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Master Landscape Plan

GOVERNMENT CENTER PROJECT

Boston Redevelopment Authority
Sasaki, Walker and Associates, Inc., Consultants
William M. C. Lam, Consultant : Coordination of
Lighting and Architecture

January 1963

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I. INTRODUCTION

At the time our contract was issued, the Government Center project had already passed through numerous phases, beginning in 1959 with a planning study done for the City Planning Board of Boston by Adams, Howard & Greeley. Since that time additional consultants have been retained, the specific parceling of land established, competitions held, and other contracts awarded - fixing the spatial and architectural character of more than half of the project. In certain instances, the design of several projects had progressed to such a stage that the siting, the scale and the materials of these proposed designs had to be accepted as being unalterable.

The design problem presented by the Government Center complex consists largely of defining and controlling a rather extensive collection of spaces, of which the City Hall and City Hall Plaza are the symbolic center.

In the development of a landscape plan, it is, of course, necessary to look at the Government Center as an integral part of Boston's downtown. It is, in fact, the major focal point as one moves along Cambridge Street. Cambridge Street itself is the major link from the Charles River area to the Common so that the design must emphasize this continuity through a consistency of scale and materials.

While our contract limited the area of design concern to a narrow band of streets and sidewalks, it was apparent that we had to make certain assumptions and suggestions concerning the landscape development of adjacent parcels.

There are three elements; trees, pavements and lights which are of sufficient scale and continuity to provide the organization needed. Planting, because of contrast, paving, because of extent, and lighting because of its night-time dominance, offer the greatest opportunity in integrating the spaces within the Government Center project.

The design was developed with full recognition of goals and limitations imposed by previous decisions as well as the day to day guidance of the Boston Redevelopment Authority staff.

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II DESCRIPTION OF PLAN

Cambridge Street

Several obstacles hampered the Boston Redevelopment Authority's proposal to extend planting of a double row of trees along Cambridge Street to the City Hall Plaza. These difficulties are: 1) such planting in no way reflects the architectural or spatial enclosure of this particular area; 2) the New England Telephone and Telegraph Building interrupts the continuity of planting; 3) in like manner, the large intersection at New Sudbury Street would make a 150-foot gap in this planting at a particularly critical position.

One alternative to resolve this problem would be to terminate a pedestrian mall along Cambridge Street at Staniford Street, marking the entrance to the Government Center Complex. This alternative also involves a unified floor of brick throughout the Government Center in concert with the major brick plaza areas of the City Hall and State Service Center. The primary advantage of this solution is that the consistent and extensive use of brick would unify the many diverse architectural elements within the Complex. At the same time planting can relate to each architectural unit, rather than to the street. Since this approach can be effectuated by means of a policy decision, it would easily permit each unit of the Center to develop independently while at the same time remaining an integrated part of the whole. This approach raises the question of brick as the primary walking surface, and its relative cost as compared with concrete. When concrete or other smooth surfaced sidewalks were introduced to the program by the BRA as a requirement, this unified treatment of the floor was considerably weakened and the concept of a single pedestrian paving material had to be abandoned. If, in the future, these fundamental conditions are reconsidered, we would once again recommend a re-examination of this approach.

The alternative on the plan shows the Cambridge Street mall continuing as far east as New Sudbury Street. Here the double row of trees turn the corner and terminate against Parcel 2 East, creating a small pedestrian area in the resultant space. Since this kind of pedestrian focus also occurs in the area just to the west of the New England Telephone and Telegraph building, these plantations become elements in themselves flanking this large building. As a result, the interruption becomes a respectful recognition of the building entrance. Single specimens or clusters of small trees give additional interest in these pedestrian areas and accent the entrance space just mentioned.

The double row of trees forming the mall should be planted flush with the sidewalk. Granite blocks or precast concrete gratings will form an appropriate semi-pervious surface for the openings with a minimum of maintenance. Much of the planting to the west of New England Telephone and Telegraph Building is above the subway with a depth of cover from six to eleven feet. Care should be taken when the streets in this area are altered to insure that these areas are left in a plantable condition with six feet of soil depth.

