EXPRESSWAY ENDS

Desarrollo y construcción de las autopistas urbanas en Estados Unidos: 1900 -1967

ANEXOS

Doctorando: Romina Canna
Tesis presentada para obtener el título de Doctor por la Universitat Politècnica de Catalunya
Director de tesis: Doctor Arquitecto Joaquín Sabaté Bel
Departament d'Urbanisme i Ordenació del Territorio

ANEXOS

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MAPAS E IMÁGENES

TEXTOS

WAR DEPARTMENT

CORPS OF ENGINEERS, U. S. ARMY

PROJECT FOR THE DEVELOPMENT OF NATIONAL HIGHWAYS OF THE UNITED STATES

W. P. D. 484-16

Scale - 1: 4,000,000

LEGEND

FIRST PRIORITY ROADS SHOWN THUS

SECOND

THIRD

APPROVED
By order of the Secretary of War

JOHN J. PERSHING
General of the Armies
Oct. 10, 1919. Chief of Staff.

DOMINION OF CANADA

PACIFIC OCEAN

ATLANTIC OCEAN

GULF OF MEXICO

MEXICO

WASHINGTON

OREGON

IDAHO

MONTANA

NORTH DAKOTA

MINNESOTA

SOUTH DAKOTA

WYOMING

NEBRASKA

IOWA

NEVADA

UTAH

COLORADO

KANSAS

MISSOURI

ARIZONA

NEW MEXICO

OKLAHOMA

ARKANSAS

TEXAS

LOUISIANA

MISSISSIPPI

ALABAMA

GEORGIA

FLORIDA

SOUTH CAROLINA

NORTH CAROLINA

TENNESSEE

KENTUCKY

WEST VIRGINIA

VIRGINIA

OHIO

INDIANA

ILLINOIS

MICHIGAN

WISCONSIN

LAKE SUPERIOR

LAKE MICHIGAN

LAKE ERIE

LAKE ONTARIO

PENNSYLVANIA

NEW YORK

MAINE

VERMONT

NEW HAMPSHIRE

MASSACHUSETTS

CONNECTICUT

RHODE ISLAND

NEW JERSEY

MARYLAND

DELAWARE

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VII

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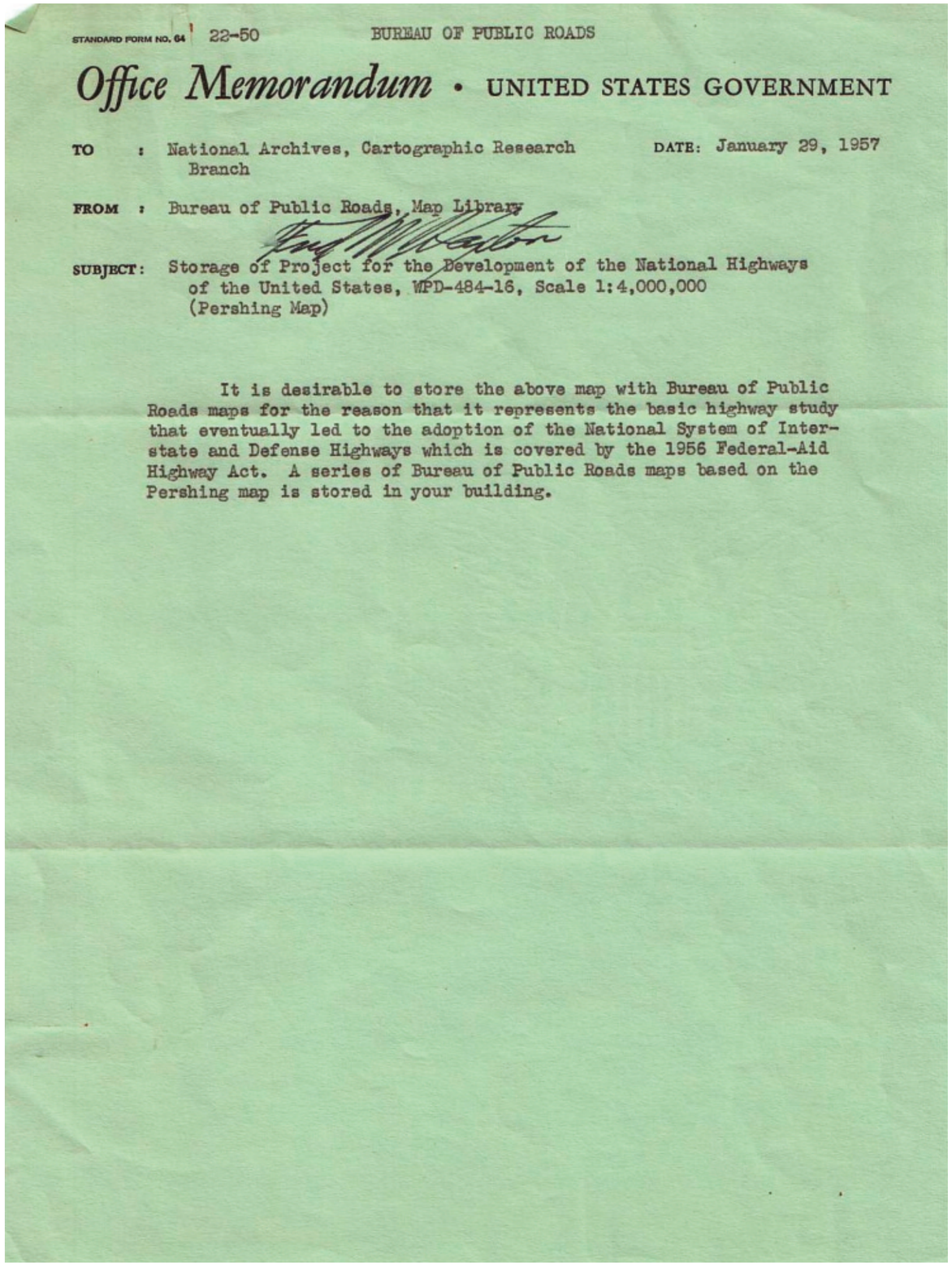


STANDARD FORM NO. 64 22-50 BUREAU OF PUBLIC ROADS

Office Memorandum • UNITED STATES GOVERNMENT

TO : National Archives, Cartographic Research Branch

DATE: January 29, 1957

FROM : Bureau of Public Roads, Map Library

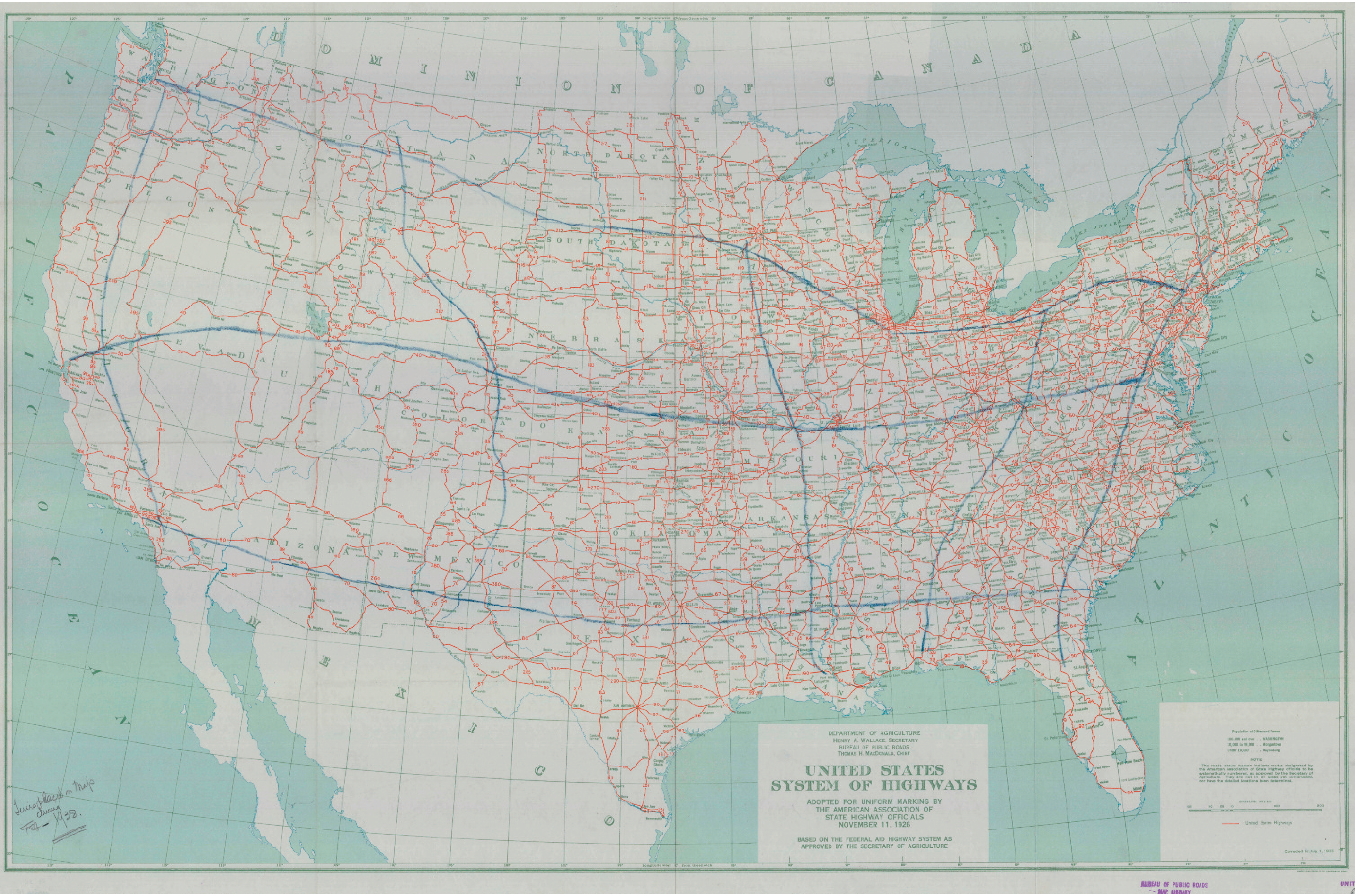
SUBJECT: Storage of Project for the Development of the National Highways of the United States, WPD-484-16, Scale 1:4,000,000 (Pershing Map)

It is desirable to store the above map with Bureau of Public Roads maps for the reason that it represents the basic highway study that eventually led to the adoption of the National System of Interstate and Defense Highways which is covered by the 1956 Federal-Aid Highway Act. A series of Bureau of Public Roads maps based on the Pershing map is stored in your building.

Izquierda: Pershing Map
1922

Derecha: Pershing Map. Office Memorandum
1957

Records of the Bureau of Public Roads.
The U.S. National Archives and Records Administration
College Park, Maryland



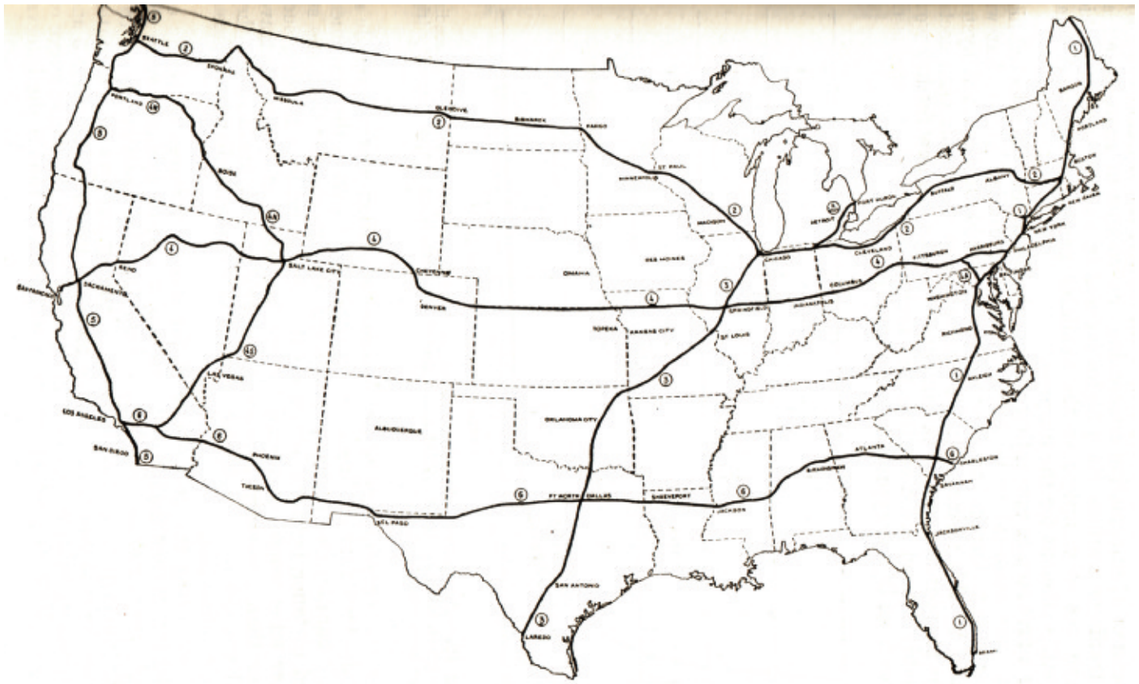


PLATE 9.—Location of routes selected for study.

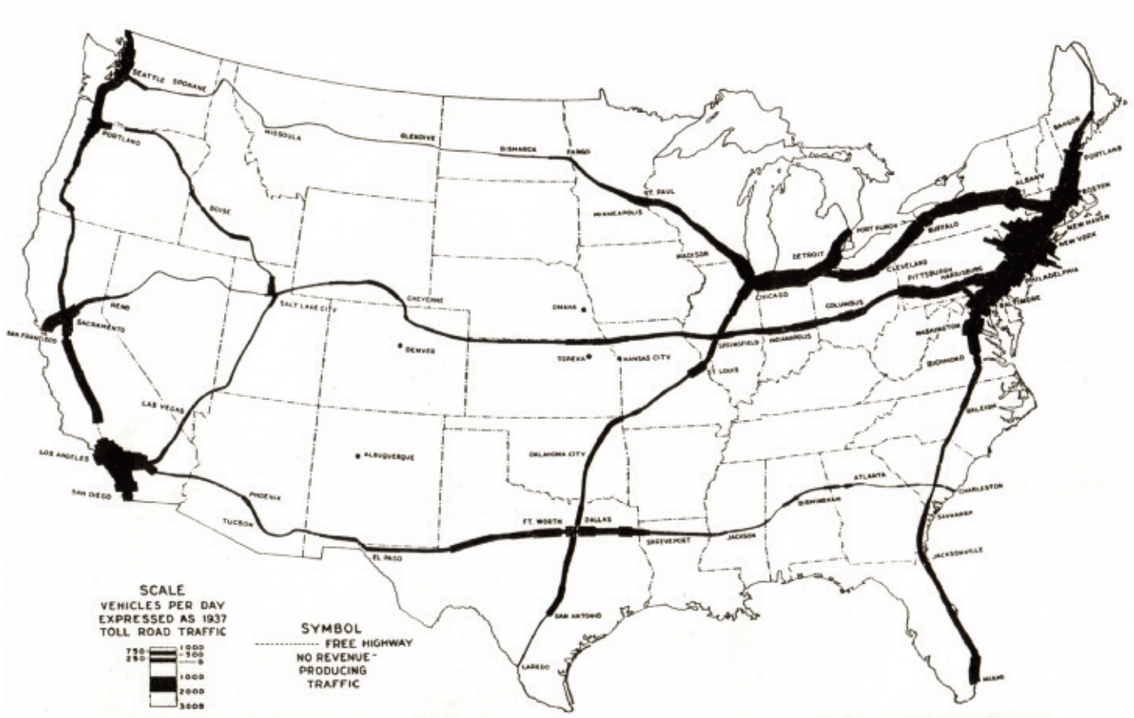


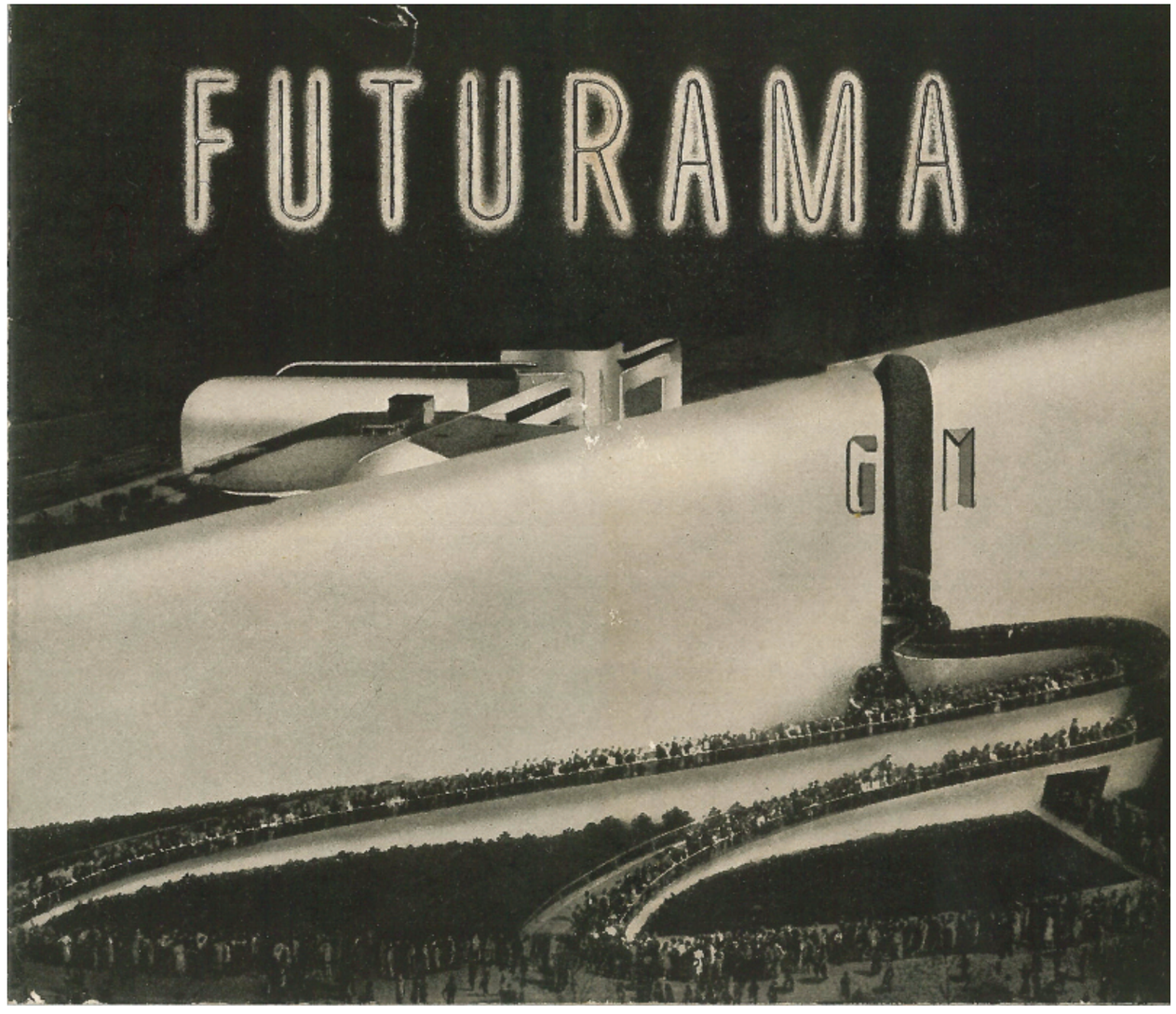
PLATE 11.—Estimated average daily traffic on routes selected for study if operated as toll roads.

Izquierda: Mapa de las autopistas trazadas por Roosevelt sobre un mapa de de las rutas nacionales existentes
1938

Records of the Bureau of Public Roads
The U.S. National Archives and Records Administration
College Park, Maryland

Derecha: Arriba (Plate 9): *"Locaiton of routes selected for study"*. Ubicación de rutas seleccionadas para el estudio
Abajo (Plate 11): *"Estimated average daily traffic en routes selected for study if operated as toll roads"*. Promedio de tráfico diario estimado en las rutas seleccionadas para el estudio operadas como vías de peaje.
Toll and Free Roads
1939

Transportation Library
Northwestern University Library
Evanston


FUTURAMA

Folleto original de Futurama
Izquierda: Portada
Derecha: Contraportada
1939

A GREETING TO OUR GUESTS:

It is the hope of General Motors that the visitor to its HIGHWAYS AND HORIZONS exhibit at the New York World's Fair will be inspired with a greater realization of the fact that "the world of tomorrow" can be made an infinitely better place in which to live.

The FUTURAMA, highlight of the World's Fair, is designed, not as a projection of any particular highway plan or program, but rather to demonstrate in dramatic fashion that the world, far from being finished, is hardly yet begun; that the job of building the future is one which will demand our best energies, our most fruitful imagination; and that with it will come greater opportunities for all.

History shows that the progress of civilization has run parallel to advancement in transportation.

New communities, new enterprises and new opportunities have everywhere followed the development of new and better means for moving goods and people. But progress in transportation —the reduction of distance in terms of time and cost—is, in a larger sense, only a symbol of expanded horizons in every field of activity.

As an expression of this broader concept, General Motors hopes that its HIGHWAYS AND HORIZONS exhibit will serve as a constructive "investment in the future" for everyone, everywhere.

Sincerely,

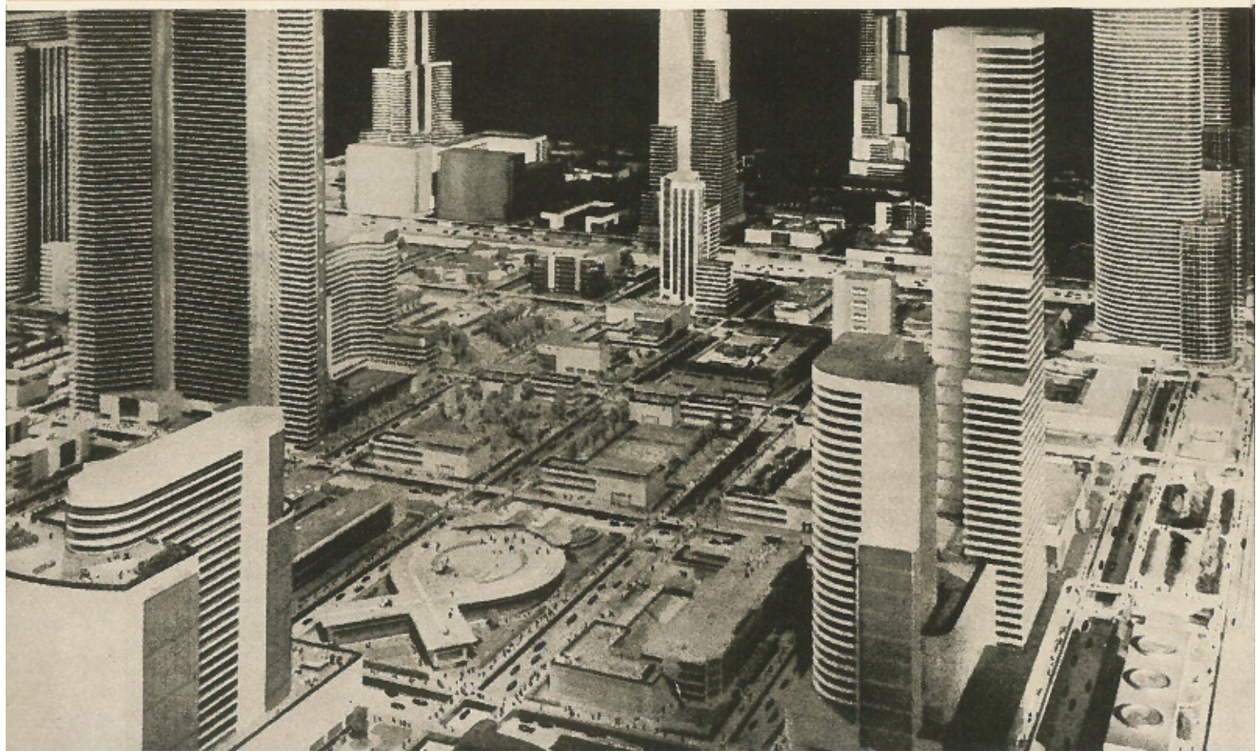
Alfred P. Sloan Jr.

Chairman

1940—motorcars which have created more and more conveniences and more and more jobs for more and more people.

"Here you see a close-up view of one section of the great metropolis of 1960. The traffic system is the result of exhaustive surveys of the highway and street problems of the past. Modern and efficient city planning—breath-taking architecture—each city block a complete unit in itself. Broad, one-way thoroughfares—space, sunshine, light and air.

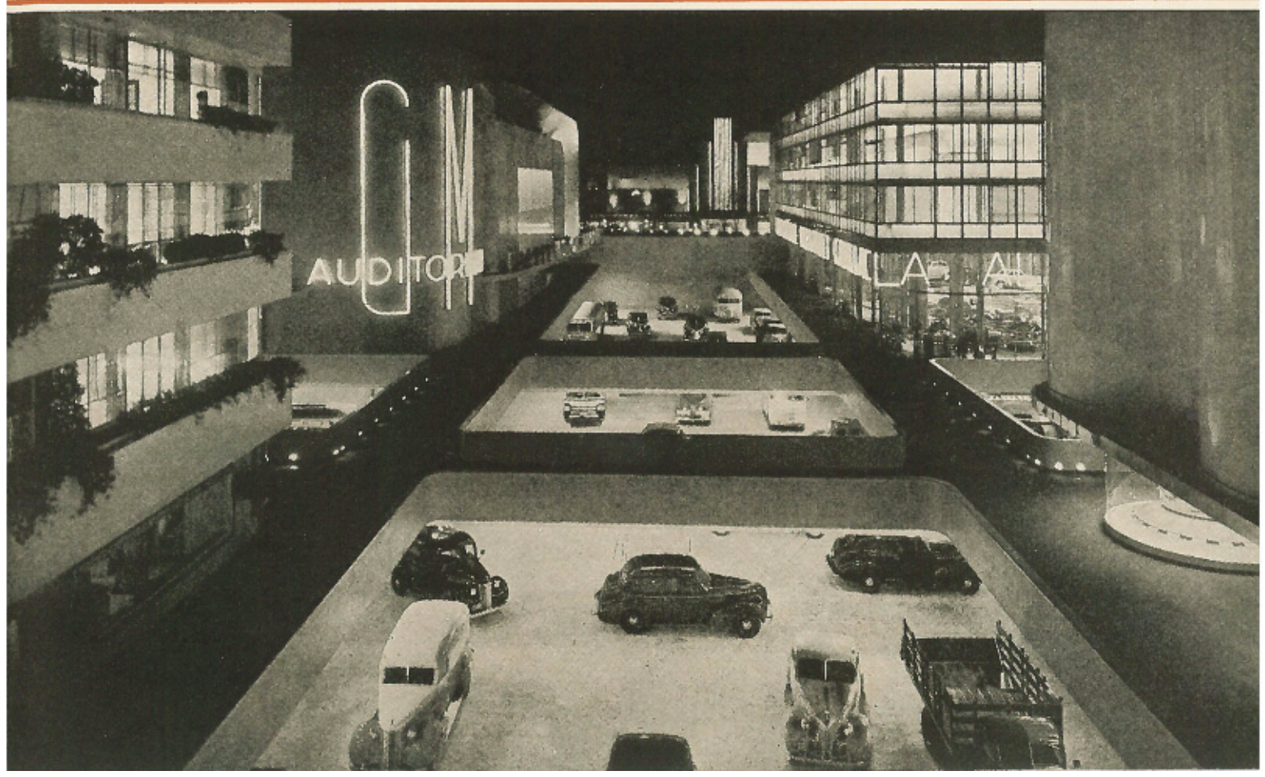
"But here is an important intersection in the great metropolis of 1960! On the four corners are an Auditorium, a "Department Store," an "Apartment House" and an Automobile Display Salon. In a



moment we will arrive actually on this very street intersection—to become a part of this self-same scene in the World of Tomorrow—In the wonder world of 1960—1940 is twenty years ago! ALL EYES TO THE FUTURE.

"And now in each of the four buildings on this street intersection of the future General Motors invites you to visit its many interesting and exciting displays and exhibits. See the thrilling science stage show in the Auditorium—see the beautiful motor car display—the Diesel, Frigidaire, Fisher Body and Overseas exhibits.

"General Motors bids you welcome to this magic city of progress."



Folleto original de Futurama
Izquierda y derecha: Páginas interiores (consecutivas)
1939

Propiedad de la autora de esta tesis.

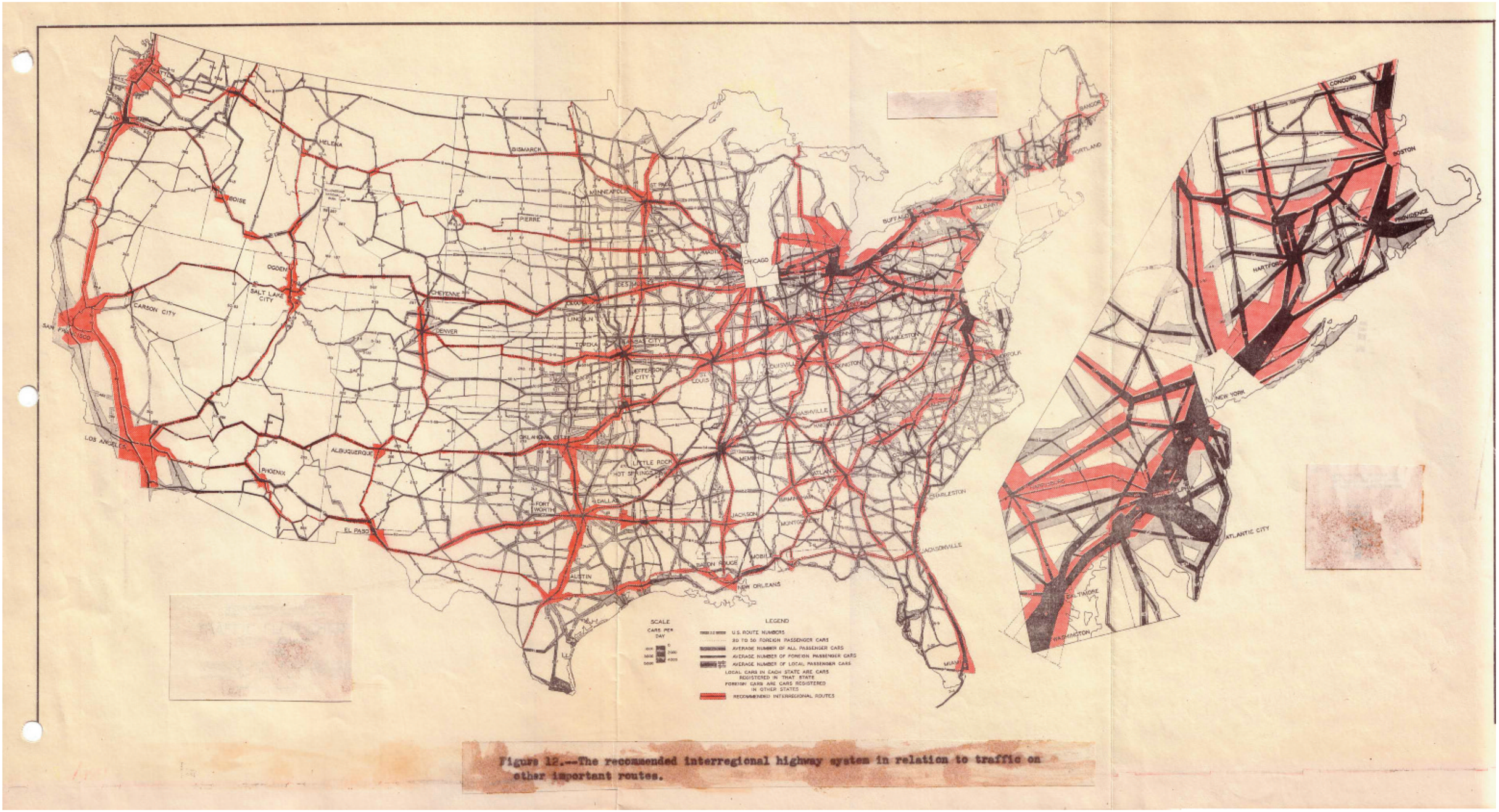


Figure 12.--The recommended interregional highway system in relation to traffic on other important routes.

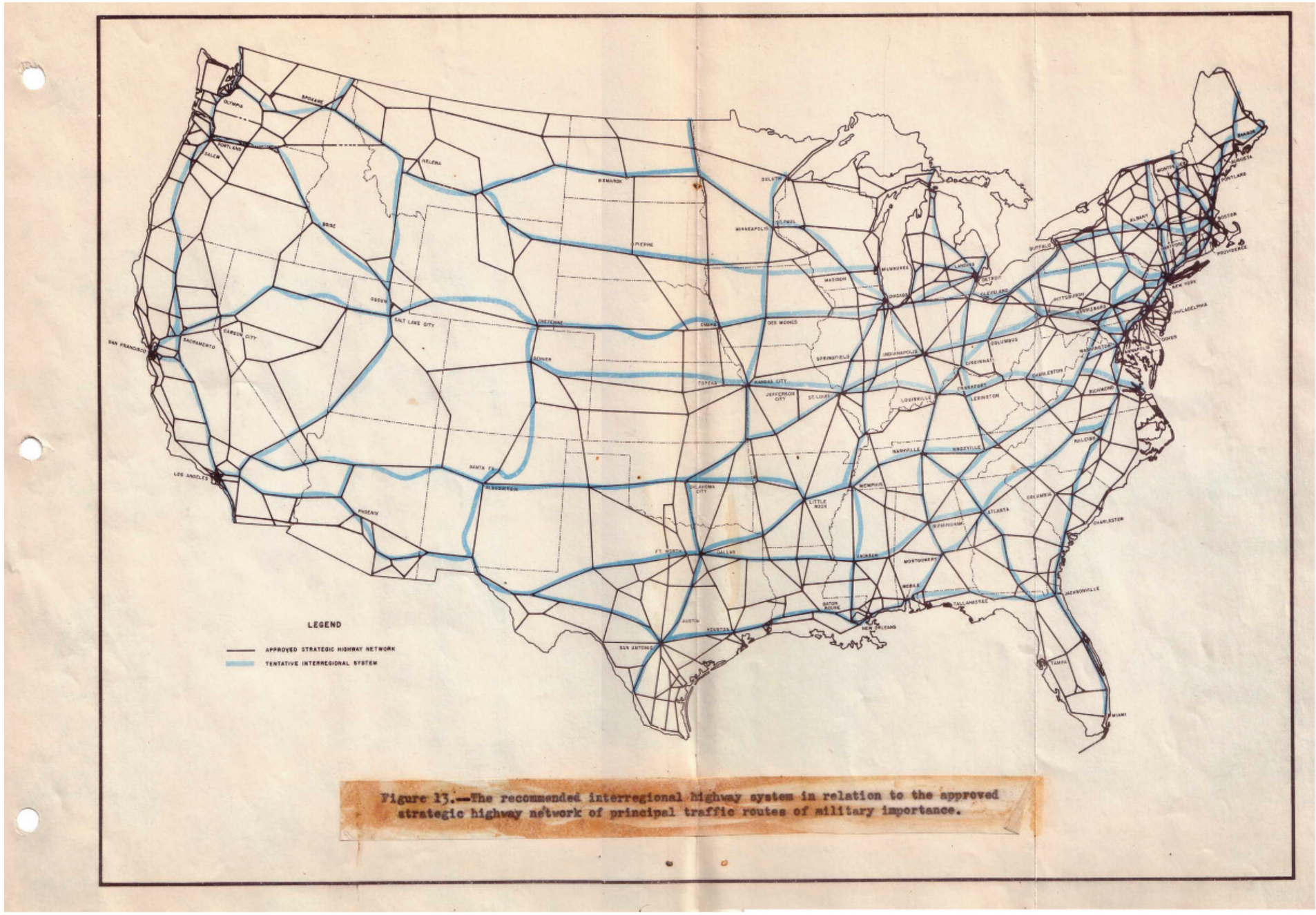


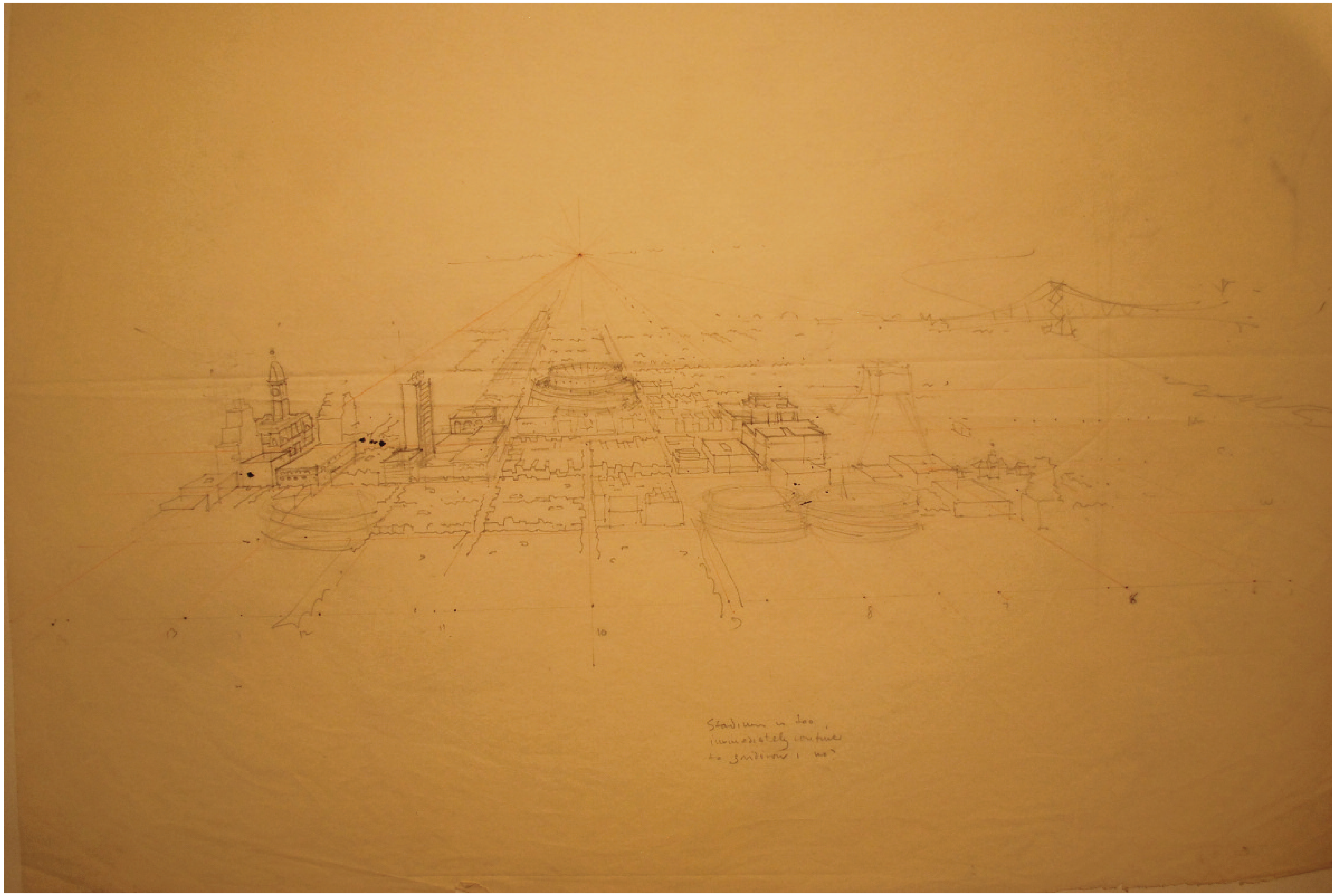
Figure 13.—The recommended interregional highway system in relation to the approved strategic highway network of principal traffic routes of military importance.

