

Chicago Transit Authority
Research/Planning

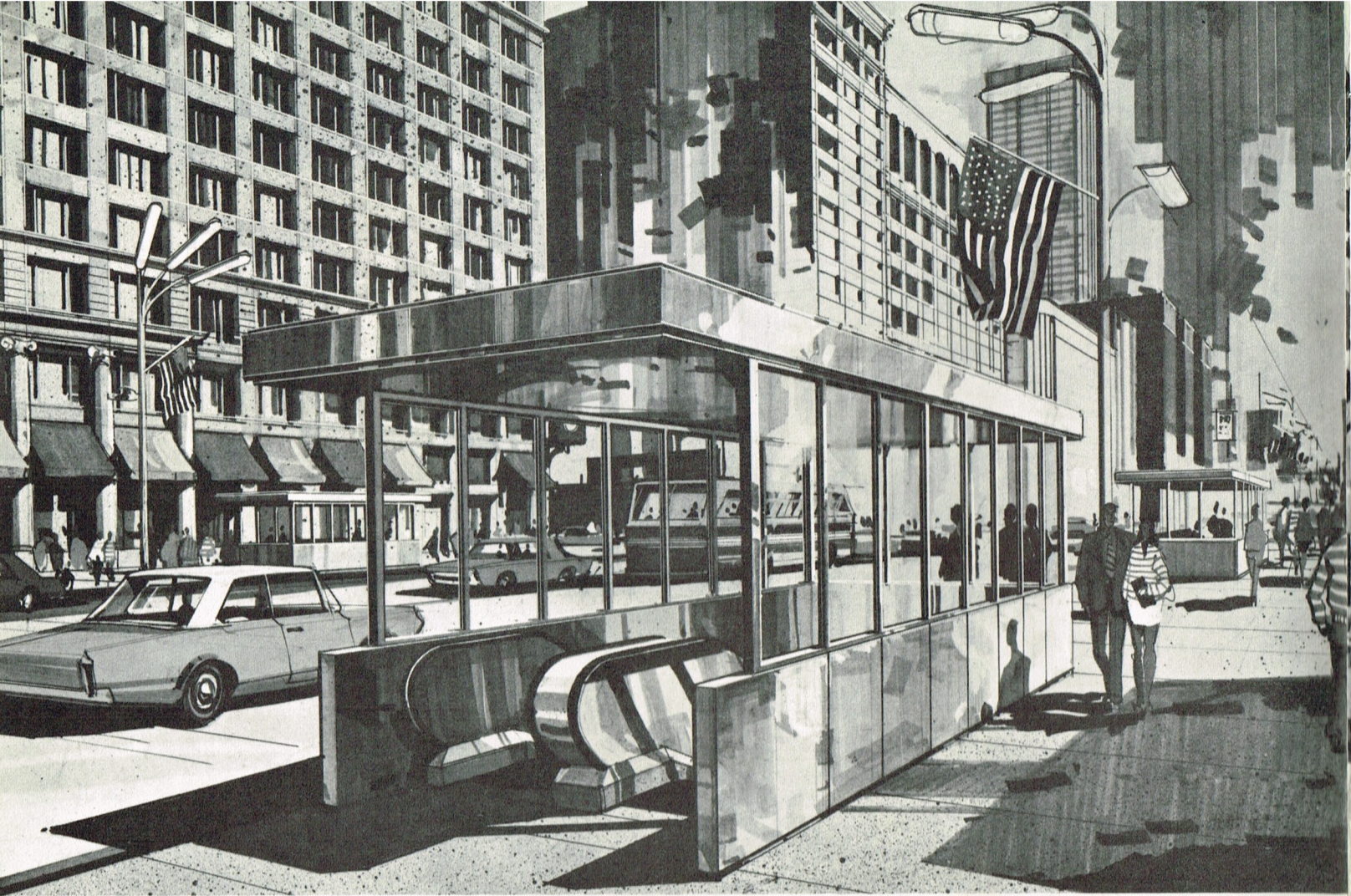
We're
getting
a move
on...

