

1951

Parking Survey for the City of Tampa, Florida

George W. Simons Jr.

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PARKING SURVEY
CITY OF TAMPA, FLORIDA

1950

GEORGE W. SIMONS, JR.
PLANNING CONSULTANT
JACKSONVILLE, FLORIDA



OFFICE OF THE
CITY CLERK
CITY OF LOS ANGELES
1200 N. GARDEN STREET
LOS ANGELES, CALIF. 90012

GEORGE W. SIMONS, JR.

MEM. AM. SOC. C. E.
MEM. AM. INST. OF PLANNERS
MEM. INST. OF TRAFFIC ENGINEERS

PLANNING AND ZONING
CONSULTANT

HILDEBRANDT BUILDING
JACKSONVILLE 2, FLORIDA

March 7, 1951.

Honorable Curtis Hixon, Mayor, and
Board of Representatives,
Tampa, Florida.

Dear Mayor Hixon:

Attached you will find the Parking Survey Report which was presented, in its principal features, at the public meeting in the City Hall on January 23. Since that time the report has been expanded and amplified with some data relative to costs and suggestions pertinent to procedure.

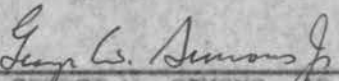
These findings revealed the necessity of directing some continued constructive thinking on the over-all problem. Because of changing conditions it is not a problem that can be solved in one sitting. Its solution will depend on the coordinated ideas of public and private interests.

The ideas that have been advanced for the use of the A. C. L. property and for the creation of a Parking Authority should be explored and developed further.

I want to express to you my thanks for the cooperation extended to me in the conduct of this work which I hope will focus the public's attention to the needs of this most pressing problem.

With kindest regards, I am,

Sincerely yours,



GEORGE W. SIMONS, JR.

GWS:EBB

PREFACE

This report on Parking is but one part of a more complete and comprehensive study dealing with other aspects of the over-all plan of the city's physical development and growth. In 1945 a comprehensive plan of Tampa including such elements as Land Uses and Zoning, Streets and Highways, Parks and Recreation, Public Buildings and Facilities, Subdivision Practices, and other related subjects, was delivered to the city and as a result thereof, the present zoning ordinance and plan was prepared and enacted.

The City of Tampa and its immediate environs have experienced much physical improvement and change since 1945. The master sewerage and sewage treatment works have been undertaken and advanced toward completion; extensions and improvements have been made in the water supply and notable street improvement projects have been completed. So one of the objects of this current study is a revaluation of the plans of 1945 in the light of progress made since then and a determination of other improvements that the several studies suggest as desirable.

Another object of this study is to present, in its entirety, a more current plan of over-all development to assist and guide the Housing Authority in its plans of slum clearance and urban redevelopment under Title I of the Housing Act of 1949.

This particular report on Parking was prepared in advance of the subsequent sections because Parking is currently a problem requiring attention and action to alleviate the difficulties confronting the businesses and properties located in the Central Business District.

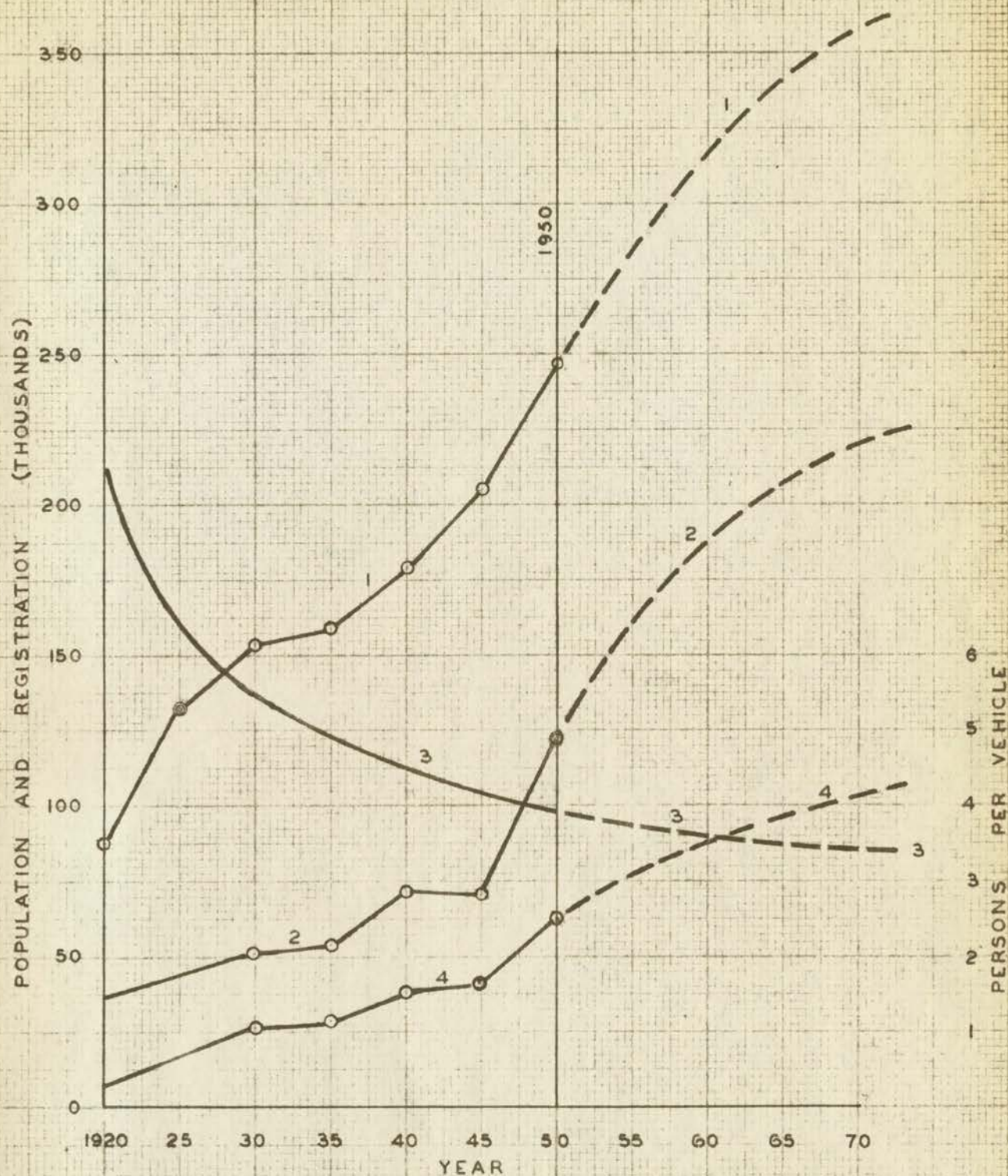
PROBLEM #1

The Number One problem confronting the central business district of growing cities is parking. The question constantly arising among merchants, bankers and professional men on the one hand and the client or customer on the other, is - "Where can we park?". The difficulties and hazards involved, and the inability to readily find terminal facilities within easy access of the ultimate destinations are affecting the characters and values of central business districts in many and diverse ways. Neighborhood business districts are being created into which many of the service businesses formerly located in the central area, are moving. In some situations centrally located banks are establishing neighborhood drive-in banks, department stores are establishing branches and professional men such as doctors, lawyers and others are establishing facilities in areas provided with adequate parking facilities and ease of accessibility. This migratory or decentralizing influence has already been reflected in the decline of values in many cities. So to conserve the value, integrity and importance of the central business district is a problem for the city to consider seriously - a problem associated with increasing confusion and congestion.

FACTORS CONTRIBUTING TO THE COMPLEXITY OF THE PROBLEM

At least four factors are contributing to the complexity and magnitude of the parking and traffic problem today. There may be other factors but these are the most important. These are: (1) the population growth of the city and its environs (the Metropolitan Area) and the population growth of the expansive trading area tributary to the city; (2) the increased usage of the automobile

POPULATION & VEHICLE REGISTRATION HILLSBOROUGH COUNTY



- 1 POPULATION HILLSBOROUGH COUNTY
- 2 AUTO. REGISTRATION EXCLUSIVE HILLSBOROUGH COUNTY
- 3 PERSONS PER REGISTERED AUTO
HILLSBOROUGH COUNTY
- 4 AUTOMOBILE REGISTRATION HILLSBOROUGH COUNTY

as reflected by registrations - both in and out of Hillsborough County; (3) the improvement in and diversity of economy in the city and its tributary area and (4) the added increment of load contributed by visitors into and thru the city. Since 1930, the automobile registration of Hillsborough County has increased from 28,000 to 62,000 in 1950 (121%) and in the area tributary to Tampa, exclusive of Hillsborough County (Citrus, DeSoto, Hardee, Hernando, Highlands, Manatee, Pasco, Pinellas, Polk, Sarasota, Sumter Counties), from 50,500 in 1930 to 123,000 in 1950 (144%). Whereas in 1930 there were 5.5 people per registered automobile in Hillsborough County, in 1950 there were 4.0 people per registered automobile and the downward trend reflects that by 1970 the figure will approach 3.0 people per registered automobile. The population of Hillsborough County increased from 153,519 in 1930 to 248,536 in 1950, an increase of 62%. Of this 1950 population, 124,073 were in the City of Tampa, 50% thereof. The percentage population increase of Hillsborough County reflects principally the growth of Metropolitan Tampa outside of but contiguous to the city so for that reason any figures pertinent to the County can be considered the data for Tampa.

