TRAFFIC SAFETY COMMISSION MINUTES

Monday, July 15, 1996
7:00 P.M., Newberg Public Library

PRESENT:	Bob Andrews, Chairperson	Andy Anderson
	Glenn Benedict	Dick Meyer
	Don Matthews	Doris Brandt
	Dick McCabe	Jerry Fisher
ABSENT:	Earl Sandager	
STAFF PRESENT:	Larry Anderson, Engineering; Bob Tardiff, Chief of Police; and Mary Newell, Recording Secretary	

I. CALL MEETING TO ORDER:

Chairman Bob Andrews convened the meeting of the Traffic Safety Commission at 7:00 p.m.

A) Review and approve minutes of May 13, 1996

Motion: McCabe/Brandt to approve the minutes as written. There was no discussion and the motion carried.

II. STAFF REPORTS - General Information:

A) Chief of Police - The Newberg Police Department will be taking over the responsibility of Code Enforcement. Cpl. Art Pohl will be assigned to work Code Enforcement part time. A secretary will be hired to assist the division. Darleen Harding, whose title has changed to Code Compliance Officer, will broaden her responsibilities to assist with code enforcement in addition to animal control.

B) Engineering - No Report.

C) Traffic Safety Sub-Committees:

1. Community Relations: Dick Meyer attended a public meeting on the toll road. Referring to the ODOT publication, Tollway Update, there are two possible routes. A feasibility study is underway, and it will require a two-year environmental impact study. It is estimated private industry can build a toll road in three years and longer if the state builds the road. Today's cost is estimated between 140-160 million dollars.

2. Pedestrian Safety: Jerry Fisher reported the presence of cars and boats parking on sidewalks. Chief Tardiff indicated this is an enforcement issue and will be handled by the Police Department.

3. Parking Safety - No report

4. Traffic Control & Obstructions - No report.

III. OLD BUSINESS:

Chairman Andrews requested committee members review the concerns of the "55 Alive" class which relate to their sub-committee. These issues will be addressed at the next meeting.

IV. NEW BUSINESS:

A) Communications regarding small tree and hedge obstructing view at East Third and Everest and request for update on stop signs as Second and Third Streets at Everest.

Larry Anderson will check on the hedge and take appropriate action.

Regarding the stop signs, Chairman Andrews said the issue had been discussed before and at the time there was nothing to justify installing the stop signs.

Larry Anderson said that Staff had been meeting with property owners regarding this project and determined it to be more of a right-of-way issue. He indicated the city had decided to install the stop signs immediately rather than wait for the development of the twenty acres of R2 property to try to stop local streets at the collector. The stops signs will soon be installed at Third Street.

B) Communication expressing concern over parking on both sides of Cherry Street.

Larry Anderson indicated that Cherry Street is not a narrow street but that it does have a small radius on turns. He indicated that paint might help. Bob Andrews agreed, noting that he noticed inconsistencies in that some curbs are painted and some are not painted.

Action: The intersections will be painted.

C) Communication regarding lack of signage at the intersection of Edgewood Drive and Princeton, resulting in hazardous intersection.

Tammy Read, 213 Oxford, indicated that construction workers are not using caution when they

move through the intersections. She indicated that both streets appear to have equal traffic and drivers proceed with no yielding of right-of-way. Read stated that on two occasions while she and her son were bicycling they were almost struck by a moving truck, the truck being from the development nearby. She indicated that she has talked with the drivers, the contractor, and the trucking firm to advise them of her concern.

Larry Anderson indicated that plans for the area will increase the traffic volume on Edgewood and that plans include stop signs on Edgewood at Princeton. Dick McCabe suggested installing the signs now, rather than waiting until the second phase of the development is done. Larry indicated that early installation of the stop signs might be warranted since the right-of-way issue exists and will not improve with the increased traffic volume.

For the benefit of the Commission members, Chief Tardiff illustrated the streets and their alignment on the white board. Larry generally outlined the planned development and indicated that the extension probably would not be completed this fall. Andrews noted that Princeton would become a principal feeder to the schools. Followed was discussion regarding traffic flow, pedestrian traffic, and bicycle safety issues.

Motion: McCabe/Fisher to direct Staff to install stop signs at the intersection of Edgewood and Princeton, stopping Edgewood traffic, to meet the need now rather than wait and in preparation for the 1996 school year. Motion carried unanimously.

Dick Meyer encouraged Tammy Read to encourage her neighbors to observe bike safety rules and obey the rules of the road.

D) Request for stop signs on Blaine Street to deter speeding traffic, and requesting a sign on Blaine Street near Sherman Street to caution drivers that a disabled child ins in the area.

Donna Golden, 315 E. Sherman Street, indicated her main concern were the speeders on Blaine. She indicated that there are no speed signs in the area and perhaps drivers are not aware that it is a residential area with a 25 mph limit. She indicated drivers appear to be going 35-40 mph. She is concerned that a child might be hit since many children live in the area. Golden indicated that she is concerned for the welfare of her own disabled child who, although closely monitored, could get into the street. She indicated her child is her primary concern, so her primary request is for a sign which would alert drivers that a disabled child was in the area.

Larry Anderson responded that the intersection would not meet the criteria and warrants for a four-way stop. Four-way stops are not used for speed control, but rather to help move vehicles through an intersection. Larry Anderson indicated he did not know whether the ordinance covering signage has anything condoning or prohibiting a sign that alerts drivers of a disabled child in the area. He indicated he did not know whose responsibility it would be to install the

sign. When questioned, Ms. Golden indicated the sign should probably be located on Blaine in a northerly direction.

Action: Larry Anderson will investigate the issue/regulations relating to a "disabled child in area" type sign, and report back at the next meeting.

V. REPORTS:

A) Presentation on the Brutscher to Main Street Project

Mark Shippen, Oregon Department of Transportation, Project Coordinator for the Brutscher to Main Street Project, distributed handouts to members of the Traffic Safety Commission and staff. He indicated the project has been moved back to 1999, noting the cost will not be much different than projected in 1996. Shippen confirmed that Commission members had previously viewed the ODOT video explaining the Brutscher to Main Street Project. He proceeded to briefly explain the contents of the handouts (attached as part of these minutes).

There are two alternative routes at River Street. All signals will be timed between First and Hancock. Following a question from Chief Tardiff, Shippen will check to see if the signals north and south at College will be timed. Planned are new turn lanes on Villa Road and Springbrook Road.

Continuing, Shippen said there are two options: raised median vs. turn lanes. Using illustrations he outlined the potential for conflicts points based on actual driveways. He explained that even though accidents are not necessarily the result of the conflict points, they do result in slowing traffic. A raised median will significantly reduce the number of conflict points. A raised median will raise the cost of the project approximately $150,000. It requires landscaping. Still to be decided is who would maintain the landscaping.

Using large computer simulation photos of Hwy. 99W, Shippen explained the typical situation at Villa Road. This intersection will be realigned. A third lane will be added from Villa into Newberg. The same area was illustrated with a raised median. The photo provided an idea of the type of queues which will occur with the use of the median and improvements to Villa Road.

Chief Tardiff raised the issue of the left turn lane filling up, backing up and stopping traffic on 99W at Villa Road. Shippen indicated the new lanes would accommodate all traffic at least 90% of the time without backing up.

There are two proposals to realign River Street. The favored option saves an historical house and provides for additional residential parking. The second option removes two apartment buildings belonging to George Fox University and skews two intersections on River.

New lights will be installed at Meridian.

Shippen spoke on the pros and cons of a raised median and the difficulties associated with making a decision. Briefly noted, the pros and cons for the raised median are as follows:

PROS

- Increased safety
- Pedestrian crossing
- improved traffic flow
- Aesthetically pleasing
- Encourage local street improvements

CONS

- Economic Impacts. (Economic impacts, real or imagined, are always perceived as a negative impact)

Shippen then asked for questions from the Commission.

Dick Meyer questioned the changes for the intersection of Springbrook and Hwy. 99W. Shippen indicated that there would be double left turn lanes on both legs of Springbrook. He noted this was not in the budget but ODOT was working with the City to widen Springbrook.

Responding to a question, Shippen displayed a map and outlined the specific configuration for the intersection of Hwy. 99W at Villa Road.

Shippen asked the Traffic Safety Commission to consider the project, discuss the alternatives, study the information available and, if they so wish, to take a position on the project. He indicated this would benefit both ODOT and the City Council who will be under pressure to give support to one option or the other. Shippen said the final decision about the alternatives rests with the ODOT Project Development Team, which consists of a host of different authorities and expertise. The environmental assessment document will come out early fall of '96, a copy of which will be provided to the Traffic Safety Commission. Shippen suggested studying a copy of this document prior to coming to a conclusion on the project.

Jerry Fisher noted that economic impact was the same argument used by area opponents to a by-pass forty-five years ago.

VI. COMMUNICATIONS FROM THE FLOOR:

Bob Andrews provided Staff with a copy of Eugene's plan for traffic circles, curb extensions, traffic diverters, etc. and suggested there might be something useful to Newberg as it considers these same issues. Copies of *Section IV, Traffic Calming*, was provided to each Commission member.

VII. ADJOURN TO NEXT MEETING:

Motion: McCabe/Fisher to adjourn. There being no objection, the meeting adjourned at 9:13 p.m.

Mary Newell

Mary Newell, Recording Secretary

NOTICE OF PUBLIC MEETING & AGENDA

TRAFFIC SAFETY COMMISSION
Monday, July 15, 1996
7:00 p.m., Newberg Public Library

I. CALL MEETING TO ORDER:

A) Review and approve minutes of May 13, 1996

II. STAFF REPORTS - GENERAL INFORMATION:

A) Chief of Police

B) Engineering

C) Traffic Safety Committee Sub-Committees:
1. Community Relations
2. Pedestrian Safety
3 Parking Safety (passenger vehicles & trucks)
4. Traffic Control & Obstructions

III. OLD BUSINESS:

IV. NEW BUSINESS:

A) Communications regarding small tree and hedge obstructing view at East Third and Everest and request for update on stop signs at Second and Third Streets at Everest.

B) Communication expressing concern over parking on both sides of Cherry Street.

C) Communication regarding lack of signage at the intersection of Edgewood Drive and Princeton, resulting in hazardous intersection.

D) Request for stop signs on Blaine Street to deter speeding traffic, and requesting a sign on Blaine Street near Sherman Street to caution drivers that a disabled child is in the area.

V. REPORTS:

A) Presentation on the Brutscher to Main Street Project

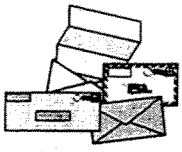
VI. COMMUNICATIONS FROM THE FLOOR:

VII. ADJOURN TO NEXT MEETING:

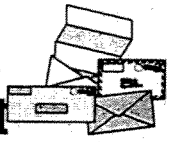
ACCOMMODATION OF PHYSICAL IMPAIRMENTS:

In order to accommodate persons with physical impairments, please notify the Office of the Chief of Police of any special physical or language accommodations you may need as far in advance of the meeting as possible and no later than 48 hours prior to the meeting. To request these arrangements, please contact Mary Newell at (503) 537-1221

Posted: July 1, 1996



Newberg Hwy 99W Improvement Project
Brutscher Street to Main Street
Bulletin Number 2
August 1996



This bulletin is intended to keep you up-to-date on the status of the highway improvement project planned for Highway 99W through Newberg.

