

## Department of Planning and Zoning

149 Church Street  
Burlington, VT 05401  
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*David White, AICP, Director*  
*Ken Lerner, Assistant Director*  
*Sandrine Thibault, AICP, Comprehensive Planner*  
*Jay Appleton, GIS Manager*  
*Scott Gustin, AICP, Senior Planner*  
*Mary O'Neil, AICP, Associate Planner*  
*Nic Anderson, Zoning Clerk*  
*Elsie Tillotson, Department Secretary*



**TO:** Development Review Board  
**FROM:** Scott Gustin  
**DATE:** October 4, 2011  
**RE:** 12-0322CA; 645 Pine Street

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**Note: These are staff comments only; decisions on projects are made by the Development Review Board, which may approve, deny, table or modify any project. THE APPLICANT OR REPRESENTATIVE MUST ATTEND THE MEETING.**

Zone: ELM                      Ward: 5

Owner/Applicant: Burlington Department of Public Works

**Request:** Construct concrete vehicle wash-down structure with enhanced oil/grit separator

**Applicable Regulations:**

Article 4 (Maps & Districts), Article 5 (Citywide General Regulations), Article 6 (Development Criteria & Guidelines)

**Background Information:**

The applicant proposes to construct a wash station for city vehicles. The open air concrete structure would replace an existing improvised wash station and will provide for much improved gray water, oil, and grit collection.

Previous zoning actions for this property are noted below.

- 8/10/11, Approval to remove hydrogen fueling station equipment
- 9/5/06, Approval to construct a CNG fueling station
- 9/20/05, Approval to construct a hydrogen fueling station
- 3/7/03, Approval to replace front door with sliding door
- 3/10/03, Approval to extend salt storage shed
- 6/24/02, Approval to install 8' tall chain link fence
- 7/6/00, Approval to amend approval of DPW facility, eliminate cold storage shed
- 2/10/00, Approval to amend approval of DPW facility, relocate transformer
- 8/10/00, Approval of parking lot screening as required by DPW facility approval
- 8/26/99, Approval of construction of DPW central facility
- 8/26/99, Approval to demolish St. Johnsbury Trucking facility
- 10/9/97, Approval to relocate fueling facility
- 12/20/95, Approval of parallel sign for DPW Traffic Division
- 10/20/95, Change of use from trucking facility to DPW Traffic Division

**Recommendation:** Consent approval as per, and subject to, the following findings and conditions:

## I. Findings

### Article 4: Maps & Districts

#### *Sec. 4.4.3, Enterprise Districts:*

##### *(a) Purpose*

##### *(1) Light Manufacturing (ELM)*

The subject property is located in the ELM zone which is the primary commercial/industrial center of Burlington. The storage building is proposed within an existing storage yard for BED and will be appurtenant to the existing municipal utility use. **(Affirmative finding)**

##### *(b) Dimensional Standards & Density*

Building FAR will remain unchanged. The wash station is not an enclosed building.

Lot coverage will increase slightly (by 0.1%) to 55.1% and remains below the 80% coverage limit.

The front yard setback will remain unchanged. On this corner lot, there is no rear yard, and side yard setbacks do not apply in the ELM zone.

The heights of the concrete walls are not specified and must be; however, they are clearly well below the 15' height limit for accessory structures. **(Affirmative finding as conditioned)**

##### *(c) Permitted & Conditional Uses*

The city public works use will remain unchanged. **(Affirmative finding)**

##### *(d) District Specific Regulations*

**(Not applicable)**

### Article 5: Citywide General Regulations

#### *Sec. 5.2.3, Lot Coverage Requirements*

See Sec. 4.4.3 (b) above.

#### *Sec. 5.2.4, Buildable Area Calculation*

**(Not applicable)**

#### *Sec. 5.2.5, Setbacks*

See Sec. 4.4.3 (b) above.

#### *Sec. 5.2.6, Building Height Limits*

See Sec. 4.4.3 (b) above.