**THE
NEW
CTA**



Chicago Transit Authority
Capital Improvement Program
The First Step

RP-x71442
Revised 9-22-71



To afford protection for the subway entrances at Washington/State and Washington/Dearborn, the stairway openings in the sidewalk would be covered by high-visibility shelters, as shown on State Street in the concept above. Escalators would aid movement as in the drawing of Dearborn Street on the front cover. These sketches and those inside and outside the back cover of this brochure are indicative of a few of the more spectacular projects in this program.

Chicago is a vigorous and progressive city and we at CTA plan to keep pace with its needs. This comprehensive program can now be undertaken with the aid of the Transportation Bonds as well as greatly increased federal aid for transit. It marks the start of our new philosophy: "We're getting a move on — The new CTA."

For people to use mass transit to the maximum extent, we are convinced it must be safe, clean and dependable. Our program is designed around that concept. But along with the physical improvements CTA will continue constantly analyzing riding patterns and needs to find ways of providing improved service for Chicago and the surrounding area. In addition, CTA will continue to work to assure effective and coordinated mass transit for the total metropolitan community.

Michael Cafferty
Chairman
Chicago Transit Board

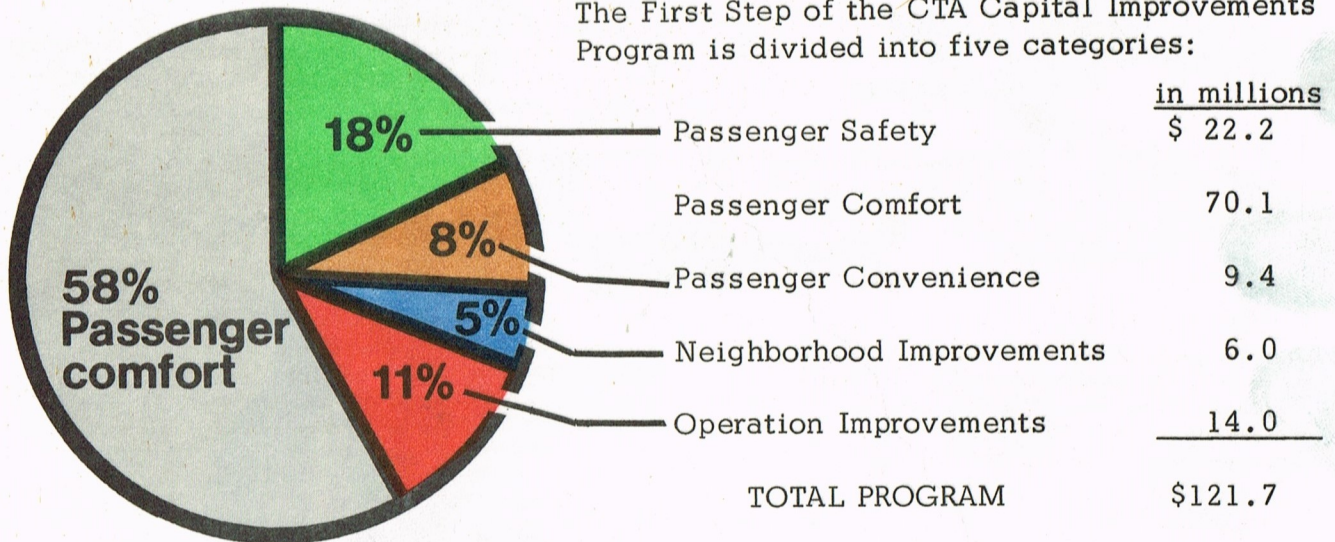
Summary

The Chicago Transit Authority has developed a five year capital needs program which anticipates investing \$277 million in capital renewal and replacement between 1972 and 1976.

This program is designed to stop the decline in the physical condition and usefulness of equipment and facilities which has resulted from inability, over a long period of time, to generate from acceptable fare levels the funds needed for renewals. This trend, in which capital plant is being consumed in order to continue operations, is common to transit systems throughout the nation, and unless it is reversed soon transit services will inevitably break down or be discontinued.

