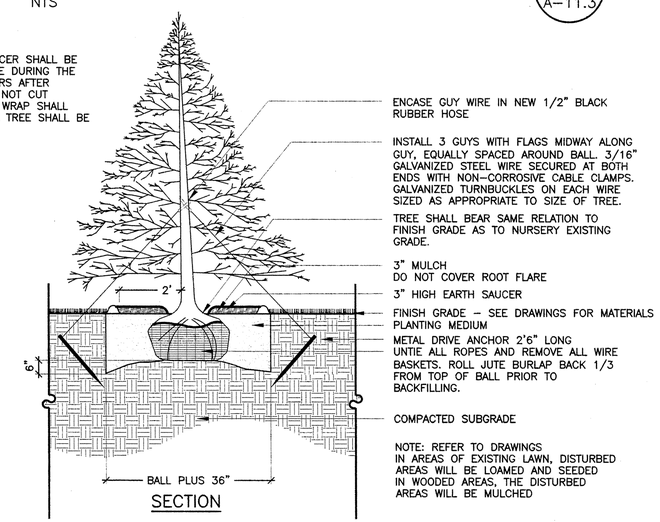
PLAN

EVERGREEN TREE PLANTING ON A SLOPE

NTS

C
A-11.3

NOTE:
WATERING SAUCER SHALL BE FLOODED TWICE DURING THE FIRST 24 HOURS AFTER PLANTING. DO NOT CUT LEADER. TREE WRAP SHALL NOT BE USED. TREE SHALL BE SET PLUMB.



NOTE: REFER TO DRAWINGS IN AREAS OF EXISTING LAWN, DISTURBED AREAS WILL BE LOAMED AND SEEDED IN WOODED AREAS, THE DISTURBED AREAS WILL BE MULCHED

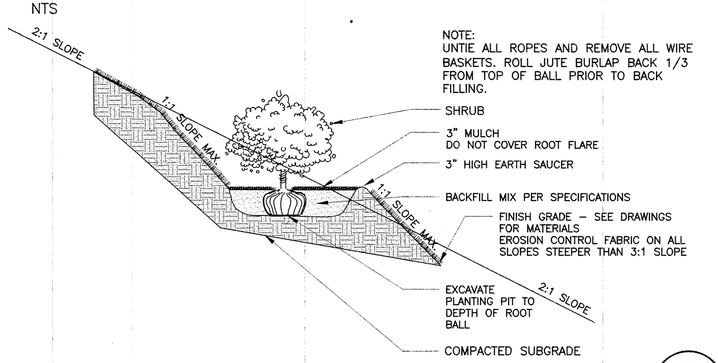
SECTION

EVERGREEN TREE PLANTING

NTS

D
A-11.3

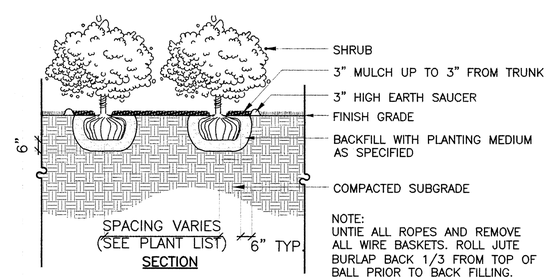
NOTE:
UNTIE ALL ROPES AND REMOVE ALL WIRE BASKETS. ROLL JUTE BURLAP BACK 1/3 FROM TOP OF BALL PRIOR TO BACK FILLING.



SHRUB PLANTING

NTS

F
A-11.3



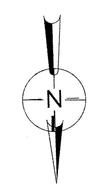
SECTION

NOTE:
UNTIE ALL ROPES AND REMOVE ALL WIRE BASKETS. ROLL JUTE BURLAP BACK 1/3 FROM TOP OF BALL PRIOR TO BACK FILLING.

SHRUB PLANTING

NTS

E
A-11.3



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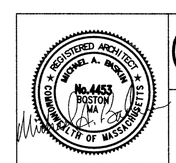

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

FITCHBURG COMMUTER RAIL LINE
IMPROVEMENT PROJECT
CONTRACT NO. G67PS01

SOUTH ACTON STATION LANDSCAPE DETAILS

ISSUE	DATE	DESCRIPTION	BY	CHKD.	APP.

HNTB
300 APOLLO DRIVE
CHELMSFORD, MA 01824
(978) 905-4000

PROJECT MANAGER — Date 5/30/12

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
APPROVED BY: PROJECT MANAGER — Date 6/30/12

Lozano, Baskin, and Associates, Inc.
Architecture•Urban Design•City Planning
205 Mt. Auburn St. Watertown, MA 02472

HORIZ: N/A	DES. BY	DR. BY	CHK. BY	PLAN NO. 168638	ISSUE
VERT: N/A	MB	DW	MB		
DATE: 05/17/12	DW			SHEET A-8.3	

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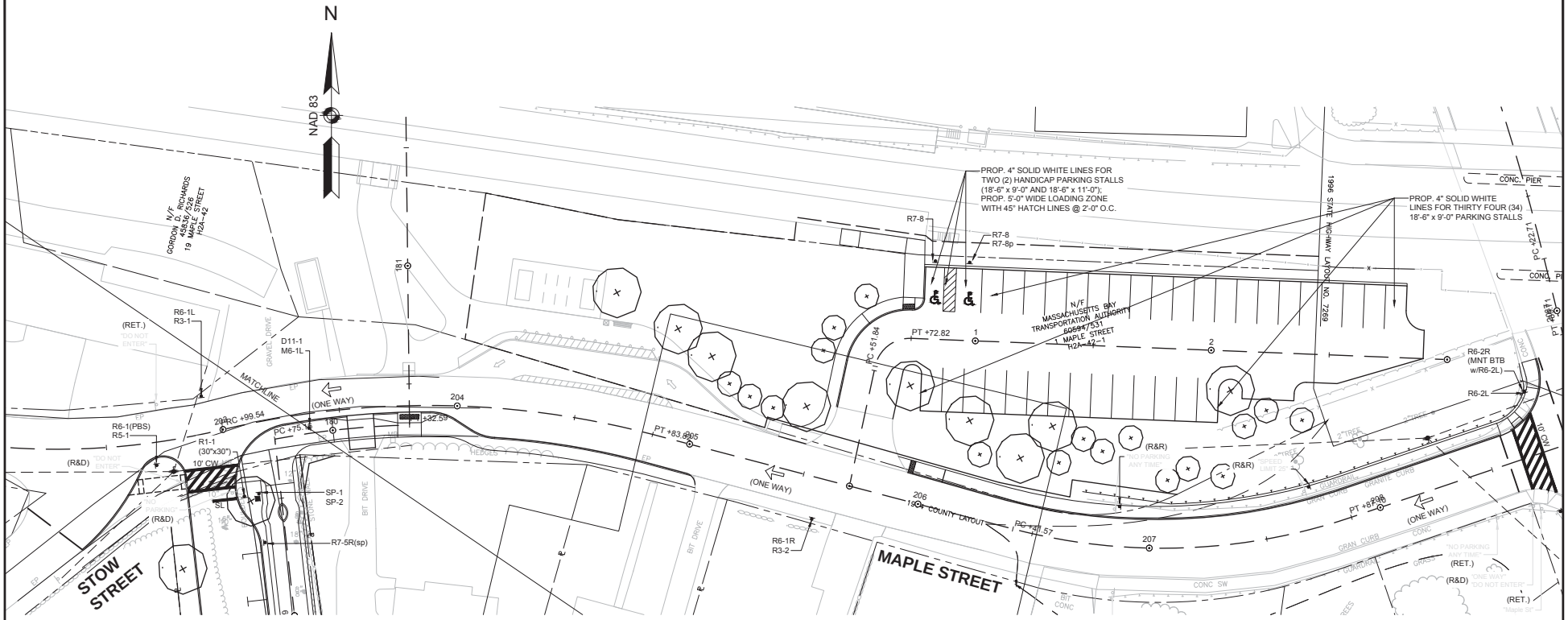
PLOT DATE: May 25, 2012 – 10:55am

MAYNARD & ACTON
ASSABET RIVER RAIL TRAIL

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	97	214
PROJECT FILE NO.	604531		

TRAFFIC SIGN & PAVEMENT MARKING PLANS



CONTINUED ON SHEET 96

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SCALE: 1" = 20'

604531_HDPM&S.DWG Plotted on 15-Apr-2015 4:30 PM

Capital Improvement Program Proposal – Detail

Department Name	**Fire Department**	***Project***	**Replacement of Eng. 24**
		Fiscal Year	**2017**
Department Head	**Patrick J. Futterer**	***Cost***	**$ 650,000.00**
		Priority	**1** *of* **1**

1. Description: Engine 24 is the oldest fire engine in our fleet. The vehicle is a 2000 and has 26,359 miles and needs to be replaced. As a second alarm unit Engine 24 has responded to 367 calls in 2014.

2. Useful Life:
10 + years

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

	X Schedule Replacement		***Increase Personnel Efficiency***
	New or Expanded Service	***X***	***Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)***
	Other (Please Explain)		

4. Justification: Engine 24 is past its useful life for the Town of Acton.

5. How Was this Project's Priority Determined?
Vehicle replacement program for fire vehicles.

6. Estimated Cost $650,000.00
Less Trade-In (If Applicable) Possible trade in value or sale of vehicle
Net Cost

7. Are Non-Town Revenues Available to Reduce Cost? Lease to Purchase agreements. Estimated 7 year, annual payment would be $102,738.35

8. If this Project is Delayed, What will be the Effect on your Department?
The repairs will continue to rise and the usefulness of the vehicle will lessen.

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget	***Expense Budget***
Increase	X Increase
Decrease	Decrease

10. Attachments, if Applicable.

Capital Improvement Program Proposal – Detail

Department Name	**Fire Department**	***Project***	**New Ambulance (replacement program)**
		Fiscal Year	**2017**
Department Head	**Patrick J. Futterer**	***Cost***	**$245,000.00**
		Priority	**2** *of* **4**

1. Description- Rescue (ambulance) to be utilized for a frontline ambulance at Station 2. This was taken out of the FY16 budget process due to ALS. Rescue 34 as a secondary unit had responded to 343 EMS calls in 2014.

2. Useful Life 5-7 years

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

X	***Schedule Replacement***		***Increase Personnel Efficiency***
	New or Expanded Service	***X***	***Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)*** (The ambulance with the most mileage will be placed into a reserve status)
	Other (Please Explain)		

4. Justification-This ambulance will replace a 2010 model year. This vehicle has 80,871 miles as of September 2015.

5. How Was this Project's Priority Determined? This was determined by a review of the current vehicles and staffing. An additional rescue should be in place, 24 x 7 365 and the purchase of a new unit will provide us with a newer more trustworthy, secondary unit.

6. Estimated Cost $245,000.00

Less Trade-In (If Applicable)

Net Cost N/A

7. Are Non-Town Revenues Available to Reduce Cost?

Ambulance Enterprise Fund

8. If this Project is Delayed, What will be the Effect on your Department? The unit will get older, more repairs would have to be paid for and its resale value would be less.

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget	***Expense Budget***
Increase	X Increase
Decrease	Decrease

10. Attachments, if Applicable.

Capital Improvement Program Proposal – Detail

Department Name	**Fire Department**	***Project***	**Paramedic Program Start-up**
		Fiscal Year	**2017**
Department Head	**Patrick J. Futterer**	***Cost***	**$70,000.00 approx.**
		Priority	**3** *of* **4**

1. Description

Specialized equipment needed to establish an ALS program includes items such as Cardiac Monitors, Intravenous solutions, needles, tubing, start kits. Intubation kits for airway maintenance to include laryngeal blades, handles, tubes, tube tamers. Medications need to be purchased and maintained.

2. Useful Life Most items used in patient care are one time use only. Some items can be cleaned and reused but only after disinfecting the items.

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

	Schedule Replacement	***X***	***Increase Personnel Efficiency***
X	***New or Expanded Service***		***Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)***
	Other (Please Explain)		

4. Justification

This is part of the ALS program for Acton Fire Department. These items are mandated to carry by the Office of EMS for MA.

5. How Was this Project's Priority Determined?

Through the protocols for OEMS.

6. Estimated Cost ***$70,000.00***

Less Trade-In (If Applicable)

Net Cost

7. Are Non-Town Revenues Available to Reduce Cost?

N/A

8. If this Project is Delayed, What will be the Effect on your Department?

We would be unable to start the ALS program.

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget	***Expense Budget***
Increase	X Increase
Decrease	Decrease

10. Attachments, if Applicable.

Capital Improvement Program Proposal – Detail

Department Name	**Fire Department**	***Project***	**Paramedic School**		
		Fiscal Year	**2017**		
Department Head	**Patrick J. Futterer**	***Cost***	**$137,280.00**		
		Priority	**4**	*of*	**4**

1. Description: To enhance the staffing of Acton Fire Department EMS Division we need to have 4 current EMT Basics go to Paramedic school.

2. Useful Life:

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

	Schedule Replacement	***Increase Personnel Efficiency***
X	***New or Expanded Service***	***Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)***
	Other (Please Explain)	

4. Justification: The Paramedic program which has been started needs to be enhanced with more Paramedics. An agreement with OEMS to allow us to provide ALS services included the process of obtaining two Paramedics per ambulance. This will help fulfill that agreement.

5. How Was this Project's Priority Determined? This is part of the Paramedic agreement with OEMS and our Regional Medical Officer.

6. Estimated Cost: **$137,280.00**

Less Trade-In (If Applicable)

Net Cost

7. Are Non-Town Revenues Available to Reduce Cost? Possible Federal grants to start up the program.

8. If this Project is Delayed, What will be the Effect on your Department? Possible failure to comply with the Paramedic agreement with OEMS and a failure to be able to continue ALS services.

9. Please Describe the Effect of this Project on your Operating Budget.

	Personnel Budget		***Expense Budget***
	Increase	X	Increase
	Decrease		Decrease

10. Attachments, if Applicable.

Capital Improvement Program Proposal – Detail

Department Name	**Fire Department**	***Project***	**Shift Commander Vehicle**
		Fiscal Year	**2017**
Department Head	**Patrick J. Futterer**	***Cost***	**$60,000.00**
		Priority	**1** *of* **4**

1. Description

Replacement of the front line Shift Commander vehicle. Fire Department Vehicle Replacement Program.

2. Useful Life 5 years for useful life.

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

X Schedule Replacement

New or Expanded Service

Other (Please Explain)

Increase Personnel Efficiency

X Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)

4. Justification

The current vehicle is 6 years old has 70,366 miles and needs to be placed into a 2nd Alarm status. S/C respond to approx.1900 calls in 2014. We need to have a reliable vehicle.

5. How Was this Project's Priority Determined?

Vehicle replacement program for equipment.

6. Estimated Cost $60,000.00 to include up fit.

Less Trade-In (If Applicable)

Net Cost $60,000.00

7. Are Non-Town Revenues Available to Reduce Cost?

Ambulance Enterprise Fund

8. If this Project is Delayed, What will be the Effect on your Department?

The vehicle will need further repairs and will not be a reliable vehicle for emergency responses.

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget	***Expense Budget***
Increase	Increase X
Decrease	Decrease

10. Attachments, if Applicable.

Personnel Improvement Program Proposal-Detail

DEPARTMENT/BOARD Fire/EMS

Project/Expenditure: EMS Coordinator Fiscal Year 2017 Cost: $38,500.00

Department Head/Board Chair: Patrick J. Futterer Priority: 1 of 1

(1) Description (*Please include any brochures on product*):
(2) Useful Life: Continued
(3) Purpose:

____ Schedule Replacement *
X New/Expanded Service
____ Other (*Please Explain*)
X Increase Personnel Efficiency
____ Replace Obsolete/Unsafe Equipment*
** Please explain how old equipment will be disposed of.*

(4) Justification:
Replacement of the EMS Coordinator will bring the line personnel back to 10 per group.

(5) How did you determine this project's priority? Replacement for personnel that was moved to the coordinator position.

(6) Estimated Cost: $38,500.00

(7) Additional Cost Data (*Equipment Only*)

Purchase Price: $ _____
Less Trade-In: $ _____
Net Cost: $ _____

(8) Are non-Town revenues available to reduce cost? Ambulance Enterprise Fund

(9) What will be the effect on your department if this project is delayed? Overtime costs will increase

(10) Please describe the effect of this project on your Operating Budget.

Personnel Budget:
X increase
___ decrease
___ no change
$38,500.00 amount of change

Expense Budget:
___ increase
___ decrease
___ no change
_____ amount of change

Detail: _____

Attachments (if any):

Personnel Improvement Program Proposal-Detail

DEPARTMENT/BOARD Fire/EMS

Project/Expenditure: Assistant Chief of Operations/Training Fiscal Year 2017 Cost: $38,500.00

Department Head/Board Chair: Patrick J. Futterer Priority: 1 of 2

(1) Description (*Please include any brochures on product*):
(2) Useful Life: Continued
(3) Purpose:

____ Schedule Replacement *
X New/Expanded Service
____ Other (*Please Explain*)
X Increase Personnel Efficiency
____ Replace Obsolete/Unsafe Equipment*
** Please explain how old equipment will be disposed of.*

(4) Justification:

This position would coordinate and perform the following:

- Policy and Procedure establishment
- Training of all Fire Personnel
  - Hands on
  - Computerized
- Record keeping for all training
- Liaison to Municipal Properties Manager
- Standard Operating Procedures
  - Maintenance, Review, Revision, Training

(5) How did you determine this project's priority? Needs of the Department and Town have changed.

(6) Estimated Cost: $38,500.00

(7) Additional Cost Data (*Equipment Only*)

Purchase Price: $ _____
Less Trade-In: $ _____
Net Cost: $ _____

(8) Are non-Town revenues available to reduce cost? N/A

(9) What will be the effect on your department if this project is delayed? Overtime costs will continue increase

(10) Please describe the effect of this project on your Operating Budget.

Personnel Budget:
X increase
___ decrease
___ no change
$38,500.00 amount of change

Expense Budget:
___ increase
___ decrease
___ no change
_____ amount of change

Detail: _____

Attachments (if any):

Personnel Improvement Program Proposal-Detail

DEPARTMENT/BOARD Fire/EMS

Project/Expenditure: Swing Personnel (4) Fiscal Year 2017 Cost: $154,000.00

Department Head/Board Chair: Patrick J. Futterer Priority: 2 of 2

(1) Description (*Please include any brochures on product*):
(2) Useful Life: Continued
(3) Purpose:

____ Schedule Replacement *
X New/Expanded Service
____ Other (*Please Explain*)
X Increase Personnel Efficiency
____ Replace Obsolete/Unsafe Equipment*
* *Please explain how old equipment will be disposed of.*

(4) Justification: To help bring the overtime cost down and have a stronger response for emergencies. One new person per group for a total of 4 personnel. This will also help satisfy the OEMS requirement for 2 Paramedics per ambulance.

(5) How did you determine this project's priority? Overtime costs have risen due to contractual agreements and long and short term disabilities during the years.

(6) Estimated Cost: $ 154,000.00

(7) Additional Cost Data (*Equipment Only*)

Purchase Price: $ _____
Less Trade-In: $ _____
Net Cost: $ _____

(8) Are non-Town revenues available to reduce cost? N/A

(9) What will be the effect on your department if this project is delayed? Overtime costs will increase

(10) Please describe the effect of this project on your Operating Budget.

Personnel Budget:
X increase
___ decrease
___ no change
$154,000.00 amount of change

Expense Budget:
___ increase
___ decrease
___ no change
_____ amount of change

Detail: _____

Attachments (if any):

Capital Improvement Program Proposal – Detail

Department Name	**HEALTH**	***Project***	**Community Coordinator Administrative Assistance**
		Fiscal Year	**2017**
Department Head	**Doug Halley**	***Cost***	**$25,000**
		Priority	**1** *of* **1**

---

1. Description

This position will provide part-time (19 hrs per week) administrative support for the Community Services Coordinator.

2. Useful Life Personnel

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

	Schedule Replacement	***Increase Personnel Efficiency***
X	***New or Expanded Service***	***Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)***
	Other (Please Explain)	

4. Justification

The case load for the Community Services Coordinator continues to increase each year. The expansion of low income housing combined with a sluggish economy has significantly increased the number of individuals and families that need to be connected to services.

5. How Was this Project's Priority Determined?

The Community Services Coordinator's time is too valuable to have an ever increasing amount of time dedicated to administrative functions. An administrative assistant will free up the Coordinator's time and may also be able to help the Veteran's Services Officer with administrative assistance.

6. Estimated Cost ***$25,000***

Less Trade-In (If Applicable) ***N/A***

Net Cost ***$25,000***

7. Are Non-Town Revenues Available to Reduce Cost?

There are no non-town revenues currently available.

8. If this Project is Delayed, What will be the Effect on your Department?

Delay of this proposal would require the Community Services Coordinator to continue providing administrative duties at the expense of direct assistance for individuals and families.

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget		***Expense Budget***	
Increase	$25,000	Increase	No affect
Decrease		Decrease	No affect

10. Attachments, if Applicable.

Capital Improvement Program Proposal – Detail

Department Name	**HEALTH**	***Project***	**Inspection Vehicle**
		Fiscal Year	**2017**
Department Head	**Doug Halley**	***Cost***	**$30,000**
		Priority	**2** *of* **2**

---

1. Description

This will fund the purchase of a 2016 GMC Canyon pick-up truck or equivalent.

2. Useful Life 10 years

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

X Schedule Replacement

New or Expanded Service

Other (Please Explain)

Increase Personnel Efficiency

Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)

4. Justification

The Sealer of Weights and Measures needs support for the equipment necessary to conduct inspections. An additional vehicle will also address Land Use Department needs allowing additional transport for inspections required by each department.

5. How Was this Project's Priority Determined?

The availability of funds in the Sealer of Weights and Measures fund and the increasing need of bringing equipment to offsite locations.

6. Estimated Cost	***$30,000***
Less Trade-In (If Applicable)	***N/A***
Net Cost	***$30,000***

7. Are Non-Town Revenues Available to Reduce Cost?

The vehicle will be funded from the Sealer of Weights and Measures Revolving Account.

8. If this Project is Delayed, What will be the Effect on your Department?

Delay of this project will be relying on the availability of ill equipped vehicles for inspectional and emergency health services.

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget		***Expense Budget***	
Increase	No affect	Increase	No affect
Decrease	No affect	Decrease	No affect

10. Attachments, if Applicable.

Capital Improvement Program Proposal – Detail

Department Name	**Engineering Department**	***Project***	**Parker Street Bridge Construction**
		Fiscal Year	**2017**
Department Head	**Corey York**	***Cost***	**$850,000**
		Priority	*of*

1. Description

This project will fund the reconstruction of the Parker Street Bridge by Clover Hill Road. The existing structure has been deemed deficient by the Mass DOT Bridge Division and we've hired a consultant to assist us with the design plans.

2. Useful Life 30 years

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

Schedule Replacement		***Increase Personnel Efficiency***
New or Expanded Service	***X***	***Replace Obsolete or Unsafe Infrastructure***
Other (Please Explain)		

4. Justification

The existing bridge structure has been deemed deficient by the Mass DOT Bridge Division and they have placed a weight restriction onto Parker Street to prevent trucks from driving over it. The Town hired a consultant to produce a design to replace the bridge, restore its structural integrity and improve public safety.

5. How Was this Project's Priority Determined?

Safety

6. Estimated Cost ***$850,000***

Less Trade-In (If Applicable) ***Na***

Net Cost ***$850,000***

7. Are Non-Town Revenues Available to Reduce Cost?

Yes, Chapter 90 Program can be used for this project

8. If this Project is Delayed, What will be the Effect on your Department?

The existing structure has been deemed deficient. The State established a water level that is considered a safety risk. If the water level reaches this height, Town staff is suppose to inspect the bridge and fill-out reports every 6 hours until the water levels from below the hazard level. If delayed, the State indicated that eventually the structure willfail its inspection and the roadway will be closed for all traffic.

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget		***Expense Budget***	
Increase	None	Increase	none
Decrease	None	Decrease	none

10. Attachments, if Applicable.

Parker Street (Bridge No. A-02-010)
Acton, Massachusetts
Engineer's Estimate - 25% Design
September 11, 2015

25% ENGINEER'S ESTIMATE

KEY:
BRIDGE ITEMS
HIGHWAY ITEMS

Item No.	Quantity	Unit	Description	Unit Price	Amount
102.01	1	LS	SELECTIVE CLEARING AND GRUBBING	$2,500.00	$2,500.00
102.51	2	EA	INDIVIDUAL TREE PROTECTION	$200.00	$400.00
102.52	125	FT	TEMPORARY TREE PROTECTION FENCING	$10.00	$1,250.00
103.	2	EA	TREE REMOVED - DIAMETER UNDER 24 INCHES	$750.00	$1,500.00
104.	2	EA	TREE REMOVED - DIAMETER 24 INCHES AND	$1,250.00	$2,500.00
115.1	1	LS	DEMOLITION OF BRIDGE NO. A-02-010	$25,000.00	$25,000.00
120.1	90	CY	UNCLASSIFIED EXCAVATION	$25.00	$2,250.00
140.	700	CY	BRIDGE EXCAVATION	$38.00	$26,600.00
141.1	25	CY	TEST PIT FOR EXPLORATION	$50.00	$1,250.00
142.	5	CY	CLASS B TRENCH EXCAVATION	$30.00	$150.00
144.	8	CY	CLASS B ROCK EXCAVATION	$125.00	$1,000.00
150.	50	CY	ORDINARY BORROW	$22.00	$1,100.00
151.	200	CY	GRAVEL BORROW	$30.00	$6,000.00
151.2	430	CY	GRAVEL BORROW FOR BACKFILLING STRUCTURES AND PIPES	$45.00	$19,350.00
156.	15	TON	CRUSHED STONE	$35.00	$525.00
156.1	90	TON	CRUSHED STONE FOR BRIDGE FOUNDATIONS	$50.00	$4,500.00
170.	350	SY	FINE GRADING AND COMPACTING	$3.00	$1,050.00
180.1	1	LS	HEALTH AND SAFETY PLAN	$3,000.00	$3,000.00
180.2	8	HR	IMPLEMENTATION OF HEALTH AND SAFETY PLAN	$80.00	$640.00
180.3	8	HR	PERSONNEL PROTECTION LEVEL C UPGRADE	$15.00	$120.00
180.5	8	HR	LICENSED SITE PROFESSIONAL	$100.00	$800.00
180.6	2	EA	MISCELLANEOUS SOILS TESTING	$1,000.00	$2,000.00
201.	1	EA	CATCH BASIN	$2,500.00	$2,500.00
202.	1	EA	MANHOLE	$3,000.00	$3,000.00
221.	1	EA	FRAME AND COVER	$700.00	$700.00
222.1	1	EA	FRAME AND GRATE - MASSDOT CASCADE TYPE	$700.00	$700.00
241.15	20	FT	15 INCH REINFORCED CONCRETE PIPE	$70.00	$1,400.00
241.18	60	FT	18 INCH REINFORCED CONCRETE PIPE	$75.00	$4,500.00
303.08	75	FT	8 INCH DUCTILE IRON WATER PIPE (MECHANICAL JOINT)	$100.00	$7,500.00
303.10	95	FT	10 INCH DUCTILE IRON WATER PIPE (MECHANICAL JOINT)	$110.00	$10,450.00
309.	500	LB	DUCTILE IRON FITTINGS FOR WATER PIPE	$5.00	$2,500.00
373.08	75	FT	8 INCH WATER PIPE INSULATION	$60.00	$4,500.00
373.10	90	FT	10 INCH WATER PIPE INSULATION	$70.00	$6,300.00
415.	275	SY	PAVEMENT MICRO MILLING	$3.00	$825.00
450.90	95	TON	CONTRACTOR QUALITY CONTROL	$2.00	$190.00
452.	40	GAL	ASPHALT EMULSION FOR TACK COAT	$6.50	$260.00
453.	710	FT	HMA JOINT SEALANT	$1.00	$710.00
455.22	55	TON	SUPERPAVE SURFACE COURSE - 9.5 (SSC - 9.5)	$140.00	$7,700.00
455.32	40	TON	SUPERPAVE INTERMEDIATE COURSE - 19.0 (SIC - 19.0)	$140.00	$5,600.00
456.	90	TON	WARM-MIX ASPHALT PAVEMENT	$2.00	$180.00

Parker Street (Bridge No. A-02-010)
Acton, Massachusetts
Engineer's Estimate - 25% Design
September 11, 2015

Item No.	Quantity	Unit	Description	Unit Price	Amount
472.	10	TON	HOT MIX ASPHALT FOR MISCELLANEOUS WORK	$150.00	$1,500.00
482.3	200	FT	SAWING ASPHALT PAVEMENT	$2.00	$400.00
520.11	30	FT	SPECIAL CONRETE CURB - CAST IN PLACE	$100.00	$3,000.00
570.3	330	FT	HOT MIX ASPHALT CURB TYPE 3	$12.50	$4,125.00
623.1	90	FT	STEEL THRIE BEAM HIGHWAY GUARD (SINGLE FACED)	$27.00	$2,430.00
627.8	4	EA	STEEL BEAM HIGHWAY GUARD TANGENT END TREATMENT	$2,300.00	$9,200.00
628.2	4	EA	BRIDGE RAIL TO HIGHWAY GUARD RAIL TRANSITION	$2,600.00	$10,400.00
635.1	250	FT	HIGHWAY GUARD REMOVED AND DISCARDED	$2.00	$500.00
645.148	65	FT	48 INCH CHAIN LINK FENCE (PTR) VINYL COATED	$40.00	$2,600.00
657.	200	FT	TEMPORARY FENCE	$15.00	$3,000.00
690.1	10	CY	STONE MASONRY WALL REMOVED AND REBUILT	$700.00	$7,000.00
701.	25	SY	CEMENT CONCRETE SIDEWALK	$55.00	$1,375.00
748.	1	LS	MOBILIZATION	$20,000.00	$20,000.00
751.	55	CY	LOAM BORROW	$45.00	$2,475.00
765.	395	SY	SEEDING	$2.00	$790.00
769.	235	FT	PAVEMENT MILLING MULCH UNDER GUARD RAIL	$7.00	$1,645.00
833.5	5	EA	DEMOUNTABLE REFLECTORIZED DELINEATOR - GUARD RAIL	$5.00	$25.00
833.7	4	EA	DELINEATION FOR GUARD RAIL TERMINI	$35.00	$140.00
852.	160	SF	SAFETY SIGNING FOR TRAFFIC MANAGEMENT	$15.00	$2,400.00
853.1	6	EA	PORTABLE BREAKAWAY BARRICADE TYPE III	$125.00	$750.00
853.2	50	FT	TEMPORARY BARRIER	$40.00	$2,000.00
854.016	130	FT	TEMPORARY PAVING MARKINGS - 6 INCH (PAINTED)	$0.25	$32.50
859.	650	DAY	REFLECTORIZED DRUM	$0.20	$130.00
867.04	325	FT	4 INCH REFLECTORIZED YELLOW LINE (THERMOPLASTIC)	$0.50	$162.50
950.1	1	LS	TEMPORARY SHORING	$75,000.00	$75,000.00
995.01	1	LS	BRIDGE STRUCTURE, BRIDGE NO. A-02-010	$309,560.00	$309,560.00
991.1	1	LS	CONTROL OF WATER - BRIDGE NO. A-02-010	$30,000.00	$30,000.00
999.1	1	LS	UTILITY POLE RELOCATION	$20,000.00	$20,000.00

Subtotal	$673,640.00
Police Details (5%)	$33,682.00
Contingencies (20%)	$134,728.00
Total	$842,050.00
Say	**$850,000.00**

PARKER STREET
SURFACE AREAS SUMMARY

	Total			Total	
Full Depth Pavement	2800	SF	=	311	SY
Pavement Milling and Overlay	2258	SF	=	251	SY
Cement Concrete Sidewalk	160	SF	=	18	SY
Loam & Seed	3212	SF	=	357	SY
Bridge	885	SF	=	98	SY

PARKER STREET
SURFACE AREA CALCULATIONS

Full Depth Pavement

Station		Station	Area	
3+00	to	4+23	2800	SF

TOTAL: 2800 SF

PARKER STREET

PAVEMENT MILLING

PARKER STREET

Station			Area	
2+80	to	3+00	463	SF
4+23	to	4+33	243	

CLOVER HILL ROAD

Station			Area	
0+12	to	0+75	1552	SF

TOTAL: 2258 SF

PARKER STREET

CEMENT CONCRETE SIDEWALK

Station				Area	
3+45	to	3+77	RT	160	SF

TOTAL: 160 SF

PARKER STREET

LOAM AND SEED

Station		Station		Area	
2+40	to	3+50	RT	1180	SF
2+60	to	3+30	LT	150	
3+50	to	3+70	LT	734	
3+70	to	4+40	RT	576	
4+10	to	4+60	LT	572	
			TOTAL:	3212	SF

PARKER STREET

BRIDGE AREA

Station		Station	Area	
3+35	to	3+62	885	SF

TOTAL: 885 SF

SUMMARY QUANTITY SHEET

FROM EARTHWORKS SHEETS:

EXCAVATION			EMBANKMENT		
Parker Street:	75	CY	Parker Street:	20	CY
	75	CY		20	CY

EXCAVATION			EMBANKMENT		
Earthworks:	75		Earthworks:	20	
Estimated Excavation:	75	CY	Estimated Embankment:	20	CY
DEDUCT 2.5% (Boulders):	-2		PLUS 15% Swell:	3	CY
DEDUCT 30% (Unsuitable):	-23				
DEDUCT 5% (Shrinkage):	-4		TOTAL Embankment Required:	23	CY
Available for Embankment:	47	CY			
Excavation remaining:	**47**	**CY**	Available from Embankment:	47	
			Excess Embankment:	**24**	**CY**

EARTHWORK WORK SHEET

PARKER STREET
EXCAVATION

Station	Length (ft)	Cut Area (sf)	Average Cut Area (sf)	Cut Volume (cf)	Cut Volume (cy)	Cumm Cut Volume (cy) Total
02+80		0.31				
03+00	20	0.22	0.26	5.29	0.20	0.20
03+25	25	32.50	16.36	408.95	15.15	15.34
		INTERSECTION WITH BRIDGE				
		INTERSECTION WITH BRIDGE				
03+70		0.10				15.34
04+00	30	35.20	17.65	529.50	19.61	34.95
04+33	33	0.80	18.00	594.00	22.00	56.95

EXCAVATION: 75 CY

EARTHWORK WORK SHEET

PARKER STREET EMBANKMENT

Station	Length (ft)	Fill Area (sf)	Average Fill Area (sf)	Fill Volume (cf)	Fill Volume (cy)	Cumm Fill Volume (cy) Total
02+80		1.29				
03+00	20	1.65	1.47	29.40	1.09	1.09
03+25	25	4.28	2.97	74.13	2.75	3.83
		INTERSECTION WITH BRIDGE				
		INTERSECTION WITH BRIDGE				
03+70		0.00				3.83
04+00	30	5.52	2.76	82.80	3.07	6.90
04+33	33	2.72	4.12	135.96	5.04	11.94

EXCAVATION: 20 CY

CLASS B TRENCH EXCAVATION QUANTITIES

BEGIN END	CB OR DMH	RIM ELEV (FT)	EXIST. GRADE (FT)	INVERT ELEV (FT)	BOT. OF TRENCH (FT)	DEPTH "D" (FT)	SLOPE OF TRENCH	LENGTH OF>5' DEPTH	AVG DEPTH (CLASS B)	PIPE DIA. (FT)	TRENCH WIDTH (FT)	AREA A (SF)	AREA B (SF)	TOTAL AREA (SF)	LENGTH (FT)	**ITEM 142 CLASS B TRENCH (CY)**	**ITEM 156 CRUSHED STONE (CY)**	**ITEM 151.2 GRAVEL BORROW (CY)**
PARKER STREET																		
DRAINAGE																		
3+16	DMH1	137.40	137.20	132.20	131.49	5.71												
3+50	Outlet	132.10	132.10	132.10	131.39	0.71	0.125	5.67	5.35	1.50	4.50	0.13	1.59	1.72	40.00	**0.36**	**5.72**	**17.38**
					-0.58	0.58												
					-0.58	0.58	#DIV/0!	N/A	N/A		3.00	N/A	N/A	N/A		**N/A**	**0.00**	**0.00**
					-0.58	0.58												
					-0.58	0.58	#DIV/0!	N/A	N/A		3.00	N/A	N/A	N/A		**N/A**	**0.00**	**0.00**
					-0.58	0.58												
					-0.58	0.58	#DIV/0!	N/A	N/A		3.00	N/A	N/A	N/A		**N/A**	**0.00**	**0.00**
					-0.58	0.58												
					-0.58	0.58	#DIV/0!	N/A	N/A		3.00	N/A	N/A	N/A		**N/A**	**0.00**	**0.00**
					-0.58	0.58												
					-0.58	0.58	#DIV/0!	N/A	N/A		3.00	N/A	N/A	N/A		**N/A**	**0.00**	**0.00**
															Parker Street DRAINAGE TOTAL:	**0.36**	**5.72**	**17.38 CY**

Note: Class B trench is only required for trenches greater than 5' in depth. All pipe trenches have been included for the crushed stone and gravel borrow quantity estimate. Trenches less than 5' in depth (shaded cells) have not been included in class B trench quantity total.

Estimated by: JCR
Checked by:

ITEM 102.01 SELECTIVE CLEARING AND GRUBBING LS

ITEM 102.01 SAY 1 LS

ITEM 102.51 **INDIVIDUAL TREE PROTECTION** **EA**

CLOVER HILL ROAD

Station	Offset		Quantity
0+38	23.5	LT	1
0+43	24	LT	1
			2

ITEM 102.51 SAY 5 EA

ITEM 102.52 TEMPORARY TREE PROTECTION FENCE FT

Assume tree protection fence required at limits of proposed clearing and grubbing.

