

Vermont School Travel Plan Worksheet

Highgate Elementary School

May 2016



1. Introduction

Highgate Elementary School is committed to ensuring that all our students can utilize *physically active transportation*, such as walking and bicycling, for a safe and enjoyable trip to school. This school travel plan aims to address the issues that impede active transportation and seeks to strategically solve these problems by implementing a Safe Routes to School program.

Our community is motivated to pursue Safe Routes to School Because (check each that applies):

- we highly value student physical activity and health.
- we have a history of pedestrian and/or bicycle crashes around school(s).
- we wish to improve unsafe or insufficient walkways, bikeways, and crossings.
- we are committed to reducing speeding and reckless driving near school(s).
- our students are threatened by illegal behaviors near school(s).
- we want to improve the air quality and reduce fuel consumption around our school(s)
- we want to build better partnerships between school(s) and the community
- we would like to make our school and attractive and welcoming place

2. The Safe Routes to School Team

We believe that a diverse Safe Routes to School team develops the most successful School Travel Plans. Our Team is comprised of a variety of stakeholders, each lending their own unique perspective and expertise in order to make walking and bicycling to school more safe, accessible and fun for our students.

The members of our team include

Name	Jennifer Gagne	Affiliation	Nurse
Name	Heidi Britch Valenta	Affiliation	Town Administrator
Name	Amanda Holland	Affiliation	Northwest Regional Planning Commission
Name	Betsy Fournier	Affiliation	RiseVT

In collaboration with the Vermont Safe Routes to School Resource Center

The SRTS Champion and primary contact for our School Travel Plan is (include contact information): Jennifer Gagne (Jgagne@fnwsu.org) and Heidi Britch Valenta (hbvalenta@highgatevt.org)

3. The Public Input Process

Our Team worked to include the entire community in developing our School Travel Plan. To accomplish this, we (check each that applies):

- administered parent surveys – *February 2016*
- interviewed key stakeholders
- publicized a public comment period
- conducted a community walking/bicycling audit – *December 2015*
- incorporated our town's existing bike or pedestrian plan recommendations
- incorporated our School Wellness Policy objectives
- hosted public meetings
- solicited student opinions
- conducted engineering studies
- we have no public input process at this time
- other __

Some highlights of our public input activities included:

4. Description of School (s)

Our School Travel Plan addresses the needs of (check only one):

- | | |
|--|---|
| <input checked="" type="checkbox"/> an individual school | <input type="checkbox"/> multiple schools include proximity (2 miles or less) |
| <input type="checkbox"/> a school district | <input type="checkbox"/> a city/municipality |
| <input type="checkbox"/> a county | <input type="checkbox"/> a region (please describe) _____ |
| <input type="checkbox"/> statewide | <input type="checkbox"/> other _____ |

Note: For plans serving multiple schools, all remaining sections of the School Travel Plan should address all schools collectively, using aggregate information.

The school(s) included in our School Travel Plan is/are (include partnership levels):
Highgate School, Bronze-level Partner

5. School Demographics

Our student demographic information includes:

- | | |
|------------------------|-----------------------|
| 41% Free/Reduced Lunch | 12% Special Education |
| 2 % ESL language? | 4% 504 Plans |

6. Current School Travel Environment

Green Street School plans to collect additional data using the student travel tally to better capture the current school travel environment. In the interim, the parent survey collected in October provides some insight into travel habits. See Attachment A for more the complete analysis from the recent parent survey.

Travel Mode	Walk	Bike	School Bus	Family Vehicle	Carpool	Public Transit	Other
Percentage of Students (AM)	2%	0%	51%	46%	1%	0%	0%
Percentage of Students (PM)	2%	0%	66%	29%	2%	0%	0%

These are the distances our students live from school:

Distance lived from school	Within ¼ mile	Within ½ mile	Within 1 mile	Within 1.5 miles	Within 2 miles
Number of students	36	41	111	134	174
Percentage of Students	10%	11%	30%	37%	48%

We have the following supports or activities in place during student travel times (check each that applies):

- | | |
|---|--|
| <input type="checkbox"/> crossing guards | <input type="checkbox"/> student patrol |
| <input type="checkbox"/> parent patrol | <input checked="" type="checkbox"/> staff presence during drop-off/pick-up |
| <input type="checkbox"/> Walking School Bus | <input type="checkbox"/> Bike Train |
| <input type="checkbox"/> police department support | <input type="checkbox"/> crime or violence prevention program |
| <input type="checkbox"/> Neighborhood Watch program | <input type="checkbox"/> school traffic safety plan |
| <input type="checkbox"/> Other _____ | |

Our school arrival procedures include:

For pedestrians and bicyclists	7:50-8:00
For school buses	7:45-8:00
For carpools	7:30-8:00
For private vehicles	7:30-8:00

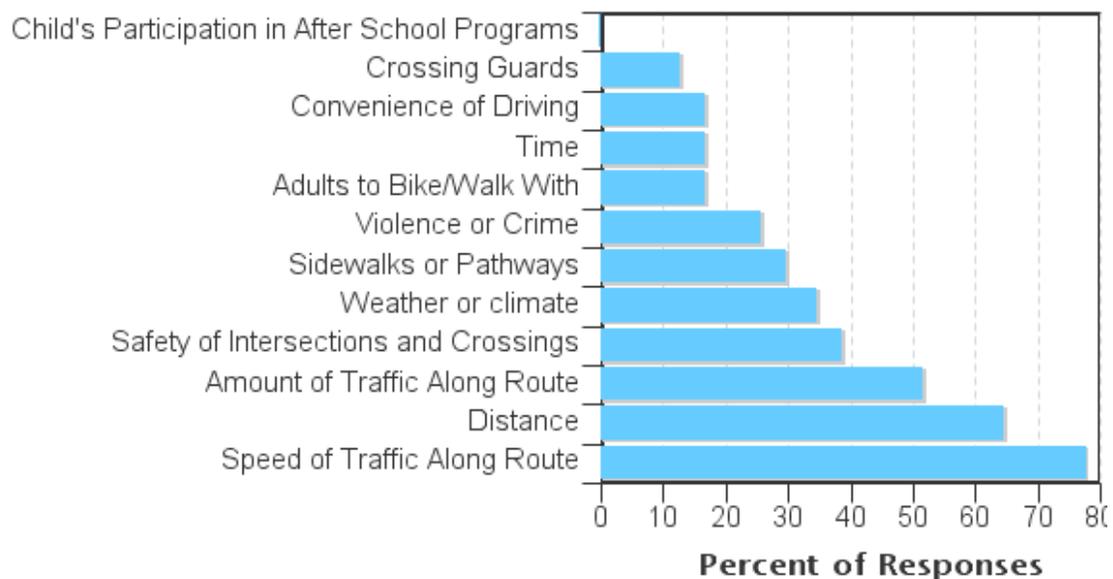
Our school dismissal procedures include:

For pedestrians and bicyclists	2:45
For school buses	
For carpools	
For private vehicles	

Our school does does not provide bus service to students.
Bus service is provided to all children regardless of location.

7. Barriers to Active Transportation

We have identified and prioritized the following barriers to walking and bicycling to school.



This information was captured in our parent surveys.

Date Parent Survey was administered: February 2016

Number of Surveys Returned: 33

Return Rate: 12%

8. Creating Solutions

Goals

Our primary goal(s) for active school transportation are (check each that applies):

- increase the number of students walking and bicycling to school by making routes safer
- improve the safety of walking and bicycling students
- teach students fundamental safety skills
- provide more transportation options for everyone
- strengthen our sense of community

Strategies

We have identified strategies involving the 5 “E’s” of Safe Routes to School to address the barriers to walking and bicycling in our community and to achieve our stated goals. **We have selected at least one strategy from each of the categories of Education, Encouragement, Enforcement and Evaluation**, in addition to any Engineering strategies that are indicated. The strategies we are working on include:

Following is a brief explanation of each of our proposed education activities:

a. Education Strategies (check at least one)

- teach pedestrian and bicycle safety skills to students and parents
Implement Walk Smart/Bike Smart
- organize a Bicycle Safety Fair or training course to teach on-bike skills
- teach personal safety skills to students and parents
Teach before walk to school day
- teach the health, environmental and sustainable transportation benefits of walking and bicycling to students and parents
- educate parents and caregivers about safe driving procedures at the school
- train school and community audiences about Safe Routes to School
- Other _____

Following is a brief explanation of each of our proposed encouragement activities:

b. Encouragement Strategies (check at least one)

- start a Walking School Bus program
- start a Bike Train program
- host International Walk to School Day & Vermont Walk to School Day & Winter Walk Day
- initiate a walking/biking mileage club or other contest
- create a park-and-walk program
- promote Safe Routes to School in the community – *long-term*
Participate in sidewalk committee meetings
- initiate an incentive program for safe travel behaviors among students
- host monthly walk and bike to school day events
- host weekly walk and bike to school days
- Participate in Walk at Lunch Day each April

Following is a brief explanation of each of our proposed enforcement activities:

c. Enforcement Strategies (check at least one)

- create a crossing guard training program

- create a parent or student patrol program
 - lower speed limits in school vicinity
 - utilize speed feedback trailers
 - conduct increased warning efforts that target motorist
 - start a Neighborhood Watch/Block Captain initiative
 - conduct a community safe driving awareness campaign
- Distribute Safe Driver Pledges

Following is a brief explanation of each of our proposed engineering activities:

d. Engineering Strategies within 2 miles of schools (check each that applies)

- construct, replace, improve or repair sidewalks
- create on-street bicycle facilities (bike lanes, widened shoulders, etc.)
- build off-street walking/biking paths (Long term)
- install street crossing improvements (crosswalks, curb extensions, median refuges, raised crossings, pedestrian bridges or tunnels)
- install new or improved lighting for walkways or bikeways along path
- install new or improved signage (school zone, speed limits, crosswalk)
- install new or improved pavement markings or legends
- make existing walkways accessible to disabled students
- install bike parking near schools (bike racks, bike lockers, covered shelters)
- install traffic calming or speed reduction measures (curb extensions, speed humps, traffic circles, raised crosswalks, narrowing lanes, street closures)
- install traffic control devices (traffic signals, pedestrian signals, flashing beacons)
- design pick-up and drop-off procedures to increase safety and access
- divert traffic away from school zone or designated routes
- winter maintenance to keep walk and bike routes clear
- See attached Engineering Recommendations for a detailed plan**

Following is a brief explanation of each of our proposed evaluation activities:

e. Evaluation Strategies (check at least one)

To gauge the success of our efforts, we collected data both before and after implementing our strategies. We are measuring the impact of our school travel plan by (check at least one):

- conducting the student tally
- conducting the parent survey
- conducting traffic counts
- conducting bicycle and pedestrian counts
- obtaining planning services for expanding or improving an existing SRTS plan
- we have developed additional safety evaluation measures that include:

Evaluation Method	"Before" Measure and Date Collected
Use student tally to count number of walking and bicycling students	Date: February2016 % Walking: 2 % Bicycling: 0
Track number of crashes	Time Period: # of Crashes:
Measure parent perceptions of safety using parent survey	Date: February2016 Top 3 concerns: 1) Speed of traffic along route 2) Distance 3) Amount of traffic along route
Your own method	Date: Measurement:

9. Improvements Mapping

Note: See Attachment B for Town Engineering studies

10. The Action Plan

The Safe Routes to School Team is committed to realizing our vision for a safe, enjoyable and accessible walking and bicycling environment for our students. We will utilize the following Action Plan to keep our efforts focused and on track:

PROPOSED SOLUTIONS FOR THE FIVE Es		
Education Actions	Responsibility	Time Frame
teach pedestrian and bicycle safety skills	PE teachers	Spring
teach personal safety skills	PE teachers	Fall
Enforcement Actions	Responsibility	Time Frame
Invite Local Law Enforcement on Walk to School Days	Heidi Britch Valenta	October, Feb, May
Distribute Safe Driver pledges	Jennifer Gagne + Heidi Britch Valenta	September
Evaluation Actions	Responsibility	Time Frame
conducting the parent survey	Jennifer Gagne	Biennial - May
conducting the student tally	Jennifer Gagne	Biennial - May
Encouragement Actions	Responsibility	Time Frame
host International Walk to School Day	Jennifer Gagne + Heidi Britch Valenta	October
host Vermont Walk to School Day	Jennifer Gagne + Heidi Britch Valenta	May
host Winter Walk Day	Jennifer Gagne + Heidi Britch Valenta	February

11. Plan Approval

We believe that building a strong partnership between schools and local government is fundamental to the success of a School Travel Plan.

Our School Travel Plan has been endorsed by the following representatives:

REQUIRED: SCHOOL OFFICIAL

Name and Signature:

Title:

Representing:

REQUIRED: LOCAL GOVERNMENT OFFICIAL

Name and Signature:

Title: Town Administrator

Representing: Town of Highgate

OPTIONAL: SCHOOL DISTRICT OFFICIAL

Name and Signature:

Title:

Representing:

OPTIONAL: LOCAL LAW ENFORCEMENT

Name and Signature:

Title:

Representing:

OPTIONAL: OTHER POLITICAL SUBDIVISIONS (Regional Planning Commission)

Name and Signature:

Title:

Representing:

OPTIONAL: HEALTH ORGANIZATION (local public health agency, hospital, non-profit)

Name and Signature:

Title:

Representing:

12. Next Steps

Share your school travel plan with your community

- a. Post it on your school, town, or regional website
- b. Write and submit press releases for your local newspapers
- c. Share information in school and neighborhood newsletters

Put the plan into action

- a. This plan is your guiding document for your SRTS program, use it to stay on track with program goals and update often
- b. Your School Travel Plan is meant to be a living document and is able to change as your school determines what SRTS activities work best
- c. Pass your plan along so champions and committees in the future have access to both hard and soft copies of the plan
- d. Use this plan to apply for relevant grants – you've already done the work!

