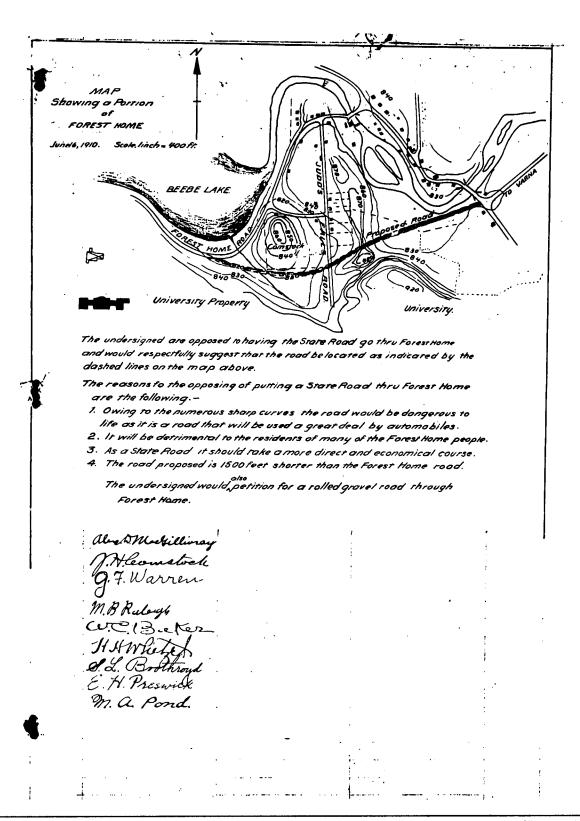
APPENDIX I

1910 Petition from Forest Home



APPENDIX II

Traffic Data, Existing Conditions, 2005

Table A-II-1

Vehicle Speed and Volume at Forest Home Community Boundaries

April 26 through May 11, 2005

Community Entrance	Vehicle Volume (ADT)	Ve	ehicle Speed (1 85th Percentile	mph) 95th <u>Percentile</u>	Posted Speed <u>Limit</u>	Percent Above Speed <u>Limit</u>
100 Block Forest Home Dr	1,002	29	35	38	25	83.4
300 Block Forest Home Dr	830	33	40	44	25	91.1
Judd Falls Road (1)	6,006	34	39	42	30	80.1
Pleasant Grove Road	6,462	26	33	35	30	26.6
Warren Road (2)	4,163	34	40	44	30	82.7
Caldwell Road (3)	3,793	29	36	39	30	54.5
Total Entering and Exiting	22,256					
Number of Through-Trips	11,128					

Notes:

- (1) Data collected through April 30
- (2) Data collected April 5 through April 14, 2005
- (3) Data collected through May 10

Data collected by the Town of Ithaca

Figure A-II-1

Vehicle Turning Movements, Evening Peak-Hour, Existing Conditions

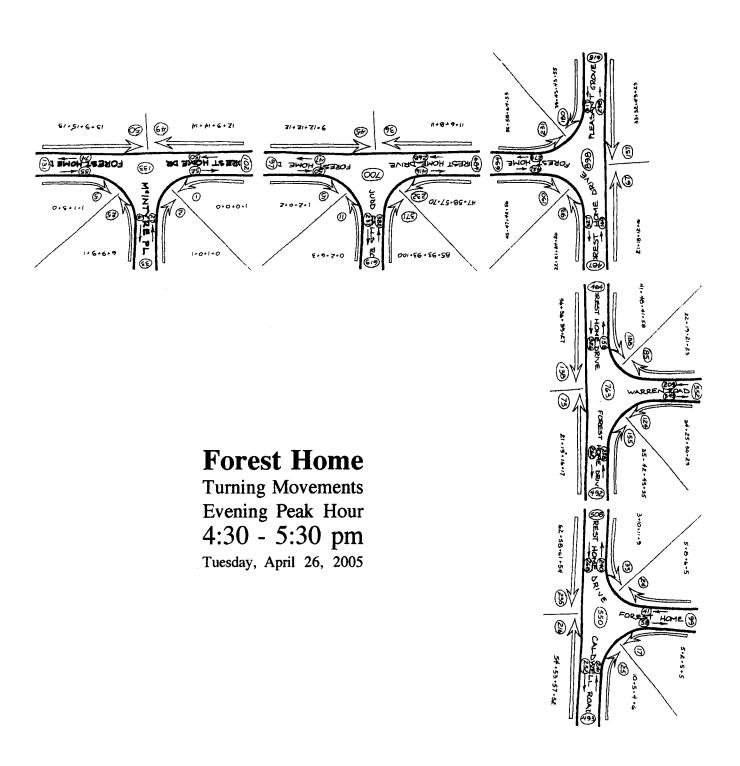
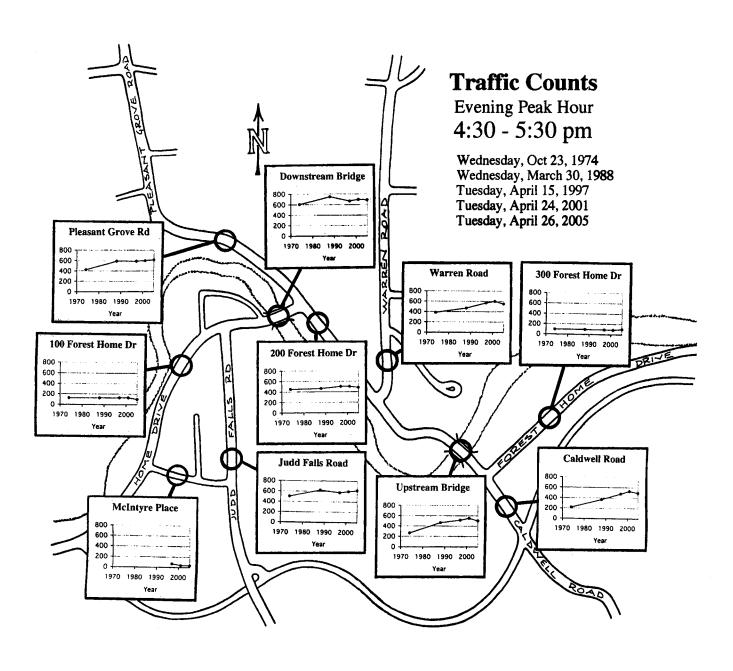


Figure A-II-2

Evening Peak-Hour Volumes, 1974 - 2005



APPENDIX III

Overweight Trucks

TOWN OF ITHACA CODE (Excerpt)

Chapter 250: VEHICLES AND TRAFFIC

Article II: Vehicle Weight Limits

§ 250-8. Restricted locations.

No through traffic of trucks, commercial vehicles, truck tractors, or tractor-trailer combinations, with a maximum registered gross vehicle weight in excess of five tons shall be permitted on:

A. McIntyre Place.

- B. Forest Home Drive, between the western terminus of Plantation Road (also known as Arboretum Road) and Caldwell Road.
- C. Judd Falls Road, between Forest Home Drive and the intersection with Plantation Road (also known as Arboretum Road).
- D. Honness Lane.

§ 250-9. Definitions.

For purposes of this article:

MAXIMUM REGISTERED GROSS VEHICLE WEIGHT — Shall mean the maximum gross vehicle weight for which the vehicle is registered with the New York State Department of Motor Vehicles. If the vehicle is registered in a jurisdiction other than the State of New York, the term shall mean the maximum gross vehicle weight for which the vehicle is registered with the applicable motor vehicle department or similar agency in the jurisdiction in which the vehicle is registered and which weight is shown on the registration for such vehicle. If the vehicle is registered in a governmental jurisdiction that does not indicate a maximum gross vehicle weight on registrations, the term shall mean the manufacturer's gross vehicle weight rating (GVWR) as indicated on the vehicle safety certification label.

§ 250-10. Penalties for offenses.

A violation of this article shall be a traffic infraction. Every person convicted of a violation of any of the provisions of this article shall for a first conviction be punished by a fine of not more than \$50 or by imprisonment for not more than 15 days or by both such fine and imprisonment; for a second such conviction within 18 months thereafter such person shall be punished by a fine of not more than \$100 or by imprisonment for not more than 45 days or by both such fine and imprisonment; upon a third or subsequent conviction within 18 months after the first conviction such person shall be punished by a fine of not more than \$250 or by imprisonment of not more than 90 days or by such fine and imprisonment.

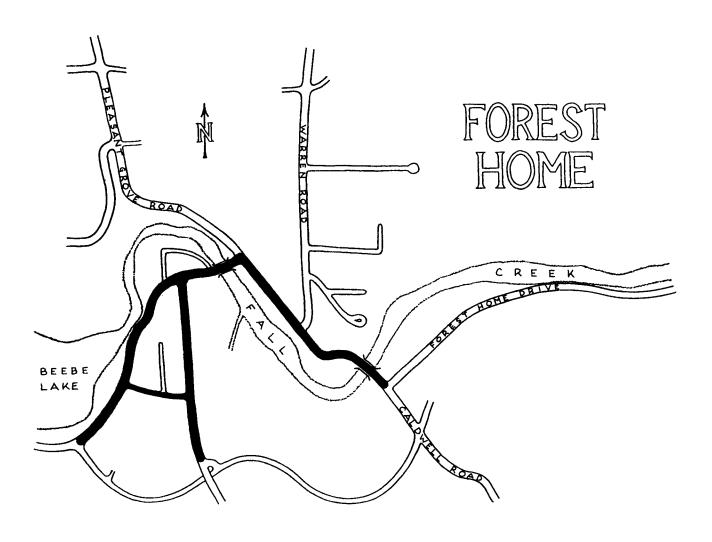
§ 250-11. Exclusions.

Local deliveries and pickups to and from properties located on the aforementioned Town highways, by vehicles otherwise prohibited from using said highways by the provisions of this article shall not be prohibited hereby. Further, fire-fighting equipment and vehicles, and emergency medical service vehicles, otherwise prohibited from using such highways by the provisions of this article shall not be prohibited hereby.

§ 250-12. Signage.

This article shall be effective with respect to each named street upon the erection or posting of modified signs or markings giving notice of the restrictions contained herein and that the maximum weight is determined by maximum registered gross vehicle weight. Until such time the previous law which this article supersedes shall remain in effect.

Figure A-III-1
Streets With 5-Ton Vehicle Weight Limit



OVERWEIGHT TRUCK AND BUS COUNT, 2005

Town Legislation

Briefly stated, Town of Ithaca Code (Chapter 250: Vehicles And Traffic, Article II: Vehicle Weight Limits, Sections 250-6 through 250-12) restricts through-truck traffic to five tons registered weight on: McIntyre Place; Judd Falls Road from the Jug Handle down to the intersection with Forest Home Drive; and Forest Home Drive from the intersection with Plantations Road near Beebe Lake, through much of Forest Home, to the intersection with Caldwell Road. Trucks making local deliveries are exempt from this restriction. For purposes of this study, we recorded all vehicles with six or more tires, since vehicles with a GVWR of 5 tons or more generally have at least six tires.

Data Collection

Trucks were recorded traveling through the Pleasant Grove Road / Forest Home Drive intersection from 7 am to 6 pm on Thursday, November 10, 2005. All local schools were in session, all area bridges were open, and roads were clear and mostly dry. Weather was cold and cloudy, with occasional rain and snow showers. By recording truck movement through this intersection, we were able to monitor much, but not all, of the truck traffic through the restricted weight limit zone. This location allowed us to observe the major east-west traffic flow, as well as three of the four main north-south traffic flows through the community. However, this count did not record those trucks that traveled on McIntyre Place, those that made the turn from Judd Falls Road onto Forest Home Drive along Beebe Lake, or those that traveled on the Warren Road / Upstream Bridge / Caldwell Road corridor.

Overweight Trucks

A total of 97 overweight trucks were recorded traveling through the Pleasant Grove Road / Forest Home Drive intersection during the eleven hours from 7 am to 6 pm. Of these, the single largest category consisted of trucks owned and operated by Cornell University (28 trucks, 29%). The second largest category was unmarked trucks (24 trucks, 25%). The rest (45 trucks, 46%) were marked as belonging to a variety of companies. It should be pointed out that some of these trucks were making local deliveries. For example, the Town of Ithaca trucks were part of the Town's fall leaf pickup, the UPS truck was seen making deliveries on Forest Home Drive and the Byway, and Wharton Masonry was doing work on 123 Judd Falls Road, within the restricted weight limit area. However, the great majority of overweight trucks were apparently not making local deliveries.

Buses

A total of 102 buses were recorded passing through the Pleasant Grove Road / Forest Home Drive intersection during the eleven hours from 7 am to 6 pm. Of these, the majority were TCAT buses (55 buses, 54%), Most of the rest were school buses (42 buses, 41%), with a smattering of others (5 buses, 5%). According to TCAT's current on-line bus schedule (TCATbus.com), Routes 80 and 81 are not supposed to travel through the Pleasant Grove Road / Forest Home Drive intersection. The same can probably be said for the TCAT buses displaying the "Not in Service" signage. This represents 15 buses or 27% of TCAT bus traffic recorded. The other 73% of TCAT buses (Routes 31, 40 and 41) were apparently traveling on scheduled routes that take them through Forest Home. However, it is possible that some of these buses could be rerouted; perhaps traveling through North Campus on Cradit Farm Drive would serve more ridership than coming through Forest Home. As far as school buses are concerned, only a few can be considered to be "local delivery," picking up or dropping off Forest Home children. The vast majority are through-traffic, with no particular need to travel through the restricted weight limit zone.

Conclusion

There is far too much overweight truck traffic in Forest Home. While some of these trucks are making local deliveries, the vast majority represent unnecessary through traffic. However, it should be possible to significantly reduce much of this traffic. To begin with, Cornell University could be asked to reroute its truck traffic. In addition, there is the possibility of working with TCAT and the Ithaca City School District to see which of their buses could be rerouted around Forest Home. These measures, coupled with increased enforcement by the County Sheriff and Cornell Police, could make a significant difference in the number of overweight trucks that travel through this area.

Overweight* Truck and Bus Count

Pleasant Grove Road / Forest Home Drive Intersection 7:00 am - 6:00 pm Thursday, November 10, 2005

All local schools in session. Roads clear and mostly dry. All area bridges open. Weather cold and cloudy, with occasional rain and snow showers.

Results

97 Overweight Trucks 73 Marked Trucks 28 Cornell University 13 Grounds 4 Planning, Design and Construction 3 Transportation Services 2 Dairy 2 Plantations 1 Catering 1 Dining 1 Mason 1 Orchards 7 Town of Ithaca (leaf pickup) 4 Conner Fence 3 FedEx 3 Ithaca Bakery 2 Freihoffer's Bakery 2 Mac Tools 2 NYSEG

- 2 Stroehmann (including 1 semi)
- 2 UPS
- 2 US Mail
- 2 Wharton Masonry
- 1 Each: Advanced Towing, Ag-Trac, Bill Brothers, Cayuga Signs, Cousin's Sea Food, Frito-Lay, Griffin (semi), Hope's Way, Jenson Overhead Door, Loomis-Fargo, Martin's Bakery, Portable John Rental, Superior Disposal, Thomas English Muffins
- 24 Unmarked Trucks

102 Buses

- 55 TCAT
 - 26 Route 31
 - 7 Route 40
 - 7 Route 41
 - 6 "Not In Service"
 - 5 Route 81
 - 4 Route 80
- 42 School Buses
 - 33 Ithaca City School District
 - 5 Candor
 - 3 TST Boces
 - 1 Lansing
- 2 Unlabeled Buses
- 1 Bernie Bus Service
- 1 Gadabout
- 1 Tioga Transport

199 Total Vehicles Recorded

* For purposes of this survey, "overweight" was defined as any truck with six or more tires. Legally, any truck in excess of five tons registered weight is considered to be overweight.

APPENDIX IV

Pedestrian Facilities, Existing Conditions, June 2001

This document describes existing sidewalks and walkways in the Forest Home area. They are organized here according to ownership, and their location shown by colored lines on the accompanying map. Numbers on the map correspond to descriptions in this narrative.

Informal Dirt and Gravel Walkways in Forest Home (Shown on Map in Green)

There are informal, dirt and gravel walkways along many of the roads in Forest Home. These walkways vary in width from four feet to less than 18 inches; surface conditions vary from excellent to poor. These informal walkways receive no maintenance, other than from an occasional volunteer effort to pick up trash, trim encroaching bushes or put gravel in muddy spots.

- 1. An informal gravel walkway runs along the west side of Judd Falls Road, separated from the road by a concrete curb-and-gutter section. This walkway varies in width, but is mostly 3 to 3½ ft wide. For most of its length, it is graded 4 ft wide from the back of the curb, but only the portion closer to the road is walked on. At its southern end, this walkway connects to Cornell's asphalt sidewalk which leads up to Tower Road. At its northern end, this walkway connects to the informal walkway which runs along the northern edge of Forest Home Drive. There are no curb cuts at McIntyre Place or Forest Home Drive, and the crosswalk at Forest Home Drive is poorly marked with faded paint.
- 2. An informal walkway runs along the northern edge of Forest Home Drive from the intersection with Judd Falls Road to the intersection with the Byway near the downstream bridge. It has a good stone dust surface approximately four feet wide, and is separated from the road with a concrete curb-and-gutter section. At its western end it terminates in a gravel parking lot for the Forest Home Building (130 Forest Home Drive), but pedestrians can continue on across the undelineated gravel and blacktop to the end of the Plantations walkway along Beebe Lake. (As of this writing, Cornell Plantations [new owner of 130 Forest Home Drive] is in the process of extending the curb and informal gravel walkway from 136 Forest Home Drive west to the Byway.) Pedestrians can also cross Forest Home Drive to connect to the informal walkway which runs along the western side of Judd Falls Road. The eastern end of this section of the Forest Home Drive walkway terminates at the Byway, with a connection to the concrete sidewalk which leads to the wooden pedestrian walkway on the downstream bridge.

- 3. An informal walkway runs along the northern edge of Forest Home Drive from Pleasant Grove Road to the upstream bridge. Construction and condition of the walkway vary greatly along its length. Near Pleasant Grove Road the walkway is merely a wide place on the shoulder of the road. Closer to Warren Road, in front of 216 Forest Home Drive, the walkway becomes separated from the road via a stone curb, then becomes a real concrete sidewalk. Beyond the Chapel, the deteriorating concrete sidewalk is separated from the roadway by a grass strip with bushes. As the walkway approaches the upstream bridge, the surface turns to dirt, then the walkway joins the road shoulder. In front of 236 Forest Home Drive, at the approach to the upstream bridge, the shoulder disappears, and pedestrians are forced out onto the pavement. Once on the bridge, there is a wooden pedestrian walkway which is maintained by the Town of Ithaca. At the other (Pleasant Grove Road) end of this section of the Forest Home Drive walkway, a very faded crosswalk painted across Pleasant Grove Road connects to the concrete sidewalk which leads to the wooden walkway on the downstream bridge.
- 4. An informal walkway runs along the eastern side of Warren Road, from Forest Home Drive to Crest Lane. It is separated from the road by a granite curb, and is in a state of disrepair, with an eroded surface, and shrubs crowding pedestrians toward the road. Pedestrians tend to walk close to the curb, even though sections of the walkway are graded up to six feet wide. The narrowest section is only 18 inches wide, where the steep bank to the east is slumping onto the walkway. Additional narrow spots occur where raised manholes partially block the walkway. At the foot of the hill, the walkway ducks behind the guiderail, then connects to the walkway which runs along Forest Home Drive. At the top of the hill, the walkway terminates at Crest Lane. There are no curb cuts at Crest Lane or Halcyon Hill Road.

Cornell Sidewalks and Walkways Surrounding Forest Home (Shown on Map in Red)

Forest Home is completely surrounded by lands belonging to Cornell University. Most of this land is under the control of Cornell Plantations, the rest is Cornell Golf Course. Three Cornell sidewalks and walkways connect directly to Forest Home walkways. The university regularly maintains its sidewalks and walkways, including plowing snow and spreading salt in the winter.

- 5. A paved sidewalk extends along the west side of Judd Falls Road from Tower Road on campus to the Plantations' Lewis Headquarters Building (100 Judd Falls Road) in Forest Home. At this point, Cornell's sidewalk merges into the informal neighborhood walkway; it becomes a bit narrower, the surface material changes from asphalt to gravel, and University maintenance stops.
- 6. A Plantations trail crosses Judd Falls Road just above Ruth Mahr's house (103 Judd Falls Road), heading east from the Lewis Headquarters Building into the Wildflower Garden. This path crosses Judd Falls at an unmarked pedestrian crossing.

- 7. A Plantations gravel walkway runs along Forest Home Drive from central campus to Forest Home. For much of this route, it is not immediately adjacent to Forest Home Drive, but follows its own alignment, part way down the bank toward Beebe Lake. The one section where it is immediately adjacent to Forest Home Drive is where the roadway corridor is very wide and straight, roughly between Plantations Road and McIntyre Place. This pathway terminates at the Byway. Pedestrians then cross the Byway, and walk across the paved and gravel parking areas in front of the Forest Home Building (130 Forest Home Drive) to the informal gravel walkway which begins in front of 136 Forest Home Drive. As previously mentioned, Cornell Plantations is installing a new curb-and-gutter section in front of 130 Forest Home Drive, with an informal gravel walkway located immediately behind the curb. It is unclear whether the University will maintain this section of walkway once it has been built.
- Plantations is in the planning stages for a new path which would connect the Lewis Headquarters Building (100 Judd Falls Road) with lands east of Caldwell Road. A specific alignment has not yet been agreed upon, but it may more or less follow the Plantations Road corridor. The question of where to cross Caldwell Road has not yet been decided. If it crosses near Forest Home Drive, it could tie into the informal network of walkways in Forest Home via a crosswalk leading to the upstream bridge.

