Better Roads
Clean Water You Can Afford

VTrans
VERMONT
AGENCY OF NATURAL RESOURCES

FY17 Vermont Better Roads Grant Application

Please complete this page ONCE and return with your Grant Category Application(s)

Town/Organization: Norton Contact Person(s): David Diminico

Address: Po Box 33 Norton VT 05907
Street Address *Town* *Zip*

Email: Diminico58@yahoo Phone: (802) 535 - 8878

DUNS #: 824847222 Fiscal Year End Month (MM): 06 (June)

Accounting System: ☐ Automated ☐ Manual ☑ Combination

Please use the suggested documentation checklist below to ensure that all of the relevant items regarding your application have been included.

- ☑ Grant application cover sheet (Only submit one)
- ☑ Grant application form (One per category/project)
- ☑ Itemized Cost estimate for labor, equipment, and materials (see enclosed Cost Estimate Worksheet). If applicable, please break down funding by source (i.e. different grant sources)
- ☑ Project Location Map (please show location of affected water)
- ☑ Sketch of proposed erosion control measures or other management practices, including distances in feet
  Also show approximate location of town/other right-of-way and/or property lines
- ☑ Photo(s) of the project area
- ☑ Letters of Support (RPC, VTrans District Technical Staff, ANR Rivers and Streams Engineers, etc.)
- ☐ If Category C River/Road Conflict or Category D River/Stream Structure or Culvert, you must attach ANR/ACOE consultation

Received
APR 01 2016
VTrans
PDD-LTF

Better Roads
Clean Water You Can Afford

VTrans
VERMONT
AGENCY OF NATURAL RESOURCES

Vermont Better Roads Grant Program Application

Please complete one application per category and/or project you are applying for. You may make copies of the application for multiple applications per category and/or multiple categories.

Please check the Category you are applying for:

- ☑ B. Correction of a Road Related Erosion Problem and/or Stormwater Mitigation Retrofit for both gravel and paved roads
- ☐ C. Correction of a Stream Bank or Slope Related Problem
- ☐ D. Structure/culvert upgrades

Town/Organization: Norton

Project Name: Erosion reduction

Road Name: Churchill Rd TH #: 3 Structure # (if applicable): _____

Road Type: (Paved) or (Unpaved) (circle one) Both Curbed or (Uncurbed) (circle one)

Class 1 Class 2 (Class 3) (Class 4) (circle one) Both

Watershed: Flows to Castlecock River

Please provide a thorough description of the problem (ex. Roadway has steep slope with no ditch which is causing roadway erosion):

.65 Mile road has severe erosion problems due to steep slopes in some areas, and no ditches in others. Erosion is causing sediment to flow through main culvert under us rte 114 and into the Castlecock River

Description of Project and how you plan to complete the work (ex. Stone line 500' of ditch by reshaping ditch and stone lining, working from the top of the project down to the bottom):

Reshape 1700 FT of ditch, 2-3% grade, 3 FEET WIDE - 2 FT deep - Seed and mulch immediately over 4-5 inches of loam. Reshape 2500 FT of ditch, 0-5% 3 FT wide, 2 FT Deep with 12" Rip Rap, on 6" stone, loam and seed to within 12" of road edge. Install 2 culverts, A is 18" x 40 FT, F is private property, 18" to 24" x 30 FT, stone aprons at outlets, headers installed. Stabilize banks above with stone, ALL Disturbed areas stabilized end of day or work. Grade roads to allow water to ditch, 1/2 to 3/4" per foot - Stabilize all exposed soil when completed

Expected Effects (+ & -) on water quality (ex. Erosion will be eliminated by placing the stone ditch):

Severe erosion will be eliminated, water flow slowed down, and all water backups due to small culvert (18") when 24" flowing into will allow free running stream. Will eliminate sediment from entering over all stream and Castlecock River.

Better Roads
Clean Water You Can Afford

VTrans
VERMONT
AGENCY OF NATURAL RESOURCES

Distance from end of project to nearest water (stream, lake, or stormwater system that outlets directly to water). Please circle one: 0-50' 50-250' 250'+

Progress to Date:

Replaced Culverts B+C in 2015

Is there an emergency reason this project must be completed quickly? If yes, please explain:

NO

Has this project been identified through a municipal road inventory, capital budget plan, tactical basin plan, culvert inventory, or other management plan? If yes, please list which.

Yes: Currently planning Category A request No

Please list any professionals you may have contacted for assistance with this project (ANR River Management Engineer, Army Corps of Engineers, VTrans District Technical staff, Basin Planner etc.):

Requested visit from Shane Marsh at BBR seminar 3-24-16.
Road Agent Robert Brooks from West Stewartstown NH for advice

Is the project located in the town "Right of Way?" Yes, No, Both (if "Both" please explain further).

All work except Culvert F is in right of way. Culvert F is on private land and is at end of flow into stream and is only an 18" Culvert F to by 24" culverts - Permission slip attached in packet

Will the town road crew complete this work? Yes, No, Some (if "some" please explain further).

No - No Road Crew in Norton - Private Contractors to bid work

Better Roads
Clean Water You Can Afford

VTrans
VERMONT
AGENCY OF NATURAL RESOURCES

Describe how the grant funds will be spent and/or attach a project budget: Money will be Spent according to Contractor bid and work to be completed by winning contractor. Town to assume work Completed as Bid

How do you plan to meet the required 20% match on this grant?:
Town budgeted match in 2016-2017 Budget

Requested Grant Amount ($20,000 max Category B, $40,000 max Categories C & D): 20,000

Estimated Total Project Cost (including 20% local match): 24760.00

Estimated Completion Date: Oct 2016

REQUIRED ATTACHMENTS:

- ☑ Itemized Cost Estimate (labor, equipment, materials)
  (For assistance, call Better Backroads at 802-828-4585)
- ☑ Project Location Map
  (Please show location of affected water; 1:12,000 USGS map, if possible)
- ☑ Sketch of proposed erosion control measures, including:
  - ☐ Distances (ft.)
  - ☐ Estimate of waste & borrow quantities
  - ☐ Approx. location of town/other right-of-way and/or property lines
- ☑ Photo(s) of the project area.
- ☑ Agreement for Entry and/or Deed of Easement (if project is outside Town ROW).
- ☑ If project involves stream or river/road conflict, include documentation of consultation with a River Management Engineer.
- ☑ Other appropriate supporting documents.

By signing this application I certify that all the information provided is accurate to the best of my knowledge. We will comply with all the requirements of the grant including making our books available for audit if required.