The specimen trees are to be planted in raised areas approximately 18" above the paving surface. This retainer should be designed for sitting and the diameter sufficiently large, eight to twelve feet, so that they do not appear to be pots or tubs. The roots would extend directly into the soil. In addition to providing informal resting places, these tree retainers provide additional protection for these trees, allow for greater soil depth, and increased root aeration. Depending on the specific location of these specimens, the soil may be covered with a ground cover planting or with small stone mulch.

The Cambridge Street frontage to the Federal Office Building in Parcel 5 is treated with accent planting in similar retainers. This cluster planting will provide an ebbing space within the broad sidewalk area at that point--an area for waiting, for newsstands and for a colorful sign kiosk such as is found in European streets. The large bosk in the City Hall Plaza and the planting along New Sudbury Street form a frame for this entrance plaza.

The lighting of Cambridge Street and New Congress Street is designed to express the major vehicular character of these streets in contrast to the slower paced side streets and pedestrian ways. Lights on Cambridge Street should be located on the median strip beginning at the Longfellow Bridge and continuing to the north end of Tremont. Similarly, the lights along New Congress Street should begin at the south end of Lowell Street and continue to State Street, interrupted only by the Parking Garage.

The fixtures should be of the twin davit type, approximately thirty feet high, with flat round lens thirty inches in diameter with mercury vapor lamps (Type A). These lenses would be hooded to reduce distant glare and create an image of receding elliptical shapes of lower brightness. This combination of center island position, rhythm of pairs and emphasis on form rather than light source will help to create a unifying pattern above the natural disorder of bordering buildings, illuminated signs and car lights. These lights should be spaced 120 feet to 140 feet apart.

This regular order would be accented by similar luminaries in clusters of six (Type B).

These special fixtures would begin at New Sudbury and continue to Court Street. This special emphasis marks the arrival at the nucleus of the Government Center that is the City Hall and Plaza and would not destroy the continuity of the street. These cluster davits would be approximately forty feet high and spaced 100 feet to 180 feet apart.

The standards for these and all other fixtures included in this discussion would be either of painted steel or aluminum, anodized or otherwise treated to create a dark semi-matte finish which would be matched by finish on other pieces of street furniture. The median strips should be sculpted to emphasize the rhythmic spacing of the lights, to act as a control to pedestrian crossing and to protect the lights from vehicles.

City Hall Plaza

In principle, the planting along the northern enclosure of the City Hall Plaza reflects the original proposals by the architects. The only modifications are in specific placement. These tree openings might best be handled by the use of metal grates. Once again, the subsurface conditions should be mentioned. Because of the large amount of fill that will be necessary in this area to bring the site up to the proposed level, a structural rather than earth base has been considered for much of the area. This would require special provision for planting. The effect of adjacent structures upon the ground water and drainage conditions is particularly important. The more artificial the planting conditions, the greater will be the maintenance costs.

At the southern enclosure to this plaza, there is a single row of trees. These will help recapture the scale of old Cornhill Street and its frontages such as the Sears Crescent. Cornhill Tunnel lies not many feet below this surface. Specific elevations of this tunnel were not available but we were advised that if planting were desired in this location, the tunnel may have to be collapsed and filled. To keep as much cover as possible over the tunnel, the trees at the top of the steps were located to form the edge of the plaza. These trees, steps and change of floor material will all help to recapture the scale of this old street.

As an expression of the strong pedestrian movement from Beacon Hill to Faneuil Hall and the Quincy Market as well as an attempt to preserve the character of an older part of the city, a special group of lighting fixtures has been introduced (group Type E). These consist of clear glass globes mounted approximately nine feet above street level with low wattage, bare filament, incandescent lamps. They are in clusters at six major focal points such as entries and in pairs either mounted on standards or projected from the face of existing buildings.

Similar fixtures appear elsewhere in the project surrounding other buildings.

Atop the deck which bridges New Congress Street to Faneuil Hall, a limited amount of planting in precast tubs is proposed. As these should be three to four feet deep and approximately six feet square, these heavy loads will have to be coordinated with the structural design of this deck.

At the base of this deck and framing the west facade of Faneuil Hall are two bosks. Between them is a small plaza containing the relocated statue.