Recent legislation, both State and Federal, makes it financially feasible to begin the first step of a journey to a completely modern system by 1990.

The First Step of the CTA Capital Improvements Program is divided into five categories:



Assuming full federal and state participation, the financing will be:

Federal share	(2/3)	\$ 81.1
Local share	(1/3)	40.6

The local share shall be provided by:

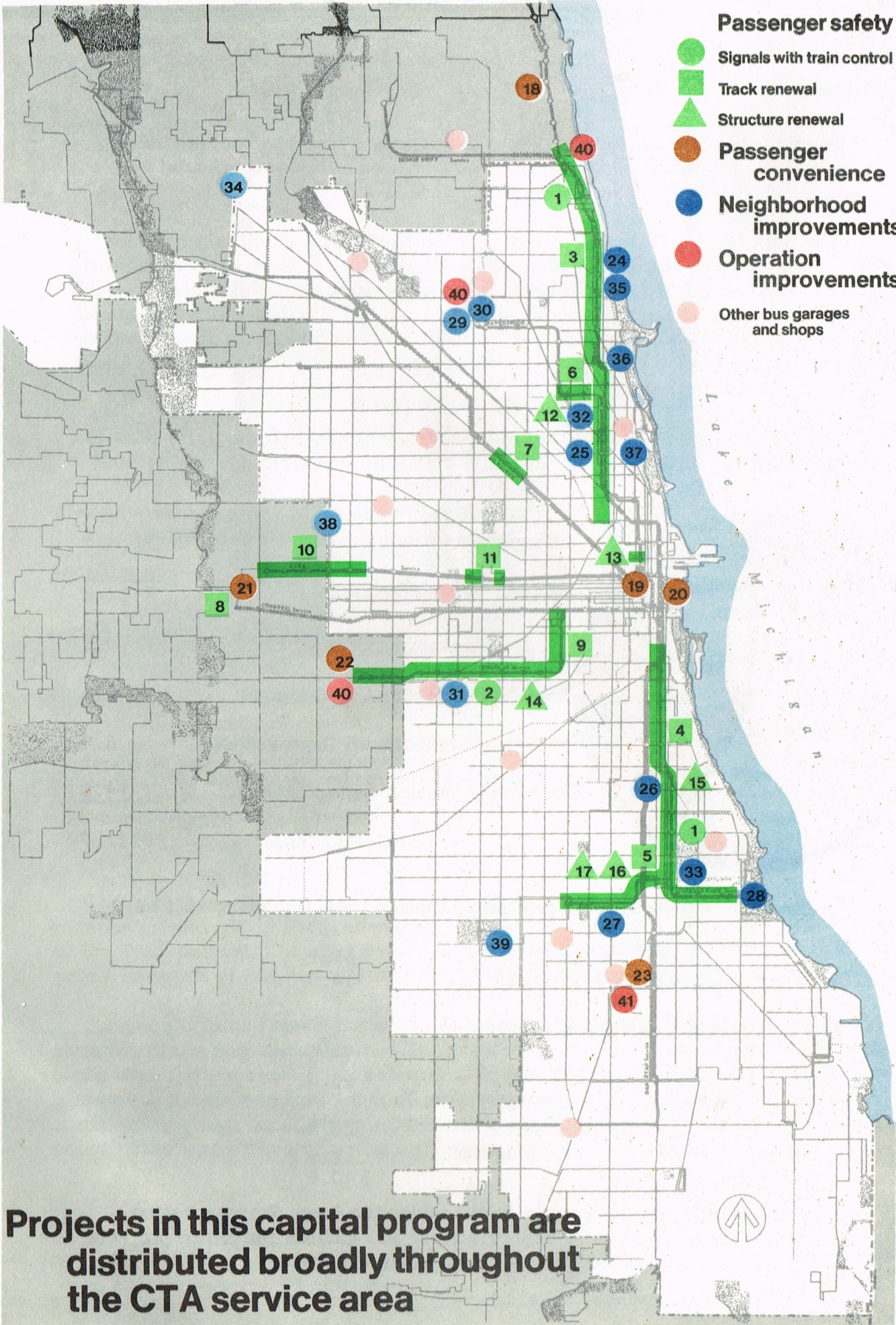
CTA work force	\$ 10.0
Transportation Bond	
regular program	20.0
"soft match" program	10.6
TOTAL	\$ 40.6

