CITY OF BURLINGTON
DEPARTMENT OF PUBLIC WORKS

645 Pine Street, Suite A
Post Office Box 849
Burlington, VT 05402-0849
802.863.9094 VOICE
802.863.0466 FAX
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www.burlingtonvt.gov/dpw

Chapin Spencer
DIRECTOR OF PUBLIC WORKS

M E M O R A N D U M

To: Tenzin Chokden, Clerks Office
From: Chapin Spencer, Director
Date: January 14, 2021
Re: Public Works Commission Agenda

Please find information below regarding the next Commission Meeting.

Date: **January 20, 2021**
Time: 6:30 – 9:00 p.m.

Due to current social distancing measures, this meeting will be held entirely virtually.

To view the meeting:
1. CCTV YouTube Channel (*streamed live*) or on Burlington Telecom Channel 317 (aired on a later date, *not live*). Comments on YouTube are not monitored by DPW staff. https://www.youtube.com/channel/UCJkWMLSqRNKLoyUZQiNoAcQ
2. Join via Zoom: https://us02web.zoom.us/j/83495330508
3. Call in for audio only: Phone number: 301-715-8592 Webinar ID: 834 9533 0508

To participate in public comment:
1. You must either join the meeting via the Zoom link above or by calling via the call-in information above.
2. If signed in via Zoom, please use the "Raise Your Hand" feature. This will alert DPW staff that you wish to speak and will automatically add you to the queue. When it's your turn to speak, your name will be called and you will be unmuted.
3. If you are calling in, please press *9 which will alert DPW staff that you wish to speak. When it's your turn to speak, your phone # will be called out and you will be unmuted.
4. If you encounter any difficulties when attempting to speak during public forum, please email DPWCommunications@burlingtonvt.gov.
5. In the event of challenges with Zoom video, please use the call-in option.

A G E N DA

ITEM

1 Call to Order – Welcome – Chair Comments

2 5 Min Agenda

3 10 Min Public Forum (3 minute per person time limit)

4 5 Min Consent Agenda
- A 2021 Paving Program
- B BHS Parking Configuration
- C Narrow Streets Policy

5 30 Min Water Resources Rate Restructuring & Affordability Program Update
- A Communication, J. Olson, J. Lavalette, M. Moir
- B Commissioner Discussion
- C Public Comment
- D Action Requested –Vote

6 15 Min Parking Request for South End Green Stormwater Infrastructure
- A Communication J. Olson, & J. Sherrard
- B Commissioner Discussion
- C Public Comment
- D Action Requested –Vote

7 20 Min Asset Management
- A Presentation, M. Keenan, M. Moir, G. Sexauer
- B Commissioner Discussion
- C Public Comment
- D Action Requested –Vote

8 5 Min Approval of Draft Minutes of 12-16-2020

9 10 Min Director's Report

10 10 Min Commissioner Communications

11 **Adjournment & Next Meeting Date – February 17, 2021**

Non-Discrimination
The City of Burlington will not tolerate unlawful harassment or discrimination on the basis of political or religious affiliation, race, color, national origin, place of birth, ancestry, age, sex, sexual orientation, gender identity, marital status, veteran status, disability, HIV positive status, crime victim status or genetic information. The City is also committed to providing proper access to services, facilities, and employment opportunities. For accessibility information or alternative formats, please contact Human Resources Department at (802) 540-2505.

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City of Burlington
Department of Public Works

Technical Services Engineering Division
645 Pine Street, Suite A
Burlington, VT 05402
P 802-863-9094 / F 802-863-0466 / TTY 802-863-0450
www.burlingtonvt.gov/DPW

MEMORANDUM

Date: January 20, 2021
To: Public Works Commission
From: Corey Mims P.E., Public Works Engineer
CC: Laura Wheelock P.E., Senior Public Works Engineer
Subject: *CY21* Complete Streets

Background:
The City of Burlington has a longstanding commitment to provide a range of interconnected, safe, affordable, efficient and convenient transportation choices for residents, visitors and employees alike. Recently, this commitment has been formalized through state and local policies, but the real challenge is still ahead of us as we implement these policies -- making every Burlington street "complete."

In June 2012, the DPW convened local stakeholders, decision makers, advocates and municipal staff for a full-day workshop sponsored by the Environmental Protection Agency through their Sustainable Communities Building Blocks Program. Through collaboration at the workshop, an overarching vision was drafted to be a unifying guide for future planning studies that evaluate complete streets:

Burlington streets will evolve into complete streets corridors that provide safe, inviting, and convenient travel for all users of all ages and abilities —including motorists, pedestrians, bicyclists, and public transportation riders.

Within each neighborhood, the need to move people through the corridor will be balanced with the need to provide access to homes, businesses, and local institutions within the corridor. The most effective use of finite public space will be determined through interdisciplinary collaboration with a wide range of community members considering economic, environmental, and equity concerns.

The corridor will develop into an attractive public space through creative streetscape, signage, and other site design features. The corridor will become more livable and desirable by promoting social interaction and public health.

DPW executes this vision through various construction projects throughout the City, with the annual Street Reconstruction contract contributing significantly. As part of this goal, each street paving is required to have an associated Complete Streets Form (Attachment A).

An Equal Opportunity Employer
This material is available in alternative formats for persons with disabilities. To request an accommodation, please call 802.863.9094 (voice) or 802.863.0450 (TTY).

Paving:
Attached are the Complete Streets forms for the streets this construction season: SRF contract: Lakewood Prkwy, Tallwood Ln, North Prospect. CY21 Paving contract: North Ave, Walnut St and St Paul St. Please note there are no exceptions being considered for this work under complete streets. These forms will be placed on record with the Clerk/Treasurer's Office and submitted to Vermont Agency of Transportation.

If you have questions, please contact me by phone (802) 922-5001 or email cmims@burlingtonvt.gov

COMPLETE STREETS PROJECT REPORTING FORM *Form CS-1*

A transportation project may be considered as involving full depth construction, extensive earthwork, impacts to adjacent resources, involvement of multiples departments / agencies / divisions, and/or having a project budget approved by a governing body.

Project Name **Lakewood Pkwy - (Beachcrest to North)**

Project Manager and Department **Corey Mims, DPW**

Date **01/20/2021** **File path** **L:\STREETS AND SIDEWALKS\2-Street Reconstruction Program - Paving\CALYR 2021 Street Paving FY21-22\1 - DESIGN\Complete Streets**

Complete Streets principles WERE considered.

☒ *Form CS-2 attached*

Complete Streets principles WERE NOT considered. This project is exempt because: (Check ONE)

☐ Use of the facility by pedestrians, bicyclists, or other users is prohibited by law.
Identify the limited access roadway: _____

☐ The cost of incorporating Complete Streets principles is disproportionate to the need or probable use of the facility.
☐ *Form CS-3 attached*

☐ The project scope of work was approved prior to July 1, 2011.
Identify the project: _____

The following activities are outside the scope of a transportation project and are not reported: Pothole patching / roadway preventative maintenance, shim paving, traffic signal upgrades to LED bulbs, sidewalk repair, catchbasin repair or installation, street sweeping or plowing, roadside mowing or trimming, sign replacement or installation, electrical upgrades, and emergency repairs.

This form was distributed:

Click here to enter a date. Clerk / Treasurer's Office, Attn: Lori Olberg
Click here to enter a date. Agency of Transportation, Attn: Chris Cole

Form CS-2N STREET CLASSIFICATION – *NEIGHBORHOOD STREET*

Any street not listed above.

Street Name: **Lakewood Pkwy - (Beachcrest to North)**

The following features should be considered on Burlington's Neighborhood Streets

Sidewalks

- ☒ both sides of the street, or at least one side of the street on *Neighborhood Streets*
- ☒ 5' minimum in residential areas
- ☐ > 5' in neighborhood centers and high density residential
- ☐ 8' – 10' on Slow Streets
- ☐ 5' clear zone

NOTES:

Tree Belt

- ☐ 5' minimum
- ☒ 2'minimum for snow storage
- ☐ structural soil in neighborhood centers, high density residential

NOTES:

Street Trees

- ☐ hardscape or tree grates for passenger loading/unloading

NOTES: N/A

Transit Shelters (at stops with high ridership)

- ☐ outside of 5' clear zone
- ☐ benches
- ☐ lighting
- ☐ street trees
- ☐ pedestrian-scale signs

NOTES: N/A

Parking*:*

- ☐ back-in angled or parallel if next to bike lanes

NOTES: N/A

Transit Stops

- ☐ placed in front of crosswalks
- ☐ 100' – 140' curbside for streets with higher lower volume
- ☐ bus bulbs (6' x 35') for streets with higher traffic volume, high transit ridership, crowded sidewalks and/or inadequate space for transit stop amenities
- ☐ 100' – 140' bus turnouts for transit stops with longer dwell times

NOTES: N/A

Traffic Calming should be included on all streets with existing traffic calming features or on streets with an assessed need for traffic calming

- ☐ speed tables and raised crosswalks at mid-block locations
- ☐ raised intersections, calming two streets at once
- ☐ colored / textured pavement for prominent pedestrian zones
- ☐ neighborhood traffic circles / intersection island, calming two streets at once
- ☐ chicanes
- ☐ pedestrian refuges or center islands, for refuge or gateway treatment
- ☐ curb extensions or chokers, at intersections or mid-block

NOTES: N/A

MUNCIPAL COMPLETE STREETS COMPLIANCE FORM

TO: **Project File**

FROM:

DATE:

SUBJECT: **Complete Streets Compliance Form**

Act 34 became effective July 1, 2011 and requires that the needs of all transportation users, regardless of their age, ability, or preferred mode of transportation be considered in state and municipal transportation projects and project phases. This project compliance form serves to document that Complete Streets practices and principles were considered and implemented where applicable for the project listed below. This project compliance form should be completed and retained in the Town's files and a copy provided to VTrans via the Regional Planning Commission.

Road: **Lakewood Pkwy - (Beachcrest to North)**

Project Description: **CY20 Street Reconstruction program**

Compliance – If applicable, select all Complete Streets principles and practices that have been incorporated into the project.

- ☑ Sidewalks: installation, repair, ramps, railing, etc.
- ☑ Crosswalks: installation, repair, markings, etc.
- ☐ Lighting: street or pedestrian scale.
- ☐ Signals: pedestrian features.
- ☐ Streetscaping: benches, bulbouts, landscaping,
- ☑ Pavement Improvements: replacement, repair, etc.
- ☐ Shoulder Improvements: widen with new pavement.
- ☐ Bike/Shared Use: paths, lanes, etc.
- ☐ Public Transit: bus stops, bus pullouts, kiosks, etc.
- ☐ Other (please describe):

Exemption – If applicable, select one.

- ☐ The use of the transportation facility by pedestrians, bicyclists or other users is prohibited by law.
- ☐ The cost of incorporating complete streets principles is disproportionate to the need or probably use.
- ☐ Incorporating complete streets principles is outside the scope of the subject project due to its very nature.

If any of the boxes under "Exemption" are checked please provide a short justification below:

Completed:

Corey Mims	**Public Works Engineer**	**01/20/2021**
Name	Position	Date

COMPLETE STREETS PROJECT REPORTING FORM *Form CS-1*

A transportation project may be considered as involving full depth construction, extensive earthwork, impacts to adjacent resources, involvement of multiples departments / agencies / divisions, and/or having a project budget approved by a governing body.

Project Name **Tallwood Ln (Lakewood to Woodridge)**

Project Manager and Department **Corey Mims, DPW**

Date **01/20/2021** **File path** **L:\STREETS AND SIDEWALKS\2-Street Reconstruction Program - Paving\CALYR 2021 Street Paving FY21-22\1 - DESIGN\Complete Streets**

Complete Streets principles WERE considered.

☒ *Form CS-2 attached*

Complete Streets principles WERE NOT considered. This project is exempt because: (Check ONE)

☐ Use of the facility by pedestrians, bicyclists, or other users is prohibited by law.
Identify the limited access roadway: _____

☐ The cost of incorporating Complete Streets principles is disproportionate to the need or probable use of the facility.
☐ *Form CS-3 attached*

☐ The project scope of work was approved prior to July 1, 2011.
Identify the project: _____

The following activities are outside the scope of a transportation project and are not reported: Pothole patching / roadway preventative maintenance, shim paving, traffic signal upgrades to LED bulbs, sidewalk repair, catchbasin repair or installation, street sweeping or plowing, roadside mowing or trimming, sign replacement or installation, electrical upgrades, and emergency repairs.

This form was distributed:

Click here to enter a date. Clerk / Treasurer's Office, Attn: Lori Olberg
Click here to enter a date. Agency of Transportation, Attn: Chris Cole

Form CS-2N STREET CLASSIFICATION – *NEIGHBORHOOD STREET*

Any street not listed above.

Street Name: **Tallwood Ln (Lakewood to Woodridge)**

The following features should be considered on Burlington's Neighborhood Streets

Sidewalks

- ☒ both sides of the street, or at least one side of the street on *Neighborhood Streets*
- ☒ 5' minimum in residential areas
- ☐ > 5' in neighborhood centers and high density residential
- ☐ 8' – 10' on Slow Streets
- ☐ 5' clear zone

NOTES:

Tree Belt

- ☐ 5' minimum
- ☒ 2'minimum for snow storage
- ☐ structural soil in neighborhood centers, high density residential

NOTES:

Street Trees

- ☐ hardscape or tree grates for passenger loading/unloading

NOTES: N/A

Transit Shelters (at stops with high ridership)

- ☐ outside of 5' clear zone
- ☐ benches
- ☐ lighting
- ☐ street trees
- ☐ pedestrian-scale signs

NOTES: N/A

Parking*:*

- ☐ back-in angled or parallel if next to bike lanes

NOTES: N/A

Transit Stops

- ☐ placed in front of crosswalks
- ☐ 100' – 140' curbside for streets with higher lower volume
- ☐ bus bulbs (6' x 35') for streets with higher traffic volume, high transit ridership, crowded sidewalks and/or inadequate space for transit stop amenities
- ☐ 100' – 140' bus turnouts for transit stops with longer dwell times

NOTES: N/A

Traffic Calming should be included on all streets with existing traffic calming features or on streets with an assessed need for traffic calming

- ☐ speed tables and raised crosswalks at mid-block locations
- ☐ raised intersections, calming two streets at once
- ☐ colored / textured pavement for prominent pedestrian zones
- ☐ neighborhood traffic circles / intersection island, calming two streets at once
- ☐ chicanes
- ☐ pedestrian refuges or center islands, for refuge or gateway treatment
- ☐ curb extensions or chokers, at intersections or mid-block

NOTES: N/A

MUNCIPAL COMPLETE STREETS COMPLIANCE FORM

TO: **Project File**

FROM:

DATE:

SUBJECT: **Complete Streets Compliance Form**

Act 34 became effective July 1, 2011 and requires that the needs of all transportation users, regardless of their age, ability, or preferred mode of transportation be considered in state and municipal transportation projects and project phases. This project compliance form serves to document that Complete Streets practices and principles were considered and implemented where applicable for the project listed below. This project compliance form should be completed and retained in the Town's files and a copy provided to VTrans via the Regional Planning Commission.

Road: **Tallwood Ln (Lakewood to Woodridge)**

Project Description: **CY20 Street Reconstruction program**

Compliance – If applicable, select all Complete Streets principles and practices that have been incorporated into the project.

- [x] Sidewalks: installation, repair, ramps, railing, etc.
- [x] Crosswalks: installation, repair, markings, etc.
- [ ] Lighting: street or pedestrian scale.
- [ ] Signals: pedestrian features.
- [ ] Streetscaping: benches, bulbouts, landscaping,
- [x] Pavement Improvements: replacement, repair, etc.
- [ ] Shoulder Improvements: widen with new pavement.
- [ ] Bike/Shared Use: paths, lanes, etc.
- [ ] Public Transit: bus stops, bus pullouts, kiosks, etc.
- [ ] Other (please describe):

Exemption – If applicable, select one.

- [ ] The use of the transportation facility by pedestrians, bicyclists or other users is prohibited by law.
- [ ] The cost of incorporating complete streets principles is disproportionate to the need or probably use.
- [ ] Incorporating complete streets principles is outside the scope of the subject project due to its very nature.

If any of the boxes under "Exemption" are checked please provide a short justification below:

Completed:

Corey Mims	**Public Works Engineer**	**01/20/2021**
Name	Position	Date

COMPLETE STREETS PROJECT REPORTING FORM *Form CS-1*

A transportation project may be considered as involving full depth construction, extensive earthwork, impacts to adjacent resources, involvement of multiples departments / agencies / divisions, and/or having a project budget approved by a governing body.

Project Name **N Prospect - (North to Pearl)**

Project Manager and Department **Corey Mims, DPW**

Date **01/20/2021** **File path** **L:\STREETS AND SIDEWALKS\2-Street Reconstruction Program - Paving\CALYR 2021 Street Paving FY21-22\1 - DESIGN\Complete Streets**

Complete Streets principles WERE considered.

☒ *Form CS-2 attached*

Complete Streets principles WERE NOT considered. This project is exempt because: (Check ONE)

☐ Use of the facility by pedestrians, bicyclists, or other users is prohibited by law.
Identify the limited access roadway: _____

☐ The cost of incorporating Complete Streets principles is disproportionate to the need or probable use of the facility.
☐ *Form CS-3 attached*

☐ The project scope of work was approved prior to July 1, 2011.
Identify the project: _____

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Form CS-2N STREET CLASSIFICATION – *NEIGHBORHOOD STREET*

Any street not listed above.

Street Name: **N Prospect - (North to Pearl)**

The following features should be considered on Burlington's Neighborhood Streets

Sidewalks

- ☒ both sides of the street, or at least one side of the street on *Neighborhood Streets*
- ☒ 5' minimum in residential areas
- ☒ > 5' in neighborhood centers and high density residential
- ☐ 8' – 10' on Slow Streets
- ☐ 5' clear zone

NOTES:

Tree Belt

- ☐ 5' minimum
- ☒ 2'minimum for snow storage
- ☐ structural soil in neighborhood centers, high density residential

NOTES:

Street Trees

- ☐ hardscape or tree grates for passenger loading/unloading

NOTES: N/A

Transit Shelters (at stops with high ridership)

- ☐ outside of 5' clear zone
- ☐ benches
- ☐ lighting
- ☐ street trees
- ☐ pedestrian-scale signs

NOTES: N/A

Parking*:*

- ☐ back-in angled or parallel if next to bike lanes

NOTES: N/A

Transit Stops

- ☒ placed in front of crosswalks
- ☐ 100' – 140' curbside for streets with higher lower volume
- ☐ bus bulbs (6' x 35') for streets with higher traffic volume, high transit ridership, crowded sidewalks and/or inadequate space for transit stop amenities
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NOTES: N/A

Traffic Calming should be included on all streets with existing traffic calming features or on streets with an assessed need for traffic calming

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- ☐ raised intersections, calming two streets at once
- ☐ colored / textured pavement for prominent pedestrian zones
- ☐ neighborhood traffic circles / intersection island, calming two streets at once
- ☐ chicanes
- ☐ pedestrian refuges or center islands, for refuge or gateway treatment
- ☐ curb extensions or chokers, at intersections or mid-block

NOTES: N/A

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TO: **Project File**

FROM:

DATE:

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Road: **N Prospect - (North to Pearl)**

Project Description: **CY20 Street Reconstruction program**

Compliance – If applicable, select all Complete Streets principles and practices that have been incorporated into the project.

- [x] Sidewalks: installation, repair, ramps, railing, etc.
- [x] Crosswalks: installation, repair, markings, etc.
- [ ] Lighting: street or pedestrian scale.
- [ ] Signals: pedestrian features.
- [ ] Streetscaping: benches, bulbouts, landscaping,
- [x] Pavement Improvements: replacement, repair, etc.
- [ ] Shoulder Improvements: widen with new pavement.
- [x] Bike/Shared Use: paths, lanes, etc.
- [ ] Public Transit: bus stops, bus pullouts, kiosks, etc.
- [ ] Other (please describe):

Exemption – If applicable, select one.

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- [ ] Incorporating complete streets principles is outside the scope of the subject project due to its very nature.

If any of the boxes under "Exemption" are checked please provide a short justification below:

Completed:

Corey Mims	**Public Works Engineer**	**01/20/2021**
Name	Position	Date

COMPLETE STREETS PROJECT REPORTING FORM *Form CS-1*

A transportation project may be considered as involving full depth construction, extensive earthwork, impacts to adjacent resources, involvement of multiples departments / agencies / divisions, and/or having a project budget approved by a governing body.

Project Name **North Ave - (Shore to Ethan Allen)**

Project Manager and Department **Corey Mims, DPW**

Date **01/20/2021** **File path** **L:\STREETS AND SIDEWALKS\2-Street Reconstruction Program - Paving\CALYR 2021 Street Paving FY21-22\1 - DESIGN\Complete Streets**

Complete Streets principles WERE considered.

☒ *Form CS-2 attached*

Complete Streets principles WERE NOT considered. This project is exempt because: (Check ONE)

☐ Use of the facility by pedestrians, bicyclists, or other users is prohibited by law.
Identify the limited access roadway: _____

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☐ *Form CS-3 attached*

☐ The project scope of work was approved prior to July 1, 2011.
Identify the project: _____

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Click here to enter a date. Agency of Transportation, Attn: Chris Cole

Form CS-2N STREET CLASSIFICATION – *NEIGHBORHOOD STREET*

Any street not listed above.

Street Name: **North Ave - (Shore to Ethan Allen)**

The following features should be considered on Burlington's Neighborhood Streets

Sidewalks

- ☒ both sides of the street, or at least one side of the street on *Neighborhood Streets*
- ☒ 5' minimum in residential areas
- ☐ > 5' in neighborhood centers and high density residential
- ☐ 8' – 10' on Slow Streets
- ☒ 5' clear zone

NOTES:

Tree Belt

- ☐ 5' minimum
- ☒ 2'minimum for snow storage
- ☐ structural soil in neighborhood centers, high density residential

NOTES:

Street Trees

- ☐ hardscape or tree grates for passenger loading/unloading

NOTES: N/A

Transit Shelters (at stops with high ridership)

- ☒ outside of 5' clear zone
- ☒ benches
- ☐ lighting
- ☐ street trees
- ☐ pedestrian-scale signs

NOTES:

Parking*:*

- ☐ back-in angled or parallel if next to bike lanes

NOTES: N/A

Transit Stops

- ☒ placed in front of crosswalks
- ☐ 100' – 140' curbside for streets with higher lower volume
- ☐ bus bulbs (6' x 35') for streets with higher traffic volume, high transit ridership, crowded sidewalks and/or inadequate space for transit stop amenities
- ☐ 100' – 140' bus turnouts for transit stops with longer dwell times

NOTES:

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- ☐ chicanes
- ☐ pedestrian refuges or center islands, for refuge or gateway treatment
- ☐ curb extensions or chokers, at intersections or mid-block

NOTES: N/A

MUNCIPAL COMPLETE STREETS COMPLIANCE FORM

TO: **Project File**

FROM:

DATE:

SUBJECT: **Complete Streets Compliance Form**

Act 34 became effective July 1, 2011 and requires that the needs of all transportation users, regardless of their age, ability, or preferred mode of transportation be considered in state and municipal transportation projects and project phases. This project compliance form serves to document that Complete Streets practices and principles were considered and implemented where applicable for the project listed below. This project compliance form should be completed and retained in the Town's files and a copy provided to VTrans via the Regional Planning Commission.

Road: **North Ave - (Shore to Ethan Allen)**

Project Description: **CY21 Street Reconstruction program**

Compliance – If applicable, select all Complete Streets principles and practices that have been incorporated into the project.

- [x] Sidewalks: installation, repair, ramps, railing, etc.
- [x] Crosswalks: installation, repair, markings, etc.
- [x] Lighting: street or pedestrian scale.
- [ ] Signals: pedestrian features.
- [ ] Streetscaping: benches, bulbouts, landscaping,
- [x] Pavement Improvements: replacement, repair, etc.
- [ ] Shoulder Improvements: widen with new pavement.
- [x] Bike/Shared Use: paths, lanes, etc.
- [x] Public Transit: bus stops, bus pullouts, kiosks, etc.
- [ ] Other (please describe):

Exemption – If applicable, select one.

- [ ] The use of the transportation facility by pedestrians, bicyclists or other users is prohibited by law.
- [ ] The cost of incorporating complete streets principles is disproportionate to the need or probably use.
- [ ] Incorporating complete streets principles is outside the scope of the subject project due to its very nature.

If any of the boxes under "Exemption" are checked please provide a short justification below:

Completed:

Corey Mims	**Public Works Engineer**	**01/20/2021**
Name	Position	Date

COMPLETE STREETS PROJECT REPORTING FORM *Form CS-1*

A transportation project may be considered as involving full depth construction, extensive earthwork, impacts to adjacent resources, involvement of multiples departments / agencies / divisions, and/or having a project budget approved by a governing body.

Project Name St Paul Street - (Maple to Howard)

Project Manager and Department Corey Mims, DPW

Date 01/12/2021 **File path** L:\STREETS AND SIDEWALKS\2-Street Reconstruction Program - Paving\CALYR 2021 Street Paving FY21-22\1 - DESIGN\Complete Streets

---

Complete Streets principles WERE considered.

☒ *Form CS-2 attached*

Complete Streets principles WERE NOT considered. This project is exempt because: (Check ONE)

☐ Use of the facility by pedestrians, bicyclists, or other users is prohibited by law.
Identify the limited access roadway: _____

☐ The cost of incorporating Complete Streets principles is disproportionate to the need or probable use of the facility.
☐ *Form CS-3 attached*

☐ The project scope of work was approved prior to July 1, 2011.
Identify the project: _____

The following activities are outside the scope of a transportation project and are not reported: Pothole patching / roadway preventative maintenance, shim paving, traffic signal upgrades to LED bulbs, sidewalk repair, catchbasin repair or installation, street sweeping or plowing, roadside mowing or trimming, sign replacement or installation, electrical upgrades, and emergency repairs.

This form was distributed:

Click here to enter a date. Clerk / Treasurer's Office, Attn: Lori Olberg
Click here to enter a date. Agency of Transportation, Attn: Chris Cole

Form CS-2N STREET CLASSIFICATION – *NEIGHBORHOOD STREET*

Any street not listed above.

Street Name: **St Paul Street - (Maple to Howard)**

The following features should be considered on Burlington's Neighborhood Streets

Sidewalks

- ☒ both sides of the street, or at least one side of the street on *Neighborhood Streets*
- ☒ 5' minimum in residential areas
- ☒ > 5' in neighborhood centers and high density residential
- ☐ 8' – 10' on Slow Streets
- ☒ 5' clear zone

NOTES:

Tree Belt

- ☒ 5' minimum
- ☒ 2'minimum for snow storage
- ☐ structural soil in neighborhood centers, high density residential

NOTES:

Street Trees

- ☐ hardscape or tree grates for passenger loading/unloading

NOTES: N/A

Transit Shelters (at stops with high ridership)

- ☐ outside of 5' clear zone
- ☒ benches
- ☒ lighting
- ☐ street trees
- ☐ pedestrian-scale signs

NOTES:

Parking*:*

- ☐ back-in angled or parallel if next to bike lanes

NOTES:

Transit Stops

- ☒ placed in front of crosswalks
- ☐ 100' – 140' curbside for streets with higher lower volume
- ☐ bus bulbs (6' x 35') for streets with higher traffic volume, high transit ridership, crowded sidewalks and/or inadequate space for transit stop amenities
- ☐ 100' – 140' bus turnouts for transit stops with longer dwell times

NOTES:

Traffic Calming should be included on all streets with existing traffic calming features or on streets with an assessed need for traffic calming

- ☐ speed tables and raised crosswalks at mid-block locations
- ☐ raised intersections, calming two streets at once
- ☐ colored / textured pavement for prominent pedestrian zones
- ☐ neighborhood traffic circles / intersection island, calming two streets at once
- ☐ chicanes
- ☐ pedestrian refuges or center islands, for refuge or gateway treatment
- ☐ curb extensions or chokers, at intersections or mid-block

NOTES: No traffic calming requests

MUNCIPAL COMPLETE STREETS COMPLIANCE FORM

TO: **Project File**

FROM:

DATE:

SUBJECT: **Complete Streets Compliance Form**

Act 34 became effective July 1, 2011 and requires that the needs of all transportation users, regardless of their age, ability, or preferred mode of transportation be considered in state and municipal transportation projects and project phases. This project compliance form serves to document that Complete Streets practices and principles were considered and implemented where applicable for the project listed below. This project compliance form should be completed and retained in the Town's files and a copy provided to VTrans via the Regional Planning Commission.

Road: **St Paul Street - (Maple to Howard)**

Project Description: **CY20 Street Reconstruction program**

Compliance – If applicable, select all Complete Streets principles and practices that have been incorporated into the project.

- [x] Sidewalks: installation, repair, ramps, railing, etc.
- [x] Crosswalks: installation, repair, markings, etc.
- [x] Lighting: street or pedestrian scale.
- [x] Signals: pedestrian features.
- [ ] Streetscaping: benches, bulbouts, landscaping,
- [x] Pavement Improvements: replacement, repair, etc.
- [ ] Shoulder Improvements: widen with new pavement.
- [x] Bike/Shared Use: paths, lanes, etc.
- [x] Public Transit: bus stops, bus pullouts, kiosks, etc.
- [ ] Other (please describe):

Exemption – If applicable, select one.

- [ ] The use of the transportation facility by pedestrians, bicyclists or other users is prohibited by law.
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- [ ] Incorporating complete streets principles is outside the scope of the subject project due to its very nature.