Station	Station		Length
3+70	4+33	RT	63
2+60	3+10	LT	50
		Total:	113 FT

ITEM 102.52 SAY 125 FT

ITEM 103. TREE REMOVED - DIAMETER UNDER 24 INCHES EA

Say 2 for Contingency

ITEM 103. SAY 2 EA

ITEM 104. TREE REMOVED - DIAMETER 24 INCHES AND OVER EA

Say 2 for Contingency

ITEM 104. SAY EA

ITEM 120.1 **UNCLASSIFIED EXCAVATION** **CY**

SEE EARTHWORK SUMMARY 75 CY

VOLUME OF UNCLASSIFIED EXCAVATION AVAILABLE AS ORDINARY BORROW:	
SEE EARTHWORK SUMMARY	47 CY

ITEM 120.1 SAY 90 CY

ITEM 141.1 **TEST PIT FOR EXPLORATION** **CY**

AT VARIOUS LOCATIONS AS REQUIRED BY THE ENGINEER
ASSUME TEST PITS DUG AT LOCATION OF EXISTING WATER LINES

ASSUME EACH TEST PIT IS 5' x 5' x 5'

5' x 5' x 5' x 5 =	625	CF
625 cf =	23	CY

ITEM 141.1 SAY 25 CY

ITEM 142. CLASS B TRENCH EXCAVATION CY

Notes:

1. See Class B Trench Excavation Quantity Sheet for calculations:
2. Depth of grade is measured from existing grade to 6 in below pipe barrel. for backfilling structures and pipes.
3. Assume drainage installation occur prior to roadway construction

FROM CLASS-B TRENCH CALCULATION : **0.36** **CY**

As a contingency, say 5 CY

ITEM 142. SAY 5 CY

ITEM 144. CLASS B ROCK EXCAVATION CY

AS MAY BE REQUIRED DURING TRENCH EXCAVATION AND

SAY 5 CY

ITEM 144. SAY 5 CY

ITEM 150. ORDINARY BORROW CY

From Earthwork Calculations:	FILL	20	
	Plus 15% swell:	3	CY
	Subtotal:	23	CY
	LESS AVAILABLE FROM ITEM 120.1:	47	CY
	ORDINARY BORROW REQUIRED =	-24	CY

For Contingency, say 50 CY

ITEM 150. SAY 50 CY

ITEM 151. **GRAVEL BORROW** **CY**

For work outside pavement limits.
FROM SURFACE AREA CALCULATIONS

	Area (SF)	Depth (FT)	Volume (CY)
CEM CONC SIDEWALKS:	160	0.67	4
FULL DEPTH PAVEMENT:	2,800	1.00	104
			108 CY

DAYLIGHTING OF GRAVEL

Station	Length (ft)	Gravel Borrow Area (sf)	Average Gravel Borrow Area (sf)	Gravel Borrow Volume (cf)	Gravel Borrow Volume (cy)	Cumm Volume (cy) Total
03+00		0.00	0.00			
03+25	25	15.55	7.78	194.38	7.20	7.20
		INTERSECTION WITH BRIDGE				
03+70		0.00				7.20
04+00	30	14.00	14.78	443.25	16.42	23.62
04+30	30	0.00	7.00	210.00	7.78	31.39
						31.39 **CY**

SUBTOTAL:	139
PLUS 25% SWELL:	35
TOTAL:	**174 CY**

ITEM 151. SAY 200 CY

ITEM 151.2 GRAVEL BORROW FOR BACKFILLING STRUCTURES AND PIPES CY

DRAINAGE:	FROM CLASS -B TRENCH CALCULATIONS:	**17**	**CY**	
WATER:	TOTAL LENGTH	152	FT	
	FOR 8" TO 10" DIP, ASSUME WIDTH	4		
	DEPTH	1		
		608	CF =	**23 CY**
	SUBTOTAL:	40	CY	
	PLUS 25% SWELL:	10	CY	
	SUBTOTAL:	**50**	**CY**	
	BRIDGE:	350	CY	
	TOTAL:	400	CY	

ITEM 151.2 SAY 430 CY

ITEM 156. CRUSHED STONE TON

DRAINAGE:

CRUSHED STONE BEDDING:

FROM CLASS-B TRENCH CALCULATIONS:	6	CY
6 CY * .25 =	**1**	**CY**

WATER:

ASSUME 25% OF TRENCH AREAS WILL REQUIRE
CRUSHED STONE BEDDING:

TOTAL LENGTH	152	FT
FOR 8" to 10" DIP, ASSUME WIDTH	4	
DEPTH	1	
	608	CF
	23	CY
23 CY * .25 =	**6**	**CY**
TOTAL:	**7**	**CY**
7 CY * 1.75 TON/CY =	**12.4**	**TON**

ITEM 156. SAY 15 TON

ITEM 170. FINE GRADING AND COMPACTING SY

	AREA
FULL DEPTH PAVEMENT:	311 SY
	311 SY

ITEM 170. SAY 350 SY

ITEM 180.1 HEALTH AND SAFETY PLAN LS

Say 1 Lump Sum for project

ITEM 180.1 SAY 1 LS

ITEM 180.2 IMPLEMENTATION OF HEALTH AND SAFETY PLAN HR

FOR ESTIMATING PURPOSES SAY 8 HR

ITEM 180.2 SAY 8 HR

ITEM 180.3 PERSONNEL PROTECTION LEVEL C UPGRADE HR

ITEM 180.3 SAY 8 HR

ITEM 180.5	LICENSED SITE PROFESSIONAL	HR

ITEM 180.5 SAY 8 HR

ITEM 180.6 MISCELLANEOUS SOILS TESTING EA

FOR ESTIMATING PURPOSES SAY 1 TEST ON
EACH SIDE OF THE CULVERT.

ITEM 180.6 SAY 2 EA

ITEM 201. CATCH BASIN EA

Structure No.	Station	Offset	Quantity	
1	3+66	LT	1.0	EA

Total: 1.0 EA

ITEM 201. SAY 1 EA

ITEM 202. MANHOLE EA

Structure No.	Station	Offset		Quantity
2	3+15	13.9'	RT	1.0

Total 1.0 EA

ITEM 202. SAY 1 EA

ITEM 221. FRAME AND COVER EA

Assume proposed manhole structures within roadway will require frame or cover.

From Item 202: 1

1 EA

ITEM 221. SAY 1 EA

ITEM 222.1 FRAME AND GRATE - MASSDOT CASCADE TYPE EA

Assume proposed catch basin structures within roadway will require frame or grate - MassDOT cascade type.

From Item 201:	1	EA
	1	EA

ITEM 222.1 SAY 1 EA

ITEM 241.15 **15 INCH REINFORCED CONCRETE PIPE** **FT**

Sta		Sta	Length	
3+82, RT	to	3+83 RT	15.0	FT
		Total:	15.0	FT

ITEM 241.15 SAY 20 FT

ITEM 241.18 **18 INCH REINFORCED CONCRETE PIPE** **FT**

Sta		Sta	Length	
3+00 RT	to	3+53 RT	53.0	FT
		Total:	53.0	FT

ITEM 241.18 SAY 60 FT

ITEM 303.08 8 INCH DUCTILE IRON WATER PIPE (MECHANICAL JOINT) FT

Station		Station	Length	
3+37	to	3+75	65	FT

TOTAL = 65 FT

ITEM 303.08 SAY 75 FT

ITEM 303.10 10 INCH DUCTILE IRON WATER PIPE (MECHANICAL JOINT) FT

Station		Station	Length	
3+25	to	3+70	87	FT

TOTAL = 87 FT

ITEM 303.10 SAY 95 FT

ITEM 309. DUCTILE IRON FITTINGS FOR WATER PIPE LB

Fitting	Qty	Weight		Total Weight	
45 Bend	8	55		440	
			Total:	440	LB

ITEM 309. SAY 500 LB

ITEM 373.08 **8 INCH WATER PIPE INSULATION** **FT**

Station		Station	Length	
3+37	to	3+75	65	FT

TOTAL = 65 FT

ITEM 373.08 SAY 75 FT

ITEM 373.10 **10 INCH WATER PIPE INSULATION** **FT**

Station		Station	Length	
3+25	to	3+70	87	FT

TOTAL = 87 FT

ITEM 373.10 SAY 95 FT

ITEM 415. PAVEMENT MICRO MILLING SY

FROM SURFACE AREA CALCULATIONS

PAVEMENT MILLING AND OVERLAY AREA:	251	SY
	251	SY

ITEM 415. SAY 275 SY

ITEM 450.90 **CONTRACTOR QUALITY CONTROL** **TON**

FROM SURFACE AREA CALCULATIONS

FROM ITEM 455.22:	47	TON
FROM ITEM 455.32:	35	TON
	82	TON

ITEM 450.90 SAY 95 TON

ITEM 452. ASPHALT EMULSION FOR TACK COAT GAL

APPLICATION RATES:

0.05 gal/ SY ON PAVED SURFACES
0.07 gal/ SY ON MILLED SURFACES

FROM AREA CALCULATIONS:		Quantity
FULL DEPTH PAVEMENT:	311 SY	
	311 SY x 0.05 GAL/SY =	16 GAL
PAVEMENT MILLING AND OVERLAY AREA =	251 SY	
	251 SY x 0.07 GAL/SY =	18 GAL
		33 GAL

ITEM 452. SAY 40 GAL

ITEM 453. HMA JOINT SEALER FT

Assume Parker Street will be done in 2 passes with 1 longitudinal joints.
Assume Clover Hill Road will be done in 2 passes with 1 longitudinal joints.
Also required along curb/edging, say 2 longitudinal joints.

Longitudinal Joints

Parker Street

	Sta.		Sta.		Length	
Center of Road	2+80, 0'	to	4+33, 0'	(1 joint)	153	FT
Curbing/ Edging	2+80, 12' RT		3+80, 11' RT		100	
	3+10, 11' LT		3+51, 11' LT		41	
					294	FT

Clover Hill Road

	Sta.		Sta.		Length	
Center of Road	0+12, 0'	to	0+75, 0'	(1 joint)	63	FT
Curbing/ Edging	0+12, 20' LT		0+75, 12' LT		65	
	0+12, 15' RT		0+75, 12' RT		60	
					188	FT

Traverse Joints

Parker Street

	Sta.		
Limit of Trans.	2+80	24	FT
Limit of FDP	3+00	23	
Limit of FDP	4+23	24	
Limit of Trans.	4+33	25	
		96	FT

Clover Hill Road

	Sta.		
Limit of M&O	0+12	58	FT
Limit of M&O	0+75	25	
		83	FT

TOTAL 661 FT

ITEM 453. SAY 710 FT

ITEM 455.22 SUPERPAVE SURFACE COURSE - 9.5 (SSC - 9.5) TON

FROM SURFACE AREA CALCULATIONS:

PAVEMENT MILLING AND OVERLAY AREA:	251	SY
FULL DEPTH PAVEMENT:	311	SY
	562.0	SY

562.0 SY x 1.5" DEPTH x 0.056 TON/SY*IN = 47.2 TONS

ITEM 455.22 SAY 55 TON

ITEM 455.32 SUPERPAVE INTERMEDIATE COURSE - 19.0 (SIC - 19.0) TON

FROM SURFACE AREA CALCULATIONS:

FULL DEPTH PAVEMENT:	311	SY
	311	SY

311 SY x 2.0" DEPTH x 0.056 TON/SY*IN = 34.8 TONS

ITEM 455.32 SAY 40 TON

ITEM 456. WARM-MIX ASPHALT PAVEMENT TON

FROM SURFACE AREA CALCULATIONS

FROM ITEM 455.22:	47	TON
FROM ITEM 455.32:	35	TON
	82	TON

ITEM 456. SAY 90 TON

ITEM 472. HOT MIX ASPHALT FOR MISCELLANEOUS WORK TON

Say 10 Ton for contingency

ITEM 472. SAY 10 TON

ITEM 482.3 **SAWING ASPHALT PAVEMENT** **FT**

Parker Street			
	Sta.		
Limit of Trans.	2+80	24	FT
Limit of FDP	3+00	23	
Limit of FDP	4+23	24	
Limit of Trans.	4+33	25	
		96	FT
Clover Hill Road			
	Sta.		
Limit of M&O	0+12	58	FT
Limit of M&O	0+75	25	
		83	FT
	Total:	179	

ITEM 482.3 SAY 200 FT

ITEM 520.11 SPECIAL CONCRETE CURB - CAST IN PLACE FT

Parker Street

Station		Station		Length
3+38	to	3+63	RT	25
				25 FT
			Total	**25** FT

ITEM 520.11 SAY 30 FT

ITEM 570.3 **HOT MIX ASPHALT CURB - TYPE 3** **FT**

Parker Street

Station		Station		Length
2+80	to	3+38	RT	58
3+63	to	4+33	RT	70
2+80	to	3+25	LT	45
				173 FT

Clover Hill Road

Station		Station		Length
0+12	to	0+75	LT	65
0+12	to	0+75	RT	60
				125 FT

Total **298** FT

ITEM 570.3 SAY 330 FT

ITEM 623.1 STEEL THRIE BEAM HIGHWAY GUARD (SINGLE FACED) FT

Station		Station			Length
2+87	to	3+26	RT		39
0+12		0+38	LT		26
				TOTAL:	65

ITEM 623.1 SAY 90 FT

ITEM 627.8 STEEL BEAM HIGHWAY GUARD TANGENT END TREATMENT EA

Station				Qty
2+50	to	2+87	RT	1
2+50	to	2+87	LT	1
4+43	to	4+80	RT	1
0+38	to	0+75	LT	1
			TOTAL:	4

ITEM 627.1 SAY 4 EA

ITEM 628.2 BRIDGE RAIL TO HIGHWAY GUARD RAIL TRANSITION EA

Station				Quantity	
3+26	to	3+45	RT	1	EA
2+86	to	3+05	LT	1	
3+55	to	3+70	LT	1	
4+23	to	4+41	RT	1	
			Total:	4	EA

ITEM 628.2 SAY 4 EA

ITEM 635.1 HIGHWAY GUARD REMOVED AND DISCARDED FT

	Quantity	
For existing guardrail along Parker Street	230	FT

Total: 230 EA

ITEM 635.1 SAY 250 FT

ITEM 645.148 **48 INCH CHAIN LINK FENCE (PTR) VINYL COATED** **FT**

Sta				Quantity	
2+45	to	3+42	RT	57	FT

TOTAL: 57 FT

ITEM 657. SAY 65 FT

ITEM 657. TEMPORARY FENCE FT

FOR BRIDGE CLOSURE

Quantity	
75	FT

TOTAL: 75 FT

ITEM 657. SAY 100 FT

ITEM 701. CEMENT CONCRETE SIDEWALK SY

FROM SURFACE AREA CALCULATIONS

CEMENT CONCRETE SIDEWALK: 18 SY

ITEM 701. SAY 25 SY

ITEM 748. MOBILIZATION LS

NOT TO EXCEED 3% OF TOTAL CONSTRUCTION COST.

Say 1 Lump Sum for project

ITEM 748. SAY 1 LS

ITEM 751. LOAM BORROW CY

FROM SURFACE AREA CALCULATIONS

LOAM & SEED AREA: 357 SY

357 SY x 4" (DEPTH) / 36in/yd = 40 CY

PLUS 25% SWELL = 10 CY

50 CY

ITEM 751. SAY 55 CY

ITEM 765. SEEDING SY

FROM SURFACE AREA CALCULATIONS

LOAM & SEED AREAS: 357 SY

ITEM 765. SAY 395 SY

ITEM 767.9 **MATTING FOR EROSION CONTROL** **SY**

Station		Station		Area	
14+00	to	Bridge	RT	3040	SF
14+50		Bridge	LT	1000	
Bridge		16+30	RT	1108	
Bridge		16+60	LT	815	
			Total:	5963	SF
				663	SY

ITEM 767.9 SAY 700 SY

ITEM 769. PAVEMENT MILLING MULCH UNDER GUARD RAIL FT

Station	Station		Length	
2+60	3+05	LT	45	FT
2+50	3+45	RT	95	
3+55	3+75	LT	59	
4+23	4+41	LT	18	
		Total:	217	FT

ITEM 769. SAY 235 FT

ITEM 833.5 DEMOUNTABLE REFLECTORIZED DELINEATOR - GUARD RAIL EA

New guardrail requires delineators every 10th guardrail post.
Guardrail posts are every 6.25' center to center, therefore delineators shall be every 62.5'.

From Item 769:	217	FT
Delineators every	62.5	FT
Total delineators required:	**3**	**EA**

ITEM 833.5 SAY 5 EA

ITEM 833.7 DELINEATION FOR GUARD RAIL TERMINI EA

At beginning/end of each length of guardrail.

Total delineators required: 4 EA

ITEM 833.7 SAY 4 EA

ITEM 852. SAFETY SIGNING FOR TRAFFIC MANAGEMENT SF

ADVANCE SIGNING

Designation	Quantity	Size (sf)	Total Area
W20-1c	1	9.00	9
R2-10a	1	12.00	12
R2-10e	1	12.00	12
R11-2	3	10.00	30

OPERATIONAL SIGNING

	Designation	Quantity	Size (sf)	Total Area	
2-way lane shift	W5-1	2	9.00	18	SF
	W1-4L/R	2	9.00	18	
2-way lane closure	W20-4	2	9.00	18	SF
	W20-8	2	9.00	18	
	W20-7a	2	9.00	18	

Total 153 SF

ITEM 852. SAY 160 SF

ITEM 853.1 PORTABLE BREAKAWAY BARRICADE TYPE III EA

FOR ESTIMATING PURPOSES SAY 6 EACH

ITEM 853.1 SAY 6 EA

ITEM 853.2 TEMPORARY BARRIER FT

FOR ESTIMATING PURPOSES SAY 50 FT

ITEM 853.2 SAY 50 FT

ITEM 854.016 TEMPORARY PAVING MARKINGS - 6 INCH (PAINTED) FT

ASSUME SINGLE YELLOW LINE FOR TEMP HMA ROAD:	115	FT
TOTAL:	115	FT

ITEM 854.016 SAY 130 FT

ITEM 859. REFLECTORIZED DRUM DAY

Assume 20 drums required for lane shifts or closures.

Assume 1 month for duration of roadway work

20 drums x 1 months x 30 days/month = 600

ITEM 859. SAY 650 DAY

ITEM 867.04 4 INCH REFLECTORIZED YELLOW LINE (THERMOPLASTIC) FT

PARKER STREET

Station		Station	Length		Length	
2+80	to	4+33	153.0	x2	306	FT

306 FT

ITEM 867.04 SAY 325 FT

ITEM 999.1 **UTILITY POLE RELOCATION** **LS**

Item to include all work necessary for Utility Pole Relocation

ITEM 999.1 SAY 1 LS

ACTON
PARKER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	–	01	13
PROJECT FILE NO. N/A			

TITLE SHEET & INDEX

TRANSPORTATION IMPROVEMENT PROJECT

PLAN AND PROFILE OF

PARKER STREET

(BRIDGE NO. A-02-010)

IN THE TOWN OF

ACTON

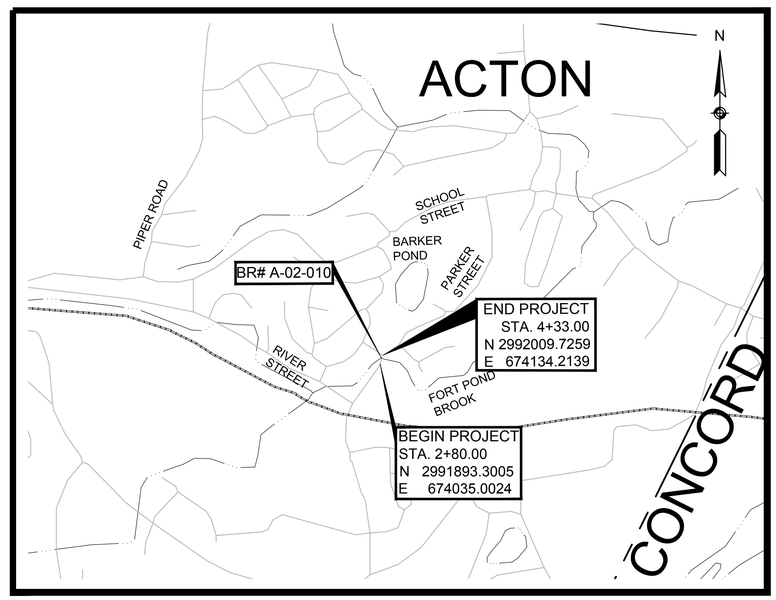
MIDDLESEX COUNTY

FEDERAL AID PROJECT NO. N.F.A.

THE MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES DATED 1988, AS AMENDED, THE SUPPLEMENTAL SPECIFICATIONS DATED JULY 1, 2015, THE INTERIM SUPPLEMENTAL SPECIFICATIONS DATED MARCH 21, 2014, THE 2014 CONSTRUCTION STANDARD DETAILS, THE 1996 CONSTRUCTION AND TRAFFIC STANDARD DETAILS (AS RELATES TO TRAFFIC STANDARD DETAILS ONLY), THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS WITH MASSACHUSETTS AMENDMENTS, THE 1990 STANDARD DRAWINGS FOR SIGNS AND SUPPORTS, THE 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING AND THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, WILL GOVERN.

INDEX

SHEET NO.	DESCRIPTION
01	TITLE SHEET & INDEX
02	GENERAL NOTES & LEGEND
03	TYPICAL SECTIONS & PAVEMENT NOTES
04	CONSTRUCTION PLANS
05	PROFILE
06-07	TEMPORARY TRAFFIC CONTROL PLAN
08-13	BRIDGE PLANS



0 1000 2000 3000 4000

SCALE: 1" = 1000'

LENGTH OF PROJECT = 153.00 FEET = 0.029 MILES

DESIGN DESIGNATION (PARKER STREET)

DESIGN SPEED	30 MPH
ADT (2001)	2,900
ADT (2015)	3,300 (ASSUMED)
FUNCTIONAL CLASSIFICATION	URBAN COLLECTOR

DATE	DESCRIPTION	REV #

ENGINEER DATE

Vanasse Hangen Brustlin, Inc.
Transportation • Land Development • Environmental Services
101 Walnut St., P.O. Box 9151
Watertown, MA 02472
617 924 1770 FAX 617 924 2286

PLANS TO BE PRINTED AT 24" X 36" SIZE

DESIGNED BY EAW	APPROVED BY	SHEET 1 OF 13
DRAWN BY JCR	DFTG CHECKED BY EAW	VHB CAD FILE NAME 130160_HD (COV).DWG
CHECKED BY	DATE SEPTEMBER 11, 2015	JOB NO. 130160.00

PROJECT ENGINEER
STRUCTURAL REVIEW
TRAFFIC SIGNAL REVIEW

HIGHWAY DEPT. AUTHORIZATION
HIGHWAY TECH. REVIEW
CONSTRUCTION REVIEW

130160_HD (COV).DWG Plotted on 11-Sep-2015 12:23 PM

GENERAL SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
JB	JB	JERSEY BARRIER ON BRIDGE OR JERSEY BARRIER
CB		CATCH BASIN
		CATCH BASIN CURB INLET
FP	FP	FLAG POLE
GP	GP	GAS PUMP
MB	MB	MAIL BOX
		POST SQUARE
		POST CIRCULAR
WELL	WELL	WELL
EHH	EHH	ELECTRIC HANDHOLE
		FENCE GATE POST
GG	GG	GAS GATE
BHL #	BHL #	BORING HOLE
MW #	MW #	MONITORING WELL
TP #	TP #	TEST PIT
		HYDRANT
		LIGHT POLE
CO.BD.		COUNTY BOUND
		GPS POINT
		CABLE MANHOLE
		DRAINAGE MANHOLE
		ELECTRIC MANHOLE
		GAS MANHOLE
		MISC MANHOLE
		SEWER MANHOLE
		TELEPHONE MANHOLE
		WATER MANHOLE
MHB	MHB	MASSACHUSETTS HIGHWAY BOUND
MON		MONUMENT
SB		STONE BOUND
TB		TOWN OR CITY BOUND
		TRAVERSE OR TRIANGULATION STATION
TPL or GUY	TPL or GUY	TROLLEY POLE OR GUY POLE
HTP		TRANSMISSION POLE
UFB	UFB	UTILITY POLE W/ FIREBOX
UPDL	UPDL	UTILITY POLE WITH DOUBLE LIGHT
ULT	ULT	UTILITY POLE W / 1 LIGHT
UPL	UPL	UTILITY POLE
		BUSH
•SIZE & TYPE		TREE
		STUMP
		SWAMP / MARSH
WG	WG	WATER GATE
PM	PM	PARKING METER
		OVERHEAD CABLE/WIRE
		CURBING
99 / 100		CONTOURS
		UNDERGROUND DRAIN PIPE (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND ELECTRIC DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND GAS MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND SEWER MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND TELEPHONE DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND WATER MAIN (DOUBLE LINE 24 INCH AND OVER)
		BALANCE STONE WALL
		GUARD RAIL - STEEL POSTS
		GUARD RAIL - WOOD POSTS
		CHAIN LINK OR METAL FENCE
		WOOD FENCE
		LINEAR SEDIMENTATION AND EROSION CONTROL
		TREE LINE OR LIMIT OF CLEARING AND GRUBBING
		SAWCUT LINE
		TOP OR BOTTOM OF SLOPE
		LIMIT OF EDGE OF PAVEMENT OR COLD PLANE AND OVERLAY
		BANK OF RIVER OR STREAM
		BORDER OF WETLAND
		100 FT WETLAND BUFFER
		200 FT RIVERFRONT BUFFER
		STATE HIGHWAY LAYOUT
		TOWN OR CITY LAYOUT
		COUNTY LAYOUT
		RAILROAD SIDELINE
		TOWN OR CITY BOUNDARY LINE
		PROPERTY LINE OR APPROXIMATE PROPERTY LINE
		EASEMENT
		TREE PROTECTION

PAVEMENT MARKINGS SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		PAVEMENT ARROW - WHITE
ONLY	ONLY	LEGEND "ONLY" - WHITE
	SL	STOP LINE
	CW	CROSSWALK
	SWL	SOLID WHITE LINE (4")
	SYL	SOLID YELLOW LINE
	BWL	BROKEN WHITE LINE
	BYL	BROKEN YELLOW LINE
	DWL	DOTTED WHITE LINE
	DYL	DOTTED YELLOW LINE
	DWLEx	DOTTED WHITE LINE EXTENSION
	DYLEx	DOTTED YELLOW LINE EXTENSION
	DBWL	DOUBLE WHITE LINE
	DBYL	DOUBLE YELLOW LINE (4")

ABBREVIATIONS

GENERAL

AADT	ANNUAL AVERAGE DAILY TRAFFIC
ABAN	ABANDON
ADJ	ADJUST
APPROX.	APPROXIMATE
A.C.	ASPHALT CONCRETE
ACCM PIPE	ASPHALT COATED CORRUGATED METAL PIPE
BIT	BITUMINOUS
BC	BOTTOM OF CURB
BD.	BOUND
BL	BASELINE
BLDG	BUILDING
BM	BENCHMARK
BO	BY OTHERS
BOS	BOTTOM OF SLOPE
BR.	BRIDGE
CB	CATCH BASIN
CBCI	CATCH BASIN WITH CURB INLET
CC	CEMENT CONCRETE
CCM	CEMENT CONCRETE MASONRY
CEM	CEMENT
CI	CURB INLET
CIP	CAST IRON PIPE
CLF	CHAIN LINK FENCE
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CSP	CORRUGATED STEEL PIPE
CO.	COUNTY
CONC	CONCRETE
CONT	CONTINUOUS
CONST	CONSTRUCTION
CR GR	CROWN GRADE
DHV	DESIGN HOURLY VOLUME
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DW	STEADY DON'T WALK - PORTLAND ORANGE
DWY	DRIVEWAY
ELEV (or EL.)	ELEVATION
EMB	EMBANKMENT
EOP	EDGE OF PAVEMENT
EXIST (or EX)	EXISTING
EXC	EXCAVATION
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
FDN.	FOUNDATION
FLDSTN	FIELDSTONE
GAR	GARAGE
GD	GROUND
GG	GAS GATE
GI	GUTTER INLET
GIP	GALVANIZED IRON PIPE
GRAN	GRANITE
GRAV	GRAVEL
GRD	GUARD
HDW	HEADWALL
HMA	HOT MIX ASPHALT
HOR	HORIZONTAL
HYD	HYDRANT
INV	INVERT
JCT	JUNCTION
L	LENGTH OF CURVE
LB	LEACH BASIN

ABBREVIATIONS (cont.)

GENERAL

LP	LIGHT POLE
LT	LEFT
MAX	MAXIMUM
MB	MAILBOX
MH	MANHOLE
MHB	MASSACHUSETTS HIGHWAY BOUND
MIN	MINIMUM
NIC	NOT IN CONTRACT
NO.	NUMBER
NTS	NOT TO SCALE
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
P.G.L.	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
POC	POINT ON CURVE
POT	POINT ON TANGENT
PRC	POINT OF REVERSE CURVATURE
PROJ	PROJECT
PROP	PROPOSED
PSB	PLANTABLE SOIL BORROW
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
PVMT	PAVEMENT
PWW	PAVED WATER WAY
R	RADIUS OF CURVATURE
R&D	REMOVE AND DISPOSE
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
RDWY	ROADWAY
REM	REMOVE
RET	RETAIN
RET WALL	RETAINING WALL
ROW	RIGHT OF WAY
RR	RAILROAD
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
RT	RIGHT
RTRC	REINFORCED THERMOSET RESIN CONDUIT
SB	STONE BOUND
SHLD	SHOULDER
SMH	SEWER MANHOLE
ST	STREET
STA	STATION
SSD	STOPPING SIGHT DISTANCE
SHLO	STATE HIGHWAY LAYOUT LINE
SW	SIDEWALK
T	TANGENT DISTANCE OF CURVE/TRUCK %
TAN	TANGENT
TEMP	TEMPORARY
TC	TOP OF CURB
TOS	TOP OF SLOPE
TYP	TYPICAL
UP	UTILITY POLE
VAR	VARIES
VERT	VERTICAL
VC	VERTICAL CURVE
WCR	WHEEL CHAIR RAMP
WG	WATER GATE
WIP	WROUGHT IRON PIPE
WM	WATER METER/WATER MAIN
X-SECT	CROSS SECTION

ACTON
PARKER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	–	02	13
PROJECT FILE NO. N/A			

GENERAL NOTES & LEGEND

GENERAL NOTES

1. TOPOGRAPHICAL INFORMATION FROM AN ACTUAL ON-THE-GROUND INSTRUMENT SURVEY PERFORMED BY VANASSE HANGEN BRUSTLIN, INC. IN APRIL OF 2015.
2. HORIZONTAL DATUM IS BASED ON MASS GRID SYSTEM, NAD 1983. ELEVATIONS SHOWN REFER TO NAVD OF 1988.
3. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL CONTACT DIGSAFE TO REQUEST EXISTING UTILITY MARKOUT IN THE FIELD.
4. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
5. DRAINAGE ELEVATIONS ARE PROVIDED FOR DESIGN PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY BY TEST PIT THE LOCATIONS OF EXISTING UTILITIES WHICH MAY CONFLICT WITH THE PROPOSED DRAINAGE DESIGN. ANY FIELD ADJUSTMENTS REQUIRED WILL BE MADE AS APPROVED OR DIRECTED BY THE ENGINEER. ONLY AFTER THE CONTRACTOR VERIFIES ELEVATIONS FOR THE CONSTRUCTABILITY OF THE DRAINAGE SYSTEM SHALL ANY STRUCTURES BE ORDERED. ANY FIELD ADJUSTMENTS TO LINE AND GRADE UP TO A DEPTH OF 5 FEET SHALL BE INCLUDED IN THE COST OF THE PIPE. PIPE EXCAVATION GREATER THAN 5 FEET WILL BE PAID UNDER CLASS B TRENCH EXCAVATION.
6. THE CONTRACTOR SHALL ALTER THE MASONRY OF THE TOP SECTION OF ALL EXISTING DRAINAGE STRUCTURES AS NECESSARY FOR CHANGES IN GRADE, AND RESET ALL WATER AND DRAINAGE FRAMES, GRATES AND BOXES TO THE PROPOSED FINISH SURFACE GRADE. REQUIRED NEW MASONRY SHALL BE CLAY BRICK CONFORMING TO M4.05.2.
7. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES.
8. TREES AND SHRUBS WITHIN THE LIMITS OF GRADING SHALL BE REMOVED ONLY UPON APPROVAL OF THE ENGINEER.
9. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT NO EXPENSE TO THE OWNER.
10. THE TERM "PROPOSED" (PROP) MEANS WORK TO BE CONSTRUCTED USING NEW MATERIALS OR, WHERE APPLICABLE, RE-USING EXISTING MATERIALS IDENTIFIED AS "REMOVE AND RESET" (R&R).
11. JOINTS BETWEEN NEW HOT MIX ASPHALT ROADWAY PAVEMENT TOP COURSE AND SAWCUT EXISTING PAVEMENT SHALL BE SEALED WITH HOT POURED RUBBERIZED ASPHALT SEALER.
12. EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL BE REMOVED AND RESET UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
13. LATERAL DRAIN PIPES SHALL BE INSTALLED WITH A PITCH OF .01 FOOT PER FOOT (MINIMUM) UNLESS NOTED OTHERWISE ON THE DRAWINGS.
14. PROPOSED HOT MIX ASPHALT CURB SHALL BE MASSDOT TYPE 3.
15. EXISTING STATE, COUNTY, CITY, AND TOWN LOCATION LINES AND PRIVATE PROPERTY LINES HAVE BEEN ESTABLISHED FROM AVAILABLE INFORMATION AND THEIR EXACT LOCATION ARE NOT GUARANTEED.

13016_HD (LEG).DWG 14-Sep-2015

ACTON
PARKER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	–	03	13
PROJECT FILE NO. N/A			

TYPICAL SECTION & PAVEMENT NOTES

13016_HD (TYP).DWG 14-Sep-2015

PAVEMENT NOTES

PROPOSED FULL DEPTH PAVEMENT CONSTRUCTION

SURFACE COURSE: 1.5" SUPERPAVE SURFACE COURSE - 9.5 (SSC-9.5)
INTERMEDIATE COURSE: 2.5" SUPERPAVE INTERMEDIATE COURSE - 19.0 (SIC-19.0)
SUBBASE: 12" GRAVEL BORROW TYPE B

PROPOSED FULL DEPTH PAVEMENT TRANSITION

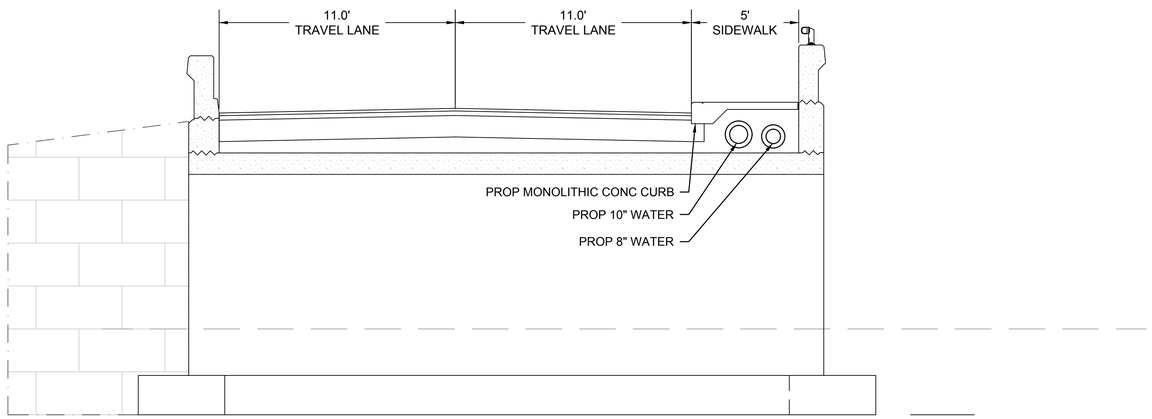
SURFACE COURSE: 1.5" SUPERPAVE SURFACE COURSE - 9.5 (SSC-9.5)
1.5" PAVEMENT MICROMILLING

PROPOSED PAVEMENT MILLING & PAVEMENT OVERLAY

SURFACE COURSE: 1.5" SUPERPAVE SURFACE COURSE- 9.5 (SSC-9.5)
1.5" PAVEMENT MICROMILLING

PROPOSED CEM CONC SIDEWALKS

SURFACE COURSE: 4" CEMENT CONCRETE (AIR ENTRAINED 4000 PSI - $\frac{3}{4}$" - 610 LB)
SUBBASE: 8" GRAVEL BORROW - TYPE B

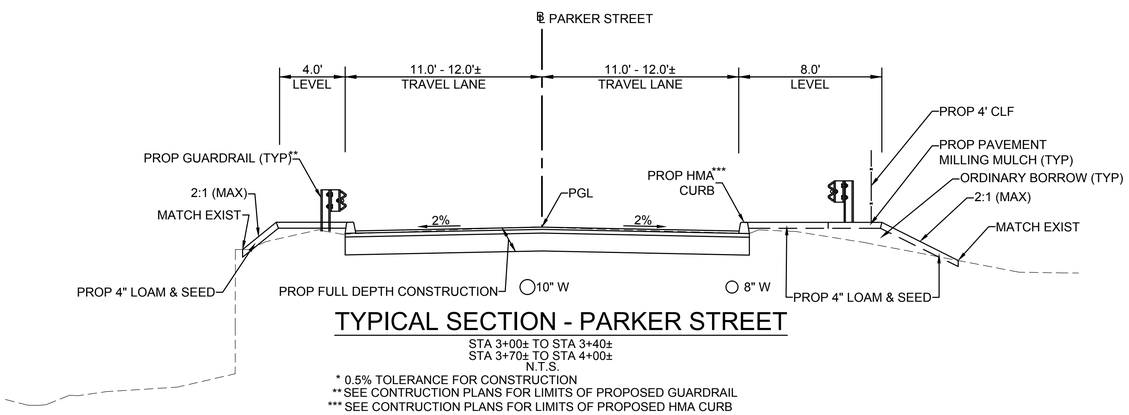


TYPICAL BRIDGE SECTION - PARKER STREET

STA 3+40± TO STA 3+70±
N.T.S.

NOTES:

1. ALL SUPERPAVE HOT MIX ASPHALT SHALL BE A WARM MIX ASPHALT TECHNOLOGY.
2. ALL HOT MIX ASPHALT PAVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 450 QUALITY ASSURANCE FOR HMA AND SECTION 455 SUPERPAVE HMA SPECIFICATIONS.
3. ALL MILLED SURFACES SHALL RECEIVE A TACK COAT APPLIED AT 0.07 GALLONS PER SQUARE YARD AND ALL UNMILLED SURFACES SHALL RECEIVE A TACK COAT APPLIED AT 0.05 GALLONS PER SQUARE YARD PRIOR TO PAVING.
4. TEMPORARY CONSTRUCTION SHALL USE SUPERPAVE HOT MIX ASPHALT MIXTURES AND MAY NOT BE SUBJECT TO THE SAME SAMPLING AND TESTING REQUIRED FOR PERMANENT CONSTRUCTION.
5. WHERE EXISTING SUBBASE/SUBGRADE IS FOUND TO MEET SPECIAL BORROW (M1.02.0) SPECIFICATION REQUIREMENTS, THE EXISTING MATERIAL MAY BE LEFT IN PLACE, AFTER APPROVAL OF THE ENGINEER.



TYPICAL SECTION - PARKER STREET

STA 3+00± TO STA 3+40±
STA 3+70± TO STA 4+00±
N.T.S.

