

# The Teleport

A Satellite  
Communications  
Center

## MASTER PLAN DESIGN MANUAL

The Port Authority  
of New York and New Jersey  
One World Trade Center, 63 St  
New York, N.Y. 10048

March 1988

# TABLE OF CONTENTS

---

## INTRODUCTION 1

## TELEPORT ORGANIZATION 2

## RESPONSIBILITIES OF THE TELEPORT 3

- A. Infrastructure
- B. Parks
- C. Security
- D. Maintenance

## REVIEW COMMITTEE 4

## CODES AND STANDARDS 5

## ZONING AND LAND USE 6

- A. Land Use
- B. Permitted Uses
- C. Prohibited Uses
- D. Site Coverage
- E. Buffers and Screening Strips
- F. Height and Bulk of Buildings
- G. Parking
- H. Access Roads

## SITE DEVELOPMENT STANDARDS 12

- A. Design Elements
- B. General Construction Elements
- C. Required Buffer Zones
- D. Utilities
- E. Circulation
- F. Parking
- G. Site Amenities
- H. Site Lighting Standards
- I. Building/Site Relationship

## SIGNAGE 35

- A. General
- B. Sign Design

## BUILDING DESIGN STANDARDS 40

- A. Building Materials and Construction
- B. Finishes for Exterior Walls and Openings
- C. Roofs
- D. Prohibited Building Systems
- E. Special Buildings
- F. Electro-Mechanical Systems

## **ENERGY DESIGN STANDARDS 46**

- A. Passive Solar Design Considerations
- B. Thermal Properties of Materials
- C. Landscaping

## **CONSTRUCTION STANDARDS 47**

- A. Contract Limit Line
- B. Environmental Control
- C. Scheduling
- D. Temporary Facilities

## **MAINTENANCE 48**

- A. Site Management
- B. Building Maintenance

## **DESIGN AND CONSTRUCTION REVIEW PROCEDURES 49**

- A. Design Reviews
- B. Construction Reviews

## **APPENDIX A: List of Recommended Plants 51**

## **APPENDIX B: Grading Standards 53**

## **APPENDIX C: Lighting Design Criteria 54**

# 1 INTRODUCTION

---

The Teleport invites you to participate in developing its comprehensive master plan for the campus on Staten Island, New York.

As the first satellite communications center of its kind, The Teleport will be at the forefront of technology and application of "state-of-the-art" quality building and site design. The common goal of The Teleport and all participating organizations is project development guided by design and development criteria which insure preservation of the natural environment in a campus setting.

From its inception, The Teleport will be noteworthy for its attention to quality. The key issues this Design Manual addresses will provide a framework of standards allowing individual Tenants to develop designs according to their needs while contributing to the quality environment of The Teleport. Maintaining design control throughout the entire development will assure Tenants of enhanced property value.

The natural landscape is one of the most important assets of The Teleport site. Commitment has been made to preserve the existing hardwood forest, to the greatest extent possible, and to use stands of trees to best advantage in the design of all The Teleport elements.

When completed, the setting of The Teleport will provide a unique working environment where well designed, energy efficient structures blend with the natural wooded landscape.

The Design Manual furnishes a network of concepts and performance criteria to guide the design process at The Teleport. All development, including future site and building alterations, will require adherence to the criteria described in order to achieve and maintain the planned environment.

To oversee design and construction work on individual Tenant sites and to insure compliance with the concepts outlined in the Design Manual while allowing flexible accommodation of The Teleport Tenant requirements, a review process has been formulated.

The Teleport is also committed to a high level of performance criteria in the work it undertakes—both in infrastructure and building construction. Through this cooperation, goals of high quality development at The Teleport will be attained.

## 2 TELEPORT ORGANIZATION

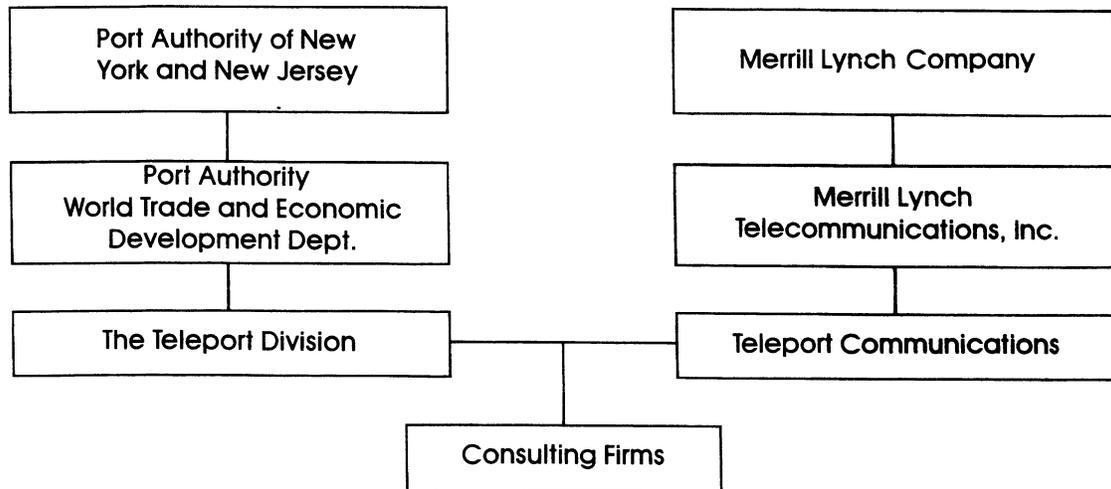
---

The Teleport Organization is a joint venture of the Port Authority of New York and New Jersey, and Merrill Lynch Telecommunications, Inc. The Teleport offices are located at One World Trade Center; New York, New York, 10048. A description of contributing organizations is graphically represented in Figure 2-1.

The administrative function of The Teleport Management is the development of the Satellite Communications campus consistent with the guidelines for a park-like setting. Approval authority for all land use, construction, alteration or modification of structures within campus boundaries is vested in the Port Authority's Teleport Division. Acting as Building Department for both building permits and inspections. The Teleport has delegated administrative responsibility to the Review Committee and empowered it to manage all development. This management includes coordinating and processing of all submittals, reviews, meetings, committee responses, supervision of compliance with the design and development criteria, as well as coordination through all phases.

The development of The Teleport site infrastructure, including the site entrance, roadways to the Tenant sites, common utilities, office parks and other miscellaneous areas, is the responsibility of The Teleport.

Figure 2-1



### Consulting Firms

Ammann & Whitney, Consulting Engineers/*Radio Energy*  
Andrews & Clar, Inc./*Environmental Impact Statement*  
Comsearch, Inc./*Radio Frequency Coordination*  
Marion Gatefield, Inc./*Marketing*  
Landauer Associates/*Office Space Development*  
Arthur D. Little, Inc./*The Teleport Concept Analysis*  
McKinsey & Company/*Communications Opportunity Analysis*  
Rosner Television Systems/*Electromagnetic Energy*  
Edward Durell Stone Associates, PC/*Master Planning*  
a) Lockwood, Kessler & Bartlett, Inc./*Site & Civil Engineering*  
b) Cosentini Associates/*Electrical-Mechanical Engineering*  
c) Raymond Keyes Engineers/*Traffic Engineering*  
Dr. Paul Tyler/*Radio Frequency Biological Effects*

## 3 RESPONSIBILITIES OF THE TELEPORT

---

### A. Infrastructure

The Teleport will provide the infrastructure network necessary to proceed with all developmental phases. It will build all public roadways on the site, thereby providing access to all Tenant properties. It will design and construct domestic and fire protection water lines, sanitary sewers and a system of storm drainage. These utilities will be made available to each Tenant at the property line. The Teleport will also design and construct a distribution system for telephone, coaxial and fiber optic cables, and a duct system for electric service. Brooklyn Union Gas will provide the sites' natural gas. Gas, electricity and signal systems will be adjacent to each Tenant building.

### B. Parks

The Teleport will design and construct parks, as outlined in the master plan documents, for the benefit of all The Teleport users.

### C. Security

General site security will be provided by The Teleport using fencing, electronic surveillance, guard secured gatehouses and Port Authority police.

### D. Maintenance

The Teleport will maintain non-tenant rights-of-way, community buffer zones and park areas.

Refuse pick-up and snow removal on Tenant sites will be the Tenant's responsibility. Tenant selected contractors must have the approval of The Teleport.

## 4 REVIEW COMMITTEE

---

In order to evaluate The Teleport Tenant design proposals for individual sites, a Review Committee has been established. The Review Committee shall consider the proposal in view of the particular conditions of each site and evaluate designs, based on: adherence to high aesthetic and quality standards, preservation of the site's natural characteristics, its compatibility with the adjoining site developments and conformance to this Manual's criteria.

The prime purpose of the Review Committee is to afford The Teleport control over development and to maintain consistency in the application of established standards. The Review Committee, formed by The Teleport professional staff and including professional technical consultants as deemed necessary for a given project, may consist of up to five members. Responsibility for coordinating all designs to insure achievement of the Master Plan's objectives has been delegated to the Review Committee. It shall review, evaluate and approve all development proposals; it may request the services of professionals in architecture, engineering, landscape-planning and traffic to assist in the evaluation process; it may request reviews other than those described here, if deemed necessary for a specific development (particularly for projects on accelerated schedules). The Review Committee reserves the right to modify the design and development standard as required to enhance The Teleport. The Review Committee welcomes inquiries on the interpretation and implementation of this Manual. (See Chapter 13, Design and Construction Review procedures.)

## 5 CODES AND STANDARDS

---

Applications of the following codes and standards is mandated by The Teleport and shall be adhered to in developing the proposals:

- A. New York City Zoning Code
- B. New York City Building Code
- C. New York City Electrical Code
- D. New York City Fire Prevention Code
- E. New York State Energy Conservation Construction Code
- F. New York State Labor Law
- G. American National Standards Institute (A.N.S.I.) Specifications for buildings and facilities accessible to and usable by physically handicapped people
- H. Occupational Safety and Health Act (OSHA) Standards
- I. National Fire Protection Association Standards
- J. Urban Renewal Plan - Staten Island Industrial Park Phase II, Industrial Development Plan
- K. American Association of Nurserymen Standards

Conformance to all applicable codes is required. All proposed variances shall immediately be brought to the Review Committee's attention.

Where codes overlap or appear to be in conflict, the more stringent provisions shall govern.

# 6 ZONING AND LAND USE

---

The zoning parameters, described on Zoning Drawing PH-1, are to guide development at The Teleport according to principles established by the Master Plan. Zones have been established for road rights-of-way, buffers, buildings and parking in order to provide an appropriate framework for development. Within this framework, a certain amount of flexibility is allowed in building and parking placement as illustrated by the areas of overlap of parking and building zones on the Zoning Drawings. The project review process allows additional flexibility since requirement variances may be granted where unique site conditions or Tenant programs warrant.

## A. Land Use

A vital criterion for evaluating the propriety of any land use is the utilization of satellite communications. As a result, the majority of tenants will likely have links to the Telecenter and, hence, access to satellite communications.

Nevertheless, a development as extensive as The Teleport may require some commercial facilities to serve the project. Uses permitted in this category are subject to Review Committee approval.

Uses not listed here may be permitted at the discretion of The Teleport. Application for any such use shall be made to the Review Committee prior to building and site design.