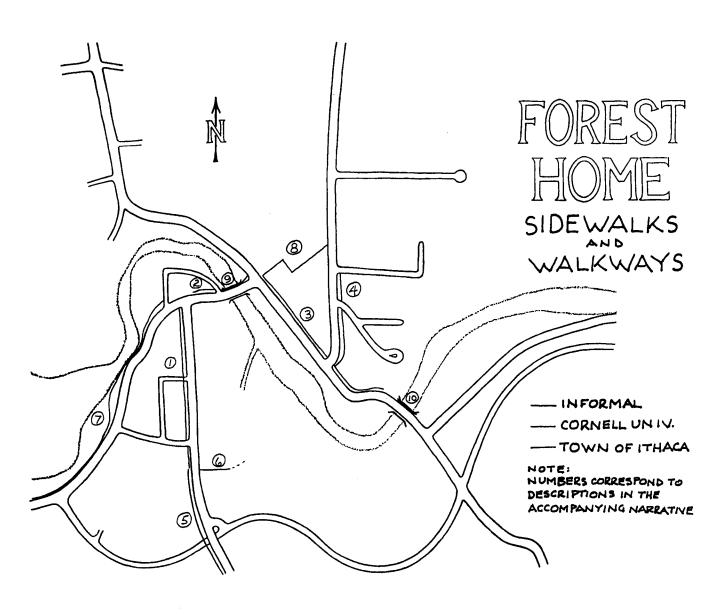
Town of Ithaca Sidewalks and Walkways in Forest Home (Shown on Map in Blue)

The Town of Ithaca owns and maintains three sections of sidewalk or walkway within Forest Home. This maintenance includes plowing snow and spreading salt in the winter. The town assumes no responsibility for any maintenance of the informal gravel walkways in Forest Home.

- 8. The Forest Home Walkway is a Town trail which extends from the downstream bridge to just north of 122 Warren Road. At the lower (downstream bridge) end of this formal walkway, it ties in with the informal walkway along Forest Home Drive at the crosswalk across Pleasant Grove Road. At the upper (Warren Road) end, it simply terminates at Warren Road. There is no crosswalk to connect to the informal Warren Road walkway, and there are no pedestrian facilities on Warren Road north of this point.
- 9. The Town regularly maintains the wooden walkway on the downstream bridge, as well as the concrete sidewalks which lead up to it. On both ends of this bridge, the concrete sidewalks tie in to the informal walkways in the area.
- 10. The Town also regularly maintains the wooden walkway on the upstream bridge. On the northwesterly end of this bridge the walkway is isolated from the informal walkway along Forest Home Drive by a section of road on which there are no pedestrian facilities (in front of 236 Forest Home Drive). On the southeasterly end of the bridge, the walkway quickly merges with the shoulder of the road. There are no further pedestrian facilities to the east of the upstream bridge.

Figure A-IV-1

Locations of Existing Pedestrian Facilities, June 2001



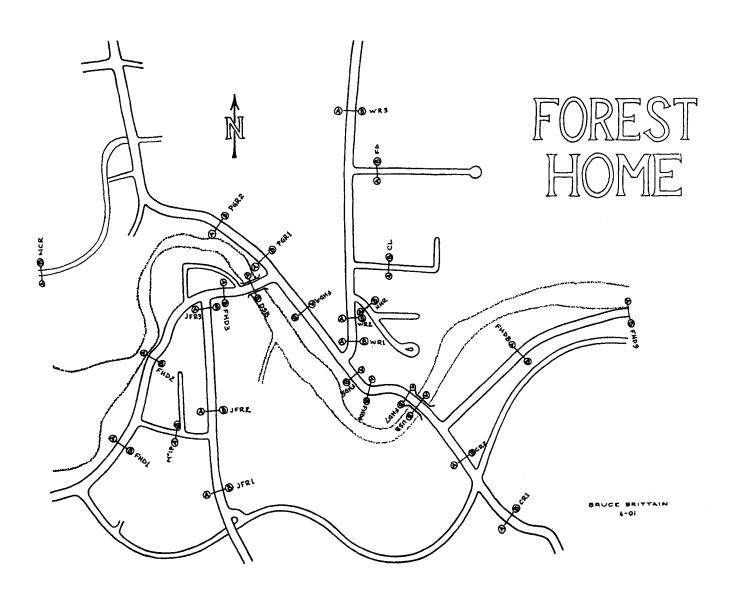
APPENDIX V

Roadway Inventory, Existing Conditions, 2001

This Appendix presents roadway cross sections recorded at 26 key locations in the Forest Home community.

Figure A-V-1

Locations Assessed for Roadway Inventory



Road Name FOREST HOME DRIVE	Code FHD1
Location WIDE STRAIGHT STRE	tal Along BEEBE LAKE
Road Ownership TOWN	Gradient LEVEL %
ROW Width 50 ft	Condition CRACKED, PATCHED-FAIR
Posted Speed Limit mph	Evening Peak Hour 170 vph
Est 85th Percentile Speedmph	Estimated Daily Countvpd
Cross Section: Facing NE	
Awarkway	B
***************************************	2 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
Pavement Width 22'/0" ft	
Curb-to-Curb Width ft	
Curb-to-Curb width It	
SIDE A	SIDE B
Striped Lane Widthft	Striped Lane Width ft
	Builboa Baile Wildell 10
•	Inner Shoulder Widthft
Inner Shoulder Width ft	Inner Shoulder Widthft
Inner Shoulder Width ft Inner Shoulder Material	
Inner Shoulder Width ft Inner Shoulder Material Outer Shoulder Width ft Outer Shoulder Material	Inner Shoulder Width 2 ft Inner Shoulder Material 4246
Inner Shoulder Width ft Inner Shoulder Material Outer Shoulder Width ft Outer Shoulder Material	Inner Shoulder Widthft Inner Shoulder Material _GRAVEL_ Outer Shoulder Widthft
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Collected 6-17-01

By D+8 BRITTAN

Road Name FOREST HOME I	PINE	Cod	e FHDZ	,
Location NARROW SPOT ON CU	rve, nem	SACKETT	STONE 1	BRIXE
Road Ownership TOWN	Gradi	ent	_3	%
	ft Condi	tion FAR-C	PACKED,	PATCHED
Posted Speed Limit 25 _ m		ng Peak Hour		
Est 85th Percentile Speed m		ated Daily Co	unt	vpd
Cross Section: Facing NE	-			
(Im				DIRT (
A) [(1
18 17 16 15 14 13 12 11 10 9 8 7 6 5 4		111111111	, , , , , , , ,	111111111
		4 5 6 7 8	9 10 11 12	13 17 13 16 11
Pavement Width 1B' 10"	ft			
Pavement Width 1B' 10"				
Pavement Width 1B' 10"	ft	SIDE	В	
Pavement Width Pavement Width SIDE A	ft ft	SIDE ed Lane Width		ft
Pavement Width IB' 10" Curb-to-Curb Width SIDE A Striped Lane Width	ft ft _ft Stripe	·-	ı	
Pavement Width 18' 10" Curb-to-Curb Width SIDE A Striped Lane Width Inner Shoulder Width	ft ft ft Stripe ft Inner	d Lane Width	th	ft
Pavement Width	ft Stripe ft Inner Inner	ed Lane Width Shoulder Wid Shoulder Mat	ı lth terial	ft
Pavement Width	ft Stripe ft Inner Inner ft Outer	ed Lane Width Shoulder Wid Shoulder Mat Shoulder Wid	1 lth terial dth	ft ft
Pavement Width	ft Stripe ft Inner Inner ft Outer	ed Lane Width Shoulder Wid Shoulder Mat Shoulder Wid Shoulder Ma	terial terial dth	ft ft
Pavement Width	ft Stripe ft Inner Inner ft Outer Outer Walk	ed Lane Width Shoulder Wid Shoulder Mat Shoulder Wid Shoulder Mat way Location	terial terial dth terial	ft ft
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Collected 6-17-01
By B+D BRITTAIN

Road Name FOREST HOME DRIVE	Code <u>FHD 3</u>
Location AT 140 FORES (H	ome drive
Road Ownership TOWN	Gradient
ROW Width 50 ft	Condition 400D
Posted Speed Limit25_ mph	Evening Peak Hour 705 vph
Est 85th Percentile Speed mph	Estimated Daily Count _7320 vpd
Cross Section: Facing EAST	
Cross Section: Facing	
WALKWAY	DIRT
Washing Transferred	
7 16 15 M 13 12 H 10 9 8 7 6 5 4 3 2 1 (C 234567891011121314 <i>1</i> 511
Pavement Widthft	
Curb-to-Curb Width 21'2" ft	
Curb-to-Curb Width 212 ft	
	SIDE R
SIDE A	SIDE B Stringd Lane Width ft
SIDE A Striped Lane Width ft	Striped Lane Width ft
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SIDE A Striped Lane Widthft Inner Shoulder Widthft Inner Shoulder Materialft Outer Shoulder Widthft	Striped Lane Width ft Inner Shoulder Width ft Inner Shoulder Material CONC GUTTER Outer Shoulder Width ft
SIDE A Striped Lane Widthft Inner Shoulder Widthft Inner Shoulder Materialft Outer Shoulder Widthft Outer Shoulder Material	Striped Lane Width ft Inner Shoulder Width 18" ft Inner Shoulder Material CONC GUTTER Outer Shoulder Width ft Outer Shoulder Material
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SIDE A Striped Lane Widthft Inner Shoulder Widthft Inner Shoulder Materialft Outer Shoulder Widthft Outer Shoulder Widthft Outer Shoulder Material Walkway Location MAGED SACK OF CHASS Walkway Widthft Walkway Material	Striped Lane Width ft Inner Shoulder Width ft Inner Shoulder Material CONC GUTTEN Outer Shoulder Width ft Outer Shoulder Material Walkway Location Walkway Width ft Walkway Material

Collected 6-17-01

By BY D BRITINN

Road Name FOREST HOME DI	RIVE Code DSB
Location ON DOWNSTREAM	1 BRIDGE
BUDGE Road Ownership COUNTY	Gradient LEVEL %
ROW Width 50 ft	Condition <u>600D</u>
Posted Speed Limit25 mph	Evening Peak Hour 705 vph
Est 85th Percentile Speed mph	Estimated Daily Count _7320 vpd
Cross Section: Facing NE	
A I ww E E	1480 SS
18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1	(C 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
DECK Pavement Width 16 ft	
Curb-to-Curb Width 14'4" ft	
CINCESTI - 48-	
SIDE A	SIDE B
Striped Lane Widthft	Striped Lane Width ft
Inner Shoulder Width ft	Inner Shoulder Widthft
Inner Shoulder Material	Inner Shoulder Material
Outer Shoulder Widthft	Outer Shoulder Width ft
Outer Shoulder Material	Outer Shoulder Material
Walkway Location OUTSIDE TRUSS	Walkway Location
Walkway Width 4'1/2" ft	Walkway Width ft
Walkway Material WOOD	Walkway Material
Walkway Condition	Walkway Condition
Other SOME LOOSE WALKWAY DECK BOARDS	Other
Comments:	
BRIDGE HAS NO POSTED WE	IGIT LIMIT

Collected 6-17-01
By D+8 BRITTAIN

Road Name FOREST HOME DR	Code FHD4
Location AT WATT POLE ACROSS F	PLOM 214 FOREST HOME DR
Road Ownership TOWN	Gradient Z %
ROW Width 50 ft	Condition FAIR - CRACKED+ PATCHED
Posted Speed Limit 25 mph	Evening Peak Hour vph
Est 85th Percentile Speed mph	Estimated Daily Countvpd
Cross Section: Facing 5E	
A	B
18 17 16 15 H 13 12 II 10 9 8 7 6 5 4 3 2 1 Q	2 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
Pavement Width 20'4" ft	
Curb-to-Curb Width ft	
SIDE A Striped Lane Width 10'2" ft Inner Shoulder Width 7" ft Inner Shoulder Material PANED Outer Shoulder Width 3'4" ft Outer Shoulder Material GRAVEL Walkway Location 13 ON SHOULDER Walkway Width (3'4") ft Walkway Material (GRAVEL) Walkway Condition GOOD Other	SIDE B Striped Lane Width 9'4" ft Inner Shoulder Width 4" ft Inner Shoulder Material PANSO Outer Shoulder Width 12" ft Outer Shoulder Material GRANSL Walkway Location Walkway Width ft Walkway Material Walkway Material Walkway Condition Other GRASS SHOULDER BSYOND GRANSL SHOULDER
Comments:	

Collected 6-17-01 By D+B BRITTAN

	- COST HOME DRIV	VE Code FHD5	
	Road Name FOREST HOME DRIV Location BET. MANHOLE + HYDR	Ant Ar CHAPE	
		Called LEVEL OF	
	Road Ownership TOWN	Gradient LEVEL %	
	ROW Widthft	Condition CRACKED + PATCHED	
	Posted Speed Limit25_ mph	Evening Peak Hour 550 vph	
	Est 85th Percentile Speed mph	Estimated Daily Count <u>4335</u> vpd	
	Cross Section: Facing		
(A)	(0ASS		B
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10	Pavement Width 21 ft		
	Curb-to-Curb Width ft		
	Curb-to-Curb Widdi		
	SIDE A	SIDE B	
	-	SIDE B Striped Lane Width ft	
	SIDE A Striped Lane Widthft Inner Shoulder Widthft	-	
	Striped Lane Widthft	Striped Lane Width ft	
	Striped Lane Widthft Inner Shoulder Widthft Inner Shoulder Material Outer Shoulder Width 9ft	Striped Lane Width ft Inner Shoulder Width ft	
	Striped Lane Widthft Inner Shoulder Widthft Inner Shoulder Material Outer Shoulder Widthft Outer Shoulder Material 4RASS	Striped Lane Width ft Inner Shoulder Width ft Inner Shoulder Material DIRT	
	Striped Lane Widthft Inner Shoulder Widthft Inner Shoulder Material Outer Shoulder Widthft Outer Shoulder Material 4RASS	Striped Lane Width ft Inner Shoulder Width ft Inner Shoulder Material DIRT Outer Shoulder Width ft	
	Striped Lane Widthft Inner Shoulder Widthft Inner Shoulder Material Outer Shoulder Widthft Outer Shoulder Material Walkway Location	Striped Lane Width ft Inner Shoulder Width ft Inner Shoulder Material ft Outer Shoulder Width ft Outer Shoulder Material	
	Striped Lane Widthft Inner Shoulder Widthft Inner Shoulder Material Outer Shoulder Widthft Outer Shoulder Material 4RASS Walkway Location BEYOND GRASS Walkway Widthft Walkway Material BLACKTOP	Striped Lane Widthft Inner Shoulder Widthft Inner Shoulder Materialft Outer Shoulder Widthft Outer Shoulder Material	
	Striped Lane Widthft Inner Shoulder Widthft Inner Shoulder Material Outer Shoulder Widthft Outer Shoulder Material 4RASS Walkway Location BEYOND GRASS Walkway Widthft Walkway Material BLACKTOP	Striped Lane Width ft Inner Shoulder Width ft Inner Shoulder Material ft Outer Shoulder Width ft Outer Shoulder Material Walkway Location Walkway Width ft Walkway Material Walkway Condition	
	Striped Lane Widthft Inner Shoulder Widthft Inner Shoulder Material Outer Shoulder Widthft Outer Shoulder Material Walkway Location	Striped Lane Width ft Inner Shoulder Width ft Inner Shoulder Material ft Outer Shoulder Width ft Outer Shoulder Material Walkway Location Walkway Width ft Walkway Material Walkway Condition Other 4×4" PT WOOD CURB	
	Striped Lane Widthft Inner Shoulder Widthft Inner Shoulder Material Outer Shoulder Widthft Outer Shoulder Material GRASS Walkway Location BEYOND GRASS Walkway Width ft Walkway Material BIACKTOP Walkway Condition DETERIORATED	Striped Lane Width ft Inner Shoulder Width ft Inner Shoulder Material DIRT Outer Shoulder Width ft Outer Shoulder Material Walkway Location Walkway Width ft Walkway Material Walkway Condition Other OTHERS	
	Striped Lane Widthft Inner Shoulder Widthft Inner Shoulder Material Outer Shoulder Widthft Outer Shoulder MaterialGt Outer Shoulder MaterialGRASS Walkway Location	Striped Lane Width ft Inner Shoulder Width ft Inner Shoulder Material ft Outer Shoulder Width ft Outer Shoulder Material Walkway Location Walkway Width ft Walkway Material Walkway Condition Other 4×4" PT WOOD CURB	
	Striped Lane Widthft Inner Shoulder Widthft Inner Shoulder Material Outer Shoulder Widthft Outer Shoulder Material GRASS Walkway Location BEYOND GRASS Walkway Width ft Walkway Material BIACKTOP Walkway Condition DETERIORATED	Striped Lane Width ft Inner Shoulder Width ft Inner Shoulder Material DIRT Outer Shoulder Width ft Outer Shoulder Material Walkway Location Walkway Width ft Walkway Material Walkway Condition Other OTHERS	

Collected 6-17-01

By B+D BRITTMA

Road Name FOREST HOME DRIVE	Code FALS
Location SHARP CORNER AT S	CURVE
Road Ownership	Gradient <u>LEVEL</u> %
ROW Width 50 ft	Condition OKAY
Posted Speed Limit25_ mph	Evening Peak Hour 550 vph
Est 85th Percentile Speed mph	Estimated Daily Count 4335 vpd
Cross Section: Facing EAST	
<u>~~</u>	
18 17 16 15 M 13 12 II 10 9 8 7 6 5 4 3 2 1 9	£ 1 2 3 4 5 6 7 8 9 10 11 12 15 1 7 15 16 17
Pavement Width 184" ft	
Curb-to-Curb Width ft	
SIDE A	SIDE B
Striped Lane Width ft	Striped Lane Width ft
Inner Shoulder Widthft,	Inner Shoulder Width 8" ft
Inner Shoulder Material BASE MATL	Inner Shoulder Material GRAVEL
Outer Shoulder Widthft	Outer Shoulder Width ft
Outer Shoulder Material	Outer Shoulder Material GRASS 6510ND
Walkway Location 2' BACK of CONC WALL	- Walkway Location
Walkway Widthft	Walkway Width ft
Walkway Material CONCRETE	Walkway Material
Walkway Condition POOR	Walkway Condition
Other DETERIORATING Z'HIGH	Other
CONCRETE RETAINING WALL	
Comments:	
SUPER ELEVATION ON CURVE	-
10mph Advisory Speed Lir	MIT IN BOTH DIRECTIONS
	4 17 01
	Collected 6-17-01
	By D+B BRITTAN

	Road Name FOREST HOME DRIN	<u>'E</u> Code	AD7	BY
	Location BETWEEN GUIDERALLS	AT APPROACH TO	BRIDGE	MAILBOX
	Road Ownership TOWN	Gradient LEVE	<u>=</u> L %)
	ROW Width 50 ft	Condition PATCHED,	CRACKED-70	OR
	Posted Speed Limit 25 mph	Evening Peak Hour	550 vph	
	Est 85th Percentile Speed mph	Estimated Daily Count	<i>4335</i> vpd	
	Cross Section: Facing 5E			
	Πα		d)	
	1)			B
\mathcal{A}	R		 .	U
18 1	7 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 Q	1 2 3 4 5 6 7 8 9 1	O 11 12 13 14 15 W	5 17 18
	Pavement Width ft			
	Curb-to-Curb Width ft			
	GUIDERAIL-TO- GUIDERAIL SIDE A	SIDE B		
	Striped Lane Widthft	Striped Lane Width	ft	
	Inner Shoulder Width ft	Inner Shoulder Width		
	Inner Shoulder Material	Inner Shoulder Material		
	Outer Shoulder Widthft	Outer Shoulder Width		
	Outer Shoulder Material	Outer Shoulder Materia		
	Walkway Location	Walkway Location		
	Walkway Widthft	Walkway Width		
	Walkway Material	Walkway Material		
	Walkway Condition			
	Other FACE OF GUIDERAIL	Walkway Condition Other FACE of GU	DERAIL IF	•
	ANSH WITH EDGE OF PAVEHENT	BACK FROM EDG	E OF PAVEHE	VT
	Comments:			
	44" FROM FACE OF GUIDERAIL TO FACE OF STONE RETAINING	4		
	WALL WALL IS 18" THICK,			
	30" HIGH.			
	WALKWAY DISAFFEARS-	Collec	ted 6-17-0	1
	PEDESTRIANS ARE PORCED	Bv 2	5+D BRITTA	N
	INTO ROAD	~, <u>~</u>		

Road Name FOREST HOME DRIVE	E Code
Location ON UPSTREAM BRIC	og E
RIDGE Road Ownership COUNTY	Gradient LEVEL %
ROW Width 50 ft	Condition 400D
Posted Speed Limit25 mph	Evening Peak Hour550 vph
Est 85th Percentile Speed mph	Estimated Daily Count 4335 vpd
Cross Section: Facing 52 WW	B 2 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
FUIDERAIL - 15-	
GUIDERAL SIDE A	SIDE B
Striped Lane Widthft	Striped Lane Width ft
Inner Shoulder Width ft	Inner Shoulder Widthft
Inner Shoulder Material	Inner Shoulder Material
Outer Shoulder Widthft	Outer Shoulder Width ft
Outer Shoulder Material	Outer Shoulder Material
Walkway Location OUTSIDE TRUSS	Walkway Location
Walkway Widthft	Walkway Width ft
Walkway Material	Walkway Material
Walkway Condition 400D	Walkway Condition
Other	Other
Comments: NORTH-WEST-BOUND TRAFFIC HAS 15 mph ADVISORY SPEED LIMIT BRIDGE HAS 15 TON WEIGHT LIMIT,	Collected 6-17-01 By D+B BRITTAIN