13. Attachments

- a. Parent Survey and Student Tally Report
- b. Town Engineering Studies
- c. Student Locator Map
- d. Snow Removal Toolkit

Attachment A

Parent Survey and Student Tally Report

Parent Survey Report: One School in One Data Collection Period

School Name: Highgate Elementary School

Set ID: 14308

School Group: NW Regional Planning Commission (Enosburg/Franklin Central)

Month and Year Collected: February 2016

School Enrollment: 290

Date Report Generated: 03/09/2016

% Range of Students Involved in SRTS: 0-25%

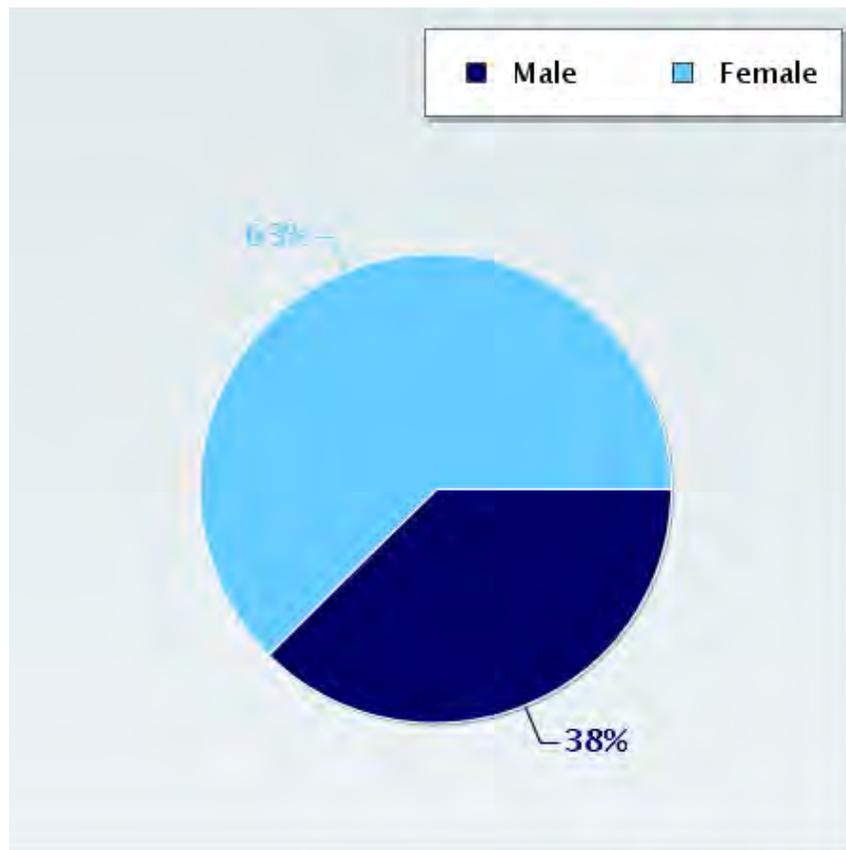
Tags:

Number of Questionnaires Distributed: 290

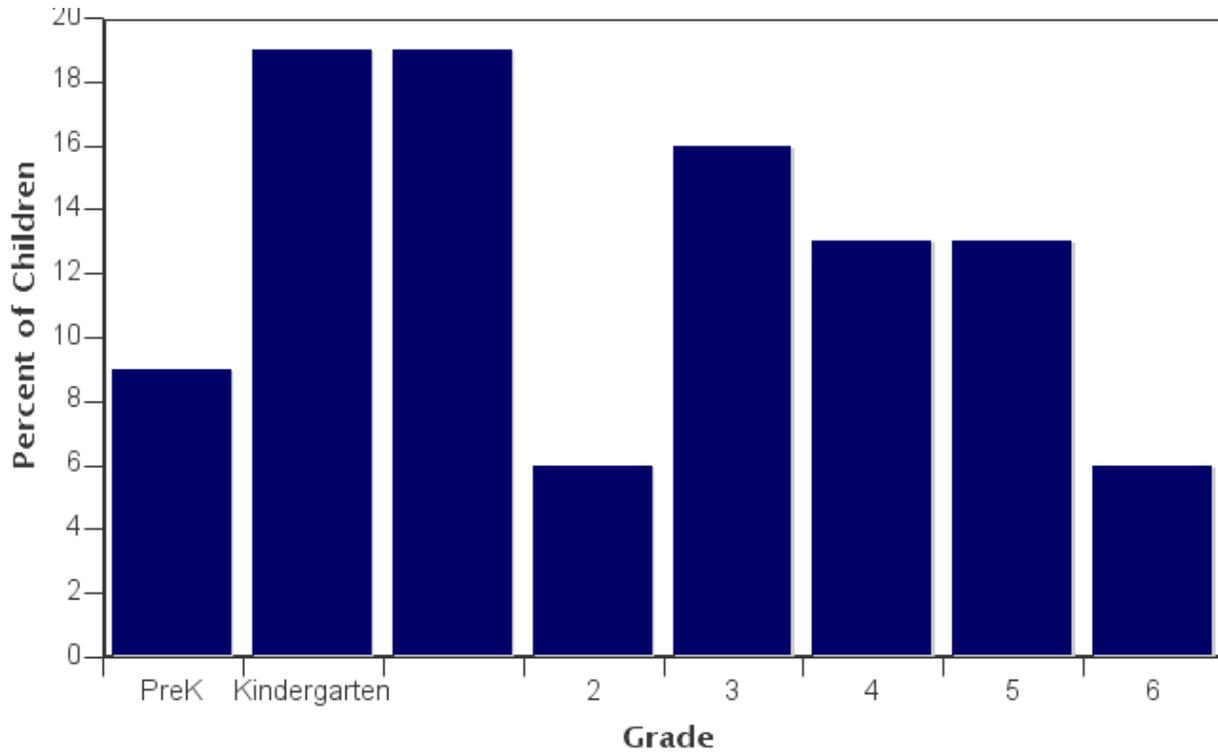
Number of Questionnaires Analyzed for Report: 33

This report contains information from parents about their children's trip to and from school. The report also reflects parents' perceptions regarding whether walking and bicycling to school is appropriate for their child. The data used in this report were collected using the Survey about Walking and Biking to School for Parents form from the National Center for Safe Routes to School.

Sex of children for parents that provided information



Grade levels of children represented in survey



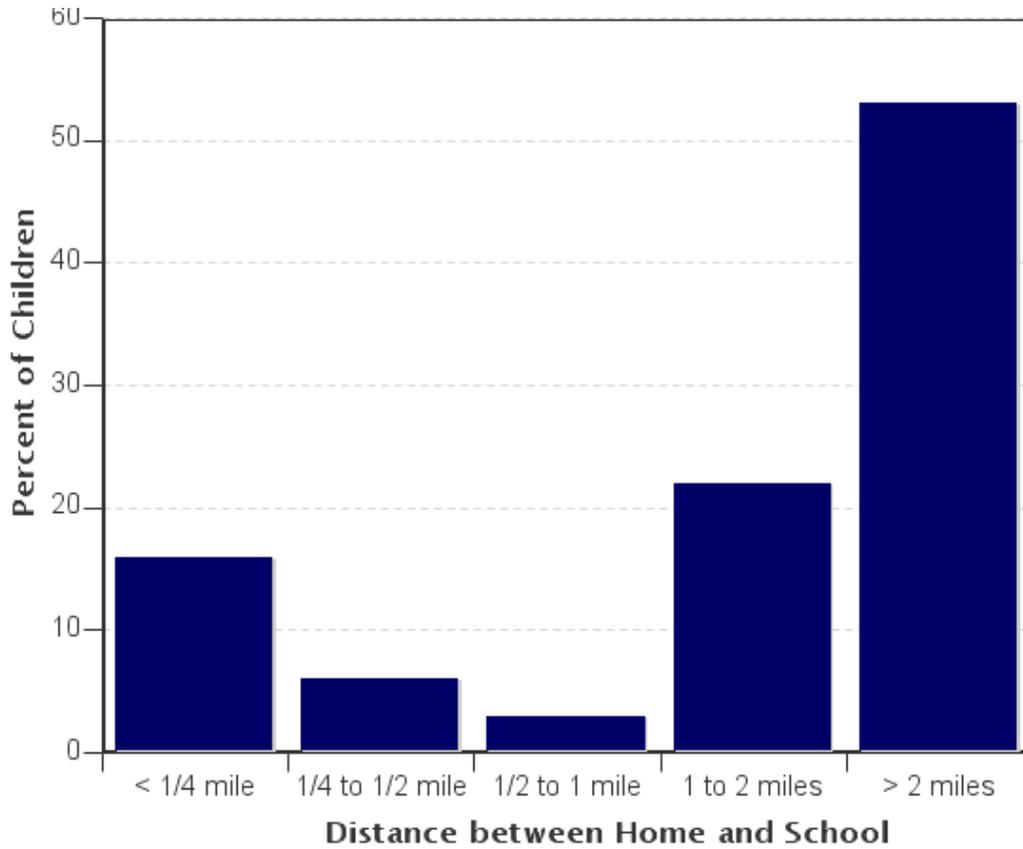
Grade levels of children represented in survey

Grade in School	Responses per grade	
	Number	Percent
PreK	3	9%
Kindergarten	6	19%
1	6	19%
2	2	6%
3	5	16%
4	4	13%
5	4	13%
6	2	6%

No response: 0

Percentages may not total 100% due to rounding.

Parent estimate of distance from child's home to school



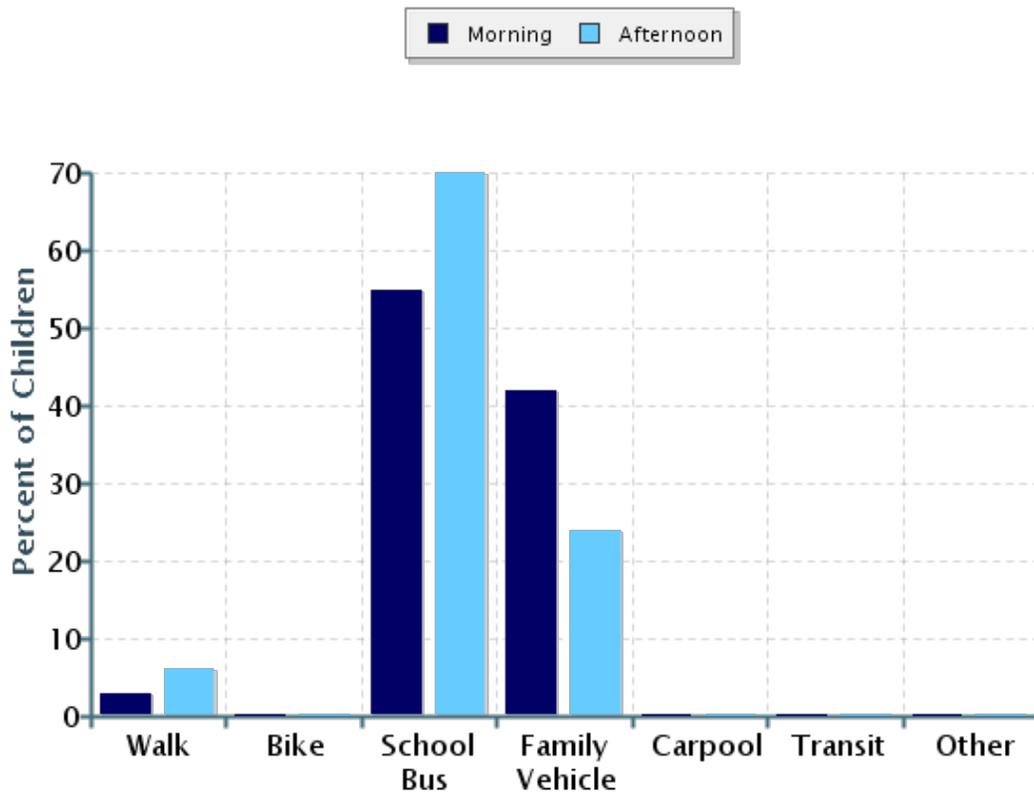
Parent estimate of distance from child's home to school

Distance between home and school	Number of children	Percent
Less than 1/4 mile	5	16%
1/4 mile up to 1/2 mile	2	6%
1/2 mile up to 1 mile	1	3%
1 mile up to 2 miles	7	22%
More than 2 miles	17	53%

Don't know or No response: 1

Percentages may not total 100% due to rounding.