## B. Permitted Uses

### 1. Desired and permitted uses:

- a) *Data processing centers (institutions which may locate their data processing at The Teleport include Banks, Insurance Companies, Airlines, and Credit Card Companies).*
- b) *Other business using Data and Computer systems.*
- c) *Radio Stations.*
- d) *Television Stations.*
- e) *Telephone and other Communication Exchanges.*
- f) *Other businesses using satellite or fiber optic communications.*

### 2. Permitted Uses:

- a) *Research and Testing Laboratories related to the Communications and/or Computer Industry.*
- b) *Trade, Technical Schools and Business Schools preparing adults for the Communications Trades or computer Industry.*
- c) *Offices and facilities to administer and maintain The Teleport.*
- d) *Commercial facilities serving The Teleport. These uses are permitted subject to approval by the Review Committee:*
  - 1) *Branch Banks.*
  - 2) *Printing labs for blueprinting, photostating and photography.*
  - 3) *Restaurants.*
  - 4) *Hotels.*
  - 5) *Conference Facilities.*
  - 6) *Travel Agencies.*
  - 7) *Bookstores and News Stands.*
  - 8) *Drug Stores.*
  - 9) *Service and Repair Facilities for data processing and communications equipment.*
- e) *Commercial Offices.*

## C. Prohibited Uses

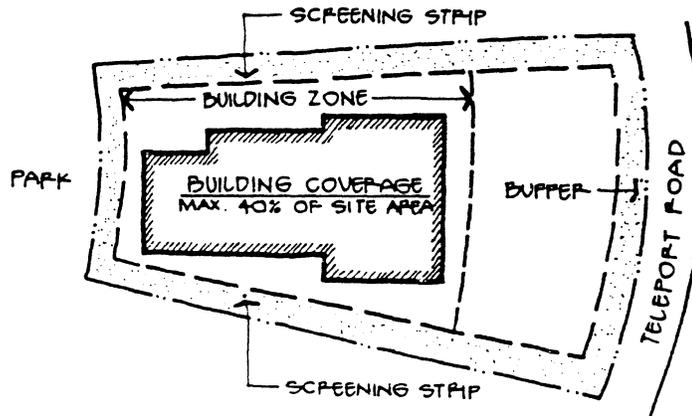
1. Prohibited except as accessory uses and subject to The Teleport approval: Power Generating Plants and Steam Generating Plants.
2. Prohibited Commercial Uses (except as authorized by The Teleport): All retail establishments not providing services for The Teleport.
3. Prohibited Manufacturing Uses: All manufacturing and warehousing is prohibited at The Teleport.

## D. Site Coverage

### 1. Maximum Building Coverage

The maximum building coverage on any Tenant site is 40% of gross site area. All buildings must be sited within the building zone shown on Zoning Drawings. (See Figure 6-1).

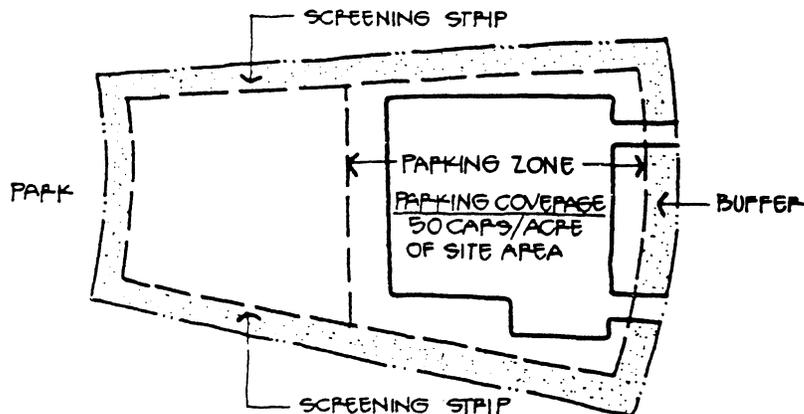
Figure 6-1: Maximum Building Coverage



### 2. Maximum Parking Coverage

The maximum parking coverage on any Tenant site is limited to 50 parking spaces per acre of gross site area. Parking must be sited within parking zones shown on Zoning Drawings. (See Figure 6-2.) (See Section G of this Chapter for parking regulations.)

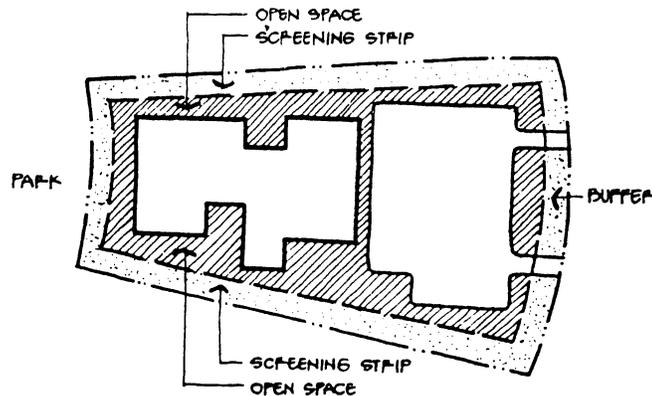
Figure 6-2: Maximum Parking Coverage



### 3. Minimum Open Space

Minimum open space on any site is 15%, exclusive of buffers and screening strips mandated by Zoning Drawings. Courtyards, and other pedestrian areas, may be included in the required open space. (See Figure 6-3.)

Figure 6-3: Open Space on Tenant Sites

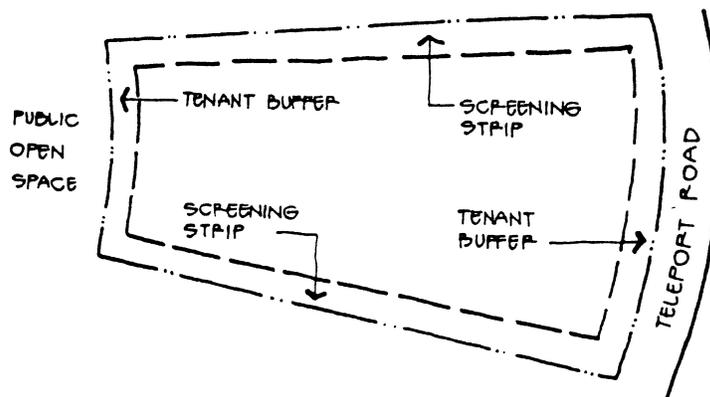


## E. Buffers and Screening Strips

1. Buffers described in this section, refer only to buffers on Tenant lots. (See Figure 6-4.)  
Buffers are mandated at the Tenant property line adjacent to a Teleport road right-of-way or a park area. The width of these buffers is defined on Zoning Drawing PH-1 for Phase I of The Teleport. (For landscaping requirements within buffers see Chapter 7, Site Development Standards.)

Legally defined Community Buffers will be planted and maintained by The Teleport.

Figure 6-4: Required Buffer Zone  
(For Width of Buffers & Screening Strips  
See Dwg. PH-1)

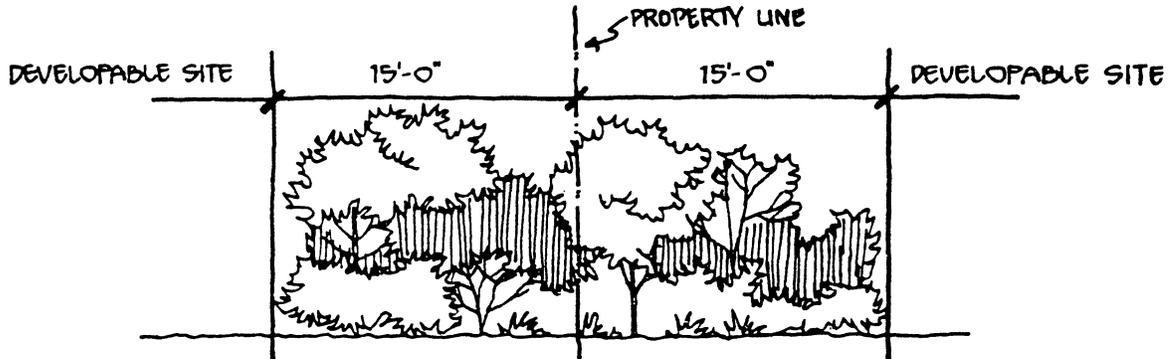


## 2. Screening Strips

Screening Strips are mandated at any boundary between two Tenants. (See Figure 6-4.) They will increase privacy between Teleport Tenants and enhance the natural landscape. Existing vegetation shall be maintained in Screening Strips.

Screening Strips shall be at least 15 feet wide on either side of a lot line between Tenants. (See Figure 6-5.) (For height and type of planting see Chapter 7, Site Development Standards.)

Figure 6-5: Property Line Between Tenants  
Screening Strip



## F. Height and Bulk of Buildings

### 1. Floor Area Ratio

The Maximum Floor Area Ratio (ratio of gross building floor area to gross site area) is 0.4.

### 2. Setbacks

- a) Where a building zone abuts a road right-of-way, the setback of the building from the right-of-way shall be a minimum of 25 feet. In no case may a building fall within a buffer zone.
- b) At the property line between two Tenant sites, the building setback from the lot line shall be 20 feet. (See Sky Exposure Plane below, Figure 6-6.)
- c) The building setback from a Park Area shall be a minimum of 20 feet.
- d) The building setback from a utility easement shall be a minimum of 20 feet.

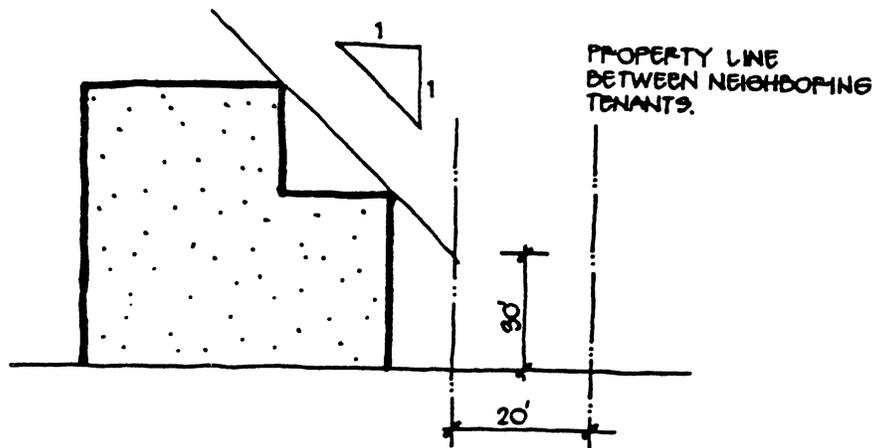
### 3. Sky Exposure Plane

At property lines between two Tenant sites an exposure plane of 1:1 is to be maintained from a point located at the setback line and 30 feet above mean grade elevation. (See Figure 6-6.)

Where the Tenant site borders a road right-of-way, New York City Zoning Ordinance requirements for the sky exposure plane apply.

There is no sky exposure plane requirement at the property line between Tenant site and Park, or Tenant Site and Utility right-of-way.

Figure 6-6: Sky Exposure Plane



### 4. Maximum Height

Maximum Height shall be four (4) stores or 60 feet (to the top of the roof slab) above mean grade elevation, whichever is less. The maximum height permitted is exclusive of penthouses for elevators and mechanical equipment. Overall building height shall be limited to 80 feet above mean grade.

## G. Parking

### 1. Minimum Required

For The Teleport the minimum parking requirement has been established by the Urban Renewal Plan (Staten Island Industrial Park, Phase II Development Plan Proposed Amendment) at one parking space per 1,500 square feet of gross floor area.