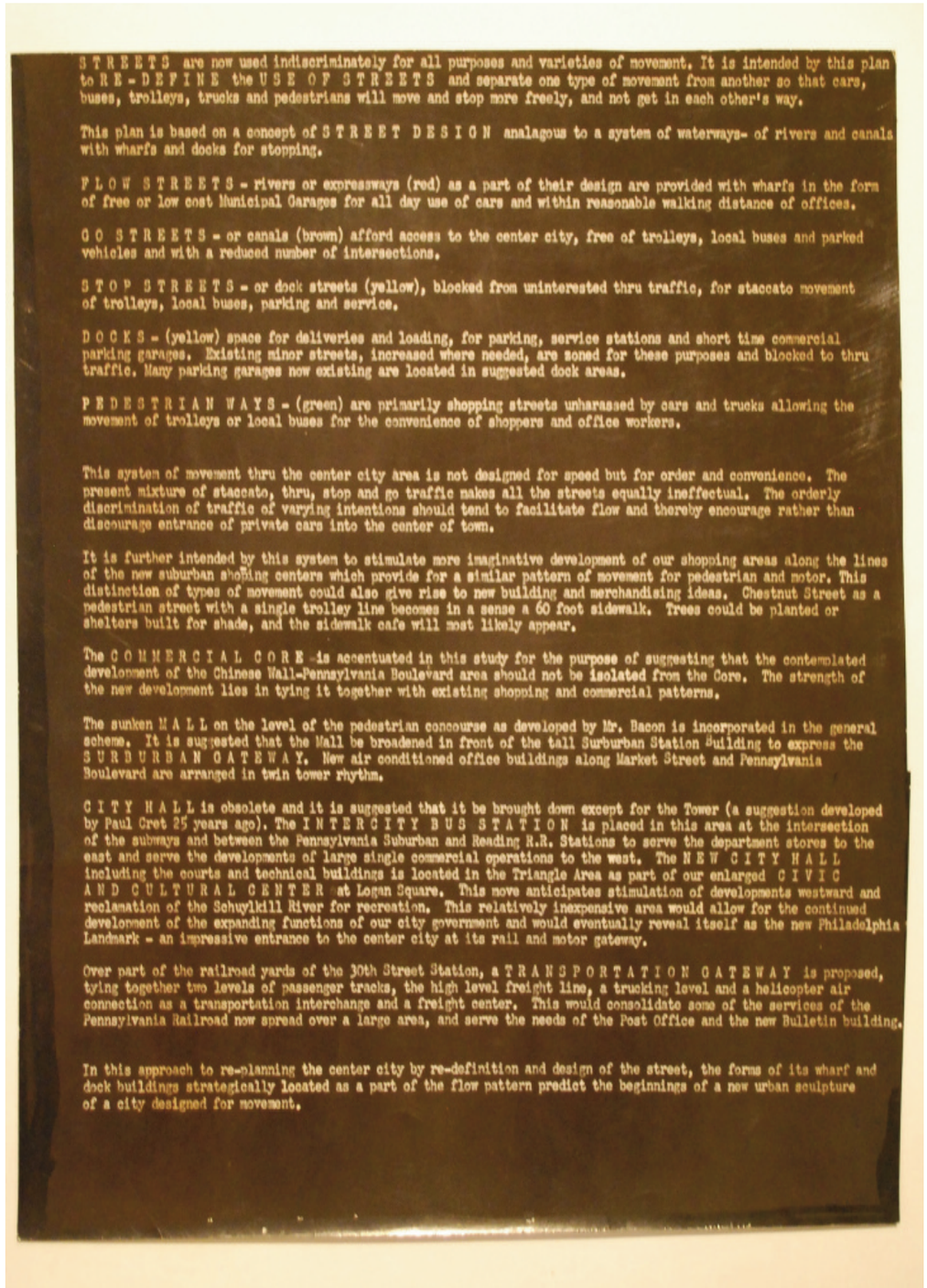
Gráficos realizados por el comité en la preparación del informe: *"National Interregional Highways. Data on Proposed Report to the President Prepared by the Staff fro Consideration by the National Interregional Highway Commissión"*
Bureau of Public Roads.
Reunión cuarta.

Izquierda: *"The recommended interregional highway system in relation to traffic on other important routes"* Sistema de autopistas interregionales recomendadas en relación al tráfico.

Derecha: *"The recommended interregional highway system in relation to approved strategic highway network of principal traffic routes of military importance"*. Sistema de autopistas interregionales recomendadas en relación a la red estratégica de autopistas aprobada de las principales rutas de tráfico de importancia militar.
1941

The U.S. National Archives and Records Administration
College Park, Maryland


Stadium is too
immediately



STREETS are now used indiscriminately for all purposes and varieties of movement. It is intended by this plan to RE-DEFINE the USE OF STREETS and separate one type of movement from another so that cars, buses, trolleys, trucks and pedestrians will move and stop more freely, and not get in each other's way.

This plan is based on a concept of STREET DESIGN analagous to a system of waterways- of rivers and canals with wharfs and docks for stopping.

FLOW STREETS - rivers or expressways (red) as a part of their design are provided with wharfs in the form of free or low cost Municipal Garages for all day use of cars and within reasonable walking distance of offices.

GO STREETS - or canals (brown) afford access to the center city, free of trolleys, local buses and parked vehicles and with a reduced number of intersections.

STOP STREETS - or dock streets (yellow), blocked from uninterested thru traffic, for staccato movement of trolleys, local buses, parking and service.

DOCKS - (yellow) space for deliveries and loading, for parking, service stations and short time commercial parking garages. Existing minor streets, increased where needed, are zoned for these purposes and blocked to thru traffic. Many parking garages now existing are located in suggested dock areas.

PEDESTRIAN WAYS - (green) are primarily shopping streets unharassed by cars and trucks allowing the movement of trolleys or local buses for the convenience of shoppers and office workers.

This system of movement thru the center city area is not designed for speed but for order and convenience. The present mixture of staccato, thru, stop and go traffic makes all the streets equally ineffectual. The orderly discrimination of traffic of varying intentions should tend to facilitate flow and thereby encourage rather than discourage entrance of private cars into the center of town.

It is further intended by this system to stimulate more imaginative development of our shopping areas along the lines of the new suburban shopping centers which provide for a similar pattern of movement for pedestrian and motor. This distinction of types of movement could also give rise to new building and merchandising ideas. Chestnut Street as a pedestrian street with a single trolley line becomes in a sense a 60 foot sidewalk. Trees could be planted or shelters built for shade, and the sidewalk cafe will most likely appear.

The COMMERCIAL CORE is accentuated in this study for the purpose of suggesting that the contemplated development of the Chinese Wall-Pennsylvania Boulevard area should not be isolated from the Core. The strength of the new development lies in tying it together with existing shopping and commercial patterns.

The sunken MALL on the level of the pedestrian concourse as developed by Mr. Bacon is incorporated in the general scheme. It is suggested that the Mall be broadened in front of the tall Surburban Station Building to express the SURBURBAN GATEWAY. New air conditioned office buildings along Market Street and Pennsylvania Boulevard are arranged in twin tower rhythm.

CITY HALL is obsolete and it is suggested that it be brought down except for the Tower (a suggestion developed by Paul Cret 25 years ago). The INTERCITY BUS STATION is placed in this area at the intersection of the subways and between the Pennsylvania Suburban and Reading R.R. Stations to serve the department stores to the east and serve the developments of large single commercial operations to the west. The NEW CITY HALL including the courts and technical buildings is located in the Triangle Area as part of our enlarged CIVIC AND CULTURAL CENTER at Logan Square. This move anticipates stimulation of developments westward and reclamation of the Schuylkill River for recreation. This relatively inexpensive area would allow for the continued development of the expanding functions of our city government and would eventually reveal itself as the new Philadelphia Landmark - an impressive entrance to the center city at its rail and motor gateway.

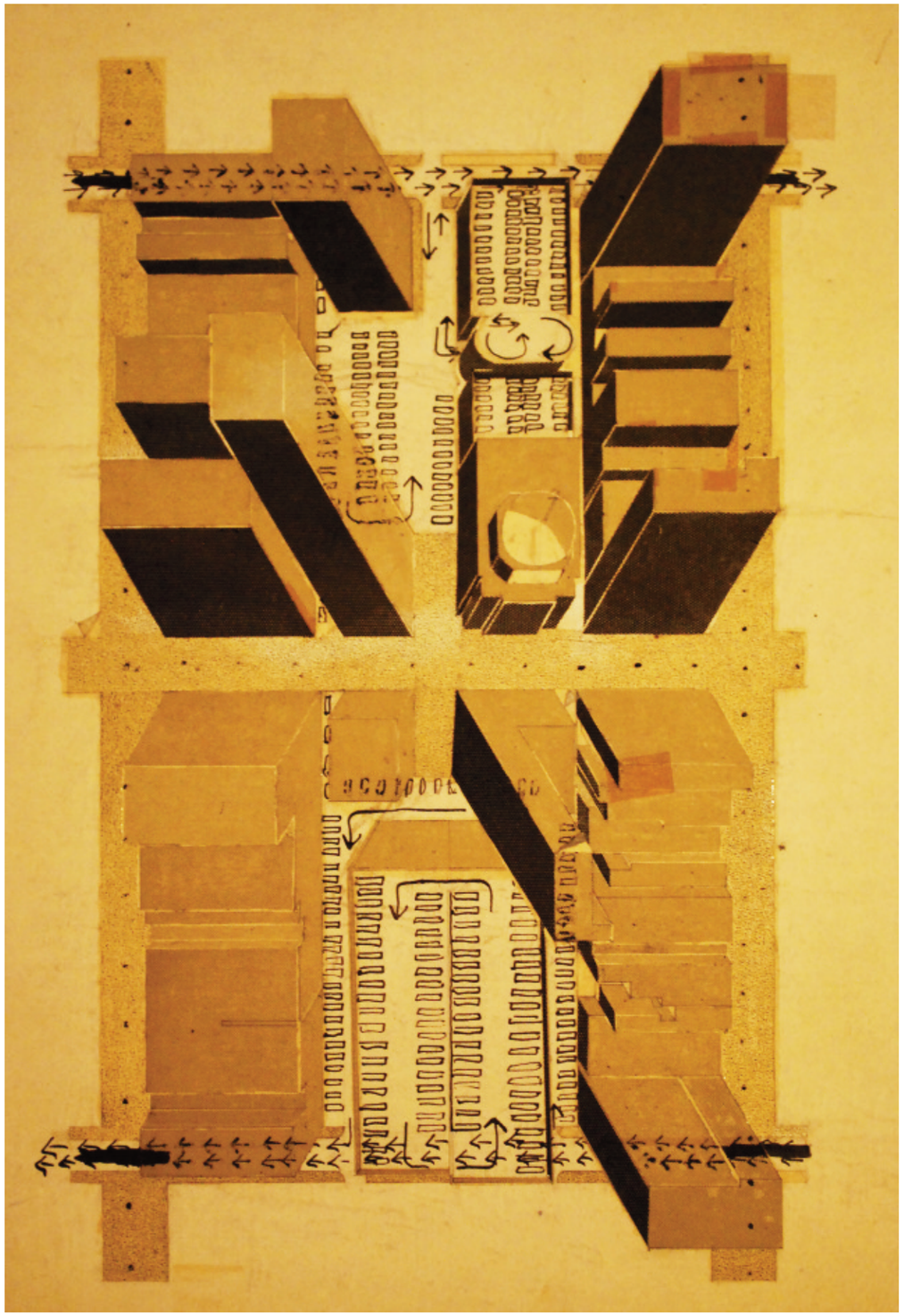
Over part of the railroad yards of the 30th Street Station, a TRANSPORTATION GATEWAY is proposed, tying together two levels of passenger tracks, the high level freight line, a trucking level and a helicopter air connection as a transportation interchange and a freight center. This would consolidate some of the services of the Pennsylvania Railroad now spread over a large area, and serve the needs of the Post Office and the new Bulletin building.

In this approach to re-planning the center city by re-definition and design of the street, the forms of its wharf and dock buildings strategically located as a part of the flow pattern predict the beginnings of a new urban sculpture of a city designed for movement.

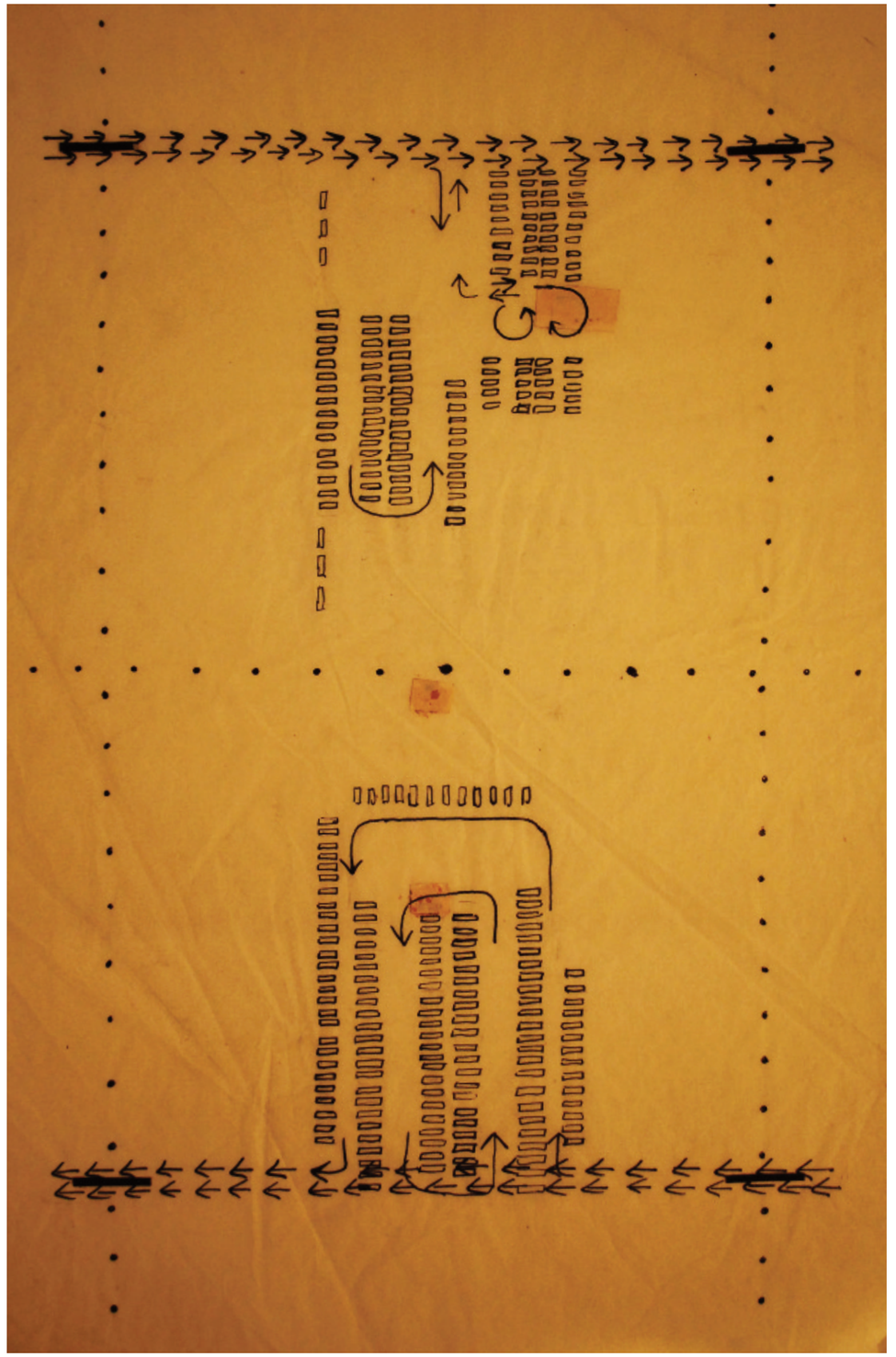
Izquierda: Perspectiva de Center City.
Sin fecha. Presumiblemente 1952-53.

Derecha: Notas de Louis Kahn sobre el proyecto para Filadelfia.
Presumiblemente 1950-1952 debido a la mención del trabajo de Paul Cret de 1924 y a los proyectos que estaban siendo desarrollados por Edmund Bacon desde 1951.

Louis I. Kahn Collection
Architectural Archives
University of Pennsylvania
Philadelphia



1



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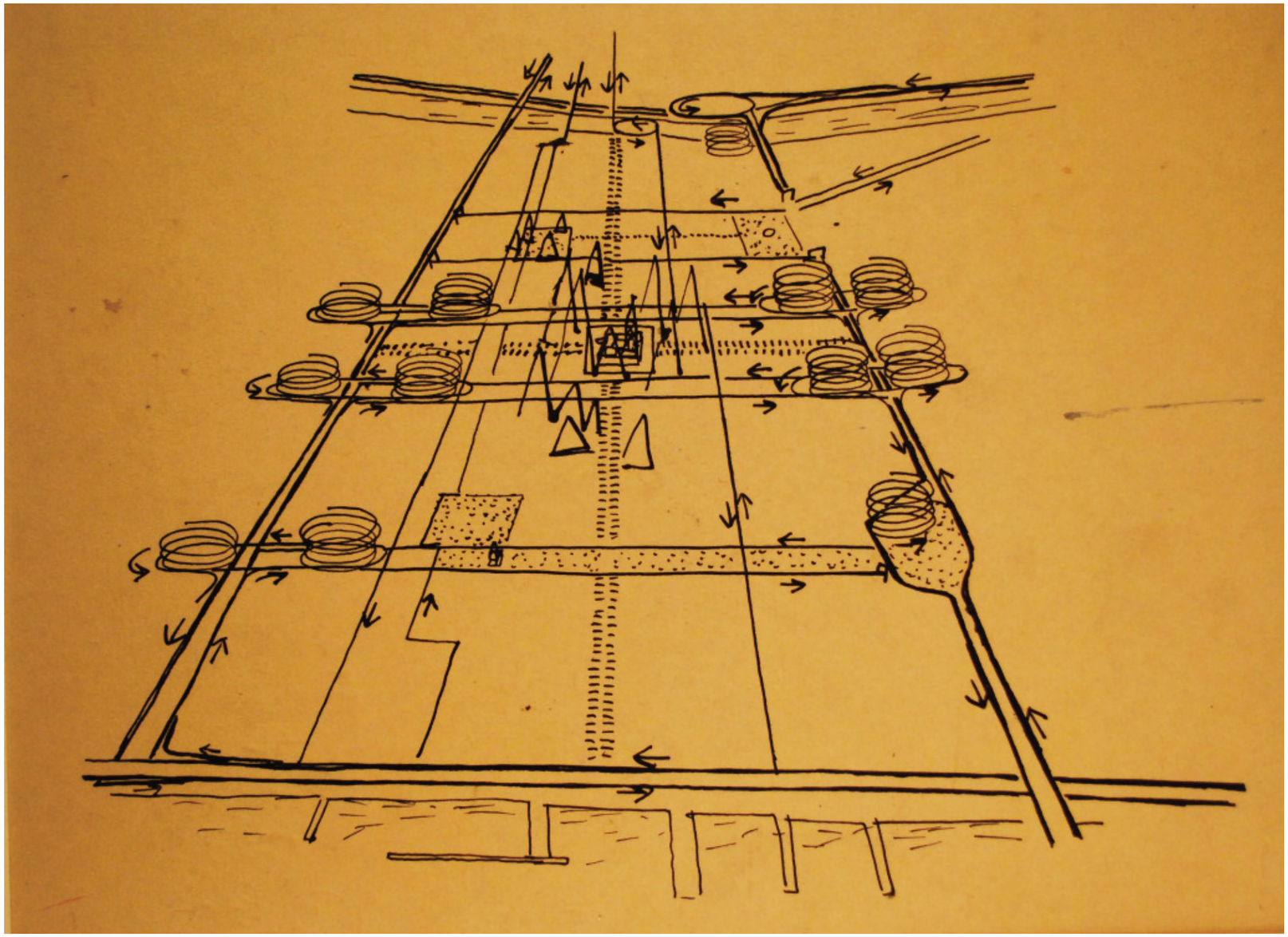
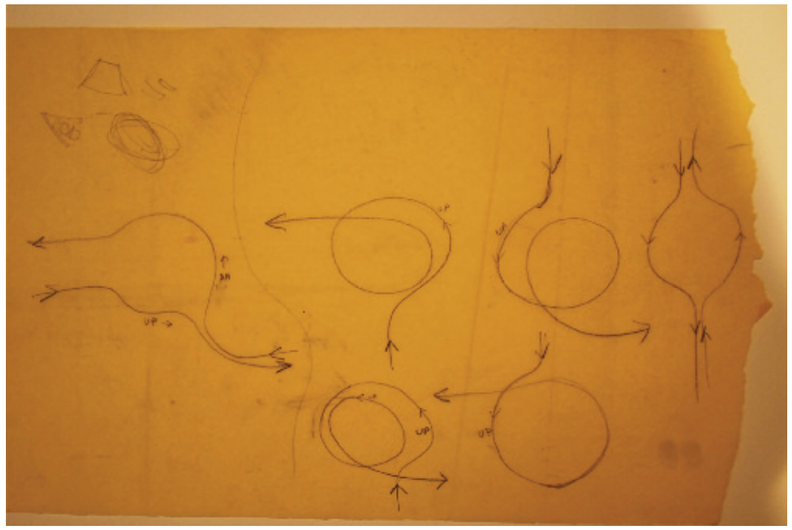


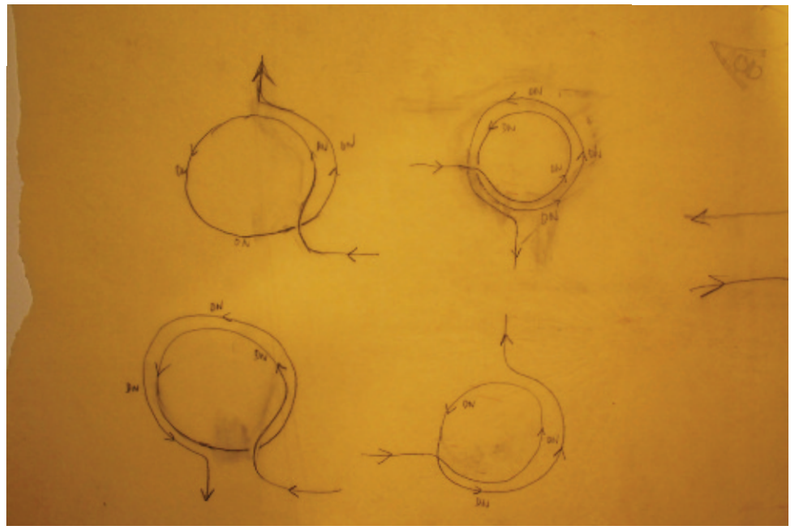
Izquierda 1: *"Plan for Midtown. Traffic Studies"*. Detalle de dos manzanas con aparcamientos municipales y distintas tipologías de tráfico (flechas para "go traffic" y puntos para "staccato movement") en las calles circundantes. Presumiblemente 1952-1953.

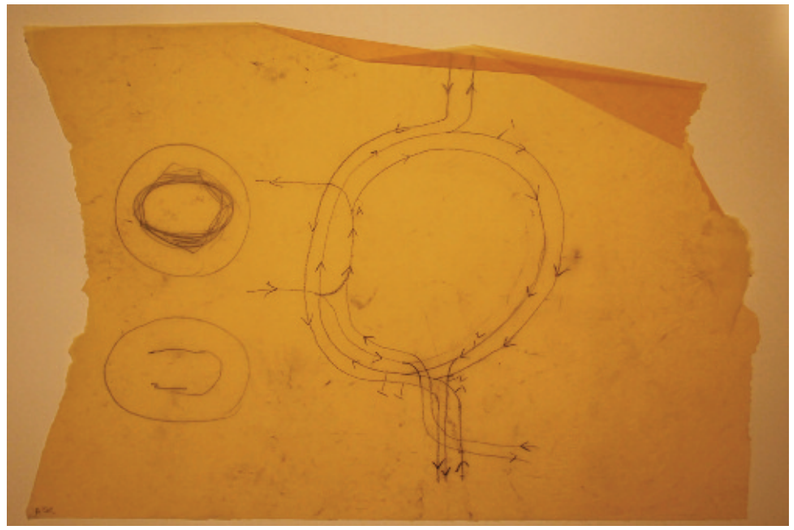
Izquierda 2: *"Plan for Midtown. Traffic Studies"*. Detalle de dos manzanas con aparcamientos y distintas tipologías de tráfico en las calles circundantes con edificios. Dibujo a tinta original de la ilustración aparecida en Perspecta 2, Pág 14. 1953.

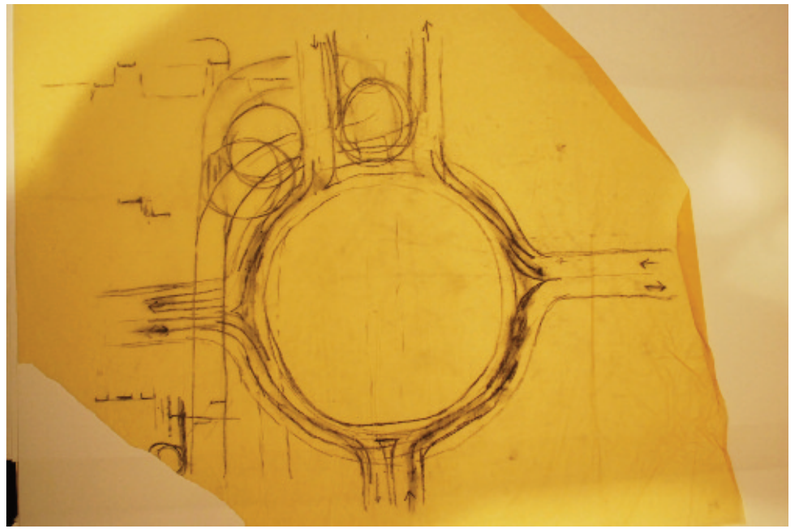
Derecha: "Plan for Midtown. Traffic Studies" Croquis de perspectiva desde el río Delaware. Presumiblemente 1952-53

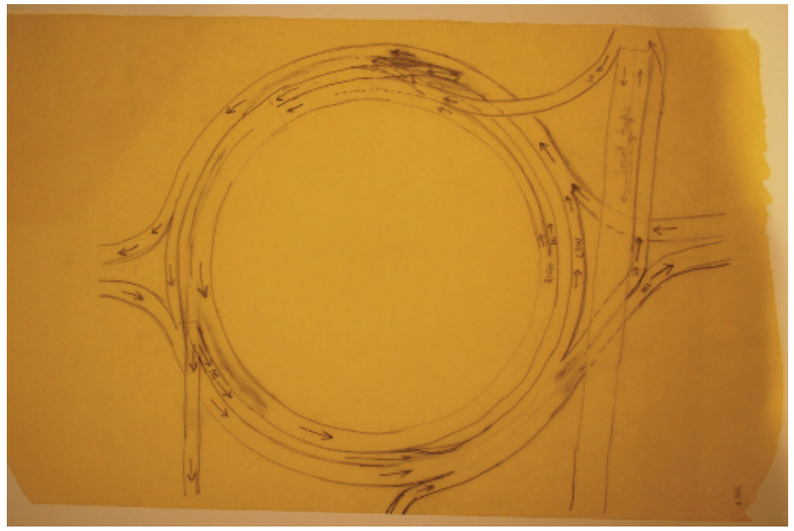
Louis I. Kahn Collection
Architectural Archives
University of Pennsylvania
Philadelphia