Road Name FOREST HOME DR	Code FHD8
Location AT HYDRANT BETWEEN	N 314 AND 316 FOREST HOME DR
Road Ownership 70WN	Gradient LEVEL %
ROW Width 50 ft	Condition VERY GOOD
Posted Speed Limit 25 mph	Evening Peak Hour <u>86</u> vph
Est 85th Percentile Speed mph	Estimated Daily Count vpd
Cross Section: Facing NE	
	()
7161514131211109876543219	2 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
Pavement Widthft	
Curb-to-Curb Width ft	
CIDE	CIDE D
SIDE A	SIDE B
Striped Lane Widthft	Striped Lane Width 9'5" ft
I Ob I.J W. J 2 4	Tanan Chard Jan Width 279 &
Inner Shoulder Width 2 ft	Inner Shoulder Width 2½ ft
Inner Shoulder Material GRAVSL	Inner Shoulder Material GRAVEL
Inner Shoulder Material GENSL Outer Shoulder Widthft	Inner Shoulder Material GRAVEL Outer Shoulder Width ft
Outer Shoulder Material GRAVEL Outer Shoulder Widthft Outer Shoulder Material GRASS BEYOND	Inner Shoulder Material GRAVEL Outer Shoulder Width ft Outer Shoulder Material GRASS SEYONS
Inner Shoulder Material GRAVEL Outer Shoulder Widthft Outer Shoulder Material GRASS BEYOND Walkway Location	Inner Shoulder Material GRAVEL Outer Shoulder Width ft Outer Shoulder Material GRASS 65 YONE Walkway Location
Inner Shoulder Material GRAVEL Outer Shoulder Width ft Outer Shoulder Material GRASS BEYOND Walkway Location ft	Inner Shoulder Material GRAVEL Outer Shoulder Width ft Outer Shoulder Material GRASS 65 YOUL Walkway Location ft Walkway Width ft
Inner Shoulder Material GRAVEL Outer Shoulder Widthft Outer Shoulder Material GRASS BEYOND Walkway Location Walkway Widthft Walkway Material	Inner Shoulder Material GRAVEL Outer Shoulder Width ft Outer Shoulder Material GRASS 65 YOVE Walkway Location ft Walkway Width ft Walkway Material
Inner Shoulder Material GRAVEL Outer Shoulder Width ft Outer Shoulder Material GRASS BEYOND Walkway Location ft	Inner Shoulder Material GRAVEL Outer Shoulder Width ft Outer Shoulder Material GRASS 65 YOUL Walkway Location ft Walkway Width ft

Collected 6-17-01

By D+3 BRITTAIN

Road Name FOREST HOME DRIV	Code FHD9
Location NARROW SPOT AT CORNE	r, just east of forest home such
Road Ownership	Gradient LEVEL %
ROW Width 50 ft	Condition VERY GOOD
Posted Speed Limit55 mph	Evening Peak Hour 85 vph
Est 85th Percentile Speed mph	Estimated Daily Count vpd
Cross Section: Facing <u>EAST</u>	
lh .	
AD	(B)
18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 C	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
Pavement Widthft	
Curb-to-Curb Width ft	
	CIPE D
SIDE A	SIDE B Striped Lane Width 9'5" ft
Striped Lane Width 9'10" ft	Striped Lane Width 7 m
Inner Shoulder Width 8" ft	Inner Shoulder Width Z ft
Inner Shoulder Material PAVEMENT	Inner Shoulder Material GRAVEL
Outer Shoulder Widthft	Outer Shoulder Width 3 ft
Outer Shoulder Material	Outer Shoulder Material 4RASS
Walkway Location	Walkway Location
Walkway Widthft	Walkway Width ft Walkway Material
Walkway Material	Walkway Condition
Walkway Condition Other FACE OF GUIDERAIL IS	Other BASE OF BANK 15 5'
SET BACK I' FROM EDGE OF	FROM FOGE OF PAVEMENT
PAVEMENT	
Comments:	NEW CONCRETE RETAINING WALL IS 51/2' FROM EDGE
7 FROM FACE OF GUIDERAIL	
TO FACE OF STONE RETAINING	OF PAVEMENT AT ITS
	clasest point to road
WALL	
"SPEED ZONE MHEAD ADVISORY	
FOR WEST-BOUND TRAFFIC	Collected 6-17-01
	BY D+B BRITTAIN

Road Name JUDD FAHS ROAD	Code JARI
Location BET. JUG HANDLE + 103 JF	R- AT GRANITE CURBING
Road Ownership 70WN	Gradient
ROW Widthft	Condition 400 \(\triangle \)
Posted Speed Limit 30 mph	Evening Peak Hour <u>635</u> vph
Est 85th Percentile Speed <u>38</u> mph	Estimated Daily Count 6530 vpd
Cross Section: Facing NORTH	
) WALKWAY	GRASS (
8 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 C	1 2 2 4 5 6 7 8 9 10 11 12 13 14 15 14 1
81/16151411312111098/6573214	(2) 7 5 6 7 6 7 16 11 12 13 17 13 16 1
Pavement Width 22'4" ft	
Pavement Width 22'4" ft Curb-to-Curb Width 22'4" ft	
Pavement Width 22'4" ft	SIDE B
Pavement Width 22'4" ft Curb-to-Curb Width 22'4" ft	
Pavement Width 22'4" ft Curb-to-Curb Width 22'4" ft SIDE A	SIDE B
Pavement Width 22'4" ft Curb-to-Curb Width 22'4" ft SIDE A Striped Lane Widthft	SIDE B Striped Lane Width ft
Pavement Width 22'4" ft Curb-to-Curb Width 22'4" ft SIDE A Striped Lane Width ft Inner Shoulder Width ft	SIDE B Striped Lane Width ft Inner Shoulder Width ft Inner Shoulder Material Outer Shoulder Width ft
Pavement Widthft Curb-to-Curb Widthft SIDE A Striped Lane Widthft Inner Shoulder Widthft Inner Shoulder Material Outer Shoulder Widthft Outer Shoulder Material	SIDE B Striped Lane Width ft Inner Shoulder Width ft Inner Shoulder Material Outer Shoulder Width ft Outer Shoulder Material
Pavement Width 22'4" ft Curb-to-Curb Width 22'4" ft SIDE A Striped Lane Width ft Inner Shoulder Width ft Inner Shoulder Material Outer Shoulder Material Walkway Location IMMED BACK OF CURB	SIDE B Striped Lane Width ft Inner Shoulder Width ft Inner Shoulder Material Outer Shoulder Width ft Outer Shoulder Material
Pavement Width 22'4" ft Curb-to-Curb Width 22'4" ft SIDE A Striped Lane Width ft Inner Shoulder Width ft Inner Shoulder Material Outer Shoulder Material Walkway Location IMMED BACK OF CURB	SIDE B Striped Lane Widthft Inner Shoulder Widthft Inner Shoulder Material Outer Shoulder Widthft Outer Shoulder Material Walkway Location
Pavement Width 22'4" ft Curb-to-Curb Width 22'4" ft SIDE A Striped Lane Width ft Inner Shoulder Width ft Inner Shoulder Material ft Outer Shoulder Material ft Walkway Location IMMED BACK OF CURB Walkway Width 4'9" ft	SIDE B Striped Lane Width ft Inner Shoulder Width ft Inner Shoulder Material Outer Shoulder Width ft Outer Shoulder Material Walkway Location Walkway Width ft
Pavement Width 22'4" ft Curb-to-Curb Width 22'4" ft SIDE A Striped Lane Width ft Inner Shoulder Width ft Inner Shoulder Material Outer Shoulder Material Walkway Location IMMED BACK OF CURB	SIDE B Striped Lane Widthft Inner Shoulder Widthft Inner Shoulder Material Outer Shoulder Widthft Outer Shoulder Material Walkway Location

Collected 6-17-01

By B+D BRITTAIN

Road Name JUDD FALLS ROAD	Code JPR 2
Location BETWEEN 110+112	JUDD FALLS ROAD
Road Ownership	Gradient / %
ROW Width 30 ft	Condition 4001
Posted Speed Limit 30 mph	Evening Peak Hour 600 vph
Est 85th Percentile Speed mph	Estimated Daily Countvpd
Cross Section: Facing NORTH	
-	
2A53 WW	
7 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 Q	2 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
Pavement Width 18'4" ft	
Curb-to-Curb Width 21 ft	
	CALCAL D
SIDE A	SIDE B
Striped Lane Width 9 ft	Striped Lane Width 95 ft
Inner Shoulder Width 15" ft	Inner Shoulder Width 15" ft
inner Snoulder Material CONE AUT = 1	Inner Shoulder Material CONC GUTTE
Outer Shoulder Widthft	Outer Shoulder Width ft
Outer Shoulder Material	Outer Shoulder Material
Walkway Location MMBD BACK of CURB	Walkway Location
Walkway Widthft	Walkway Width ft
Walkway Material 4RAVEL	Walkway Material
Walkway Condition 400D	Walkway Condition
Other	Other

Collected 6-17-01
By D+B BRITTAN

Road Name JUDD FALLS ROAD	Code	JFR3	
Location AT APPROACH TO FORE	ST HOME DR IN		TION
Road Ownership	Gradient	10	%
ROW Width 30 ft	Condition 6	200	
Posted Speed Limit 30 mph	Evening Peak Hour _	600	_ vph
Est 85th Percentile Speed mph	Estimated Daily Cour	ıt	_ vpd
Cross Section: Facing NORTH			
-			
			第 (B)
O S ww			
18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 C	1 2 3 4 5 6 7 8 9	10 11 12 13	14 <i>15</i> 16 17 18
18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 ¢ Pavement Width ft			
Curb-to-Curb Width 21 ft			
SIDE A	SIDE B		
Striped Lane Width 83 ft	Striped Lane Width _	103	ft
Inner Shoulder Width/5"ft	Inner Shoulder Width	<u></u>	ft
Inner Shoulder Material CONC 4077ER	Inner Shoulder Mater	ial conc c	WTTER
Outer Shoulder Widthft	Outer Shoulder Width		
Outer Shoulder Material	Outer Shoulder Mater	ial	
Walkway Location IMMED BACK OF CURB	Walkway Location		
Walkway Width 31/2 ft	Walkway Width		
Walkway Material GRAVEL	Walkway Material		
Walkway Condition OKAY	Walkway Condition_	73	
Other STONE RETAINING WALL	Other STONE RE		
IMMED. ADJACENT TO WALK-	20 IN BACK FR		
WAY. WALL IS 3 FT TALL, Comments: 1/2 FT THICK	CURB. WALL I	5 Zf7 7	ALL,
Confidence: 172 F Confidence	1/2 FT THICK		

Collected 6-17-01
By D+BBRITTAIN

Road Name Mc1	NTYRE PLACE	Code	MEIP
Location Just	WEST OF SIDE	LALLEY	
Road Ownership		Gradient &	%
ROW Width		Condition BRAND	
Posted Speed Limit		Evening Peak Hour	
Est 85th Percentile	Speed mph	Estimated Daily Count	
Cross Section: Faci	ng WEST		
(N) 17 16 15 14 13 12 11 10 5	87654321Q	1 2 3 4 5 6 7 8 9 10	B 0 11 12 13 14 15 16 17 18
Pavement Width		•	
Curb-to-Curb Width			
SIDE A		SIDE B	_
Striped Lane Width		Striped Lane Width	ft
Inner Shoulder Wid		Inner Shoulder Width _	
Inner Shoulder Mate		Inner Shoulder Material	
Outer Shoulder Wid		Outer Shoulder Width _	
Outer Shoulder Mat		Outer Shoulder Material	
Walkway Location		Walkway Location	
Walkway Width		Walkway Width	
Walkway Material		Walkway Material	
Walkway Condition		Walkway Condition	
Other WOODEN FE		Other BUSHES LO	-C BALLAGENT
30 OACE PROFILE	EDGE OF PAVEMENT	BACK FROM EDGE	OF PAVEMENT
Comments: SHOULDER 15 5 PAVEMENT HELD ROAD WAS JUS PRESUMABLY	1/2" BELOW 1H7. 57 PAVED THIS PA BE FILLED SOC	ST WEEK, SHOULDS	:R3 WILL
		Collect	ed 6-17-01
		By D	+BBRITTAIN

•	_
Road Name PLEASANT GROVE T	ROAD Code PARI
Location NARROWEST PINCH PC	INT AT BARN AT 200 FAD
Road Ownership COUNTY	Gradient %
ROW Width 50 ft	Condition GOOD CRACKED MANG &
Posted Speed Limit 30 mph	Evening Peak Hour 600 vph
Est 85th Percentile Speed mph	Estimated Daily Count 5915 vpd
Cross Section: Facing N W	1
Closs Section: Facing 14 44	BARN
(A)	(D)
	2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
18 17 16 15 H 13 12 11 10 9 8 7 6 5 4 3 2 1 9	2 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
Pavement Width24'5" ft	
Curb-to-Curb Width ft	
SIDE A	SIDE B
Striped Lane Widthft	Striped Lane Width 10'4" ft
Inner Shoulder Widthft	Inner Shoulder Width 8" ft
Inner Shoulder Material PANEMENT	Inner Shoulder Material PAVEMENT
Outer Shoulder Width 1 ft	Outer Shoulder Width ft
Outer Shoulder Material DIRT	Outer Shoulder Material It
Walkway Location	
	Walkway Location
Walkway Widthft Walkway Materialft	Walkway Width ft Walkway Material
	Walkway Condition
Walkway ConditionOther FACE_ of GUIDERAIL IS	Other AT NARROWEST CONSTRICTION,
I FT BACK FROM EDGE OF	BARN IS 4FT BACK PROM
PAVEMENT	WHITE EDGE LINE
Comments:	Rectivities and the same

Collected 6-17-01

By 3+D BRITTAN

Road Name PLEASANT GROVE	
Location AT "STOP AHEAD" SIGN	HALF WAY UP HILL
Road Ownership COUNTY	Gradient 8 %
ROW Widthft	Condition OKAY SOME SPALING
Posted Speed Limit 30 mph	Evening Peak Hour 600 vph
Est 85th Percentile Speed 33 mph	Estimated Daily Count 5915 vpd
Cross Section: FacingNW	
B	
_	Q 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
Pavement Width 30 ft	
Curb-to-Curb Width ft	
SIDE A	SIDE B
Striped Lane Width 11'3" ft	Striped Lane Width 117" ft
Inner Shoulder Width 3'1" ft	Inner Shoulder Width 4 ft
Inner Shoulder Material PMEMENT	Inner Shoulder Material PAVEMENT
Outer Shoulder Width ft	Outer Shoulder Width 2 ft
Outer Shoulder Material	Outer Shoulder Material GRASS GENE
Walkway Location	Walkway Location
Walkway Widthft	Walkway Widthft
Walkway Material	Walkway Material
Walkway Condition	•
	Walkway Condition
Other FACE OF GUIDERAIL	-
	Other
Other FACE OF GUIDERAIL 15" BACK-PROM EDGE OF PANEMENT	Other
Other FACE OF GUIDERAIL 15" BACK FROM EDGE OF	Other
Other FACE OF GUIDERAIL 15" BACK-PROM EDGE OF PANEMENT	Other
Other FACE OF GUIDERAIL 15" BACK-PROM EDGE OF PANEMENT	-

Collected 6-17-01

By 3+0 321774N

(CRADIT FARM DRIVE)

	Road Name NEW	ROAD THROUGH	HOKTH CAMP	US Code _	NCK	
	Location A7	Posswalk on	STEEPEST	PART	OF HIL	
		CORNELL UNIX	Gradient	10)	
		ft	Condition _	NE	W	
	Posted Speed Limi	it NONE mph	Evening Pea	k Hour		vph
		Speed mph	Estimated D			
	Cross Section: Fac	cing WEST				
		-				
\						(
V						·
18 1	7 16 15 14 13 12 11 10	98765432	1 C 2 3 4 5	6 7 8 9	10 11 12 1	3 14 15 16 1
		30 ft				
	Curb-to-Curb Wid					
	Cuib to Cuib Wid					
	SIDE			SIDE B	_	
	Striped Lane Widt	h 15 ft	Striped Lane	Width	15	ft
		dthft	Inner Should	der Width		ft
		iterial	Inner Should	ler Materia	al	
		idthft	Outer Shoul			
		aterial	Outer Shoul			
		1	Walkway Le			
	•	ft	Walkway W			
	-		Walkway M			
	•	on	Walkway C			
	•		Other			
	O 41101		· · · · · · · · · · · · · · · · · · ·			

Road Name WARREN ROAD	Code WRI
Location JUST ABOVE LOWER CURVE	AT NAPROWEST PART OF WW
Road Ownership COUNTY	Gradient /3 %
ROW Width 50 ft	Condition CRACKED
Posted Speed Limit 30 mph	Evening Peak Hour 600 vph
Est 85th Percentile Speed mph	Estimated Daily Count 4960 vpd
Cross Section: Facing NORTH	Let
(A) P	BANK B
18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 C	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
Pavement Widthft	
Curb-to-Curb Width 22 ft	
CALDAL V	CITATO TO
SIDE A	SIDE B
Striped Lane Width 9'10" ft	Striped Lane Width 96 ft
Inner Shoulder Width Z ft	Inner Shoulder Width 8" ft
Inner Shoulder Material PAVEMENT	Inner Shoulder Material PNEMENT
Outer Shoulder Widthft	Outer Shoulder Width ft
Outer Shoulder Material Walkway Location	Outer Shoulder Material Walkway Location IMMED BACK OF CURB
Walkway Widthft	Walkway Width 18" ft
Walkway Material	Walkway Material GRAVEL, DIRT
Walkway Condition	Walkway Condition POOR
Other GUIDERAL IS SETBACK	Other STEAP DRT BANK IS
12" FROM FACE OF CURB	SLUMPING ONTO WALKWAY
Comments:	
SOUTH-BOUND (DOWN-HILL) TRAFFIC HAS 10 MPL	
TRAFFIC HAS 10 MPL	
ADVISORY SPEED LIMIT	

Collected 6-17-01

By D+ BB21TTAIN

-	WARREN RO	<u>سيار</u>			WKK	
Location	JUST BELOW	108	WARREN	ROAD		
Road Owners	ship COUNTY		Gradient			%
ROW Width		_ft	Condition	CRAC	KED	
Posted Speed	Limit <u>30</u> r	nph	Evening Pea	k Hour	600	_ vph
-	centile Speed n	_	Estimated Da			
Cross Section	n: Facing NORTH					_
(h					<u>ww</u> _	
	11 10 9 8 7 6 5 4		1 2 3 4 5	6 7 8 9	10 11 12 13	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Pavement Wi	idth 22	_ ft				
Curb-to-Curb	Width <u>22</u>	ft				
	CIDE A			ome n		
Chimad I	SIDE A Width 9'8"	ft	Stringd I and	SIDE B	9'5"	ft
Surped Lane	widin 70	_Il ft	Striped Lane Inner Should	widii	· · · · · · · · · · · · · · · · · · ·	_ It ft
	er Width <u>2</u> er Material <i>PAVEME</i>		Inner Should			
	ler Width		Outer Should			
	ler Material		Outer Should			10
	cation		Walkway Lo			1 <u>558</u>
•	dth		Walkway W	idth	2.	ft
-	aterial		Walkway Ma			
			Walkway Co		POOR - OVE	RGO
•	ndition		TI ALL WAY C	ngiuon i		
Walkway Co	ndition ERAL SETBACK 1.	B"	Other			

Road Name WARREN ROAD	Code WR3
Location AT ENTRANCE SK	N
Road Ownership COUNTY	Gradient
ROW Width 50 ft	Condition FAR-CRACKED
Posted Speed Limit mph	Evening Peak Hour 600 vph
Est 85th Percentile Speed38 mph	Estimated Daily Count 4960 vpd
Cross Section: Facing NORTH	
7 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 9	2 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
Pavement Width 20'10" ft	
Curb-to-Curb Width ft	
SIDE A	SIDE B
Striped Lane Widthft	Striped Lane Width ft
Inner Shoulder Width 6" ft	Inner Shoulder Widthft
Inner Shoulder Material PAVEMENT	Inner Shoulder Material PAVEMENT
Outer Shoulder Width 4 ft	Outer Shoulder Width ft
Outer Shoulder Material CHIP SEAL	Outer Shoulder Material CHP SEAL
Walkway Location	Walkway Location
Walkway Widthft	Walkway Width ft
Walkway Material	Walkway Material
Walkway Condition	Walkway Condition
Other	Other

Collected 6-17-01
By 5+B BRITTAIN

Road Name HALCYON H	HUL ROA	Code HHR	
Location BY 101 HALC		L ROAD	
Road Ownership TOWN/PR		Gradient9	%
ROW Width		Condition OKAY	
Posted Speed Limit NONE		Evening Peak Hour	vph
Est 85th Percentile Speed	mph	Estimated Daily Count	-
Cross Section: Facing N	1		
		/	/
		/ '	DIR7 SANK
			3111K
	1111111		
		~ I 1 2 4 F 6 7 P P M II 17	
17 16 15 H 13 12 11 10 9 8 7 6 5		C 1 2 3 4 5 6 7 8 9 10 11 12	13 14 15 16
Pavement Width 12	ft	Q 2 3 4 5 6 7 8 9 10 11 12	15 17 15 16
_	ft	Q 1 2 3 4 5 6 7 8 9 10 11 12	13 17 15 16
Pavement Width 12	ft	Q 2 3 4 5 6 7 8 9 10 11 12 SIDE B	13 17 15 16
Pavement Width 12_ Curb-to-Curb Width SIDE A	ft ft	·	
Pavement Width	ft ft ft	SIDE B	ft
Pavement Width	ft ft ft	SIDE B Striped Lane Width	ft ft
Pavement Width	ft ft ft	SIDE B Striped Lane Width Inner Shoulder Width Inner Shoulder Material Outer Shoulder Width	ft ft
Pavement Width	ft ft ft ft	SIDE B Striped Lane Width Inner Shoulder Width Inner Shoulder Material Outer Shoulder Width	ft ft
Pavement Width	ft ft ft ft	SIDE B Striped Lane Width Inner Shoulder Width Inner Shoulder Material Outer Shoulder Width Outer Shoulder Material	ft ft ft
Pavement Width	ft ft ft ft	SIDE B Striped Lane Width Inner Shoulder Width Inner Shoulder Material Outer Shoulder Material Outer Shoulder Material Walkway Location	ft ft ft
Pavement Width	ftftftft	SIDE B Striped Lane Width Inner Shoulder Width Inner Shoulder Material Outer Shoulder Width Outer Shoulder Material Walkway Location Walkway Width	ft ft ft ft
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Collected 6-18-01

By 3+D BRITTAIN

Location		Road Name CREST LANE		Code	CL
Road Ownership TOWN ROW Width #O ft Condition EXTENSIVE CRACKING Posted Speed Limit NONE mph Est 85th Percentile Speed mph Cross Section: Facing WEST Condition EXTENSIVE CRACKING Evening Peak Hour vph Estimated Daily Count vph Estimated Daily Count vph		Location AT HYDRANT IN PROM	YT OF	108 CRES	TLANE
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LIPPEN POAS		SLOPE INCREASES TO 89	% AT	APPROAC	4 70
WARREN ROAD		WARREN ROAD			
Collected 6-18-01				Collecte	a 6-18-01
By D+BBRITTAN				By D	+BBRITTAN