Typical mode of arrival at and departure from school



Typical mode of arrival at and departure from school

Time of Trip	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	33	3%	0%	55%	42%	0%	0%	0%
Afternoon	33	6%	0%	70%	24%	0%	0%	0%

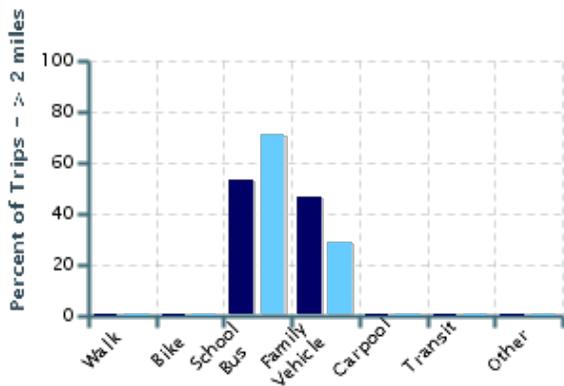
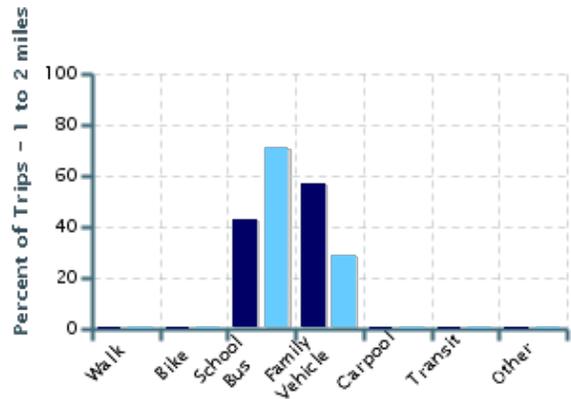
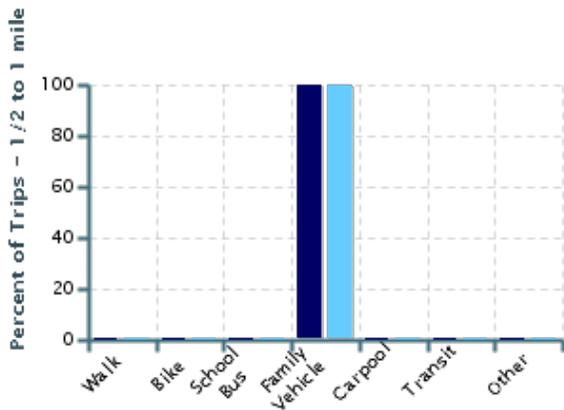
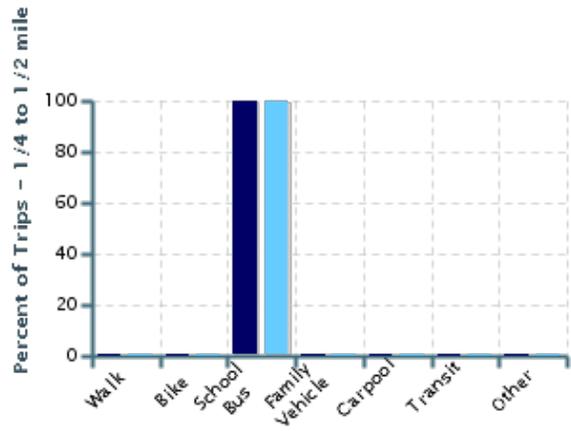
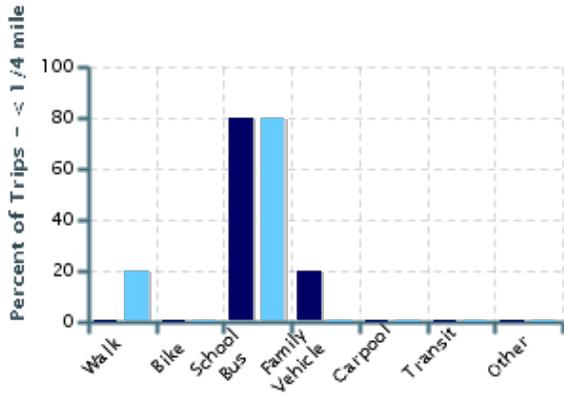
No Response Morning: 0

No Response Afternoon: 0

Percentages may not total 100% due to rounding.

Typical mode of school arrival and departure by distance child lives from school

■ Morning ■ Afternoon



Typical mode of school arrival and departure by distance child lives from school

School Arrival

Distance	Number within Distance	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Less than 1/4 mile	5	0%	0%	80%	20%	0%	0%	0%
1/4 mile up to 1/2 mile	2	0%	0%	100%	0%	0%	0%	0%
1/2 mile up to 1 mile	1	0%	0%	0%	100%	0%	0%	0%
1 mile up to 2 miles	7	0%	0%	43%	57%	0%	0%	0%
More than 2 miles	17	0%	0%	53%	47%	0%	0%	0%

Don't know or No response: 1

Percentages may not total 100% due to rounding.

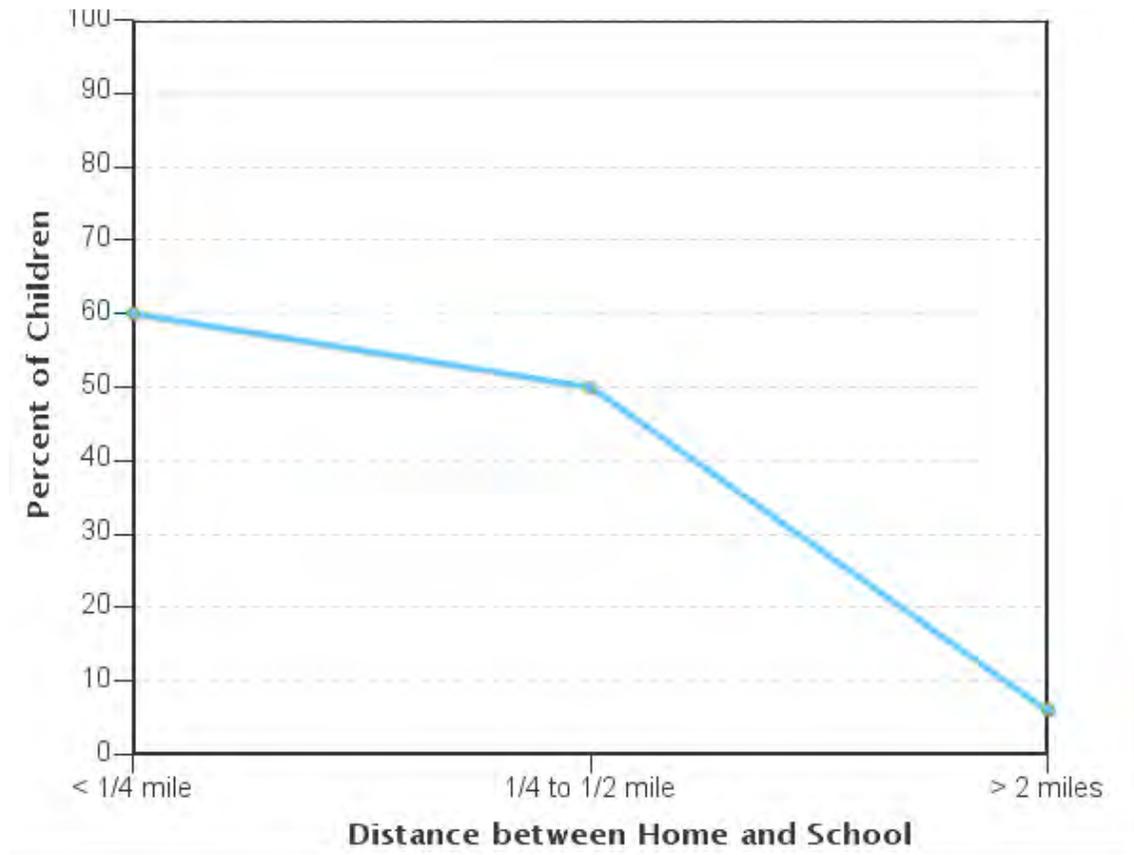
School Departure

Distance	Number within Distance	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Less than 1/4 mile	5	20%	0%	80%	0%	0%	0%	0%
1/4 mile up to 1/2 mile	2	0%	0%	100%	0%	0%	0%	0%
1/2 mile up to 1 mile	1	0%	0%	0%	100%	0%	0%	0%
1 mile up to 2 miles	7	0%	0%	71%	29%	0%	0%	0%
More than 2 miles	17	0%	0%	71%	29%	0%	0%	0%

Don't know or No response: 1

Percentages may not total 100% due to rounding.

Percent of children who have asked for permission to walk or bike to/from school by distance they live from school

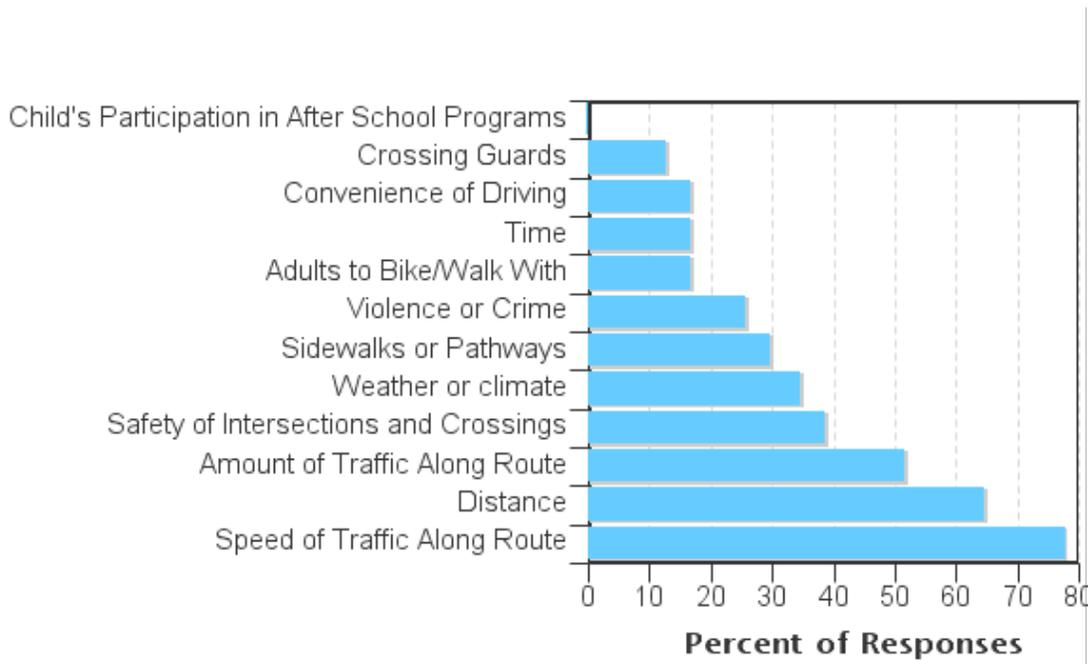


Percent of children who have asked for permission to walk or bike to/from school by distance they live from school

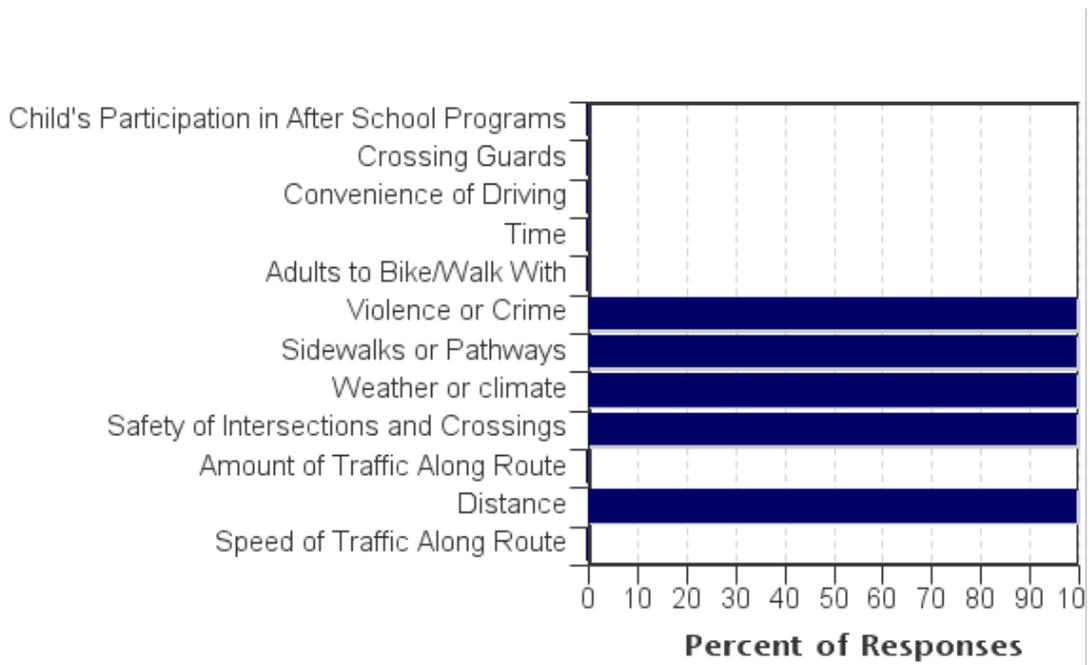
Asked Permission?	Number of Children	Less than 1/4 mile	1/4 mile up to 1/2 mile	1/2 mile up to 1 mile	1 mile up to 2 miles	More than 2 miles
Yes	5	60%	50%	0%	0%	6%
No	27	40%	50%	100%	100%	94%

Don't know or No response: 1
 Percentages may not total 100% due to rounding.

Issues reported to affect the decision to not allow a child to walk or bike to/from school by parents of children who do not walk or bike to/from school



Issues reported to affect the decision to allow a child to walk or bike to/from school by parents of children who already walk or bike to/from school



Issues reported to affect the decision to allow a child to walk or bike to/from school by
parents of children who already walk or bike to/from school

Issue	Child does not walk/bike to school	Child walks/bikes to school
Speed of Traffic Along Route	78%	0%
Distance	65%	100%
Amount of Traffic Along Route	52%	0%
Safety of Intersections and Crossings	39%	100%
Weather or climate	35%	100%
Sidewalks or Pathways	30%	100%
Violence or Crime	26%	100%
Adults to Bike/Walk With	17%	0%
Time	17%	0%
Convenience of Driving	17%	0%
Crossing Guards	13%	0%
Child's Participation in After School Programs	0%	0%
Number of Respondents per Category	23	1

No response: 9

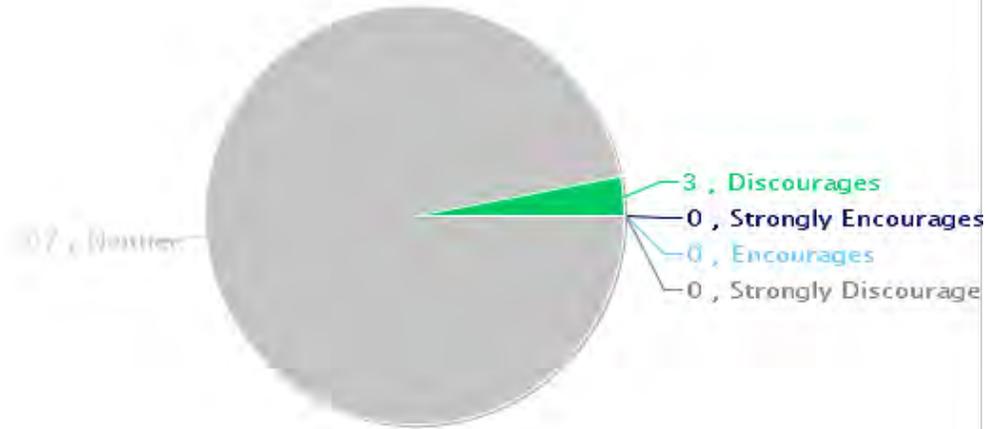
Note:

--Factors are listed from most to least influential for the 'Child does not walk/bike to school' group.