### 2. Minimum Land Area Allocated to Parking

Recognizing that actual parking requirements will vary, each Tenant will be responsible for establishing and providing his own parking needs, given the minimum stated above. No on-street parking will be permitted.

The Teleport parking requirements are planned at a ratio of one parking space per 350 square feet of gross floor area. A tenant may construct more or fewer parking spaces as required. If more parking spaces are constructed, the total number cannot exceed the maximum site parking coverage as noted in Section D-2 of this chapter.

However, if fewer parking spaces are constructed, an area large enough to satisfy the one parking space per 350 square feet of gross floor area ratio must be designated for future on-site parking. Computation of the future parking area including access and circulation roads should allow 400 square feet per car.

That portion of the Tenant site designated for future parking shall be landscaped. (See Chapter 7, Site Development Standards.)

### 3. Maximum Land Area Allocated to Parking

The maximum number of parking spaces on any Tenant site is 50 per acre of gross site area.

### 4. Setbacks.

No setbacks additional to the requirements of Section F-2 of this chapter are required beyond buffers and screening strips.

## H. Access Roads

### 1. Shared Access Roads

Shared Access Roads serving two or more Tenant lots are encouraged, particularly if these lots are developed simultaneously. They add flexibility to parking and building placement and provide additional open space for each Tenant. Shared access roads may be sited astride the property line; in this case the requirement for a screening strip is waived.

### 2. Number of Access Points

Each Tenant lot will have at least one access point at a road right-of-way. Lots with a frontage of 300 feet or more along a road right-of-way may have two access points, unless restrictions shown in the Zoning Plan apply. (See Zoning Drawing PH-1.) No lot shall have more than two access points.

### 3. Distances Between Curbcuts

No curbcuts shall occur less than 100 feet from a public road intersection. (See Zoning Drawing PH-1.) Minimum distance between two curbcuts on the same lot is 200 feet. In general, curbcuts shall be at least 50 feet from an interior lot line. During the review process, consideration of existing driveway locations on neighboring lots will determine the exact location of curbcuts.

### 4. Pedestrian Crossings

At the access road, where a sidewalk is interrupted by a curbcut, depressed curbing shall be used and a pedestrian crossing marked.

### 5. Security Points

Site security controls or gates at access roads will be permitted provided sufficient car stacking space is allowed on the access road on site. No car stacking may extend into the road rights-of-way. If a site security check point is desired, a traffic study prepared by a professional engineer must be presented at the project review.

# 7 SITE DEVELOPMENT STANDARDS

## A. Design Elements

### 1. Existing Features

The general intent in developing the overall Teleport site, and each lot specifically, is to create a park-like setting by maintaining the natural site characteristics of existing vegetation, topography, and geology.

### 2. Subsurface Investigation

The Teleport will provide general boring information. Tenant performance of additional structural borings in proposed development areas for the site specific characteristics will be required. The Teleport-provided borings are not for structural purposes. Tenant borings in these proposed areas of construction shall conform to New York City Building code requirements.

### 3. Borings

The Tenant will conduct soil and structural analyses of the new borings to determine soil types, groundwater presence, boulder presence, depth to bedrock, special conditions, bearing capacities and structural capabilities of the existing soil. These analyses will define the methods of foundation construction.

### 4. Preservation Techniques

Tree preservation techniques shall begin with identification of existing trees 6 inches in caliper and larger on the Tenant's topographic survey. (See Chapter 13, Design and Construction Review Procedures.) A registered landscape architect, retained by the Tenant, will determine the trees' health and design value. Various methods may be employed to save specimen, and otherwise valuable trees, and existing vegetation in general:

- a) Grading around the trees should be outside of the dripline only, to maintain natural grade conditions in close proximity to the tree.
- b) Provide tree wells in areas of cut or fill with the tree well no closer than the dripline. (See Figure 7-1.) In special fill cases only, tree wells inside the dripline with special treatment for drainage and aeration will be acceptable. (See Figure 7-2.)

Figure 7-1: Standard Tree Well In Cut Or fill

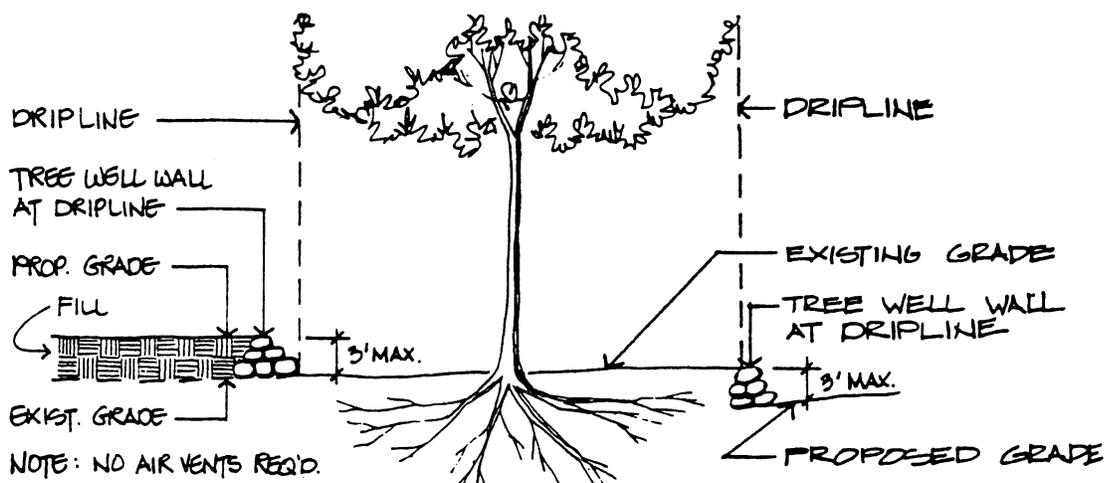
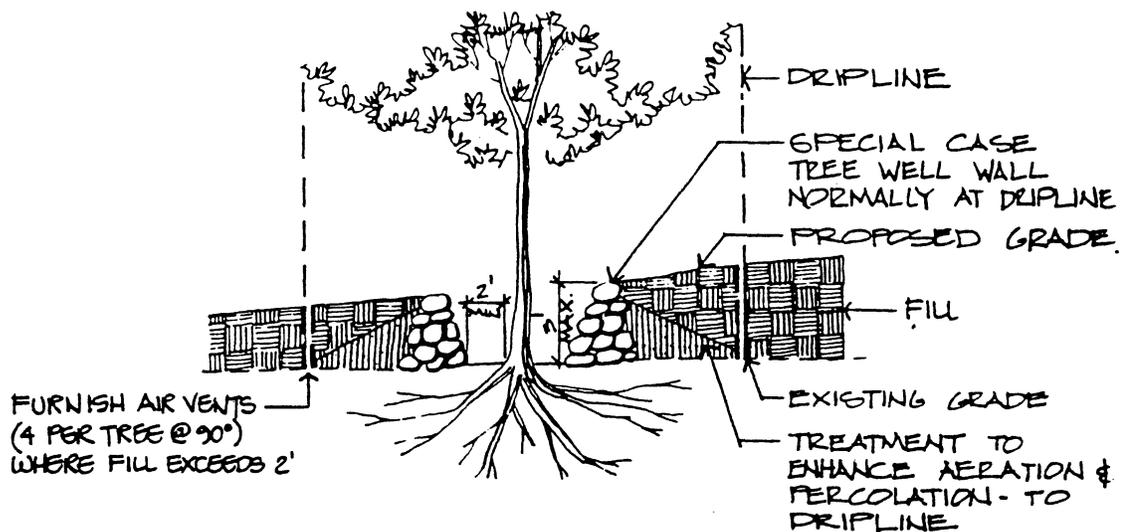


Figure 7-2: Tree Well In Fill Where Large Tree Not Feasible



c) Relocate or accommodate within the design, existing specimen or valuable trees in areas designated for development (building area and pavements), or where severe grading conditions occur. The design value, size, species, and health will dictate the tree's ability to survive relocation. The Tenant's registered landscape architect will determine whether or not it is worthy of such treatment, subject to Review Committee approval. Plans will show all existing natural areas and trees to be preserved. Parking lot islands and building courtyards are typical design accommodations for preserving valuable existing vegetation.

#### 5. Woodland Edge

Areas of vegetation to be preserved are expected to show signs of dieback from general site development, usually at the preserved area's perimeter. The Tenant will provide supplemental planting at all woodland edges characteristic of a woodland edge transition. New planting in these existing vegetated areas shall complement existing plant associations, and contain a balanced mix of plant sizes and species to create a natural appearance. (See Appendix A.)

#### 6. New Planting

Ornamental and indigenous planting (See Appendix A) is encouraged throughout the site. In areas adjacent to existing vegetation (buffers, etc.) new planting should blend into existing vegetation with indigenous, native, and naturalized plant materials. The use of low maintenance grasses and wild-flower mixes is encouraged where intensive development does not occur. All new planting should meet minimum American Association of Nurserymen (AAN) Standards. Plant materials for specific locales are addressed in later paragraphs within this section, and within Appendix A.

#### 7. Plant Sizes

Plant material sizes shall vary according to their locale. In naturalized areas away from main development, plants shall vary in size from young seedlings to mature, 9 to 11 foot high trees (larger is acceptable), with an even mix of each. In more intensively developed areas, more mature plants are required. Building entrance areas and parking lots will have mature plants installed (minimum sizes: major trees 11 to 13 feet high, 2 to 3 inch caliper; shrubs 2 to 3 feet high). Access roads and other circulation areas will be planted with medium to large size plant materials. The intent here is to provide an aesthetic mix of sizes as well as species, such as might appear naturally, with emphasis

on mature planting in the most visible public areas. Formalized geometric, topiary, or bosque plantings are not acceptable. The Tenant will be required to submit planting cost estimates with each review submission.

Landscape maintenance will be required at regular intervals insuring orderly and proper appearance of the site. Weekly watering via automatic sprinklering, lawn mowing and weeding shall be required during the growing season. Pruning and fertilizing shall occur annually. Dead plants shall be removed and replaced immediately. No site will be permitted to appear unkempt in any manner for any period of time.

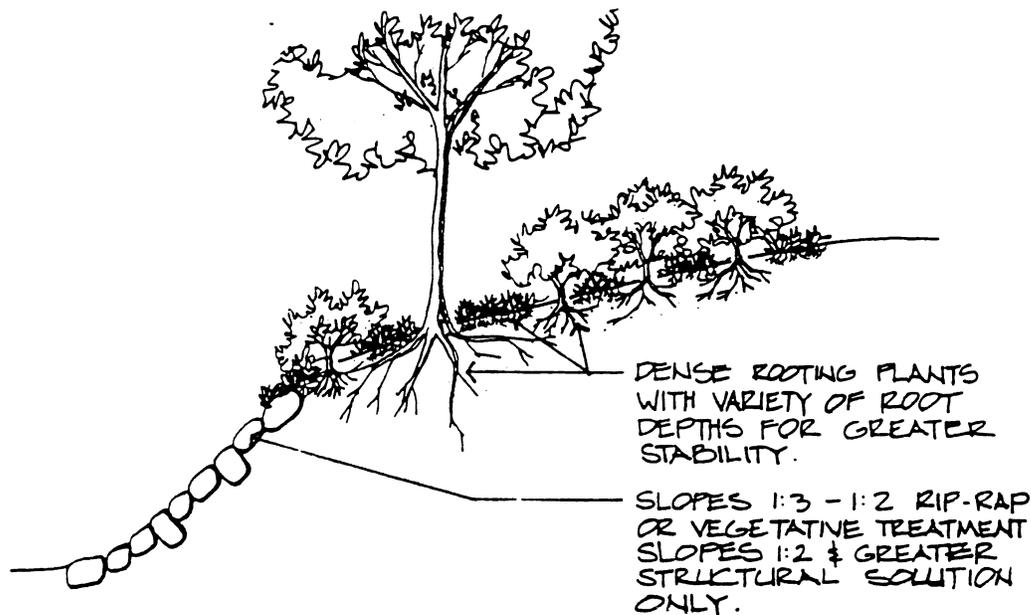
Landscaping relating to specific areas of development is addressed in the following sections of this chapter: Buffer Zone, Circulation and Parking.