The tributary area to Tampa, outside Hillsborough County, increased in population from 228,000 in 1930 to 421,000 in 1950, an increase of 84%. This area contributes substantially to the economy of Tampa; it contributes many car loads of people who come to Tampa to trade, seek professional service or for recreation and it also contributes considerably to the interurban movement of trucks. Car operators are like flowing water that follows the channels offering the least resistance. If the obstruction is too great a new channel is opened and a new area discovered. Similarly, those people coming into Tampa from the tributary area to trade or to transact business will seek trading

places elsewhere if the difficulties of parking are enlarged or enhanced. They will gravitate to those places or areas wherein adequate parking facilities are available. So, in evaluating the character and magnitude of the parking problem and the available facilities to meet it - one must look beyond the bare necessities of the people of Tampa and Hillsborough County; the problem is measured in terms of the region as well as city and it is primarily an economic problem.

CENTRAL BUSINESS DISTRICT

In the beginning of any study of this nature it is well to define the boundaries of the central critical area and its core and to learn something of the over-all volume or flow of traffic into and thru the area. The Central Business District as used in this study is bounded by Tyler Street on the north, Pierce Street on the east, Whiting Street on the south and the river on the west. Within this area is a central core bounded by Tampa Street on the west, Florida Avenue on the east, Cass Street on the north and Lafayette Street on the south. Within this core are located the principal department stores, theatres, banks and offices (Diagram 1).

STATE ROAD DEPARTMENT STUDIES

According to studies conducted in 1946-1947 by the State Road Department, 136,000 vehicles crossed the city limits of Tampa in both directions on all routes carrying volumes in excess of 300 vehicles per day (24 hours). On seventeen arterial routes, 68,028 vehicles crossed the city limits coming into the city. Of this number, 33,954 (50%) did not enter the central business district but 23,493 did. The number of vehicles crossing the city limit lines

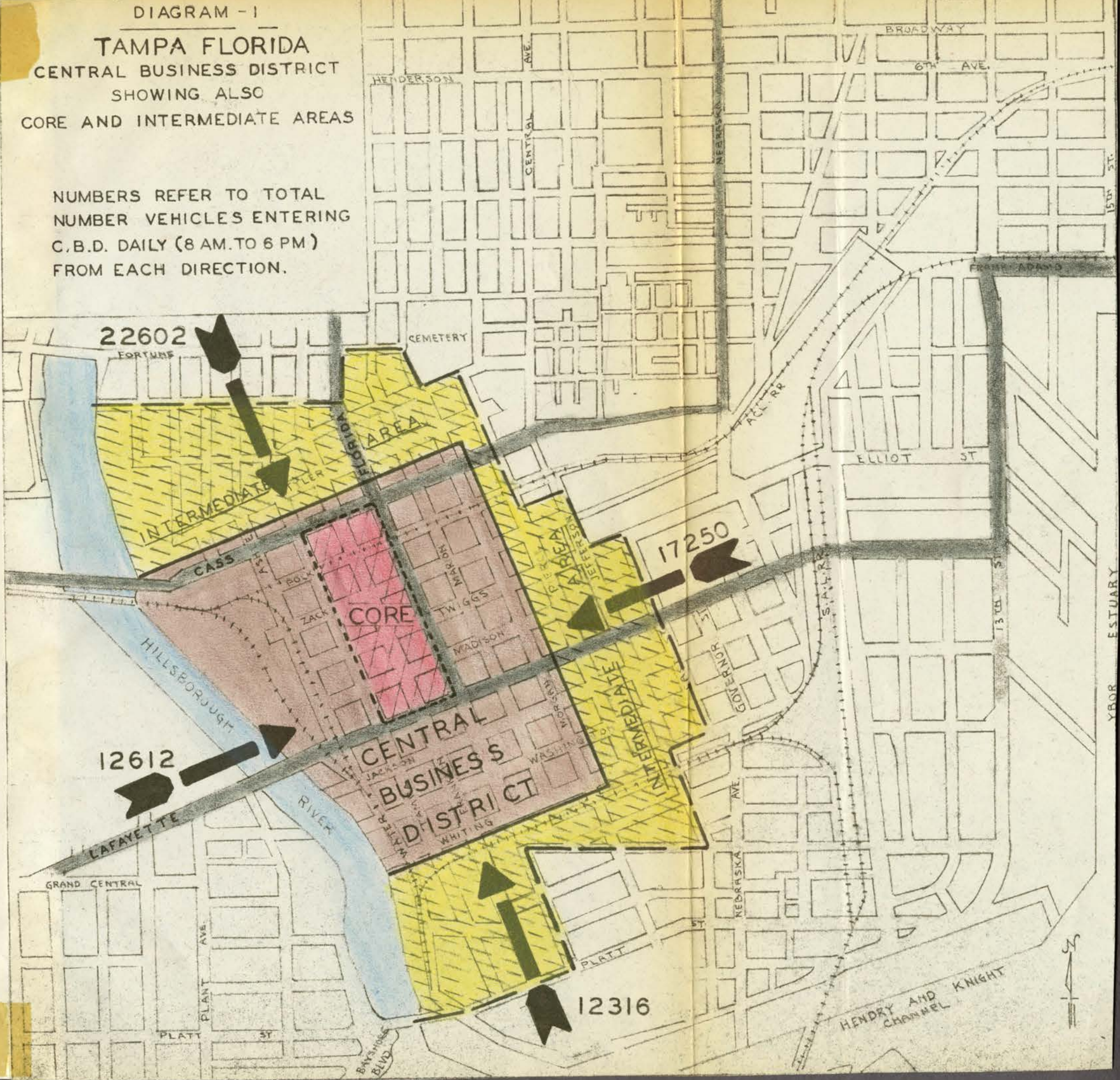
DIAGRAM - 1

TAMPA FLORIDA

CENTRAL BUSINESS DISTRICT

SHOWING ALSO
CORE AND INTERMEDIATE AREAS

NUMBERS REFER TO TOTAL
NUMBER VEHICLES ENTERING
C.B.D. DAILY (8 AM. TO 6 PM)
FROM EACH DIRECTION.



was augmented by 31,230 vehicles that originated within the city of which 27,104 were destined to the central district. It is therefore observed from the studies of the State that some 50,000 vehicles per day, originating both inside and outside the city, were destined for the central business district at one time or another. From this it would appear that every registered car in Tampa and Hillsborough County came to town at some time every day. And of the vehicles originating either in the city or outside, about 11,000 (22%) passed thru the central district without stopping. Altho these studies were made by the State Road Department in 1946-1947, the relative proportions probably hold true today altho the actual numbers have increased.

CORDON COUNT

To ascertain some idea of the volume and characteristics of traffic flowing into and thru the Central Business District today, a cordon check was made. A line was defined easterly from the river thru the blocks between Tyler and Cass Streets on the north to a point easterly of Morgan Street, thence a line southerly thru the blocks between Morgan and Pierce Streets to a point south of Whiting Street and thence a line westerly to the river thru the blocks south of Whiting Street. All traffic flow, in and out of this area, was checked from 8:00 A. M. to 6:00 P. M. This is known as the cordon count (Area shown on Diagram 1).

During the ten hour period (8:00 A. M. to 6:00 P. M.) of the cordon count approximately 125,000 vehicles entered and departed from the area, divided into classes as follows: 82.6% passenger vehicles; 12.8% trucks and 4.6% taxis and busses. Passenger vehicles obviously were predominant.

