# OAKLAND 

## Origin and Destination



## STATE OF IOWA OAKLAND

# ORIGIN AND DESTINATION TRAFFIC REPORT 

DATA GATHERED JUNE 1972 PUBLISHED JANUARY 1973

PREPARED BY
HIGHWAY PLANNING SURVEYS DEPARTMENT DIVISION OF PLANNING IOWA STATE HIGHWAY COMMISSION

IN COOPERATION WITH THE
UNITED STATES DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION

## INTRODUCTION

This report is a summary of the data gathered during an external origin and destination traffic survey made in Oakland in June, 1972.

The survey, conducted in cooperation with the Federal Highway Administration, was taken to provide current data for use in planning a proposed Oakland Bypass.
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$\left.\begin{array}{ll}\text { Study Area } & \begin{array}{l}\text { The area enclosed by a cord n line of } \\ \text { interview stations }\end{array} \\ \text { Cordon Line }\end{array} \quad \begin{array}{l}\text { A hypothetical line determi ed by the } \\ \text { location of traffic intervi w stations } \\ \text { and used to delimit the are under study }\end{array}\right\}$


FIGURE 1-I

## DISTRIBUTION OF TRIPS

## OAKLAND STUDY AREA

INTERNAL TRACTS



CENTRAL BUSINESS DISTRICT


The chart at left graphically illustrates some of the more significant traffic volumes derived from the Oakland origin and destination traffic survey. An average of 4733 trips per day passed through the external cordon line of interview stations surrounding the study area during the survey period.

757 trips or 15.99 percent of the total number of trips were between external areas and the central business district.

2008 trips or 42.43 percent of the total number of trips were between external and internal areas exclusive of the central business district.

1968 trips or 41.58 percent of the total number of trips were through trips which passed through Oakland en route to another destination.

Of the total number of trips which passed through interview stations, 22.25 percent began or ended at work, 19.10 percent were for social or recreational purposes, 24.91 percent were during work, 16.04 percent were for personal business, 9.08 percent were for shopping, and the remaining 8.62 percent were for other purposes.

FIGURE I-2
TRIPS BETWEEN THE OAKLAND STUDY AREA AND OTHER COUNTIES IN IOWA

1972 AVERAGE JUNE WEEKDAY TRAFFIC
(INCLUDES ONLY THOSE TRIPS WITH ORIGIN OR DESTINATION IN THE STUDY AREA)


## FIGURE I-3

## TRIPS BETWEEN OAKLAND AND POINTS WITHIN ADJACENT COUNTIES

(INCLUDES ONLY THOSE TRIPS WITH ORIGIN OR DESTINATION IN OAKLAND)

1972 AVERAGE JUNE WEEKDAY TRAFFIC


Table l-1
Oakland Study Area Vehicle Type Summary

1972 Average June Weekday Traffic

| Station | Location | Passenger <br> Cars | Pick-ups <br> and <br> Panels | Single <br> Unit <br> Trucks | Truck <br> Combin- <br> ations | Total |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| 703 | U.S. $6 \& 59 \mathrm{NE}$ | 2084 | 566 | 336 | 266 | 3252 |
| 709 | U.S. 6 \& 59 South | 2277 | 579 | 305 | 258 | 3419 |
|  |  |  |  |  |  |  |

The totals shown above include the duplication of those trips which passed entirely through the study area and were, therefore, interviewed twice.

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Pottawattamie County, created in 1847, lies on the eastern side of the Missouri River in the third tier north of the Missouri border line. It is one of the largest counties in Iowa with an area embracing nine hundred sixty square miles. The county received its name from the Pottawattamie tribe of Indians who formerly inhabited the area. Situated in the eastern central portion of the county along the eastern bank of the West Nishnabotna River lies the town of Oakland. The town was originally known as Big Grove because of the abundance of oak trees in the area.