If any of the boxes under "Exemption" are checked please provide a short justification below:

Completed:

Corey Mims	**Public Works Engineer**	**01/12/2021**
Name	Position	Date

COMPLETE STREETS PROJECT REPORTING FORM *Form CS-1*

A transportation project may be considered as involving full depth construction, extensive earthwork, impacts to adjacent resources, involvement of multiples departments / agencies / divisions, and/or having a project budget approved by a governing body.

Project Name **Walnut St (Manhattan to Spring)**

Project Manager and Department **Corey Mims, DPW**

Date **01/20/2021** **File path** **L:\STREETS AND SIDEWALKS\2-Street Reconstruction Program - Paving\CALYR 2021 Street Paving FY21-22\1 - DESIGN\Complete Streets**

Complete Streets principles WERE considered.

☒ *Form CS-2 attached*

Complete Streets principles WERE NOT considered. This project is exempt because: (Check ONE)

☐ Use of the facility by pedestrians, bicyclists, or other users is prohibited by law.
Identify the limited access roadway: _____

☐ The cost of incorporating Complete Streets principles is disproportionate to the need or probable use of the facility.
☐ *Form CS-3 attached*

☐ The project scope of work was approved prior to July 1, 2011.
Identify the project: _____

The following activities are outside the scope of a transportation project and are not reported: Pothole patching / roadway preventative maintenance, shim paving, traffic signal upgrades to LED bulbs, sidewalk repair, catchbasin repair or installation, street sweeping or plowing, roadside mowing or trimming, sign replacement or installation, electrical upgrades, and emergency repairs.

This form was distributed:

Click here to enter a date. Clerk / Treasurer's Office, Attn: Lori Olberg
Click here to enter a date. Agency of Transportation, Attn: Chris Cole

Form CS-2N STREET CLASSIFICATION – *NEIGHBORHOOD STREET*

Any street not listed above.

Street Name: **Walnut St (Manhattan to Spring)**

The following features should be considered on Burlington's Neighborhood Streets

Sidewalks

- ☒ both sides of the street, or at least one side of the street on *Neighborhood Streets*
- ☒ 5' minimum in residential areas
- ☐ > 5' in neighborhood centers and high density residential
- ☐ 8' – 10' on Slow Streets
- ☐ 5' clear zone

NOTES:

Tree Belt

- ☐ 5' minimum
- ☒ 2'minimum for snow storage
- ☐ structural soil in neighborhood centers, high density residential

NOTES:

Street Trees

- ☐ hardscape or tree grates for passenger loading/unloading

NOTES: N/A

Transit Shelters (at stops with high ridership)

- ☒ outside of 5' clear zone
- ☒ benches
- ☐ lighting
- ☐ street trees
- ☐ pedestrian-scale signs

NOTES:

Parking:

- ☐ back-in angled or parallel if next to bike lanes

NOTES: N/A

Transit Stops

- ☒ placed in front of crosswalks
- ☐ 100' – 140' curbside for streets with higher lower volume
- ☐ bus bulbs (6' x 35') for streets with higher traffic volume, high transit ridership, crowded sidewalks and/or inadequate space for transit stop amenities
- ☐ 100' – 140' bus turnouts for transit stops with longer dwell times

NOTES:

Traffic Calming should be included on all streets with existing traffic calming features or on streets with an assessed need for traffic calming

- ☒ speed tables and raised crosswalks at mid-block locations
- ☐ raised intersections, calming two streets at once
- ☐ colored / textured pavement for prominent pedestrian zones
- ☐ neighborhood traffic circles / intersection island, calming two streets at once
- ☐ chicanes
- ☐ pedestrian refuges or center islands, for refuge or gateway treatment
- ☐ curb extensions or chokers, at intersections or mid-block

NOTES:

MUNCIPAL COMPLETE STREETS COMPLIANCE FORM

TO: **Project File**

FROM:

DATE:

SUBJECT: **Complete Streets Compliance Form**

Act 34 became effective July 1, 2011 and requires that the needs of all transportation users, regardless of their age, ability, or preferred mode of transportation be considered in state and municipal transportation projects and project phases. This project compliance form serves to document that Complete Streets practices and principles were considered and implemented where applicable for the project listed below. This project compliance form should be completed and retained in the Town's files and a copy provided to VTrans via the Regional Planning Commission.

Road: **Walnut St (Manhattan to Spring)**

Project Description: **CY21 Street Reconstruction program**

Compliance – If applicable, select all Complete Streets principles and practices that have been incorporated into the project.

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- [x] Crosswalks: installation, repair, markings, etc.
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- [ ] Bike/Shared Use: paths, lanes, etc.
- [x] Public Transit: bus stops, bus pullouts, kiosks, etc.
- [ ] Other (please describe):

Exemption – If applicable, select one.

- [ ] The use of the transportation facility by pedestrians, bicyclists or other users is prohibited by law.
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- [ ] Incorporating complete streets principles is outside the scope of the subject project due to its very nature.

If any of the boxes under "Exemption" are checked please provide a short justification below:

Completed:

Corey Mims	**Public Works Engineer**	**01/20/2021**
Name	Position	Date

City of Burlington
Department of Public Works

Technical Services Engineering Division
645 Pine Street, Suite A
Burlington, VT 05402
P 802-863-9094 / F 802-863-0466 / TTY 802-863-0450
www.burlingtonvt.gov/DPW

Memo

Date: January 14, 2021

To: Public Works Commission

From: Phillip Peterson, Associate Public Works Engineer PCP

CC: Chapin Spencer, Director of Public Works
Norm Baldwin, P.E., City Engineer/Asst. Director – Technical Services
Susan Molzon P.E., Senior Public Works Engineer

Subject: Downtown Burlington High School (BHS) Parking Plan

Possible future amendments, in brief:
The below amendments may be necessary to facilitate parking and traffic adjacent to the old Macy's, which will be the Downtown Burlington High School (BHS). Please note that the possible regulation changes below are approximations and may be subject to change, see Attachment-1.

Possible DPW Commission approvals:
7 No parking areas.
No person shall park any vehicle at any time in the following locations:

- On the south side of Cherry Street in the first space east of the crosswalk at 67 Cherry Street.
- On the south side of Cherry Street in the first and second space west of the crosswalk at 67 Cherry Street.
- On the south side of Cherry Street in the first space east of the crosswalk at 55 Cherry Street.
- On the north side of Cherry Street in the first space east of the crosswalk at 55 Cherry Street.

12-1 No parking except vehicles loading or unloading.
The following spaces are designated as bus stops:

- On the south side of Cherry Street beginning twenty (20) feet east of the crosswalk at 67 Cherry Street and extending east forty (40) feet, effective between the hours of 7:00 a.m. to 9:00 a.m. and 2:00 p.m. to 4:00 p.m. Monday through Friday.
- On the south side of Cherry Street beginning forty (40) feet west of the crosswalk at 67 Cherry Street and extending east sixty (60) feet, effective

between the hours of 7:00 a.m. to 9:00 a.m. and 2:00 p.m. to 4:00 p.m. Monday through Friday.

- On the west side of Pine Street in the first six (6) spaces south of Bank Street, effective between the hours of 7:00 a.m. to 9:00 a.m. and 2:00 p.m. to 4:00 p.m. Monday through Friday.
- On the east side of Pine Street in the first two (2) spaces south of Bank Street, effective between the hours of 7:00 a.m. to 9:00 a.m. and 2:00 p.m. to 4:00 p.m. Monday through Friday.

15 Designated school zones

No person shall operate a vehicle at a rate of speed greater than twenty-five (25) miles per hour on the following streets:

- Cherry Street beginning at Battery Street and extending east to Saint Paul Street.
- Bank Street beginning at Pine Street and extending east to Saint Paul Street.
- Pine Street beginning at Bank Street and extending south to College Street.

16 Bus stops.

The following spaces are designated as bus stops:

- On the south side of Cherry Street beginning sixty (60) feet east of the crosswalk at 67 Cherry Street and extending east eighty (80) feet effective between the hours of 7:00 a.m. to 9:00 a.m. and 2:00 p.m. to 4:00 p.m. Monday through Friday.

Background:

The Department of Public Works (DPW) in partnership with the Burlington School District (BSD), is developing a school travel plan for the relocation of BHS to the old Macy's in Downtown Burlington. This school travel plan will include changes to the parking along Cherry Street and Pine Street. BSD Staff expect approximately 420 students to be in attendance at BHS on a daily basis starting in early March.

Since the school travel plan and public outreach is not yet complete, we are not seeking any action from the Commission at this time. This memo and the attached Draft Downtown BHS Parking Plan is being provided as information only and to seek additional input from the Commission in advance of finalizing the school travel plan and bringing forward recommended regulation changes in February.

Next Steps:

1. Conduct public outreach to local residents and businesses.
2. DPW Staff will bring recommendations to the February Commission based on BSD needs, MUTCD standards, public input, and input from other city Departments.

Attachments:

1. DRAFT Downtown BHS Parking Plan.

---

0 100' 200'

SCALE: 1" = 100'

North

DRAFT DOWNTOWN BHS PARKING PLAN

BURLINGTON, VT PUBLIC WORKS

BURLINGTON PUBLIC WORKS ENGINEERING DIV.

645 PINE STREET
BURLINGTON, VT 05401
(802) 863-9094
(802) 863-0466 (Fax)

DESIGNED PMP	
DRAWN PMP	SCALE 1"=100'
CHECKED SM	DRAWING NO.
DATE 1/14/2021	SHEET 1 OF 1

City of Burlington
Department of Public Works

Technical Services Engineering Division
645 Pine Street, Suite A
Burlington, VT 05402
P 802-863-9094 / F 802-863-0466 / TTY 802-863-0450
www.burlingtonvt.gov/DPW

Memo

Date: January 14, 2021

To: Public Works Commission

From: Phillip Peterson, Associate Engineer

CC: Susan Molzon P.E., Senior Public Works Engineer

Subject: Narrow Streets Standard Operating Procedures Update

Recommendations

No action is required by the Commission. Future actions related to potential parking revisions may be informed by these draft policies, so Commission feedback on the guidelines and standards is appreciated.

Purpose & Need

The purpose of this policy is to establish guidelines and standards for emergency access and snow removal on narrow streets with on-street parking. The need for this policy is to ensure equitable consideration of parking needs and public safety.

Summary

Both DPW staff and the Commission have been challenged to consistently apply parking standards on narrow streets. As a result, policies have been established that identify procedures to guide on-street parking considerations as it relates to 1) traffic calming and 2) emergency access and snow removal operations in winter months. These policies were drafted after consultation with the Burlington Fire Department and the Assistant Director of Street Maintenance at DPW. The intent of these policies are to outline procedures that can be considered when specific issues are presented; not to issue new citywide parking standards.

Based on input from the DPW Commission the following has been added to the Narrow Streets Standard Operating Procedures (SOP), see Attachment-1:

- When parking resources are particularly scarce on a yield or narrow street, DPW Staff may consider a January 1 – March 1 parking restriction. Factors which would influence this recommendation include, but are not limited to, number of properties without driveways, narrow streets bordering resident only parking streets, narrow streets bordering streets with restricted parking, narrow streets with several multifamily homes, and input from street maintenance and emergency response services.

Attachments:

1. Narrow Streets SOP.

	POLICY & PROCEDURE MANUAL **Title: Narrow Streets & On-Street Parking**
Effective Date:	Approved by:
Number:	Signature:

Purpose
This policy and procedure is intended to codify the City's use of Narrow Streets, as per the City Engineer's directive. A narrow street in the City of Burlington is defined as a street which is 28 feet wide or less. Each narrow street may have other characteristics that influence policies and procedures. Additionally, this policy should be considered in parallel with the City's use of Yield Streets when traffic calming is considered.

Background
Street width affects the capability of emergency service vehicles to rapidly reach a fire or medical emergency. Emergency service providers and residents have an expectation that neighborhood streets deliver acceptable space for emergency vehicles to quickly reach their destination and for emergency personnel to efficiently set up and use their equipment. The size of emergency response vehicles is driven, in part, by federal Occupational Health and Safety Administration (OSHA) requirements and City of Burlington service needs.

A narrow street offers a place for better human interaction; where neighbors can meet, children can play, and residents can safely use bicycles for transportation. Narrow streets are less expensive to maintain, they reduce runoff and improve water quality, and slow travel speeds. However, street width affects the capability of emergency service vehicles to rapidly reach a fire or medical emergency and for emergency personnel to efficiently set up and use their equipment. The access requirements for emergency response vehicles are driven, in part, by National Fire Protection Codes.

Similarly, street width affects the capability of snow removal operations. Narrow streets may limit access by plow trucks and may increase the risk of damage to vehicles and to plow drivers' driving records.

The American Association of State Highway and Transportation Officials (AASHTO) is an organization which sets standards for protocols and guidelines on highway construction and design, air, rail, water, and public transportation.

Guidance
When parking opportunities are deficient, it is more possible that residents will park illegally in places that may block access to emergency service vehicles. DPW staff need to consider adopting narrow street standards to make sure that adequate on-street and off-street parking opportunities will be available. Narrow residential streets may be 24 feet to 28 feet in width with parking on both sides. Narrow streets lined with cars parked on both sides may not offer sufficient space for emergency personnel to efficiently set up and use their equipment once they

have reached the scene of an emergency. Additionally, narrow streets lined with cars parked on both sides may not offer sufficient space for DPW Staff to properly conduct snow removal operations. Every potential creation of a narrow street must be evaluated based on existing site conditions, and the standards described herein are not meant to provide a definitive list of all possible relevant conditions.

Standards

1. Narrow streets are local streets (typically between 24'-28' wide).
    a. Note: Given the challenges that snow presents on narrow roads, 24' wide streets would only be considered for yield street conditions if the street has very low automobile volume and low levels of parking utilization.
2. On-street parking utilization on both sides of the street should be less than 60%.
3. Yield and narrow streets are not typically part of the transit network.
4. Emergency response vehicles must be able to travel the through lane at reasonable speeds.
5. Narrow streets may not interfere with trash and recycling collection, snow plowing, and emergency response operations. Depending on the width of the street, parking may be limited to one side of the street during winter months (December 1 – March 31) to allow adequate width for plowing and emergency vehicle access.
6. When parking resources are particularly scarce on a yield or narrow street, DPW Staff may consider a January 1 – March 1 parking restriction. Factors which would influence this recommendation include, but are not limited to, number of properties without driveways, narrow streets bordering resident only parking streets, narrow streets bordering streets with restricted parking, narrow streets with several multifamily homes, and input from street maintenance and emergency response services.
7. It is preferred that 14' of clear travel width is retained, however travel widths may be narrower depending on site conditions.
8. Representatives of DPW's Traffic Division and Engineering Division shall review any and all proposals for Narrow Streets.
9. If snow removal and storage is an issue on a narrow street, consider snow storage locations, and whether temporary parking restrictions for snow plowing or storage will be required during Winter months. Consider providing auxiliary winter parking inside neighborhoods (though not on residential collectors).

To: DPW Commission

From: Megan Moir, Water Resources Division Director
Jessica Lavalette, Water Resources Customer Care and Finance Manager
Jenna Olson, Water Quality Program and Policy Manager

Date: January 20, 2020

Re: Water Resources Division Rate Restructuring and Affordability Project Restart for Fiscal Year 2022

Background

Recognizing the need for future water, sewer, and stormwater rate increases due to aging infrastructure, operational needs and new regulatory challenges, in April 2019 the Burlington City Council requested the Water Resources Division to consider alternative rate structures, revenue sources, and affordability frameworks.

The Division engaged Raftelis, their on-call financial and utility management consultant, to assist in this process. Raftelis is a leading consulting firm providing utility rate and management solutions. The Division and Raftelis worked together throughout 2019 and early 2020 to propose modified rate structures and policies. In order to gather stakeholder input about the proposed changes, several meetings and events were held including: an open house in October 2019, presentations to the Neighborhood Planning Assemblies, and meetings with City Council and Mayor Weinberger. The City Council last heard a presentation on proposed changes during a work session meeting on March 9th, 2020. The following week, the Covid-19 pandemic hit Vermont. Given the significant uncertainties presented during the early phase of the pandemic and our ability to develop a tight COVID-era FY21 budget without rate increases, we determined that we needed to temporarily suspend the rate study.

Given the importance of this project to ensuring sustainable funding for the water resources utilities while simultaneously addressing rate payer affordability, we are updating the Board of Finance and City Council on our plan to restart the project with the goal of implementation for FY 22.

Impetus for Changes to the Division's Rates

The Division of Water Resources provides water, wastewater, and stormwater service to approximately 10,000 customers and 42,000 residents. The Division provides essential services including water treatment and distribution, fire protection, water quality protection, wastewater collection and treatment, stormwater collection and pollution management, and billing and customer service. The Division is organized as three separate enterprise funds for water, wastewater, and stormwater.

The Division faces on-going financial pressure to continue providing these services at an ever higher regulatory standard while maintaining and upgrading aging infrastructure. While the Administration and City Council have supported initiating a generational reinvestment in City water resources infrastructure over the last five years, a significant infrastructure deficit remains for many water resources assets which are beyond their calculated useful life. In order to balance the need for rate increases to sustainably fund water resources services, in an April 2019 Resolution (http://bit.ly/RateAffordability) the City Council charged the Division with developing the following:

- Alternative rate structures, including progressively priced tiers to protect access to "essential" water;
- Alternative revenue sources;
- Affordability frameworks, including discounts for certain qualifying rate payers, water conservation programs and grants and loans for upgrades to service lines; and
- An initial stakeholder process to educate and solicit input on Water Resources rates and a follow-up stakeholder process reporting on the proposed solutions.

In addition to the direct charge from Council, the Division had some of its own goals for the study, which are as follows:

- Ensure affordability of rates
- Apply outside perspective and experience on the long-term financial health of the utilities and pursue potential cost saving and efficiency initiatives
- Develop rate structures that improve financial health and sustainability, and increase revenue predictability
- Ensure utility funds are recouping the costs of all services provided in an equitable manner and in accordance with industry standards:

- Customers receiving additional service may need to pay additional cost e.g. private fire protection (building fire suppression supply, private hydrants)
- Staff and administration costs for new/redevelopment project review (water and sewer connection review, meter sizing, stormwater management plans)

Financial Needs of the Water Resources Division

It is estimated that the FY22 revenue requirements of the water, wastewater, and stormwater utilities are approximately 6%, 7%, and 5% over current rates. Rate increases had been planned for FY21 in concert with a roll out of the new rate structure and affordability program but were not implemented in order to minimize customer impact during uncertain financial times. These increases cover required operation and maintenance of systems; debt service and bond coverage covenants; a prudent mix of cash and debt funding of capital projects; and funding for the Water Resources Assistance Program for qualifying income burdened residential and multifamily customers. As the FY22 budget is finalized, two other funding priorities will be addressed as feasible: contribution to capital reserves and seed funding for other customer assistance programs.

Proposed Rate & Policy Changes

The Division has worked with Raftelis to propose a new rate structure that accomplishes the Division's and Council's goals of financial health, affordability, conservation, and equity among customer classes. It has also incorporated initial community comments into its proposal. Structurally, the proposal (Table 1) is the same as that presented in March 2020, with some focused changes or enhancements to critical implementation details which are outlined below in Table 1.

Table 1. Proposed Changes to Water and Wastewater Rates

Rate Proposals	What is it?	Why do it?
Fixed Charges by Meter Size	A water and wastewater fixed charge that increases based on the size of the customer's water meter	• Is industry best practice – reflects cost of service • Improves revenue stability and predictability • Encouraged by bond rating agencies
Lifeline Rate Tier	"Essential" water consumption (below median usage) is charged at a lower rate, only applicable to single-family residential account holders	• Provides affordability assistance for customers that use "typical" amount of water (400 cf/month) • Incentivizes efficient water use
Class-Based Rates	Different rates for different classes of customers	• Supports all residential customers (single- & multi-family) • Can justify the strains each customer type puts on the utility's infrastructure
Irrigation Rate	A separate, higher rate for those who solely use water for irrigation (with the exception of community gardening initiatives)	• Irrigation often contributes to peak water use, which necessitates system expansion and associated costs • Send price signal to conserve water when use is not for basic needs
Private Fire Protection Charges	A separate, fixed, monthly charge that escalates with connection size for those who have private fire service or hydrants	• Water Resources has invested in system capacity to serve private properties during a fire event, thus the customers who benefit from this service should pay for that capacity
Water Resources Assistance Program (WRAP)	An affordability program that waives the proposed fixed monthly water and wastewater charge for residential customers at or below 185% of the Federal Poverty Level.	• Provides relief to low-income single-family residential customers • Allows greater ability to control their bill (no fixed charge)

Several adjustments and additions have been made since March in order to mitigate the magnitude of the impact on commercial customers while maintaining affordability benefits for residential customers; the impact of the fixed meter charge on fixed income seniors with low water usage; and the impact of the fixed meter charge and fire protection charge on low-income and senior multifamily housing. Those adjustments are:

1. The percentage of revenues recovered from fixed charges was reduced to 10% (from 15% proposed in original March 2020 proposal) to aid affordability by keeping the fixed portion of customer bills as low as is reasonably possible.
2. Private fire protection charges are now set to be phased in over a 5 year period to reduce "rate shock" for customers who will be charged for private fire service for the first time. We will recoup 20% of the cost of service allocated to customers with private fire protection in FY22 with each subsequent year increasing an additional 20% until the full charge is realized in FY26.
3. The commercial rate was lowered and is now equal to other non-residential rates to mitigate the magnitude of bill impacts on businesses.

4. The WRAP program was expanded to include, at a minimum, non-profit multifamily low-income and senior housing developments (e.g., Burlington Housing Authority, Champlain Housing Trust, etc.) and senior-owned single family residential properties. Eligible accounts will have their water and wastewater fixed charge waived.

Proposed FY 22 Water, Fire Protection, Wastewater, and Stormwater Rates

The proposed changes to the Division's rates, including the increased revenue requirements for FY22, result in the rates shown in Table 2. The proposed FY22 rates are compared against the current FY21 rates. Note that currently there is no charge for private fire protection. Stormwater rates will see an estimated 5% across-the-board increase based on revenue requirements but does not have any proposed structural changes. Please note that there may be some small shifts in the final proposed rates listed as we finalize QA/QC activities on customer data and the FY22 budget.

Table 2. Current FY 21 and Proposed FY 22 Water, Wastewater, and Fire Rates

	Water		Wastewater		Private Fire
	Current FY 21	Proposed	Current FY 21	Proposed	Proposed
Fixed Charge per Month					
5/8"	$0.00	$3.34	$0.00	$4.68	$6.70
3/4"	$0.00	$5.02	$0.00	$7.02	$6.70
1"	$22.73	$8.36	$31.67	$11.71	$6.70
1.5"	$45.51	$16.72	$63.39	$23.42	$6.70
2"	$72.68	$26.75	$101.23	$37.46	$6.70
3"	$145.30	$50.16	$202.40	$70.25	$6.70
4"	$248.25	$83.60	$345.80	$117.08	$6.70
6"	$454.06	$167.21	$632.48	$234.15	$19.47
8"	$1,044.35	$267.53	$1,454.73	$374.64	$41.49
10"	N/A	N/A	N/A	N/A	$74.61
Private Fire Hydrant	-	-	-	-	$19.47
Volumetric Rate (per 100 CF)					
Single-family Residential	$4.44	-	$6.20	-	
Tier 1 (0-400 CF)	-	$2.49	-	$6.08	N/A
Tier 2 (401 CF and higher)	-	$6.23	-	$6.08	N/A
Duplex	$4.44	$4.36	$6.20	$6.08	N/A
Triplex	$4.44	$4.36	$6.20	$6.08	N/A
Multi-Family Residential	$4.44	$4.36	$6.20	$6.08	N/A
Mixed Residential & Commercial	$4.44	$4.36	$6.20	$6.08	N/A
Commercial	$4.44	$4.36	$6.20	$6.08	N/A
City	$4.44	$4.36	$6.20	$6.08	N/A
Irrigation/Heating/Cooling	$4.53	$7.48	$6.20	$6.08	N/A

Note: 1" customers and above currently pay a fixed charge in the form of a "minimum" charge. This charge includes a usage allowance. Under the new (lower) fixed charge structure all customers would pay a "ready to serve" charge (lower for 1" and above customers than they currently pay) but will not get a usage allowance.

Customer Impacts of Proposed Rate Structure

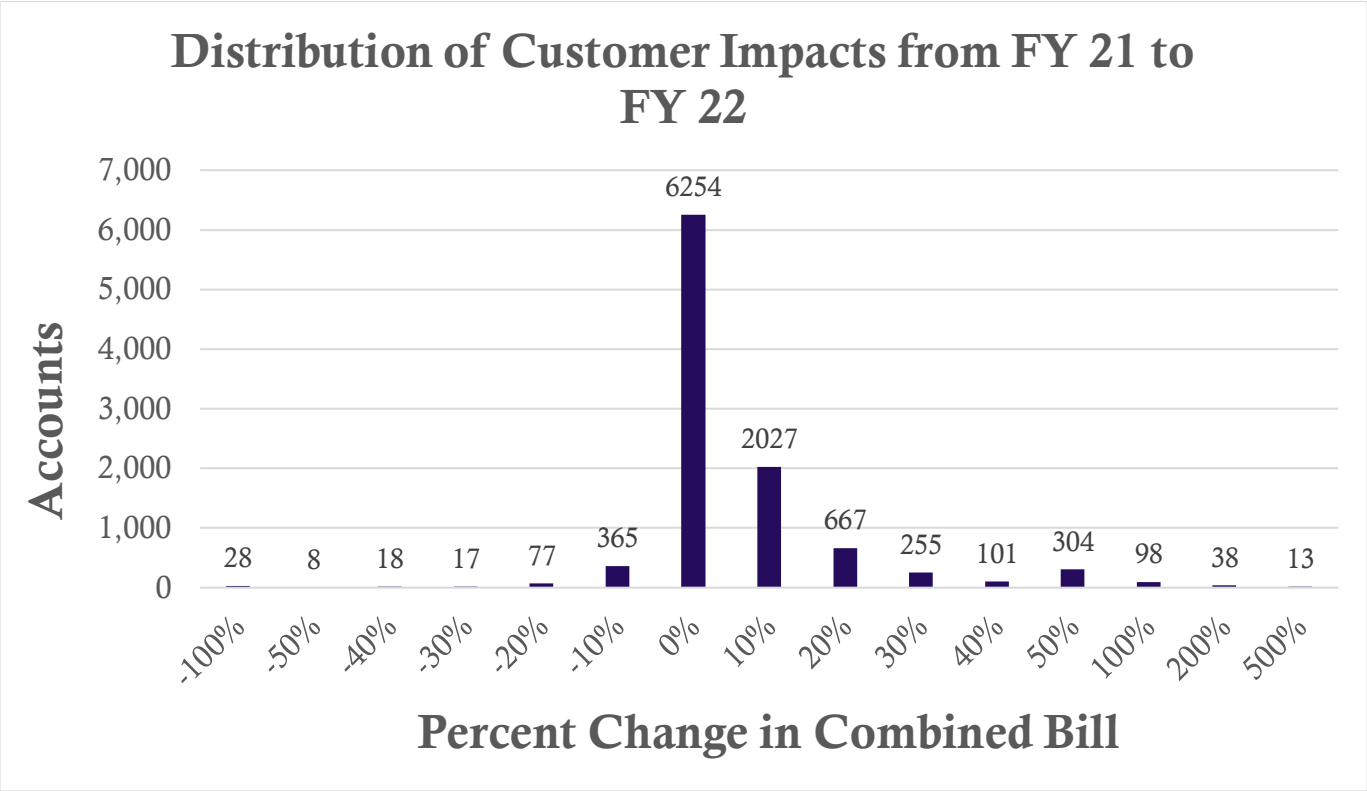
The previously identified projected need for water, wastewater and stormwater rates to increase by 6%, 7%, and 5% respectively would result in across the board overall customer bill increases ***without*** the proposed structural rate changes. The impact of the new structural changes will vary from customer to customer as any increases or decreases in overall bill will be determined by a combination of meter size, future water usage, eligibility for the WRAP program, customer class and the existence of private fire services or hydrants. As such, one of the critical components of our customer outreach will be the advertisement of a variety of methods for requesting an estimate of a customer's bill under the new proposal. Overall, however, we project that the typical single family residential customer using 400 cf/month) will benefit from the structural changes and will see no increase to the water and wastewater portion of their bill. Qualifying low-income or senior owned single family residential customers will see a significant decrease on their bill with the new WRAP program (if they continue to use the same amount of water). Table 3 compares the estimated FY21 annual water, wastewater, stormwater, and fire charges to the expected FY22 totals using the proposed changes for several hypothetical customer groups using the CY19 water usage data.

Table 3. Current and Proposed Annual Water Resources Bill Under Proposed FY 22 Rates
(For non-residential customers, the bill is calculated using water usage from CY19)

Hypothetical Customer Type	FY 2021	FY 2022 Proposed		
	Bill ($)	Bill ($)	$ Change	% Change
Residential				
Low Volume - 2 Ccf	$ 343	$ 396	$ 52	15.2%
WRAP - Low Volume - 2 Ccf	$ 343	$ 299	$ (44)	-12.8%
Median Volume - 4 Ccf	$ 608	$ 609	$ 1	0.2%
WRAP - Median Volume - 4 Ccf	$ 608	$ 512	$ (95)	-15.7%
High Volume - 6 Ccf	$ 872	$ 915	$ 42	4.9%
WRAP - High Volume - 6 Ccf	$ 872	$ 818	$ (54)	-6.2%
Multi-Family Residential				
Low Income Housing	$ 23,646	$ 24,905	$ 1,259	5.3%
Senior Housing	$ 39,239	$ 38,841	$ (398)	-1.0%
Commercial				
Technology Company	$ 17,550	$ 19,958	$ 2,408	13.7%
Retail Company	$ 27,313	$ 28,495	$ 1,181	4.3%
Institutions				
University	$ 1,685,024	$ 1,803,468	$ 118,445	7.0%
Medical Center	$ 718,016	$ 745,075	$ 27,060	3.8%
School District	$ 114,845	$ 123,299	$ 8,454	7.4%

Table 3 represents only a sample of estimated bill impacts. As mentioned above, although this table represents many of the City's customers and customer types, there will be a variety of impacts to customers depending on the specifics of that customer. To further illustrate this, Chart 1 presents the distribution of estimated impacts by percentage change in the combined Water Resources bill.