CTA will maintain a remaining credit under the State Transportation Bond "soft match" Program of approximately \$21 million for future projects which do not constitute extensions or major new additions.

Passenger safety

- Signals with train control
- Track renewal
- ▲ Structure renewal
- Passenger convenience
- Neighborhood improvements
- Operation improvements
- Other bus garages and shops

Projects in this capital program are distributed broadly throughout the CTA service area



Most significant items in the first two-year program are listed below, with their locations keyed to the map opposite

Passenger safety

Install cab signals

- 1 North-South route
- 2 West-Northwest route, Douglas branch

Renew track

- 3 Howard to Lawrence, Howard branch
- 4 18th to Indiana, Englewood/Jackson Park branches
- 5 Wentworth to Princeton, Englewood branch
- 6 Southport to Clark Junction, Ravenswood route
- 7 California to Western, Milwaukee branch
- 8 Desplaines yard, Congress branch
- 9 Harrison to 18th, Douglas branch
- 10 Harlem to Laramie, Lake branch
- 11 Crossovers, Lake branch

Renew structural elements

- 12 Paulina to Clark Junction, Ravenswood route
- 13 Grand/Franklin, Ravenswood route
- 14 Harrison to Kildare, Douglas branch
- 15 16th to 61st, Englewood/Jackson Park branches
- 16 59th Junction to Wentworth, Englewood branch
- 17 Wentworth to Princeton, Englewood branch

Passenger convenience

- 18 Replace trolley with 3rd rail, Evanston route
- 19 Remodel Washington (Civic Center) subway stations
- 20 Install escalator at Adams/Wabash
- 21 Replace temporary Desplaines station and bus terminal, Congress branch
- 22 Improve 300-car park'n'ride lot at Cicero/Berwyn terminal
- 23 Provide 350-car park'n'ride lot at 79th/Perry

Neighborhood improvements

Remodel stations and platforms

- 24 Bryn Mawr, Howard branch
- 25 Fullerton, Howard branch
- 26 43rd, Englewood/Jackson Park branches
- 27 Halsted, Englewood branch
- 28 Jackson Park
- 29 Kimball, Ravenswood route
- 30 Kedzie, Ravenswood route
- 31 Central Park, Douglas branch

Replace power substations

- 32 Newport, North-South/Ravenswood routes
- 33 62nd, Jackson Park branch

Build bus turnarounds

- 34 Touhy/Overhill
- 35 Bryn Mawr/Lake Shore Drive
- 36 Irving Park/Broadway
- 37 Fullerton/Cannon Drive
- 38 Division/Austin
- 39 71st/California

Operation improvements

- 40 Construct 'L'-car servicing buildings, Howard, Kimball, 54th
- 41 Expand 77th bus garage

Passenger comfort

Passenger comfort

- Purchase 1000 air-conditioned buses
- Purchase 100 air-conditioned rapid transit cars
- Purchase rail grinder
- Purchase vacuum cleaner/wall washer

Miscellaneous

- Extend 20 platforms on Lake branch, West-South route
- Install modern passenger controls
- Replace stairways at 13 elevated stations
- Improve rapid transit communication system
- Replace footwalk along rapid transit structure
- Purchase service vehicles
- Remodel various shops and garages
- Purchase tools, machinery and furniture
- Renew fencing
- Renew third rail

Here, in more detail, are the projects included in the first step, together with their estimated cost, including contingencies.