#### *Sec. 5.2.7, Density and Intensity of Development Calculations*

See Sec. 4.4.3 (b) above.

#### *Sec. 5.5.2, Outdoor Lighting*

**(Not applicable)**

#### *Sec. 5.5.3, Stormwater and Erosion Control*

The amount of earthwork associated with this project is large enough to require a “small project erosion control plan.” This ESPC plan has been provided and has been reviewed and approved by the Stormwater Administrator. The approved plan will be incorporated into this Development Review Board decision. **(Affirmative finding as conditioned)**

**Article 6: Development Review Standards:**

***Part 1, Land Division Design Standards***

Not applicable.

***Part 2, Site Plan Design Standards***

***Sec. 6.2.2, Review Standards***

***(a) Protection of important natural features***

No trees or other significant vegetation will be removed as part of this proposal. There are no significant natural areas on the property. The wash station is being constructed as a water quality measure to lessen impacts on the receiving waters of Lake Champlain. **(Affirmative finding)**

***(b) Topographical alterations***

Except for the slope within the wash station, no topographical alteration is proposed. **(Affirmative finding)**

***(c) Protection of important public views***

There are no important public views from, or through, the subject property. **(Affirmative finding)**

***(d) Protection of important cultural resources***

There are no known pre-historic archaeological resources on the property. Due to contaminated soils onsite, only limited excavation is proposed. **(Affirmative finding)**

***(e) Supporting the use of alternative energy***

**(Not applicable)**

***(f) Brownfield sites***

The subject property is included on the Vermont DEC’s Hazardous Site List. The construction of the proposed wash station observes the established “no dig zone” below 104’. It is the applicant’s responsibility to comply with all restrictions as established by DEC for excavation on this property. **(Affirmative finding as conditioned)**

***(g) Provide for nature’s events***

Stormwater dynamics onsite will remain essentially unchanged. An erosion control plan has been reviewed and approved by the Stormwater Administrator. **(Affirmative finding)**

***(h) Building location and orientation***

The proposed wash station will be tucked behind the corner of the main building. Visibility from the street will be minimal. **(Affirmative finding)**

***(i) Vehicular access***

**(Not applicable)**

***(j) Pedestrian access***

**(Not applicable)**

*(k) Accessibility for the handicapped*

**(Not applicable)**

*(l) Parking and circulation*

**(Not applicable)**

*(m) Landscaping and fences*

**(Not applicable)**

*(n) Public plazas and open space*

**(Not applicable)**

*(o) Outdoor lighting*

See Sec. 5.5.2.

*(p) Integrate infrastructure into the design*

**(Not applicable)**

***Part 3, Architectural Design Standards***

***Sec. 6.3.2, Review Standards***

**(Not applicable)**

**II. Conditions of Approval**

1. **Prior to release of the zoning permit**, the height of the wash station structure shall be noted, subject to staff review and approval.
2. This approval incorporates the Erosion Prevention and Sediment Control Plan approved by Megan Moir (Stormwater Administrator) September 7, 2011.
3. It is the applicant's responsibility to comply with all restrictions as established by Vermont Dept. of Environmental Conservation for excavation on this property.
4. The proposed structure shall comply with Burlington's current building code requirements as established by Burlington Public Works.
5. Standard permit conditions 1 -18.

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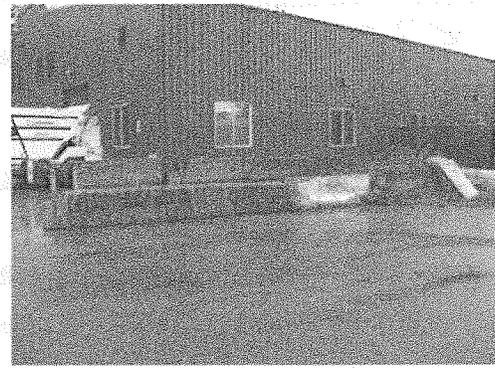
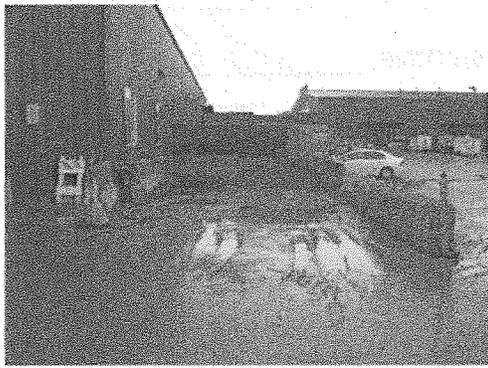
DEPARTMENT OF  
PLANNING & ZONING