## 8. Grading

Attractive and economical grading design should produce safe, convenient, and functional access for use and maintenance to all areas of the site. Grading design must incorporate preservation of natural site features (vegetation, topography, geology), especially in the buffer zone areas. Proposed grades should meet existing grades smoothly and efficiently.

Retaining walls will be acceptable where proposed grades exceed the maximum grade allowable for the area in question. (See Appendix B.) Slopes in excess of 1:3 shall receive stabilization treatment such as erosion control planting (see Appendix A), rip-rap, or retaining walls. (See Figure 7-3.)

Figure 7-3: Slope Stabilization  
(For Slopes Greater Than 1:3)



## B. General Construction Elements

No clearing or construction may occur until final design approval has been awarded. Sound and safe construction practices shall be followed to insure proper construction, as well as preservation of existing features.

### 1. Contract Limit Line

The minimum amount of area necessary to perform the required construction will be defined on the plans by contract limit lines. There must be no disturbance of existing areas

outside the approved contract limit line, or of the Tenant buffers, adjacent properties, wetlands, public rights-of-ways, etc. All existing areas and trees to be preserved inside or outside the contract limit line shall be properly protected from construction damage or negligence.

## 2. Environmental Protection

Employ temporary erosion and siltation control measures, wherever necessary, to maintain slopes, embankments, and to protect preserved areas from run-off. Continue this practice throughout the entire construction period, until permanent stabilization is installed and established. Methods such as vegetative, matting, straw haybales, berms, etc., may be used, subject to Review Committee approval.

## C. Required Buffer Zones

All properties shall have Tenant buffer zones at road rights-of-way (except at entrance cuts), and at public rights-of-way, and screening strips along property lines adjacent to neighboring properties. (See Zoning Plan PH-1.)

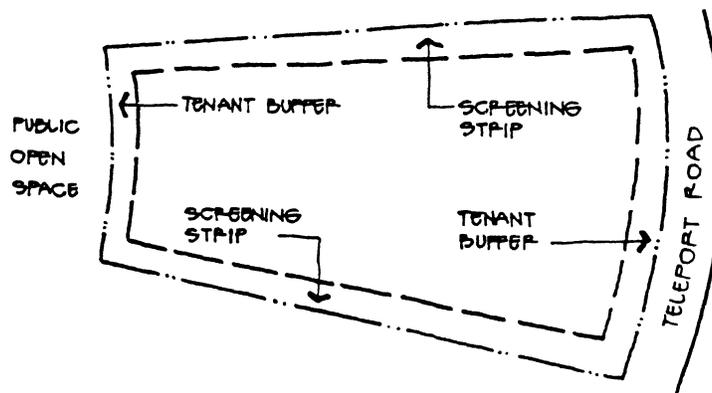
### 1. Planting

All existing vegetation within the designated buffer zones and screening strips shall be preserved and protected. (See paragraph A-4 of this chapter.) If existing vegetation in the required buffer zone or screening strip is sparse, supplemental landscaping shall be installed. (See Appendix A, Buffer and Woodland Edge Plantings and figures 7-4 through 7-7.) Supplemental landscaping shall consist of a combination of evergreen and deciduous native trees and shrubs, typical of a local woodland and woodland edge. The ultimate effect of the buffer zone/screening strip is to provide noise attenuation and dense visual screening of adjacent properties and rights-of-way. Occasional breaks for views are acceptable. Plant material sizes shall vary, as discussed in Site Development Standards.

### 2. Buffer Zone Maintenance

Installation of the required Tenant buffer zone planting is the Tenant's responsibility pending The Teleport's acceptance of the landscaping design plan. The Teleport will be responsible for buffer zone maintenance, backcharging the costs to the Tenant. Each Tenant will be responsible for screening strip maintenance.

Figure 7-4: Required Buffer Zone  
(For Width of Buffers & Screening  
Strips See Dwg PH-1)



### 3. Signage and Lighting

Signage and lighting within the required buffer zones is prohibited with the exception of the entrance road rights-of-way through the buffer zone. (See paragraphs E-8 and E-9 of this chapter.)

Figure 7-5: Property Line Between Tenants  
Screening Strip

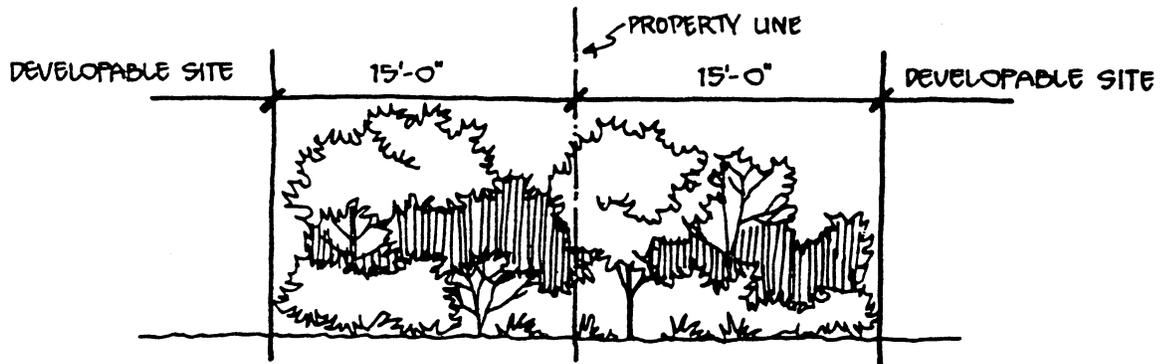


Figure 7-6: Buffer Treatment Where  
Existing Vegetation Is Sparse

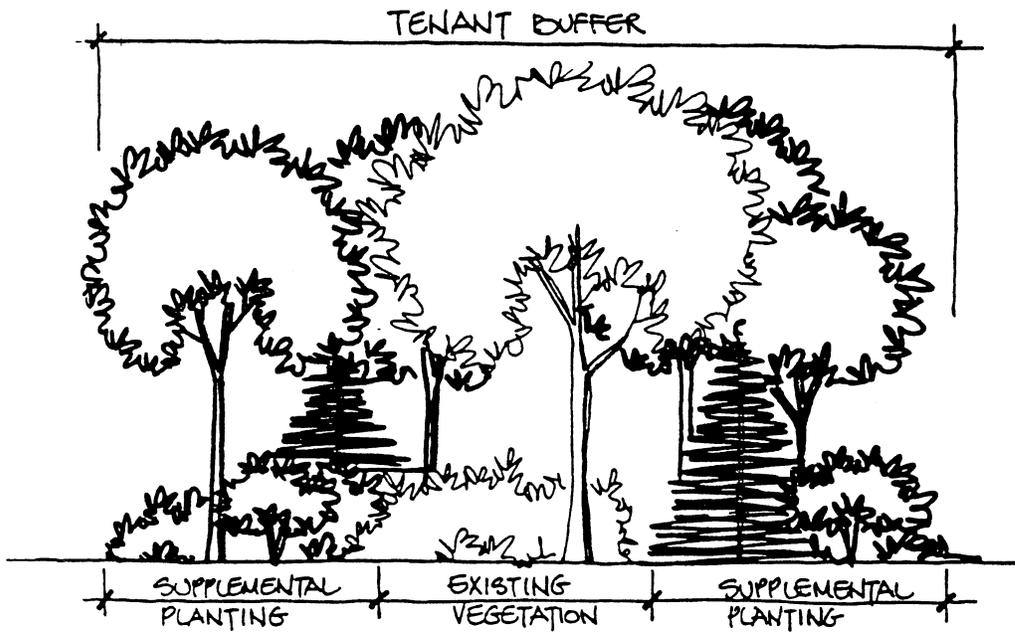
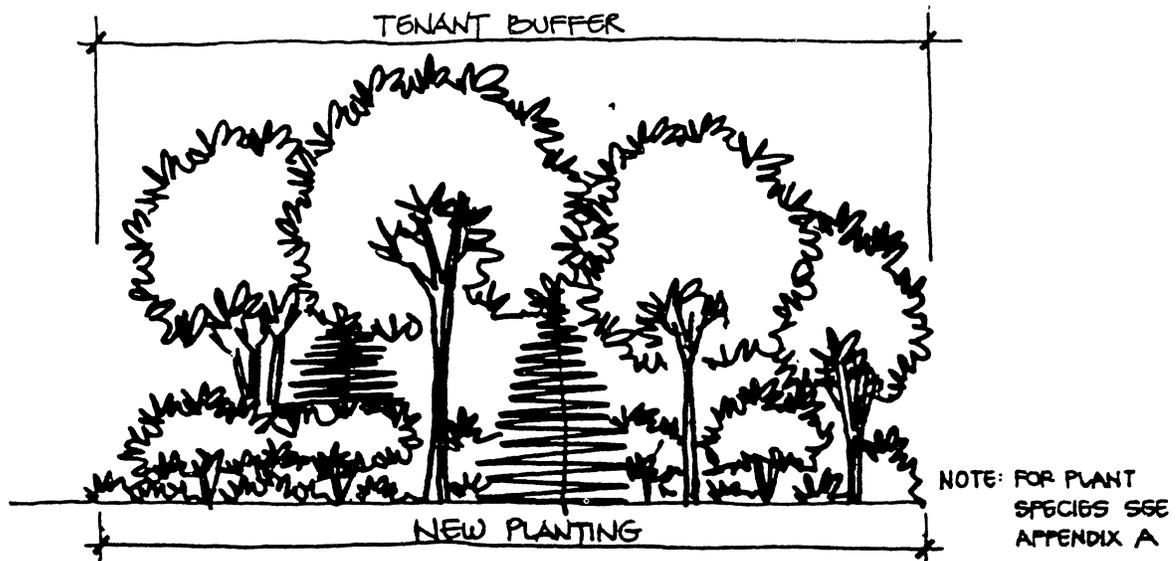


Figure 7-7: Buffer Treatment Where  
No Vegetation Exists



## D. Utilities

### 1. Storm, Sanitary Sewer, Water

Storm drains, sanitary sewers and water mains will be available within utility corridors. (See drawings PH-U1 and PH-U2). Each Tenant is responsible for his own connections to The Teleport's utility mains. Invert elevations for the storm and sanitary lines will be adequate to service all building lots built within the elevation control guidelines.

Water main stub connections will be provided with a shut-off valve at the property line by the tenant for both domestic and fire lines, at the time of Tenant construction. Building service connections shall be designed and constructed in accordance with New York City Building Codes and Standards.