Roadway Inventory Form

Road Name FAIRWAY DRIVE	Code
Location BET 133 WAPPEN R	GAD AND 2 FAIRWAY DRIVE
Road Ownership	Gradient
ROW Widthft	Condition 400D
Posted Speed Limit NONE mph	Evening Peak Hour vph
Est 85th Percentile Speed mph	Estimated Daily Count vpd
Cross Section: Facing WEST	
17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1	C 1 2 3 4 5 6 7 8 9 10 11 12 13 17 15 16
	•
Pavement Widthft	`
Pavement Width ft Curb-to-Curb Width ft	`
	SIDE B
Curb-to-Curb Width ft SIDE A Striped Lane Width ft	Striped Lane Width ft
Curb-to-Curb Width ft SIDE A Striped Lane Width ft	Striped Lane Width ft
Curb-to-Curb Width ft SIDE A Striped Lane Width ft	
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Collected 6-18-01

By D+ BBRITTAIN

Note: Provided by Traffic Calming Committee

Roadway Inventory Form

Road Name CALDWELL ROAD	Code CR1
Location AT LEAVING TREE	AT LOWER CURVE
Road Ownership	Gradient 12-13 %
ROW Width 50 ft	Condition EXCELLENT
Posted Speed Limit mph	Evening Peak Hour vph
Est 85th Percentile Speed mph	Estimated Daily Count vpd
Cross Section: FacingNW	
17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 G	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 1
Pavement Width 20'5" ft	
Curb-to-Curb Width ft	
	CITTO VIT ID
SIDE A	SIDE B
Striped Lane Width 9'/0" ft	Striped Lane Width 99 ft
Inner Shoulder Width6" ft	Inner Shoulder Width 5" ft
Inner Shoulder Material PAVEMENT	Inner Shoulder Material PANEMENT
Outer Shoulder Width 8-10" ft	Outer Shoulder Width ft
Outer Shoulder Material OLD PANEMENT	Outer Shoulder Material
Walkway Location	Walkway Location
Walkway Widthft	Walkway Width ft
Walkway Material	Walkway Material
Walkway Condition	Walkway Condition
01 175FD 70-8 CG -	Other SHARP DROFF TO DEET
Other STEEP DROPOFF TO	
DEEP, ERODING DITCH	Erodina Drtch

Collected 6-17-01

By B+ DBRITTAIN

Note: Provided by Traffic Calming Committee

Roadway Inventory Form

Road Name CALDWELL ROAD	Code CRZ
Location BETWEEN TWO ENTRANCE	es to filter plant
Road Ownership	Gradient
ROW Widthft	Condition VERY 600D
Posted Speed Limit 30 mph	Evening Peak Hour 530 vph
Est 85th Percentile Speed mph	Estimated Daily Count 4045 vpd
Cross Section: FacingNW	
17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 (£ 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 1
Pavement Width ft	
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Walkway Condition	Walkway Condition
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Other	

Collected 6-17-01
By B+D BRITTMN

Note: Provided by Traffic Calming Committee

APPENDIX VI

Stakeholders Invited to Meet with Glatting Jackson

FIRST ROUND OF STAKEHOLDER MEETINGS: SEPTEMBER 25, 2001

Town of Ithaca

Town Supervisor – Catherine Valentino Town Highway Superintendent – Fred Noteboom Director of Engineering – Daniel Walker Director of Planning – Jonathan Kanter Town Board Members:

Edward Conley Carolyn Grigorov David Klein William Lesser Tom Niederkorn Mary Russell

Tompkins County

Interim Commissioner of Planning – Joan Jurkowich

County Highway Manager – Peter Messmer

County Legislator District 11 (Town of Ithaca, East, including Forest Home) – Michael Koplinka-Loehr Other Members of the Tompkins County Board of Representatives:

Dooley Kiefer

Peter Penniman

Ithaca-Tompkins County Transportation Council - Fernando de Aragon, Director

Public Safety

E911 Operations Committee – Lou Withiam, Chair Tompkins County Sheriff – Peter Meskill Cornell Police – William Boice, Director Cayuga Heights Fire Department – William Evans, Chief City of Ithaca Fire Dept – Brian Wilbur, Chief

Cornell University

Community Relations – John Gutenberger, Director

Transportation Services - William Wendt, Director

Bicycle Safety Specialist – Lois Chaplin

Cornell Plantations - Donald Rakow, Director

Cornell Plantations – Harold Martin, Grounds & Facilities Manager

Cornell Golf Course – Matt Baughan, Head Pro

Cornell Golf Course – Dave Hicks, Superintendent

Transportation Services

Tompkins Consolidated Area Transit (TCAT) – Rod Ghearing, General Project Manager

Other Interested Parties

Planning Advocates:

ASAP – Stuart Berg

Citizens Planning Alliance – Joel Gagnon

Citizens Planning Alliance – Dan Hoffman, Esq.

Historic Preservation:

Historic Ithaca - Scott Whitham, Director

Historic Ithaca – Steve Mount

Persons with disabilities:

Finger Lakes Independence Center – John Ives

TCAT – Brenda Kuhn

Runners:

High Noon Runners Club – George Hascup

High Noon Runners Club – John Saylor

Forest Home Community (flier distributed)

Other Neighborhood Associations:

Bryant Park Civic Association – Peggy Robinson

Cornell Heights Neighborhood Association – Catherine Penner

Cornell Heights Neighborhood Association – Eric and Alison Pritz

Hasbrouck Apartments Community Center - Philip McPheron, Director

Pine Tree Road Civic Association – Susan Schefter

Village of Cayuga Heights - Ron Anderson, Mayor

Forest Home Alumni and Nonresident Owners:

Karen Baum

Jonathan Bishop

Kit Boynton

Urie and Liese Bronfenbrenner

Chris Bull

Sue Cotton

George and Elsie Dentes

Mr & Mrs George Hascup

Martha Hertel

John Hoffmann & Randi Beckmann

Barbara Little

Jo Ann and Randy Little

Rich and Carol Marin

Paul and Lou McIsaac

Edwin and MaryAnn Oyer

Wayne Stokes

Lois and Roger Westmont

Special Guests:

Professor and Mrs. Hans Bethe

SECOND ROUND OF STAKEHOLDER MEETINGS: MARCH 8 - 9, 2005

Town of Ithaca

Town Supervisor – Catherine Valentino

Town Planning Board Chair – Fred Wilcox

Town Highway Superintendent – Fred Noteboom

Director of Engineering – Daniel R. Walker

Director of Planning – Jonathan Kanter

Asst. Dir. of Planning – Susan Ritter

Parks Maintenance Manager – Richard H. Schoch

Town Public Works Committee:

Sandra Gittelman

Peter Stein

Town Transportation Committee:

Will Burbank

George Conneman

William Lesser

Tom Niederkorn

Other Town Board Members:

Herb Engman

Carolyn J. Grigorov

Other Planning Board Members:

Eva Hoffmann

Rod Howe

Tompkins County

County Board Chair – Tim Joseph

Commissioner of Planning – Edward C. Marx

County Highway Manager – John Lampman

County Facilities and Infrastructure Committee:

Peter Penniman, Chair

Dooley Kiefer

Nancy Schuler

Thomas Todd

Daniel M. Winch

County Legislator District 11 (Town of Ithaca, East, including Forest Home) – Michael Koplinka-Loehr Other County Board Member:

Martha Robertson

Ithaca-Tompkins County Transportation Council – Fernando de Aragon, Director

Ithaca-Tompkins County Transportation Council Policy Committee:

Chair - Village of Lansing Mayor Donald Hartill

Vice Chair – Town of Ithaca Supervisor Catherine A. Valentino (invited with Town of Ithaca)

Village of Cayuga Heights – Ron Anderson

Village of Cayuga Heights Proxy – Brent Cross

Cornell University – John Gutenberger (invited with Cornell)

Ithaca-Tompkins County Transportation Council Policy Committee: (cont.)

City of Ithaca – Carolyn Peterson, Mayor

City of Ithaca – David Whitmore

Town of Ithaca Proxy – William Lesser (invited with Town of Ithaca)

Town of Lansing - Stephen L. Farkas, Supervisor

Village of Lansing Proxy – Larry Fresinski, Deputy Mayor

TCAT Board Chair – William Wendt (invited with Cornell)

Tompkins County Legislature - Richard S. Booth

Public Safety

Tompkins County Dept of Emergency Response – Lee Shurtleff, Director

Tompkins County Sheriff – Peter Meskill

Cornell Police – Curtis S. Ostrander, Director

Cayuga Heights Police – Kenneth Lansing, Chief

Cayuga Heights Fire Dept – George Tamborelle, Chief

City of Ithaca Fire Dept – Brian H. Wilbur, Chief Central Fire Station

Cornell University

Community Relations – John C. Gutenberger, Director

Transportation Services – William Wendt, Director

Transportation Planner – Andrew Eastlick

Local Roads Program - David Orr

Bicycle Safety Specialist – Lois Chaplin

Cornell Plantations - Donald A. Rakow, Director

Cornell Plantations – Harold S. Martin, Grounds & Facilities Manager

Cornell Golf Course - Matt Baughan, Head Pro

Cornell Golf Course – Dave Hicks, Superintendent

Water Filtration Plant – Henry Van Ness, Plant Manager

Transportation Services

Tompkins Consolidated Area Transit (TCAT) – Joseph J. Turcotte, General Manager Ithaca City School District Transportation Dept – David Bacharach, Director US Post Office – William Hynrko, Postmaster

Other Interested Parties

Planning Advocates:

ASAP – Stuart Berg

Citizens Planning Alliance – Joel Gagnon

Citizens Planning Alliance – Dan Hoffman, Esq.

Historic Preservation:

Historic Ithaca – Scott Whitham, Director

Persons with Disabilities:

Finger Lakes Independence Center – John Ives

TCAT – Brenda Kuhn

Runners:

High Noon Runners Club – George Hascup

High Noon Runners Club – John Saylor

Forest Home Chapel:

Rev. Robert Johnson

Elizabeth Mount

William Tomek

Forest Home Community (flier distributed)

Other Neighborhood Associations:

Cornell Heights Neighborhood Association - Michael Decatur and Erica Fowler

Cornell Heights Neighborhood Association – Catherine Penner

Cornell Heights Neighborhood Association – Eric and Alison Pritz

Pine Tree Road Civic Association – Susan Schefter

Varna Community Association – Michael Richardson

Varna Community Association – Jim Skaley

Village of Cayuga Heights – Walter Lynn, Mayor

Forest Home Alumni and Nonresident Owners:

Karen Baum

Kit Boynton

Tim and Elizabeth Cornell

John Foote & Kristen Rupert

Pete Forlano

Jo Ann & Randy Little

Paul and Lou McIsaac

Edwin and MaryAnn Oyer

Karel and Cindy Sedlacek

Stan Seltzer & Nancy Brcak

Amy Simrell

Wayne Stokes

Roger and Lois Westmont

Other Interested Citizens:

David Klein

Peggy Walbridge

Ithaca Journal – Roger DuPuis II

Special Guests:

Professor and Mrs. Hans Bethe

APPENDIX VII

Evaluation of Alternatives A, B, and C

Three major alternatives for traffic calming were developed during a two-day workshop in Ithaca, September 25 - 26, 2001. These alternatives, identified as Alternatives A, B, and C, illustrate different approaches to traffic calming in Forest Home. A detailed analysis of the alternatives is called for in order to identify which approach offers the most promise for the community.

ALTERNATIVES CONSIDERED

The three alternatives to be evaluated can be described as follows:

Alternative A: Rerouting

This alternative focuses on rerouting traffic through a one-way street plan. The principal feature of Alternative A is one-way operation on Judd Falls Road southbound, between Forest Home Drive and Plantations Road, complemented by one-way operation northbound on Caldwell Road between Plantations Road and Forest Home Drive (see Figure A-VII-1).

In response to much discussion during the September 2001 planning session, as well as in response to further requests from the Traffic Calming Committee asking us for more detailed ideas on one-way streets, we offer the following observations:

- We agree completely with the comment, heard frequently, that it is absolutely critical to retain the two bridges over Fall Creek in two-way operation, thereby removing the bridges from consideration as one-way roadways. Residents' intuitive fear of converting these bridges to one-way flow is quite well founded. As one-way roadways, the bridges would have a *higher* capacity than with their present two-way operation. The reason, quite simply, is that the right-of-way would no longer need to be shared with opposing traffic, and therefore the stopping, clearance times and other delays associated with two-way operation would be eliminated.
- Further, conversion of the bridges to one-way traffic could set in motion some maneuvering that could, over the longer run, undo the hard-won victory about maintaining the width of the bridges at no more than that needed for single-lane flow. Little more need be said about the issue of the bridges remaining two-way; there is broad consensus on this issue and there are sound technical reasons for it.
- With the bridges remaining in two-way operation, therefore, this mandates that the corresponding sections of Forest Home Drive also remain two-way. Specifically, that portion of Forest Home Drive between the upstream bridge and Warren Road must remain two-way. It also mandates that Forest Home Drive between the downstream bridge and Judd Falls Road remain two-way. Simple logic is at work here. If these segments are not two-way, then we in effect have *de facto* one-way bridges.

The above "givens," therefore, suggest that the one-way scheme should consist of Judd Falls Road southbound, with one-way operation commencing at the Judd Falls Road/Forest Home Drive

intersection, and with Caldwell Road one-way northbound, terminating at the Caldwell Road/Forest Home Drive intersection. (The extent of one-way operation to the south could vary, depending on whether other parties, particularly Cornell University, could be brought into the scheme.) A one-way operation on these two streets (i.e., southbound on Judd Falls Road and northbound on Caldwell Road), contained completely within Forest Home, would be fully workable.

A major feature of Alternative A is the ability to reduce the vehicular roadway width on Judd Falls Road, yielding two advantages: (1) providing for more space between moving vehicles and the pedestrian side path; and (2) deflecting the remaining single lane of traffic through chicanes, thereby reducing the speed of traffic.

Alternative A also has a series of other features common to all alternatives: (1) entry features at the six entrance points to Forest Home, (2) narrowing of the major intersections in the community, and (3) streetscape and side path improvements throughout the hamlet.

Alternative B: Speed Control

This alternative leaves the current two-way traffic pattern in place and focuses on controlling the speed and behavior of the two-way traffic. A principal feature of Alternative B is the incorporation of traffic calming measures where street geometries (straight, with long sight distance) are most conducive to speeding.

Alternative B also contains the same series of elements common to all alternatives: entry features at the six entrance points, narrowed intersections, and side path and streetscape enhancements.

Alternative C: Maximum Impedance

This option illustrates the most aggressive and ambitious interventions that could be identified for Forest Home. Alternative C includes, as a base, the one-way configuration of Alternative A combined with the traffic calming measures of Alternative B, with the following additions: (1) possible extension of one-way pairs, along Judd Falls Road and Caldwell Road, into the University; (2) reconfiguration of the Pleasant Grove Road/Cradit Farm Drive intersection; (3) a new east-west road connecting Warren Road with Pleasant Grove Road north of the hamlet; and (4) tolls on the two bridges on Forest Home Drive.

In addition, Alternative C includes the elements common to all alternatives, namely, entry/exit features at the six identified locations, intersection narrowings, and streetscape and side path improvements.

EVALUATION OF ALTERNATIVES

As a first stage in arriving at a preferred alternative, we recommend the elimination of Alternative C for two reasons: (1) a major element of this Alternative, the installation of tolls on the bridges, is far beyond the scope of neighborhood traffic calming; and (2) the elements which differentiate Alternative C from Alternative A (specifically, roadway changes to the north of the hamlet and tolls on bridges) could as well be applied to Alternative B. Thus, the real first choice to be made is between Alternatives A and B. Subsequently, following the resolution of this issue, the elements specific to Alternative C (external roads and tolls) could then be added to either alternative.

Alternatives A and B should therefore be evaluated, based on known parameters, in order to determine their relative impacts on the community.

Peak-hour intersection turning-movement counts, taken in 2001 and provided by the Traffic Calming Committee (see Figures A-VII-2 and A-VII-3), allow us to determine the major north-south traffic flows through the community. With a one-way system as in Alternative A, half of these flows are blocked and require rerouting. These affected flows and their modified routes are shown in Figures A-VII-4 and A-VII-5. Table A-VII-1 demonstrates how traffic volumes at key locations within the community (see Figure A-VII-6) will change with Alternative A.

The one-way circulation system results in a small redistribution of morning peak-hour traffic between Judd Falls Road and the "S" curve on Forest Home Drive. Judd Falls Road gains 36 vehicles in the morning peak hour, and the "S" curve traffic is reduced by a corresponding amount. Judd Falls Road is obliged to carry more traffic than the "S" curve (585 vs 343 vph), due to the simple fact that the majority of morning traffic is headed south (toward Cornell) and therefore must use the southbound link in the one-way circulation system.

The amount of traffic at Isabel's Park (Forest Home Drive between Pleasant Grove Road and Warren Road) increases by a substantial 148 vehicles during the morning peak hour. This represents a 39% increase in existing traffic volume on this roadway link, and would surely not be welcomed by residents in this part of the community. Even more impressive is the number of vehicles, 394, added to Plantations Road.

In the evening peak hour, there is a significant redirection of traffic. A total of 165 vehicles are rerouted from Judd Falls Road to the "S" curve. This represents a 28% reduction in traffic on Judd Falls Road, and a 31% increase at the "S" curve. Because the major flow of traffic in Forest Home is northbound during the evening peak hour, it will follow the northbound link in the one-way system (which directs traffic onto the "S" curve), rather than the southbound link (namely Judd Falls Road).

There is a negligible increase in traffic at Isabel's Park during the evening peak hour (3 additional vehicles, representing a 1% increase). Plantations Road, however, sees a quite dramatic increase of 531 vehicles. This is an even larger increase than this road segment experiences during the morning peak hour. Although we do not have existing traffic counts for Plantations Road, observation indicates that it is currently a relatively low traffic road. The projected increase in traffic likely represents a several-fold increase on what is otherwise a low volume park road, transforming it into a high-traffic link, with as much traffic as the busiest roads in Forest Home. It is doubtful whether Cornell Plantations would willingly accept this additional traffic.

Over the course of a full day, a one-way system will tend to balance traffic between the two available north-south routes. Balanced flow, with traffic flows spread as evenly as possible over the available network, is indeed a worthwhile objective of transportation planning. We insist on this principle being observed in the layout of new streets, or revisions to streets in redevelopment areas. In established areas with residents and institutions in place, however, we generally do not endorse measures that redistribute traffic around the network, for the following reasons:

- Long-standing decisions about home ownership and reinvestment in residential property have been predicated on an existing traffic pattern. Changing this traffic pattern simply to balance traffic on the network is problematical.
- Redirecting traffic through sudden, immediate moves (as opposed to long-range gradual changes) is an administrative "slippery slope" for elected officials, appointed boards and municipal staff. Rerouting traffic in one location might well be reasonable in itself, but will bring on a deluge of requests from other neighborhoods throughout the Town. There is no technically or legally supportable traffic engineering criteria that can distinguish between "worthwhile" and "inadvisable" reroutings. Dealing with these requests can consume large amounts of public official and staff time which would be far better directed toward more constructive matters.

Perhaps the most serious difficulty with one-way operation is this redistribution of traffic within Forest Home. While the traffic on Judd Falls Road is reduced during much of the day, this reduction comes at the expense of an increase during the morning peak period. The counterpart location (Caldwell Road, and Forest Home Drive between Warren Road and the upstream bridge) will, of course, experience a corresponding increase in daily traffic, especially during the evening peak. Redistribution, by its very nature, means that traffic volumes must increase in some locations, in order to offset the reductions elsewhere. This will divide the neighborhood into "winners" and "losers," with resulting social tensions being practically inevitable. This problematic redistribution of traffic is characteristic not only of this particular one-way scheme, but of essentially any one-way circulation system that could be devised for Forest Home.

Although a one-way system will tend to balance traffic over the course of a full day, the result can be just the opposite during a given peak-hour period. For a community such as Forest Home, where the predominant morning flow is in one direction, and the predominant evening flow is in the opposite direction, whichever street is in the direction of the dominant flow will, of necessity, carry more traffic than the other half of the one-way pair. This means that with a one-way circulation system, the peak-hour traffic distributions will be skewed. Specifically for Forest Home, these distributions will be more skewed than they are now, as Table A-VII-1 indicates.

There is no technical answer to whether it is more "livable" to have one very sharp peak of traffic once a day, rather than a lesser peak but more hours of significant traffic. This is mostly a subjective decision. However, our experience with traffic calming throughout the country suggests that the peak-hour travel is magnified, in people's minds, far more than mere numbers would suggest. Further, peak-hour travel is likely to contain the majority of "cut-through" traffic, attracted by major employment such as the University. The regularly recurring (i.e., daily) nature of their travel makes these cut-through motorists particularly prone to speeding and lapses of attentive driving.

A further reason for concern over the one-way circulation system is that it creates a significant increment of vehicle miles of travel in Forest Home and the Plantations. The additional distance traveled by the rerouted traffic is calculated from the lengths of relevant roadway links (see Figure A-VII-7), and is presented in Table A-VII-2. During the morning peak hour, there are 167 additional vehicle miles of travel, and during the evening peak hour there are 178 additional vehicle miles of travel due to one-way operation. A comparable increase could be achieved by instead adding 299 vehicles to the morning peak hour, and 317 vehicles to the evening peak hour (see Table A-VII-2). In other words, the additional driving required in a one-way system would be equivalent to having approximately 3000 additional

vehicles per day driving through Forest Home and the Plantations. This is a significant increase, and is a large price to pay for redistributions that have little promise of encouraging drivers to find some alternate route that avoids Forest Home.