With the addition of the band of illuminated flag poles at the forecourt of the plaza, it has been assumed that the up-lit trees on the north and south edges combined with light spilling from the City Hall itself, and the surrounding buildings, would create a desirable light level in the large open plaza. For safety reasons, the architects of the project should provide adequate lighting for all steps on the plaza not directly illuminated from the building.

Staniford, New Chardon and New Sudbury Streets

To further emphasize Cambridge Street as the spine of the Government Center project, Staniford, New Chardon and New Sudbury Streets are to be treated in a less significant manner. Whereas Cambridge Street is to receive a double row of trees on the north side, these less important streets are to be planted with a single row on one side with wider spacing. Of these three streets, New Sudbury is the only street of special significance. Since it is one way north, feeding the parking garage and the John F. Fitzgerald Expressway from Cambridge Street, it is important that this corner be easily recognized. The termination of the Cambridge Street mall at this junction helps to signify this turning when approached from either direction.

The tree planting on New Sudbury Street takes advantage of the deep set-back of the Federal Office Building. To help give the pedestrian a greater sense of enclosure in this rather open area, a double row of trees is shown east of the Federal Office Building entrance and around the corner on New Congress Street.

As explained earlier, planting on New Chardon and Staniford Streets is to be on the east and west sides respectively. On New Chardon, the trees lead one from the parking garage to Cambridge Street, while on Staniford Street, they form an edge to the residential use within the West End development. In both instances, the street lighting is carefully coordinated between the trees.

For lighting these secondary streets, a change in both scale, rhythm and color would effectually express their function as both pedestrian and slow-moving vehicular ways.

The fixtures (Type C) would be closely spaced (40'-50' apart) and approximately thirteen feet high and thus more visually oriented to the pedestrian scale while providing adequate low-level light for cars. They would also provide both down and up light, the latter being used to softly illuminate the facades of buildings or the underside of the street trees.

This light may be integrally mounted to the buildings with arms of varying length to bring the fixture head onto the curb line as along New Chardon Street.

New Congress Street

To further separate the pedestrian from the traffic on New Congress Street a curb-high planter is used for these trees. This small articulation in level is already expressed along the Federal Office Building property line. (Since the drafting of our illustrative site plan, this building was found to be closer to New Congress than indicated. Although there still appears to be room for a double row of trees in this area, a single line would be perfectly consistent with other aspects of the plan.) The lighting for New Congress Street has been described with the Cambridge Street lighting .

The disposition of other elements is shown on the 40'/" plan.

III. SUGGESTED ARCHITECTURAL CONTROLS

Certain site design recommendations affect the architectural development of parcels not yet designed. These suggestions lie beyond the bounds of the public way but are integrally involved with the space organization.

1. Parcel 4: Because this parcel is divided by New Congress Street and because its use as a major parking structure will necessitate numerous points of ingress and egress, we suggest a pedestrian arcade one level above the street along New Sudbury and New Chardon Streets. This will serve effectively as a distributor walk within the garage itself, carry pedestrian traffic across New Congress Street, minimize pedestrian and vehicular conflict at entry and exit points, and provide for a convenient connection, if desired, to the second level arcade already envisioned for Parcel 7.
2. Parcel 2 East: To provide continuity along the North side of New Sudbury Street, we recommend a street level arcade similar to that already outlined for Parcel 12. A passageway is also shown through this parcel providing a pedestrian walkway along Hawkins Street to New Chardon Street. Since planting along New Sudbury Street will be more effectively placed along the Federal Office Building on Parcel 5, the building line is shown within two or three feet of the curb.
3. Parcel 2 West: Because of the architectural expression envisioned for the State Services Block on Parcel 1, tree planting should be restricted to the opposite sides of the street; i. e. , East side of New Chardon Street and West side of Staniford Street. To provide for this planting along New Chardon Street, we recommend that the building line for this segment of Parcel 2 be held fifteen to twenty feet back from the curb.
4. Parcel 12: In accordance with the Boston Redevelopment Authority's suggestion, we have included two pedestrian walkways through this parcel. Particular emphasis has been placed upon the passage opposite Court Street, as an integral part of a walkway extending from the State House, Court House, along the Sears Crescent to Faneuil Hall and the North End.
5. Subway Entrances: The MTA entrance near the Sears Crescent is a major focal point as one enters the Government Center from Tremont Street. Because of the complexities of its site, a non-directional architectural form such as a circle or hexagon

