



Central Vermont Regional Planning Commission

TRANSPORTATION ADVISORY COMMITTEE

Tuesday, July 27, 2021, 6:30 p.m.

Physical Location: Waterbury Municipal Offices,
Steele Community Room, 28 N. Main St., Waterbury
(Facial coverings required for in-person participation)

Join Zoom Meeting via Computer, Tablet or Smartphone:

<https://us02web.zoom.us/j/88981081424?pwd=VUo2UytSSWNnRkt4VUhqdmF1QXhTQT09>

Meeting ID: 889 8108 1424 - **Passcode:** 679190

Dial in via Phone: +1 929 436 2866

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Download Zoom here: <https://zoom.us/download>

Agenda

- 6:30 1) Meeting Commencement
 - a) Roll Call
 - b) Adjustments to the Agenda
 - c) Public Comment
- 6:35 2) Approval of June TAC Meeting Minutes (*Enclosed, Action*)
- 6:40 3) Amendments to FFY21 TPI budget (*Enclosed, Action*)
- 7:00 4) Visitor Information Center discussion (*Enclosed*)
- 7:10 5) Artwork – Vermont Arts Council – Animating Infrastructure & ACCD – Better Places (*Enclosed*)
- 7:30 6) VTrans Permitting Services is updating the town road standard (A-76) (*Enclosed*)
- 7:40 7) TAC Member Round Table
 - a) VPSP2 – a year-round process
 - b) Climate Action Plan and Transportation
 - c) Local concerns including project updates and other issues
- 8:00 8) Adjourn

Next Meeting September 27, 2021

Persons with disabilities who require assistance or special arrangements to participate in programs or activities are encouraged to contact Nancy Chartrand at 802-229-0389 or chartrand@cvregion.com at least 3 business days prior to the meeting for which services are requested.

29 Main Street Suite 4 Montpelier Vermont 05602
802-229-0389 E Mail: CVRPC@CVRegion.com

CENTRAL VERMONT REGIONAL PLANNING COMMISSION
Transportation Advisory Committee (TAC)
DRAFT Minutes
June 22, 2021

Attendees:					
	Barre City	Scott Bascom		X	Moretown Joyce Manchester
X	Barre Town	Stephanie Magnan			Dara Torre, Alt
		Sebastian Arduengo, Alt			Northfield Jeff Schulz
X	Berlin	Robert Wernecke			Jon Ignatowski, Alt
	Cabot	John Cookson		X	Orange Lee Cattaneo
X	Calais	David Ellenbogen		X	Plainfield Bob Atchinson
		Karin McNeill, Alt		X	Roxbury Gerry D'Amico
X	Duxbury	Alan Quackenbush		X	Waitsfield Don La Haye
X	E. Montpelier	Frank Pratt			Harrison Snapp, Alt
	Fayston	Donald Simonini			Warren Camilla Behn
	Marshfield	Robin Schunk		X	Washington Peter Carbee
X	Middlesex	Ronald Krauth		X	Waterbury Steve Lotspeich
	Montpelier	Dona Bate		X	Williamstown Richard Turner
		Harold Garabedian, Alt			Woodbury Chris Koteas
				X	Worcester Bill Arrand
Staff:		Christian Meyer			
Guests:		Chris Damiani (GMTA)			

Chair Steve Lotspeich called the meeting to order at 6:34 pm.

Roll Call

Roll was called and a quorum was present

Adjustments to the Agenda

No adjustments to the agenda

Public Comments

None

Review of Draft May Meeting Minutes

Lee Cattaneo made a motion, seconded by Richard Turner, *to accept the minutes from May 25, 2021 with corrections.* The motion was unanimously adopted.

Election of Officers

Steve Lotspeich recapped that at the May meeting nominations had been made to elect Steve Lotspeich to serve as Chair and for Robert Wernecke to serve as Vice Chair, he then opened the floor to any additional nominations. No further nominations were made. By unanimous vote Steve Lotspeich was elected Chair and Robert Wernecke was elected Vice Chair

TPI Work Plan

Staff reviewed updates to the federal fiscal year 2022 (FFY22) Transportation Planning Initiative (TPI) work program and how it differs from the FFY21 work program. Gerry D'Amico made the motion, seconded by Robert Wernecke, *to approve the proposed FFY22 work program and budget*. Joyce Manchester suggested a friendly amendment to give due consideration to the electrification of vehicles and the network. The motion, which after discussion and amendment was unanimously adopted as follows: *to approve the proposed FFY22 work plan and budget with due consideration for planning for the electrification of private vehicles, public vehicles, and transit and the supporting infrastructure*.

In person meetings

The committee discussed re-establishing in person meetings. The consensus of members preferred that meetings continue to be held in a hybrid format, allowing members to attend in person or virtually based on their comfort level. Staff noted that per CVRPC guidelines masks are currently still required when attending meetings in person. David Ellenbogen made the motion, seconded by Peter Carbee, that *the TAC provide the opportunity to attend all its meeting virtually*. Robert Wernecke suggested that the TAC did not have the authority to mandate all meetings be made hybrid and suggested a friendly amendment that "strongly recommend" be added. Steve Lotspeich brought up that during field trips, communication infrastructure would not be available to broadcast the events and allow for virtual attendance and recommended a friendly amendment to reflect this. The motion, which after discussion and amendment was unanimously adopted as follows: *the TAC strongly recommends that all TAC meetings be held in the hybrid format, allowing for participants to attend in person or virtually, except where the TAC is meeting in the field*.