The Tenant must provide a piped drainage system for all paved areas (access roads, parking lots, etc.) and roof areas. These areas will be drained to The Teleport's system and/or wetlands, according to the drainage zones shown on the Utility Plan. (See drawing PH-U1.) On-site grass swales, a minimum of 50 feet in length, will convey storm discharge from Tenant systems to the wetlands. Each storm line's last catch basin or manhole, before discharging into the wetlands, will contain an oil trap.

### 2. Electrical

The Teleport will provide an underground distribution system arranged in two bands within utility corridors, consisting of conduit banks, 33KV feeder cables and manholes, to permit electric service to each building. All work associated with the purchase and installation of transformers and network protection and their connection to the Teleport's electrical distribution system will be the Tenant's responsibility.

### 3. Signal

The term "signal" includes telecommunications, data, video, cable TV, fire alarm and other alarm and miscellaneous systems. Its distribution will be accomplished via multi-pair and coaxial cables as well as fiber optic conductors.

The Teleport will provide an underground duct system to permit delivery of "signal" input (originating off-site) to the various buildings on-site, to provide distribution of signal information from the Telecenter (communications building) to all buildings on-site and to off-site re-distribution centers, and to allow interconnection of on-site inputs with the New York City Fire Alarm system and other alarm systems.

### 4. Gas

Brooklyn Union Gas Company will bring gas for space heating, for cooling (if desired) and for cooking and other miscellaneous needs into each building via 12 inch steel underground mains along the routing of other main utility lines. All mains and lateral piping will be furnished and installed by the Gas Company at no charge to the Tenant or to The Teleport.

### 5. Site fire Alarm

The Teleport will provide a grid of exterior fire alarm boxes to tie into both the New York City Municipal Fire Department system, and a central Teleport monitoring system.

### 6. Site Lighting

The Teleport will provide exterior lighting for all roads, walks and common areas not within Tenant lot lines. This lighting may also include landscape lighting of selected trees, shrubbery and other planting. Lighting of parking lots, roads, walkways and public areas within lot lines will be the responsibility of the individual Tenant. (See paragraph H of this chapter.)

## E. Circulation

Adequate provision for circulation of vehicles (maneuvering, storage, service, etc.), and pedestrians will be provided within each Tenant's lot.

### 1. Vehicular Circulation

Vehicular circulation design will be straightforward with conventional intersections and traffic controls. Safety should be a primary design factor. Access roads throughout the site shall have a smooth alignment and may not serve as a parking aisle (i.e., traffic must not be impeded by vehicles backing into the roadway). Drop-off points, required at the main building entrance, should be approached directly from the access road. Service areas should be approached from the access road directly; however, parking lot access will be accepted when necessary. Access roads may vary in width from 24 to 30 feet for two-way, and from 12 to 17 feet for one-way. Fifteen (15) foot service road widths are suggested, but may reach a maximum width of 19 feet.

In all cases, final road widths must meet New York City Fire Department approval.

## 2. Pavements

All roadways and parking lots shall be paved with asphaltic concrete, according to the New York City Zoning Code and American Association of State Highways and Transportation Officials guidelines.

Vehicular pavements in close proximity to the building may use other permanent materials such as: concrete or decorative pavement, including brick or stone set in a concrete base. The color of all striping shall be white. Temporary materials, such as gravel or compacted earth, are not acceptable.

## 3. Curbs

Curbs will be required and will be constructed of concrete. Construction specification shall be based on the American Concrete Institute Standards' latest publications. Curbs must have seven inches exposed height and match The Teleport road curbs in width and depth. Expansion joints will be placed at a maximum of 30 feet on center and at all tangency points, and will align with sidewalk expansion joints when they abut. All curbs shall be depressed flush with the roadway at pedestrian crossings. Curbs in close proximity to the building may be constructed of other permanent materials such as granite block, brick, etc. Asphalt curbs and mountable curbs are unacceptable.

## 4. Guiderails

Guiderails can be utilized when road embankment fill slopes, adjacent to parking areas or roadways, exceed 1:4. Guiderails shall be constructed of durable and aesthetically pleasing materials, and shall be consistent with the general site and building design. Standard W-section metal guiderails are unacceptable.

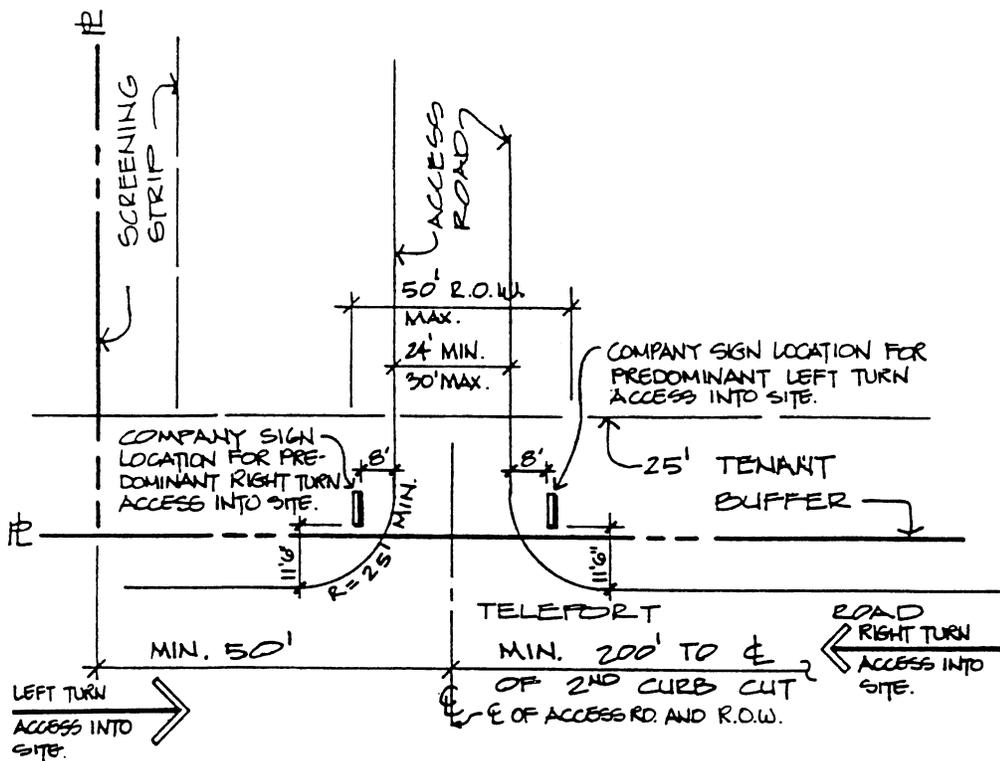
## 5. Access

Access road entrances will be limited to a maximum of 2 per site, located a minimum of 50 feet from the property line to their centerline, and with a minimum of 200 feet between them. If adjacent Tenants have built entrances within 150 feet of property line, thereby restricting the entrance location alternatives of another lot, special consideration will be given to the restricted lot. Additionally, the 50-foot requirement does not apply to shared access roads which shall have a maximum 30 foot width (2 lanes) with a minimum 25 foot turning radius. Shared access roads will be located with adequate sight distance off the main Teleport road, and aligned perpendicular to the main Teleport road. (For acceptable entrance locations, see Zoning Plan PH-1.) The width of the entrance right-of-way shall be a maximum of 50 feet. (See Figure 7-8.)

## 6. Security

Additionally security at entrance areas (see Chapter 6, Zoning and Land Use), if necessary, shall be located inside the Tenant buffer zone line. Security structures must be consistent with the general architecture of the site. The Tenant shall insure against any adverse traffic implication, have adequate vehicular storage capacity, and shall certify same by a traffic engineer, licensed to practice in the State of New York. (See Figure 7-11.)

Figure 7-8: Typical Entrance Layout



7. Landscaping (access roads and entrance areas)

All access roads and entrance areas shall be landscaped with ornamental and/or native species while maintaining sight distances. (See Figure 7-9.) Planting in the site entrance area may be highlighted with ornamental plants, but shall blend into the buffer zone with the use of woodland edge plant materials. (See Appendix A.) Street trees alongside the access roads shall be native, and conform to Appendix A. In general, planting should be concentrated on the outside of horizontal curves, and minimized on their inside. (See Figure 7-10.)

8. Signs (Tenant access road)

The company sign location at the access road entrance, based on exiting the site via the site access road, shall be as follows:

- a) Locate the sign on the left-hand side of the access road whenever the predominant direction of approach is a left turn into the site. Place it within the 50 foot right-of-way, set back 11'-6" from The Teleport road curb, and 8 feet from the access road curb line. (See Figure 7-8.)
- b) Locate the sign on the right-hand side of the access road whenever the predominant direction of approach is a right turn into the site. Place it within the 50 foot right-of-way, set back 11'-6" from The Teleport road curb, and 8 feet from the access road curb line. (See Figure 7-8.)
- c) Sign orientation will be perpendicular to The Teleport road, and will, in no case, inhibit visibility of on-coming traffic.

The number of company signs at entrances must be limited to one per access road, however, no company sign may appear at an "Exit Only" access point. (For general design and materials, see Chapter 8, Signage.)

