VERMONT
AGENCY OF TRANSPORTATION

FY 2022 Municipal Highway Grant Application

APPLYING FOR: ☑ Structures ☐ Class 2 Roadway ☐ Emergency

MUNICIPALITY: East Montpelier MUNICIPAL CONTACT (name): C. Bruce Johnson

MAILING ADDRESS: PO Box 157, East Montpelier, VT 05651

Phone: (802) 223-3313 E-Mail: manager@eastmontpeliervt.org

ACCOUNTING SYSTEM: ☑ Automated ☐ Manual ☐ Combination

DUNS #: 10 887 3704 Grantee FY End Month (mm format): 06

DISTRICT CONTACT (name): Shauna Clifford, D7 Project Manager

Phone: (802) 535-5317 E-Mail: shauna.clifford@vermont.gov

SCOPE OF WORK TO BE PERFORMED BY GRANTEE

Location of Work. The work described below involves the following town highway / structure:
TH# 3, (Name) Center Road which is a class 2 town highway.
Bridge #_____, which crosses _____
Culvert # 5-12, for which the original size was 30" x 5' and the replacement size is 9'7"x6'6" arch
Causeway: _____
Retaining Wall: _____

Latitude: 44°17'09.09" N Longitude: 72°31'18.75" W MM (If Available):

Problem:

Undersized, deteriorating culvert on main road does not meet modern engineering, hydraulic or stream equilibrium standards, resulting in road erosion. This historic culvert must be left in place. Structures Grant #BC1853 funded an engineering study resulting in design for proposed new culvert.

Reason For Problem:

Vastly undersized historic stone culvert with no inlet or outlet protection is simply not up to current standards.

Proposed Scope of Work:

Historic stone culvert will be left in place. Town will construct new 9'7" x 6'6" x 64'6" aluminum pipe arch exceeding the minimum VTrans hydraulic study recommendations, with aluminum headwalls and wingwalls. New culvert will be installed approximately 25 south of existing culvert; brook channel will be aligned with new culvert and bermed to leave old culvert dry; wetlands will be restored around old culvert

Detailed Cost Estimate (below or attached):

Per April 2021 cost estimate by Newton Technical Services; estimate and proposed design attached (full plan set available if desired)

Estimated Project Amount: $ 262,400.00 Estimated Completion Date: 11/30/2022

Municipality has adopted Codes & Standards that meet or exceed the State approved template?	☑ YES ☐ NO
Municipality has a current Network Inventory?	☑ YES ☐ NO

Municipality MUST complete the following environmental resource checklist:

EXISTING STRUCTURES: (check all that apply)

☐ Steel Tube Culvert	☐ Concrete Box Culvert
☑ Stone Culvert	☐ Concrete Bridge
☐ Ditch	☐ Rolled Beam/Plate Girder Bridge
☐ Metal Truss Bridge	☐ Wooden Covered Bridge
☐ There are foundation remains, mill ruins, stone walls or other	☐ Masonry Structure
☐ Stone Abutments or Piers	☑ Buildings (over 50 yrs old) within 300 feet of work
☐ Other:	

PROJECT DESCRIPTION: (check all that apply)

☐ The project involves engineering / planning only	☐ The project consists of repaving existing paved surfaces only
☐ The project consists of reestablishing existing ditches only within existing footprint	☐ All work will be done from the existing road or shoulder
☐ The structure is being replaced on existing location / alignment	☑ There will be excavation within 300 feet of a river or stream
☑ New structure on new alignment	☐ Repair/Rehab of existing structure
☐ There will be excavation within a flood plain	☐ Road reclaiming, reconstruction, or widening
☑ Tree cutting / clearing	☑ Temporary off-road access is required
☑ New ditches will be established	☐ The roadway will be realigned

The municipality has included photos of the project. Must show infrastructure and surrounding features as much as possible. ☑ YES ☐ NO