Chart 1. Distribution of Customer Impacts



Note: This distribution will continue to be refined as we complete additional QA/QC activities on the customer data and finalize the FY22 budget and final revenue requirements. Additionally, note that the distribution above does not reflect the benefits to single family residential customers who will receive a reduced bill from the WRAP program (as customers must apply and show evidence of being qualified for other income based programs – LiHeap, 3Squares, CEDO Home Repair, Crisis Fuel etc. – they will have their fixed charge waived). The rate model does include assumptions of how many customers might qualify for these programs to ensure we are raising adequate revenue.

Next Steps

Next, the Division will continue its outreach to customers through targeted meetings and messaging materials. It is the intent to implement these changes for FY 22, or on July 1, 2021. These changes would first affect bills received by customers in August 2021.

Proposed Project Schedule

- **January - March 2021 | Public Outreach** (all meetings will be virtual)
  - NPA Meetings
  - DPW Commission
  - Transportation, Utility, Environment Committee
  - Targeted notification to customers with fire services, hydrants, & irrigation meters
  - Meet with key partners and large users
  - Open House Meeting for all rate payers
  - Online availability of presentations and web forms for feedback, questions & impact summary requests
  - Customers can request an estimate of what their new bill will be with the proposed changes.
- **March – June 2021 | Continuous Improvement & QA/QC of data**
  - Fire Service data QA/QC
  - Development of Draft WRAP policy
  - Proposed ordinance changes as necessary

April – June 2021 | Approvals

- City Council vote on project specifics
- City Council vote on FY 22 Mayoral budget & Water Resources rates

July – August 2021 | Implementation

- Additional outreach to customers educating them on the upcoming changes to the bills
- Changes effective in July and reflected on August bills

CITY OF BURLINGTON

Water Resources Division

Rate & Affordability Project

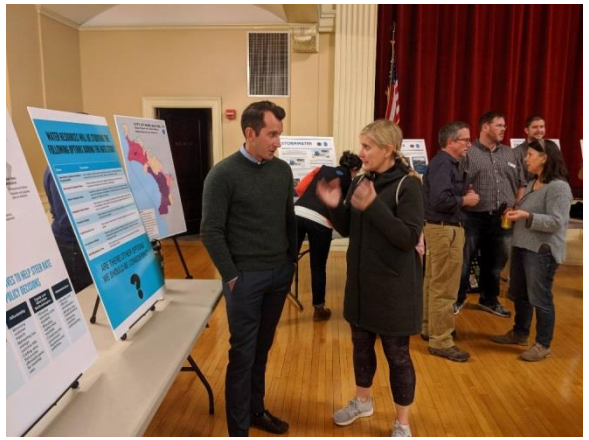
DPW Commission

January 20, 2021

RAFTELIS

Rates & Affordability Refresher: Who, What, When, Where & Why

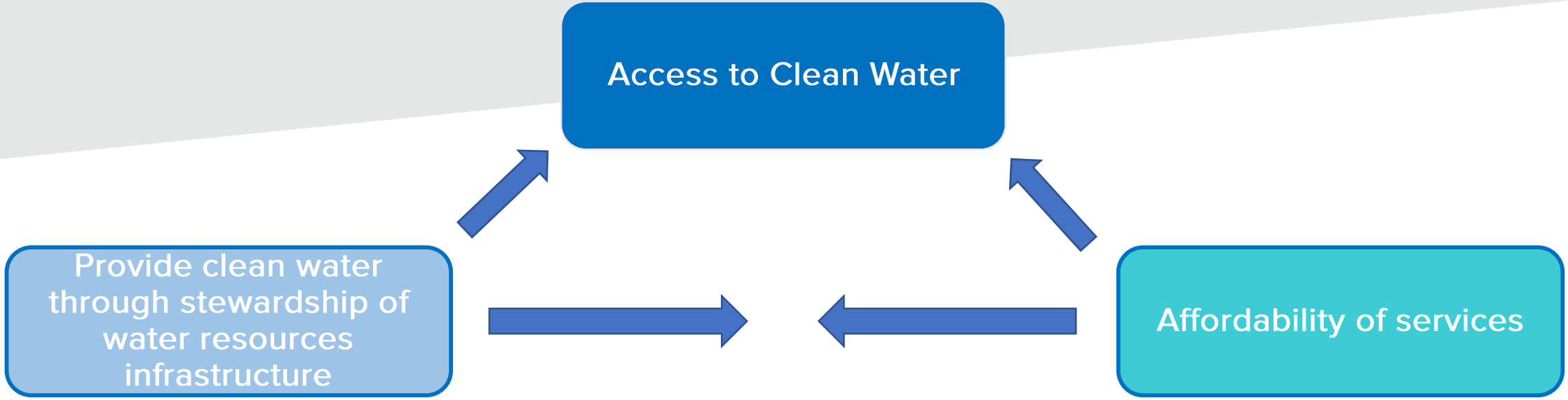
- April 2019 – City Council directs Water Resources to evaluate affordability, alternate rate structures, and alternate revenue sources
- Fall 2019 – Hosted open house to gather stakeholder input and embarked on the initial NPA tour
- Studied rate options keeping three objectives in mind: 1) ensure affordability of rates, 2) improve financial health & sustainability, along with revenue stability and 3) ensure rates are recouping the cost of service provided in an equitable manner
- March 2020 – Developed rate, fees and assistance program recommendations, presented to City Council
- Postponed final outreach, approvals & implementation due to uncertainties associated with COVID-19
- January 2021 – Rebooted project, presented to Board of Finance and beginning to restart stakeholder engagement & outreach



Open house on 10/30/19

Ward 1 & 8 NPA meeting on 11/13/19

Crossroads: Our Core Values & Existing Rate Structure

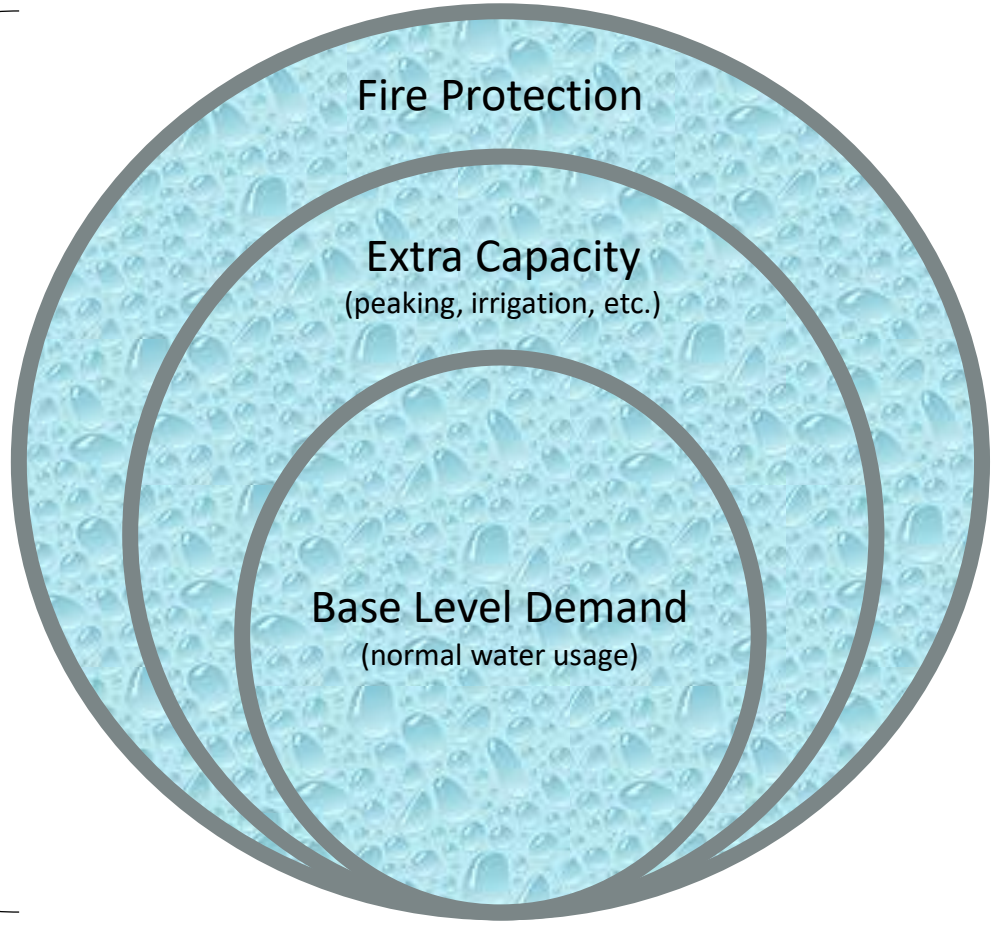


Sustainable funding is crucial to ensuring **access to clean water** because we need money to take care of the infrastructure that produces and delivers clean, safe drinking water and collects, treats and manages wastewater and stormwater before it drains to our rivers and the lake. However, when utility costs are not **affordable** then rate payers may not have equal access to the essential amount of water needed to live.

Costs of Providing Water Service

Why serving certain customer classes costs more…

Sizing requirements for water pipes & other water infrastructure



Proposed Rate & Policy Changes

Proposed Modification from Spring 2020

Rate Proposals	What is it?	Why do it?
Fixed Charges by Meter Size	A water and wastewater fixed charge that increases based on the size of the customer's water meter	• Is industry best practice – reflects cost of service • Improves revenue stability and predictability • Encouraged by bond rating agencies **+ Reduction in fixed fee charge**
Lifeline Rate Tier	"Essential" water consumption (below median usage) is charged at a lower rate, only applicable to single-family residential account holders	• Provides affordability assistance for customers that use "typical" amount of water (400 CF/month) • Incentivizes efficient water use
Class-Based Rates	Different rates for different classes of customers	• Supports all residential customers (single & multi-family) • Can justify the strains each customer type puts on the utility's infrastructure **+ For now, commercial properties will be charged the same rate as multifamily**
Irrigation Rate	A separate, higher rate for those who solely use water for irrigation (with the exception of community gardening initiatives)	• Irrigation often contributes to peak water use, which necessitates system expansion and associated costs • Sends price signal to conserve water when use is not for basic needs
Private Fire Protection Charges	A separate, fixed, monthly charge that escalates with connection size for those who have private fire service or hydrants	• Water Resources has invested in system capacity to serve private properties during a fire event, thus the customers who benefit from this service should pay for that capacity **+ Phase in fee over 5 years**
Water Resources Assistance Program (WRAP)	An affordability program that waives the proposed fixed monthly water and wastewater charge for residential customers at or below 185% of the Federal Poverty Level.	• Provides relief to low-income single-family residential customers • Allows greater ability to control their bill (no fixed charge) **+ Include non-profit affordable or senior housing developments and senior owned single family homes as WRAP eligible**

Current & Proposed Rates

	Water		Wastewater		Private Fire
	Current FY 21	Proposed	Current FY 21	Proposed	Proposed
Fixed Charge per Month					
5/8"	$0.00	$3.34	$0.00	$4.68	$6.70
3/4"	$0.00	$5.02	$0.00	$7.02	$6.70
1"	$22.73	$8.36	$31.67	$11.71	$6.70
1.5"	$45.51	$16.72	$63.39	$23.42	$6.70
2"	$72.68	$26.75	$101.23	$37.46	$6.70
3"	$145.30	$50.16	$202.40	$70.25	$6.70
4"	$248.25	$83.60	$345.80	$117.08	$6.70
6"	$454.06	$167.21	$632.48	$234.15	$19.47
8"	$1,044.35	$267.53	$1,454.73	$374.64	$41.49
10"	N/A	N/A	N/A	N/A	$74.61
Private Fire Hydrant	-	-	-	-	$19.47
Volumetric Rate (per 100 CF)					
Single-family Residential	$4.44	-	$6.20	-	
Tier 1 (0-400 CF)	-	$2.49	-	$6.08	N/A
Tier 2 (401 CF and higher)	-	$6.23	-	$6.08	N/A
Duplex	$4.44	$4.36	$6.20	$6.08	N/A
Triplex	$4.44	$4.36	$6.20	$6.08	N/A
Multi-Family Residential	$4.44	$4.36	$6.20	$6.08	N/A
Mixed Residential & Commercial	$4.44	$4.36	$6.20	$6.08	N/A
Commercial	$4.44	$4.36	$6.20	$6.08	N/A
City	$4.44	$4.36	$6.20	$6.08	N/A
Irrigation/Heating/Cooling	$4.53	$7.48	$6.20	$6.08	N/A

Snapshot of Possible Customer Impacts

Hypothetical Customer Type	FY 2021	FY 2022 Proposed		
	Bill ($)	Bill ($)	$ Change	% Change
Residential				
Low Volume - 200 CF	$343	$396	$ 52	15.2%
WRAP - Low Volume - 200 CF	$343	$299	$ (44)	-12.8%
Median Volume - 400 CF	$608	$609	$ 1	0.2%
WRAP - Median Volume - 400 CF	$608	$512	$ (95)	-15.7%
High Volume - 600 CF	$872	$915	$ 42	4.9%
WRAP - High Volume - 600 CF	$872	$818	$ (54)	-6.2%
Multi-Family Residential				
Low Income Housing	$23,646	$24,905	$ 1,259	5.3%
Senior Housing	$39,239	$38,841	$ (398)	-1.0%
Commercial				
Technology Company	$17,550	$19,958	$ 2,408	13.7%
Retail Company	$27,313	$28,495	$ 1,181	4.3%
Institutions				
University	$1,685,024	$1,803,468	$ 118,445	7.0%
Medical Center	$718,016	$745,075	$ 27,060	3.8%
School District	$114,845	$123,299	$ 8,454	7.4%

Caveat! These are estimated customer bills based on CY19 customer class trends (Pre-Covid).

Actual bills will vary based on water consumption.

Meter size, private fire service size and # of private hydrants affects bills.

Includes a 5% increase to stormwater for all customers.

Customers should complete an "Account impact summary request form" to understand the impact to their specific bill(s).

Customer Impacts of New Rate Structure

Who will see lower bills?	Opportunities to further lower Bills
Low income or senior customers who are eligible and sign up for WRAP discount will see reduced bills because of the fixed meter charge waiver.	Customers can further shrink their bill by implementing water conservation practices to reduce consumption above the Tier 1 level (i.e., 400 CF).
Single family residential customers with typical consumption will see little or no increase in the water and wastewater portion of their bills because of the lifeline rate.	All single family residential customers can implement water conservation practices to reduce consumption above the Tier 1 level (i.e., 400 CF).

Who will see increases on their bills?	Opportunities to mitigate bill increases
All properties with private fire services or hydrants will see increased bills because of the fixed charge per protective infrastructure.	Customers can remit updated information about their fire protection infrastructure for validation against existing records.
Irrigation customers will see increased bills because of the fixed meter charge and rate.	Customers can decide whether to retain their irrigation system or explore removal.
Customers with large meters but low usage will see increased bills because the minimum allowance has been eliminated.	Customers can request an evaluation of whether their existing meter(s) can be reduced in size.
Customers with vacant homes or very low usage will see increased bills because of the fixed meter charge.	Customers can decide whether to have their meter removed and water shut off during an extended period of vacancy.

Water Resources Assistance Program (WRAP)

Proposed Assistance Program: Rate Assistance	
Rate Assistance Goals	Provide meaningful financial relief to low income or fixed income seniors living in single family residential homes, along with providing relief to non-profit affordable or senior living housing developments.
	Limit administrative burden on Water Resources to implement and maintain program by leveraging existing programs that verify income or non profit housing status. Explore developing an expansion plan to include other residential property types or low income metrics.
Rate Assistance Details	Waive the monthly fixed charge on both water & wastewater for eligible properties.
	Households must be living at or below 185% of the Federal Poverty Level; or demonstrate owner is 65 years old or older.
	Eligible residents will need to apply and provide proof of age or enrollment in an existing State or Federal benefit program (e.g., Lifeline, 3SquaresVT, Crisis Fuel, SSI, Reach Up, etc.) to be qualified for one year waiver.

FUTURE Assistance Programs	
Infrastructure Assistance	Make grant funding available to all residential rate payers for condition assessments of sewer laterals.
	Make low interest (or no interest) loans available to all residential rate payers to replace failing water services or sewer laterals.
Conservation Assistance	Provide efficiency rebates for low flow toilets and energy star appliances. Provide real time water usage data.
	Provide free tools (e.g., rain barrels) to implement improved stormwater management practices.

Website:
https://www.burlingtonvt.gov/DPW/Water/AffordabilityProject

Next Steps

- Outreach (January-March 2021)
  - Attend NPAs, DPW Commission & TEUC
  - Targeted notification to customers with fire services, hydrants & irrigation meters
  - Meet with key community partners and other large users
  - Host open house public meeting for all rate payers
  - Maintain a robust online presence where customers can review all presentations to date, provide feedback via web forms and request an estimated account impact summary.
- Continuous Improvement (March 2021-July 2021)
  - Incorporate feedback from all stakeholders
  - Review, validate and respond to impact summary requests
  - Ongoing QA/QC with data and required updates to billing system
  - Draft WRAP policy and any needed ordinance changes
- Approvals (April 2021-June 2021)
  - City Council approval of rate & fee structure changes including WRAP
  - City Council approval of budgets & rates for FY 22
- Implementation (July 2021-August 2021)
  - Changes will be effective beginning July 2021 and reflected on August bills
  - Additional round of outreach to all customers in advance of August bills

City of Burlington
Department of Public Works

Technical Services Engineering Division
645 Pine Street, Suite A
Burlington, VT 05402
P 802-863-9094 / F 802-863-0466 / TTY 802-863-0450
www.burlingtonvt.gov/DPW

Memo

Date: January 14, 2020

To: Public Works Commission

From: Jenna Olson, Policy & Programs Manager DPW Water Resources
Phillip Peterson, Associate Engineer

CC: Megan Moir, Water Resources Division Director
Susan Molzon P.E., Senior Public Works Engineer
Norm Baldwin P.E., City Engineer
Chapin Spencer, Director Department of Public Works

Subject: Green Stormwater Infrastructure Proposed No-Parking Zones

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Recommendations:
Staff recommend the DPW Commission approve:
7 No-parking areas.
No person shall park any vehicle at any time in the following locations:

- On the east side of South Street, beginning at Holt Street and extending north to the driveway for 70 South Street.
- On the west side of South Street, in the first and second spaces north of Glen Road.
- On the east side of South Street, beginning at Glen Road and extending north to the driveway for 46 South Street.
- On the west side of Prospect Parkway, between the driveways for 194 Prospect Parkway and 204 Prospect Parkway.
- On the east side of Prospect Parkway, beginning at Fairmont Street and extending north to the driveway for 201 Prospect Parkway.
- On the north side of Fairmont Street, in the first space east of Prospect Parkway.
- On the north side of Fairmont Street, between the driveways for 22 Fairmont Street and 32 Fairmont Street.
- On the west side of South Prospect Street, beginning at Prospect Parkway and extending south to the driveway for 789 South Prospect Street.
- On the east side of South Prospect Street, beginning at Prospect Parkway and extending south to the driveway for 792 South Prospect Street.

- On the east side of South Prospect Street, between the driveways for 802 South Prospect Street and 812 South Prospect Street.
- On the west side of South Prospect Street beginning 32 feet north of the driveway for 875 South Prospect Street and extending north eighty (80) feet.
- On the west side of South Prospect Street, between the driveways for 875 South Prospect Street and 885 South Prospect Street.
- On the east side of South Prospect Street, between the driveways for 874 South Prospect Street and 884 South Prospect Street.

Purpose & Need:
During the summer of 2018, Burlington experienced a significant number of acute wastewater issues, which highlighted the ongoing need to both reinvest in our existing infrastructure, and invest in ways to address stormwater runoff in combined sewer areas. In late 2018, partly in response to these challenges, Vermont DEC made $1.25 million available in match-free grant funding for communities to use Green Stormwater Infrastructure to manage Combined Sewer Overflows (CSOs). DPW Staff developed this project in response to that opportunity, and Burlington was awarded just over $1 million of the available grant funding. This particular set of projects will serve to manage stormwater runoff from 6.3 acres of impervious surface – or approximately 28% of the impervious surface that currently contributes stormwater to Pine Street CSO during wet weather events, see Attachment 1.

The purpose of the proposed no parking zones is to provide the space needed for rain garden systems in the area, see Attachment 2. In parallel with providing the space for the proposed stormwater treatment systems, the proposed no parking zones will provide the needed space for emergency services to conduct operations.

Project Checklist:

	N/A	Yes	No	Reference
Aligns with MUTCD standards and/or established City Policy?		X		DPW Narrow Streets SOP, Chapter 26 Ordinance
Aligns with City plans?		X		
Followed Public Engagement Plan?		X		These Traffic Regulation changes are defined as an INVOLVE project in the Public Engagement Plan (PEP).

Public Engagement:
DPW Staff have conducted extensive outreach on this project since mid-2019. The following is a summary of neighborhood engagement to date:

- July 2019
  - Front Porch Forum notice about related soil borings
- March 5, 2020
  - Presentation to Ward 6 NPA on project
- March 9, 2020
  - Meeting with Burlington Fire Department to review project and discuss parking removal needed to accommodate emergency vehicle access

While BFD approves of the current design and does have any concerns about emergency access, there are still a few areas within the project vicinity that will be monitored over time to ensure additional parking removal is not necessary

- March 13, 2020
    - Letter mailed to residents about project
- April 2020
    - Direct email & Front Porch Forum updates on project delays due to COVID-19
- July 1-10, 2020
    - 2nd letter mailed to residents
    - Project flyers handed out to residents by Councilor Karen Paul
- July 9, 2020
    - DPW Staff marked proposed system boundaries in chalk paint for residents to see on the ground
- July 13 & 14, 2020
    - Series of 4 Zoom meetings held to inform residents and take feedback
- December 10, 2020
    - Residents notified via email of project changes
    - Notification included upcoming meeting links explaining changes further
- December 16, 2020
    - Series of 2 meetings explaining design changes
- January 11, 2021
    - Meeting with Burlington Fire Department to present changes to the project and confirm design still meets emergency access needs

In preparation for the 1/20/21 DPW Commission Meeting, Staff mailed or emailed fliers to each property owner adjacent to the project area. Additionally, Staff posted fliers to the project web page, and issued a Front Porch Forum posting on Friday 1/8 about the proposed parking changes, including information on how to provide comment. Staff received 1 email from local residents related to this recommendation, and no phone calls – see Attachment 3.

The Commission will note that there was a significant delay between initial presentation of the project to neighbors, and our current request. When the project was presented to the neighborhood in July of 2020, residents expressed a variety of concerns that warranted additional review. In response to community input, we revised the design to address these concerns, and maintain the water quality goals of this effort. The project team believes that the feedback, education, neighborhood engagement, and the design changes have led to a win-win for the Lake, the community, and the neighbors most directly impacted by this project.

Summary and Conclusion

This amendment will support management of roughly 28% of the impervious surface contributing stormwater flows in an area of the City directly connected to the most problematic of Burlington's remaining CSO outfalls, while still maintaining the appropriate space for emergency responders and streets maintenance to conduct operations.

Attachments:

1. GSI Presentation.
2. Site Map & Plans.
3. Public input correspondence.

PINE STREET
GREEN STORMWATER INFRASTRUCTURE
CSO MITIGATION

Public Works Commission

January 20, 2021

BACKGROUND

- City awarded $1M match-free grant in late 2018, specifically for mitigating combined sewer impacts with Green Stormwater Infrastructure
- Pine Street CSO is the most problematic CSO in the City, and has a very discreet drainage area – most of which is shallow ledge, high groundwater, and/or heavy clay soils (not suitable for infiltrating water)
- Area highlighted in red has soil conditions suitable for GSI, and was therefore selected for design

PROJECT OVERVIEW

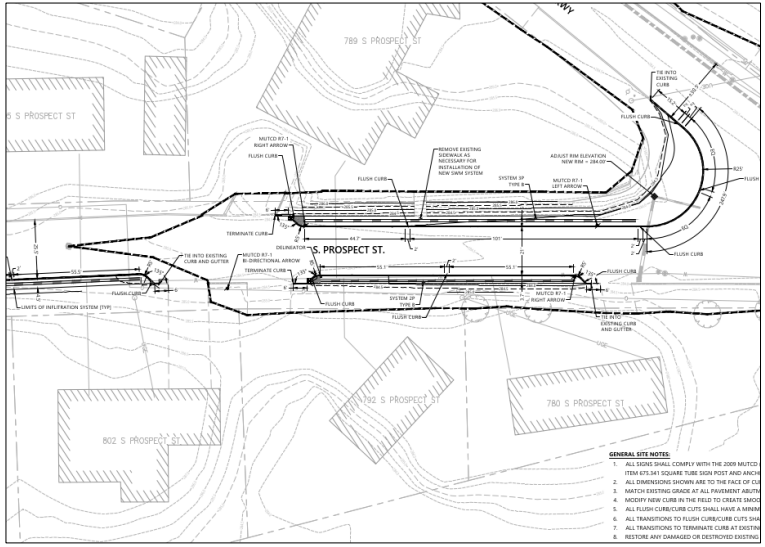
- Installation of 13 rain garden ‘bump-out’ systems, designed to maximize receiving drainage from surrounding roadways
- Will provide a net reduction of 10 cubic feet per second of runoff during a 2.7” rainfall event
- Will intercept storm runoff from roughly 6 acres of impervious surface, that currently drains directly through Pine Street CSO via the combined sewer contributing to overflow events

L-1.01
South Prospect Street
Fairmount Street
Holt Street
South Street
Glen Road
L-1.03
L-1.04

DESIGN & OUTREACH PROCESS

- **July 2019**
  - Front Porch Forum notice about soil borings
- **March 2020**
  - Presentation to Ward 6 NPA on project
  - Letter mailed to residents about project
- **April 2020**
  - Direct email & Front Porch Forum updates on project delays due to COVID-19
- **July 2020**
  - 2nd letter mailed to residents
  - Project flyers handed out to residents by Councilor Paul
  - DPW Staff marked proposed system boundaries in chalk paint for residents to see on the ground
  - Series of 4 Zoom meetings held to inform residents and take feedback
- **December 2020**
  - Residents notified via email of project changes
  - Notification included upcoming meeting links explaining changes further
  - Series of 2 meetings explaining design changes
- **January 2020**
  - Direct notification to abutting residents of parking changes
  - FPF post to entire neighborhood about parking changes, information listed on project webpage

DESIGN CHANGE SUMMARY



- **South Prospect Street**
  - 1 system removed entirely
  - 2 systems reduced in size
  - Traffic analysis completed
- **Prospect Parkway / Fairmount Street**
  - 2 systems removed entirely
  - 1 system adjusted to add subsurface infiltration
  - 1 system reduced in length
  - Traffic analysis completed
- **South Street**
  - 2 systems reduced in size

PARKING CHANGE SUMMARY

System No.	Adjacent Address(es)	Parking Removed	Distance to Nearest On-Street Parking
1P	802 & 812 South Prospect Street	6 parking spaces removed	30 ft. | 0 ft.
2P	780 & 792 South Prospect Street	5 parking spaces removed	0 ft. | 38 ft.
3P	789 South Prospect Street	5 parking spaces removed	0 ft.
4P	875 & 865 South Prospect Street	4 parking spaces removed	77 ft. | 0 ft.
5P	874 South Prospect Street	4 parking spaces removed	0 ft.
7P	885 South Prospect Street	3 parking spaces removed	0 ft.
8P	194 & 204 Prospect Parkway	6 parking spaces removed	0 ft. | 0 ft.
9P	191 & 201 Prospect Parkway	5 parking spaces removed	0 ft. | 38 ft.
10P	191 Prospect Parkway (on Fairmount)	1 parking space removed	0 ft.
11P(A)	32 & 22 Fairmount Street	3 parking spaces removed	0 ft.
12P	46 & 56 South Street	5 parking spaces removed	0 ft. | 0 ft.
13P	51 South Street	3 parking spaces removed	36 ft.
14P	70 South Street	2 parking spaces removed	0 ft.
15P	102 Fairmount Street	0 parking spaces removed	

NEXT STEPS

- **Early February 2021**: Issue Request for Bids
- **Late February 2021**: Bid Award
- **March – April 2021**: Board of Finance & City Council approval to execute contract
- **May – June 2021**: Begin construction

QUESTIONS?