Field Trips

Steve Lotspeich raised the proposal of holding a field trip during the July meeting to visit the Waterbury Main Street project, which is midway through construction. Enough interest was expressed by members that staff will investigate how this could be achieved.

Local Concerns Including Project Updates and Other Issues

Lee Cattaneo stated that a functional reclassification change form had been completed and submitted for Brook Road and Reservoir Road in Plainfield and Orange over two years ago and they have not received a response from VTrans/Federal Highway Administration. Staff stated that they would follow up.

- 1 **Topics for future meetings**
- 2 Complete Streets, Equity Report, Electrification of the transportation, AV testing program,
- 3
- 4 **Adjourn**
- 5 Lee Cattaneo made the motion, seconded Don La Haye, *to adjourn*. The motion carried.
- 6
- 7 The Chair adjourned the meeting at 8:07 PM.

DRAFT



MEMORANDUM

Date: July 27, 2021
To: Transportation Advisory Committee
From: Christian Meyer, Senior Planner
Re: CVRPC FFY 2021 TPI Adjustment 2

⊗ **ACTION REQUESTED:** Approve the revised FFY21 Transportation Planning Initiative (TPI) budget adjustment.

Summary

CVRPC adopted an organizational budget adjustment in December 2020 for the previously accepted FFY 21 TPI work program and budget. While the work program will remain unchanged, CVRPC is revising its proposed budget. Changes include:

- reallocating tasks among staff to reflect workload shifts that occurred with the addition of a transportation planner in 2021;
- increasing funding under Tasks 4 to account for hiring a planning technician to help with field work for the rest of the summer;
- reducing funding under task 3 to help accommodate the increased work under Tasks 4, and
- reducing contractual funds to ensure all allocated funds can be spent down within the fiscal year.

Summary of budget amounts by task:

Task	Task Description	Approved Amount	Amended	Difference	% Change
Task 1	Administration	\$24,883	\$26,704	\$1,821	7.32%
Task 2	Public Participation & Coordination	\$33,580	\$30,705	(\$2,875)	-8.56%
Task 3	Long Range Planning	\$37,216	\$13,613	(\$23,603)	-63.42%
Task 4	Short Range Planning	\$120,102	\$147,767	\$27,665	23.03%
Task 5	Project Development	\$17,368	\$14,359	(\$3,009)	-17.32%
Task 6A	Other Planning - TRPT	\$60,000	\$60,000	\$0	0.00%
	TOTAL	\$293,149	\$293,149	\$0	

Budget changes from the original FFY21 TPI budget include:

Task 1 – Program Administration: Reallocation of hours (tasks) from executive director and planner to new transportation senior planner based on candidate.

Task 2 – Public Participation and Coordination: Minor adjustment to reflect actual trends. Reallocation of hours (tasks) among multiple staff to transportation senior planner.

Task 3 – Long Range Planning: Reduction in overall hours to transfer funds to Short Range Planning for additional planning technicians.

Task 4 – Short Range Planning: Adjusted funds available to planning technicians for assistance and field inventories. Reduced allocation for consultant funds for feasibility study of access for Northfield town forest.

Task 5 – Project Development Planning: Transfer of hours (tasks) to other task as major project development work has been completed for the fiscal year.

Task 6 – Other Planning Activities (TRPT): Held steady.

Consultant Study

A feasibility study for improve access to the Northfield Town Forest is currently being initiated using consultant services. It is expected to continue into the next fiscal year.

Transportation Planner

A full time transportation planner was brought on in March, 2021. Adjustments are being made to reflect trends in how this addition has affected how the executive director and planner have been allocating their time.

CENTRAL VERMONT REGIONAL PLANNING COMMISSION

FFY 2021 Transportation Planning Initiative - July 2021

Exhibit 2: Budget Detail by Task Category

Task	Task Description	Agreement Amount
Task 1	Program Administration	\$26,704
Task 2	Public Participation and Coordination	\$30,705
Task 3	Long Range Transportation Planning	\$13,613
Task 4	Short Range Transportation Planning	\$147,767
Task 5	Project Development Planning	\$14,359
Task 6	Other Planning Activities	\$60,000
Total		\$293,149

Exhibit 3: Budget Detail by Expense Category

RPC Staff Position	Rate SFY21	Total Hours	Total Cost
Executive Director	\$60.76	308	\$18,714
Senior Planner (GIS)	\$43.89	173	\$7,591
Senior Planner (LU)	\$38.33	92	\$3,526
Senior Planner (Trans)	\$39.59	665	\$26,320
Planner (GIS)	\$37.64	875	\$32,935
Planner (EM)	\$30.54	102	\$3,114
Assistant Planner	\$25.28	39	\$986
Office Manager	\$35.34	56	\$1,979
Planning Technician I	\$20.15	259	\$5,219
Planning Technician II	\$18.00	246	\$4,428
Total		2,815	\$104,812

Indirect Costs	115.13%		
RPC Staff Position	of Hourly Rate	Total Hours	Total Cost
Executive Director	\$69.95	308	\$21,546
Senior Planner (GIS)	\$50.53	173	\$8,739
Senior Planner (LU)	\$44.13	92	\$4,060
Senior Planner (Trans)	\$45.58	665	\$30,302
Planner (GIS)	\$43.33	875	\$37,918
Planner (EM)	\$35.16	102	\$3,586
Assistant Planner	\$29.10	39	\$1,135
Office Manager	\$40.69	56	\$2,278
Planning Technician I	\$23.20	259	\$6,008
Planning Technician II	\$20.72	246	\$5,098
Total		2,815	\$120,670