Three heavily traveled interurban highways (Diagram 1) pass thru the central district, which contribute to its congestion and load - Lafayette Street between the bridge on the west and Thirteenth Street on the east; Florida Avenue from its intersection with LaFayette northward to the city limits and beyond and Cass Street from the bridge on the west to Nebraska Avenue on the east and thence north. Twigg Street from down town easterly to Thirteenth Street is also one of the more heavily traveled thoroughfares. Much of the traffic volume following Lafayette Street, Cass Street and Florida Avenue continues thru the district but in its thru passage adds considerably to the congestion and hazards of normal circulation. This is particularly true as it relates to inter-urban truck traffic. During the ten hour period more than 12,000 vehicles crossed the Lafayette Street bridge, to and fro, and slightly more than 11,000 over the Cass Street bridge. Of these volumes 10% were trucks crossing the Lafayette Street bridge and 15% were trucks crossing the Cass Street bridge.

An examination of the cordon count reveals the habitual and predominant routes of travel followed by motorists obliged to enter or traverse the Central Business District (Diagram 2). Those using the Bayshore, Platt Street and the Platt Street bridge enter at Water, Tampa, Franklin and Morgan Streets but apparently there is a desire on the part of many to use Morgan Street as an entrance in preference to either Franklin or Tampa Streets. These motorists want to reach destinations in the eastern half of the central area where a number of "off-street" parking facilities are available, or to find "free" all day parking facilities east of the area. For southbound traffic departing from the area, Tampa Street is preferred to Franklin, probably because only one traffic light is encountered on Tampa Street at Platt. Naturally Lafayette

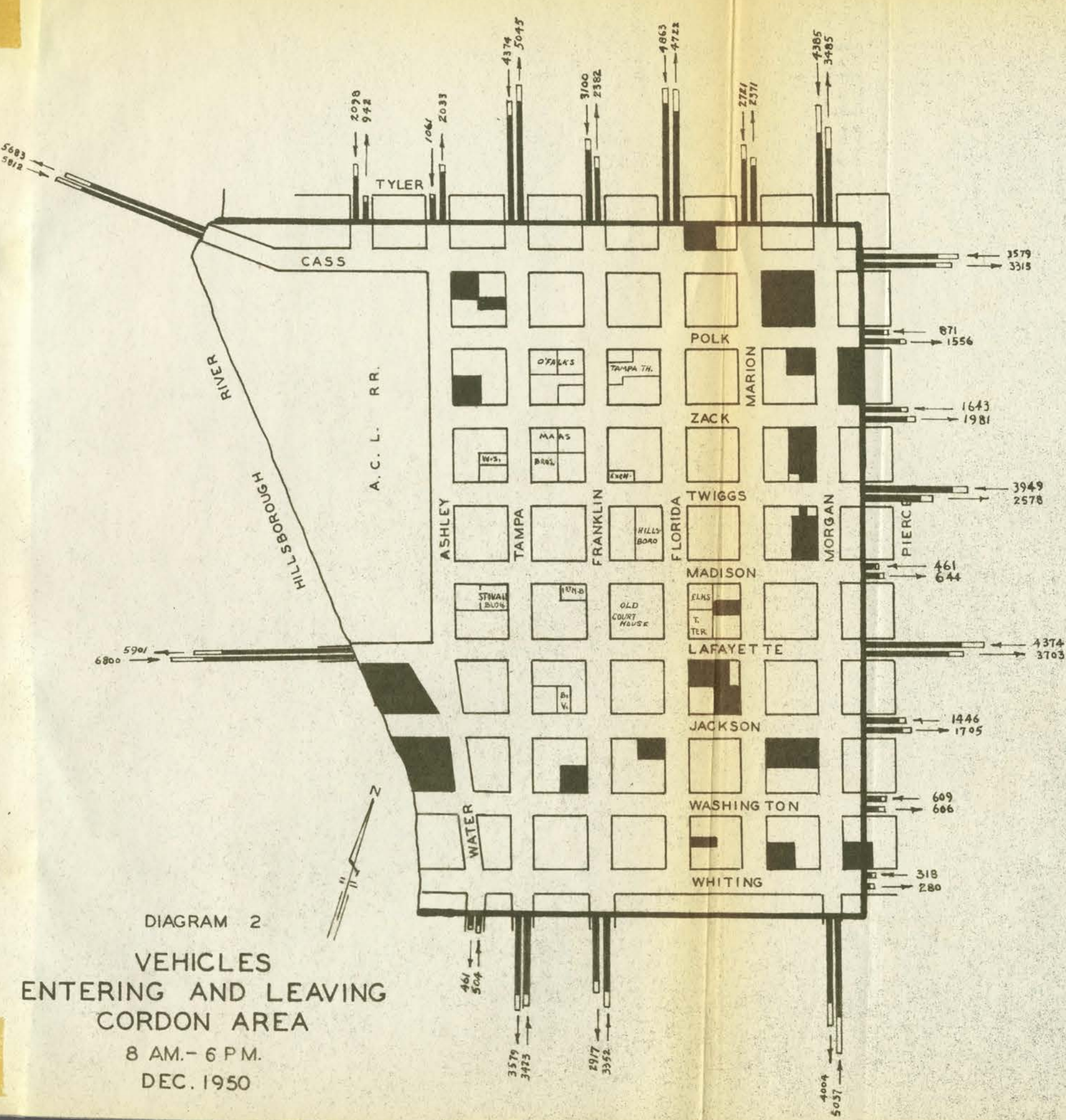


DIAGRAM 2

VEHICLES ENTERING AND LEAVING CORDON AREA

8 AM.- 6 PM.

DEC. 1950

Street, as one of the thru State highways thru the city, is heavily traveled, contributing many cars to the confusion and congestion of down town. About 13% of the traffic load on Lafayette consists of trucks destined thru the city and similarly a large portion of the remaining traffic volume is destined thru either by Lafayette Street or Florida Avenue. Thirty-five per cent of the traffic entering the central district during the day comes from the north, entering principally via Tampa Street, Florida Avenue and Morgan Street. Traffic from Hyde Park, Palma Ceia, Ballast Point, Sunset Beach and Interbay sections is divided between the Platt Street and Lafayette Street bridges. That from Davis Islands and the Bayshore area use the Platt Street bridge while that north of Cleveland Street resort to the Lafayette Street bridge. But thru the southerly entrances to the central district - Water, Tampa, Franklin and Morgan Streets - 19% of the traffic enters and from the west via the Lafayette Street bridge about the same volume (19.5%). In other words from the south and west the volume of flow into the district is 38.5% of the whole, 3.5% greater than from the north. From the east, 26.5% of the volume enters. From these ratios of distribution it is noted that the contributions of traffic volume to the central business district are pretty uniformly divided.

In the years that lie ahead the several volumes of traffic entering the central area will continue to increase in proportion to the growth in the areas tributary to it. But because of the intensified construction activities to the west and southwest the loads from those two directions will doubtless increase more rapidly than from the other directions. Industrial development east of the district will contribute more heavily to the increased volume of trucks destined to or from it.

But regardless of the point of entrance or the relative volumes of flow entering the district it is clear that nearly 65,000 cars pour into the central district during an average ten hour period or 125,000 cars in and out per day. Part of the 65,000 vehicles entering the central district on an average day pass thru it but of those remaining - what are they going to do?

Many motorists passing thru the streets of the central district do so because they are routed that way. Much of this traffic could be by-passed and thereby relieve to some degree some of the streets of needless factors contributing to congestion and confusion. But ignoring for the moment those entering and passing thru the district why do so many stop or seek to stop there?

WHY DO PEOPLE GO TO TOWN

Those seeking terminal facilities within the central district have many and diverse interests. A considerable number are employees and employers who have offices and businesses there or who work there. Another number are on missions of one kind or another - to transact business, to do banking, to visit professional offices, to shop, attend to official business at the city and county offices, to attend theatres or to visit. But regardless of the mission that attracts them to the central district, the matter of parking is a vital and important matter.

To ascertain how many downtown office and store workers come to work by automobile, a survey was made of offices and stores within the central district. Offices were visited by an interviewer and information from business establishments was acquired on questionnaires sent out by the Retail Merchants Association with a letter of explanation. These letters and questionnaires were followed up

later by an interviewer in those cases where replies had not been forthcoming after a reasonable time. The results from more than one hundred businesses and eighteen or more office buildings in the central district are interesting. Altho more than 1,500 workers did not drive to work, 2,106 did. This figure (2,106) may differ somewhat from day to day but we believe it a good average. This figure shows that those people whose principal business it is to attract and serve others, occupy at least 2,106 of the available and existing parking capacity before the time the shoppers and other seeking parking spaces begin to arrive. Of 1,856 interviewed who traveled by car, 895 or 48%, parked their cars in private parking lots or garages, while 390 or 21% parked along the curb, mostly in unmetered free spaces but strangely 352 or about 19% reported that they parked in metered zones - presumably 2 hour zones.