Memorandum

To: Scott Gustin  
From: Steve Roy  
Cc: Megan Moir  
Date: September 7, 2011  
Re: Proposed DPW Vehicle Washdown System

We've been working on a solution to our outdoor vehicle washdown area for some time. As you can see from the pictures below, this area is unsightly and does very little to remove sediment and other potential pollutants washed off city vehicles.



Our proposed new washdown area consists of reinforced concrete containment and a treatment system that includes a catch basin with extended sump and an oil/grit separator with ESK Koala oil/water separator. This system is designed to remove as much sediment and petroleum products as technically possible.

Some of this proposed system will be on existing pavement and some will cover what was originally grass before the above washdown area was constructed. I've estimated the net new impervious for this property at 405 sqft. Given the size of this lot at 6.88 acres the coverage will increase by 0.1%.

This project's estimate at this time is \$30,000. The attachments to this memo include your zoning permit application, site plan, foundation plan, profile of the treatment system and cutsheet on the ESK Koala separator. If you have questions on this design feel free to contact me at 865-7258 or sroy@ci.burlington.vt.us.



# Burlington Department of Planning and Zoning

149 Church Street, City Hall  
Burlington, VT 05401-8415  
[www.ci.burlington.vt.us/planning](http://www.ci.burlington.vt.us/planning)

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DEPARTMENT OF  
PLANNING & ZONING

## Zoning Permit Application

Use this form for ALL zoning permit applications. See the relevant checklist for specific requirements.

PROJECT LOCATION ADDRESS: 645 Pine Street ZONE: ELM

PROPERTY OWNER\*: Burlington DPW

APPLICANT: Steve Roy

POSTAL ADDRESS: 645 Pine Street

POSTAL ADDRESS: 53 Lavalley Lane

CITY, ST, ZIP: Burlington, VT 05401

CITY, ST, ZIP: Burlington, VT 05401

DAY PHONE: 802-863-9094

DAY PHONE: 802-865-7258

EMAIL: mmoir@ci.burlington.vt.us

EMAIL: sroy@ci.burlington.vt.us

SIGNATURE: [Signature] Steve Goodkind

SIGNATURE: [Signature]

\*If condo unit, written approval from the Association is also required

Description of Proposed Project: Concrete vehicle washdown structure with enhanced oil/grit separator.

Existing Use of Property:  Single Family  Multi Family: #      Units  Other: municipal

Proposed Use of Property:  Single Family  Multi Family: #      Units  Other: municipal

Will 400 sq ft or more of land be disturbed, exposed and/or developed? Yes  No   
(If yes, you will need to provide the 'Erosion Prevention and Sediment Control Plan' questionnaire with a site plan)

For Single Family & Duplex, will total impervious area be 2500 sq ft or more? Yes  No   
(If yes, you will need to provide the 'Stormwater Management Plan' questionnaire with a site plan)

Are you proposing any work within the public right of way? Yes  No   
(If yes, you will need to receive prior approval from the Department of Public Works)

Estimated Construction Cost (value)\*: \$ 30,000

(\*Estimated cost a typical contractor would charge for all materials and labor, regardless of who physically completes the work)