The first bridge across the West Nishnabotna River was finished in 1856 with the labor and material furnished by the residents of the community. The abutments were timber cribs filled with earth. It was one hundred and twenty feet long with a roadway fourteen feet wide and consisted of three sp:ns. The first house in the town was built in the same year by rilliam Walker for a storeroom.

The building of a branch line of the Rock Island down the Nishnabotna Valley from Avoca changed the cha the hamlet of Big Grove to an important town. The tow was laid out by two surveyors, Thomas Tostevin and Sam
ailroad acter of of Oakland el Denton.

Oakland's first organized church, the Missionary Church of Jesus Christ, was established in 1861. Toda religious needs of the community are met by four churc: aptist St. Paul Lutheran, Christian, Congregational, and Meth dist.

A newspaper, the Oakland Acorn, was started by Join McMannima and John Julian in 1881. The paper still se:ves the town today.

The town was officially incorporated by the circu: $t$ court of Pottawattamie County on May 1, 1882. An election hild in April of the same year chose W. H. Freeman as the town $s$ first Mayor.

Nestled in the fertile Nishnabotna Valley, Oaklanc surrounded by a prosperous and diversified agriculture.
is
Included among the towns major industries are: beef packing, rtady-mix concrete, lumber products, two grain elevators, and livestock trucking.

Oakland's sixteen hundred residents are served by two banks, The Citizens State Bank and The Oakland Savings Bank. The health requirements of the community are met by two physicians and two dentists. In addition, a nursing home supplies resident care for the sick and elderly.

The Oakland Community School system, which includes an elementary school and high school, provides for the education of the community's children.

Included among the different social and recreational activities in the area are: Bowling, camping, hunting, and fishing. The Knights of Pythias, Masons, Odd Fellows, and V.F.W. are all active associations in the community.

Oakland is served by U.S. 59 and 6 to the north and south. Truck freight transportation companies make use of these highway facilities. Rail service is provided by a line of the Rock Island Railroad.

Population Trends

Oakland Population
Table 2-1

| Census <br> Year | Oakland <br> Population | Volume Increase <br> or Decrease | Percent Change <br> 10-Year <br> Period |
| :---: | :---: | :---: | :---: |
| 1900 | 913 | --- | $-\cdots$ |
| 1910 | 1105 | 192 | 21.6 |
| 1920 | 1188 | 83 | 7.5 |
| 1930 | 1181 | -7 | -.5 |
| 1940 | 1317 | 136 | 11.5 |
| 1950 | 1396 | -21 | -1.59 |
| 1960 | 1603 | 44 | 3.4 |
| 1970 |  | 263 | 19.63 |

Pottawattamie County Population
Table 2-2

| Census Year | Pottawattamie County Pop. | Volume Increase or Decrease | Percent <br> 10-Year | thange <br> eriod |
| :---: | :---: | :---: | :---: | :---: |
| 1850 | 7,828 | ---- | --- |  |
| 1860 | 4,968 | - 2,860 | - 36. | 4 |
| 1870 | 16,893 | 11,925 | 340. | 4 |
| 1880 | 39,850 | 22,957 | 235. | 0 |
| 1890 | 47,430 | 7,580 | 19. | 2 |
| 1900 | 54,336 | 6,906 | 14. | 6 |
| 1910 | 55,832 | 1,496 | 2. | 5 |
| 1920 | 61,550 | 5,718 | 10. | 4 |
| 1930 | 69,888 | 8,338 | 13. | 5 |
| 1940 | 66,756 | - 3,132 | - 4. | 8 |
| 1950 | 69,682 | 2,926 | 4. | 8 |
| 1960 | 83,102 | 13,420 | 19. | 6 |
| 1970 | 86,991 | 3,889 | 4. | 8 |