Direct Costs	Total Cost
Contract	\$58,509
Travel	\$3,082
Supplies	\$400
Data/Ref	\$0
Postage	\$800
Phone	\$120
Copy/Print	\$0
Meetings	\$2,955
Equipment	\$1,800
Total	\$67,666

CENTRAL VERMONT REGIONAL PLANNING COMMISSION

FFY 2021 Transportation Planning Initiative - July 2021

Fund Allocation			
Task	Task Description	CVRPC Share¹	VTrans Share²
Task 1	Program Administration	\$2,670	\$24,034
Task 2	Public Participation and Coordination	\$3,071	\$27,635
Task 3	Long Range Transportation Planning	\$1,361	\$12,252
Task 4	Short Range Transportation Planning	\$14,777	\$132,990
Task 5	Project Development Planning	\$1,436	\$12,924
Task 6	Other Planning Activities	\$0	\$60,000
Subtotal by Share		\$23,315	\$269,834
Agreement Total			\$293,149

Notes:

¹ CVRPC share comes from annual appropriations from the Vermont Agency of Commerce and Community Development (Municipal & Regional Planning Fund) and CVRPC's member municipalities.

² VTrans share comes from federal transportation funds provided by the U.S. Department of Transportation Federal Highway Administration and state transportation funds appropriated by the Vermont Legislature.

CENTRAL VERMONT REGIONAL PLANNING COMMISSION
FFY 2021 Transportation Planning Initiative - July 2021

Exhibit 4: Time-Task-Cost Summary

A. Personnel (Hours)		Bonnie	Pam	Clare	Vacant	Ashley	Grace	Zach	Nancy	Elena	Sam	
Task #	Task Description	Exec Director	GIS Sr Planner I	Land Use Sr Planner II	Transportation Sr Planner III	GIS Planner I	Emerg Mngmt Planner II	Land Use Asst Plan I	Office Manager	Planning Tech I	Planning Tech II	Total Hours
1	Administration	40	5	2	100	20	2	2	15	2	2	190
2	Public Participation & Coordination	15	6	40	140	125	5	5	25	5	3	369
3	Long Range Transportation Planning	13	13	20	75	15	10	12	0	2	1	161
4	Short Range Transportation Planning	225	55	25	275	650	40	20	16	250	240	1,796
5	Project Development Planning	5	0	5	75	65	25	0	0	0	0	175
6	Other Planning Activities	10	94	0	0	0	20	0	0	0	0	124
	Total	308	173	92	665	875	102	39	56	259	246	2,815

B. Direct Costs (\$)¹		15%	8%	6%	42%	5%	2%	4%			
Task #	Task Description	Contract	Travel	Supplies	Data/Ref	Postage	Phone	Copy/Print	Meetings	Equipment	Total
1	Administration		\$3,082	\$400	\$0	\$800	\$120	\$0	\$2,955	\$1,800	\$9,157
2	Public Participation & Coordination										\$0
3	Long Range Transportation Planning										\$0
4	Short Range Transportation Planning	\$10,000									\$10,000
5	Project Development Planning										\$0
6	Other Planning Activities	\$48,509									\$48,509
	Total	\$58,509	\$3,082	\$400	\$0	\$800	\$120	\$0	\$2,955	\$1,800	\$67,666

C. Cost Proposal Summary (\$)

Task #	Task Description	Exec Director	GIS Sr Planner I	Land Use Sr Planner II	Transportation Sr Planner III	GIS Planner I	Emerg Mngmt Planner II	Land Use Asst Plan I	Office Manager	Planning Tech I	Planning Tech II	Total Personnel	Indirect	Direct	Total Costs
	Hourly Rate	\$60.76	\$43.89	\$38.33	\$39.59	\$37.64	\$30.54	\$25.28	\$35.34	\$20.15	\$18.00				
1	Administration	\$2,430	\$219	\$77	\$3,959	\$753	\$61	\$51	\$530	\$40	\$36	\$8,156	\$9,390	\$9,157	\$26,704
2	Public Participation & Coordination	\$911	\$263	\$1,533	\$5,543	\$4,705	\$153	\$126	\$884	\$101	\$54	\$14,273	\$16,432	\$0	\$30,705
3	Long Range Transportation Planning	\$790	\$571	\$767	\$2,969	\$565	\$305	\$303	\$0	\$40	\$18	\$6,328	\$7,285	\$0	\$13,613
4	Short Range Transportation Planning	\$13,671	\$2,414	\$958	\$10,879	\$24,466	\$1,222	\$506	\$565	\$5,038	\$4,320	\$64,039	\$73,728	\$10,000	\$147,767
5	Project Development Planning	\$304	\$0	\$192	\$2,969	\$2,447	\$764	\$0	\$0	\$0	\$0	\$6,675	\$7,685	\$0	\$14,359
6	Other Planning Activities	\$608	\$4,124	\$0	\$0	\$0	\$610	\$0	\$0	\$0	\$0	\$5,341	\$6,150	\$48,509	\$60,000
	Total	\$18,714	\$7,591	\$3,526	\$26,320	\$32,935	\$3,114	\$986	\$1,979	\$5,219	\$4,428	\$104,812	\$120,670	\$67,666	\$293,149