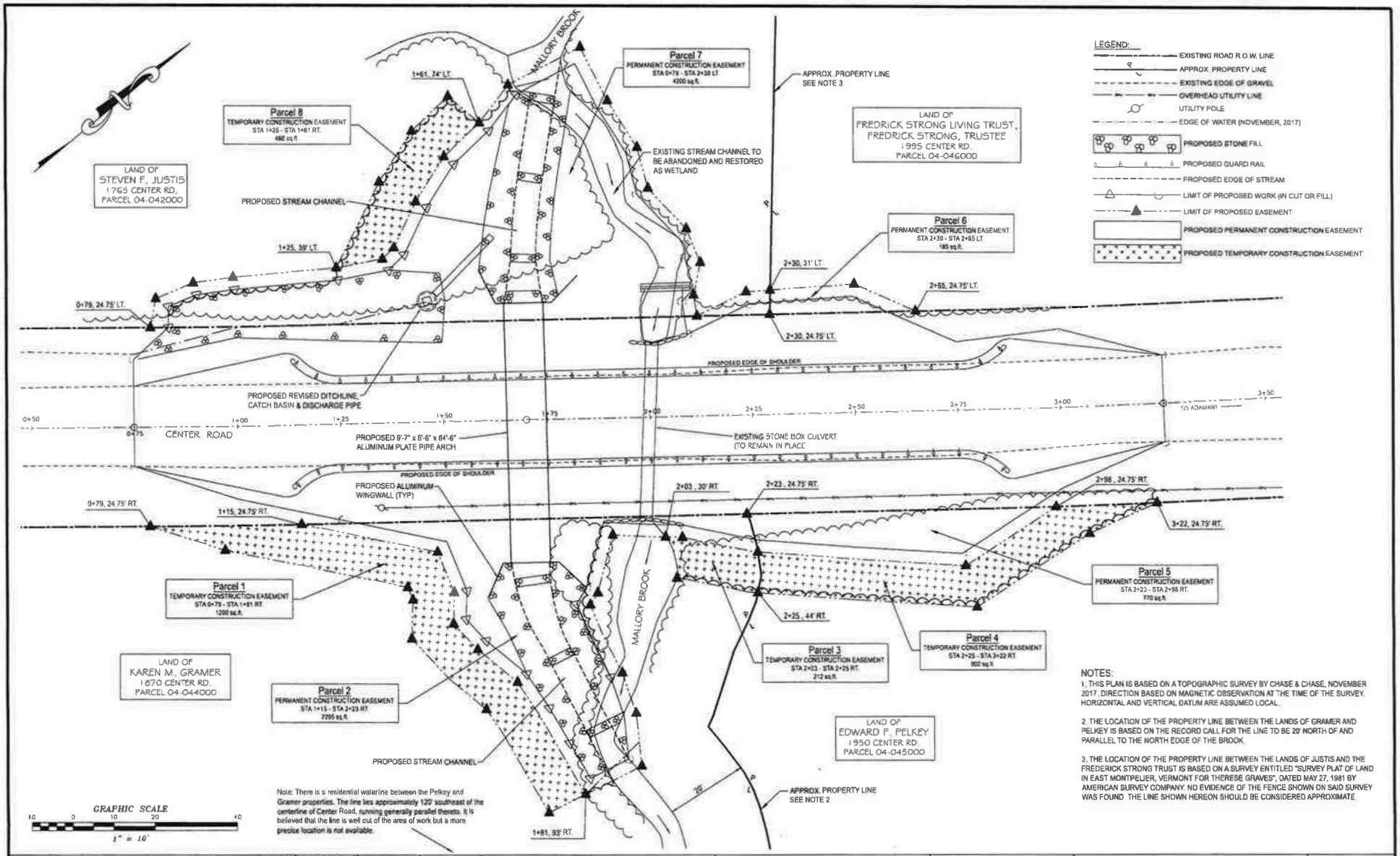
Below this line to be filled in by VTrans staff:

Recommended Award Amount:

District Staff Approval: (name) _____ Date: _____

Note:
Projects may involve impacts to protected historic or archaeological resources. For more information, responsible parties are encouraged to contact the District staff.