PASSENGER SAFETY \$22.2 million

Modern Cab Signals for Rapid Transit \$11,660,000

- North-South route will be fully signalized and the related signal equipment will be installed on 400 rapid transit cars
- Douglas branch of the West-Northwest route will be fully signalized

Track Renewal \$ 7,425,000

- replaces ties, rails, fastenings, supports and footwalks
 - improves riding comfort over 108,000 lineal feet of track
 - provides over \$4 million of CTA force work for the local matching share
- Improvement work would take place at the following locations:

N-S, 18th to Indiana
N-S, Lawrence to Howard
N-S Englewood, 59th to Wentworth
N-S Englewood, 59th at Dan Ryan overpass
W-NW Milwaukee, Western to California
W-NW Douglas, Congress to 18th
W-NW Congress, Congress shop leads
W-S Lake, Laramie to Harlem
W-S Lake, Emergency crossovers
Ravenswood, Clark junction to Southport
Footwalk, various locations

Elevated Structure Renewal \$ 2,957,900

- replaces track stringer flange angles, cross girders, thru-plate girders and stairways
 - provides bright new painting in all areas of structural improvements
 - removes slow zones in various locations
 - provides over \$2 million of CTA force work for the local matching share
- Improvement work would take place at the following locations:

N-S, 16th to 61st, stringer flange angles
N-S, 18th, 39th and Indiana stations, thru-plate girders
N-S Jackson Park, 63rd, cross girders
N-S Englewood, 59th junction to Wentworth, stringer flange angles
N-S Englewood, 59th at Dan Ryan, flange angles and safety screen
W-NW Douglas, stringer flange angles
W-NW Douglas, Ogden, cross girders
Ravenswood, Clark junction to Paulina, stringer flange angles
Ravenswood, Grand and Franklin, thru-plate girders
Elevated stairways at 13 locations

Fence Replacement \$ 170,500

- replaces fencing along various portions of the electrified right-of-way
Ravenswood, Douglas and Evanston rights-of-way
Howard, Kimball and 54th yards

PASSENGER COMFORT \$70.1 million

1000 Air-Conditioned Buses \$47,479,500

- replaces all buses over 15 years old
- begins bus replacement program to reduce average age of fleet from 12 to 7 years
- will be equipped with environmental package to suppress noise and reduce noxious emissions
- includes spare components needed to minimize fleet size

100 Air-Conditioned Rapid Transit Cars \$22,230,000

- replaces all 50-year old cars now in service
- reduces average age of fleet from 15 to 12 years
- introduces air-conditioned cars to the North-South route
- includes spare components needed to minimize fleet size

Reduced Noise and Vibration \$ 220,000

- provides rail grinder to smooth the ride and reduce noise

Clean Subway Roadbed \$ 165,000

- provides vacuum cleaner/wall washer combination vehicle to improve operating environment

PASSENGER CONVENIENCE \$ 9.4 million

New Congress Rapid Transit Terminal \$ 5,665,000

(Desplaines Ave. at Eisenhower Expressway in Forest Park, Illinois)

- provides modern station, office, platform and canopy
- separates bus terminal from auto parking and pickup
- links rail, bus and parking facilities by grade-separated passage with escalators
- improves park'n'ride facility
- improves traffic flow on streets adjacent to terminal

Remodel Civic Center Station \$ 1,760,000

(Present Washington stations on Dearborn and on State, through which 100,000 travelers pass each weekday)

- modernizes Randolph/Washington stations, Dearborn and State Subways, consolidates and renames them CIVIC CENTER
- refinishes walls of mezzanine and inter-connecting passage in a style compatible with adjoining arcades
- improves lighting and graphics throughout
- covers six sidewalk entrance openings with kiosks
- provides escalators between street and mezzanine levels
- provides information center at mezzanine level
- improves fare collection and passenger controls
- provides acoustical tunnel liners to reduce platform noise level

Adams/Wabash Loop Station

\$ 111,650

- installs escalator on northeast corner adjacent to the new Mid-Continental Plaza building

More than 20,000 people pass through this station on a weekday, making it the most active on the elevated loop today. Traffic here has more than doubled in the last two years and continues to grow.