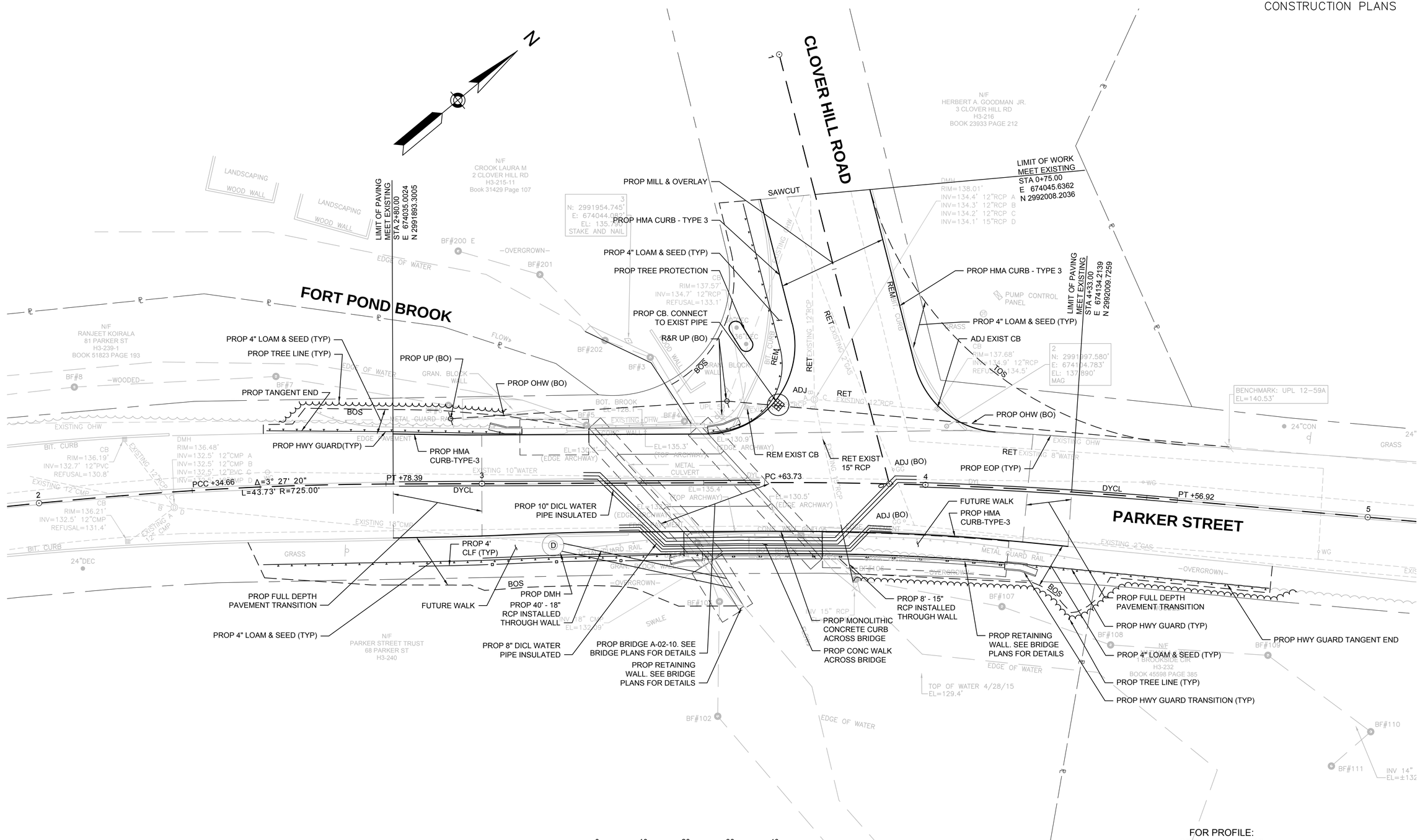
* 0.5% TOLERANCE FOR CONSTRUCTION
** SEE CONTRUCTION PLANS FOR LIMITS OF PROPOSED GUARDRAIL
*** SEE CONTRUCTION PLANS FOR LIMITS OF PROPOSED HMA CURB

ACTON
PARKER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	–	04	13
PROJECT FILE NO. N/A			

CONSTRUCTION PLANS

13016_HD (CONST).DWG 14-Sep-2015



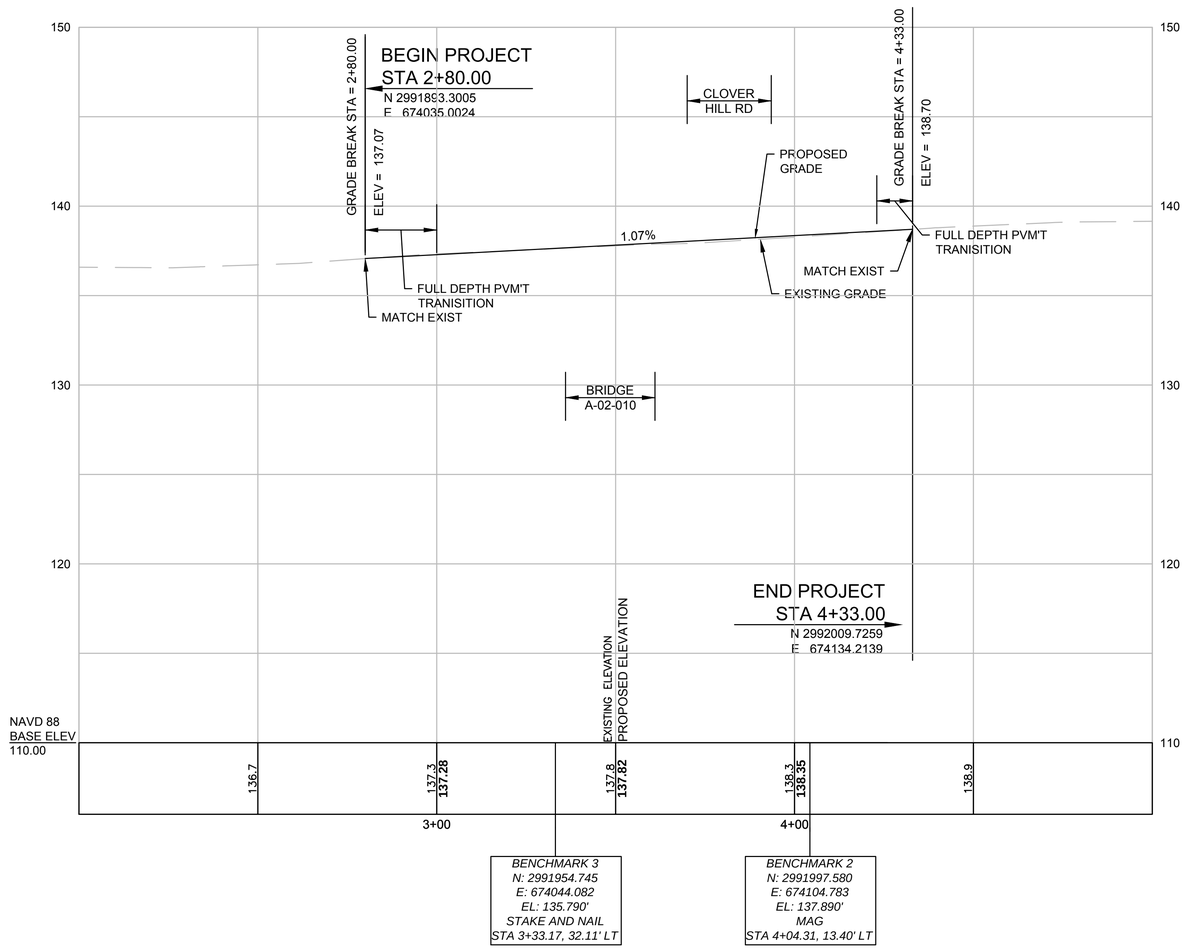
FOR PROFILE:
SEE SHEET NO. 05

ACTON
PARKER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	–	05	13
PROJECT FILE NO. N/A			

PROFILE

PARKER STREET



HOR. SCALE IN FEET
20 0 20 40
4 0 4 8
VER. SCALE IN FEET

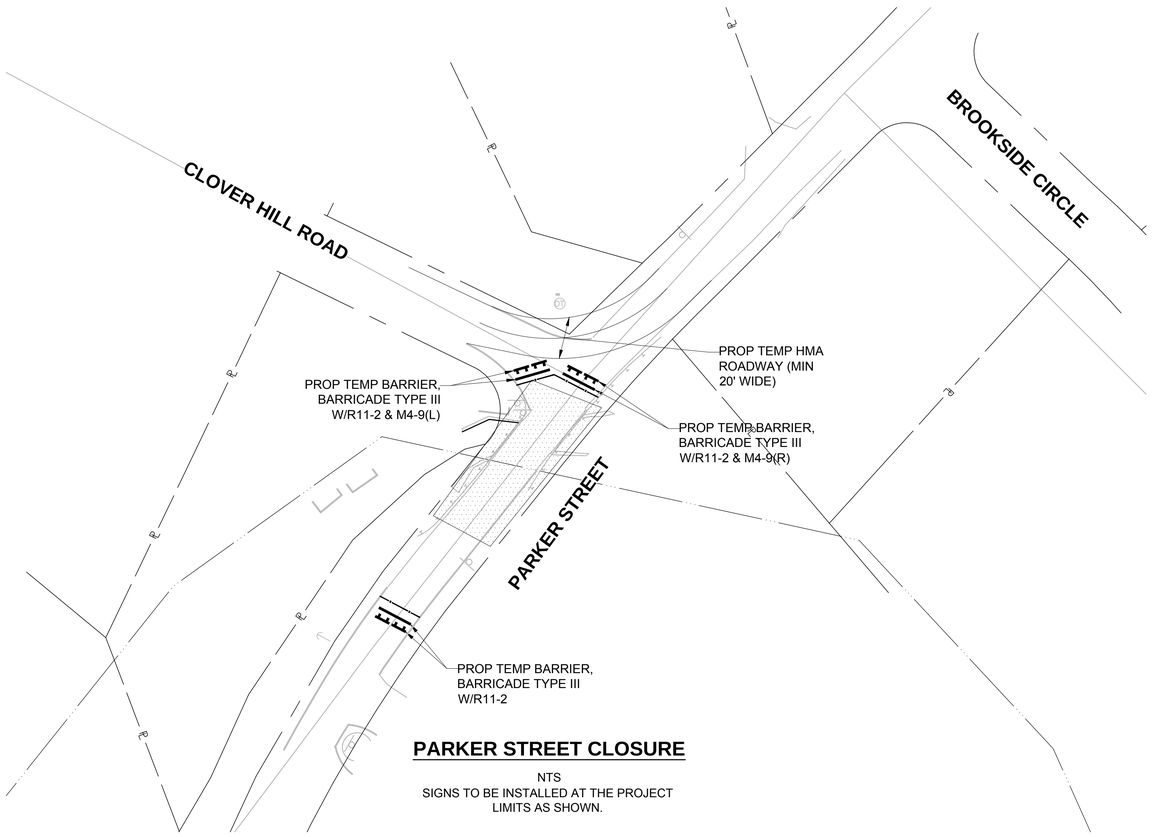
FOR CONSTRUCTION PLANS:
SEE SHEET NO. 04

13016_HD (PROF).DWG Plotted on 14-Sep-2015 10:25 AM

ACTON
PARKER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	–	06	13
PROJECT FILE NO. N/A			

TEMPORARY TRAFFIC CONTROL PLAN



PARKER STREET CLOSURE

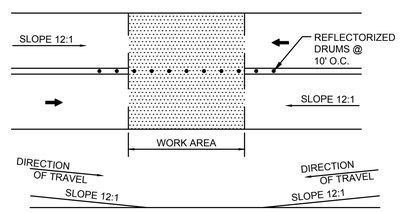
NTS
SIGNS TO BE INSTALLED AT THE PROJECT LIMITS AS SHOWN.

LEGEND

- REFLECTORIZED DRUM
- DRUM WITH FLASHER
- POLICE OFFICER OR FLAGGER
- CONSTRUCTION SIGN
- TRAFFIC CONE
- WORK AREA PUBLIC ACCESS RESTRICTED
- PROPOSED TRAFFIC FLOW
- NTS — NOT TO SCALE
- TYPE III BARRICADES

TEMPORARY SIGNS

SIGN DESIGNATION	LEGEND	COLOR	HEIGHT	WIDTH
W20-1c	ROAD WORK AHEAD	ORANGE	36"	36"
R2-10a	WORK ZONE SPEEDING FINES DOUBLED	WHITE	36"	48"
R2-10e	END ROAD WORK DOUBLE FINES END	WHITE/ORANGE	48"	36"
W20-8	POLICE OFFICER AHEAD	ORANGE	36"	36"
R11-2	ROAD CLOSED	WHITE	30"	48"



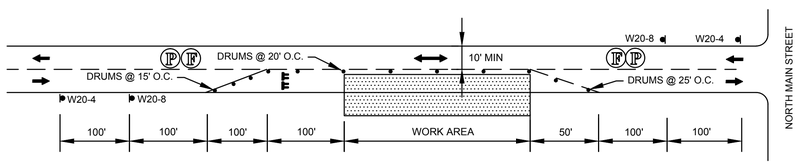
SQUARE OFF THE FULL WIDTH OF THE ROADWAY AT THE END OF WORK DAY

TEMPORARY PAVEMENT TRANSITION DETAIL

SCALE: N.T.S.

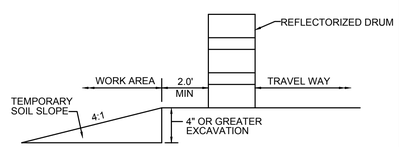
GENERAL NOTES

1. ALL CONSTRUCTION SIGNING, TEMPORARY TRAFFIC CONTROL DEVICES, AND ROADSIDE ELEMENTS SHALL CONFORM WITH THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS AMENDED, THE LATEST REVISIONS OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, (AASHTO) ROADSIDE DESIGN GUIDE, AASHTO POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS, AND NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 350 OR THE AASHTO MANUAL FOR ASSESSING SAFETY HARDWIRE (MASH).
2. ALL TEMPORARY PEDESTRIAN PATHWAYS SHALL COMPLY FULLY WITH ALL REQUIREMENTS OF THE MUTCD AND ALL APPLICABLE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (MAAB) AND AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) REQUIREMENTS.
3. ALL DRUMS SHALL BE SET AT 20' ON CENTER MAX. ON LOCAL ROADWAY AND 50' ON CENTER MAX. UNLESS OTHERWISE NOTED OR ADJUSTED BY THE ENGINEER.
4. ALL DRUMS SHALL BE APPROXIMATELY PLACED AND MOVED AS NECESSARY TO MAINTAIN ADEQUATE ABUTTER ACCESS AT ALL TIMES. WORK MAY REQUIRE ADDITIONAL SIGNS, DRUMS AND OTHER TRAFFIC CONTROL DEVICES, GRADING AND TEMPORARY PAVEMENT FOR PASSAGE OF PEDESTRIAN, VEHICULAR AND EMERGENCY TRAFFIC THROUGH THE WORK AREAS, BOTH DURING AND AFTER WORKING HOURS, TO MAINTAIN SUCH ACCESS.
5. THE CONTRACTOR SHALL NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS.
6. FOR RESTORATIVE WORK ON LOCAL ROADWAYS, A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION ON TWO WAY STREETS SHALL BE MAINTAINED AT ALL TIMES, EXCEPT THAT DURING WORKING HOURS, TRAFFIC MAY BE REDUCED TO ONE LANE UNDER POLICE OR FLAGGER CONTROL FOR SHORT TIME PERIODS WHEN REQUIRED FOR THE WORK, AS SHOWN UNLESS OTHERWISE APPROVED BY THE ENGINEER.
7. GRADE SEPARATIONS IN EXCESS OF 2" DURING NON-WORKING HOURS WILL REQUIRE DELINEATION BY USE OF DRUMS.
8. EXCAVATION EDGES IN EXCESS OF 4 INCHES DEEP SHALL BE PROTECTED DURING NON-WORKING HOURS BY BACKFILLING WITH A WEDGE OF COMPACTED GRAVEL BORROW AT A 4:1 SLOPE PER THE DETAIL SHOWN. EXCAVATIONS IN EXCESS OF 2 FEET SHOULD BE PROTECTED BY A MASSDOT APPROVED TEMPORARY CONCRETE BARRIER WITH A MINIMUM LEVEL LATERAL OFFSET OF 3 FEET FROM THE EDGE OF EXCAVATION. BARRIER PLACED WITH LESS THAN THE RECOMMENDED LATERAL OFFSET TO THE EDGE OF EXCAVATION SHALL BE ANCHORED/RESTRAINED TO PREVENT LATERAL MOVEMENT WHEN STRUCK BY ERRANT VEHICLES TRAVELING AT THE POSTED SPEED.
9. 10' MINIMUM LANE WIDTHS SHALL BE MAINTAINED.
10. TRAFFIC CONTROL DEVICES AND SIGNS SHALL BE COVERED OR REMOVED DURING NON-WORKING HOURS WHEN NOT IN USE.
11. ADVISORY SPEED PLATES (W13-1) SHALL BE USED IF APPROPRIATE AND AS DIRECTED BY THE ENGINEER.
12. SIGNS INSTALLED ON PORTABLE STANDS REQUIRE 12 INCH MINIMUM MOUNTING HEIGHT FROM THE ROADWAY SURFACE TO THE BOTTOM OF THE SIGN.
13. SIGNS INSTALLED ON PORTABLE STANDS PLACED AMONG CHANNELIZATION DEVICES REQUIRE A 36 INCH MINIMUM MOUNTING HEIGHT FROM THE ROADWAY SURFACE TO THE BOTTOM OF THE SIGN.
14. SIGNS MOUNTED ON POSTS REQUIRE A MINIMUM 84 INCH MOUNTING HEIGHT FROM THE ROADWAY OR SIDEWALK SURFACE TO THE BOTTOM OF THE SIGN.
15. W20-8 SIGNS SHALL BE REPLACED BY W20-7a SIGNS WHEN FLAGGERS ARE USED IN LIEU OF POLICE OFFICER DETAILS.
16. TEMPORARY MARKINGS SHALL BE WATER-BORNE PAINT.
17. REFLECTORIZED CONES SHALL BE A MINIMUM OF 36 INCHES IN HEIGHT.
18. CONES MAY BE USED IN LIEU OF DRUMS OUTSIDE OF TAPER AREAS.
19. THERE IS NO DESIGNATED BICYCLE LANE ON THE ROADWAY WITHIN THE PROJECT LIMITS. BICYCLES ARE EXPECTED TO SHARE THE ROAD WITH GENERAL VEHICULAR TRAFFIC.



TYPICAL TWO WAY STREET LANE CLOSURE (LOCAL ROAD)

SCALE: N.T.S.



BUFFER SPACING

SPEED (MPH)	DISTANCE (FEET)
15	80
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645

ROADWAY SLOPE PROTECTION

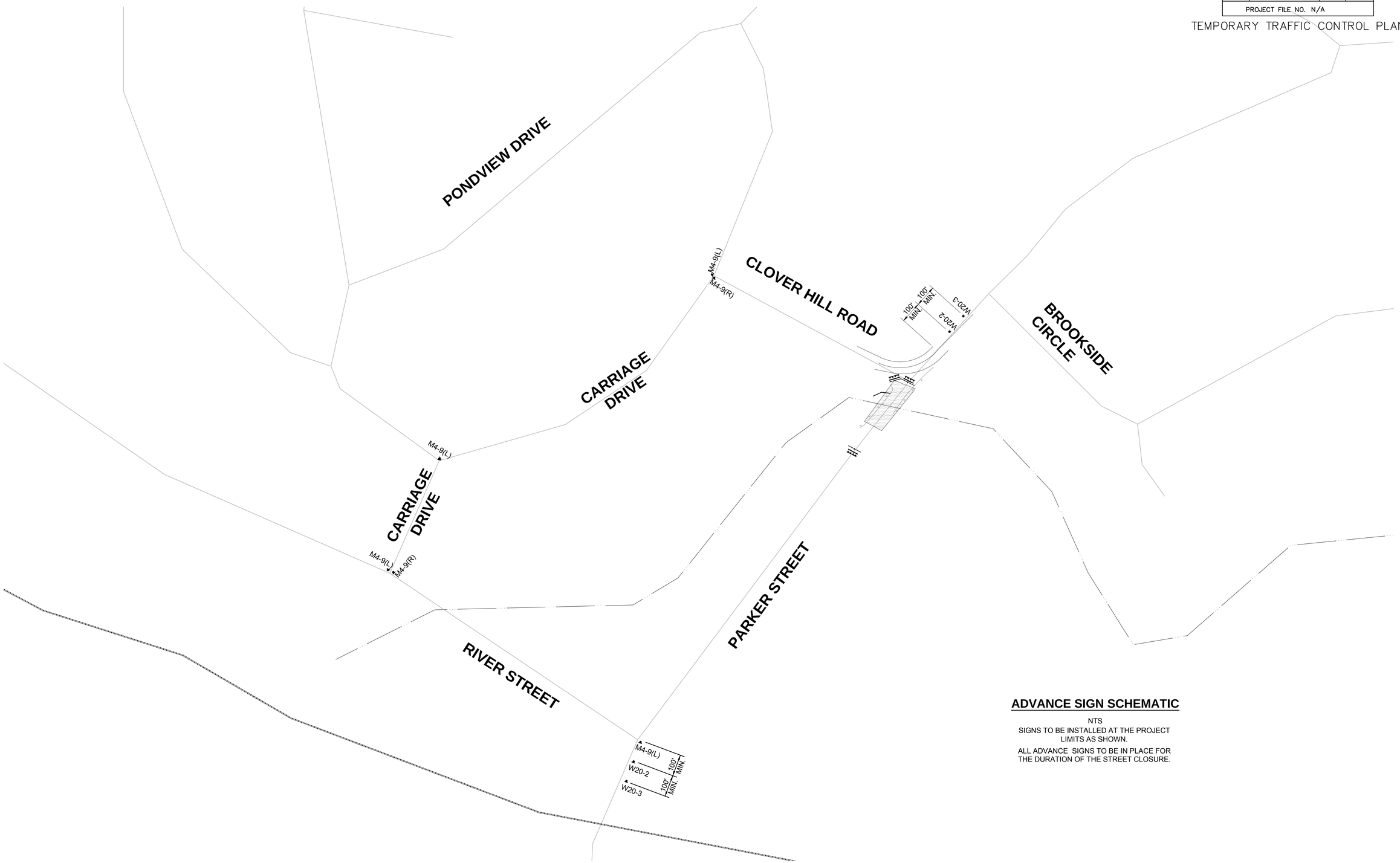
SCALE: N.T.S.

11-Sep-2015
13016_HD (TTCP).DWG

ACTON
PARKER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MASS.	–	07	13
PROJECT FILE NO. N/A			

TEMPORARY TRAFFIC CONTROL PLAN



ADVANCE SIGN SCHEMATIC

NTS

SIGNS TO BE INSTALLED AT THE PROJECT LIMITS AS SHOWN.

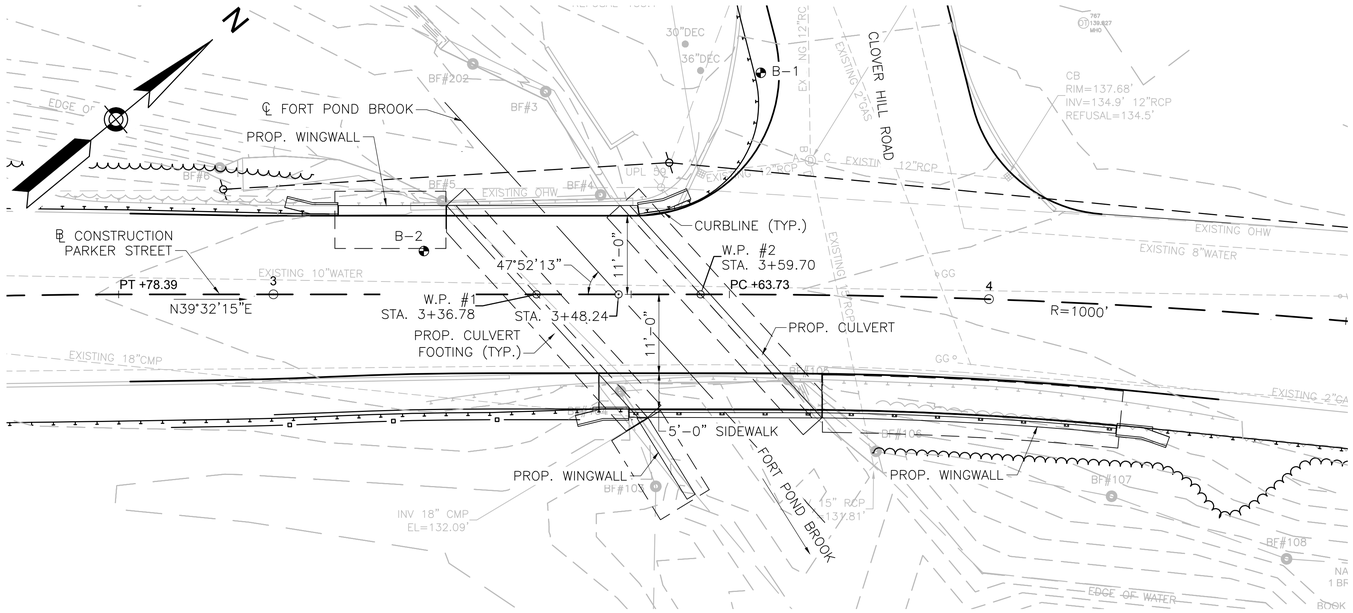
ALL ADVANCE SIGNS TO BE IN PLACE FOR THE DURATION OF THE STREET CLOSURE.

13016_HD (TTCP).DWG 11-Sep-2015

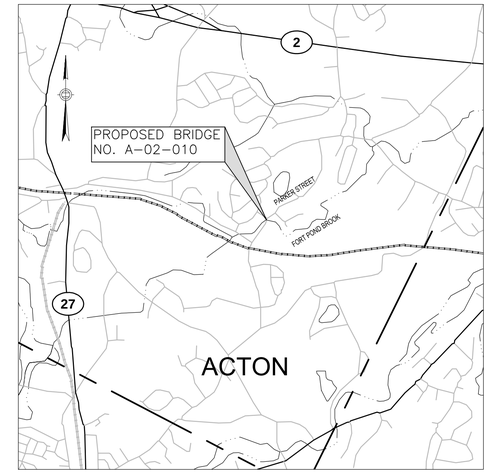
ACTON
PARKER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	8	13
PROJECT FILE NO.		N/A	

KEY PLAN, PROFILE AND INDEX



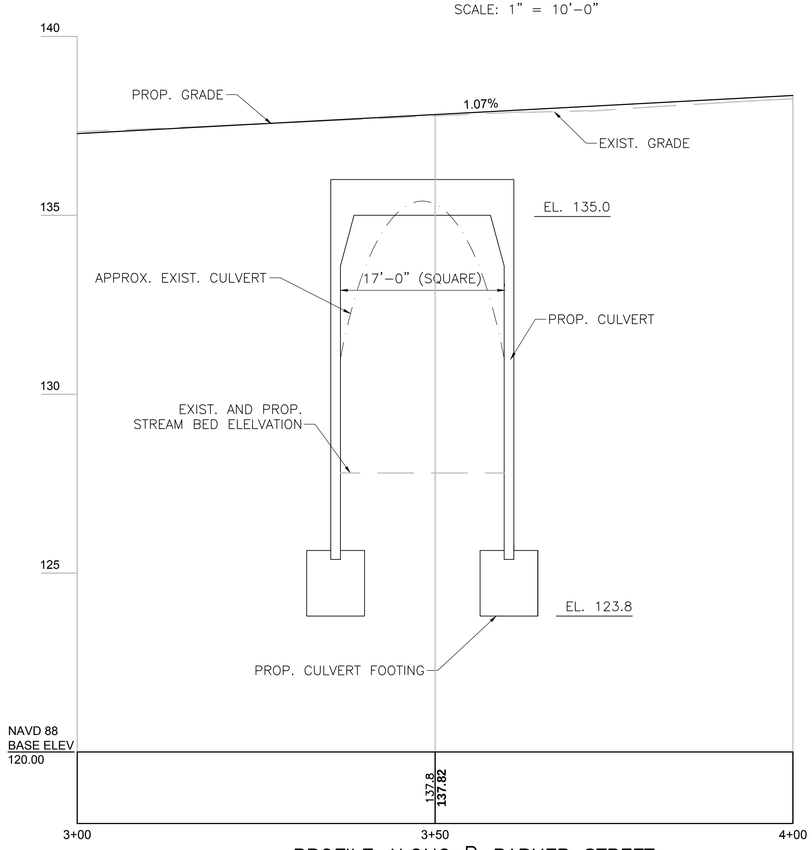
KEY PLAN
SCALE: 1" = 10'-0"



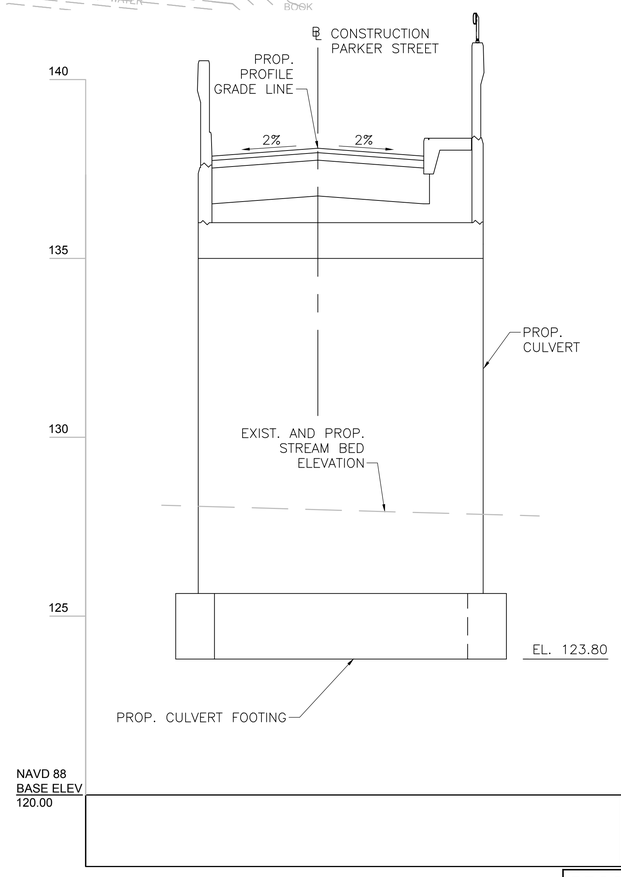
LOCUS
SCALE: 1" = 2000'

INDEX:

1 KEY PLAN, PROFILE AND INDEX
2 GENERAL NOTES
3 BORING LOGS
4 GENERAL PLAN
5 ELEVATION AND LONGITUDINAL SECTION
6 WINGWALL PLAN AND ELEVATION



PROFILE ALONG ℄ PARKER STREET
HORIZONTAL SCALE: 1" = 10'-0"
VERTICAL SCALE: ½" = 1'-0"



PROFILE ALONG FORT POND BROOK
HORIZONTAL SCALE: 1" = 10'-0"
VERTICAL SCALE: ½" = 1'-0"

PROGRESS PRINT

NOT ISSUED FOR CONSTRUCTION

PROPOSED CULVERT REPLACEMENT

TOWN OF ACTON

PARKER STREET
OVER FORT POND BROOK

VANASSE HANGEN BRUSTLIN, INC.
101 WALNUT STREET
WATERTOWN, MA

SHEET 1 OF 6 SHEETS BRIDGE NO. A-02-010 (-)

N/A STRUCTURAL SUBMITTAL (S#) DD-MONTH-YYYY

Plotted on 14-Sep-2015 10:42 AM

1_13016.00_BR(KEY_PLAN).DWG

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GENERAL NOTES

DESIGN:

IN ACCORDANCE WITH:

THE 2014 AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS LRFD BRIDGE DESIGN SPECIFICATIONS 7TH EDITION FOR HL-93 LOADING.

THE 2013 MASSACHUSETTS DEPARTMENT OF TRANSPORTATION LRFD BRIDGE MANUAL.

THE 2011 AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS GUIDE SPECIFICATIONS FOR LRFD SEISMIC BRIDGE DESIGN WITH 2012 INTERIM REVISIONS.

BENCH MARKS:

1. ULT 12-58 N2991830.269, E673964.883, EL. 137.95
2. UPL 12-59A N2992043.510, E674149.105, EL. 140.53

ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM (NAVD88) OF 1988.

DATE:

TO BE PLACED ON THE INSIDE FACE OF THE NORTHEAST AND SOUTHWEST GUARDRAIL TRANSITIONS. A SHEET SHOWING SIZE AND CHARACTER OF NUMERALS WILL BE FURNISHED. THE DATE USED SHALL BE THE LATEST YEAR OF CONTRACT COMPLETION AS OF THE DATE THE FIRST GUARDRAIL TRANSITION IS CONSTRUCTED.

SURVEY NOTEBOOK:

SURVEY PERFORMED BY VANASSE HANGEN BRUSTLIN, INC.

UNSUITABLE MATERIAL:

ALL UNSUITABLE MATERIAL SHALL BE REMOVED WITHIN THE LIMITS OF THE FOUNDATIONS OF THE STRUCTURE, AS DIRECTED BY THE ENGINEER.

SEISMIC GROUND SHAKING HAZARD:

DESIGN SPECTRA:

As = 0.117g
Sds = 0.241g
Sd1 = 0.095g

SITE CLASS = D

SEISMIC DESIGN CATEGORY (SDC) = A

GEOTECHNICAL REPORT:

REFER TO GEOTECHNICAL REPORT, DATED AUGUST 2015, PREPARED BY LAHLAF GEOTECHNICAL CONSULTING, INC.

REINFORCEMENT:

REINFORCING STEEL SHALL BE EPOXY COATED UNLESS OTHERWISE NOTED IN THE CONSTRUCTION DRAWINGS AND SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M31 GRADE 60. ALL BARS SHALL BE LAPPED AS FOLLOWS:

MODIFICATION CONDITION	#4 BARS	#5 BARS
1. NONE	21"	26"
2. 12" OF CONCRETE BELOW BAR	29"	36"
3. COATED BARS, COVER <3db, OR CLEAR SPACING <6db	31"	39"
4. COATED BARS, ALL OTHER CASES	25"	31"
5. CONDITION 2, AND 3	35"	44"
6. CONDITION 2, AND 4	34"	43"

IF THE ABOVE BARS ARE SPACED 6 INCHES OR MORE ON CENTER, THE LAP LENGTH SHALL BE 80% OF THE LAP LENGTH GIVEN ABOVE. ALL OTHER BARS SHALL BE LAPPED AS SHOWN ON THE CONSTRUCTION DRAWINGS.

CONSTRUCTION REQUIREMENTS AND PROCEDURES:

THE CONTRACTOR SHALL TAKE THE PROPER PRECAUTIONS TO ENSURE THE STABILITY AND SAFE PERFORMANCE OF ALL STRUCTURAL ELEMENTS DURING DEMOLITION AND CONSTRUCTION. REFER TO APPROVED DEMOLITION/ERECTION PLANS.

EXISTING CONDITIONS:

THE CONTRACTOR SHALL DETERMINE AND ESTABLISH ALL DIMENSIONS AND DETAILS NECESSARY FOR COMPLETION OF ALL WORK BY FIELD MEASUREMENTS AND SURVEY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ADEQUACY AND ACCURACY THEREOF, AND SHALL NOT ORDER ANY MATERIAL OR COMMENCE ANY FABRICATION UNTIL HE HAS MADE THE REQUIRED MEASUREMENTS AND THE EXTENT OF THE PROPOSED WORK HAS BEEN APPROVED BY THE ENGINEER.

UTILITIES:

THE CONTRACTOR SHALL LOCATE AND PROTECT FROM DAMAGE ALL EXISTING UTILITIES.

CONSTRUCTION JOINTS:

CONSTRUCTION JOINTS, OTHER THAN THOSE SHOWN ON THE PLANS, WILL NOT BE PERMITTED WITHOUT THE APPROVAL OF THE ENGINEER.

SCALES:

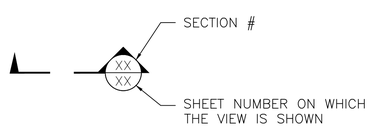
SCALES NOTED ON THE PLANS ARE NOT APPLICABLE TO REDUCED SIZE PRINTS. DIVIDE SCALES BY 2 FOR HALF-SIZE PRINTS.

CONCRETE:

CP-PL2 BARRIERS, HIGHWAY GUARDRAIL TRANSITIONS, AND CULVERT HEADWALLS SHALL BE 5000 PSI, ¾ IN, 685 HP CEMENT CONCRETE.

CULVERT, CULVERT FOOTINGS, WINGWALLS, AND WINGWALL FOOTINGS SHALL BE 4000 PSI, ¾ IN, 610 CEMENT CONCRETE.

SECTION MARK:



ACTON
PARKER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	9	13
PROJECT FILE NO.		N/A	

GENERAL NOTES

ESTIMATED QUANTITIES

(NOT GUARANTEED)

DESCRIPTION	QUANTITY	UNIT
DEMOLITION OF CULVERT NO. A-02-010	1	LS
BRIDGE EXCAVATION	700	CY
CLASS B ROCK EXCAVATION	2	CY
GRAVEL BORROW FOR BACKFILLING STRUCTURES AND PIPES	350	CY
CRUSHED STONE FOR BRIDGE FOUNDATIONS	90	TON
CULVERT NO. A-02-010	1	LS

PROGRESS PRINT

DATE	DESCRIPTION
	NOT ISSUED FOR CONSTRUCTION
USE ONLY PRINTS OF LATEST DATE	

2_13016.00_BR(GEN_NOTES).DWG Plotted on 14-Sep-2015 10:37 AM
N/A STRUCTURAL SUBMITTAL (S#) DD-MONTH-YYYY
\\vhb\proj\Wat-TE\13016.00\Cad\1301600\DWG\BR\2 _13016.00_BR(GEN_NOTES).dwg

BORING B–1

STATION: 3+68
OFFSET: 31.0' LEFT
GROUND ELEVATION: 139.0'

GROUNDWATER
APPROX. EL. 130.5

LGCI Lahlaf Geotechnical Consulting, Inc.

BORING LOG **Boring B-1**

Project:	Proposed Parker Street Culvert, Acton, Massachusetts		
Client:	Vanasse Hangen Brustlin, Inc.		LGCI Project No.: 1518
Drilling Subcontractor:	Northern Drill Service, Inc.	Date Started:	7/14/2015
Drilling Foreman:	Tim Tucker	Date Completed:	7/14/2015
LGCI Engineer:	Andrew Jefferson	Location:	Clover Hill Road, North of prop. Culvert
Ground Surface El:	~ 139 feet (see remark 1)	Total Depth:	41'
Groundwater Depth:	8.5' at end of drilling	Drill Rig Type:	Mobile Drill B-48 ATV
		Drilling Method:	4" casing to 39'
Hammer Weight:	140 lbs	Split Spoon Diameter:	ID - 1.375", OD - 2"
Hammer Type:	Automatic	Rock Core Barrel Size:	NX
Drop:	30 inches		

Depth Scale	Sample Depth (ft)	Sample No	Blows per 6 inches 0-6	6-12	12-18	18-24	Pen (in)	Rec (in)	Remarks	Strata	Sample Description
	0.5 - 2	S1	13	7	6		18	12		Asphalt / Fill	Drilled through 4" of asphalt. S1 - Top 3": Asphalt wash Bot. 9": Well Graded SAND (SW), fine to medium, trace coarse, 0-5% fines, trace fine rounded gravel, light brown, moist (fill)
	2 - 4	S2	8	12	14	10	24	12			S2 - Top 2": Poorly Graded SAND (SP), fine, trace medium, 0-5% fines, light brown, wet (fill)
5ft	4-6	S3	6	5	4	5	24	4		Alluvium	Bot. 10": Well Graded SAND with Silt (SW-SM), fine to medium, 10-15% fines, slightly plastic, trace fine rounded gravel, light brown, wet (fill) S3 - Poorly Graded SAND with Silt and Gravel (SP-SM), fine to medium, ~ 10% fines, 15-20% fine gravel, light brown, trace of root, wet
10ft	9-11	S4	8	14	16	17	24	14		Sand	S4 - Top 3": Similar to S3 Bot. 11": Well Graded SAND with Silt and Gravel (SW-SM), fine to medium, trace coarse, ~ 5% fines, 15-20% fine gravel, grey, wet
15ft	14-16	S5	7	10	11	12	24	12			S5 - Silty SAND (SM), fine, ~20% fines, slightly plastic, light brown, wet
20ft	19-21	S6	7	11	13	14	24	13			S6 - Poorly Graded SAND wit Silt (SP-SM), fine to medium, 0-5% fines, brown, wet
									2		
	24-26	S7	8	14	16	14	24	10			S7 - Similar to S6
30ft	29-31	S8	8	12	13	15	24	0		Sand	S8 - No recovery
	31-33	S9	9	10	13	14	24	20	3		S9 - Similar to S6
35ft	34-36	S10	8	15	15	16	24	2			S10 - Silty SAND (SM), fine, 15-20% fines, slightly plastic, light brown, wet
									4		
40ft	39-41	S11	25	15	22	44	24	11			S11 - Top 8": (Fragments of cobble in top of sample) Sandy SILT (ML), slightly to moderately plastic, 30-35% fine sand, light brown, wet Bot. 3": Well graded GRAVEL with Silt and Sand (GW-GM), fine, angular, 10-15% fines, ~20% fine to coarse sand, slightly plastic, light brown, wet
45ft											Ended boring at 41' and backfilled borehole with drill cuttings and restored surface with asphalt cold patch.
50ft											

Remarks:
1 - Elevation interpolated from drawing titled: "Parker Street, Acton," provided to us by VHB on July 14, 2015.
2 - Encountered stiffer material due to resistance in hammering 4" casing.
3 - Used 3" sampler to acquire soil sample after no recovery with 2" sampler.
4 - Encountered what appeared to be cobbles based on drilling action.