Project Description
This 2 mile-long project starts at Brutscher Street (the signal just north of Springbrook Street) and ends at Main Street (on Hancock Street). First Street is not included in the project. The construction cost is estimated at $ 6 million, right-of-way is estimated at $ 3 million and preliminary engineering is estimated at about $ 850,000. This project will:

- Replace the existing pavement, which is in poor condition
- Replace the existing curbs and provide a continuous sidewalk
- Provide wider paved shoulders for bike lanes and emergency use
- Straighten the corner at River Street
- Provide a new third westbound travel lane between Villa Road and Main Street
- Upgrade, or if necessary, replace existing traffic signals and provide signal coordination
- Provide new traffic signals at Elliott Road, at Howard & First and Howard & Hancock
- Provide new turn lanes where needed (i.e. Villa Road, Springbrook Street)
- Improve safety and traffic flow through access management measures (driveway changes and a possible raised median)

Project Development Team
The Project Development Team (PDT) is the group that has authority to make the final decisions on what will be built. The members of the PDT are:

Mark Shippen	Project Development Team Manager	ODOT Region 2
Greg Scoles	Director, Newberg Community Development Department	City of Newberg
Ron Clay	Construction Project Manager	ODOT Region 2
Tom Martin	Senior Right-of-Way Agent	ODOT Region 2
John deTar	Senior Transportation Planner	ODOT Region 2
Cheryl Jarvis-Smith	Environmental Project Manager	ODOT Environmental Services
Elmer Wooldridge	Roadway Designer	ODOT Roadway Engineering
Liz Hunt	Planning & Engineering Manager	ODOT District 3 Maintenance

For more information

Maps of the proposed construction alternatives and an informational videotape on the project are available for public review at the following locations in Newberg.

- Newberg Public Library on Hancock Street
- Newberg Chamber of Commerce on Hancock Street
- Newberg Community Development Department on First Street
- ODOT Maintenance Yard on Deskins Street

Project Status

It is likely that construction of this project will be delayed one year, from 1998 until 1999. There are several reasons for this rescheduling:

- Developing the Environmental Assessment (EA) for the project is taking more time than planned. An EA must be done in order to use federal highway funds for project construction. The EA will be published in Fall 1996 rather than Spring 1996. A public hearing will be held about a month after the EA is published.
- Funding to buy right-of-way for this project will not be available until after July 1997. We need about two calendar years to buy all of the required right-of-way.
- Highway improvement funding is very limited. ODOT has to move projects from the 1998 construction year to future years in order to balance the construction expenses in 1998-2001 with estimated gas tax revenues. This project has been identified as a candidate for moving to a future year, to balance expenditures to available revenue.

Project Schedule

Fall 1996	Environmental Assessment document is published
Fall 1996	Public Hearing to take testimony on project design proposals
January 1997	Final decision by the Project Development Team on what to build
Summer 1997	Revised (Final) Environmental Assessment document finished
Summer 1997	Start right-of-way appraisal and acquisition
Summer 1999	Start construction
Fall 2000	Complete construction

Raised Median and Driveway Changes

The major issue on this project is the proposal to install a raised median and make changes to driveways. This is one of two alternative proposals that are intended to improve safety in the five lane section between Brutscher Street and River Street. Studies of highways where raised medians have been installed (such as Hwy 101 in Lincoln Beach) have shown that a raised median reduces the number and severity of accidents, by reducing turning movement conflicts. A raised median also provides safer pedestrian crossing opportunities and improves the appearance of the community by providing landscaping in the median. The raised median would add about $ 150,000 to the overall cost of this project. Another alternative proposal that is also under consideration would leave the existing continuous turn lane in place. Both proposals involve closing, moving or combining some driveways to reduce turning movement conflicts.

Both the raised median and driveway changes proposals are controversial with business owners in Newberg, because these changes would affect their access to the highway. On June 17th, a petition with about 90 signatures was presented by some business owners to the Newberg City Council, expressing opposition to a raised median and driveway changes.

Public Opinion Survey

In February 1996, ODOT and the City of Newberg sent out a transportation-focused "General Opinion Survey", to get a better idea of the opinions of Newberg residents and highway users on the raised median proposal and on other transportation issues. This survey was sent to over 6500 local Newberg area addresses and 2800 Hwy 99W/18 corridor-wide addresses. Out of the total 9300 surveys sent out, 474 (about 5 percent) were returned.

The survey was not designed to be a scientific opinion poll, so we don't know if the 474 surveys returned accurately represent the opinions of most Newberg residents and highway users. However, the survey results do give us some sense of the community's concerns about transportation issues in Newberg and an idea of the general opinion about one of the key issues - the raised median proposal. Here are some results from the survey:

Newberg City residents (356 surveys returned):

- 87% of Newberg residents responding to the survey stated that congestion is one of their top two priority issues. 26% stated that access to businesses is one of the top issues. 19% stated that they are concerned about excessive speed. 18% are concerned with pedestrian/bike safety.
- 45% of Newberg residents responding to the survey are against the raised median and 34% favor it. 21% did not indicate a preference for either alternative.

Corridor-wide highway users (118 surveys returned):

- 88% of the Hwy 99W/18 corridor-wide users responding to the survey reported that congestion is one of their top two issues. 35% feel that the speed is too high. 17% are concerned about access to businesses.
- 47% of the Hwy 99W/18 corridor-wide users responding to the survey are against the raised median and 32% favor it. 21% did not indicate a preference for either alternative.

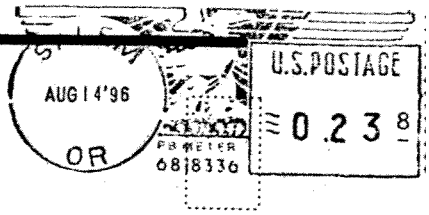
Results of the opinion survey on a variety of other transportation issues in Newberg, as well as written comments, are included in the "Newberg Transportation Survey" summary report.

Socioeconomic Report

In April 1996 a Socioeconomic Report for this project was completed by E.D. Hovee & Company, a consultant hired by ODOT. The report is an evaluation of the impacts of the proposed highway project on the human environment, and includes a variety of information on such topics as: Newberg population growth, economic trends, traffic volumes, parking availability, social & economic effects, right-of-way acquisition & relocation effects and mitigation measures. A summary of this report will be included in the Environmental Assessment document, which will be widely distributed.

Oregon Dept. of Transportation

PRESORTED
FIRST-CLASS



Oregon Department of Transportation
Attn: Mark Shippen, Region 2
Mid-Willamette Valley Area
2960 State Street
Salem OR 97310

ROBERT TARDIFF, CHEIF
NEWBERG POLICE DEPT.
414 E FIRST STREET
NEWBERG, OR 97132

01 AUTO 97132

Environmental Assessment and Public Hearing
The Environmental Assessment (EA) document contains information on the proposed construction alternatives and the results of various studies which evaluate the impacts of the proposed alternatives. The EA will be made available to the public for review. Public comment on the proposed alternatives will be taken during a public comment period that opens when the EA is published, and at a public hearing which will be held about a month after the EA is published. The Project Development Team makes the final decision on which alternative(s) will be built, after considering public testimony. You are strongly urged to express your support for your preferred design alternative during the public comment period or at the public hearing. The date for the public hearing will be announced in the Newberg Graphic and other local media and an announcement will be sent out with the Environmental Assessment.

To receive a copy of the Environmental Assessment
If you would like to receive a copy of the Environmental Assessment, when it is published this fall, please write your name and address on the attached postcard and drop it in the mail. A copy will be sent to you at no charge.

We mailed this bulletin to you because your name and address appear on our mailing list. If you do not wish to remain on the mailing list, or you have questions or comments about the highway project, please call **Mark Shippen** at **(503) 986-2679**, or write to the address below.

Public Works
Transportation Division

City of Eugene
858 Pearl Street, Suite 300
Eugene, Oregon 97401
(541) 687-5218
(541) 687-5598 FAX

July 15, 1997

Robert Andrews. Chairman
Newberg Traffic Safety Commission
1103 N. Sitka Avenue
Newberg, OR 97132

Traffic Calming Measures in Eugene

Eugene has had two general stages of residential traffic calming: the first period was from the late 1970's through the mid-1980's. The second stage began earlier this decade and is continuing.

In the first stage, Eugene had an active traffic diverter program. Under this program, various kinds of physical devices were employed to prevent traffic from using local residential streets. The devices included traffic diverters, half street closures, full street closures, traffic circles, curb extensions at intersections and raised pedestrian crosswalks. These were generally effective and popular with residents, but caused concerns about emergency vehicle response times.

In the second stage, the emphasis has shifted to controlling driving characteristics, in particular speeding vehicles, rather than reducing or diverting traffic. Part of the reason for this is that there are few remaining locations in Eugene at which traffic diverters would be warranted. In fact, we have received requests asking that two diverters be removed.

Process

The process we use for traffic calming requests involves substantial citizen involvement and requires approval of the neighborhood group. We accept requests from individuals, but don't install traffic calming devices without the support of the neighborhood group and the immediately affected neighborhood.

This process requires a significant amount of staff time for each request. Each request is evaluated using seven considering criteria. This criteria are shown on the attached sheet "Neighborhood Transportation Study - Evaluation Criteria."

Traffic Diverter Cost and Effectiveness

Traffic diverters, both singly and series of diverters, have been installed in numerous neighborhoods throughout Eugene. It has been a number of years since we last constructed a permanent diverter, so I don't have any useful cost estimates for them. Traffic diverters are initially installed using guardrail, making the initial installation cost fairly low.

They are very effective in reducing traffic on neighborhood streets. One of the restrictions of traffic diverters is that they not shift non-local traffic from one local street to another.

Traffic circles and curb extensions were used extensively in the neighborhood immediately west of the University of Oregon campus. The goals were to increase traffic safety, to reduce the cruising of vehicles looking for parking, and to identify the area as a neighborhood. I am not aware of any studies done to measure the effectiveness of the project, but the consensus is that it has been effective and well received. The project was funded through a community development block grant from the federal government.

Neighborhood Traffic Calming

The most requested control device is the speed bump. We have installed speed bump systems on two sections of Lincoln Street and have evaluated their effects. The evaluations are attached to this letter.

The speed bumps cost $1,500 to $2,000 per bump, although it is likely that the cost would be lower if a large number were being installed at one time. The speed bump design is also attached.

Other Techniques

We have tried other techniques and are looking into other techniques to control traffic in residential areas. Unique signing, with the legend "Respect Your Neighborhood - Please Don't Speed", has had no measurable effect on vehicle speeds. Later this summer we will be painting a series of chevrons on a street to see if it reduces vehicle speeds. The chevrons will be placed progressively closer together, which will theoretically give motorists the illusion of increasing speed, which would result in them lowering their speed.

If you have any questions, call be at (541) 687-5285. Our fax number is 687-5598.

Sincerely,

Joe Hessler
Traffic Technician

Neighborhood Transportation Study - Evaluation Criteria

Citizen or neighborhood requests received by the Transportation Division are screened to determine which of several programs (Signal Priority Program, Intersection Evaluation Program, etc.) best addresses each request.

The Neighborhood Transportation Program (NTP) is, in part, intended to process those requests that are of a more complex nature and will require a greater amount of time and effort – of both neighbors and staff – to reach a solution. Requests of this type are considered candidate Neighborhood Transportation Studies.

The following criteria is used to develop a numerical score for each candidate Neighborhood Transportation Study. Scores are used to rank potential studies on a citywide basis. A high ranking, available budget and other factors are used to determine the order and rate of implementation. The ranked list is evaluated and updated on a quarterly basis.