This survey revealed that executives and managers as a rule chose to park their cars on a term (day, week or month) storage basis in centrally located garages, or on close in lots. The employees on the other hand more often parked in free, unmetered curb spaces in areas just outside the central district. It was observed also that quite a considerable number of car operators made arrangements to park at filling or service station sites within or near the central district - stations which normally are not parking areas.

Traffic entering and leaving the central district during the day does not follow a uniform pattern (Diagram 3). In the morning from eight to ten the incoming flow is heaviest and in the evening hours from 4:00 P. M. and later, the outgoing flow is heaviest. During the day the volume of flow reaches a low peak between 1:00 and 3:00 P. M. In the morning prior to 8:00 A. M. a considerable volume of traffic is already circulating within the district and much of it has already parked or is seeking places to park.

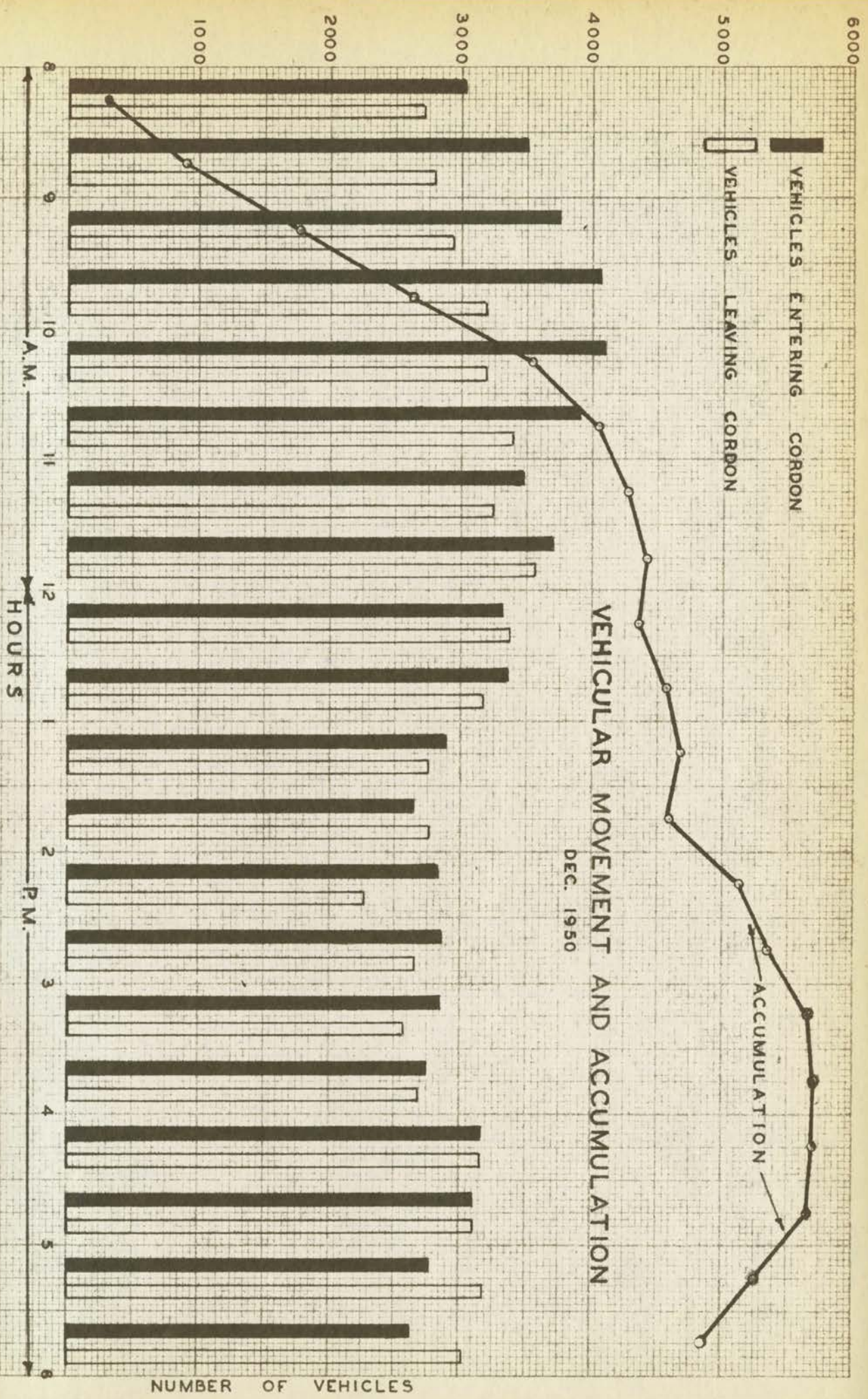


DIAGRAM 3

From 8:00 A. M. cars begin to accumulate and stop within the central district. Between 8:00 A. M. and 11:00 A. M. (three hours) 4,064 cars had accumulated, to park, inside the district, of which about 3,300 were passenger cars. By 1:30 P. M. the accumulation had reached 4,718 cars and by 4:00 P. M. had reached a peak of 5,717 cars of which more than 4,600 were passenger cars. This means that on a day in December, 1950, more than 5,700 motor vehicles were inside the central district at a given moment, either parked or looking for a place to park. This brings us now to the places available inside the central district, to park.

EXISTING PARKING FACILITIES

Currently 4,494 motor vehicles can park at one time within the Central Business District (cordon area) as defined, divided as follows:

"Off-Street" spaces in lots and garages for public use	2,722
"Off-Street" spaces in lots and garages for private use	231
"Off-Street" spaces, public and private	2,953
Metered spaces at the curb	1,325
96 - 12 minute meters	
891 - 1 hour meters	
338 - 2 hour meters	
Free spaces at the curb	216

Immediately outside the cordon area as defined an additional 516 cars can park in lots of which the lot of the Stovall-Professional Building accommodates 144. Also in the Intermediate area (Diagram 1) surrounding the cordon area approximately 1,000 cars park in unmetered curbside spaces. All day free parkers frequent this latter area primarily and to meet the requirements

of the central core these areas are not a factor because of the distance to the shopping center.

Theoretically if all curb space was available for parking nearly 1,700 vehicles could park curbside at one time in the central district but some 346 reserved zones (Freight Loading, No Parking, Guests, Public Officers and Busses) and spaces appropriated by filling stations, garages and other businesses reduce this available capacity considerably. The practice of allocating extensive drive-in approaches to filling stations and permitting businesses to usurp and use public property for their uses and the practice also, of permitting people to establish private spaces in front of their properties reduces the available parking space at the expense of the potential parker.

"THE CORE"

Within the large area designated as the Central Business District or Gordon Area (Diagram 1) is the smaller, more compactly and intensely developed area, the "Core" extending from Cass Street on the north to Lafayette Street on the south, Florida Avenue on the east and Tampa Street on the west. Within this "Core" and immediately adjacent to it the principal banks, office buildings, public offices (City, County and Federal), department stores, drug stores and shops, are located. It is the area of maximum concentration and parking demand. The ten blocks in this area, each 210 feet square (approximately 1 acre each) are built upon solidly. Within them such multi-storied buildings as the First National Bank, Tampa Theatre Building, Citizens Building, Mass store, Hillsboro Hotel and Y. M. C. A., are located and in the blocks immediately adjacent such multi-storied buildings as the Tampa Terrace, Wallace S. Stovall, Floridan Hotel and the Post Office. This is the central-

ized multi-purpose area into which thousands of people pour daily to transact business, shop, bank and enjoy themselves. It is the critical area from the standpoint of parking demand. During the course of an average ten hour day what are the parking experiences in this area? How long do people park and how many do park?

In this area (Core) bisected by Franklin Street north and south and including the east side of Tampa Street, the south side of Cass Street, the west side of Florida Avenue and the north side of Lafayette Street, there are 400 curb side spaces (30% of all available in the larger central area). Of the 400 curb side spaces, 267 (66% of all) are metered and available to the parking public and 133 (34%) are reserved for Busses, Cabs, Loading, etc. One-third of the curb space, it can be seen, is not available to the public. Some of the spaces are even reserved for individual public officers.

Of the reserved spaces in this critical area, 57 are for bus loading, 42 are for freight loading, 18 are cab stands and 14 for hotel guests and public officers. Nearly 17% of the reserved spaces in the "Core" are for Bus Loading and Unloading.

