

COLCHESTER COUNTRY MEADOWS STUDY



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### FITZPATRICK-LLEWELLYN INCORPORATED

Engineering and Planning Services

One Wentworth Drive • Williston • Vermont • 05495 • (802) 878-3000

31 August 1993

Mr. Brian Osborn, Public Works Director  
Town of Colchester  
P.O. Box 55  
Colchester, Vermont 05446

RE: Alternative Transportation Path from  
Country Meadows Subdivision to Main Street  
Colchester, Vermont  
FILE: 93013

Dear Mr. Osborne:

Included in the expanded scope of work of our Regional Transportation grant, we were directed by the Town of Colchester to prepare concept plans and preliminary cost estimates for a path from Country Meadows Subdivision across Indian Brook to Colchester Village and Main Street. The following is a summary of our findings which addresses the attached line item descriptions, estimates, and site plan.

The Town's objective is to provide access for pedestrians and bicyclists from Country Meadows to the Village and Main Street by circumventing the Route 2 and 7 shoulder, and the Main Street and Route 2 intersection. The primary obstacle is the Indian Brook ravine with its steep slopes, wetlands and potential for flooding.

Two alternate routes were investigated and, although their lengths are similar, the westerly "A Route" next to Route 2 and 7 is preferred even though it is a slightly more expensive design due to the required bridge's greater height, longer span, and required shoulder stabilization. Despite its higher cost, this route is a more direct connection to Bay Road and potential west and north transportation corridors. Once beyond Vermont Liquidation and the Mobil Gas Station, this route uses the wide flat Vermont Electric R.O.W. and connects with Main Street via the Vermont Gas R.O.W.. The Vermont Gas R.O.W. starts out relatively flat and rises more steeply as it approaches Main Street over the existing gas line service road and access drive to Hammond Electric. Although grades may be an issue, this connection to Main Street opposite Middle Road is advantageous because of its proximity to the Union Memorial School and an established intersection. This path location would facilitate safer road crossings and connect with the existing sidewalk on the north side of Main Street.

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The "B Route" alternate is a bridge crossing 1,000 feet east of Route 2 and 7. This alternate begins at a common point at station 10+00, heads east across a 1.5 acre vacant parcel and gradually descends at a 2 to 5% grade to a bridge crossing similar in length and height to a VAST snowmobile crossing further up stream. From here the path rises up and away from the Brook, joins up with the existing VAST snowmobile trail, and connects via a Vermont Gas R.O.W. to Main Street opposite Middle Road. Lower profile bridge abutments and its shorter span may make this alternate bridge crossing less costly. However, these savings are negated by more costly construction within the floodplain and its associated wetlands. To prevent potential flooding, the bridge would have to be raised up and lengthened in order to clear the floodplain. The resulting increase in bridge costs, combined with side slope grading and path stabilization, would make this option more expensive than Route A. Although aesthetically more appealing, this upstream route is potentially more harmful to the ravine and its wetlands, vegetation and wildlife.

These alternate transportation path routes provide direct, paved routes from Country Meadows to Main Street. There is also an informal, unpaved path north of and along the top edge of Indian Brook behind the Main Street house lots. This east-west path connects the Burnham Library with the Vermont Electric R.O.W. and could easily be connected with the study routes to expand their utility as alternate transportation paths.

We appreciate the opportunity to assist the Town in planning its system of alternative transportation paths.