1. Traffic Volume - Average daily volume (on the segment of street having the highest volume), divided by 100.

   30 points maximum score allowed for traffic volume.

2. Speed - Percent of vehicles over the speed limit (on the segment of street having the highest percentage over the limit), divided by 3.

   30 points maximum score allowed for speed.

3. Accident Rate - Most recent of three years of available accident data, counting only correctable accidents. Accidents to be included are:

   - accidents over the entire length of the project street
   - accidents in the intersections of minor streets associated with movements in or out of the project street
   - accidents in the intersections of collectors associated with movements in or out of the project street

   Number of accidents times 1,000,000 vehicle miles times 0.30, divided by 365 days per year, the average daily traffic, the time period of the study, the length of the street section in miles, and an ADT adjustment factor of 0.86.

   30 points maximum score allowed for accidents.

4. Elementary or Middle Schools on project street - five points if any public or private schools (kindergarten through 8th grade only) are located on the project street. Schools across collectors or through streets, or in the neighborhood are addressed in section 5.

   Score 5 points if any schools are present and 0 points if no schools are present.

5. Pedestrian Generators - Per the Traffic Engineer's discretion, up to 5 points may be given for each pedestrian area, other than an elementary school on the project streets. Possible pedestrian areas include parks, special housing facilities, high schools, elementary schools not on the project street, or other facilities that generate a significant number of pedestrians on the project street. If a group of pedestrian areas is located in the same area of the project street, a maximum of 5 points should be given to the group.

   5 points maximum allowed for each individual or group of pedestrian areas on the project street. A maximum of 10 points will be given.

6. Pedestrian Routes - A project street classified as a safe route to school in the Sidewalk Study will be given five points.

   Score 5 points.

7. Bicycle Routes - A project street classified as a bicycle route in the Bicycle Master Plan will be given five points.

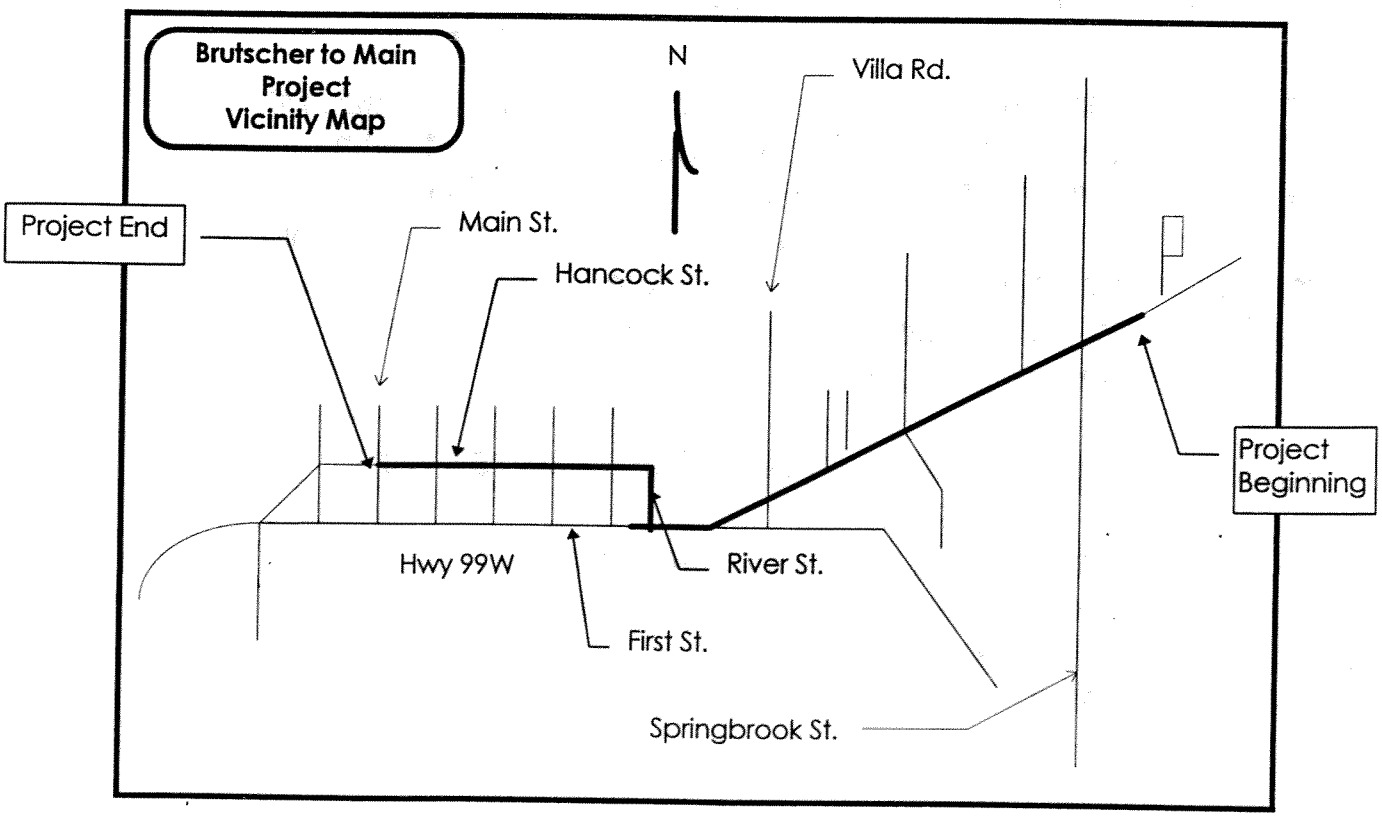
   Score 5 points.

Revised: April 1996

BRUTSCHER STREET TO MAIN STREET
Highway 99W Improvement Project
Project Summary

This 2 mile-long project starts at Brutscher Street (signal at Fred Meyer) and ends at Main Street (on Hancock Street). Construction could begin as early as the summer of 1998, and would probably take two summers to finish. The current construction cost estimate is about $ 5.9 million. Right-of-way is estimated to cost about $ 3 million. This project will:

- Replace the existing pavement, which is in poor condition
- Replace the existing curbs and sidewalk
- Provide wider paved shoulders for bike lanes and emergency use
- Straighten the corner at River Street
- Provide a third westbound travel lane between Villa Rd and Main St
- Replace/upgrade and interconnect the existing traffic signals
- Provide a new traffic signal at Elliott Rd, and possibly at Howard St
- Provide new turn lanes at Villa Road and Springbrook Street
- Improve safety and traffic flow through Access Management



Access Management Alternatives

ODOT is looking at ways to improve safety and traffic flow on this highway and provide for better pedestrian crossing opportunities. To address these concerns, ODOT has prepared two alternate Access Management Alternative proposals for the five lane section from Brutscher Street to River Street:

Raised Landscaped Median: This involves the installation of a 7 inch high curbed island in the center turn lane to limit left turn movements on and off the highway to street intersections only. Median openings with left turn pockets would be provided at Villa Road, Sitka Street, Elliott Road, Deborah Street and Springbrook Street. U-turns will be allowed at each of the median openings. Some driveways would be combined, moved or closed as part of this option. Raised medians have proven effective in reducing accidents in other locations, since nearly 70% of accidents on highways of this type involve left turns.

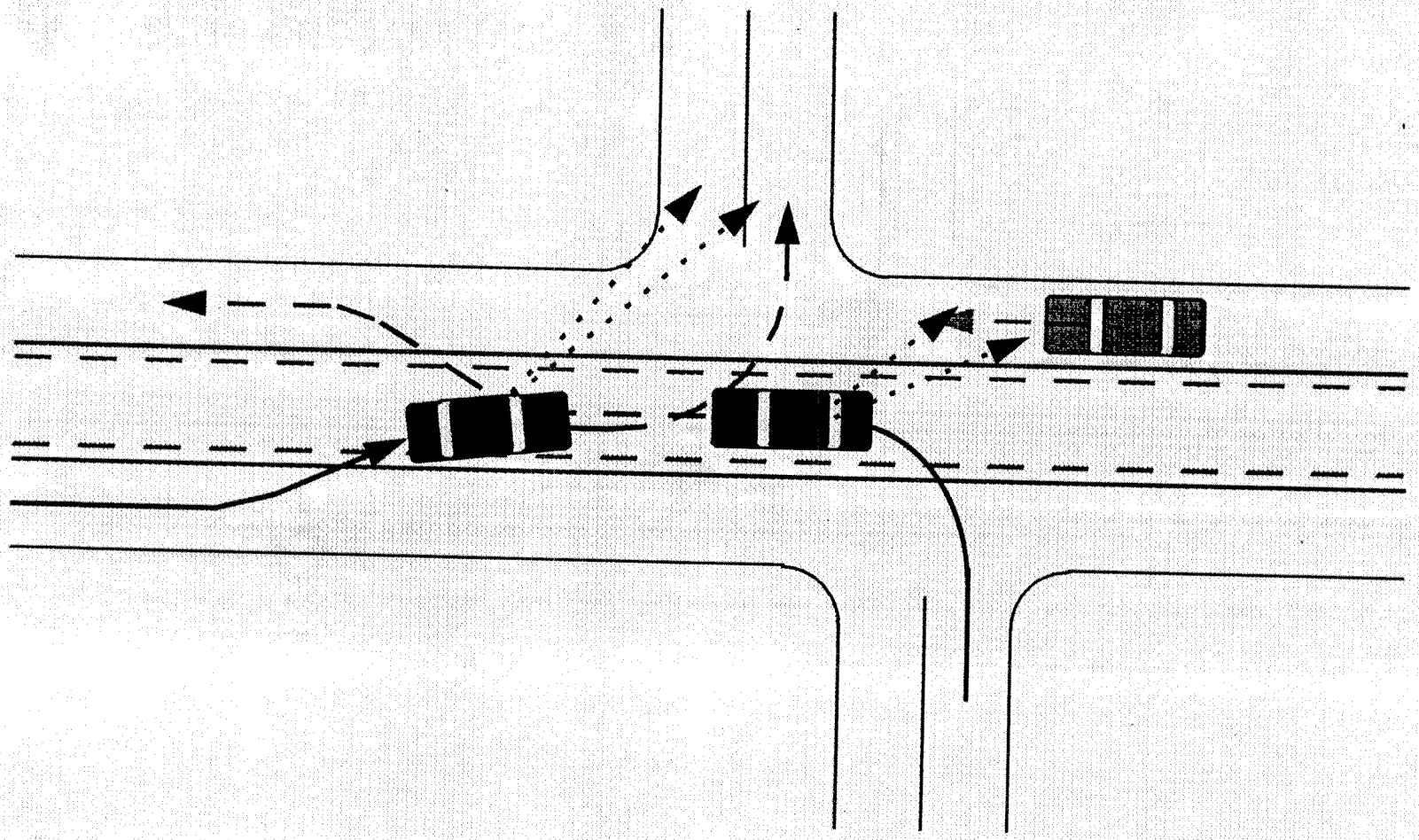
Driveway Treatments: This would leave the existing continuous two-way left turn lane as-is. To limit conflicts and potential crash locations, more driveways would be combined, moved or closed as part of this option than would be affected by the raised median option.

No decision has been made at this time as to which of these two Access Management alternatives will be built. Before the final decision is made, ODOT will discuss these ideas with business owners and the community and an investigation of the economic impacts of limiting left turns will be completed. Specific details on which driveways would be affected by either of the options is still under development at this time.