If their travel times increase, drivers become motivated to seek quicker alternate routes. Alternative A does indeed result in an increment of trip length for those vehicles affected by the one-way operation, as shown in Table A-VII-2. The maximum distance added to any trip is 0.596 miles, which corresponds to a delay of 107 seconds. Most reroutings are shorter than this, and would result in less delay. By comparison, detouring to a route outside the community would cause a delay of several times that amount. Thus, one-way operation does not come near providing the margin of travel delay that would make other routes (outside of Forest Home) attractive to motorists now driving through the hamlet.

It is perhaps worth noting that with Alternative A, approximately half of the north-south vehicular trips through the community are not rerouted, and therefore experience no delay. Without this delay, drivers are not motivated to seek a route outside of Forest Home, even if such a route should become available in the future. Alternative B, on the other hand, employs traffic calming distributed throughout the hamlet, so that all vehicular through-trips incur a modest delay, and all drivers therefore experience a corresponding modest incentive to divert to alternate routes. But as we have seen above, even a delay of 100 seconds or more, which is far greater than that deemed reasonable for Alternative B, would be insufficient to cause significant shifting of traffic away from the hamlet.

CONCLUSION

The above analysis leads to the following findings and conclusions:

Small Likelihood of Traffic Diversion

It is unlikely that any of the Alternatives will redirect traffic away from Forest Home. The reasons are two-fold. The well-noted absence of alternate routes to which Forest Home traffic might divert means that no viable alternatives are close, in terms of travel time, to travel through Forest Home. The increment of delay introduced by any of the Alternatives, even if enough to inconvenience drivers, is still smaller than the additional travel time required by an alternate route. Thus, even with our most aggressive combination of measures (Alternative C), we cannot project shifting much traffic away from Forest Home.

Shifting Not Necessary for Successful Traffic Calming

We reiterate a principle emphasized at the workshop: that the primary focus of traffic calming is to change the behavior of drivers, and only incidentally to induce them to use an alternate route. Traffic calming directly addresses the most annoying features of driver misbehavior: speeding and inattention to driving.

Benefits of One-Way Operation are Small Compared to Costs

The one-way operation in Alternatives A and C adds to vehicle travel time, primarily by lengthening the distance of travel. One-way operation also permits the reduction of street width on Judd Falls Road, thereby providing more space between the walking path and vehicle travel path, or even for the

relocation of the walking path to within the existing roadway width. However, these advantages are small, and are overshadowed by the drawbacks of one-way operation.

The ability to reduce traffic to one lane on Judd Falls Road is, at first glance, a highly appealing advantage, permitting a proper distance between vehicles and pedestrians. However, under more detailed analysis, some of the hoped-for advantages erode somewhat. For example, reducing the pavement width to a single lane may not permit a relocation of the side path. Specifically, if the remaining single lane of traffic on Judd Falls Road "meanders" at all, it will need the full width of the existing street, curb to curb. Thus, a narrowed Judd Falls Road with deflections (chicanes) would fall adjacent to the side path at several (4 - 6) points. While this is an improvement over the existing situation with the side path continuously adjacent to a moving traffic lane, it is not the convincing solution to the pedestrian challenge that we were hoping for.

The amount of pavement reclaimed, similarly, could prove to be disappointing. A New York State and AASHTO minimum pavement width (with which we agree) is 16 ft for extended segments of roadway, with narrowing below that level permitted at spot locations such as traffic calming measures. Thus, most of Judd Falls Road would maintain a pavement width of 16 ft, or only 2 - 5 ft less than the existing street. This also affects our ability to build as much lateral deviation into the street as we would otherwise wish.

Neither does a one-way system offer significant cost savings. Alternative A involves the rebuilding of Judd Falls Road over most of its length, narrowing the pavement, resetting at least one of the curbs, building a new side path, and landscaping along that side path. If both curbs have to be reset and the street reconstructed (sometimes an unwelcome necessity when narrowing a street), the cost could rise even further. (Caldwell Road will also require narrowing with Alternative A.) This effort is certainly no less expensive than a traffic calming program that utilizes the current dimensions of Judd Falls Road.

While a one-way system can generate delay, it is not unique in its ability to do so. In fact, any impedance to through-travel produced by a one-way system has to be seen within the context of the existing system of intersections and single-lane bridges, as well as any additional impedance that could be provided by traditional traffic calming measures. The operational benefits of one-way that might be predicted on a theoretical level will therefore not necessarily materialize in practice.

Although one-way operation can add appreciably to vehicle travel time, at least for rerouted vehicles, there is no practical benefit to this delay. The magnitude of delay is insufficient to cause drivers to choose an alternate route outside of Forest Home, as discussed above. Furthermore, the delays are caused by more driving, not by more careful driving. One-way operation, in itself, does not lead to the slower and more attentive driving that is associated with typical traffic calming measures. Therefore, one-way operation is successful neither at diverting traffic away from Forest Home, nor at improving driver behavior.

One-way operation is also not likely to place an upper limit on the number of vehicles which pass through the community every day. Since a one-way system will result in a single lane of traffic on Judd Falls Road and Caldwell Road, the north-south traffic flows that are currently distributed among four lanes will be concentrated onto two lanes of roadway. This means that each lane will be operating closer to capacity, with smaller gaps in traffic. Having only these two lanes carrying all north-south traffic is unlikely to restrict volumes, however, due to the stricter limits imposed by the single-lane bridges. This

is because the bridges, although single-lane, operate as two-way links, requiring clearance times which the roads do not. One-way operation, therefore, does not reduce the capacity of the neighborhood's street system appreciably beyond the constraint already present due to the pair of one-lane bridges.

One of the undesirable consequences of a one-way circulation system is the abrupt, forced redistribution of traffic within Forest Home. A strong program of traffic calming measures, on the other hand, will help distribute traffic better throughout the network over the longer run. Traffic calming measures, such as those envisioned for the Forest Home area, add to vehicle delay noticeably as traffic volumes increase. Thus, those routes that carry the largest traffic volumes impose the longest delays, which encourages drivers to seek alternate routes, thereby tending to balance flow through the network.

We do not find, therefore, that a one-way plan would be an effective means of reducing travel through Forest Home. Nor would it bring about the hoped-for improvement in driver behavior. The resulting redistribution of traffic within Forest Home would also be inadvisable. In short, a one-way plan is not the best alternative.

RECOMMENDED ALTERNATIVE

We recommend that Forest Home pursue Alternative B, focusing on traffic calming measures that seek to control the behavior of all drivers. This alternative leaves the current two-way traffic pattern in place, while employing the following features:

- Prominent entry/exit features at all six entrances to Forest Home, in order to identify the boundaries of the neighborhood, and to control the speed of both in-bound and out-bound traffic
- Reconstruction of all major intersections in the hamlet, in order to bring them into scale with the neighborhood and improve driver behavior
- Mid-block longitudinal measures, in order to control vehicle speeds within the hamlet
- Additional mid-block traffic calming elements on streets prone to speeding
- New side paths and crosswalks, in order to form a safe and continuous pedestrian network, integrated into the existing pedestrian facilities
- Beautification of the streetscapes, in conjunction with all of the above measures

Additional measures, directed at motorists some distance from Forest Home, were discussed in September 2001, with the intention of diverting traffic onto more appropriate routes. This could involve the construction of new roads and the reconfiguration of intersections outside of Forest Home, as originally proposed for Alternative C. These measures are valuable and should be pursued in concert with Alternative B.

Figure A-VII-1

One-Way Pair for Alternatives A and C

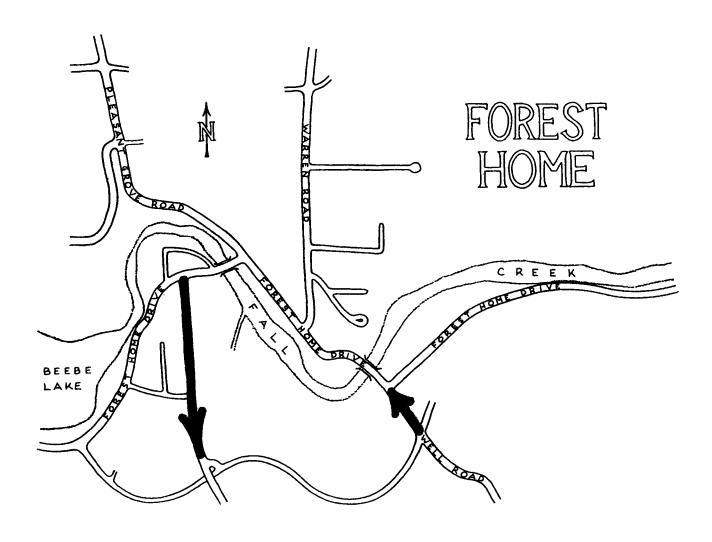


Figure A-VII-2

Vehicle Turning Movements, Morning Peak-Hour, Existing Conditions

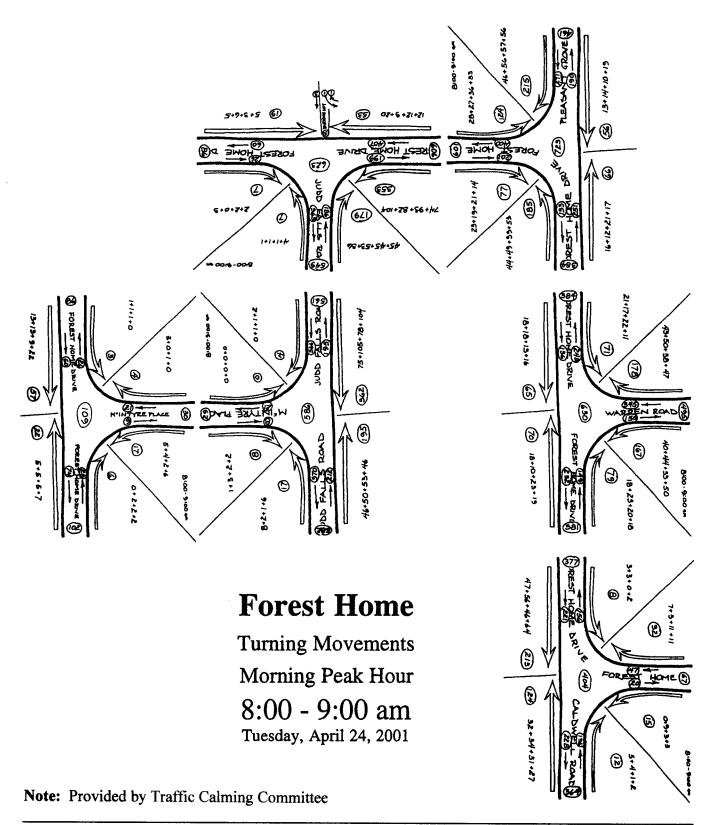


Figure A-VII-3

Vehicle Turning Movements, Evening Peak-Hour, Existing Conditions

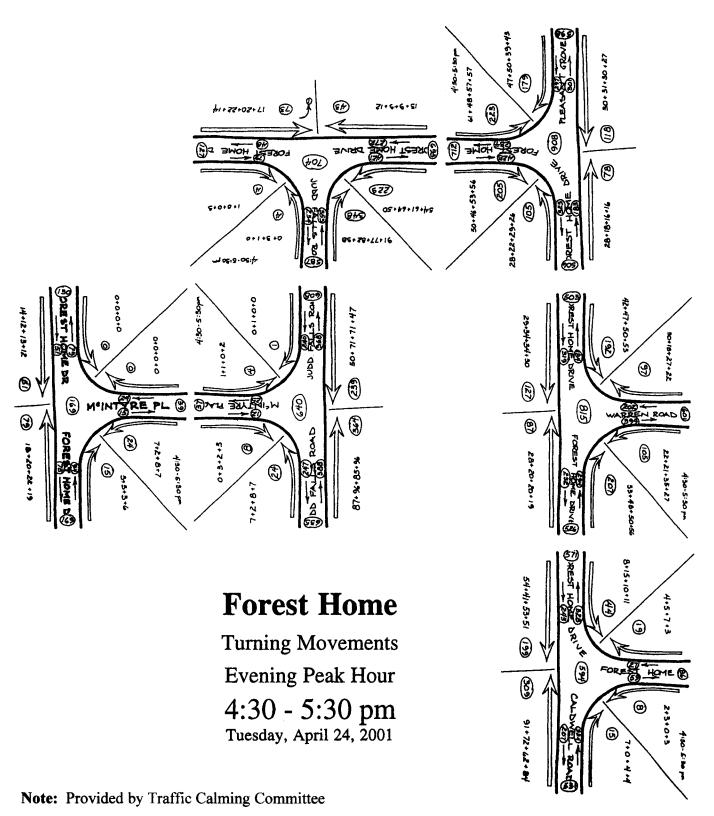
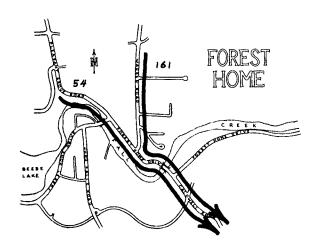
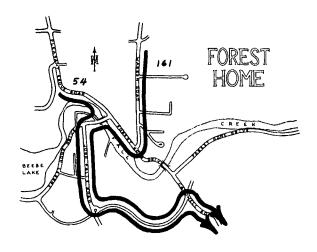


Figure A-VII-4

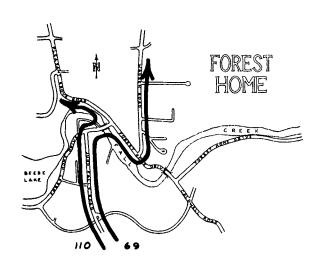
Major North-South Trips Affected by a One-Way Circulation System, Morning Peak-Hour



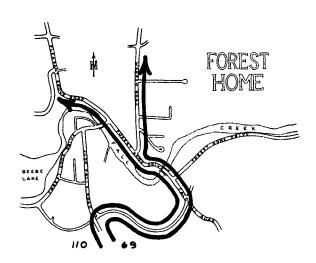
Southbound Trips That Would Require Rerouting with the One-Way System (vph)



Southbound Trips as Rerouted by the One-Way System (vph)



Northbound Trips That Would Require Rerouting with the One-Way System (vph)

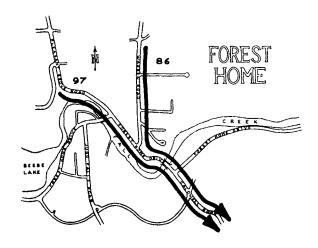


Northbound Trips as Rerouted by the One-Way System (vph)

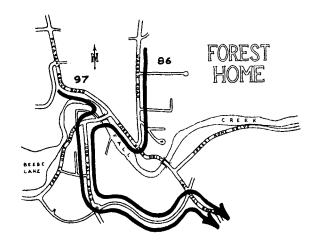
Note: From Figures A-VII-1 and A-VII-2

Figure A-VII-5

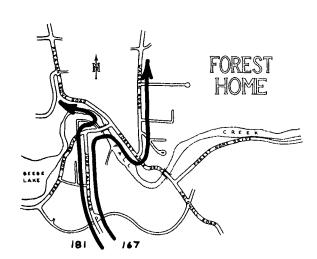
Major North-South Trips Affected by a One-Way Circulation System, Evening Peak-Hour



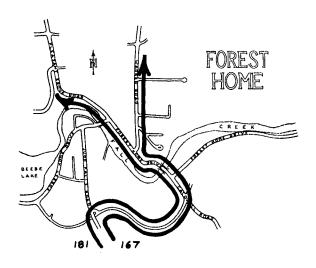
Southbound Trips That Would Require Rerouting with the One-Way System (vph)



Southbound Trips as Rerouted by the One-Way System (vph)



Northbound Trips That Would Require Rerouting with the One-Way System (vph)



Northbound Trips as Rerouted by the One-Way System (vph)

Note: From Figures A-VII-1 and A-VII-3

Figure A-VII-6

Traffic Volume Locations Referenced in Table A-VII-1

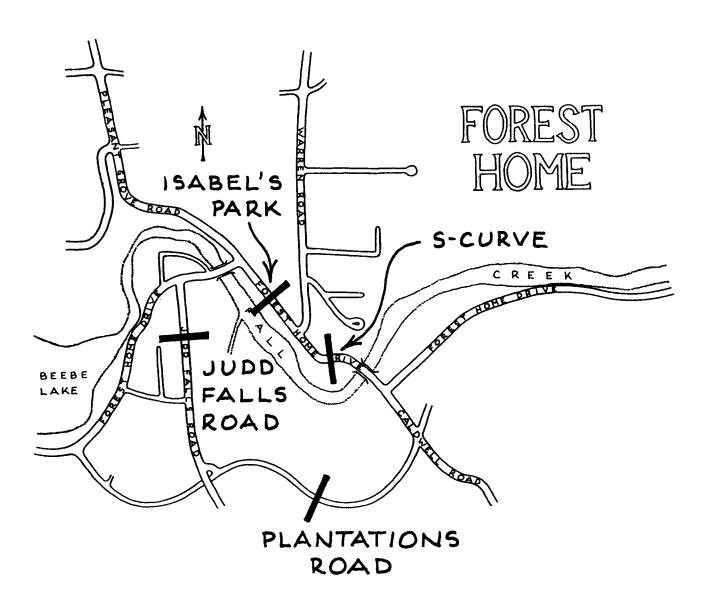


Figure A-VII-7
Lengths of Roadway Links (miles)

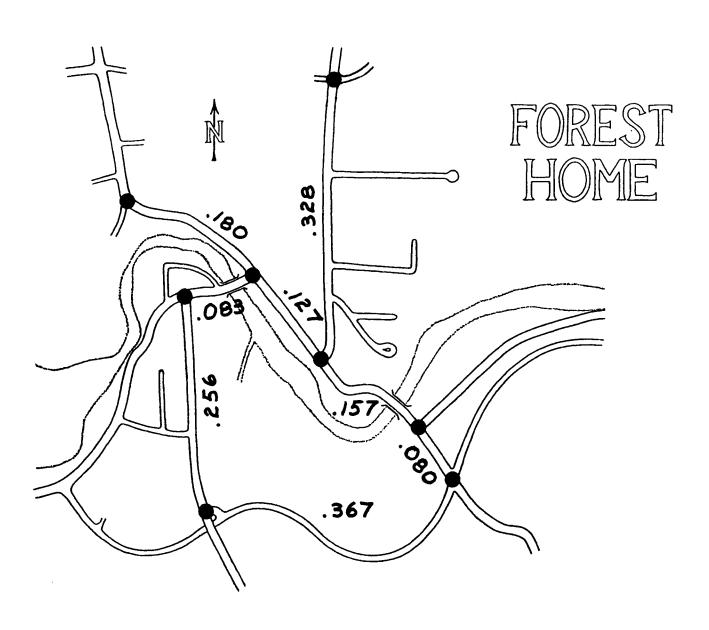


Table A-VII-1

Traffic Redistribution Due to One-Way Circulation System:
Change in Volume at Key Locations (vph)

AM Peak Hour	Judd Falls Rd	Isabel's Park	"S" Curve	Plantations Rd
Existing Volume (vph) (1)	549	384	379	n/a
Change due to One-Way (2)				
Pleasant Grove - Caldwell	+54	-54	-54	+54
Warren – Caldwell	+161	+161	-161	+161
Judd Falls – Pleasant Grove	-110	+110	+110	+110
Judd Falls – Warren	<u>-69</u> +36	<u>-69</u>	<u>+69</u>	<u>+69</u>
Total Change	+36	+148	-36	+394
Volume with One-Way (vph) (3)	585	532	343	n/a
% Change with One-Way (4)	+7%	+39%	-9%	n/a

PM Peak Hour	Judd Falls Rd	Isabel's Park	"S" Curve	Plantations Rd
Existing Volume (vph) (5)	587	505	526	n/a
Change due to One-Way (6)				
Pleasant Grove – Caldwell	+97	-97	-97	+97
Warren – Caldwell	+86	+86	-86	+86
Judd Falls – Pleasant Grove	-181	+181	+181	+181
Judd Falls – Warren	<u>-167</u>	<u>-167</u>	<u>+167</u>	<u>+167</u>
Total Change	-165	+3	+165	+531
Volume with One-Way (vph) (7)	422	508	691	n/a
% Change with One-Way (8)	-28%	+1%	+31%	n/a

Notes:

- (1) From Figure A-VII-2
- (2) From Figure A-VII-4
- (3) = (1) + (2)
- $(4) = (2) \div (1)$
- (5) From Figure A-VII-3
- (6) From Figure A-VII-5
- (7) = (5) + (6)
- $(8) = (6) \div (5)$

Table A-VII-2

Effects of One-Way Circulation System on Rerouted North-South Traffic

		Existi	Existing and		Alten	Alternatives			Cha	Change	
AM Peak	eak	Altern (Two	Alternative B (Two-Wav)		Aa (One-	A and C (One-Wav)			One-Way v	One-Way vs Two-Way	
0-D	Volume	Œ	Vehicle	Miles	Vehicle	Trip	Equivalent	Additional	Additional	Additional	Additional
Pair	(vph)	per Trip	per Trip Miles of	per Trip	Miles of Length	Length	Traffic			Traffic	Travel
<u>E</u>	(2)	(3)	Travel	(5)	Travel	Ratio	Volume	per Trip	Miles of	Volume	Time
			4)		(9)	()	(vph)	(6)	Travel	Equivalent	per Trip
							8		(10)	(vph)	(sec)
										(11)	(12)
PGR-CR	54	0.544	29.4	0.886	47.8	1.63	88	0.342	18.5	34	62
WR-CR	161	0.565	91.0	1.161	186.9	2.05	330	0.596	0.96	169	107
JFR-PGR	110	0.519	57.1	0.911	100.2	1.76	194	0.392	43.1	84	71
JFR-WR	69	0.794	54.8	0.932	64.3	1.17	81	0.138	9.5	12	25
Total	394		232.3		399.2		693		167.1	299	

		Existin	Existing and		Alter	Alternatives			Change	nge	
PM Peak	eak	Alterna	Alternative B		Aau	A and C			One-Way v	One-Way vs Two-Way	
		-OML)	(Two-Way)		(One-	(One-Way)			•	1	
0-D	Volume	M	Vehicle	Miles	Vehicle	Trip	Equivalent	Additional	Additional	Additional	Additional
Pair	(ydv)			per Trip	Miles of Length	Length	Traffic	Miles	Vehicle	Traffic	Travel
(E)	(2)	(3)	Travel	(5)	Travel	Ratio	Volume	per Trip	Miles of	Volume	Time
			(4)		9	6	(vph)	6)	Travel	Equivalent	per Trip
•							<u>@</u>		(10)	(vph)	(sec)
										(11)	(12)
PGR-CR	97	0.544	52.8	0.886	85.9	1.63	158	0.342	33.1	61	62
WR-CR	98	0.565	48.6	1.161	8.66	2.05	176	0.596	51.2	06	107
JFR-PGR	181	0.519	93.9	0.911	164.9	1.76	319	0.392	71.0	138	71
JFR-WR	167	0.794	132.6	0.932	155.6	1.17	195	0.138	23.0	28	25
Total	531		327.9		506.2		848		178.3	317	

Notes for Table A-VII-2:

(1) From Figure A-VII-4 (AM Peak) and Figure A-VII-5 (PM Peak) Origin-Destination Pairs:

PGR-CR: Pleasant Grove Road to Caldwell Road

WR-CR: Warren Road to Caldwell Road

JFR-PGR: Judd Falls Road to Pleasant Grove Road

JFR-WR: Judd Falls Road to Warren Road

From Figure A-VII-4 (AM Peak) and Figure A-VII-5 (PM Peak)

From Figure A-VII-4 (AM Peak), Figure A-VII-5 (PM Peak), and Figure A-VII-7 From Figure A-VII-7 $=(2) \times (3)$

 $=(2) \times (5)$

26486689555 10486889555

 $= (5) \div (3)$ $= (2) \times (7)$ = (5) - (3) = (6) - (4) = (8) - (2)

APPENDIX VIII

Detailed Traffic Calming Measures, By Specific Location

This Appendix details the street-by-street application of this Traffic Calming Plan, specifying the recommendations for each street and intersection within the Forest Home community. This listing is intended to serve as a guide for implementation, and should prove useful for envisioning the final streetscape design. Detailed, annotated maps are being prepared in accordance with this Traffic Calming Plan, and will be submitted under separate cover.