Figure 7-9: Typical Entrance Landscaping

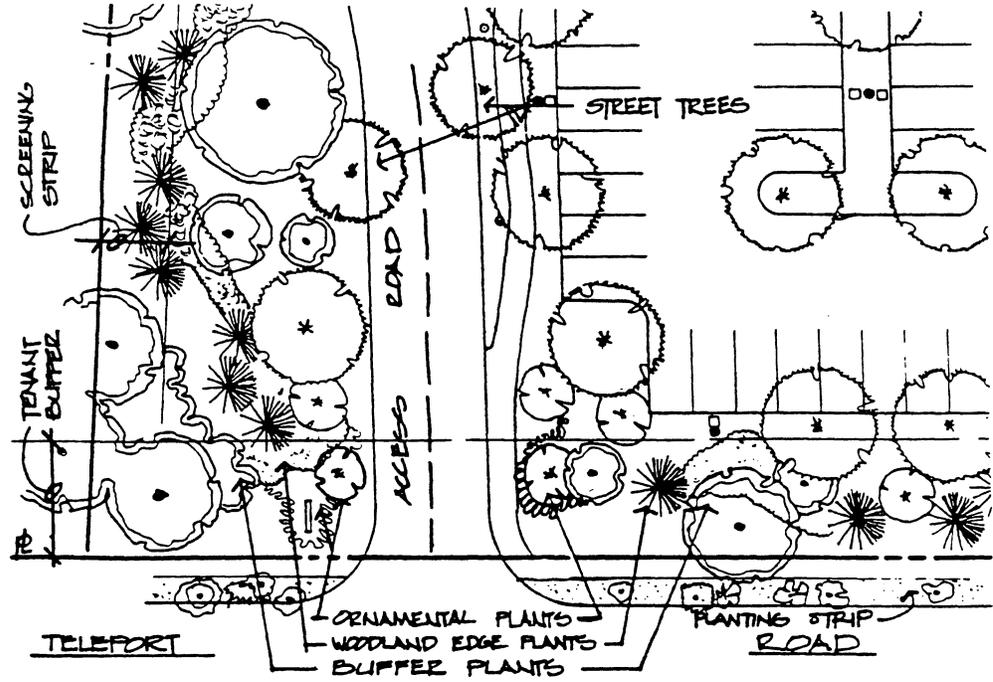


Figure 7-10: Typical Access Road Landscaping

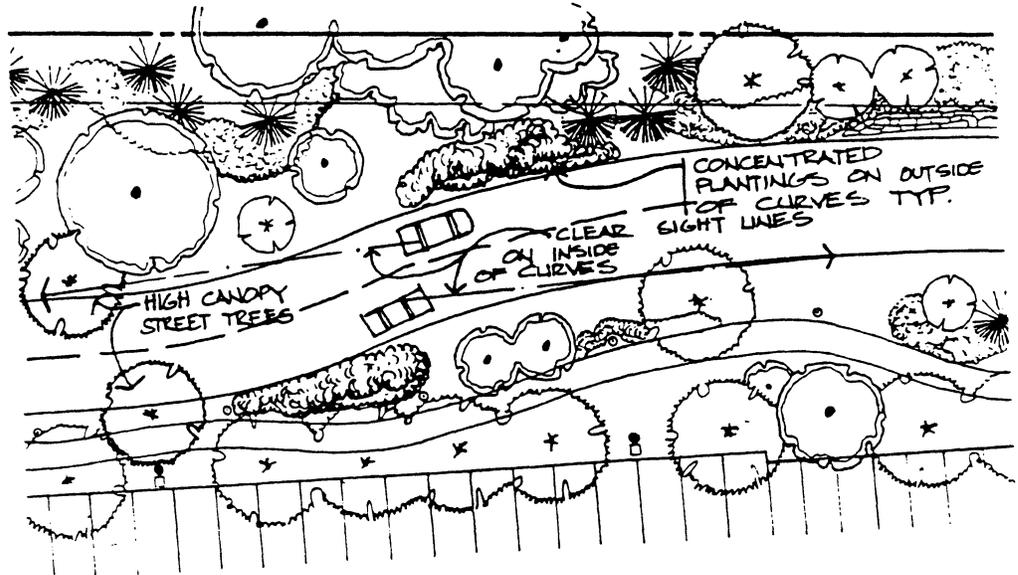
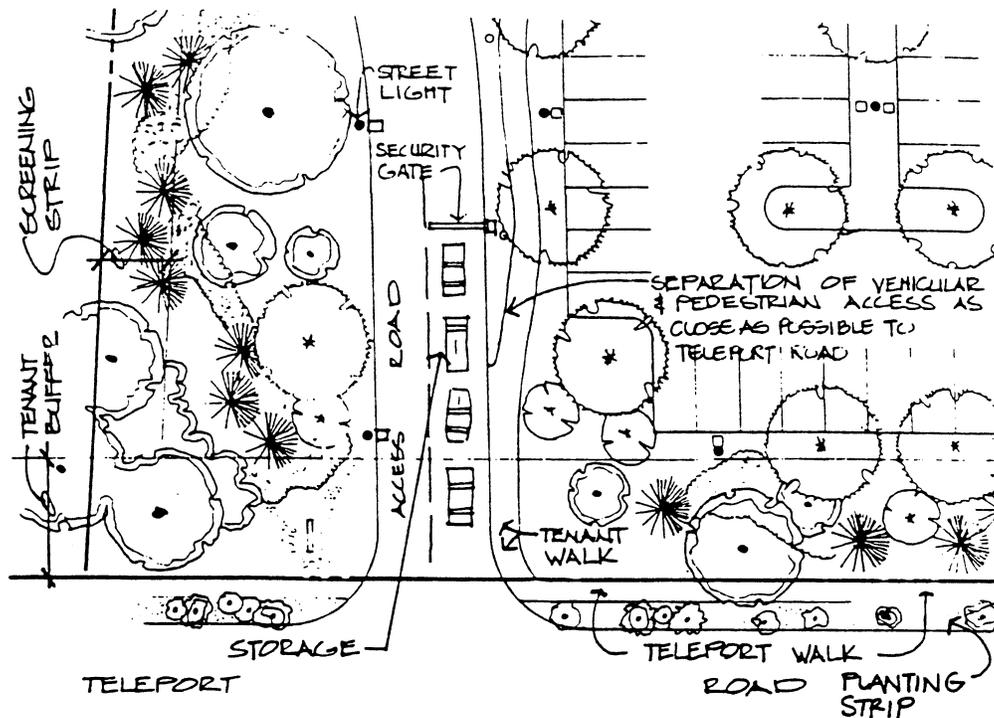


Figure 7-4f: Typical Entrance Circulation



Directional signage (routing information) required to guide users to and from points throughout the site, will be above-grade. Whenever possible, above-grade sign consolidation (directory) is encouraged. (See Figure 7-13.) Arrows and stop lines may be painted on the roadway surface. Locate other traffic signs to avoid physical and sight line conflicts with vehicles and pedestrians. Sign quantity shall be kept to a minimum. (For signage design, dimensions and materials, see Chapter 8, Signage.)

9. Lighting (Tenant access roads)

Illuminate all access roads to provide safe night-time circulation. Locate light standards to avoid conflicts with vehicles and pedestrians. (See Section H of this chapter and Appendix C.)

10. Pedestrian Walks

Separate pedestrian circulation from vehicular circulation wherever possible. Safe pedestrian circulation will be provided from the access road to the building, in building areas, parking areas, and open space areas. At minimum, one sidewalk is required for each access road entrance from The Teleport road sidewalk to the building's entrance. Width of pavements shall be dictated by Tenant requirements, however, the minimum width shall be 4 feet.

11. Walk Pavements

All pedestrian pavements shall be constructed on concrete; have a broom finish perpendicular to the length of the pavement; and have scored joints at a maximum of 6 feet on center and expansion joints at a maximum of 30 feet on center. These expansion joints shall align with curb joints where they abut. Construction guidelines shall be based on the various standards produced by organizations such as ACI (American Concrete Institute), ASTM (American Society for Testing Materials) and others. For example, the walkway shall ramp down to the flush curb at pedestrian

crossings, according to ANSI (American National Standards Institute) specifications (for sidewalk grades, see Appendix B), and all proposed grades shall meet ANSI handicap standards.

Sidewalks in close proximity to the building may be paved with other permanent materials such as textured pavement or smooth stone, set in a concrete base. No dry-laid materials on earth, sand or gravel base are acceptable, with the exception of remote open space or recreation areas. Modular dry-laid materials on raised joiners for drainage purposes are acceptable. Edge treatment, where appropriate, shall be permanent in nature (curbs and flush curbs of concrete, stone, brick and steel edging).

Figure 7-12: Consolidated, Directional Sign

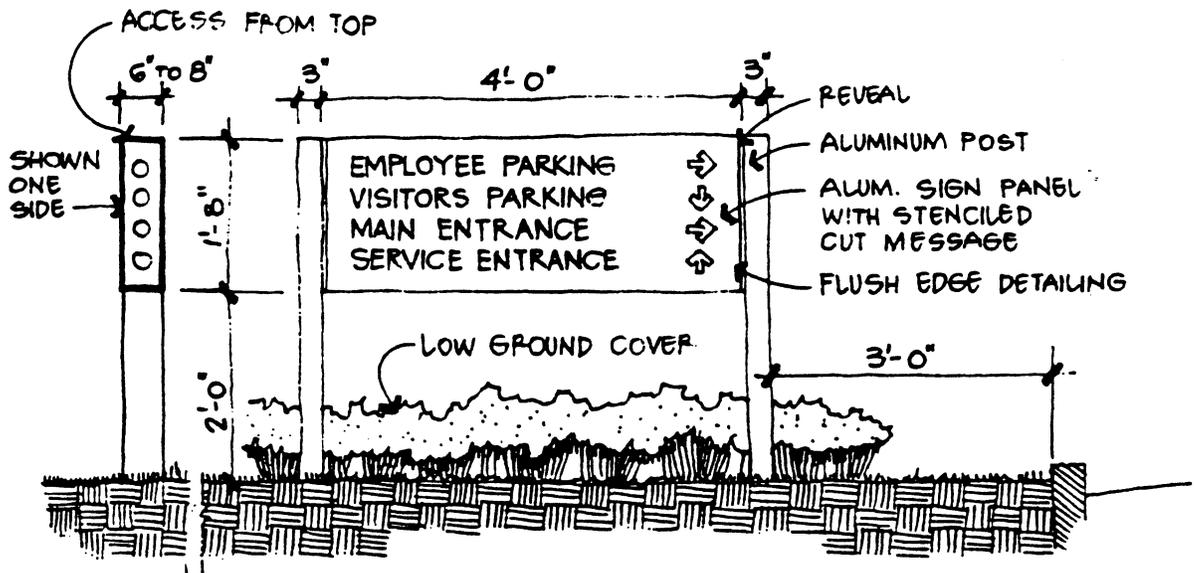
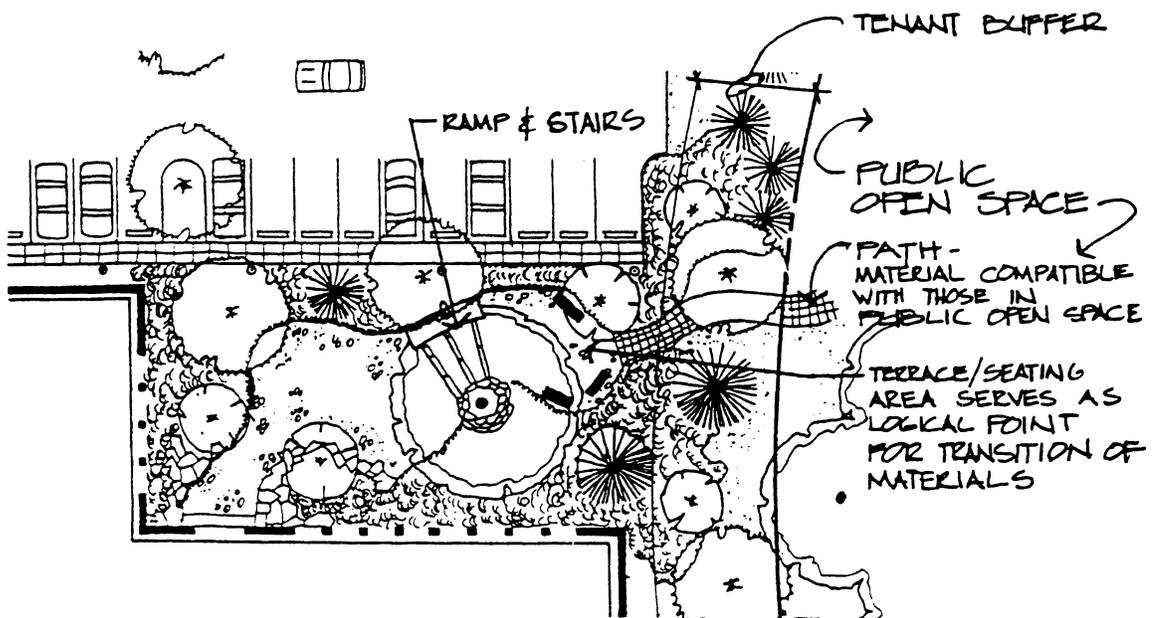


Figure 7-13: Typical Terrace and Path To Public Open Space

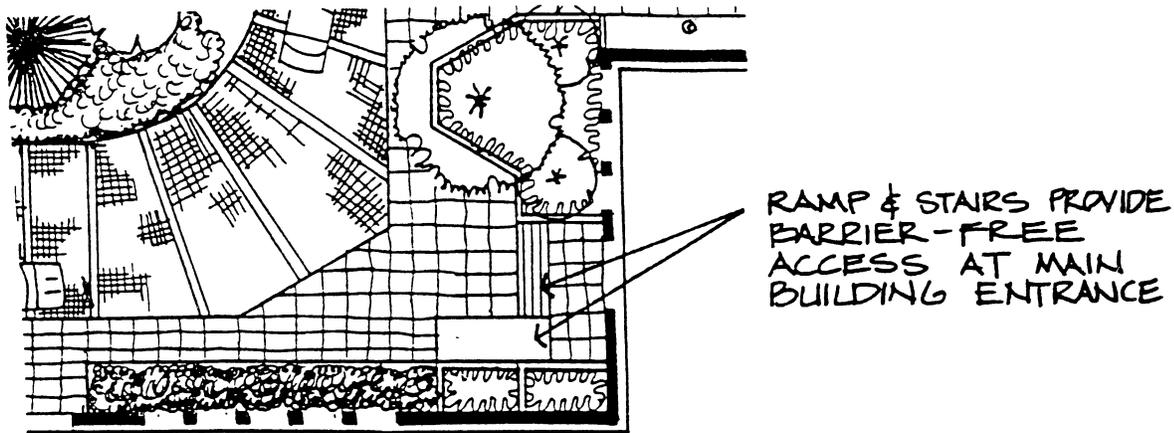


## 12. Drop Curbs, Steps and Ramps

Drop curbs and/or ramps are required for all site services such as walks, parking lots, plazas, and open spaces. (See Figure 7-14.) Where steps or stepped ramps occur, they must be supplemented by an adjacent ramp. All ramps, stepped ramps, steps and sidewalks at greater than 5% grade, are required to have handrails and be adequately illuminated.