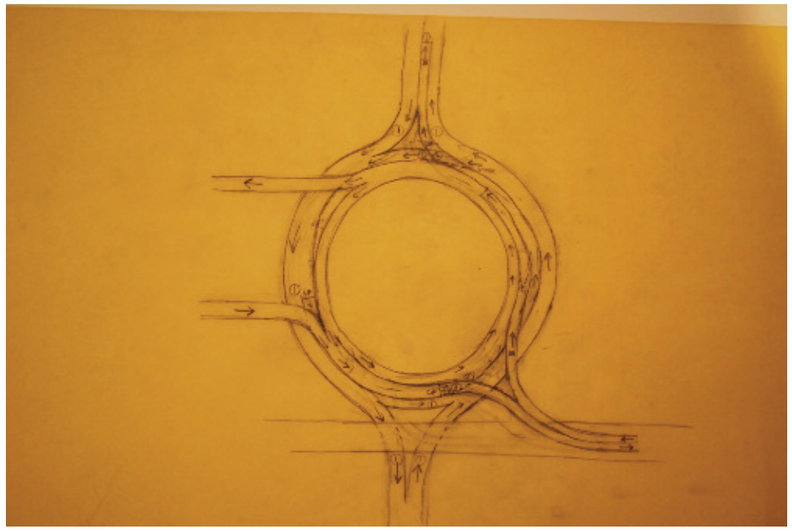


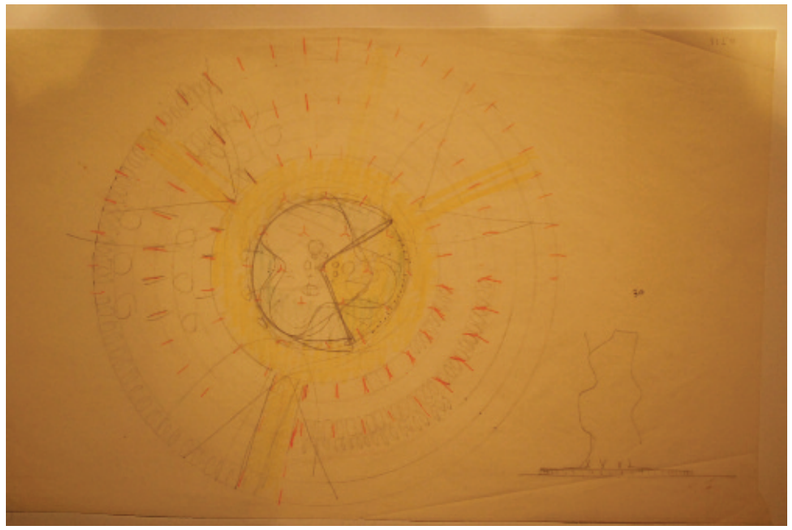


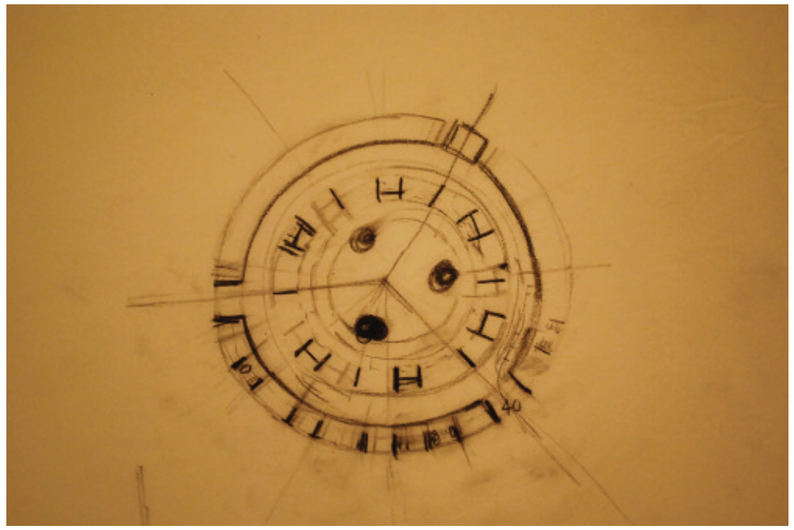


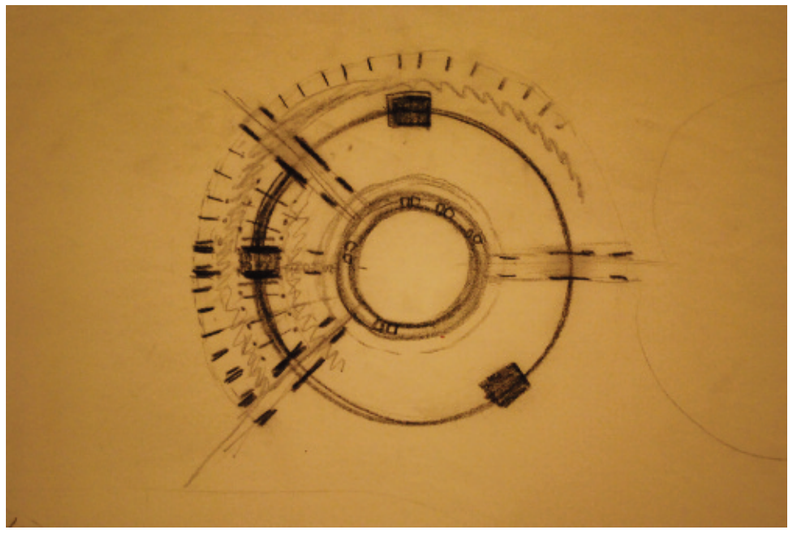


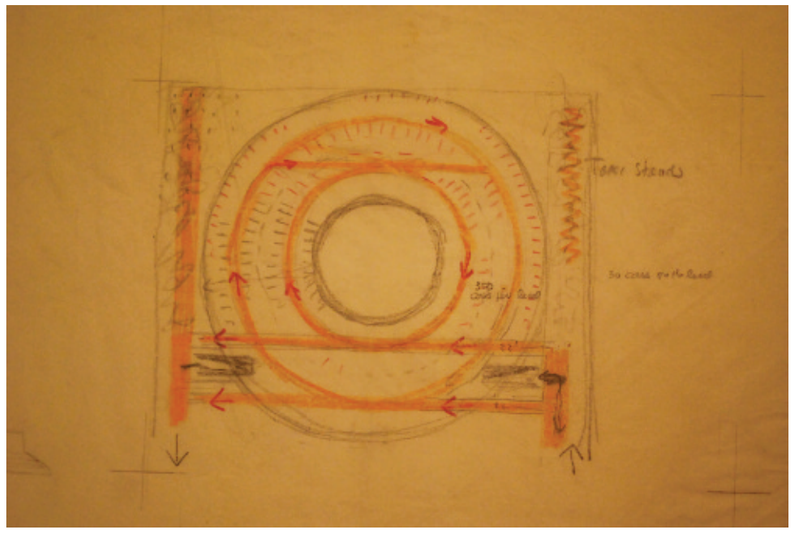


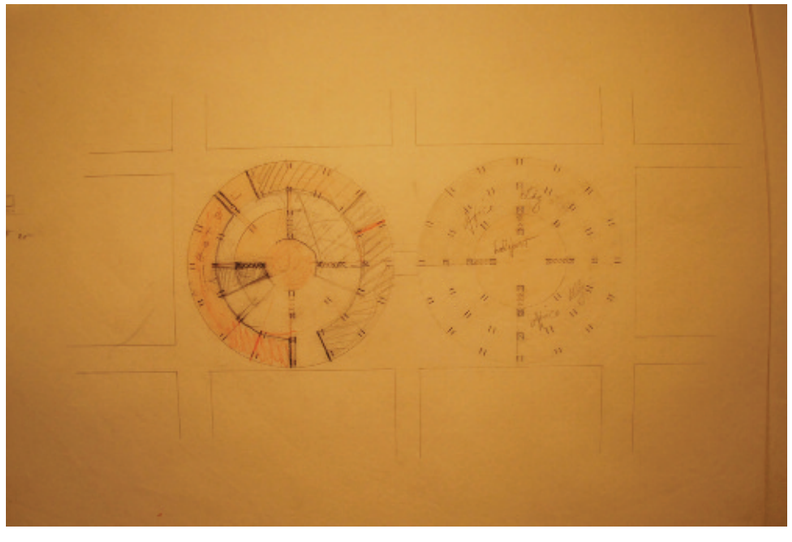


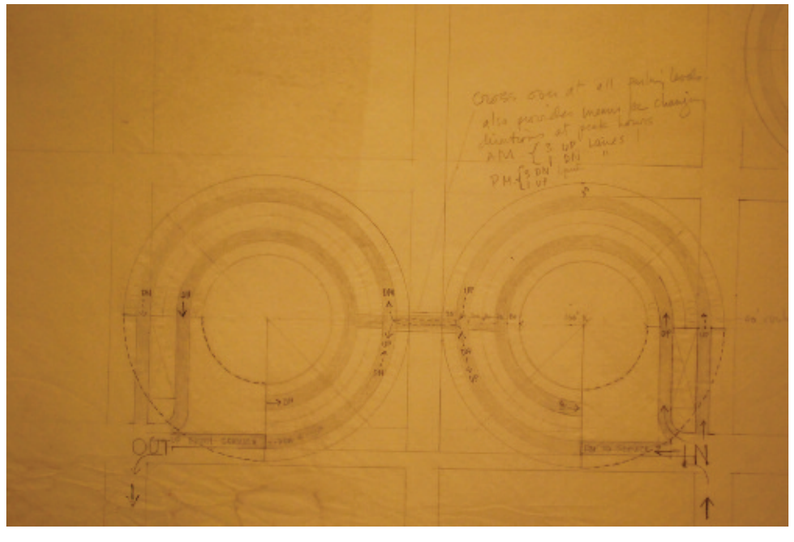








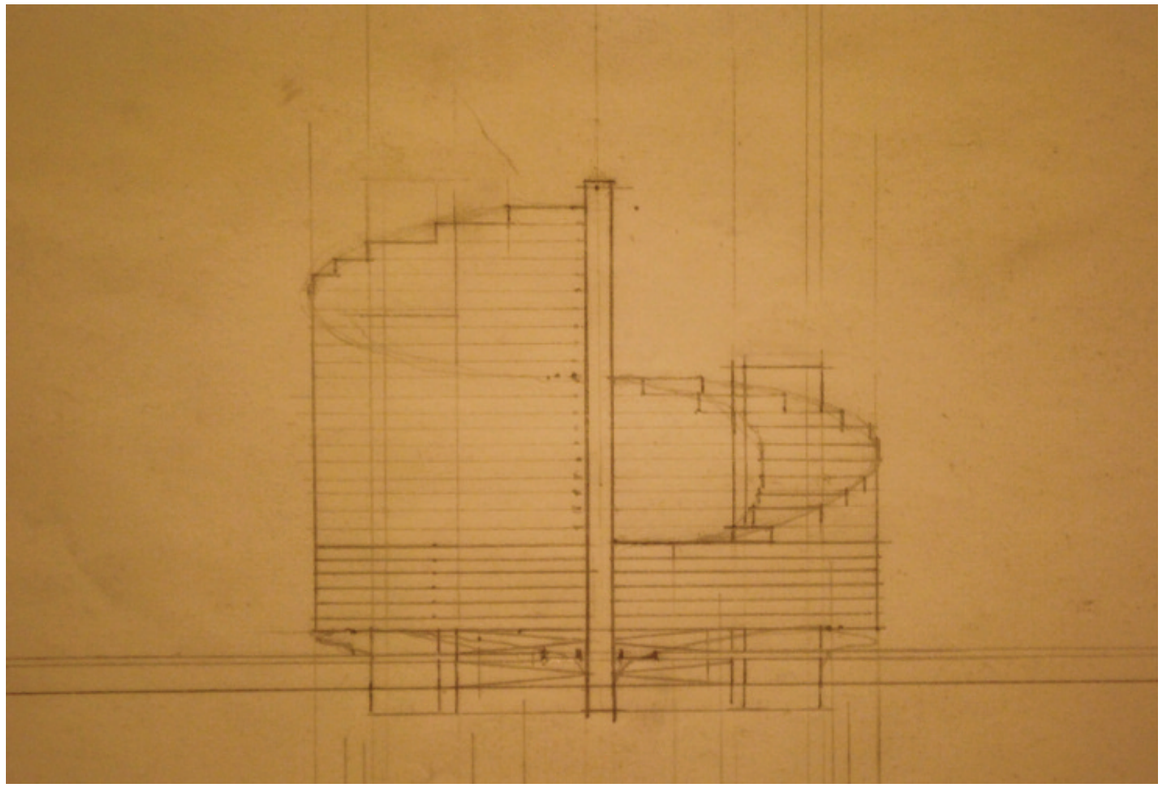


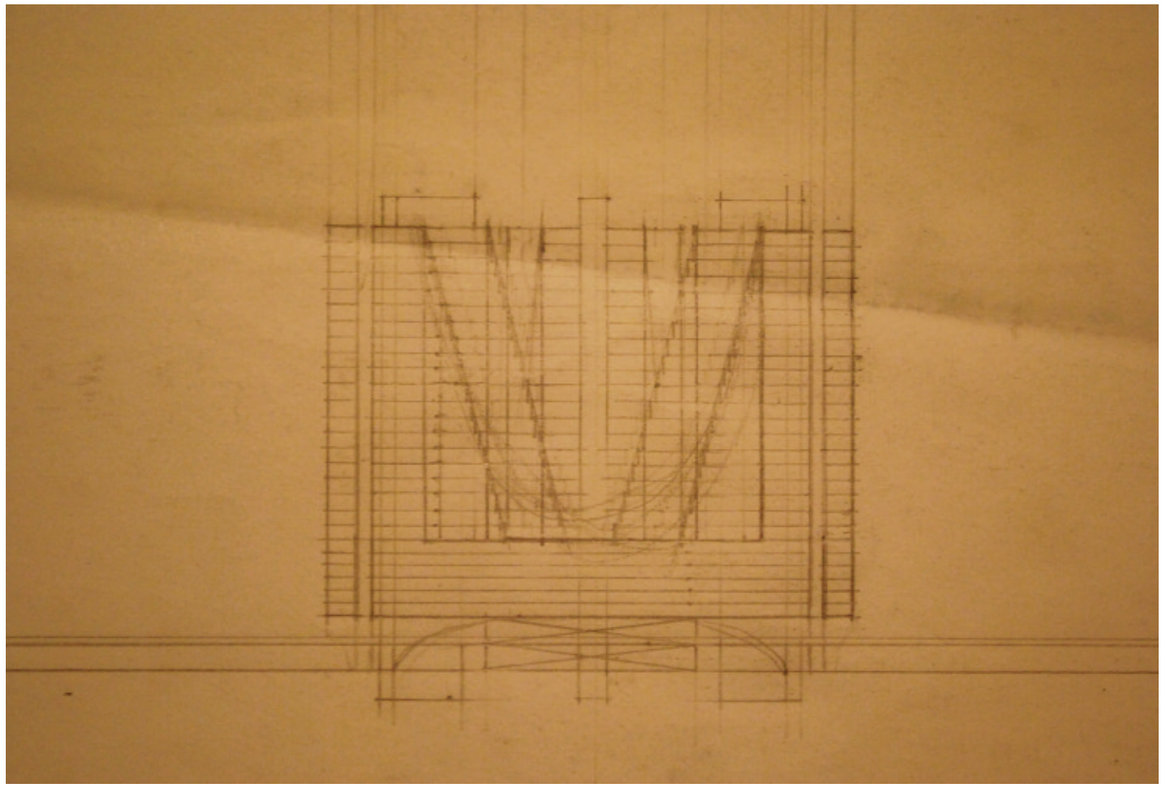


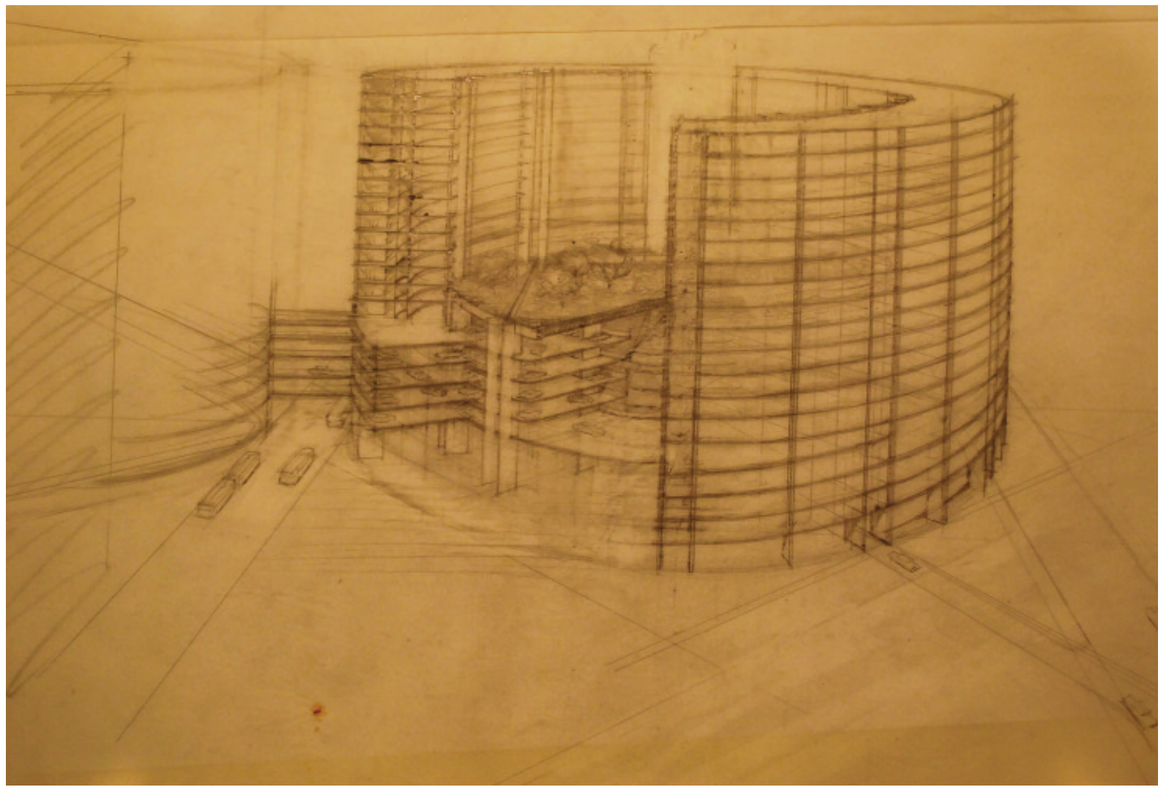
Izquierda: Estudios de movimiento en nudos de tráfico
Sin fecha. Presumiblemente entre 1956 y 1958

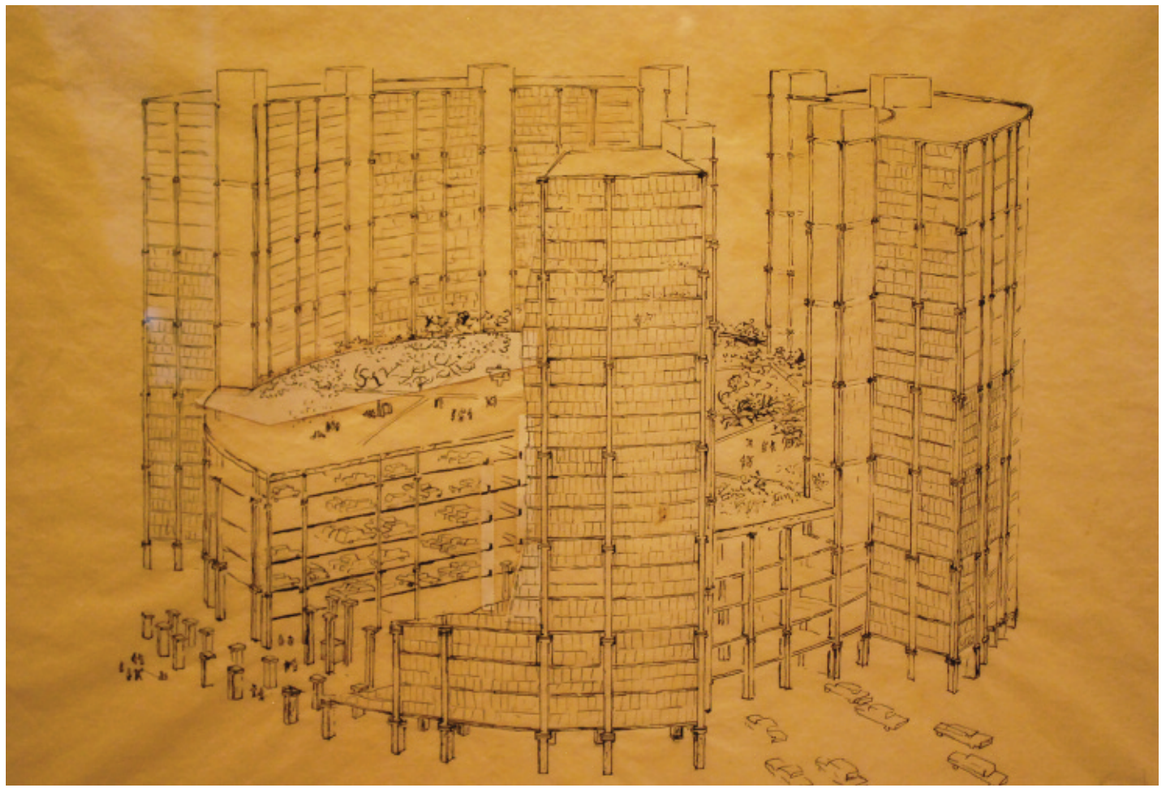
Derecha: Estudio de torres de aparcamiento. Plantas
Sin fecha. Presumiblemente entre 1956 y 1958

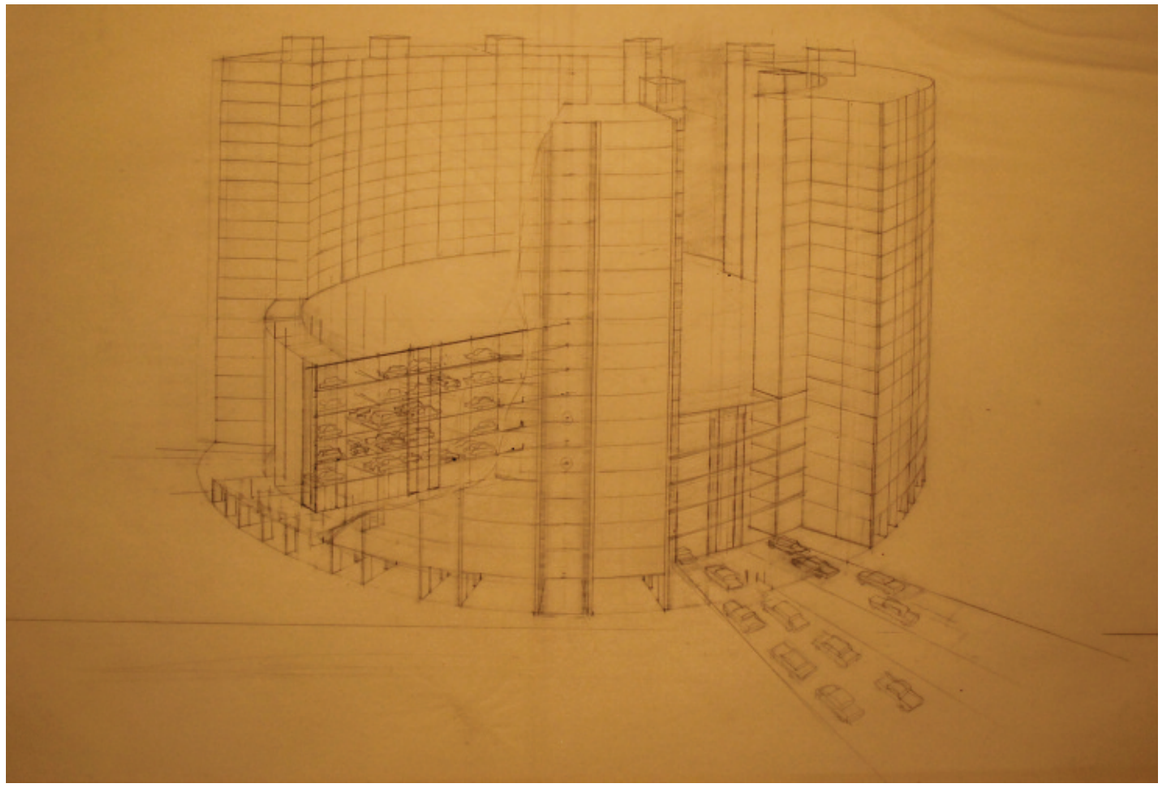
Louis I. Kahn Collection
Architectural Archives
University of Pennsylvania
Philadelphia

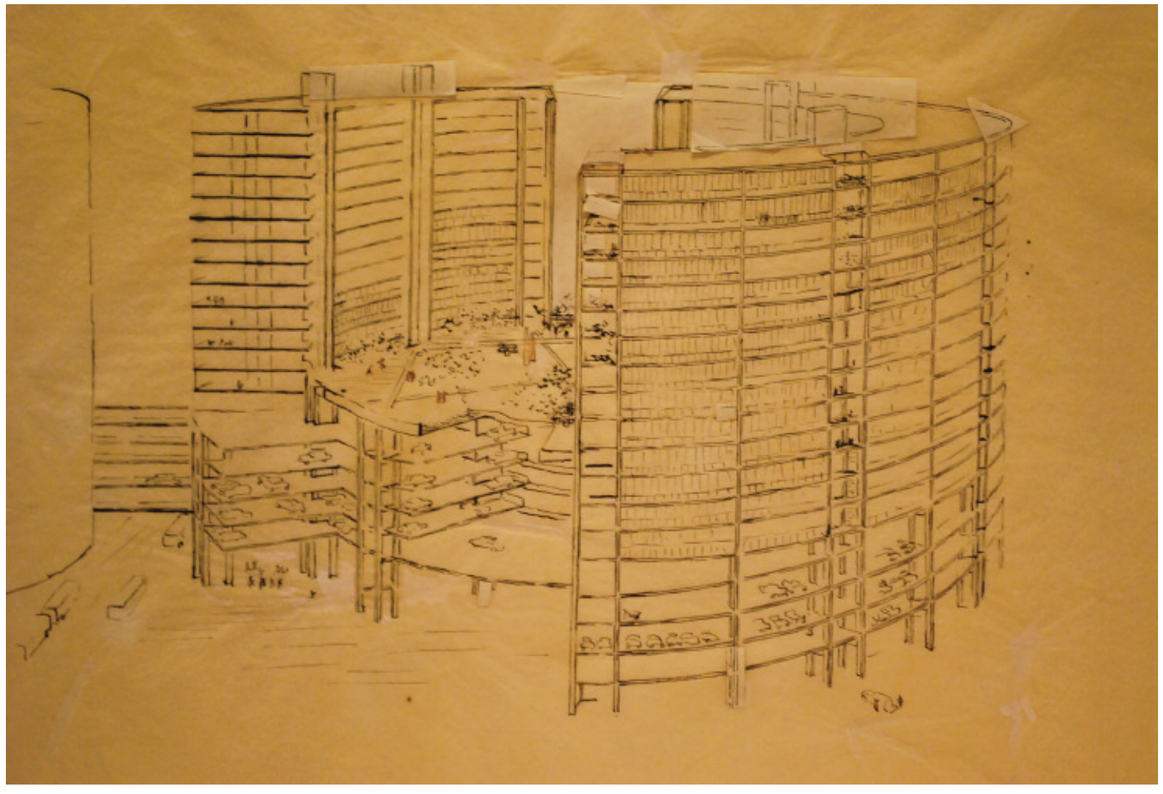






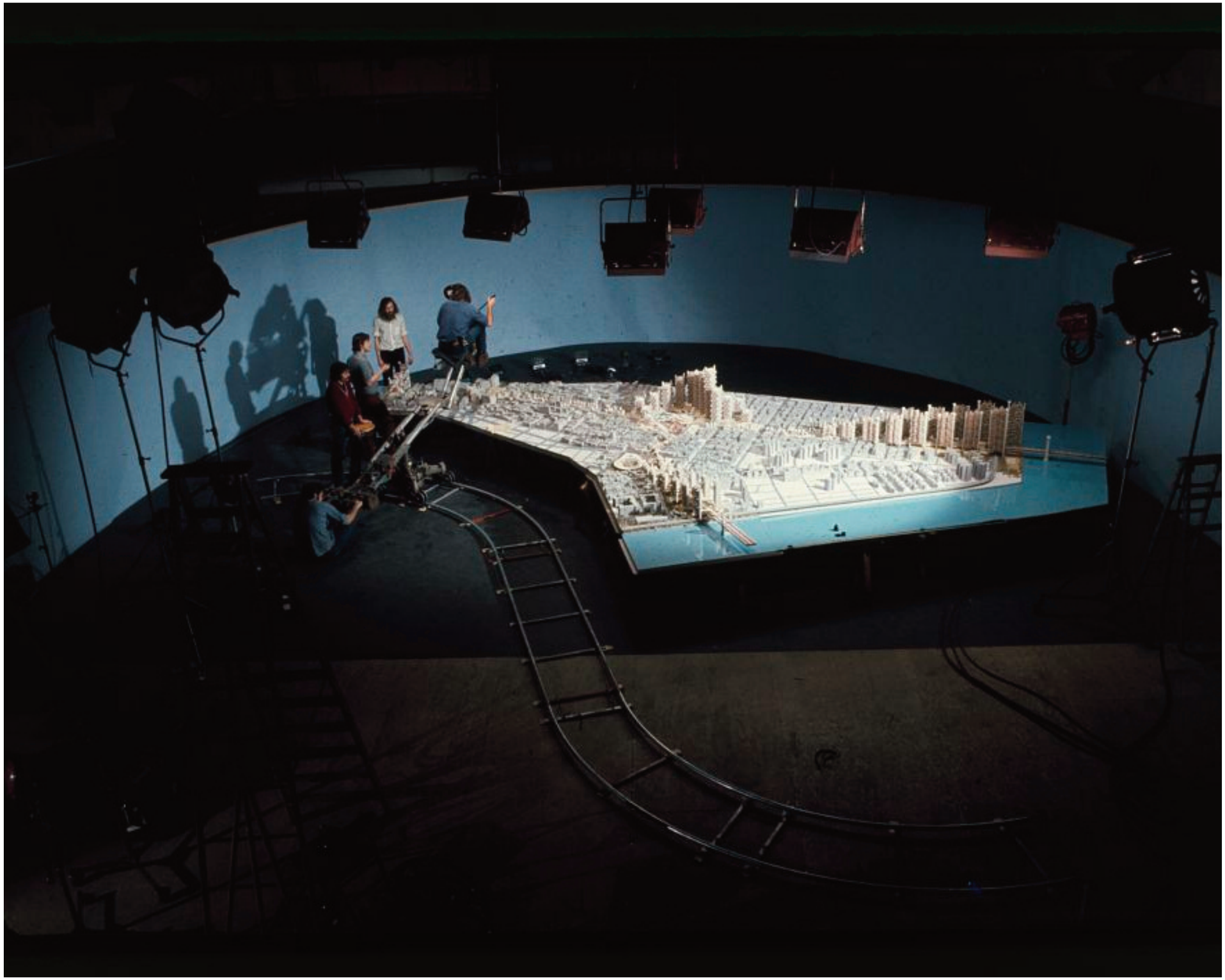






Estudios de las torres de aparcamiento. Secciones y volumetrías.
Sin fecha. Presumiblemente entre 1956 y 1958

Louis I. Kahn Collection
Architectural Archives
University of Pennsylvania
Philadelphia

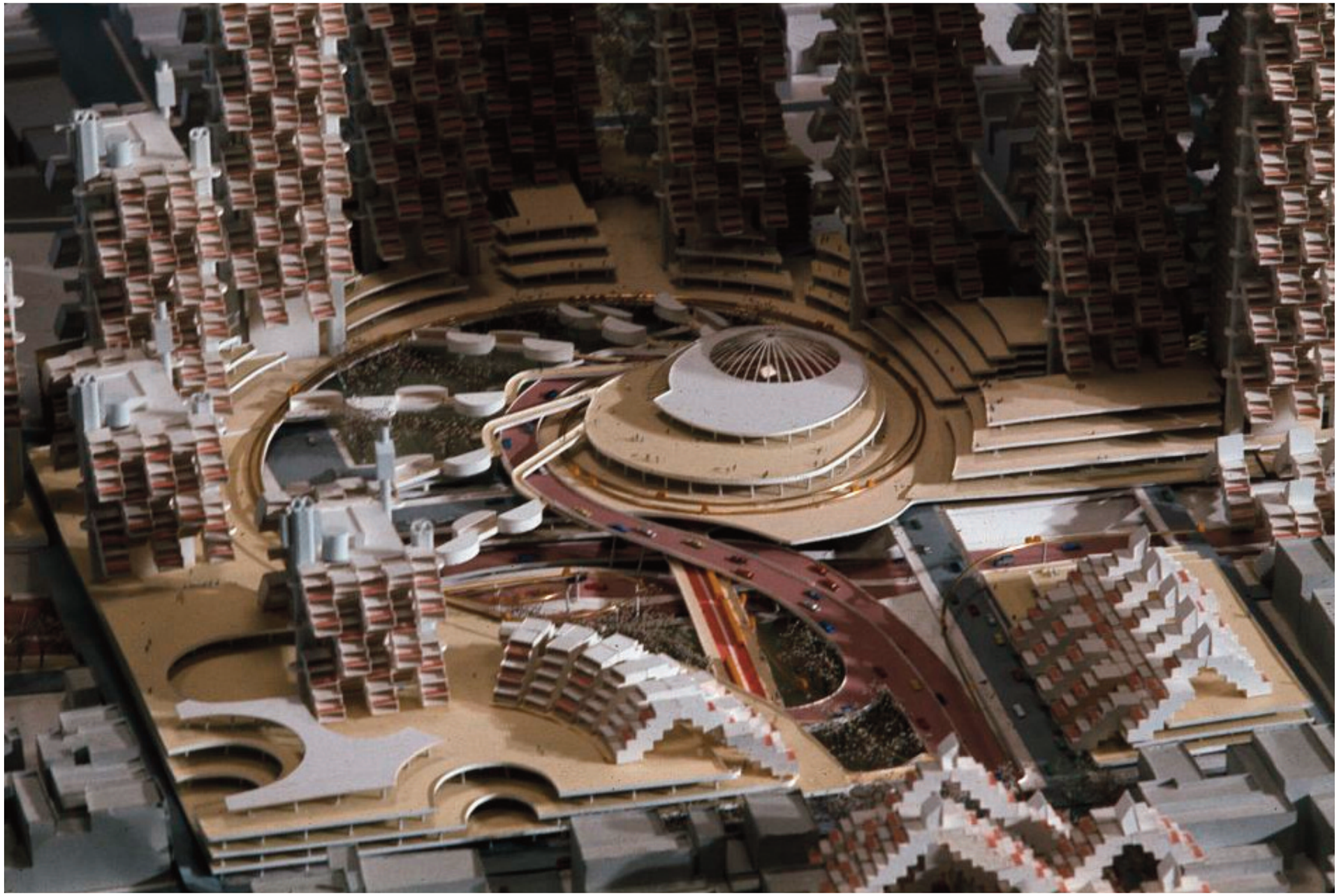


Lower Manhattan Expressway
Izquierda: Foto de la maqueta del proyecto.
Fechada en 1970.

Derecha: Maqueta del proyecto. Equipo de filmación
Fechada entre 1967 y 1972.

Paul Rudolph Archive (online)
Library of Congress
Prints and Photographs Division
Washington DC


ELIZABETH
BOWERY
DELANCEY
BROOME
SOUTH OF SIDEWALK
APTS
OFFICES
1"=100'



Lower Manhattan Expressway
Izquierda: *"Sketch plan of transit hub"*. Croquis para el centro de tránsito.
Fechado 1970, probablemente 1967.

Derecha: Maqueta. Detalle del nudo de tránsito.
1967

Paul Rudolph Archive (online)
Library of Congress
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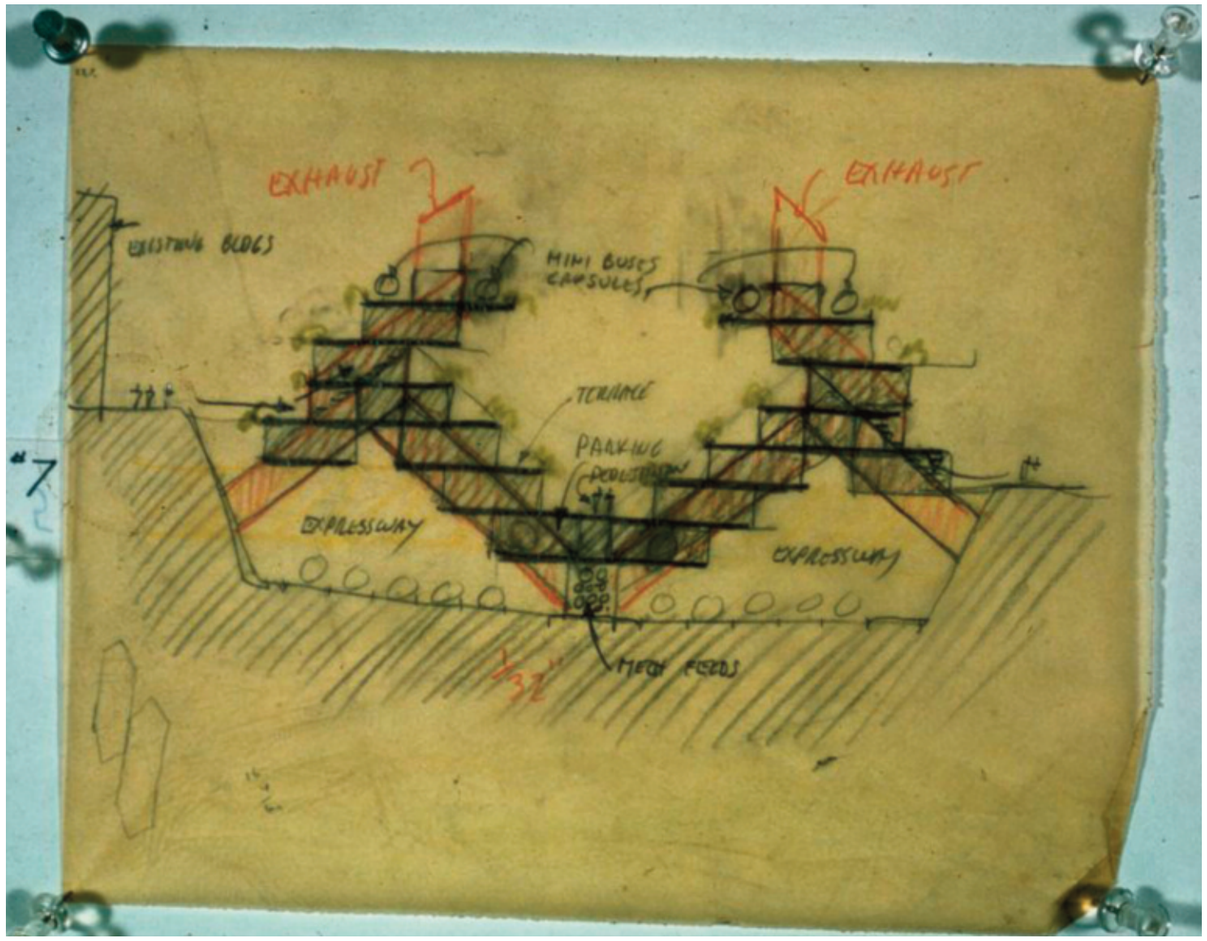
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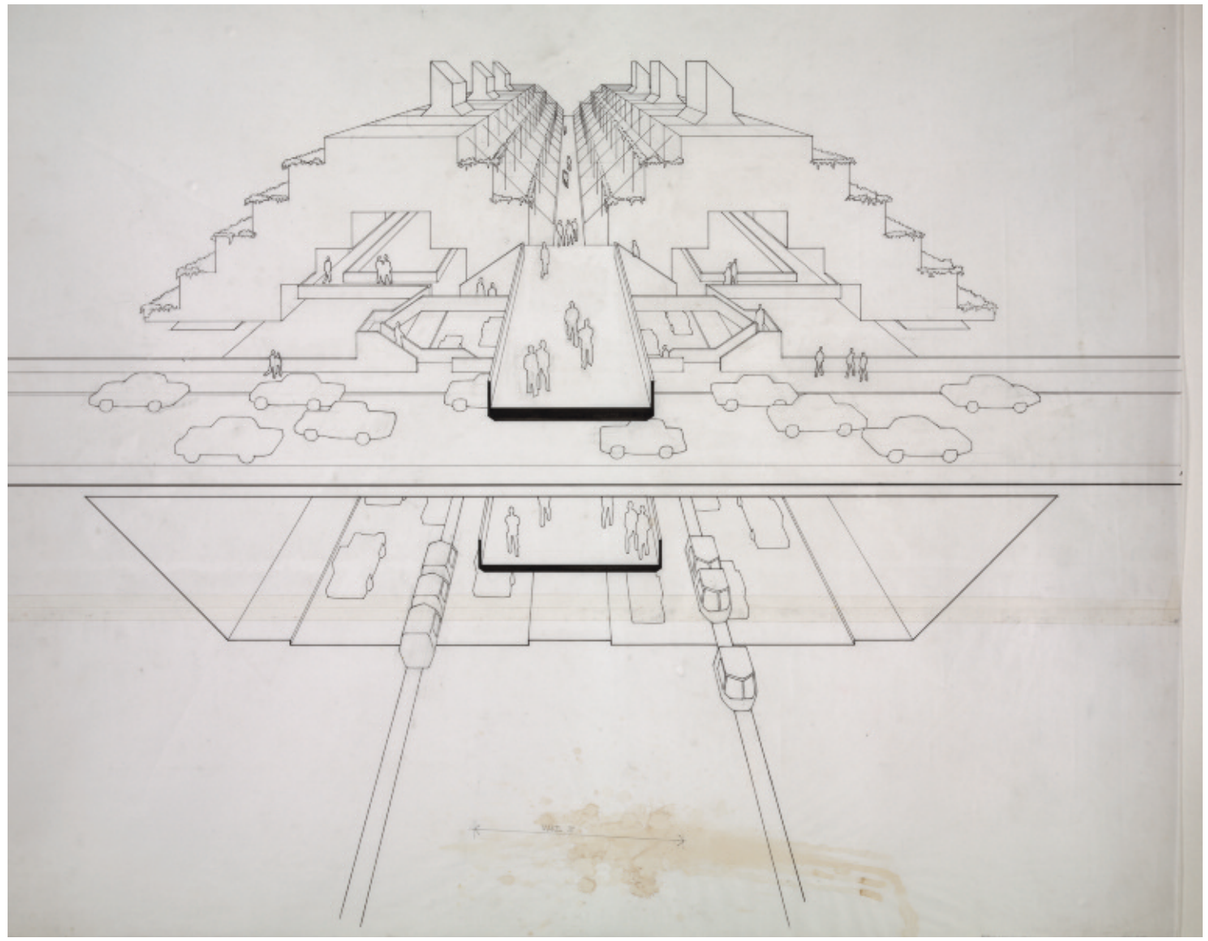