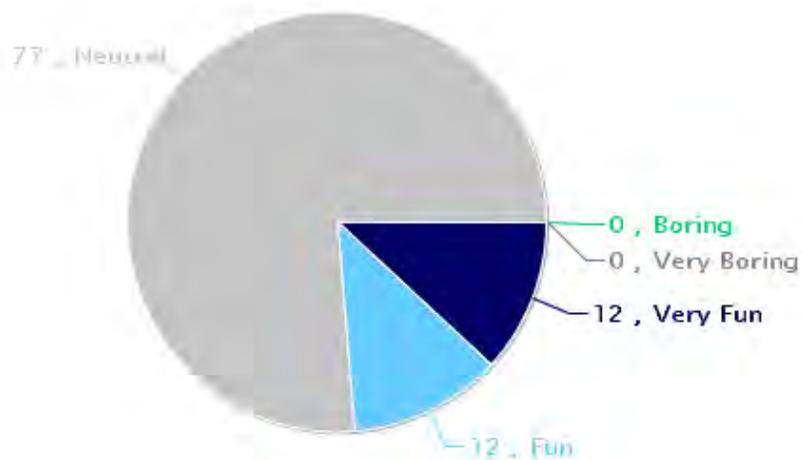
--Each column may sum to > 100% because respondent could select more than issue

--The calculation used to determine the percentage for each issue is based on the 'Number of Respondents per Category' within the respective columns (Child does not walk/bike to school and Child walks/bikes to school.) If comparing percentages between the two columns, please pay particular attention to each column's number of respondents because the two numbers can differ dramatically.

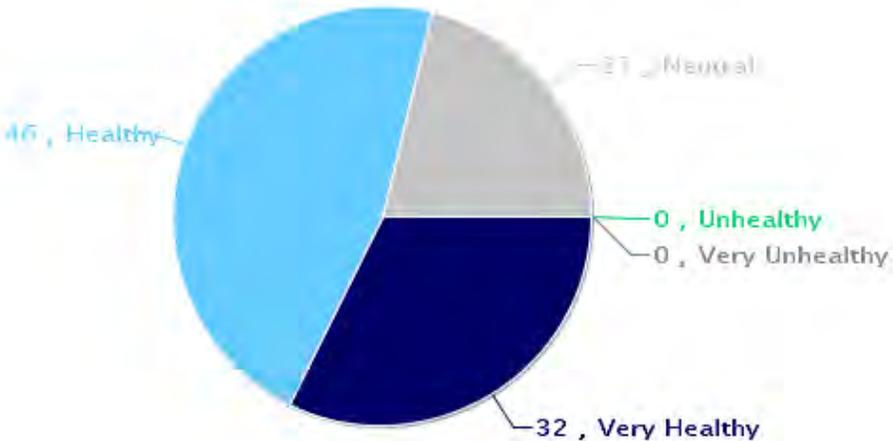
Parents' opinions about how much their child's school encourages or discourages walking and biking to/from school



Parents' opinions about how much fun walking and biking to/from school is for their child



Parents' opinions about how healthy walking and biking to/from school is for their child



Comments Section

SurveyID	Comment
1407115	My child's age is the factor that most affects my decision to not allow her to walk currently to school.
1407117	Vermont Route 207 is unsafe for my child to walk on without an adult present
1407371	There is no safe route to and from school for child, only very busy state route.
1407373	Barking/Growling dogs make for a frightening walk to/from school on many days. Dog runs should not allow a dog to reach the road where pedestrians walk.
1407114	We live too far outside of Highgate Center to even consider walking or riding a bike to school.
1407122	Our private drive is located on a fast, heavy traveled road and the post won't even deliver because they say it's unsafe. My child will never bike or walk it.
1406956	Teachers need to be more active outside all together.
1407110	I feel we live in an area & an era in time that I would NEVER feel comfortable letting my children walk or ride to school!
1407120	If I lived closer I would allow my child to walk/bike to school, but I would accompany them for safety.
1407372	12,13,14 does NOT include us & I don't know how much they encourage the kids.

Student Travel Tally Report: One School in One Data Collection Period

School Name: Highgate Elementary School

Set ID: 19827

School Group: NW Regional Planning Commission (Enosburg/Franklin Central)

Month and Year Collected: February 2016

School Enrollment: 0

Date Report Generated: 03/03/2016

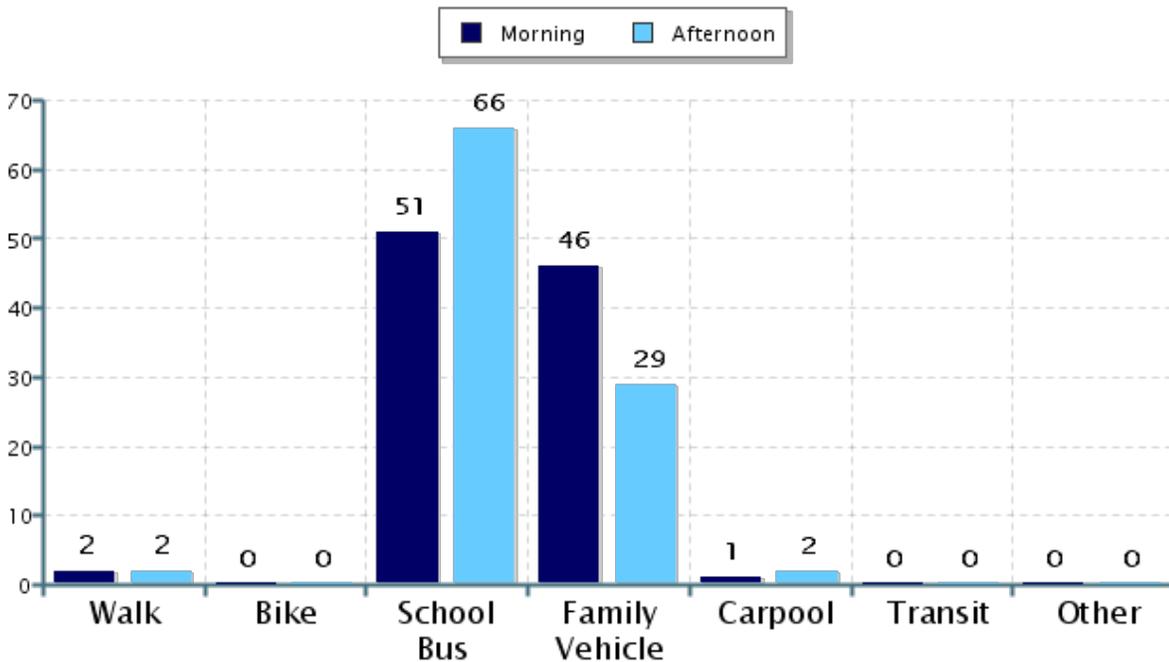
% of Students reached by SRTS activities: 0-25%

Tags:

**Number of Classrooms
Included in Report:** 18

This report contains information from your school's classrooms about students' trip to and from school. The data used in this report were collected using the in-class Student Travel Tally questionnaire from the National Center for Safe Routes to School.

Morning and Afternoon Travel Mode Comparison



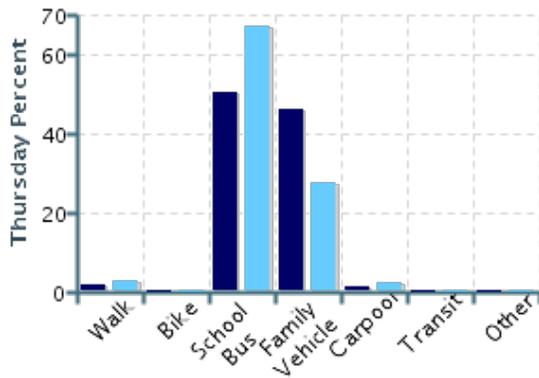
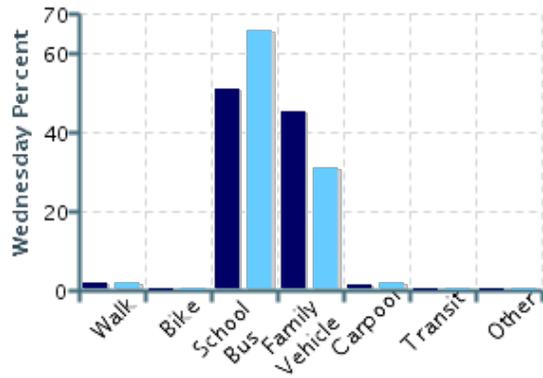
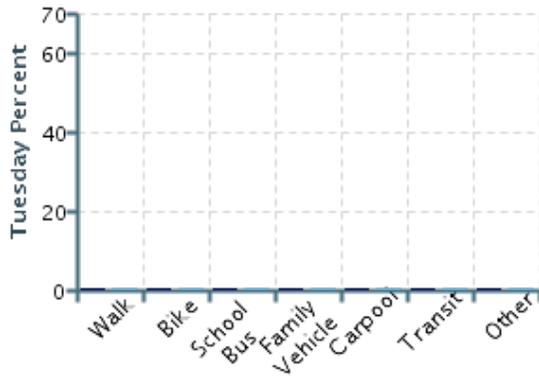
Morning and Afternoon Travel Mode Comparison

	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	575	2%	0%	51%	46%	1%	0%	0%
Afternoon	578	2%	0%	66%	29%	2%	0%	0%

Percentages may not total 100% due to rounding.

Morning and Afternoon Travel Mode Comparison by Day

■ Morning ■ Afternoon

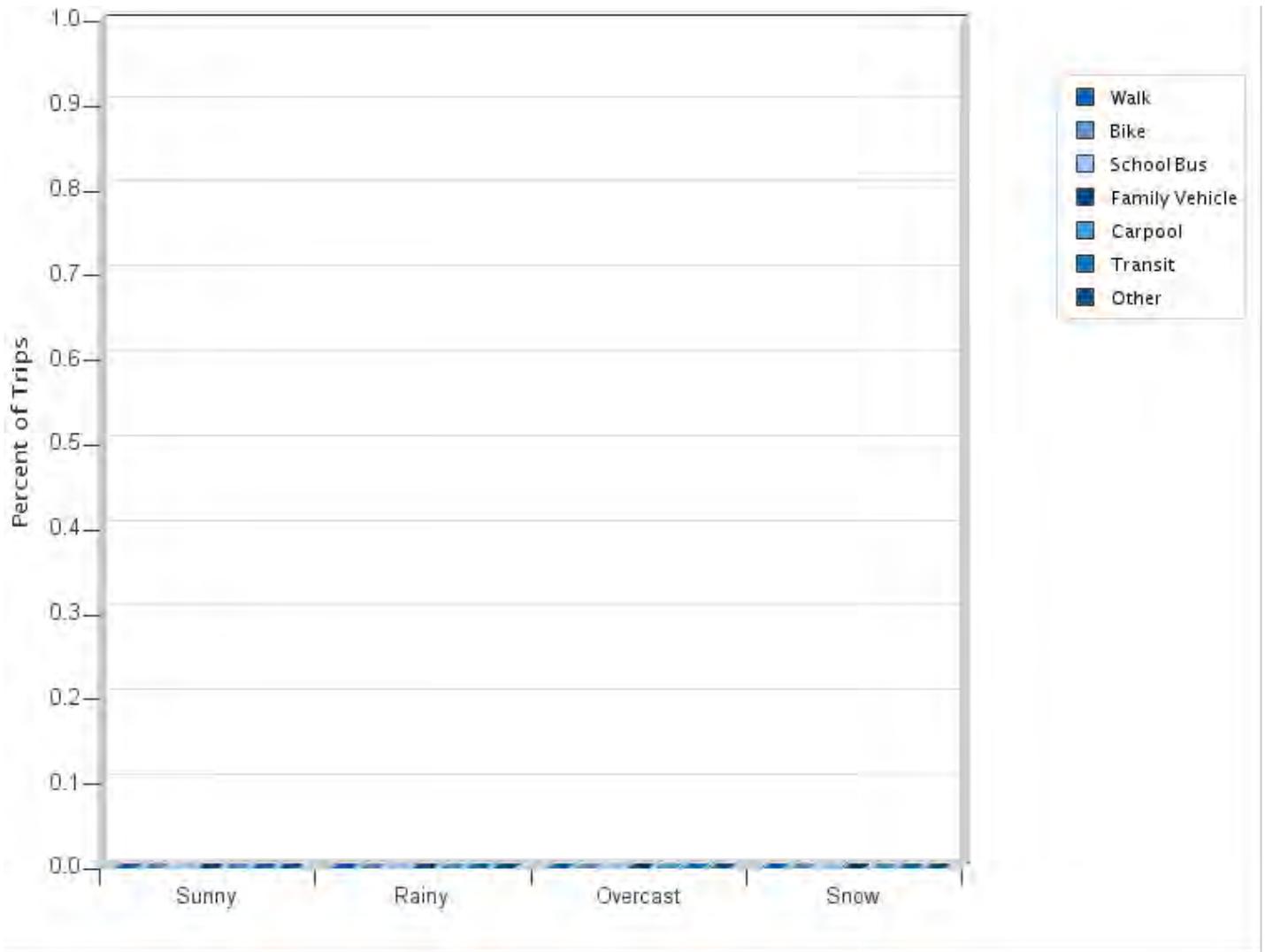


Morning and Afternoon Travel Mode Comparison by Day

	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Tuesday AM		0%	0%	0%	0%	0%	0%	0%
Tuesday PM		0%	0%	0%	0%	0%	0%	0%
Wednesday AM	286	2%	0%	51%	45%	1%	0%	0%
Wednesday PM	293	2%	0%	66%	31%	2%	0%	0%
Thursday AM	289	2%	0%	51%	46%	1%	0%	0%
Thursday PM	285	3%	0%	67%	28%	2%	0%	0%

Percentages may not total 100% due to rounding.