115.13% Indirect Rate												Total Employee Indirect	
Indirect per employee		\$21,546	\$8,739	\$4,060	\$30,302	\$37,918	\$3,586	\$1,135	\$2,278	\$6,008	\$5,098		\$120,670

Notes

¹ Contract : Audit; design and planning services as needed (problem evaluation); design / layout for transportation program materials
Travel: Mileage, non-mileage transportation, rooms, meals, conference / workshop fees
Supplies: Office, mapping and traffic counting supplies used specifically for the transportation program
Data / Ref: Reference materials, portion of cost of new data
Postage: for materials specific to the transportation program
Phone: for calls or data plans specific to transportation program activities
Copies / Printing: Reproduction costs, including photocopies
Meetings: Meeting room space, legal notices, other associated costs
Equipment: Any eligible equipment purchased during the implementation of the grant agreement e.g. traffic counters and computer equipment.



MEMORANDUM

Date: July 27, 2021
To: Transportation Advisory Committee
From: Christian Meyer, Senior Planner
Re: Agenda Items 4, 5 and 6

☒ **ACTION REQUESTED:** Discussion Items

Vermont Visitor Information Center Study

The study was collectively initiated by VTrans, the Department Building and General Services, and the Agency of Commerce and Community Development, to work collaboratively on a comprehensive planning effort to understand the current physical conditions and financial funding structure for Visitor Information Centers across the state, coordinate with stakeholders to identify issues and opportunities, identify current and future funding options, and develop an implementation plan to advance recommendations developed through a study. CVRPC staff reviewed the document, distributed it for regional review, further discussed the recommendations with those communities most closely affected, and submitted comments. Staff comments are available for in the meeting packet for committee review.

Art Installations

The RPC would like to recognize the importance art can play in developing a sense of place in a community and call to your attention several programs that your municipality may be interested in taking advantage of and a recently developed VTrans process for gaining approval for installations on state facilities.

Vermont Arts Council – Animating Infrastructure: Animating Infrastructure Grants support community projects that integrate art with infrastructure improvements. Through this program, the Council strives to demonstrate the positive impact of art in helping communities meet goals of livability, walkability, safety, economic vitality, and community vibrancy, and to support the creation of unique infrastructure projects where function and art are one and the same. More information is available on their website <https://www.vermontartscouncil.org/grants/organizations/animating-infrastructure>

ACCD – Better Places: The Better Places program will provide “placemaking” grants that improve the vitality of state designated downtowns, village centers, new town centers, or neighborhood development

areas. This program has a broad set of goals that include economic revitalization, building social capital, public health, and public arts. Additional information is available on the ACCD web site:

<https://accd.vermont.gov/community-development/funding-incentives/better-places>

VTrans – Art Installations On State Transportation Facilities: Finally, to help guide your community, VTrans has developed a process for how to pursue gaining approval for and art installations and on which structures it can occur. <https://vtrans.vermont.gov/planning/policy-planning/art>

VTrans Permitting Services – Updates to the A-76

VTrans Permitting Services is updating the town road standard (A-76) and invites RPC and municipal comments. A copy of the updates has been included in the meeting packet. Nate Covey requests that you provide comments by 7/29 or call him to discuss it. Also, the updated standard drawings for residential drives (B-71a) and commercial drives (B-71b) along with other permitting, access management, and demonstration project material are available at

<http://vtrans.vermont.gov/planning/permitting>. Contact info: nathan.covey@vermont.gov or 802-498-7055.



July 5, 2021
Montpelier, Vermont

Dave Pelletier
VTrans Planning Coordinator
Vermont Agency of Transportation
219 North Main Street
Barre, VT 05641

Mr. Pelletier,

Thank you for sharing this draft report with our organization. Staff has reviewed the study and discussed the findings with those central Vermont communities most affected by the recommendations. Based on these discussions, staff has the following comments:

Return on Investment

The report takes a very deep dive into the costs associated with each visitor center, but does not fully explore the return generated by the system. The return could be measured in two fashions, (1) how much does each individual visit generate in economic activity, and (2) what is the value of maintaining the Vermont brand through the statewide system of visitor information centers.

Under the first point listed above, it seems important to know if visiting a visitor information center generates additional economic activity. That is, by providing access to information about ongoing activities and destinations throughout the state, do the visitor information centers accelerate economic activity? Does this math change between a full visitor center and rest area with restrooms? If so, eliminating centers or changing the provided services would incur economic costs not currently included in your model.

The second point looks at the Vermont brand as a whole. Do clean, inviting and accessible visitor information centers positively impact the Vermont brand? If so, to what degree do they play a role in attracting visitors to this state relative to competing destinations?

The aggregated impact these two factors may have on the Vermont economy appears to be an important piece in developing a benefit/cost analysis for managing the visitor information centers statewide and should be part the decision making process.

Understanding Table 2, Page 38

This table takes a moment to fully understand. If you are used to seeing a #1 ranking as a positive thing, being ranked #1 for closure is a little counter intuitive. The color coding is helpful and appreciated but perhaps the order could be reversed?