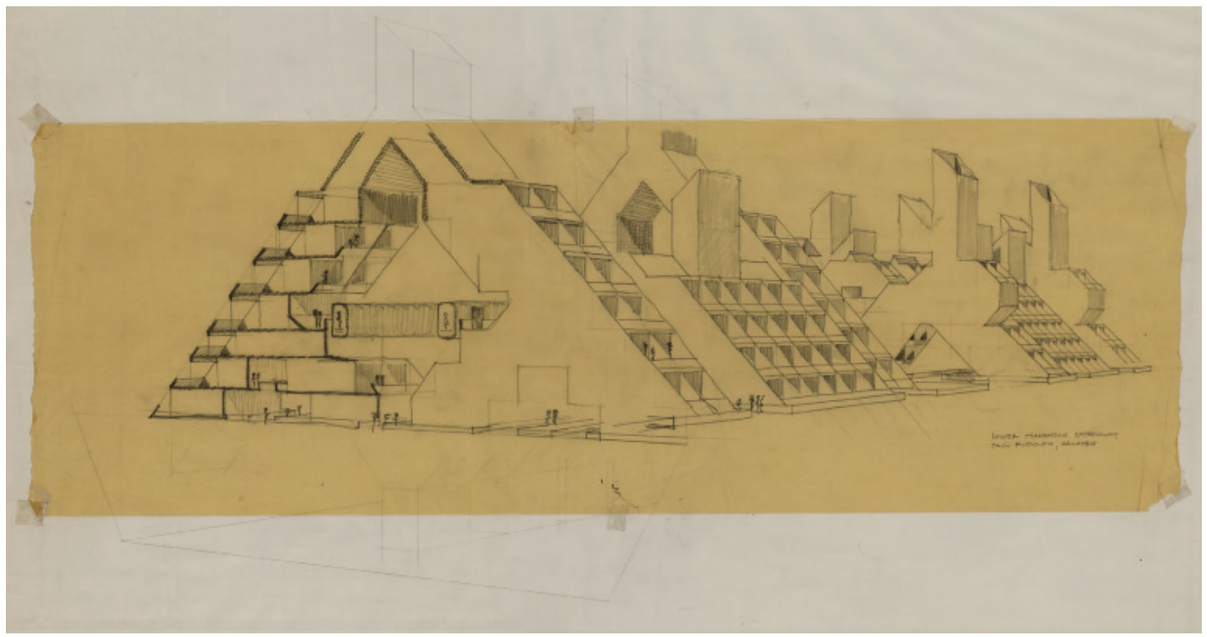

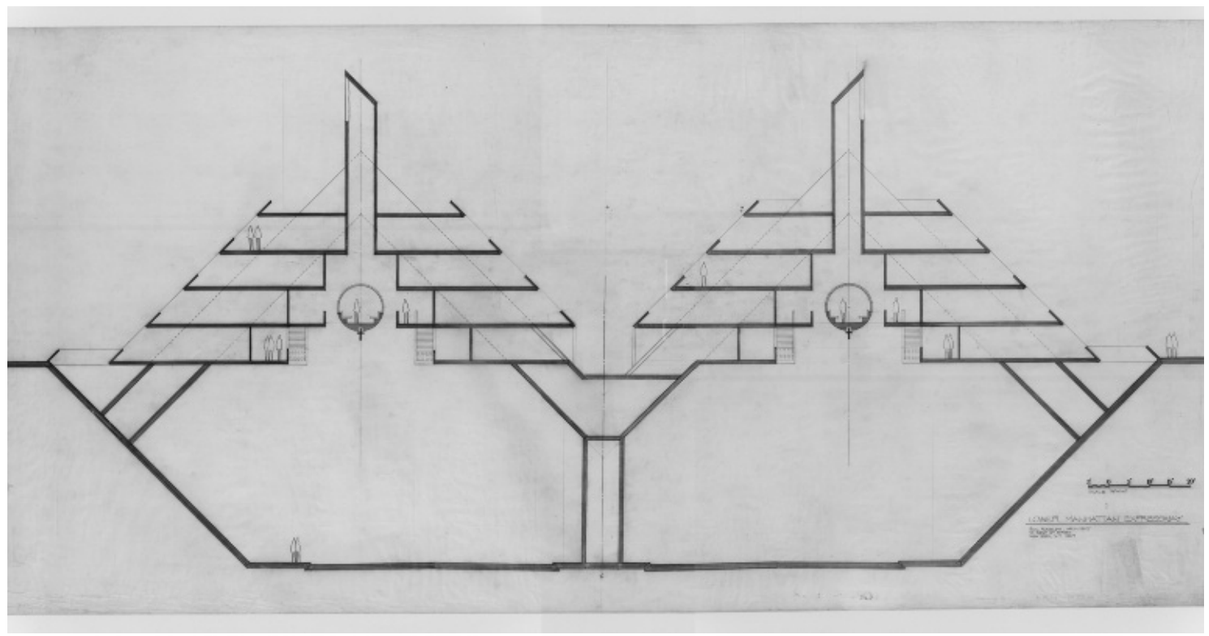

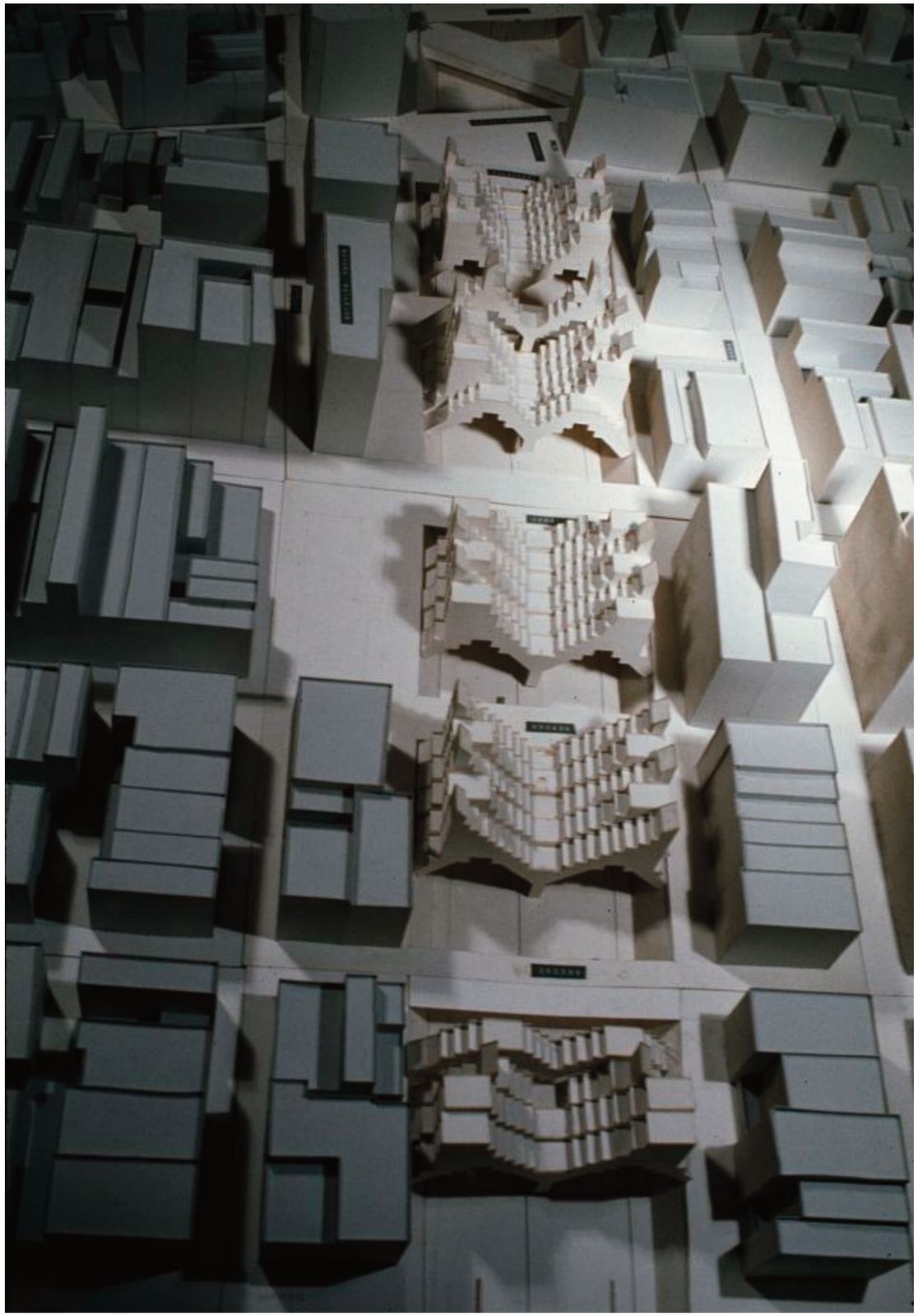

Lower Manhattan Expressway.
Izquierda: Croquis y dibujos de sección del área sobre Broome Street.

Derecha: Maqueta del área sobre Broome Street

Fechados entre 1967 y 1972

Paul Rudolph Archive (online)
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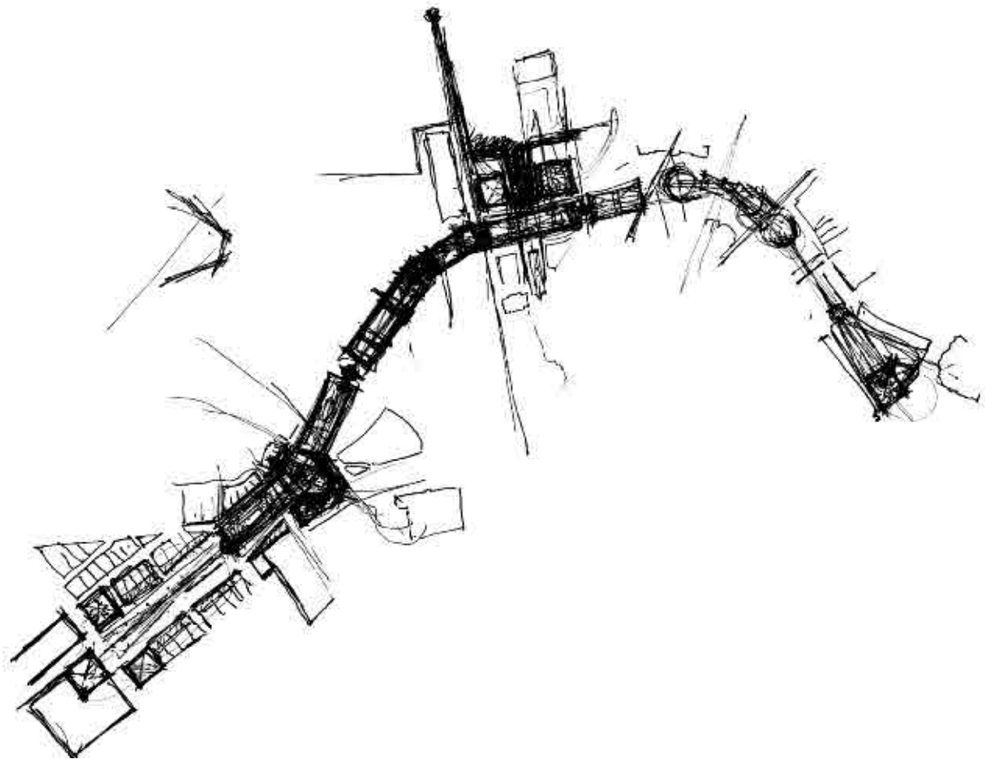

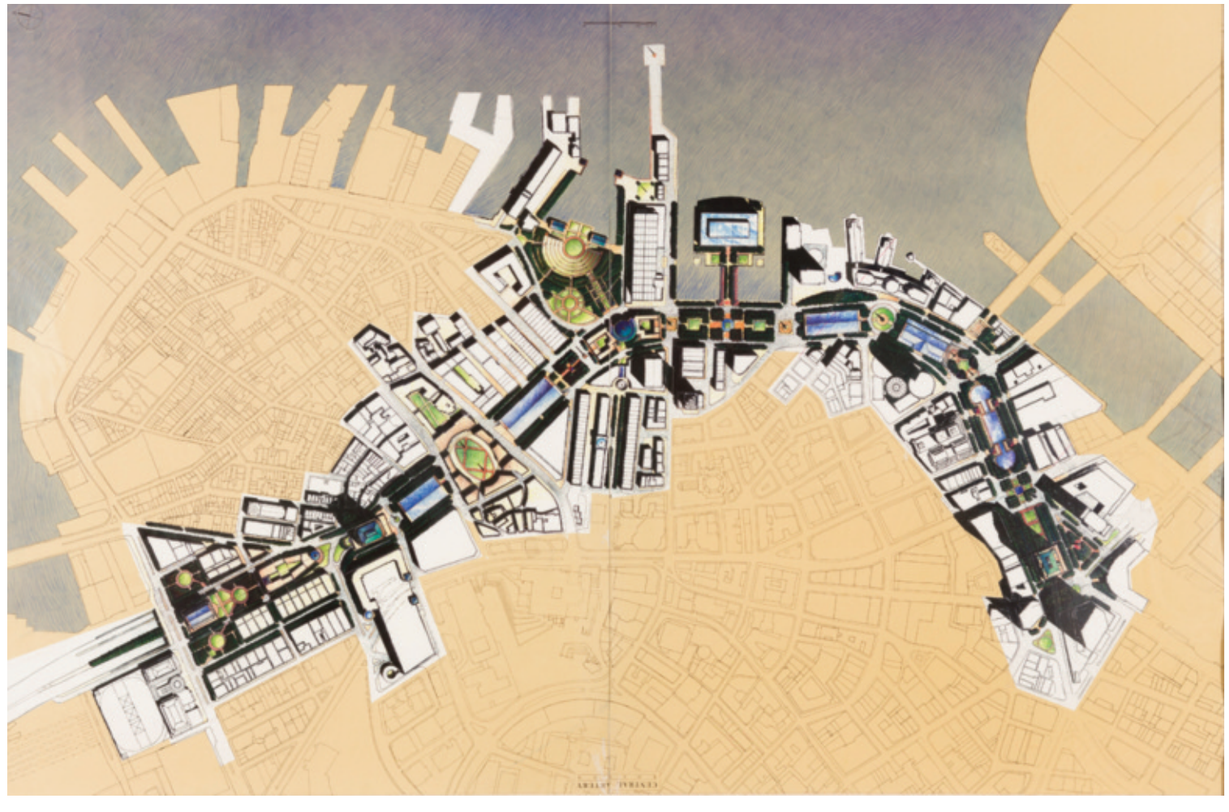

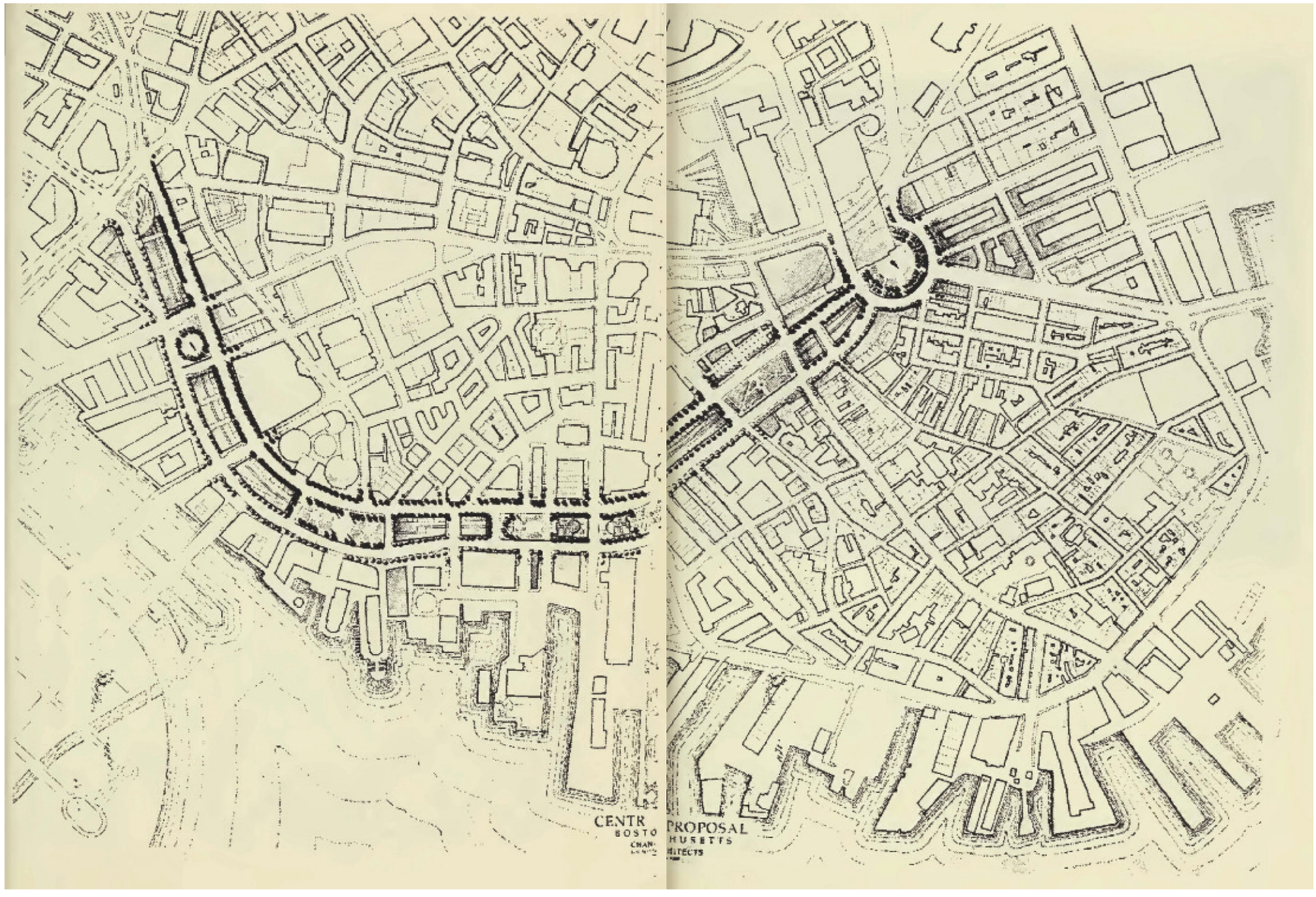

Izquierda: Estudios para el proyecto de la Central Artery. Planta y croquis.
1988

Cortesía de Ricardo Bofill. Taller de Arquitectura Barcelona

Derecha: *"Central Artery Proposal*. Chan Krieger Levi Architects". Ilustración del documento *"A Design Strategy for the Central Artery Corridor"*
Chan Krieger Levi Architects.
1989

Boston Public Library
Internet Archive (online)

Toll and Free Roads. Letter of Transmittal
De Franklin Delano Roosevelt al Congreso de los Estados Unidos
27 de abril de 1939

Transportation Library
Northwestern University Library
Evanston

LETTER OF TRANSMITTAL

To the Congress of the United States:

I transmit herewith a letter from the Secretary of Agriculture, concurred in by the Secretary of War, enclosing a report of the Bureau of Public Roads, United States Department of Agriculture, on the Feasibility of a System of Transcontinental Toll Roads and a Master Plan for Free Highway Development.

The report, prepared at the request of the Congress, is the first complete assembly of data on the use being made of our national highway network. It points definitely to the corrective measures of greatest urgency and shows that existing improvements may be fully utilized in meeting ultimate highway needs.

It emphasizes the need of a special system of direct interregional highways, with all necessary connections through and around cities, designed to meet the requirements of the national defense and the needs of a growing peacetime traffic of longer range.

It shows that there is need for superhighways, but makes it clear that this need exists only where there is congestion on the existing roads, and mainly in metropolitan areas. Improved facilities, needed for the solution of city street congestion, are shown to occupy a fundamental place in the general replanning of the cities indicated as necessary in the report "Our Cities," issued in September 1937 by the National Resources Committee.

The report also points definitely to difficulties of right-of-way acquisition as obstacles to a proper development of both rural highways and city streets, and makes important and useful recommendations for dealing with these difficulties.

I call the special attention of the Congress to the discussion of the principle of "excess-taking" of land for highways. I lay great emphasis on this because by adopting the principle of "excess-taking" of land, the ultimate cost to the Government of a great national system of highways will be greatly reduced.

For instance, we all know that it is largely a matter of chance if a new highway is located through one man's land and misses another man's land a few miles away. Yet the man who, by good fortune, sells a narrow right-of-way for a new highway makes, in most cases, a handsome profit through the increase in value of all of the rest of his land. That represents an unearned increment of profit—a profit which comes to a mere handful of lucky citizens and which is denied to the vast majority.

Under the exercise of the principle of "excess-taking" of land, the Government, which puts up the cost of the highway, buys a wide strip on each side of the highway itself, uses it for the rental of concessions and sells it off over a period of years to home builders and others who wish to live near a main artery of travel. Thus the

Government gets the unearned increment and reimburses itself in large part for the building of the road.

In its full discussion of the whole highway problem and the wealth of exact data it supplies, the report indicates the broad outlines of what might be regarded as a master plan for the development of all of the highway and street facilities of the Nation.

I recommend the report for the consideration of the Congress as a basis for needed action to solve our highway problems.

FRANKLIN D. ROOSEVELT.

THE WHITE HOUSE,
April 27, 1939.

S.O.S. Chicago!
Broadcast #3: SUPERHIGHWAYS FOR CHICAGO
Monday, July 24, 1939, at 7:00 P.M.
Station WJJD, Chicago

Transcripción
Chicago History Museum Research Center
Chicago

ANNOUNCE:- S.O.S. Chicago! This evening, ladies and gentlemen, we present the third in a series of ten broadcasts sponsored by the Chicago Plan Commission. Tonight we are to hear a round-table discussion on SUPERHIGHWAYS FOR CHICAGO by three men thoroughly informed on the subject. In order in which you will hear their voices are:
Hugh Young, Chief Engineer of the Chicago Plan Commission, Mr. Charles E. DeLew, Consulting Engineer for the City of Chicago, and Mr. William C. Mc.Lennan, realtor, who has been long active in civic affairs.
Mr. Young will start the discussion. Mr. Young

Hugh YOUNG:- It seems to me that for the benefit of our audience it might be well to come to a common understanding about just what is meant when we speak of a superhighway. Too often we hear the word used when merely a wider or more impressive looking street is mean to be described. What is your definition, Mr. DeLeuw?

Charles DELEUW:- The term "superhighway" has been rather loosely handled, as you say, Mr. Young, and I'd like to tell how it first came to be used: The term originated in Detroit some fifteen years ago and described the development of a system of broad thorough-fares in and through suburban and rural areas surrounding the city, which resembled in pattern the spokes of a wheel running to and through the central hub.

William MC LENNAN:- Did not the idea contemplate a broad right-of-way, the center to be used for express traffic facilities, and the margin on each side for sidewalks and service drives?

D:- Yes, Mr. Mc Lennan, and it was also stipulated that the improvement be wide enough to allow for suitable parkways in between the private property and the express highway.

Y:- These plans recognized the need for separating cross traffic from the express highway, by means of over or under-passes, with traffic flowing into the superhighways only at intervals, say one-half mile or more apart. Our own Outer Drive gives some ideas of the general plan.

MC L:- I understand that in the last ten years Greater New York has constructed over two hundred miles of express thoroughfares of the superhighway type, and I'm hoping Chicago-once we get started-will be able to compete with that record.

Y:- New York City certainly has accomplished a notable development of superhighways, and they've done it through the complete cooperation of all local highways and toll bridge authorities. What our audience will be interested in hearing; it seems to me, is just what preliminary steps have been taken toward starting a similar program in Chicago.

D:- I'm glad to tell about that, Mr. Young. Enabling legislation providing for a sound financial plan has just been secured by the city administration. This will permit the City of Chicago and Cook County to join in financing superhighway construction costing sixty million dollars or more.

MC L:- And what is this financial plan?

D:- Simply this, Mr. Mc Lennan. The new law permits the State of Illinois to issue notes, the principal and interest of which will be paid from the city's and county's share of the state of motor fuel tax, over the next twenty-year period.

Y:- But doesn't that suggest the danger that use of these funds for superhighway construction might possibly interfere with other necessary street improvements, Mr. DeLeuw?.

D:- No, Mr. Young, for the reason that the law limits the amount to fifty percent of the local tax collected; which, in the opinion of both city and county engineers, leaves ample funds for normal paving programs. As a matter of fact, the proposed program will only encumber about one-third of the revenues from the present gas tax.

MC L:- Well, there's no doubt but the benefits from these superhighways will extend throughout the state. I'd like to hear from Mr. Young just what has been included in the plans for the initial program.

Y:- Preliminary studies, Mr, Mc Lennan, indicates a need for five safety trunk highways: an extension of the existing Outer Drive north from Foster Avenue, a thoroughfare to the northwest, one to the west, another to the southwest, and an extension of our present Outer Drive to the south. This follows very closely the pattern for superhighways as recommended in the report of the Chicago Plan Commission in 1929, except that in addition to the spokes of the wheel, the plan commission suggested a hub also; that is, a central-business-district circuit that would serve as a by-pass route or local distributor for the superhighway traffic arriving at the downtown district.

MC L:- And where would these highways connect at their outer ends, Mr. De Leuw?. I'm assuming, of course, that they will be substantially free from grade crossing except at these points.

D:- They'll connect with the more important state and federal aid highways at the city limits, Mr Mc Lennan.

Y:- It's not difficult to visualize the benefits that will result. And considering that these facilities will accommodate motorist over the entire state, as well as from many outside points, it seems reasonable to me that the state and federal government should participate. What are the chances of securing state and federal assistance in this program, Mr. De Leuw?

D:- The state highway department has already agreed, Mr. Young, to participate in this superhighway program, through the use of its own and federal aid funds. This would make a three-way division of the entire cost.

MC L:- Is there any provision, Mr. Deleuw, in the so-called "spending-lending" bill recently introduced in Congress which would be of assistance in superhighway building?

D:- Yes, Mr. Mc Lennan. One of the important features of this proposal is the creation of a federal corporation which would finance the acquisition of necessary rights-of-way for superhighways in metropolitan cities, title to be held over a long period of years. During this time the city would retire the corporation's investment at an extremely low interest rate. You can readily appreciate the enormous assistance this would bring to cities faced with the need of launching a superhighway program.

Y:- Mr. Deleuw, I think our listeners would like to know the estimated cost of Chicago's new superhighways.

D:- The cost will range from one hundred to one hundred and ten million dollars, Mr. Young, depending, of course, on the location and exact type of facility finally constructed.

MC L:- As I understand it, Mr, Deleuw, there will be no special assessments, and no funds of the state highways department, present or future, are encumbered. As a real estate man, what I am most interested in seeing is that the property owner is left free of any burden because of these street improvements.

D:- I think Chicago citizens appreciate what the city administration has done in arriving at a fair and sound method of paying for these superhighways. The financial plan does not, as you say, require the levying of any special assessment not any additional tax on real estate.

MC L:- Now to get back to the construction of Chicago's superhighways. Mr. Young, grade separations of one kind and another long the superhighways have been mentioned, and I'm wondering if our audience gets a clear pictures of just what a grade separation is.

Y:- It means, Mr. Mc Lennan, separating traffic on the superhighway from traffic on cross streets, that the two streams of traffic of traffic may flow without conflicting with each other. We know that all traffic had its source at street level, and the years have seen the inevitable jamming that came at intersections. The Chicago Plan Commission has worked toward this day when a real superhighway program is at least in reach of the citizens of Chicago.

D:- Yes, we've come a long way from the time when our rail-roads crosses city streets at grade, Mr. Young. And the Chicago of tomorrow may consider the inadequacy of present-day congested thoroughfares as antiquated, by comparison, as were the old dirt roads before the origin of asphalt and concrete. But the engineer's pride today is in achieving roads with "built-in" safety.

MC L:- When you consider, Mr. Deleuw, that there are nearly four million people living and working and Chicago, it speaks plainly the urgency of our need for highway development so perfected as to make it hard for accidents to happen. I fell sure our radio audience is interested in hearing just when a start will be made.

D:- Chicago has been fortunate in having able and aggressive leaders. Mayor Kelly, being and

engineer himself, has done much to expedite Chicago's superhighway legislation. But to answer your question, Mr Mc Lennan: Plans and surveys for the first of these superhighways are now being made both by the City and the Cook County Highway Department. The law requires specific location and detail plans be filed before March 1st, 1940. But long before that, preliminary plans will be presented to the Chicago Plan Commission for recommendation to the City Council. This will afford ample opportunity for all interested citizens and civic groups to express their views as to final location, type and other features.

Y:- Is there any question, Mr. Deleuw, as to the legality of the notes proposed to finance this project?

D:- Competent lawyers are of the opinion, Mr.Young, that the proposed notes are entirely legal, but it may be necessary to secure an opinion from the State Supreme Court before proceeding far with the construction. O However, working plans can be going forward while the lawyers are clearing up any legal questions, so that no real delay is anticipated from that source.

Y:- I'm glad to hear that. We can't get started fast enough to reduce the physical hazards which superhighways will abolish. Pedestrian and motorist alike will be safe-guarded.

MC L:- It occurs to me in mentioning the benefits that will accrue from these highways-saving lives, enhancing property values, beautifying the city-that we overlook mention of the immediate benefit which is always good news to Mr. John Q. namely, "More Work for More Men". Do you have any idea, Mr. Deleuw, just what the highways will mean in the way of employment?

D:- I would say conservatively that as many as fifteen thousand will be employed-directly and indirectly-over the four year period required for completion of the program.

MC L:- Another thing which, as a real estate man, I'm prompted to ask, is what effect this large volume of motor traffic is likely to have on the abutting property?

D:- In modern planning, Mr. Mc Lennan, a free way or "breathing space". is provided between the abutting private property and the express thoroughfare. These so-called "breathing spaces" take the form of beautifully landscaped parkways, so that it may fairly be said that properly designed superhighways of this type are not only of great benefit to the surrounding areas some distances away, but do no harm to the property immediately abutting on these free-ways.

Y:- I quite agree with Mr. De Leuw. And planners of the future city are taking all those things into consideration today-and not after the well-known horse is out of the stable.

MC L:- During our discussion, Mr. Deleuw, I have been trying to visualize the streams of traffic that will have uninterrupted flow into and out of the city, on completion of the five new highways. Could you give us any figure on the number of cars per hour which these highways will carry at the start?

D:- I would say an approximate volume of some 250.000 vehicles daily, Mr. Mc Lennan, will pass the points of maximum flow. So that a yearly travel of approximately 640 million vehicle-mile will "christen" the new superhighways.

MC L:- Mr. Deleuw, I think it's time we started answering the many questions which must have been accumulating on the other side of the table during the last fifteen minutes.

ANNOUNCER:- …and now we come to the second half of this program. The Chicago Plan Commission has invited the editors of four of Chicago's community newspapers to attend these broadcasts and question the speakers. These four editors are M. Robert G. Cleveland, of the Southtown Economist; Mr. Walter J. Kelly of the Garfieldian; Mr. Leo A. Lerner of the Lincoln-Belmont Booster; and Mr. Leonard Serdiuk of the West Side News.
Who wants to ask the first question?

Robert G. CLEVELAND:- Mr. Deleuw, you have emphasized the value of superhighways to the motorist. Will you please tell us what their effect will be upon the neighborhoods through which they pass? Will they help or hurt local business interest?

D:- The effect, Mr. Cleveland, will depend upon the character of the district themselves, and upon the type of highway. In the residential areas superhighways of the boulevards type will benefit adjacent property values and the business of local merchants, first by attracting people to become residents of such district; and second, because the superhighways will provide better access to such areas.

Leo A. LERNER:- Mr. Mc Lennan, I should like to correct any impression that our listeners might gain from your remarks to the effect that there are elevated superhighways running through the center of New York City. Actually there is only one elevated superhighway in the city itself; the others are all outside the city. Am I not right?

MC L:- The elevated highways to which you refer, Mr. Lerner, extends from Canal Street to 72nd Street on Manhattan Island. Manhattan Borough is only one of the five boroughs comprising the city of New York, and the two hundred miles of superhighway which have been built there are mostly within the boundaries of New York City. As the matter of fact, there are miles of superhighways of the parkway type in Manhattan Borough, as well as in the Bronx, Queens and Brooklyn. Most of New York's superhighways are of the parkway type, where cross traffic is carried over the express thoroughfare.

Leonard SERDIUK:- Mr. Young, in New York City they have placed speed limits of 35 miles an hour on the elevated highway within the city, and 45 miles per hour outside the city. Now, then, can you say that superhighways provide faster speed than most of us now drive at an ordinary city streets?

Y:-Greater speeds are possible because intersectional, marginal, medial and internal dangers are greatly minimized, or entirely removed; and because there are no pedestrians on the super-

highways. Furthermore, numerous speed tests made in Chicago show many vehicles traveling at over-all speeds as low as 15 to 20 miles an hour, so that uninterrupted travel on grade-separated roadways at 40 miles an hour will more than double existing over-all speeds.

Walter J. KELLY:- Mr. Deleuw, you said that if we use 50 per cent of the total gas tax for superhighways, the city and county engineers believe that there will be enough money left for normal paving program. If that is so, it would seem to me that we have been collecting a bigger gas tax than we have any real need for. Is that case?

D:- You may be right, Mr. Kelly. Highway revenues which have been diverted from their original purpose to meet relief and school deficits during the past few years will be more than sufficient finance the city's share of the present program.

L:- Mr. Mc Lennan, the currents issue of fortune contains an article which says that New York City has discovered that it was a mistake to build skyscrapers. As a realtor on Chicago's northwest side, would you say that it might be possible that loop property owners are advocating superhighways in order to bring people to the loop to protect their skyscraper investments?

MC L:- Well, Mr. Lerner, I did not happen to read that article, and I am not prepared to discuss whether or not New York made a mistake in building skyscrapers. With regard to the situation in Chicago, however, I do want to point out that all metropolitan communities must have a central business district, and that invariably all roads lead to such center. It is just plain common sense to improve the arteries leading to and from that center; for, after all, the heart of a city is just like the heart of a person; that is, the thing which sustains life throughout the whole body.

C:- Mr. Young, a railroad or a wide street through a community acts as a barrier, dividing what would otherwise be a unified neighborhood into two sections. Why will this not also be true of a superhighway?

Y:- The superhighway need not be a barrier, Mr. Cleveland. You may be sure that superhighways planners will provide adequate and convenient crossing in connection with all superhighways. Generally speaking, wide ground-level streets should have center islands and stop-and-go signals like our boulevards. Grade separations structures should have ample provision for cross traffic both vehicular and pedestrian. The feeling of neighborhood separation is due to the lack of adequate crossing of this kind ant to the poor lighting of most viaducts.