Travel Mode by Weather Conditions



Travel Mode by Weather Condition

Weather Condition	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Sunny	0	0%	0%	0%	0%	0%	0%	0%
Rainy	0	0%	0%	0%	0%	0%	0%	0%
Overcast	0	0%	0%	0%	0%	0%	0%	0%
Snow	0	0%	0%	0%	0%	0%	0%	0%

Percentages may not total 100% due to rounding.

Attachment B
Town Engineering Studies

TOWN OF HIGHGATE

Proposed Village Center Designation

- 1 Joey's Junction Bakery
- 2 Park & Ride
- 3 Cemetery
- 4 Municipal Office, Fire Dept. & Public Works Garage
- 5 Memorial Park
- 6 Public Library
- 7 Irving Gas Station
- 8 Catholic Church
- 9 Desorcie's Market
- 10 Post Office
- 11 Town Owned Property (Former Cafe)
- 12 Paws for Thought
- 13 M & H Gun Shop
- 14 Highgate Elementary School
- 15 Lamoille Valley Rail Trail
- 16 Highgate Hockey Arena
- 17 Quick Stop
- 18 Historical Society
- 19 Methodist Church
- 20 O.C. McCuin & Sons

Proposed Village Designation Boundary

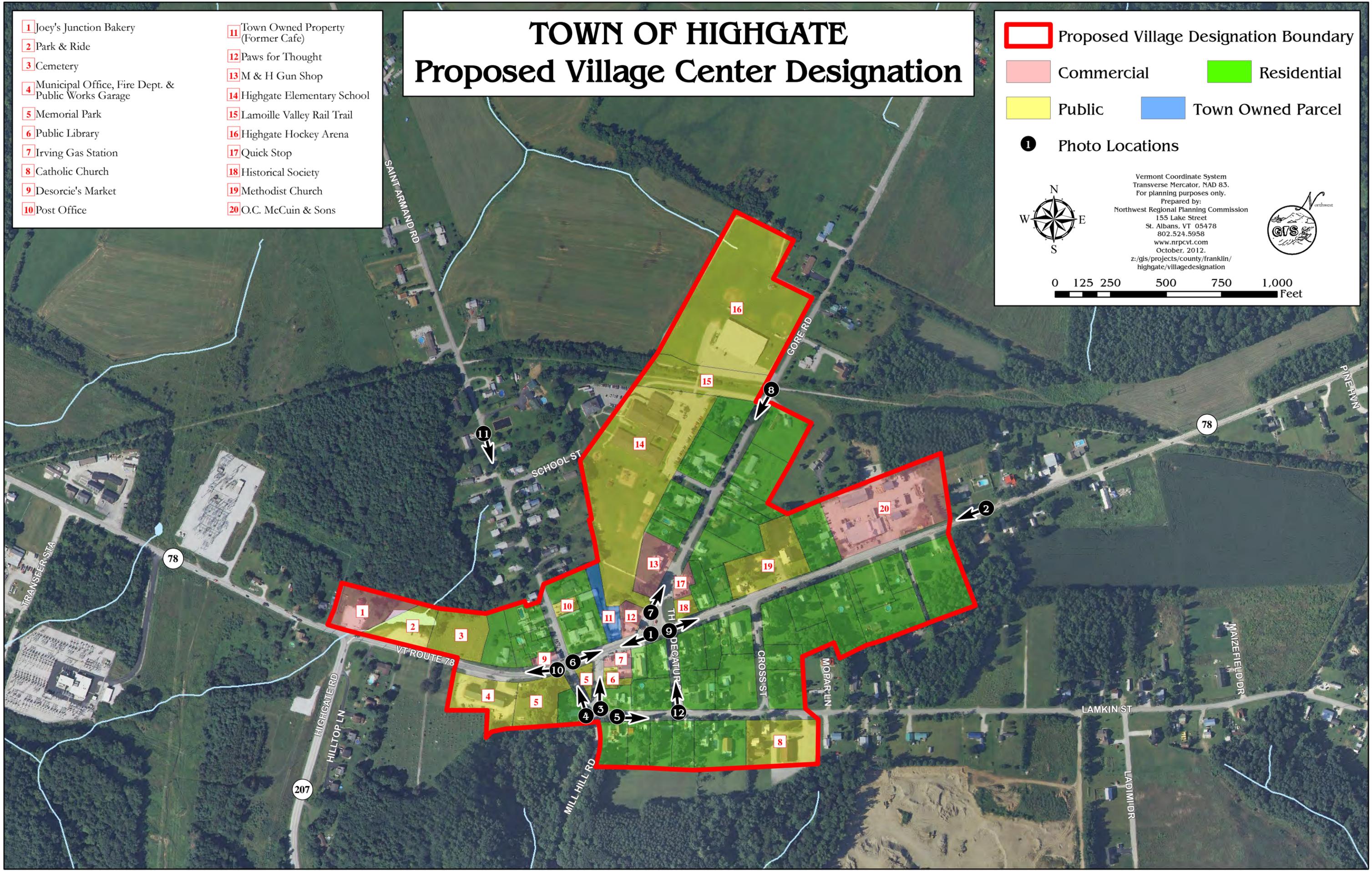
Commercial Residential

Public Town Owned Parcel

1 Photo Locations

Vermont Coordinate System
 Transverse Mercator, NAD 83.
 For planning purposes only.
 Prepared by:
 Northwest Regional Planning Commission
 155 Lake Street
 St. Albans, VT 05478
 802.524.5958
 www.nrpcvt.com
 October, 2012.
 z:/gis/projects/county/franklin/
 highgate/villagedesignation

0 125 250 500 750 1,000 Feet



INDEX OF SHEETS

- 1 TITLE SHEET
- 2 TYPICAL SECTION SHEET
- QUANTITY SHEETS (TO BE DEVELOPED)
- 3 - 4 LAYOUT SHEETS
- 5 DETAIL SHEET
- 6 TRAFFIC SIGN SUMMARY SHEET
- 7-12 CROSS SECTION SHEETS
- 13 TRAFFIC CONTROL DETAIL AND NOTES

PROPOSED IMPROVEMENT HIGHGATE SIDEWALK PROJECT TOWN OF HIGHGATE - COUNTY OF FRANKLIN

PROPOSED PEDESTRIAN FACILITY IMPROVEMENTS

AGENCY OF TRANSPORTATION STANDARDS

NAME	DESCRIPTION	ENGLISH
B-71	STANDARD FOR RESIDENTIAL AND COMMERCIAL DRIVES	7/8/2005
C-10	CURBING	2/11/2008
C-2A	PORTLAND CEMENT CONCRETE SIDEWALK DRIVE ENTRANCES WITH SIDEWALK ADJACENT TO CURB	10/14/2005
C-2B	PORTLAND CEMENT CONCRETE SIDEWALK DRIVE ENTRANCES WITH SIDEWALK AND GREEN STRIP	10/14/2005
C-3A	SIDEWALK RAMPS	3/10/2008
C-3B	SIDEWALK RAMPS AND MEDIAN ISLANDS	3/10/2008
E-125	TRAVEL INFORMATION SIGNS	8/8/1995
E-141	REGULATORY SIGN DETAILS	9/20/1995
E-142	REGULATORY SIGN DETAILS	9/20/1995
E-143	REGULATORY SIGN DETAILS	6/15/2004
E-163	TUBULAR STEEL SIGN POST	5/20/1999
E-191	PAVEMENT MARKING DETAILS	2/1/1999
E-192	PAVEMENT MARKING DETAILS	10/12/2000
E-193	PAVEMENT MARKING DETAILS	8/18/1995
T-1	TRAFFIC CONTROL GENERAL NOTES	8/6/2012
T-10	CONVENTIONAL ROADS CONSTRUCTION APPROACH SIGNING	8/6/2012
T-17	TRAFFIC CONTROL MISCELLANEOUS DETAILS	8/6/2012
T-2	TRAFFIC SIGN GENERAL NOTES	2/12/2016
T-24	TRAFFIC CONTROL FOR MAINTENANCE PAVEMENT MARKING OPERATION	8/6/2012
T-28	CONSTRUCTION SIGN DETAILS	8/6/2012
T-29	CONSTRUCTION SIGN DETAILS	8/6/2012
T-30	CONSTRUCTION SIGN DETAILS	8/6/2012
T-31	CONSTRUCTION SIGN DETAILS	8/6/2012
T-33	MISCELLANEOUS SIGN DETAILS	8/6/2012
T-35	CONSTRUCTION ZONE LONGITUDINAL DROP-OFFS	8/6/2012
T-36	CONSTRUCTION ZONE LONGITUDINAL DROP-OFFS FOR PAVING	8/6/2012
T-40	DELINEATORS AND MILEPOSTS	1/2/2013
T-45	SQUARE TUBE SIGN POST AND ANCHOR	1/2/2013
T-56	STANDARD SIGN PLACEMENT	10/26/2015

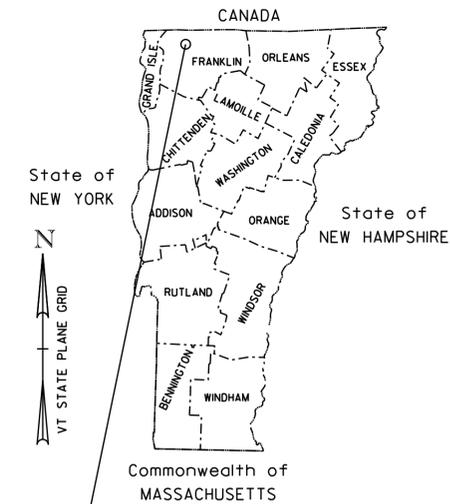
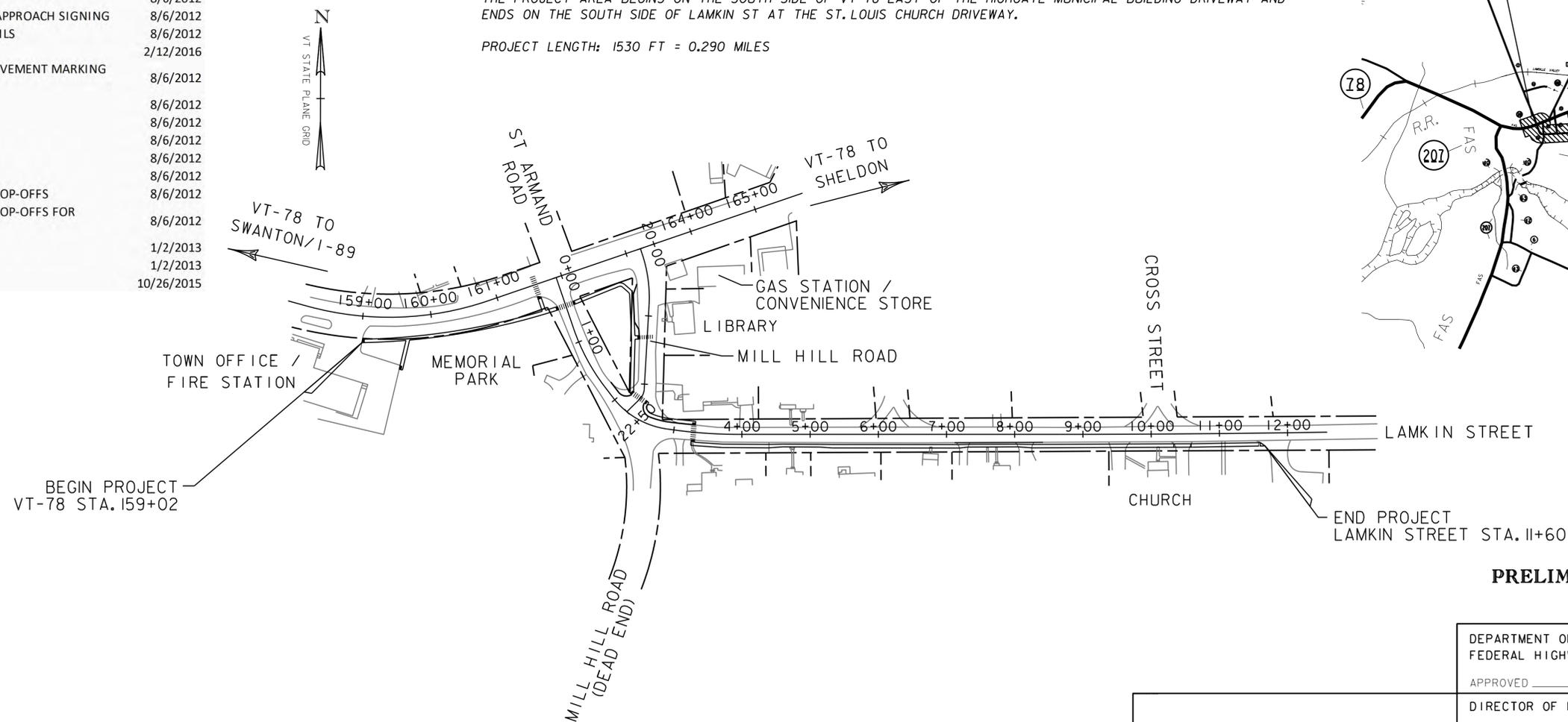
PROJECT DESCRIPTION:

WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES CONSTRUCTION OF A SIDEWALK AND GRANITE CURB IN THE PROJECT AREA, MODIFICATION OF THE CIRCULATION PATTERN ON MILL HILL ROAD, STRIPING OF PARKING SPACES AND CROSSWALKS, SOLAR POWERED RADAR SPEED FEEDBACK SIGNS, SOLAR POWERED RECTANGULAR RAPID FLASHING BEACONS, ASSOCIATED SIGNS, AND OTHER INCIDENTAL ITEMS. APPROXIMATE LENGTH OF SIDEWALK CONSTRUCTION IS 1530 FT.