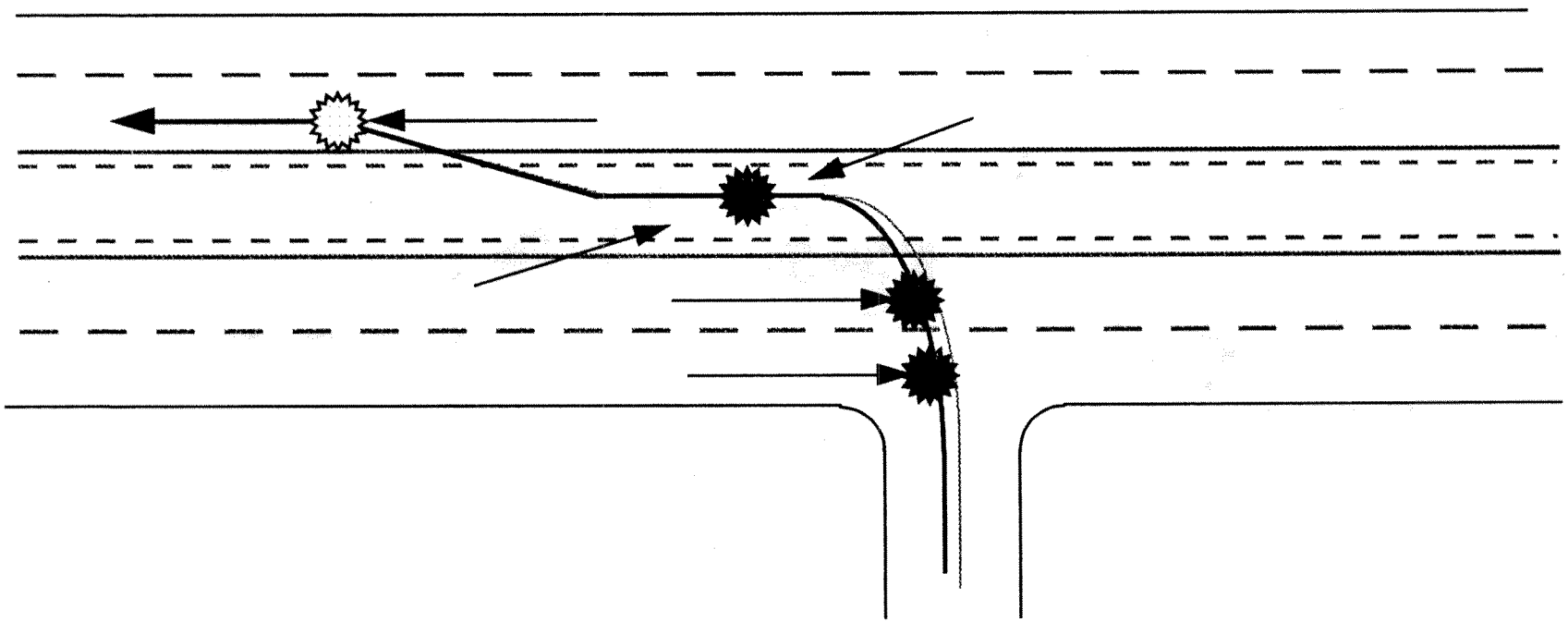
If you have any questions, write or call: (503) 986-2679

Mark Shippen, Project Coordinator
Oregon Department of Transportation
2960 State Street
Salem OR 97310

Conflicting Moves in Center Turn Lane



Conflict with Center Turn Lane



Side Impact / Head On

Rear End / Same Direction

Preliminary Report of the Motorist Survey on the Lincoln Beach - Fogarty Creek Parkway on US Highway 101 May 23, 1995

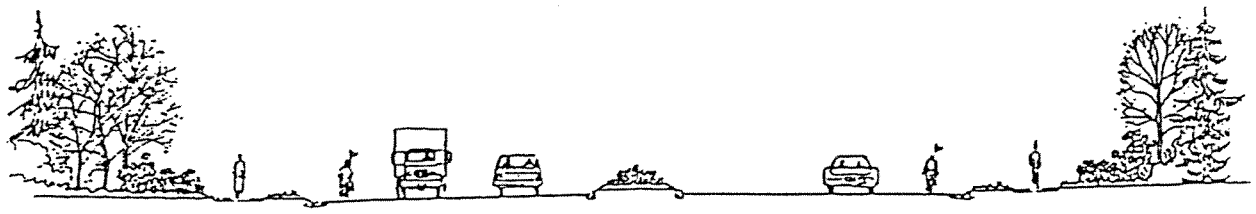
On May 23, 1995, JRH Transportation Engineering, in cooperation with the Oregon Department of Transportation, conducted a survey of motorists on the Lincoln Beach - Fogarty Creek Parkway on US HWY 101. The Oregon Department of Transportation opened this section of highway 9 miles south of Lincoln City in 1992. This 1.94 mile long project features a non-traversable landscaped median. This median has six openings for left turns, and three of the openings also provide turn around opportunities. The distance between these turns ranges from 550 feet to 2475 feet, with the average at 1658 feet.

The survey consisted of a series of questions designed to determine how often the interviewee used the parkway and their opinion on its effectiveness. It was conducted in two phases, with one in the morning for northbound traffic, beginning at 8:00 AM and ending at 12:30 PM. The survey sitewas stationed at the north end of the project, after the motorists had travelled through the Parkway. One thousand five hundred thirty-five vehicles passed this site, of which 464, or 30%, were stopped. The second part of the survey was conducted from 1:30 PM to 6:00 PM on southbound traffic, and the survey location was moved to the south end of the parkway. The afternoon survey stopped 494 vehicles out of 1836 vehicles, or about 27%.

On the day of the survey, a total of 7327 vehicles used this stretch of highway from 8:00 AM to 6:00 PM. Thirteen percent of the total 2-way traffic was stopped for this survey.

Parkway Opinion Survey

In 1992, the Oregon Department of Transportation opened the Lincoln Beach - Fogarty Creek Parkway. The design of this section includes a landscaped median. Left-turn lanes are provided at key intersections.

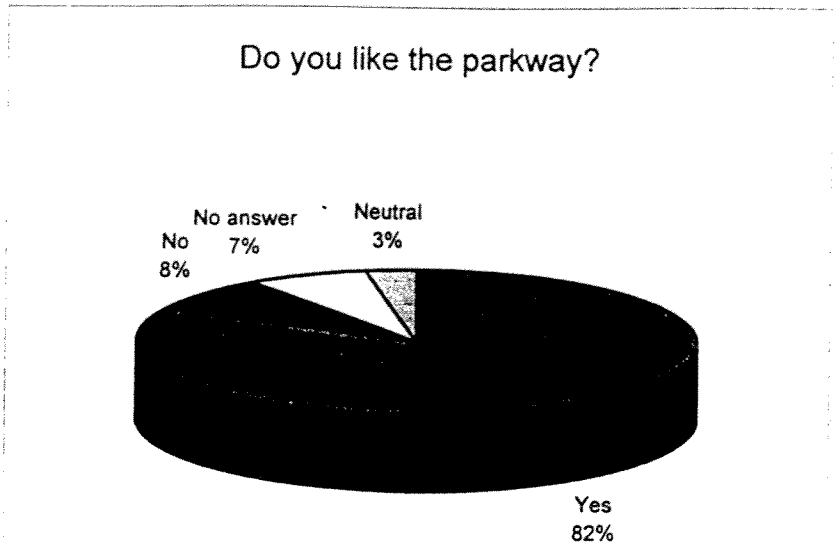


The firm of JRH Transportation Engineering, in partnership with the Oregon Department of Transportation, is conducting a survey of motorists to determine their perception of the parkway design. The information gained from the survey will help ODOT in their design of future projects.

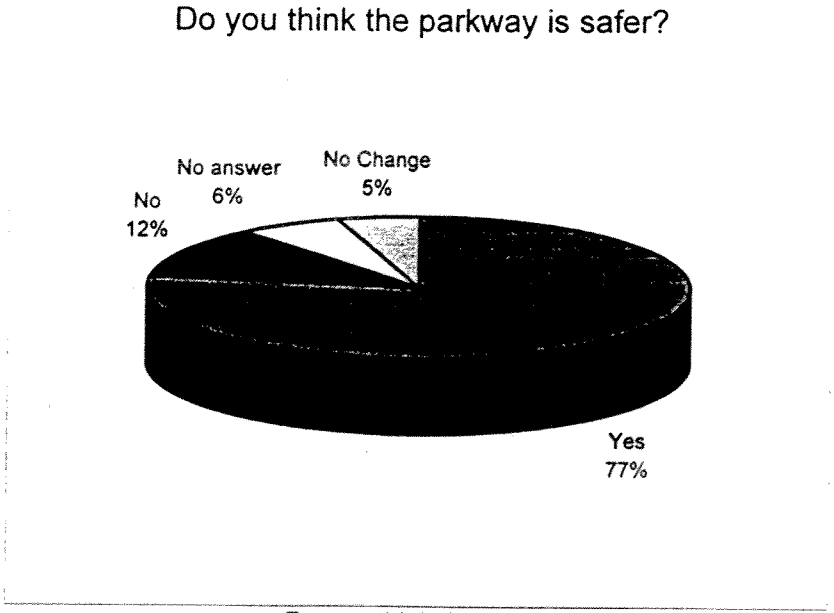
Your assistance by participating in this survey will ensure that the Oregon Department of Transportation continues to be responsive to the motoring public.

If you have any questions or wish to make additional comments, please call Vern Tabery, JRH Transportation Engineering, at 503-687-1081. You may also contact Del Huntington, Oregon Department of Transportation, at 555 13th Street N.E., Salem, Oregon 97310.

Do you like this section of Highway?

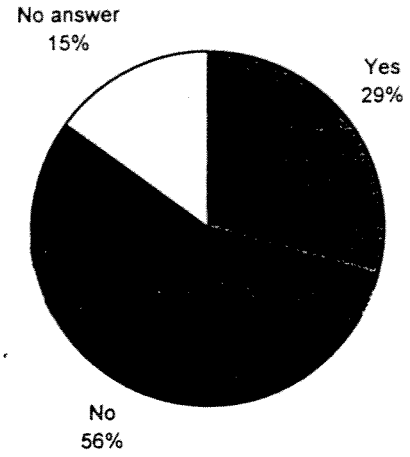


Do you like the parkway?	
Yes	789
No	72
No answer	67
Neutral	30



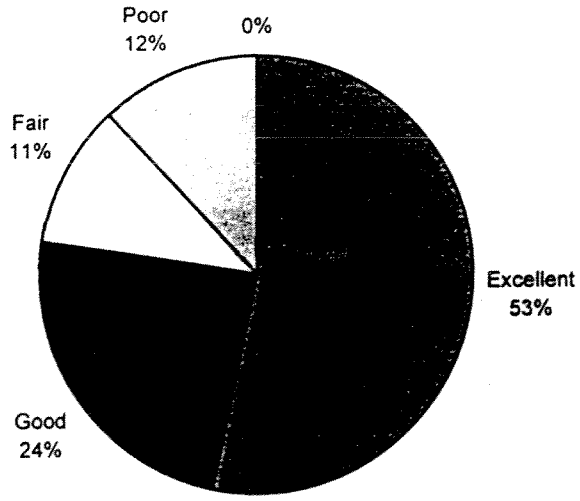
Do you think the parkway is safer?	
Yes	741
No	111
No answer	58
No Change	48

Did you turn on or off this four lane section on this trip?



Did you turn on or off this part of highway on this trip?