A block by block survey and check over a ten hour period (8:00 A. M. to 6:00 P. M.) disclosed that 1,770 vehicles parked in 199 metered zones during the period of survey - an average turn over of 8.9 times. While this average turn over looks very favorable, it reflects the pressure of the 12 minute meters in the area at which the turn over is greater. For instance, in the block along Madison Street between Franklin and Tampa Streets, by the First National Bank, 191 cars parked at the 12 minute meters in ten hours, a turn over of nearly 13 times. However even here the average parking time was 40 minutes instead of 12.

Summarizing the parking times and habits of the people, about 60% of the vehicles parked in the "core", parked for 60 minutes or less; 39% parked for 15 minutes or less. Nearly 20% of the 1,770 cars parked in the core during the ten hour day, parked more than 60 minutes, 10% of them (201) for more than two hours - some for as much as three and four hours.

From this survey of parking habits within the central core we would conclude that the meters are performing an effective job despite the fact that some are abused. The tendency of some motorists to cruise around blocks looking for meters with paid up time is very evident - a practice which is quite common. There were also some who kept their cars in metered zones for prolonged times by "feeding" the meter nickels or pennies however this practice was not too prevalent.

During this study a considerable number of vehicles were observed parked in "Reserved" or even Bus Loading zones - some for a few minutes only and others for longer periods. Double parking was observed in a number of instances, principally in the areas around banks and hotels.

Because the parking demand within the central core is greatest and because the parking practices reveal that parkers remain for less than 1 hour, it would not be amiss to change the timing of meters therein. By changing the time interval of meters within the core to 30 minutes, (meters on both sides of Franklin Street, the east side of Tampa Street, the west side of Florida Avenue and on both sides of Madison, Twiggs and Zack Streets, from Tampa Street to Florida Avenue), twice as many cars could be accommodated as now are and similarly by changing the 2 hour meters within the larger cordon area to 1 hour, twice as many cars could also be accommodated. In these changes, the 12 minute meters, except those around the Post Office, should be changed to 30

minutes. These time changes alone will enable more than 1,500 cars to find parking spaces in the central area.

These changes will affect primarily the spaces in the most critical area where the turnover should be greatest. It will enable more people to get nearer the places they desire to reach and whose missions can be discharged in a relatively short time. Those people who need more time - more than an hour - should select areas served by 2 hour meters or go to one of the nearby lots. In the future of increased traffic volumes and movements it may be necessary even to remove all parking from some of the streets, especially Franklin Street.

Obviously the effectiveness of this meter operation in the critical area will be dependent on the effectiveness and alertness of the police patrol. Once motorists get the idea that the checking system is deficient they begin to abuse the parking privilege and then only the Traffic Police get the blame.

RATE OF ACCUMULATION

Diagram 3 shows graphically the volumes of traffic entering and leaving the cordon area during the ten hour day, and Diagram 4 shows the rate of vehicle accumulation within the area. Between 8:00 A. M. and 12:00 Noon, 4,400 vehicles were inside the cordon either moving or parked. Diagram 4 shows a deficiency of about 1,200 parking spaces at the peak hour of demand. In other words, there were about 1,200 more vehicles on the streets within the cordon area than could have been accommodated at all available parking spaces therein. Some of this number were buses and trucks having access to reserved spaces not available to the public and another portion were vehicles en route thru the area. So granting that 35% of the traffic volume on the

PARKED VEHICLE ACCUMULATION
CENTRAL BUSINESS DISTRICT
TAMPA FLORIDA
1950

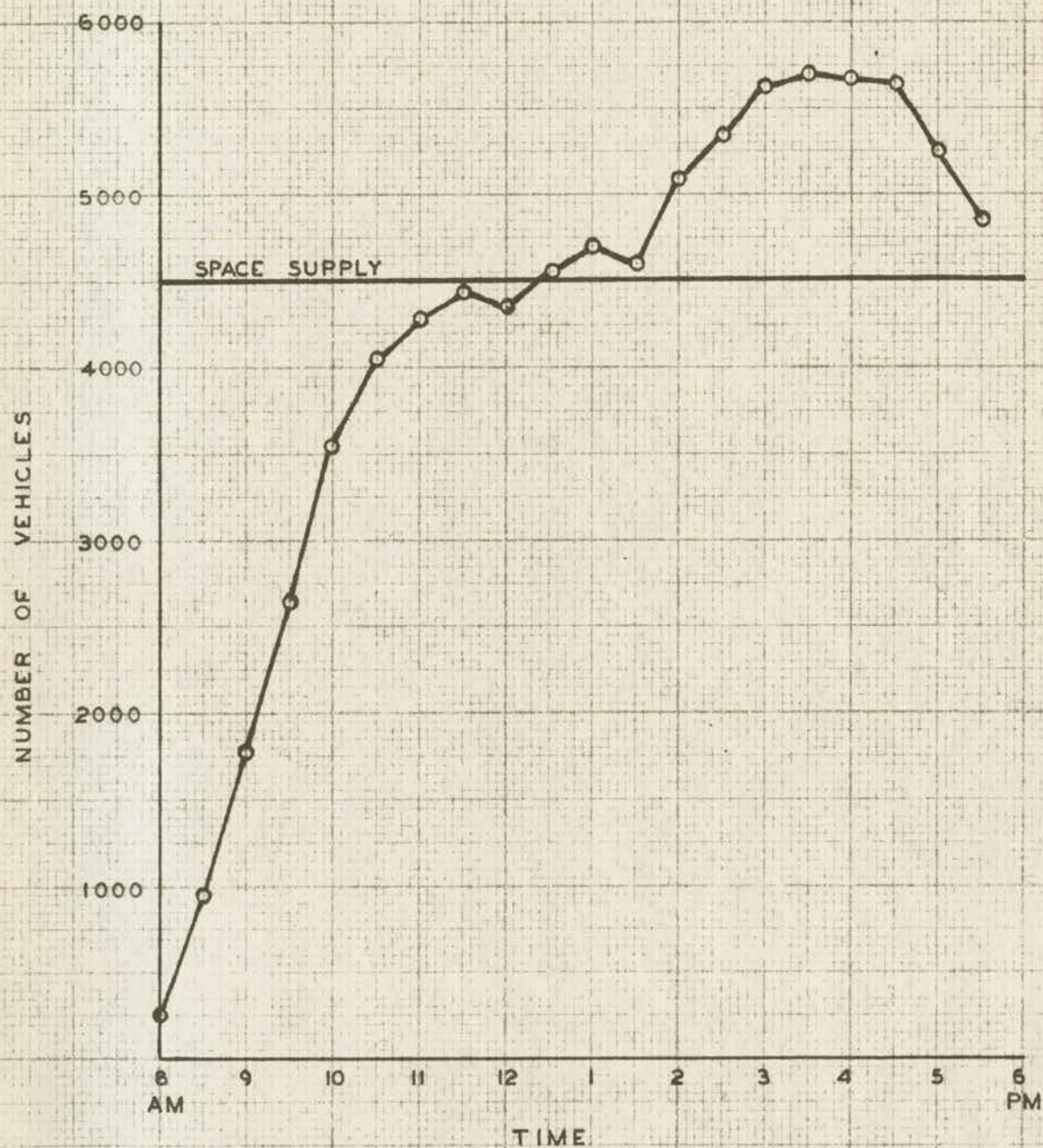


DIAGRAM 4

streets fell into this latter category there would still remain a deficiency of passenger vehicle spaces of nearly 800 over and above what could be accommodated at the hour of peak demand.

LOCATION OF PARKING FACILITIES

As stated earlier some 1,000 or more down town workers park in garages or lots and in this connection it is interesting to note the effect of location on the use of "off street" facilities. For transient parkers, experience shows that those facilities located within two blocks or less of the central core are most in demand while those located more than two blocks away, have vacancies. This picture is comparable to that found in other cities - namely, motorists desiring to work, shop or do business within a business center, will not walk far from their final destination to their parked car - a distance varying from 1,000 to 1,500 feet. Merchants have found this to be particularly true. In Tampa, two blocks seems to be the optimum distance. This habit - if it may be called that - reflects the necessity of developing additional "off street" parking areas within a radius of two to three blocks from the central core.

"Off street" parking facilities serve two kinds of customers - the all day parker and the transient. Many of the former are down town workers who drive their cars to and from work. Transient parkers are usually those whose missions are such that metered curb spaces do not afford enough time. Whereas some transients park for only a few hours, others park for all day. The average transient parking time in garages and lots is little less than three hours. Among the transient parkers are many shoppers who come into the city from afar.