CONTACT:

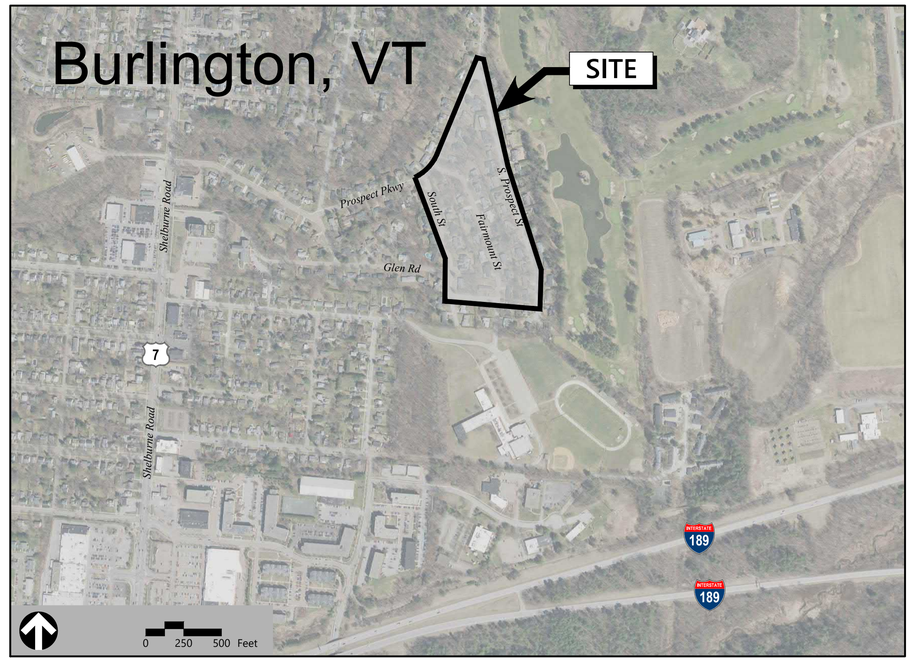
Jenna Olson,
Water Policy & Programs Manager
(802) 557-5440
jolson@burlingtonvt.gov

Site Plans

Issued for	Bid
Date Issued	December 10, 2020
Latest Issue	December 10, 2020

South End Retrofits

Intersection of S. Prospect Street and Prospect Parkway City of Burlington, VT



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City of Burlington
Department of Public Works
149 Church Street
Burlington, VT 05401

Applicant

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STATE OF VERMONT
NICHOLAS CHRISTIAN DARIS
NO. 133820
CIVIL
10 DECEMBER 2020
LICENSED PROFESSIONAL ENGINEER

\\VHB\GBL\PROJ\SBURLINGTON\58126.01 BTV STORMWATER ASSIGN 1\CAD\LD\PLANSET\581260 1-COV 10 December 2020

VHB Project : 58126.01 South End Retrofits
Issued for : Bid 12/10/2020

Legend

Exist.	Prop.	
		PROPERTY LINE
		PROJECT LIMIT LINE
		RIGHT-OF-WAY/PROPERTY LINE
		EASEMENT
		PARKING SETBACK
10+00	10+00	BASELINE
		CONSTRUCTION LAYOUT
		ZONING LINE
		TOWN LINE
		LIMIT OF DISTURBANCE
		WETLAND LINE WITH FLAG
		FLOODPLAIN
BZ		WETLAND BUFFER ZONE
NDZ		NO DISTURB ZONE
		GRAVEL ROAD
EOP	EOP	EDGE OF PAVEMENT
BB	BB	BITUMINOUS BERM
BC	BC	BITUMINOUS CURB
CC	CC	CONCRETE CURB
	CG	CURB AND GUTTER
CC	ECC	EXTRUDED CONCRETE CURB
CC	MCC	MONOLITHIC CONCRETE CURB
CC	PCC	PRECAST CONC. CURB
SGE	SGE	SLOPED GRAN. EDGING
VGC	VGC	VERT. GRAN. CURB
		LIMIT OF CURB TYPE
		SAWCUT
		BUILDING
	EN	BUILDING ENTRANCE
		BOLLARD
		SIGN
		DOUBLE SIGN
		STEEL GUARDRAIL
		PATH
		TREE LINE
		WIRE FENCE
		FENCE
		STOCKADE FENCE
		STONE WALL
		RETAINING WALL
		STREAM / POND / WATER COURSE
		DETENTION BASIN
		HAY BALES
		SILT FENCE
		SILT SOCK / STRAW WATTLE
4	4	MINOR CONTOUR
20	20	MAJOR CONTOUR
DYL	DYL	DOUBLE YELLOW LINE
SL	SL	STOP LINE
		CROSSWALK
		ACCESSIBLE CURB RAMP
		ACCESSIBLE PARKING

Exist.	Prop.	
		CONCRETE
		BUILDINGS
		RIPRAP
		CONSTRUCTION EXIT
27.35 TC×	27.35 TC×	TOP OF CURB ELEVATION
26.85 BC×	26.85 BC×	BOTTOM OF CURB ELEVATION
132.75 ×	132.75 ×	SPOT ELEVATION
45.0 TW× 38.5 BW×	45.0 TW× 38.5 BW×	TOP & BOTTOM OF WALL ELEVATION
		BORING LOCATION
		TEST PIT LOCATION
MW	MW	MONITORING WELL
UD	UD	UNDERDRAIN
(P21) 12"D	12"D	DRAIN
6"RD	6"RD	ROOF DRAIN
(P34) 12"S	12"S	SEWER
FM	FM	FORCE MAIN
OHW	OHW	OVERHEAD WIRE
6"W	6"W	WATER
4"FP	4"FP	FIRE PROTECTION
	2"DW	DOMESTIC WATER
3"G	G	GAS
E	E	ELECTRIC
STM	STM	STEAM
T	T	TELEPHONE
FA	FA	FIRE ALARM
CATV	CATV	CABLE TV
		CATCH BASIN CONCENTRIC
		CATCH BASIN ECCENTRIC
		DOUBLE CATCH BASIN CONCENTRIC
		DOUBLE CATCH BASIN ECCENTRIC
		GUTTER INLET
		DRAIN MANHOLE CONCENTRIC
		DRAIN MANHOLE ECCENTRIC
		TRENCH DRAIN
		PLUG OR CAP
CO	CO	CLEANOUT
		FLARED END SECTION
		HEADWALL
		SEWER MANHOLE CONCENTRIC
		SEWER MANHOLE ECCENTRIC
CS	CS	CURB STOP & BOX
WV	WV	WATER VALVE & BOX
HYD	HYD	FIRE HYDRANT
WM	WM	WATER METER
GG	GG	GAS GATE
GM	GM	GAS METER
	EMH	ELECTRIC MANHOLE
EM	EM	ELECTRIC METER
		LIGHT POLE
	TMH	TELEPHONE MANHOLE
T	T	TRANSFORMER PAD
		UTILITY POLE
		GUY POLE
		GUY WIRE & ANCHOR
HH	HH	HAND HOLE
PB	PB	PULL BOX
		MATCHLINE

Abbreviations

General

ABAN	ABANDON
ACR	ACCESSIBLE CURB RAMP
ADJ	ADJUST
APPROX	APPROXIMATE
BIT	BITUMINOUS
BS	BOTTOM OF SLOPE
BWLL	BROKEN WHITE LANE LINE
CONC	CONCRETE
DYCL	DOUBLE YELLOW CENTER LINE
EL	ELEVATION
ELEV	ELEVATION
EX	EXISTING
FDN	FOUNDATION
FFE	FIRST FLOOR ELEVATION
GRAN	GRANITE
GTD	GRADE TO DRAIN
LA	LANDSCAPE AREA
LOD	LIMIT OF DISTURBANCE
MAX	MAXIMUM
MIN	MINIMUM
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
PERF	PERFORATED
PROP	PROPOSED
REM	REMOVE
RET	RETAIN
R&D	REMOVE AND DISPOSE
R&R	REMOVE AND RESET
SWEL	SOLID WHITE EDGE LINE
SWLL	SOLID WHITE LANE LINE
TS	TOP OF SLOPE
TYP	TYPICAL

Utility

CB	CATCH BASIN
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
DCB	DOUBLE CATCH BASIN
DMH	DRAIN MANHOLE
CIP	CAST IRON PIPE
COND	CONDUIT
DIP	DUCTILE IRON PIPE
FES	FLARED END SECTION
FM	FORCE MAIN
F&G	FRAME AND GRATE
F&C	FRAME AND COVER
GI	GUTTER INLET
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HH	HANDHOLE
HW	HEADWALL
HYD	HYDRANT
INV	INVERT ELEVATION
I=	INVERT ELEVATION
LP	LIGHT POLE
MES	METAL END SECTION
PIV	POST INDICATOR VALVE
PWW	PAVED WATER WAY
PVC	POLYVINYLCHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
R=	RIM ELEVATION
RIM=	RIM ELEVATION
SMH	SEWER MANHOLE
TSV	TAPPING SLEEVE, VALVE AND BOX
UG	UNDERGROUND
UP	UTILITY POLE

Notes

General

1. CONTRACTOR SHALL NOTIFY "DIG-SAFE" (1-888-344-7233) AT LEAST 72 HOURS BEFORE, AND NOT MORE THAN 30 DAYS BEFORE, BEGINNING ANY EXCAVATION AT ANY LOCATION.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
3. ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICANS WITH DISABILITIES ACT AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).
4. WITHIN THE LIMITS OF THE BUILDING FOOTPRINT, THE SITE CONTRACTOR SHALL PERFORM EARTHWORK OPERATIONS REQUIRED UP TO SUBGRADE ELEVATIONS.
5. WORK WITHIN THE LOCAL RIGHTS-OF-WAY SHALL CONFORM TO LOCAL MUNICIPAL STANDARDS. WORK WITHIN STATE RIGHTS-OF-WAY SHALL CONFORM TO THE LATEST EDITION OF THE STATE HIGHWAY DEPARTMENTS STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
6. UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS, IN THE SPECIFICATIONS, AND IN THE CONTRACT DOCUMENTS. DO NOT CLOSE OR OBSTRUCT ROADWAYS, SIDEWALKS, AND FIRE HYDRANTS, WITHOUT APPROPRIATE PERMITS.
7. TRAFFIC SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE CURRENT VERSION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND ITS LATEST REVISIONS.
8. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
9. IN THE EVENT THAT SUSPECTED CONTAMINATED SOIL, GROUNDWATER, AND OTHER MEDIA ARE ENCOUNTERED DURING EXCAVATION AND CONSTRUCTION ACTIVITIES BASED ON VISUAL, OLFACTORY, OR OTHER EVIDENCE, THE CONTRACTOR SHALL STOP WORK IN THE VICINITY OF THE SUSPECT MATERIAL TO AVOID FURTHER SPREADING OF THE MATERIAL, AND SHALL NOTIFY THE OWNER IMMEDIATELY SO THAT THE APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN.
10. CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS.
11. DAMAGE TO PROPERTY OR FEATURES NOT DESIGNATED FOR REMOVAL OR MODIFICATION SHALL BE REPAIRED TO PRECONSTRUCTION CONDITION OR BETTER BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER.
12. CONTRACTOR SHALL CONTROL STORMWATER RUNOFF DURING CONSTRUCTION TO PREVENT ADVERSE IMPACTS TO OFF SITE AREAS, AND SHALL BE RESPONSIBLE TO REPAIR RESULTING DAMAGES, IF ANY, AT NO COST TO OWNER.
13. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANSPORATION'S STANDARD SPECIFRICATIONS FOR CONSTRUCTION, DATED 2018, AND ITS LATEST REVISIONS, AND SUCH SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THE FINAL CONTRACT DOCUMENTS.
14. FULL ACCESS TO ALL DRIVES WITHIN THE PROJECT LIMITS SHALL BE MAINTAINED AT ALL TIMES. IF FULL ACCESS CANNOT BE MAINTAINED, THE CONTRACTOR SHALL CONTACT AND COORDINATE WITH THE BUSINESS OR PROPERTY OWNER AT LEAST 24 HOURS IN ADVANCE OF TEMPORARILY CLOSING OFF THE ACCESS.
15. ANY WASTE MATERIAL SHALL BE REMOVED AND HAULED TO AN APPROVED OFF-SITE ACTIVITY AREA IN ACCORDANCE WITH VTRANS CONSTRUCTION SPECIFICATIONS.
16. SEE 2018 VTRANS STANDARD SPECIFICATIONS FOR CONSTRUCTION FOR ADDITIONAL INFORMATION.

Utilities

1. THE LOCATIONS, SIZES, AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR ITS REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATA CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN ON THE PLANS. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZES, AND ELEVATIONS OF THE POINTS OF CONNECTIONS TO EXISTING UTILITIES AND, SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND THE PROPOSED UTILITY ROUTES, INCLUDING ROUTES WITHIN THE PUBLIC RIGHTS OF WAY.
2. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT AND CONTRACTOR'S FAILURE TO NOTIFY PRIOR TO PERFORMING ADDITIONAL WORK RELEASES OWNER FROM OBLIGATIONS FOR ADDITIONAL PAYMENTS WHICH OTHERWISE MAY BE WARRANTED TO RESOLVE THE CONFLICT.
3. SET CATCH BASIN RIMS, AND INVERTS OF SEWERS, DRAINS, AND DITCHES IN ACCORDANCE WITH ELEVATIONS ON THE GRADING AND UTILITY PLANS.
4. RIM ELEVATIONS FOR DRAIN AND SEWER MANHOLES, WATER VALVE COVERS, GAS GATES, ELECTRIC AND TELEPHONE PULL BOXES, AND MANHOLES, AND OTHER SUCH ITEMS, ARE APPROXIMATE AND SHALL BE SET/RESET AS FOLLOWS:
   A. PAVEMENTS AND CONCRETE SURFACES: FLUSH
   B. ALL SURFACES ALONG ACCESSIBLE ROUTES: FLUSH
   C. LANDSCAPE, LOAM AND SEED, AND OTHER EARTH SURFACE AREAS: ONE INCH ABOVE SURROUNDING AREA AND TAPER EARTH TO THE RIM ELEVATION.
5. THE LOCATION, SIZE, DEPTH, AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS PROVIDED BY, AND APPROVED BY, THE RESPECTIVE UTILITY COMPANY (GAS, TELEPHONE, ELECTRIC, FIRE ALARM, ETC.). FINAL DESIGN LOADS AND LOCATIONS TO BE COORDINATED WITH CITY AND UTILITY OWNER.
6. CONTRACTOR SHALL MAKE ARRANGEMENTS FOR AND SHALL BE RESPONSIBLE FOR PAYING FEES FOR POLE RELOCATION AND FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE, FIRE ALARM, AND ANY OTHER PRIVATE UTILITIES, WHETHER WORK IS PERFORMED BY CONTRACTOR OR BY THE UTILITIES COMPANY.
7. UTILITY PIPE MATERIALS SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED ON THE PLAN:
   A. WATER MAIN PIPES AND PRESSURE COUPLINGS SHALL BE C900 PVC PIPE. SERVICE LINE REPAIRS SHALL BE COPPER PIPE.
   B. SANITARY SEWER PIPES SHALL BE ASTM D-3034 SDR35 POLYVINYL CHLORIDE (PVC) SEWER PIPE
   C. STORM DRAINAGE PIPES SHALL BE HIGH DENSITY POLYETHYLENE (HDPE)
8. CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR AND SHALL FURNISH EXCAVATION, INSTALLATION, AND BACKFILL OF ELECTRICAL FURNISHED SITEWORK RELATED ITEMS SUCH AS PULL BOXES, CONDUITS, DUCT BANKS, LIGHT POLE BASES, AND CONCRETE PADS. SITE CONTRACTOR SHALL FURNISH CONCRETE ENCASEMENT OF DUCT BANKS IF REQUIRED BY THE UTILITY COMPANY AND AS INDICATED ON THE DRAWINGS.
9. CONTRACTOR SHALL EXCAVATE AND BACKFILL TRENCHES FOR GAS IN ACCORDANCE WITH GAS COMPANY'S REQUIREMENTS.
10. ALL DRAINAGE AND SANITARY STRUCTURE INTERIOR DIAMETERS (4 FOOT MIN.) SHALL BE DETERMINED BY THE MANUFACTURER BASED ON THE PIPE CONFIGURATIONS SHOWN ON THESE PLANS AND LOCAL MUNICIPAL STANDARDS. FOR MANHOLES THAT ARE 20 FEET IN DEPTH AND GREATER, THE MINIMUM DIAMETER SHALL BE 5 FEET.
11. RELOCATION OF SPRINKLER SYSTEMS WITHIN THE CITY RIGHT OF WAY AND INSIDE THE LIMIT OF DISTURBANCE SHALL BE COORDINATED WITH THE ENGINEER.

Layout and Materials

1. DIMENSIONS ARE FROM THE FACE OF CURB, FACE OF BUILDING, FACE OF WALL, AND CENTER LINE OF PAVEMENT MARKINGS, UNLESS OTHERWISE NOTED.
2. CURB RADII ARE 5 FEET UNLESS OTHERWISE NOTED.
3. CURBING WITHIN THE SITE SHALL BE CAST-IN-PLACE CONCRETE PER VTRANS STANDARD DETAIL C-10 UPDATED 02-11-2008, UNLESS OTHERWISE INDICATED ON THE PLANS.
4. PROPOSED BOUNDS AND ANY EXISTING PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE SET OR RESET BY A PROFESSIONAL LAND SURVEYOR.
5. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL VERIFY EXISTING PAVEMENT ELEVATIONS AT INTERFACE WITH PROPOSED PAVEMENTS, AND EXISTING GROUND ELEVATIONS ADJACENT TO DRAINAGE OUTLETS TO ASSURE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED FACILITIES.

Demolition

1. SAWCUT AND REMOVE PAVEMENT WITHIN THE AREAS NECESSARY FOR INSTALLATION OF THE NEW SITE FEATURES. REMOVAL OF PAVEMENT INCLUDES FULL DEPTH OF PAVEMENT AND SUBBASE. SAWCUTS SHALL BE IN CONTINUOUS STRAIGHT LINES AND/OR SMOOTH ARCS.
2. CONTRACTOR SHALL DISPOSE OF DEMOLITION DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS, ORDINANCES, AND STATUTES.
3. THE DEMOLITION LIMITS DEPICTED IN THE PLANS IS INTENDED TO AID THE CONTRACTOR DURING THE BIDDING AND CONSTRUCTION PROCESS AND IS NOT INTENDED TO DEPICT EACH AND EVERY ELEMENT OF DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THE DETAILED SCOPE OF DEMOLITION BEFORE SUBMITTING ITS BID/PROPOSAL TO PERFORM THE WORK AND SHALL MAKE NO CLAIMS AND SEEK NO ADDITIONAL COMPENSATION FOR CHANGED CONDITIONS OR UNFORESEEN OR LATENT SITE CONDITIONS RELATED TO ANY CONDITIONS DISCOVERED DURING EXECUTION OF THE WORK.
4. UNLESS OTHERWISE SPECIFICALLY PROVIDED ON THE PLANS OR IN THE SPECIFICATIONS, THE ENGINEER HAS NOT PREPARED DESIGNS FOR AND SHALL HAVE NO RESPONSIBILITY FOR THE PRESENCE, DISCOVERY, REMOVAL, ABATEMENT OR DISPOSAL OF HAZARDOUS MATERIALS, TOXIC WASTES OR POLLUTANTS AT THE PROJECT SITE. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY CLAIMS OF LOSS, DAMAGE, EXPENSE, DELAY, INJURY OR DEATH ARISING FROM THE PRESENCE OF HAZARDOUS MATERIAL AND CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE ENGINEER FROM ANY CLAIMS MADE IN CONNECTION THEREWITH. MOREOVER, THE ENGINEER SHALL HAVE NO ADMINISTRATIVE OBLIGATIONS OF ANY TYPE WITH REGARD TO ANY CONTRACTOR AMENDMENT INVOLVING THE ISSUES OF PRESENCE, DISCOVERY, REMOVAL, ABATEMENT OR DISPOSAL OF ASBESTOS OR OTHER HAZARDOUS MATERIALS.

Erosion Control

1. PRIOR TO STARTING ANY OTHER WORK ON THE SITE, THE CONTRACTOR SHALL NOTIFY APPROPRIATE AGENCIES AND SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND AS IDENTIFIED IN FEDERAL, STATE, AND LOCAL APPROVAL DOCUMENTS PERTAINING TO THIS PROJECT.
2. CONTRACTOR SHALL INSPECT AND MAINTAIN EROSION CONTROL MEASURES ON A WEEKLY BASIS (MINIMUM) OR AS REQUIRED PER THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THE CONTRACTOR SHALL ADDRESS DEFICIENCIES AND MAINTENANCE ITEMS WITHIN TWENTY-FOUR HOURS OF INSPECTION. CONTRACTOR SHALL PROPERLY DISPOSE OF SEDIMENT SUCH THAT IT DOES NOT ENCUMBER OTHER DRAINAGE STRUCTURES AND PROTECTED AREAS.
3. CONTRACTOR SHALL BE FULLY RESPONSIBLE TO CONTROL CONSTRUCTION SUCH THAT SEDIMENTATION SHALL NOT AFFECT REGULATORY PROTECTED AREAS, WHETHER SUCH SEDIMENTATION IS CAUSED BY WATER, WIND, OR DIRECT DEPOSIT.
4. CONTRACTOR SHALL PERFORM CONSTRUCTION SEQUENCING SUCH THAT EARTH MATERIALS ARE EXPOSED FOR A MINIMUM OF TIME BEFORE THEY ARE COVERED, SEEDED, OR OTHERWISE STABILIZED TO PREVENT EROSION.
5. UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER, CONTRACTOR SHALL REMOVE AND DISPOSE OF EROSION CONTROL MEASURES AND CLEAN SEDIMENT AND DEBRIS FROM ENTIRE DRAINAGE AND SEWER SYSTEMS.
6. ALL DEWATERING ACTIVITIES ARE CONSIDERED INCIDENTAL TO THE PAY ITEMS APPLICABLE TO THE CONSTRUCTION OF THE BIORETENTION BUMPOUTS.

Existing Conditions Information

1. BASE PLAN: THE PROPERTY LINES SHOWN ARE BASED ON STATE PARCEL MAPPING DATA AND ARE APPROXIMATE ONLY. THE TOPOGRAPHY AND PHYSICAL FEATURES ARE BASED ON AN ACTUAL FIELD SURVEY PERFORMED ON THE GROUND BY VHB, DURING APRIL 2019. NO SUBSURFACE UTILITY EXPLORATION WAS PERFORMED, AND ALL UNDERGROUND UTILITIES ARE APPROXIMATE.
2. TOPOGRAPHY: ELEVATIONS ARE BASED ON NAVD88 BASED ON GPS OBSERVATIONS UTILIZING VT CORS.

Document Use

1. THESE PLANS AND CORRESPONDING CADD DOCUMENTS ARE INSTRUMENTS OF PROFESSIONAL SERVICE, AND SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS CREATED WITHOUT THE EXPRESSED, WRITTEN CONSENT OF VHB. ANY UNAUTHORIZED USE, REUSE, MODIFICATION OR ALTERATION, INCLUDING AUTOMATED CONVERSION OF THIS DOCUMENT SHALL BE AT THE USER'S SOLE RISK WITHOUT LIABILITY OR LEGAL EXPOSURE TO VHB.
2. CONTRACTOR SHALL NOT RELY SOLELY ON ELECTRONIC VERSIONS OF PLANS, SPECIFICATIONS, AND DATA FILES THAT ARE OBTAINED FROM THE DESIGNERS, BUT SHALL VERIFY LOCATION OF PROJECT FEATURES IN ACCORDANCE WITH THE PAPER COPIES OF THE PLANS AND SPECIFICATIONS THAT ARE SUPPLIED AS PART OF THE CONTRACT DOCUMENTS.
3. SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SCALED TO THEIR ACTUAL DIMENSIONS OR LOCATIONS ON THE DRAWINGS. THE CONTRACTOR SHALL REFER TO THE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.

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South End Retrofits

S. Prospect St. and Prospect Pky
Burlington, VT

No.	Revision	Date	Appvd.

Designed by RWN
Checked by NCH
Issued for Bid
Date Dec. 10, 2020

Drawing Title
Legend and General Notes

STATE OF VERMONT
NICHOLAS CHRISTIAN CHALE
NO. 133820
CIVIL
10 DECEMBER 2020
LICENSED PROFESSIONAL ENGINEER

Drawing Number
C-0.01

Sheet 2 of 24

Project Number
58126.01

\\vhb\gbl\proj\SBurlington\58126.01 BTV Stormwater Assign 1\cad\ld\Planset\5812601-EX.dwg

GENERAL SURVEY NOTES

1. THE PROPERTY LINES AND RIGHT-OF-WAY LINES ARE BASED ON STATE PARCEL MAPPING DATA AND ARE APPROXIMATE ONLY. THIS IS NOT A BOUNDARY SURVEY. THE TOPOGRAPHY AND PHYSICAL FEATURES SHOWN ARE BASED ON A FIELD SURVEY PERFORMED BY VHB IN APRIL 2019; OTHER FEATURES MAY EXIST THAT ARE NOT SHOWN HEREIN.
2. HORIZONTAL AND VERTICAL DATUMS ARE REFERENCED TO **VERMONT STATE PLANE GRID NAD 1983 (2011)** AND **NAVD88** BASED ON GPS OBSERVATIONS UTILIZING **VT CORS**.
3. BUILDING FOOTPRINTS WERE DOWNLOADED FROM THE VERMONT OPEN GEODATA PORTAL (VOGP). THE FOOTPRINTS WERE DERIVED FROM CIRCA 2016 HIGH RESOLUTION LiDAR AND 2016 ORTHOIMAGERY. THIS DATASET CONTAINS FOOTPRINTS FOR BUILDINGS AND SOME LARGE OUT BUILDINGS; SOME SMALLER STRUCTURES (E.G. SHEDS) MAY NOT BE INCLUDED.
4. UTILITY LOCATIONS ARE BASED ON GIS DATA OBTAINED FROM VERMONT GAS, BURLINGTON ELECTRIC, AND THE BURLINGTON DEPARTMENT OF PUBLIC WORKS IN JUNE OF 2019. AS SUCH, LOCATIONS ARE NOT EXACT, AND SHOULD BE FIELD VERIFIED PRIOR TO CONSTRUCTION. OTHER UTILITIES MAY EXIST THAT ARE NOT DEPICTED IN THE PLANS.

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0 40 80 160Feet

South End Retrofits

S. Prospect St. and Prospect Pky
Burlington, VT

No.	Revision	Date	Appvd.