Sincerely,

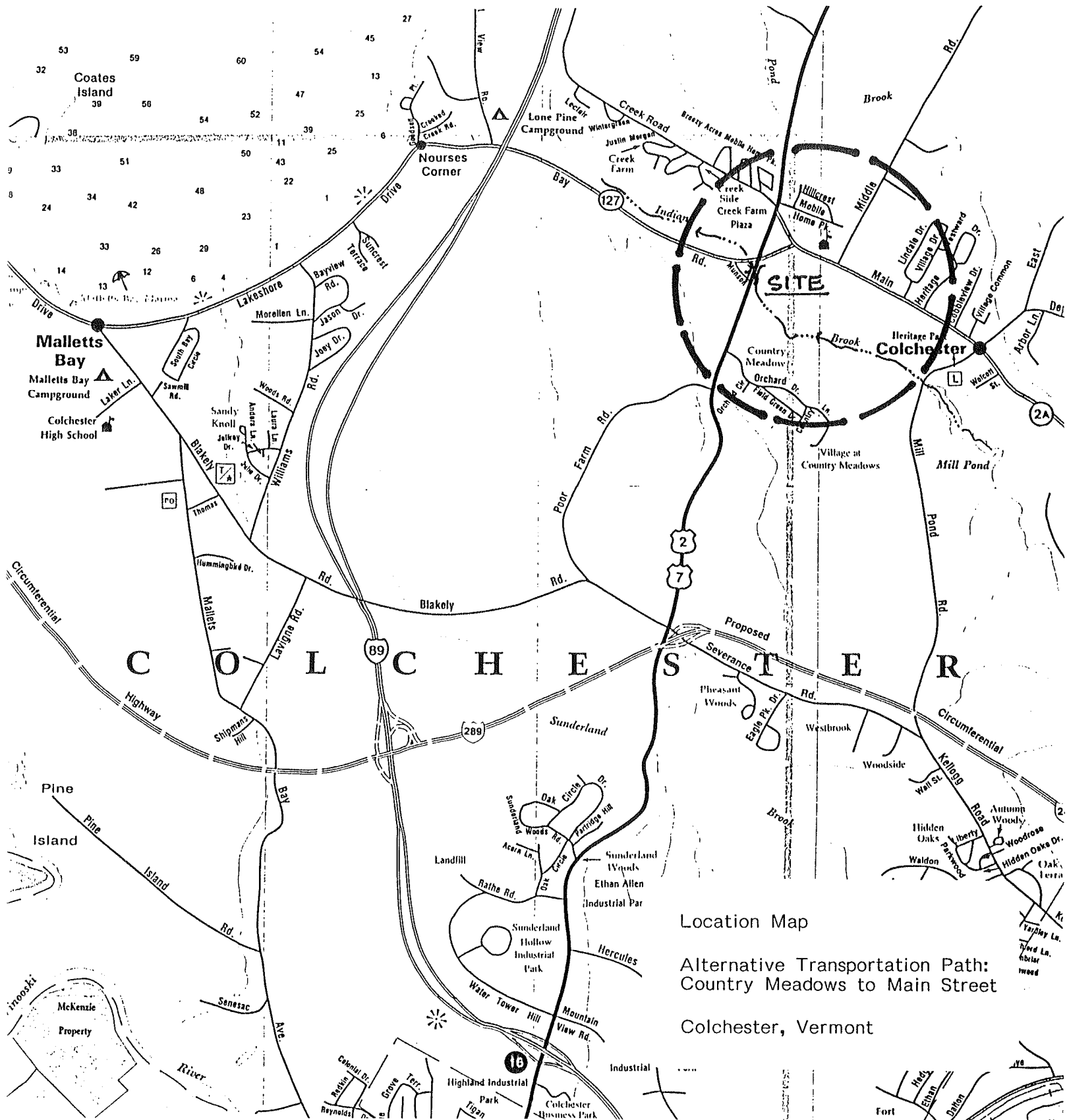
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John A. Steele

JAS#5/baf:93013-7

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Location Map  
 Alternative Transportation Path:  
 Country Meadows to Main Street  
 Colchester, Vermont

## COLCHESTER COUNTRY MEADOWS STUDY

August 31, 1993

### ALTERNATE TRANSPORTATION PATH PLAN FOR COLCHESTER

RE: Country Meadows Subdivision to Colchester Village at Middle Road  
FILE: 93013

#### Route A: Brook Crossing Adjacent and Parallel to the Existing Route 2 & 7 Roadway Bridge

- 0+00 - 11+00 10' wide asphalt path at grade, standard cross section.
- 11+00 - 14+00 10' wide asphalt path on 1:2 fill slope retained with gabions or steel sheet piling, separated from Routes 2 and 7 by existing guard rail and protected with 4' chain link fence.
- 14+00 - 15+50 10' wide, 150 foot long pre-engineered pedestrian bridge; 3-50' spans, two end abutments and 2 center piers.
- 15+50 - 16+00 10' wide asphalt path retained with gabion or sheet piling to path along top of slope; 4' chain link fence.
- 16+00 - 35+25 10' wide asphalt path at grade along Vermont Electric Row and VT Gas Row to Middle Road.

#### Route B: Upstream Ravine Crossing

- 10+00 - 8+80 10' wide asphalt path cut into contours to 10' wide, 40 foot long bridge crossing at STA 9+00; protect down slope side with 4' chain link fence.
- 8+80 - 9+20 10' wide, 40 foot long bridge.
- 9+20 - 17+50 10' wide asphalt path cut into contours and reconnecting with a route at STA 28+00.