Park'n'Ride Facilities

\$ 311,300

- constructs 350-vehicle paved and lighted park'n'ride lot on CTA property at 79th and Perry to serve the 79th station of the Dan Ryan route
- paves, re-lights and improves the 300-vehicle presently unpaved park'n'ride lot at Cicero-Berwyn terminal, Douglas branch (54th Ave. and Cermak Rd. in Cicero)

Platform Extensions, West-South Route

\$ 550,000

- lengthens 20 station platforms mostly on Lake Street from 6 car lengths to 8 car lengths to increase service capacity of Lake/Dan Ryan through line
- improves the station lighting and graphics

Third Rail Installation

on the Evanston Route

\$ 550,000

- installs third rail from South Boulevard, Evanston to the Linden terminal in Wilmette to eliminate overhead poles and wires
- permits operation of modern cars and phases out 50-year old trolley cars which must now be used here

Improved Passenger Controls

\$ 446,600

- increases agent control of entering passengers and allows persons with exact fare to enter more rapidly at highest traffic volume stations
- installs 31 visifares, 62 multiple-coin turnstiles, 80 transfer issuing machines and 3 agent booths
- decreases required operating personnel

NEIGHBORHOOD IMPROVEMENTS \$ 6.0 million

Construct New Rapid Transit Terminals \$ 1,619,750

(1) Jackson Park Terminal (North-South)

- replaces the present antiquated station with new platform, canopy, radiant heating, lighting and graphics
- constructs a bus terminal with covered passenger waiting area
- installs two escalators to connect station and bus terminal
- removes buses from neighborhood side streets

(2) Kimball Terminal (Ravenswood)

- replaces the present antiquated station with new platform, canopy, radiant heating, transportation office, lighting and graphics
- improves the ingress and egress from the park'n'ride facility
- constructs a wall and landscaping to screen the sights and sounds of train operations
- extends the track to expedite train berthing and make it safer

Remodel Six Rapid Transit Stations \$ 1,903,000

- constructs open face entries and provides or upgrades escalators, platforms, canopies, radiant heating, lighting, passenger controls, stairways and graphics at:

North-South route

- (1) Bryn Mawr where over 14,000 passengers per weekday pass through the station
- (2) Fullerton where about 14,000 passengers per weekday pass through the station
- (3) 63rd/Halsted where nearly 9,000 passengers per weekday pass through the station
- (4) 43rd where about 8,000 passengers per weekday pass through the station

Douglas branch of West-Northwest route

- (5) Central Park where about 3,500 passengers per weekday pass through the station

Ravenswood route

- (6) Kedzie where almost 5,000 passengers per weekday pass through the station

These station improvements will help stabilize neighborhoods and surrounding commercial development as well as providing better passenger comfort and convenience, thus doubly enhancing the marketability of transit service.

Replace Antiquated Electrical

Power Substations \$ 1,705,000

(One presently at Newport/Seminary on Ravenswood-North-South-Evanston lines and the other at 62nd/Cottage Grove on Jackson Park branch)

Each of these new substations:

- replaces 50-year old AC-DC rotating convertors, which are noisy and subject to imminent failure that would curtail service, with silent, efficient silicon diode rectifiers in a more favorable location to deliver power efficiently to trains
- provides attractive building which complement the neighborhood

Construct Six Landscaped Bus Turnarounds

with Passenger Waiting Shelters \$ 739,750

- eliminates use of narrow residential side streets for looping buses and avoids standing of buses in streets while awaiting return starting time
- provides convenient waiting areas for passengers
- provides toilet facilities for employees

Construction would take place at the following locations:

Touhy and Overhill
Division and Austin
Fullerton and Cannon Drive
Bryn Mawr and Lake Shore Drive
71st and California
Irving Park and Broadway

OPERATION IMPROVEMENTS \$14.0 million

Expand 77th Bus Garage \$ 5,500,000

- constructs inspection shop with washing, servicing and fueling facilities, adjacent to the main overhaul shops, to afford convenient access for efficient major repairs