will be least offensive in this location. If the strong rectilinear form thus far considered for this entrance is to be retained, the roof of this structure should be utilized as a viewing platform overlooking City Hall Plaza. This treatment would make the structure more attractive from above, and the stairs leading up to this platform could enhance the Tremont Street approach. Unnecessary warping of the plaza floor around this entrance will tend to emphasize rather than minimize this awkward position. The MTA entrance at Staniford Street should also be reconstructed in a simple non-directional form.

IV. PLANTING, PAVING and LIGHTING

Primarily because of contrast to the hard urban environment, trees and other plant material contribute unique qualities to the urban scene. The scale of trees is such that it relates both to pedestrian and vehicular movement.

For the sake of simplification we have only indicated four types of trees in our proposal. This does not mean that only four species of trees should be represented in the Government Center project, but rather that four basic characteristic types are needed to execute the plan. While there is always an advantage in keeping plant lists to a minimum, there are also advantages to a certain variety of material. The recent epidemic of Dutch Elm Disease has completely devastated street plantings in cities where this particular tree was a favorite. Early discussions with the Commissioner of Parks, Mr. Walsh, helped to establish certain aspects of the following selection.

Type A: These are the most important trees in the design providing continuity and character. They include the Cambridge Street planting, City Hall Plaza and Faneuil Hall Plaza. There are 176 trees in this category indicated in our plan. Although a single species could be used for all these plantings, it would be better to select two from the following three possibilities, namely Norway Maple for Cambridge Street; London Plane for the City Hall Plaza; and the Norway Maple again in front of Faneuil Hall.

1. *Acer Platanoides* (Norway Maple)
2. *Platanus orientalis* (London Plane)
3. *Tilia cordata* (Littleleaf Linden)

Type B: These trees are less crucial to the over-all design structure. Instead they contribute variety of form and texture to the side streets. If the Linden were not selected for use as a Type A tree, it could also be used in this category. We have indicated 120 trees of this category in our proposal.

1. *Acer rubrum* Armstrong (Armstrong Maple)
- ★ 2. *Quercus palustris* (Pin Oak)
3. *Fraxinum pennsylvanica* (Green Ash)

Type C: These trees were selected because of certain distinctive characteristics in form and texture. Although

we would not recommend these trees be used in quantity as street trees, limited and selective use will add considerably to the design. Contrast is an important feature of this category; therefore if Plane trees, are used for the Cambridge Street mall, then Ash with its compound leaf would provide a textural contrast in a pedestrian area. If Lindens were used for the mall, then the Catalpa with its large leaves would give textural relief. There are only 30 of these trees included in our plan.

1. Catalpa speciosa (Northern Catalpa)
2. Aesculus hippocastanum (Horse-chestnut)
3. Fraxinum pennsylvanica (Green Ash)

Type D: Small trees are used for special effects. Here are 68 of these trees within our proposal.

1. Acer Campestre (Hedge Maple)
2. Crataegus phaenopyrum (Washington Hawthorn) ✓
3. Malus baccata (Siberian Crab Apple)

Since the availability of plant material in quantity and of a specific size is sometimes difficult, the establishment of an interim nursery should be considered. This would not only permit the purchase of smaller stock, but guarantee that the material is available when needed. At the time of planting these trees should be a minimum of $2\frac{1}{2}$ " to $3\frac{1}{2}$ " caliper. This size eliminates some of the risks of vandalism suffered by smaller stock and is not so large as to suffer too much setback at the time of planting. If larger stock is desired in places such as the City Hall Plaza, the maximum size likely to survive the shock of this new environment is 8 inches. The size of the planting pit must, of course, vary with the size of the ball in the case of larger plant material. In no instance, however, should this opening be less than 16 sq. ft. in surface area and 3 ft. in depth. This is larger than the existing city standard of a 3 x 3 x 3 pit. Although durax granite block is a good semi-pervious surface for these pits, precast concrete grates would be better in most cases as well as reasonable in cost on such a project. In addition to this grating, gravel filled watering tubs are necessary for watering.