## POPULATION TRENDS



Table 2-3
Motor Vehicle Registration in Pottawattamie County 1950-1971

| Year | Autos | Trucks | Motorcycles | Total | Percent Change |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1950 | 21,620 | 3,984 | 286 | 25,890 | ---- |
| 1951 | 22,529 | 4,211 | 227 | 26,967 | 4.16 |
| 1952 | 22,897 | 4,320 | 249 | 27,466 | 1.85 |
| 1953 | 23,841 | 4,468 | 229 | 28,538 | 3.90 |
| 1954 | 24,802 | 4,624 | 219 | 29,645 | 3.88 |
| 1955 | 26,320 | 4,742 | 231 | 31,293 | 5.56 |
| 1956 | 27,246 | 4,939 | 245 | 32,430 | 3.63 |
| 1957 | 27,415 | 5,057 | 247 | 32,719 | . 89 |
| 1958 | 28,078 | 5,222 | 268 | 33,568 | 2.59 |
| 1959 | 29,861 | 5,493 | 278 | 35,632 | 6.15 |
| 1960 | 31,431 | 5,188 | 335 | 36,954 | 3.71 |
| 1961 | 32,525 | 5,322 | 379 | 38,226 | 3.44 |
| 1962 | 34,224 | 5,686 | 411 | 40,321 | 5.48 |
| 1963 | 35,116 | 5,881 | 399 | 41,396 | 2.67 |
| 1964 | 36,184 | 6,214 | 482 | 42,880 | 3.58 |
| 1965 | 37,244 | 6,877 | 833 | 44,954 | 4.84 |
| 1966 | 37,585 | 7,421 | 1,268 | 46,274 | 2.94 |
| 1967 | 37.736 | 7,901 | 1,425 | 47,062 | 1.70 |
| 1968 | 39,067 | 8,521 | 1,635 | 49,223 | 4.59 |
| 1969 | 40,816 | 9,360 | 1,896 | 52,072 | 5.79 |
| 1970 | 42,028 | 9,892 | 2,531 | 54,451 | 4.57 |
| 1971 | 43.430 | 10,467 | 3,010 | 56,907 | 4.51 |

NUMBER OF MOTOR VEHICLE REGISTRATIONS


FIGURE 2-3
STUDY AREA POSITION


An external origin and destination traffic surver, of the type conducted in Oakland, is designed to determine the number and type of vehicles entering or leaving the study area in a given period of time and their origins, destinations, and purposes of travel.

Travel, as an expression of behavior, tends to be repetitive. This repetition enables statisticians and highway planners to expand and project current data to predict future needs.

Information upon which to base an analysis is gathered by interviewing vehicle drivers at strategically located interview stations. A cordon line composed of interview stations and code stations was located around the perimeter of the stud Interview stations were located on all major roads en ering the study area. All other roads were assigned station coie numbers to facilitate organization of interview data for trip passed through only one interview station. The study divided into five tracts and all trips which had eith or destination within the study area were traced to o tracts.

Interviewing for the Oakland survey was done betveen June 13, and 16, 1972. All vehicles passing through nterview stations during a l5-hour period from 6 a.m. to 9 p.m were stopped briefly for interviews. Information was reco: ded on the following items:

1. Origin of the trip
2. Destination of the trip
3. Purpose of the trip
4. Location where vehicle was normally parled or garaged
5. Place of registration
6. Direction of travel
7. Number of occupants

Mechanical traffic recorders placed at each inter view station were operated continuously for five weekdays includinc the day on which interviewing was done. Manual vehicle classification counts were also taken. Data from both types of counts were used to expand the interview data to 24 -hour average June week day traffic.

At the conclusion of field work, trip data were coded and punched on tabulation cards. The cards were then computer sorted and tabulated according to tract of origin or destination and the station or stations through which each trip passed.

In an external survey of this type, all trips are placed into two main categories, "external local trips" and "external through trips." External local trips have only one terminal (either origin or destination) within the study area and pass through only one interview station en route to their destination. These trips must cross the cordon line at least twice.