BORING B–2

STATION: 3+21
OFFSET: 6.0' LEFT
GROUND ELEVATION: 137.5'

GROUNDWATER
APPROX. EL. 129.5

BOTTOM OF FOOTING
EL. 123.80

LGCI Lahlaf Geotechnical Consulting, Inc.

BORING LOG **Boring B-2**

Project:	Proposed Parker Street Culvert, Acton, Massachusetts		
Client:	Vanasse Hangen Brustlin, Inc.		LGCI Project No.: 1518
Drilling Subcontractor:	Northern Drill Service, Inc.	Date Started:	7/14/2015
Drilling Foreman:	Tim Tucker	Date Completed:	7/14/2015
LGCI Engineer:	Andrew Jefferson	Location:	Parker St., South of prop. Culvert
Ground Surface El:	~ 137.5 feet (see remark 1)	Total Depth:	31'
Groundwater Depth:	8' at end of drilling	Drill Rig Type:	Mobile Drill B-48 ATV
		Drilling Method:	4" casing to 19'
Hammer Weight:	140 lbs	Split Spoon Diameter:	ID - 1.375", OD - 2"
Hammer Type:	Automatic	Rock Core Barrel Size:	N/A
Drop:	30 inches		

Depth Scale	Sample Depth (ft)	Sample No	Blows per 6 inches 0-6	6-12	12-18	18-24	Pen (in)	Rec (in)	Remarks	Strata	Sample Description
	0.5 - 2	S1	12	17	11	11	24	11		Asphalt / Fill	Drilled through 4" of asphalt. S1 - Well Graded SAND with Silt and Gravel (SW-SM), fine to medium, trace coarse, 5-10% fines, ~25% fine rounded gravel, light brown, moist (fill)
5ft	4-6	S2	6	5	7	17	24	15			S2 - Silty SAND (SM), fine to medium, 15-20% fines, trace fine gravel, light brown, moist (fill)
	6-8	S3	11	9	3	3	24	10		Alluvium	S3 - Top 6": Silty SAND with Gravel (SM), fine to medium, 15-20% fines, ~15% fine subrounded gravel, light brown, wet (fill) Bot. 4": Silty SAND (SM), fine to medium, ~20% fines, traces of organics, dark brown, wet (possible river bottom sediment)
10ft	9-11	S4	11	26	17	13	24	8		Gravel to Sand	S4 - Top 2": Similar to bot. 4" of S3 Bot. 6": Well Graded GRAVEL with Silt and Sand (GW-GM), fine, subrounded to angular, 5-10% fines, 20-25% fine to coarse sand, brown, wet
	11-13	S5	11	12	11	14	24	21			S5 - Top 4": Well Graded SAND with Silt (SW-SM), fine to medium, 10-15% fines, light brown, wet Bot. 17": Silty SAND (SM), fine, 15-20% fines, orange brown, wet
15ft	14-16	S6	5	6	9	12	24	14			S6 - Poorly Graded SAND (SW), fine , 0-5% fines, light brown to brown, wet
20ft	19-21	S7	6	10	12	15	24	13			S7 - Similar to S6
	24-26	S8	6	9	10	11	24	10			S8 - Similar to S6
30ft	29-31	S9	10	14	17	25	24	24		Sand	S9 - Similar to S6, medium
35ft										~31'	Ended boring at 31'. Backfilled borehole with drill cuttings and restored surface with asphalt cold patch.
40ft											
45ft											
50ft											

Remarks:
1 - Elevation interpolated from drawing titled: "Parker Street, Acton," provided to us by VHB on July 14, 2015.

NOTES:

1. LOCATION OF BORINGS FOR PROPOSED BRIDGE SHOWN ON THE KEY PLAN THUS: ⊕ B–1
2. BORINGS ARE TAKEN FOR PURPOSE OF DESIGN AND SHOW CONDITIONS AT BORING POINTS ONLY, BUT DO NOT NECESSARILY SHOW THE NATURE OF THE MATERIALS TO BE ENCOUNTERED DURING CONSTRUCTION.
3. WATER LEVELS SHOWN ON THE BORING LOGS AND INDICATED THUS: ▽ WERE OBSERVED AT THE TIME OF TAKING BORINGS AND DO NOT NECESSARILY SHOW THE TRUE GROUND WATER LEVEL.
4. FIGURES IN COLUMNS INDICATE NUMBER OF BLOWS REQUIRED TO DRIVE A 1⅜" I.D. SPLIT SPOON SAMPLER 6" USING A 140 POUND WEIGHT FALLING 30", UNLESS OTHERWISE NOTED.
5. ALL BORINGS FOR PROPOSED BRIDGE WERE MADE IN JULY 2015.
6. THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988 IS USED THROUGHOUT.

PROGRESS PRINT

DATE	DESCRIPTION
	NOT ISSUED FOR CONSTRUCTION
USE ONLY PRINTS OF LATEST DATE	

3 _13016.00_BR(BORING_LOGS).DWG Plotted on 14-Sep-2015 10:37 AM
N/A STRUCTURAL SUBMITTAL (S#) DD-MONTH-YYYY
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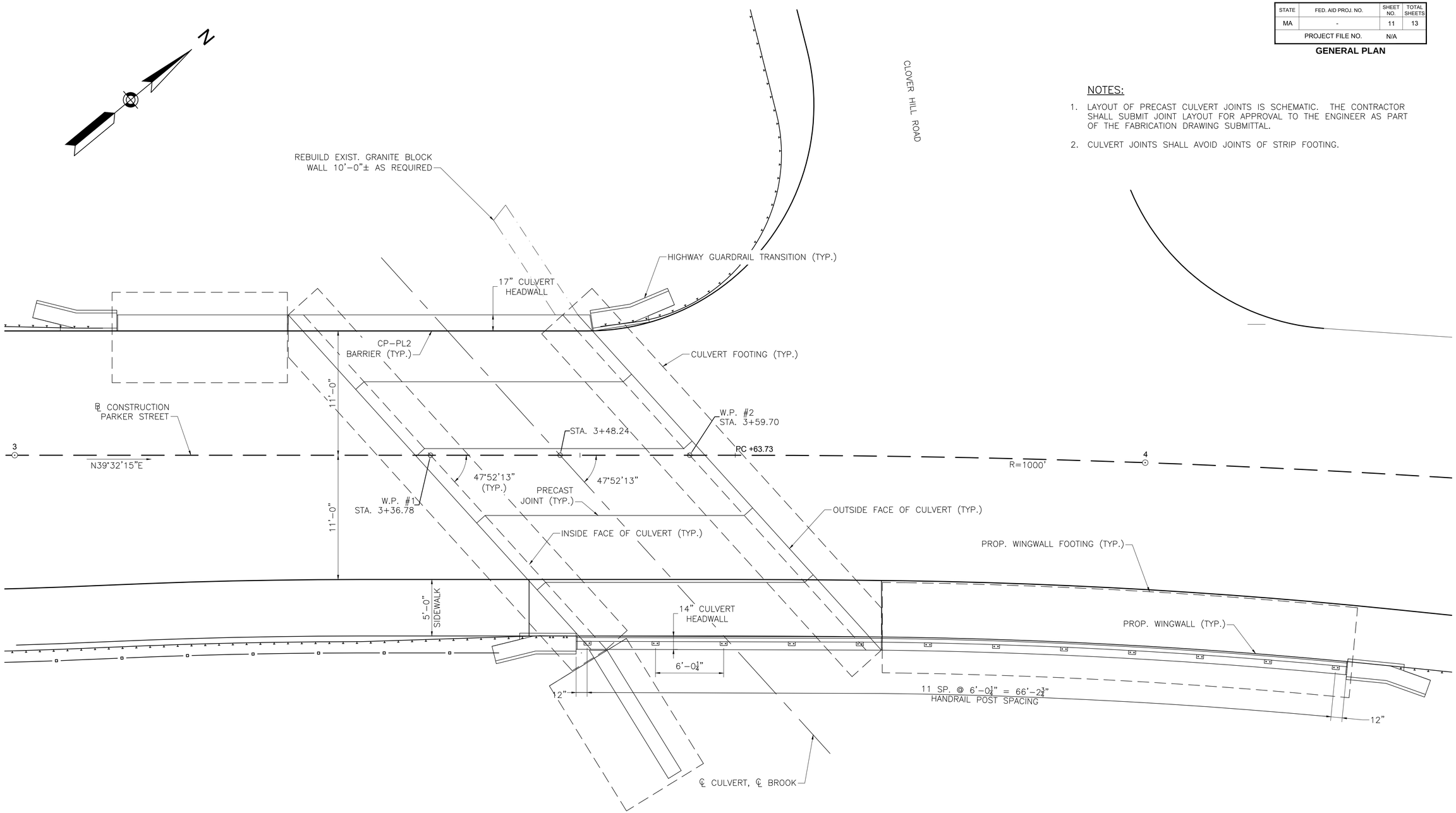
ACTON
PARKER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	11	13
PROJECT FILE NO.		N/A	

GENERAL PLAN

NOTES:

1. LAYOUT OF PRECAST CULVERT JOINTS IS SCHEMATIC. THE CONTRACTOR SHALL SUBMIT JOINT LAYOUT FOR APPROVAL TO THE ENGINEER AS PART OF THE FABRICATION DRAWING SUBMITTAL.
2. CULVERT JOINTS SHALL AVOID JOINTS OF STRIP FOOTING.



PLAN
SCALE: ¼" = 1'-0"

PROGRESS PRINT

DATE	DESCRIPTION
	NOT ISSUED FOR CONSTRUCTION
USE ONLY PRINTS OF LATEST DATE	

SHEET 4 OF 6 SHEETS BRIDGE NO. A-02-010 (-)

4 _13016.00_BR(GEN_PLAN).DWG Plotted on 14-Sep-2015 10:41 AM

N/A STRUCTURAL SUBMITTAL (S#) DD-MONTH-YYYY

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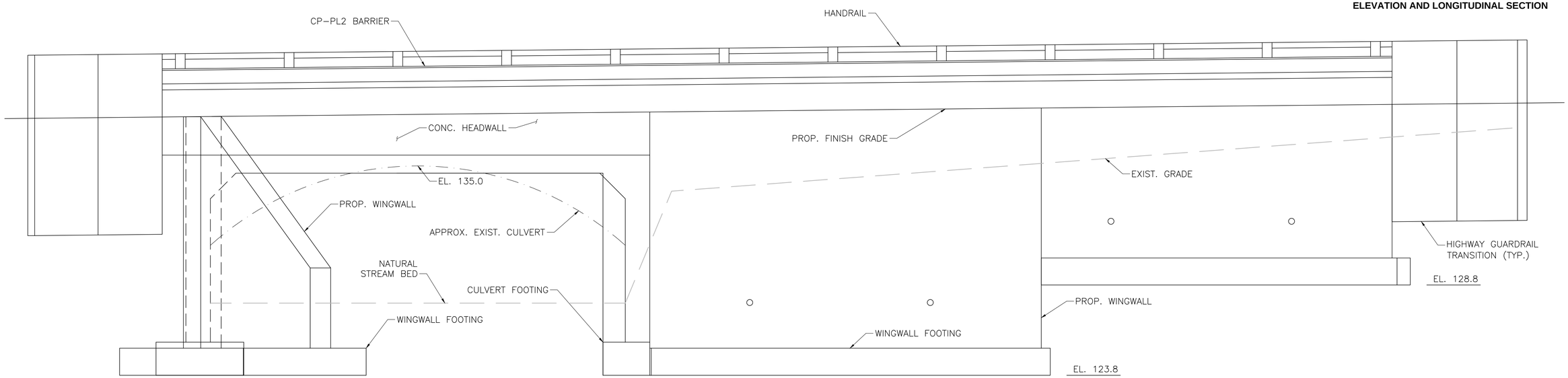
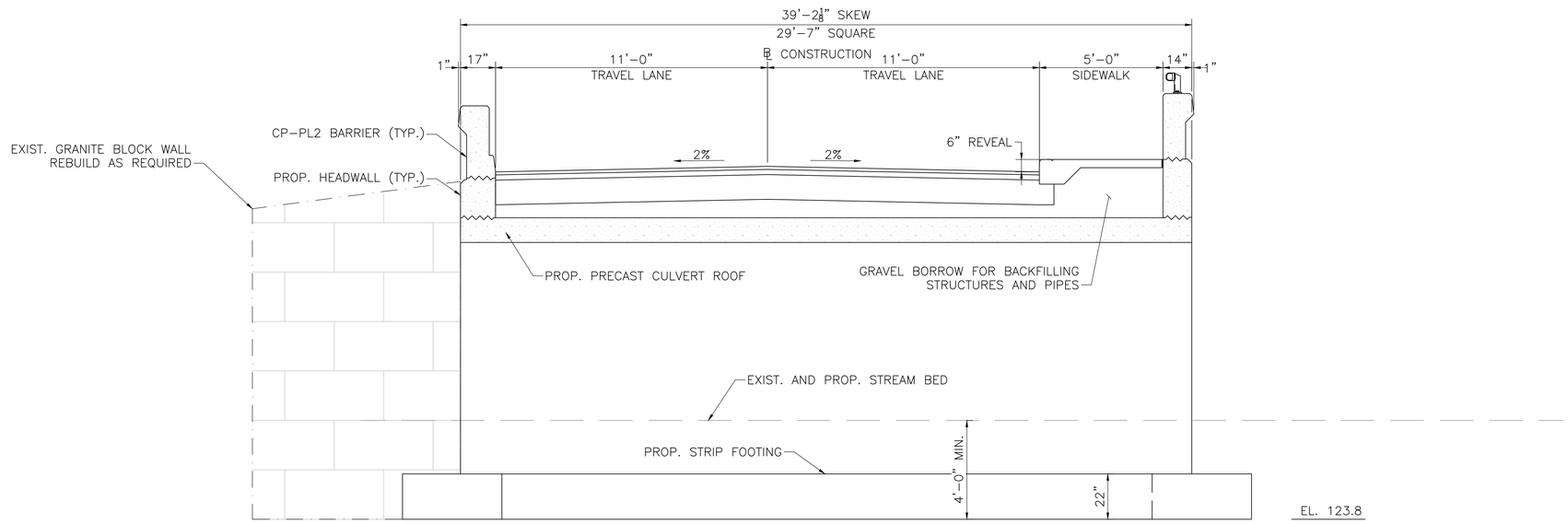
ACTON
PARKER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	12	13
PROJECT FILE NO.		N/A	

ELEVATION AND LONGITUDINAL SECTION



ELEVATION – LOOKING WEST
SCALE: 3/8" = 1'-0"



LONGITUDINAL SECTION – LOOKING UPSTATION
SCALE: 3/8" = 1'-0"

PROGRESS PRINT

DATE	DESCRIPTION
	NOT ISSUED FOR CONSTRUCTION
USE ONLY PRINTS OF LATEST DATE	

SHEET 5 OF 6 SHEETS BRIDGE NO. A-02-010 (-)

5_13016.00_BR(ELEV_SECTION).DWG Plotted on 14-Sep-2015 10:38 AM

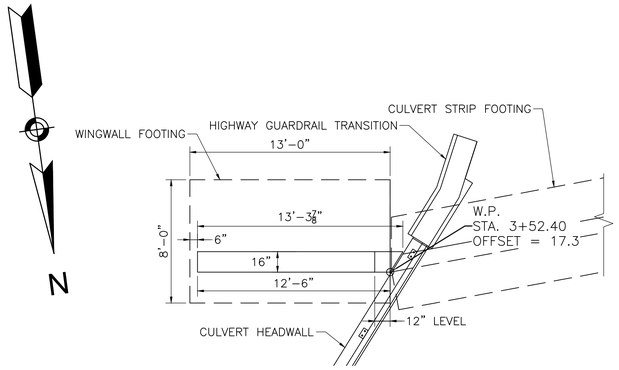
N/A STRUCTURAL SUBMITTAL (S#) DD-MONTH-YYYY

\\vhb\proj\Wat-TE\13016.00\Cad\1301600\DWG\BR\5 _13016.00_BR(ELEV_SECTION).dwg

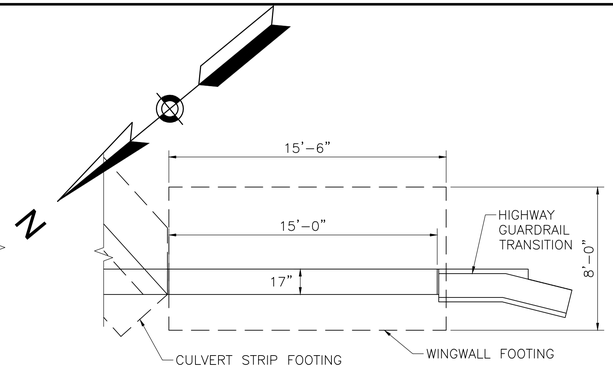
ACTON
PARKER STREET

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	-	13	13
PROJECT FILE NO.		N/A	

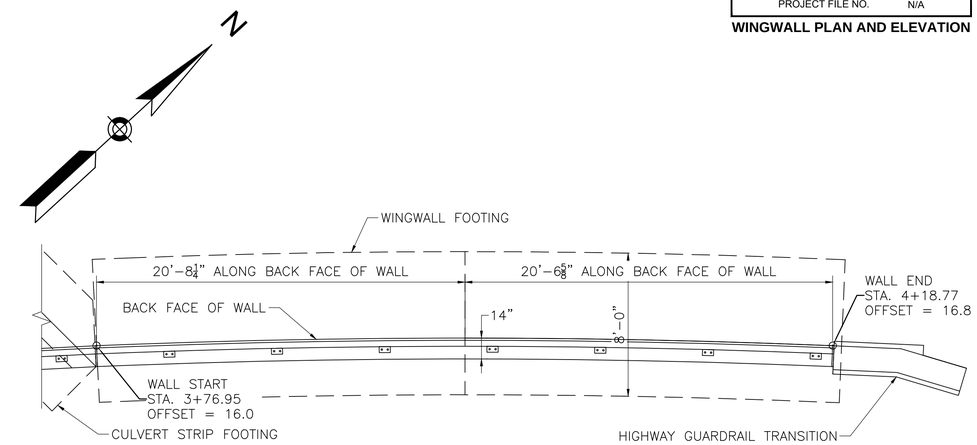
WINGWALL PLAN AND ELEVATION



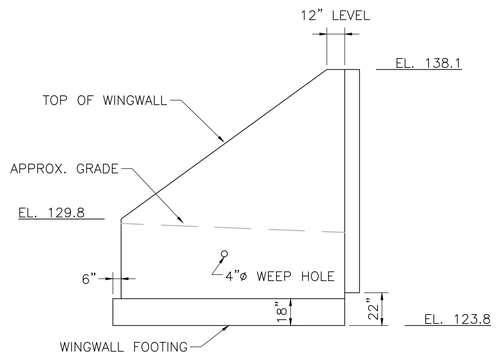
SOUTHEAST WINGWALL PLAN
SCALE: 1/4" = 1'-0"



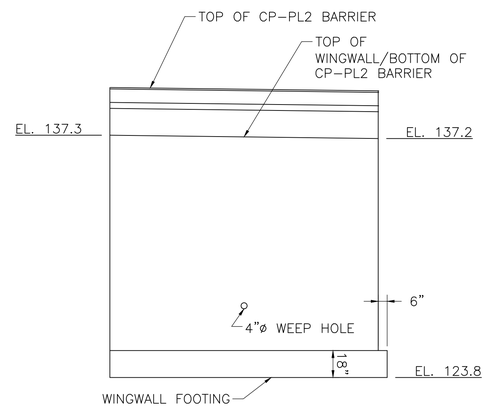
SOUTHWEST WINGWALL PLAN
SCALE: 1/4" = 1'-0"



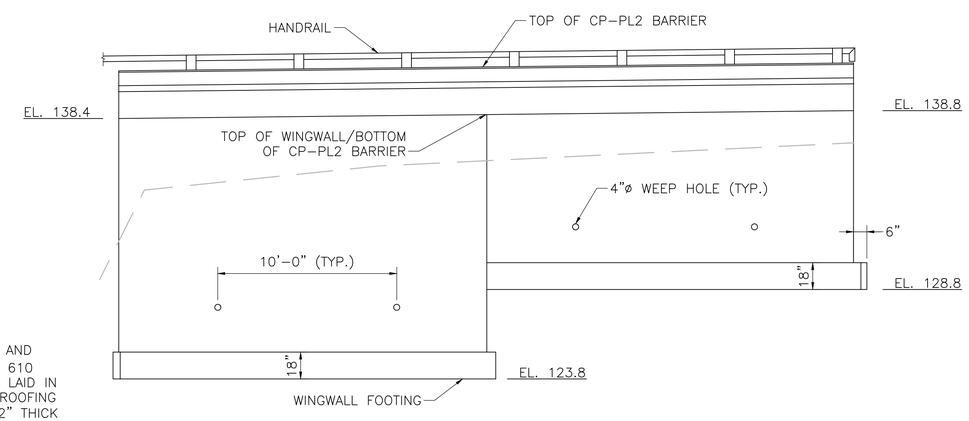
NORTHEAST WINGWALL PLAN
SCALE: 1/4" = 1'-0"



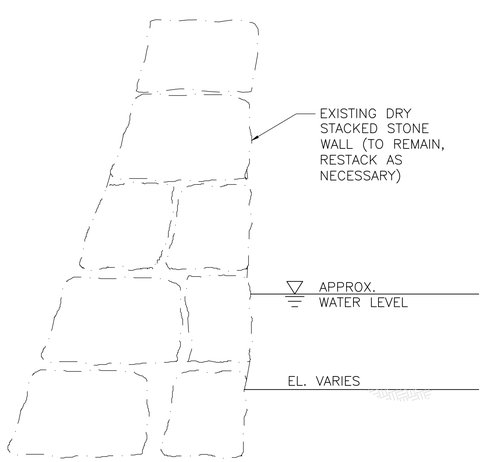
SOUTHEAST WINGWALL ELEVATION
SCALE: 1/4" = 1'-0"



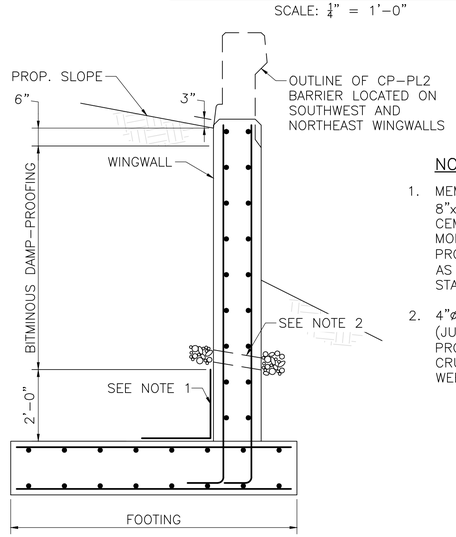
SOUTHWEST WINGWALL ELEVATION
SCALE: 1/4" = 1'-0"



NORTHEAST WINGWALL ELEVATION
SCALE: 1/4" = 1'-0"



EXIST NORTHWEST WINGWALL SECTION
NOT TO SCALE



WINGWALL TYPICAL SECTION
SCALE: 1/2" = 1'-0"

NOTES:

1. MEMBRANE WATERPROOFING AND 8"x16"X2", 4000 PSI, 3/4 IN, 610 CEMENT CONCRETE BLOCKS LAID IN MORTAR OR OTHER WATERPROOFING PROTECTIVE COURSE, MIN. 2" THICK AS SPECIFIED IN MASSDOT STANDARD SPECIFICATIONS.
2. 4"ø WEEP HOLES 10'-0" O.C. (JUST ABOVE PROTECTIVE COURSE). PROVIDE 1 CUBIC YARD OF CRUSHED STONE AT EACH END OF WEEP HOLE.

PROGRESS PRINT

DATE	DESCRIPTION
	NOT ISSUED FOR CONSTRUCTION
USE ONLY PRINTS OF LATEST DATE	

SHEET 6 OF 6 SHEETS BRIDGE NO. A-02-010 (-)

6 _13016.00_BR(WALL).DWG Plotted on 14-Sep-2015 10:39 AM
N/A STRUCTURAL SUBMITTAL (S#) DD-MONTH-YYYY
\\vhb\proj\Wat-TE\13016.00\Cad\1301600\DWG\BR\6 _13016.00_BR(WALL).dwg

Deval L. Patrick, Governor
Richard A. Davey, Secretary & CEO
Frank DePaola, Administrator

massDOT
Massachusetts Department of Transportation
Highway Division

Town of Acton
Board of Selectmen
472 Main St.
Acton, MA 01720

April 16, 2014

Attn: Corey York, Director Public Works

SUBJECT: NATIONAL BRIDGE INSPECTION STANDARDS (NBIS)
BRIDGE RATING AND POSTING

Acton: PARKER ST / FORT POND BROOK
Bridge No: A-02-010 (256)
Structure No: A02010-256-MUN-NBI

Dear Select Board:

The Massachusetts Department of Transportation (MassDOT) - Highway Division has undertaken the inventory, inspection, and rating of municipal bridges to assist the cities and towns in complying with state and federal laws and regulations.

In accordance with the provisions of **M.G.L.C 85, sub-section 35**, the MassDOT - Highway Division has determined the maximum load which the subject bridge may safely carry.

In conformance with that determination by MassDOT - Highway Division, the bridge A-02-010 (noted above) is to be posted for:

TYPE "H" (2 axles)	**10 TONS**
TYPE "3" (3 axles)	**13 TONS**
TYPE "3S2" (5 axles)	**19 TONS**

In reference to posting of the subject bridge, please comply with the following:

1. For the sake of uniformity, the MassDOT - Highway Division will supply the first set of signs. The sign posts will also be provided if funds are available. The signs should be ordered through the MassDOT - Highway Division District 3 office located at 403 Belmont Street, Worcester, MA 01604, telephone no. (508) 929-3800.

2. All Bridge Posting shall be in accordance with **M.G.L.C 85, sub-section 34**.

3. For our NBIS records, notify this office and the District 3 Bridge Inspection Unit of your date of posting and the weight limit posting enforcement official's name, title and office telephone number.

Ten Park Plaza, Suite 4160, Boston, MA 02116
Tel: 857-368-4636, TYY: 857-368-0655
www.mass.gov/massdot

4. If you have not posted the bridge within forty-five (45) days of the date of this letter, please note that under **M.G.L.C 85, sub-section 35**, the MassDOT - Highway Division is authorized to post the bridge on its own initiative.

I draw to your attention that in the past, the Federal Government has suspended Federal Aid to cities and towns that were, in its opinion, not fully implementing the National Bridge Inspection Standards. Failure to properly post and enforce weight load limits is undisputedly a violation and will result in the automatic suspension of funding.

Please be advised that the following deficiencies were reported in the rating report with recommendations to be addressed through repairs or rehabilitation. The recommendations are as follows:

- The arch ring be monitored for further deterioration and for signs of settlement that may indicate that the arch ring is not functioning as designed.
- General maintenance be performed on a regular basis to ensure the structural adequacy and performance of the structure.

A copy of the Rating Report is filed in the District Highway Office. The District Highway Director is available to recommend procedures to upgrade the subject bridge.

The Department is pleased to assist you in this matter of bridge safety.

Sincerely,

Alexander K. Bardow, P.E.
State Bridge Engineer

GK/gk
cc: BIE (2)
DHD, D-3
DBIE, D-3
State Police

THE COMMONWEALTH OF MASSACHUSETTS
MASSDOT - HIGHWAY DIVISION
INTEROFFICE MEMORANDUM

TO: NBIS File

FROM: Alexander K. Bardow, P.E., State Bridge Engineer

DATE: April 8, 2014

RE: BRIDGE RATING
ACTON
PARKER STREET OVER FORT POND BROOK
BRIDGE NO. A-02-010(256)
STRUCTURE NO. A02010-256-MUN-NBI
BIN = 256

Based upon the Bridge Rating Report prepared by Gill Engineering Associates, Inc., dated September, 2013, it is recommended that Bridge No. A-02-010 (256) **BE POSTED FOR:**

TWO AXLE	**(H20)**	**10 TONS**
THREE AXLE	**(3)**	**13 TONS**
FIVE AXLE	**(3S2)**	**19 TONS**

The controlling element of the structure for both inventory and operating stress level requirements is the arch minimum cover for all posting vehicles. The rating values are 10.4 tons 13.0 tons and 18.7 tons for the inventory stress levels and 14.0 tons, 17.6 tons and 25.3 tons for the operating stress levels for the H20, Type 3, and Type 3S2 vehicles, respectively. This structure was previously rated numerically in March 1982.

The structure is in fair to poor condition. The structure, built in 1938, consists of a single span corrugated steel plate arch-deck. The substructure consists of concrete abutments and mortared stone wingwalls.

It is recommended that the following preventative maintenance be performed on the structure in order to maintain the useful life of the bridge:

- The arch ring be monitored for further deterioration and for signs of settlement that may indicate that the arch ring is not functioning as designed.
- General maintenance and inspections continue at regular intervals to ensure the structural adequacy, integrity and performance of the structure.

It is recommended that this structurally deficient structure be place in a program for rehabilitation or replacement.

continued

The following load rating data shall be entered into the 4D Database by the Ratings and Overloads Unit upon receipt of a signed copy of this memorandum.

Item 63 = 1 (Load Factor Method)
Item 65 = 1 (Load Factor Method)
INV H20 = 10.4 English Tons
INV Type 3 = 13.0 English Tons
INV Type 3S2 = 18.7 English Tons
INV HS20 = 18.7 English Tons
Rating Report = Y
Computer File = Y

Item 64 = 77.3 Metric Tons
Item 66 = 46.3 Metric Tons
OPR H20 = 14.0 English Tons
OPR Type 3 = 17.6 English Tons
OPR Type 3S2 = 25.3 English Tons
OPR HS20 = 25.3 English Tons
Date of Last Rating Report = 9/13
Computer File Type = Virtis

HRB/tn

cc: Rating Reports (Bridge and District copies)
Attach: 09/2013 Rating Report Summary Sheet & Breakdown Sheet

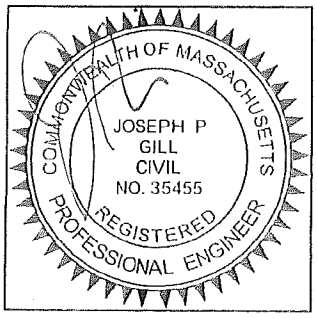
SUMMARY OF BRIDGE RATING

TOWN/CITY:	Acton	**BRIDGE NO.:**	A-02-010 (256)
CARRIES:	Parker Street	**OVER:**	Fort Pond Brook
STRUCTURE NO.:	A02010-256-MUN-NBI	**BIN NO.:**	256

RATINGS (TONS)

ALLOWABLE STRESS RATINGS FOR LOAD POSTING PURPOSES LOAD RATING IN ENGLISH TONS		
VEHICLE TYPE	**INVENTORY**	**OPERATING**
H20	**10.4**	**14.0**
TYPE 3	**13.0**	**17.6**
TYPE 3S2	**18.7**	**25.3**
HS20	**18.7**	**25.3**

MS18 LOAD FACTOR RATING IN METRIC TONS PROVIDED IN COMPLIANCE WITH DECEMBER 1995 FHWA NBIS CODING GUIDE			
INVENTORY		**OPERATING**	
ITEM 66	**MS EQUIVALENT**	**ITEM 64**	**MS EQUIVALENT**
46.3	**MS25.7**	**77.3**	**MS42.9**



Consultant P.E. Stamp

A posting recommendation has been made based on the results of this Rating Report. This recommendation is contained in the "Memorandum to the NBIS File" for this bridge, dated _____.

_____

State Bridge Engineer Date

BREAKDOWN OF BRIDGE RATING

TOWN/CITY:	Acton	BRIDGE NO.:	A-02-010 (256)
CARRIES:	Parker Street	OVER:	Fort Pond Brook
STRUCTURE NO.:	A02010-256-MUN-NBI	BIN NO.:	256

BRIDGE COMPONENT	INVENTORY RATING BY WORKING STRESS METHOD (ENGLISH TONS)				OPERATING RATING BY WORKING STRESS METHOD (ENGLISH TONS)			
	H20	TYPE 3	TYPE 3S2	HS20	H20	TYPE 3	TYPE 3S2	HS20
Arch: Wall Area	71.3	167.7	264.8	128.3	98.9	232.7	367.6	178.0
Arch: Seam Strength	83.3	196.0	309.5	149.9	115.3	271.3	428.5	207.6
Arch: Buckling	54.4	128.0	202.1	97.9	75.9	178.6	282.1	136.6
Arch: Minimum Cover	**10.4**	**13.0**	**18.7**	**18.7**	**14.0**	**17.6**	**25.3**	**25.3**
Beam No. 3								
Beam B3: 0.0 L - Shear	98.6	136.5	212.2	164.6	138.3	191.5	297.8	231.0
Beam B3: 0.45 L - Flexure	29.5	45.3	71.5	53.2	46.7	71.6	113.0	84.1
Beam B3: 0.5 L - Flexure	29.1	45.9	72.5	52.3	46.1	72.8	114.9	82.9

English tons.
Shaded values are controlling ratings.
Bold values are below statutory.

BREAKDOWN OF BRIDGE RATING

TOWN/CITY:	Acton	BRIDGE NO.:	A-02-010 (256)
CARRIES:	Parker Street	OVER:	Fort Pond Brook
STRUCTURE NO.:	A02010-256-MUN-NBI	BIN NO.:	256

BRIDGE COMPONENT	INVENTORY RATING LOAD FACTOR METHOD (METRIC TONS)		OPERATING RATING LOAD FACTOR METHOD (METRIC TONS)	
	MS18	MS(EQUIV)	MS18	MS(EQUIV)
Arch: Wall Area	106.6	MS59.2	177.9	MS98.8
Arch: Seam Strength	125.2	MS69.6	209.0	MS116.1
Arch: Buckling	81.4	MS45.2	135.9	MS75.5
Beam No. 3				
Beam B3: 0.0 L - Shear	122.0	MS67.8	203.8	MS113.2
Beam B3: 0.45 L - Flexure	46.9	MS26.1	78.3	MS43.5
Beam B3: 0.5 L - Flexure	46.3	MS25.7	77.3	MS42.9

Metric tons.
Shaded values are controlling ratings.
Bold values are below statutory.

STRUCTURES INSPECTION FIELD REPORT

ROUTINE ARCH & SPECIAL MEMBER INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
03	256	A-02-010

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	41-STATUS	90-ROUTINE INSP. DATE
ACTON	A02010-256-MUN-NBI	000.241	A:OPEN	JAN 10, 2012

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	YR REHAB'D (NON 106)
HWY PARKER ST		1938	0000	0000

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER.
WATER FORT POND BROOK	Urban Collector	

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER
311 : Steel Arch - Deck	Town Agency	Town Agency	Z. Gikas

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
N : Not applicable	SUNNY	3°C	M. DYGON

ITEM 58 — DECK: 5

		DEF
1. Wearing surface	6	M-P
2. Deck Condition	6	M-P
3. Spandrel Fill	7	-
4. Curbs	6	M-P
5. Median	N	-
6. Sidewalks	N	-
7. Parapets	5	M-P
8. Railing	7	M-P
9. Anti Missile Fence	N	-
10. Drainage System	N	-
11. Lighting Standards	N	-
12. Utilities	N	-
13. Deck Joints	N	-
14.	N	-
15.	N	-
16.	N	-

CURB REVEAL (In millimeters)	E	W
	50	125

APPROACHES

		DEF
a. Appr. pavement condition	7	M-P
b. Appr. Roadway Settlement	7	-
c. Appr. Sidewalk Settlement	N	-
d.	N	-

OVERHEAD SIGNS (Attached to bridge) (Y/N): N

		DEF
a. Condition of Welds	N	-
b. Condition of Bolts	N	-
c. Condition of Signs	N	-

ITEM 59 — SUPERSTRUCTURE: 4

		DEF
1. Arch/Arch Ring	4	S-A
2. Keystone Area	N	-
3. Stringers	6	M-P
4. Floorbeams	N	-
5. Spandrel Walls	5	S-P
6. Spring Lines	4	S-A
7. Diaphragms/Cross Frames	N	-
8. Conn Plt's, Gussets & Angles	N	-
9. Pin & Hangers	N	-
10. Masonry Joints	5	M-P
11. Rivets & Bolts	7	M-P
12. Welds	N	-
13. Deformation/Flattening	7	-
14. Member Alignment	7	-
15. Paint/Coating	5	S-P
16.	N	-

Year Painted	N

COLLISION DAMAGE: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD DEFLECTION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

LOAD VIBRATION: *Please explain*
None (X) Minor ( ) Moderate ( ) Severe ( )

Any Fracture Critical Member: (Y/N) N

Any Cracks: (Y/N) N

ITEM 60 — SUBSTRUCTURE: 5

	Dive	Cur		DEF
1. Abutments			5	
a. Pedestals	N	N		-
b. Bridge Seats	N	N		-
c. Backwalls	N	N		-
d. Breastwalls	N	7		-
e. Wingwalls	N	5		S-P
f. Slope Paving/Rip-Rap	N	N		-
g. Pointing	N	5		M-P
h. Footings	N	N		-
i. Piles	N	N		-
j. Scour	N	7		-
k. Settlement	N	5		S-P
l.	N	N		-
m.	N	N		-
2. Piers or Bents			N	
a. Pedestals	N	N		-
b. Caps	N	N		-
c. Columns	N	N		-
d. Stems/Webs/Pierwalls	N	N		-
e. Pointing	N	N		-
f. Footing	N	N		-
g. Piles	N	N		-
h. Scour	N	N		-
i. Settlement	N	N		-
j.	N	N		-
k.	N	N		-
3. Pile Bents			N	
a. Pile Caps	N	N		-
b. Piles	N	N		-
c. Diagonal Bracing	N	N		-
d. Horizontal Bracing	N	N		-
e. Fasteners	N	N		-

UNDERMINING (Y/N) If YES please explain: N

COLLISION DAMAGE:
None (X) Minor ( ) Moderate ( ) Severe ( )

I-60 (Dive Report): N *I-60 (This Report):* 5

93B-U/W (DIVE) Insp 00/00/00

X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
ACTON	256	A-02-010	A02010-256-MUN-NBI	JAN 10, 2012

ITEM 61 — CHANNEL & CHANNEL PROTECTION: 6

	Dive	Cur	DEF
1.Channel Scour	N	7	-
2.Embankment Erosion	N	6	M-P
3.Debris	N	7	-
4.Vegetation	N	6	M-P
5.Utilities	N	N	-
6.Rip-Rap/Slope Protection	N	7	-
7.Aggradation	N	7	-
8.Fender System	N	N	-

STREAM FLOW VELOCITY:
Tidal ( ) High ( ) Moderate (X) Low ( ) None ( )

ITEM 61 (Dive Report): N *ITEM 61 (This Report)* 6

93b-U/W INSP. DATE: 00/00/00

ITEM 36 — TRAFFIC SAFETY

	36	COND	DEF
A. Bridge Railing	1	7	M-P
B. Transitions	1	7	M-P
C. Approach Guardrail	1	7	-
D. Approach Guardrail Ends	0	6	M-P

WEIGHT POSTING

Not Applicable X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 00/00/00 EJDMT Date: 00/00/00

	At bridge N	At bridge S	Other Advance N	Other Advance S
Signs In Place (Y=Yes,N=No, NR=NotRequired)				
Legibility/ Visibility				

CLEARANCE POSTING

Not Applicable X

	E ft	E in	W ft	W in	meter
Actual Field Measurement		0		0	
Posted Clearance		0		0	

	At bridge E	At bridge W	Advance E	Advance W
Signs In Place (Y=Yes,N=No, NR=NotRequired)				
Legibility/ Visibility				

ACCESSIBILITY (Y/N/P)

	Needed	Used
Lift Bucket	N	N
Ladder	N	N
Boat	N	N
Waders	Y	Y
Inspector 50	N	N
Rigging	N	N
Staging	N	N
Traffic Control	N	N
RR Flagger	N	N
Police	N	N
Other:		
	N	N

TOTAL HOURS 8

PLANS (Y/N): N

(V.C.R.) (Y/N): N

TAPE#:

List of field tests performed:

RATING

Rating Report (Y/N): Y

Date: 03/01/1982

Inspection data at time of existing rating

I 58: 6 I 59: 7 I 60: 6 Date : 05/26/1981

(To be filled out by DBIE)

Request for Rating or Rerating (Y/N): Y

If YES please give priority: HIGH (X) MEDIUM ( ) LOW ( )

REASON: Condition of springline area and 1982 rating.