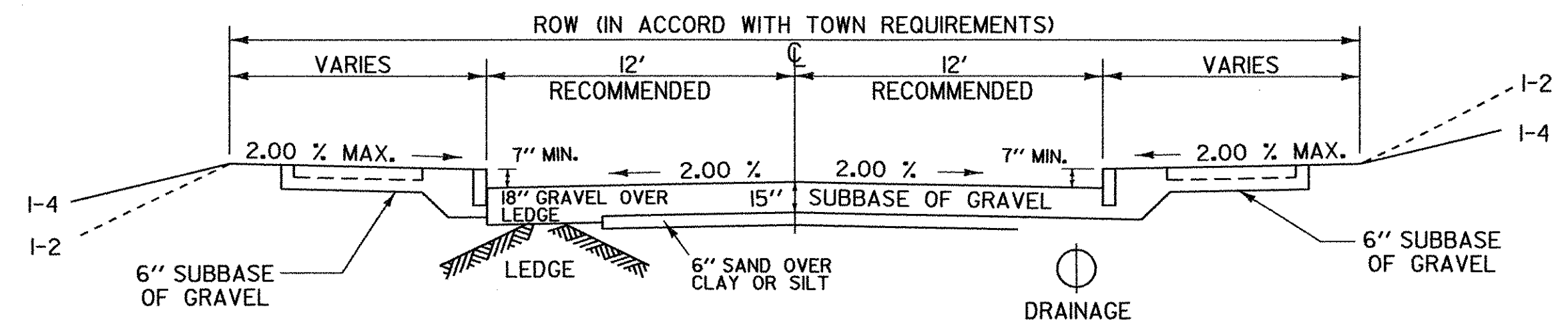
For additional details regarding these comments, please do not hesitate to contact Christian Meyer, Senior Planner, at the CVRPC.