Designed by RWN
Checked by NCH
Issued for **Bid**
Date **Dec. 10, 2020**

Drawing Title
Overall Existing Conditions Plan

STATE OF VERMONT
NICHOLAS CHRISTIANSEN
NO. 133820
CIVIL
10 DECEMBER 2020
LICENSED PROFESSIONAL ENGINEER

Drawing Number
C-1.00

Sheet 3 of 24

Project Number
58126.01

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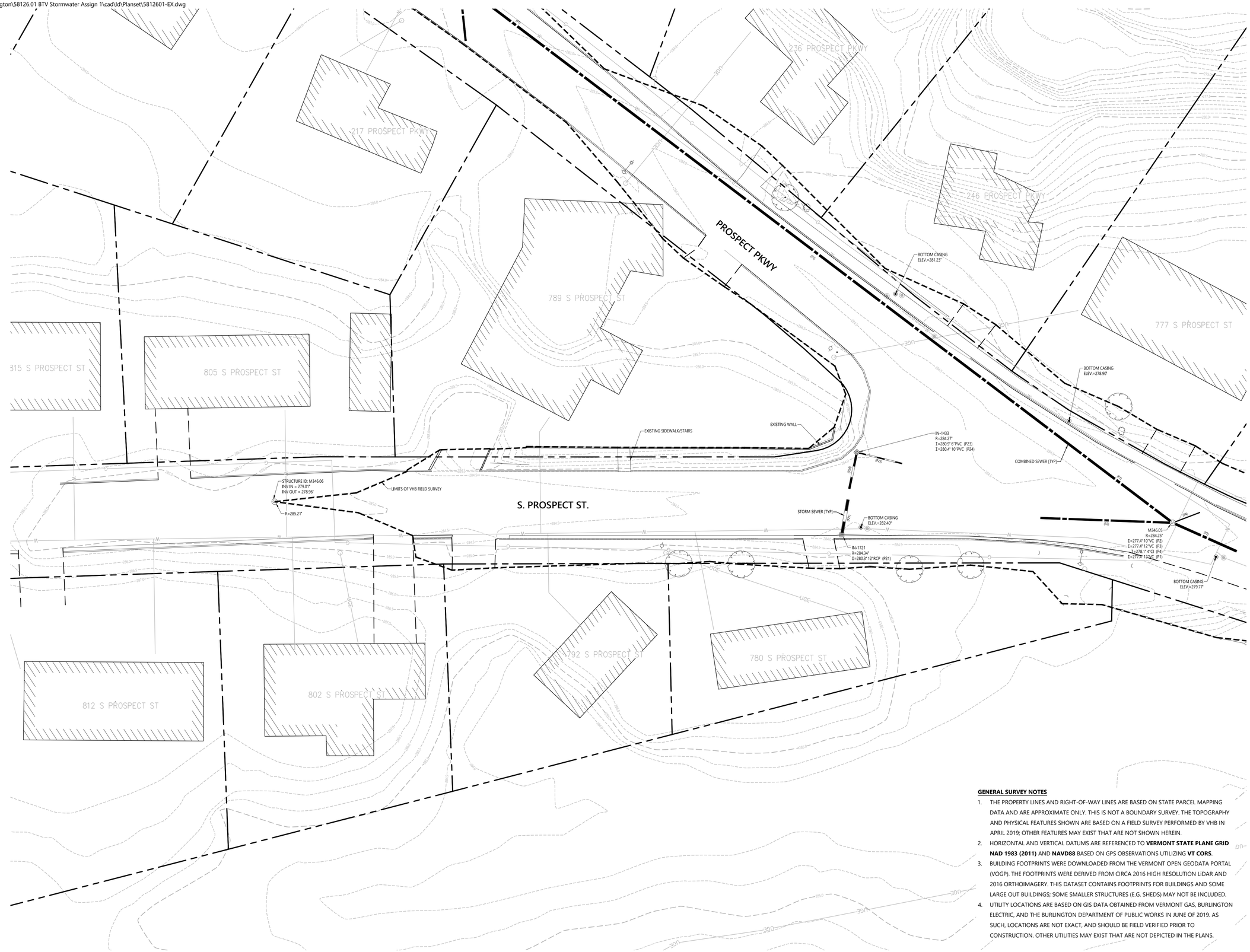

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South End Retrofits

S. Prospect St. and Prospect Pky
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No.	Revision	Date	Appvd.

Designed by RWN
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Issued for **Bid**
Date **Dec. 10, 2020**

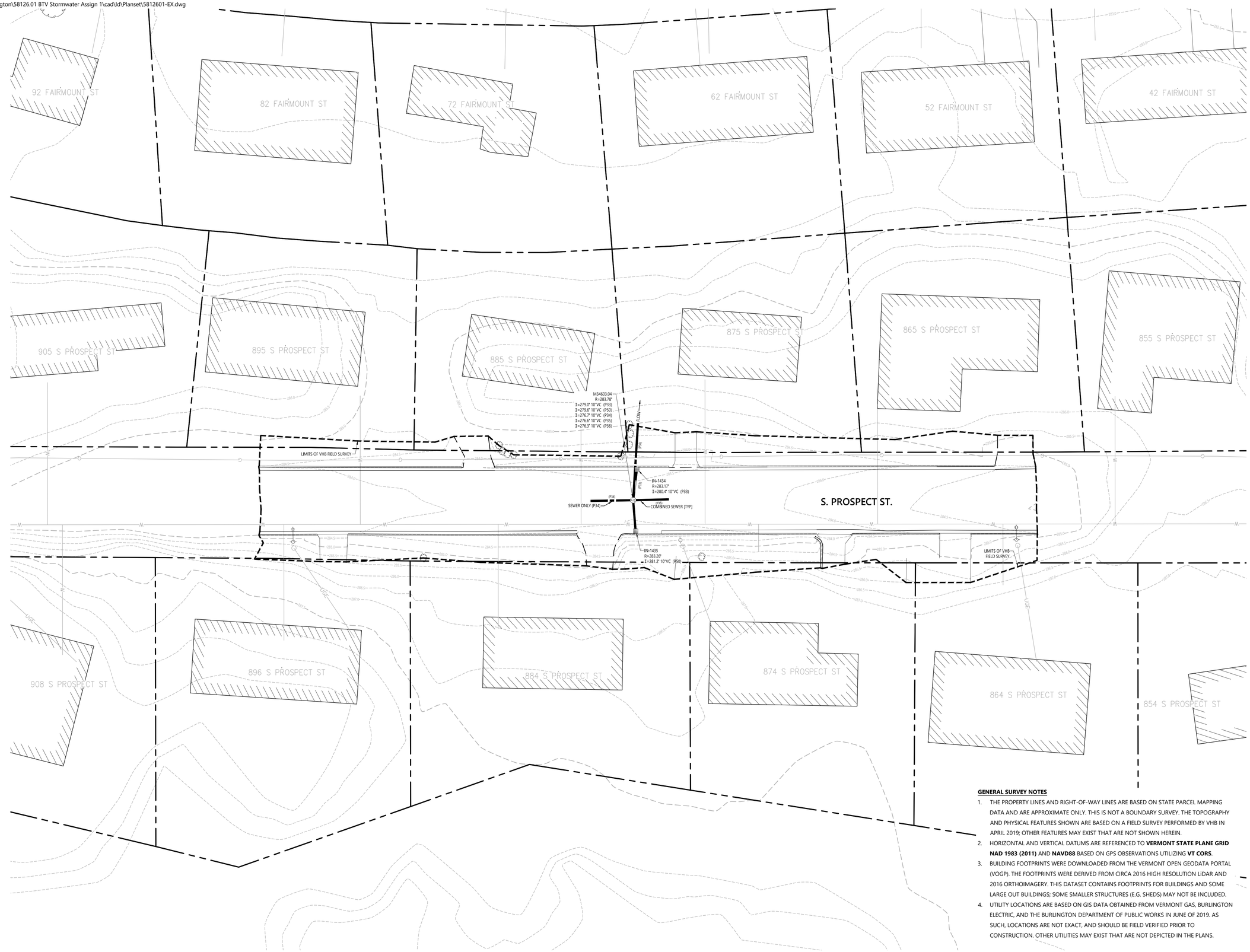
Drawing Title
Existing Conditions Plan

STATE OF VERMONT
NICHOLAS CHRISTIAN DAVIS
NO. 133820
CIVIL
10 DECEMBER 2020
LICENSED PROFESSIONAL ENGINEER

Drawing Number
C-1.01

Sheet 4 of 24

Project Number
58126.01



GENERAL SURVEY NOTES

1. THE PROPERTY LINES AND RIGHT-OF-WAY LINES ARE BASED ON STATE PARCEL MAPPING DATA AND ARE APPROXIMATE ONLY. THIS IS NOT A BOUNDARY SURVEY. THE TOPOGRAPHY AND PHYSICAL FEATURES SHOWN ARE BASED ON A FIELD SURVEY PERFORMED BY VHB IN APRIL 2019; OTHER FEATURES MAY EXIST THAT ARE NOT SHOWN HEREIN.
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4. UTILITY LOCATIONS ARE BASED ON GIS DATA OBTAINED FROM VERMONT GAS, BURLINGTON ELECTRIC, AND THE BURLINGTON DEPARTMENT OF PUBLIC WORKS IN JUNE OF 2019. AS SUCH, LOCATIONS ARE NOT EXACT, AND SHOULD BE FIELD VERIFIED PRIOR TO CONSTRUCTION. OTHER UTILITIES MAY EXIST THAT ARE NOT DEPICTED IN THE PLANS.

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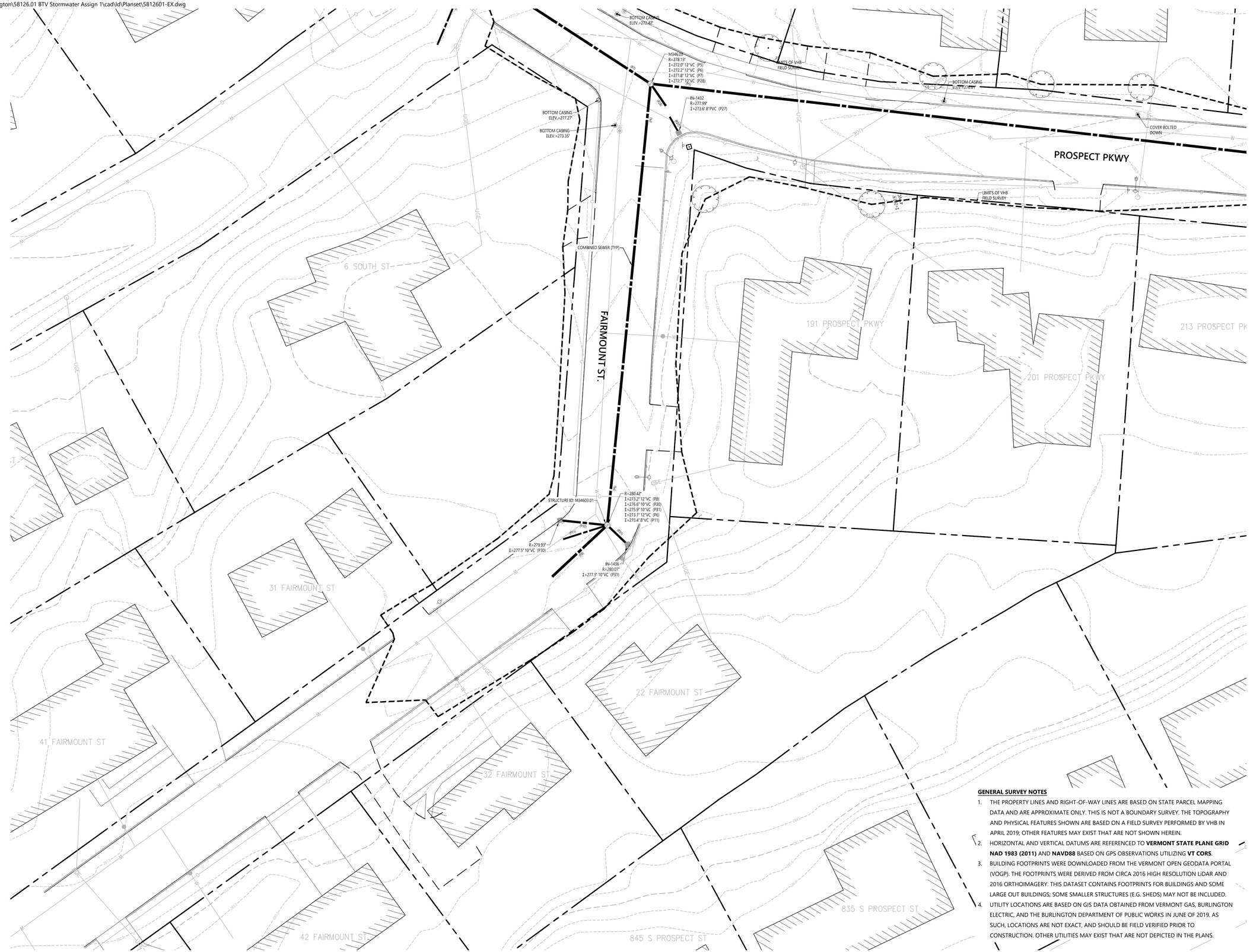

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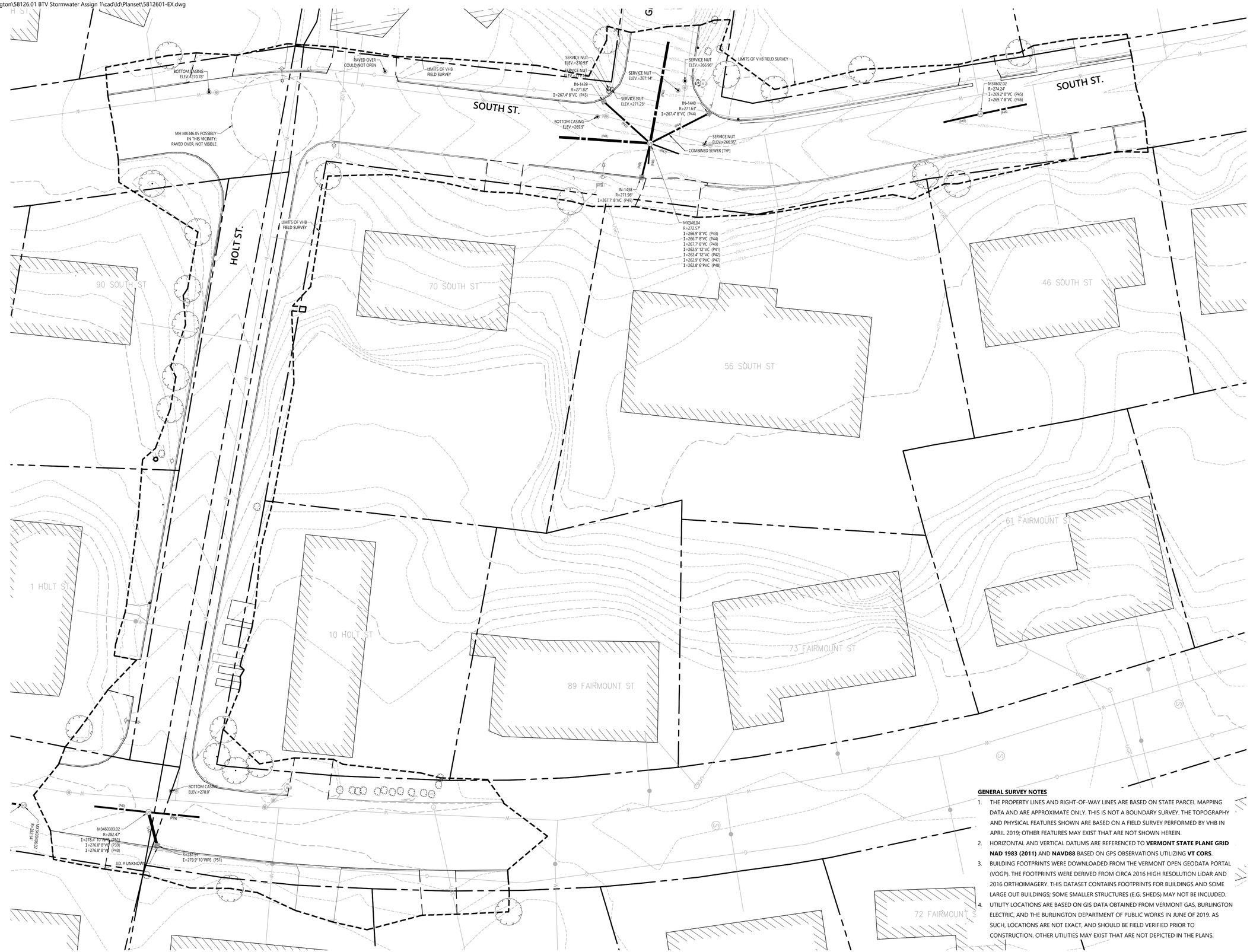

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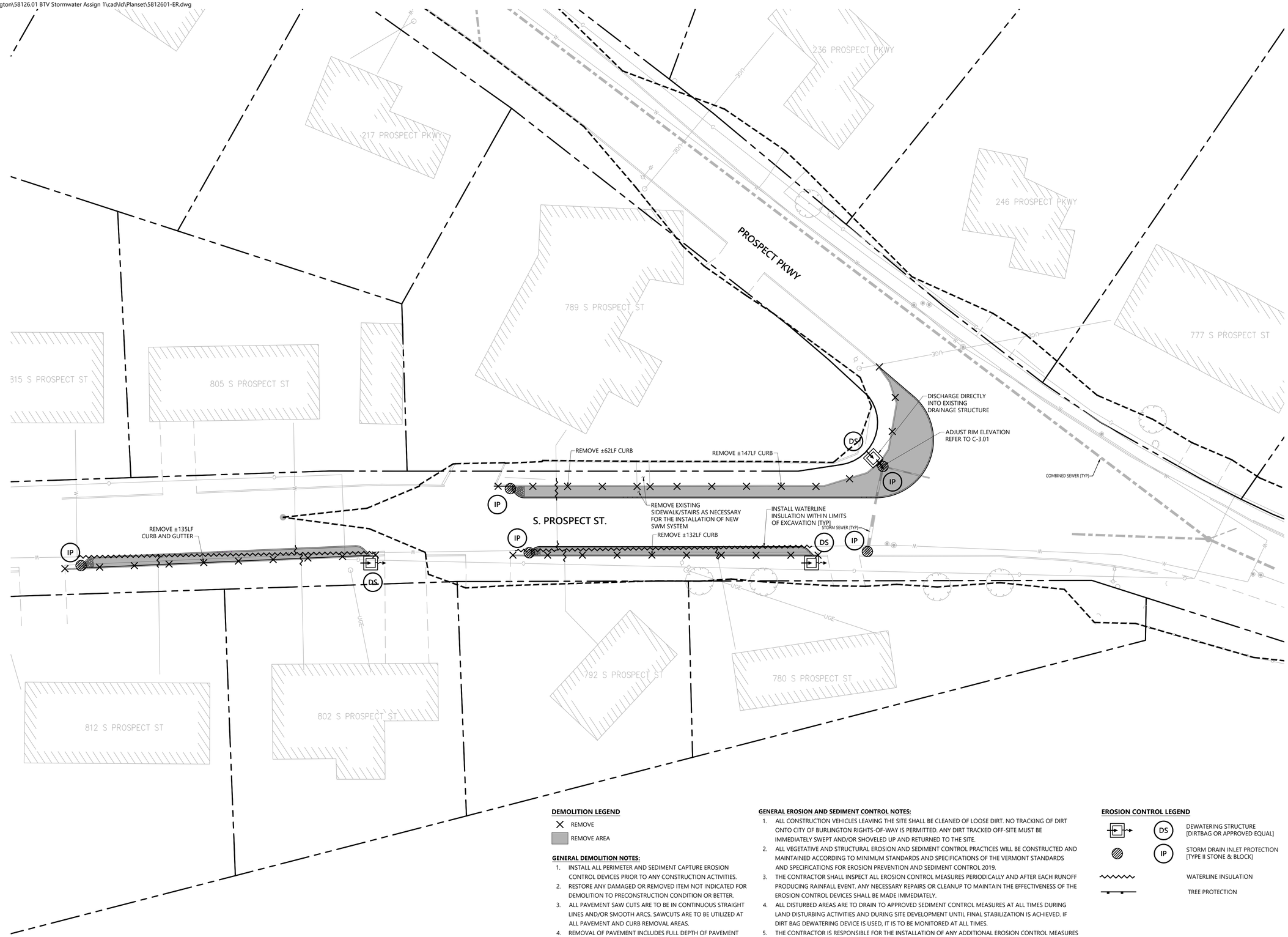

DEMOLITION LEGEND

- REMOVE
- REMOVE AREA

GENERAL DEMOLITION NOTES:

1. INSTALL ALL PERIMETER AND SEDIMENT CAPTURE EROSION CONTROL DEVICES PRIOR TO ANY CONSTRUCTION ACTIVITIES.
2. RESTORE ANY DAMAGED OR REMOVED ITEM NOT INDICATED FOR DEMOLITION TO PRECONSTRUCTION CONDITION OR BETTER.
3. ALL PAVEMENT SAW CUTS ARE TO BE IN CONTINUOUS STRAIGHT LINES AND/OR SMOOTH ARCS. SAWCUTS ARE TO BE UTILIZED AT ALL PAVEMENT AND CURB REMOVAL AREAS.
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6. REFER TO THE **WATERLINE INSULATION DETAIL** ON DRAWING C-4.02 FOR RETROFIT OF INSULATION FOR WATERMAINS AND DOMESTIC SERVICE LINES.

EROSION CONTROL LEGEND

- DS — DEWATERING STRUCTURE [DIRTBAG OR APPROVED EQUAL]
- IP — STORM DRAIN INLET PROTECTION [TYPE II STONE & BLOCK]
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Sheet 8 of 24

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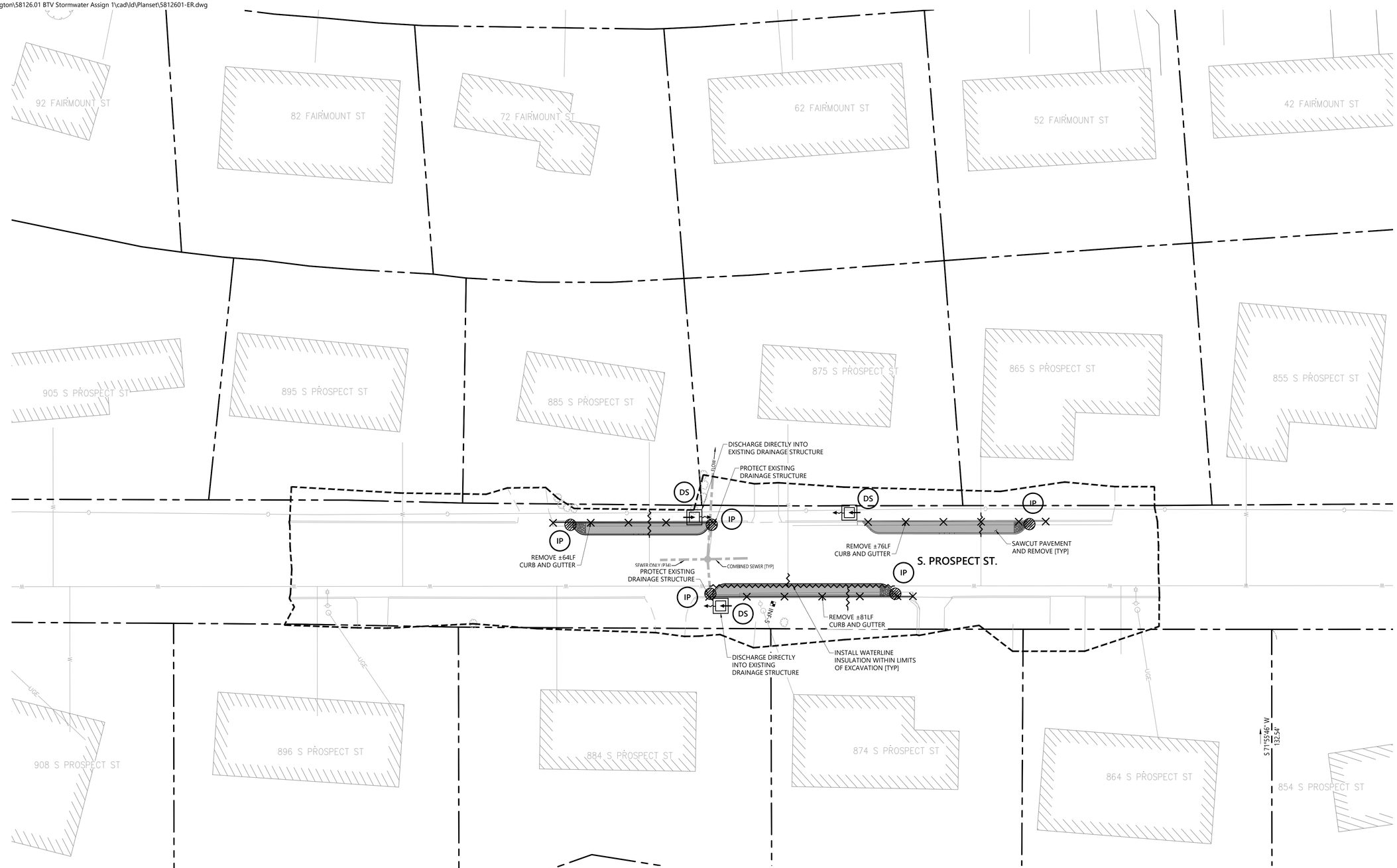

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STATE OF VERMONT
NICHOLAS CHRISTIAN DAMS
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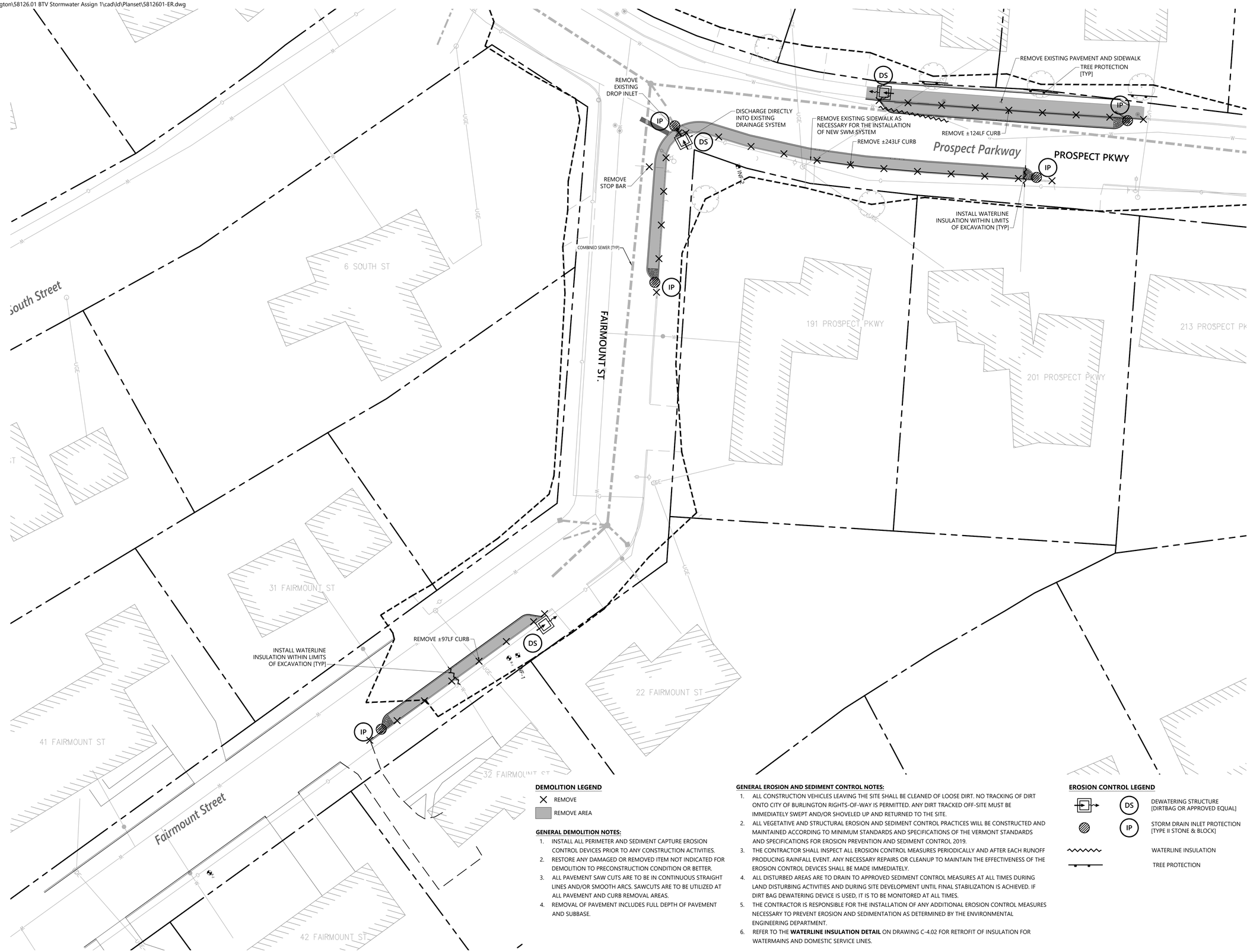

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STATE OF VERMONT
NICHOLAS CHRISTIAN DAVIS
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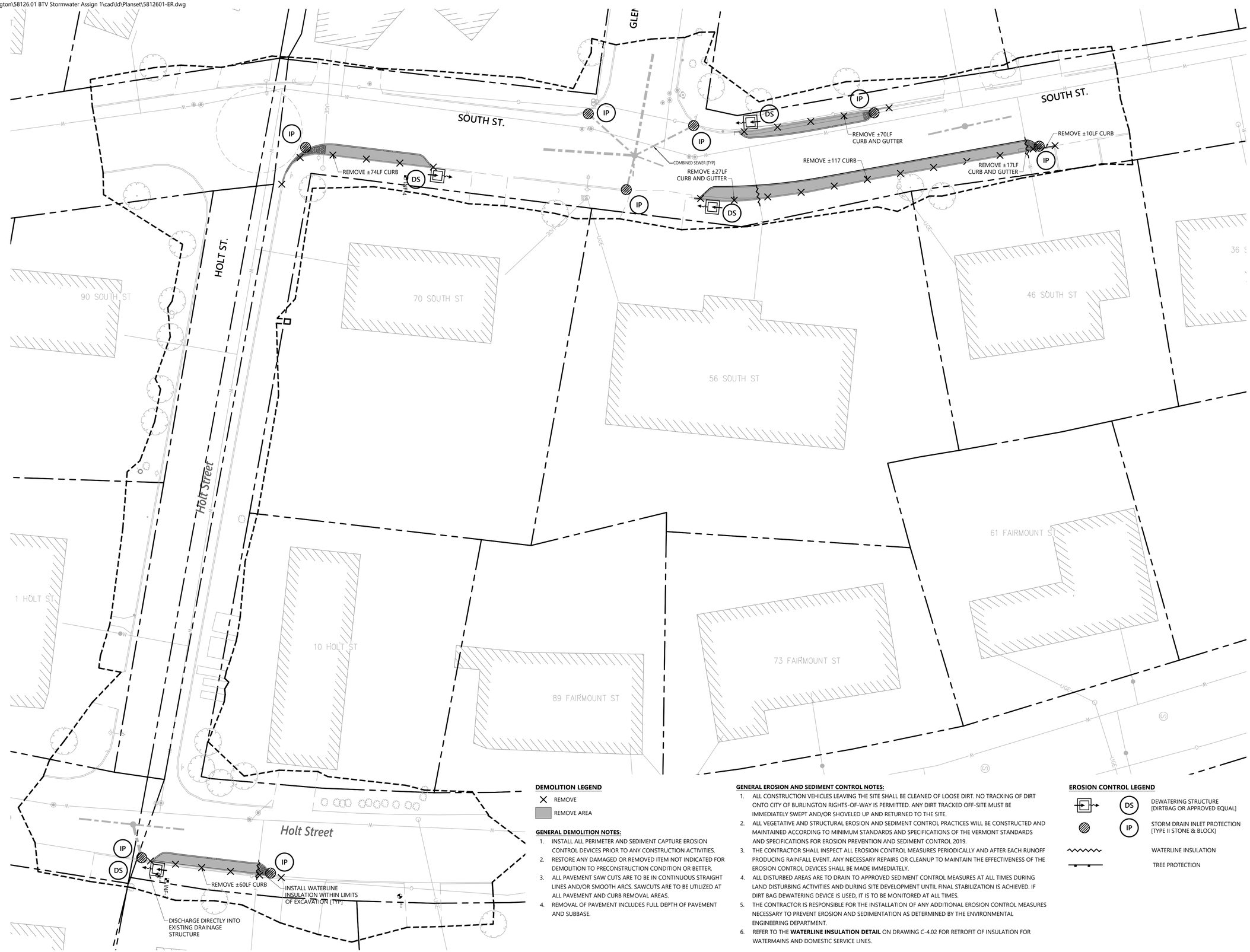

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RWN	NCH

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Demolition and Erosion Control Plan