CONDITION RATING GUIDE (For Items 58, 59, 60 and 61)

	CODE	CONDITION	DEFECTS
	N	NOT APPLICABLE	
G	9	EXCELLENT	Excellent condition.
G	8	VERY GOOD	No problem noted.
G	7	GOOD	Some minor problems.
F	6	SATISFACTORY	Structural elements show some minor deterioration.
F	5	FAIR	All primary structural elements are sound but may have minor section loss, cracking, spalling or scour.
P	4	POOR	Advance section loss, deterioration, spalling or scour.
P	3	SERIOUS	Loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.
C	2	CRITICAL	Advance deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.
C	1	"IMMINENT" FAILURE	Major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stablility. Bridge is closed to traffic but corrective action may put it back in light service.
	0	FAILED	Out of service - beyond corrective action.

DEFICIENCY REPORTING GUIDE

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor Deficiency - Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

S= Severe/Major Deficiency - Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

C-S= Critical Structural Deficiency - A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency - A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

URGENCY OF REPAIR:

I = Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

A = ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

2-DIST	B.I.N.
03	256

STRUCTURES INSPECTION FIELD REPORT

ROUTINE ARCH & SPECIAL MEMBER INSPECTION

BR. DEPT. NO. A-02-010

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	90-ROUTINE INSP. DATE	93*-SPEC. MEMB. INSP. DAT
ACTON	A02010-256-MUN-NBI	000.241	Jan 10, 2012	Jan 10, 2012

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	*YR REHAB'D (NON 106)
HWY PARKER ST		1938	0000	0000

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER
WATER FORT POND BROOK	Urban Collector	.

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER
311 : Steel Arch - Deck	Town Agency	Town Agency	Z. Gikas

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
N : Not applicable	SUNNY	3°C	M. DYGON

WEIGHT POSTING *Not Applicable* X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 00/00/00 EJDMT Date: 00/00/00

Signs In Place (Y=Yes,N=No, NR=NotRequired) Legibility/ Visibility

At bridge N	At bridge S	Advance N	Advance S

PLANS (Y/N): N

(V.C.R.) (Y/N): N

TAPE#:

RATING

Rating Report (Y/N): Y Date: 03/01/1982

Request for Rating or Rerating (Y/N): Y

If YES please give priority: HIGH (X) MEDIUM ( ) LOW ( )

REASON: Condition of springline area and 1982 rating.

Inspection data at time of existing rating

I 58: 6 I 59: 7 I 60: 6 I 62: - Date : 05/26/1981

SPECIAL MEMBER(S):

	MEMBER	CRACK (Y/N):	WELD'S CONDITION (0-9)	LOCATION OF CORROSION, SECTION LOSS (%), CRACKS, COLLISION DAMAGE, STRESS CONCENTRATION, ETC.	CONDITION PREVIOUS (0-9)	CONDITION PRESENT (0-9)	INV. RATING OF MEMBER H-20	3	3S2	Deficiencies
A	Item 59.1 - Arch/ Arch Ring	N		See remarks in comments section.		4	20	23	36	S-A
B										
C										
D										
E										

List of field tests performed:

-

	I-58	I-59	I-60	I-62
(Overall Previous Condition)	-	-	-	5
(Overall Current Condition)	5	4	5	5

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor Deficiency - Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

S= Severe/Major Deficiency - Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

C-S= Critical Structural Deficiency - A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency - A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

URGENCY OF REPAIR:

I = Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

A = ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
ACTON	256	A-02-010	A02010-256-MUN-NBI	JAN 10, 2012

REMARKS

BRIDGE ORIENTATION

According to the rating report the approaches are South to North and the elevations are West to East. This bridge is a single span corrugated steel plate deck arch structure. The brook flows from West to East.

ITEM 58 - DECK

Item 58.1 - Wearing surface

The bit. concrete wearing surface shows isolated areas of minor longitudinal cracking up to 3 feet long. There is a small pot hole and minor cracking at the Northeast corner of the bridge.

Item 58.2 - Deck Condition

See Item 59.3.

Item 58.4 - Curbs

Both concrete curbs have minor surface scaling and hairline cracks throughout. The East curbing shows small spalls throughout.

Item 58.7 - Parapets

The East parapet has a 1 foot long x 3 inch high x 2 inch deep spall at midspan and longitudinal hairline cracking with efflorescence on the exterior face.

Item 58.8 - Railing

The bridge railing consists of double panel "SS" guardrail continuing across both sides of the structure into transitions, approaches, and terminal ends. Three feet of the bridge railing at the Southwest end is not double panel. There is collision damage to the Northwest terminal end.

APPROACHES

Approaches a - Appr. pavement condition

The North bit. concrete approach pavement shows minor longitudinal cracking at the centerline. The South approach pavement shows transverse and longitudinal cracking. There is moderate cracking and break up at the Northeast corner of the bridge due to the embankment erosion. See item 61.2. **See photo 1.**

ITEM 59 - SUPERSTRUCTURE

Item 59.1 - Arch/Arch Ring

The galvanized steel arch has a partial asphaltic coating along the entire length for a height of 4.5 feet from the springline upward. There are numerous areas of 100% section loss along both springlines. **See photos 2 & 3.** The center of the North arch is slightly bowed outward approximately 2 inches for the length of 5 feet.

Item 59.3 - Stringers

Both outer edges of the roadway below the bridge rail are supported by several steel stringers, which are encased with only their bottom flanges exposed. The West has minor to moderate surface rusting. The East has moderate to severe surface rusting. **See photo 4.**

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
ACTON	256	A-02-010	A02010-256-MUN-NBI	JAN 10, 2012

REMARKS

Item 59.5 - Spandrel Walls
The East concrete spandrel cap has a spall, approx. 1 foot long x 3 inches high x 2 inches deep at midspan and longitudinal hairline cracking with efflorescence throughout the exterior face.

Both masonry spandrel walls below the concrete caps have several loose mortared stones, some missing chinking stones, some cracking of the mortar, missing mortar and minor loss of fill. There are several missing stones above the keystone area.

The Southwest masonry spandrel wall has a void above the arch ring 16 inches wide x 5 inches high x 31 inches deep. There are several missing stones to the West masonry spandrel wall at the North end. There is a void 31 inches wide x 17 inches high x 31 inches deep to the West spandrel wall, North end. **See photo 5.**

Item 59.6 - Spring Lines
See Item 59.1.

Item 59.10 - Masonry Joints
See Item 59.5.

Item 59.11 - Rivets & Bolts
There are several nut and bolt ends that show minor to some moderate rusting. **See photo 6.**

Item 59.15 - Paint/Coating
See Item 59.1.

ITEM 60 - SUBSTRUCTURE

Item 60.1 - Abutments
Item 60.1.e - Wingwalls
All four wingwalls consist of mortared granite blocks and fieldstones.

The Northeast wingwall is separated (settlement) 2 inches from the spandrel wall with up to 26 inches of penetration. Based on the results of this inspection and after reviewing the 1982 rating report photo of the settlement at the Northeast corner wing, there is little or no change indicating this area has stabilized. There is a void approx. 4.5 feet long x 2 feet high x 2.5 feet deep, at the base of the Northeast wingwall where a stone has fallen out. **See photo 7.** This void extends an additional 2 feet upstream behind the fascia stones. The stones above this void are cracked.

The Northeast and Northwest wingwalls also have several other areas where chinking stones, mortar, and fill are missing with penetrations up to 18 inches deep. Both show minor settlement.

There is a 15 inch R.C.P. pipe at the end of the Southeast wingwall that shows minor fill missing.

The Southwest wingwall show previous settlement of the stones, up to 1-1/2 inches. **See photo 8.**

Item 60.1.g - Pointing
See Item 60.1.e.

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
ACTON	256	A-02-010	A02010-256-MUN-NBI	JAN 10, 2012

REMARKS

Item 60.1.k - Settlement
See Item 60.1.e.

ITEM 61 - CHANNEL AND CHANNEL PROTECTION

Item 61.2 - Embankment Erosion
There is embankment erosion and undercutting at all four corners of the wingwalls. There is moderate embankment erosion at the Northeast corner of the bridge. **See photo 1.**

Item 61.4 - Vegetation
There is vegetation at all four corners.

TRAFFIC SAFETY

Item 36a - Bridge Railing
See Item 58.8.

Item 36b - Transitions
Transitions are not double panel or stiffened. See Item 58.8 also.

Item 36c - Approach Guardrail
See Item 58.8.

Item 36d - Approach Guardrail Ends
The terminal ends are boxing glove ends not sufficiently turned from traffic or buried. There is heavy collision damage to the Northwest terminal end.

Photo Log
Photo 1 : Heavy embankment erosion at the Northeast corner of the bridge.
Photo 2 : Typical 100% section loss throughout the bottom of the arch.
Photo 3 : Heavy surface rusting and 100% section loss to the bottom of the arch.
Photo 4 : Heavy surface rusting to the bottom flanges at the West side of the bridge.
Photo 5 : Missing stones, fill, and a large void to the West headwall, North end.
Photo 6 : Moderate rusting to several nut and bolts throughout the arch.
Photo 7 : Large void at the base of the Northeast wingwall.
Photo 8 : Settlement to the Southeast wingwall.

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
ACTON	256	A-02-010	A02010-256-MUN-NBI	JAN 10, 2012

PHOTOS

Photo 1: Heavy embankment erosion at the Northeast corner of the bridge.

Photo 2: Typical 100% section loss throughout the bottom of the arch.

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
ACTON	256	A-02-010	A02010-256-MUN-NBI	JAN 10, 2012

PHOTOS

Photo 3: **Heavy surface rusting and 100% section loss to the bottom of the arch.**

Photo 4: **Heavy surface rusting to the bottom flanges at the West side of the bridge.**

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
ACTON	256	A-02-010	A02010-256-MUN-NBI	JAN 10, 2012

PHOTOS

Photo 5: Missing stones, fill, and a large void to the West headwall, North end.

Photo 6: Moderate rusting to several nut and bolts throughout the arch.

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
ACTON	256	A-02-010	A02010-256-MUN-NBI	JAN 10, 2012

PHOTOS

Photo 7: Large void at the base of the Northeast wingwall.

Photo 8: Settlement to the Southeast wingwall.

STRUCTURES INSPECTION FIELD REPORT

SPECIAL MEMBER INSPECTION

2-DIST	B.I.N.	BR. DEPT. NO.
03	256	A-02-010

CITY/TOWN	8.-STRUCTURE NO.	11-Kilo. POINT	90-ROUTINE INSP. DATE	93*-SPEC. MEMB. INSP. DAT
ACTON	A02010-256-MUN-NBI	000.241	Jan 10, 2012	Oct 3, 2012

07-FACILITY CARRIED	MEMORIAL NAME/LOCAL NAME	27-YR BUILT	106-YR REBUILT	*YR REHAB'D (NON 106)
HWY PARKER ST		1938	0000	0000

06-FEATURES INTERSECTED	26-FUNCTIONAL CLASS	DIST. BRIDGE INSPECTION ENGINEER
WATER FORT POND BROOK	Urban Collector	.

43-STRUCTURE TYPE	22-OWNER	21-MAINTAINER	TEAM LEADER
311 : Steel Arch - Deck	Town Agency	Town Agency	R. Orlando

107-DECK TYPE	WEATHER	TEMP. (air)	TEAM MEMBERS
N : Not applicable	Rain	16°C	R. C. ANGELL

WEIGHT POSTING *Not Applicable* X

	H	3	3S2	Single
Actual Posting	N	N	N	N
Recommended Posting	N	N	N	N

Waived Date: 00/00/00 EJDMT Date: 00/00/00

Signs In Place (Y=Yes,N=No, NR=NotRequired)
Legibility/ Visibility

At bridge N	At bridge S	Advance N	Advance S

PLANS (Y/N): N

(V.C.R.) (Y/N): N

TAPE#:

RATING

Rating Report (Y/N): Y Date: 03/01/1982

Request for Rating or Rerating (Y/N): N

If YES please give priority: HIGH ( ) MEDIUM ( ) LOW ( )

REASON: -

Inspection data at time of existing rating

I 58: 6 I 59: 7 I 60: 6 I 62: - Date :05/26/1981

SPECIAL MEMBER(S):

	MEMBER	CRACK (Y/N):	WELD'S CONDITION (0-9)	LOCATION OF CORROSION, SECTION LOSS (%), CRACKS, COLLISION DAMAGE, STRESS CONCENTRATION, ETC.	CONDITION PREVIOUS (0-9)	CONDITION PRESENT (0-9)	INV. RATING OF MEMBER H-20	3	3S2	Deficiencies
A	Item 59.1 - Arch/ Arch Ring	N		See remarks in comments section.	4	4	20	23	36	S-A
B	Item 59.6 - Spring Lines	N	N	See Item 59.1.	4	4	Not Rated			S-A
C										
D										
E										

List of field tests performed:

-

	I-58	I-59	I-60	I-62
(Overall Previous Condition)	5	4	5	5
(Overall Current Condition)	5	4	5	5

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

M= Minor Deficiency - Deficiencies which are minor in nature, generally do not impact the structural integrity of the bridge and could easily be repaired. Examples include but are not limited to: Spalled concrete, Minor pot holes, Minor corrosion of steel, Minor scouring, Clogged drainage, etc.

S= Severe/Major Deficiency - Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: Moderate to major deterioration in concrete, Exposed and corroded rebars, Considerable settlement, Considerable scouring or undermining, Moderate to extensive corrosion to structural steel with measurable loss of section, etc.

C-S= Critical Structural Deficiency - A deficiency in a structural element of a bridge that poses an extreme unsafe condition due to the failure or imminent failure of the element which will affect the structural integrity of the bridge.

C-H= Critical Hazard Deficiency - A deficiency in a component or element of a bridge that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the bridge. Examples include but are not limited to: Loose concrete hanging down over traffic or pedestrians, A hole in a sidewalk that may cause injuries to pedestrians, Missing section of bridge railing, etc.

URGENCY OF REPAIR:

I = Immediate- [Inspector(s) immediately contact District Bridge Inspection Engineer (DBIE) to report the Deficiency and to receive further instruction from him/her].

A = ASAP- [Action/Repair should be initiated by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize- [Shall be prioritized by District Maintenance Engineer or the Responsible Party (if not a State owned bridge) and repairs made when funds and/or manpower is available].

X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
ACTON	**256**	**A-02-010**	**A02010-256-MUN-NBI**	**OCT 3, 2012**

REMARKS

BRIDGE ORIENTATION

According to the rating report, the approaches are South and North, and the elevations are West and East. This bridge is a single span corrugated steel plate deck arch. The brook flows from West to East.

ITEM 59 - SUPERSTRUCTURE

Item 59.1 - Arch/Arch Ring

The galvanized steel arch has an asphaltic coating up to 4-1/2 feet from the springline. There is heavy rusting and corrosion, up to 10 inches above the springline, throughout both sides of the arch. There are numerous areas of 100% section loss along both springlines, up to 2-1/2 inches in diameter, and heaviest up to 8 feet from the ends of the North springline. **See Photos 1 and 2.** There is a 5 inch diameter area of 100% section loss to the West end of the North springline. **See Photo 3.** The center of the North side of the arch is slightly bowed (approximately 2 inches) for the length of 5 feet. **See Photo 4**. There are isolated areas of heavy rusting throughout both ends of the arch above the springline.

Photo Log

Photo 1 : Typical corrosion along the ends of the North springline.
Photo 2 : Typical corrosion along the ends of the North springline.
Photo 3 : West end of the North springline.
Photo 4 : Bowed area along the center of the North side of the arch.

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
ACTON	256	A-02-010	A02010-256-MUN-NBI	OCT 3, 2012

PHOTOS

Photo 1: Typical corrosion along the ends of the North springline.

Photo 2: Typical corrosion along the ends of the North springline.

CITY/TOWN	B.I.N.	BR. DEPT. NO.	8.-STRUCTURE NO.	INSPECTION DATE
ACTON	256	A-02-010	A02010-256-MUN-NBI	OCT 3, 2012

PHOTOS

Photo 3: West end of the North springline.

Photo 4: Bowed area along the center of the North side of the arch.

Capital Improvement Program Proposal – Detail

Department Name	**HIGHWAY**	***Project***	**Utility Tool Truck**
		Fiscal Year	**2017**
Department Head	**Corey York**	***Cost***	**$ 90,000**
		Priority	*of*

1. Description

The acquisition of this truck would allow the road crew to have a vehicle fully equipped with the tools needed for their various jobs throughout Town. Having this tool truck will help them on their regularly jobs as well as responding to emergency situations. This vehicle will be a major improvement for the efficiency of the crew knowing the tools are already on the vehicle and secured to prevent theft while parked along the side of the road.

2. Useful Life

15 years

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

	Schedule Replacement	***Increase Personnel Efficiency***
x	***New or Expanded Service***	***Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)***
	Other (Please Explain)	

4. Justification

Having this tool truck will help them on their regularly jobs as well as responding to emergency situations. This vehicle will be a major improvement for the efficiency of the crew knowing the tools are already on the vehicle and secured to prevent theft while parked along the side of the road.

5. How Was this Project's Priority Determined?

This vehicle will be used by the road crew during all weather conditions to improve the productivity and response time to complete the task. It can also be used during snow and rain storms to ensure that the roads are safe for public travel.

6. Estimated Cost	*$90*,000
Less Trade-In (If Applicable)	***Unknown at this time***
Net Cost	$90,000

7. Are Non-Town Revenues Available to Reduce Cost?

Yes, Chapter 90 Funds can be used for the purchase

8. If this Project is Delayed, What will be the Effect on your Department?

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget	***Expense Budget***
Increase	Increase
Decrease	X Decrease

10. Attachments, if Applicable.

MHQ
VEHICLES ■ EQUIPMENT ■ GEAR

10/1/2015

Acton Highway Dept.
Attn : Kevin Farrell

978.929.7612 PH
kfarrell@acton-ma.gov E-mail

Please find below a budget quote for **(1) 2016 Ford F550 Cab & Chassis with Dump Body 2WD** per the Plymouth County Commissioner's Procurement Contract # PCC-15. M.G.L. c 30B applies to the procurement of all commodities quoted. Contract items have been collectively purchased pursuant to M.G.L. c.30B sec. 1c and M.G.L. c.7 sec 22B. The governmental body is responsible to determine the applicability of M.G.L. c30B to off contract items, including but not limited to, off contract items that have already been properly procured under M.G.L. c30B sec. 1c and M.G.L. c.7 sec. 22A (purchases from a vendor on contract with the Commonwealth), other contracts procured under M.G.L. c 30B sec. 1c and M.G.L. c 7 sec. 22B or any M.G.L. c. 30B contract between the vendor and the jurisdiction. All off contract Items must be procured under M.G.L. c. 30B.

Item#				
15-23	Ford F550 Cab/Chassis with 18,000 # GVWR 2WD	$	31,500.00	F5H
	141" Wheelbase (WB), 60" Cab to axle (CA)		included	
	Color : TBD		included	
	Estimated model increase		4,100.00	
99T	6.7L V-8 Diesel Engine w/6 speed Automatic Transmission		7,724.00	
20J	19,500 # GVWR upgrade - F550	$	1,140.00	
	84 CA	$	166.00	
	Air Conditioning		included	
	Heavy Duty Vinyl Bench Seat & Vinyl Flooring		included	
	Four (4) Factory Upfitter switches		included	
	AM/FM radio w/digital clock		included	
	XL Trimline		included	
•	Limited Slip Rear Axle mandatory w/ 19,500 # GVW		342.00	
41H	Engine Block Heater		71.00	
THB	All Traction rear All season front		181.00	
473	Factory Snow Plow Prep. Package		81.00	
90L	Power Equipment Group		850.00	
18B	Factory Cab Steps		304.00	
213	Electronic Shift 4WD (Diesel only on F450/F550)		176.00	
62R	Transmission PTO Provision for Automatic Transmission		266.00	
52B	Electric Trailer Brake		257.00	
8.04	11' Service body		10,795.00	
8.05	Crane reinforcement		1,395.00	
8.26	Incandescent compartment lighting (8)		440.00	
8.46	2000lb electric crane		4,995.00	
8.51	Crank down outriggers		2,015.00	
8.56	VMAC VR 70 70 CFM Compressor		10,995.00	
8.59	Filter Regulator Lubricator		505.00	
8.6	Air Hose reel		895.00	

*****Continued on page 2*****

401 Elm Street Marlborough, MA 01752
Phone: 508-573-2622 Fax: 508-573-2722
jmatisko@mhq.com

MHQ
VEHICLES ■ EQUIPMENT ■ GEAR

*****Continued from page 1*****

1.15	Led Worklights (2) rear	315.00
22.03	Rhino Liner Spray in	790.00
1.48	Whelen Pioneer Plus Single LED Lamp w/ mount (2)	3,190.00
23.03	2000 Continuous Watt Commercial Sine Wave Kit w/33.3 Amp Surge	1,795.00
1.21	Whelen M4AC LED Warning Lights (2 pair) grille/rear amber	700.00
1.16	Electronic Back Up Alarm	80.00
Total Contract Price:		**$ 86,063.00**

Sincerely,
Jay Matisko
Account Manager

401 Elm Street Marlborough, MA 01752
Phone: 508-573-2622 Fax: 508-573-2722
jmatisko@mhq.com

Ford
M 79344

M 79344
EQUIPMENT CO.
FRANKLIN, MA.
EQUIPMENT CO.
FRANKLIN, MA.

Personnel Improvement Program Proposal-Detail

DEPARTMENT/BOARD Human Resources

Project/Expenditure: New Fiscal Year 2017 Cost: _____

Department Head/Board Chair: Marianne Fleckner Priority: # 1 of 1

(1) Description (*Please include any brochures on product*):
Provides clerical support to Human Resources by drafting routine memos/letters; coordinating meetings/events; providing Receptionist duties by answering phones and greeting visitors; conducting basic surveys; creating basic spreadsheets; filing; aiding in large projects (i.e. open enrollment.

(2) Useful Life: 20+ Years

(3) Purpose:

____ Schedule Replacement *
____ New/Expanded Service
____ Other (*Please Explain*)

X Increase Personnel Efficiency
____ Replace Obsolete/Unsafe Equipment*
* *Please explain how old equipment will be disposed of.*

(4) Justification: In FY15/FY16 HR hired an Intern. Many routine and new projects were completed due to this much-needed help. This was in addition to a Sr. Worker.

(5) How did you determine this project's priority? It is the only request.
1 of 1

(6) Estimated Cost: $ H4 step 1 salary $40,099.02
16 hrs./week = $16,039.61

(7) Additional Cost Data (*Equipment Only*)

Purchase Price: $ _____
Less Trade-In: $ _____
Net Cost: $ _____

(8) Are non-Town revenues available to reduce cost? No

(9) What will be the effect on your department if this project is delayed? Possible delayed HR services.

(10) Please describe the effect of this project on your Operating Budget.

Personnel Budget:	Expense Budget:
X increase	___ increase
___ decrease	___ decrease
___ no change	___ no change
$16,039.61 amount of change	_____ amount of change

Detail: salary

Attachments (if any):
N/A

Capital Improvement Program Proposal – Detail

Department Name	**Municipal Properties**	***Project***	**Paint Town Hall**		
		Fiscal Year	**2017**		
Department Head	**Andrea Ristine**	***Cost***	**$162,000**		
		Priority	**1**	*of*	**7**

1. Description

Paint exterior of Town Hall, last done in 2007. This project was entered into the Capital Plan in 2009, for completion in FY 2013.

2. Useful Life 6 years

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

X Schedule Replacement

New or Expanded Service

X Other (Please Explain)

Increase Personnel Efficiency

Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)

Research has been conducted to determine original Victorian colors of the building. The request would be to restore original color scheme for historical authenticity.

4. Justification

White paint on wood frame buildings is expected to last 6 years. Longer intervals result in peeling, discoloration, and deterioration of wood. Exterior trim and siding repairs of deteriorated and rotted wood were done in 2014/15, currently coated with exposed primer.

5. How Was this Project's Priority Determined?

Expected life span of paint.

6. Estimated Cost **$150,000 based on 2007 bid results escalated to 2015 (estimated 8% inflation = $162,000)**

Less Trade-In (If Applicable)

Net Cost

7. Are Non-Town Revenues Available to Reduce Cost?

NO. 2015 CPC refused to fund the project as it was deemed "maintenance."

8. If this Project is Delayed, What will be the Effect on your Department?

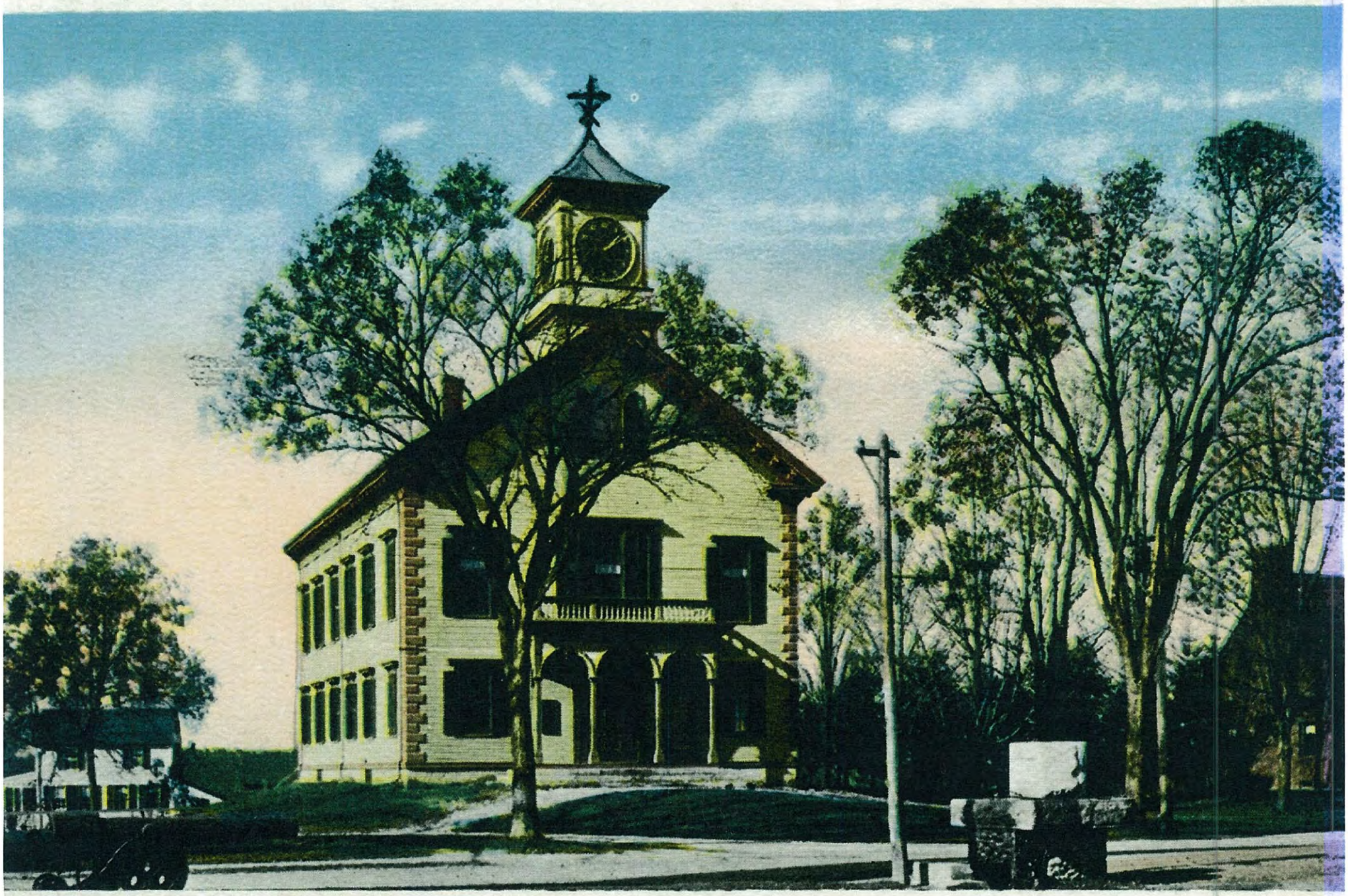
Building will deteriorate.

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget no impact	***Expense Budget no impact***
Increase	Increase
Decrease	Decrease

10. Attachments, if Applicable.

Color postcard of Town Hall showing earlier colors, bid escalation table.



VN HALL, ACTON CENTRE, MASS.

TOWN HALL PAINT 3/30/07-861		
VENDOR	BID	6% per Year Escalation X8 Years
New Generation	$56,200	$89,573
Dandis Contracting	$67,550	$107,664
Homer Contracting	$75,650	$120,524
Alpha Contracting	$91,300	$145,518
Orlando	$95,300	$151,893
Bouchard Painting	$127,750	$203,614
Average 2007 Bid	$91,975	
Average Expected 2015 Bid		$146,593

Capital Improvement Program Proposal – Detail

Department Name	**Municipal Properties**	***Project***	**Replace Memorial Library Entrance Doors**
		Fiscal Year	**2017**
Department Head	**Andrea Ristine**	***Cost***	**$55,000**
		Priority	**2** *of* **7**

1. Description

Replace existing automatic sliding doors for standard pull doors with automatic door opening button for the disabled.

2. Useful Life 15 year service life

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

	Schedule Replacement		***Increase Personnel Efficiency***
	New or Expanded Service	***X***	***Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)***
	Other (Please Explain)		

4. Justification

Current automatic sliding doors are in need of replacement, constantly in need of service repairs.

5. How Was this Project's Priority Determined?

The priority was determined continual service repair totaling approximately $10,000 in the past several years to outside vendors, in addition to overtime call backs of maintenance personnel beyond regular working hours.

6. Estimated Cost **$55,000**

Less Trade-In (If Applicable)

Net Cost

7. Are Non-Town Revenues Available to Reduce Cost?

No.

8. If this Project is Delayed, What will be the Effect on your Department?

Continued unnecessary expenditure for service repair calls and overtime call back expenses.

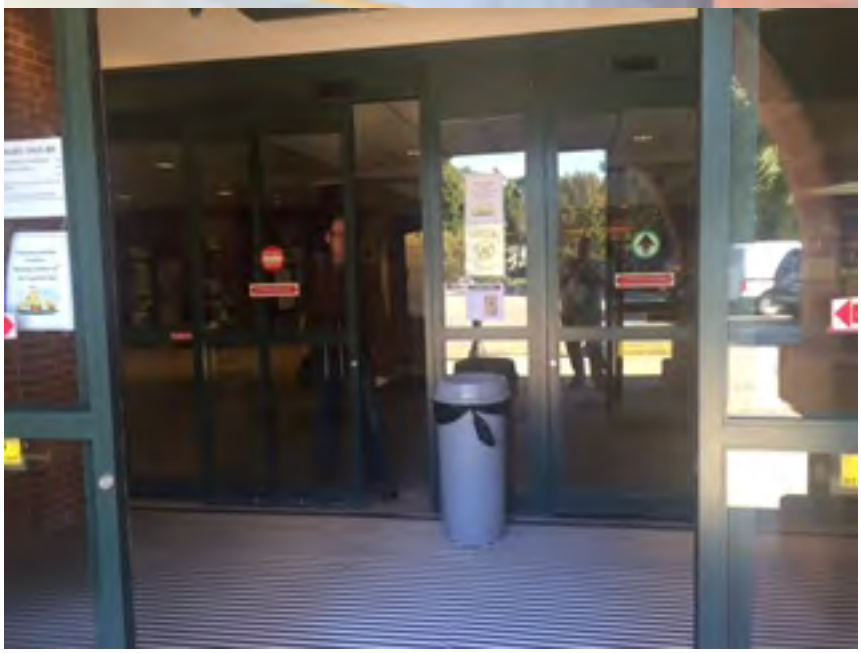
9. Please Describe the Effect of this Project on your Operating Budget.

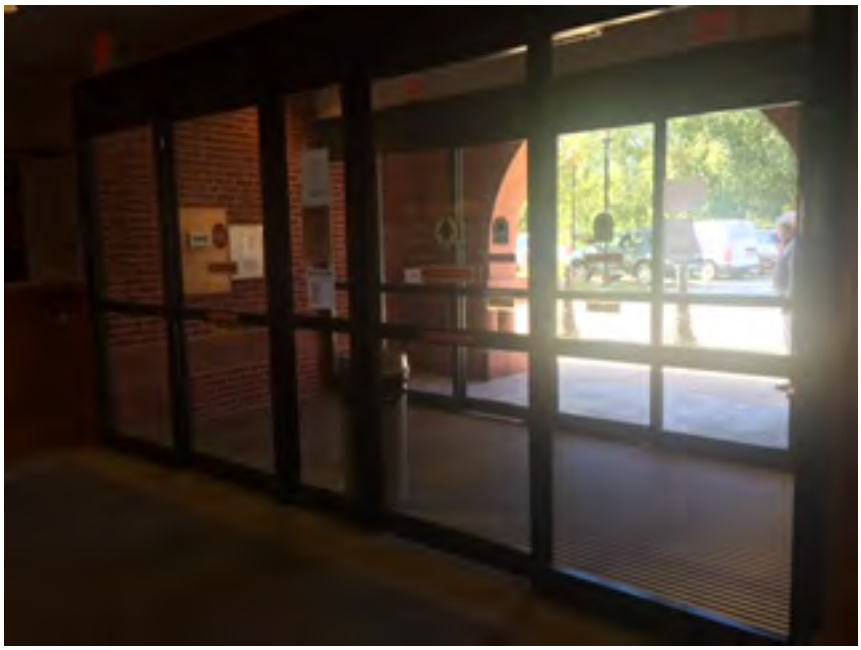
Personnel Budget	***Expense Budget***
Increase	Increase
X Decrease	X Decrease

10. Attachments:

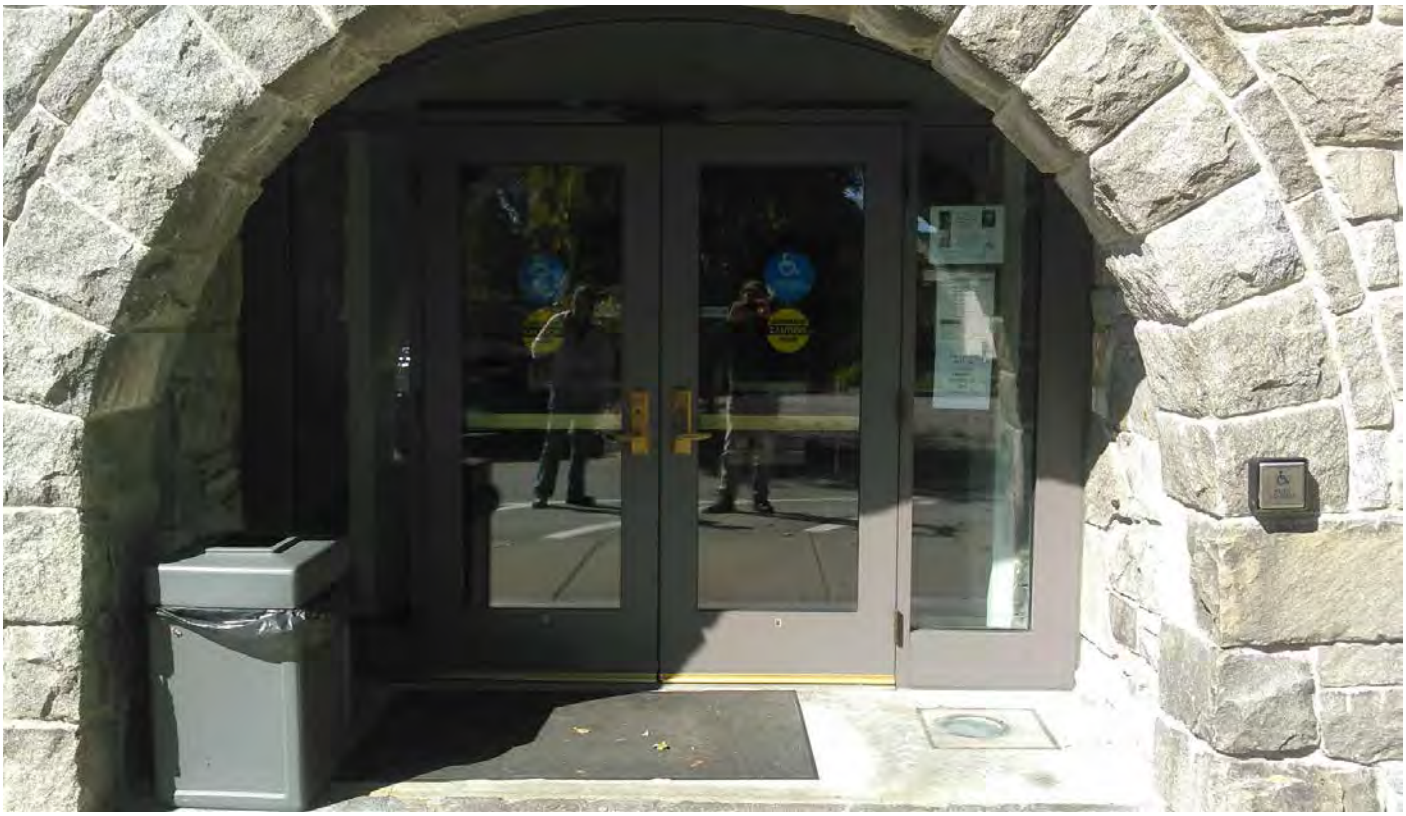
See attached photographs existing and similar proposed replacement doors.

ACTON MEMORIAL LIBRARY - EXISTING





SIMILAR PROPOSED REPLACEMENT DOORS



Capital Improvement Program Proposal – Detail

Department Name	**Municipal Properties**	***Project***	**Replace HVAC System at Fire Station 3**		
		Fiscal Year	**2017**		
Department Head	**Andrea Ristine**	***Cost***	**$555,192**		
		Priority	**3**	*of*	**7**

1. Description

Design and construction to remove and replace existing HVAC system in Fire Station 3 (West Acton) Budget request based on Due Diligence Report completed by Garcia, Galuska, Desouza Engineers (GGD) in 2013. This project was placed on the Capital Plan in 2008, with funds requested for FY 2010. Need for system upgrade noted in the 2004 facilities engineering study.

2. Useful Life 40 years

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

X	***Schedule Replacement***		***Increase Personnel Efficiency***
	New or Expanded Service	***X***	***Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)***
	Other (Please Explain)		

4. Justification

The existing heating system is essentially unchanged from when built almost 50 years ago. Systems are prone to failure, and are energy inefficient. The building also lacks adequate air conditioning and living quarters ventilation.