Altho a few "off street" operators refused to divulge the number of transients and all day customers they accomodated, most of them were cooperative. The study of the available "off street" parking capacity of 2,722 spaces in public facilities disclosed that 2,199 cars were accomodated on an average day in December, 1950, of which 1,231 were transient and 968 were all day parkers. Just outside the central area 516 more "off street" spaces were available accomodating an aggregate of 569 cars of which 323 were transients and 246 were all day parkers. Just outside the central area 516 more "off street" spaces were available accomodating an aggregate of 569 cars of which 323 were transients and 246 were all day parkers. Whereas facilities nearest the central core had the least space available during the day, those at a distance of more than two blocks from the core, had vacancies. One facility, as an illustration, that has a capacity in excess of 100 cars accomodated only 30 parked cars.

One type of "off street" facility just outside the central cordon should be mentioned here because it is indicative of the trend being followed in many places. Located on the east half of the block between Lafayette and Jackson Streets at Pierce is an "off street" parking facility serving principally the Stovall-Professional Building. With a capacity of 144 cars, it accomodates 114 all day parkers. Many new office buildings being erected now are including adequate parking facilities within the structure or on ground adjacent thereto as in this case. Similarly the Tampa Electric Company has provided a lot for its employees, accomodating 54 cars.

SUMMARY

The parking study herein described has revealed a number of interesting and significant data relating to the volume, movement and storage of motor vehicles within the central business district as defined in Diagram 1. On an average day in December, 1950, some 125,000 vehicles entered and departed from this area during a ten hour day (8:00 A. M. - 6:00 P. M.). Of the 65,000 vehicles that entered during the day, some passed thru, some were stored for all day but by far the greatest number stopped for varying periods to transact business. Just as the magnitude and complexity of the current problem differed from that of a decade ago so will it continue to become more complex and confusing in the years that lie ahead unless steps are now inaugurated to meet the increasing demands. The growth of Tampa and its tributary area will continue to contribute annually to the increasing volumes of motor vehicle traffic destined to the city. It is estimated that by 1960 there will be 17 million more cars on the highways of America than in 1950 - many of them seeking places to park.

The period of maximum flow into the central district occurred between 9:30 A. M. and 10:30 A. M (Diagram 3) when more than 8,000 vehicles entered - nearly 40% from the south and west. And of those vehicles entering and departing during the day, 82 out of every 100 were passenger cars - many seeking to park.

Investigations revealed that more than 2,100 down town workers drive to the center to park all day and of this number more than 1,200 use parking spaces at existing lots and garages near the core thereby reducing the number of spaces available to "in and out" transient parkers. In addition to these down town workers, another 1,000 workers park in the intermediate area sur-

rounding the center where most of the curbside space is free. Many of these latter never come into the center, or pass thru it.

To accomodate the thousands of vehicles converging on the central area of concentration, on the average day, there is an available supply of 4,494 parking spaces within the area - 1,325 metered spaces at the curb, 2,953 spaces in lots and garages "off street" (2,722 public and 231 private) and 216 free spaces at the curb. In addition to these spaces there are less than 100 more spaces available for limited parking at service and filling stations. During the day about 12,000 vehicles could be accommodated at parking meters, assuming an efficiency of meter operation of 80%.

Within the "core" - the area of greatest concentration and demand - meter experience indicates that most parkers remain less than one hour and nearly 40% for periods of 15-30 minutes. For those desiring to remain in the "core" for periods in excess of one hour, "off street" facilities are used. The "turn-over" in metered spaces within the central district and the demand for them, directly reflects the effect of costs on parking. The parking fee of five cents per hour plus the possibility of escaping penalty for overparking is a strong incentive to cruising in search of space, which obviously contributes to traffic congestion.

Parking facilities nearest the "core" or area of greatest concentration are most in demand. Few motorists will walk much farther than two blocks from their parking site to their destination. This is especially true of those shoppers and others who desire to transact their business along Franklin Street. As long as Tampa and Franklin Streets and Florida Avenue and their cross streets from Lafayette to Cass Streets (the "core") remain the sites of the principal retail outlets - it is essential that future parking facilities be located within two to three blocks therefrom. (Diagram 5)