STATE OF VERMONT
NICHOLAS CHRISTIAN HALE
NO. 133820
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10 DECEMBER 2020
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Sheet 11 of 24

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STORMWATER SUMMARY TABLE

Project	Subwatershed	Total Area (ac)	Impervious Area (ac)	Perviois Area (ac)	Treatment Practice	Approx. Area of Practice (sqft)	Approx. Length of Practice (ft)	Primary Outlet Outflow (downstream curb notch) (af) (2.7" CSO Storm)	Discarded (Infiltration) (af) (2.7" CSO Storm)
1	1s	0.756	0.346	0.410	1P	495	120	*	0.048
1	2s	0.278	0.105	0.172	2P	531	137	0.053	0.039
1	3s	0.772	0.283	0.489	3P	1395	248	0.007	0.091
1	4s	0.119	0.070	0.048					
2	5s	1.398	0.374	1.024	5P	315	87	0.093	0.067
2	6s	0.266	0.103	0.163	4P	250	64	0.007	0.028
2	7s	1.824	0.335	1.489					
2	9s	0.792	0.295	0.497	7P	226	70	0.055	0.046
3	10s	0.684	0.316	0.368					
3	11s	0.877	0.290	0.588	8P	504	115	0	0.060
3	12s	2.467	0.627	1.840	9P	712	160	0.010	0.119
3	13s-b	0.952	0.151	0.801	10P	294	135	0	0.031
3	14s	1.387	0.479	0.908					
4	15s-a	0.760	0.336	0.424					
4	16s-a	2.339	0.744	1.595	11P-A	367	101	0.045	0.108
5	17s	1.191	0.375	0.816	12P	651	164	0.010	0.067
5	18s	0.127	0.072	0.055	13P	225	60	0	0.015
6	19s	1.245	0.451	0.794					
6	20S	0.559	0.118	0.441	14P	239	64	0	0.024
Holt St.	21S	1.225	0.447	0.778	15P	230	51	0.030	0.062
	Total (ac)	**20.018**	**6.317**	**13.700**		**6434**	**1576**	**0.310**	**0.805**

Unmanaged Area (ac)	**6.019**	*System primary outlet flows into another downstream system. Removed to prevent "double counting" in Primary Outlet Total.	Percent (%) of "Managed Area" CSO Storm Runoff Infiltrated by Volume: **72.2**
Managed Area (ac)	**13.999**		
Overall 2.7" CSO Storm Pre-Development Peak Flow Rate (cfs)	**36.19**		
Overall 2.7" CSO Storm Post-Development Peak Flow Rate (cfs)	**26.22**		
Net Reduction (cfs)	**10.0**		

UNUSED SUBCATCHMENTS: 8S, 15S-B, 16S-B
UNUSED BMPS: 6P, 11P-B, 11P-C

LINETYPE AND SYMBOL LEGEND

- 1P — STORMWATER MANAGEMENT IDENTIFICATION
- 12S — SUBCATCHMENT DRAINAGE AREA IDENTIFICATION
- MAJOR DRAINAGE AREA DELINEATION
- MINOR DRAINAGE AREA DELINEATION

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Overall Layout and Materials Plan

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Project Number
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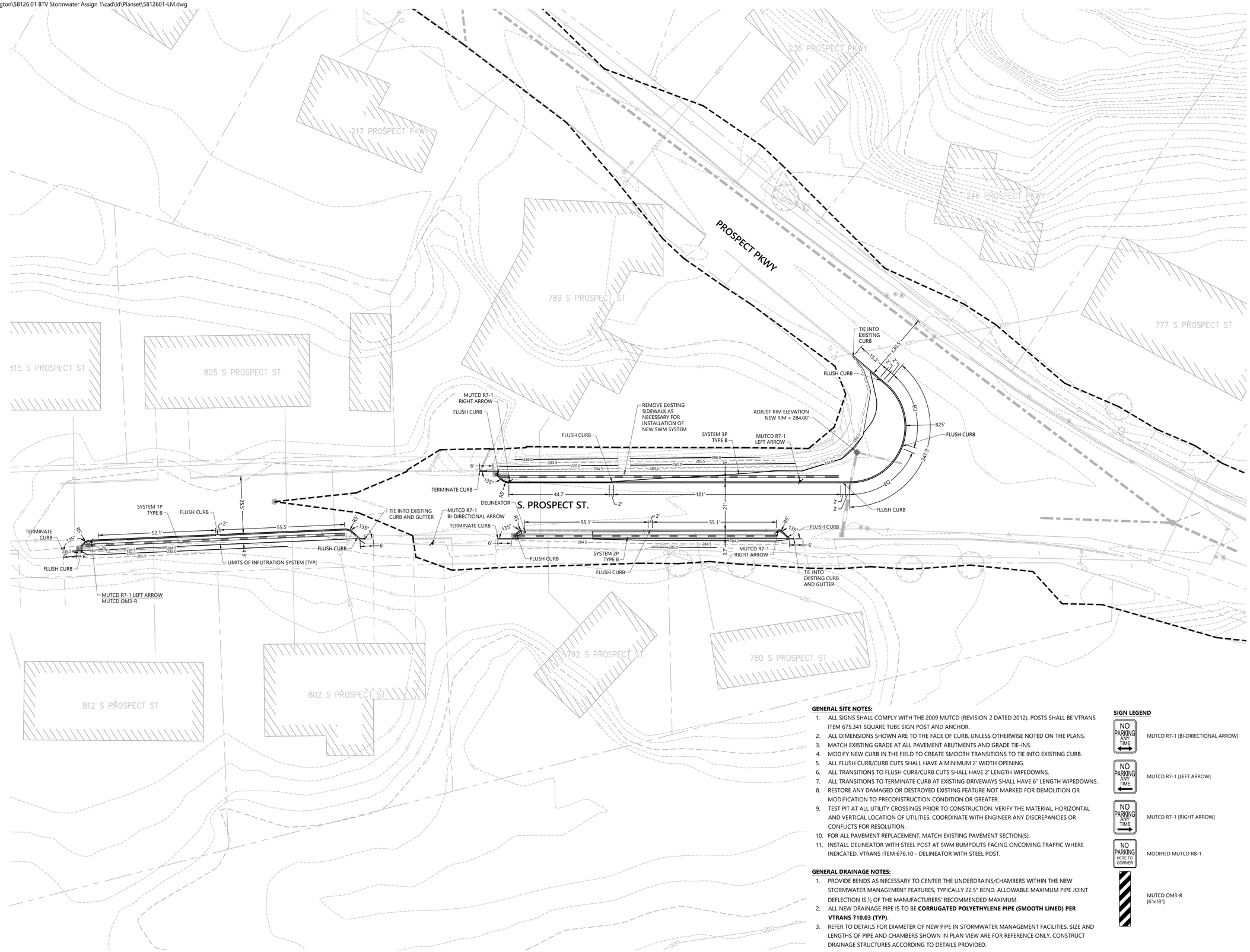

GENERAL SITE NOTES:

1. ALL SIGNS SHALL COMPLY WITH THE 2009 MUTCD (REVISION 2 DATED 2012). POSTS SHALL BE VTRANS ITEM 675.341 SQUARE TUBE SIGN POST AND ANCHOR.
2. ALL DIMENSIONS SHOWN ARE TO THE FACE OF CURB, UNLESS OTHERWISE NOTED ON THE PLANS.
3. MATCH EXISTING GRADE AT ALL PAVEMENT ABUTMENTS AND GRADE TIE-INS.
4. MODIFY NEW CURB IN THE FIELD TO CREATE SMOOTH TRANSITIONS TO TIE INTO EXISTING CURB.
5. ALL FLUSH CURB/CURB CUTS SHALL HAVE A MINIMUM 2' WIDTH OPENING.
6. ALL TRANSITIONS TO FLUSH CURB/CURB CUTS SHALL HAVE 2' LENGTH WIPEDOWNS.
7. ALL TRANSITIONS TO TERMINATE CURB AT EXISTING DRIVEWAYS SHALL HAVE 6" LENGTH WIPEDOWNS.
8. RESTORE ANY DAMAGED OR DESTROYED EXISTING FEATURE NOT MARKED FOR DEMOLITION OR MODIFICATION TO PRECONSTRUCTION CONDITION OR GREATER.
9. TEST PIT AT ALL UTILITY CROSSINGS PRIOR TO CONSTRUCTION. VERIFY THE MATERIAL, HORIZONTAL AND VERTICAL LOCATION OF UTILITIES. COORDINATE WITH ENGINEER ANY DISCREPANCIES OR CONFLICTS FOR RESOLUTION.
10. FOR ALL PAVEMENT REPLACEMENT, MATCH EXISTING PAVEMENT SECTION(S).
11. INSTALL DELINEATOR WITH STEEL POST AT SWM BUMPOUTS FACING ONCOMING TRAFFIC WHERE INDICATED. VTRANS ITEM 676.10 - DELINEATOR WITH STEEL POST.

GENERAL DRAINAGE NOTES:

1. PROVIDE BENDS AS NECESSARY TO CENTER THE UNDERDRAINS/CHAMBERS WITHIN THE NEW STORMWATER MANAGEMENT FEATURES, TYPICALLY 22.5° BEND. ALLOWABLE MAXIMUM PIPE JOINT DEFLECTION IS ½ OF THE MANUFACTURERS' RECOMMENDED MAXIMUM.
2. ALL NEW DRAINAGE PIPE IS TO BE **CORRUGATED POLYETHYLENE PIPE (SMOOTH LINED) PER VTRANS 710.03 (TYP)**.
3. REFER TO DETAILS FOR DIAMETER OF NEW PIPE IN STORMWATER MANAGEMENT FACILITIES. SIZE AND LENGTHS OF PIPE AND CHAMBERS SHOWN IN PLAN VIEW ARE FOR REFERENCE ONLY. CONSTRUCT DRAINAGE STRUCTURES ACCORDING TO DETAILS PROVIDED.

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NO PARKING ANY TIME ↔	MUTCD R7-1 [BI-DIRECTIONAL ARROW]
NO PARKING ANY TIME ←	MUTCD R7-1 [LEFT ARROW]
NO PARKING ANY TIME →	MUTCD R7-1 [RIGHT ARROW]
NO PARKING HERE TO CORNER	MODIFIED MUTCD R8-1
	MUTCD OM3-R [6"x18"]

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South End Retrofits

S. Prospect St. and Prospect Pky
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No.	Revision	Date	Apprvd.

Designed by CHS
Checked by NCH
Issued for **Bid**
Date **Dec. 10, 2020**

Drawing Title
Layout and Materials Plan

STATE OF VERMONT
NICHOLAS CHRISTIAN HALE
NO. 133820
CIVIL
10 DECEMBER 2020
LICENSED PROFESSIONAL ENGINEER

Drawing Number
C-3.01

Sheet 13 of 24

Project Number
58126.01

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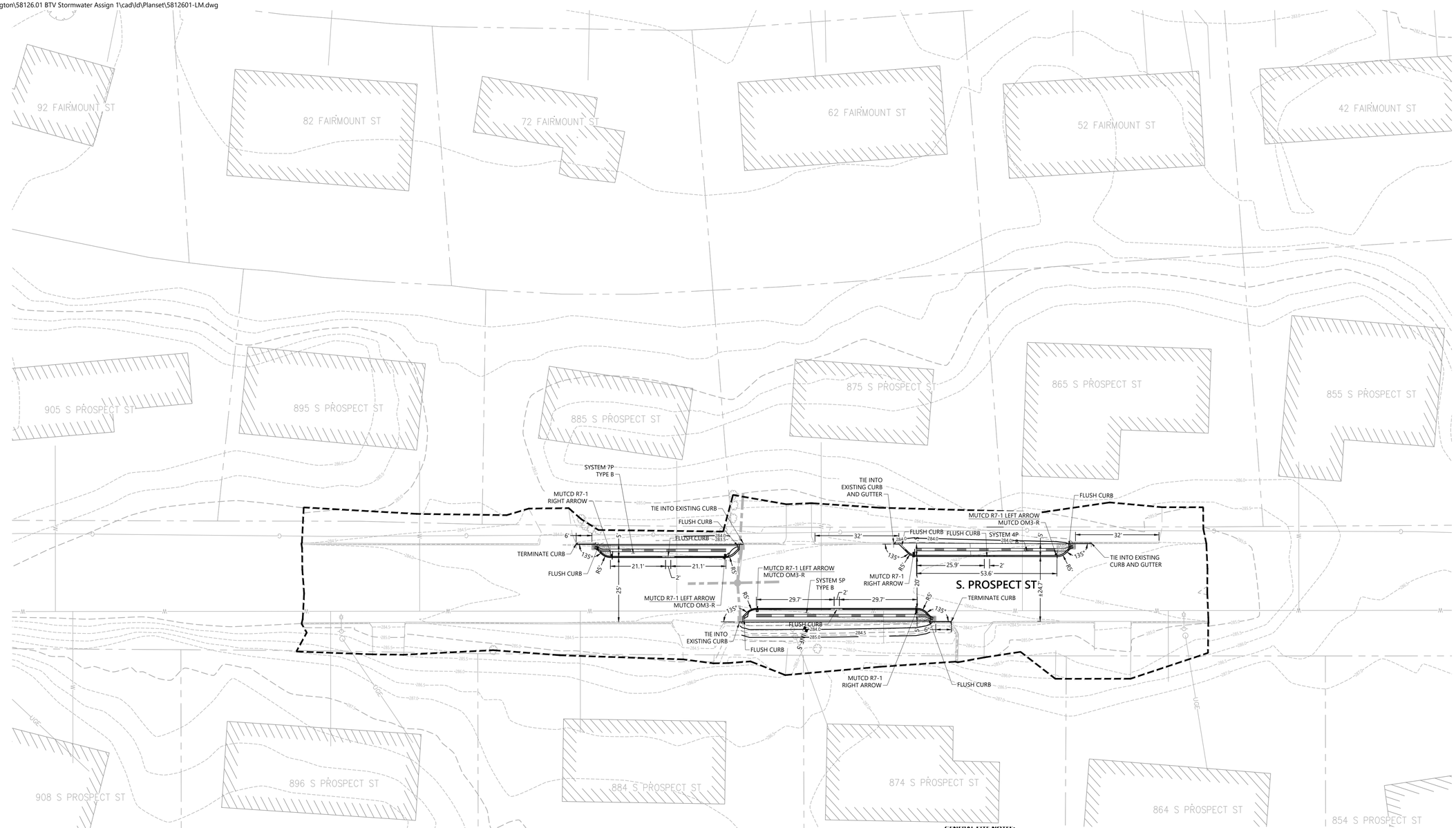

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South End Retrofits

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NICHOLAS CHRISTIAN HALE
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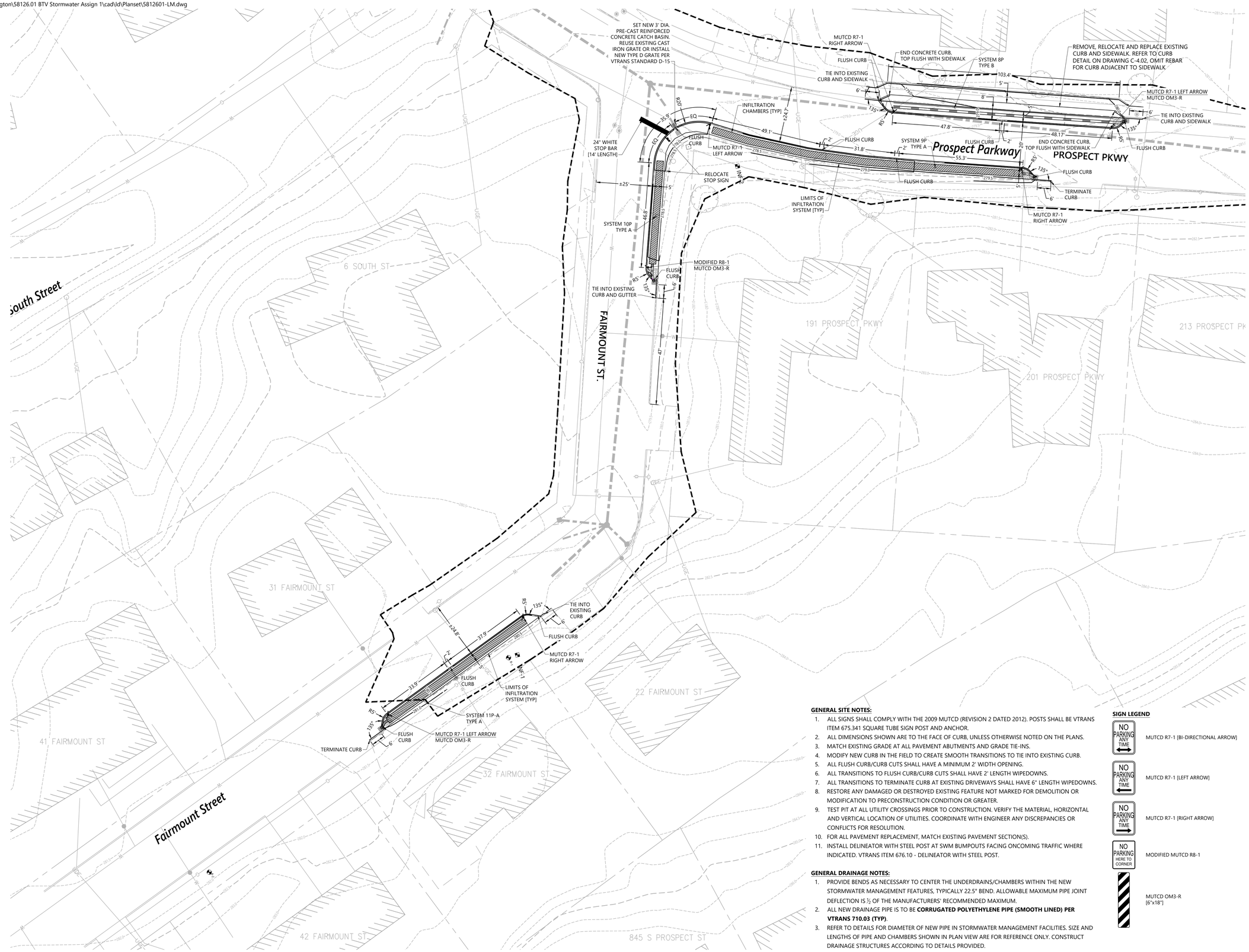
LICENSED PROFESSIONAL ENGINEER

Drawing Number
C-3.02

Sheet 14 of 24

Project Number
58126.01



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South End Retrofits

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Burlington, VT

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STATE OF VERMONT
NICHOLAS CHRISTIAN DAVIS
NO. 133820
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10 DECEMBER 2020
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Drawing Number
C-3.03

Sheet 15 of 24

Project Number
58126.01

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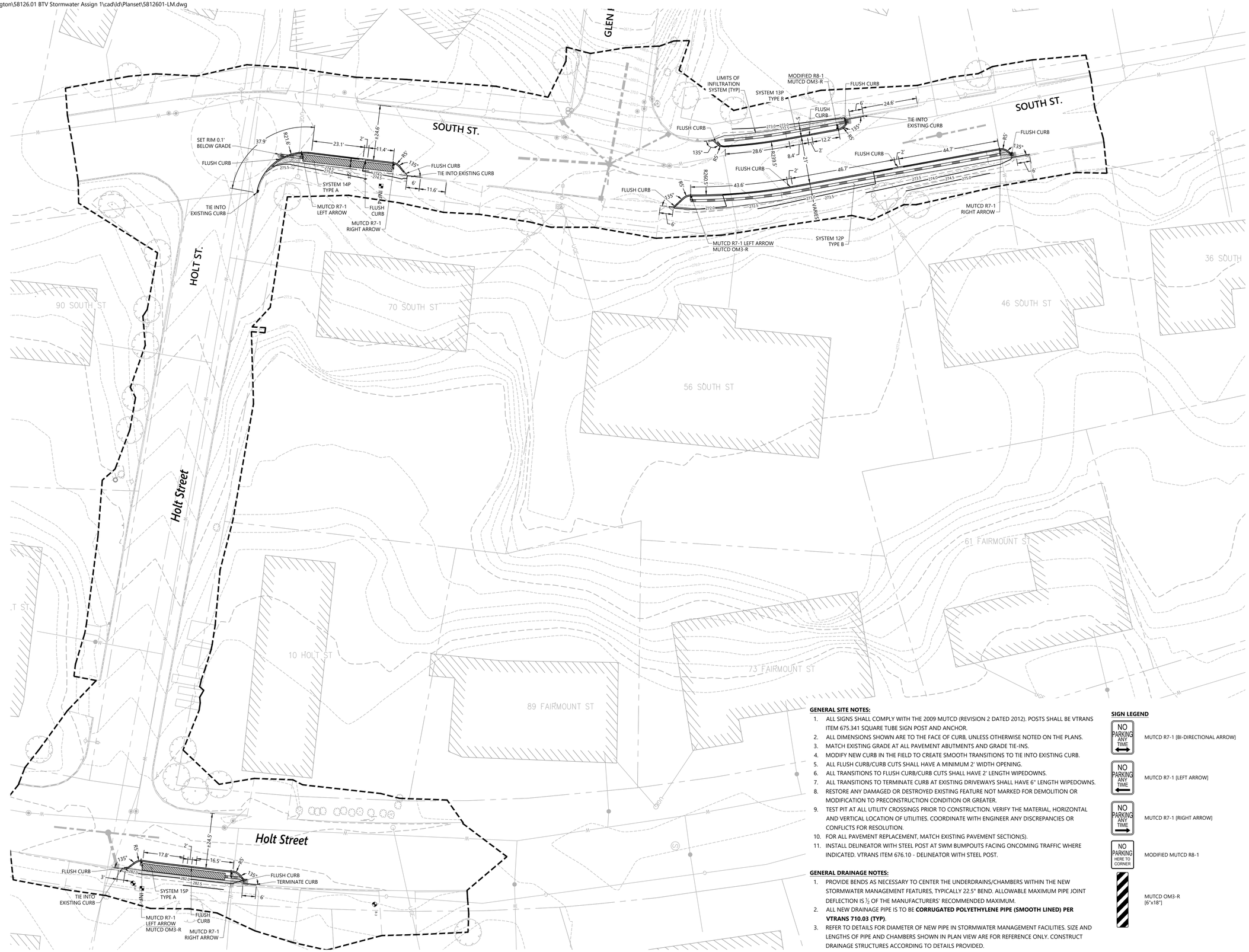

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South End Retrofits

S. Prospect St. and Prospect Pky
Burlington, VT

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Designed by	Checked by
CHS	NCH

Issued for	Date
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STATE OF VERMONT
NICHOLAS CHRISTIAN HALE
NO. 133820
CIVIL
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LICENSED PROFESSIONAL ENGINEER

Drawing Number
C-3.04

Sheet 16 of 24

Project Number
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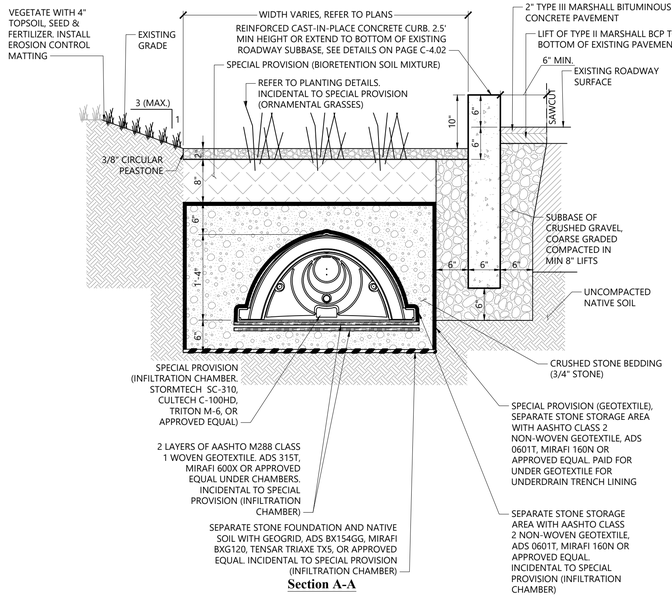
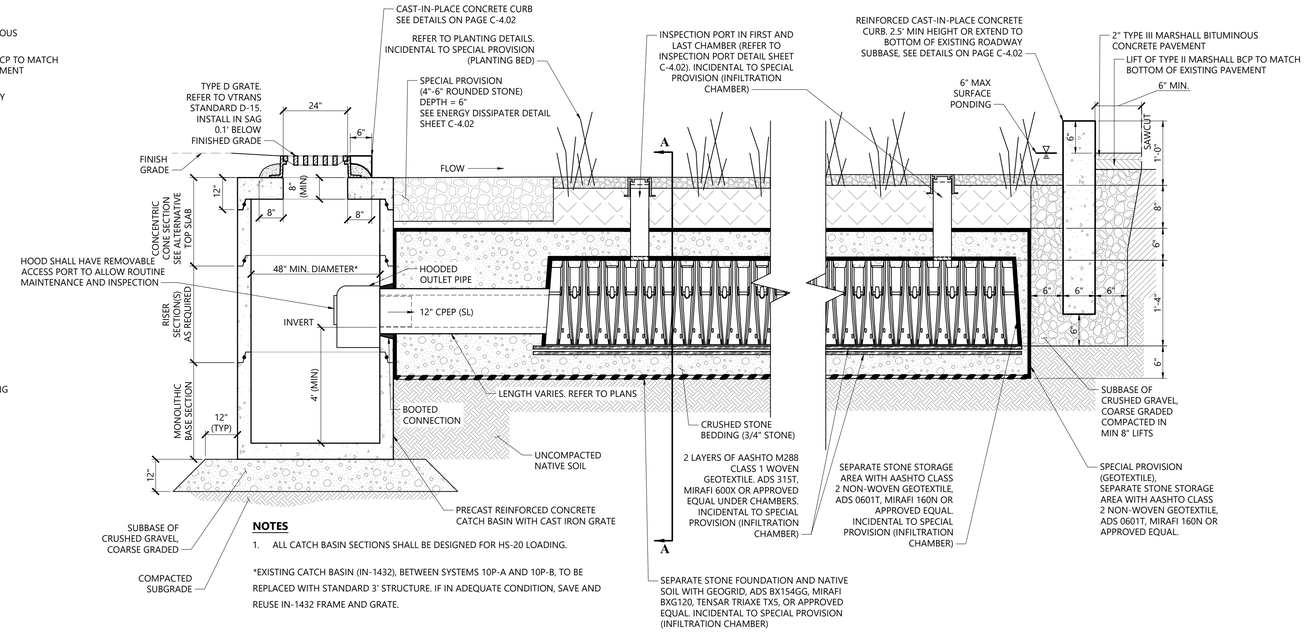


Bioretention Bumpout Section w/ Infiltration Chamber (Type A)

N.T.S. Source: VHB REV LD_



NOTES

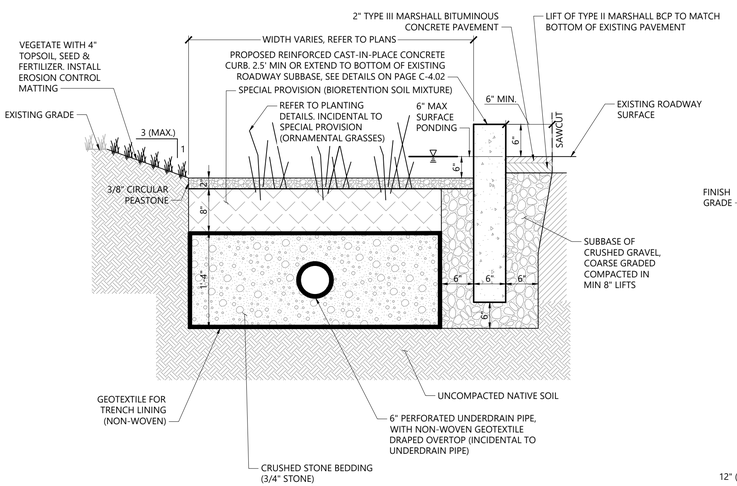
1. ALL CATCH BASIN SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.

*EXISTING CATCH BASIN (IN-1432), BETWEEN SYSTEMS 10P-A AND 10P-B, TO BE REPLACED WITH STANDARD 3' STRUCTURE. IF IN ADEQUATE CONDITION, SAVE AND REUSE IN-1432 FRAME AND GRATE.