5. How Was this Project's Priority Determined?

The original plan was to perform this work as a part of a major project when the new Fire Station came on line. Time frame for that project is uncertain, so the project is being done piecemeal. Condition of existing systems is dire.

6. Estimated Cost ***$514,073*** **(estimated 8% inflation = $555,192)**

Less Trade-In (If Applicable)

Net Cost

7. Are Non-Town Revenues Available to Reduce Cost?

Partial funding may be available through Energy Efficiency Fund, current balance $110,000; projected $52,252 to finish LED street lighting conversion.

8. If this Project is Delayed, What will be the Effect on your Department?

Continued high energy and repair bills, unreliable system.

9. Please Describe the Effect of this Project on your Operating Budget.

	Personnel Budget		***Expense Budget***
	Increase		Increase
X	Decrease	***X***	Decrease

10. Attachments, if Applicable.

Budget estimate from Garcia Galuska Desouza Engineers (GGD) this budget estimate was updated in July, 2014.

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc.
370 Faunce Corner Road, Dartmouth, MA 02747-1217

PROJECT: Acton Fire Station
JOB NO: 945 006 00
CLIENT: Town of Acton
DATE: 7/9/13 **BY:** DP

Fire Station No. 3(West) HVAC

ITEM OF WORK	NO.	UNIT PRICE	AREA FT^2	PRICE/S.F.	TOTAL
High-Efficiency Gas-Fired Condensing Boiler and Accessories	1	$ 32,000			$ 32,000.00
Boiler Venting	1	$ 15,000			$ 15,000.00
Boiler Condensate Neuralization Kit and Piping	1	$ 8,500			$ 8,500.00
Hot Water Pumps w/ VFD's	2	$ 5,750			$ 11,500.00
HHW expansion Tank, Air Seperator & Accessories	1	$ 4,250			$ 4,250.00
HHW Piping & Ins. and Accessories			5,162	$ 8.50	$ 43,877.00
Heating Terminal Units, Fintube Radiation & Unit Heaters	1		5,162	$ 4.00	$ 20,648.00
Apparatus Bay Unit Heaters	4	$ 2,000			$ 8,000.00
Split-System Heat Pump AC Air Handling Units	3	$ 8,500			$ 25,500.00
Split System High-Efficiency Condensing Units	3	$ 3,500			$ 10,500.00
AHU Refrigerant Piping & Insulation and Condensate	3	$ 5,000			$ 15,000.00
Ventilation System ERV Unit (2,500 CFM)	1	$ 20,000			$ 20,000.00
Exhaust Air Fans	2	$ 1,500			$ 3,000.00
Ductwork & Ins.			5,162	$ 9.00	$ 46,458.00
Controls			5,162	$ 8.00	$ 41,296.00
Testing And Balancing			5,162	$ 1.10	$ 5,678.20
Electrical			5,162	$ 6.50	$ 33,553.00
Demolition			5,162	$ 1.25	$ 6,452.50

Rigging	1				$ 3,200.00
Coring, Patch & Repair, etc.	1	12500			$ 12,500.00
O&M, AsBuilts, Close-out	1	4000			$ 3,500.00
				TOTAL HVAC Cost	$ 370,412.70
				Air Conditioing & Ventilation System Cost	$ 134,958.00
				Heating System Only Cost	$ 235,454.70

HVAC System Cost estimates above have been derived based on recent project cost data, July 2014, and do not inlcude escalation and contingency. See below for Total Project Cost estimates which include General Conditions, escalation, contingency and design fee estimates.

Total Project Cost Summary - HVAC System Upgrade	
Total HVAC System Cost	$ 370,412.70
General Conditions @ 10%	$ 37,041.27
Design, Estimating Contingency @ 5%	$ 18,520.64
Construction Contingency @10%	$ 37,041.27
Escalation @ 4% to 7/2015	$ 14,816.51
Total Project Construction Cost	**$ 477,832.38**
Engineering Design Fee *Based on 10% HVAC System Cost	$ 37,041.27
Total Project Cost	***$ 514,873.65***

Total Project Cost Summary - Heating Only Upgrade	
Total Heating System Cost	$ 235,454.70
General Conditions @ 10%	$ 23,545.47
Design, Estimating Contingency @ 5%	$ 11,772.74
Construction Contingency @10%	$ 23,545.47
Escalation @ 4% to 7/2015	$ 9,418.19
Total Project Construction Cost	**$ 303,736.56**
Engineering Design Fee *Based on 10% Heating System Cost	$ 23,545.47
Total Project Cost	***$ 327,282.03***

Capital Improvement Program Proposal – Detail

Department Name	**Municipal Properties**	***Project***	**Replace HVAC System at Fire Station 1**		
		Fiscal Year	**2017**		
Department Head	**Andrea Ristine**	***Cost***	**$530,000**		
		Priority	**4**	*of*	**7**

1. Description

Design and construction to remove and replace existing HVAC system in Fire Station 1 (Acton Center) Budget request based on Due Diligence Report completed by Garcia, Galuska, Desouza Engineers (GGD) in 2013. This project was placed on the Capital Plan in 2008, with funds requested for FY 2010. Need for system upgrade noted in the 2004 facilities engineering study.

2. Useful Life 40 years

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

X	***Schedule Replacement***		***Increase Personnel Efficiency***
	New or Expanded Service	***X***	***Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)***
	Other (Please Explain)		

4. Justification

Except for installing a salvaged boiler in the 1980s, the existing heating system is essentially unchanged from when built 60 years ago. Systems are prone to failure, and are energy inefficient. The building also lacks adequate air conditioning and living-quarters ventilation.

5. How Was this Project's Priority Determined?

The original plan was to perform this work as a part of a major project when the new Fire Station came on line. Time frame for that project is uncertain, so the project is being done piecemeal. Condition of existing systems is dire.

6. Estimated Cost **$490,042 (estimated 8% inflation = $530,000)**

Less Trade-In (If Applicable)

Net Cost

7. Are Non-Town Revenues Available to Reduce Cost?

Partial funding may be available through Energy Efficiency Fund, current balance $110,000; projected $52,252 to finish LED street lighting conversion..

8. If this Project is Delayed, What will be the Effect on your Department?

Continued high energy and repair bills, unreliable system.

9. Please Describe the Effect of this Project on your Operating Budget.

	Personnel Budget		***Expense Budget***
	Increase		Increase
X	Decrease	***X***	Decrease

10. Attachments, if Applicable.

Budget estimate from Garcia Galuska Desouza Engineers (GGD) this estimate was updated in July, 2014.

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc.
370 Faunce Corner Road, Dartmouth, MA 02747-1217

PROJECT: Acton Fire Station
JOB NO: 945 006 00
CLIENT: Town of Acton
DATE: 7/9/13 **BY:** DP

Fire Station No. 1(Center) HVAC

ITEM OF WORK	NO.	UNIT PRICE	AREA FT^2	PRICE/S.F.	TOTAL
High-Efficiency Gas-Fired Condensing Boiler and Accessories	1	$ 32,000			$ 32,000.00
Boiler Venting	1	$ 15,000			$ 15,000.00
Boiler Condensate Neuralization Kit and Piping	1	$ 8,500			$ 8,500.00
Hot Water Pumps w/ VFD's	2	$ 5,750			$ 11,500.00
HHW expansion Tank, Air Seperator & Accessories	1	$ 4,250			$ 4,250.00
HHW Piping & Ins. and Accessories			4,678	$ 8.50	$ 39,763.00
Heating Terminal Units, Fintube Radiation & Unit Heaters	1		4,678	$ 4.00	$ 18,712.00
Apparatus Bay Unit Heaters	4	$ 2,000			$ 8,000.00
Split-System Heat Pump AC Air Handling Units	3	$ 8,500			$ 25,500.00
Split System High-Efficiency Condensing Units	3	$ 3,500			$ 10,500.00
AHU Refrigerant Piping & Insulation and Condensate	3	$ 5,000			$ 15,000.00
Ventilation System ERV Unit (2,000 CFM)	1	$ 20,000			$ 20,000.00
Exhaust Air Fans	2	$ 1,500			$ 3,000.00
Ductwork & Ins.			4,678	$ 9.00	$ 42,102.00
Controls			4,678	$ 8.00	$ 37,424.00
Testing And Balancing			4,678	$ 1.10	$ 5,145.80
Electrical			4,768	$ 6.50	$ 30,992.00
Demolition			4,768	$ 1.25	$ 5,960.00
Rigging	1				$ 3,200.00
Coring, Patch & Repair, etc.	1	12500			$ 12,500.00
O&M, AsBuilts, Close-out	1	4000			$ 3,500.00
				TOTAL HVAC Cost	$ 352,548.80

Air Conditioing & Ventilation System Cost	$ 130,602.00
Heating System Only Cost	$ 221,946.80

HVAC System Cost estimates above have been derived based on recent project cost data, July 2014, and do not inlcude escalation and contingency. See below for Total Project Cost estimates which include General Conditions, escalation, contingency and design fee estimates.

Total Project Cost Summary - HVAC System Upgrade		
Total HVAC System Cost	$	352,548.80
General Conditions @ 10%	$	35,254.88
Design, Estimating Contingency @ 5%	$	17,627.44
Construction Contingency @10%	$	35,254.88
Escalation @ 4% to 7/2015	$	14,101.95
Total Project Construction Cost	**$**	**454,787.95**
Engineering Design Fee *Based on 10% HVAC System Cost	$	35,254.88
Total Project Cost	***$***	***490,042.83***

Total Project Cost Summary - Heating Only Upgrade		
Total Heating System Cost	$	221,946.80
General Conditions @ 10%	$	22,194.68
Design, Estimating Contingency @ 5%	$	11,097.34
Construction Contingency @10%	$	22,194.68
Escalation @ 4% to 7/2015	$	8,877.87
Total Project Construction Cost	**$**	**286,311.37**
Engineering Design Fee *Based on 10% Heating System Cost	$	22,194.68
Total Project Cost	***$***	***308,506.05***

Capital Improvement Program Proposal – Detail

Department Name	**Municipal Properties**	***Project***	**Replace HVAC System at Fire Station 2**		
		Fiscal Year	**2017**		
Department Head	**Andrea Ristine**	***Cost***	**$597,058**		
		Priority	**5**	*of*	**7**

1. Description

Design and construction to remove and replace existing HVAC system in Fire Station 3 (West Acton) Budget request based on Due Diligence Report completed by Garcia, Galuska, Desouza Engineers (GGD) in 2013. This project was placed on the Capital Plan in 2008, with funds requested for FY 2010. Need for system upgrade noted in the 2004 facilities engineering study.

2. Useful Life 40 years

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

X Schedule Replacement

New or Expanded Service

Other (Please Explain)

Increase Personnel Efficiency

Replace Obsolete or Unsafe Equipment

X (Explain Disposal of Old Equipment)

4. Justification

The existing heating system is essentially unchanged from when built almost 50 years ago. Systems are prone to failure, and are energy inefficient. The building also lacks adequate air conditioning and living-quarters ventilation.

5. How Was this Project's Priority Determined?

The original plan was to perform this work as a part of a major project when the new Fire Station came on line. Time frame for that project is uncertain, so the project is being done piecemeal. Condition of existing systems is dire.

6. Estimated Cost **$552,831 (estimated 8% inflation = $597,058)**

Less Trade-In (If Applicable)

Net Cost

7. Are Non-Town Revenues Available to Reduce Cost?

Partial funding may be available through Energy Efficiency Fund, current balance $110,000; projected $52,252 to finish LED street lighting conversion.

8. If this Project is Delayed, What will be the Effect on your Department?

Continued high energy and repair bills, unreliable system

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget	***Expense Budget***
Increase	Increase
X Decrease	***X*** Decrease

10. Attachments, if Applicable.

Budget estimate from Garcia Galuska Desouza Engineers (GGD) this budget estimate was updated in July, 2014.

GARCIA • GALUSKA • DESOUSA
Consulting Engineers Inc.
370 Faunce Corner Road, Dartmouth, MA 02747-1217

PROJECT:	Acton Fire Station
JOB NO:	945 006 00
CLIENT:	Town of Acton
DATE:	7/9/13 BY: DP

Fire Station No. 2(South) HVAC

ITEM OF WORK	NO.	UNIT PRICE	AREA FT^2	PRICE/S.F.	TOTAL
High-Efficiency Gas-Fired Condensing Boiler and Accessories	1	$ 32,000			$ 32,000.00
Boiler Venting	1	$ 15,000			$ 15,000.00
Boiler Condensate Neuralization Kit and Piping	1	$ 8,500			$ 8,500.00
Hot Water Pumps w/ VFD's	2	$ 5,750			$ 11,500.00
HHW expansion Tank, Air Seperator & Accessories	1	$ 4,250			$ 4,250.00
HHW Piping & Ins. and Accessories			5,848	$ 8.50	$ 49,708.00
Heating Terminal Units, Fintube Radiation & Unit Heaters	1		5,848	$ 4.00	$ 23,392.00
Apparatus Bay Unit Heaters	4	$ 2,000			$ 8,000.00
Split-System Heat Pump AC Air Handling Units	3	$ 8,500			$ 25,500.00
Split System High-Efficiency Condensing Units	3	$ 3,500			$ 10,500.00
AHU Refrigerant Piping & Insulation and Condensate	3	$ 5,000			$ 15,000.00
Ventilation System ERV Unit (2,500 CFM)	1	$ 20,000			$ 20,000.00
Exhaust Air Fans	2	$ 1,500			$ 3,000.00
Ductwork & Ins.			5,848	$ 9.00	$ 52,632.00
Controls			5,848	$ 8.00	$ 46,784.00
Testing And Balancing			5,848	$ 1.10	$ 6,432.80
Electrical			5,848	$ 6.50	$ 38,012.00
Demolition			5,848	$ 1.25	$ 7,310.00

Rigging	1				$ 3,200.00
Coring, Patch & Repair, etc.	1	13500			$ 13,500.00
O&M, AsBuilts, Close-out	1	4000			$ 3,500.00
				TOTAL HVAC Cost	$ 397,720.80
				Air Conditioing & Ventilation System Cost	$ 141,132.00
				Heating System Only Cost	$ 256,588.80

HVAC System Cost estimates above have been derived based on recent project cost data, July 2014, and do not inlcude escalation and contingency. See below for Total Project Cost estimates which include General Conditions, escalation, contingency and design fee estimates.

Total Project Cost Summary - HVAC System Upgrade		
Total HVAC System Cost	$	397,720.80
General Conditions @ 10%	$	39,772.08
Design, Estimating Contingency @ 5%	$	19,886.04
Construction Contingency @10%	$	39,772.08
Escalation @ 4% to 7/2015	$	15,908.83
Total Project Construction Cost	**$**	**513,059.83**
Engineering Design Fee *Based on 10% HVAC System Cost	$	39,772.08
Total Project Cost	***$***	***552,831.91***

Total Project Cost Summary - Heating Only Upgrade		
Total Heating System Cost	$	256,588.80
General Conditions @ 10%	$	25,658.88
Design, Estimating Contingency @ 5%	$	12,829.44
Construction Contingency @10%	$	25,658.88
Escalation @ 4% to 7/2015	$	10,263.55
Total Project Construction Cost	**$**	**330,999.55**
Engineering Design Fee *Based on 10% Heating System Cost	$	25,658.88
Total Project Cost	***$***	***356,658.43***

Capital Improvement Program Proposal – Detail

Department Name	**Municipal Properties**	***Project***	**AML Roof & HVAC replacement**
		Fiscal Year	**2017**
Department Head	**Andrea Ristine**	***Cost***	**$1,000,000**
		Priority	**6** *of* **7**

1. Description

Replace existing rooftop HVAC units, replace existing HVAC control system, replace membrane roof. Exact scope of work TBD based on design funded in prior Fiscal Year. This project was first placed on Capital Plan in 2009, with construction planned for FY 2013.

2. Useful Life 20 years

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

Schedule Replacement		***Increase Personnel Efficiency***
New or Expanded Service	***X***	***Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)***
Other (Please Explain)		

4. Justification

Existing system close to end of expected service life, numerous small leaks in membrane roof system

5. How Was this Project's Priority Determined?

Condition of facility.

6. Estimated Cost **$1,000,000**

Less Trade-In (If Applicable)

Net Cost

7. Are Non-Town Revenues Available to Reduce Cost?

NO.

8. If this Project is Delayed, What will be the Effect on your Department?

Continued high routine maintenance costs.

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget no impact	***Expense Budget***	
Increase	Increase	
Decrease	Decrease	Exact savings in utilities and service TBD

10. Attachments, if Applicable.

Capital Improvement Program Proposal – Detail

Department Name	**Municipal Properties**	***Project***	**Complete Streetlight Conversion to LED**
		Fiscal Year	**2017**
Department Head	**Andrea Ristine**	***Cost***	**$52,252**
		Priority	**7** *of* **7**

1. Description

Convert existing Metal Halide streetlights to LED (light emitting diode) lights. This is a multi-year conversion using money from the Energy Efficiency Fund and utility rebates. This project is in keeping with the long term goals voted by the Board of Selectmen on 6/30/14; project commenced June 2015 starting with awarded $34,300 GCG Funds.

2. Useful Life 10 year service life of LED bulb, fixture can be re-lamped.

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

Schedule Replacement		***Increase Personnel Efficiency***	
New or Expanded Service		***X***	***Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)***
Other (Please Explain)			

4. Justification

This project can save approximately $3,000 in energy costs in the first year ($12,000 per year when fully implemented). It will also provide more reliable lighting with fewer outages, and when fully implemented can reduce the maintenance cost by $20,000 per year. NSTAR will provide $40,731 incentive rebate (see attached as example from this year). WMLP which provides service, recommends that when we reach a critical mass of converted lights we reduce our service contract, as the bulbs have an expected 10 year lifespan.

5. How Was this Project's Priority Determined?

To complete the LED street light conversion project currently under way.

6. Estimated Cost ***$52,252***

Less Trade-In (If Applicable)

Net Cost

7. Are Non-Town Revenues Available to Reduce Cost?

The Selectmen voted on 6/9/14 to allocated lease payments ($60K =/- per year) from the Landfill Solar Project to the Energy Efficiency Fund. This will be supplemented with estimated utility rebates. Only needs a majority Board of Selectmen approval to expend funds from the EEF, does not need ATM approval.

8. If this Project is Delayed, What will be the Effect on your Department?

Continued unnecessary expenditure for energy costs, high service contract, and failure rate of existing Metal Halide bulbs.

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget	***Expense Budget***
Increase	Increase
Decrease	***X*** Decrease

10. Attachments: HB 4106, WMLP proposal, Selectmen's Long Term Goals, NSTAR incentive example.

LONG TERM GOALS

1. Develop Plan for New Senior Center; Consider Joint Center with Maynard; Consider Community Center Features, Develop Long Term Plan for current Building (16 Points)
2. Develop Long Range Capital Plan with information on Existing Bonds (14 Points)
3. (Tie) (6 Points)
   - Start ALS Service
   - Develop Fixed Route Bus Service
4. Complete Streets Program and Paths Connecting Neighborhoods (5 Points)
5. (Tie) (4 Points)
   - Bring Sewers to West Acton;
   - Continue Funding OPEB;
   - Increase Recycling in Town with Pay As You Throw
   - Develop Plan for NARA Comfort Station Near Miracle Field

Others receiving points: Start Process of Reviewing Zoning Bylaw (3 Points); Update Street Lights to LED (3 Points); Resolve Minuteman Regional Issues (2 Points); Senior Tax Relief (Sudbury Plan) (2 Points); Food for Sale at Acton Memorial Library and Town Hall Campus (1 Point); All Electronic and Interactive Town Meeting warrant (1 Point)

ITEMS NOT RECEIVING POINTS

SHORT TERM

Selectman Liaison for Goals; Add Staff to Planning Department/ Land Use; Fall Town Meeting; Increase Capacity for Community Services Coordinator; Asa Parlin House; Bring Storm Water Bylaw to Town meeting; Redirect Cemetery Warrant Articles to Provide Building to House Equipment; Analyze Mix of Business and Determine What Businesses to Encourage to Come to Acton (EDC); Support ACHC Housing Production Plan; Update DRB Charge; Compete North Wing Project.

LONG TERM

Study Moving Site Plans to Planning Board; Town Web Site Update and More User Friendly; Dog Park; Promote Outdoor Dance, Music and Tai Chi in All Parts of Town; Resolve Recreation Department Location; Water Bottle Sale Bylaw; (Tap water must be available to patrons); ADA Compliance for Chapel and Cemetery Building; Educate Town and Planning on Cohousing Model for Developments; Theater III Accessibility.

Steven Ledoux
Minute Taker

Peter Berry, Clerk

HOUSE . . . . . No. 4106

By Representative Benson of Lunenburg and Senator Eldridge, a joint petition (accompanied by bill, House, No. 4106) of Jennifer E. Benson and James B. Eldridge (by vote of the town) for legislation to establish an energy efficiency fund in the town of Acton. Telecommunications, Utilities and Energy. [Local Approval Received.]

The Commonwealth of Massachusetts

In the Year Two Thousand Twelve

An act establishing the town of Acton energy efficiency fund.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

1 SECTION 1. Notwithstanding any general or special law to the contrary, there is hereby
2 established in the town of Acton a dedicated account to be known as the Town of Acton Energy
3 Efficiency Fund to provide funds for energy savings in town-owned facilities or on town-
4 owned property, or for other energy efficiency, energy conservation, or renewable energy
5 projects or activities of the town.

6 SECTION 2. The town of Acton may from time to time appropriate and transfer funds into said
7 account by majority vote of Acton town meeting for the purpose of providing funds for said
8 energy efficiency, energy conservation, or renewable energy projects or activities of the town.
9 Funds may also be deposited into said account, with the approval of a majority of the Acton
10 board of selectmen, from gifts, grants and donations received from public or private sources,
11 federal and state funding programs, revenues from energy efficiency incentive payments, power
12 purchase agreements, renewable energy leases, and similar sources, and any other source

13 authorized by law. Expenditures from said account may be made with the approval of a majority
14 of the Acton board of selectmen without further appropriation.

15 SECTION 3. The Acton town manager, with approval of a majority of the Acton board of
16 selectmen, may apply for public or private grants, incentives, or subsidies for energy efficiency,
17 energy conservation, or renewable energy projects or activities, using any unencumbered balance
18 of such dedicated account as necessary matching funds for such grants, incentives, or subsidies.

19 SECTION 4. The Town of Acton Energy Efficiency Fund shall be maintained by the town
20 treasurer as a separate account, and any interest accrued shall be credited to and become part of
21 the fund. Any funds remaining in the account at the end of each fiscal year shall remain in such
22 account to be used for the purposes provided for in this act. The town treasurer shall annually
23 provide a report to the Acton board of selectmen on monies deposited into and expended from
24 said account.

25 SECTION 5. The town of Acton may, by a two-thirds vote of its town meeting, dissolve the
26 account and, after paying any sums due there from, transfer the remaining unencumbered
27 balance of such account to the town's general fund.

28 SECTION 6. This act shall take effect upon its passage.

HOUSE DOCKET, NO. 4372 FILED ON: 5/7/2012

HOUSE . . . . . No. 4106

[LOCAL APPROVAL RECEIVED.]

The Commonwealth of Massachusetts

PRESENTED BY:

Jennifer E. Benson and James B. Eldridge

To the Honorable Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled:

The undersigned legislators and/or citizens respectfully petition for the passage of the accompanying bill:

An act establishing the town of Acton energy efficiency fund.

PETITION OF:

NAME:	DISTRICT/ADDRESS:
Jennifer E. Benson	*37th Middlesex*
James B. Eldridge	*Middlesex and Worcester*

TOWN OF ACTON
472 Main Street
Acton, Massachusetts, 01720
Telephone 978-929-7744
Fax 978-929-6346

Municipal Properties Department

Green Community Grant Progress and Financial Quarterly Report
Period July 8 – September 30, 2016

Contract ID: CT ENE 2016ENEP01ACTOCP0113

TOWN OF ACTON – LED STREET LIGHTS

Schedule: LED street light conversion currently under way with Wellesley Municipal Light Plan (WMLP), FY15 PO issued June 4, 2015 to initiate Phase 1 of conversion project.

Narrative: 29 lights converted as of 9/11/15 by WMLP; project 4% complete

Budget:	$233,244	Total Project Cost
	$34,300	Green Communities Grant Funds
		Other Sources of Funding
	$40,731.50	Eversource Incentive
	$105,950	Town Purchase Order from unspent FY'15 streetlight funds
	$52,262.50	Town Energy Efficiency Funds

Project Expenditures: $9,889 invoices received to date (copies attached)

Name and Title of Person Submitting Quarterly Report:

Andrea Ristine, Superintendent
Town of Acton, Municipal Properties

Date: October 6, 2015

DEDICATED TO EXCELLENCE

4 MUNICIPAL WAY, WELLESLEY, MA 02481-2431
TELEPHONE: 781-235-7600 FAX: 781-489-2154

Invoice

Invoice Date	Invoice No.
07/28/2015	40288
Vendor Number	
114166	
Invoice Total Due	
4,774.00	

MUNICIPAL PROPERTIES
472 MAIN STREET
ACTON, MA 01720-3952

FOR/LOCATION
PO# 20152996-00
LED STREET LIGHT CONVERSION

Description	Orig Bill	Adjusted	Paid	Amount Due
LED STREET LIGHTS CONVERTED: MAIN STREET - POLES # - 232, 235, 237, 239, 246, 249, 252, 254, 256, 261, 263, 267, 269, 283 QTY 14.00 @ 341.00 PER EACH	4774.00	.00	.00	4774.00

Vendor # 15381	
M 01192521200	$
M 20152996P	4774
Article #	
TOTAL	
Approved By: Date 8/18/15	$

DUE 30 DAYS FROM DATE OF INVOICE | **INVOICE TOTAL DUE 4,774.00**

PLEASE MAKE CHECK PAYABLE TO: WELLESLEY MUNICIPAL LIGHT PLANT - REMIT TO:
WELLESLEY MUNICIPAL LIGHT PLANT, ATTENTION: ACCOUNTS RECEIVABLE,
4 MUNICIPAL WAY, WELLESLEY MA 02481-2431

ORIGINAL COPY

Invoice

DEDICATED TO EXCELLENCE

4 MUNICIPAL WAY, WELLESLEY, MA 02481-2431
TELEPHONE: 781-235-7600 FAX: 781-489-2154

Invoice Date	Invoice No.
07/24/2015	40271
Vendor Number	
114166	
Invoice Total Due	
5,115.00	

MUNICIPAL PROPERTIES
472 MAIN STREET
ACTON, MA 01720-3952

FOR/LOCATION
PO# 20152996-00
LED STREET LIGHT CONVERSION

Description	Orig Bill	Adjusted	Paid	Amount Due
LED STREET LIGHTS CONVERTED: RT#27 MAIN ST FROM WESTFORD TOWN LINE - P# 330, P# 324, P# 315, P# 309, NO POLE# @ CARLYLE RD, P# 305, P# 301, P# 299, P# 288 @ EASTERN RD, P# 286, P# 281 @ WHEELER LN, P# 280, P# 278, P# 275, P # 271 @ LEDGE ROCK QTY 15.00 @ 341.00 PER EACH	5115.00	.00	.00	5115.00

Vendor # 15381	
01192521200	
~~7016~~	5115
Invoice # 20152996P	
TOTAL	
Approved By: _____ Date 8/8/15	

DUE 30 DAYS FROM DATE OF INVOICE | **INVOICE TOTAL DUE 5,115.00**

PLEASE MAKE CHECK PAYABLE TO: WELLESLEY MUNICIPAL LIGHT PLANT - REMIT TO:
WELLESLEY MUNICIPAL LIGHT PLANT, ATTENTION: ACCOUNTS RECEIVABLE,
4 MUNICIPAL WAY, WELLESLEY MA 02481-2431

ORIGINAL COPY

Capital Improvement Program Proposal – Detail

Department Name	**Natural Resources**	***Project***	**Personnel – Recreation Secretary 20 to 40 hour increase**
		Fiscal Year	**2017**
Department Head	**Tom Tidman**	***Cost***	**$27,000 (currently benefitted position)**
		Priority	**1** *of* **8**

1. Description

Increase existing benefitted 20 hour per week secretarial position to 40 hours. Expanded recreation operations necessitate the need for a full-time secretary.

2. Useful Life N/A

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

	Schedule Replacement	***X***	***Increase Personnel Efficiency***
X	***New or Expanded Service***		***Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)***
	Other (Please Explain)		

4. Justification

Due to increased workload and being pioneers in the world of online registrations, this 20-hour per week benefitted position has grown to full time. Out of necessity, the secretary routinely logs a minimum of 30 hours and maximum 40 hours to keep up, which exceeds the current personnel budget allowance. The secretarial duties have expanded to include more administrative work. The relocation to a larger office facility requires full day coverage of our reception desk. Customer service suffers because the secretary is not available throughout the day to address customer call backs about complex registration transactions. The Recreation Director needs to delegate more tasks to the secretary to ease her workload, which has increased significantly with construction project responsibilities.

5. How Was this Project's Priority Determined?

The importance of providing appropriate customer service to meet the demands of our clientele.

6. Estimated Cost	***$ 27,000.00***
Less Trade-In (If Applicable)	
Net Cost	***$ 27,000.00***

7. Are Non-Town Revenues Available to Reduce Cost?

No.

8. If this Project is Delayed, What will be the Effect on your Department?

Overtime or deferred comp time required to complete weekly tasks.

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget		***Expense Budget***	
Increase	Yes	Increase	No
Decrease	No	Decrease	No

10. Attachments, if Applicable.

Capital Improvement Program Proposal – Detail

Department Name	**Natural Resources**	***Project***	**NARA Parking Lot Control Design and Installation**
		Fiscal Year	**2017**
Department Head	**Tom Tidman**	***Cost***	**$150,000 (Placeholder)**
		Priority	**1** *of* **7**

1. Description

Design and Installation of Parking Lot control systems for the lower and upper parking lots. Manual or electronic gates at access points to parking areas and multi-space parking meters in parking lot. Control of park visitor volume at the point of vehicle entrance at high–peak time periods and institute vehicle storage fee collection for out-of-town residents to support park operations.

2. Useful Life 10 years

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

Schedule Replacement

X ***New or Expanded Service***

Other (Please Explain)

Increase Personnel Efficiency

Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)

4. Justification:

NARA patrons have called the Recreation Director and NARA Master Plan Survey respondents have written to complain that they are very concerned about park overuse by non-residents.

5. How Was this Project's Priority Determined?

Public safety. Parking lot control will aid NARA staff and Police in preventing overuse of the park more effectively. Park admission fee will help control escalating visitor volume from non-residents.

6. Estimated Cost ***$150,000.00***

Less Trade-In (If Applicable)

Net Cost ***$150,000.00***

7. Are Non-Town Revenues Available to Reduce Cost?

Recreation will look into possible grant sources.

8. If this Project is Delayed, What will be the Effect on your Department?

Increased difficulty controlling vehicle and visitor volume to the park during operating hours. Without a control system in place, increased resident dissatisfaction. Visitor volume will grow by to an expected 1,000 users a day when the Bruce Freeman Rail Trail opens and links to NARA in 2017.

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget		***Expense Budget***	
Increase	**X**	**Increase**	**X**
Decrease		Decrease	

10. Attachments, if Applicable.

Pending estimates from security/parking control design vendors.

Capital Improvement Program Proposal – Detail

Department Name	**Natural Resources**	***Project***	**Recreation Van Replacement**
		Fiscal Year	**2017**
Department Head	**Tom Tidman**	***Cost***	**$50,000 (Placeholder)**
		Priority	**2** *of* **7**

1. Description

Replacement of 8-passenger 2000 Ford Ecovan with 15-passenger Ford Transit 350 XLT Passenger Van.

2. Useful Life 15 years

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

X *Schedule Replacement*

X ***New or Expanded Service***

Other (Please Explain)

Increase Personnel Efficiency

X *Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)*

4. Justification:

Current vehicle is reaching end of useful life. A new van that carries more people will greatly help us with field trips in the summer with camp. Currently we pay on average $350 per week to rent a bus when we have only 10-12 camp passengers going on these field trips.

5. How Was this Project's Priority Determined?

Importance of having an up-to-date vehicle for safe transport of our Camp patrons.

6. Estimated Cost ***$50,000.00***

Less Trade-In (If Applicable)

Net Cost ***$50,000.00***

7. Are Non-Town Revenues Available to Reduce Cost?

No.

8. If this Project is Delayed, What will be the Effect on your Department?

Continued out-of-pocket cost for bus transportation that is overscaled for its purpose.

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget		***Expense Budget***	
Increase	**X**	**Increase**	**X**
Decrease		Decrease	

10. Attachments, if Applicable.

Pending estimate from Highway Department.

Capital Improvement Program Proposal – Detail

Department Name	**Natural Resources**	***Project***	**Natural Resources 2002 Ford F350 Truck Replacement**
		Fiscal Year	**2017**
Department Head	**Tom Tidman**	***Cost***	**$54,595.00**
		Priority	**3** *of* **7**

1. Description

Replacement of 2002 Ford F350 with a 2016 Ford F350 with dump body and plow.

2. Useful Life 15 years

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

X *Schedule Replacement*

New or Expanded Service

Other (Please Explain)

Increase Personnel Efficiency

X *Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)*

4. Justification:

Current vehicle is reaching end of useful life. It has 90,611 miles on it and has electrical issues. The gas gauge is no longer operational and the windshield wipers do not work when it rains.

5. How Was this Project's Priority Determined?

Importance of having a reliable vehicle for work schedule efficiency.

6. Estimated Cost ***$54,595.00***

Less Trade-In (If Applicable)

Net Cost ***$54,595.00***

7. Are Non-Town Revenues Available to Reduce Cost?

No.

8. If this Project is Delayed, What will be the Effect on your Department?

Continued deterioration and reduced job efficiency caused by repair delays.

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget	***Expense Budget***
Increase	**Increase**
Decrease	Decrease

10. Attachments, if Applicable.

Repair history and quotation from MHQ.

Natural Resources - 2002 Ford F350 Repair History

1/2003	**tires**
3/2004	**ball joints**
11/2004	**brake pads**
3/2005	**brake pads and rotors**
6/2005	**dump body pump**
10/2005	**wiper motor**
3/2006	**battery**
6/2007	**front axels & u joints brake pads and rotors**
8/1007	**rear brake calipers**
1/2008	**alternator**
1/2009	**sway bar links**
8/2009	**front & rear brakes**
9/2009	**alternator**
2/2010	**drive shaft**
4/2010	**wiper motor**
8/2010	**replace dump body**
8/2012	**rear brake line, transmission cooler**
8/2013	**front brake calipers**
3/2014	**steering column shift linkage**
10/2014	**axel seals, rear brake caliper**
12/2014	**starter**
12/2014	**fuel tank**
3/2015	**wiper motor, exhaust**
5/2015	**front brakes**

MHQ
VEHICLES ■ EQUIPMENT ■ GEAR

Oct. 7, 2015

Acton Cemetery 978-929-6642 PH
Shawn O'Malley somalley@acton-ma.gov E-mail

Please find below a quote for **(1) 2016 Ford F350 Cab & Chassis with Dump Body 4WD** per the Plymouth County Commissioner's Procurement Contract # PCC-15. M.G.L. c.30B applies to the procurement of all commodities quoted. Contract items have been collectively purchased pursuant to M.G.L. c.30B sec. 1c and M.G.L. c.7 sec 22B. The governmental body is responsible to determine the applicability of M.G.L. c30B to off contract items, including but not limited to, off contract items that have already been properly procured under M.G.L. c30B sec. 1c and M.G.L. c.7 sec. 22A (purchases from a vendor on contract with the Commonwealth), other contracts procured under M.G.L. c 30B sec. 1c and M.G.L. c.7 sec. 22B or any M.G.L. c. 30B contract between the vendor and the jurisdiction. All off contract Items must be procured under M.G.L. c. 30B.

Item#			
15-24	Ford F350 Cab/Chassis	$ 24,700.00	F3H
	Four Wheel drive	$ 3,995.00	
	Estimated model increase	$ 2,500.00	
	141" Wheelbase (WB), 60" Cab to axle (CA)	included	
	Color : Green Gem	included	
	6.2L V8 Gasoline Engine	included	
	Air Conditioning	included	
	Heavy Duty Vinyl Bench Seat & Vinyl Flooring	included	
	Four (4) Factory Upfitter switches	included	
	AM/FM radio w/digital clock	included	
	XL Trimline	included	
473	Factory Snow plow prep	81.00	
18B	Factory Cab Steps	304.00	
7.07	Reinforced Plate Mounted Ball/Pintle Hook Combo	495.00	
7.05	Trailer Plug (7- RV)	175.00	
5.01	2-3 yd. dump body (match?) Manufacture Gallion	8,695.00	
4.02	Belt driven central hydraulic system	4,295.00	
7.01	Stainless Steel Underbody Frame Mounted toolbox pass side	695.00	
1.09	Whelen LED 3 Light DOT Warning Light System amber	1,595.00	
2.19	Fisher 9' HD Plow	6,295.00	
2.28	Fisher Sno Foil	445.00	
2.3	Fisher Cutting Edge	245.00	
1.16	Electronic Back Up Alarm	80.00	
Total Contract Price:		**$ 54,595.00**	

Sincerely,

Jay Matisko
Account Manager

401 Elm Street Marlborough, MA 01752
Phone: 508-573-2622 Fax: 508-573-2722
jmatisko@mhq.com

Capital Improvement Program Proposal – Detail

Department Name	**Natural Resources**	***Project***	**Jones Playground Renovation**
		Fiscal Year	**2017**
Department Head	**Tom Tidman**	***Cost***	**$150,000**
		Priority	**4** *of* **7**

1. Description

Scheduled replacement of Jones Playground equipment and safety surfacing. The playground structures are worn, have become outdated and difficult to maintain. Surrounding brick walkway and bench that were donated for the current playground installation will be retained.

2. Useful Life 15 years

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

X *Schedule Replacement*

New or Expanded Service

Other (Please Explain)

Increase Personnel Efficiency

X *Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)*

4. Justification:

Playground has reached the end of its useful life. A redesigned path of access to the equipment and new safety surfacing will address the play area's need for handicap accessibility, by replacing pea stone with engineered wood fiber/poured rubber surfacing. Importance of up-to-current-code equipment to comply with playground safety standards, ASTM F-1487.

5. How Was this Project's Priority Determined?

Scheduled replacement as per the Town's Open Space and Recreation Plan. Citizen support group has formed via responses to a Jones Playground survey conducted in summer 2015.

6. Estimated Cost ***$150,000.00***

Less Trade-In (If Applicable)

Net Cost ***$150,000.00***

7. Are Non-Town Revenues Available to Reduce Cost?

Grant opportunities are being pursued by citizen supporters.

8. If this Project is Delayed, What will be the Effect on your Department?

Playground structures will need to be taken out of service if allowed to deteriorate further.

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget	***Expense Budget***
Increase	**Increase X**
Decrease	Decrease

Annual replenishment of engineered wood fiber surfacing to maintain proper depth of 12" for impact attenuation.

10. Attachments, if Applicable.

Quotation from M.E. O'Brien & Sons.

M.E. O'Brien & Sons, Inc.
93 West Street – P.O. Box 650 / Medfield, MA 02052
Phone: 508-359-4200 / Fax: 508-359-2817
SDO CERTIFIED WBE

QUOTATION

Date: **October 7, 2015**

Job: **Jones Field**

Location: **Acton, MA**

Salesman: **Meghan A. O'Brien Taylor, President/gmc (Meghan@obrienandsons.com)**

Attention: **Melissa Rier/Cathy Fochtman**
Tel.: **978-929-6640 Fax: 978-929-6333**
E-mail: **mrier@acton-ma.gov/cfochtman@acton-ma.gov**

We are pleased to offer our quotation on the following for the above subject job:

QTY.	MODEL #	DESCRIPTION	TOTAL
Age 2-5 Playground Area			
Play Equipment			
1	197057A	Smart Play Motion Playstructure with Stepping Pods, Cozy Dome and Wee Planet Climber	$21,540.00
1		Clubhouse Station with Storefront Panel and Table with Seats	$ 2,070.00
1	173591A	OmniSpin Spinner	$ 6,460.00
1	148636A	2-Seat Seesaw	$ 2,225.00
1	177336A	Toddler Swing Set with 2 Full Bucket Seats	$ 1,445.00

❖ I can make one of one swing seat a half bucket seat with chain strap, if desired.