Yes	281
No	533
No answer	144

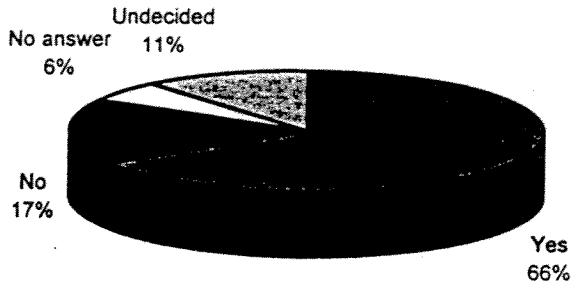


Rate ease in reaching destination

Excellent	221
Good	101
Fair	44
Poor	49

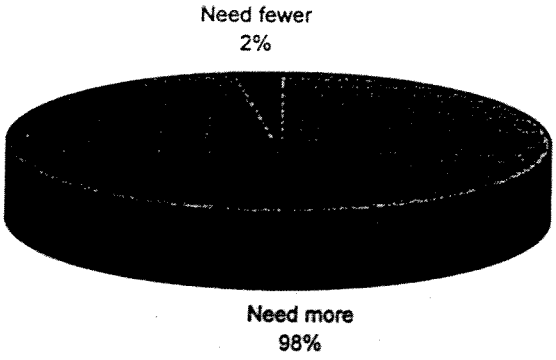
Are the locations provided for left turns adequate?

Are the left turns adequate?



Are the left turns adequate?	
Yes	629
No	167
No answer	53
Undecided	109

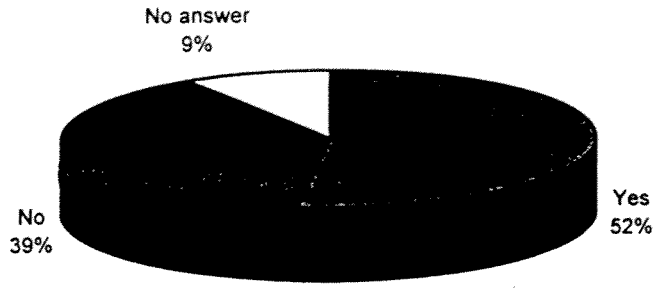
Need more or less left turns?



Need more or less left turns?	
Need more	160
Need fewer	4

Turn Arounds

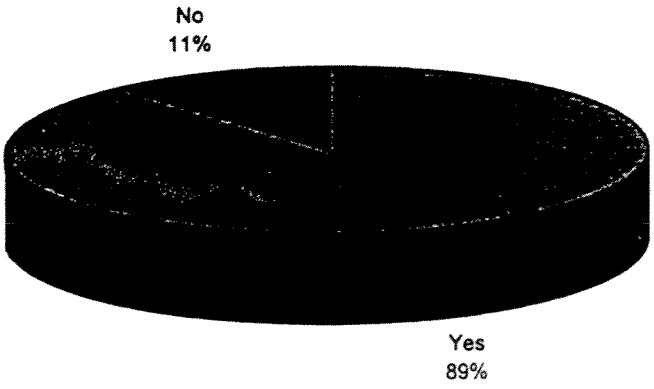
Do you use turn arounds?



Do you use turn arounds?	
Yes	497
No	377
No answer	84

Of those who said yes....

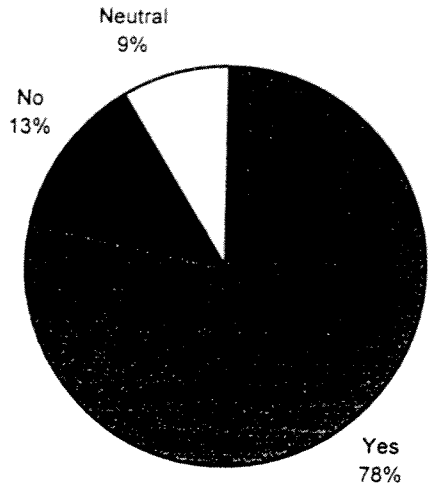
Do they work adequately?



Do they work adequately?	
Yes	460
No	57

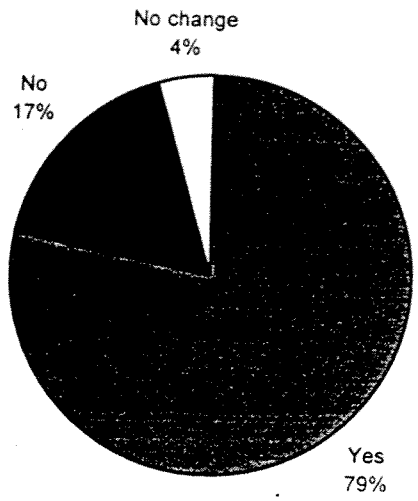
Delivery and Large Trucks

Do you like the parkway?



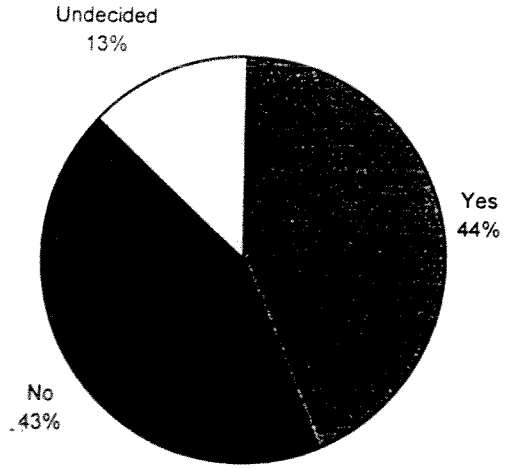
Do you like the parkway?	
Yes	18
No	3
Neutral	2

Is the parkway safer?



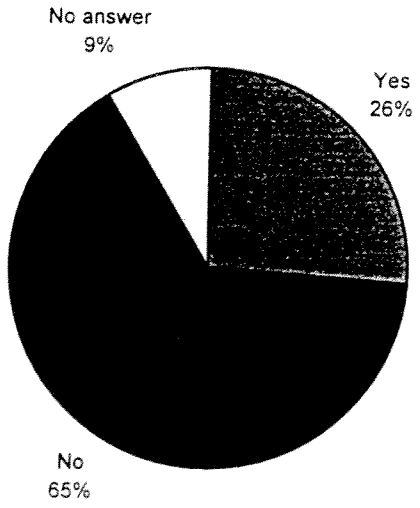
Is the parkway safer?	
Yes	18
No	4
No change	1

Are Left Turns Adequate?



Are Left Turns Adequate?	
Yes	10
No	10
Undecided	3

Turn On or Off This Part of Highway (this trip)?



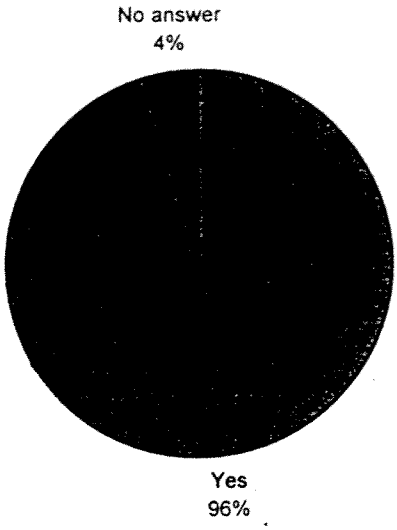
Turn On or Off This Part of Highway (this trip)?	
Yes	6
No	15
No answer	2

Tourism in Recreational Vehicles

Is Parkway Safer?

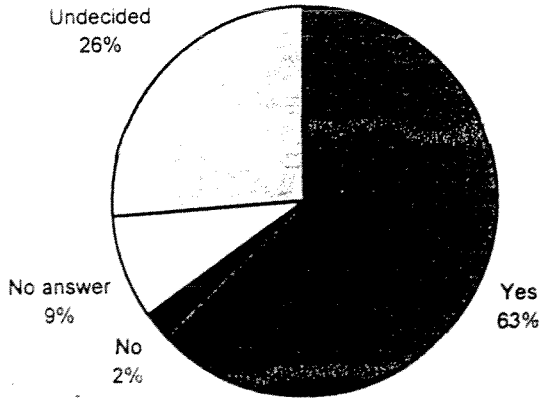
Is Parkway Safer?	
Yes	43
No	1
Undecided	1
No answer	1

Do you like the Parkway?



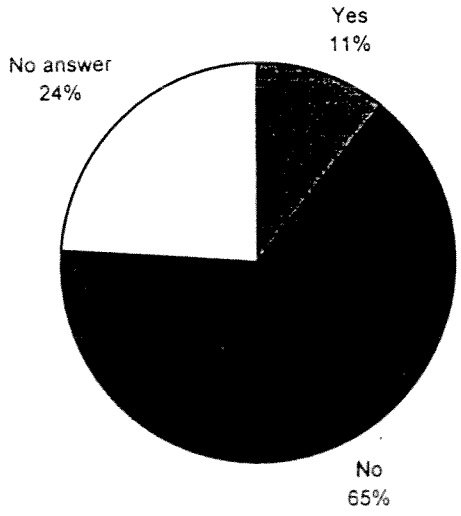
Do you like the Parkway?	
Yes	44
No answer	2
No	0

Are Left Turns Adequate?



Are Left Turns Adequate?	
Yes	29
No	1
No answer	4
Undecided	12

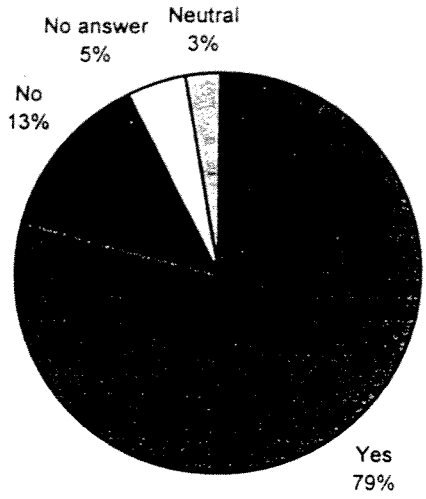
Turn On or Off This Part of Highway (this trip)?



Turn On or Off This Part of Highway (this trip)?	
Yes	5
No	30
No answer	11

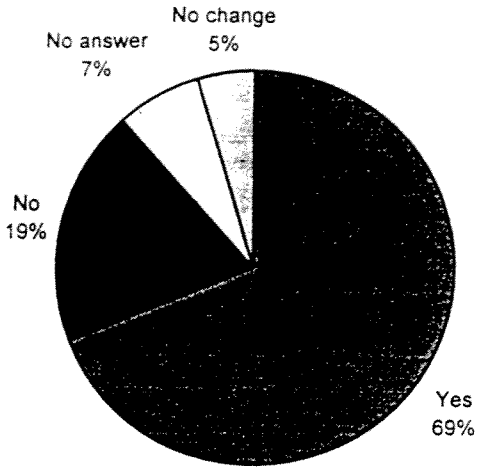
Commuters

Do You Like The Parkway?



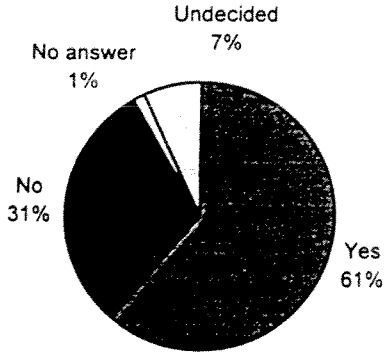
Do You Like The Parkway?	
Yes	114
No	19
No answer	7
Neutral	4

Is the Parkway Safer?