Typical Profile - Bioretention Bumpout (Type A)

11/16

N.T.S. Source: VHB LD_



Bioretention Bumpout Section w/o Infiltration Chamber (Type B)

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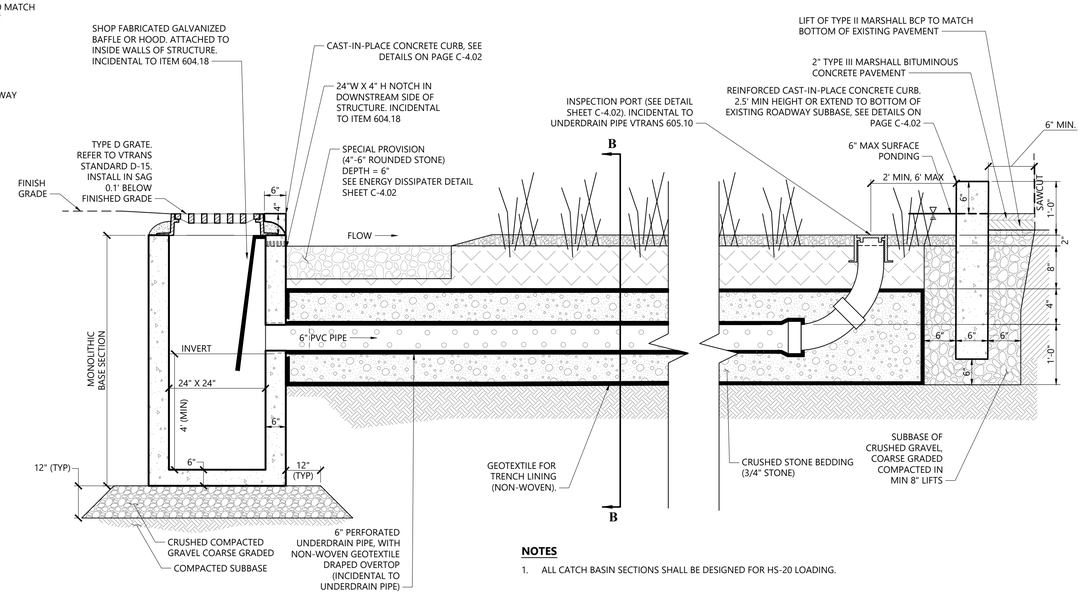

NOTES

1. ALL CATCH BASIN SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.

Typical Profile - Bioretention Bumpout (Type B)

11/16

N.T.S. Source: VHB LD_

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South End Retrofits

S. Prospect St. and Prospect Pky
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No.	Revision	Date	Appvd.

Designed by CHS
Checked by PBS
Issued for Bid
Date Dec. 10, 2020

Drawing Title
Site Details 1

Drawing Number
C-4.01

Sheet 17 of 24

Project Number
58126.01

STATE OF VERMONT
NICHOLAS CHRISTIAN PADRO
NO. 133820
CIVIL
10 DECEMBER 2020
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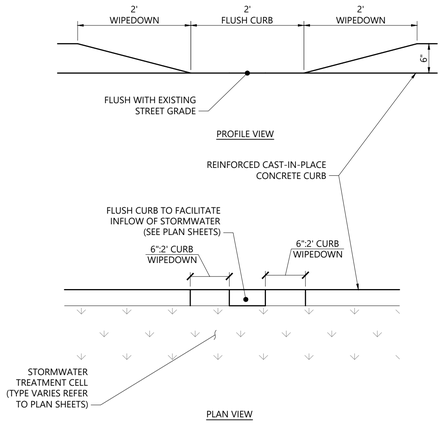
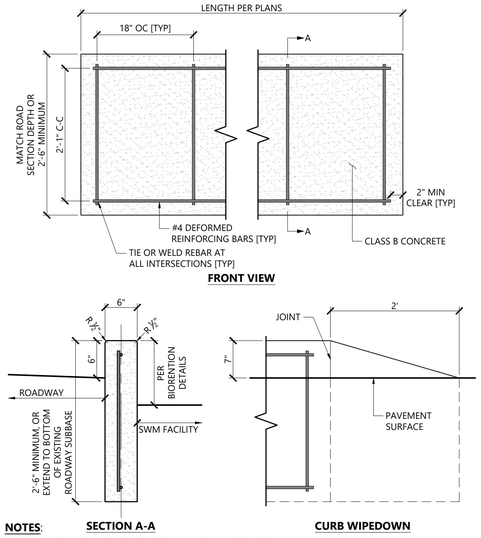


Wipedown Detail

N.T.S. Source: VHB 2/20 LD_

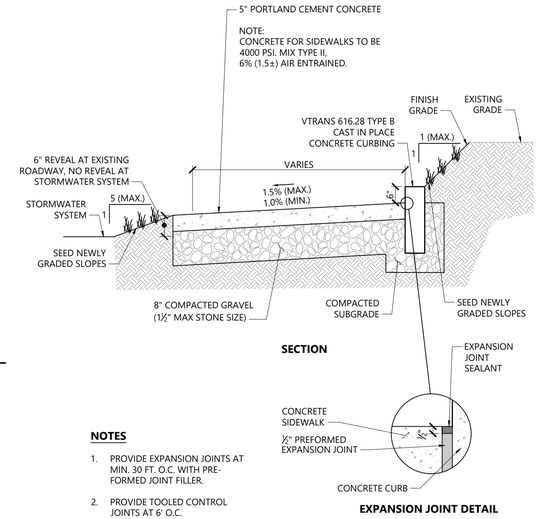


NOTES:

1. SPECIAL PROVISION (REINFORCED CAST-IN-PLACE CONCRETE CURB).
2. CONCRETE CURB SHALL COMPLY WITH ALL RELEVANT SECTIONS OF THE VTRANS 2018 STANDARD SPECIFICATIONS FOR CONSTRUCTION.
3. ENSURE 2" MINIMUM CLEARANCE FROM FACE OF CONCRETE TO EDGE OF REINFORCING STEEL.

Reinforced Cast-In-Place Curb

N.T.S. Source: VHB 12/19 LD_

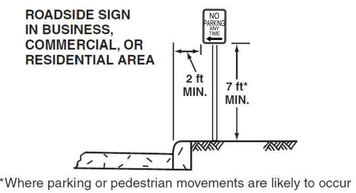


NOTES

1. PROVIDE EXPANSION JOINTS AT MIN. 30 FT. O.C. WITH PRE-FORMED JOINT FILLER.
2. PROVIDE TOOLED CONTROL JOINTS AT 6' O.C.
3. PROVIDE BROOM FINISH IN DIRECTION PERPENDICULAR TO CURB.

Concrete Sidewalk At System 8P

N.T.S. Source: VHB REV LD_



*Where parking or pedestrian movements are likely to occur

Sign Installation Guidelines

N.T.S. Source: MUTCD LD_

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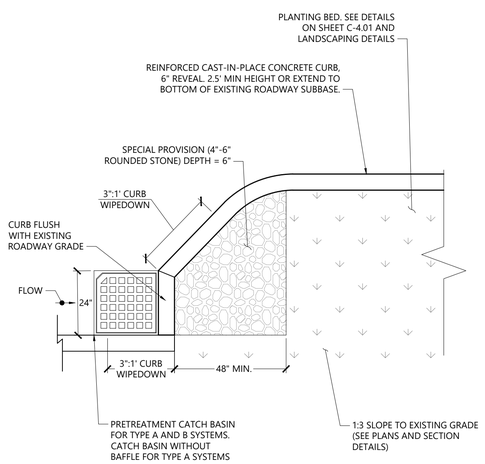
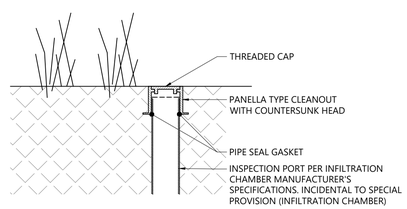


Stone Energy Dissipater

N.T.S. Source: VHB 1/17 LD_



Inspection Port

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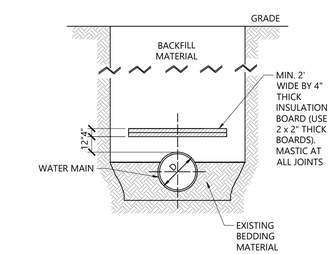
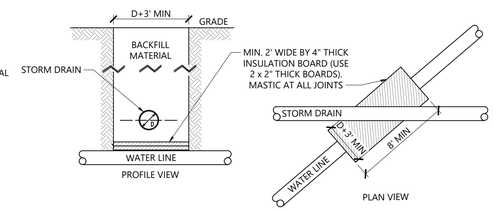


NOTES

1. INSULATION BOARD TO BE CLOSED CELL, EXTRUDED POLYSTYRENE FOAM MEETING ASTM 578, TYPE VI, 40 PSI COMPRESSING STRENGTH (ASTM D1621), 0.1% MAX. WATER ABSORPTION (ASTM C272).
2. BACKFILL MATERIAL AROUND INSULATION MUST BE FREE FROM ROOTS, ORGANIC MATTER, AND OTHER INJURIOUS MATERIALS.
3. OVERLAP ALL INSULATION BOARD JOINTS
4. PROVIDE INSULATION WHEN DEPTH OF COVER IS LESS THAN 6 FEET AND WHERE SHOWN ON PLANS
5. PROVIDE INSULATION WHEN WATER MAIN CROSSES ABOVE OR BELOW STORM DRAIN



Water Line Isulation

N.T.S. Source: VHB 12/19 LD_

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S. Prospect St. and Prospect Pky
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Drawing Title
Site Details 2

Drawing Number
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Sheet 18 of 24

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Drawing Title
Overall Planting Plan

Drawing Number
L-1.00

VERMONT Michael K. Willard No. 125.0083707 LICENSED LANDSCAPE ARCHITECT 10 DECEMBER 2020

Sheet 19 of 24

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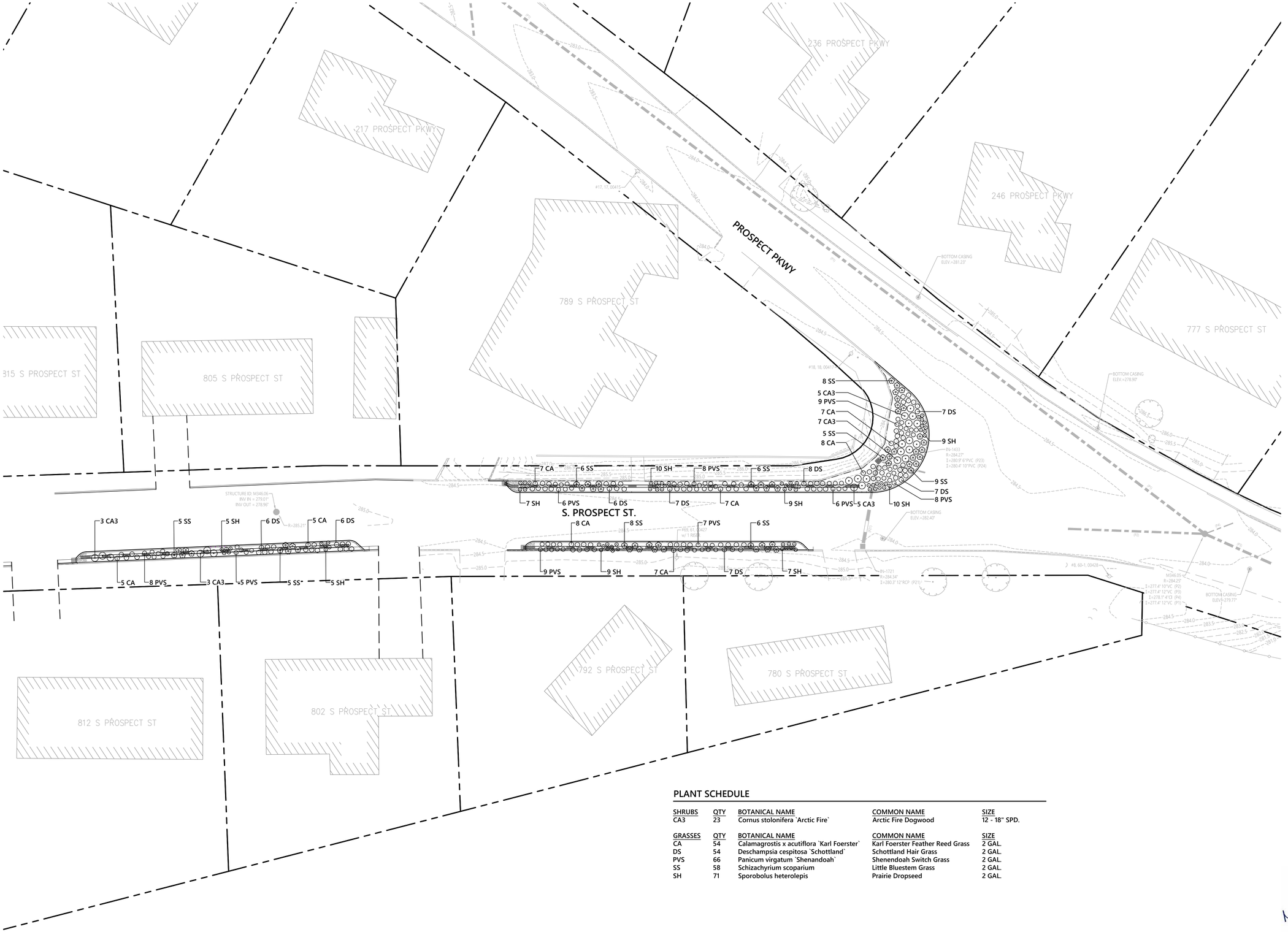
58126.01



PLANT SCHEDULE

SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE
CA3	23	Cornus stolonifera `Arctic Fire`	Arctic Fire Dogwood	12 - 18" SPD.

GRASSES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
CA	54	Calamagrostis x acutiflora `Karl Foerster`	Karl Foerster Feather Reed Grass	2 GAL.
DS	54	Deschampsia cespitosa `Schottland`	Schottland Hair Grass	2 GAL.
PVS	66	Panicum virgatum `Shenandoah`	Shenendoah Switch Grass	2 GAL.
SS	58	Schizachyrium scoparium	Little Bluestem Grass	2 GAL.
SH	71	Sporobolus heterolepis	Prairie Dropseed	2 GAL.

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802.497.6100

0 10 20 40 Feet

South End Retrofits

S. Prospect St. and Prospect Pky
Burlington, VT

No.	Revision	Date	Appvd.

Designed by MKW
Checked by MKW
Issued for Bid
Date Dec. 10, 2020

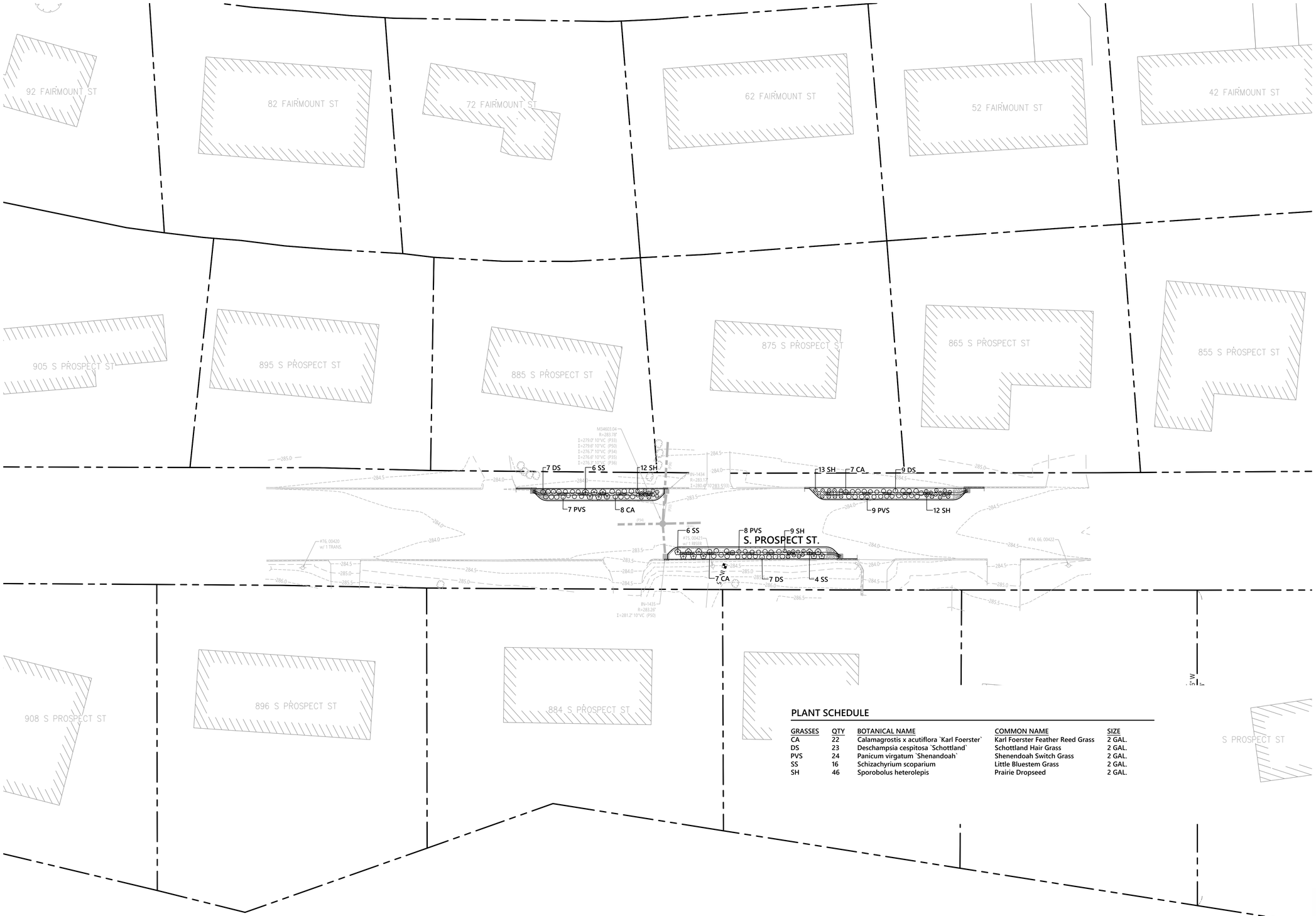
Drawing Title
Planting Plan

Drawing Number
L-1.01

VERMONT Michael K. Willard No. 125.0083.01 LICENSED LANDSCAPE ARCHITECT
10 DECEMBER 2020

Sheet 20 of 24

Project Number
58126.01



PLANT SCHEDULE

GRASSES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
CA	22	Calamagrostis x acutiflora `Karl Foerster`	Karl Foerster Feather Reed Grass	2 GAL.
DS	23	Deschampsia cespitosa `Schottland`	Schottland Hair Grass	2 GAL.
PVS	24	Panicum virgatum `Shenandoah`	Shenendoah Switch Grass	2 GAL.
SS	16	Schizachyrium scoparium	Little Bluestem Grass	2 GAL.
SH	46	Sporobolus heterolepis	Prairie Dropseed	2 GAL.

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South End Retrofits

S. Prospect St. and Prospect Pky
Burlington, VT

No.	Revision	Date	Appvd.

Designed by MKW
Checked by MKW
Issued for Bid
Date Dec. 10, 2020

Drawing Title
Planting Plan

Drawing Number
L-1.02

VERMONT Michael K. Willard LICENSED LANDSCAPE ARCHITECT No. 125.0093707 10 DECEMBER 2020

Sheet 21 of 24

Project Number
58126.01

PLANT SCHEDULE

GRASSES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
CA	50	Calamagrostis x acutiflora `Karl Foerster`	Karl Foerster Feather Reed Grass	2 GAL.
DS	61	Deschampsia cespitosa `Schottland`	Schottland Hair Grass	2 GAL.
PVS	70	Panicum virgatum `Shenandoah`	Shenendoah Switch Grass	2 GAL.
SS	49	Schizachyrium scoparium	Little Bluestem Grass	2 GAL.
SH	47	Sporobolus heterolepis	Prairie Dropseed	2 GAL.

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South End Retrofits

S. Prospect St. and Prospect Pky
Burlington, VT

No.	Revision	Date	Appvd.

Designed by MKW
Checked by MKW
Issued for **Bid**
Date Dec. 10, 2020

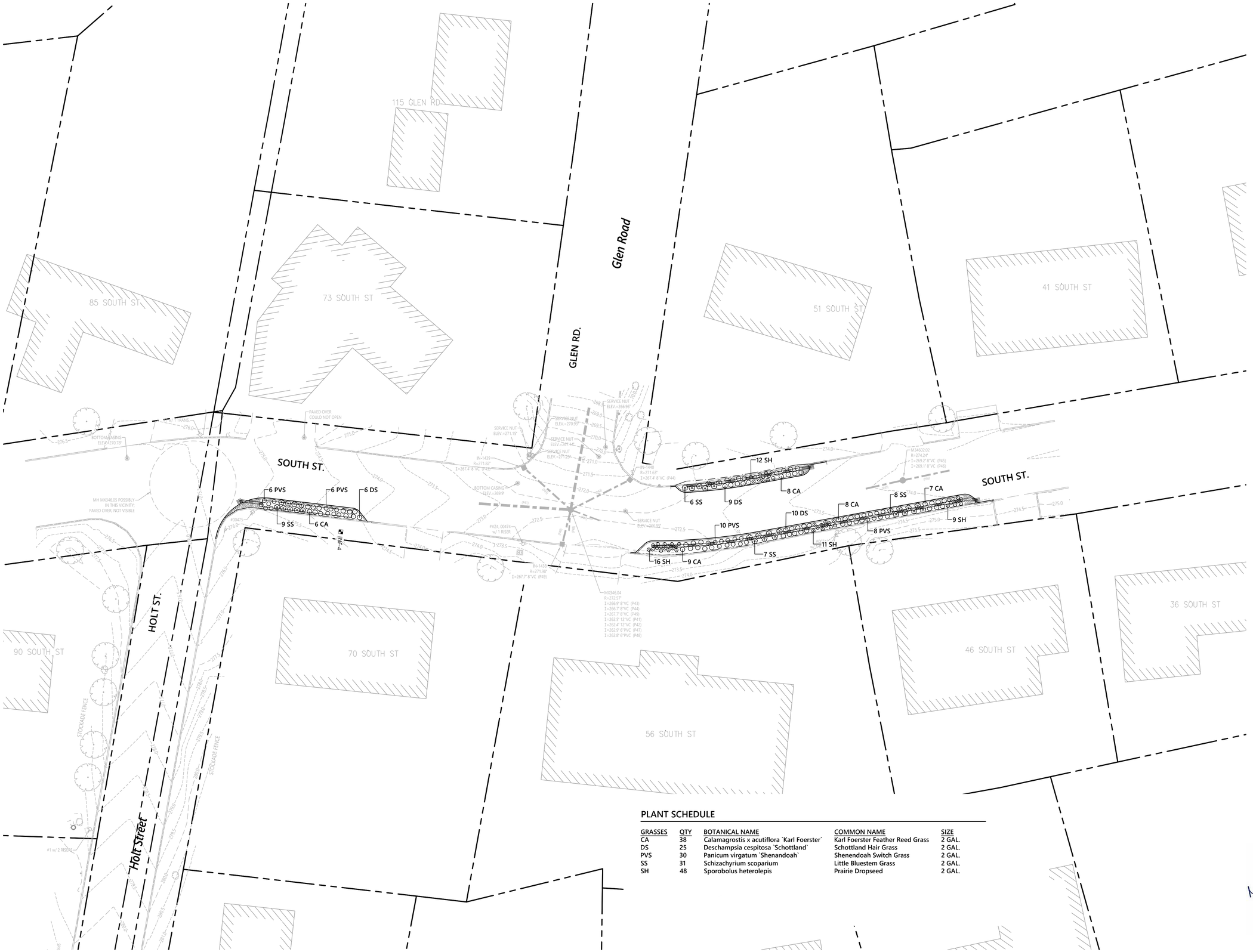
Drawing Title
Planting Plan

Drawing Number
L-1.03

VERMONT Michael K. Willard No. 125.0083.07 LICENSED LANDSCAPE ARCHITECT 10 DECEMBER 2020

Sheet 22 of 24

Project Number
58126.01



PLANT SCHEDULE

GRASSES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
CA	38	Calamagrostis x acutiflora `Karl Foerster`	Karl Foerster Feather Reed Grass	2 GAL.
DS	25	Deschampsia cespitosa `Schottland`	Schottland Hair Grass	2 GAL.
PVS	30	Panicum virgatum `Shenandoah`	Shenendoah Switch Grass	2 GAL.
SS	31	Schizachyrium scoparium	Little Bluestem Grass	2 GAL.
SH	48	Sporobolus heterolepis	Prairie Dropseed	2 GAL.

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0 10 20 40 Feet

South End Retrofits

S. Prospect St. and Prospect Pky
Burlington, VT

No.	Revision	Date	Appvd.

Designed by MKW
Checked by MKW
Issued for Bid
Date Dec. 10, 2020

Drawing Title
Planting Plan

Drawing Number
L-1.04

VERMONT Michael K. Willard No. 725.0083701 LICENSED LANDSCAPE ARCHITECT 10 DECEMBER 2020

Sheet 23 of 24

Project Number
58126.01

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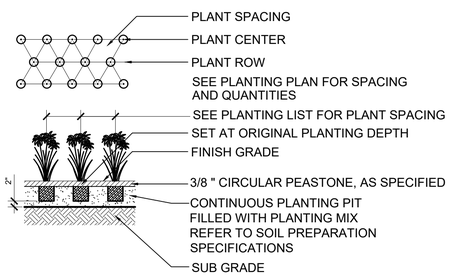
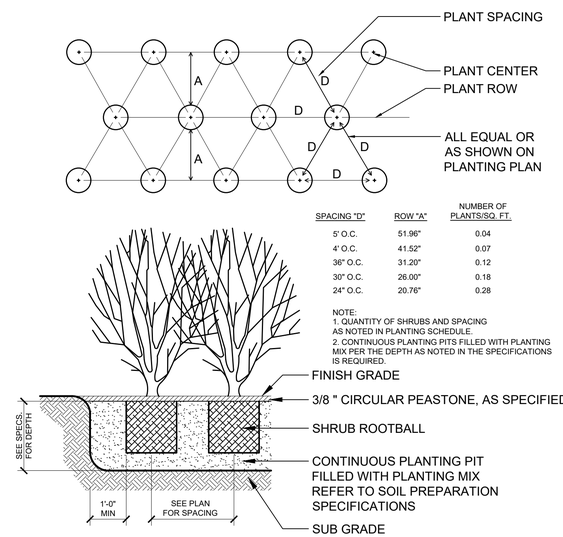


B PERENNIAL PLANTING
SCALE: 1/2" = 1'-0"



SPACING "D"	ROW "A"	NUMBER OF PLANTS/SQ. FT.
5' O.C.	51.96"	0.04
4' O.C.	41.52"	0.07
36" O.C.	31.20"	0.12
30" O.C.	26.00"	0.18
24" O.C.	20.76"	0.28

NOTE:
1. QUANTITY OF SHRUBS AND SPACING AS NOTED IN PLANTING SCHEDULE.
2. CONTINUOUS PLANTING PITS FILLED WITH PLANTING MIX PER THE DEPTH AS NOTED IN THE SPECIFICATIONS IS REQUIRED.

A SHRUB PLANTING
SCALE: 1/2" = 1'-0"

South End Retrofits

S. Prospect St. and Prospect Pky
Burlington, VT

No.	Revision	Date	Appvd.

Designed by MKW
Checked by MKW
Issued for **Bid**
Date **Dec. 10, 2020**

Drawing Title
Planting Details

Drawing Number
L-2.00

VERMONT Michael K. Willard No. 125.0083[illegible] 10 DECEMBER 2020 LICENSED LANDSCAPE ARCHITECT

Sheet 24 of 24

Project Number
58126.01

PDF-XCHANGE Click to buy NOW! www.tracker-software.com

From: Water Resources
Sent: Monday, January 11, 2021 9:32 AM
To: Jenna Olson; James Sherrard
FW: Request for GSI-CSO Parking Change Jan. 20

Please see below.

Heidi G.

WATER RESOURCES CUSTOMER CARE ASSOCIATE
Water Resources | Burlington Public Works
P (802) 863-4501 | F (802) 864-8233
W burlingtonvt.gov/dpw/water
E water-resources@burlingtonvt.gov

Please note that this communication and any response to it will be maintained as a public record and may be subject to disclosure under the Vermont Public Records Act.

From: B George <barbarainvt@gmail.com>
Sent: Friday, January 8, 2021 6:01 PM
To: Water Resources <water-resources@burlingtonvt.gov>
Subject: Re: Request for GSI-CSO Parking Change Jan. 20

[WARNING]: External Message, please be cautious.

Bad Idea, Bad Project, after the fact stormwater control. Many of these homes are multigenerational, and thus parked cars on the street. This isn't a single family neighborhood any longer, most of us are tax burdened beyond an acceptable level.

How about:

A tree Ordinance. Greatly reduces runoff, cleans the air, holds soil and sediments in place.
Ban "Scotts" and other like products on lawns.
Educate people on raising the deck on their lawn mowers letting the grass get a bit longer.
Demand better stormwater control up at the Golf Course, Burlington Country Club greatly impacts this neighborhood
Just because the money is burning a hole in the city's pocket does not mean this is the right thing to do.

The old BLodgett project that is almost complete is a disgrace to the city.
All that Blacktop which is within 250 of shoreline. Disgusting the city certainly bent the intent of the law on this one.
"The Vermont Shoreland Protection Act"

Please DO not ***forever change my neighborhood.***
Barbara George

DEPARTMENT OF PUBLIC WORKS
645 PINE STREET
BURLINGTON, VERMONT 05401
COMMISSION MEETING DECEMBER 16, 2020

Commissioners Present: Commissioner Archambeau, Commissioner Barr, Commissioner Bose, Commissioner Gillman, Commissioner Hogan (Chair), Commissioner O'Neill-Vivanvco (Vice-Chair), Commissioner Overby.

ITEM 1 – CALL TO ORDER

Commissioner Hogan called meeting to order at 6:35 p.m.

ITEM 2 – AGENDA

Commissioner Overby requested that Item A be taken off of the consent agenda as she wanted more information on the project.
Commissioner Archambeau seconded.

Chair Hogan made a motion to pull item A off of consent and make that Item 8.
Commissioner Overby accepted that as long as DPW Engineer Susan Molzon was amenable to it. Commissioner Archambeau was amenable to this as well.
Vote on the agenda with Item 4A changed to Item 8.
Unanimous approval

ITEM 3 – PUBLIC FORUM

Kelley Devine stated that she has received strong feedback in support to extend the date forward for removing free 2 hours parking in the parking garage.