The recommended height of ramp handrails is 36 inches, and 33 inches on step handrails at the nosing. Handrails shall be attractive and consistent in design and finish with the general site and building design. No standard galvanized steel pipe rails are acceptable. (For lighting requirements of ramps, etc., see Appendix C.) Provision shall be made for access and use by physically handicapped people, in accordance with the requirements of the American National Standards Institute, current edition.

Figure 7-14: Ramps and Steps



## 13. Landscaping (Pedestrian Walks)

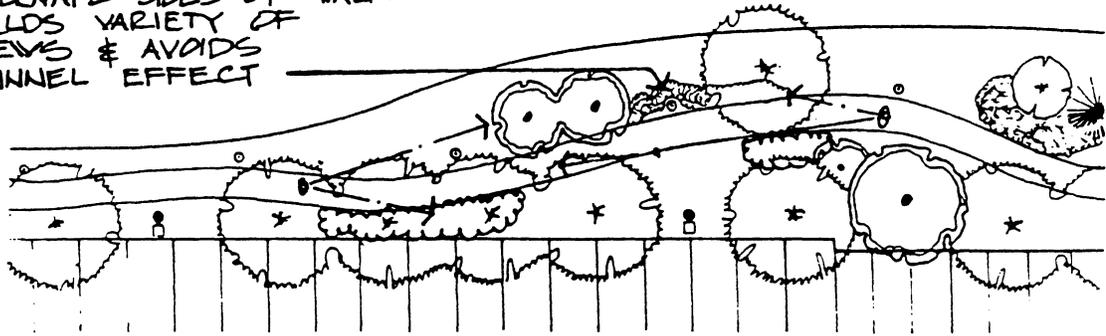
Ornamental and/or native species (see Appendix A) should landscape pedestrian walks as long as sight distances are maintained for safety. (See figure 7-15.) Continuous high planting on both sides of a walk (tunnelling effect) is prohibited. The pedestrian should be able to view his surroundings with minimum obstruction, except where screening purposes are served. Where adjacent to a buffer zone, new planting should use woodland edge plant materials to blend into the buffer zone. (See Appendix A.)

## 14. Signs (Pedestrian Circulation)

Pedestrian circulation signage (routing information) shall guide users to and from destinations throughout the site. Wherever possible, consolidation is encouraged, as is strategic location, thereby minimizing the number of signs. Locate them to avoid physical and sight line conflicts with pedestrians and vehicles. (For general signage design and materials, see Chapter 8, Signage.)

Figure 7-15: Pedestrian Walk

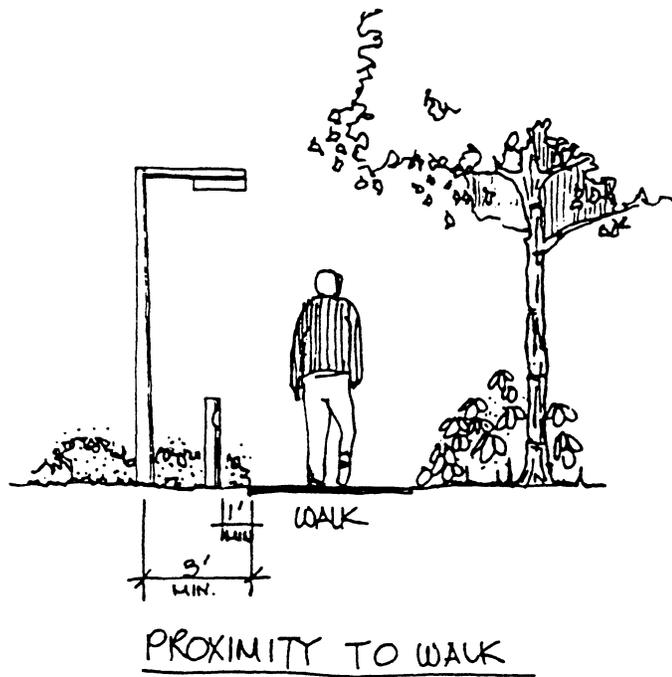
HEAVY PLANTING ON  
ALTERNATE SIDES OF WALK  
YIELDS VARIETY OF  
VIEWS & AVOIDS  
TUNNEL EFFECT



### 15. Lighting (Pedestrian)

Pedestrian-level lighting is required whenever there is pedestrian circulation. Many different forms of pedestrian lighting can solve lighting requirements including: light standards, bollard lights, fixtures on buildings, recessed lights in retaining walls, steps lights and handrail lights. (For height of standards, and illumination requirements, see Section H of this chapter, Site Lighting, and Appendix C, Lighting Requirements.) Locate lighting to avoid conflict with pedestrians and vehicles. (See Figure 7-16.)

Figure 7-16: Pedestrian Lighting



## F. Parking

All parking shall be Tenant constructed, on Tenant lots. (For setbacks and parking requirements and maximum site coverage of parking, see Chapter 6, Zoning and Land Use.)

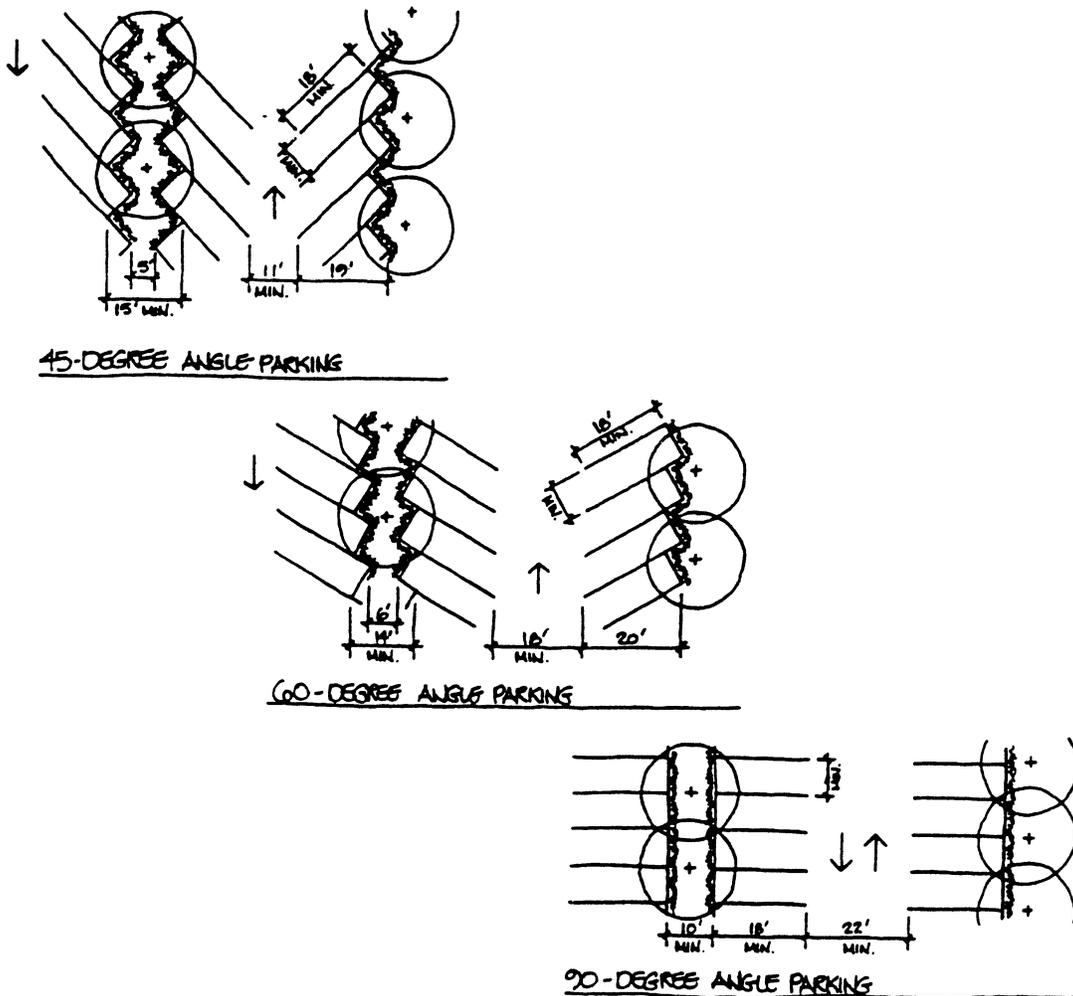
### 1. Quantity of Parking Required

- a) 1 stall/350 square feet of gross building floor area maximum. (The total number of stalls actually constructed may be less than required by this ratio.)
- b) Handicapped Parking: 2% of total ordinary car parking required, but no less than 2 spaces.
- c) Small Car Parking: If provided, maximum 20% of total ordinary car parking required.
- d) Motorcycle Parking: If provided, maximum 2% of total ordinary car parking required.
- e) Bicycle Parking: As required.

Parking layout alternatives can have 45°, 60° or 90° stall alignments, but only one alignment can be chosen for each lot. 45° and 60° alignments shall have one-way aisles, while 90° alignment parking lots shall have two-way aisles. (See Figure 7-17.) 70° and other arrangements are specifically subject to Review Committee approval, and will require functional justification by the Tenant.

While small car parking is not required, The Teleport encourages it. Fewer square feet per car stall means savings for each owner, and more green open space for The Teleport in general.

Figure 7-17: Parking Layouts



**Table 1. Parking Lot Dimensions**

<b>Type of Vehicle</b>	<b>Angle of Parking</b>	<b>Stall Size Width</b>	<b>Length<sup>1</sup> (Min.)</b>	<b>Stall Length Measured Perpendicular to Curb</b>	<b>Aisle Width (Min.)</b>
Ordinary Car	90°	9'	18'	18'	22'
	60°	9'	18'	20'	18'
	45°	9'	18'	19'	11'
Small Car	90°	7.5'	15'	15'	20'
	60°	7.5'	15'	16.7'	16'
	45°	7.5'	15'	16'	10'
Handicapped Car	90°	13' (8') <sup>2</sup>	18'	18'	22'
	60°	13' (8') <sup>2</sup>	18'	22' (19.6') <sup>2</sup>	18'
	45°	13' (8') <sup>2</sup>	18'	21.9' (18.4') <sup>2</sup>	11'
Motorcycle	90°	4'	8'	8'	10'
	60°	4'	8'	8.9'	8'
	45°	4'	8'	8.5'	7'

<sup>1</sup>With the exception of motorcycle parking, these lengths apply where there is a continuous linear island. Where no continuous island is planned, one foot (1') should be added to each stall length.