SIGNATURE OF APPLICANT: (Must be Town Administrator/Manager or Select Board Chair)

Name: [signature] Title: Select Chair

Cost Estimate Worksheet

Town and Road Name:

Project Name:

Labor	Rate	# Hours	Total (Rate x Hours)
Dump Truck -	80.00	120	9600.00
Escavator	110.00	40	4400.00
		Labor Total	

Equipment	Rate	# Hours	Total (Rate x Hours)
		Equipment Total	

Materials	Rate	Amount	Total (Rate x Amount)
Culvert 18" x 40 FT			600.00
Culvert 24" x 30 FT			600.00
RipRap 500 yards @ 15.00		7500.00	7500.00
Seed & Mulch			1500.00
		Materials Total	

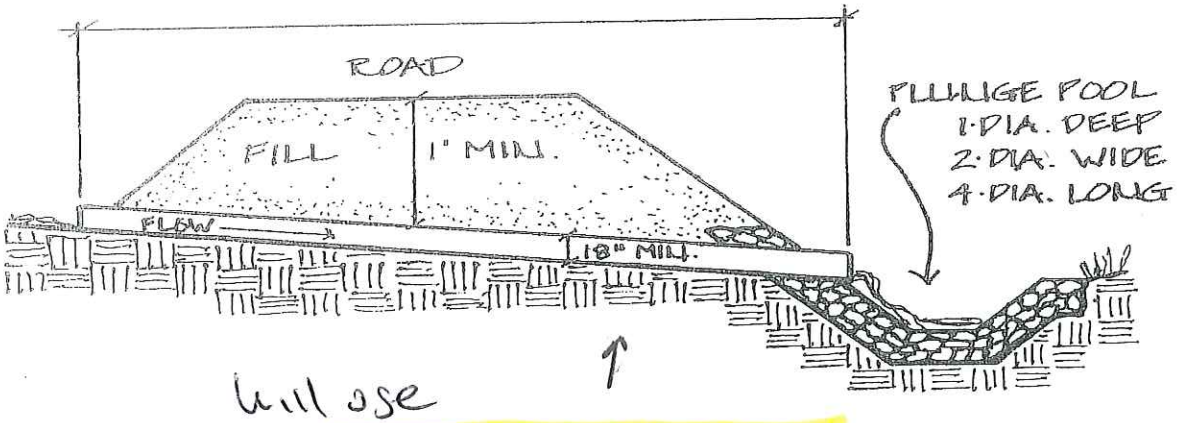
Miscellaneous	Rate	Amount	Total (Rate x Hours)
Tree Removal (8)(2) 70.00 p.h.			560.00
		Miscellaneous Total	

Grand Total 24760.00

Match

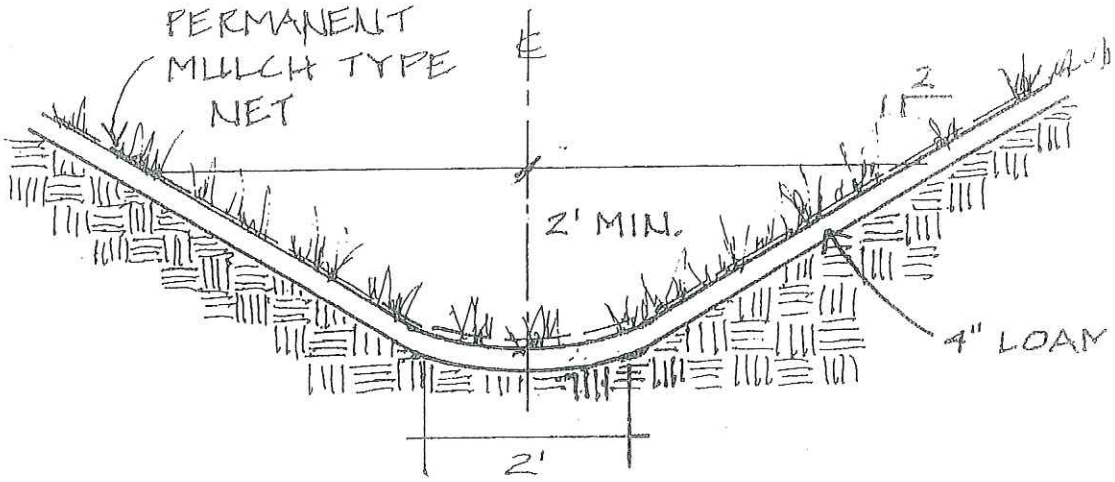
Culvert length example calculation:
Using 18 inch (1.5 ft.) culvert with 1.5 ft. of cover and 28 ft. road + shoulder width.
Step 1: Pipe length = 28 + 4 (1.5 + 1.5)
Step 2: Pipe length = 28 + 4 (3)
Step 3: Pipe length = 28 + 12
Step 4: Pipe length= 40

PIPE LENGTH = ROAD + SHOULDERS + 4 x (COVER + PIPE DIA.)