Construct Three Rapid Transit Car Maintenance Facilities \$ 1,925,000

- constructs servicing facilities for more efficient inspection, diagnosis and maintenance adjacent to rapid transit car storage yards: one of 2-car capacity at Kimball/Ravenswood route and one each of 4-car capacity at Howard/North-South route and 54th/Douglas branch

Remodel Certain Surface and Rapid Systems Shops and Garages \$ 3,705,900

- consolidates the Stores Division and Electrical Department field operations
- improves bus washing facilities at eleven locations
- widens garage doors to accommodate wide buses more safely
- improves heating and ventilating facilities at seven locations
- modernizes employe toilet facilities
- constructs transportation administrative office at Howard/North-South route
- converts fueling facilities from propane to diesel fuel as needed for buses to be obtained under another line item of this program
- upgrades 24 vacuum cleaners for more efficient cleaning of bus interiors

Service Vehicles \$ 1,203,400

- purchases vehicles required to conduct efficient operation, at rate comparable to normal attrition
- 108 sedans and station wagons for supervisors and plant guards
- 39 trucks and 22 other vehicles for maintenance and construction

Replace Third Rail \$ 429,000

- replaces badly worn third rail at:
 - N-S, 36th to 39th
 - W-NW Douglas, Western to Central Park
 - W-NW Milwaukee, Evergreen portal to California

Improve Communication System on Douglas and Lake branches \$ 257,400

- replaces telephone cable used to monitor and control the activities of the rapid transit system
- improves communication between operations control center and passengers onboard trains and on platforms

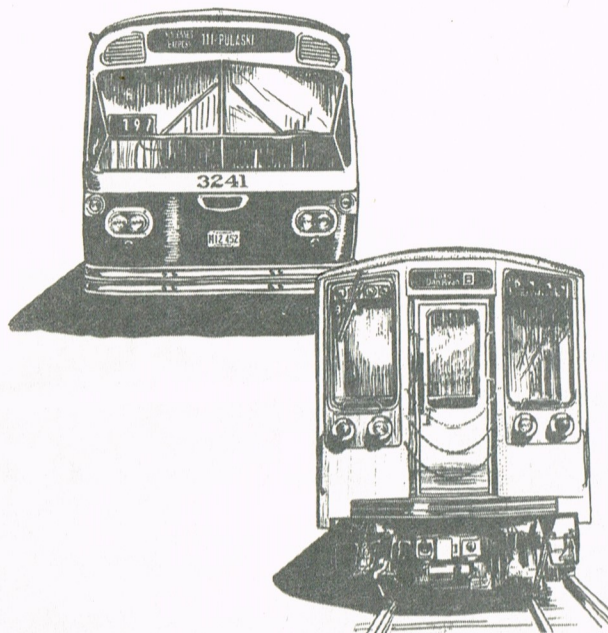
Purchase Tools, Machinery and Furniture \$ 933,900