ITEM 4 – CONSENT AGENDA

Loading Zone Adjustment Adjacent to 372 No. Winooski Ave

Commissioner Archambeau made a motion to approve
Commissioner Bose seconded
Unanimous approval

ITEM 5- SHELBURNE STREET ROUNDABOUT PROJECT

DPW Senior Engineer Laura Wheelock opened the presentation, with support from DPW Engineer Olivia Darisse. She noted this presentation was put together primarily by

VTRANS, and the project is being managed by them as well. The rotary is a high crash site and this project is 100% federally funded through VTRANS.

Questions & comments included:

- Driveway at the Majestic Car Rental and it was found that they need to have a driveway; it is a one-way driveway out only.
- Whether a stop sign can be put up before the crosswalk as there is a large amount of kids who use this intersection and it is a school zone.
- Traffic calming -- it was stated that there would be RRFB's at the intersection, which will slow down traffic.
- Commissioner Hogan noted that there is a project website. He asked when we get more dates. DPW Engineer Wheelock stated that by February 10, 2021 the project will go out for bid; likely in April the contract will be awarded with construction starting in June after school lets out.

ITEM 6 – UNIVERSITY PLACE CONCEPTUAL DESIGNS

Associate Engineer Philip Peterson did presentation, along with DPW Senior Engineer Wheelock. There are two different plans under review: the basic plan and an enhanced plan. In the basic plan one lane of traffic would be eliminated, traffic will be one way north on the street, there will be bike lanes and crosswalks will go from nine feet to six feet for pedestrian safety. There will be removal of parking with the exception of the south end for the food trucks.

Enhanced plan we will narrow road from thirty feet to 22 feet, widen the sidewalk on the east side creating a crossing plaza in the middle of University Place. Food trucks will have notched parking into the curb. The north end will include drop off parking for events, and the left turn will be removed from Colchester Avenue onto University Place.

DPW Senior Engineer Wheelock stated a timeline has been presented to the City Council. We are asking for more time from the Council on this and both parties support this request.

Commissioner Barr made a motion to approve.
Commissioner O'Neill-Vivanco seconded.
Unanimous approval

ITEM 7 – RUSSELL STREET & CHARLES STREET SEASONAL PARKING PROHIBITION

Associate Engineer Philip Peterson defined a narrow street as 28 feet or less. There are 17 narrow streets in Burlington without current parking restrictions. Last year, we tried a temporary seasonal restriction on Russell and Charles. We want to extend the parking restriction on Russell Street and Charles Street again this year from January 1st through

March 1st. This will help ensure emergency vehicle and plow access during winter when snow typically constricts the width of the road.

Commissioner Archambeau raised the concern for the abbreviated winter parking ban for this street as compared to the rest of the city's narrow streets which is typically December 1st to April 1st. Senior Engineer Susan Molzon said that we look at this street by street – in this area there are several residences that have no parking and surrounding areas are residential parking only. Assistant Director/Senior Engineer Norm Baldwin stated that going until March 1st still typically captures our most extreme weather period and that we still factor in flexibility with neighborhoods. Mr. Baldwin stated that this was still a trial. Commissioner Archambeau suggested more defined guidelines when considering future streets would be important. DPW Director Spencer said these can be in place for future streets. Commissioner Overby concurred with Commissioner Archambeau. Commissioner Barr agreed this is important, but to include flexibility. A discussion ensued to determine what reasons or data could be included to determine any changes to the dates for a seasonal narrow streets parking restriction. Director Spencer offered motion language.

Commissioner Archambeau made a motion to approve traffic regulations described in the packet and to direct staff to develop written policy to inform decision on recommended duration of future seasonal parking restrictions.

Commissioner Barr seconded
Unanimous approval

ITEM 8 – EXTENSION OF 2 HOURS FREE AT MARKETPLACE GARAGE

Assistant Director Jeff Padgett referred to the memo in the Commission packet asking the Commission to extend 2-hour free parking in the Marketplace garage until April 1st due to the pandemic's economic impact downtown and currently lower parking utilization . Mr. Padgett referenced Parking finances, and stated that the City is working with the banks to restructure the loans. Burlington High School may be coming downtown, possibly will be leasing some parking which will be helpful. Also, have a short-term tenant coming in (state of Vermont who is doing construction on their garage) which needs 450-480 spots. Despite Covid, the Marketplace Garage was full 3 times over the last 3 months, which is not a lot, but more than it has been. People are still interested in coming out to downtown.

Commissioner Barr made a motion to support request.
Commissioner O'Neill seconded.
Unanimous approval

ITEM 9 - QUEEN CITY PARK RD AND HIGHER GROUND PROPOSAL

Commissioner Overby asked for more information on the traffic documents that were provided in the report, specifically how to interpret the data on pages 12 and 13 – 2008 vs 2028 projected traffic volume. Commissioner Overby asked for more info to determine how the Department concluded there would be no impact on QCPR based on this. DPW Senior Engineer Molzon gave context to what she included in the packet: a memo including a summary of where project is based on DPW's understanding, and DPW's role in the development process. Additionally included a memo from June 2020 from DPW's review of the traffic study. A conversation ensued about traffic data analysis. City Engineer offered a primer on the process, noted it's complex.

Commissioner O'Neill-Vivanco stated she wanted an update on the project – which could be "perceived as controversial", the area is on the border of Burlington and South Burlington and she wanted a high level summary, next steps and to be better able to respond when asked about this. DPW Senior Engineer Molson referred to the December 16th memo identifying what the DRB approved, which includes DPW recommendations. There are specifics on the map of traffic study done by Burton, go to the summary pages. Commissioner O'Neill-Vivanco asked about next steps and about the bicyclist and pedestrian considerations in this area. City Engineer described the quantitate and qualitative analysis for holistic transportation planning, but also the physical and financial constraints of the area.

Commissioner Overby asked for additional clarification on a data point: 'volume to capacity ratio.' City Engineer Baldwin and Senior Engineer Molzon responded to this – which included City Engineer Baldwind further describing the DRB process and DPW's role. He offered further opportunity to brief any members of the Commission on how the process works.

Chair Hogan suggested the DPW role in the DRB process is of interest and this could be a future briefing.

ITEM 10 – APPROVAL OF DRAFT MINUTES

Commissioner Archambeau asked that Commissioner O'Neill-Vivanco be identified as Vice Chair on the minutes, as is currently done with the identification of the Chair.

Commissioner Barr made a motion to accept minutes with changes
Commissioner Archambeau seconded
Unanimous approval.

ITEM 11 – DIRECTOR'S REPORT

Director Spencer reiterated main points of the written Director's Report, included in the packet.

ITEM 12 – COMMISSIONER COMMUNICATIONS

Commissioner Barr stated that some bike lanes need attention, including the Colchester Avenue bike lanes as the corridor entry in Burlington. Acknowledged things are looking good overall. Also East end neighborhood is planning some outside activities at Schamanska park.

Commissioner O'Neill-Vivanco thanked the team for a great year in maintaining infrastructure.

Commissioner Archambeau stated that the dump facility by Route 127 bike path down by Manhattan Drive has been broken into and there are flammable supplies around. He asked that this be secured.

Commissioner Overby wondered if we had to circle back to approve the item that was removed from the agenda.
Director Spender stated he did not think so as it was removed and put on for discussion.

Commissioner Hogan stated he appreciates DPW for moving things along. He was wondering about polling the staff for morale and their job satisfaction.

Director Spencer stated there were some surveys a few weeks ago and we are working on the areas that came out of the survey. Hazard pay was also offered last week to frontline employees.

ITEM 13 – ADJOURNMENT AND NEXT MEETING DATE JANUARY 20, 2021

Commissioner Barr made a motion to adjourn the meeting.
Commissioner Gillman seconded
Unanimous approval.

Meeting adjourned at 9:24 p.m.

CITY OF BURLINGTON
DEPARTMENT OF PUBLIC WORKS

645 Pine Street, Suite A
Burlington, VT 05401
802.863.9094 VOICE
802.863.0466 FAX
802.863.0450 TTY
www.burlingtonvt.gov/dpw

To: DPW Commissioners
Fr: Chapin Spencer, Director
Re: **DPW Director's Report**
Date: January 14, 2021

The January 2021 Public Works Commission meeting will be held online via Zoom.

QUICK UPDATES: It has been a busy couple of weeks, so I will provide shorter updates on a greater number of projects this month. I'm happy to talk more about any of these items.

- Waterfront Rail / Bike Path Coordination: The planning and design work continues for the bike path relocation and the Amtrak passenger rail projects on the waterfront. Vermont Rail System, VTrans and the City are continuing regular coordination meetings to prepare for a busy 2021 construction season between the railyard and College Street. Several legal documents (a lease, multiple finance and maintenance agreements and a couple easements) are going to the Council in late January or early February. DPW has been collaborating with Parks, the City Attorney and the Mayor's Office to help navigate complex issues and bring this multi-million dollar investment in sustainable transportation to Burlington this coming year.

- Enterprise Asset Management: Following up from last month's update in the Director's Report, we will be coming the Commission this month with an update on our efforts and a request for a recommendation to advance the acquisition of an Enterprise Asset Management / Computerized Maintenance Management System to the City Council. Please see the packet for additional information.

- FY'22-26 Capital Planning Update: Last month, I shared in the Director's Report that the five year window for the first Sustainable Infrastructure Plan is ending, we need to set our sights on the next 5 years (FY'22-26). It will be a greater challenge this time as our community is struggling to recover from the pandemic. While there are some early discussions about considering a special capital bond vote this coming November if COVID-19 is under control and the economy is recovering, we are going into the FY'22 budgeting process with very conservative assumptions. As a result, we are planning on paving and sidewalk work this season that is more in line with levels prior to the Sustainable Infrastructure Plan.

- PlanBTV Walk/Bike Progress: We have recently completed the fourth construction season since the adoption of PlanBTV Walk/Bike. Since plan adoption in April 2017, we have:
    - Increased bike lane miles from 12.5 to 18.9 – a 50% increase
    - Installed 1.5 miles of on-road greenways and rehabbed 6+ miles of shared use paths
    - Made improvements to 11 of 20 priority intersections for safety upgrades – 55% progress towards the goal of addressing 20 identified intersections by 2026
    - 25% of the network now includes low-stress paths, greenways, and protected or buffered bike lanes – the plan's goal is to reach 65% of the network by 2026 and we have more work to do in this area. We have protected lanes in the Old North End identified in the coming year's work plan.

Please reach out with any questions prior to Wednesday's Commission meeting.

City of Burlington
Department of Public Works
645 Pine Street
Burlington, VT 05402
802.863.9094 P
802.863.0466 F

Chapin Spencer
DIRECTOR OF PUBLIC WORKS

Date: January 20, 2021

To: DPW Commission

From:
Chapin Spencer, Director Public Works
Megan Moir, Water Resources Division Director
Martha Keenan, Capital & Asset Management Program Manager
Gustave Sexauer, Asset Management Coordinator

Subject: Asset Management Program – Amending Asset Management Contract; Authorizing Clean Water & Drinking Water State Revolving Fund Loans, GIS hosting contract and CMMS platform contract

---

Background:

The Department of Public Works (DPW) requests the Commission's support for a number of items related to the full implementation of the City's Asset Management Program. Specifically, we are seeking support for advancing a contract with Data Transfer Systems (DTS) to implement their VUEWorks software as a Computerized Maintenance Management System (CMMS) & Enterprise Asset Management (EAM) application. To support the CMMS & EAM contract, DPW is also seeking to amend the existing contract with KCI Technologies, Inc. (KCI) to assist the City through Task 3 of the City's asset management and implementation program. Also related to the asset management software implementation effort, DPW is advancing a contract with ROK Technologies (ROK) to host the City's GIS data in a cloud-based server. Lastly, DPW requests the Commission's support for an amendment the existing Drinking Water and Clean Water (Wastewater/Stormwater) State Revolving Fund planning loans to fund the Water Resources portion of the above costs.

City Council adopted the Asset Management Program and Implementation Resolution on 1/27/2020, supporting this scope of work. Given the newly developing financial constraints, this is an even more timely opportunity to effectively manage and minimize the costs associated with purchasing, maintaining, and renewing $500,000,000 worth of City assets, including property, infrastructure, facilities, vehicles, and equipment. It is critical to long-term financial health and sustainability of the City to proceed with this project now by approving agreements with DTS, KCI, and ROK.

<u>Data Transfer Systems (DTS):</u>

The Capital and Asset Management Team has been working with KCI through tasks 0, 1, and 2 of their contract to plan for asset management and select a vendor for a CMMS/EAM Software as noted in the memo dated April 13, 2020. A request for proposals (RFP) for a CMMS/EAM software was posted on October 2, 2020, and 19 proposals were received by November 2nd. A short-list was created, and the top four vendors were interviewed in December. Staff from divisions across DPW, Innovations, Burlington Parks, Recreation & Waterfront (BPRW), and Burlington International Airport (BIA) participated in the interviews and post-demonstration discussions to determine the top candidate. DTS, the makers of the asset and work management system VUEWorks, was selected as the vendor that would best suit all of the involved teams' needs.

The proposal from DTS outlines a 12-month approach from kick-off to go-live. The VUEWorks software that DTS would implement would be linked to the City's existing hosted GIS services, and would store non-spatial assets such as facility equipment and fleet within a DTS owned database. Work orders and service requests would be tracked and managed through VUEWorks as well. The implementation process begins by assessing what each City work group will need out of VUEWorks so that the proper workflows and asset registries can be set up. Then data from systems the city will abandon will be migrated to VUEWorks, and integrations will be set up to transfer data between legacy systems that the City intends to continue using, such as SeeClickFix for service requests from citizens and GraniteXP for CCTV pipeline inspections, among others. DTS will then divide the City's teams into four internally chosen "asset groups" which will be trained on using VUEWorks and will begin using the software over four separate go-live dates. The order of the roll out has been determined by the relative readiness of the assets and work order management across the various divisions.

VUEWorks software will provide significant improvements in how we steward City infrastructure, including better collaboration between work groups, risk tracking, and improved reporting of assets. The work order system can keep tabs on the cost of labor, parts, and equipment that is used during maintenance activities that can then be summed up for each asset. Condition scores can be attached to assets through inspections, assisting in calculating asset risk throughlikelihood of failure and consequence of failure analyses. Life-cycle planning by asset is aided by viewing conditions along a depreciation curve. Managers can get a quick look at real time data with charts, graphs, and other key performance indicators. Finally, through improved tracking of maintenance activities, the city can transition from focusing on reactive work, to proactive, extending the life of assets and creating cost savings through efficiency. These are just a few of the capabilities of the VUEWorks software.

<u>KCI Technologies Inc. (KCI):</u>

KCI was selected in February 2020 to provide the City with consulting services in the assessment, procurement, and now implementation of a CMMS & EAM application to enable cross-departmental management of work orders, customer inquiries, asset inventories, and preventative maintenance scheduling. KCI will also assist the City in developing best-in-class asset management practices and workflows to achieve the lowest cost of ownership for our assets, minimizing operational and capital costs for the City in perpetuity.

After completing the Tasks 0, 1, and 2, the contract KCI calls for an amendment to lay out the scope of work (SOW) for Task 3.
From the April 13, 2020 memo:

Task 0: Project Initiation and Project Management
Task 1: Procurement of CMMS/EAM Solution
Task 2: Selection of CMMS/EAM Solutions
Task 3: Implementation Oversight and Support*
**Contract calls for an amendment to define Task 3 at the completion of Task 2*

KCI has come in under budget on the Tasks 0, 1, and 2. Their proposed amendment for Task 3 has been reduced from the estimated $160,172.00 to $120,000.00.

<u>ROK Technologies (ROK):</u>

In light of the potential contract with DTS, the Innovation & Technology Department (I&T) does not believe that our current GIS infrastructure is adequate to support a new CMMS/EAM software over the next five years. The GIS servers that that department hosts on-site are becoming outdated, are expected to reach end of life over the asset management contract time period, and may not be able to handle the increased traffic that will come with a move to a GIS based asset management and work order system. For these reasons, I&T has been looking into a cloud-based GIS server that would be hosted and administered by a third-party. In 2019, I&T reached out for three quotes for a cloud-based hosting service. Out of the three options, ROK was selected as the best fit for the City. However, at the time there were insufficient funds to execute a contract.

Funding:

The Capital and Asset Management Team has budgeted $300,000 from the General Fund to finance the first year of the DTS, KCI, and ROK contracts. Water Resources will be amending loans with both the Clean Water State

Revolving Fund (CWSRF) and Drinking Water State Revolving Fund (DWSRF) to provide a significant component of the total funding for this project. Both SRF loans offer 5 year repayment at 0% admin/interest and the CWSRF includes a 50% planning loan subsidy in the form of loan forgiveness at the end of the project, up to $100,000.

If you have any questions, please contact Martha Keenan, Capital & Asset Management Program Manager (mkeenan@burlingtonvt.gov); Gustave Sexauer, Asset Management Administrator (gsexauer@burlingtonvt.gov); or Megan Moir, Assistant DPW Director – Water Resources (mmoir@burlingtonvt.gov).

DEPARTMENT OF PUBLIC WORKS
645 PINE STREET
BURLINGTON, VERMONT 05401
COMMISSION MEETING JANUARY 20, 2021
Video of the meeting can be found on Channel 17's YouTube channel or their website, once ready.

Commissioners Present: Commissioner Archambeau, Commissioner Barr, Commissioner Bose, Commissioner Gillman, Commissioner Hogan (Chair), Commissioner O'Neill-Vivanco (Vice-Chair), Commissioner Overby.

ITEM 1 – CALL TO ORDER

Commissioner Hogan called meeting to order at 6:33 p.m.

ITEM 2 – AGENDA

Commissioner Barr made a motion to accept the agenda.
Commissioner Archambeau seconded
Unanimous approval

ITEM 3 – PUBLIC FORUM

Jeff Nick chairs the Church Street Marketplace Commission and he expressed concerns with the changes made to South Winooski Avenue, he understands the multi-modal goals but feels there are problematic components to the design. This includes the offset of intersection at Bank Street and City Market and Cherry Street and Buell Streets. Not bad now with not much traffic but is concerned when downtown gets busy again that there will be problems.

Joanne Larson lives at 50 Charlotte Street and called stating she is looking for guidance. On January 4th, recycling was not picked up and she was told it was because cars were parked on both sides of street and truck could not get down the street. Charlotte meets requirements for a narrow street. She has concerns that if recycling cannot get down the street, can emergency vehicles?

Trina Beck lives at 77 Charlotte Streets and stated that large trucks cannot get down the street in winter when two cars are parked directly across from each other which is a serious safety issue. Would like seasonal parking on one side of the street. She has been in touch with Phillip Peterson at DPW about this.

Asa Long liked the discussion in December on the roundabout on Shelburne Road. Stated the design looks good; has concerns about speed coming onto South Willard.

ITEM 4 – CONSENT AGENDA

Commissioner Archambeau made a motion to approve the consent agenda
Commissioner Bose seconded
Unanimous approval

ITEM 5 - Water Resources Rate Restructuring and Affordability Program Update

There was a power point presentation on this delivered by DPW Water Resources staff including Megan Moir, Jenna Olsen and Jessica Lavalette.

Division Director Megan Moir stated they started doing a public outreach on this program but it was put on hold due to the pandemic and since then have made some changes to the plans.

Water Resources Policy & Programs Manager Jenna Olsen stated that sustainable funding is crucial for drinking water. They have been evaluating alternative rate structures, alternative revenue sources, affordability frameworks, as well as conducting a process to educate and solicit input on Water Resources rates.

Jessica Lavalette explained six proposed rate and policy changes.

Jenna stated that they are going to attend NPA's, present at TEUC and send out notifications to higher use customers the proposals and changes that they had developed for their program.

Commissioner O'Neill asked about how the program will be rolled out, about irrigation and about residential sprinklers, if they have evaluated irrigation for the Intervale. She was advised that about 210 residents have sprinkler systems right now and their bills will likely not lower.

Commissioner O'Neill asked if we had a program like BED's 'Defeat the peak'. Jenna advised that water usage is higher is summer and stated we hand out kits to residents to test for leaks. We are looking into a program for smart meter assistance for implementing or helping.

Commissioner Archambeau asked about private fire protection and Megan informed him that there is an additional cost charged to customers who have this fire protection.

Commissioner Bose stated that elements of our presentation should be put out there in pamphlets for the public to help them understand what DPW wants to do.

Commissioner Gillman stated to get this information out to as many people as possible.

Commissioner Archambeau made a motion to support and advance the Rate Restructuring and Affordability Program effort.
Commissioner O'Neill-Vivanco seconded
Unanimous approval.

ITEM 6 – Parking Request for South End Green Stormwater Infrastructure

We are looking to remove parking in several locations in a south end neighborhood for space, which will be needed for rain garden systems in the area. This will include the space needed for the proposed stormwater treatment systems and provide the needed space for emergency services to conduct operations.

Commissioner Gillman asked if parking utilization had been measured in the neighborhood. Philip Peterson stated that while they did not measure the utilization, parking is abundant in the neighborhoods and most houses do have driveways. Commissioner Gilman recommended that measuring this could be valuable data to inform decisions.

Jenna Olsen explained that the rain gardens coincide with the catch basins which are at the low points in the roadway. Jenna also stated that there is a municipal maintenance plan to get cleaned out and on routine basis. Jenna discussed the public engagement, subsequent changes and spoke about concerns of the residents.

Commissioner Barr asked if any of these areas were residential only parking and Philip Peterson stated that no they were not.

Commissioner Archambeau made a motion to approve the parking change.
Commissioner Barr seconded.
Unanimous approval

ITEM 7 – Asset management

Looking for Commission support to the full implementation of the City's Asset Management Program, specifically advancing a contract with DTS to implement VUEWorks software as a computerized software maintenance management system. Seeking to amend contract with consultant KCI to assist city through Task 3 of asset management and implementation program. To advance a contract with ROK Technologies to host the city GIS data in a cloud based servicer. Looking for Commission support for amendment to the existing Drinking Water and Clean Water State revolving fund planning loans to fund the Water Resources portion of above costs.

Gustave Sexauer shared a power point presentation on all of the above.

Commissioners agree that there was a lot of detail in the presentation and they support this program. Work orders will be able to be put into this program and updated.

Vice Chair O'Neil-Vivanco recommends robust training, tracking success, compliments the potential savings of using this program.

Commissioner Overby said that successful program implementation is key for the people in the field. Asked how long VueWorks has been in use. Gustave confirmed at least 10 years and that there has been communication with communities who used the program and are happy with it, including South Portland, Anne Arundel County, Springfield Water & Sewer (MA), Dover (NH). Commissioner Overby expressed strong support for the concept. Asked for clarity on "critical elements" and how they get done if there are service interruptions. Gustave confirms that data storage requirements have been met.

Chair Hogan asked about legacy systems; pipe breakages and confirms if that data will be transferred into the new system. Division Director Moir confirms that it will and additional functionality will be included. Chair Hogan asks for clarity on why additional fleet management system is necessary. Martha discusses the specificity of fleet software needs.

Commissioner Overby made a motion to accept staff's recommendation.
Commissioner Barr seconded.
Unanimous approval

ITEM 8 – Approval of Draft Minutes of 12/16/21

Commissioner Overby stated she wanted to make a change in the minutes in Questions and comments under Item 5 of the Agenda of the December meeting: Commissioner Overby expressed concern that the proposed 25 mile per hour approach speed to the roundabout was too fast for the safety of pedestrian crossings at the roundabout . She recommended the approach speed be 15 miles per hour. DPW staff stated that Burlington is prohibited by state law from setting City traffic speeds to less than 25 mph. Commissioner Overby said she would ask her state Reps what steps were necessary at the state level to enable Burlington to set a 15 mph speed limit for the approach to a roundabout

Commissioner Barr made a motion to accept minutes with the changes of Commissioner Overby.

Commissioner Bose seconded.
Unanimous approval

ITEM 9 - Director's Report

Director Spencer stated that the Waterfront/Rail Park work is continuing for the bike path relocation and Amtrak passenger rail service. There have been regular meetings continuing with the City, VTrans and Vermont Rail and we are preparing for a busy 2021 construction season. We are hopeful for passenger rail service starting late this year.

ITEM 12 – COMMISSIONER COMMUNICATIONS

Commissioner O'Neill-Vivanco stated she was downtown during the holiday season and absolutely liked the new configuration of North Winooski Avenue.

Commissioner Barr stated that he has heard complaints about the cars travelling down East Avenue quite fast and fielded requests for the speed radar to be put back up.
Offered kudos on the recent snow removal efforts.
Old East End Winterlude festivities have been scaled back. There will be activities but do it yourself ones.

Commissioner Hogan asked if narrow streets publish where things stand. Have staff make notes on streets with issues, such as being unable to get recycling due to the cars being parked on the street.

ITEM 13 – ADJOURNMENT AND NEXT MEETING DATE February 17, 2021

Commissioner Archambeau made a motion to adjourn the meeting.
Commissioner O'Neill-Vivanco seconded
Unanimous approval.

Meeting adjourned at 9:15 p.m.

DEPARTMENT OF PUBLIC WORKS
645 PINE STREET
BURLINGTON, VERMONT 05401
FINAL MINUTES
COMMISSION MEETING JANUARY 20, 2021

Commissioners Present: Commissioner Archambeau, Commissioner Barr, Commissioner Bose, Commissioner Gillman, Commissioner Hogan (Chair), Commissioner O'Neill-Vivanco (Vice-Chair), Commissioner Overby.

ITEM 1 – CALL TO ORDER

Commissioner Hogan called meeting to order at 6:33 p.m.

ITEM 2 – AGENDA

Commissioner Barr made a motion to accept the agenda.
Commissioner Archambeau seconded
Unanimous approval

ITEM 3 – PUBLIC FORUM

Jeff Nick is on the Marketplace and he expressed concerns with the changes made to South Winooski Avenue, he understands the goals but feels there are problematic components to the design. The offset of intersection at Bank Street and City Market and Cherry Street and Buell Streets. Not bad now with not much traffic but is concerned when downtown gets busy again that there will be problems.

Joanne Larson lives at 50 Charlotte Street and called stating she is looking for guidance. On January 4th, recycling was not picked up and she was told it was because cars were parked on both sides of street and truck could not get down the street. Charlotte meets requirements for a narrow street and wants reliable access to her home. She has concerns that if recycling cannot get down street can emergency vehicles.

Trina Beck lives at 77 Charlotte Streets and stated that large trucks cannot get down the street in winter when two cars are parked directly across from each other which is a serious safety issue. Would like seasonal parking on one side of the street.

Asa Long liked the discussion in December on the roundabout on Shelburne Road. Stated the design looks good has concerns about speed coming onto South Willard.

ITEM 4 – CONSENT AGENDA

Commissioner Archambeau made a motion to approve the consent agenda
Commissioner Bose seconded
Unanimous approval

ITEM 5 - Water Resources Rate Restructuring and Affordability Program Update

There was a power point presentation on this delivered by Megan Moir, Jenna Olsen and Jessica Lavalette.

Megan Moir stated they started doing a public outreach on this program but it was put on hold due to the pandemic and since we have made some changes to the plans that we already had.

Jenna Olsen stated that sustainable funding was crucial for drinking water – cost to provide water service in Burlington. Looking at alternative rate structures, alternative revenue sources, affordability frameworks, and process to educate and solicit input on Water Resources rates.

Jessica Lavalette went through a power point in which she explained six proposed rate and policy changes.

Jenna stated that they were going to attend NPA's, presenting at TEUC and sending out notifications to higher use customers the proposals and changes that they had developed for their program.

Commissioner O'Neill asked about how the program will be rolled out, about irrigation and about residential sprinklers, if there is an irrigation for the Intervale. She was advised that about 210 residents have sprinkler systems right now and we will not provide a lower bill to these people.

Commissioner O'Neill asked if we had a program like BED beat the peak. Jenna advised that water usage is higher is summer and stated we hand out kits to residents to test for leaks. We are looking into a program for smart meter assistance for implementing or helping.

Commissioner Archambeau asked about private fire protection and Megan informed him that there is an additional cost charged to customers who have this fire protection.

Commissioner Bose stated that elements of our presentation should be put out there in pamphlets for the public to help them understand what you want to do.

Commissioner Gillman stated to get this information out to as many people as possible.

Commissioner Archambeau made a motion to support and advance the Rate Restructuring and Affordability Program effort.
Commissioner O'Neill-Vivanco seconded
Unanimous approval.

ITEM 6 – Parking Request for South End Green Stormwater Infrastructure

We are looking for no parking of any vehicles in several locations in the south end for space, which will be needed for rain garden systems in the area. This will also provide the space needed for the proposed stormwater treatment systems the no parking zones will provide the needed space for emergency services to conduct operations.

Commissioner Gillman asked if the parking utilization in the neighborhoods was not an issue in the neighborhood and Philip Peterson stated to him that parking is abundant in the neighborhoods and most houses do have driveways.

Jenna Olsen explained that the rain gardens coincide with the catch basins which are at the low points in the roadway. Jenna also stated that there is a municipal maintenance plan to get cleaned out and on routine basis.

Commissioner Barr asked if any of these areas were residential only parking and Philip Peterson stated that no they were not.

Commissioner Archambeau made a motion to approve the parking changed.
Commissioner Barr seconded.
Unanimous approval

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Gustave Sexauer had a power point presentation on all of the above programs.

Commissioner all agree that there was a lot of detail in the presentation and they support this programs. Work orders will be able to be put into this program and updated. Commissioner Overby asked how long VueWorks has been in use and was

informed for at least ten years. There has been communication with several communities who use the program and are happy with it.

Commissioner Overby made a motion to accept staff's recommendation.
Commissioner Barr seconded.
Unanimous approval

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Commissioner Archambeau made a motion to adjourn the meeting.
Commissioner O'Neill-Vivanco seconded
Unanimous approval.

Meeting adjourned at 9:15 p.m.