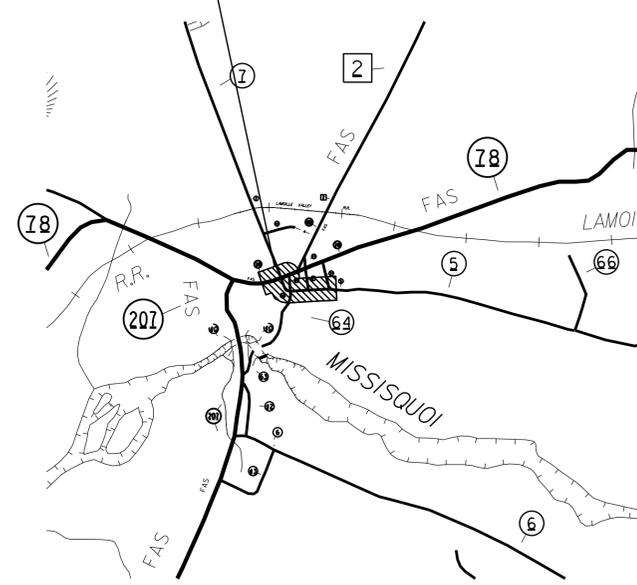
PROJECT LOCATION:

THE PROJECT AREA BEGINS ON THE SOUTH SIDE OF VT-78 EAST OF THE HIGHGATE MUNICIPAL BUILDING DRIVEWAY AND ENDS ON THE SOUTH SIDE OF LAMKIN ST AT THE ST. LOUIS CHURCH DRIVEWAY.

PROJECT LENGTH: 1530 FT = 0.290 MILES



PROJECT LOCATION
HIGHGATE SIDEWALK PROJECT
TAP TA13(1)



CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2011, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JULY 20, 2011 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

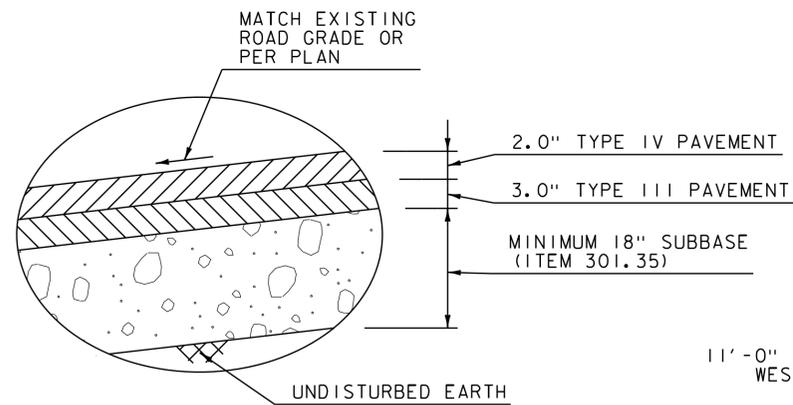
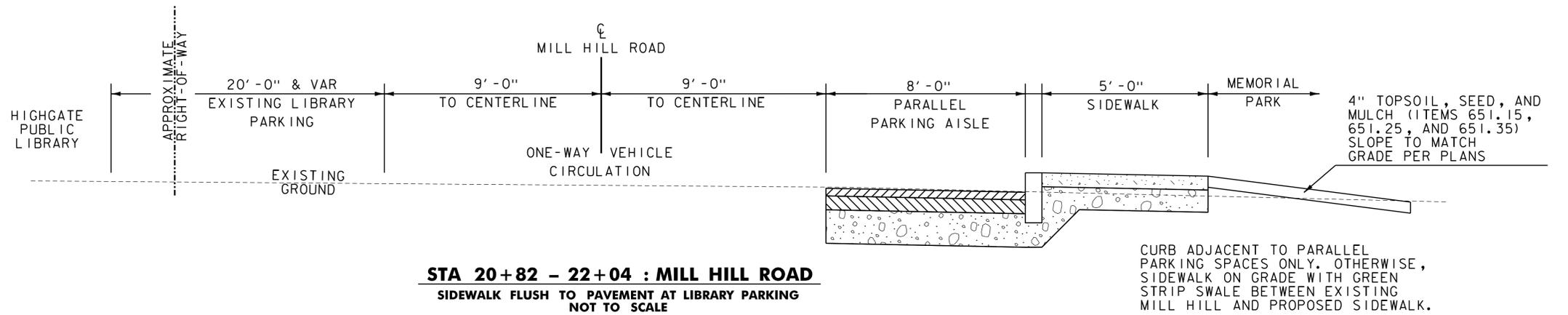
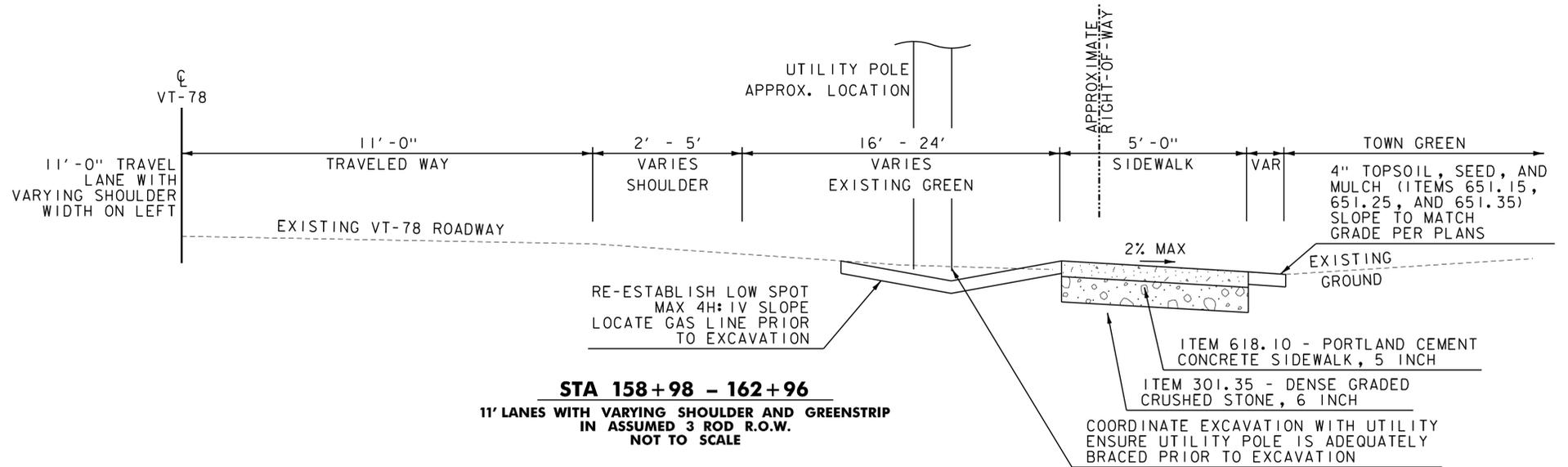
QUALITY ASSURANCE PROGRAM : LEVEL 3	
SURVEYED BY :	TDH SURVEYING
SURVEYED DATE :	MARCH 2014
DATUM	
VERTICAL	NAVD 88
HORIZONTAL	NAD 83



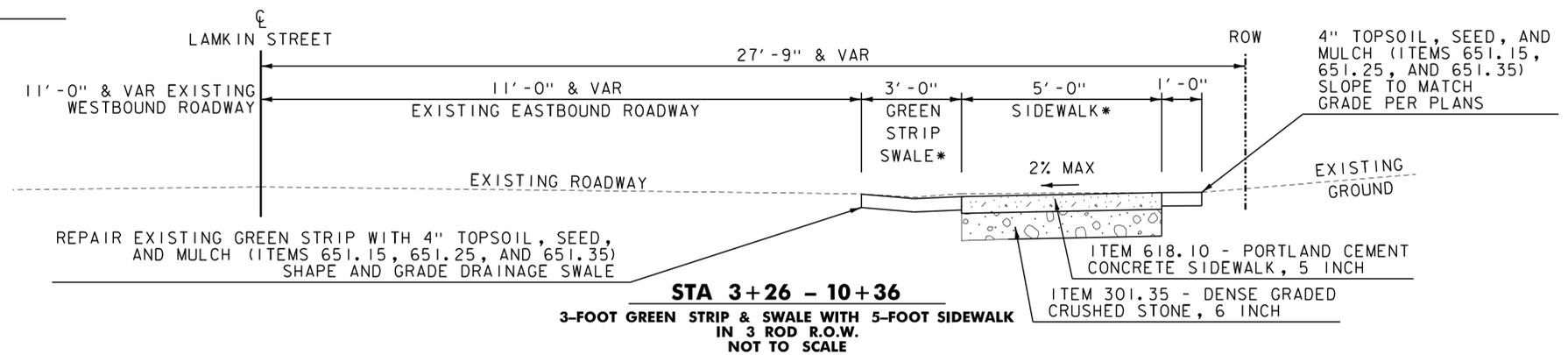
PRELIMINARY (60%) PLANS
APRIL 2016

DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATOR	
APPROVED _____	DATE _____
DIRECTOR OF PROJECT DELIVERY	
APPROVED _____	DATE _____
PROJECT MANAGER :	
PROJECT NAME : HIGHGATE TAP TA13(1)	
PROJECT NUMBER : TAP TA13(1)	
SHEET 1 OF 13 SHEETS	

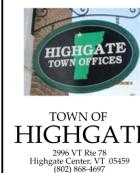




ASPHALT IN ROADWAY SECTION SHALL BE PAID FOR AS ITEM 406.25, UNLESS DIRECTED BY ENGINEER. IN AREAS 2' IN WIDTH, WHERE FINE GRADING IS NECESSARY, OR AS DIRECTED BY THE ENGINEER, ASPHALT SHALL BE PAID FOR AS ITEM 900.680 - HAND PLACED BITUMINOUS CONCRETE PAVEMENT.

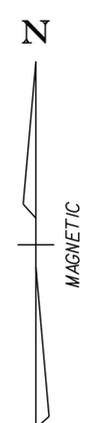
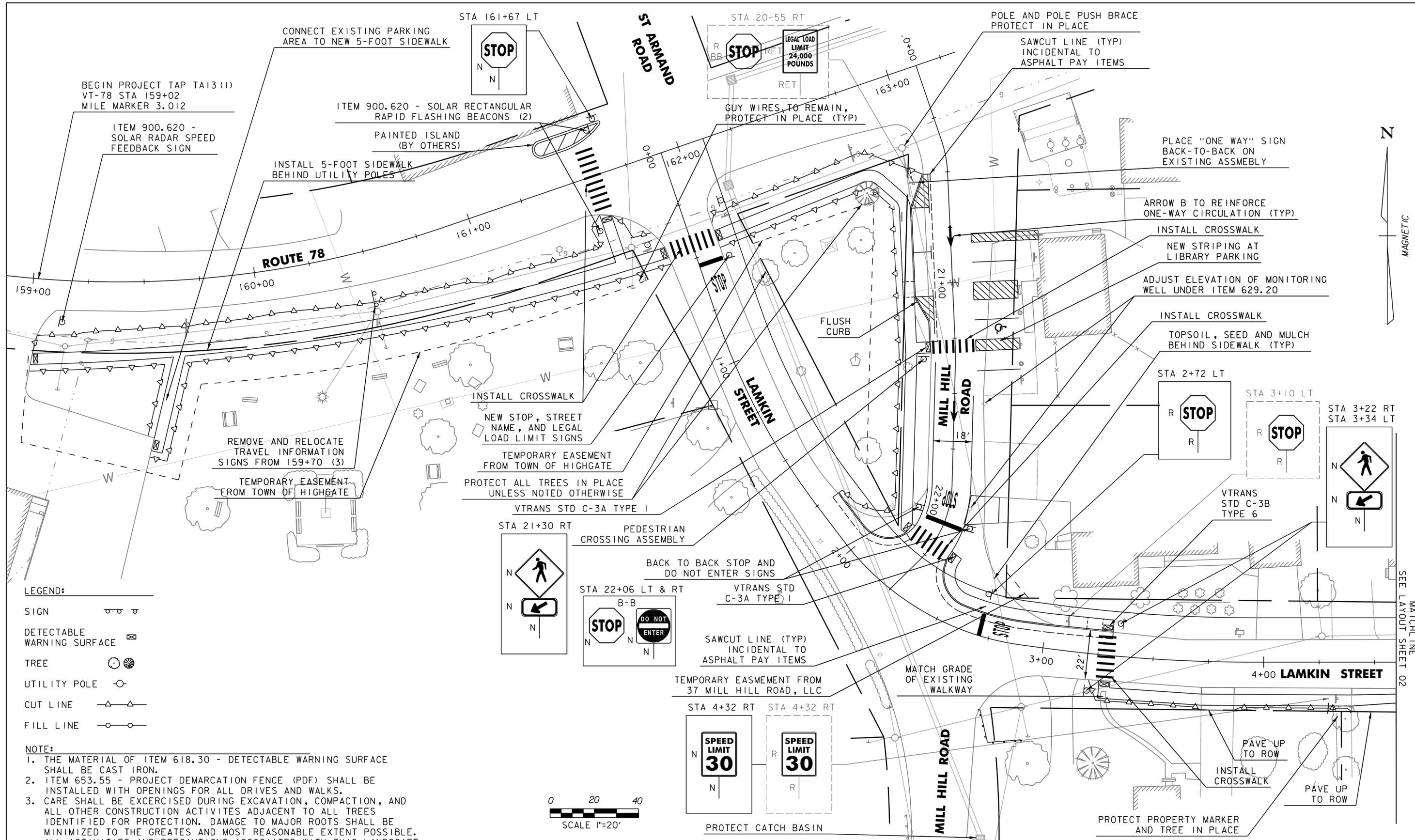