AREAS OF PROBABLE
PARKING FACILITIES

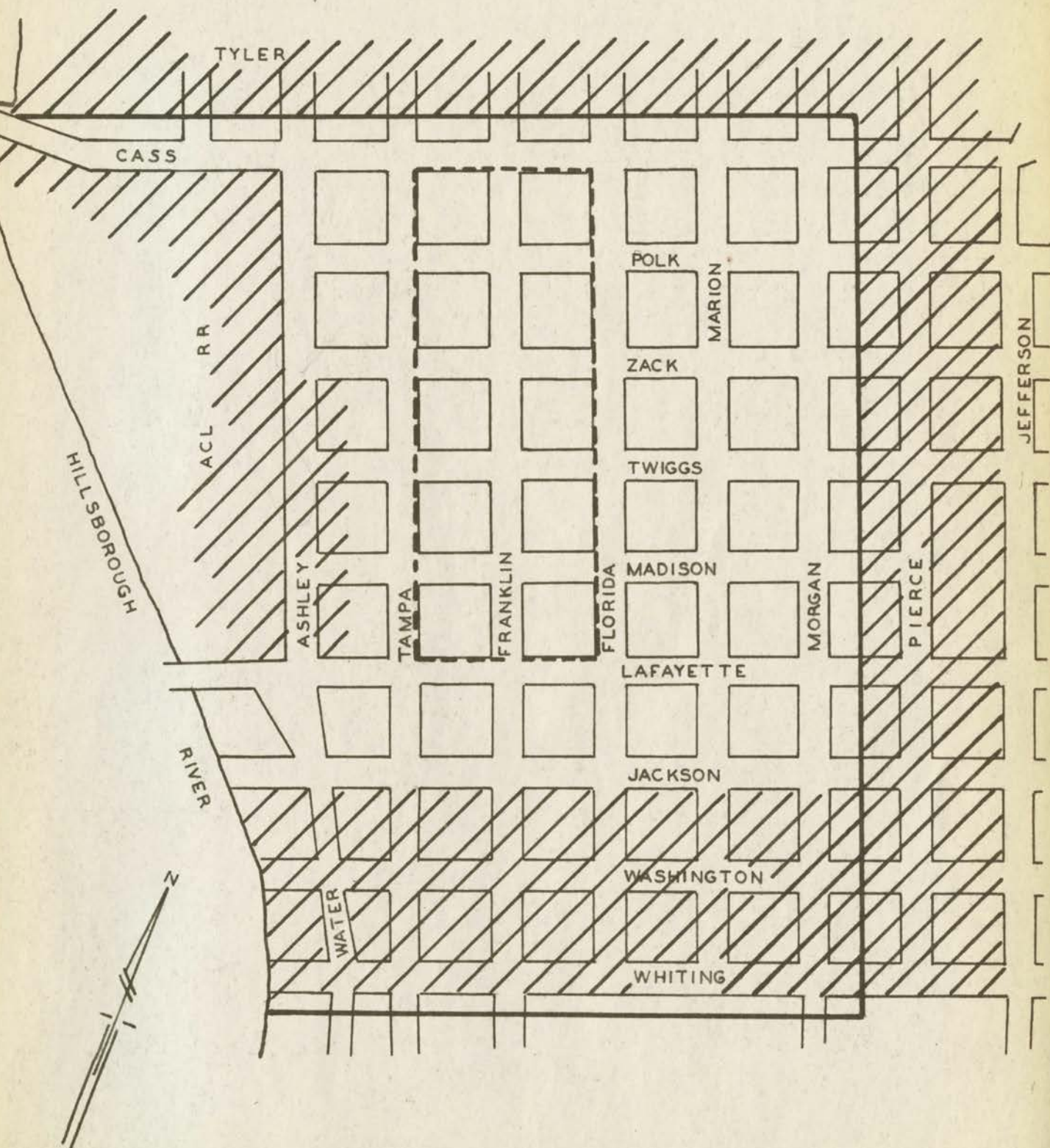


DIAGRAM 5



AREAS OF PROBABLE
PARKING FACILITIES

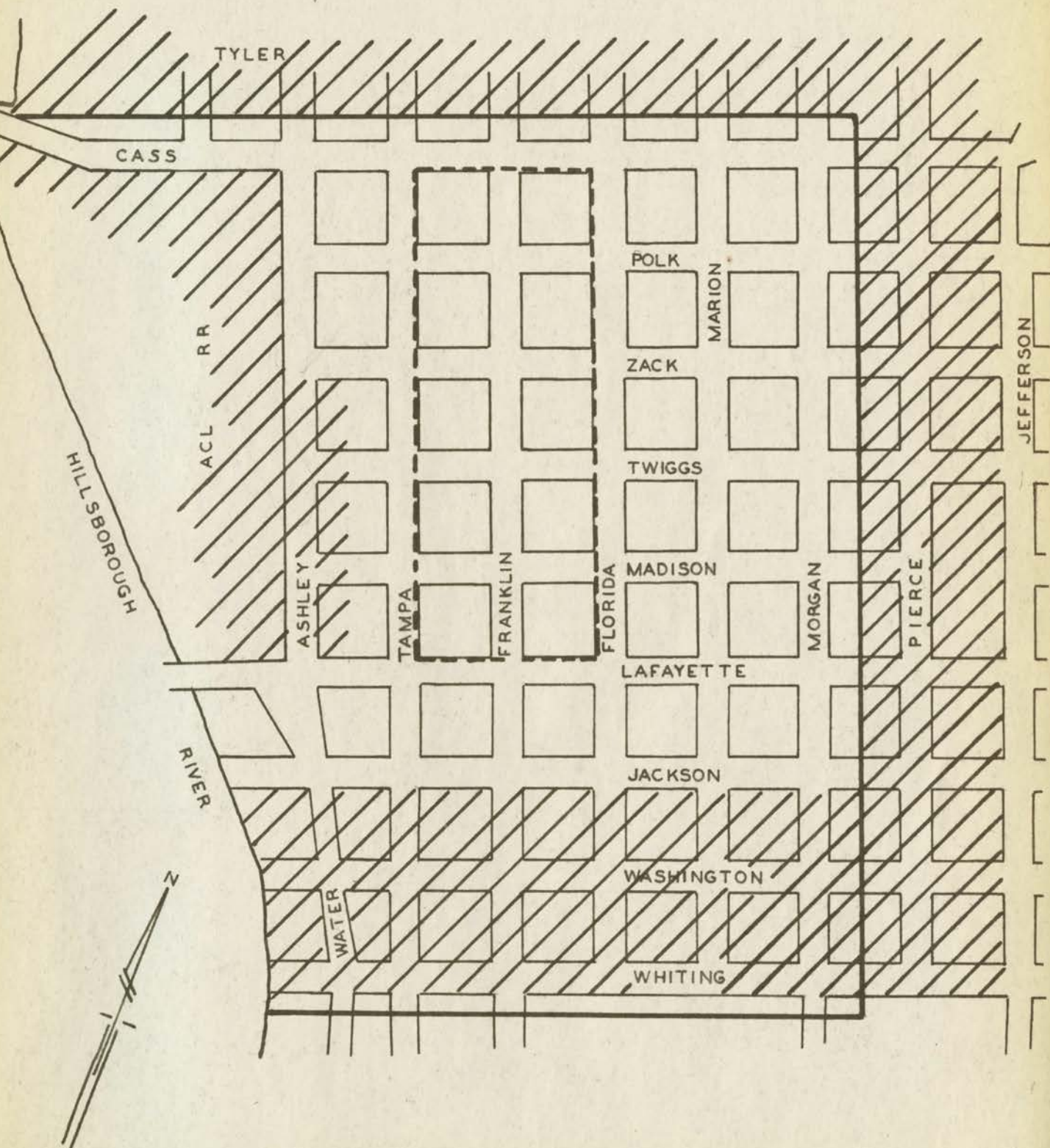


DIAGRAM 5

Parking meters generally speaking are doing an effective job despite the abuses to which they are sometimes subjected. Most assuredly they are serving the purpose for which they were installed, namely, making curb space available to more parkers, however, more frequent, alert patrol accompanied by stiffer penalties will contribute to a much greater improvement in meter performance. Too often a motorist is willing to take a chance in a close in metered space and if caught is willing to pay the overparking charge. Only by strict patrol and rigid enforcement can the "nickel feeder" be defeated.

These various studies relating to traffic flow, parking practices and existing parking facilities reflect current conditions within the central business district, to which constructive thought should be directed now. Tampa and its environs is growing and improving steadily and unless steps are taken to facilitate traffic circulation and provide adequate parking facilities within its central area, conditions now prevalent will become further complicated and confused.

In contemplating the parking requirements of the central area, several questions should be considered. What should be the place and function of curb side parking in the future parking plan? What policy should be followed in the allocation of curb side spaces for special privileges? In any plan to meet future needs, what kind or type of facilities should be provided, where should they be located and how flexible should they be in their composition? Finally, what agency should be responsible for the development of the over-all plan of parking facilities, the acquisition of land sites, construction of facilities, establishment of parking rates or fees and the operation of the system? A mature consideration of these questions will be helpful to a better understanding of the problem and its ultimate solution.

FUNCTION OF THE STREET

What is the function of a street in relation to the needs of parking? Primarily a street is a channel for the safe, expeditious circulation of traffic; it is not primarily for the storage of vehicles. Storage or parking is only a privilege which we have come to accept or countenance as a right. The requirements of moving traffic will always take precedence over the accomodation of parking and whenever the needs of traffic circulation require it, parking must be sacrificed even as a privilege. Already a number of cities have recognized this fundamental concept of the street and have removed all parking from the curbs in order to enlarge the capacities of the channels of flow. What pertains to public parking at the curb pertains also to other concessions or privileges which are so willingly accepted and often abused.

Commercial establishments may be required ultimately to provide their own "off street" freight loading and unloading facilities and taxi companies may be obliged to operate service from "off street" storage reservoirs and transit companies be required to establish "off street" pick up stations. These are problems that businesses and utilities must face when the available street capacities are required to expedite the movement of traffic. Because of the generous widths of Tampa's down town roadways, the removal of parking from the curbside will be a subject for later consideration but notwithstanding, its possibility must be recognized in planning for the future needs of parking and traffic circulation. In anticipation of such eventualities, the city should now require that all new commercial structures erected in the central district provide loading and unloading spaces "off street" either within a portion of the structure or on ground adjacent

thereto. This practice has been followed for years by many cities and in these places the results of the regulations can be seen.

TYPES OF FACILITIES AND LOCATIONS

What types of parking facilities should be anticipated, where should they be located and how flexible should they be in design and construction?

Parking facilities are of three types - the open lot, the enclosed garage and the open deck garage. Many of the open lot facilities of the past were temporary, serving as "tax payers" until the land owner could cover the land with a building. This temporary character was not conducive to the best in either equipment or service. Within recent years however both public and private enterprise have been acquiring land areas strategically located and distributed, developing them into well planned and operated facilities reflecting a degree of permanency not found in the earlier lots. The city of Miami Beach in Florida and many cities elsewhere have utilized the open lot plan advantageously and profitably. Next to the curb side storage space the open lot is the simplest and most economical type of parking facility.

The enclosed garage is usually a converted structure, a new structure or a part of a structure devoted to other primary purposes. Some of the newer hotels and office buildings have incorporated the enclosed garage into their design. The duPont Building in Miami has an enclosed garage as a part of its development and in Cincinnati, the Netherland Plaza Hotel has a built in garage for the use of its patrons. Today however, construction costs and operation experience are pointing toward the open deck garage.

Flexibility is an important consideration in the preparation of an overall parking plan. Studies presented previously have shown that the demand for parking space is not uniform throughout the day. It varies, not only during the hours of the day, but during the days of the week and the seasons of the year. There are hours of most any day when parking spaces can be easily found, and too, Sundays and holidays the demand is not too great. During the fall and winter months the increasing volume of tourist traffic adds to the demand and on special days during the Casparilla and on circus days, the demand for parking space ascends to peak proportions. Obviously such variations in demand should be evaluated in preparing a long range parking plan but needless to say, it would be unreasonable to plan facilities adequate to supply the demand of the maximum hour of the maximum day when the traffic volume attracted to the central area is two or three hundred per cent of the normal. Therefore in contemplating future facilities, the element of flexibility should be emphasized. Facilities projected for any period of time should be of a capacity adequate to handle the average daily demand yet be so designed that they can be expanded readily at a minimum of cost, to meet the requirements of annual growth. The program must be a progressive one.

The initial stage in defining a parking program may well be (a) an inventory of all land uses and values in the area in which future parking facilities would be located, (b) the selection of prospective parking sites with due regard for their size and distribution and how they would respond to expansion. The second stage would involve financial considerations; the amount of money required, the means of acquisition and rate of retirement. The third stage would entail the acquisition of sites, preparation and execution of plans and definition of operation policy.