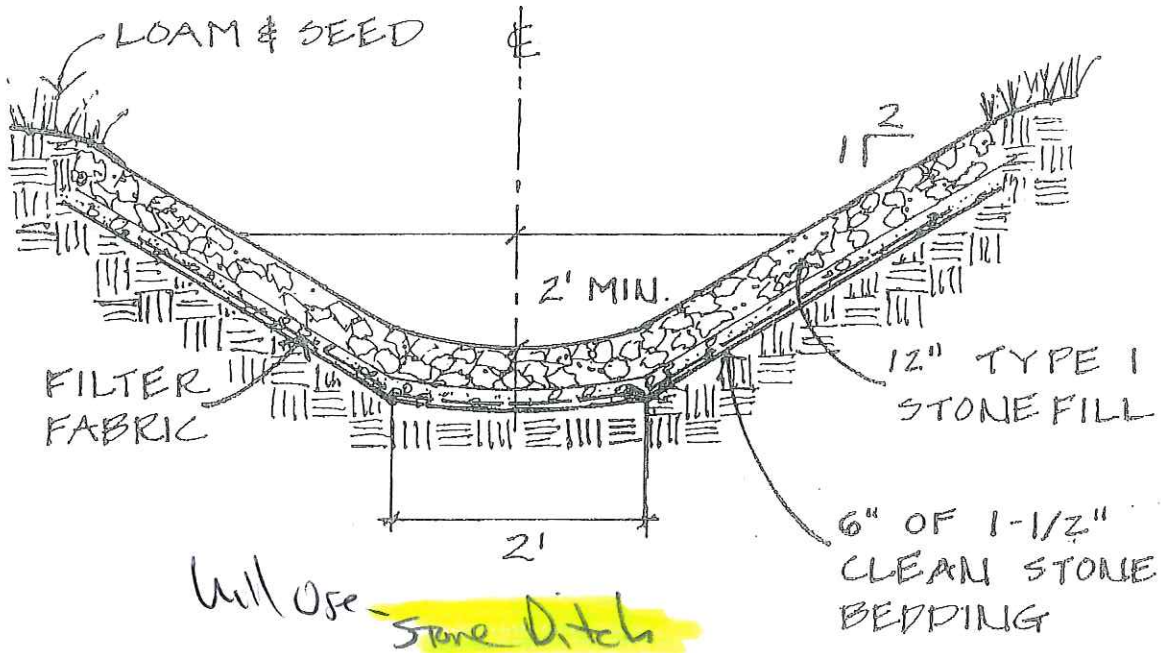
Will use

CULVERT PROFILE & CROSS SECTION



Will use

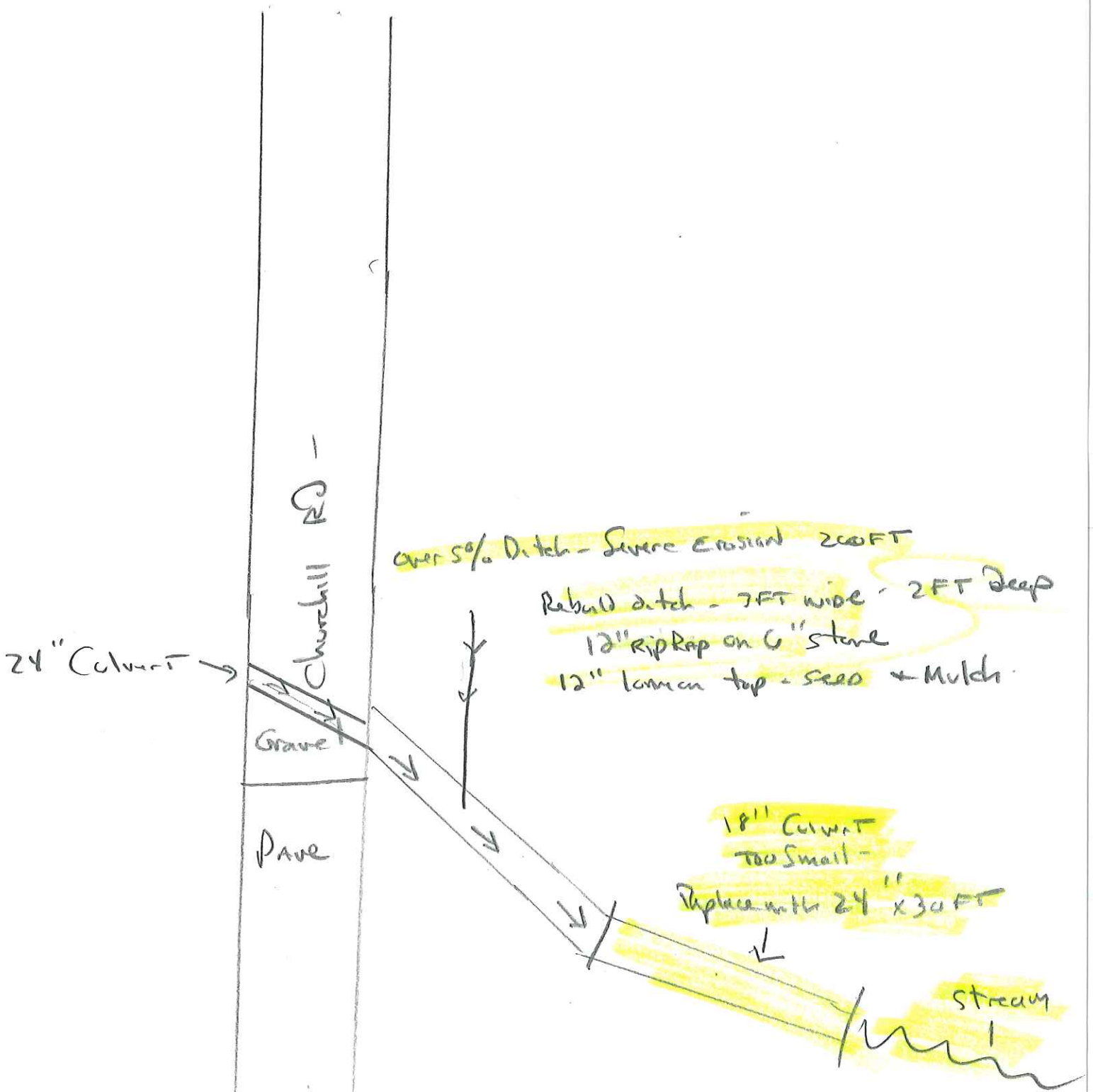
GRASS LINED DITCH

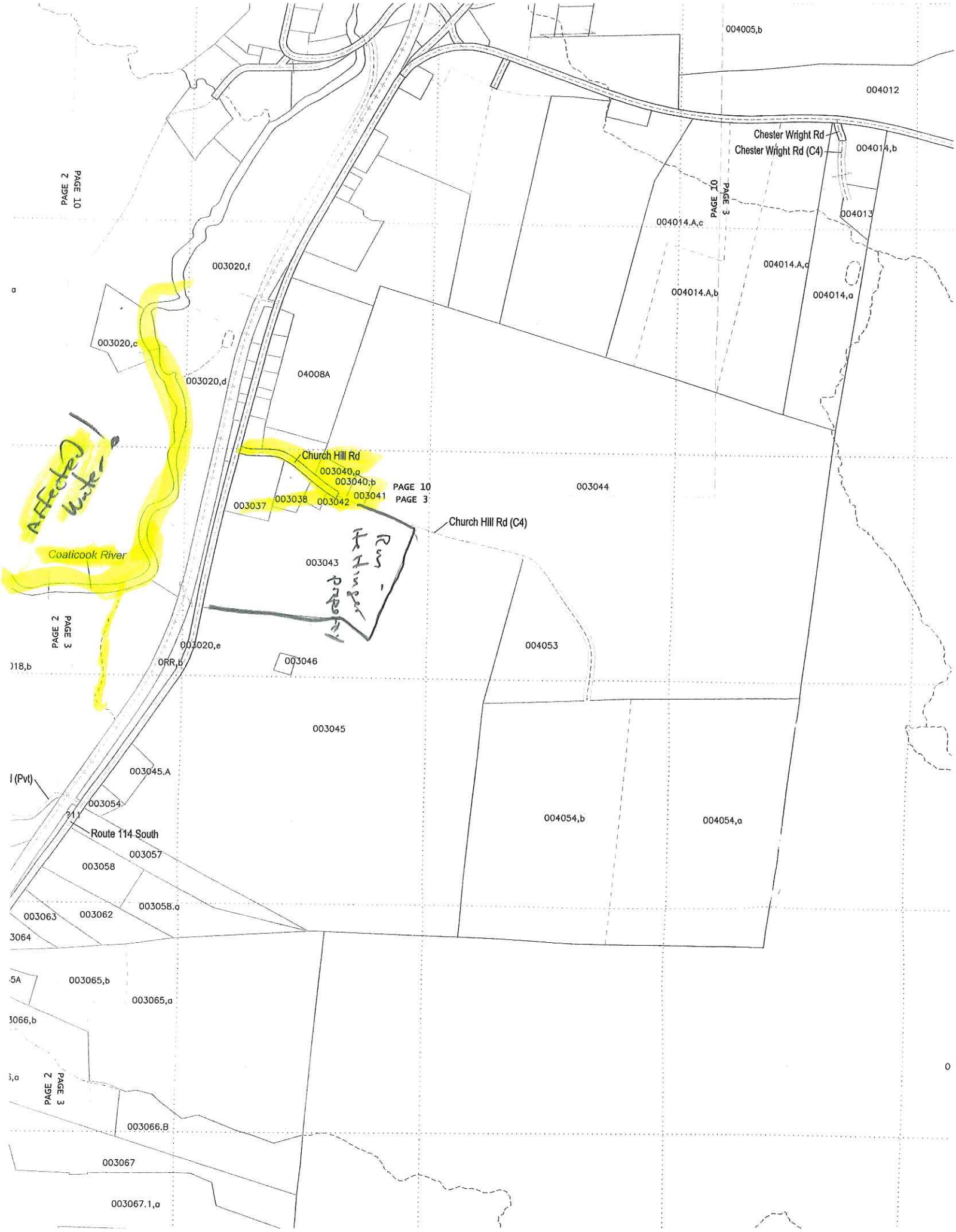


Will Use Stone Ditch

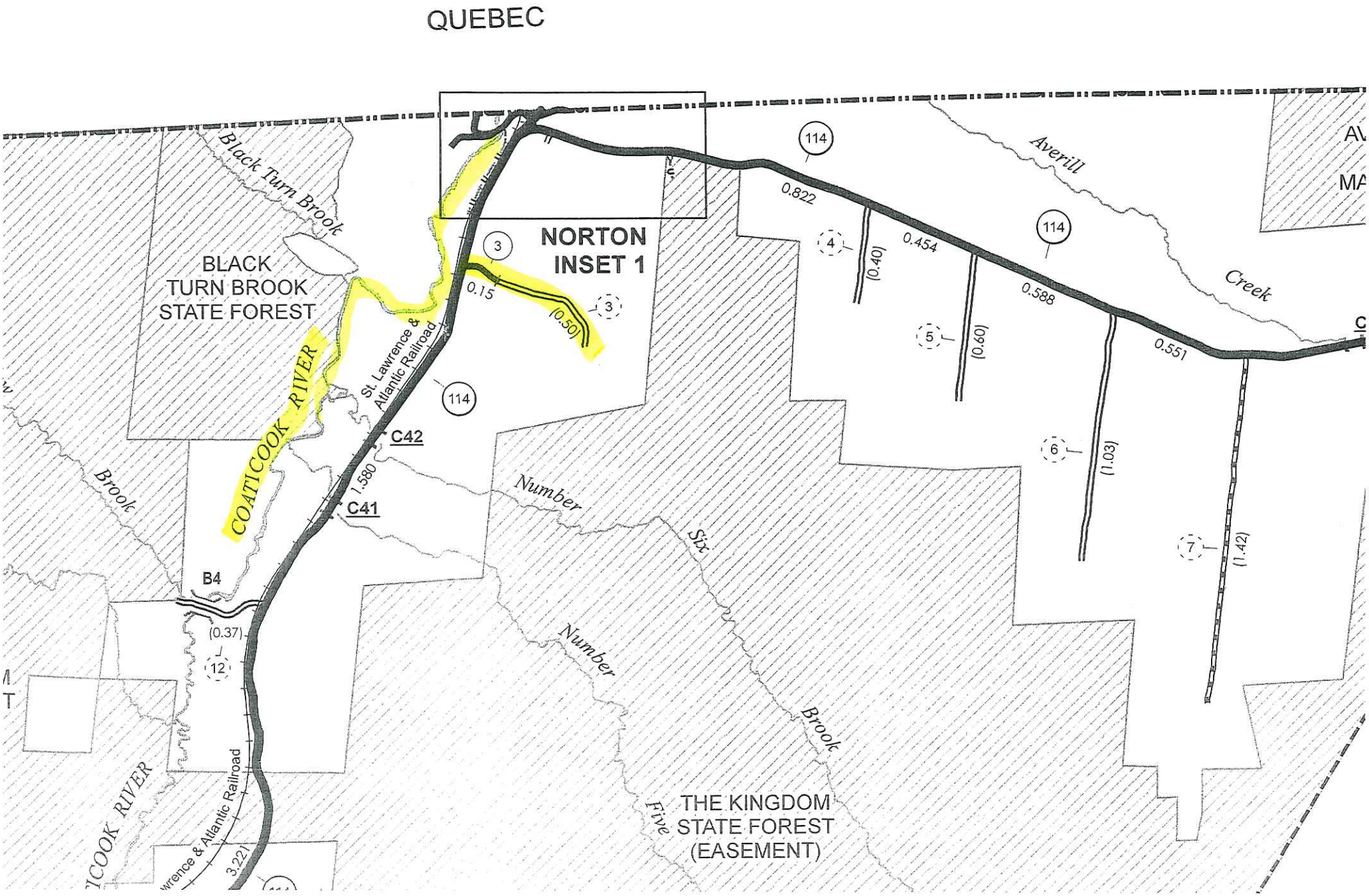
Private Property Work

264 Church Hill Rd.





004005,b
004012
Chester Wright Rd
Chester Wright Rd (C4)
004014,b
PAGE 10
PAGE 3
004013
004014.A,c
004014.A,d
004014.A,b
004014,a
PAGE 2
PAGE 10
003020,f
003020,c
003020,d
04008A
Affected Water
Church Hill Rd
003040,a
003040,b
PAGE 10
PAGE 3
003041
003042
003038
003037
003044
Church Hill Rd (C4)
Coaticook River
003043
PAGE 2
PAGE 3
003020,e
ORR,b
003046
004053
003045
003045.A
003054
Route 114 South
003057
003058
003058.a
003063
003062
004054,b
004054,a
003065,b
003065,a
003066,b
PAGE 2
PAGE 3
003066.B
003067
003067.1,a