Is the Parkway Safer?	
Yes	99
No	28
No answer	10
No change	7

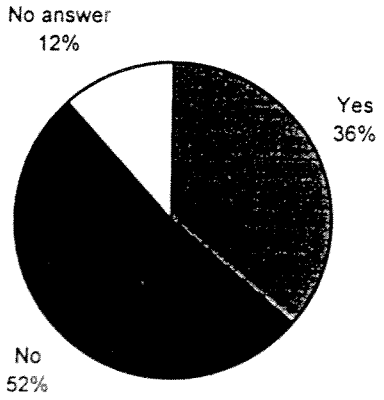
Are the Left Turns Adequate?



Are the Left Turns Adequate?	
Yes	88
No	44
No answer	2
Undecided	10

42 commuters stated that more left turns were needed. 2 commuters stated fewer openings were needed.

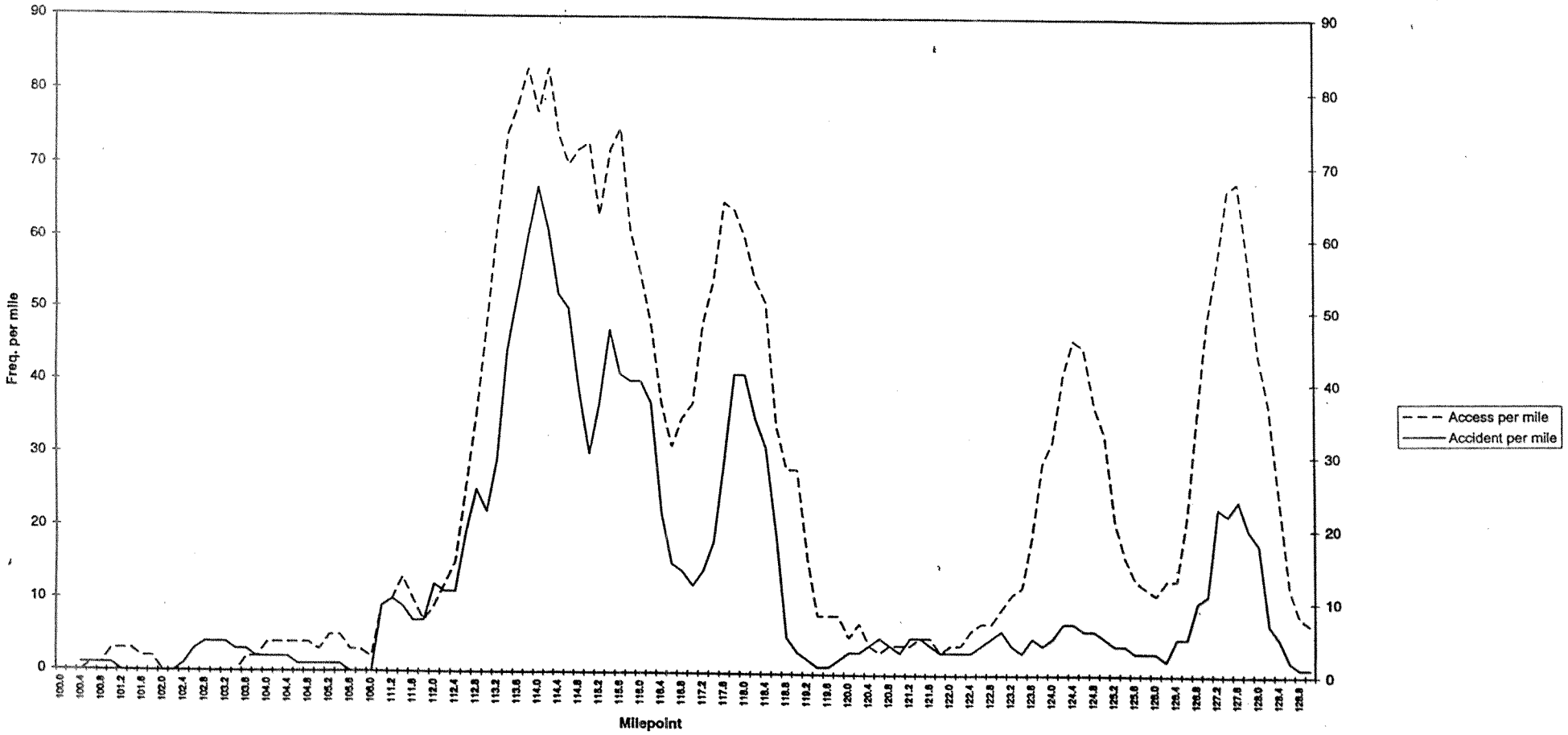
Turn on or off this stretch of Highway (this trip)?



Turn on or off this stretch of Highway (this trip)?	
Yes	52
No	75
No answer	17

JULY 21, 1992 TO NOVEMBER 30, 1994

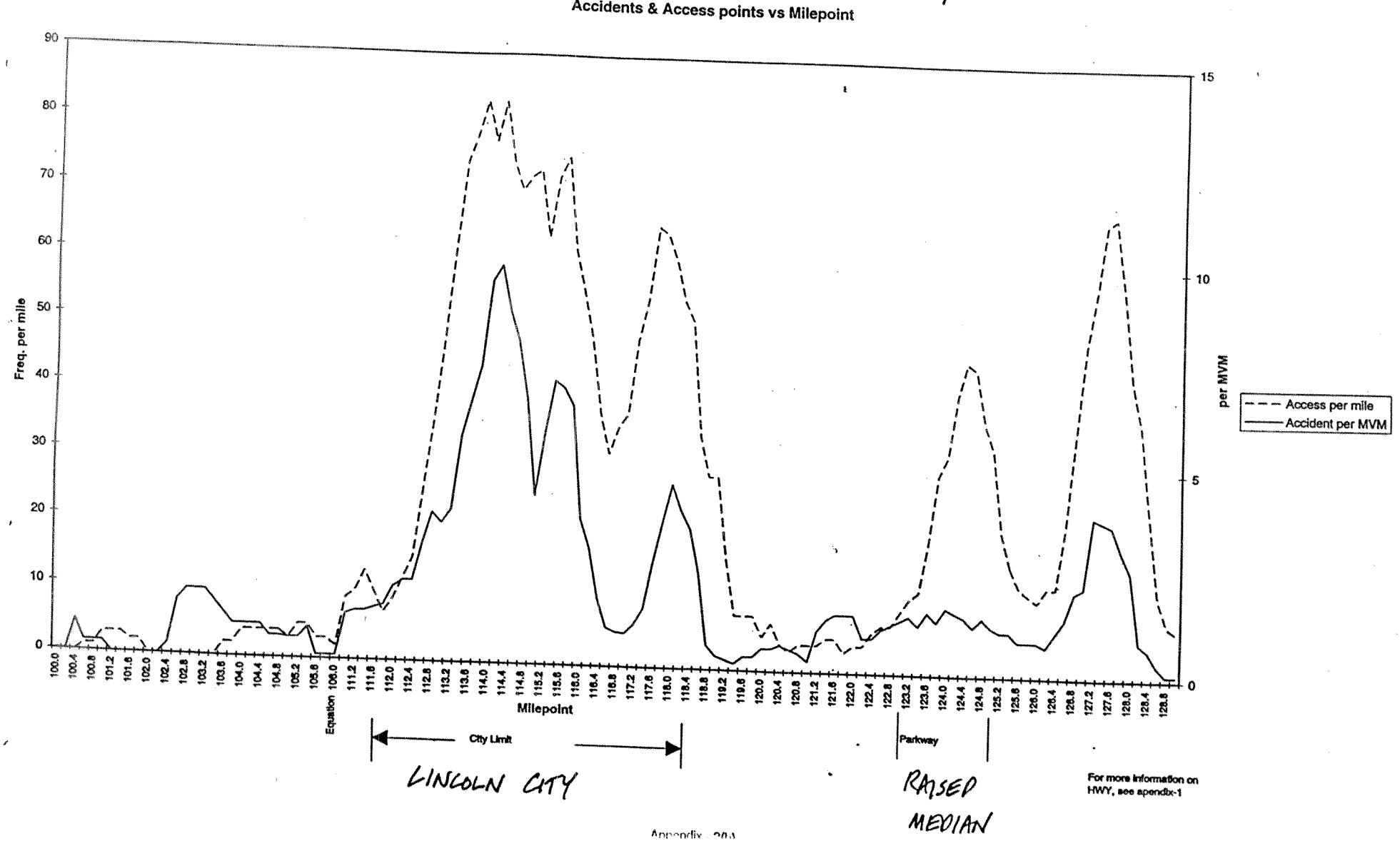
Density of Accidents & Access points versus Milepoint



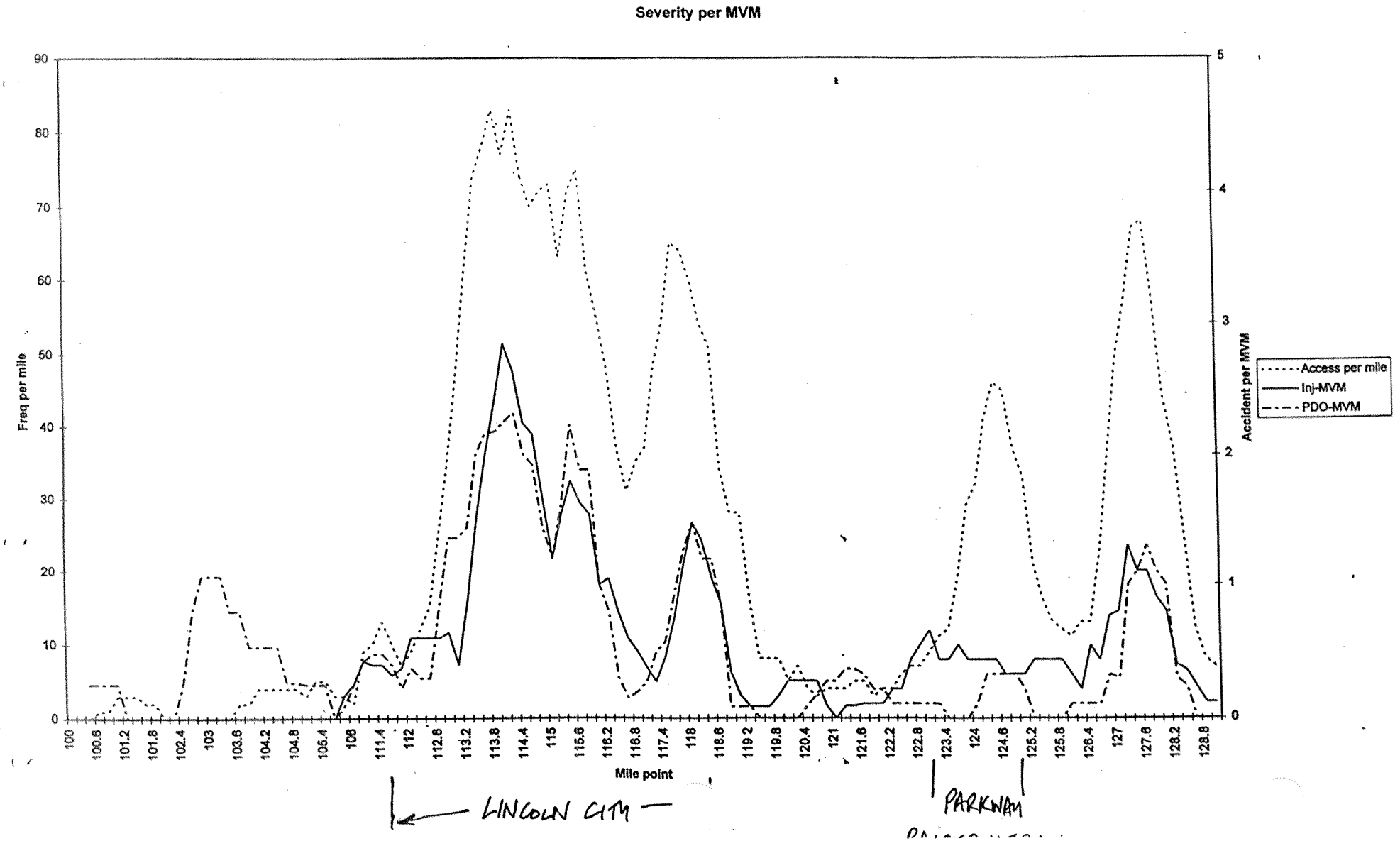
LINCOLN CITY

RAISED MEDIAN

JULY 21, 1992 TO NOVEMBER 30, 1994



JULY 21, 1992 TO NOVEMBER 30, 1994



Brutscher Street to Main Street
Accident History
January 1, 1990 to October 31, 1994