TuffTimber Edging			
58	119214A	4' Long TuffTimber Edgers with Galvanized Stakes	$ 3,027.00

QUOTATION

Surfacing

Age 5-12 Playground Area

Play Equipment

1		MEO15508 Playstructure	$38,805.00
1	205800A	TopsyTurny Spinner	$ 3,900.00
1	155077A	Stand-up Spinner	$ 1,385.00

TuffTimber Edging

59	119214A	4' Long TuffTimber Edgers with Galvanized Stakes	$ 3,090.00

MHEC B14 Discount for all playground equipment and edging
(please delete) $- 4,197.35
Freight $ 3,600.00

Surfacing for Both Playground Areas
254 cu/yd of Engineened Wood Fiber Surfacing at 12" depth after compaction $8,191.00
(includes MHEC B14 discount)

Installlation Option #1 for Both Playground Areas
Excavate and Installation of Play Equipment

1. Receive, inventory and deliver equipment to the site.
2. Excavate existing play areas 1' deep and legally dispose of material.
3. Lay out and install 117 TuffTimbers.
4. Lay out and install play equipment.
5. Install 254 cubic yards of wood fiber – 124 yards in 5-12 year area and 130 in the 2-5 year area.

TOTAL FOR INSTALLATION
(USING PREVAILING WAGE RATE): $40,700.00

COPY

Installation Option #2 for Both Playground Areas
Installation of Play Equipment through Pea Stone

1. Receive, inventory and deliver equipment to the site.
2. Lay out and install 117 TuffTimbers – top of timber to be 1' above the existing grade. No excavation of existing site.
3. Lay out and install a handicap accessible walk from the existing walk to the play structures using Poured-in-Place Rubber.
    a. Lay out walk.
    b. Supply and install dense grade c-run, fine graded and compacted.
    c. Supply and Install 125 square feet (including beveled edges) of 2 ½" of Poured-in-Place Rubber.
4. Install 254 cubic yards of wood fiber – 124 yards in the 5-12 year area and 130 yards in the 2-5 year area.

TOTAL FOR INSTALLATION (USING PREVAILING WAGE RATE): $37,430.00

Add On Option #1:

1. Remove and dispose of the existing play equipment including concrete footings.

- This does not include railroad ties.

TOTAL COST OF OPTION #1 (USING PREVAILING WAGE RATE): $ 1,800.00

Add On Option #2:

1. Remove the existing railroad ties and stockpile adjacent to the site for the town to load, haul and dispose.

- Stockpiled railroad ties are the responsibility and liability of the owner.

TOTAL COST OF OPTION #2 (USING PREVAILING WAGE RATE): $ 2,100.00

Notes:

- All play equipment (including concrete footings) and railroad ties to be removed and disposed of by others prior to installer's arrival.
- This proposal does not include re-setting any of the existing brick walkway. That would be an additional charge.
- Owner to provide security during the cure time of Poured-in-Place Rubber.

****PLEASE READ – IMPORTANT NOTES – PLEASE READ****

- **Contractor/Customer is responsible for quantity, color, and product confirmation.**
- **Prices based on quantities listed. Any change to quantities may impact prices quoted.**
- **M.E. O'Brien & Sons is NOT responsible for plan take-offs. All quantities, square footages, thicknesses, etc. are the responsibility of the purchaser. Confirm and double check quantities quoted. It is the responsibility of the purchaser to approve/purchase items "per plan".**
- **Prices quoted are firm for 30 days only and are subject to review thereafter.**
- **Prices are for materials only unless otherwise noted.**
- **If installation is included, M.E. O'Brien & Sons is NOT responsible for buried underground hazards including, but not limited to: ledge, unsuitable bearing soils, unmarked utilities, boulders, construction debris and any other conditions beyond our control. Additional cost will be required to rectify these situations.**
- **Prices do NOT include cost for electrical cut outs or staining of tongue and groove roof decking unless otherwise noted.**
- **Standard manufacturer's design, colors, specifications, and construction apply.**
- **If ordered, inspect entire delivery carefully, making note on delivery receipt of ANY damage so a freight claim can be filed if damage is discovered after opening package(s).**
- **Retainage does not apply.**
- **Returns must be made within 30 calendar days of receipt of order. Customer is responsible for re-stocking fee plus shipping charges (to and from) for all returned items.**
- **Our terms are: to be arranged – 1st order requires 50% deposit and execution of credit application.**
- **Allow 4 to 6 weeks for delivery of materials after receipt of order and architectural approval, if required.**

POURED-IN-PLACE NOTES:

- **If 100% color or 50% color/50% black is quoted, red will be an additional charge.**
- **Does not include aliphatic binder (yellow inhibitor) necessary with the following colors: dark & light gray, blue, teal and pearl.**
- **If installation is included please note the following:**
  Prevailing wages are included if Surface America is performing the installation. Installation is to take place over a prepared sub-base by others. Installation lead-time is to be determined and is weather dependent. Site security is the responsibility of the owner/contractor until product is cured.
- **Owner/Contractor is responsible for quantity confirmation. Any changes to quantity may impact price quoted.**

If we can be of further assistance please do not hesitate to contact us. Thank you!

Capital Improvement Program Proposal – Detail

Department Name	**Natural Resources**	***Project***	**T.J. O'Grady Skate Park Expansion – Phase 2, Skate Plaza**
		Fiscal Year	**2017**
Department Head	**Tom Tidman**	***Cost***	**$175,000**
		Priority	**5** *of* **7**

1. Description

Construction of Skate Plaza, designed by Action Sports Design - ASD/Stantec. Phase 2 converts the barren 100' x 100' area remaining after the removal of the original Skate Park parking lot to support the Lower Fields synthetic turf field installation. Provides an attractive formal entrance, viewing area for onlookers and handicap accessible park amenities for Lower Fields patrons. Features a world-class triangular skating course around a bio-retention area.

2. Useful Life 25 years

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

Schedule Replacement

X ***New or Expanded Service***

Other (Please Explain)

Increase Personnel Efficiency

Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)

4. Justification:

The Town of Acton donated their Skate Park parking lot and admitted an active driveway through their skate facility to benefit the Lower Fields project. The skating community is excited that they too will now benefit by having ASD/Stantec, the designers of the Charles River Skate Park, add exciting new features to T.J. O'Grady Skate Park.

5. How Was this Project's Priority Determined?

The Skate Bowl installation is scheduled for summer 2016. This project completes the full expansion of the Skate Park, as designed by ASD/Stantec, a $15,000 design paid for with Recreation funds.

6. Estimated Cost ***$175,000***

Less Trade-In (If Applicable)

Net Cost ***$175,000***

7. Are Non-Town Revenues Available to Reduce Cost?

Boxborough Recreation Commission is applying for a $40,000 CPA grant to contribute toward the project.

8. If this Project is Delayed, What will be the Effect on your Department?

Incomplete town skateboarding facility next to ABRHS & FOLF's cutting edge Lower Fields facility. This upgrade will bring our Skate Park in keeping with the appearance of the Lower Fields, which shares the parking area with the Skate Park.

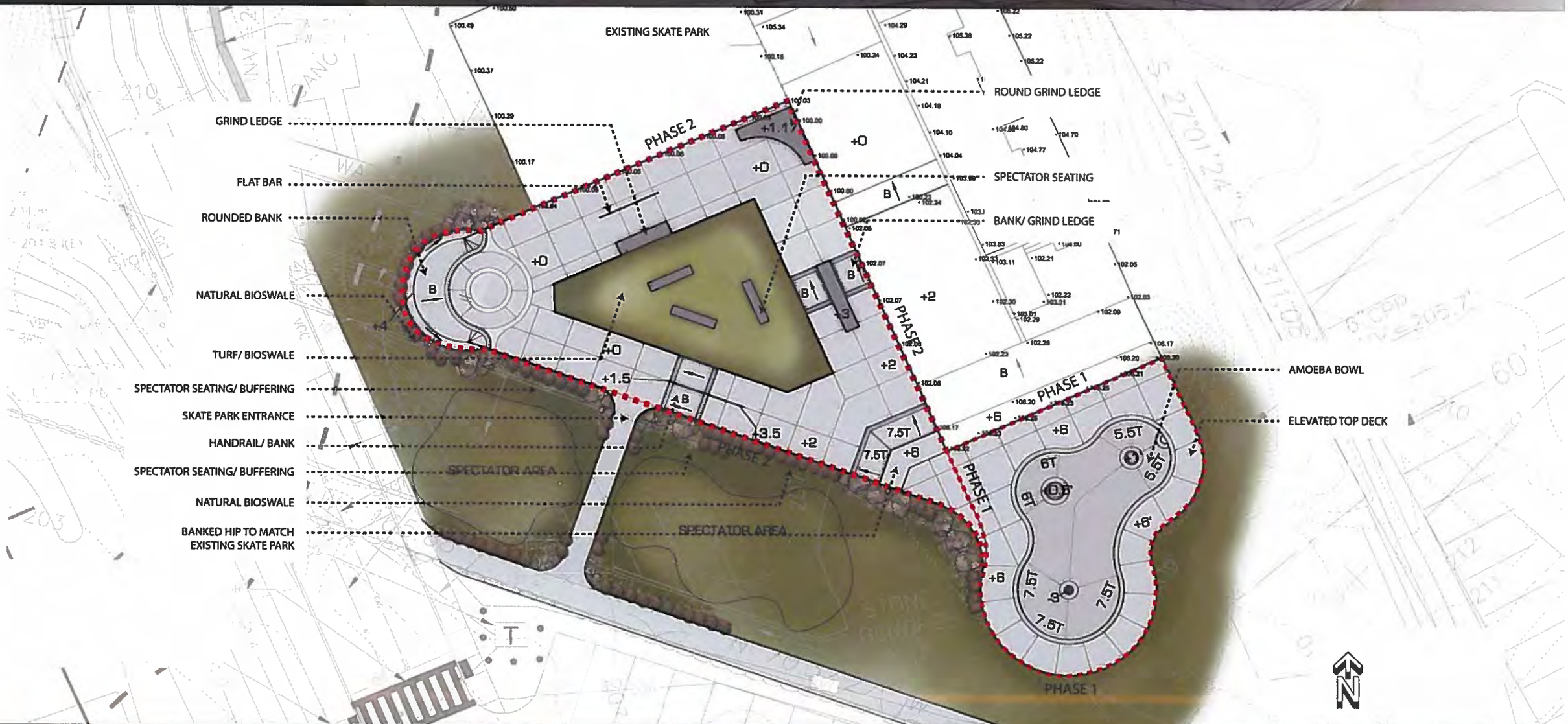
9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget	***Expense Budget***
Increase	**Increase X**
Decrease	Decrease

10. Attachments, if Applicable. *Conceptual Design and Construction Quotations from ASD/Stantec.*

T.J. O'GRADY SKATE PARK EXPANSION
TOWN OF ACTON, MA

PLAN VIEW RENDER



Stantec
226 Causeway Street | Boston, MA 02114
(ph) 858.633.4233 | (cell) 760.815.9335

Capital Improvement Program Proposal – Detail

Department Name	**Natural Resources**	***Project***	**NARA Rail Trail Comfort Station**
		Fiscal Year	**2017**
Department Head	**Tom Tidman**	***Cost***	**$487,500.00 (Placeholder)**
		Priority	**6** *of* **7**

1. Description

Construction of Bathroom/Concession building, designed by Office of Michael Rosenfeld and utilizing a donated modular house from Redmond Corp. This building will serve users of the Bruce Freeman Rail Trail, providing refreshments and bathroom facilities, plus office space for Recreation and NARA staff. It will be located opposite the bathhouse building, off the lower parking lot.

2. Useful Life 50 years

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

Schedule Replacement

X ***New or Expanded Service***

Other (Please Explain)

Increase Personnel Efficiency

Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)

4. Justification:

The Town of Acton must prepare to serve users of the Bruce Freeman Rail Trail with expanded facilities. It is expected that 1,000 users per day will be entering NARA Park when the rail trail opens in 2017. There are no facilities available on the current rail trail route and NARA will be where they stop to park and/or to take a break.

5. How Was this Project's Priority Determined?

6. Estimated Cost ***$487,500.00***

Less Trade-In (If Applicable)

Net Cost ***$487,500.00***

7. Are Non-Town Revenues Available to Reduce Cost?

Modular house donation from Redmond Corp.

8. If this Project is Delayed, What will be the Effect on your Department?

The Town of Acton will be unable to support the heavy volume of users at their bathhouse bathroom facility.

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget	***Expense Budget***
Increase	**Increase X**
Decrease	Decrease

10. Attachments, if Applicable. *Conceptual Design and Construction Quotations from OMR pending.*

Capital Improvement Program Proposal – Detail

Department Name	**Natural Resources**	***Project***	**Miracle Field Comfort Station**
		Fiscal Year	**2017**
Department Head	**Tom Tidman**	***Cost***	**$652,327.00**
		Priority	**7** *of* **8**

1. Description

Construction of Bathroom/Concession building, designed by Office of Michael Rosenfeld and utilizing TWO donated modular houses from Redmond Corp. This building will serve users of the sports fields by providing refreshments and bathroom facilities, plus office space for Recreation and NARA staff. A family bathroom will be designed to accommodate an adult changing table. It will be located opposite the playing fields and next to the Miracle Field, on a corner of the upper parking lot.

2. Useful Life 50 years

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

	Schedule Replacement	*Increase Personnel Efficiency*
X	***New or Expanded Service***	*Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)*
	Other (Please Explain)	

4. Justification:

There are no bathroom facilities available in the upper park. The NARA Master Plan survey indicates that more bathroom facilities are required.

5. How Was this Project's Priority Determined?

Public demand.

6. Estimated Cost ***$652,327.00***

Less Trade-In (If Applicable)

Net Cost ***$652,327.00***

7. Are Non-Town Revenues Available to Reduce Cost?

Two Modular house donations from Redmond Corp.

8. If this Project is Delayed, What will be the Effect on your Department?

The Miracle League and playing field users will have to continue using inadequate portable toilet facilities.

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget	***Expense Budget***
Increase	**Increase X**
Decrease	Decrease

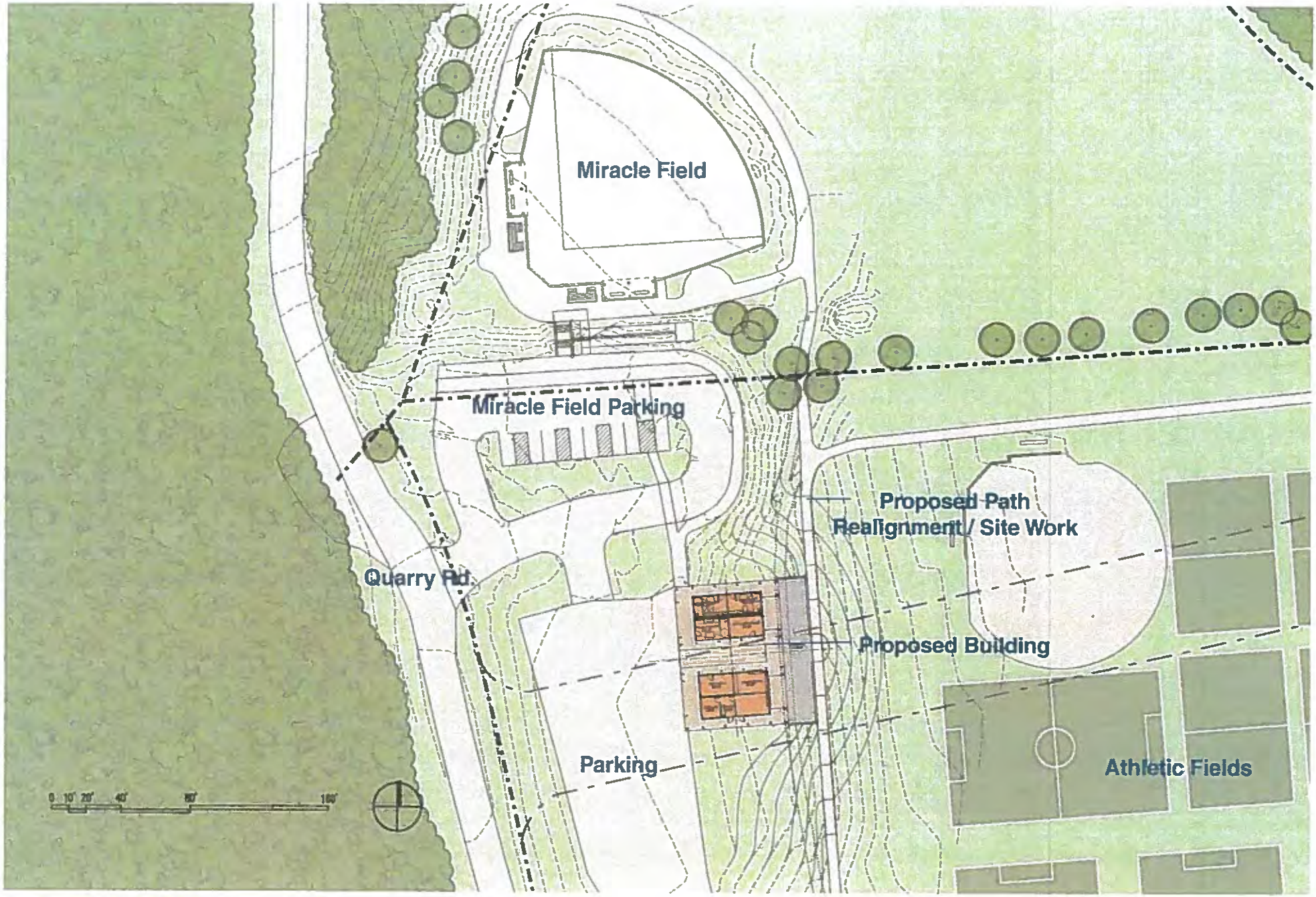
10. Attachments, if Applicable. *Conceptual Design and Cost Estimate from OMR.*

NARA Park
Miracle Field Concession Stand
Modular Study (Progress)

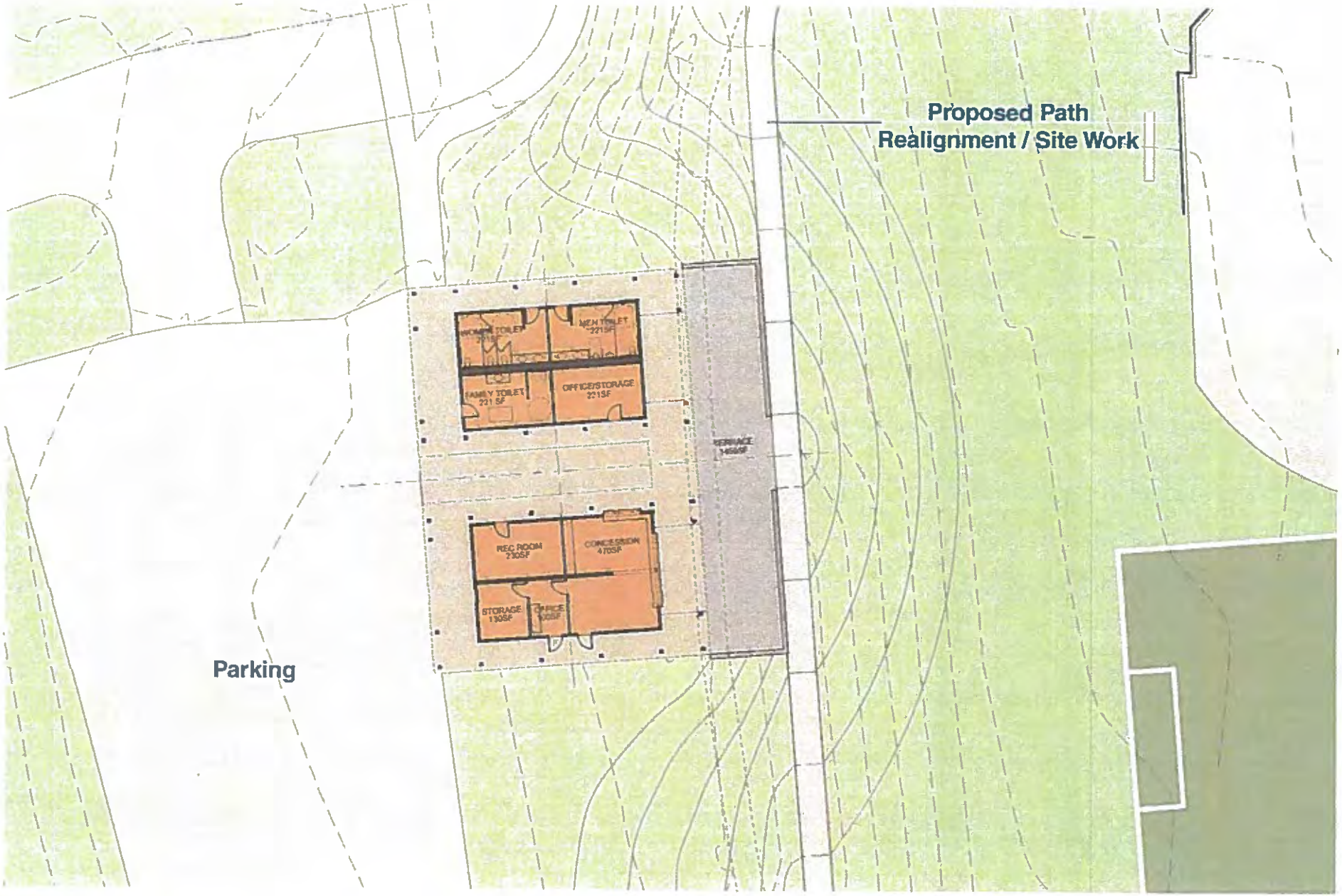
September 10, 2015

omr architects

Site Location



Conceptual Plan



Preliminary Sketches

Preliminary Sketches

NARA Park Miracle Field
Concession Stand
Acton, MA

Conceptual Cost Estimate

Prepared for:
omr architects
Acton, MA

Prepared by:
D G Jones International, Inc.
3 Baldwin Green Common, #202
Woburn, MA 01801
email : boston@dgjonesboston.com
Tel: 781-932-3131
Fax: 781-932-3199

September 18, 2015

SUMMARY

	Gross Floor Area (sf) =	2,052	
		Element ($)	$/sf
A Substructure		71,032	34.62
A10 Foundations		71,032	34.62
A20 Basement Construction		0	0.00
B Shell		151,446	73.80
B10 Superstructure		62,309	30.37
B20 Exterior Enclosure		46,911	22.86
B30 Roofing		42,226	20.58
C Interiors		49,341	24.05
C10 Interior Construction		30,870	15.04
C20 Stairs		0	0.00
C30 Interior Finishes		18,471	9.00
D Services		85,525	41.68
D10 Conveying Systems		0	0.00
D20 Plumbing		57,122	27.84
D30 HVAC		5,006	2.44
D40 Fire Protection Systems		0	0.00
D 50 Electrical Systems		23,397	11.40
E Equipment and Furnishings		10,430	5.08
E10 Equipment		0	0.00
E 20 Furnishings		10,430	5.08
F Special Construction and Demolition		30,106	14.67
F10 Special Construction		12,180	5.94
F20 Selective/Building Demolition		17,926	8.74
F20 Asbestos Abatement		0	0.00
Sub Total Building Cost		**397,880**	**193.90**
G Building Sitework		109,234	53.23
G10 Site Preparation		52,494	25.58
G20 Site Improvements		51,515	25.10
G30 Site Civil/Mechanical Utilities		Excluded	0.00
G40 Site Electrical Utilities (Site lighting only)		3,225	1.57
G90 Other Site Construction		2,000	0.97
Sub Total Construction		**507,114**	**247.13**
General Conditions/Requirements	10.00%	50,711	24.71
Escalation to mid point of construction 4Q2016	6.31%	35,199	17.15
Estimating Contingency	10.00%	59,302	28.90
Building Permit Fee		Excluded	
Construction Contingency		Excluded	
Total Cost		**652,327**	**317.90**
Add Alternate #1 - Patio and Stone Wall		174,336	84.96
Add Alternate #2 - Lawn, Trees and Shrubbery		38,542	18.78
Total Cost w/Add Alternates		**865,206**	**421.64**

Notes

1. Brief project description:-
   - New concessions stand with associated site work and site utilities.

2. The estimate is based on the following:-
   - Prevailing wage.
   - General Contractor type project.
   - Receipt of 4# bona fide bids.
   - Bid date - 3Q2016.
   - Construction period - 8 months

3. The gross floor areas are based on the following:-
   - Measurement is taken to the outside face of the exterior wall, measured through all stair wells, elevator shafts and ducts.

4. Story heights:-
   - Varies.

5. General Conditions/Requirements are priced as a percentage on the Summary page.

6. Special Conditions for this project are included with General Conditions/Requirements.

7. Escalation to mid point of construction (4Q2016) is compounded per annum at the following:-
   - All years at 5%
   - Note: Escalation is taken on the sum of Sub Total Construction cost, General Requirements/Special Conditions.

8. Estimating Contingency is an allowance for future design modifications/additions, which alter the cost of the building as the design progresses, this percentage reduces as the design develops. It is based on a percentage of the sum of Sub-Total Construction, General Requirements/ Special Conditions and Escalation. For this level of estimate the following has been included:-
   - 10.00%

9. Construction Contingency is an allowance for scope/design modifications made by the owner during construction and also for any unforeseen circumstances. It is based on a percentage of the sum of Sub-Total Construction, General Requirements/Special Conditions, Escalation and Design Contingency. For this level of estimate the following has been included:-
   - 0.00%

Notes (Cont'd)

10. This estimate has been prepared from the following design information:-
    - Drawings received 09/11/2015.
    - Emails from omr architects
    - Telecons with omr architects

11. The estimate includes the following:-
    - See estimate

12. The estimate excludes the following:-
    - Civil/Mechanical Utilities.
    - Electrical Utilities.
    - Excavation in rock.
    - Removal of water during excavation work.
    - Owner's appliances.
    - Utility company backcharges.
    - Sales tax.
    - Building permit fees.
    - Design consultants fees.
    - Loose furniture, fittings and equipment.
    - Fixed furniture, fittings and equipment except work normally included in GC work.
    - Third-party building Commissioning.

13. Allowances:-
    - Estimate is based on allowances at this stage of the design.

14. Assumptions:-
    - To arrive at a $/sf cost reasonable assumptions have been made.

15. Estimates by other firms:-
    - None.

A Substructure

A10 Foundations	Qty	Rate	$
Excavation (sog/found footing/column footing)	374	25.00	9,350
RC rat slab	2,052	7.00	14,364
RC perimeter footing	19	700.00	13,300
RC perimeter found wall	24	775.00	18,600
RC column footing	6	825.00	4,950
RC stub column	1	885.00	885
Base plate to ditto	6	195.00	1,170
Insulation/damproofing	1,048	3.30	3,458
Connect modular units to found wall	262	6.00	1,572
Misc.		5.00%	3,382
A10 Foundations		**Total**	**71,032**

B Shell

B10 Superstructure	Qty	Rate	$
Wood column w/base plate	38	325.00	12,350
Wood porches complete	3,052	14.00	42,728
EO for raised open clerestory	533	8.00	4,264
Misc.		5.00%	2,967
B10 Superstructure		**Total**	**62,309**

B20 Exterior Enclosure	Qty	Rate	$
Replace siding to modular units w/wood siding	2,634	10.95	28,842
Roller shutter at concessions	97	55.00	5,335
SL door w/frame, hardware, paint, etc	7	1,500.00	10,500
Misc.		5.00%	2,234
B20 Exterior Enclosure		**Total**	**46,911**

B30 Roofing	Qty	Rate	$
Replace roofing to modular units w/metal roofing - pitched	2,360	13.75	32,447
Gutters/downspouts	279	15.00	4,185
Detail (ridge, eaves, gable)	351	5.00	1,755
Misc.		10.00%	3,839
B30 Roofing		**Total**	**42,226**

C Interiors

C10 Interior Construction	Qty	Rate	$
SL door w/frame, hardware, paint, etc	2	1,280.00	2,560
Partitions	554	8.50	4,709
Fire rated, wet partitions, etc	617	12.50	7,713
Access doors, allow	1	500.00	500
Marker boards, etc	1	500.00	500
Signage	1	1,625.00	1,625
Toilet & Bath Accessories	3	1,660.00	4,980
Toilet partitions	2	1,025.00	2,050
Toilet partitions, handicap	2	1,355.00	2,710
Urinal screen	2	415.00	830
Coat hanging rail & shelf	12	45.00	540
Misc.		7.50%	2,154
C10 Interior Construction		**Total**	**30,870**

C30 Interior Finishes	Qty	Rate	$
Floors, patch	2,052	2.50	5,130
Base	522	5.00	2,610
Walls	4,699	1.25	5,874
Ceilings, patch	2,052	2.25	4,617
Bulkheads, etc	20	12.00	240
C30 Interior Finishes		**Total**	**18,471**

D Services

D20 Plumbing	Qty	Rate	$
WC	5	3,450.00	17,250
Lavatory, counter mounted	5	3,350.00	16,750
Urinal	2	3,175.00	6,350
Drinking fountain	1	3,150.00	3,150
Janitor's sink	1	3,650.00	3,650
Floor drains, hydrants, clean outs, etc	1	1,200.00	1,200
Water heater	1	3,000.00	3,000
General		3.00%	1,541
BWIC & GC's O&P		8.00%	4,231
D20 Plumbing		**Total**	**57,122**

D30 HVAC	Qty	Rate	$
Heating only, assumed electric baseboard	36	125.00	4,500
General		3.00%	135
BWIC & GC's O&P		8.00%	371
D30 HVAC		**Total**	**5,006**

D 50 Electrical Systems			$
Equipment			2,052
Feeders			1,026
Small Power			3,078
Lighting			13,338
Fire Alarm			1,539
General incl lightning			631
BWIC & GC's O&P			1,733
D 50 Electrical Systems		**Total**	**23,397**

E Equipment and Furnishings

E10 Equipment			$
Appliances - By Owner			0
E10 Equipment		**Total**	**0**

E 20 Furnishings	Qty	Rate	$
Casework:-			
Counter at concessions	30	200.00	6,000
Lavatory counter	23	160.00	3,680
Miscellaneous	1	750.00	750
E 20 Furnishings		**Total**	**10,430**

F Special Construction and Demolition

F10 Special Construction	Qty	Rate	$
Transport modular unit to site & secure to foundations	2	6,090.00	12,180
F10 Special Construction		**Total**	**12,180**

F20 Selective/Building Demolition	Qty	Rate	$
Demolish interior construction to modular units	2,052	2.25	4,617
Demolish plumbing fixture	6	160.00	960
Infill interior sl door opening	8	126.00	1,008
Form opening in exterior wall of modular unit & make good			
sl door	7	431.00	3,017
Concession roller shutter, 8' x 4'	3	658.00	1,974
Remove exterior window & infill	18	204.00	3,672
Remove exterior sl door & infill	4	357.00	1,428
Remove rubbish off site	1	1,250.00	1,250
F20 Selective/Building Demolition		**Total**	**17,926**

F20 Asbestos Abatement			
Not required		**Total**	**0**

G Building Sitework

G10 Site Preparation	Qty	Rate	$
Site clearing (grubbing)	1	10,500.00	10,500
Earthwork	1	22,222.22	22,222
Grading	30,000	0.50	15,000
Misc.		10.00%	4,772
G10 Site Preparation		**Total**	**52,494**

G20 Site Improvements	Qty	Rate	$
Colored concrete paving	2,816	7.00	19,712
Paths (asphalt)	4,200	5.00	21,000
Curbs, signage, line markings, etc	1	500.00	500
Misc.		25.00%	10,303
G20 Site Improvements		**Total**	**51,515**

G30 Site Civil/Mechanical Utilities	Qty	Rate	$
Water			Excluded
Fire			Excluded
Sanitary			Excluded
Storm			Excluded
Gas			Excluded
Misc.		7.50%	0
G30 Site Civil/Mechanical Utilities		**Total**	Excluded

G40 Site Electrical Utilities (Site lighting only)	Qty	Rate	$
Electrical			Excluded
Lighting	1	3,000.00	3,000
Misc.		7.50%	225
G40 Site Electrical Utilities (Site lighting only)		**Total**	**3,225**

G90 Other Site Construction	Qty	Rate	$
Allow	1.00	2,000.00	2,000
G90 Other Site Construction		**Total**	**2,000**

Capital Improvement Program Proposal – Detail

Department Name	**Natural Resources**	***Project***	**Personnel – Recreation Business and Project Manager**
		Fiscal Year	**2017**
Department Head	**Tom Tidman**	***Cost***	**$55,327.00**
		Priority	**8** *of* **8**

1. Description

Administrative and financial duties assisting the Director of Recreation and the Recreation staff with the daily financial and business oversight of the department; performs a wide range of complex administrative and financial duties that require knowledge of recreation practices, procedures, project management and budgets.

2. Useful Life 30 years

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

	Schedule Replacement	*Increase Personnel Efficiency*
X	***New or Expanded Service***	*Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)*
	Other (Please Explain)	

4. Justification:

With the advent of the Bruce Freeman Rail Trail, an astute Business and Project Manager will assist with formulating "the next level" of park oversight, infrastructure and financial opportunity.

5. How Was this Project's Priority Determined?

Need for carefully planned Park growth and oversight.

6. Estimated Cost ***$55,327.00***

Less Trade-In (If Applicable)

Net Cost ***$55,327.00***

7. Are Non-Town Revenues Available to Reduce Cost?

No.

8. If this Project is Delayed, What will be the Effect on your Department?

Missed opportunity to bring NARA Park to the next level with an individual dedicated to studying the best approaches to achieve success.

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget	***Expense Budget***
Increase	**Increase X**
Decrease	Decrease

10. Attachments, if Applicable. *Job Description pending.*

FY 17 Capital Request Form

Department Name	**PLANNING**	***Project***	**Kelley's Corner Improvement Initiative – 100% Infrastructure Design (MassDOT Standards)**
		Fiscal Year	**2017**
Department Head	**Roland Bartl**	***Cost***	**$ 756,000**
		Priority	**1** *of* **4**

1. Description

The *Kelley's Corner Improvement Initiative 100% Infrastructure Design* capital request will fund all remaining engineering design phases for the intersection at Massachusetts Avenue and Main Street extending outward. See attached preliminary plan (Attachment 2). This will bring the engineering design for the entire project to "MassDOT 100% Design Phase." This level of design includes permitting and construction ready documents which meet the Boston Metropolitan Planning Organization's Transportation Improvement Program (TIP) standards for funding.

2. Useful Life Permanent

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

	Schedule Replacement	***Increase Personnel Efficiency***
X	***New or Expanded Service***	***Replace Obsolete or Unsafe Equipment***
	Other (Please Explain)	***(Explain Disposal of Old Equipment)***

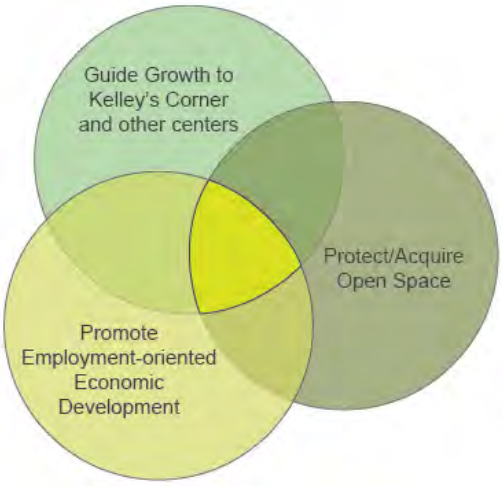
4. Justification

After extensive public outreach and an engineering study of the infrastructure needs through the Kelley's Corner Improvement Initiative, the construction project which was originally estimated to cost $3 million is now estimated at $9-$12 million. (See Attachment 1, 2 and 6). The project is no longer eligible for MassWorks grants alone—additional construction funding sources will be necessary. As such, the preparation of completed construction drawings should precede the state construction funding applications as a way to improve the projects competiveness. A completed design will better position portions of the project for MassWorks grant and render the entire project eligible for the Transportation Improvement Program (TIP). Therefore, to successfully move the project forward, the Town should invest in the design phase by completing a "100% MassDOT Design." (See Attachment 3). A completed infrastructure plan will allow the Town to make decisions on construction funding for the project which could be divided into components or phases.

It was originally projected that the MassWorks grant, if successfully secured, could also fund the remaining design phase. The extent and cost of the project has grown due to infrastructure needs identified through the planning process and is no longer expected to assist with design costs.

5. How Was this Project's Priority Determined?

Town Meeting adopted the Acton 2020 Comprehensive Community Plan in April 2012. At the hub of Acton 2020 is the Roadmap for Guiding Growth with the following three basic implementation principles (see https://doc.acton-ma.gov/dsweb/Get/Document-35918/ExecutiveSummary.pdf):



The Roadmap for Guiding Growth promotes town centers and employment-oriented economic development in appropriate locations. It encourages future residential development to shift from large lot subdivisions in the Town's remaining open spaces to more compact configurations with smaller dwelling units in and near the town centers. Town centers and compact residential neighborhoods require fewer infrastructure per building unit, and less of it to maintain. Greater proximity between residences, shops, and workplaces means more walking and biking, and fewer miles traveled by car. Town centers and compact development patterns make public transit more viable and practical. Smaller dwelling units have been shown to have fewer school-age children. The result is a Town with greater environmental and financial resilience and sustainability.

Furthermore, the Acton 2020 Plan lists action items by priority and timing. "Concentrate Town Investments in Kelley's Corner" is categorized as a "highest" priority to be completed by 2020. The plan identifies investments which specifically include: sidewalks, landscape and streetscape improvements and traffic calming in Kelley's Corner to make it more pedestrian friendly and to serve as a gateway to the community. The 'Kelley's Corner Improvement Initiative 100% Design Infrastructure Plan' capital request is the next step to realizing this highest priority action item.

Kelley's Corner has been studied since the 1970s in hopes of making improvements to the area—it is not a surprise that the desire to improve Kelley's Corner rose to the top of the priority list once again. The last Kelley's Corner Circulation Plan, 1997 and revised 2001 aimed to maintain reasonable vehicular capacities while emphasizing pedestrian circulation and amenities to foster an "urban village." Although consideration was given for sidewalk expansion, this plan proposed the widening Route 27 and Route 111 to accommodate four-lane vehicular cross sections extending out to major access points (School Campus and Route 2 interchanges). The past attempt to address congestion within Kelley's Corner resulted in infrastructure proposals which greatly enhanced roadway capacity at the expense of the pedestrian scale environment. As a result this proposal was rejected by the community, sentiments which we continued to hear through this public outreach phase. A strong community desire to continue working towards an accepted design has brought us to where we are in the current improvement initiative.

The Kelley's Corner Improvement Initiative infrastructure recommendations address not only capacity, but also access, accessibility, pedestrian and bicycle needs and aesthetics. This comprehensive initiative will enhance the functionality and vibrancy of Kelley's Corner for existing users and establishes the foundation upon which future development can occur in line

with the Town's goals of establishing a walkable town center. The current plan has taken into account failed attempts of the past and provides techniques to handle frustrations and desires of the community. With the feedback from the community at various public workshops online surveys and public meetings the Kelley's Corner Steering Committee feels strongly that this plan is the right plan.