QUEBEC
NORTON
INSET 1
BLACK
TURN BROOK
STATE FOREST
Black Turn Brook
COATICOOK RIVER
Brook
St. Lawrence &
Atlantic Railroad
C42
C41
1.580
B4
(0.37)
12
3
0.15
(0.50)
114
0.822
4
(0.40)
0.454
5
(0.60)
0.588
6
(1.03)
0.551
7
(1.42)
Averill
Creek
Number
Six
Number
Five
Brook
THE KINGDOM
STATE FOREST
(EASEMENT)
3.221

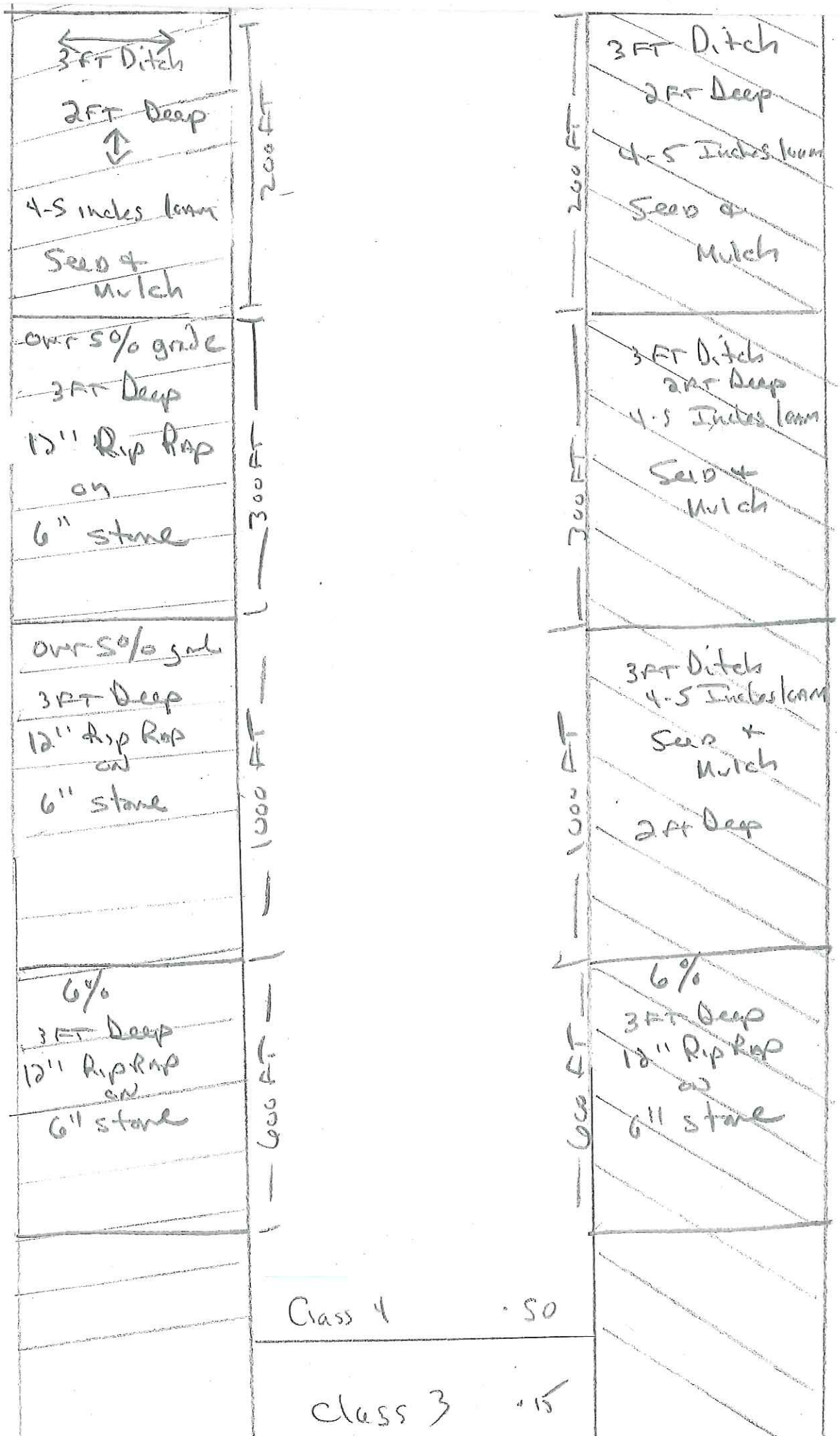
Culvert Inventory - Churchill Rd

Town of Norton

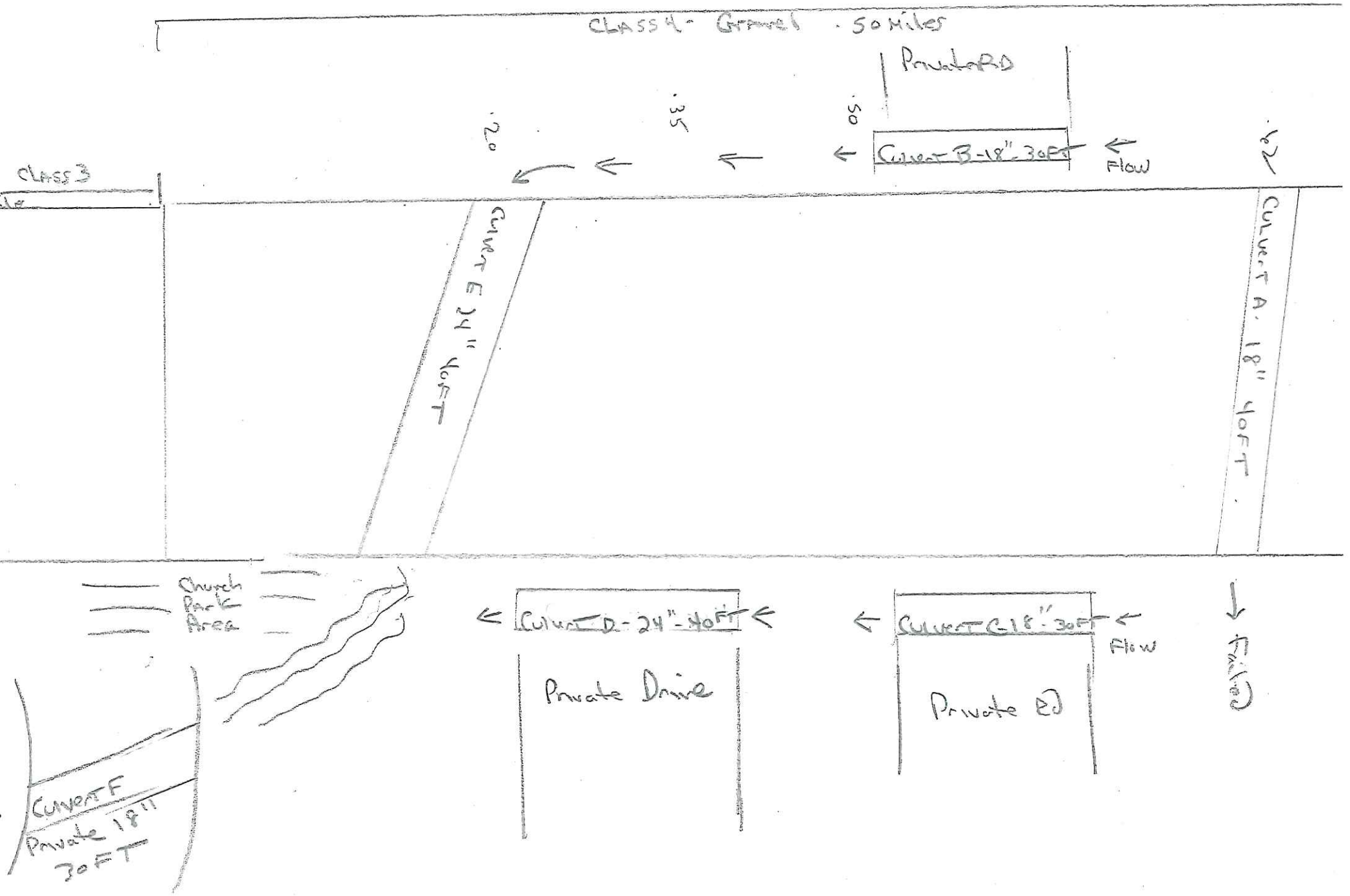
P.O Box 33
Norton, Vermont 05907
Phone: 802-822-9935 Fax: 802-822-9965

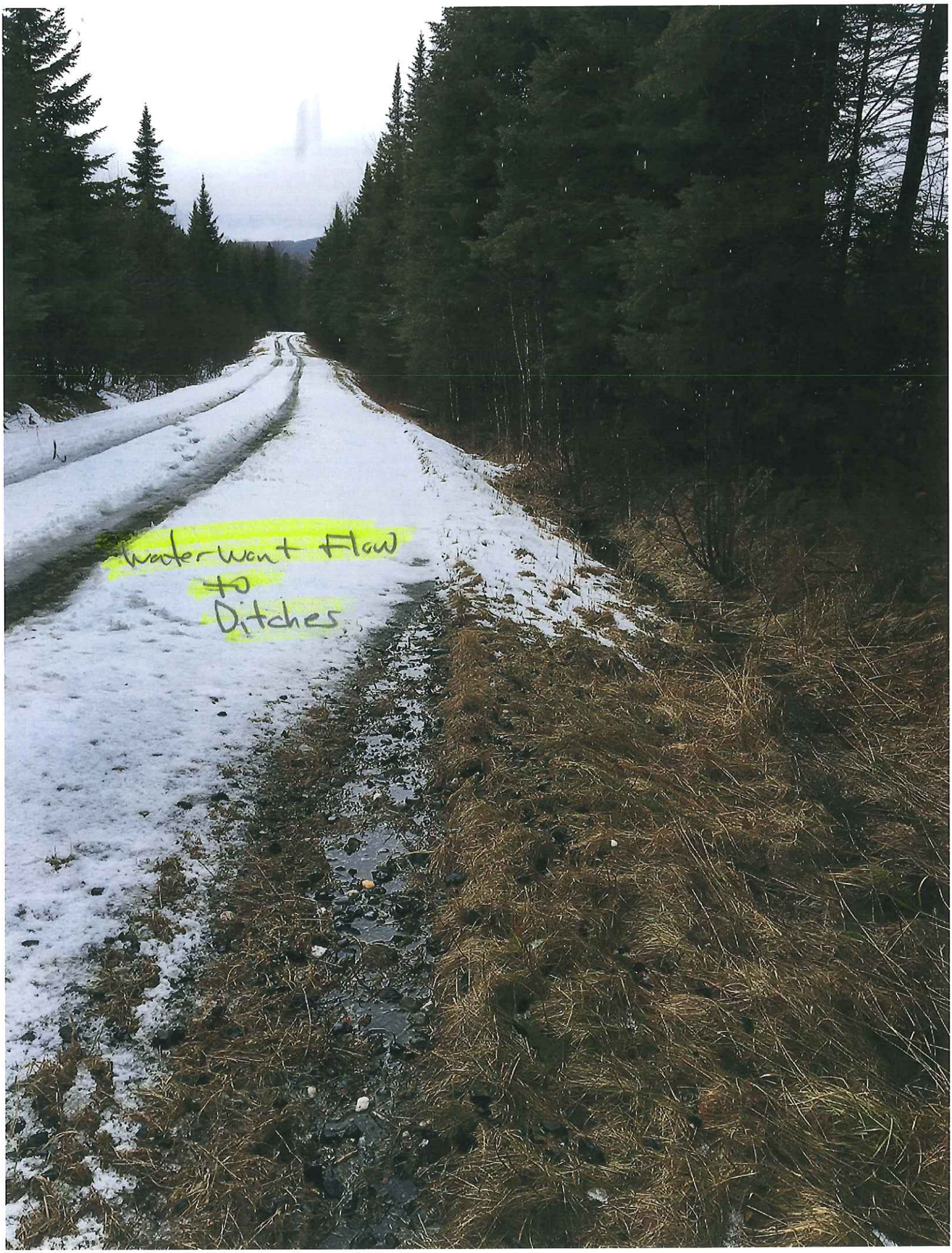
Church Hill Road TH #3 culvert Inventory