To insure the survival of plant material within this harsh urban environment a regular program of maintenance is mandatory. Some cities engaged in expanded street tree planting programs, have special crews and watering trucks that flush each tree once a week during the growing season and twice weekly during drought.

In bosk areas where ten or more trees exist within a limited area, a semi-automatic watering system should be considered. This might consist of perforated plastic pipe strategically located and manually controlled. Although installation costs are higher for this type of system, the saving in yearly maintenance will eventually pay for its cost.

In addition to watering and care of ground surfaces, periodic checking for replacement, feeding, pruning and dressing of wounds is necessary. Occasionally, spraying may be required for certain species.

Paving

Because large areas of paving are being considered for the Government Center project, these materials will become an important part of the total design. Accepting the vehicular surfaces as asphalt, and the two major plaza areas as brick, the curb side walking surface is the only other major material to be selected. Both concrete and asphalt block will provide a smooth dependable walking surface for about equal cost. For contrast, granite block is recommended as floor material in the various sitting areas. It is recommended that the median strips on both Cambridge and New Congress Streets be molded to discourage uncontrolled crossing of pedestrians.

Lighting

At night, lights become the backbone of the City, dominating both architecture and space. Lines of continuity may be established by means of constant spacing, while special areas, such as the City Hall Plaza, can be emphasized by a change of fixture and quality of light. The fixture design and spacing should reflect the function of each particular street or pedestrian walkway. Our review of fixtures now manufactured clearly indicates that the lighting solution for the Government Center is one of design rather than selection from available stock. Seven varieties of light fixture are suggested for the various vehicular and pedestrian needs within the Government Center area.

Special tree lighting would be ground-mounted spotlights employed where trees frame pedestrian walkways, as at Pemberton Square, or at bosk areas at City Hall, Faneuil Hall Plaza, and at the Federal Office Building. These up-lights are used along walkways not otherwise lighted by street lights, as along Cambridge and New Sudbury.

These lights would be mounted in vandal-proof fittings in the bench and raised planters or recessed in the durax block planter flush with the paving. The trees on the City Hall Plaza should be up-lighted with similar recessed floods.

Certain of the public rights-of-way should be lighted from the buildings themselves, under the jurisdiction of the City, alleviating the necessity of a myriad of light standards in certain areas of the project. Example of this would be:

1. Parcel 1 - State Service Building

The nature of the architecture is such that no free-standing elements can be co-ordinated into the site design. The architect involved should provide adequate lighting for the entire parcel integrally contained by the building and that the method of ensuring maintenance and operation should be negotiated with the Boston Redevelopment Authority.

2. Office Building - Parcel 2 - New Sudbury Street
Office Building - Parcel 2 - Cambridge Street

The arcades lining the entire facades of these buildings are planned to be lighted from the soffits and negotiated with the City as above.

3. Federal Office Building - Parcel 5

The main lobbies as well as the plaza areas of the building should be lighted continuously through the night hours to eliminate the need for extraneous lights by the City.

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TYPE A

TYPE B

TYPE C

TYPE D

TYPE E

DOUBLE DAVIT

CLUSTER DAVIT

POLE STREET
& PED LT

WALL STREET
& PED LT

ST. NAME SIGN
MULTI-USE
TRAFFIC POLE
LIGHT
PED LT

PED GLOBE CL
PED DBL. GLOBE
PED WALL DBL GLOBE

40'

30'

20'

10'

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CAMBRIDGE STREET

N. E. T. & T. PLAZA

OFFICE BLDG

CAMBRIDGE STREET

CITY HALL
PLAZA

MERRIMAC STREET

MENTAL HEALTH
CENTER BLDG

FEDERAL
OFFICE BLDG

NEW CONGRESS STREET

MOTOR
HOTEL

PARKING
GARAGE

NEW SUDBURY STREET

FEDERAL
OFFICE BLDG

EMPLOYMENT
SECURITY BLDG

STANIFORD STREET

WEST END
DEVELOPMENT

B65R. Mas
Master landscape Plan
Government Center
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DATE	ISSUED TO
5/14/86	John E. Smith