A distinctive streetscape design is specified for Forest Home, using a consistent design language to combine the traffic calming elements discussed in the main text. Each community entrance consists of a speed table flanked by lamp posts mounted on low stone pedestals. Within the hamlet, streets follow existing alignments and are paved 18 ft wide, banded by cobbled shoulders. Cobbled shoulders are typically 18 in wide, including: at intersections, where a side path is adjacent to the road, or where significant amounts of water run in the shoulder. Shoulder width is reduced to 12 in where space is at a premium. Streets are generally uncurbed, with vertical (standard 10 degree batter) granite curbs used at entrances and intersections, and where necessary to direct the flow of surface runoff water, or to protect pedestrian side paths. Side paths are typically 4 ft wide, located on one side of the road only, and usually adjacent to the shoulder or curb. Curb cuts are understood to be included for all crosswalks and driveways. Mid-block speed tables are included where necessary to control vehicle speeds, and trees are planted along the roadway throughout the hamlet.

The description below follows Forest Home Drive from west to east. The intersecting streets are then discussed in turn, with the descriptions beginning outside the community boundaries and proceeding inwards.

Forest Home Drive / Plantations Road Intersection

- Relocate curb along north side of intersection to form a more compact "Y" configuration for intersection, in place of existing "T" configuration. Establish 25-foot curb radius on north and east corners to match that of southwest corner.
- Change traffic control at intersection to all-way stop. (This is appropriate for the new "Y" configuration of the intersection.)
- Utilize space created by curb relocation on north side of intersection to improve width, alignment and buffering of existing walkway in this vicinity.
- Install pedestrian crosswalk across west leg of intersection to replace existing unmarked mid-block crossing 150 ft west of this intersection.
- Construct new 6 ft wide, 40 ft long walkway on west side of Plantations Road, connecting south end of new Forest Home Drive crosswalk to existing Cornell gravel walkway.

Forest Home Drive: Plantations Road to McIntyre Place

- Realign short section of Forest Home Drive so as to align with the reconfigured Forest Home Drive / Plantations Road intersection. On southeast side of road, adjust location of guiderail as necessary.
- Establish a small, short-term parallel-parking area for Plantations visitors, to be located between Forest Home Drive and existing walkway, just outside bounds of Forest Home community.
- Replace open ditch on southeast side of Forest Home Drive with grassed swale.
- Construct gateway entrance feature, to be centered 75 ft northeast of existing "Forest Home" sign. Entrance feature consists of a speed table flanked by lamp posts on stone pillars. Granite curbing (21 ft curb-to-curb) is used in vicinity of entrance feature to protect the stone pillars. The insertion of 18 in wide cobbled shoulders on each side of road reduces pavement width to 18 ft within bounds of Forest Home community.
- Establish an attractive green buffer between Forest Home Drive and existing gravel walkway. Buffer can incorporate a shallow grassed swale, draining into existing catch basin located across from 101 Forest Home Drive.
- Create roadway cross-slope so that road drains to northwest, away from soft shoulder at 101 Forest Home Drive. This will blend in with existing superelevation to northeast.

Forest Home Drive / McIntyre Place Intersection

- Retain existing "T" configuration of intersection. Install granite curbing with 25 ft curb radius at south and east corners of intersection. No curbing is used on northwest side of intersection. Cobbled shoulders, 18 in wide, are used throughout.
- Replace existing asphalt drainage swale on northeast side of McIntyre Place with grassed swale.
- Install pedestrian crosswalk across Forest Home Drive, northeast of intersection. Northwest end of crosswalk connects through green buffer to existing gravel walkway along Forest Home Drive. Southeast end of crosswalk connects to McIntyre Place via a short gravel path.

Forest Home Drive: McIntyre Place to Judd Falls Road

- Retain existing alignment of Forest Home Drive, but upgrade to new community roadway design specifications (18 ft pavement with 18 in cobbled shoulder on each side).
- Repair adjoining stone retaining walls as necessary.
- Retain existing off-street gravel walkway. Beautify bank below road as viewed from walkway.
- Replace existing box-beam guiderail on northwest side of road with more attractive alternative. Have guiderail better follow curvature of road.

- Adjust position of existing catch basin inlets, as necessary, to locate them outside of travel lane.
- In vicinity of the Byway, create cross-slope on Forest Home Drive so that surface drainage flows southeast into existing catch basins, rather than into the Byway.
- Continue cobbled shoulder across end of the Byway, so as to emphasize the private nature of that road.
- In front of 130 Forest Home Drive, replace existing concrete curb-and-gutter with granite curbing and cobbled shoulder, to match rest of community.

Forest Home Drive / Judd Falls Road Intersection

- Replace existing concrete curb-and-gutter with granite curbing and cobbled shoulder. Relocate curb-line along north side of intersection to form more of a "Y" configuration for the intersection, in place of existing "T" configuration. Establish 25-foot curb radius on north and southwest corners to match that of southeast corner.
- Relocate stop signs closer to intersection. Relocate pedestrian crosswalk as necessary.
- Resize catch basin inlet grates, and reposition within cobbled shoulder band.

Forest Home Drive: Judd Falls Road to Pleasant Grove Road

- Upgrade existing gravel side path along north side of Forest Home Drive.
- Replace existing concrete curb-and-gutter with granite curbing and cobbled shoulder, to match rest of community.
- On north side of Forest Home Drive, continue cobbled shoulder across end of the Byway, and onto the approach to Downstream Bridge.
- On south side of Forest Home Drive, continue cobbled shoulder across asphalt driveway for 145 Forest Home Drive. Resize catch basin inlet grate, and reposition within cobbled shoulder band.
- Cobbled shoulder on south side of road kinks after driveway, in order to delineate the vehicle stacking area for the bridge, then continues onto bridge approach. A white "yield line" is painted across east-bound lane at kink in pavement edge, in order to further identify the front of stacking area. (Stacking area is located so that lead driver can see intersection and stacking area on far end of bridge.)
- Adjust position of guiderail on north side of road at bridge approach, so as to follow new edge of road
- Cobbled shoulders stop at bridge deck, then resume on far end.

• At eastern end of bridge, relocate guiderail on north side of road so as to allow creation of stacking area for vehicles waiting to cross. Define front of stacking area with kink in shoulder and white painted "yield line" across west-bound lane. (Stacking area is located so that lead driver can see stacking area on far end of bridge.)

Forest Home Drive / Pleasant Grove Road Intersection

- Relocate curb-line along northeast side of intersection to form more of a "Y" configuration for the intersection, in place of existing "T" configuration. Create a more compact intersection by establishing a 25-foot curb radius on northeast and northwest corners, and a 75-foot radius on the south corner. Utilize granite curbing on northeast and northwest corners. Curbing may also be used on south corner, if it doesn't interfere with surface drainage. In any case, 18 in wide cobbled shoulders are used throughout.
- Relocate stop signs closer to intersection, in order to reduce apparent size of intersection, and to improve visibility across bridge. Relocate pedestrian crosswalk as necessary.
- Connect east end of crosswalk to new side path along northeast side of Forest Home Drive (see below), and to Town of Ithaca's Forest Home Walkway. Connect west end of crosswalk to existing concrete walkway (leading to bridge), and to new side path along southwest side of Pleasant Grove Road (see further below).
- Provide superelevation in intersection for vehicles exiting bridge and turning left up Pleasant Grove Road. (This will allow these vehicles to make the turn without slowing unduly and then accelerating in order to regain lost speed. Vehicles turning right on Forest Home Drive will cross the superelevated pavement, experiencing a slight speed hump effect, which will serve to moderate their speed, in spite of the large curve radius. The intent is to have vehicles exiting the bridge flow through the intersection at 15 mph, regardless of which direction they are turning.)
- Eliminate the section of guiderail on western corner of intersection which separates green space from road
- Relocate rail fence and gate in southern corner of intersection, so that fence follows new alignment of road. (This will slightly increase the size of the park.) Eliminate excess pavement in service area. Consider replacing remaining pavement with grass pavers. Plant bushes to screen sewer tanks.

Forest Home Drive: Pleasant Grove Road to Warren Road

- Realign short section of Forest Home Drive in order to align with the reconfigured Forest Home Drive / Pleasant Grove Road intersection, and to create room for a path along northeast side of road.
- Construct 4 ft wide gravel side path on northeast side of Forest Home Drive, in place of existing shoulder, informal walkway and concrete sidewalk that currently serve this segment of road. Side path will be separated from road by a narrow buffer near the Forest Home Drive / Pleasant Grove Road intersection, becoming adjacent to the curb at front walk for 206 Forest Home Drive. Side path will be located within the bounds of existing road and shoulder until driveway for 216 Forest Home Drive (utilizing the space made available by narrowing and shifting the road), at which point new

side path will align with existing walkway. Parallel parking will be retained at 210 Forest Home Drive.

- On northeast side of road, granite curb continues from Forest Home Drive / Pleasant Grove Road intersection to driveway for 208 Forest Home Drive. Curb recommences after driveway for 214 Forest Home Drive, and continues to intersection with Warren Road.
- On southwest side of road, curb (if used) stops a short distance from Forest Home Drive / Pleasant Grove Road intersection. Curb is also used between driveways for 215 and 217 Forest Home Drive, replacing existing asphalt curbing. Granite curbing recommences in the vicinity of the Forest Home Drive / Warren Road intersection. Retain existing parallel parking along rail fence beyond 217 Forest Home Drive.
- Cobbled shoulder on northeast side of road is full 18 in wide, while cobbled shoulder on southwest side of road may be either 12 or 18 in wide, depending on space constraints.
- Northwest of driveway for 214 Forest Home Drive, retain existing roadway cross-slope so that road continues to drain to the southwest (into the park).
- Between driveway for 214 Forest Home Drive and front walk for 220, provide roadway cross-slope so that road drains to the northeast. Water then runs northwest along curb to catch basin in front of 214 Forest Home Drive. Resize and reposition catch basin inlet grate to be within cobbled shoulder band.
- Catch basin in front of 206 Forest Home Drive may no longer be necessary. If retained, then resize and reposition inlet grate to be within cobbled shoulder band.
- If Forest Home Drive is rebuilt, consider accentuating existing undulating vertical alignment of road. This would involve raising the section of road between 206 and 208 Forest Home Drive (to create a natural-appearing rolling swell), and lowering the section of road in front of 214 Forest Home Drive (in the vicinity of the existing catch basin).

Forest Home Drive / Warren Road Intersection

- Relocate curb-line along southwest side of intersection to form more of a "Y" configuration for the intersection, in place of existing "T" configuration. Establish 25-foot curb radius on southwest and eastern corners, to match existing 25 ft radius on northern corner. Utilize granite curbing throughout, in addition to 18 in wide cobbled shoulders.
- Relocate both stop signs on Forest Home Drive closer to intersection, in order to reduce apparent size of intersection.
- Retain existing pedestrian crosswalk across Warren Road.
- Resize catch basin inlet grates, and reposition within cobbled shoulder bands.

Forest Home Drive: Warren Road to Caldwell Road

- Maintain current alignment of road, including sharp curve at 228 Forest Home Drive.
- On northeast side of road, curb extends from intersection, stopping at beginning of parallel parking pull-off in front of Chapel. Curb resumes at far end of Chapel parking area, and proceeds around corner, with curb cut for driveway at 228 Forest Home Drive. Curb continues along 228 Forest Home Drive frontage, ending at existing box culvert inlet beyond barn. Curb resumes at far side of driveway for 236 Forest Home Drive, and continues to bridge deck.
- On southwest side of road, curbing for the Forest Home Drive / Warren Road intersection ends at parking lot for Forest Home Chapel.
- Cobbled shoulder band on northeast side of road continues as 18 in wide from intersection to Chapel parallel parking area, where it transitions to 12 in wide. Shoulder band remains 12 in wide around corner (due to space constraints), transitioning back to 18 in wide when room allows, before driveway for 228 Forest Home Drive. Shoulder then remains 18 in wide until ending at bridge deck. (Alternatively, shoulder could remain 18 in wide full length, with pavement width reduced by 6 in at corner.)
- On southwest side of road, cobbled shoulder continues as 18 in wide from intersection to Chapel parking lot, where it transitions to 12 in wide. Shoulder band remains 12 in wide around corner (due to space constraints), becoming 18 in at kink at front of vehicle stacking area for upstream bridge. Shoulder then remains 18 in wide until ending at bridge deck. (Alternatively, shoulder could remain 18 in wide full length, with pavement width reduced by 6 in at corner.)
- Replace existing W-section guiderail in front of 233 Forest Home Drive with more attractive alternative.
- Resize existing catch basin inlet grate in front of 222 Forest Home Drive, and reposition within cobbled shoulder band
- On northeast side of road, fill in existing ditch beyond sharp curve. Surface water runoff will be carried by shoulder, adjacent to curb. Culvert under driveway for 228 Forest Home Drive can be eliminated. Beyond barn, surface water runoff will be directed into existing box culvert inlet, either via a scupper in the curb, or via a catch basin inlet grate located within width of cobbled shoulder band.
- Replace deteriorating concrete wall at sharp curve (228 Forest Home Drive) with stone wall in same location. Protect base of wall with granite curb. Cobbled shoulder also serves to provide a buffer between vehicular traffic and the wall, thereby protecting each from the other.
- Beyond driveway for 228 Forest Home Drive, ramp dirt from back of curb to top of existing concrete retaining wall, creating a grassed slope.
- Provide 4 ft wide side path in front of Parsonage and Chapel (222 Forest Home Drive), utilizing current alignment. Leave enough room between road and side path to allow for parallel parking in

front of Chapel. Side path then transitions to 3 ft wide and follows current dirt path to connect to existing concrete sidewalk at 228 Forest Home Drive. At far end of concrete sidewalk, provide 3 ft wide side path which follows alignment of existing dirt path. Side path transitions to 4 ft wide where it becomes adjacent to the shoulder at 236 Forest Home Drive.

- At approach to bridge, remove existing box-beam guiderail on northeast side of road in order to create room for a side path. Side path tapers from 3 ft wide at driveway for 236 Forest Home Drive, to the full width of wooden walkway on bridge. Side path is protected by granite curb (and new guiderail, see below). Note that this Plan preserves the existing stone retaining wall and does not disturb the adjoining flower garden. (Note also that space is at a premium at this location, and extraordinary care will be required in laying out and constructing this section of roadway.)
- On bridge approach, lower existing manhole cover to walkway grade.
- Provide stacking area on approach to upstream bridge for traffic waiting to cross. Delineate with white painted "yield line" and kink in the cobbled shoulder band at front of stacking area. (Stacking area is located so that lead driver can see stacking area on far end of bridge.)
- Replace existing inappropriate W-section guiderail on bridge with box-section bridge rail. On northeast side of road, begin new guiderail 25 ft before bridge, separating the road from the side path. On southwest side of road, begin guiderail at kink at front of stacking area.
- Replace existing bridge walkway handrail with historically appropriate lattice-work handrail, such as
 on downstream bridge. Utilize ornate cast handrail end posts, as at downstream bridge, if available.
 Begin lattice handrail at driveway for 236 Forest Home Drive, continuing along top of stone
 retaining wall and onto bridge.
- Granite curbing on northeast side of road resumes at far end of bridge deck and continues to Forest Home Drive / Caldwell Road intersection. Curb alignment incorporates a kink to designate stacking area for vehicles waiting to cross bridge. Front of stacking area is further identified by a white painted "yield line." (Stacking area is located so that lead driver can see stacking area on far end of bridge.)
- Guiderail on northeast side of road continues beyond bridge to the kink in curb line.
- Cobbled shoulders 18 in wide resume at end of bridge deck, and continue to Forest Home Drive / Caldwell Road intersection.
- On bridge approach, lower existing manhole cover to walkway grade, as called for at other end of bridge.
- Continue 4 ft wide side path on northeast side of road to Forest Home Drive / Caldwell Road intersection. Extend lattice handrail to utility pole, approximately 12 ft beyond end of bridge, replacing existing W-section guiderail. Repair and relocate existing split rail fence to be adjacent to the side path, beginning at end of lattice handrail and extending to the Forest Home Drive / Caldwell Road intersection.

- On southwest side of road, remove unnecessary box-section guiderail along Plantations land, replacing with a short section of guiderail wrapping into park.
- Repair stone retaining wall that supports northeast side of road at bridge approach adjacent to 300 Forest Home Drive.

Forest Home Drive / Caldwell Road Intersection

- Reduce size of intersection by relocating the curb-line along southwest side of intersection so that it is farther away from the sewer tanks. (This change in intersection geometry would also mean that vehicles exiting the upstream bridge and turning left on Forest Home Drive would no longer swing right before turning left. This "fake right, turn left" motion can confuse drivers waiting at the Caldwell Road stop sign, who have sometimes proceeded into the intersection as soon as an oncoming vehicle begins to angle right, apparently aiming for Caldwell. But then the vehicle turns left on Forest Home Drive, and a conflict occurs.)
- Establish 25 ft curb radius on north and east corners of intersection. On southwest side (near sewer tanks) establish a 100 ft curb radius. Granite curbing is used throughout, with curb on southwest side stopping at the driveway for the Wildflower Garden parking lot.
- Cobbled shoulders 18 in wide are used throughout intersection.
- On north corner, installation of new catch basin may be appropriate, located within cobbled shoulder band. Utilize existing subsurface drainage line, if adequate capacity exists. Alternatively, surface runoff water could be directed northeast along Forest Home Drive to existing culvert entrance beyond driveway for 300 Forest Home Drive.
- Provide superelevation in intersection for vehicles exiting bridge and turning left on Forest Home Drive. (By "tipping up" the road surface on Forest Home Drive, drivers will be better able to see the lane that they are turning into, and should therefore be less likely to cut the corner, as they do now. This use of superelevation will also allow vehicles to make the turn without slowing unduly and then accelerating in order to regain lost speed. Vehicles continuing straight onto Caldwell Road will cross the superelevated pavement, experiencing a slight speed hump effect, which will serve to moderate their speed, in spite of the large curve radius. The intent is to have vehicles coming from the bridge flow through the intersection at 15 mph, regardless of which direction they are going.)
- Remove long section of guiderail along Plantations land on southwest side of intersection, and replace with shorter section to protect the sewer tanks. Plant low bushes to screen the view of the tanks and guiderail from the intersection.
- Create 4 ft wide side path on northern corner of intersection, leading from upstream bridge, around the corner, and continuing northeast along Forest Home Drive. Reposition existing wooden rail fence to be adjacent to side path, and extend fence eastward around corner of Forest Home Drive. Remove old wooden curbing from adjacent lawn at 300 Forest Home Drive.
- Install pedestrian crosswalks across Caldwell Road and the northeast leg of Forest Home Drive. These crosswalks connect the Plantations Wildflower Garden with the Arboretum, and connect the new Forest Home side path system with the Cornell Plantations.

Forest Home Drive: Caldwell Road to Beyond Community Boundary

- Shift Forest Home Drive slightly to the southeast, approximately to edge of existing roadway shoulder.
- Provide 4 ft wide side path on northwest side of Forest Home Drive, generally within bounds of existing road and shoulder, utilizing space made available by shifting the road. Northwest edge of side path is adjacent to existing flush brick pavers in front of 304 and 306 Forest Home Drive. Parallel parking is retained at 310, 312, 314, 332, 336, and 340 Forest Home Drive.
- Cobbled shoulder on northwest side of road continues 18 in wide from intersection out to community gateway entrance feature. Shoulder on southeast side transitions to 12 in wide after intersection, and remains 12 in wide to community entrance feature. (Alternatively, shoulder could remain 18 in wide full length, with pavement width reduced by 6 in.)
- On southeast side of road, granite curb stops after intersection. On northwest side of road, curb extends to driveway for 300 Forest Home Drive. Curb resumes at driveway for 320 Forest Home Drive, extending around curve to driveway for 326 Forest Home Drive, with curb cut for 324 Forest Home Drive.
- Plant bushes at outside of curve at 324 Forest Home Drive (with homeowner's permission) to define outside of curve and to reduce apparent length of straightaway.
- Eliminate open ditch on southeast side of road, replacing with grassed swale.
- If Forest Home Drive is rebuilt, consider creating a mildly undulating vertical alignment of road. This would involve introducing natural-appearing dips in the vicinity of 316 and 336 Forest Home Drive.
- Provide speed table if necessary, to be located between 310 and 312 Forest Home Drive.
- Create roadway cross-slope at 332 340 Forest Home Drive, so that road drains to the south, away from houses.
- Construct gateway entrance feature, to be centered 70 ft west of existing "Forest Home" sign. Entrance feature consists of a speed table flanked by lamp posts on stone pillars. Granite curbing (21 ft curb-to-curb) is used in vicinity of entrance feature to protect the stone pillars. Cobbled shoulders 18 in wide are used on both sides of road at this approach to entrance feature.
- Cobbled shoulders end at entrance feature. Curb on south side of road ends shortly after entrance feature, while curb on north side of road continues to new pedestrian crosswalk where Plantations path meets Forest Home Drive (see below).
- In vicinity of entrance feature, the side path deviates around stone pillar, creating a short buffer. Path flares from 4 ft to 5 ft wide, becomes adjacent to curb, and continues to new pedestrian crosswalk (see below). This section of side path adjacent to Fall Creek forms a 400 ft long "RiverWalk."