S:- Mr. Young, under the spokes-and-hub plan, a motorist at the Municipal Airport, wishing to reach the northwest side, would have to travel to the loop hub and swing around to the northwest spoke in order to reach his destination. Would it not be more practical to plan north-south superhighway through the center of the west side, for the traffic which is so heavy on streets like Kedzie, Western and Ashland Avenue?

Y:- Superhighways, I am sure you will agree, should first be built where they will serve the most pressing counts that have been made in Chicago show a heavy concentration of traffic on streets leading to the central area. The spokes-and-hub plan, therefore, will serve the greatest volume of through traffic, attention should next be given to routes such as you have mentioned, that will serve as by-pass routes for intracity traffic.

K:- In your opinion as a real estate man, Mr Mc Lennan, may I ask you what effect you think an elevated superhighway would have on adjacent property values? Are you familiar with the situation in New York City?

MC L:- I am more or less familiar with it Mr. Kelly. So far as New York's parkways are concerned, their own reports show the influence on real estate valued has, on the whole, been beneficial. I believe that the opening of wide, landscaped superhighways through densely built up blighted areas cannot help but result in benefits similar to those that have been experienced along most of our own wide boulevards.

C:- Mr. Deleuw, you and the other speakers have emphasized the safety feature of superhighways. You do not mean I take it, that all possible danger is absent?

D:- Of course not, Mr. Cleveland. A superhighway, by eliminating cross traffic, automatically eliminates all cross traffic accidents. Accidents to pedestrians are made impossible, because pedestrian do not use the superhighways. By eliminating left-hand turns, accidents due to this cause disappear. By providing a physical division between lanes of traffic in opposite directions, head-on collisions are prevented. In other words, superhighways remove the cause of the greater number of the traffic accidents which occur today.

S:- Mr. Young, you said access to and from the superhighways would be at half-mile intervals. In fairness to the local business and the fellow who pays the gas tax, I think there should be an entrance and exit to the superhighway at every block.

Y:- The primary object in building superhighways, Mr. Serdiuk, is to separate the heavy streams of through traffic form all local vehicular and pedestrian traffic. If entrances are provided to these express roadways at every block, the purpose of the improvement would be defeated. Experience in the use of our Outer Drive has proved that entrances about a half-mile apart, when supplemented by marginal service drives, provide adequately for vehicles entering or leaving. More frequent spacing would seriously hamper the flow of traffic, and defeat the very thing we are trying to achieve.

L:- Mr. Deleuw, what evidence do you have to substantiate the statement that superhighways are safer than ordinary streets?

D:- Analysis of accidents occurring on ordinary streets and boulevards shows a ratio of approximately 100.000 car-miles per accident. When compared to those occurring on the new Outer Drive, this ratio is increased to more than a million. Applying these ratios to estimated traffic over the initial superhighways indicates a saving of more than eighty fatal accident per annum.

K:- *Mr. Mc Lennan, as a dealer in real estate, do you feel that superhighways which close off certain streets-dead-ends hem as it were-is a good improvement?*

MC L:- *Yes, Mr. Kelly, I do. First, the streets that will be dead-ended as you call it are minor local streets that play no important part in the general street pattern. Secondly, these streets are not really closed or dead-ended, because they terminate in the service drive or marginal street which is part of the superhighway design. More than that, it is modern practice in real estate development to locate major traffic arteries around the four sides of a neighborhood, and then to stub-end the minor street within the district in order to keep through-bound traffic entirely outside the area. There is no good reason why every single street should be open continuously from one end of the city to the other. As a matter of fact, comparatively few do extend from city limits to city limits. I am sure the engineers who plan superhighways will not overlook the necessity for preserving the continuity of streets of any importance.*

S:- *Mr. Deleuw, I should like to hear more about the freeway or breathing space you mentioned. It seems to me that considerable property would have to be condemned to provide the beautifully landscaped parkways you mention. Is that the case?*

D:- *Of course, Mr. Serdiuk, it will be necessary to obtain and adequate right-of-way where a boulevard type of superhighway is planned through a residential district. Parkway development, however, is not needed through industrial areas. While superhighways cannot be planned exclusively for the benefit of abutting property, the plans can incorporate all the features which will insure real benefits to these neighborhoods. As a matter of fact, the wide thoroughfares to be opened for superhighways will afford park authorities and housing groups the opportunity to do a wonderful job of coordinated planning which should result in a substantial rejuvenation of the districts now characterized as blighted. That is the very reason we are on the air tonight. It is the ambition back of this entire program of sound development for Chicago to plan together, to the end that housing, real estate and all civic groups may contribute their best thought and so produce a plan of action that gets results.*

K:- *I noticed that in New York, Mr. Young, the famous superhighway along the docks is indeed a splendid thing, but that the moment it reaches the better section of New York at Riverside Drive, it comes down to earth. Is that because a superhighway in a high-class residential district is likely to injure property values?*

Y:- *The main reason for using the ground level along Riverside Drive is, first, that it conforms to the terrain; and second, because traffic conditions are entirely different there from what they are in the locality in which the elevated section has been built. In this latter section there is a teeming commercial traffic, and it was necessary to provide for free movement on the normal-level street between the docks and adjacent buildings.*

L:- *Mr. Mc Lennan, is there not a tendency toward decentralization in Chicago? Instead of building superhighways that lead from suburbs to the loop, should we not try to figure out an intercommunity transportation system, such as the one-way street system that they have in New York City?*

MC L:- *May I say, Mr. Lerner that superhighways are not advanced as the one and only solution to Chicago's street traffic problem. They are only part of the answer. Other highway improvements will have to be made, and among them I know that full considerations will be given to intercommunity transportation and to the one-way street idea. However, one-way streets will not do as a substitute for superhighways, because they serve an entirely different purpose. Superhighways are express routes for through traffic. One-way streets are purely a local traffic facility and have no element of express service.*

C:- *Mr. Young, how do you purpose to get away from the bad effects of elevated structures like our rapid transit and the steam railroad embankments? Neither of these adds to the value of adjacent property or to business, even with the breathing spaces that have been mentioned, how can we be sure that an elevated structure will not encourage the spread of blight? What precedents have we to go by?*

Y:- *New York City, Mr, Cleveland, contains several precedents. Queen Boulevard, for example, is some 200 feet wide and has an elevated rapid transit line down its center. It runs through fine residential and local business districts. So far as property values are concerned, we have ample evidence also that property along the parkways in Greater New York has increased in value several times over what it formerly was worth.*

K:- *It is my impression, Mr. Young, that only a small percentage of Chicago's entire motor traffic enters and leaves the central business district. Why, then build superhighways radiating outwards from the loop?*

Y:- *Your statement as to the proportion of traffic reaching the downtown district is not entirely correct, Mr. Kelly. As a matter of fact, the major part of all incoming traffic enters Chicago's central business district. The points of maximum flow on our existing major street systems-at least on the west side-are about two miles from State and Madison Streets. While there is heavy cross-town traffic, the predominant movements are radial; and, therefore, the initial superhighway system provides for this more urgent need. There is no question of the ultimate necessity for providing suitable grade-separated facilities for cross-town traffic at some distance north, west and south of the central business district.*

L:- *Mr. Mc Lennan, may I ask you if trucks and passenger buses will have access to the superhighways? I have heard the term "skyline racetrack", applied to New York's superhighways so often that I wonder if our superhighways will be speedways?*

MC L:- *Speeds of 100 miles an hour have been frequently advocated by traffic experts with a craze for publicity. But it should be made entirely clear that no such speedways will be built in Chicago. Vehicles will travel at safe and sane speeds. The superhighways are planned to carry bus loads and buses may be operated wherever the location of these thoroughfares is such as to fit in with the city's plans for extensions of the present rapid-transit express bus service.*

Conferencia: *"The New Highways: Challenge to the Metropolitan Region"*
Conocida como *"Hartford Conference"*
Documento de presentación para la conferencia.
Septiembre de 1957

Portada y páginas 16 a 23
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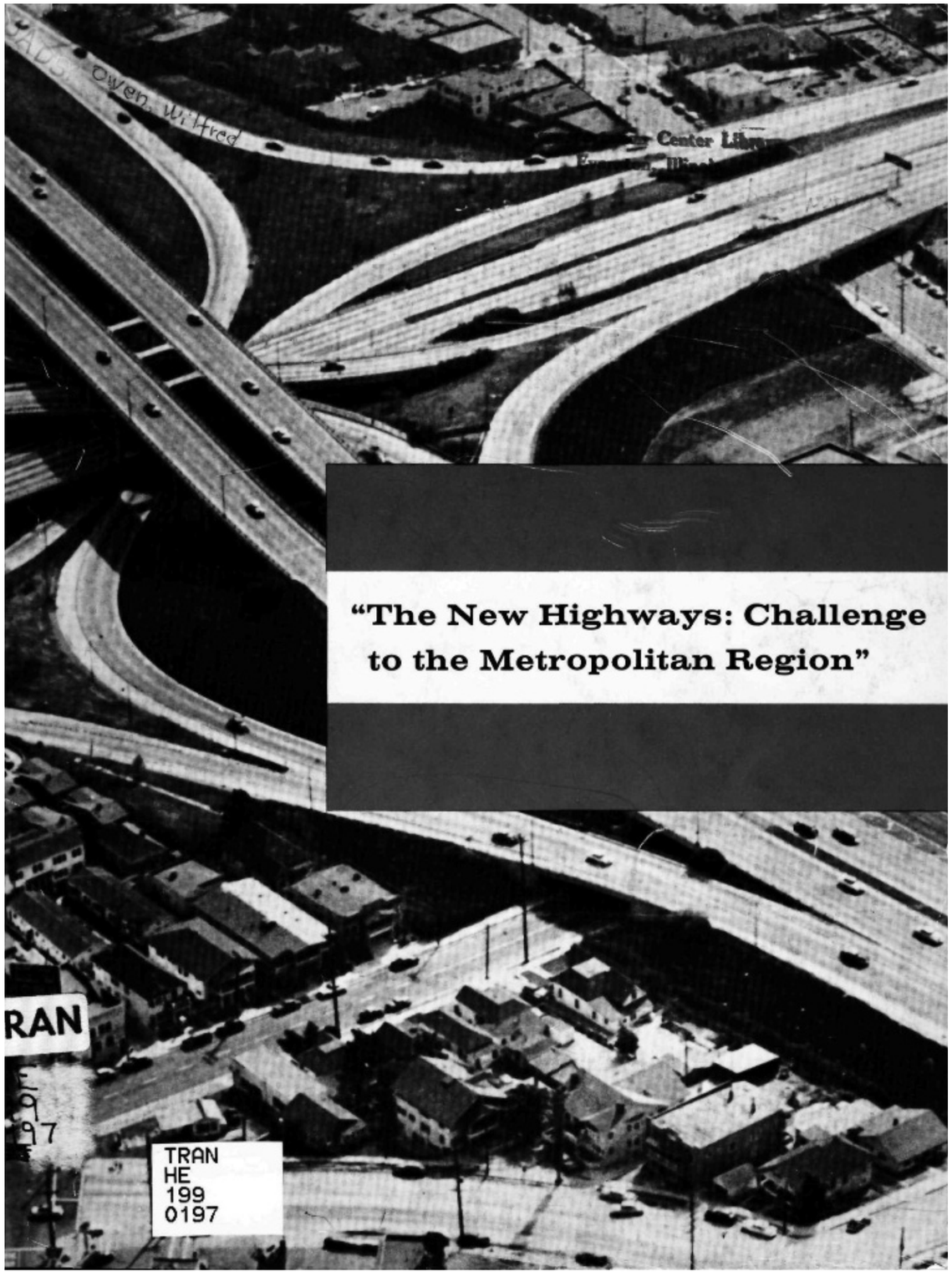

PHILADELPHIA'S PENN CENTER

In Philadelphia the new Penn Center is rising on the site once occupied by railroad yards and the Broad Street station. Units of the Center include office buildings, a hotel, and a transportation depot for air and bus passengers. A sunken pedestrian plaza one level below the street will be open to the sky, and will connect with numerous shops, railroad and subway stations, and underground parking directly accessible to the expressway system.

Penn Center will have underground distribution of goods to shops and buildings, and will reserve a large percentage of ground area for open space.

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IN THE TYPICAL *American city, 30 to 40 per cent of all available space is devoted to transport—railroads, terminals, parking areas, and streets. The new highways will add enormously to this use of urban land. They will have to be designed and located to assure maximum conservation of limited land resources and to promote the most effective use of adjacent properties.*

Photograph by Standard Oil Company of New Jersey

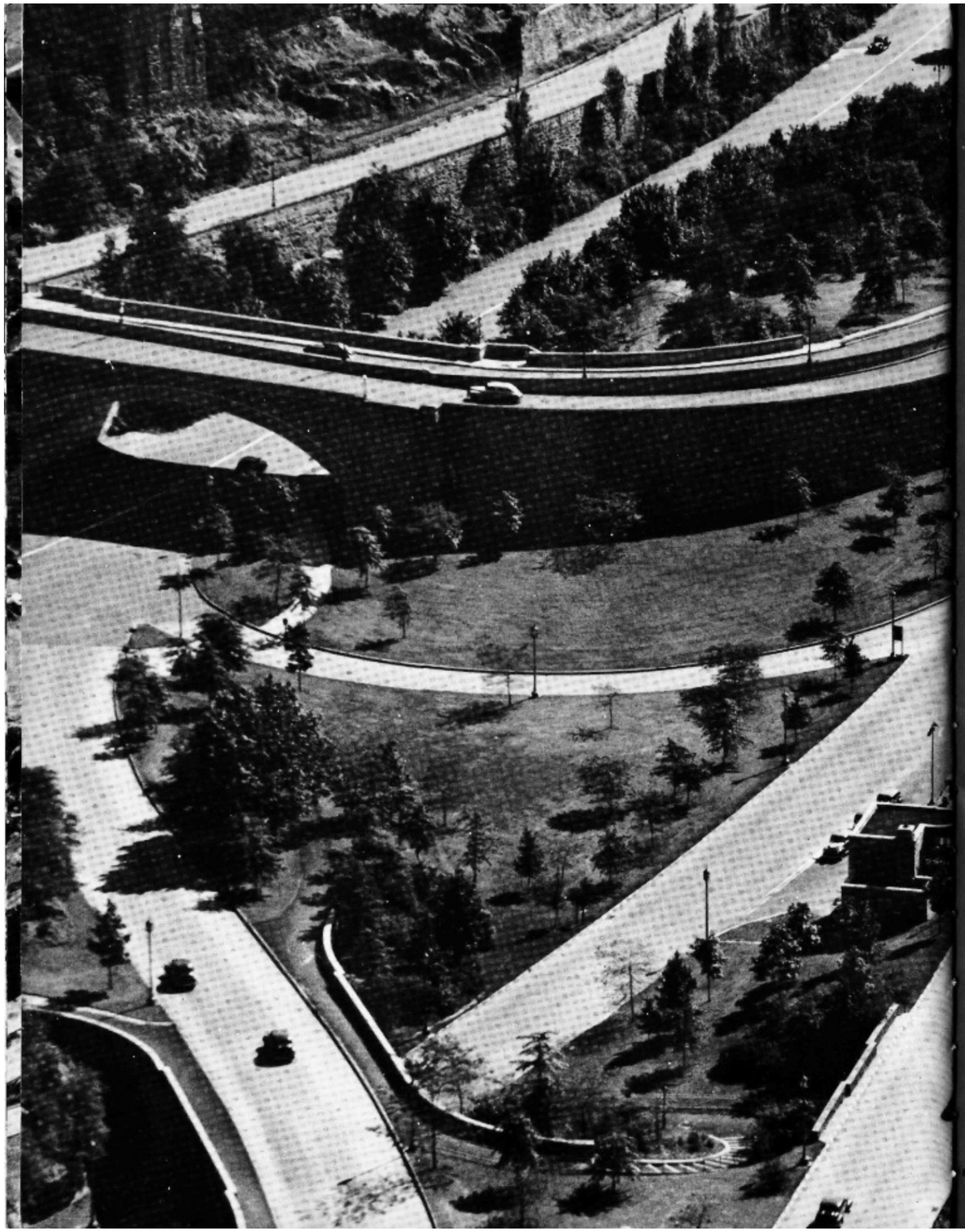
The motor vehicle that should have helped to free the city has helped to destroy it. We have failed to adjust to the automotive age and have frequently surrendered to it instead. Obsolete streets are jammed with traffic and lined with parked cars and trucks. Pedestrians have all but lost their rights. The accident toll is a national disgrace. The noise and fumes of traffic have downgraded large areas of the city. Along the streets and highways, gas stations, used car lots, auto graveyards, hot dog stands, and billboards often mark the beginnings of uncontrolled blight.

Even if the highway program succeeded in relieving traffic congestion, this result by itself would have to be considered a failure. An expressway system that simply moves us more expeditiously through areas of urban decay would miss the mark. We need better transportation, but we also want better cities. Whether or not we will have the vision and the courage to insist on both is the multi-billion dollar question that the highway program poses for urban America.

THE KEY: LAND USE PLANNING

The first step in transportation planning, then, is land use planning. The big hope for moving around in urban areas is to move the urban areas themselves around. We will have to attack the congestion of moving by overcoming the congestion of living. Metropolitan mobility depends on regional planning that creates a more orderly arrangement of urban living and working. New communities will have to be built and old ones rebuilt in a way that makes it possible for people who live in them to move in them.

The highway program, combined with urban renewal, is offering us the chance. Transportation problems could be alleviated if cities would restore close-in areas and make them fit to live in. It might be possible to reduce the volume and concentration of home-to-work travel if residential areas and places of work were made more compatible. The new high-



BACK BAY BOSTON

The 28-acre Back Bay Redevelopment of Boston will transform a railroad yard into a major new center for working, living, and entertainment. Included will be a retail center to serve 70,000 shoppers, a hotel, convention hall, theatres, and office building.

For transportation there will be a railroad station with connecting underground passages to all parts of the Center, as well as 5,000 underground parking spaces and direct access to the new Massachusetts Turnpike.

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LARGE AREAS *of the metropolis are being cleared to provide rights-of-way for elaborate urban expressways. Selection of new highway routes can help to unify rather than disrupt neighborhoods and to open up areas of blight and decay for renewal.*

Photograph by Standard Oil Company of New Jersey

ways can make feasible the establishment of new employment centers beyond the radius of maximum congestion. They may also help to compensate for congested living if the acquisition of rights-of-way can be combined with land purchase for badly needed park and recreation space.

The job cannot be accomplished overnight, but it can and must be started now. Consider that in the next decade, with or without plans, we will be building and rebuilding urban facilities equivalent to 50 cities the size of Boston, simply to provide for urban growth and replacement. The longer we discount the possibilities of planning a better urban environment, the more staggering will be the task when we finally realize that there is no other choice.

There are many questions that will have to be answered. For example, should a community set specific limits on total population to balance growth potentials with acceptable standards of living? What densities of population are to be permitted? What space and locations should be devoted to residential, industrial, and commercial uses, and to parks, schools, and public buildings? What are the traffic-generating characteristics of these different uses of land?

To what extent should centers of employment be moved out to reduce the influx of commuters and to make room for more appropriate uses of close-in land? What activities are most desirable for downtown locations?

How can we accomplish and effectuate for the entire metropolitan region the comprehensive land use plans that are the indispensable basis for better communities and better transportation?

Can we provide open space within the urbanized area to help balance the traffic generation of developed land? Would it be possible to reserve closely situated land for agricultural and recreational uses and at the same time to establish limits to urban sprawl? Is it feasible in this way to control the area of urbanization, to insulate one community from another, and to keep open country accessible for urban dwellers?

CHICAGO

Chicago has declared war on its slums by designating 50 square miles of conservation areas for redesign and renewal in accordance with the city's comprehensive plans. More than half of all residents of Chicago will be affected.

In the 151-acre Fort Dearborn project, provision will be made for a 62-acre government administration center, a 33-acre downtown campus for the University of Illinois, 5,000 skyscraper apartments, and off-street parking for 6,000 cars.

THE LOCATION *and design of major expressways in urban areas provide the skeleton of the giant metropolis.*

The vastness of our country has led us to the mistaken belief that land is plentiful and its conservation unimportant. But will land of the desired quality be accessible to our predominantly urban population if metropolitan sprawl continues at present rates? Should nearby open space be allowed to disappear when it is so badly needed to break the urban monotony?

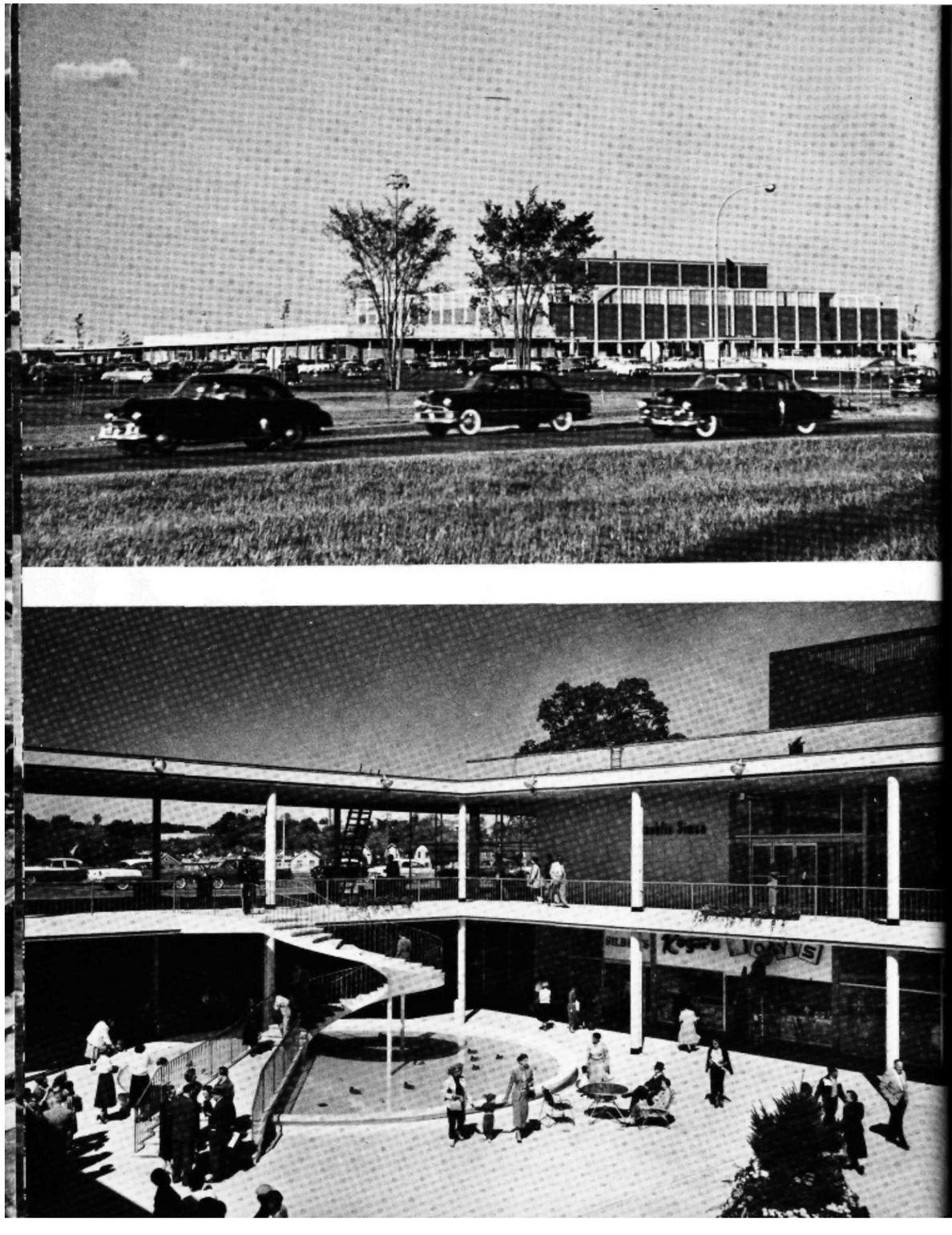
These are questions that we know too little about, primarily because they are seldom asked. We must learn the answers as quickly as possible because without a reasonable land use plan there can be no lasting transport solutions. Good transportation, as well as good housing, education, recreation, and other services, depend on a reasonable balance between the availability of facilities and the demands imposed on them.

HIGHWAYS AND THE COMMUNITY

Fortunately, the highway program itself can help to achieve the environment that is essential to its success. Highways are, in fact, one of the most potent tools of the planner.

The highway system forms the skeleton of the giant metropolis. In addition to providing circulation, it can delineate areas of different functions, serve as buffers for residential neighborhoods, and consolidate areas of related land use. Land acquisition for new highways needs to be combined with land assembly for a variety of public purposes as well as for planned industrial areas and shopping centers.

Highways can be landscaped to add beauty to the surrounding area instead of contributing to blight. Redesign of urban road systems can eliminate ineffective gridiron streets, making land available for more appropriate uses. Roads built through areas of urban decay can provide the means of clearing out obsolete sections of the city and razing substandard buildings.



FORT WORTH

Fort Worth's businessmen are re-doing 300 acres of downtown. Obsolete and blighted property will be removed. Vehicle traffic will be cleared off the streets by a belt parkway feeding into huge perimeter parking areas that will put everything within a six-minute walk for the motorist. Unproductive streets will be converted to pedestrian malls, walkways, courts, gardens, and modern shopping centers. Underground roads will provide for truck delivery. The new downtown will be designed to provide the structures and services that fulfill the objectives of a central core.

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PREOCCUPATION *with the problems of traffic on wheels has led to the neglect of traffic on foot. Yet consideration of pedestrians' needs could greatly enhance the desirability of urban living. The new highways must separate vehicular and pedestrian traffic and encourage the development of commercial facilities free from the hazards of motor vehicle movement.*

Photograph by Ben Schnall

The new highway program, as it now stands, may wind up attacking the transportation problem in a vacuum. It is isolated by law from the rest of the transportation system and from the urban area it is designed to serve. Under these circumstances a multi-billion-dollar investment in highways may actually intensify rather than alleviate the difficulties of the metropolis. The result may be to compound rather than relieve congestion, and to retard the development of better communities rather than seize upon the opportunity for real accomplishment.

The controlling principle for the highway program must be an improved urban environment. At times this will necessitate new rights-of-way because there is no existing route to follow. In such cases the new route can be designed to eradicate slums and blighted sections. But in many instances the alternative will be offered of rebuilding along existing roadways, and this will often be the best course from the standpoint of community development, despite higher right-of-way costs.

It would be a mistake to allow road costs alone to dictate highway policy when there are the possibilities of combining roadbuilding and renewal to achieve the most economical total program.

In some cases, then, the highway program can make a frontal attack on roadside blight by retaining and widening existing rights-of-way and thus eliminating unsightly development. In other cases new rights-of-way may be obtained through areas destined for ultimate renewal in any event. The objective in either case would be to restore wherever possible an environment in which transportation, commercial enterprises, and residential areas all can prosper.

This attack on traffic congestion and urban blight can be accomplished through a joint highway-urban renewal program designed to achieve both objectives simultaneously. What appears to be extravagance when viewed solely as a highway project may become economical in terms of transportation and urban renewal combined. The cost of eradicating blight is not avoided by ignoring the problem, but only postponed.

Conferencia: *"The New Highways: Challenge to the Metropolitan Region"*
Conocida como *"Hartford Conference"*
Ponencia de Bertram D. Tallamy, Federal Highway Administrator
9 de Septiembre de 1957

Transcripción de la conferencia.
Páginas 1, 2 y 5.
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"HIGHWAYS TO THE FUTURE"

Remarks of Federal Highway Administrator
Bertram D. Tallamy before the Symposium
sponsored by the Connecticut General Life
Insurance Company, Hartford, Connecticut,
September 9, 1957.

At a gathering in Washington recently I was in the company of a veteran government official. During the party he was introduced to a visitor who turned out to be from his home city. After the usual greetings, the oldtimer asked the visitor:

"Well, Frank, how's the old home town?"

The visitor replied:

"You know, Charlie, she ain't what she used to be."

Now, gentlemen, that could be taken two ways, depending upon the inflection of his voice. It could mean that the old town was run down at the heels, or it could mean that the old town is a thriving, busy place of progressive activity. Or it could mean that there are warrens of congestion, confused new development, and spotted areas of spreading blight. Or it could mean just the opposite. He could have implied that the city is now a virile metropolitan area with prosperous stores, new office buildings, and expanded or remodeled industrial plants with residential areas clean and well painted. Fine new apartment houses could have sprung up like magic.

New expressways could have been developed and be under construction, thus relieving traffic congestion on regular city streets so they can properly perform the service to the community they were originally built to carry out.

These new private and public developments could have been carried out in accordance with a reasonable plan of city and regional expansion and development. They surely would have been integrated with adequate parking facilities and probably a new and more efficient traffic control pattern on the city streets.

Everything could be hustle and bustle, with new hotels, a convention hall, and countless other facilities to serve the profitable out-of-town recreational and business visitors.

It surely is a big difference to which: "She ain't what she used to be," could apply. Yet, I am sure we have all seen such comparisons

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many times. The deteriorating values are probably caused by indifference on the part of the majority of community leaders, as compared with the enthusiastic pride in the home town by the majority of business, labor, industry, and public officials in the thriving community. Real progress is brought about by men determined to make their city the best of its neighbors.

Public officials can work themselves to a frazzle, but without success, if they do not have that type of inspired help. On the other hand, with it we have the chance of a century to make our cities sparkle brightly among our Nation's brilliant collection of really wonderful cities, as compared with the overwhelming majority of those in the rest of the world. As I see it, this help can come from trade organizations, labor groups, financial leaders, and government officials, working together for a common purpose.

With this help, the chance of a century comes from a combination of many things, one of which is a growing awareness on the part of most of our citizens that we all have to pitch in and work cooperatively, boldly, and with dispatch to redevelop any of our obsolescent urban areas. With such bold public backing, we can accomplish much, especially now with the tools made available to us. Housing and urban redevelopment, through public and private agencies, are now available. Public and private parking authorities and agencies are active in many cities and with a little work could become available to others. Self-liquidating or partially self-liquidating projects, such as convention halls, bridges and tunnels, airports, recreational and other facilities are helping many cities to advance.

But probably the greatest single tool of all is the new Federal Highway Program, recommended by President Eisenhower and implemented by the 84th Congress in 1956.

A key portion of this program is the National System of Interstate and Defense Highways, estimated at that time to cost about 28 billion dollars. The opportunity for cities in this program is that more than 1/2 of this money will be spent in and around urban areas for the construction of some 6,700 miles of arterial highways which with other Federal funds will make about 16 billion dollars available for urban area highway improvement.

Basically, a great many problems of the urban area stem from totally inadequate transportation facilities. Leveling of property valuations and in many specific areas actual falling off of such values in the face of increased municipal demands on the part of the public, are tough problems. The acceleration of obsolescence of buildings of all types and the spread of blight are others. These, of course, are forerunners of the tax base problem. The slow increase in business in downtown areas and in some cases, the actual falling off of business is a real headache, not only to the owners, but to the city executives. For instance, the U. S. Department of Commerce surveyed this situation recently and found that in 45 large metropolitan areas, retail store sales rose 32.3 percent between 1948 and 1955, but sales in the downtown areas increased only 1.6 percent.

construction progress. Many times I have seen sound, down-to-earth, highly beneficial programs halted because minority but very vocal support went to other plans which will never do anything but collect dust on shelves because of impractical costs and effects, or which will be used only as a tool by opponents to block projects that should and could go ahead.

In my opinion, this wonderful highway tool now available can only be used with maximum success by a strong leadership combining great vision and horse sense, determination, and courage.

A fine start has been made on the program. Since passage of the Act in 1956 some 1780 miles of Interstate System have been placed under construction contract involving a cost of some 775 million dollars in Federal aid. In addition, there has been obligated 552 million dollars for design and purchase of right-of-way. In spite of its importance, however, I'm sure you will be pleased to know that it is being advanced at a maximum rate without hindering the progress of other highway programs.

Last fiscal year, for example, some 827 million dollars was obligated for the regular Federal-aid highway system involving the construction and reconstruction of 24,000 miles of highways and city streets.

The Interstate System, of course, and a large percentage of the city construction of our Federal-aid program are built on the express highway principle. We have all come to recognize the fate of the other type of arterial highways built in our suburbs in recent years. High traffic volume and capacity for a while attracted commercial enterprises and residences. However, with many private driveways interfering with the safe flow of traffic, there were soon red lights, congestion, accidents, and fatalities. The new road became obsolete and dangerous long before it wore out. All too frequently, the marginal properties declined in value, violated all standards of beauty, and often depressed the values in the entire neighborhoods. Hundreds of millions of dollars would have been more profitably spent in recent years, if there had not been a futile attempt to make the arterial highways serve the dual purpose of moving traffic and providing access to individual properties.

These functions cannot be supplied adequately by the same arterial highway. Expressways, to be sure, do provide service to land and properties, but they do this indirectly, so that their capacity and safety as carriers of traffic are not impaired. In brief, the freeway is the first type of road engineered to meet the critical need of our cities for streets capable of large volume, high speed, and safe travel. It really matches the street to the automobile.

Our Bureau studies also show that freeways are twice as safe as city streets in terms of fatalities and five times as safe in terms of accidents. Generally speaking, the cities with the greatest mileage of expressways and the longest experience in their operation have the best safety records.

Under favorable conditions the conventional city street can

Conferencia: *"The New Highways: Challenge to the Metropolitan Region"*
Conocida como *"Hartford Conference"*
Ponencia de cierre de la conferencia a cargo de Lewis Mumford
11 de Septiembre de 1957

Transcripción de la conferencia
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September 11, 1957

ADDRESS OF LEWIS MUMFORD
CONNECTICUT GENERAL LIFE INSURANCE CO.

MR. LEWIS MUMFORD:

Mr. Chairman, President Wilde, Ladies and Gentlemen: I have been given the task of bringing part of this conference to a close. I am afraid that if I had performed all my duties in the manner that Mr. Colean has just described, I would not have a single rational thought left in my head. So I assure you from the beginning that I got as much sleep as possible and as much time to digest the ideas that I could grasp that is necessary.

I attended as co-chairman the Wenner-gren Conference on man's role in changing the face of the earth a couple of years ago at Princeton and I seem to have been asleep since then and wakened up with the same job on my hands, in the same conference. Because the things that we have been discussing these last two days have had to do with man's role in changing the face of the earth and making it either more or less unfit for human habitation.

The job that was given to me is one that I was reluctant or at least a little coy about taking on because in one sense it is an impossibility to sum up in any order the meeting and clash of so many diverse and able minds, and that would be particularly true if one took the task too seriously and attempted to listen to every word and then immediately after, not after a week's reflection, try to bring it together.

So I was under a cowardly temptation up to a few days ago to write out my thoughts without any reference to what went on. (Laughter) And I am very happy, very happy indeed that I did not succumb to that temptation. Because the fact is that my job is easier than I thought it would be. And one of the reasons is that the conference has been impressively good in being aware of the issues and of bringing some of the difficult points to light.

And since as a writer, a man who has had nothing to do with any part of the business world except that my publishers preside over, I must say that I have been enormously pleased and encouraged, as have many of the planners and administrators that I have talked to, at the quality of mind the business men of this conference have shown. They are the people who will have to execute far more than planners anything that will partake of the nature of a thorough replanning of our environment, something that is now very badly overdue. They will sign the checks, one way or the other. They will provide the executive ability. They will see that the planners are called into existence and will get to work. And the fact that they are stirred, the fact that their remarks were so sensible I regard as one of the happiest auguries of the subject we are discussing.

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This conference, then, has made my task easier already, or a little easier, and in one sense I can sum up some of the sense of this meeting, the common sense, the inner communion that this conference has produced, the sort of thing that a good Quaker would recognize after a little meditation.

And, first of all, of course, I can express our sense of gratitude and of elation over the very bringing of us together by Mr. Wilde and his fellow officers at Connecticut General. This is itself a remarkable exercise of the human imagination, human discretion taking the initiative to bring together a large body of people from every part of this country to discuss an issue which only moderately concerns the Connecticut General as an independent corporation but which is of immense importance to the entire commonwealth. And in doing that they have created in this hall an intellectual center for Hartford and for the nation which shows that they recognize, even though they have retreated a little from the country, they recognize the true function of the city which is to bring together within a limited space, a limited space -- mark you, you advocates of limitless suburbia -- bringing together within a limited space a diverse and varied group of people so by their meeting and clashing and cooperating they will achieve results in their own minds and in their future activities that they could not possibly have achieved alone.