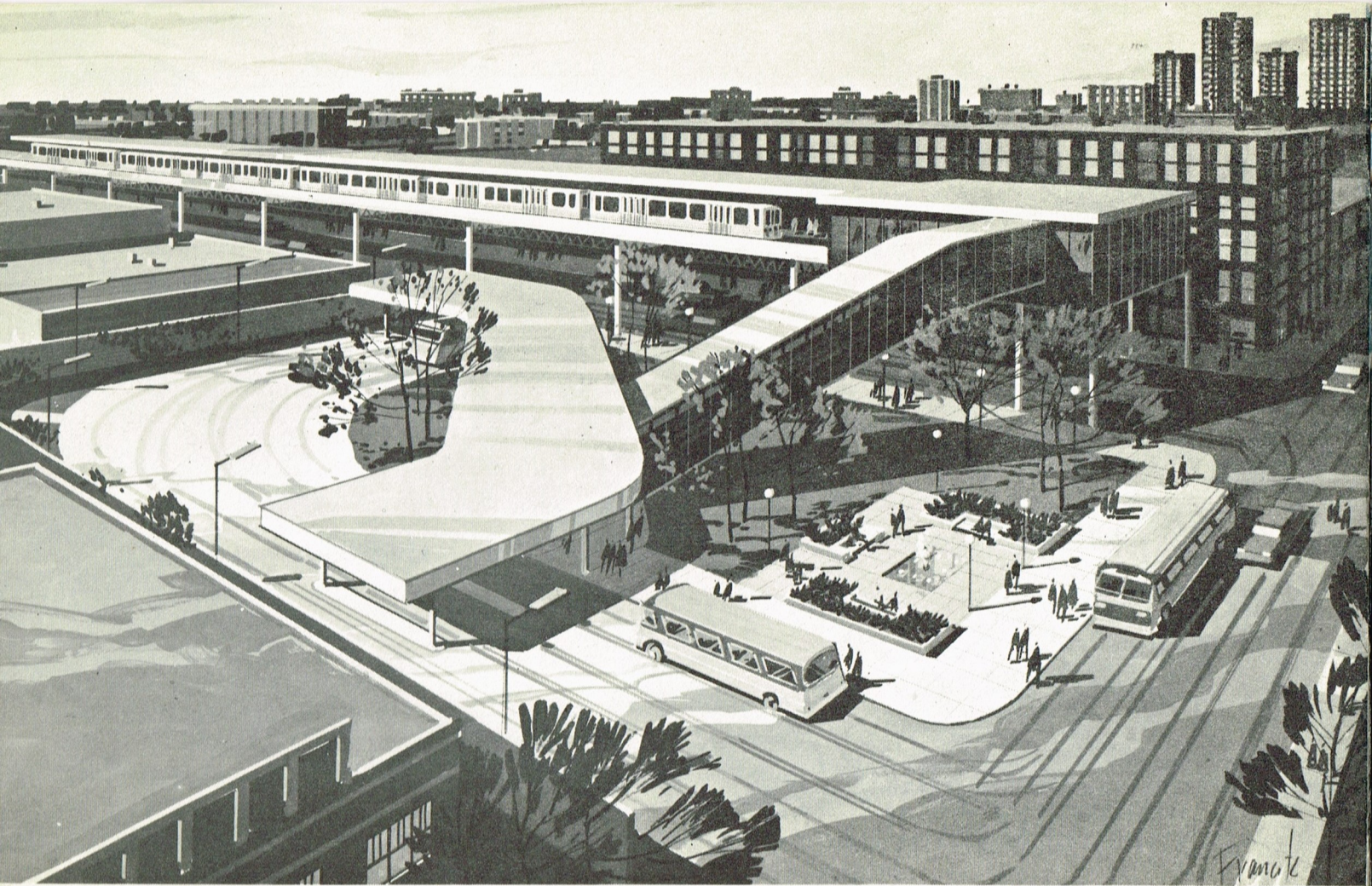
- replaces tools, machinery and furniture needed to conduct efficient operation, at rate comparable to normal attrition



The Kimball/Lawrence terminal of the Ravenswood rapid transit line will provide service in an improved way through the rebuilding, shown above, of the platform, passenger control area and the small local administrative office. This project is also expected to trigger redevelopment of nearby commercial properties.

The sketches below hint at the most recent vehicle designs in CTA's fleet. However, opportunities for improvements in appearance and function of new cars and buses to be provided under this program will be kept open until the last possible moment so that every possible advance in the state of the art is incorporated in them.





One of the highest and oldest stations on Chicago's rapid transit, the terminal of the Jackson Park line at Stony Island/63rd streets will be updated into a modern intermodal transit terminal following the outlines of the concept above.

Quality transit service is dependent upon clean, well-maintained dependable vehicles. To insure that high standards will be provided, this program balances an input of new vehicles, station and infrastructure modernizations with repair shops, tools and other specialized facilities for helping employees do effective work. One of these new facilities is the upgrading of bus servicing and fueling at 77th Street, CTA's largest garage, shown in the planner's design below.