Cordially,

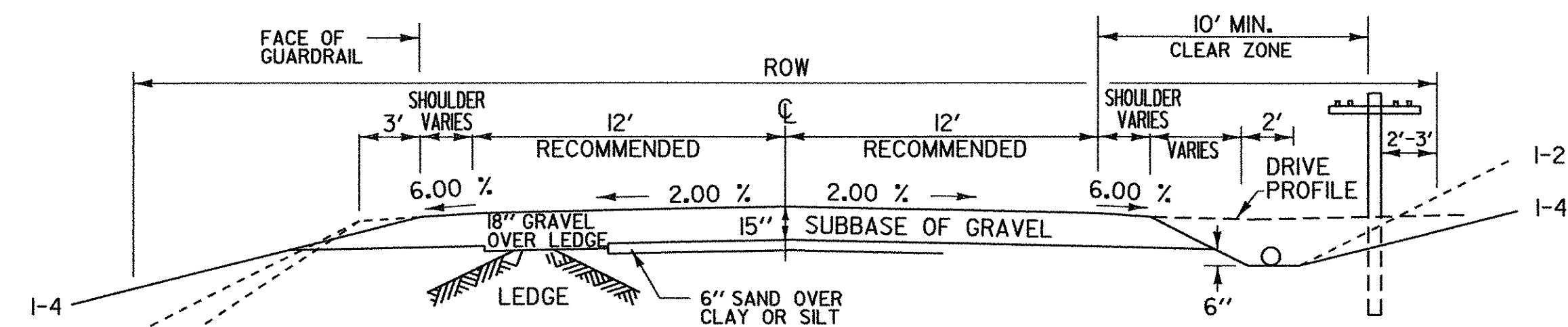


Christian Meyer

ROADWAY TYPICALS

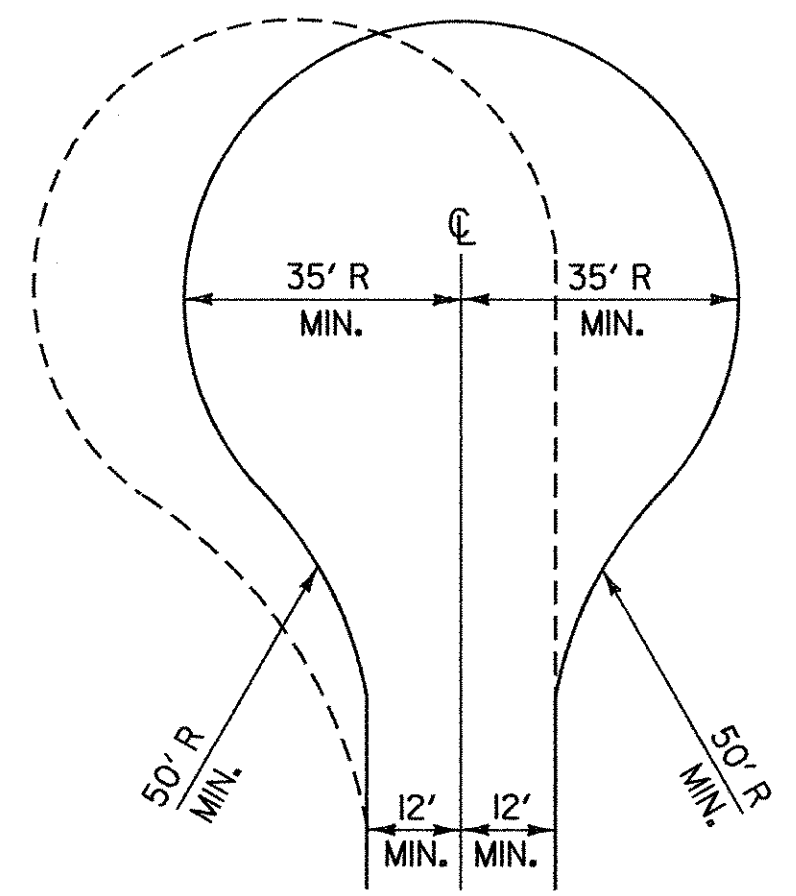


TYPICAL - CURBED SECTION WITH 5' SIDEWALKS

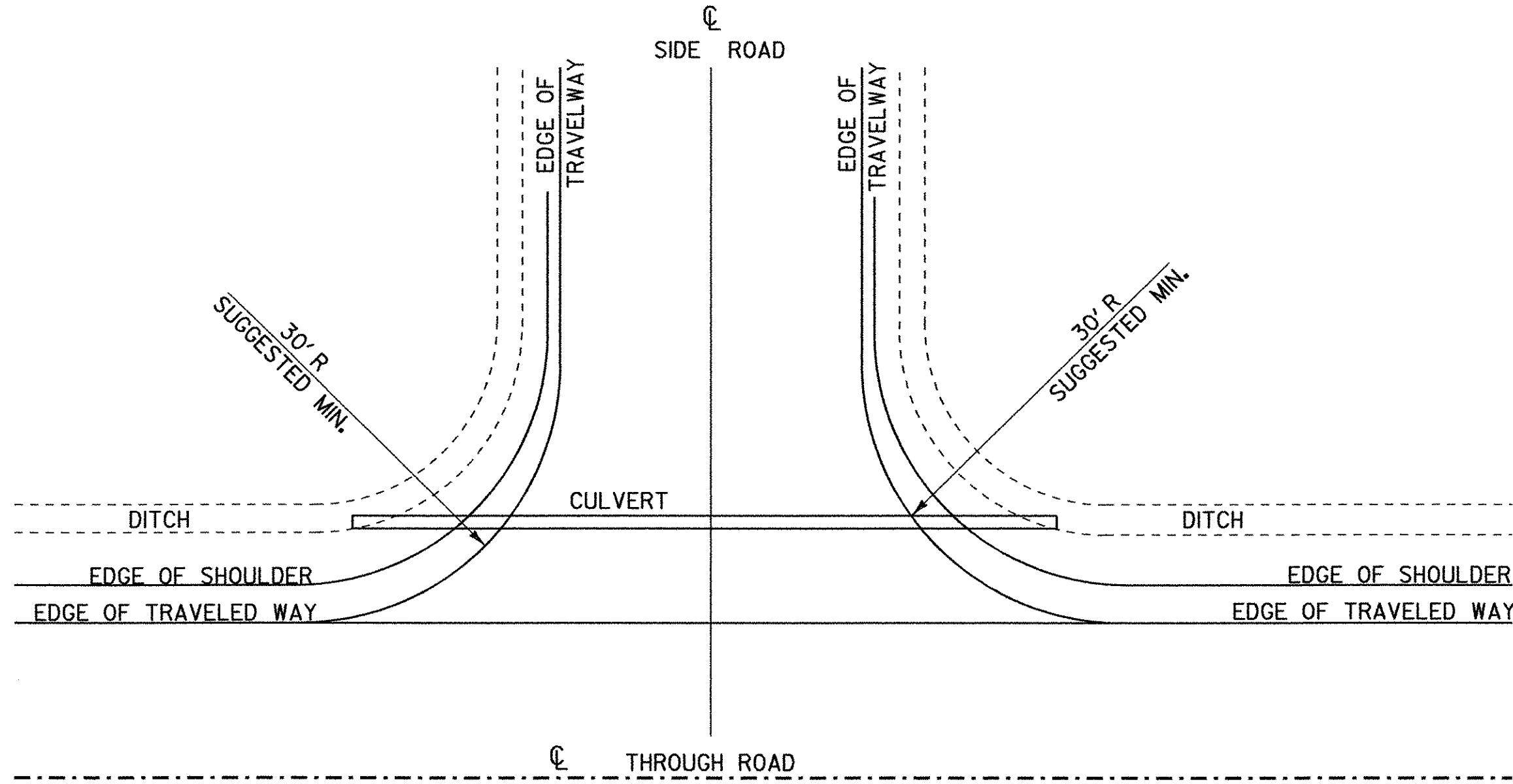


TYPICAL - NON-CURBED SECTION WITH DITCH

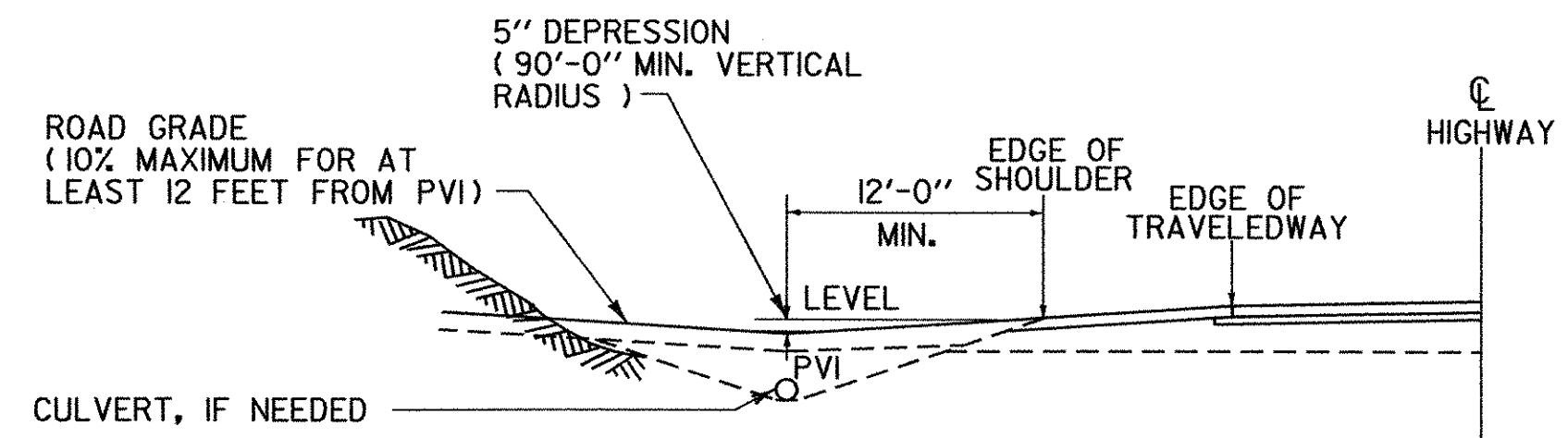
CUL-DE-SAC FOR DEAD END ROADS



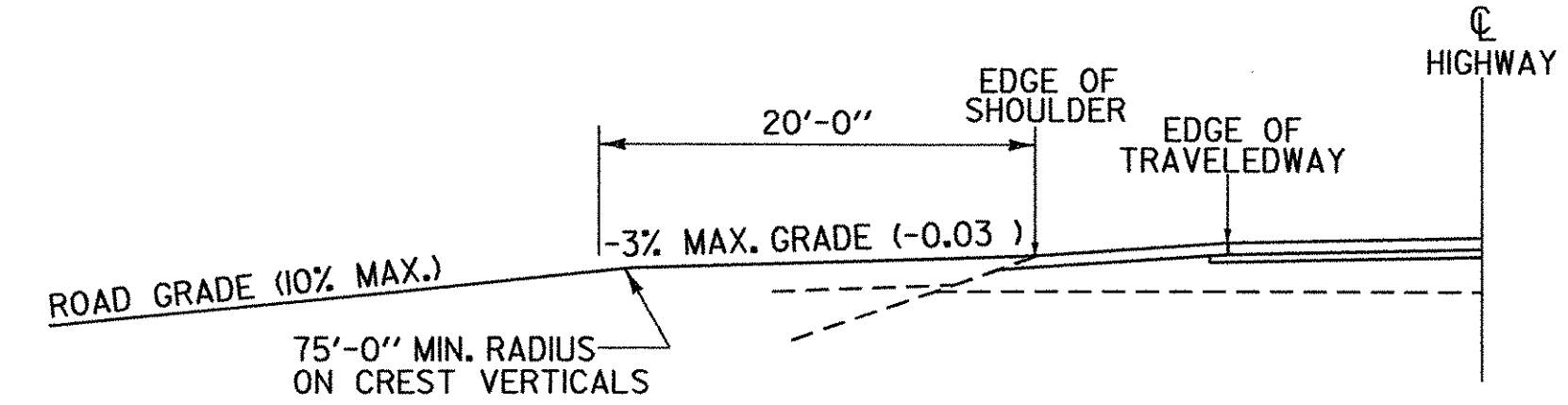
INTERSECTION OF THROUGH ROAD AND SIDE ROAD



FOR THROUGH ROADS WITH SIDEWALKS & CURBING, SEE STANDARDS C2 & C3. PROVIDE DROP INLETS ON EACH SIDE OF SIDE ROAD AT INTERSECTION AS NECESSARY.



PROFILE OF INTERSECTION (CUT SECTION)
SHOWING 5" DEPRESSION



PROFILE OF INTERSECTION (FILL SECTION)

GENERAL NOTES FOR LOCAL ROADS