Traffic flow charts indicating trip termini by tract of origin/destination are included in this report along with desire line charts showing desired routes of travel in straight lines between interview stations and internal tracts.


FIGURE 3-I
TRACT MAP OF THE OAKLAND STUDY AREA

JUNE 1972

LEGEND
TRACT NUMBER
R_---------
TRACT BOUNDARY LINE CORPORATION LINE
$\qquad$
$\qquad$ INTERVIEW STATION LO ATION CODE STATION LOCATIO


## TRAFFIC FLOW CHARTS

The following traffic flow charts illustr te the internal dispersion of trips between points of origin and/or destination through the stations indicated. These charts are not intended to sow exact routes, but rather to show trip volume b tract of origin or destination and the number trips passing through each external interview station. Trip origins and destinations are not differentiated and the tract or station totals shown include both origins and destinations.


## $\frac{709}{\substack{40.5 . \\ \text { u.s. } \\ 4.5}}$

FIGURE 4-I


LEGEND
TRACT BOUNDARY LINE_ CORPORATION LINE

INTERNAL DISPERSION OF
AlL VEHICULAR TRIPS PASSING THROUGH STATION 703 - U. S. 6 AND 59 NORTHEAST OF THE
OAKLAND STUDY AREA
(ALL TRIPS BY DRIVERS OF AUTOS, TRUCKS, TAXIS, AND BUSES)



FIGURE 4-3

$\varepsilon-A$ ヨดขอ17


$\nabla-\nabla 3 y \cap 91.5$




GRAPHIC SCALE


TRACT BOUNDARY LINE CORPORATION LINE_

FIGURE 4-5
DESIRE LINES OF TRAVEL OF TRIPS TO OR FROM EXTERNAL ENTRANCES OF THE OAKLAND STUDY AREA

AND INTERNAL TRACTS

## EXTERNAL TRIP TERMINI

Table 4-1 on the adjoining page shows a tak ulation of the number and percent of those trips which rad termini in Pottawattamie County, rural areas adiacent to the study area, other counties in Iowa, and othe: states.

The following traffic flow charts illustrate the data shown in Table $4-1$ and point out the Iowa termini of all trips which passed through the oakland stady area at the time of the survey. Figure 4-6 shov; the external termini of all trips which originated $c$ f terminated beyond Pottawattamie County. Those trifs which had termini in other states are shown entering cr leaving Iowa on routes which appear to be most direct tc the study area. Figure 4-7 is a continuation of Fiçure 4-6 and shows the external termini of those trips wh ich originated or terminated in Pottawattamie County beyond the cordon line surrounding the study area. All routes shown are approximate and should be interpreted as such.

TABLE 4-1
SUMMARY OF TRIPS ENTERING OR LEAVING
THE OAKLAND STUDY AREA

| origin or Destination | U.S. 6 and 59 Northeast |  | U.S. 6 and 59 South |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Station 703 |  | Station 709 |  |
|  | Vot. | \% | Vol. | \% |
| Avoca | 215 | 6.61 |  |  |
| Bentley |  |  | 1 | . 03 |
| Carson |  |  | 512 | 14.98 |
| Council Bluffs |  |  | 557 | 16.29 |
| crescent |  |  | 3 | . 09 |
| Hancock | 268 | 8.24 |  |  |
| Iowa Beef Packers Plant | 381 | 11.72 |  |  |
| Mcclelland |  |  | 10 | . 29 |
| Macedonia |  |  | 178 | 5.21 |
| Minden | 12 | . 37 | 9 | . 26 |
| Neola | 7 | . 22 | 9 | . 26 |
| Treynor |  |  | 102 | 2.98 |
| Underwood | 1 | . 03 | 1 | . 03 |
| Walnut | 74 | 2.28 |  |  |
| Total to Towns | 958 | 29.47 | 1,382 | 40.42 |
| Rural pottawattamie Co. | 831 | 25.55 | 373 | 10,91 |
| Other counties | 2. 178 | 36.22 | 622 | 18.19 |
| Out-of-State | 285 | 8.76 | 1,042 | 30.48 |
| Grand Total | 3,252 | 100.00 | 3,419 | 100.00 |