- Retain superelevation in this area, so that road continues to drain to the south, away from new curb.
- Remove existing box-section guiderail, and replace with more attractive alternative, situated between side path and Fall Creek. Utilize rail design which does not block view of creek. Alternatively, low stone wall could be constructed to match that along 100 block of Forest Home Drive in vicinity of western entrance to community. (There are two main advantages that argue for locating the vehicle guiderail or wall beyond the side path. One is that runners in the road can easily access the side path when a car approaches. Another is that the absence of a barrier adjacent to the curb will make the stone pillars more visually prominent for drivers.)
- Install pedestrian crosswalk where Plantations path currently ends at Forest Home Drive, thereby linking Forest Home's side path system with Plantations' network of paths and trails.
- Provide mirror at north end of crosswalk, positioned so that pedestrians on south side of road are provided an unobstructed view of traffic approaching from the west. (This ability to "see around the corner," the reduced vehicle speeds, and the prominence of the crosswalk should all contribute to improved safety for pedestrians at this location.)
- At crosswalk, curb and side path end. Guiderail reverts to box-beam, adjacent to roadway. Forest Home Drive continues to the east unaltered from its current form. (If desired, the creek-side RiverWalk could be continued east to the Flat Rock parking area or beyond, as part of a future project. However, implementation is beyond the scope of this Traffic Calming Plan.)

Judd Falls Road: Plantations Road (Jug Handle) to McIntyre Place

- Construct gateway entrance feature, to be centered 50 ft south of existing "Forest Home" sign. Entrance feature consists of a speed table flanked by lamp posts on stone pillars. On east side of road, existing granite curbing is retained in current location. On west side of road, granite curb is relocated to create appropriate 21 ft curb-to-curb width. Cobbled shoulders 18 in wide begin at entrance
- Existing 5 ft wide walkway on west side of road is rerouted around stone pillar at the entrance feature, then rejoins road, adjacent to curb.
- Existing pedestrian crosswalk at Plantations path is retained in current location.
- Just beyond crosswalk and front stairs to Plantations Lewis Building (former Forest Home school), walkway on west side of road transitions to a 4 ft wide side path. Side path continues adjacent to curb to the Judd Falls Road / McIntyre Place intersection.
- Replace existing smooth concrete curb-and-gutter with cobbled shoulder and granite curbing to match rest of community.
- Resize and reposition existing catch basin inlet grates to be within cobbled shoulder bands.

Judd Falls Road / McIntyre Place Intersection

- Establish 15 ft curb radius on northwest and southwest corners of intersection. Granite curbs and 18 in wide cobbled shoulders are used throughout.
- Resize and reposition existing catch basin inlet grates to be within cobbled shoulder bands.
- Create pedestrian crosswalk across McIntyre Place.
- Relocate utility pole on northwest corner so as to not obstruct visibility at intersection.

Judd Falls Road: McIntyre Place to Forest Home Drive

- Replace existing smooth concrete curb-and-gutter with cobbled shoulder and granite curbing to match rest of community.
- On west side of road, 4 ft wide side path continues adjacent to curb to the Judd Falls Road / Forest Home Drive intersection
- Retain existing parallel parking at 112 and 116 Judd Falls Road.
- Plant trees adjacent to side path at 118 Judd Falls Road, with homeowner's permission.
- Provide two speed tables if necessary, one to be located between 117 and 118 Judd Falls Road, and perhaps another just north of McIntyre Place.

Judd Falls Road / Forest Home Drive Intersection

• For description of intersection treatment, see "Forest Home Drive / Judd Falls Road Intersection" above.

Pleasant Grove Road: Cradit Farm Drive to Forest Home Drive

- From Pleasant Grove Road / Cradit Farm Drive intersection to top of hill, retain existing 28 ft pavement width, striped as 10 ft lanes and 4 ft shoulders.
- At top of hill, shoulder on southwest side of road tapers to 2 ft wide, and excess pavement is eliminated. Use adequate signage to alert bicyclists.
- Construct asphalt walkway, 4 ft wide and 100 ft long, extending from existing Cornell asphalt walkway, to join southwest side of road at top of hill.
- Establish 4 ft wide pedestrian walkway on southern edge of road. Walkway is located on existing asphalt road pavement, and continues down hill to community gateway entrance.

- Position new guiderail between new walkway and vehicular traffic. Allow 2 ft offset between guiderail and adjacent travel lane. Guiderail begins at curve at top of hill and continues down hill to community gateway entrance.
- Remove existing W-section guiderail along edge of pavement, from top of hill to community gateway entrance. Replace with pedestrian hand rail in same location, situated between new walkway and wooded slope to Fall Creek.
- Retain 4 ft wide shoulder on north side of road, between Pleasant Grove Road / Cradit Farm Drive intersection and community entrance feature, for use by bicyclists climbing hill.
- From top of hill to community entrance feature, existing 31 ft pavement width is retained, but reallocated in accordance with above plan: 4 ft wide walkway, 1 ft for guiderail, 2 ft wide guiderail offset, two 10 ft wide travel lanes, plus 4 ft wide bicycle climbing shoulder. Use of a rumble strip in the guiderail offset is suggested.
- Extend superelevation all the way through upper curve. Superelevation currently ends before end of curve, and a few vehicles have evidently contacted guiderail during slippery winter driving conditions.
- Adjust existing catch basin on northeast side of road to be flush with shoulder, and replace grate with bicycle-friendly design.
- Just uphill of the gateway entrance feature, 4 ft wide climbing shoulder begins for bicycles leaving community. (Bicyclists traveling up hill will ride in travel lane within Forest Home, but can use climbing shoulder once outside of community boundary, which is before steepest part of hill.)
- Construct gateway entrance feature, to be centered 28 ft southeast of existing "Forest Home" sign. Entrance feature consists of a speed table flanked by lamp posts on stone pillars. Granite curbing (21 ft curb-to-curb) is used to protect the stone pillars. Cobbled shoulders 18 in wide begin at entrance and continue to the Pleasant Grove Road / Forest Home Drive intersection, establishing a pavement width of 18 ft within Forest Home community.
- On northeast side of road, curb ends shortly after entrance feature. Curb then resumes at far edge of driveway, and stops past barn for 200 Forest Home Drive.
- On southwest side of road, curb continues to Pleasant Grove Road / Forest Home Drive intersection. Short section of curb across from barn has beveled edge to facilitate egress from driveway for 200 Forest Home Drive.
- Consider reconfiguring driveway for 200 Forest Home Drive, with homeowner permission, so as to retain current level of access.
- Resolve existing problem of water being discharged onto road, by rerouting barn footing drain to feed into existing round catch basin northwest of the barn.

- At entrance feature, guiderail between walkway and travel lane ends. Walkway deviates around stone pillar, then rejoins road adjacent to curb as side path. Downhill from entrance feature, existing W-section guiderail is either augmented with pedestrian rail, or replaced with new combination vehicle / pedestrian rail in current location. Rail ends before Pleasant Grove Road / Forest Home Drive intersection, but beyond Hasbrouck Stone Bench.
- At intersection, side path swings away from curb to join existing concrete walkway leading to downstream bridge.
- On southwest side of road, installation of new catch basin may be appropriate, located above pedestrian crosswalk for the Pleasant Grove Road / Forest Home Drive intersection. Inlet grate should be positioned within cobbled shoulder band, and can be tied in to existing subsurface drainage line, if adequate capacity exists.

Pleasant Grove Road / Forest Home Drive Intersection

• For description of intersection treatment, see "Forest Home Drive / Pleasant Grove Road Intersection" above.

Warren Road: Golf Course Cart Crossing to Fairway Drive

- Retain existing mid-block Golf Course cart crossing for use as pedestrian crosswalk.
- Create 5 ft wide path extending from east end of crosswalk south to Golf Course driveway. Path is located on Golf Course land, with permission, and is separated from east side of road by green buffer. Alternatively, path could be adjacent to east side of road, in location of existing gravel shoulder, separated from pavement by curb or textured shoulder band.
- Beginning at Golf Course driveway, create 5 ft wide path extending south past community entrance feature. Path is located between ditch and driving range on Golf Course land, with permission, and is separated from east side of road by green buffer.
- Construct gateway entrance feature, to be centered 10 ft north of existing "Forest Home" sign. Entrance feature consists of a speed table flanked by lamp posts on stone pillars. Granite curbing (21 ft curb-to-curb) is used in vicinity of entrance feature to protect the stone pillars. Water drainage from uphill end of speed table can be handled by scuppers through curb. The insertion of 18 in wide cobbled shoulders on each side of road reduces pavement width to 18 ft within bounds of Forest Home community.
- South of entrance feature, curbs end, and path crosses ditch to join road as 4 ft wide side path. Side path continues along road, adjacent to cobbled shoulder.
- On west side of road, replace intermittent ditch with intermittent grassed swale. On east side of road, existing ditch is retained.
- If Warren Road is rebuilt, consider re-establishing road's original undulating vertical alignment, to more closely match that of adjacent golf course.

Warren Road / Fairway Drive Intersection

- Retain existing "T" configuration of intersection. Install granite curbing with 25 ft curb radius at northeast and southeast corners of intersection. No curbing is used on western side of intersection. Cobbled shoulders, 18 in wide, are used throughout.
- Establish pedestrian crosswalk across Fairway Drive.

Warren Road: Fairway Drive to Crest Lane

- Pavement continues 18 ft wide, with 18 in cobbled shoulders on each side. Side path 4 ft wide continues adjacent to shoulder on east side of road.
- Provide speed table, if necessary, to be located just south of Fairway Drive.
- Establish mid-block pedestrian crosswalk across Warren Road at top of Town's existing Forest Home Walkway. Crosswalk connects Town walkway to new side path along east side of road.
- On west side of road, replace intermittent ditch with intermittent grassed swale. On east side of road, existing ditch is retained.
- If Warren Road is rebuilt, consider re-establishing road's original undulating vertical alignment, to more closely match that of adjacent golf course.
- Retain existing granite curbing along western side of road south of golf course.

Warren Road / Crest Lane Intersection

- Retain existing "T" configuration of intersection. Install granite curbing with 25 ft curb radius at northeast corner of intersection. On southeast corner, reposition existing granite curbing to form a 25 ft curb radius, to define a 21 ft curb-to-curb width on Warren Road, and to better align with existing pavement on Crest Lane. Retain existing curbing on western side of intersection. Cobbled shoulders, 18 in wide, are used throughout.
- Resize and reposition existing catch basin inlet grates to be within cobbled shoulder bands.
- Establish pedestrian crosswalk across Crest Lane.

Warren Road: Crest Lane to Halcyon Hill Road

- Reposition existing granite curbing to create a consistent 21 ft curb-to-curb width and a smooth roadway alignment.
- Side path 4 ft wide continues adjacent to curb on east side of road. Cobbled shoulders 18 in wide continue on each side, with a pavement width of 18 ft.
- Resize and reposition existing catch basin inlet grates to be within cobbled shoulder bands.

- Reset existing manhole to be flush with side path.
- Resolve existing problem of water being discharged onto path and road, by connecting offending tile drain lines into existing storm-water sewer system.

Warren Road / Halcyon Hill Road Intersection

- Retain existing "y" configuration of intersection. Reposition existing granite curbing to establish 21 ft curb-to-curb width on Warren Road, while retaining 25 ft curb radius at northeast corner and 10 ft curb radius on southeast corner of intersection. Retain existing curbing on western side of intersection. Cobbled shoulders, 18 in wide, are used throughout.
- Establish pedestrian crosswalk across Halcyon Hill Road.
- Establish cross-slope on Halcyon Hill Road so that surface water drains to southwest side of road. Extend granite curb and cobbled shoulder up southwest side of Halcyon Hill Road approximately 110 ft, to carry runoff water down to intersection. On southeast side of intersection, installation of new catch basin may be appropriate, located above curb cut for crosswalk across Halcyon Hill Road. Inlet grate would be positioned within cobbled shoulder band, and can be tied in to existing subsurface storm water drainage system for Warren Road.
- Relocate group mailboxes for Halcyon Hill Road across street to northeast corner of Warren Road / Halcyon Hill Road intersection.

Warren Road: Halcyon Hill Road to Forest Home Drive

- Reposition existing granite curbing to create a consistent 21 ft curb-to-curb width and a smooth roadway alignment.
- Side path 4 ft wide continues adjacent to curb on east side of road. Cobbled shoulders 18 in wide continue on each side, with a pavement width of 18 ft.
- Resize and reposition existing catch basin inlet grates to be within cobbled shoulder bands.
- Reset existing manholes to be flush with side path.
- Construct stone retaining wall approximately 125 ft long and 4 ft high on eastern side of side path. Wall begins below utility pole across from barn, and extends down to curve at base of hill, and keeps steep bank from slumping onto side path.
- Create super-elevation through curve at base of hill.
- At curve at base of hill, relocate guiderail on eastern side of road to extend further up hill, and to more closely follow curvature of road. Side path is routed behind guiderail.
- On western side of road, shorten and adjust position of guiderails to allow better access to driveways. At approach to stop sign, shorten guiderail 8 10 ft.

Warren Road / Forest Home Drive Intersection

• For description of intersection treatment, see "Forest Home Drive / Warren Road Intersection" above.

Caldwell Road: Plantations Road to Forest Home Drive

- Create 4 5 ft wide pedestrian path extending from Caldwell Road / Plantations Road intersection to Caldwell Road / Forest Home Drive intersection. Path is located on Plantations land, with permission, and is separated from northeast side of road by green buffer. Meandering alignment avoids existing plantings.
- Establish mid-block pedestrian crosswalk across Caldwell Road northwest of Caldwell Road / Plantations Road intersection. Crosswalk connects new path (above) to shoulder on southwest side of road, thereby allowing pedestrians walking toward Forest Home to access the new path. Location of crosswalk aligns with anticipated future Plantations trail to southwest. Alternatively, pedestrians walking toward Forest Home can continue to use existing gravel shoulder on southwest side of road, crossing Caldwell Road at new crosswalk at Caldwell Road / Forest Home Drive intersection.
- Construct gateway entrance feature, to be centered 114 ft northwest of existing "Forest Home" sign. Entrance feature consists of a speed table flanked by lamp posts on stone pillars. Granite curbing (21 ft curb-to-curb) is used in vicinity of entrance feature to protect the stone pillars. Water drainage from uphill end of speed table can be handled by scuppers through curb. The insertion of 18 in wide cobbled shoulders on each side of road reduces pavement width to 18 ft within bounds of Forest Home community.

Caldwell Road / Forest Home Drive Intersection

• For description of intersection treatment, see "Forest Home Drive / Caldwell Road Intersection" above

APPENDIX IX

Cost Estimates for Key Plan Components

This Appendix presents rough cost estimates for the construction of key traffic calming elements called for in this Plan:

- Entrance feature (includes speed table, low stone pillars, gothic lamp posts, electric service to lamps; does not include accompanying curbs, cobbled shoulders or side path): \$23,400
- Mid-block speed table: \$12,800
- Granite block shoulder (gutter): \$18 per square foot
- Granite curb: \$24 per linear foot
- Exposed-aggregate stamped concrete shoulder (gutter): \$10 per square foot
- Exposed aggregate concrete curb: \$14 per linear foot
- 4 ft wide stone dust surfaced side path: \$11 per linear foot
- Pedestrian-scale lighting: \$1,800 \$2,500 per lamp, installed, depending on ornamentation

Note: Costs for entrance feature, mid-block speed table and lighting include 20% contingency and 17.5% engineering/inspection. Similar percentages should be added to computed quantities of the other items (curb, shoulder, side path).

APPENDIX X

Value of In-Kind Contributions

This Appendix presents our estimate of the value of the in-kind services contributed by the Forest Home Improvement Association's Traffic Calming Committee. These efforts went well beyond typical Client Committee responsibilities, and provided services of real economic value. The table on the following page lists the major tasks performed by members of the Committee, and calculates a dollar value for each. The rates and the overhead of 28% are typical for in-house municipal efforts. (Consultant contracts would have cost considerably more, with overhead of around 170 - 200%.) It is our expectation that this significant contribution by the residents of Forest Home will be recognized and factored in when providing funding for the implementation of this Plan.

Table A-X-1

Value of In-Kind Contributions

		Hours		Hourly	
		per	Total	Rate	
Task	Units	Unit	Hours	(1)	Value
Arranging and coordinating three site visits (including stakeholder meetings)	3 visits	8	24	\$30	\$720
Collecting materials for meetings (maps, photographs, photocopies, food, etc)	3 meetings	8	24	30	720
Arranging for traffic speed and volume counts at community entrances, tabulating results	1 count	4	4	40	160
Performing vehicle turning movement counts at six intersections (AM & PM peak hr) in 2001, and at five intersections (PM peak hr) in 2005, tabulating results	17 counts	3	51	20	1,020
Recording truck and bus turning movements through one intersection for 12 hrs, tabulating results	1 count	14	14	20	280
Evaluating and recording the conditions of existing sidewalks and walkways in Forest Home	1 analysis	40	40	40	1,600
Recording streetscape cross sections at 26 key locations (road width, slope, pavement condition, shoulder material, etc)	1 inventory	36	36	40	1,440
Detailed surveying and mapping of exisiting community streetscapes	40 sheets	36	1,440	40	57,600
Preparing overlays of draft traffic calming plan	40 sheets	24	960	40	38,400
Preparing overlays of final traffic calming plan	40 sheets	20	800	40	32,000
Preparing schematic overview map of Forest Home showing recommended traffic calming features	1 map	12	12	40	480
Preparing eye-level perspective views of community entrance features	8 views	8	64	40	2,560
Assisting in preparation of Final Report (compiling, copy editing, collecting material for appendices, formatting, photocopying and distributing final document, etc)	1 report	64	64	30	1,920
Total All Tasks					\$138,900

Add for Indirect Labor (28% overhead)

38,892

Total Value \$177,792

Note: (1) Direct labor only

APPENDIX XI

Compatibility with Relevant Local Plans and Policies

This Plan seeks to increase the livability of the historic Forest Home neighborhood through an integrated program of traffic calming and improved streetscape design. This theme, of limiting traffic impacts and improving the streetscape environment, has been a salient feature of several recent local plans and policies in the Ithaca area. Taken together, these various plans are all in broad accord, and point toward a significantly improved neighborhood experience for local residents. This Forest Home Traffic Calming Plan dovetails nicely with these other efforts.

This Appendix contains relevant excerpts from recent plans and policies which lend their support to a traffic calming and streetscape improvement initiative in Forest Home. These plans and policies include the Town of Ithaca Sidewalk Policy, the draft Town of Ithaca Transportation Plan, the Northeast Subarea Transportation Study (NESTS) Transportation Plan, the Ithaca-Tompkins County Transportation Council's 2025 Long Range Transportation Plan, and the Tompkins County Comprehensive Plan.

Excerpts from TOWN OF ITHACA SIDEWALK POLICY

Town of Ithaca Town Board September 23, 2003

PREVIOUSLY DEVELOPED AREAS

At Town Expense

On recommendation of the Planning Board and approval of the Town Board if at least three of the following conditions apply:

- Within convenient walking distance to school, church or other place of regular public use,
- Links existing or probable future sidewalks,
- Existing or planned road shoulders inadequate for bicycles and pedestrians,
- Proximate access to public transportation,
- Right of way is sufficient for existing/planned roadway plus sidewalk, or an easement can be reasonably obtained from adjacent landowner(s),
- Planned sidewalk does not dead end without reasonable expectation of extension/connection in foreseeable future.
- Peak hour traffic volume is at least moderate, defined as 350 500 vehicles per hour, and
- Shown as part of a town wide pedestrian circulation system in Town of Ithaca Transportation Plan.

Maintenance will be the responsibility of the homeowners fronting on the sidewalks, unless other arrangements are made.

Examples of Town and County roads with that volume of peak hour traffic include Five Mile Drive, Ellis Hollow Rd., Coddington Rd. (west of Juniper), Judd Falls Rd., Pine Tree Rd., and Forest Home Drive.

CONSTRUCTION SPECIFICATIONS

Unless other arrangements are approved by the Planning Department, standard sidewalk construction shall consist of concrete four (4) feet wide. Where conditions apply, and if supported by owners of at least half the assessed value of real property in the benefit district, a walkway may be substituted for a sidewalk. Compared with a sidewalk, a walkway will typically be set further from the road edge and will be more curvy, often being constructed of asphalt.

Excerpts from TOWN OF ITHACA TRANSPORTATION PLAN (draft)

Town of Ithaca Town Board June 25, 2007

GOALS AND OBJECTIVES

Livability

Goal

Develop and maintain a transportation system that promotes safe, healthy, and attractive neighborhoods.

Objectives

- Employ road design guidelines that encourage compliance with posted speed limits and protect neighborhoods from undue traffic burdens, such as noise and air pollution.
- When modifying or rebuilding roads in residential areas, work to beautify streetscapes, restore roadways to a human scale, and improve the character and livability of the neighborhoods through which they pass.

Safety

Goal

Strive to provide a safe transportation system, and prioritize safety and security in the implementation of every goal for both motorized and non-motorized modes of transportation.

Objectives

• Work to lower 85th percentile speeds on certain roads through design changes, and continue to request NYSDOT to lower speed limits on certain roads.