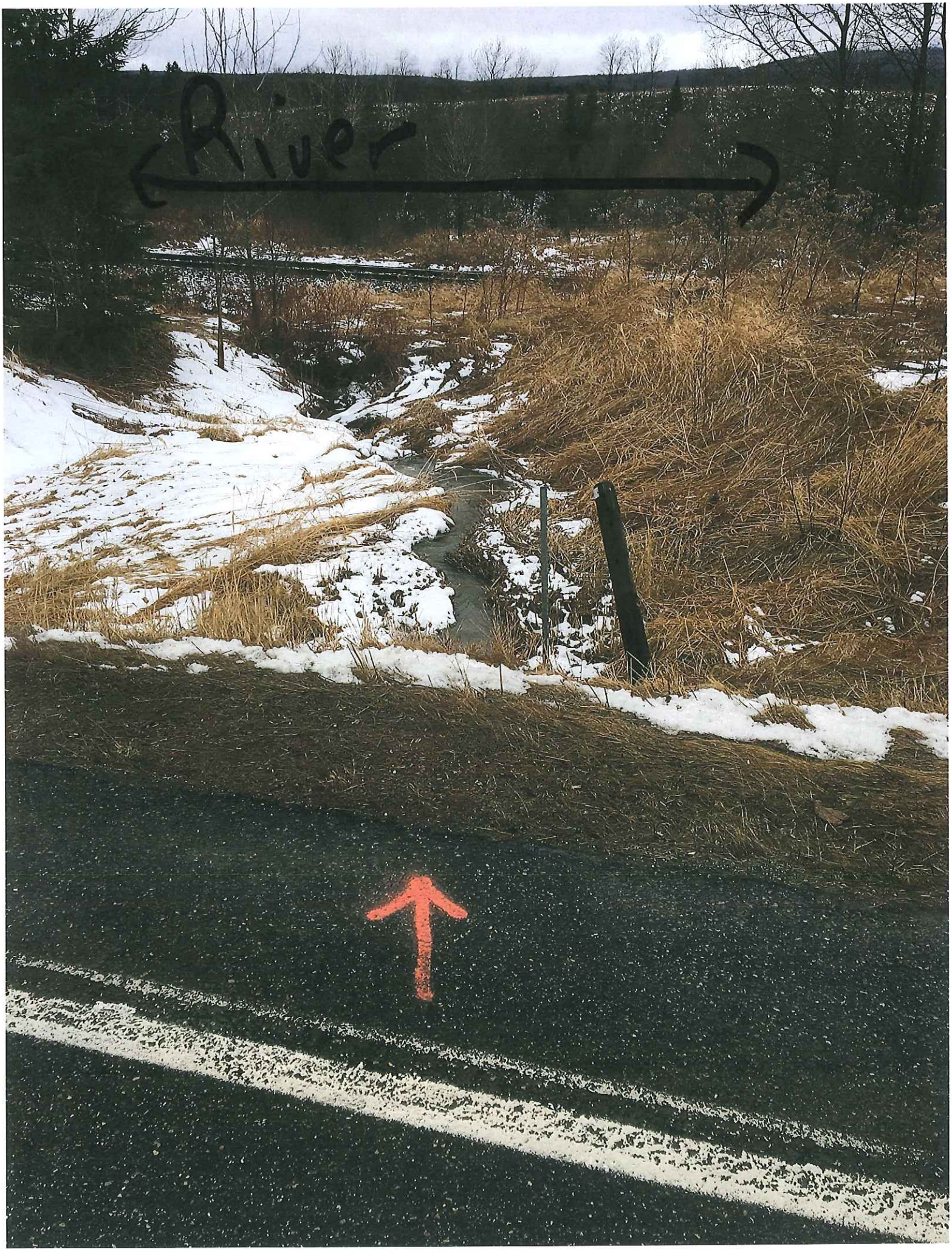
Culvert ID	Culvert Size	Type	Culvert Location
3-A	18" x 40'	Plastic	Approximately .62 miles up Road. Within the town's Right
3-B	18" x 30'	Plastic	Approximately .50 miles up Road. Within the town's Right of Way
3-C	18" x 30'	Plastic	Approximately .50 miles up Road. Diretly across from culvert 3B. Within the town's Right of Way.
3-D	24" x 40'	Plastic	Approximately .35 miles up Road. Within the town's Right of Way
3-E	24" x 30'	Plastic	Approximately .20 miles up Road. Within the town's Right of Way
3-F	18" x 30'	Plastic	Approximately .20 miles up Road. Located on PRIVATE LAND. THIS CULVERT DOES NOT COMPLY WITH TODAYS REGULATIONS AND IS CAUSING SEVERE EROSION.