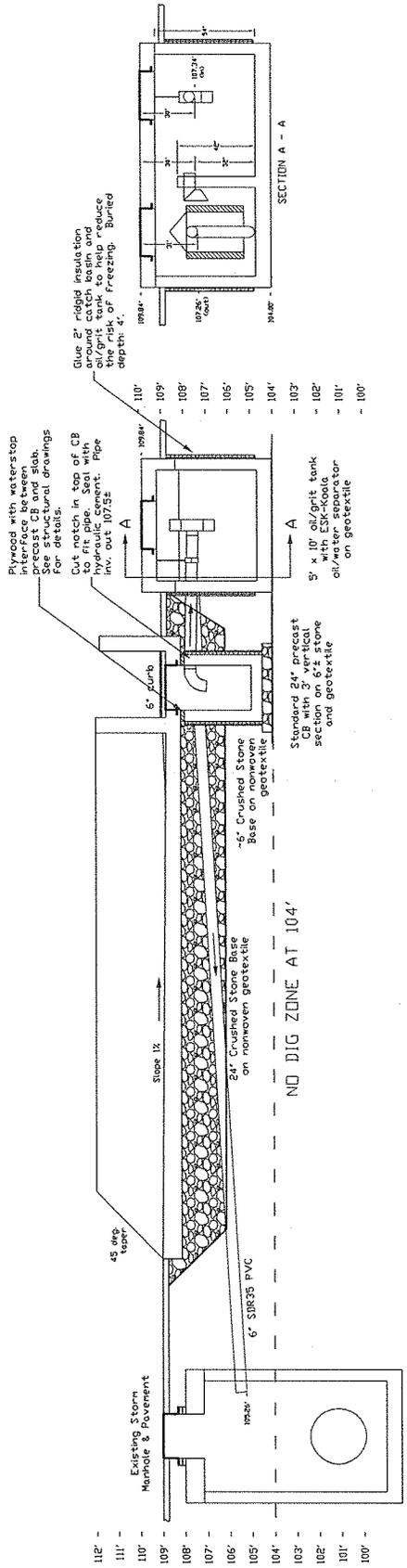
- Within 30 days of submission, the permit application will be reviewed for completeness, and, if complete, will be processed administratively or referred to a board for review. All permit approvals or denials are subject to an appeal period (15 days for administrative permit; 30 days for board permit).
- A building (and/or electrical, mechanical, plumbing, curb cut) permit will also be required. Contact the Department of Public Works at 802-863-9094 to inquire.
- Please ask for assistance if you have any questions about filling out this form. Call the Planning and Zoning at 802-865-7188, or visit the office in the lower level of City Hall, 149 Church Street.

Office Use Only: Eligible for Design Review?      Age of House      Lot Size     

Type: SN      AW      FC      BA      COA 1  COA 2      COA 3      CU      MA      VR      HO      SP      DT      MP     

Check No. JE432623 Amount Paid \$305 Zoning Permit # 12-0322CA





Washdown Profile (Scale: 1" = 5')