Environment

Goal

Protect the environment, including the significant natural, agricultural, scenic, and historic resources of the Town of Ithaca.

INVENTORY AND ANALYSIS

Roadway Function and Right-of-Way Design

Identification of Needs

While it may be difficult to change the designated functional classification of a road, it is far more difficult and costly (in monetary, social, and environmental costs) to alter adjacent residential land uses to suit the needs of through-traffic. Therefore, roadway modifications need to reflect the permanent

needs of residential areas, instead of the excessive over-design standards associated with potentially inappropriate functional classifications. Instead of improving network capacity by adding lanes, widening existing lanes, or increasing the design speed, the **Town needs to advocate for roadway designs that are compatible with adjacent land uses and that elicit safe driver behavior**, while recognizing current traffic loads.

The Town needs to protect and promote safety and livability in residential areas, with residential streets designed to naturally elicit responsible driver behavior, rather than facilitate high vehicle flow rates. Narrower roads with lower design speeds or the addition of appropriate traffic calming measures may lead to the slower, more careful driving that is appropriate for residential neighborhoods. Therefore, whenever a section of road in the Town is rebuilt, rather than being restricted by the functional classification system's somewhat abstract labels alone, the Town needs to work to address any known safety problems and to ensure the new roadway design is suitable for and compatible with the adjoining land uses. In many cases, this involves coordination with the County and State for roads not under the Town's jurisdiction.

Traffic Data: Volumes, Speeds, & Crashes

Speed Data

Identification of Needs

The Analysis above concluded that speeding is a problem on many roads in the Town. Thus, **this Plan identifies a need for speed mitigation**, focusing on (but not limited to) residential, medium-density areas, school zones, roads with lower speed limits, and areas of high pedestrian or bicycle traffic. Guidelines could set forth criteria by which the extent and severity of speeding would be assessed and would offer mitigation measures based on the characteristics of the road and the adjacent land uses.

As noted above, **speed mitigation efforts need to focus on areas where the severity of speeding is worst**. The Analysis above identified the Northeast, the southern part of Pine Tree Road, the Forest Home neighborhood, and Coddington Road near Ithaca College as areas where speeding is severe. These locations may form the first "round" of speed mitigation projects. A more complete listing of locations with speeding problems is included in the *Alternatives* section.

In order to target unintentional speeders, the Town needs to adopt a set of design guidelines that tie the design of the road to the desired motor vehicle speed. Furthermore, the Town needs to explore alternate design strategies that have worked well for other municipalities, such as traffic calming measures, to target speeding in certain areas to protect the livability of neighborhoods. Traffic calming techniques cue motorists that they are in an area where speeding is inappropriate. As noted at the end of the Analysis, traffic calming saves time for law enforcement, preserves the quality of life for residents, and encourages motorists to follow the law. Traffic calming is a valuable design tool when applied correctly in appropriate situations.

RECOMMENDATIONS

2. Roadway and Road Network Issues

- **B.** Engineering and Design: Livability should be the goal of all transportation design in the Town of Ithaca. To this end, the design of a right-of-way should reflect the intended use of the roadway and the character of the adjacent lands. Roads should be designed to elicit desirable driver behavior (such as attentiveness, compliance with speed limits, etc). (Goals I, II, III, VI, VII; ongoing)
 - **4.** Speeding & Cut-Through Traffic:
 - 1. The Town should implement design responses to excessive speeds and cut-through traffic in neighborhoods, such as traffic calming (see below). (Goals II, III, IV, V, VII; as feasible; high-priority)
 - 2. The Town should continue to petition the County and State for speed limit reductions on appropriate roads in the Town. One potential location for speed limit reduction is Pine Tree Road. (Goals II, III, V, VII; ongoing)

C. Maintenance:

- **4.** Environmental Sensitivity:
 - 1. The Public Works Department should limit trimming of roadside vegetation to that which fulfills safety & drainage objectives. The Town should consider roadside vegetation an asset, not a liability. (Goals II, IV, VII; ongoing)
 - 2. The Town should carefully assess any transportation project in an agricultural, scenic, or historic area to ensure that potential impact to these resources does not exceed the expected benefits from the proposed project. (Goals II, IV, VII; ongoing)
 - **4.** The Town should encourage other jurisdictions with roads in the Town of Ithaca to adhere to similar standards of environmental consideration. (Goals II, IV, V, VII; ongoing)
- **D.** Traffic Calming: As explained throughout the Traffic Calming Chapter of *Volume III: The Design Guidelines*, the Town should explore traffic calming measures as one strategy to protect residential areas from excessive negative effects of motor vehicle traffic. Unlike enforcement strategies (see below), the goal of traffic calming is to cause motorists to unconsciously slow down in response to their surroundings. Since traffic calming measures are more permanent than temporary enforcement measures, traffic calming should be used as a long-term strategy to reduce speeds and improve livability in neighborhoods. Traffic calming and other livability-oriented design features, such as street trees, sidewalks, or pedestrian-scale lighting, should be considered as part of roadway construction or reconstructions. (Goals II, III, VI, VII; as feasible; high priority)
- F. <u>Potential New Roadway Corridors</u>: This Plan and other plans preceding it have identified several possible roadway corridors that would provide access to developing areas or potentially could help to reduce traffic volumes in existing neighborhoods. These corridors include a connector road on West Hill (shown in cross-hatching on the Official Highway Map in Volume II Appendix I), a connector road from Pleasant Grove Road to Triphammer Road (identified in the North Campus Gateway Study), and a possible northeast connector road outside of the Town of Ithaca (discussed in the NESTS Study; see the "Official Highway Map and Road Network Design" section in the Inventory and Analysis Chapter for more information). Furthermore, the

Town should continue to explore means of reducing traffic in residential areas by creating alternate (non-residential) traffic routes as opportunities arise. (Goals I, II, III, V, VI; ongoing)

3. Bicycle & Pedestrian Issues

B. Bicycle and Pedestrian Facilities:

- 2. Costs: The Town should assume the cost of construction and maintenance of bicycle and pedestrian facilities that serve a broader population beyond the adjacent neighborhoods. Where the benefit is primarily for residents in the immediate vicinity (for example, on a long cul-de-sac), property owners should be responsible for the maintenance and repair of sidewalks and walkways. (Goals I, II, IV, V; ongoing)
- **4.** Forest Home Pedestrian Issues: The Town should implement appropriate pedestrian improvements in the Forest Home neighborhood, as determined by the Public Works Committee and Town Board. (Goals I, II, III, IV, V; intermediate-term; medium priority)

C. Bicycle & Pedestrian Design:

- 1. The Town should use the guidelines in the *Bicycle and Pedestrian Infrastructure Design: Best Practices Toolbox* in *Volume III: The Design Guidelines* as a starting point when designing bicycle and pedestrian facilities. As the guidelines do not prescribe mandatory specifications, the Town should apply the principles of context sensitive design to tailor the design of facilities to the unique situation of every corridor. (Goals I, II, III, IV, V, VI, VII; as feasible; high priority)
- **2.** All bicycle and pedestrian facilities should be ADA compliant, unless there are factors that cannot be mitigated with reasonable cost and effort. (Goals I, III, IV; ongoing)

6. Capital Budget Projects

- **D.** Specific Projects: The following is a list of projects that could become part of the Capital Budget in the future:
 - **1.** Bicycle and Pedestrian Improvements: For a listing of bicycle and pedestrian improvement projects with descriptions, please see Appendix VI and the prioritized Pedestrian and Bicycle Corridor Needs Maps (Maps 11 and 12). The list below includes all of the corridors identified as high priorities. (Goals I, II, III, IV, V; as feasible; high priority)
 - **6.** Forest Home neighborhood
 - 2. Forest Home Traffic Calming Plan: Implement elements of the Forest Home Traffic Calming Plan (FHTCP), when and where appropriate, upon the completion of the FHTCP and submission to the Town Board. (Goals I, II, III, IV, V; intermediate-term; medium priority)

Excerpts from

TOWN OF ITHACA TRANSPORTATION PLAN (draft)

Appendix VI: Identifying & Prioritizing Bicycle and Pedestrian Improvements

Town of Ithaca Town Board June 25, 2007

PEDESTRIAN CORRIDORS: SELECTION AND PRIORITIZATION

The Interim Town of Ithaca Sidewalk Policy of 2003 distinguishes between existing development and newly developed areas when outlining criteria that indicate the need for a sidewalk or walkway. A sidewalk is owned and maintained by property owners or neighborhood association, while a walkway is owned and maintained by the Town. The considerations that determine whether **new development** warrants sidewalks or walkways are as follows: children walk to school; current or likely future presence of numerous children in an environment where, in the absence of a sidewalk or walkway, many children can be expected to be present on the road shoulder; bus stop within convenient walking distance; connected to other sidewalks or walkways; provide access to trail system or public park; and safety for pedestrians.

The Planning Board can recommend that a walkway be constructed at Town expense on an **existing road corridor** if at least three of the following criteria are met: an existing road must: be within convenient walking distance to school, church or other place of regular public use; link existing or probable future sidewalks or walkways; have existing or planned road shoulders which are inadequate for bicycles and pedestrians; have proximate access to public transportation; have sufficient right of way for existing/planned roadway and sidewalk or walkway, or an easement can be reasonably obtained from adjacent landowner(s). In addition the planned sidewalk or walkway will not dead end without reasonable expectation of extension/connection in foreseeable future; the peak hour traffic volume on the existing roadway is at least moderate, defined as 350 - 500 vehicles per hour; and that the area is shown as part of a town wide pedestrian circulation system in Town of Ithaca Transportation Plan.

The Town of Ithaca Transportation Committee identified additional criteria that indicate whether a location may need a sidewalk or walkway. They are:

- Higher density/ intensity of land use (medium and high density residential, neighborhood/ office park commercial, etc)
- Located along the route of a bus
- Within ½ mile of an elementary school, assisted living facility, or employment/ activity center for the disabled
- Within ½ mile of other pedestrian generators (like middle schools, high schools or universities, commercial centers, employment centers, major transit stops, parks or other recreational facilities (like playgrounds), places of worship, post offices, municipal buildings or community centers, restaurants, or other locations that would generate pedestrian traffic)
- High 85th percentile speed; speed limit greater than 25 mph
- Roadway of high volume and classification (arterials or collectors; > 4,000 vpd)
- Outside funding is available; hence, cost to Town is low OR roadway is currently being or soon to be reconstructed (include sidewalks or walkways as part of project)

- Links into existing or planned pedestrian network (as shown in the *Park, Recreation, and Open Space Plan*)
- Current infrastructure is insufficient: a paved shoulder less than four feet wide, or a deteriorated pavement or gravel shoulder less than five feet wide

Considerations that counter-indicate sidewalk or walkway provision include:

 With reasonable effort, the design, construction, and maintenance of the sidewalk or walkway cannot mitigate detrimental effects on environmental resources, including natural, historic, and scenic resources

High Priority, Essential Corridors: Ten Year Horizon

Forest Home Neighborhood, as Shown in the Forest Home Traffic Calming Plan

The historic Forest Home neighborhood is comprised of medium-density residential development. A chapel, which also serves as the neighborhood's community center, is located in the neighborhood. The residential development, chapel, community center, bus stops, and proximity to Cornell generate significant pedestrian traffic. Pedestrian facilities in this historical, medium-density residential neighborhood range from four foot wide walkways to narrow, unpaved beaten paths. In some locations, there are no facilities at all. The Town of Ithaca's Forest Home Walkway connects Warren Road to Forest Home Drive. Peak hour vehicular volumes range from ~500 vph on Judd Falls Road to ~600 vph on Forest Home Drive. Forest Home is surrounded by university-related development, including the Cornell campus to the south, Plantations to the east, and the North Campus residential development and the Cornell golf course to the north. Sidewalks through this neighborhood will link to sidewalks in the City, Cornell's campus and the trails through the Cornell Plantations, as well as to a planned trail leading to the Northeast (shown in the Town's *Park, Recreation, and Open Space Plan*).

Excerpt from TOWN OF ITHACA TRANSPORTATION PLAN (draft)

Volume III: The Design Guidelines

Town of Ithaca Town Board June 25, 2007

STREETSCAPE DESIGN

The Roadway and Shoulder

Roadway Width

In general, the total curb-to-curb width of the roadway should be minimized, while taking into account safety and livability needs. A narrower street width reduces vehicle travel speeds, the amount of impervious road surface area, and the distance that pedestrians must cross. Lanes should be no wider than required to serve their role in the streetscape. Travel lanes on low-volume residential streets, such as those internal to a subdivision, can be 8 - 10 feet wide, depending on circumstances (such as shoulder and drainage conditions). Travel lanes on other roads can be 9 - 12 feet wide, again depending on circumstances. Roadway design should not impede emergency access.

Excerpts from

NORTHEAST SUBAREA TRANSPORTATION STUDY (NESTS) TRANSPORTATION PLAN

Ithaca-Tompkins County Transportation Council, Tompkins County, Village of Cayuga Heights, Village and Town of Lansing, Cornell University, Towns of Ithaca and Dryden, New York State

Department of Transportation

July, 1999

GOALS AND OBJECTIVES

Goal 1

A transportation system that enhances and preserves the quality of life in neighborhoods, residential and other community areas, including recreational, educational and commercial areas.

Objective 1: Increase safety on neighborhood streets.

Objective 2: Decrease the volume of vehicular traffic on neighborhood streets.

Objective 3: Reduce excessive vehicle speeds.

Objective 4: Decrease levels of vehicle-induced air and noise pollution.

Objective 5: Design attractive streetscapes.

Objective 6: Increase pedestrian and bicycle links between community nodes.

Feasibility Factors

C. Consider the impacts on various stakeholders. Strive for a win-win situation, where no single group benefits at the expense of another.

LIVABILITY PRINCIPLES

Roadway Design Standards

Roadway design standards should reflect the character of the adjoining land uses, which the road serves, rather than be determined by roadway ownership (i.e. whether it is a village, town, county or state road). These design standards should change where appropriate (e.g. where the land use changes), instead of at some (arbitrary) municipal boundary. Roads within residential neighborhoods should be narrow, calm, safe and attractive (and should have the *look* and *feel* of being residential). Pavement width should be kept to a minimum (perhaps 18 feet, certainly no wider than now), and a speed limit of 25 mph is often appropriate. In non-residential areas, the road can be wider if the desired vehicle speed is higher and the traffic is heavier. Many roads within the NESTS study area have some residential sections (which should be treated as such) and some non-residential sections (which may be treated differently). For example, Warren Road has several alternating residential and non-residential sections, but only the residential sections need to be narrow and low-speed. Note that design standard categories reflect the *land use* through which the road passes, not the *functional* classification labels used by AASHTO and NYSDOT. Also, uniformity in design standards is intended as a means to an end, not as an end in itself. Local variations in design standard are acceptable, and in some cases may even be necessary, in order to achieve the desired results at each specific location (see Traffic Calming). The Environmental Capacity and Mobility sections provide more detailed recommendations on how to modify roads in developed areas so that they can meet their performance criteria.

RECOMMENDATIONS

Recommendation 1 – Adopt Livability Principles

All actions should further the goal of creating and sustaining livable communities. The Working Group recommends incorporating the Livability Principles detailed elsewhere in this document and summarized below into all transportation and land use planning activities at the municipal, county, and regional level. The principles can be summarized as follows:

- Address *environmental capacity* concerns, reducing traffic impacts to an acceptable level, and making roads and their vehicles less of an intrusion on the land uses through which they pass.
- Decrease roadway width and traffic volume to acceptable levels in residential areas.
- Implement traffic-calming measures to control vehicle movements and speeds on neighborhood streets with the support of local residents.
- Ensure continued mobility through the expanded use of alternative modes and the construction of low impact roadways, where appropriate.
- Design roadways to be scenic, to reflect the character of the land uses through which they pass, and to protect and enhance neighborhood livability.
- Maintain and enhance the livability of all residential areas, even if this means that commuting time for some of the further out suburban developments may be a few minutes longer.
- Regard pedestrian and bicycle traffic as a significant and meaningful component of municipal transportation, and include provisions in all transportation and development projects.

Recommendation 4 – Improve the Bicycle and Pedestrian Facility Network

The Working Group recommends a continuous network of facilities to support year-round pedestrian and bicycle travel. Where appropriate, the *Plan* recommends:

- <u>Shared Facilities</u>: In residential neighborhoods, reduce vehicle speed and volume sufficiently that bicyclists and pedestrians can safely share the road with motor vehicles.
- <u>Parallel Facilities</u>: On higher speed roads with the potential for significant pedestrian or bicycle traffic, provide separate facilities (sidewalks, bike lanes, shoulders).
- <u>Independent Facilities</u>: Provide multi-use pathways independent of the roadway network that would allow pedestrian and bicycle mobility away from motor vehicle traffic.
- <u>Municipal Maintenance of Pedestrian and Bicycle Facilities</u>: Establish a coordinated system of year-round municipal maintenance of pedestrian and bicycle facilities, including road shoulders, sidewalks and multi-use trails.
- <u>Connectivity</u>: Expand pedestrian facilities by adding sidewalks at key locations. Provide bike and walking connections between existing developments, including adjoining cul-de-sacs.

Recommendation 7 - Implement Selected Actions

• Institute well-designed traffic-calming plans in high traffic residential areas in the study area where there is neighborhood support for doing so.

Excerpts from 2025 LONG RANGE TRANSPORTATION PLAN

Ithaca-Tompkins County Transportation Council December 14, 2004

GOALS AND OBJECTIVES

Community Issues And Transportation

<u>Goal I</u>: Develop a transportation system that enhances the quality of life for Tompkins County residents and visitors.

Objective E: Preserve and enhance existing communities and neighborhoods.

Objective F: Promote transportation plans and programs that are consistent with and protective of

expressed community values, cultural heritage and local aesthetics.

Objective G: Apply Context Sensitive Solutions in the design of transportation projects.

Environmental Issues

<u>Goal III</u>: Limit the negative impacts or disruptions to the natural, scenic, or cultural environment. Objective B: Preserve natural, scenic and cultural areas within the Ithaca-Tompkins County

metropolitan area.

Infrastructure Issues

<u>Goal I</u>: Improve the planning and design of local infrastructure.

Objective C: Encourage development of local design standards to best meet local needs and concerns.

Objective E: Consider use of alternative pavements in design standards.

Objective G: Promote infrastructure designs that are sensitive to local environmental issues and preserve or enhance scenic beauty.

Pedestrian Issues

<u>Goal I</u>: Create a safe and efficient network for pedestrian travel.

Objective C: Utilize sidewalks, multiuse trails and paths, pedestrian bridges, roadway shoulder improvements, and other pedestrian facilities to provide needed pedestrian network links.

Goal II: Urge pedestrian oriented land use development.

Objective D: Encourage municipalities to include sidewalks and lighting in local plans, site plan reviews and development projects.

<u>Goal III</u>: Promote walking as a viable mode of transportation.

Objective B: Develop amenities/aesthetics for pedestrian environment.

TRANSPORTATION SYSTEM

Infrastructure

Bicycle and Pedestrian Programs

Pedestrians:

Unfortunately, it is evident that the "state-of-the-art" in planning is only starting to address pedestrian issues. At the local level we are still learning how to develop "pedestrian-friendly" land uses, and searching for incentives that are truly effective in getting persons to switch to walking. While the profession(s) continue to explore these and other issues, such as finding ways to calculate the benefits/costs of increased use of the pedestrian mode, it is imperative that the ITCTC and its local members begin to implement the cost-effective improvements necessary to fill in the "gaps" in the pedestrian network and to ensure the safety of all pedestrians. The ITCTC will work cooperatively with its local partners to promote the actions and programs that will lead to the development of walkable communities in Tompkins County.

Traffic Safety Issues

A recurring theme in the public meetings was that the sheer volume of traffic in residential areas was "unacceptable." More than a continuing annoyance, this is a legitimate health and safety concern. The use of a variety of traffic calming techniques to "tame" the traffic moving through residential and other built-up areas has received much attention nationwide and locally. The transportation planning profession including NYSDOT, and organizations such as the Transportation Research Board, the Institute of Transportation Engineers and the American Association of State Highway and Transportation Officials have all developed guidelines and positions that allow for the implementation of traffic calming techniques. The ITCTC will continue to support the appropriate application of traffic calming in to encourage the development of a transportation system that minimizes the negative impacts of motor vehicles without affecting overall mobility.

Environmental

Land Use Planning

Neighborhood preservation has repeatedly been one of the premier issues when addressing transportation planning. In both the NESTS and Freight Transportation Studies protection of residential areas became a key issue during project development. In Tompkins County many neighborhoods are crossed by roads that have grown in their traffic volumes as land was developed further out from the Ithaca urban core. Commuter and other trips use these roads to move across the area, impacting the neighborhoods.

There seems to be general agreement that traffic and traffic speed should be reduced in residential neighborhoods. This may be accomplished by implementing appropriate traffic-calming techniques and/or increasing law enforcement efforts. On rare occasions there is an opportunity to re-route traffic around neighborhoods, by providing appropriate capacity at the arterial level (to make "cut-through" trips less attractive). In all cases traffic must be managed based on the particular conditions of each neighborhood and considering the need and desires of the residents. There is no single strategy or recommendation that will serve all locations.

Excerpts from TOMPKINS COUNTY COMPREHENSIVE PLAN

Planning for Our Future

Prepared by the Tompkins County Planning Department Adopted by the Tompkins County Legislature December 21, 2004

STRONG COMMUNITIES

Principle

Tompkins County residents should be safe, healthy, and comfortable with the aesthetics of their communities, and have daily opportunities to interact with neighbors and community members to build strong, cohesive communities.

Policies

It is the policy of Tompkins County to:

- Facilitate the creation and maintenance of a safe, appealing, and efficient multi-purpose network for walking and enhance the pedestrian environment through appropriate design.
- Enhance the quality of communities by improving the character of the built environment, including visually appealing architectural elements and streetscapes that encourage pedestrian travel, facilitate community interaction, and promote public safety.
- Preserve and enhance the distinct identities and historic character of existing neighborhoods and structures, and encourage the development of new neighborhoods that possess their own special sense of place, through attractive design of public places; proximity to schools, parks and other services; and community festivals and events.