East Montpelier, TH 3 (Center Road) over Mallory Brook					
New 9'-7" x 6'-6" x 64'-6" Aluminum Pipe Arch with Aluminum Headwalls & Wingwalls					
Item No.	**Item Name**	**Quantity**	**Unit**	**Unit Price**	**Total**
201.10	Clearing and Grubbing Incl. Individual Trees and Stumps	1	LUMP SUM	$ 2,500.00	$ 2,500.00
203.15	Common Excavation	350	CY	$ 12.35	$ 4,322.50
203.27	Unclassified Channel Excavation	520	CY	$ 15.98	$ 8,309.60
204.20	Trench Excavation of Earth	18	CY	$ 19.02	$ 342.36
204.25	Structure Excavation	670	CY	$ 23.82	$ 15,959.40
204.30	Granular Backfill for Structures	305	CY	$ 45.00	$ 13,725.00
301.35	Subbase of Dense Graded Crushed Stone	205	CY	$ 34.87	$ 7,148.35
401.10	Aggregate Surface Course	75	CY	$ 47.68	$ 3,576.00
601.0915	18" Corrugated Polyethylene Pipe (HDPE)	20	LF	$ 57.27	$ 1,145.40
604.18	Precast Reinforced Concrete Drop Inlet with Grate (Type B)	1	EACH	$ 4,769.49	$ 4,769.49
608.25	All Purpose Excavator Rental, Type I	10	HOURS	$ 96.20	$ 962.00
613.10	Stone Fill, Type I	40	CY	$ 52.30	$ 2,092.00
613.11	Stone Fill, Type II	65	CY	$ 46.07	$ 2,994.55
613.12	Stone Fill, Type III	95	CY	$ 48.82	$ 4,637.90
619.16	Steel Marker Posts	2	EACH	$ 35.00	$ 70.00
621.205	Steel Beam Guard Rail, Galvanized with 8' Posts	358	LF	$ 19.56	$ 7,002.48
621.60	Anchor for Steel Beam Guard Rail	4	EACH	$ 815.41	$ 3,261.64
635.11	Mobilization/Demobilization	1	LUMP SUM	$ 8,000.00	$ 8,000.00
641.10	Traffic Control	1	LUMP SUM	$ 2,500.00	$ 2,500.00
649.11	Geotextile for Roadbed Separator (for use under new pipe)	129	SY	$ 1.24	$ 159.96
649.31	Geotextile Under Stone Fill	400	SY	$ 3.29	$ 1,316.00
651.40	Grubbing Material	110	SY	$ 3.36	$ 369.60
	9'-7" x 6'-6" x 64'-6" Aluminum Plate Pipe Arch	1	LUMP SUM	$ 48,800.00	$ 48,800.00
	Erosion Prevention and Sediment Control	1	LUMP SUM	$ 1,500.00	$ 1,500.00
	Temporary Stream Diversion	1	LUMP SUM	$ 1,500.00	$ 1,500.00
	Assembly of New Structure	1	LUMP SUM	$ 5,000.00	$ 5,000.00
	Installation of New Structure	1	LUMP SUM	$ 2,500.00	$ 2,500.00
	Wetlands Restoration Work	1	LUMP SUM	$ 7,500.00	$ 7,500.00
	Streambed Stone Fill, Type E2	71	CY	$ 70.00	$ 4,970.00
	Turf Establishment (Seed, Fertilizer, Mulch, etc.)	1	LUMP SUM	$ 2,500.00	$ 2,500.00
	Survey Field Work (Construction Layout, etc.)	1	LUMP SUM	$ 1,000.00	$ 1,000.00
	10% Contingency Fund	1	LUMP SUM	$ 17,000.00	$ 17,000.00
				Sub-total	$ 187,434.23
				Estimate Protection Factor	140.00%
				Rounded Total	$ 262,400.00



NO	REVISIONS	BY	DATE

DES. DWN
DRN. KKJ
CHK. DWN
APPD.