- SUBBASE, SAND CUSHION AND SUBGRADE SHOULD BE CONSTRUCTED AND COMPACTED TO THE DIMENSIONS SHOWN IN ACCORDANCE WITH VAOT STANDARD SPECIFICATIONS FOR CONSTRUCTION. WHERE LOCAL ORDINANCES HAVE BEEN ADOPTED RELATIVE TO ROAD DIMENSIONS AND CONSTRUCTION, THEY SHOULD GOVERN. THE DIMENSIONS SUGGESTED ARE INTENDED TO BE APPLIED ONLY IN LOW TRAFFIC VOLUME CONDITIONS (AVERAGE DAILY TRAFFIC LESS THAN 250 VEHICLES PER DAY), AND WHERE HEAVY TRUCK TRAFFIC IS INFREQUENT.
- EXPPOSED EARTH SLOPES SHOULD BE SEEDED, FERTILIZED AND MULCHED IN ACCORDANCE WITH VAOT STANDARD SPECIFICATIONS FOR CONSTRUCTION.
- DRAINAGE:
ROADWAY - 18" MINIMUM DIAMETER, OF METAL, REINFORCED CONCRETE OR POLYETHYLENE PIPE, WITH DROP INLETS OR CATCH BASINS, AS REQUIRED. HYDRAULIC ANALYSIS TO DETERMINE APPROPRIATE PIPE DIAMETER IS RECOMMENDED FOR ALL LIVE STREAM CROSSINGS AND ELSEWHERE WHERE LARGE STORM FLOWS MAY BE EXPECTED.