**NOTES & SPECIFICATIONS**

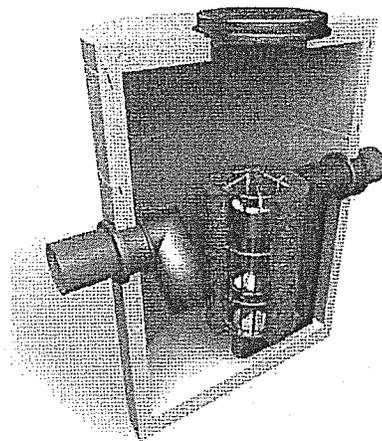
1. CATCH BASIN. The catch basin shall be standard 24" square with 2.5' base and 1' riser section. It shall include a core and pipe boot in the riser section to accommodate a 6" PVC outlet pipe. Acceptable manufactures include Camp Precast and SD Ireland. Frame & grate shall be US Foundries 8016-E4 or approved equal.
2. GRIT/OIL SEPARATOR. The grit/oil separator shall be a 1000 gallon precast heavy duty chamber with interior dimensions of 5' x 10' x 4'-8", 6" thick reinforced walls, 8" thick top & base slabs and two (2) 26" holes for inspection and maintenance. Manhole frames and gasketed covers shall be US Foundries 3003-B or approved equal and marked "DRAIN". One inlet and one outlet boot shall be sized to accommodate 6" PVC pipes. This unit shall also contain a 6" thick partition baffle that is 48" high from the floor and an Environment 21 ESK 6 Koala Oil/Water separator. Acceptable manufacturer is Camp Precast.
3. PIPE & FITTINGS. All pipe shall be gasketed SDR35 PVC as manufactured by Ipex or approved equal. Fittings shall be gasketed and manufactured to fit supplied pipe.
4. SUBBASE MATERIALS. Stone shall be 3/4" diameter conforming to VAOT 704.02B. Geotextile shall be a woven fabric, Mirafi 600X, Skaps W315 or approved equal.
5. ALLOWABLE EXCAVATION DEPTH. In order to avoid contaminated soil handling and testing the maximum allowable excavation depth at an elevation of 104'.
6. RIDGID INSULATION. Use 2" thick insulation (R-Value = 10 min.) as manufactured by Dow (blue STYROFOAM) or Owens-Corning (pink FOAMULAR). Adhere to concrete walls using Sonosorbene Premium Adhesive or another product approved for use with extruded polystyrene (XPS) insulation.
7. CONCRETE CORING. Two (2) concrete cores are recommended, one 10" core in the existing storm manhole for the new 6" washdown pipe and one 4" core in the northeast wall for the existing storm manhole.

<b>BURLINGTON PUBLIC WORKS</b> 600 Pine Street, 05401 (802) 863-3004 (802) 863-3006 (fax)	NO. DATE REVISION DESCRIPTION CHECKED	DPW Vehicle Washdown Treatment System	ENGINEERING DIVISION	PROJECT NO. S. POY DRAWN S. POY CHECKED DATE 9/7/11	SHEET 2 OF 2
		Profile and Notes	PROFILE AND NOTES	SCALE 0.5 SHOWN DRAWING NO.	SHEET NO.

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## ESK Koala Oil/Water Separator



- Single Structure Design
- Effective Removal Efficiency to 5 PPM (Parts Per Million)
- Optional Pre Treatment Grit Chamber
- European Tested and Certified

### Application

Cleaning of rainwater from petroleum derivative substances is the intended use of the ESK Separator. Equipment of this type can be used for treatment of rainwater coming from the areas that are highly exposed to contamination by petroleum derivative substances (e.g. fuel stations, fuel distribution stations, car servicing workshops, etc.) and those less exposed to the risks of this type (e.g. from roads, parking lots, manoeuvre yards, etc.). A suitable settling tank should be used upstream of the separator.

The separator can also be used for pre-treatment of process water coming from car wash stations (considering the specific nature of wastewater of such a type when selecting the device). In such circumstances, a settling tank of much higher volume than in case of rainwater pre-treatment system should be used upstream the separator.

See PN-EN 858-2 standard for the required minimum volume of the settling tank that operates together with the coalescence separator for a variety of applications.

### Principle of Operation

Rain or process wastewater, cleaned from suspended matter comes to the ESK Separator. Separation of the petroleum derivative contamination occurs by gravitational separation of oil and water, which is supported by the coalescence effect of the media. Oil impurities lighter than water emerge to the surface where they are collected creating a film. Some small drops of the petroleum derivative substances without adequate buoyant force aggregate in bigger drops when flowing through the coalescence material (coalescence effect), which allows their gravitational separation. The submerged outlet prevents escape of the separated contamination downstream and provides resistance to encourage separation.

### Recommended Application of Use

The separator is to be supplied by gravitational inflow. When wastewater must be pumped, either the pumping station should be located downstream or an accumulator should be installed upstream of the separator.

### Contact Information

PO Box 55  
East Pembroke, New York 14056  
Phone: 600-809-2801  
Fax: 585-815-4701  
[www.ENV21.com](http://www.ENV21.com)  
[envngr@env21.com](mailto:envngr@env21.com)