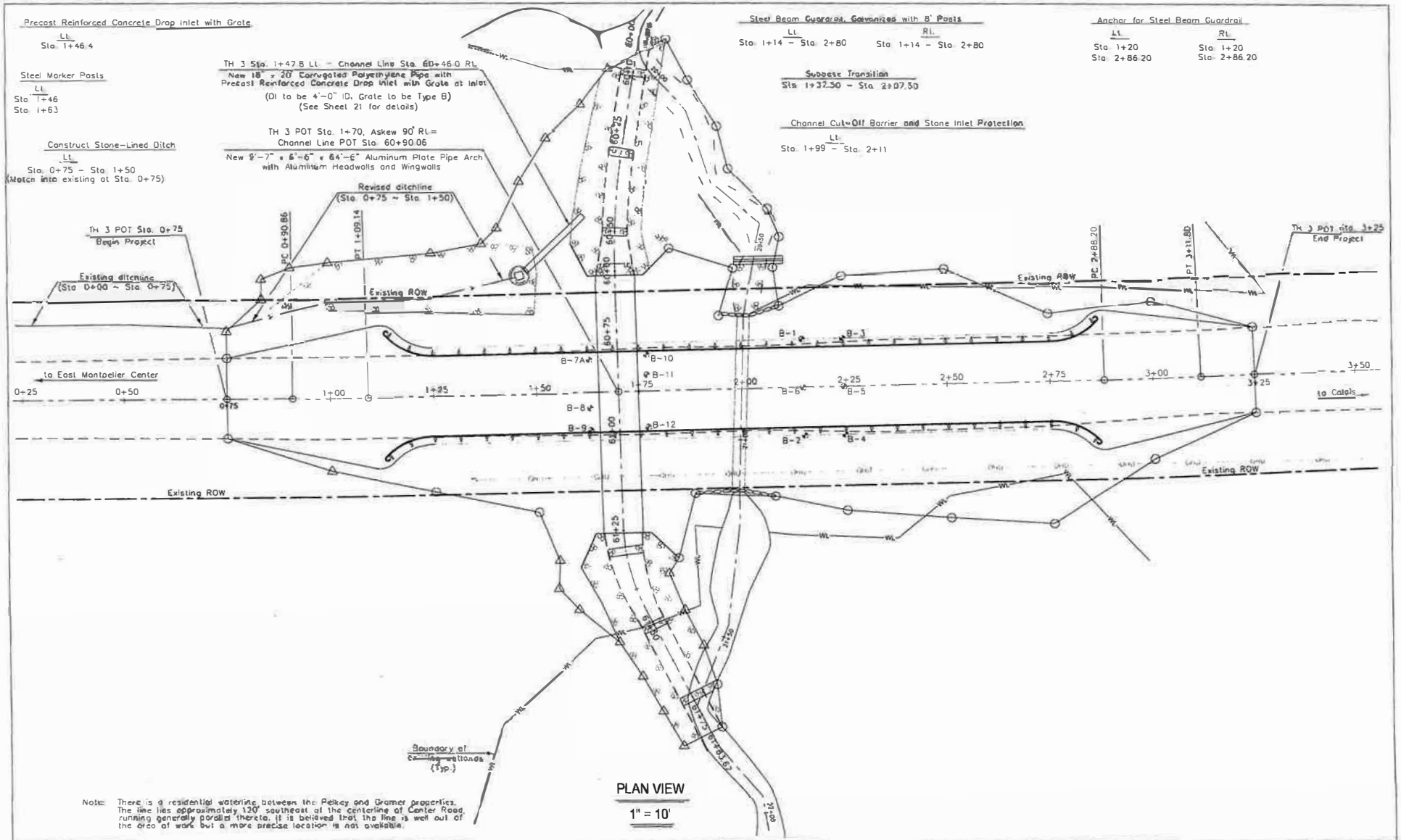
DATE: DEC 2020
SCALE: 1" = 10'

Town of East Montpelier
T.H. 3 - Center Road
TH Structures Grant Program
FY 2018 BC 1853

Right-of-Way Plan

Newton Technical Services, LLC
728 South Barre Road
Barre, VT 05641
(802) 476-6300

Chase & Chase Surveyors & Septic Designers, Inc.
301 North Main St., Suite 301
Barre, VT 05641
(802) 479-9636



Note: There is a residential waterline between the Pelkey and Cramer properties. The line lies approximately 120' southeast of the centerline of Center Road, running generally parallel thereto. It is believed that the line is well out of the area of work but a more precise location is not available.

NO	REVISIONS	BY	DATE

des. DWN
drn. DWN
chk. DWN
appd.

DATE December 2020

SCALE As Noted

Town of East Montpelier
TH 3, Center Road
TH Structures Grant Program
FY2018 BC1853

PLAN VIEW

Newton Technical Services, LLC
728 South Barre Road
Barre, VT 05641
(802) 476-6900