Parcels of land used as parking lots initially could be covered later with open deck facilities as the demand justified such action. By such expansion the capacity of the single lot could be doubled or tripled as required.

Location of proposed facilities is a most important consideration. The recent survey revealed definitely that parking spaces must be located near the point of concentration. Facilities located remote from the central point will not be utilized advantageously. Because the ten block area of the "core" is compactly developed there is no space available therein for parking facilities unless they are provided later as a part of a structural redevelopment.

The location of the new Court House easterly of the central point of concentration will be a factor in determining the location of parking facilities. This new development will broaden the band of the "core" easterly between Zack and Lafayette Streets and change many of the existing land uses. People now parking in or near the "core" to transact County business will in the future seek parking facilities near the Court House.

To serve down town Tampa parking facilities should be located generally in that zone or band of property surrounding the central "core" (Diagram 5). On the west, they should be located west of Tampa Street and on the east in those blocks east of Morgan Street. All of the properties located on the east side of Ashley Street between Lafayette Street and Zack Street are desirable sites for "open deck" projects. And in this same locality, the property west of Ashley Street occupied by the Coast Line would be most desirable for a large development. Ultimately this entire site should be acquired by the city and be developed as a combination water front park and parking facility.

East of Morgan Street, in the Intermediate Area shown on Diagram 1, several properties should be selected for future development. Many of the land improvements in this area have deteriorated and before they are replaced with other types of development, should be evaluated as prospective parking sites. Similarly in blocks north of Cass Street and south of Jackson Street, areas should be studied and selected for ultimate development. By cataloguing a number of sites in the Intermediate area surrounding the "core", a progressive plan of procedure could be defined for realization as the demand justified it. Altho much of the Intermediate area lies beyond the two block limitation, it must be remembered that the "core" will expand over the years bringing the parking facilities nearer to the center of activity.

RESPONSIBILITY FOR FACILITIES

Who should take the initiative to develop and activate an over-all parking plan? The regulation of parking at the curbside has always been recognized as a function of local government but only within recent years has the governmental function been extended to the acquisition and operation of parking facilities "off street". Many cities thruout the country have received authority from their respective legislatures to issue revenue certificates for purposes of establishing and operating "off street" parking facilities. In at least fifteen cities this legislation has permitted the creation of Parking Authorities, independent of the local governing body, clothed with powers to prepare plans, issue revenue certificates, erect and operate facilities and define a system of fees for service. In some localities, the cities acquire sites, erect facilities, set fees and lease the operation

of such facilities to private enterprise. The famed underground parking facility at San Francisco is owned by the city but operated by private enterprise. The plan finally decided upon however depends largely on the attitude of the local citizenry.

The inability to find parking spaces near or within a reasonable distance of their places of business has caused many large stores to provide parking facilities - either in lots or garages. In the shopping centers of some cities, large department stores have erected parking garages adjacent to or near their stores and where new structures have been built, parking provisions have been made a part thereof. By these new developments, centrally located businesses have demonstrated their own concern in and need for parking facilities. Some stores have made arrangements with commercial lots or garages whereby parking charges are absorbed on presentation of an evidence of purchase and in some cities, stores located in compactly developed areas have joined together to establish cooperative parking facilities for their customers. All this interest and activity manifested by private enterprise in the parking problem of the central area demonstrates how important business considers the parking problem to be.

Needless to say, in the formulation of any comprehensive parking program which is a continuous operation there must be a close cooperative relationship between private enterprise on the one hand and the public on the other. The interests of the merchant, executive and property owner in solving the parking problem are the same as those of the public represented by the city or some public authority created for the purpose.

ECONOMICS OF PARKING

Costs are a decisive factor in determining the magnitude and type of parking program to be initiated. On the one hand are the costs resulting from a failure to recognize the needs of the problem - the costs of needless traffic congestion and confusion, the costs resulting from lowered values and the costs of the flight of business from the center. Then on the other hand are the costs of services rendered. To counteract the adverse trends in the first instance adequate, conveniently accessible parking facilities with reasonable service charges must be provided.

Underlying all "off street" parking facilities is the cost of land which is a factor that must enter into any service charges. If the initial land costs and subsequent development costs are too high the resultant fee will be unreasonable and no one will utilize the service. On the other hand if the land costs are too low the location may be wrong and no one will utilize the service. So in the development of any comprehensive plan the costs involved must be such that an acceptable service charge can be made. In areas of relatively high land values parking revenues may be augmented by revenues from other sources such as shop rentals, car servicing, etc.

Altho land costs are of primary consideration in the selection of sites, the cost of the facility will depend on the extent of improvements made. Since 1945, in a group of New York cities, the average cost of lots per car of capacity was about \$520.00. Within recent months plans were completed for building an additional four to seven floors on the Pennsylvania Station in New York to accomodate 923 cars at a cost of about \$975.00 per car space.

In the open deck type of garage structure, the land cost is still fundamental, but the cost of operation is greater because of the attendants

required all of which must be reflected in the cost of service. In Miami, during the past three years, an open deck garage with a capacity of 650 cars was built at \$4.00 per square foot. In Houston, Texas, two open deck garages were built in the past few years in connection with department stores; one with a capacity of 300 cars cost about \$1,220 per car space and the other with a capacity of 1,000 cars cost about \$1,000 per car space. In Washington, D. C., an enclosed garage was built pre-war for \$1,250 per car space and in Cincinnati an open deck garage accomodating 1,000 cars was built pre-war for \$850 per car space. These costs include land and structure. Altho these costs may not hold good today, they do give some idea what these facilities have cost within recent years.



CONCLUSIONS AND RECOMMENDATIONS

A constructive program to improve the current parking situation in the central business district and to anticipate the requirements of the future should be considered under three headings: (1) Immediate steps, (2) Patrol and Supervision and (3) Long Range Plans.

At this time of uncertainty in the construction field it would be advisable initially to consider those measures that would provide additional parking facilities without incurring any new construction. So our first recommendation relates to the use of existing curb side facilities. By changing the parking time intervals of metered spaces as described on page 13 at least 1,500 to 2,000 more cars would be able to park daily in the central area. In addition to changing the time intervals on existing meters, it is suggested that all "free" spaces within the central district be equipped with 1 and 2 hour meters and further that the 2 hour meters be extended into the Intermediate area surrounding the central district.

The practice of permitting businesses in the central district - especially south of Lafayette Street, to appropriate large areas of public curb spaces to their own uses, should be discontinued. These spaces belong to all the people.

The practice of some "off street" facilities to maintain parking lots at some distance from their primary terminus and shuttling to and fro, should be encouraged. Additional "off street" capacity can be provided in that manner.

"Reserved" parking spaces for public officials in the central district should be discontinued.

Taxi cab companies should either pay the city an annual rental for cab stands or be obliged to operate from a central cab station.

To improve traffic circulation no parking should be permitted on Florida Avenue north of Harrison Street to Henderson Avenue.

A "Parking Authority" should be created to consider and develop the parking program of the future, to finance, erect and administer such facilities as may be required to meet the needs of the growing community.

The above measures can be effectuated at a minimum of time and expense and each will contribute substantially to improvements, however each is dependent on an alert police supervision.

The second phase of the program relates to supervision and enforcement. Revenues from parking meters should be used in part to improve the supervision of parking within the central district. The patrol should be adequately manned so that over parking at meters can be minimized. Only a strict enforcement of parking regulations will increase the turnover at meters and thereby open more spaces to the public seeking spaces.

The third phase of the program anticipates the needs of the future in their broadest aspects. This phase should fall within the province of the Parking Authority when created, or until then, within the province of such department as may be specified by the Mayor and the Board of Representatives.

The work under this phase could be classified in the following manner:

1. Make an inventory and appraisal of those properties in the Intermediate area, within two to three blocks of the "core", that are suitable sites for parking facilities.
2. Prepare an over-all plan of parking facilities including estimates of cost per car space on which parking fees can be based. This will include cost of lands and improvements.

3. From the over-all plan of probable sites and facilities prepare a schedule of priorities as to how and when such facilities should be financed and developed.
4. In cooperation with business establishments, and the operators of existing parking facilities establish a policy of operations and charges for service.

As a part of this over-all program the possibility of acquiring the rights over the A. C. L. freight yard property should be seriously considered with the idea of erecting there an open deck garage sufficient to park several hundred cars.

By approaching the parking problem as here outlined it can be solved in an orderly, rational manner and the dangers now confronting the central district be avoided. Order will be restored where chaos now threatens.