This function is the essential function of the city. Every other activity in the city can be performed anywhere in the open country today. There is not a single function that cannot be performed elsewhere. But the function of bringing the various aspects of human life together within a field of action which has the effect of the theater and focusing of plot and the purpose of the people who are cooperating, that is the function of the city and it cannot be produced by any other means that have so far been brought to life.

Mark this function because unless you understand its significance you cannot really understand what the next step is in the rehabilitation of our cities. The organizing, directing and unifying activities of the city are traditionally in history from the time the first cities were founded in the late Stone Age. That is the thing we must recover if we are going to have anything like urban renewal.

Urban renewal is not merely a matter of putting highways in such a position that they will foster new shopping centers within the metropolitan area, although that may be one of the things that will incidentally be gotten if we have urban renewal on any scale. And the very fact that the Connecticut General brought us together for this meeting shows that there is an underlying anxiety about the very occasion for it -- the Federal highways program. If we were assured that everything was going smoothly and well, that we had only to vote the money and the results would come out at the other end, the way they might come out of an automatic machine, there would be no purpose in our meeting here these last couple of days,

But we have good reason to be anxious. The first day of the conference a rumor floated around -- you know how wild rumors always float around at a conference -- that the Federal Highway Administrator and the Federal Housing Administrator were meeting under this roof for the first time. The two people most concerned in a public program for highways were meeting under this roof for the first time.

And then as always happens with this kind of rumor, it was corrected presently. By nightfall we realized that they already had met the day before at a Mayor's conference. (Laughter). That didn't altogether allay our anexity. It was succeeded by a third rumor that they had actually met at a cocktail party three weeks before.

We have reason in spite of all these corrections to be frightened at the complete absence of any notion of what real coordination amounts to when undertaking a job of this character.

It seems obvious, if you will let me say very rudely something that only a man with no public position and no commitments can dare to say, -- it seems very obvious that neither of these administrators had the slightest notion of what they were doing. If they had they would have gotten together a long time ago as one of the very first steps in their own planning operations. If they had really any notion of what they were doing, they would not appear as blithe and cocky over the way they were doing it as they actually appeared the other night as we listened to it.

Don't think for a moment that any blame attaches to the individual persons -- men undoubtedly of high character and great ability in their own narrow line of thinking and of acting. (Laughter)

The real blame for their behavior lies with the kind of commission they got from Congress and that in turn, the legislation that brought at least the highway program into existence was based on a very insufficient study that got its ligislation passed through Congress on a dubious pretext. The study was a study of highways, not a study of the real problems, the study of transportation in our country, and the reason it was jammed through Congress so blithely and lightly was partly because we Americans have an almost automatic inclination to favor anything that seems to give added attraction to the second mistress that exists in every household right alongside the wife -- the motor car.

The real reason advanced for a national highways program was that this was a necessary part of our defense program. That is what has put it through and that reason was a pretext. It was nonsense. It is about time we understood the fact that every high school student knows today: That there is no defense against total extermination in nuclear warfare, no defense except peace. (Applause)

There is no reason to multiply the highways to take us out of our threatened cities if they just go into another threatened area, and even if they succeed in reaching that threatened area, if the difference between life and death is the difference between sudden extermination, which has rather happy features, and gradual extermination through the pollution of the air and the water supply, with universal cancer and leukemia. Let us not stupify ourselves by the pretense that there is any defense, that the highways would serve a part.

Then, if we get that settled in our own minds, let us ask the question -- let us look this gift horse in the mouth -- let us decide whether it is really a young racing horse, ready for new conquests or an old nag that is ready for the slaughterhouse.

Why do we have this 26 - or 28 billion-dollar highway program?

Highways are only a part of the entire transportation network -- travel by air, travel via railroad, travel by multi-purpose avenues in every city -- and finally pedestrian travel. All these are essential parts of the problem of transportation.

Most of us are pretty well assured by now that the problem of maintaining the core city in a state of health, in a state of stability, rests on the restoring of the pedestrian scale of distances to the interior of the city, of making it possible for the pedestrian to exist, making it possible in the way that they have done in various cities where there are shopping centers. I saw a very handsome and adroitly planned shopping center in Rotterdam last June, with wide spaces, attractive spaces, with gardens and trees for the shopper to loiter under as he walks about and succumbs to the seduction of the shopping.

I was a little surprised that no one here -- at least while I was listening or awake -- brought forth the very obvious criticism of this whole national highway plan and that is that it will probably strike a mortal blow against our railroad system by giving the transcontinental trucker freeways and subsidies that he could never fully enjoy before.

Are we so eager to destroy an efficient mode of transportation that has made its own mistakes in the past, that has undoubtedly shown unnecessary technological conservatism, but are we willing to destroy the system just to build up a national network of trucking transportation, with no prospective gain of efficiency or speed or economy, or anything else that is worth having except profits to the trucking corporations?

This willingness to just write off an immense capital investment seems to me very bad business -- if I may speak as a non-business man. Certainly, I could not conduct my own business of writing with that degree of recklessness.

It also involves a certain lack of appreciation of the fact that our major highway systems are now repeating most of the mistakes that were made by the railway -- piling into the heart of the city, smashing through houses and buildings, recklessly tearing up space, creating clover leaves instead of marshalling yards and freight yards; nevertheless repeating, as if they did not know that the railroad had once existed, all the mistakes that were made in the reilroad era.

We are faced, it is fairly obvious to me, with the blunders of one-dimensional thinking, of thinking very expertly about a single characteristic, a single feature that we are interested in, and forgetting the realties that surround us.

I suppose it was partly for this reason that I, a journalist rather than a specialist, was invited to this conference to perform a complementary role to that of a specialist.

As Clemenceau said of war, it is too important to be left to the experts and the specialists; so I suppose one should say of highway planning. One-dimensional thinking will be ruinous, no matter how expertly it is conceived and how carefully it is carried out.

Now, again, this one-dimensional thinking is not only that of the highway expert or of the people who manufacture motor cars. The American people have turned to one-dimensional thinking in a fashion that will subvert their common sense in a short while.

Emerson wrote a wonderful line -- Give all to love. But the American people have recently changed that line. They say "Give all to the motor car. There is plenty of public sanction to that superstition.

When I was a boy we used to sing those touching lines in America -- "We love our rocks and rills, We love our templed hills." Now we love our expressways and parking lots, big clover leaves and traffic knots, and the face of America is changing as a result of this inordinate passion for our mechanical mistress, because instead of planning motor cars and motorways to fit our life, we are rapidly planning our life in order to fit the motor car, which is an acknowledgment that we have no life that is worth living and we had better hang on to something else while we are trying to think up a better way of living and a better purpose for doing so.

Now take the highway bill itself as an agent of planning. What authority or purpose directs this agent? Scan the bill carefully. Listen to the evil discussion of details that we have had at this conference. How often has the authority or purpose that should govern this agent been mentioned?

The reason why is that the answer seemed to most people far too obvious. We want more cars, don't we? More cars at greater speed, more cars and longer cars -- I accept the Detroit emendation, more cars and longer cars to make parking more difficult -- at greater speed to go ever longer distances. That is the purpose of life, isn't it? That is what we are here for. That is why we were born, why we are given an education, why people come together in cities -- in order to promote the manufacture and distribution and unnecessary use of motor cars.

What happens to the land itself under this program, the land that is chopped up into a thousand unusable fragments that will never recover their pristine glory, will never get back their woods and their natural features once they have been covered by the suburban fall-out (laughter) -- that fall-out that comes from the metropolitan explosion that has been taking place in our towns.

What happens to the land? What happens to the cities? What happens to the recreation areas? What happens to the everyday life of people in our cities? It is expended. We don't care what happens to it so long as our mistress gets her daily due.

It is not very hard to picture the ideal life of the future American. On the new scale of space and time that we discover by going from one metropolitan area that is already thirsty for water to another metropolitan area which is threatened with premature death by the same means, it is not hard to picture the new six-hour day -- six hours in the motor car getting back and forth to work (laughter) -- six hours watching an automatic machine perform the functions of working and thinking, watching this operation, waiting for the results, a little like an anxious parent sometimes who hovers over his child, watching and waiting for nature to take its course.

Six hours before a television set, with all the glories and publicities of the metropolis brought right into the home. You do not merely use the soap but you hear about it. You do not merely smoke tobacco but you hear about it. And so on. In other words, the complete regurgitation of the life that you live and the means through which you live it.

And finally, six hours for the rest of life, some part of which has to be devoted to sleep. But when one thinks of the night-marish day that has preceded it, (laughter) sleep is impossible without sleeping pills. Tranquilizers in the daytime, sleeping pills at night, and the ideal life of the future is consummated. (Applause)

Now let us ask a pertinent question. What is the human purpose of the transportation system, the transportation system as a whole, not merely the highway system? It has a very definite human purpose. It is to bring together as and when needed the goods and people that are necessary for the sustenance of life. A simple proposition.

As a result of the transportation being extended and forming an elaborate network, it enormously increases the possibilities of choice -- either by bringing the things you have chosen to your door or enabling you to go more easily toward the places where they are found. Sometimes that involves going right into the heart of the city.

Remember what Mr. Dooley said to Hennessy when he was complaining about the poor quality of food he got in the rural farmhouse on a vacation. Mr. Dooley said, "If you want good food today the place to go is not where it comes from but where they send it to." (Laughter)

So that is one of the functions of transportation.

Then, the other function of good transportation is to lessen the amount of unnecessary transportation to make it possible to have energy for other things than merely moving the human carcass back and forth as it moves so monotonously in the great cities of the Automobile Age, Detroit and Los Angeles; and every city today shows similar characteristics -- just a little purer because they are the products of the Automobile Age in these cities.

Against this notion of transportation which has been really the basic notion of our highway program hitherto, the notion that we must have more cars operating at higher speed, let us recognize the truth of the matter that speed must be adapted to purpose. There are times when 300 miles an hour is too slow to get to a place when needed and there are times when 3 miles an hour is too fast.

Transportation is a main condition of city development. We have had river cities, canal cities, railroad cities, and now we have motor car cities. None of these cities was capable of being what the modern city may yet become because it tended to rely and to overemphasize on a single mode of transportation and in doing so lacked the flexibility, lacked the variety and the choice that it should have had.

Each of these types of cities achieved certain goals of transportation and each of them fell short of greater possibilities.

Now we have a choice between them. Either that or an abject surrender to motorized disorganization for the sake of spreading the suburban fall-out over areas that are still unpolluted.

I thank Carl Feiss for the term "land pollution." There are various other degrading words that one must use to characterize the kind of degraded urban tissue that is growing up around our great metropolitan areas, neither urban nor rural, neither vegetable, animal or mineral -- just one mixed-up Waring Blender kind of community in which nothing has definition, nothing has form and one can scarcely find a reason for preferring one patch of the urban blight to another

patch of the urban blight; cities that in their failure to achieve possibilities today -- I mean, areas which are just as disfiguring in their way as the congested metropolis is in its way.

Or, if we reject the notion of motorized disorganization as the final stage in city development today, we have the task, a great task and a challenging task, of replanning our entire transportation network from the airplane to the pedestrian to make possible the new type of city in which all the advantages in our conquest of space and time which we had achieved through modern technology will be put to the use and service of human life.

This does not merely mean planning better roadways. This means planning and rejuvenating our railroad systems. It means redistributing our population. It means eventually, as I will show -- unless I am choked off by the lunch hour -- it means replanning our entire system of local government.

None of the forces that are creating our highway systems or our cities, whether they are the automatic forces or the ones controlled by the government through the highway program and through the Urban Redevelopment Act, and through our housing authorities -- none of these forces will automatically produce the new city we want.

The old types of city are obsolete. We have the old Stone Age city, which has not really changed in five thousand years; the core of the metropolitan district; that is, that central metropolitan core, as we are agreed, which is holding its own very well. It has not lost population as we might expect it to lose through the great suburban drift. Why not? Because the population has been exploded.

Don't forget that in 1940 every competent statistician, or almost every one, was predicting complete stability of population by 1970. Predicting it with utmost confidence. The shrinkage was going to take place after that.

Now, with equal confidence, with the same sort of recklessness they are predicting the continued explosion of population.

Those of you who are planning the future of cities had better remember what happened. Lengthen your memory a little. We don't know why this explosion took place. I have my own private suspicions but I have no way of backing them up. I think, if you want to know, it was due first to the revolt of the one- and two-child family against the meager family life that they had, so their children are all marrying young. And, second, it was an attempt to compensate for anxiety about the possibility of life's total extermination when the big bang, as the young now call it, actually comes.

Whenever life is threatened, it reproduces and reproduction is going on at a great rate now. But if the threat should be lifted, if the terrible fatal accident of peace should descend upon us, we might have a slowing down of the population, just as rapid as we have had this explosion. Then where are your big plans?

We must leave a little space for flexibility and for free movement in our plan. The old type of city is obsolete but it has very important functions to perform. It cannot retain its original monopoly of power and wealth based upon monopoly of land, monopoly of opportunities and privileges.

Big cities did not grow big merely through the action of nature, although the action of nature always helped, because they were in the right position, but they grew big because the people who governed them, governed life in a big way and reached out to suppress the growth of other cities, as New York suppressed the growth of the cities in the west and in the far west, and to bring to themselves as big a population as possible.

They could no longer monopolize the advantages of life. Why? Because our technology today is one that diffuses these advantages. The radio, the motion picture, the television, the motor road itself are all agents of diffusion, so that what once gathered together in a single point now is available over a large part of a region, and that means that the city must offer -- the big city, the core, the metropolitan core, must offer them to its inhabitants if it wants to keep them. It has to meet suburban competition -- and anybody can meet competition in a market where there are not enough houses and you have to house all of the population decently. Once it faces the problem of suburban competition, it must rejuvenate itself. Not by the present system, the ambiguous system of urban renewal, but by finding a way to bring open spaces back into the city, to lower the population rate to a reasonable density, so that the facilities which people stream to get by many hours of weary traveling to the suburbs will be available to them in the central city.

Lowering densities means lowering land values, and that is a political and economic problem that must be faced if urban renewal is to be anything better than a catchword.

Besides bringing back into the cities some of the facilities that the suburbs seek, every metropolis must have the authority and the ability to plan to put its surplus population -- if it is threatened with too many -- in other communities. Building up the impoverished suburban areas with immigrants, refugees, you might say, from the uninhabitable metropolis, the metropolis that hasn't yet learned how to exercise power and to serve life at the same time, -- the great problem of all political authority.

Now, the suburb is in one sense an answer to the weaknesses of the metropolis but we know that it creates weaknesses of its own. It is the negation of the city. It does not bring together a variety of people within a limited area. It spreads them into an unlimited area which people call by the fantastic names like "Megalopolis" but this particular kind of spread was diagnosed fifty years ago by my master, Sir Patrick Geddes and he gave it a name that was particularly ugly so that it should stick. In England it is now called the "conurbation" --this limitless mass of low-grade urban tissue without any of the definable attributes of the city.

Now, our highway program and our housing program have encouraged and subsidized this urban fall-out and we have allowed this to go on though it is ruining the very possibilities for a balanced life that the people who went out to the suburb wanted to enjoy. They go out to the farthest fringes of the city. You might call it the fringe deficit area instead of the fringe benefit area. They go out to the farther reaches of the city, wanting pure air, wanting playgrounds for the children and play space and easily accessible country and because they go out in such great numbers their very numbers deprives them of the space that they want.

Now, space is something that the congested core lacks. Space is something that must be brought back into every community. But if the metropolitan space, the space within the core, must increase, the density of our suburban development must be heightened in order to make them livable communities again. Otherwise we will have a succession of Levittowns and even more depressing communities than Levittowns as the final triumph and glory of our great technological civilization.

The point is that all the advantages that the people in distant suburbia seek are doomed. They go out into the country, dreaming of the upper class suburb with its aristocratic plenitude of space and at the end of ten years or twenty years they find themselves in the midst of the same dreary mess that they originally escaped from. They haven't even effectually escaped from the taxes because as soon as they reconstitute the elements of the community they need money for schools, education, library, for health and either have to do without these things or realize that they have not got the industry and the business that will support them. Without industry and business there is no life today and yet we go on planning these lifeless communities which are destitute of the elements of a civic association.

On the other hand, let us give this suburban outflow, this suburban dispersal its due. A new form of life is potentially in the act of creation here. The old city was based upon walking distances alone and therefore fostered a certain necessary congestion. The new type of urban community is more porous than the old city was and it gives new pleasures to us in driving along a beautiful parkway or through a rural countryside. We have a new form of life developing --

the parkways, the new shopping centers, based on a return to the pedestrian scale, for pedestrian enjoyment, a new type of town is already bound to develope. We already have the outlines. We had the outlines twenty-five years ago -- in Radburn, New Jersey, here and there separation of the highway from the neighborhood unit. We have the beginnings of that, although very poorly understood as yet; almost totally misunderstood and neglected by all urban developers who keep on creating old fashioned suburbs instead of a new type of life, that a better order of planning could bring into existence, or else he imitates Corbusier's antique of the skyscraper town.

We have the new kind of industrial development and the new kind of business establishment such as represented by the building and the placing of the building in which we are. A much more free and flexible kind of life is developing in the suburb.

How can we have it? We need a new type of city. We have to turn our back on both the obsolete metropolis in its old form and the equally obsolete ruinous suburban development. The name of this type of city was given to it long ago by a group of us, including the foremost among them, Clarence Stein, who really fastened on the name in spite of my doubts, the Regional City. Now, we say regional city and not metropolitan region. Why? Because when one says "metropolitan region" one puts the emphasis on "metropolitan", one has the picture of the metropolis grown bigger and bigger and finally wiping out the land around it. We say no, we must think of the regional city, a whole region including the countryside as now part of the new type of city. The fact that the farmer and the city man have been separated through all history, that historic fact is coming to an end in our day. The farmer wants the advantages of education, of intercourse, of music that the city brother has. He is living the same kind of life essentially but that means it works the other way around. The man in the city must have access to different occupations. He must have change of occupations if he is capable of managing it. He wants to live in an environment where there are still rural possibilities around. That is why he goes to the suburbs in the first place. Therefore we must consider the region as the locus of city development and think of the population on the scale of a million, as the older city was on a scale of fifty thousand, and the radius of influence of fity to seventy-five miles as the tissue of a new kind of urban development.

It will take us some time to work out this kind of city and to create it two things are necessary.

First: an understanding that mere urban renewal without reference to the suburb and mere suburban scatter and litter without reference to the central city are both ruinous processes. We have to control and redistribute the population of the region so as to preserve pure air, so as to preserve the water supply which is disappearing very rapidly all over the heavily populated seaboard of our country. The water table is sinking and if it sinks far enough there will not be

enough water for drinking -- as you found out two years ago in New York City in the drought -- to say nothing of enough water for air-conditioning. Pure air and pure water.

We must protect the soils. It just happens that most urban development is very often on the richest soils. To go on wasting this soil when automobiles can take us to less valuable soils that are not valuable for agriculture but adequate for living purposes is an irrational use of our facilities.

We must preserve landscapes for their beauty when they are sufficiently valuable, our river fronts and lake fronts and seashore which we now allow to be overcome and to be spoiled by the suburban dribble.

In other words, the task is a task of finding a permanent network of human settlement which will not deface the land, which will not make the land poorer for human occupation and that is necessary for the sake of our own life.

This means that we must begin to multiply the number of small units and bring them together in an organic form again. The day of congestion and fragmentation is over. The full utilization of human potentialities lies before us when we realize that every aspect of the region has to be once more, or perhaps for the first time in history, let us say, under human control for rational human purposes, first of all by a logical purpose and finally social purposes.

This is not a task just for planners. They haven't understood the magnitude of the task but at this conference they are together with people who represent some of the dynamic forces in our economy which could bring this new kind of city into existence. Because it won't be the work of governmental agencies alone. Every industry, every business enterprise, every university, every library system, every hospital will have to be replanned to do away with the monopoly of power and function which are exercised in the big city and distribute this function through a region and organize the highway network so that they will be in closer relation with each other.

That is something that our department stores have begun to understand. They took a little time before they discovered it. I remember suggesting to Mr. Jesse Straus, then president of Macy's when he asked me what was the answer to the congestion of Broadway and 34th Streets and I said you have to establish branch stores in the suburbs like Sears Roebuck. He smiled at me the way people smile at what they call "young idealists" and didn't take seriously the suggestion. But by now this is no longer Utopia. It is the practical way of meeting the competition from the outlying area.

This kind of decentralization while preserving the element of unity and organization that the big city brought in is the new pattern of metropolitan development. The new city is primarily a low

level, face to face community, a small unit with everything that you need at hand so that you don't have to travel two miles at nine cents a mile to get an 18 cents loaf of bread, the way we now plan our urban communities, where everything necessary to daily life will be available but the things that are necessary for the larger development of the community will also be available to being organized and coordinated over a great area.

That, in general, is the vision I would like to leave you with and if I had the sufficient time I could make it a little more concrete and a little more credible than it actually is.

But where does that leave us in relation to our highway program? I don't know whether I am discussing, whether I am representing the concensus of this meeting but it leaves me with the distinct impression that we had better slow down our highway program before we write in more obsolescence into the highway system. We want more flexibility, a greater diversification of means, we want to get ready to establish the new pattern for a unified kind of regional city. That means that we must prepare the new planning agencies. We have two great organizations doing planning, for the sake of the house planning, for the sake of the motor car planning and highways for the sake of highways. Nobody is planning for the sake of the human community.

Since this is a moment for practical suggestions, let me end on this practical note. The first step: We are going to have to have planning that will meet the present emergency caused by the urban explosion. The first thing we must do now that we have gotten over the phobia over the word "planning" is to restore the National Resources Planning Committee and its state boards which did such an enormous amount of good work in the 1930's. (Applause)

Second: We must go much further than our port authority and create state development authorities, with power to zone all the land on scale necessary, power to relocate population and industry and business and to re-order transport routes so as to have the fullest utilization of all the facilities of our civilization, now so imperfectly served by these communities that we spend our life escaping them.

Here I go further than Mr. Gulick. We need to invent a new form of federal government capable of acting beyond metropolitan limits and capable of uniting the over-all regional authority with the local authorities, the smaller municipalities that will have their own life to pursue within the larger regional pattern.

And then, and now I would appeal once more to the business men and the able executives to lend their interest to this subject, if there is to be urban renewal with the congested core and in the suburban slums we must find a common method of compensation and taxation which will make it possible when we move population from one part of the region to another to balance the gains against the losses. When

population moves out of the metropolis the tax load is increased on those that remain and therefore we have to have a political authority capable of reapportioning the tax load profiting by the benefits of the new developments and applying them to give equal benefits to the metropolitan center.

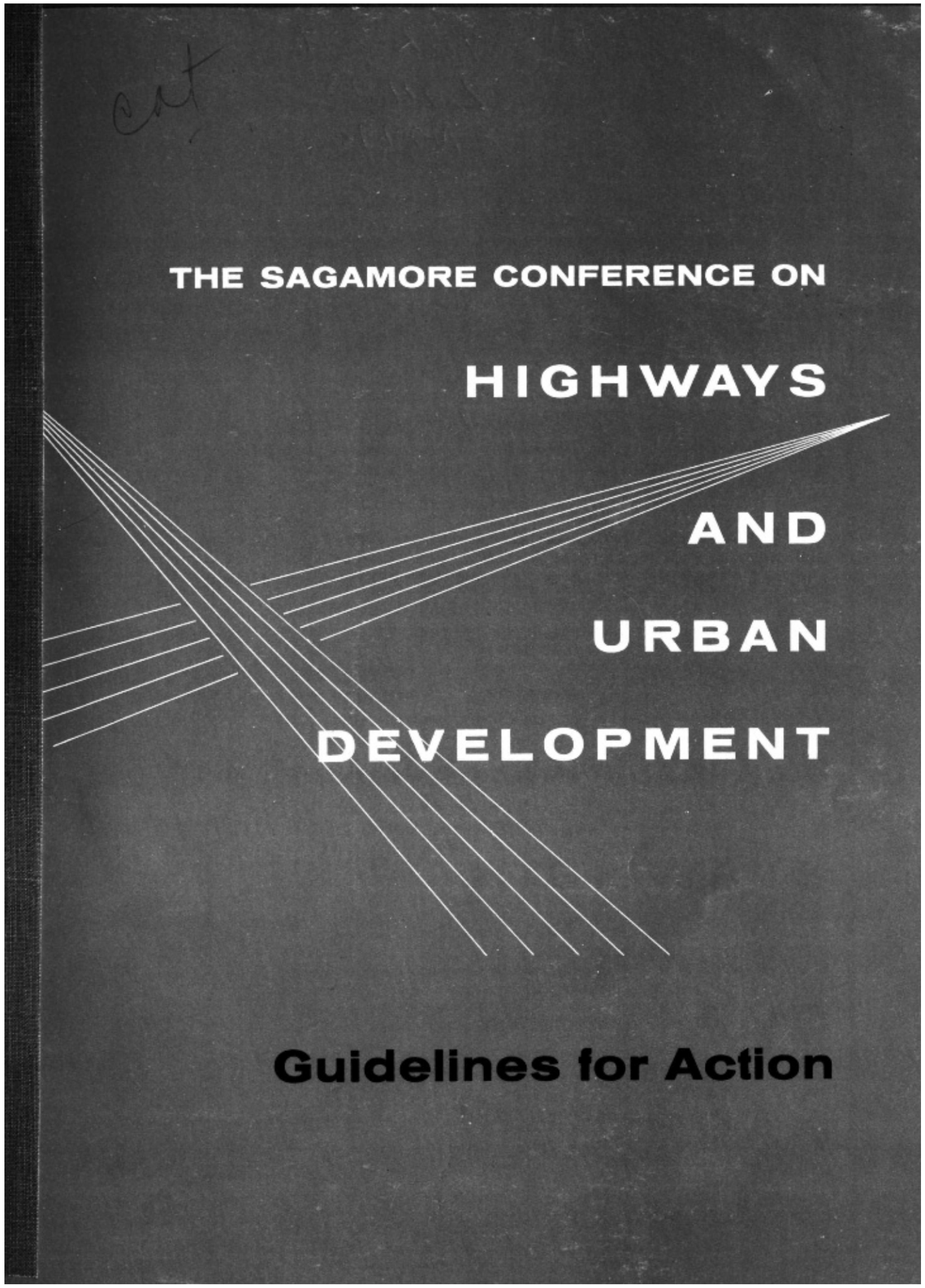
Our present highway problem -- highway program -- I call it a problem all too easily because it seems to me the program itself is one of our greatest problems at the present moment -- promises little good until we have taken some of these steps. I am more confident that we have only to think boldly and act prudently, act tactfully and carefully because of my experience back in the Twenties. I was part of a small group headed by Mr. Clarence Stein, who is now here, who changed the thinking of New York State on the subject of government responsibility for housing and the possibilities of regional planning, the possibilities of creating a new type of urban community. None of us in the Twenties when we were thinking as we thought with the utmost boldness could have guessed that within less than three years of Clarence Stein's final report on housing, New York State would assume responsibility for a public housing program and that a national program on a scale immensely greater would be carried out in the Thirties and is still being carried out in our day. It would have seemed a wild hope to us but that hope has been fulfilled.

We had other hopes expressed by people at this conference, unaware that we were thinking about these matters thirty years ago. I am convinced that the work that has to be done can be done and will be done once we are prepared to apply our intelligences to the purposes of life instead of applying them merely to the means of life. That means eventually we will put the motor car in its place. We will cast off the mistress and live with our own wives instead.

Thank you. (Applause)

Conferencia: *"Highways and Urban Development"*
Conocida como *"Sagamore Conference"*
Guidelines for Action. Publicación de la conferencia.
Octubre de 1958

Portada, páginas de 2, 3,4, 5, 20, 21, 22, 23, 26, 27
Transportation Library
Northwestern University Library
Evanston



FINDINGS AND RECOMMENDATIONS

As Formulated and Adopted by the Conference

FINDINGS

1. It is essential that all units of government cooperate fully in meeting the urgent needs for highway improvement involving the planning, designing, and operation of facilities, so as to provide optimum transportation service and accomplish the orderly and proper development of our urban communities.

2. It is recognized that the highway program in the states and local communities has benefited greatly from the fine relationship existing between the Federal Bureau of Public Roads and the State Highway Departments.

3. Each State Highway Department has the prime legal responsibility to implement the state highway programs, including the National System of Interstate and Defense Highways, and to complete them within the prescribed time.

RECOMMENDATIONS

STATE

1. State Highway Departments should be properly organized and staffed to work cooperatively and effectively with local authorities in planning, designing, constructing and operating streets and highways in urban areas.

2. State Highway Departments, in cooperation with local governments, should develop a tentative program of urban highway improvement for a period of at least five years in advance, as a basis for planning at the local level. This program should be in accordance with a jointly agreed-upon long-range plan.

3. State Highway Departments should consult with local authorities on a continuing basis in highway planning.

4. In cases where local government has not yet initiated community planning, the State should take the responsibility for initiating planning.

LOCAL

1. Local governments should fulfill their primary responsibility for community planning to insure maximum benefits to the local area.

2. Local governments, in fulfilling their responsibility, should prepare a comprehensive plan for the physical development of the community, embracing a land use plan, a transportation plan including public transit, and a program of land use controls. To achieve this objective, urban areas should have competent and continuing planning service.

3. Regional planning should be initiated in every metropolitan area.

4. Local governments should consult regularly with the State Highway Department in the preparation of comprehensive plans for urban areas.

5. If legislation is lacking to enable proper planning on a local, metropolitan or regional basis, the state and local governments should work jointly to have such legislation enacted.

JOINT

1. All levels of government should strengthen their support of city and regional planning. All Federal agencies dealing with urban development should continually review their policies to achieve coordination with state and local objectives in urban development and transportation.

2. Public support and adequate finances are essential to carry out desirable programs based upon comprehensive planning. All agencies of government should seek this support through presentation of all facts relating to the plans.

3. To provide the basis for transportation planning and broad community planning, all agencies concerned should promptly undertake studies to develop the necessary basic facts, using appropriate techniques. In the area of transportation planning, the Guide and Manuals of the National Committee on Urban Transportation offer excellent procedures for the assembly and analysis of needed data.*

4. Steps should be taken to disseminate, as widely as possible, examples of successful application of techniques and of achievements in coordinated urban development. This should be accomplished through the American Municipal Association-American Association of State Highway Officials Joint Committee on Highways and other interested organizations.

** Available from Public Administration Service, 1313 East 60th Street, Chicago, Illinois.*

Opening Remarks

The dramatic fact that more than half of the Interstate Highway System funds, under the huge Federal road modernization program, will be spent in urban areas has served to alert the nation to the critical need for a coordinated approach to the closely related problems of urban transportation and community development.

America's traffic jam is heavily concentrated in the metropolitan areas. A twofold revolution has brought this about—rapid motorization and urbanization. Though our cities and other urbanized places represent only a small fraction of the total U. S. land area, two-thirds of the nation's 173 million people are massed there. Urban streets and highways now account for half of the 650 billion miles of travel rolled up annually by motor vehicles. Nor does anything on the horizon suggest that these dynamic trends will soon diminish.

The General Chairman of the Conference, Executive Secretary A. E. Johnson of the American Association of State Highway Officials, in opening the Conference, stated the urban highway challenge in these terms:

"In order to properly locate new highways in existing urban areas, we need to know more about the highways' effect on the area and the area's effects on highway design and location requirements . . . In locating a highway in rural areas, most major controls are of a physical nature; whereas in urban areas, the major controls may be complex man-made ones or human problems of a vast living organism that is the modern urban community. We should give thought to the other benefits possible from such highway development, which may well outweigh the direct benefits to the highway user.

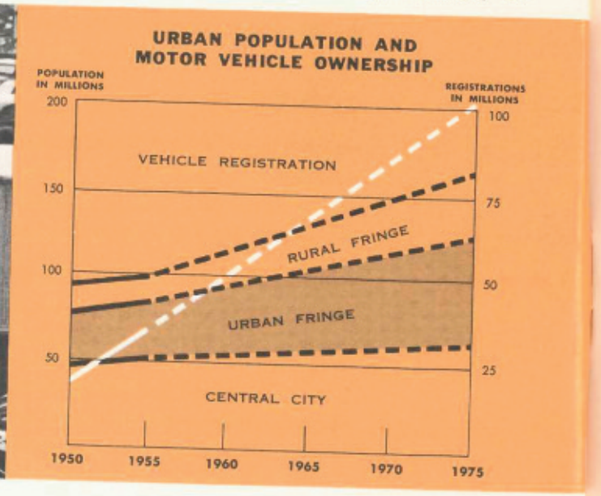
"The urban highway development authorized by the Federal-Aid Highway Act of 1956 makes possible critically needed urban highway construction well ahead of the time it could have been otherwise accomplished. In fact, it came about with such suddenness that some were not prepared for it.

"Both state highway officials and local authorities must nonetheless do the best they can to produce sensible, forward-looking plans to coordinate highway and general urban development. If they work together, and go to work promptly, they will generally find that despite the time schedule pressure, they will have time to do a good job.

"The legal and prime responsibility of moving the highway program has been vested in the state highway official and the time schedule for doing the job has been specified by Congress.

"It is the inescapable responsibility of officials and specialists of the affected levels of government to work harmoniously and effectively as a team, with the state highway official serving as the leader in activating the Interstate Highway program in an urban area.

"If a vacuum exists in any position on the team, others on the team must fill that vacuum. If the best interests of the public are to be served, every effort must be made to insure that no vacancies exist on the team, and such a goal should be a major objective of all concerned.



More than half of the nation's motor vehicles are now massed on urban streets. To eliminate major traffic bottlenecks and help make cities more livable are important considerations in locating new urban highways.

"Projected highways of various types are designed to serve definite purposes, and if these are fully understood by the urban planner, he can materially aid the highway planner to achieve them. At the same time, he can explain what else is planned for the area through which the highway will pass, give some idea of its impact on the other elements of urban development, and thus help to produce a better relation between highway transportation and other community facilities and services."

Mr. Johnson also called for a greatly expanded program of research into many phases of the over-all relationship between highway planning and comprehensive urban planning.

Developing the proper climate for cooperation is the main requisite, according to Wilbur E. Jones, Administrator of the Interstate Program, State Road Department of Florida, and Co-Chairman of the Joint AMA-AASHO Committee on Highways, in stating the viewpoint of the highway official. This can be achieved through consultation, friendly exchange of ideas and experience, and mutual understanding of one another's problems.

Mr. Jones also made these points: "For many years the State Highway Departments throughout the nation had not concerned themselves too much with urban traffic problems. Now the highway department has what amounts to a mandate to deal with the urban highway program. We recognize the desirability of a master plan for city development. However, even if such a plan is not in existence, an Interstate expressway can, with study and the cooperation of local officials and organizations, be located and constructed in an urban area so that it will be compatible with the orderly growth of the community."

The highway administrator must be certain that the expressway is located correctly, both as far as present and future traffic are concerned. He is also obliged to consider, along with current desire lines of travel, such factors as land uses, projected land patterns, and population growth and trends, as well as other pertinent factors involving social, cultural and aesthetic conditions.

In short, with teamwork and creative vision, the urban highway program can provide valuable guidelines for sounder, more healthy area-wide development. It can help to restore many blighted areas and bring other benefits to communities. At the same time, the transportation values of the new and improved facilities will be immeasurably increased.

Considering the vast scope of highway construction involved, and the fact that the new motorways will have a service span well into the foreseeable future, this is an unique opportunity to revamp the urban environment on a substantial scale—in the interests of better living and safer, freer movement.

"The key to moving the road program and to realizing the maximum total benefits from the gigantic expenditure of highway funds in urban areas is 'Understanding, Cooperation, Decision and Action—all in the Public Interest,' and this applies to all officials and citizens of an area."

Certainly the planless sprawl of much metropolitan growth has contributed greatly to chaotic traffic conditions. As Ben West, Mayor of Nashville and Co-Chairman of the Joint AMA-AASHO Committee on Highways, pointed out while outlining the viewpoint of the City Administrator in setting the stage for the Conference:

"Municipal land use as it now exists all too often bears a startling resemblance to crazy quilts. It is a jungle of diversification, partly inherited, mostly created. Lack of comprehensive community and area-wide planning is one of our greatest deficiencies. Formerly highways were built and they determined land use. Now we have an opportunity to determine the most desirable land use for the future growth of cities, and through cooperation, locate highways to advance over-all community objectives.

"The City Administrator must be concerned of course with the *entire* street system, including transit, trucking and parking, and the relation of new freeways to it," Mayor West added. "Local streets must not be regarded as ill-begotten children. Moreover, the City Administrator must think of the over-all city —in all phases of its development."