FIGURE 4-6
DISPERSION OF EXTERNAL TRIPS
BETWEEN THE OAKLAND STUDY AREA
AND POINTS IN IOWA BEYOND POTTAWATTAMIE COUNTY
all trips by drivers of autos. trucks. taxis, and buses


STATION 703 - U. S. 6 ANO 59 NORTHEA
-_STATION 709 - U.S. 6 AND 59 SOUTH


GRAPHIC SCALE

FIGURE 4-7
DISPERSION OF EXTERNAL TRIPS BETWEEN THE OAKLAND STUDY AREA
AND POINTS WITHIN POTTAWATTAMIE COUNTY ALL TRIPS BY DRIVERS OF AUTOS, TRUCKS, TAXIS, AND BUSES


4000 TRIPS 2000 TRIPS 1000 TRIPS
500 TRIP
1972 aVERAGE JUNE WEEKDAY TRAFFIC

## LEGEND

TRAFFIC THROUGH INTERVIEW STATIONS
-_ STATION 703 - U.S. 6 AND 59 NORTHEAST
corporation line
cordon line
$\qquad$ ................


FIGURE 4-8
0 TO 2500 TRIPS 2500 TRIFS AND OVER INTERVIEW STATI N LOCATION CODE STATION LC CATION CORPORATION LIT : $\qquad$ CORDON LINE $\qquad$ OAKLAND STUDY AREA (1972 AVERAGE JUNE WEEKDAY TRAFFIC)

## Hoprewneid



OAKLAND STUDY AREA TRIP PURPOSE OF EXTERNAL TRIPS
(ALL VEHICLE TYPES)
1972 AVERAGE JUNE WEEKDAY TRAFFIC

Table B-2a(1)
External Local Trips

|  |  |  |  |
| :---: | :---: | :---: | :---: |
| Work | 327 | 319 | 646 |
| Personal Business | 260 | 228 | 488 |
| During Work | 286 | 284 | 570 |
| Medical <br> or Dental | 27 | 75 | 102 |
| School | 4 | 13 | 17 |


| Recreational | 168 | 222 | 390 |
| :--- | ---: | ---: | :---: |
| Eat | 59 | 49 | 108 |
| Shop | 129 | 238 | 367 |
| Serve <br> Passengers | 36 | 41 | 77 |
| Total Traffic | 1296 | 1469 | 2765 |

Table B-2.a(2)
External Through Trips

|  | 703 | 709 |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Work | 405 | 403 | 808 |
| Personal Business | 271 | 267 | 538 |
| During Work | 606 | 603 | 1209 |
| Medical <br> or Dental | 49 | 50 | 99 |
| School | 19 | 18 | 37 |


| Recreational | 510 | 511 | 1021 |
| :--- | ---: | ---: | :---: |
| Eat | 6 | 6 | 12 |
| Shop | 61 | 63 | 124 |
| Serve <br> Passengers | 29 | 29 | 58 |
| Total Traffic | 1956 | 1950 | 3906 |

Table B-2a(3)
Summary - All External Trips

|  | 703 | 709 |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Work | 732 | 722 | 1454 |
| Personal Business | 531 | 495 | 1026 |
| During Work | 892 | 887 | 1779 |
| Medical or Dental | 76 | 125 | 201 |
| School | 23 | 31 | 54 |
| Sricial or |  |  |  |
| Kecreationai | 678 | 733 |  |
| Eat | 65 | 55 | 120 |
| Shop | 190 | 301 | 491 |
| Serve <br> Passengers | 65 | 70 | 135 |
| Total Traffic | 3252 | 3419 | 6671 |