Total # of Reported Accidents 219
Accidents per Month 3.78
Total # of People Involved in Accidents 547
People Involved in Accidents per Month 9

- 2 Fatalities Total
- 150 Injuries Total
- 472 Vehicles Damaged Total

River Street to Main Street (0.6 miles, one-way westbound)

- 73 Accidents
- 0 Fatalities
- 43 Injuries
- 163 Vehicles Damaged

Brutscher Street to River Street (1.4 miles, two-way, 4/5 lanes)

- 146 Accidents
- 2 Fatalities
- 107 Injuries
- 309 Vehicles Damaged

A <u>Raised Median</u>, as proposed from Brutscher Street to River Street, <u>could have prevented</u> the following:

- 22 Accidents
- 15 Injuries
- 44 Vehicles Damaged

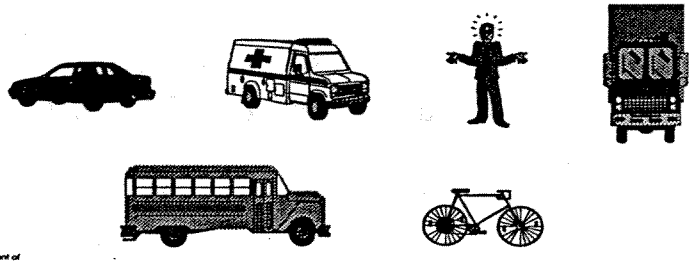
Saving the traveling public and society <u>over $ 500,000</u> in lost wages, medical bills, legal bills, motor vehicle damage, police expenses, work time lost to employers, etc.

Comparison of Hwy. 99W Access Management Alternatives

by the Oregon Department of Transportation and CH2M HILL

Access Management Alternatives

- Driveway Treatment Alternative
- Landscaped Median Alternative



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70% of Driveway Accidents Involve Left-Turns

Maneuver Type	Crash Type	Percent of Crashes
Left In	Rear-End	26
Left Out	Right-Angle	24
Left In	Head-On Angle	15
Right In	Rear-End	12
Right Out	Right-Angle	7
Right Out	Other	8
Left Out	Other	3
Right In	Other	3
Left In	Other	2

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Driveway Treatment Alternative

- Seeks to minimize conflicts along Hwy. 99W by implementing the following techniques at driveways:
  - Relocation
  - Elimination
  - Consolidation
  - Increasing corner clearance
  - Improving throat width/curb return radii and vertical alignment

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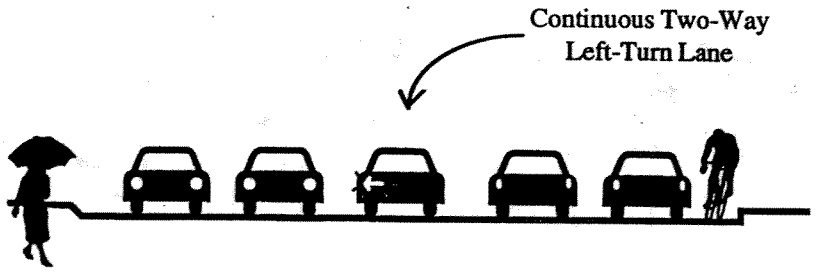
Driveway Treatment Alternative



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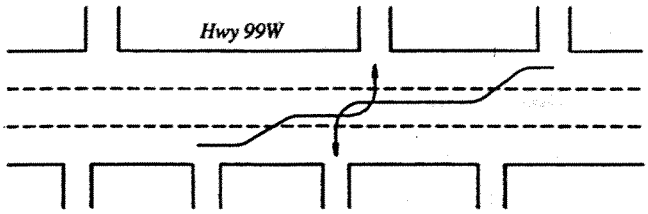
Driveway Treatments Reduce Conflicts



Severe Conflicts Created Without Treatments

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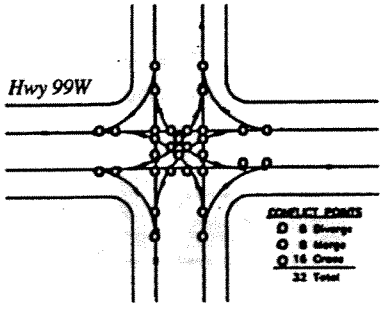
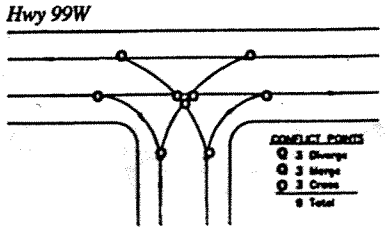
Driveway Treatments Reduce Conflicts





Opposing Driveways:
32 Conflict Points

Single Driveway:
9 Conflict Points

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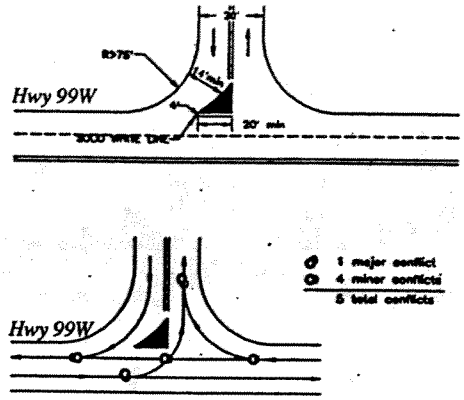
Driveway Treatments Reduce Conflicts



Method to Discourage Left-Turn Exits

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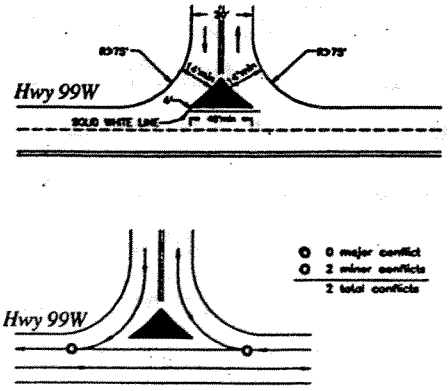
Driveway Treatments Reduce Conflicts



Method to Discourage Left-Turns

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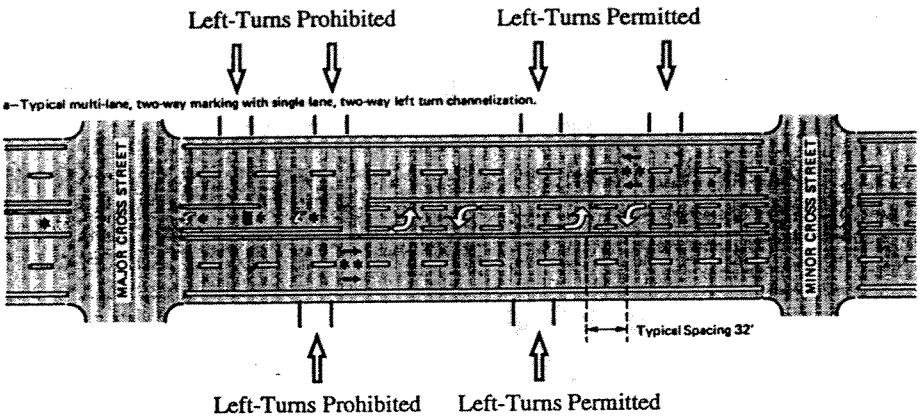
Left-Turns Illegal at Driveways Near Major Cross-Streets



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Landscaped Median Alternative

- Seeks to minimize conflicts along Hwy. 99W by implementing driveway treatments *and* installing a non-traversable median
- Eliminates unsafe left-turns at driveways and adds U-turns at intersections
- Requires fewer driveway treatments because center median reduces number of conflict points by 80% at each driveway

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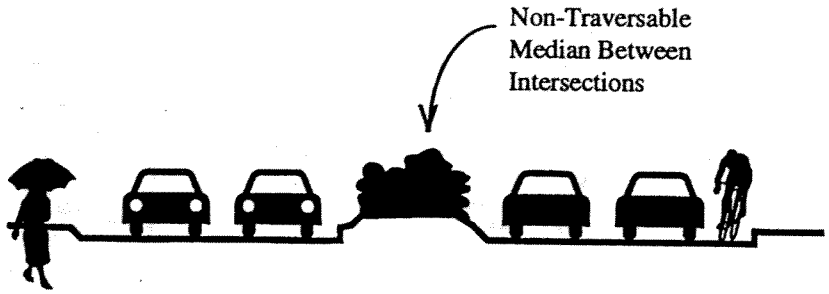
Landscaped Median Alternative



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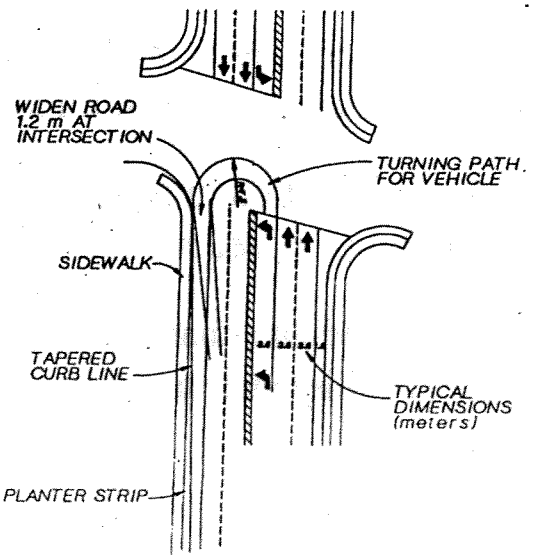
Slight Widening Required for U-Turns



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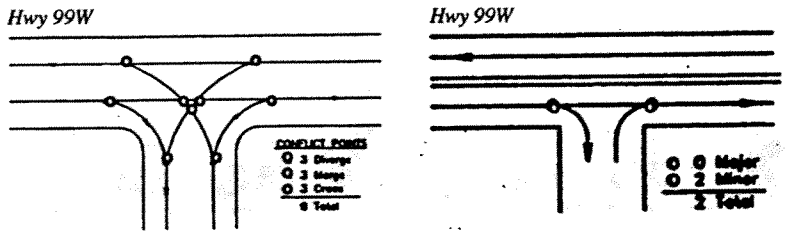
Medians Reduce Conflicts