DRIVES - 15" MINIMUM DIAMETER, OF METAL, REINFORCED CONCRETE OR POLYETHYLENE PIPE.

UNDERDRAIN - 6" MINIMUM DIAMETER, OF METAL, PVC PLASTIC OR POLYETHYLENE PIPE.

LOCATION, DEPTH AND CONSTRUCTION DETAILS SHOULD FOLLOW PRACTICE SPECIFIED BY LOCAL ORDINANCE OR THE VAOT STANDARD SPECIFICATIONS FOR CONSTRUCTION.

4. HORIZONTAL CURVATURE - THE FOLLOWING WILL APPLY:

DESIGN SPEED	MINIMUM RADI RURAL ①	MINIMUM RADI URBAN ②
25 MPH	185 FT.	180 FT.
30 MPH	275 FT.	300 FT.
35 MPH	380 FT.	460 FT.
40 MPH	510 FT.	675 FT.
45 MPH	660 FT.	945 FT.
50 MPH	835 FT.	1280 FT.

- ① BASED ON CROSS SLOPE = 6.0 %
② BASED ON MAINTAINING NORMAL CROWN SECTION THROUGHOUT CURVE : EFFECTIVE CROSS SLOPE = 2.0 %

FOR OTHER SUPERELEVATION RATES, SEE CHAPTER III OF THE AASHTO "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS" FOR APPROPRIATE CURVE RADII.

- GRADIENT OF ROADS - 10% MAXIMUM GRADE SUGGESTED, ALTHOUGH GRADES UP TO 16 % MAY BE ALLOWED IN MOUNTAINOUS TERRAIN.
- GUARD RAIL - PROVIDE GUARD RAIL WITH TREATED WOOD OR STEEL POSTS, OF A DESIGN IN ACCORDANCE WITH VAOT STANDARD SPECIFICATIONS FOR CONSTRUCTION, THE AASHTO ROADSIDE DESIGN GUIDE, AND VAOT STANDARD DRAWINGS. GENERALLY, WHERE SLOPES ARE 1:3 OR STEEPER, AND THE HEIGHT OF DROPOFF AT EDGE OF SHOULDER EXCEEDS 5', GUARD RAIL SHOULD BE INSTALLED. ALSO, WHERE SLOPES ARE 1:3 OR FLATTER, GUARD RAIL MAY NOT BE NEEDED IF THE AREA AT THE BOTTOM OF THE SLOPE IS FREE OF HAZARDS. THE LOCAL VAOT DISTRICT TRANSPORTATION ADMINISTRATOR MAY BE CONTACTED FOR ASSISTANCE.
- PAVING - ROADS WITH GRADES EXCEEDING 7% SHOULD BE PAVED UNLESS WAIVED BY THE LOCAL GOVERNING BODY. FOR TRAFFIC VOLUMES GREATER THAN, OR EQUAL TO, 250 VEHICLES PER DAY, OR WHERE HEAVY TRUCKS ARE COMMON, A PAVEMENT DESIGN SHOULD BE PERFORMED TO DETERMINE APPROPRIATE THICKNESSES OF SUBBASE AND PAVEMENT.
- TRAVELED WAY AND SHOULDER WIDTHS - WIDTHS SHOWN ON THIS STANDARD ARE FOR LOW SPEED/LOW TRAFFIC VOLUME CONDITIONS. FOR ADDITIONAL GUIDANCE IN THE DESIGN OF LOCAL ROADS AND STREETS, SEE THE LATEST EDITION OF AASHTO'S PUBLICATION "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS", OR THE VAOT "VERMONT STATE STANDARDS".
- UTILITY LINE LOCATION TO CONFORM TO LOCAL REQUIREMENTS.

REVISIONS AND CORRECTIONS
JAN. 21, 1971 - ORIGINAL DATE OF ISSUE
MAR. 12, 1971 - DIMENSIONS CHANGED ON TURN-A-ROUND
JULY 13, 1973 - INTERSECTION PROFILES ADDED
DEC. 7, 1993 - REVISED TO REFLECT CURRENT DESIGN CRITERIA
JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.
MAR. 10, 1995 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.
MARCH 3, 2003 - REVISED TO REFLECT CURRENT DESIGN CRITERIA

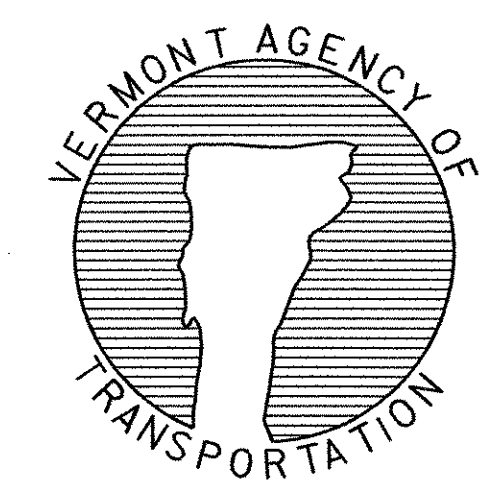
APPROVED

DIRECTOR OF PROGRAM DEVELOPMENT

CHIEF OF UTILITIES

FEDERAL HIGHWAY ADMINISTRATION

STANDARDS FOR TOWN
& DEVELOPMENT ROADS



STANDARD
A - 7 6