NO.	DATE	REVISIONS	BY	CK'D



PROJECT NAME: HIGHGATE
 PROJECT NUMBER: TAP TA13(I)
 FILE NAME: I3248NUI.DGN
 PROJECT LEADER: CDM
 DESIGNED BY: CDM
 TYPICAL SECTIONS SHEET

PLOT DATE: 04/22/2016
 DRAWN BY: DKG
 CHECKED BY: CDM
 SHEET 2 OF 13

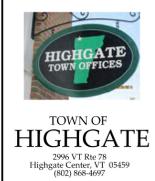


- LEGEND:**
- SIGN
 - DETECTABLE WARNING SURFACE
 - TREE
 - UTILITY POLE
 - CUT LINE
 - FILL LINE

- NOTE:**
1. THE MATERIAL OF ITEM 618.30 - DETECTABLE WARNING SURFACE SHALL BE CAST IRON.
 2. ITEM 653.55 - PROJECT DEMARCATION FENCE (PDF) SHALL BE INSTALLED WITH OPENINGS FOR ALL DRIVES AND WALKS.
 3. CARE SHALL BE EXERCISED DURING EXCAVATION, COMPACTION, AND ALL OTHER CONSTRUCTION ACTIVITIES ADJACENT TO ALL TREES IDENTIFIED FOR PROTECTION. DAMAGE TO MAJOR ROOTS SHALL BE MINIMIZED TO THE GREATEST AND MOST REASONABLE EXTENT POSSIBLE. ALL ACTIVITIES AND PRECAUTIONS ASSOCIATED WITH THIS LANDSCAPE PROTECTION SHALL BE PAID UNDER ITEM 656.85 - TREE PROTECTION.
 4. UNLESS OTHERWISE NOTED, ALL TREES SHALL REMAIN AND BE PROTECTED IN PLACE UNDER ITEM 656.85. TREES IDENTIFIED FOR REMOVAL SHALL BE PAID FOR INCIDENTAL TO ITEM 201.10 - CLEARING AND GRUBBING.
 5. CONTRACTOR SHALL POWER SWEEP THE ASPHALT SURFACES PRIOR TO PAINTING, INCIDENTAL TO PAINT PAY ITEMS.



NO.	DATE	REVISIONS	BY	CK'D



PROJECT NAME: HIGHGATE
 PROJECT NUMBER: TAP TA13(I)
 FILE NAME: I3248NUI.DGN
 PROJECT LEADER: CDM
 DESIGNED BY: CDM
 LAYOUT SHEET 01

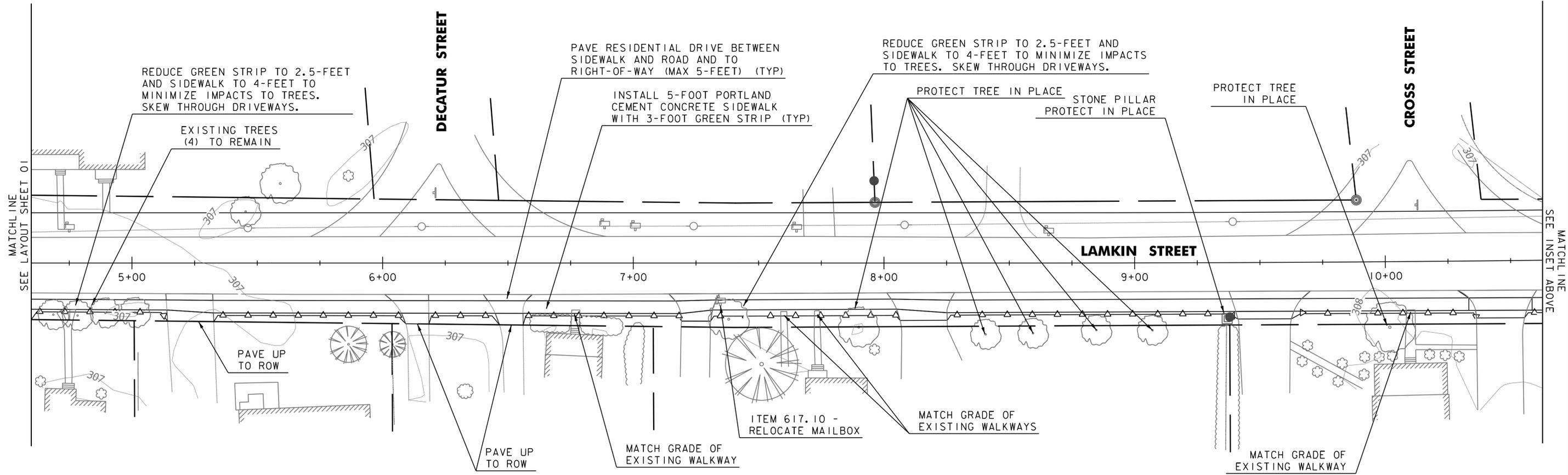
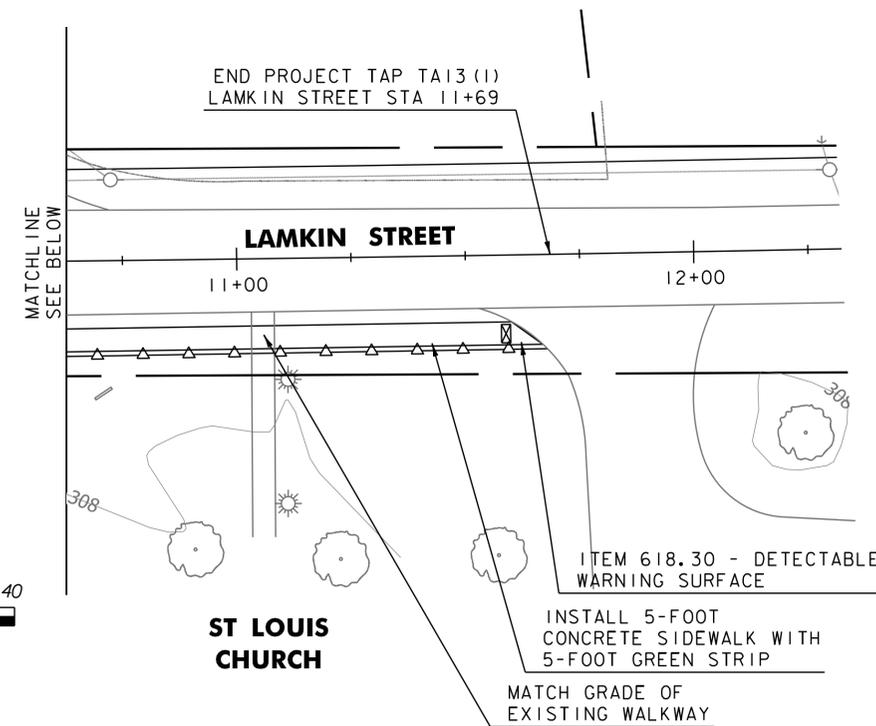
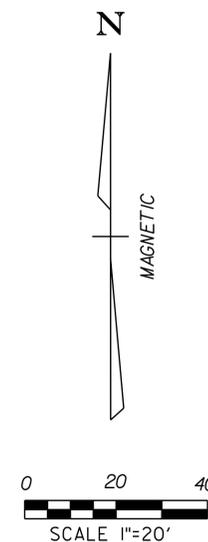
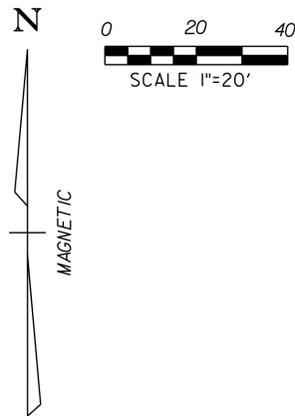
PLOT DATE: 04/22/2016
 DRAWN BY: DKG
 CHECKED BY: CDM
 SHEET 3 OF 13

NOTE:

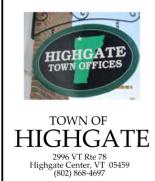
1. THE MATERIAL OF ITEM 618.30 - DETECTABLE WARNING SURFACE SHALL BE CAST IRON.
2. ITEM 653.55 - PROJECT DEMARCATION FENCE (PDF) SHALL BE INSTALLED WITH OPENINGS FOR ALL DRIVES AND WALKS.
3. CARE SHALL BE EXERCISED DURING EXCAVATION, COMPACTION, AND ALL OTHER CONSTRUCTION ACTIVITIES ADJACENT TO ALL TREES IDENTIFIED FOR PROTECTION. DAMAGE TO MAJOR ROOTS SHALL BE MINIMIZED TO THE GREATEST AND MOST REASONABLE EXTENT POSSIBLE. ALL ACTIVITIES AND PRECAUTIONS ASSOCIATED WITH THIS LANDSCAPE PROTECTION SHALL BE PAID UNDER ITEM 656.85 - TREE PROTECTION.
4. UNLESS OTHERWISE NOTED, ALL TREES SHALL REMAIN AND BE PROTECTED IN PLACE UNDER ITEM 656.85. TREES IDENTIFIED FOR REMOVAL SHALL BE PAID FOR INCIDENTAL TO ITEM 201.10 - CLEARING AND GRUBBING.

LEGEND:

- SIGN
- DETECTABLE WARNING SURFACE
- TREE
- UTILITY POLE
- CUT LINE
- FILL LINE



NO.	DATE	REVISIONS	BY	CK'D



PROJECT NAME: HIGHGATE
 PROJECT NUMBER: TAP TA13(I)
 FILE NAME: I3248NUI.DGN
 PROJECT LEADER: CDM
 DESIGNED BY: CDM
 LAYOUT SHEET 02

PLOT DATE: 04/22/2016
 DRAWN BY: DKG
 CHECKED BY: CDM
 SHEET 4 OF 13

GENERAL NOTES:

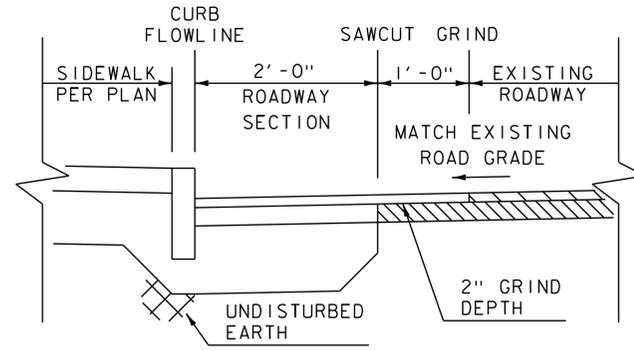
- ALL SUBBASE SHALL BE PAID FOR UNDER ITEM 301.35 - DENSE GRADED CRUSHED STONE.
- SUBBASE DEPTHS SHALL BE AT A MINIMUM AS LISTED BELOW FOR EACH SURFACE:
 5" CONC. SIDEWALK: 6 INCHES
 8" CONC. SIDEWALK: 8 INCHES
 CURB: 8 INCHES
 ASPHALT ROADWAY: 18 INCHES
 ASPHALT WALKWAY: 6 INCHES
 COMMERCIAL ASPHALT DRIVEWAY: 18 INCHES
 RESIDENTIAL ASPHALT DRIVEWAY: 12 INCHES
- SAWCUTTING SHALL BE INCIDENTAL TO ITEM 406.25 - BITUMINOUS CONCRETE PAVEMENT AND ITEM 900.675 - HAND PLACED BITUMINOUS CONCRETE PAVEMENT, AS APPROPRIATE.
- TOPSOIL, SEED, AND MULCH SHALL BE APPLIED TO ALL SURFACES AT THE RATES LISTED IN THE ABOVE SEEDING FORMULA AND PAID FOR UNDER ITEMS 651.15 - SEED, 651.25 - HAY MULCH, AND 651.35 - TOPSOIL.
- ALL DRIVEWAY ENTRANCES SHALL BE CONSTRUCTED PER VERMONT AGENCY OF TRANSPORTATION (VTRANS) STANDARD C-2A, TYPE 2 UNLESS NOTED OTHERWISE OR AS DIRECTED BY ENGINEER.
- ALL SIDEWALK RAMPS SHALL BE CONSTRUCTED PER VTRANS STANDARD C-3A, TYPE 1 UNLESS NOTED OTHERWISE OR AS DIRECTED BY ENGINEER.
- SIDEWALKS CROSSING RESIDENTIAL DRIVEWAYS SHALL CONSIST OF A 5-INCH CONCRETE SECTION. AS NOTED ON PLANS, SIDEWALKS CROSSING COMMERCIAL DRIVEWAYS SHALL CONSIST OF AN 8 INCH SECTION PAID UNDER 618.11 - PORTLAND CEMENT CONCRETE SIDEWALK, 8-INCH.
- ALL CURB RADII SHALL BE CONSTRUCTED OF SMOOTH CURVE SEGMENTS OF GRANITE.
- ASPHALT TREATED FELT SHALL BE PLACED ADJACENT TO SIDEWALK WHEN FORMING AROUND EXISTING FEATURES SUCH AS UTILITY POLES, CATCH BASINS, DROP INLETS, AND MANHOLES OR AS DIRECTED BY ENGINEER.
- REFER TO 2011 VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATION FOR CONSTRUCTION SECTION 656.10 FOR INFORMATION REGARDING TREE PROTECTION. ALL PRACTICES REQUIRED FOR TREE PROTECTION SHALL FOLLOW THESE PROCEDURES AND BE PAID UNDER ITEM 656.85 - TREE PROTECTION.