Conflict Points Reduced by 80%

General Benefits of Medians

- 10% to 25% reduction in total crashes compared to continuous left-turn lane
- 40% to 50% reduction in crashes involving pedestrians when raised median is used
- Landscaped median enhances aesthetics, increases visibility and improves safety

Driveway Treatment Criteria

- Closeness to intersections
- Proximity to other driveways
- Availability of adjacent driveways
- Possibility of shared access or cross access
- On-site parking or circulation deficiencies

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Driveway Treatment Criteria

- Affected by Hwy. 99W left-turn pockets
- Only feasible access point
- Accident history
- Current travel patterns
- Affected by roadway widening

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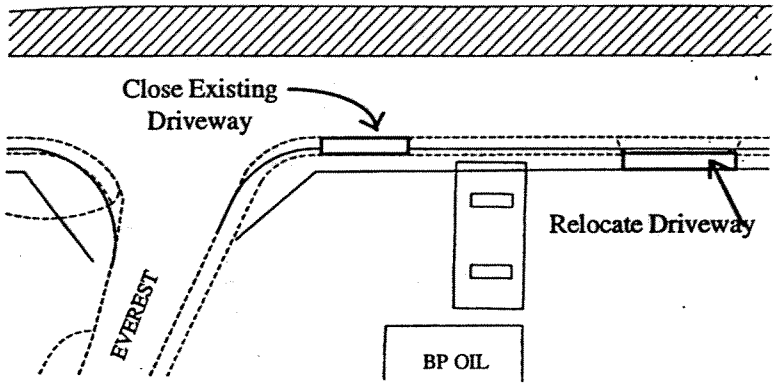
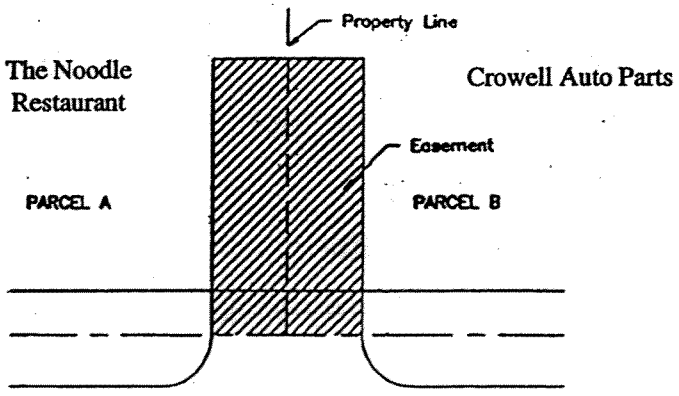
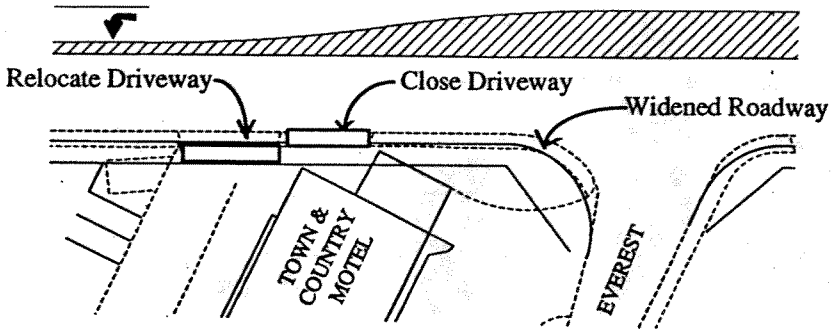
Unsafe Spacing to Driveway



Shared Access



Widening Requires Driveway Removal



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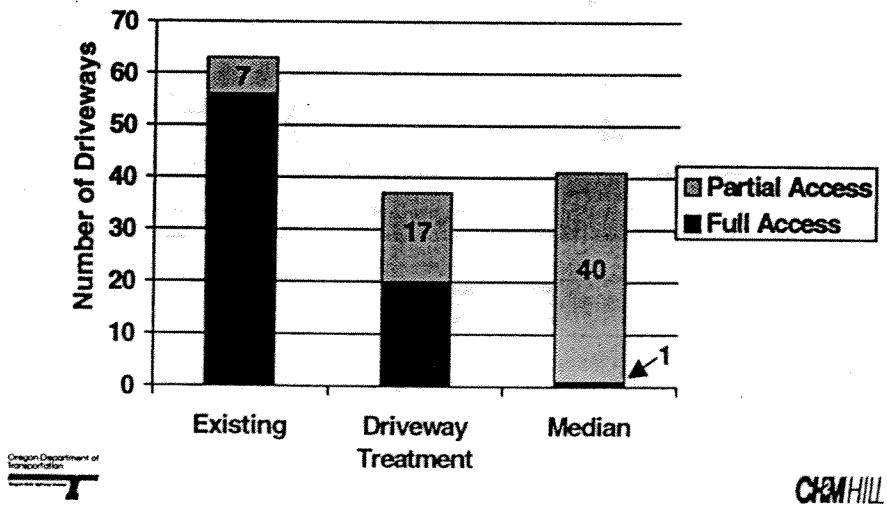
Access Comparison



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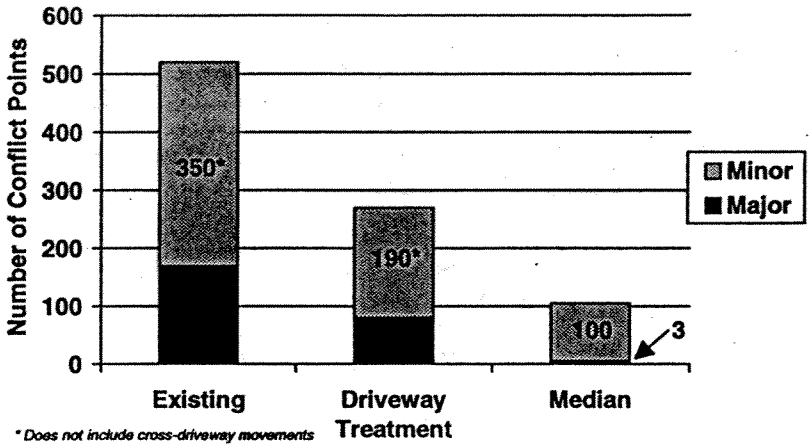
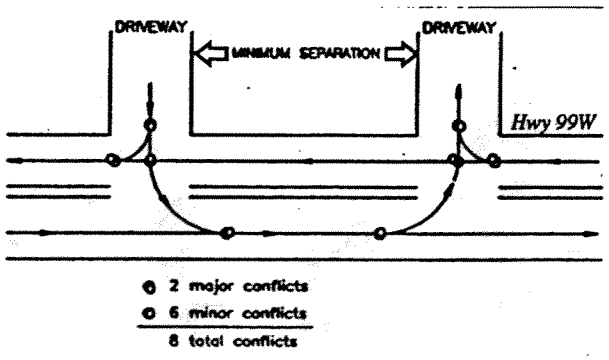
Number of Driveway Conflict Points

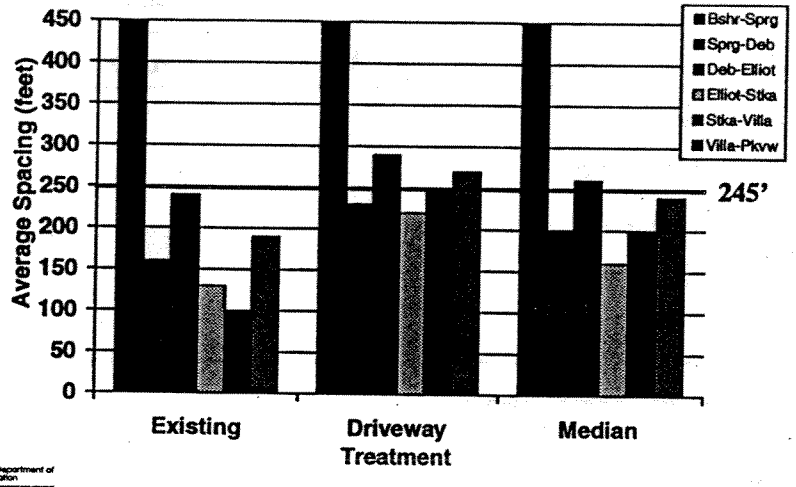


Minimum Driveway Spacing



Minimum Desired Spacing is 245'

Average Driveway Spacing



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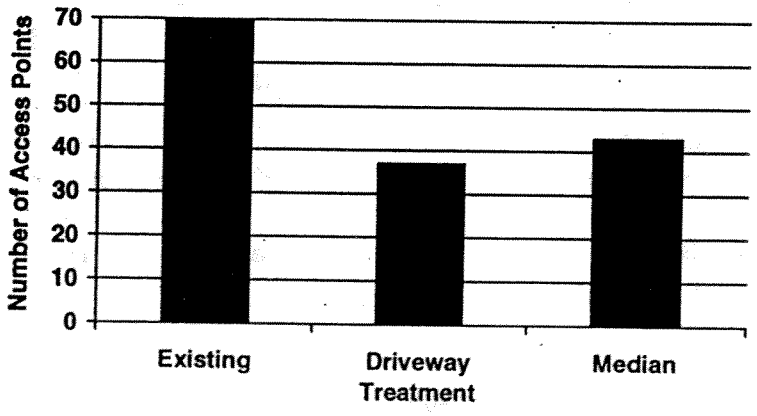
Access Points with Spacing Less Than 245 Feet



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Median Encourages U-Turns

Maximum Number of U-Turns Per Minute

Intersection	East-to-West*	West-to-East*
Springbrook	2	1
Deborah	1	1
Elliot	2	1
Sitka	1	1
Villa	1	2

** Average maximum number of u-turns per minute during year 2000 p.m. peak hour.*

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Intersection and Signal Improvements

	Do Nothing	**Driveway Treatment**	**Median**
Intersection Improvements?	No	Springbrook, Elliot & Villa	Springbrook, Elliot & Villa
Coordinated Signal System?	No	Yes	Yes

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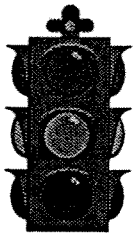
What About New Traffic Signals?



- Traffic signal warranted at Elliot now
- Signals may be warranted at Sitka and Deborah after year 2000
- Sitka and Deborah spacing is poor
- Signals at Sitka and/or Deborah would reduce "greenband" by 20%, increase delays by 30%, increase stops, and increase rear-end crashes

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Intersection Level of Service

Intersection	Do Nothing	Driveway Treatment	Median
Springbrook	F	E (91%)	E (94%)
Elliot	Unsignalized	D (78%)	D (83%)
Villa	F	D (79%)	D (82%)

Year 2000, p.m. peak hour. Median option includes maximum number of u-turns.

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Left-Turn Gap Availability

Intersection	Critical Left-Turning Volume	Capacity Based on Gap Availability	Adequate Gaps?
Deborah	190 vph	330 vph	Yes
Sitka	130 vph	510 vph	Yes

**Year 2000, p.m. peak hour*

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Comparison of Alternatives

- Safety: Median Alternative would offer 10-25% reduction in crashes (up to 50% reduction with pedestrians) compared to Driveway Treatment Alternative.
- Crashes: Only 3 major and 100 minor conflict points for Median Alternative, but 80 and 190 for Driveway Treatment, respectively.

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Comparison of Alternatives

- Accessibility: More out-of-direction travel for Median Alternative compared to Driveway Treatment Alternative. U-turns required.
- Traffic Flow: Enhanced traffic flow under the Median Alternative compared to Driveway Treatment Alternative due to reduction in mid-block conflict areas.
- Other?

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