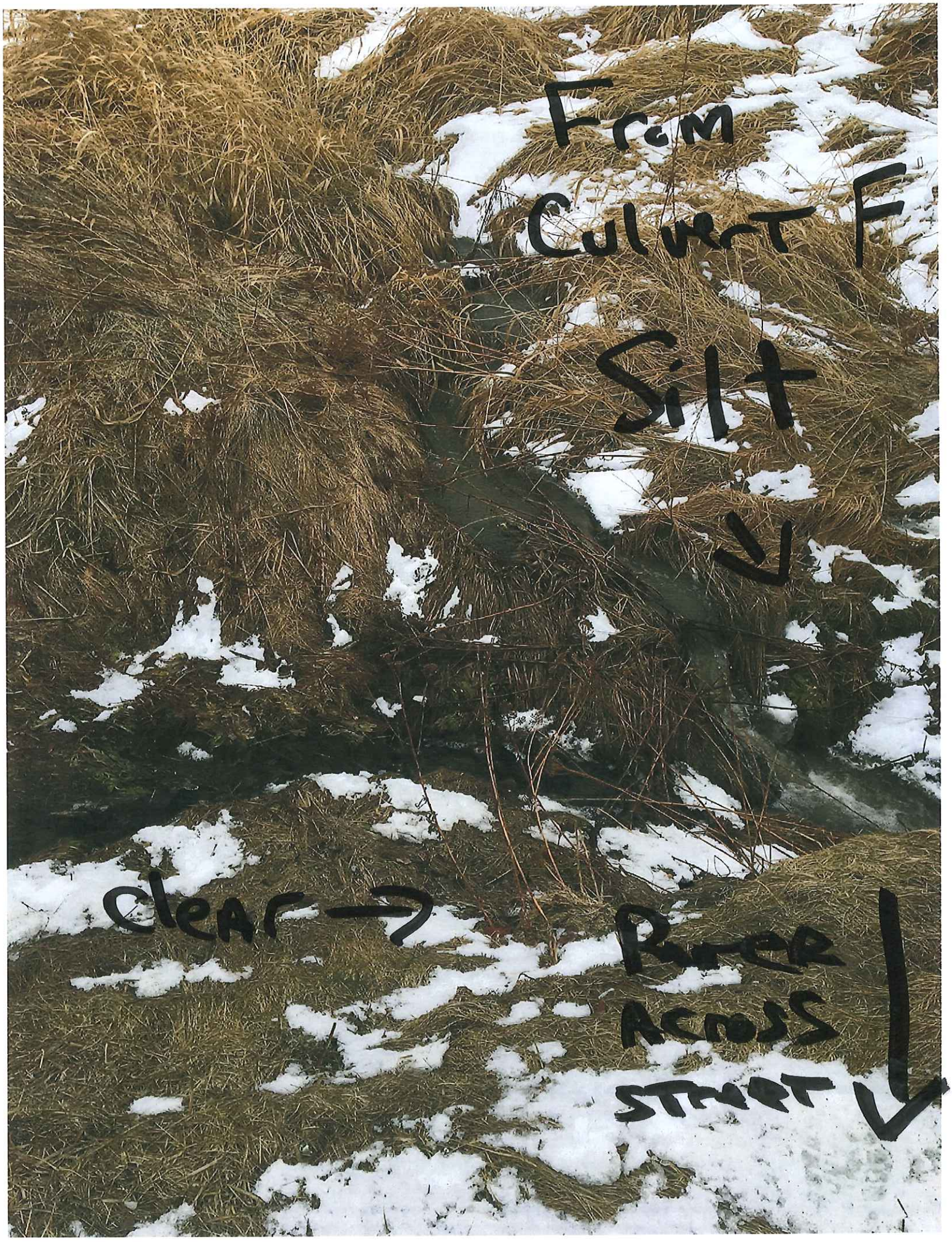

3 FT Ditch
2 FT Deep
4-5 inches loam
Seed & Mulch
200 FT
3 FT Ditch
2 FT Deep
4-5 Inches loam
Seed & Mulch
200 FT
over 5% grade
3 FT Deep
12" Rip Rap on 6" stone
300 FT
3 FT Ditch
2 FT Deep
4-5 Inches loam
Seed & Mulch
300 FT
over 5% grade
3 FT Deep
12" Rip Rap on 6" stone
1000 FT
3 FT Ditch
4-5 Inches loam
Seed & Mulch
2 FT Deep
1000 FT
6%
3 FT Deep
12" Rip Rap on 6" stone
600 FT
6%
3 FT Deep
12" Rip Rap on 6" stone
600 FT
Class 4 .50
Class 3 .15

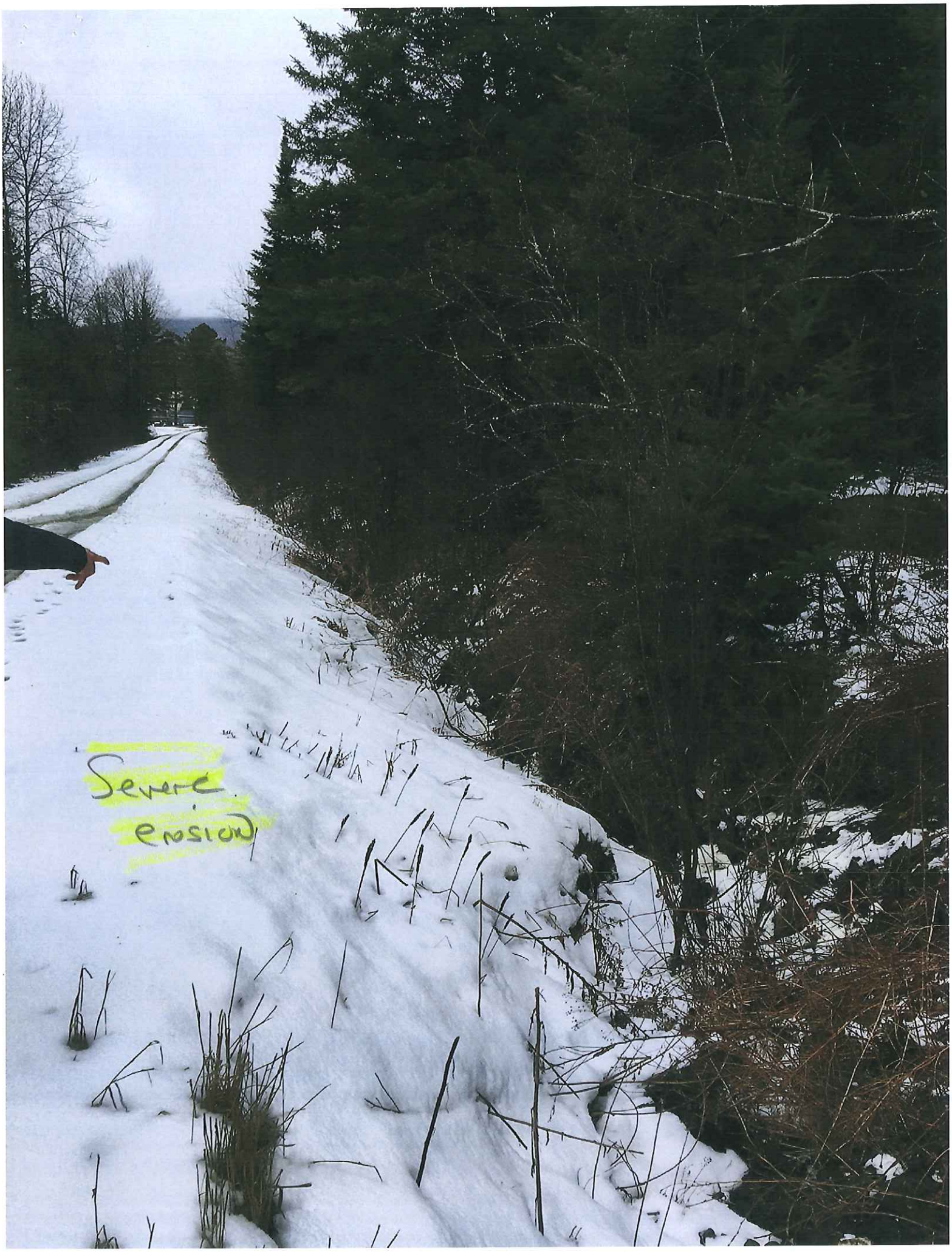
Churchill RD .65 Miles




water wont Flow
to
Ditches


River


From
Culvert F
Silt
clear →
River
Across
Street


Severe
erosion