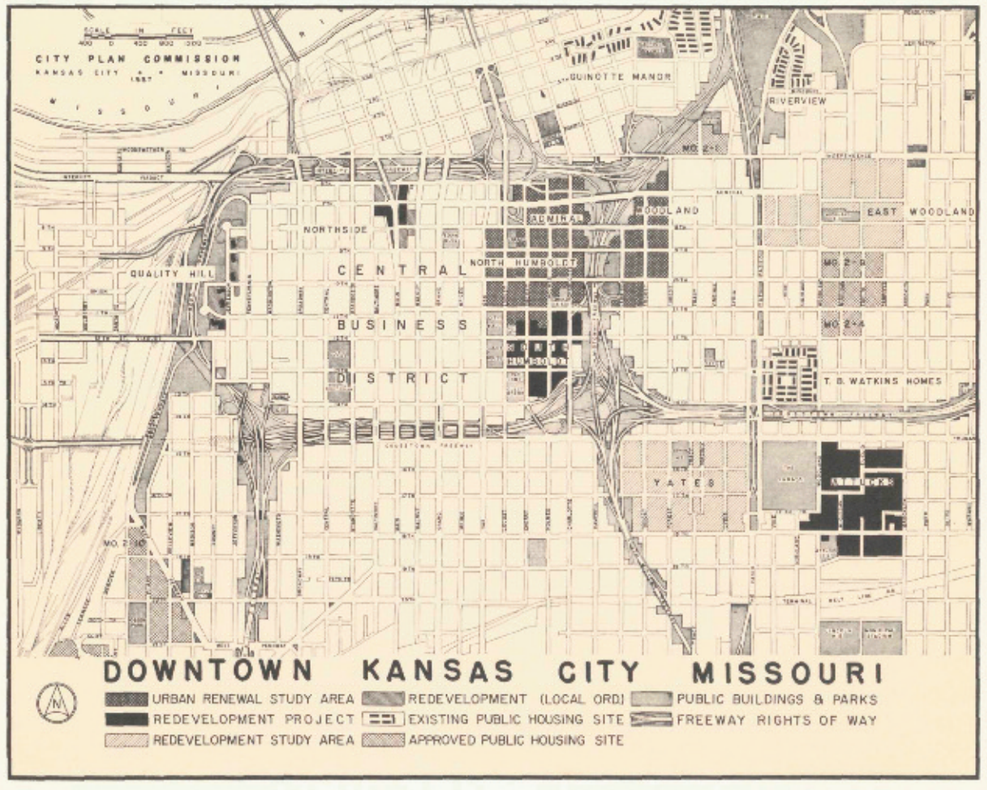
Mere token cooperation of highway and city officials will not suffice. A real working relationship right from the initial phases of the highway program is vital.

"In those cases where a comprehensive plan already exists for the area through which an urban expressway is projected, a close working relationship must exist between the highway planner and the urban planner beginning at an *early* point in the highway program," said Hayden B. Johnson, Chief of the Planning Division, Port Development Department, Port of New York Authority and the spokesman for planners. "Even in cases where no comprehensive plan has been prepared (which unfortunately is true in far too many American cities and regions), the urban planner's detailed knowledge of the area in question should still be utilized.

a Planning Commission staff member as Chairman, the Committee comprised the City Engineer, the City Traffic Engineer, County Engineer, and representatives of the State Highway Department and the Bureau of Public Roads. As a result of this teamwork, Tulsa, with strong public support and acceptance, has developed a framework for a realistic attack on long-range arterial needs keyed to dynamic growth of the area.

B. Kansas City, Missouri: Kansas City, in fact, established the general cooperative pattern followed by Tulsa. A basic plan for a metropolitan freeway system was developed through cooperative arrangements with the Missouri Highway Department. The substantive studies were made by the City Planning Commission under the general supervision of the Missouri Highway Department, with policy formation by a regional highway committee.

C. Dallas, Texas: Fine intergovernmental teamwork here has characterized virtually every phase of freeway planning. Planners and traffic engineers jointly handled the traffic analysis and projection aspects. The highway engineers furnished origin-destination data; the traffic engineers assisted in travel time analysis and supplementary traffic counts; and the planners related all data to master plans of land use, population growth, and travel habits to predict future needs.



Plan shown here ties in highway improvements with several urban renewal projects designed to rejuvenate the central business district of Kansas City, Missouri.

D. San Diego, California: As one of the pilot cities in the program of the National Committee on Urban Transportation, San Diego organized a Technical Coordinating Committee to supervise essential studies on an area-wide basis. This Committee consists of planners and engineers of six communities in the area and representatives of the County and the California Division of Highways, as well as of the San Diego Transit System, the Traffic Division of the Police Department, the Urban Renewal Coordinator, the Industrial Coordinator and the United States Navy. The Bureau of Public Roads also participates.

Through this coordinating team a long-range highway study was prepared, the outgrowth of which was a tentative street, highway and freeway plan for the entire 500 square-mile metropolitan area.

Improving Interdepartmental Relations

The day is past when the City Engineer or the State Highway Engineer was considered competent by himself to lay out a comprehensive street and highway system. Allied departments and staffs have vital contributions to make and it is imperative in the public interest that they get the chance to make those contributions. Interdepartmental coordination within a jurisdiction is as much a need as cooperation among city, county, and state governments.

To insure that the various departments work smoothly together on a continuing basis, more and more cities (of which Detroit is an example) are using a two-fold approach:

1. *Appointment of a Coordinator* who supervises the study program and development of plans, and acts as the city's liaison with other jurisdictions in highway matters.
2. *Creation of a Technical Coordinating Team* comprising key officials of the several municipal departments and other agencies concerned. As a group, they help to implement both the study and planning phases. They constitute the planning team which, on the basis of factually-demonstrated needs, evolves the best possible transportation improvement plan keyed to desirable community development.

Financing and Planning Comprehensive Urban Highway Needs

Plans gather dust without financing. Adequate financing depends upon legislative and public approval. The large number of overlapping governmental agencies involved in development of the urban highway program makes coordinated planning and coordinated fiscal policy doubly important.

If advance planning on a comprehensive basis is to go forward, an adequate level of financial support and continuity of policy must be assured. An effective program is contingent on such factors as these:

1. *Basic Standards.* Urban areas have long been handicapped by lack of basic standards for measuring needs. Better information on needs and cost factors is essential to justify allocations of user revenues from the collecting agencies to those units which are charged with the responsibility of carrying out the highway construction and maintenance program. The recently published Guide and Procedure Manuals of the National Committee on Urban Transportation contain recommended standards, and can be of material assistance in planning.
2. *Adequate Facts.* To overcome the common deficiency in fundamental data, communities are urged to take advantage of the fact-collecting techniques which are likewise described in the above-mentioned documents.
3. *Regional Plan.* A regional plan, integrated with state and local plans, is a prerequisite to any successful program.
4. *Balanced Road System.* The magnitude of the road problem makes it imperative that a balanced network of highways be constructed, whether certain parts are eligible or ineligible for Federal-aid funds. The availability of Federal funds for specified road systems should not result in the failure to provide money for essential needs not covered by Federal-aid.
5. *Increased Revenue.* In a number of states a realistic appraisal of highway needs may make it necessary for the public to evaluate conditions to determine if they desire to raise additional revenue to finance needed improvements.

6. *Other Financial Needs.* Local governments must, within their limited tax resources, finance the local street improvements that are related to the comprehensive plan, as well as the other expenditures made necessary by major highway improvements.
7. *Urban Renewal Programs.* Cities with urban renewal programs may find financial advantage in coordinating street improvements with the renewal work.

Programming in Functional Increments

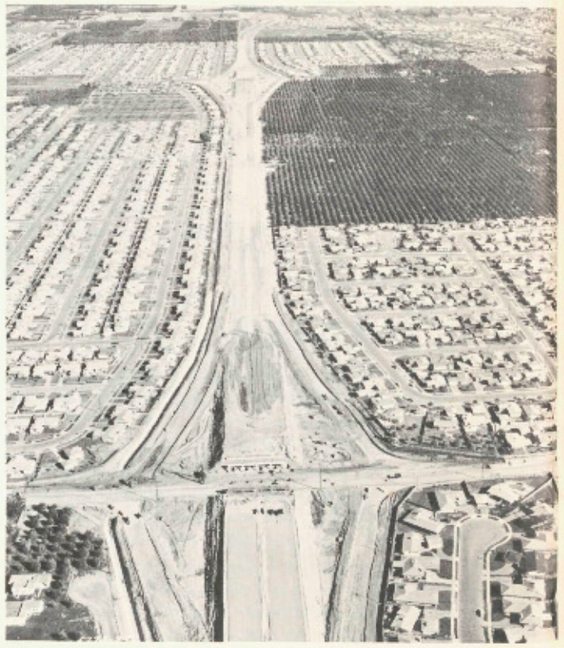
In carrying out an arterial improvement program, top priority should be given to those segments or "functional increments" which can be put into service as soon as completed—irrespective of what other parts of the route or system are constructed. Prompt relief can be given to congested local traffic arteries under the following procedure:

1. *Master Arterial Plan.* A master arterial street and highway plan should be available, so that after each functional increment is constructed, a re-examination of the plan can be made to allow for changing conditions.
2. *Small City Program.* The basic principles set forth in #1 are applicable, not only in large cities to be served by radials and inner and outer belts of expressway design, but also in small communities where plans may call for a bypass, or relief route, or perhaps the improvement of only a single major street.
3. *Right-of-Way Problems.* Planning ahead for unusual right-of-way problems is facilitated, and the relocation impact in acquiring rights-of-way is lessened, by the functional increment approach.
4. *Budgeting Aid.* This method of construction is ideally suited to capital improvement budgeting, making possible a true blending of physical and financial planning.

Land Use Controls

Good zoning and land subdivision regulations, if effectively administered, can help to promote sound urban development and to insure the continuing usefulness of new highways. Other land use controls, both stronger and weaker, can contribute to the same end. Worthy of consideration are these points:

1. *Tie-in with Comprehensive Plan.* A comprehensive plan is of vital importance and, if at all possible, should be the basis upon which any of the various types of controls are utilized.
2. *Local Responsibility.* Provision of adequate land use controls in the zone of influence of a state highway is predominantly a local responsibility requiring a high degree of communication with the State Highway Department.
3. *Various Control Tools.* The most potent of these controls is outright public purchase and ownership of adequate land areas near the highways. Of more limited significance are such partial controls as scenic, reservation, development, or other kinds of easements. Some measure of control can also be exercised through administrative guidance of public development activities and, to a lesser extent, through public information and education programs.
4. *Reasonable Controls.* Land use controls must be reasonable and have general public acceptance, if they are to accomplish their aim.



The right-of-way of this freeway in Riverside County, California, has been protected by subdivision controls which insured that the future residential developments would fit in with the highway plan.

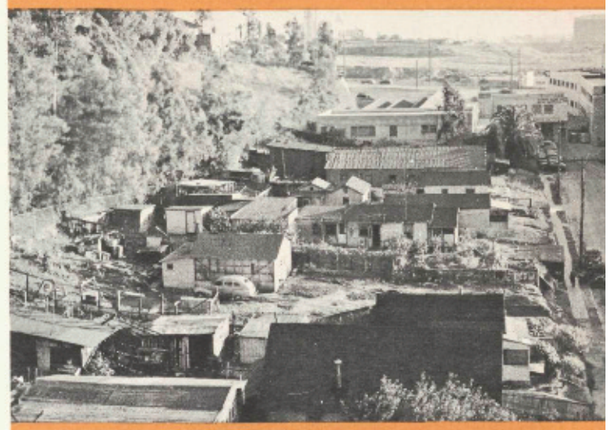
5. *Joint Action Plan.* Noteworthy is California's development of a state-wide plan of action for bringing about master plans and land use controls in each city and each county through joint efforts of the State League of Cities, the State Association of County Officials, and the State Highway Department.
6. *Control Through Zoning.* Zoning should limit areas of intensive land use and high traffic generation to sections that can be reached and adequately served by high-capacity streets. The zoning map should be coordinated with the land use map and the highway plan. All three should be systematically reviewed whenever new highway proposals are considered.
7. *Zoning Exceptions.* Local Zoning Boards should notify the State Highway Department of requests for zoning exceptions for properties along state highways. This principle might be reasonably extended to admit the state as an interested party to any zoning hearing involving property near a state highway.
8. *State Action.* In the absence of local controls, the states should provide some means of regulating the development of property abutting the Interstate System and other routes of similar traffic importance.

Relocation of Displaced People and Business

During the 3-year period 1958-60, it is estimated that nearly a quarter-million urban families will have been displaced as a result of the urban renewal, highway and other public improvement programs now going forward. This indicates a problem not only vast in scope but deeply challenging in its human relations aspects.

The problems of displaced occupants, and the types of skills and resources needed to help meet them, are the same regardless of the program causing the displacement. Moreover, all programs must look to the same stock of accommodations, housing or other, into which to relocate the people affected. Hence, some communities have set up centralized relocation services. There will be variance from place to place in the degree of coordination and the extent to which urban renewal and other relocation activities should actually be combined, but certain guiding principles are generally applicable:

1. *Community Responsibility.* A community which displaces large numbers of people



The problem of relocating people and businesses is well illustrated in the upper photo showing a section of built-up land that was cleared for the right-of-way of the Santa Ana Freeway in the Los Angeles area, shown below.

RESEARCH NEEDS

All Conference participants agreed that many gains are possible through application of the guidelines developed at the Conference to help make better use of the skills and tools of the public administrators, engineers and planners. While improved understanding and coordination will result in marked advances, it was generally recognized that many problems are the result of forces, factors, relationships, etc., that still are insufficiently understood or are beyond the level of present knowledge. Anticipated developments in our country call for imaginative planning, bold public programs and skilled administration. The Conference therefore identified numerous areas in which additional research is vitally needed.

These areas are related to the rate and nature of urbanization, the present accelerated growth of population, economic activity, obsolescence, the changing nature of the social and economic structure of our society and of emerging problems, the impact of technical developments, and the legal and administrative measures required to match needs in complex urban areas.

A substantial amount of urban-related research now under way is oriented toward highway transportation. Much more research on a broader basis is required to meet the challenge of rapidly changing conditions and pressures in urban areas. The highway program offers many opportunities for researchers from various fields to make meaningful contributions to the solution of the numerous problems confronting officials. Research can facilitate the task of integrating highway improvement with city and area-wide development.

Listed below are major areas of needed research as revealed in the Conference discussions. Both short-term and long-range projects are included, but no attempt has been made to assign priorities.

1. Evaluation of enabling legislation to determine what are the most effective laws in carrying out urban highway and city planning programs.
2. Analysis of administrative practices and intergovernmental arrangements to establish what patterns are most productive.
3. Study of the relationships between the type and rate of land use development and the location, design, and operations of highway and other forms of transportation.
4. Determination of the traffic-generating characteristics of the various land uses, and how the various types and intensities of urban development affect the demand for transportation service.
5. Investigation of the effect of improved highways on the central business district.
6. Review of the operational characteristics of urban expressways, as well as of problems of location, programming, etc.
7. Finding better ways to dovetail freeways with existing streets, terminal accommodations, public transit, and the patterns of land use.
8. Analysis of new traffic engineering techniques and devices, geometric design features and related aspects.
9. Evaluation of the economic effects of highway improvements on urban areas and on all phases of community life.
10. Factual inquiry into the future character of the urban complex, especially with reference to underlying spatial and functional relationships.
11. Determination of the most efficient spacing of urban expressways based upon the proper balance between land use, land use values, and transportation and engineering requirements.
12. Evaluation of different ways to deal with the problem of land use development at or near interchange points on expressways or along the borders of highways of conventional design.
13. Further exploration of ways to effectively relocate people and businesses displaced as a result of highway improvement and urban renewal programs.
14. Study of the distribution, age, employment, income, leisure-time activities and travel habits of the urban population and the determination of the motivation factors that influence the choice of modes of travel.
15. Appraisal of transit's potential in urban transportation and community development, with special emphasis on transit finance and design of mass transportation vehicles.
16. Development of ratios of highway cost to indirect benefits as a tool in evaluation of proposed urban highway improvements.
17. Optimum spacing and location of grade separations on freeways to minimize any cultural, economic, or social community disruption that otherwise might be created by the construction of such highway facilities.

SUMMARY

Five days of intensive Conference discussions produced conclusive evidence that highway transportation and other elements of urban development are inseparable; that the problems confronting responsible officials and professionals concerned are indivisible; and that the skills and resources of all must be utilized effectively and cooperatively to achieve the goals set forth. It is clear that the desired cooperative relationship between all concerned have to be based on understanding of one another's roles; knowledge of the factors and forces at work; and mutual confidence based on such knowledge and understanding.

One of the most significant values of the Conference was that of reaching a clearer understanding of the respective official and professional roles of public administrators and planners and the nature of their contributions to one another. Examples of ways in which planners and engineers can be mutually helpful are summarized below:

How City and Regional Planning Can Contribute to the Highway Program

1. Local planning data derived from land use and population studies can be used to forecast traffic requirements.
2. Availability of plans for other types of community improvements is a great asset in selection of highway routes and interchange locations.
3. Once a prospective highway route or system has been set down on paper, the local planning program can help to protect the right-of-way for future highway construction.
4. Forecasts of future road needs, based on land use projections and other local planning data, provide a basis for obtaining adequate financial support for highway programs. Such data also help to insure a fair allocation of funds among the different systems of roads and streets.
5. Coordinated planning of highways and urban development helps to pave the way for a solid front at public hearings on highway improvement.
6. Once the highways are built, the local planning program can help maintain a balance between the capacity of specific highway facilities and various land uses by suitable controls; and beyond that can serve to promote the most efficient use of the highway system as a whole, by making sure it functions as it was designed to do.
7. It is a responsibility of local officials to see that plans for local streets give proper consideration to the needs of all forms of transportation.
8. The shifting of trip origins and destinations through land use planning may make it possible to reduce undesirable travel. This could mean a measure of relief in heavily congested areas.

How the Highway Program Can Contribute to City and Regional Planning

1. A great deal of information developed by highway departments, particularly through origin and destination studies and air reconnaissance, can be of direct use for urban planning purposes.
2. The plan of future highways defines the pattern of circulation which must be a basic consideration in any land use plan.
3. Sound coordination of highway and urban planning will help to get the most out of available funds, both with respect to highway facilities and other community improvements.
4. Accessibility provided by highways serves to carry out the recommendations of the urban plan. Effectively located and properly designed highways induce land development that is consistent with the comprehensive plan.
5. If urban highways are modernized as rapidly as it is hoped, they will help to preserve economic activity in the downtown areas by restoring their competitive accessibility in the regional picture.
6. Sound highway development can protect areas from excessive decentralization and from blight that often attends bad traffic conditions.
7. Highways planned with an eye to local problems can contribute to the healthy redevelopment of slum areas, thus creating new values which will encourage investment there.
8. Competent highway planning insures the most convenient, efficient and safe travel patterns for moving people and goods, which of course is the common objective of both highway planners and city and regional planners.

Conferencia: *"Freeways in the Urban Setting"*
Conocida como *"Hershey Conference"*
Publicación de la conferencia.
Junio de 1962

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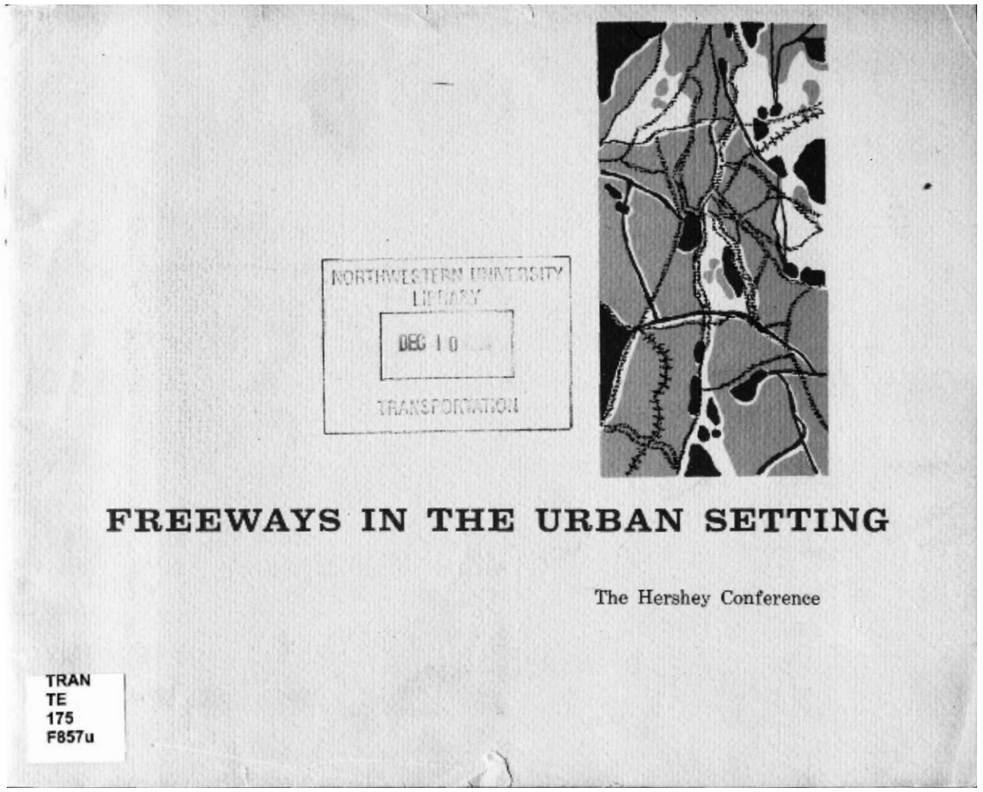


FREEWAYS IN THE URBAN SETTING

The Hershey Conference

Conference held in Hershey, Pennsylvania
June, 1962

The Hershey Conference on Freeways in the Urban Setting

Foreword

The highway program being carried out under the Federal-Aid Highway Act of 1956 constitutes the largest form of federal assistance to urban development. The state highway administrators charged with responsibility for this program, and the federal agencies involved, are aware of the significant role freeways will play in making the city an attractive and desirable place to live and work. ■ This conference was called to solicit the positive contributions of the professional groups who share with local, state and federal officials the concern that freeways be of the widest possible benefit to the city. ■ The findings and recommendations in this report can be of major value to the objective of functional but also attractive and desirable urban development, and helpful to highway officials heading up the interdisciplinary team necessary to the successful development of freeways in the urban setting. ■ The undersigned sponsors are grateful for the participation and good will of the distinguished conferees, and for the cooperation of the professional organizations which made the conference possible.

Background

This conference carries forward the work initiated in 1958 by the Sagamore Conference on Highways and Urban Development. The basic finding of the Sagamore Conference is stated as follows in the Conference report:

> "It is essential that all units of government cooperate fully in meeting the urgent needs for highway improvement involving the planning, designing, and operation of facilities, so as to provide optimum transportation service and accomplish the orderly and proper development of our urban communities."

Since Sagamore, very substantial progress has been made in cooperative efforts between state highway departments and local officials in the planning of highways and land use in urban areas.

The Bureau of Public Roads in the Department of Commerce and the Urban Renewal Administration in the Housing and Home Finance Agency have established procedures for the joint financing of metropolitan and urban area planning projects through urban planning grants and federal highway planning and research funds. These procedures provide for comprehensive planning studies under the joint direction of State and representative local officials.

The two agencies have set up joint national and regional committees to promote the maximum use of this procedure. Similar coordination is desirable at the state level in all states.

An increasing number of state highway departments and local planning agencies are beginning to cooperate in planning projects in urban areas throughout the country. The studies in the Puget Sound area of Washington, Twin Cities, Minnesota, Southeastern Virginia, Knoxville, Tennessee and Los Angeles, California, are only a few of the more important of these.

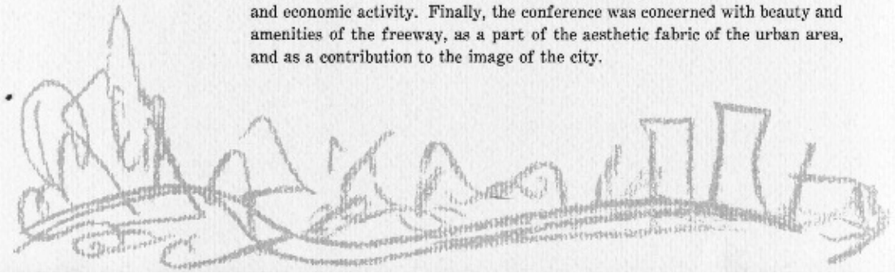
A new and promising effort to stimulate further activity, and to provide training of needed personnel through a demonstration project in each state, has been initiated jointly by the American Association of State Highway Officials, the American Municipal Association, and the National Association of County Officials.

Much still remains to be done, but the concept that urban highway systems should be planned in conjunction with comprehensive community planning is now generally and widely accepted.

Within each system thus planned, however, are many sectors and components. The location and design of these projects involve the participation of numerous agencies and professional groups. It has become apparent since the Sagamore Conference that among these groups were important differences in points of view and approach, and that these differences constitute a handicap to orderly progress in the urban communities. Conflicts appeared to be especially serious with respect to the location and design of freeways serving metropolitan areas.

Accordingly, the Hershey Conference was arranged to bring together representative leaders of these groups and professions in an effort to work out guidelines for more effective participation by all of them in the design of urban freeways. The Conference was sponsored by the U. S. Housing and Home Finance Agency, the U. S. Bureau of Public Roads and the Automotive Safety Foundation. Cooperating organizations included the American Institute of Architects, the American Institute of Planners, the American Society of Civil Engineers, the American Society of Landscape Architects, the American Municipal Association and the Institute of Traffic Engineers.

The Hershey Conference concerned itself with the location and design of urban freeway projects (as distinct from rural freeways in the open country) in such manner as best to serve present and future planned land use, aesthetic values and traffic demand, with due regard to funds available from all sources. This involves the specific alignment of freeways within the transportation corridors established by the metropolitan plan; the design of right of way and structures; the integration with adjacent land uses, and the general impact of the facility upon its environment. The conference was concerned with the impact of the highway upon people—upon the people who ride on it and upon the people who live, work, and play in its vicinity. It was concerned, as well, with the strategic impact of the freeway upon the pattern of land use and economic activity. Finally, the conference was concerned with beauty and amenities of the freeway, as a part of the aesthetic fabric of the urban area, and as a contribution to the image of the city.



Findings

1 Under the Federal Highway Act of 1956, federal aid for the construction of urban freeways will constitute by far the largest form of federal assistance for urban development. Over 45 percent of the cost of the construction of the Interstate system will be incurred in urban areas. The aggregate cost of constructing the 5,200 miles of Interstate urban highways will be over 18 billion dollars.

Perhaps more important, most of the job is still ahead of us. Only 1,200 miles or just under 25 percent of the urban Interstate mileage has been completed to adequacy for 1975 traffic. Another 25 percent is under construction or final design. Moreover, the Interstate system will provide only a part, perhaps half, of total urban freeway needs.

2 The urban areas are faced within the next 15 years with an average population growth on the order of 50 percent, and with a concurrent need to redevelop large sectors which are blighted, deteriorated and obsolescent. This is a challenge and an opportunity to the city. Moreover, the pattern of economic activities within the urban area is shifting sharply and new urban forms are clearly in process of evolution. The construction of freeways on the scale now planned during this period of rapid change and growth will provide unprecedented opportunities to help shape and structure the urban community in a manner which meets the needs of the people who live, work and travel in these areas.

3 The construction of freeways and other major public works has massive impact for good or bad upon the structure of the city. A freeway, like an airport or a renewal project, can irrevocably damage the basic urban pattern and amenities. It can be a needlessly unattractive and offensive neighbor to other land uses.

On the other hand, the freeway offers great potential benefits. It provides ready access to areas long locked by congestion. It provides opportunities for business and economic activities. The freeway can open up new vistas of the cityscape, and make the scale of the metropolis comprehensible to the individual. It can provide access to the countryside for open space and recreation which cannot conceivably be provided in the city.

The freeway can help to define the boundaries of existing or potential districts within the city, and support the concepts of the city plan in the structure of the city. When combined with urban renewal and redevelopment programs, it can be a powerful instrument in the rebuilding of cities.

4 Freeways cannot be planned independently of the areas through which they pass. The planning concept should extend to the entire sector of the city within the environs of the freeway. The impact of the freeways must be considered in terms not merely of limiting adverse effects but also of achieving positive opportunities for appreciation of value, for development of new land uses, and for changing land use through urban renewal and redevelopment.

5 For the country as a whole, experience in designing freeways in urban areas necessarily has been limited. There are examples in some states where the various disciplines have been brought to bear on the problem and have developed good results. However, much more can and should be done.

6 In the location and design of any freeway project, many unique factors must be taken into consideration. Section by section, custom design is required adequately to integrate the freeway with its environment. Routine application of standards cannot achieve optimum results.

7 The construction of efficient, effective and attractive freeways demands a total design concept. This means the integration of all aspects of design into a whole that is satisfying and effective, and integrated with its surroundings. Design, which is simple and natural, will largely alleviate confusion in the use of freeways. This is a job not merely for the highway and traffic engineer, but for the architect, the landscape architect, the city planner and other specialists.

Recommendations

1 As the Sagamore Conference indicated, urban highways cannot be intelligently developed for the unplanned or the inadequately planned cities. The cities and their planning agencies must accept a positive responsibility to accelerate basic city planning as a prerequisite to the development of a sound freeway system. The democratic city need not be a formless one.

2 There is a fundamental need for teamwork in freeway planning and design. This means teamwork during the preliminary planning phase between the state highway departments who have responsibility for the planning and development of highways, and the municipal agencies responsible for the planning and development of the city. It also means teamwork during the design phase among highway engineers, architects, city planners, landscape architects and other specialists.

3 Effective participation in design by these professions means participation from the very beginning when the first choices as to location, roadway alignments, right-of-way cross sections and structures are being studied. The full realization of the contribution of the design professions cannot be obtained unless this is done.

4 More effective programs for informing the public and obtaining community participation in freeway development must be undertaken by state highway departments and local governments. A freeway program cannot obtain in any other way the community concensus necessary to its successful execution. Members of the design professions and other specialists may render valuable assistance by indicating their concurrence with the design and planning objectives presented to the public by the highway officials.

5 The use of three-dimensional models of existing conditions and of proposed improvements is one effective tool for adequate visual study or presentation of freeway design. Such models are valuable to the professionals engaged in designing freeways as well as helpful to the general public in visualizing the proposed designs.

6 In the total concept of urban freeway design, basic principles which must be considered, separately and in relation to one another, include: those pertaining to the structural and geometric standards of the freeway itself; those pertaining to the amenities which the well-designed freeway offers to its users and to the residents of the areas it traverses, and those pertaining to social and economic community values. Attractive freeways cannot be achieved through superficial treatment; they result from integration of geometric with broad-scale planning and design.

Following are among the elements of design requiring careful consideration:

(a) Freeways should be integrated with other elements of the transportation system, including terminal facilities, arterial street systems, mass transit operation, and facilities for vehicle parking and for the movement of pedestrians into the downtown district.

(b) The freeway design should be in harmony with the existing or proposed land use patterns in the corridor. Where appropriate, the freeway can provide a boundary between different land use activities; in other cases it can be used as a design element to knit together land uses.

(c) Visual aspects of freeway location and design should be considered from the points of view of both the user and of the people in the areas through which it passes. Pleasing or significant views and panoramas often are possible for users of the freeway; a sequence of views, especially of outstanding landmarks, permits the individual to orient himself in the urban area. The freeway itself should avoid interference as much as possible with other valued aspects of the cityscape. Its design can be enhanced in beauty by maximum simplicity in such appurtenances as guard rails, signs and lighting standards.

(d) Appropriate planting of right-of-way is important as a means of dust control, noise abatement and the prevention of headlight glare. It can also help to make the city more attractive and blend the freeway into its urban environment.

(e) Consideration should be given to the possibility of modifying design standards on freeways in the downtown district when greater flexibility in the location and design of the freeway is required for the solution of specific local planning problems.

(f) Freeways should not encroach upon park land. They should add to rather than subtract from the city's open spaces. A careful evaluation of impact upon park and recreational resources should be an essential part of every freeway program. In extreme cases, where no reasonable alternate location exists, and a portion of park land must be traversed by the freeway, all possible means should be taken to minimize the adverse effects. In such cases, equivalent land should be provided elsewhere for park purposes according to the approved land-use plan.

(g) Particular attention should be paid to the problem of controlling use of land adjacent to freeway interchanges. A major consideration is the safety and convenience of travelers on the freeway and on the crossroads. Another consideration is the encouragement of land uses which can profit most from transportation service provided by the freeway.

7 The number of people who have talent and experience to cope adequately with these problems is limited. Educational and in-service training programs are needed to develop the required personnel. The development of guides on urban planning and design for the various professions, universities and highway department in-service programs should be encouraged.

8 The urban center, now the most common habitat of the American people, is a mass of complex and little understood relationships among people, among functions and among the parts of the city. Both the urban highway program and city planning today are hindered by imperfect and incomplete knowledge of the desires and needs of the families and individuals who live in cities and of the mechanics of the functioning of urban complexes. The needs for research extend into the human and social sciences. Larger and more intensive programs of research into all aspects of urban design and urban living are needed.

9 The necessity for compromise among conflicting philosophies and design objectives often must be recognized in urban and freeway design. The overall objective should not be the satisfaction of any particular standard but rather the best possible total solution. To achieve this, a number of alternative solutions usually must be evaluated.

A common cause of compromise in design is the necessity for economy and the limitations of available funds. One objective in freeway design is the best use of public funds, and this may not be achieved by the cheapest solution in terms of lowest first cost. Funds available for freeway construction are not unlimited. A design solution of optimum value for the city may be attained, however, by combining the resources available for highway construction, urban renewal and other public and private endeavors to integrate freeway construction with companion urban projects.

"A Book About Space"
U.S Department of Transportation
Federal Highway Administration
Bureau of Public Roads.
1968

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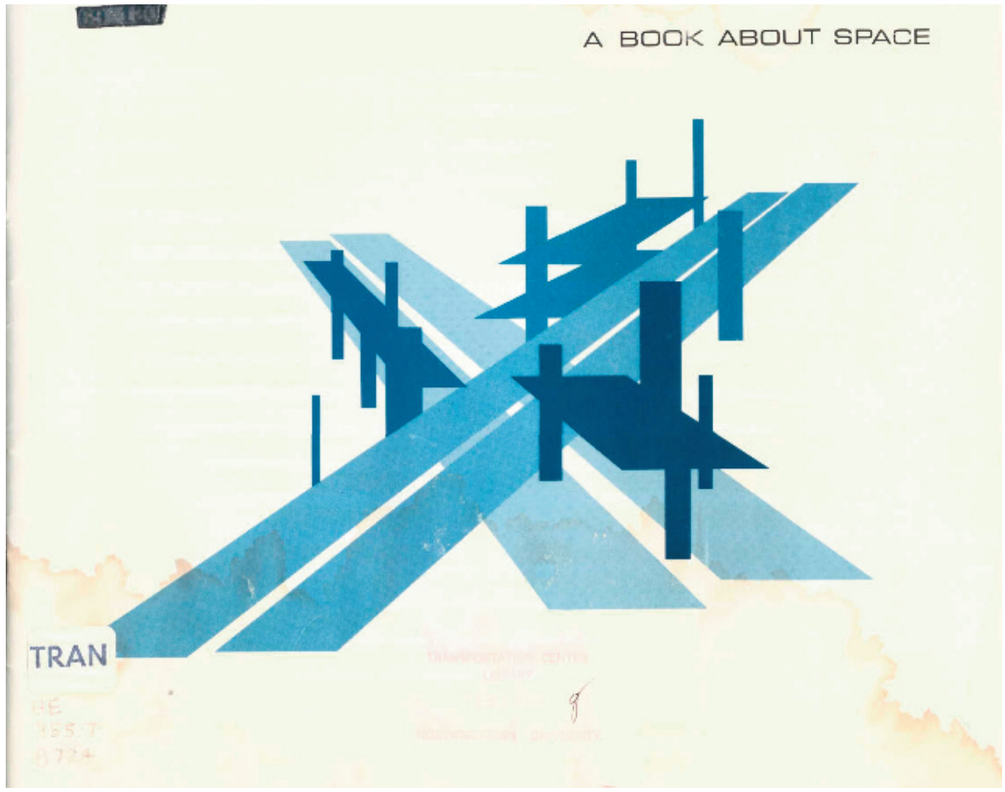


SPACE . . . *a lofty challenge to be conquered between man, moon, and the stars.*
. . . an urgent challenge to be conquered by man in his cities, lest they conquer him.