OAKLAND STUDY AREA

## AVERAGE CAR OCCUPANCY BY TRIP PURPOSE

External Through Trips

|  | Trip Purpose - Destination |  |  |  |  |  |  |  |  |  | Average <br> occupancy |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | work | Personal <br> Business | $\begin{array}{c\|} \hline \text { During } \\ \text { Work } \\ \hline \end{array}$ | $\begin{gathered} \begin{array}{c} \text { Medical } \\ \text { Don } \\ \text { Dental } \end{array} \\ \hline \end{gathered}$ | school | $\begin{gathered} \text { Social } \\ \text { or } \\ \text { Recreation } \end{gathered}$ | Eat | shop | $\begin{aligned} & \hline \text { Serve } \\ & \text { pass. } \\ & \hline \end{aligned}$ | номе |  |
| work | 1.271 | 1.000 | 1.248 |  |  | 1.775 |  |  |  | 1.394 | 1.383 |
| Personal Business | 1.000 | 1.596 | 1.500 |  |  | 2.626 |  |  |  | 1.913 | 1.927 |
| During work | 1.137 | 1.000 | 1.291 |  |  |  |  |  |  | 1.180 | 1.280 |
| $\begin{aligned} & \text { Medical or } \\ & \text { Dental } \end{aligned}$ |  | 1.000 |  |  |  |  |  |  |  | 2.308 | 2.276 |
| school |  |  |  |  |  |  |  |  |  | 1.498 | 1.498 |
| Social or Recreation | 2.000 | 4.341 |  | 1.000 |  | 2.482 |  |  | 3.681 | 2.760 | 2.693 |
| Eat |  | 1.000 |  |  |  | 2.361 |  |  |  | 1.656 | 1.923 |
| Shop |  |  |  |  |  | 3.370 | 2.000 |  | 4.000 | 2.263 | 2.357 |
| $\begin{aligned} & \text { Serve } \\ & \text { Passengers } \end{aligned}$ |  |  |  |  |  | 2.000 |  |  |  | 2.963 | 2.816 |
| Home | 1.309 | 1.933 | 1.180 | 2.163 | 1.671 | 2.584 | 5.000 | 1.906 | 3.417 |  | 2.131 |
| $\begin{aligned} & \text { Average } \\ & \text { Occupancy } \end{aligned}$ | 1.300 | 1.917 | 1.284 | 2.123 | 1.671 | 2.555 | 4.431 | 1.906 | 3.476 | 2.074 | 2.020 |

Summary - All External Trips

|  | Trip Purpose - Destination |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Trip } \\ & \begin{array}{c} \text { Purpose } \\ \text { Origin } \end{array} \end{aligned}$ | work | $\begin{array}{\|l\|} \hline \text { Personal } \\ \text { Business } \end{array}$ | During work | $\begin{aligned} & \text { Medical } \\ & \text { Dental } \\ & \text { Dental } \end{aligned}$ | school | $\begin{gathered} \text { Social } \\ \text { or } \\ \text { Recreation } \end{gathered}$ | Eat | shop | $\begin{aligned} & \text { Serve } \\ & \text { Pass. } \end{aligned}$ | Home | $\begin{array}{\|l\|} \hline \text { Average } \\ \text { Occupancy } \\ \hline \end{array}$ |
| work | 1.271 | 1.234 | 1.287 |  |  | 1.744 | 1.417 | 1.560 | 2.000 | 1.289 | 1.315 |
| Personal <br> Business | 1.000 | 2.028 | 1.863 |  |  | 2.051 | 1.000 | 2.761 | 4.000 | 1.671 | 1.748 |
| During work | 1.265 | 1.569 | 1.262 |  |  |  |  | 1.000 |  | 1.081 | 1.256 |
| Medical or Dental |  | 1.000 |  |  |  |  |  |  |  | 2.161 | 2.150 |
| School |  |  |  |  | 3.000 |  |  |  |  | 1.375 | 1.505 |
| Social or Recreation | 2.000 | 2.938 |  | 1.000 |  | 2.452 | 2.419 | 1.789 | 3.681 | 2.552 | 2.516 |
| Eat | 1.885 | 1.000 | 2.000 |  |  | 2.405 |  | 2.000 |  | 2.189 | 2.160 |
| shop | 1.480 | 1.645 |  | 1.000 |  | 2.603 | 2.000 |  | 3.335 | 2.157 | 2.151 |
| Serve Passengers | 1.343 | 2.000 |  |  |  | 2.993 |  | 2.000 |  | 2.060 | 2.071 |
| Home | 1.375 | 1.746 | 1.345 | 2.027 | 1,469 | 2.516 | 2.819 | 1.825 | 2.798 |  | 1.977 |
| $\begin{aligned} & \text { Average } \\ & \text { Occupancy } \end{aligned}$ | 1.385 | 1.760 | 1.279 | 2.000 | 1.586 | 2.474 | 2.106 | 1.837 | 2.853 | 1.857 | 1.875 |