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## Cost Summary

### Route A Alternate

<u>Segment</u>	<u>Length</u>	<u>Cost</u>
0+00 - 11+00	1100 L.F. @ \$ 22/L.F.	= \$ 24,200
11+00 - 14+00	300 L.F. @ \$200/L.F.	= 60,000
14+00 - 15+50	150 L.F. @ \$650/L.F.	= 97,500
15+50 - 16+00	50 L.F. @ \$200/L.F.	= 10,000
16+00 - 35+25	1925 L.F. @ \$ 22/L.F.	= 42,350
		\$234,050
	10%	23,405
		\$257,455

### Route B Alternate

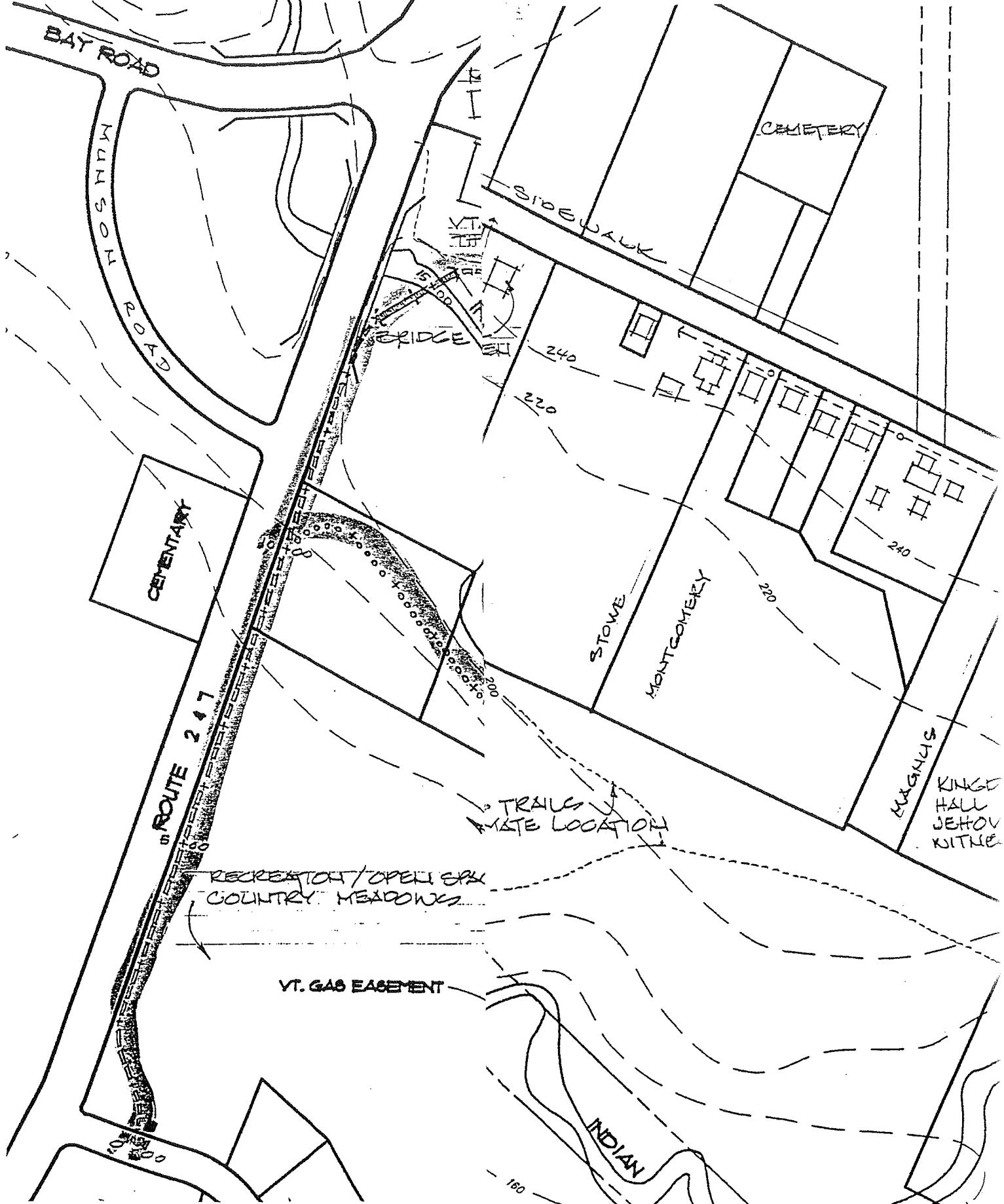
0+00 - 10+00	1000 L.F. @ \$ 22/L.F.	= \$ 22,000
10+00 - 18+80	880 L.F. @ \$100/L.F.	= 88,000
18+80 - 19+20	40 L.F. @ \$600/L.F.	= 24,000
19+20 - 28+00	880 L.F. @ \$100/L.F.	= 88,000
28+00 - 35+25	725 L.F. @ \$ 30/L.F.	= 21,750
		\$243,750
	10% Contingency	24,375
		\$268,125

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