This is a book about space . . . but not the outer space that separates planets and stars,
and intrigues astronomers and astronauts.

It is about the space which is shrinking in our nation's cities.

America is a land of phenomenal growth. Our cities . . . some of them bursting at the seams with people and activity
. . . need and demand new, better parks and playgrounds, homes and shops, public
and private transportation arteries, and community services.

The needs soar perilously close to the limits of urban land now available to fill them.

SPACE . . . *beyond the boundaries of our planet, a seemingly limitless commodity.*
. . . at the centers of our national pulse-points. . . in our cities and suburbs . . .
a commodity too often consumed with too little care.

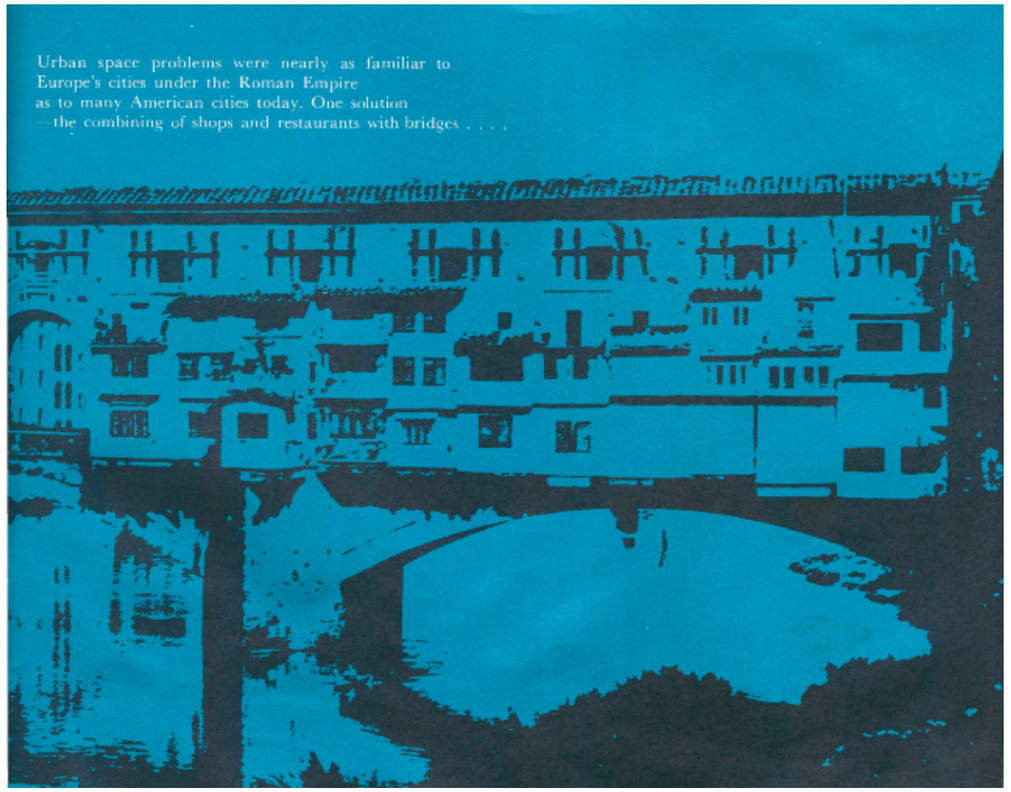
Where is to be found the along answer to the troubling space problems of our cities and their citizens? It is being found
. . . above, below, and around the urban highways we are building today . . . and those we must plan for tomorrow
. . . in the farsighted, imaginative use of what was once called "waste" space in our cities
. . . in the willingness and ability of urban planners, highway builders, community leaders and private talents to cooperate in the
wise development of multiple uses for America's untapped urban space potential.

Highway developers and urban planners call these answers
"Joint Development" . . . the planned use of land and space for more than one purpose.

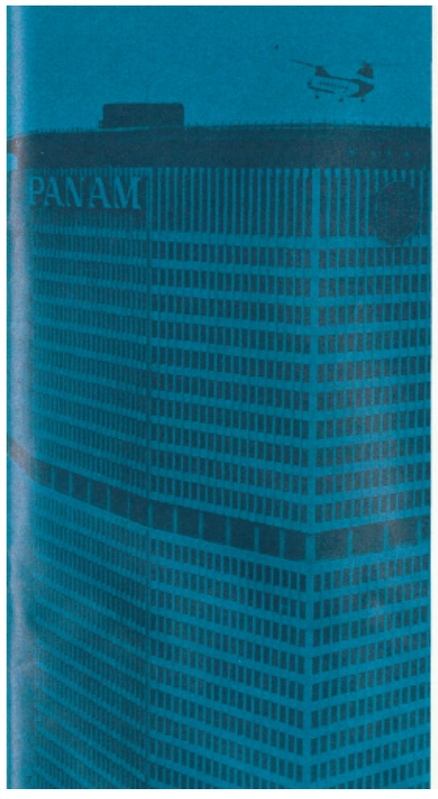
Often one purpose is highway travel. Roads require relatively little cubic space or lateral land
. . . yet roads can provide designs and structures which stimulate other beneficial uses for the space they share.
Parks above and alongside, parking beneath, high-rise buildings above
. . . these are a few of the ways in which joint development can encourage double or triple use of land.
as part of highway improvement in scarce urban space.

In the following pages is pictorially traced the evolution of highway joint development . . . its origins,
its role as an early answer to urban America's growth,
and its new potential as a basic tool for shaping our cities to be as useful and comfortable as their citizens
demand and deserve.

The techniques for successful joint development . . . the planning,
financial cooperation, identification of community goals, and construction of facilities it envisions
. . . these are extensive and detailed. But the concept is not.
It is the basic belief that wise multiple use of limited urban space, works to the best advantage of those who live and
work in our cities.
This is a book about joint development . . . a book about space.



Urban space problems were nearly as familiar to
Europe's cities under the Roman Empire
as to many American cities today. One solution
—the combining of shops and restaurants with bridges . . . .



Turn-of-the-Century America was no stranger to the promise of joint development.
This eye-assaulting complex of railroad tracks is now covered by fashionable Park Avenue in New York City.
Joint development not only covered the tracks with Park Avenue . . . but a few short decades later, it allowed builders to erect this striking edifice in space yet untapped over and around the railroad tracks.

Joint development need
not always involve massive
or complex structures.
The creation or preservation of
a tree-laden park
can be an aesthetic
and useful product of the concept.

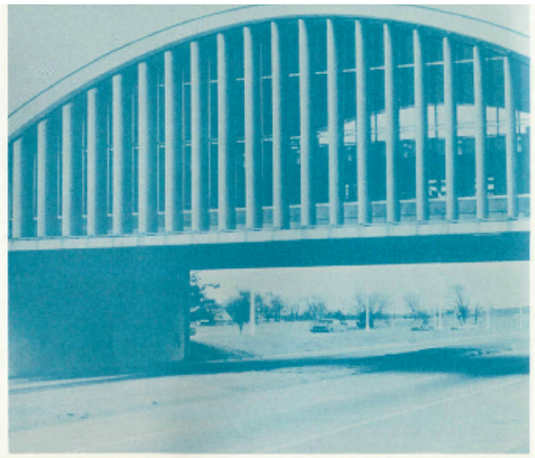
8

9

Joint development can produce impressive engineering masterpieces, making our dense urban centers more productive through space economy and stretching of public funds.

13

. . . or an attractive convenient restaurant
as part of a main stream highway.



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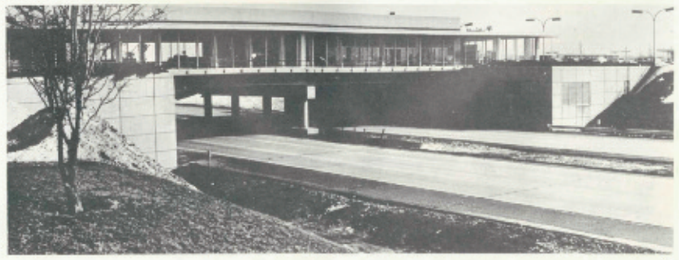

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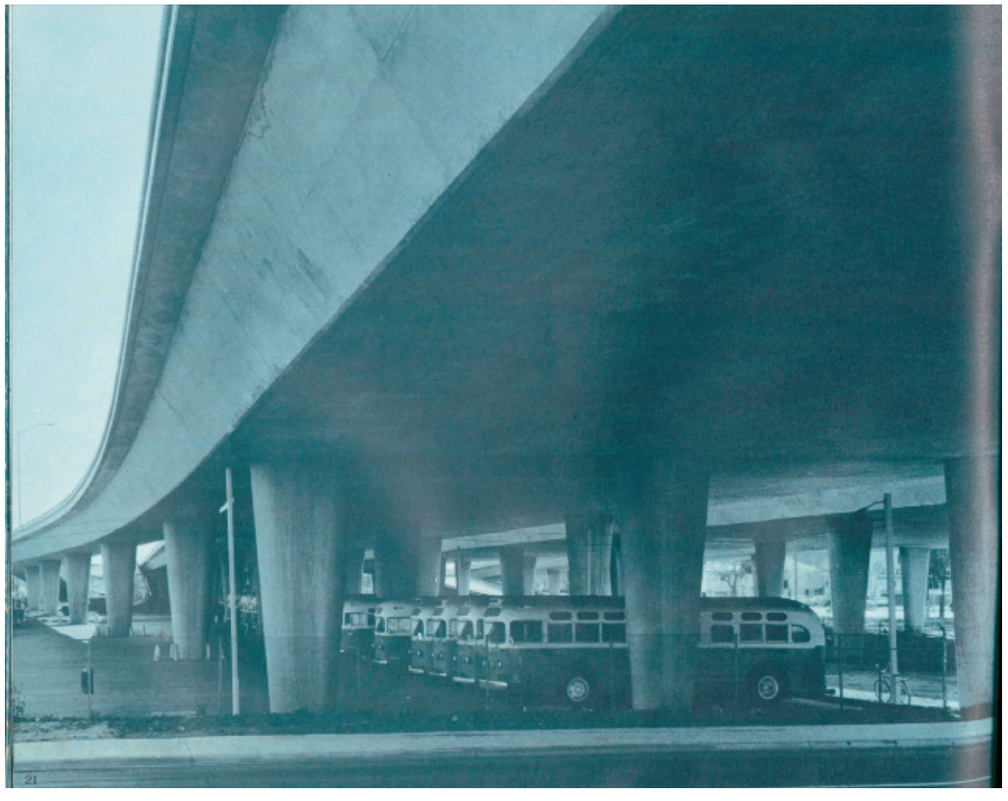
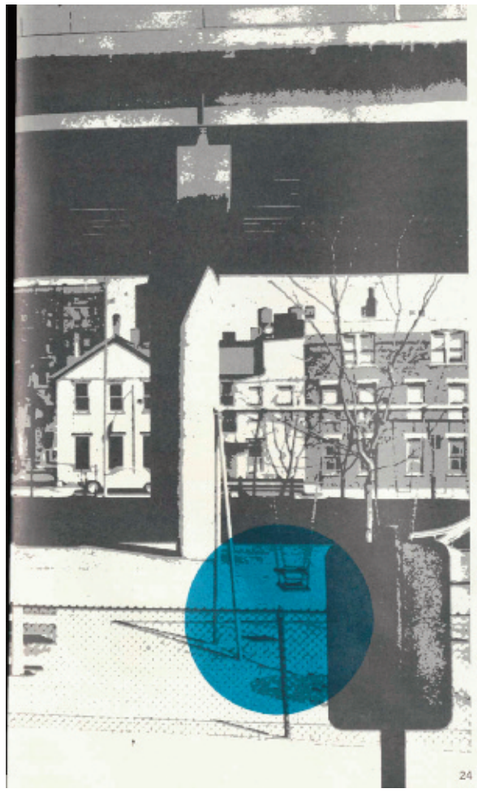


21

Where conditions dictate, urban freeways sometimes
are elevated.
The area beneath these structures offers an excellent
resource for multiple use.
Parking for mass transit buses . . .



24

Neighborhood playgrounds . . . which can be created
quickly and without need for expensive
new construction . . . have the added
advantages of helping to unify and stabilize
densely populated communities.

32

The potential productivity of available space over urban highways is vast
. . . space that can produce apartments

34

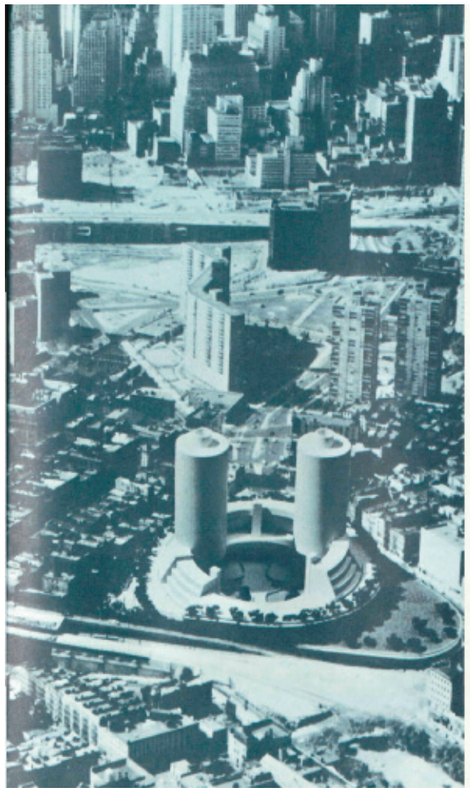
. . . or comunity medical centers connected by covered walkways to adjoining hospitals, and providing on-site parking for patients . . .

36

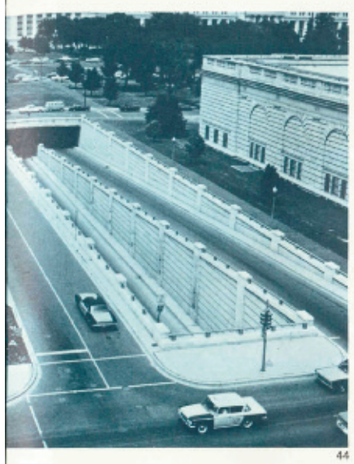
. . . manufacturing facilities and office space for private industry . . .
business . . . and government . . .

. . . or the hotels and convention centers which are important ingredients in assuring the economic well-being of today's modern cities.

37



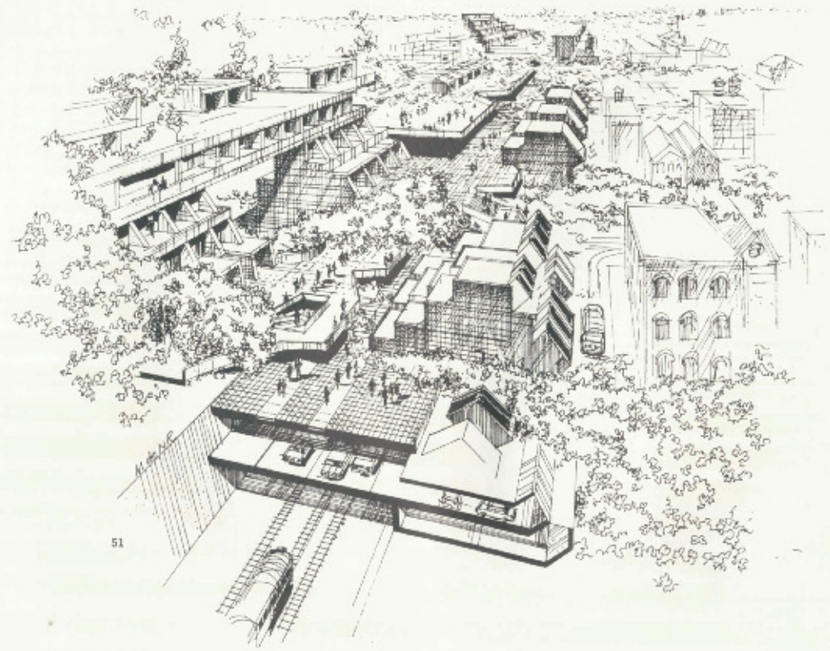
Sometimes, a highway's design creates small parcels of land near approach ramps or interchanges. These areas may be ideally suited for recreation areas . . .
. . . or for a combination of housing and educational facilities.



44

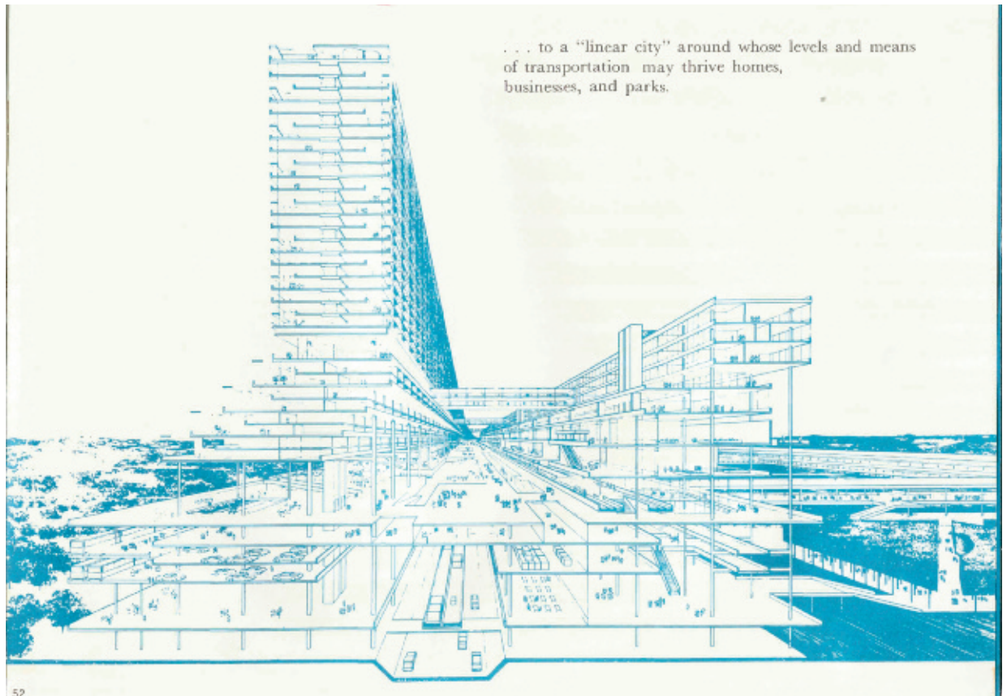
45

Easy access to urban centers and faster thru-city traffic flow sometimes can be obtained through provision of median strips for rail rapid transit
. . . or by short sections of depressed roadway which avoid congested traffic circles, yet leave small parks unharmed.



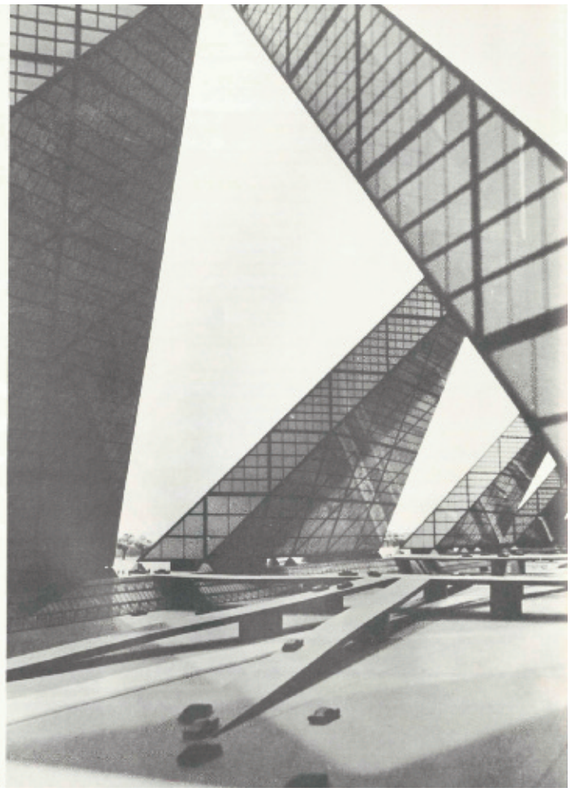
51

. . . to a "linear city" around whose levels and means of transportation may thrive homes, businesses, and parks.



52

The only real limit to the potential
of joint development, in fact, is
. . . man's imagination.



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56

SPACE . . . *beyond our planet, a commodity with no known boundaries . . .*
. . . in our cities, a commodity as scarce as a rare gem, to be planned and used with a jeweler's care . . .

These few examples of joint development can only hint at its promise for the city of today and tomorrow.
Even now, men of vision . . . planners, officials, architects, and private citizens . . .
are working together to harness the full potential of the joint development concept.

Seeking new opportunities to combine the highway with other
urgently needed facilities for the city,
they are coming to grips with the long-neglected problems of "inner space" in our nation.
On their imagination, ingenuity and skill rests the contribution of joint development
to the health of America's cities.

U. S. GOVERNMENT PRINTING OFFICE : 1965 O - [illegible]

1 Ponte Vecchio Bridge—Florence, Italy
2 & 4 Washington Avenue Bridge—Minneapolis, Minn.
3 Proposed Channel Bridge—Washington, D.C.
5 New York Central Railroad Tracks—New York City. 1903
(Courtesy American Photo Service, Inc.)
6 Park Avenue covering railroad tracks—New York City
7 Pan Am Building over Park Avenue—New York City
(Courtesy Pan American World Airways, Inc.)
8, 10, & 11 Brooklyn Queens Expressway—New York City
(Courtesy Triborough Bridge and Tunnel Authority)
9 Franklin D. Roosevelt Drive—New York City
(Courtesy Triborough Bridge and Tunnel Authority)
12 & 13 Post Office Building over Dwight D. Eisenhower Expressway—Chicago, Ill.
14 & 15 Prudential Center over the Massachusetts Turnpike—Boston, Mass.
16 Proposed Court House—Milwaukee, Wis.
17 Public Library—Hartford, Conn.
18 "Glass House Restaurant" over Interstate 44—Vinita, Okla.
19 & 20 "Oasis" restaurant over Illinois Tollway—Chicago, Ill.
(Courtesy of Al Howard, Chicago, Ill.)
21 Capital Transit Authority parking beneath Interstate 80—Sacramento, Calif.
22 Public parking beneath Interstate 278—New York City
(Courtesy Triborough Bridge and Tunnel Authority)
23 Public parking beneath Interstate 35—Austin, Tex.
24 Playground beneath Dan Ryan Expressway—Chicago, Ill.
25 California Division of Highways maintenance building beneath
Interstate 280—San Francisco, Calif.
(Courtesy State of California Department of Public Works)
26 Proposed public service buildings beneath Interstate 310—
New Orleans, La.
27 Proposed community facilities beneath Interstate 81—Syracuse, N.Y.
28 Conceptual commercial arcade beneath a freeway
29 & 30 Commercial and industrial uses beneath Interstate 5—Portland, Oreg.
31 Apartment buildings over Interstate 95—New York City
32 Proposed apartments over Interstate 95—Washington, D.C.
33 University of Alabama Medical Center over city street—
Birmingham, Ala.
34 Proposed medical center over Interstate 35E—St. Paul, Minn.
35 Bradley Tool Design building over city street—Milwaukee, Wis.
36 Ramp to Interstate 95 through Liberty Loan Building—Washington, D.C.
37 Cobo Hall Exhibits Building over John C. Lodge Expressway—
Detroit, Mich.
38 & 39 Hotel America and Constitution Plaza—Hartford, Conn.
(Courtesy Triborough Bridge and Tunnel Authority)
40 Fort Hamilton playground adjacent to Interstate 278—New York City
(Courtesy Triborough Bridge and Tunnel Authority)
41 & 42 Proposed school and housing project—New York City
43 Rapid transit in median of Interstate 90—Chicago, Ill.
44 12th Street underpass beneath the Mall—Washington, D.C.
45 "K" Street beneath Washington Circle—Washington, D.C.
46 Proposed relocation of Route U.S. 6, and linear park—
Manchester, Conn.
47 Proposed medical clinic over Interstate 375—Detroit, Mich.
48 Proposed school facilities over Interstate 70N—Baltimore, Md.
(Courtesy Skidmore, Owings and Merrill)
49 Concept of combined office and transportation facilities
50 Proposed Mount Baker Ridge complex over Interstate 90—
Seattle, Wash.
51 & 52 Conceptual "Linear City" projects—New York City and environs
(Courtesy Princeton Alumni Weekly)
53, 54, 55, & 56 Conceptual housing and business structures of the future
(Courtesy Baltazar Korab, Birmingham, Mich.; Suspended
Structures, Inc., San Francisco, Calif.)

Discurso de Louis Kahn durante la ceremonia en la que fue galardonado con la medalla de oro de la AIA (American Institute of Architects)
1971

Record Group 505, Series 1, AIA Convention Proceedings, 1971
The American Institute of Architects Archives
Washington

LOUIS I. KAHN, FAIA: Thank you, Mr. President.

I thank the Board of Directors of The Institute. I thank the members of our Institute for this honor, this unique honor, you have bestowed upon me.

I have been asked to make some remarks, and I chose to speak about some recent thinking on architecture, trying to find the simplest indication of the spirit of our profession.

I would like to talk about the room, the street, the agreement.

The room, I feel, is really the beginning of architecture. The room is the place of the mind. Its dimensional limit makes it so that you do not say the same thing in a small room as you do in a large one. You do not also say the same thing if you are with just one person and when you are even with another than the one person. It seems that when you are just with one person that you become generative, you say what you never said before, and when you are with two other people it seems as though it is a time of performance where with just another person it becomes an event. So sensitive is a room, and so much is a room the great recognition of the marvelousness of the emergence of architecture itself.

And a society of rooms is the plan, something which

gives the sense where it is good to learn, where it is good to live, where it is good to work.

It is so wonderful that a room exists altogether that one simply must begin without any reference to another plan to recapture that moment when a plan or a room was first created.

In doing a school one would think it is a place where it is good to learn and to think of making seminar rooms numerically like seminar room 1, 2, 3 or 4 seems so ridiculous in the light of the thought that a seminar room is a place which you discover in a plan rather than one which is ordained for its use.

So certainly is the hall in the school as compared with the corridor with its lockers double-loaded as a solution to a problem, school as it should be - the hall which leads you from room to room as the place which belongs to neither student nor teacher nor manager is a free place where you go from place to place, free of servitude, one that has its relation to the garden and that's more school than a solution school which calls for an efficient use of areas but never reach the heigth of being a space.

I said I would like to talk about the room, the street, the agreement. The street is a room, for it is a room by agreement.

And it seems as though the room by agreement is really the first institution of man. In struggling with people's objection to the sense of institution at first I defended institution very strongly but now I don't defend it. But what I do love to defend is the meaning of agreement, natural agreement, as though it were the core of commonality.

I think today we need new agreement. If I were to say the first duty that an architect has to his plan it is to find the commonality of agreement in his plan and that the plan is answerable to this commonality. As though you do not know what a school is like until you have found the commonality of spaces which present school as against any other kind of space or society of spaces.

And if I were to say that what distinguishes a planner from an architect is one who recognizes that every plan must be answerable to an institution of man because the institution of man is merely the support of agreement. So the institution can go sour, you can have the wrong people managing it, and you can certainly say that an institution can go bad but it must never be considered that agreement, a natural agreement would ever go bad. I think it is so marvelous that it acutally occurs at the time it should that it has a lasting quality never to die;

that natural agreement is so much in the nature of man that what could die is the institution that serves it but never the agreement itself.

That is why the street is so marvelous that you easily give in to the idea that both facades which face the street gave the street its privilege to be a street.

And you might say the first meeting room that ever happened is also a house by agreement except that it has a roof on it. It is no different really from a street except that it has a roof. Somebody said - well, why should we always wait for the weather to be right, let it be a meeting place which has a roof on it.

And I believe that city planning can be defined from there on if it recognizes that the city itself is only an assembly of the institutions of man, or rather, the natural agreements of man.

I would say from a mere settlement on some island of ambitious people who thought they may find gold there, the few people who just rode or sailed to this place - the story, for instance, of Romans who went to Spain and settled there because they saw something there in their minds which was a promise of the kind they wouldn't find where they came from,

and when they landed the eight or ten people who formed, you might say, a settlement, agreed amongst themselves to form the nucleus of a city by saying you are a carpenter, you are the chief of the department of public works, because he happens to be good at this thing. And so there is, therefore, a kind of agreement, and when you think of this simple beginning and think of our present institutions with our governmental offices who have lost the spirit of their beginning that some changes must be drastically made which would inspire the re/creation of the meaning of city, the meaning of any kind of spaces - we desperately need new agreements.

From new agreements we will make new kinds of agreements. It won't come from the materials available, but they are just simply availabilities. Can you say the Parthenon is less than a building of some other buildings today? You can't. It is marvelous with meager technology that existed that [it] has that marvelous influence on us today because of the sheer influence of the column that grew out of a wall, that enclosed us for a long time until the man inside of it complained he couldn't look out and he hammered and (axed) when he thought it pretty safe. The wall cried - "I have protected you." And the man said "I appreciate what you did but I must make a hole, I

feel quite safe to make it."

And the wall did cry but the man did something very good: he saw that the opening was a window andthe windowwas not just an opening - it is a kind of a glory of a wall - and when he put in a window unconsciously, not just an opening, the wall was terribly pleased, and the window became part of the order of the wall.

I say you can reconstruct the entire city from the sense that a city is measured by the quality of the institutions we have. Or better still, the quality of agreement that we constantly are unaware of, the ones that exist and the ones that can exist.

I say the world is full of the possibility of new agreements from which new architecture will come. It won't come from technology because I believe that technology should be inspired, not just used. I believe that a good plan or a good idea that doesn't have the technology yet is a greater plan than the one that uses technology. Technology that is inspired - and that is the only time it is honored. Because I don't believe in need - I don't believe in need as a force at all. Need is a current, everyday affair. But desire - that is something else again. Desire is the forerunner of a new need,

it is the yet not stated, the yet not made which motivates not what already has been produced. To me need is just so many bananas.

So the institutions which we need new ones of stem from new agreements and they are fooling us, these new agreements.

The room, the street, the agreement. The street, the square, the court. The court is like a boy's place; the square is man's place.

If you think of the architecture of connection, an architecture which can be quite understood for it is in the plan of a city, the architectural connection can take fantastic forms, not all the same at all. One city can distinguish itself from the other by just the inspirational qualities that exist in sensing the natural agreements amongst us.

Just think of the spaces where it is good to learn, where it is good to live, where it is good to work thatare completely unexplored, and therein lies the real richness of the architectural possibilities.

It is not enough to solve the problem. To me solving the problem is duck-soup, nothing to it. But to imbue the spaces where it is good, to]have] quality, that is a different question entirely. It would not be seminar 1, 2, 3, 4

but it would be a seminar room to discover because one [is] a place of affirmation, one dissent; the other one is small or large, just a realm of spaces where you discover the nature of man's qualities, man's nature, the singularity of each. In a room where you just have one person beside yourself, there is common venture. When three people are there, you say your lines. You may put the first act second, the last act first - you say your lines - as I am saying now, to a certain degree. I do not believe I am generative right now. Being with just another person I would invent things I never thought of before.

I believe the world needs new availabilities. I believe it is disgraceful going to Indian, going to Pakistan where I realized that, I would say, ninety, more than ninety-five per cent of the population have absolutely no ambition. They dare not have the ambition to elevate themselves one bit beyong just simply living from hand to mouth because only five per cent of the population has any chance to express itself. And to think that the reason for living is to express, there is no other reason for living, and what is there to express but that which is completely inexpressible?

It is the quality of the unmeasurable, not the measurable. The measurable, in my opinion, belongs to nature's

manifestations.

The other day I was asked to talk about silence and light. And it is because I felt that in seeing the Pyramids some while back, I felt the Pyramids wanted to talk to you and tell you how it was made. The marvelous spirit which from some quality really thoroughly unknown to us there is the great motivation to build such a thing. A building that is being built is in no servitude - it is so anxious to be that no grass can grow under its feet in its making, so high is the spirit of wanting to be. When it is in service and finished, the building wants to talk to you, say look, I want to tell you now it was made because nobody listens, because everybody is busy going from room to room and nobody hears.

But when it is a ruin and free of servitude the spirit comes out again, the marvel that a building altogether is made. When you think of the great buildings of the past that have no precedent whatsoever we always refer to the Parthenon, we say it is the building that grew out of the sense of the wall, to the making of openings which were really light and you can say that structures is the maker of light, and the column which is no light, and the space between the column which is light, and it is a rhythm of light - no light, no-light, no-light - which

tell a tremendous story of architecture as compared, let us say, to just simply manipulating that everybody makes in sort of a floor material, one material or another. It is nothing but the unconscious that you are simply extending what happened long ago; the beginning was always considered the most marvelous thing, had no precedents and somehow was there anyway.

I feel that architecture does not have any precedents whatsoever. What has precedent is a work of architecture, but it must be presented as an offering, not as though it were a solution; it must be considered an offering to architetture itself.

So in thinking of silence and light, I saw this, or rather, felt this kind of source of beginning, the source of the will to express, suddenly comes in precedents of availabilities and that is all of nature. I felt that material of nature was really spent light, that somehow the mountains are spent light, that the streams are spent light, thatbthe atmosphere is spent light, and we are spent light, all material is spent light, and that the material on one side and the desire to express on the other are crossed to a threshhold and this threshhold is the inspiration, as though the will to be, to express, meant the availability, the possible. That was a high moment. It was

at that moment when one felt beauty, the first sense of man undefinable, unmeasurable-measurable, but a feeling of harmony both the stress of possibility was there to the material, the material is the maker of all things but the will to make is not in nature at all, it lies in man as a great, great motivating force in man undefinable.

I often feel the wish in a fairy tale is the beginning of silence. If you're in trouble, you want to disappear. And a person or people who fly when they want to plan, being jealous of the bird, or run like a deer, being jealous of a deer, or swim like a fish, being jealous of a fish. No end of expressiveness in man.

This meeting of light to silence is the threshhold of the inspiration; it is the sanctuary of light. Art is the only language of man. It is also the treasury of the shadows because whatever is made - light casts a shadow. Our work is a shadow.

When the astronauts went through space the moon presented itself, or rather, earth presented itself as a marvelous ball, blue and rose, in space, and since I followed it and saw it that way, all knowledge left me as being unimportant truly it is because knowledge is really an incomplete book. You

take from it to know something, but knowing should never be a party to the next man, only what knowing gives singularity each person a chance for expressiveness which is, after all, the seeking of the knowledge, or the knowing, that is the value apart, what comes out of you through knowing which only primes your singularity into expression.

That is why I don't believe in imparting knowledge. I believe this is presumptuous.

I believe the greatest work that a man does is the part that does not belong to him at all. If he discovers a principle, that is great; only his way of interpreting belongs to him; otherwise it belongs to everybody, the same way the discovery of oxygene doesn't belong to the discoverer.

I like to invent a story about Mozart which never existed but Mozart - somebody dropped a dish in Mozart's kitchen and it made a hell of a noise. The servants jumped and Mozart said, "A dissonance." and immediately dissonance belongs to music and the way he wrote it belonged to him.

I don't like the architects accepting the divisions of their profession of architecture into urban design, city plan, and architecture as though they were three different professions. What a dastardly scheme that is completely commercial. A man is

an architect - doesn't have to be divided into three different parts. Believe me, an architect can turn from the smallest house to the greatest complex, including a city, as though he were not doing anything whatsoever, but the specialists, as they are in other fields, ruin the essence of a tremendous revelation which architecture gave man.

A man who always put the title urban designer, city planner along with the sign of architecture, I believe he doesn't know either subject well. To be an architect is quite sufficient.

I don't believe in technology as it is used as currently available. I believe in inspired technology which grows out of the excellence of the presentation which alls for some other way than what we have today. You will never solve the housing project by taking present technology. It's too goddamn expensive, and what we need is something which is created out of mere genius and the willingness to present the truth, which may in some cases say you can't afford to have any more than one or two rooms rather than minuscule rooms . All architecture belongs to this treasury of spaces; it is not the matter of solution of problems.

I don't want to be too openly critical of the place

we are living now - completely fatuous. Architecture is a spirit which inspires, inspires the marvel, the marvel of existing altogether, and we should strive, in my opinion, to make every building a credit to architecture as being that which raises the spirit of man and belongs to what I tried to say just a little while ago to the treasury of spaces which you find in the places where people live.

I thank you, very much.

(The assembly arose and applauded)