table e. 1 OAKLAND STUDY AREA
DIRECTIONAL TRIPS BETWEEN STATIONS AND TRACTS
1972 AVERAGE JUNE WEEKDAY TRAFFIC

| VEHICLE TRIPS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| From | To | Auto | $\begin{aligned} & \text { Pickup } \\ & \text { and } \\ & \text { Panel } \end{aligned}$ | $\begin{aligned} & \text { Single } \\ & \text { Unit \& } \\ & \text { Bus } \end{aligned}$ | Semi <br> Truck | Total |
| 1 | 703 | 106 | 31 | 19 | 2 | 158 |
| 2 | 703 | 48 | 21 | 9 | 7 | 85 |
| 3 | 703 | 100 | 27 | 16 |  | 143 |
| 4 | 703 | 48 | 37 | 11 | 6 | 102 |
| 5 | 703 | 135 | 37 | 19 | 4 | 195 |
| C1.2 | Total | 437 | 153 | 74 | 19 | 683 |
| 703 | 1 | 120 | 28 | 13 | 6 | 167 |
| 703 | 2 | 42 | 11 | 3 |  | 56 |
| 703 | 3 | 80 | 16 | 10 | 1 | 107 |
| 703 | 4 | 50 | 38 | 17 | 16 | 121 |
| 703 | 5 | 103 | 39 | 17 | 3 | 162 |
| C1.3 | Total | 395 | 132 | 60 | 26 | 613 |
| 703 | 704 | 1 |  | 1 |  | 2 |
| 703 | 709 | 611 | 129 | 107 | 88 | 935 |
| 703 | 710 | 1 | 2 |  |  | 3 |
| 707 | 703 | 1 |  |  |  | 1 |
| 709 | 703 | 629 | 148 | 93 | 133 | 1003 |
| 710 | 703 | 9 | 2 | 1 |  | 12 |
| C1.4 | Total | 1252 | 281 | 202 | 221 | 1956 |


|  |  | VEHICLE TRIPS |  |  |
| :---: | :---: | :---: | :---: | :---: |
| From | To | Auto | Pickup Panel | Single Unit \& Bus |
| 1 | 709 | 138 | 35 | 20 |
| 2 | 709 | 40 | 8 | 1 |
| 3 | 709 | 106 | 34 | 7 |
| 4 | 709 | 59 | 23 | 15 |
| 5 | 709 | 172 | 47 | 11 |
| C1.2 | Total | 515 | 147 | 54 |
| 709 | 1 | 163 | 52 | 17 |
| 709 | 2 | 54 | 9 | 1 |
| 709 | 3 | 96 | 35 | 6 |
| 709 | 4 | 48 | 30 | 19 |
| 709 | 5 | 152 | 28 | 6 |
| C1.3 | Total | 513 | 154 | 49 |
| 709 | 703 | 629 | 148 | 93 |
| 709 | 706 |  | 1 |  |
| 709 | 707 | 1 |  |  |
| 709 | 708 | 1 |  |  |
| 703 | 709 | 611 | 129 | 107 |
| 707 | 709 | 1 |  | 1 |
| 708 | 709 |  |  | 1 |
| 710 | 709 | 6 |  |  |
| C1. 4 | Total. | 1249 | 278 | 202 |