**SEEDING FORMULA
URBAN AREAS**

% WT.	LBS./A.	NAME	PUR %	GERM %
42.5	34.0	CREEPING RED FESCUE	98	85
10.0	8.0	PERENNIAL RYE GRASS	95	90
42.5	34.0	KENTUCKY BLUE GRASS	85	85
5.0	4.0	ANNUAL RYE GRASS	95	85
100.00	80.0			

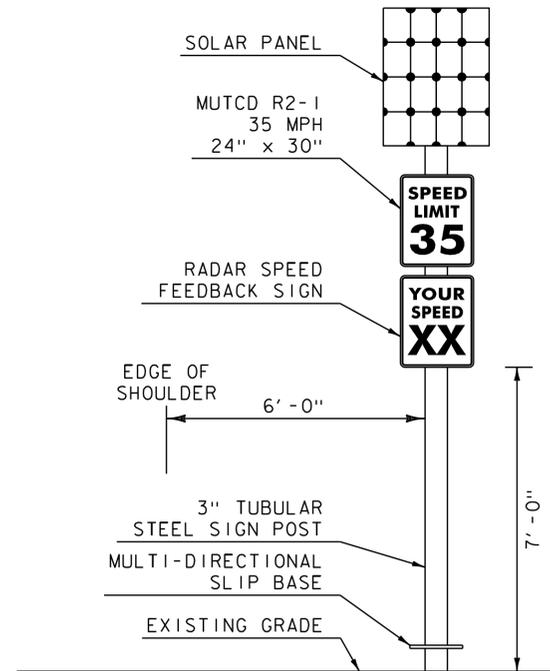
SEEDING NOTES

- SEED MIXTURE: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.
- SEED: TO BE APPLIED PER SEEDING FORMULAS OR AS DIRECTED BY THE ENGINEER.
- HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE, OR AS DIRECTED BY THE ENGINEER.
- TOPSOIL: TO BE USED WITH SEED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.
- SLOPE ROUNDING: ALL CUT SLOPES TO BE ROUNDED IN ACCORDANCE WITH STANDARD SHEET B - 5.



DETAIL A - TYPICAL SAWCUT AND GRINDING SECTION
NOT TO SCALE

- SAWCUTTING AND GRINDING SHALL BE INCIDENTAL TO ASPHALT ITEMS, INCLUDING ITEM 406.25 - BITUMINOUS CONCRETE PAVEMENT, ITEM 490.30 SUPERPAVE BITUMINOUS CONCRETE PAVEMENT, OR ITEM 900.680 - HAND PLACED BITUMINOUS CONCRETE PAVEMENT, AS APPROPRIATE.
- EXISTING PAVMENT SHALL BE SAWCUT STRAIGHT AND PLUMB.
- GRINDING SHALL TAKE PLACE JUST PRIOR TO PLACEMENT OF ASPHALT.
- COAT SAWCUT AND GROOVED SURFACE FOLLOWING GRINDING WITH EMULSIFIED ASPHALT PRIOR TO PLACING BITUMINOUS MATERIAL PER SPECIFICATION, INCIDENTAL TO ASPHALT ITEM INDICATED IN NUMBER 1 ABOVE, AS APPROPRIATE.

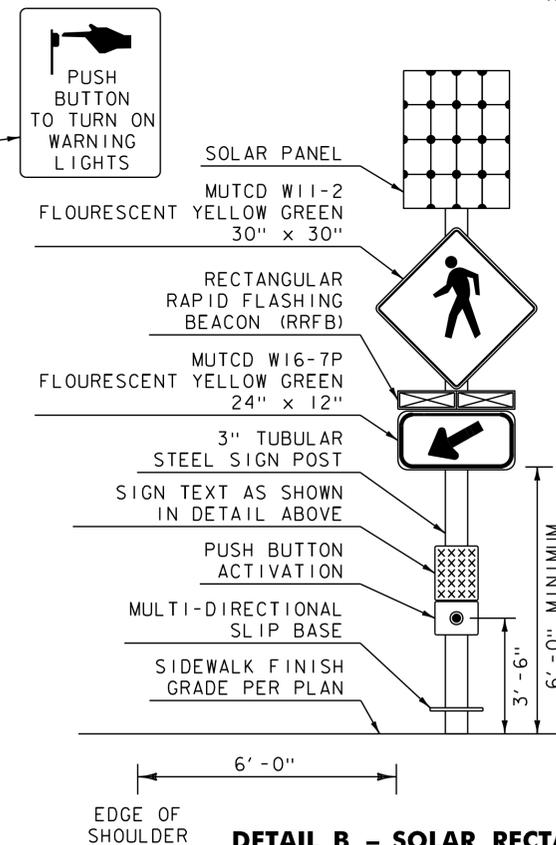


DETAIL C - SOLAR RADAR SPEED FEEDBACK SIGN

NOT TO SCALE

- ALL SIGNS, POSTS, POST FOUNDATIONS, LIGHTS, SOLAR PANELS, WIRING, AND ASSOCIATED INSTALLATION HARDWARE SHALL BE INCIDENTAL TO ITEM 900.620 - SOLAR POWERED RSFS.
- TUBULAR STEEL SIGN POST, FOUNDATION, AND SLIP BASE SHALL BE IN CONFORMANCE WITH VTRANS STANDARD E-163.
- RSFS AND SOLAR PANEL SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATION.
- ALL SIGNS, BEACONS, AND FLASHING PATTERNS SHALL CONFORM TO THE LATEST MUTCD STANDARDS, SECTION 2B.13.
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF RSFS ASSEMBLY PRIOR TO INSTALLATION.
- SIGN SHALL BE PLACED WITHIN THE ROW AND IN ACCORDANCE WITH VTRANS STANDARD E-121.
- MUTCD S4-3P SHALL BE FLOURESCENT YELLOW-GREEN WITH TYPE 7, 8, OR 9 RETROREFLECTIVE SHEETING.

MODIFIED VTRANS SIGN R10-4, STD. E-140 FINGER SHALL POINT IN DIRECTION OF CROSSING

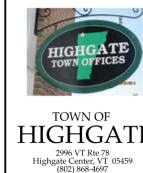


DETAIL B - SOLAR RECTANGULAR RAPID FLASHING BEACON ASSEMBLY

NOT TO SCALE

- ALL SIGNS, POSTS, POST FOUNDATIONS, LIGHTS, SOLAR PANELS, WIRING, AND ASSOCIATED INSTALLATION HARDWARE SHALL BE INCIDENTAL TO ITEM 900.620 - SOLAR POWERED RRFB.
- TUBULAR STEEL SIGN POST, FOUNDATION, AND SLIP BASE SHALL BE IN CONFORMANCE WITH VTRANS STANDARD E-163.
- RRFB, SOLAR PANEL, AND PUSH BUTTON ASSEMBLY SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATION. PUSH BUTTON ASSEMBLY SHALL MEET ALL APPLICABLE ADA ACCESSIBILITY GUIDELINES.
- A SMALL LIGHT DIRECTED AT AND VISIBLE TO THE PEDESTRIAN ON THE PUSH BUTTON ASSEMBLY SHALL ILLUMINATE TO INDICATE THAT THE RRFB IS FLASHING.
- FLASHING SEQUENCE SHALL BE WIG-WAG. RRFB SHALL FLASH FOR 15 SECONDS UPON ACTIVATION.
- ALL SIGNS, BEACONS, AND FLASHING PATTERNS SHALL CONFORM TO THE LATEST MUTCD STANDARDS.
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF RRFB ASSEMBLY PRIOR TO INSTALLATION.
- SIGN SHALL BE PLACED WITHIN THE ROW AND IN ACCORDANCE WITH VTRANS STANDARD E-121.
- MUTCD W11-2 AND W16-7P SHALL BE FLOURESCENT YELLOW-GREEN WITH TYPE 7, 8, OR 9 RETROREFLECTIVE SHEETING.

NO.	DATE	REVISIONS	BY	CHK'D



PROJECT NAME: HIGHGATE
 PROJECT NUMBER: TAP TA13(I)
 FILE NAME: I3248NUI.DGN
 PROJECT LEADER: CDM
 DESIGNED BY: CDM
 DETAIL SHEET

PLOT DATE: 04/22/2016
 DRAWN BY: DKG
 CHECKED BY: CDM
 SHEET 5 OF 13

TRAFFIC SIGN SUMMARY SHEET

MILE MARKER, STATION OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST		NO. OF POST	NEW SIGN POSTS															REMARKS	SIGN DETAIL							
		EACH	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN	SALV TIS	RETAIN	SALVAGE		FLANGED CHANNEL			SQUARE STEEL (in)				TUBULAR ALUMINUM Ø (IN)			TUBULAR STEEL Ø (IN)				W-SHAPE STEEL				DETAIL ON SHEET NUMBER	STANDARD SHEET NUMBER				
												(LB / FT)			1.75	2.00	2.50	ANCHOR	SLEEVE	3.00	4.00	4.0 MOD	FOUNDATION	3.00	3.50	4.00		5.00	FTG. SIZE			WEIGHT	POST SIZE	SIGN FRAME REQUIRED	
												1.12	2.00	3.00	(LB / FT)		(LB / FT)			(LB / FT)				24"	30"										
OPTION ITEMS																																			
159+14 RT	SOLAR RADAR FEEDBACK SIGN	1																										REFER TO DETAIL C SIGN, SOLAR PANEL, LED SIGN, POST, FOUNDATION, EXCAVATION, SURFACE RESTORATION AND ALL NECESSARY ITEMS FOR THE COMPLETE ASSEMBLY SHALL BE INCIDENTAL TO BID ITEM	XXX						
160+50 RT	RELOCATED TRAVEL INFORMATION SIGNS	3													30.0		2.0	2.0											SALVAGE SIGNS FROM STATION 159+70 RT PLACE SIGNS ON NEW POSTS						
161+60 LT & RT	SOLAR RECTANGULAR RAPID FLASHING BEACONS	2																										REFER TO DETAIL B SIGN, SOLAR PANEL, LED SIGN, POST, FOUNDATION, EXCAVATION, SURFACE RESTORATION AND ALL NECESSARY ITEMS FOR THE COMPLETE ASSEMBLY SHALL BE INCIDENTAL TO BID ITEM	XXX						
161+67 LT	R1-1 "STOP"	1	30.0	30.0	6.3										15.0		1.0	1.0											STOP SIGN ASSEMBLY						
161+75 RT	VR-017 "LEGAL LOAD 24,000 POUNDS"	1	24.0	36.0	6.0										15.0		1.0	1.0											LEGAL LOAD RESTRICTION ASSEMBLY, LAMKIN STREET						
162+05 RT	STREET NAME SIGN "MILL HILL RD"	1	24.0	9.0	1.5										12.0		1.0	1.0																	
162+05 RT	R1-1 "STOP"	1	30.0	30.0	6.3										15.0		1.0	1.0											STOP SIGN ASSEMBLY						
162+95 RT	R6-1R & R6-1L BACK-TO-BACK	2	36.0	12.0	6.0																								REMOVE NB STOP SIGN FROM ASSEMBLY, ADD B-B ONE WAY SIGNS						
21+30 RT	W11-2 DIAMOND PED	1	24.0	24.0	4.0										15.0		1.0	1.0											PED CROSSING ASSEMBLY, CO-LOCATED WTH DOWNWARD POINTING ARROW						
21+30 RT	W16-7p DOWNWARD POINT ARROW	1	24.0	12.0	2.0																								PED CROSSING ASSEMBLY, CO-LOCATED WTH DIAMOND PED						
22+06 LT & RT	R1-1 "STOP"	2	30.0	30.0	12.5										30.0		2.0	2.0											STOP SIGN ASSEMBLY						
22+06 LT & RT	R5-1 "DO NOT ENTER"	2	30.0	30.0	12.5																								CO-LOCATED BACK TO BACK WITH STOP SIGNS						
2+72 LT	R1-1 "STOP"	1	30.0	30.0	6.3										15.0		1.0	1.0											STOP SIGN ASSEMBLY						
3+30 LT & RT	W11-2 DIAMOND PED	2	24.0	24.0	8.0										30.0		2.0	2.0											PED CROSSING ASSEMBLY, CO-LOCATED WTH DOWNWARD POINTING ARROW						
3+30 LT & RT	W16-7p DOWNWARD POINT ARROW	2	24.0	12.0	4.0																								PED CROSSING ASSEMBLY, CO-LOCATED WTH DIAMOND PED						
4+32 RT	R2-1 "SPEED LIMIT 25"	1	24.0	30.0	5.0										15.0		1.0	1.0											PED CROSSING ASSEMBLY, CO-LOCATED WTH DIAMOND PED						
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."		TOTALS		SF	SF	EA	SF	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	FT	FT	FT	FT	FT	FT	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA			
				80.25											192.		13.																		

		 <p>180 Battery Street, Suite 350, Burlington, Vermont 05401 802.383.0118 fax 802.383.0122 www.rsg inc</p>	 <p>TOWN OF HIGHGATE 2096 VT Rte 78 Highgate Center, VT 05459 (802) 866-4697</p>	PROJECT NAME: HIGHGATE PROJECT NUMBER: TAP TAI3(I) FILE NAME: I3248NUI.DGN PROJECT LEADER: CDM DESIGNED BY: CDM TYPICAL SECTIONS SHEET	PLOT DATE: 04/22/2016 DRAWN BY: DKG CHECKED BY: CDM SHEET 6 OF 13																				
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