The entire Kelley's Corner Improvement Initiative plan is designed to create a framework that promotes economic development and generates a vibrant mixed use walkable center. The infrastructure improvement plan is one of the two main components of the overall Kelley's Corner Improvement Initiative; zoning changes, also to be considered at the April 2016 Annual Town Meeting, is the other main component. The Infrastructure Improvement Plan not only addresses the needs of today but also augments and supports the redevelopment goals behind the proposed zoning changes. The Acton 2020 plan directs the Town to "Promote economic development that supports other Acton 2020 planning goals". The Kelley's Corner infrastructure improvements combined with the proposed zoning framework will attract redevelopment and retain existing businesses and property owners. Town investments in transportation and streetscape infrastructure can be a strong catalyst for private property investments. Time and again we have heard this statement; we are now seeing this first hand with Stop and Shop coming to the table to discuss preliminary redevelopment options at the Kmart site in light of the Kelley's Corner Improvement Initiative.

This project implements major components of the Acton 2020 Plan and would be the first Complete Streets project in line with the Town's nationally recognized Complete Streets Policy. Massachusetts Department of Transportation has also adopted a new policy to incorporate Complete Streets for new construction on State owned roadway which will come into play on Massachusetts Avenue. In addition, the Kelley's Corner Plan accommodates a future local and/or regional transit stop. The Town recently signed a Community Compact with the Baker-Polito Administration for best practices in Regional Transportation. This compact helps elevate the Town when applying for state grant programs under the new Administration such as MassWorks and the TIP. Components of the Kelley's Corner Improvement Initiative respond directly to Statewide policies which position the Town for funding assistance.

Momentum for improvements in Kelley's Corner has come to a precipice – now is the time for implementation.

6. Estimated Cost **$ 756,000 (20% contingency)**
Less Trade-In (If applicable) **$ 0**
Net Cost **$ 756,000**

This number is based on professional engineering estimates by Greenman Pederson Inc., who is currently contracted on the project. To bring the current design plans (10%) to the next design phase (25%) it will cost $318,000 (includes 20% contingency). Please see attached cost estimate (Attachment 4b) breakdown based on "MassDOT Standardized Scope of Services Guidance for Preparing Work Hour Estimate Forms" prepared by our consultants. To take the 25% design plan to a final engineering design that is ready to put out to bid for construction it would cost an estimated additional +/-$438,000 (estimated by GPI, includes 20% contingency).

7. Are Non-Town Revenues Available to Reduce Cost?

Not at this time.

8. If this Project is Delayed, What will be the Effect on your Department?

Unable to effectively work towards Acton 2020 Plan implementation.

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget	***Expense Budget***
Increase	Increase
Decrease	Decrease

No measurable effect expected. This project will be a major focus of the Planning Department's attend, time, and resources.

10. Attachments, if Applicable.

Attachment 1: Kelley's Corner Infrastructure Improvements dated, 9/4/12 (Basis for the original cost estimate)

Attachment 2: Kelley's Corner Improvement Initiative: Preliminary Illustrative Streetscape Concept dated, 3/12/15

Attachment 3: "MassDOT Standardized Scope of Services Guidance for Preparing Work Hour Estimate Forms"

Attachment 4a: Kelley's Corner Design and Construction Phase Cost Breakdown

Attachment 4b: Kelley's Corner 25% Design Phase Cost Breakdown

Attachment 5: Potential Construction Funding Sources (**Does not include right of way acquisition and soft costs such as: on site construction engineering, additional permit fees, legal assistance.)

Attachment 6: 2012 Concept Plan vs. 2015 Preliminary Plan

FY 17 Capital Request Form

Department Name	**PLANNING**	***Project***	**Zoning Bylaw Re-Codification**
		Fiscal Year	**2017**
Department Head	**Roland Bartl**	***Cost***	**$ 80,000.00**
		Priority	**2** *of* **4**

1. Description

Re-codification of the Zoning Bylaw means restructuring, reorganization, clarification, simplification and illustration with an effort to minimize resulting changes to the meaning and effect of the Bylaw; although such changes cannot be entirely avoided. Necessary corrections and updates in response to more recent changes in State law and case law would also be included. This work would be done with Town Counsel as the primary "consultant".

The final product will be a vastly more user-friendly zoning bylaw book. It will also include three additional enhancements:

1. An electronic version with hyperlinks to cross references, statutes, case law and annotations.
2. A zoning primer for residents.
3. A zoning primer for businesses.

The enhancements will require additional annual maintenance efforts to ensure that they remain up to date with subsequent bylaw changes, that all hyperlinks still work, and that Statute and case law references are still valid and relevant.

2. Useful Life ±30 years

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

Schedule Replacement

New or Expanded Service

X Other (Please Explain)

Service improvement

Increase Personnel Efficiency

Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)

4. Justification

1984 was the last time that a re-codification was done. Since then, the Zoning Bylaw has been amended each year. Very little of the 1984 content remains unchanged, and the volume has more than doubled. All this is crammed into the 1984 bylaw structure. The result is an unwieldy document that is hard to read and understand for the users – Town staff, Boards, residents, businesses, developers, etc. Important sections and modifiers are in unrelated places and can be missed easily. The goal is that, for example, a business owner will find everything he/she needs to know about zoning for a prospective location in one place, without having to worry about missing some other outside sections that only a person familiar with Acton zoning bylaw may know exists (but might also miss).

5. How Was this Project's Priority Determined?

Acton's Zoning Bylaw must be re-codified in order to become a legal document that staff and outside users can easily work with in less time and without missing key information.

6. Estimated Cost **$ 80,000.00**

Less Trade-In (If applicable) **$ 0**

Net Cost **$ 80,000.00**

Based on preliminary discussions with Town Counsel on scope and budget.

7. Are Non-Town Revenues Available to Reduce Cost?

Still Town revenues – but the project might also be funded from the regular Town Counsel budget (if adjusted accordingly), as opposed to a separate capital project item.

8. If this Project is Delayed, What will be the Effect on your Department?

As time goes on, and more zoning amendments occur, it will become more and more difficult and time consuming to understand the zoning bylaw; and outside and in-house user frustration will continue and grow. In the extreme, oversights and misinterpretations could lead to errors in outcome and potential litigation.

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget	***Expense Budget***
Increase	Increase
Decrease	Decrease

No measurable effect expected.

10. Attachments, if Applicable.

FY 17 Capital Request Form

Department Name	**PLANNING**	***Project***	**LED Public Message Sign**		
		Fiscal Year	**2017**		
Department Head	**Roland Bartl**	***Cost***	**$ 60,000**		
		Priority	**3**	*of*	**4**

1. Description

The Planning Department is proposing the purchase and construction of an LED sign for public messages. The Town of Acton would manage the sign and conduct maintenance if needed. The possible locations could be the Town Green, Public Safety Facility, Town Hall, NARA Park, Acton Memorial Library, Transfer Station, and the West Acton square. The proposed LED sign structure would contain the LED sign, the framing that holds it together and the electrical components that are needed to run the sign. Depending on the sign company that is selected, the sign message can be controlled with a provided laptop that has all of the necessary software on it. The laptop would provide the ability to change the message remotely from the town hall.

2. Useful Life 10-15 years

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

	Schedule Replacement	***Increase Personnel Efficiency***
X	***New or Expanded Service***	***Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)***
	Other (Please Explain)	

4. Justification

There is a large number of illegal commercial and non-profit signs in the Town's right of way. The purpose of the request is to reduce the amount of illegal signs and to concentrate them onto one sign that the Town can manage. Currently, different Town employees attempt to address the problem of illegal signage by removing those in the Town's right of way as time allows. The proposal would hopefully reduce illegal signs by locating the town affiliated sign messages in one central location.

5. How Was this Project's Priority Determined?

Sign clutter along Acton's streets is a persistent problem. The Town and Town affiliated organizations contribute to it. With this proposal, the Town can set a good example to reduce the sign clutter.

6. Estimated Cost	**$ 60,000**
Less Trade-In (If applicable)	**$ 0**
Net Cost	**$ 60,000**

$60,000 is an approximation of how much one LED sign would cost including the manufacturing of the sign, the sign structure materials, construction cost, and estimated amount of money for electricity to run the sign.

7. Are Non-Town Revenues Available to Reduce Cost?

Not at this time.

8. If this Project is Delayed, What will be the Effect on your Department?

Unable to keep up with roadside the signage. It would likely be brought up for attention again next year. No significant effect.

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget	***Expense Budget***
Increase	Increase
Decrease	Decrease

Whether the Planning Office or another agency were to operate the sign, additional work would be required for scheduling, updating, and operating. There would be occasional software upgrades needed.

10. Added Considerations

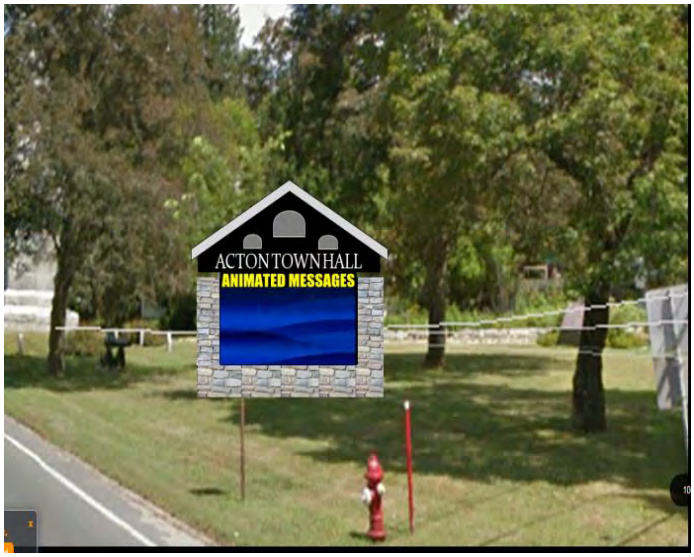
The first consideration for this project would be which organizations could advertise on the message sign: Town, other governmental organizations, public schools, other educational entities, or Town affiliated organizations. For anything other than Town messages, the Board of Selectmen would need to establish a clear policy for who could use the message sign.

The second consideration is that the LED sign would conform to the existing freestanding sign requirements of the ZBL as much as possible. Under Acton's zoning, "SIGNS that change or rearrange characters or letters or illustrations, except as specifically provided herein; or flash, rotate, or make noise; or sparkle, twinkle or purposely reflect sunlight; or move, or give the illusion of moving, except for indicators of time and temperature or barber poles are prohibited". A corresponding zoning amendment would be needed that would exempt governmental signs from this prohibition.

The third consideration is the location and management of the message sign. The location of the message sign will depend on where the Town feels the best use of the sign would be and the easiest location to control the changing messages. The management of who will handle and change the sign's messages must be determined. Most of the sign companies will provide laptops or tablets with included software that will let the town be in control of the changing of the sign's messages at any given time. Most of the sign software limits the distance that you can change the messages from.

The Town can recoup some of the money that was spent of the message sign from charging the different town affiliated organizations money to display their messages. The money that town affiliated organizations are spending on lawn signs could be spent on the new message sign.

11. Attachments



Proposed Rendering

FY 17 Labor Request Form

Department Name	**PLANNING**	***Project***	**Assistant Planner**
		Fiscal Year	**2017**
Department Head	**Roland Bartl**	***Cost***	**$91,000 (f.t., benefits), 1st yr.**
		Priority	**4** *of* **4**

1. Description

This proposal would add a full time professional Assistant Planner position in the Planning Department. The ideal candidate would be a Planner with a generalist talent and experience in Economic Development and Historic Preservation work.

The position could lend itself to a job-sharing arrangement, i.e. two part-time employees.
Advantage: Less or no benefit cost; potentially more focused expertise.
Disadvantage: Potentially more transient employees.

2. Useful Life Permanent staff addition

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

	Schedule Replacement	***Increase Personnel Efficiency***
X	***New or Expanded Service***	***Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)***
	Other (Please Explain)	

4. Justification

Economic development and historic preservation are key goals of the Acton 2020 Comprehensive Community Plan. It is clear from our daily work experience that these two areas require serious attention and staff support. Neither is available given the Planning Department's current staffing level and workload. The newly created LU/ED Director position gives new focus for leadership on these and other areas. The position requested here would give the new Director the resources to better accomplish the mission. The position could also assist the Planning Department with better and more consistent communications with the Design Review Board (DRB).

Acton 2020, adopted by Town Meeting in 2012 as a policy document, recommends:
Action Item 1.1.2.5: Planning/Economic Development staff
Add a full-time position to the Planning Department to assist with plans for villages and key centers, development review, and economic development. This position would also fulfill the role of Economic Development Officer (EDO).
Action Item 1.1.3.2: Improve design review process
Consider ways to improve the design review process, defining the role of the Design Review Board (DRB), and enhancing the coordination with the Planning Board and Board of Selectmen, while reserving permit authority with these Boards as applicable. Improve coordination with Historic District Commission when appropriate. Implement improvements (coordination, communication, streamlining, standardization, etc.

The Historic District Commission (HDC) and the Historical Commission (HC) are the only standing, chartered town boards with regulatory responsibilities in the area of land planning, land use, and land development that currently operate without dedicated staff support. The goal with this position is to create sufficient staff resources in the Planning Department for these two commissions to benefit from the same level of staff support as other regulatory boards already do.

The Economic Development Committee (EDC) has advisory function to the Board of Selectmen, and to others if so requested. The Planning Department has previously provided staff support to the EDC but cannot do so now given the wide range of other commitments. The goal with this position is to create sufficient staff resources in the Planning Department to assist the LU/ED Director and the EDC to become an effective force for Economic Development in Acton.

In addition, the Design Review (DRB) similarly to the EDC, serves in an advisory capacity to the Board of Selectmen and others regarding design guidance on proposed commercial development and may at the request of other Town Boards, provide guidance for certain non-commercial development. The goal with this position is to create sufficient staff resources in the Planning Department to provide direct staff support to the DRB, or at least sufficient capacity for regular communication and exchange of thought and ideas regarding development proposals.

Professional staff support to the named four Boards/Commissions would help improve overall coordination of their reviews of development projects, integration of their efforts consistent with Acton 2020 Plan objectives, and streamline the development review process for applicants.

5. How Was this Project's Priority Determined?

Many Acton 2020 goals - Economic Development, Historic Preservation, and Centers Development/Revitalization require intensive implementation efforts that involve communications with and support of multiple committees and boards. The Planning Department cannot cover this without additional staff support. Without this, Acton 2020 is at risk of becoming a shelf document.

6. Estimated Cost	**$91,000 (includes benefits), 1st year**
Less Trade-In (If applicable)	**$ 0**
Net Cost	**$91,000 (includes benefits), 1st year**

7. Are Non-Town Revenues Available to Reduce Cost?

No.

8. If this Project is Delayed, What will be the Effect on your Department?

The Planning Department is being asked to do things it cannot deliver on. This is frustrating to staff, management and Acton residents.

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget		***Expense Budget***	
Increase	X	Increase	X
Decrease		Decrease	

Operating expense budget increase will be modest relative to the personnel budget increase.

10. Attachments, if Applicable.

Capital Improvement Program Proposal – Detail

Department Name	**Transfer Station & Recycling Facility**	***Project***	**Transfer Station Building Maintenance**
		Fiscal Year	**2017**
Department Head	**Corey York**	***Cost***	**$ 35,000**
		Priority	*of*

1. Description

This capital request will fund the maintenance for the Transfer Station Building. The 2015 Town-wide Facility Study noted some maintenance such as maintaining, repairing or replacing the exterior walls and the corrugated metal roof.

2. Useful Life

20 years

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

X	***Schedule Replacement***	***Increase Personnel Efficiency***
	New or Expanded Service	***Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)***
	Other (Please Explain)	

4. Justification

The 2015 Town-wide Facility Study analyzed the public facilities and identified capital needs for the existing structures to maintain the structural integrity and prolong the useful service life of these buildings. The maintenance items for the Transfer Station were prioritized within the first category that was determined to be addressed within the next couple years. As part of this proposal, we plan to conduct a more comprehensive assessment of the roof and develop a plan for it repair or replacement in the next fiscal year.

5. How Was this Project's Priority Determined?

The 2015 Town-wide Facility Study identified the maintenance items for the Transfer Station to be addressed within the next couple years.

6. Estimated Cost	*$35*,000
Less Trade-In (If Applicable)	***Unknown at this time***
Net Cost	$35,000

7. Are Non-Town Revenues Available to Reduce Cost?

Yes, could be funded by the Transfer Station Enterprise Budget

8. If this Project is Delayed, What will be the Effect on your Department?

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget	***Expense Budget***
Increase	Increase
Decrease	X Decrease

10. Attachments, if Applicable.

Priorty 1 (1-2 years)

Building Name	Access_tblElementsEnum.Title	Attribute Name	Subtotal
Transfer Station	Roof Construction Supplementary Components	Install/replace vapor retarder	$ 4,250.00
Transfer Station	Exterior Walls, Metal	Cleaning	$ 7,000.00
Transfer Station	Exterior Fixed Windows	Replace glazing	$ 12,000.00
Transfer Station	Steep Slope Roofing	Repair/replace corrugated metal roof	$ 90,000.00
		Subtotal	$ 23,250.00
		Added Conitgency for soft coft costs and prevailing wage	$ 32,550.00

REFUSE DELIVERY RULES

REFUSE DELIVE

Capital Improvement Program Proposal – Detail

Department Name	**Transfer Station & Recycling Facility**	***Project***	**Yard Tractor Replacement**
		Fiscal Year	**2017**
Department Head	**Corey York**	***Cost***	**$ 75,000**
		Priority	*of*

1. Description

The acquisition of this truck would replacement the existing 1974 Mack Tractor that is used to maneuver the trash trailers for the Transfer Station.

2. Useful Life

15 years

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

Schedule Replacement		***Increase Personnel Efficiency***	
New or Expanded Service		***x***	***Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)***
Other (Please Explain)			

4. Justification

The yard tractor is utilized by the crew to move the trash trailers and other large trailers amongst the DPW property. The yard tractor provides more maneuverability and quicker upstarts the over the road tractors. Yard Tractors are also designed with easier access to the hoses and connections between the trailer and the tractor to avoid potential slips and falls for the staff.

5. How Was this Project's Priority Determined?

The existing yard tractor is a 1974 Mack Tractor. It is well beyond its useful life and we'd like to replace the vehicle before the mechanics are no longer able to keep this vehicle operational.

6. Estimated Cost	*$75*,000
Less Trade-In (If Applicable)	***Unknown at this time***
Net Cost	$75,000

7. Are Non-Town Revenues Available to Reduce Cost?

Yes, Chapter 90 Funds or the Transfer Station Enterprise Budget could be used for the purchase

8. If this Project is Delayed, What will be the Effect on your Department?

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget	***Expense Budget***
Increase	Increase
Decrease	X Decrease

10. Attachments, if Applicable.

MACK
Mack

APPENDIX A: VEHICLE PURCHASE REQUEST FORM page 1 of 2

Section 1: Existing Vehicle Information – to be completed by Requestor

Make	Model	Year	Car/Truck #	Lic Plate #
MACK	DM607	1974	56	M55-027

Fuel Type: ( ) CNG (X) DIESEL ( ) LNG ( ) LPG ( ) GASOLINE ( ) OTHER _____

Section 2: Existing Vehicle Condition – to be completed by the Town's Mechanics

GVWR: 35000	Fuel Usage (mi/gal): N/A YARD TRACTOR TRANSFER STATION	
Engine Type: 4 cyl	6 cyl X	8 cyl
Transmission Type: Manual X	Automatic	

Condition of Vehicle – to be completed by the Town's Mechanics

Part	Excellent	Good	Fair	Poor	Date Last Repaired
Engine				X	
Transmission				X	
Frame				X	
Differential				X	
Brakes (Power?)				X	
Steering (Power?)				X	
Suspension				X	
Clutch				X	
Body				X	
Radiator				X	
Battery				X	
Air Conditioner				N/A	
Heater				X	
Lights				X	
Upholstery				X	
Paint				X	
Glass				X	
Jack				X	
Radio AM/FM				N/A	
Radio – 2-Way				N/A	
Tires:				X	
R Front				X	
L Front				X	
R Rear				X	
L Rear				X	
Spare				X	

APPENDIX A: VEHICLE PURCHASE REQUEST FORM page 2 of 2

Mechanic's Narrative

This truck is 41 yrs. old. with Age of this truck it is getting harder if not impossible to get repair parts for it.

The engine has excesive blow by were as the transfer station fills with smoke.

This truck is going to become a money pit because of its age and problems getting parts

My Recomdation is that we replace as soon as possible

Mechanic's Signature

10/6/15
Date

14 Boulder Park Way
North Oxford, MA
(877) 941-4040

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New 53' Utility Flat Floor Reefer

S/S front panels & corner inserts, swing rear doors, S/S bumper, flat floor, S/S wing plates, side skirts, PSI system, alum. wheels, Michelin Lo Pro tires, stk# N3268.

New Autocar Xspotter ACTT42

Off road S/A yard tractor, Superior 360 Degree Driver Visibility, 41,000# GVWR, Cums. QSB eng., 185 h.p., Allison 3000 series 4 spd. auto. trans., 116" w.b., heated mirrors, A/C DAVCO fuel filter, stk# A034.

New Trout River Live Floor Trailers

87'x102" tri axle w/front lift, Hend. Intraax, aero elect. tarp., 39" All Season belt conveyor w/reverse option, lift & lock tailgate assy., alum. hopper skins, alum. wheels 11R24.5 tires, stk# N3102 & N3103.

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- Vantage II Natural Gas Infrared Radiant Tube Heater- (1) 100,000 (1) 60,000 BTU's, $500 for both, *need tubes.
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- Truck Tire Repair Lift w/Spreader, $400.
- Truck Tire Safety Inflation Cage, $175.
- Tech Cabinet, wet dry vac & table, $125.
- OTC-Wheel Dolly, 2,000#, $750.
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5,232 miles, truck shows like new, air brakes, start all machine work, vise on rear deck, tool boxes w/ball bearing roll out drawers, Delco sound system, Tiger crane 1479 w/ remote operator, STI Hadfield 62607 body, Paccar PX8 eng., 10 spd. FRO11210C trans., Alcoa front & rear alum. wheels, 22.5 tires, **asking $89,500.**
Must See To Appreciate!!!!

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Pioneer Truck Sales RT 9, South Glens, Falls New York

Call: 518-330-4088 • E-mail: psales1284@aol.com

2007 UD Model 1400, 4 cyl. diesel, auto., A/C, 105k miles, 16' alum. van body w/curbside loading door & ladder racks, new rear tires, excellent condition, $15,900.

1988 Pontiac Firebird GTA LT1, 350 h.p. eng., auto. full power, no rust, 88,000 miles, very clean, new tires, $8,900.

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(2) 2007 FTL Columbia's De

N128

2007 Mitsu FK 260 non CDL,#U1736

2005 IH 32,900 GVW, auto, #U1727

2005 IH 7600 C11

2006 Mitsu FM-330 #U172

2006 IH 10' dump, 35,000 GVW, #U1691

2007 FTL M2 w/ Carrier R90 #CN111

2006 TJ 500 yard spotter, #U1731

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2013 FTL Sprinter 3500 C&C, 170" WB, Olsen UDV body, #TSP100

2012 FTL Sprinter 3500 C&C, 170", 14' Morgan box, #SP89

2013 FTL Sprinter 3500 C&C, 170", 16' Unicell cube, #SP75

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2011 DEERE 60-D, 421 HRS., BLADE, HYD. THUMB., CPLR W/ 2 BUCKETS., AIR, STEREO, AS NEW ! $61,500 860-963-1

2003 MACK RD 18 & 44 W/ 53,000 MILES, 25 YD. LEACH REAR LOADER, TRANS & REAR JUST DONE. $70,000 401-767-2639

2001 GMC G3500, 10' BOX SINGLE REAR WHE $1,975 401-434-5900

Toro 4800 Lawn Sweeper. High Lift, $7200. Agawam, MA 413-7

2004 Ford F650 Xtra Cab. Strong CAT 3126E eng., 7 spd manual, 101,841 owner driven mi., 24' Morgan body, 5 rows of slats, hrdwd flrs, Whiting rollup dr., 25,995 GVW, needs TLC, $19,000. Southwick, MA 413-569-5235, Chris

03 Ford F350 XLT 7.3L Powerstroke l, 4x4, Super cab, low miles super clean, chrom heels, #2669, $18,995, 866-556-3177, www.centermotorstrucks.com

2007 Cadillac Escalade, MINT, ther Seats, Auto Everything, Third Row Seats, A/C, He avigation Screen, DVD, and MORE, 125,000 Miles. 900 Call Bill at 781-929-3774

1992 Capacity Yard Spotter. Former paper plant truck, well maintained. Cummins/Allison, hyd 5th wheel, air ride suspension, $6500 OBO. Brookfield, CT 203-775-3104, bthereys1@aol.com

20 ord F550, with PTO driven hoist, diese r group, E. Hartford, CT, 860-290-6143

005 Peterbilt. 335 C , 30-yard body, open top w/ lock right tarp system, very clean, no rust, very strong engine, 360K miles, $45,500. 978-833-6719

2001 CAT 312C. 4800 HRS, WIDE TRACKS, ROCKLAND HYD THUMB, ENCLOSED CAB W/ HEAT & AC, PATTERN CHANGER. COMPLE NEW U/C, TRACK CHAINS, SPROCKETS & NEW FRONT IDLERS. NEW EXHAUST, WATER PUMP & BELTS: $52,000. 603-763-1319

Support Breast Cancer Research and Awareness

Capital Improvement Program Proposal – Detail

Department Name	**SEWER**	***Project***	**Sewer Capital Replacement Plan**
		Fiscal Year	**2017**
Department Head		***Cost***	**$60,000**
		Priority	**1** *of*

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1. Description

The Town's contractor for the operation of sewers, Woodard and Curran has developed a 5 year capital replacement plan. The FY 17 plan will address capitol cost issues for sludge storage and pumping, effluent discharge, Chemical Feed System, SCADA Instrumentation, plant HVAC, odor control and pump station replacements and repairs.

2. Useful Life 5 years or more

3. Purpose (Please 'X' one of the Boxes and Describe, if Applicable)

X Schedule Replacement

New or Expanded Service

Other (Please Explain)

Increase Personnel Efficiency

Replace Obsolete or Unsafe Equipment (Explain Disposal of Old Equipment)

4. Justification

In order to prevent future unexpected costs and to ensure a well run and a well maintained sewer operations approximately 10% of the budget is dedicated to the capital replacement plan.

5. How Was this Project's Priority Determined?

Each of the items in this year's capital budget plan has critical functions necessary to maintain operations.

6. Estimated Cost ***$60,000***

Less Trade-In (If Applicable) ***N/A***

Net Cost ***$60,000***

7. Are Non-Town Revenues Available to Reduce Cost?

No

8. If this Project is Delayed, What will be the Effect on your Department?

Delay of this project may lead to unexpected failures and higher replacement costs.

9. Please Describe the Effect of this Project on your Operating Budget.

Personnel Budget		***Expense Budget***	
Increase	No affect	Increase	No affect
Decrease	No affect	Decrease	No affect

10. Attachments, if Applicable.

Town of Acton

FY17 Municipal Budget Document

14-Dec-15

Budget Category	FY17	FY16	$ change	% change
Operating Budget	32,367,549	31,468,112	899,437	2.86%
Subsidies				
Transportation	245,000	164,439	80,561	48.99%
Ambulance	-	162,000	(162,000)	-100.00%
Cultural Council	2,000	2,000	-	0.00%
Total Subsidies	247,000	328,439	(81,439)	-24.80%
Capital				
Bike Lane Rail Trail Study	60,000			
Paint Town Hall	162,000			
Bonding Year 1 Interest Appropriatio	20,055			
Capital FY16		158,300	(158,300)	
Total Capital	242,055	158,300	83,755	52.91%
			-	
			-	
Total Municipal Spending Plan	**32,856,604**	**31,954,851**	901,753	2.82%
			901,753	

Transportation Enterprise Fund

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
			COA Van, Dial-A-Ride, Rail Shuttle, Road Runner, Cross-Acton Transit		
Expenses					
Administration					
Transportation Coordinator	$36,288.00	$49,000.00	$49,000.00	$49,000.00	
Transportation Secretary			$25,000.00	$50,000.00	$50,000.00
Transportation Director					$95,000.00
Professional Services	$30,000.00	$30,600.00	$31,212.00	$31,836.24	$32,472.96
Total Administration	**$66,288.00**	**$79,600.00**	**$105,212.00**	**$130,836.24**	**$177,472.96**
Shuttle Operations					
Rail Shuttle	$100,000.00	$102,000.00	$104,040.00	$106,120.80	$108,243.22
COA Van	$85,000.00	$86,700.00	$88,434.00	$90,202.68	$92,006.73
Road Runner	$85,000.00	$86,700.00	$88,434.00	$90,202.68	$92,006.73
Dial-A-Ride	$85,000.00				
Cross-Acton Transit	$129,000.00	$235,000.00	$239,700.00	$244,494.00	$249,383.88
Parking Lot Lease 570000	$6,000.00	$6,000.00	$6,000.00	$6,000.00	$6,000.00
Total Operations Expenses	**$490,000.00**	**$516,400.00**	**$526,608.00**	**$537,020.16**	**$547,640.56**
Total Administration & Operations	**$556,288.00**	**$596,000.00**	**$631,820.00**	**$667,856.40**	**$725,113.53**
Income					
Estimated Fees	$19,000.00	$19,475.00	$19,961.88	$20,460.92	$20,972.44
LRTA Contribution	$176,000.00	$176,000.00	$176,000.00	$176,000.00	$176,000.00
Parking Fund Contribution	$116,288.00	$119,195.20	$122,175.08	$125,229.46	$128,360.19
Total Income	**$311,288.00**	**$314,670.20**	**$318,136.96**	**$321,690.38**	**$325,332.64**
Town Contribution	**$245,000.00**	**$281,329.80**	**$313,683.05**	**$346,166.02**	**$399,780.89**

DRAFT

TOWN OF ACTON
AMBULANCE ENTERPRISE FUND
REVENUE AND EXPENSE PROJECTIONS FY15-21
17-Dec-15

	7/1/2015 Start Balance	BUDGET FY16	BUDGET FY17	BUDGET FY18	BUDGET FY19	BUDGET FY20	BUDGET FY21	End Balance
Est. revenues								
START	$802,843	$0	$0	$0	$0	$0	$0	$7,295
Ambulance Fees (10% Fee Hike FY15)		$605,000	$625,000	$625,000	$625,000	$625,000	$625,000	
CPR Fees		$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	
Interest Income		$2,000	$1,500	$1,250	$1,500	$1,500	$1,500	
Incremental ALS fees				$330,000	$330,000	$330,000	$330,000	
Subsidy		$162,000	$0	$175,000	$175,000	$175,000	$175,000	
Total Inflows		$771,000	$628,500	$1,133,250	$1,133,500	$1,133,500	$1,133,500	
Est. Expenditures								
FY Operating Budget Expenses		$787,169	$785,535	$816,956	$849,635	$883,620	$918,965	
(Debt service on Ladder included above)		$44,580	$43,845	$43,050	$42,000	$40,900	$40,900	
(New debt service on FY17 capital)			$19,339	$161,151	$156,601	$147,138	$142,763	
ALS Coordinator				$80,600	$83,824	$87,177	$90,664	
Capital - Ambulance					$0	$260,000	$0	
Capital - Admin. Vehicle		$40,000	$0			$50,000	$50,000	
Capital - ALS Coord. Vehicle				$40,000				
Supplies				$20,000	$0	$0	$0	
Paramedic start up program		$70,000		$70,000	$0	$0	$0	
Paramedic School				$137,000	$0	$0	$0	
Capital Outlay		$110,000	$0	$267,000	$0	$310,000	$50,000	
Total Outflows		$897,169	$785,535	$1,325,707	$1,090,060	$1,427,935	$1,202,392	
Unexpended ALS FY15								
Adjusted outflow								
Total FY Operational draw		-$16,169	-$157,035	$316,294	$283,865	$249,880	$214,535	
Total Fiscal year draw		-$126,169	-$157,035	-$192,457	$43,440	-$294,435	-$68,892	
Ending Balance		$676,674	$519,639	$327,182	$370,622	$76,187	$7,295	

DRAFT

TOWN OF ACTON
COMMUTER PARKING LOT FUND
REVENUE AND EXPENSE PROJECTIONS FY16-FY21
21-Dec-15

	Cash 6/30/2015 Start Balance	FY16	(*) FY17	FY18	FY19	FY20	FY21	End Balance
Est. revenues								
Meter Monies	$271,530.00	100,000.00	228,700.00	228,700.00	228,700.00	228,700.00	228,700.00	412,645.50
Total Inflows		100,000.00	228,700.00	228,700.00	228,700.00	228,700.00	228,700.00	
Est. Expenditures								
Elevator Maintenance		0.00	25,000.00	25,000.00	25,000.00	25,000.00	25,000.00	
Maintenance/Utilities		0.00	30,000.00	30,900.00	31,827.00	32,781.81	33,765.26	
Transportation - Rail Shuttle/Cross Acton Transit		96,862.50	116,288.00	119,195.20	122,175.08	125,229.46	128,360.19	
Capital Improvements		0.00	90,000.00	20,000.00	0.00	0.00	0.00	
Total Outflows		96,862.50	261,288.00	195,095.20	179,002.08	183,011.27	187,125.46	
Fiscal year draw		3,137.50	-32,588.00	33,604.80	49,697.92	45,688.73	41,574.54	
Ending Balance		274,667.50	242,079.50	275,684.30	325,382.22	371,070.95	412,645.50	

* Anticipated BOS Fee Increase to $5
* Doesn't include revenue or expense impact for 35 space MBTA lot next to Gordon Richards
* Doesn't include revenue or expense impact for Gordon Richards property purchase

Program	Volume	Old Rate	New Rate	Days	Old Annual Revenue	New Annual Revenue
Bike	40	$ 75	$ 100		$ 3,000	$ 4,000
Stickers	400	$ 50	$ 100		$ 20,000	$ 40,000
Jones	38	$ 600	$ 1,200		$ 22,800	$ 45,600
Lot	107	$ 2.5	$ 5	260	$ 69,550	$ 139,100
					$ 115,350	$ 228,700

TOWN OF ACTON
FY17 Budget summary

	FY15 BUDGET	FY15 ACTUALS	FY16 BUDGET	FY17 BUDGET	% CHANGE FY 16 &17
SALARIES - BOARD MEMBERS	6,800	6,967	6,800	6,800	**0.00%**
SALARIES - PROFESSIONAL	3,848,330	3,071,392	4,295,495	4,509,218	**4.98%**
SALARIES - CLERICAL	1,323,031	1,074,289	1,335,010	1,317,533	**-1.31%**
SALARIES - OTHER NON EXEMPT	6,958,179	7,448,120	7,459,594	7,680,289	**2.96%**
SALARIES - OVERTIME	1,191,975	1,415,014	1,178,445	1,178,218	**-0.02%**
FRINGES - LONGEVITY	28,747	30,213	29,846	32,747	**9.72%**
FRINGES - EDUCATIONAL INCENTIVE S	196,964	266,931	404,397	448,895	**11.00%**
FRINGES - OTHER	78,899	77,305	92,448	92,794	**0.37%**
FRINGES - UNIFORMS	133,975	90,822	122,481	122,100	**-0.31%**
FRINGES - EMPLOYEE DEVELOPMENT	195,978	218,377	200,034	208,566	**4.27%**
FRINGES - HEALTH INSURANCE	3,320,307	3,193,500	3,472,470	3,662,744	**5.48%**
FRINGES - LIFE INSURANCE	10,000	7,491	10,378	8,029	**-22.64%**
FRINGES - UNEMPLOYMENT	15,000	27,548	15,000	-	**-100.00%**
FRINGES - WORKERS COMP	60,000	42,717	52,000	52,000	**0.00%**
FRINGES - PAYROLL TAXES	165,000	173,326	171,217	171,217	**0.00%**
FRINGES - PENSION / OPEB	3,078,676	2,972,893	3,783,833	4,069,710	**7.56%**
SNOW AND ICE REMOVAL	526,862	832,647	541,159	541,358	**0.04%**
INFRASTRUCTURE MAINTENANCE	1,512,654	1,738,701	1,469,201	1,532,618	**4.32%**
EQUIPMENT MAINTENANCE/RENTAL	629,891	422,061	623,316	605,500	**-2.86%**
WASTE REMOVAL	43,500	29,170	43,500	43,500	**0.00%**
VEHICLES	165,000	400,846	165,000	224,595	**36.12%**
PUBLIC CELEBRATION	4,000	7,000	4,000	4,000	**0.00%**
VETERANS BENEFITS	120,931	102,663	125,000	117,984	**-5.61%**
PURCHASE OF SERVICE	1,198,278	1,177,529	929,152	1,011,523	**8.87%**
PURCHASE OF SUPPLIES	372,739	560,991	353,131	343,058	**-2.85%**
BOOKS AND PERIODICALS	208,785	144,126	211,230	227,250	**7.58%**
LEGAL	600,000	466,241	400,000	400,000	**0.00%**
MINUTEMAN SENIOR SERVICES	4,200	4,055	1,500	1,928	**28.53%**
INSURANCE	323,500	309,621	344,116	332,500	**-3.38%**
UTILITIES	525,742	489,722	567,100	493,649	**-12.95%**
GAS AND DIESEL	342,061	219,183	292,061	269,300	**-7.79%**
DEBT	2,859,058	2,827,942	2,769,198	2,657,926	**-4.02%**
TOTAL	**30,049,062**	**29,849,401**	**31,468,112**	**32,367,549**	**2.86%**

Notes

THIS SPREADSHEET DOES NOT TAKE INTO CONSIDERATION CAPITAL ITEMS VOTED AT TOWN MEETING

CHARGE OF THE CAPITAL IMPROVEMENT PLANNING COMMITTEE

The Capital Improvement Planning Committee studies proposals from the Acton Town Manager and the Acton - Boxborough Regional School District which involve major tangible items with a total project cost of more than $100,000 in a single year or over $100,000 in multiple years and which would likely require an article at Town Meeting for the project's authorization.

The CIAC shall make a report with recommendations to the Finance Committee and the Board of Selectmen on these proposals.

SECTION 1

There shall be a committee known as the Capital Improvement Planning Committee, (CIPC) composed of seven members: The Town Manager or his designee; The School Superintendent or his designee; a member of the Board of Selectmen; a member of the Finance Committee; an Acton member of the Regional School Committee; and two at large members appointed by the Board of Selectmen. The Town's Finance Director shall be ex officio and advisory to the Committee. The CIPC shall choose its officers annually. The term of office shall be three years not more than three of which shall expire within the same year.

SECTION 2

The CIPC shall study proposals from the Town Manager, and the Acton Boxborough Regional School District which involve major tangible items with a total project cost of more than $100,000 in a single year or over $100,000 in multiple years and which would likely require an article at Town Meeting for the project's authorization. The CIPC shall make a report with recommendations to the Finance Committee and the Board of Selectmen on these proposals.

SECTION 3

The CIPC shall: prepare an inventory of existing facilities and major capital equipment; determine the status of previously approved projects; assess the Town's financial capacity; solicit, compile and evaluate project requests; establish project priority; and develop a capital improvement program financing plan, the first year of which shall be submitted along with the operational budget by the Town Manager to the Board of Selectmen in accordance with the Town Charter. The Committee shall also monitor approved projects and update the capital plan on an annual basis.

SECTION 4

The Town Manager shall develop an operating budget for proposed capital expenditures for the upcoming fiscal year containing those items whose costs do not meet this threshold and are to be included in the annual budget and financing plan submitted to Town Meeting. This capital expenditures

budget shall be submitted by the Town Manager to the Board of Selectmen in conformance with the Budget submission requirement of the Town Charter.