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301 North Main St., Suite 301
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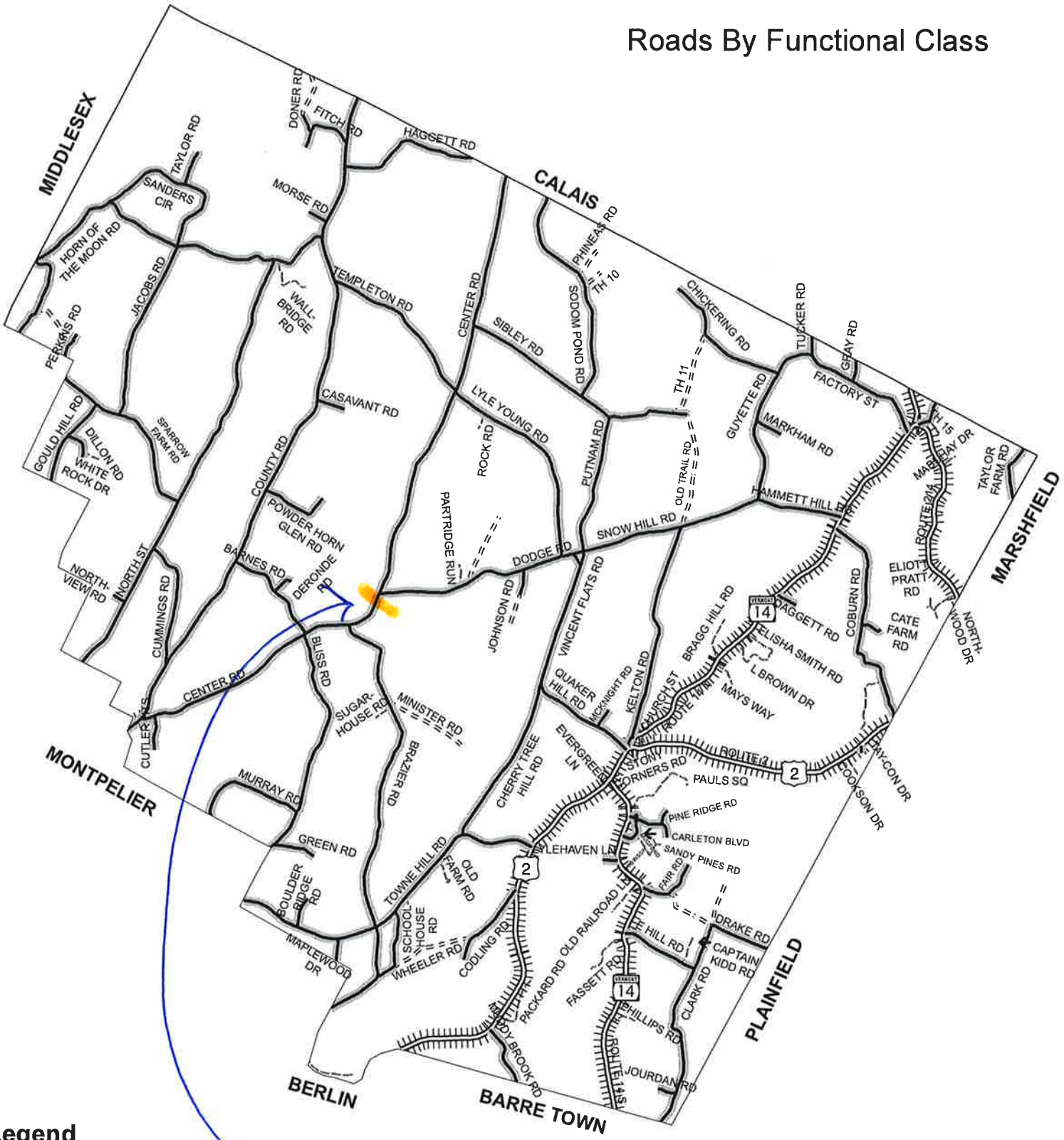
Roads By Functional Class



Legend

Town Roads by Functional Class

- Arterial Roads
- Town Local
- Class 4/ Legal Trail
- Private

Center Road

Mallory Brook Culvert

N

0 0.75 1.5 3 Miles

CVRPC
CENTRAL VERMONT REGIONAL PLANNING COMMISSION

Map Created 01/03/13 by CVRPC
N:\Towns\EMontplr\Town_Plan_2012\
Roads by Function Class.mxd

Source:
Road by Functional Class: VTrans and CVRPC, 2013

Data is only as accurate as its original source.
This map is for planning purposes only.
This map may contain errors and omissions.

Center Road Mallory Brook Culvert Site (From North)

Site of Center Road Mallory Brook Culvert Inlet (West)

Center Road Mallory Brook Culvert Inlet

Site of Center Road Mallory Brook Culvert Outlet (East)

Mallory Brook Outlet

Center Road Mallory Brook Culvert Outlet