| Semi <br> Truck | Total |
| :---: | :---: |
| 4 | 197 |
| 4 | 53 |
| 3 | 150 |
| 11 | 108 |
| 1 | 231 |
| 23 | 739 |
| 3 | 235 |
| 1 | 65 |
| 3 | 140 |
| 6 | 103 |
| 1 | 187 |
| 14 | 730 |
| 133 | 1003 |
|  | 1 |
|  | 1 |
| , | 1 |
| 88 | 935 |
|  | 2 |
|  | 1 |
|  | 6 |
| 221 | 1950 |

table e. 2 OAKLAND STUDY AREA
NONDIRECTIONAL TRIPS BETWEEN STATIONS AND TRAC S
1972 average june weekday traffic

| VEHICLE TRIPS |  |  |  |  |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Between |  | Auto | Pickup <br> and <br> Panel | Single <br>  <br> Bus | Semi <br> Truck | Total |
| 703 | 1 | 226 | 59 | 32 | 8 | 325 |
| 703 | 2 | 90 | 32 | 12 | 7 | 141 |
| 703 | 3 | 180 | 43 | 26 | 1 | 250 |
| 703 | 4 | 98 | 75 | 28 | 22 | 223 |
| 703 | 5 | 238 | 76 | 36 | 7 | 357 |
| C12\&3 | Total | 832 | 285 | 134 | 45 | 1296 |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 703 | 704 | 1 |  | 1 |  |  |
| 703 | 707 | 1 |  |  |  |  |
| 703 | 709 | 1240 | 277 | 200 | 221 | 1938 |
| 703 | 710 | 10 | 4 | 1 |  | 15 |
| C1.4 | Total | 1252 | 281 | 202 | 221 | 1956 |
| C12\&3 | Total | 832 | 285 | 134 | 45 | 1296 |
| 703 | Total | 2084 | 566 | 336 | 266 | 3252 |


| VEHICLE TRIPS |  |  |  |  |
| :---: | ---: | ---: | ---: | ---: |
| Between |  | Auto | Pickup <br> and <br> Panel | Single <br>  <br> Bus |
| 709 | 1 | 301 | 87 | 37 |
| 709 | 2 | 94 | 17 | 2 |
| 709 | 3 | 202 | 69 | 13 |
| 709 | 4 | 107 | 53 | 34 |
| 709 | 5 | 324 | 75 | 17 |
| C12\&3 | Total | 1028 | 301 | 103 |
|  |  |  |  |  |
|  |  |  |  |  |
| 709 | 703 | 1240 | 277 | 200 |
| 709 | 706 |  | 1 | 1 |
| 709 | 707 | 2 |  | 1 |
| 709 | 708 | 1 |  | 1 |
| 709 | 710 | 6 |  |  |
| C1.4 | Total | 1249 | 278 | 202 |
| C12\& 8 | Total | 1028 | 301 | 103 |
| 709 | Total | 2277 | 579 | 305 |


|  |  |
| :---: | ---: |
| Semi <br> Truck | Total |
|  |  |
| 7 | 432 |
| 5 | 118 |
| 6 | 290 |
| 17 | 211 |
| 2 | 418 |
| 37 | 1469 |
|  |  |
|  |  |
|  |  |
|  |  |
|  | 1938 |
|  | 1 |
|  | 22 |
|  | 6 |
| 221 | 1950 |
| 37 | 1469 |
| 258 | 3419 |