<sup>2</sup>Handicapped stall may be 8' width, 18' length, with minimum 5' shared accessed aisle, see Figure 7-20.

**Table 2. Parking Lot Planted Island Dimensions (Continuous Linear Islands)**

<b>Angle of Parking</b>	<b>Min. Width</b>	<b>Min. Width at Widest Point</b>	<b>Min. Width at Shortest Point</b>
90°	10'	–	–
60°	–	14'	6'
45°	–	15'	5'

---

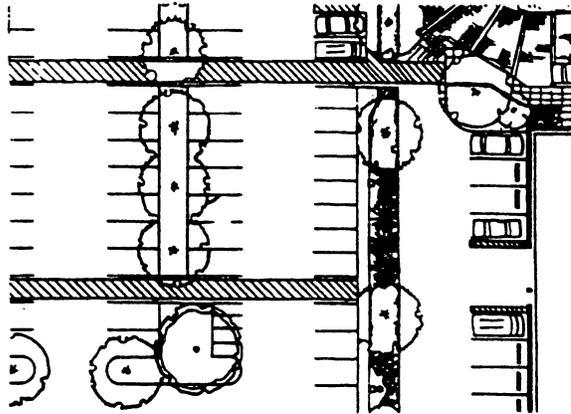
## Notes (Table 2):

1. Minimum widths are measured from face of curb to face of curb.
  2. See sketch of Parking Layout Alternatives (Figure 7-17), this section, for graphic representation of continuous linear planted islands.
  3. Where end islands are shaped to conform to angular drives, the width at the widest point of the island shall be a minimum of 9 feet.  
  
End islands shall extend to the outside end of each bay of cars and all corners shall have a minimum radius of 2 feet.
  4. Isolated planted islands may also be provided and can take the shape of the modular car stall (9 feet x 18 feet) or other shapes. The minimum length or width of any isolated planted island shall be 6 feet.
- 

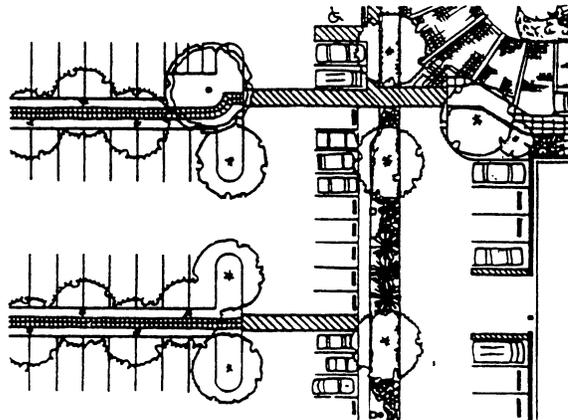
### 2. Pedestrian Walks

Provision for pedestrian walks in parking lots is recommended and can be accomplished using contrasting pavement material, or white painted crosswalks on pavements. (See Figure 7-18 and 7-19.)

**Figure 7-18: Aisles Parallel To Building Facade**



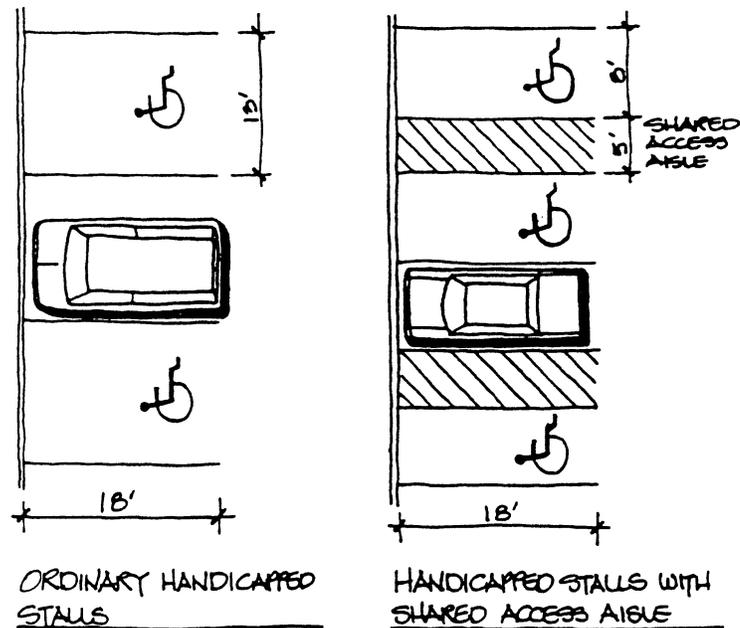
**Figure 7-19: Aisles Perpendicular To Building Facade**



### 3. Handicapped Parking

Handicapped Parking areas are required and should be located as close as possible to the building's main entrance. (For stall requirements, see Parking Dimension Table, this section.) Handicapped parking shall be designated by pavement markings (standard blue symbol). Ramps and/or drop curbs must be provided where changes in elevation occur. (See Section E-12, of this chapter and Figure 7-20.) For additional design criteria on handicapped requirements, refer to the National Center for a Barrier Free Environment, and the American National Standards Institute.

Figure 7-20: Handicapped Parking



NOTE: WHERE PARALLEL PARKING IS PROVIDED, HANDICAPPED STALLS SHALL BE MIN. 12' WIDE, 22' LENGTH.

### 4. Small Car and Motorcycle Parking

Small car and motorcycle parking is encouraged and should be integrated with ordinary car parking. (For stall requirements, see Parking Dimension Table, this section.) Their use should be encouraged through convenient location; for instance, close to the building entrance. Full bays of small car parking stalls are recommended to take maximum advantage of the aisle and stall size reduction benefits.

### 5. Bicycle Parking

Provision for Tenant bicycle parking is recommended and should be provided in a separate area outside the parking lot, minimizing conflict with vehicular access roads. Building access from bicycle parking should not be obstructed by parking lots or access roads, and should be located in close proximity to the building entrance. Above-ground metal pipe racks are unacceptable; precast concrete ground-level tire grooves with locking devices are recommended.

### 6. Pavements and Curbs

All parking lots shall be paved, curbed and striped as described for roadways, in the materials paragraph of vehicular circulation. Visitor and executive parking in close proximity to the building can follow the guidelines for roadways and drop-offs in the same location. Where decorative pavements, such as brick, granite pavers, etc. are

used in close proximity to the building, a separate contrasting color material such as brick or concrete may be used to delineate stalls. Handicapped stalls should be designated through the use of painted symbols (standard blue) on pavement or signage. Generally, wheel stops shall not be used, however, when a walk is immediately adjacent to a parking lot, install wheel stops to prevent automobile overhang and subsequent pedestrian/auto conflict. Wheel stops must be structurally capable of withstanding auto impact, constructed of concrete and designed with maintenance and aesthetics as prime considerations. Wherever possible, do not locate walks adjacent to parking spaces.

## 7. Grading

Grade all parking areas to achieve positive drainage and maintain the appropriate slopes. (See Appendix B.) Smooth graded parking surfaces are required to avoid abrupt changes of pitch. Attain consistency in the method of storm drainage collection. Earth berms and landscaping can be used at parking lot perimeters to facilitate screening and noise attenuation.

## 8. Finished Elevation

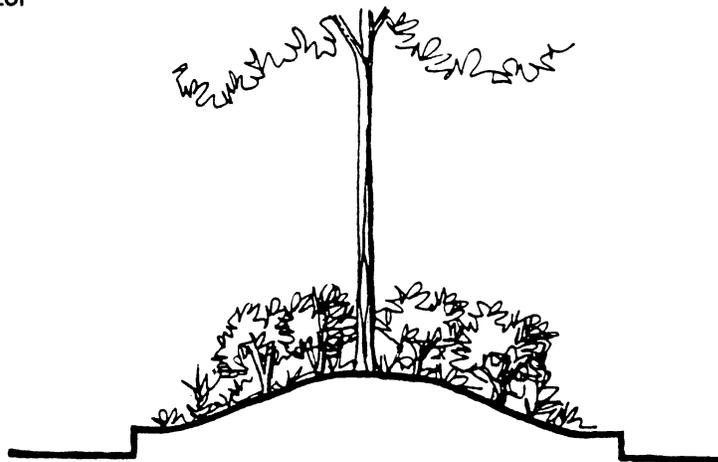
All parking lots shall approximate existing grade or lower, but in no case below elevation of 8.0 feet, Richmond Borough Datum. Where steeper existing grades dictate, parking lots may be stepped, using planted islands to make up for excess change in existing grade. Positive drainage to Tenants' collector points will be required. Tenant storm drainage from paved areas and roofs will not be permitted to drain by surface runoff to Teleport roadways or public space. This drainage must be intercepted by a piped system prior to entering The Teleport system.

## 9. Landscaping

Parking lots adjacent to neighboring properties, access roads, buildings, open space, etc., shall be screened effectively using a combination of evergreen and deciduous trees, shrubs, and ground covers. Where the parking lot is adjacent to neighboring properties, the screening strip as stated in "Required Buffer Zones", shall be sufficient for parking lot screening. When parking lots are adjacent to vegetation requiring preservation, indigenous woodland edge plant materials shall be used to blend into the existing woodlands. (See Appendix A.)

Planted islands are required to enhance the visual quality to parking lots, as well as provide shade and the cooling effect of trees. (See Parking Layout Alternatives (Figure 7-17) and Parking Lot Planted Island Dimensions Table.) Mounted islands can also be used to relieve the flat character typical of parking lots. (See Figure 7-21.) The density of

**Figure 7-21: Mounded Planting Islands in Parking Lot**



shade trees shall be a minimum of one tree per 4 parking stalls (including handicapped, small car, and motorcycle parking stalls). In addition, for every 100 linear feet of continuous parked cars, there must be a planted island the size of a typical car stall. Plant at least half of the surface area of the islands with shrubs and groundcovers, except where important sight lines might be comprised. (See Appendix A for recommended plants.)

#### 10. Sight Lines

Take care to maintain safe vehicular sight lines within the parking lot and at connection to access roads. Shrub planting at intersections shall not exceed 18 inches height. Shade trees shall be specified to start branching at minimum 7 feet above grade. Evergreen trees should not block any views at or near points of vehicular access or circulation.

#### 11. Signs

Parking lot designations such as "Employee", "Visitors", or "Executive Parking", where necessary, shall take the form of above-ground signs. (See Chapter 8, Signage.)

Directional arrows and stop lines in parking lots shall be white painted graphics on the pavement.

#### 12. Lighting

Parking lots shall be properly illuminated. All parking lot lighting shall be cut-off design. (See Appendix C for Lighting Requirements.) Where pedestrian walks occur in parking lots, provide pedestrian lighting at the required illumination. Locate light standards to avoid conflict with vehicles, pedestrians, and planting. Light fixtures and posts shall be attractive and consistent with the guidelines in Section H of this chapter.

## G. Site Amenities

### 1. Security Fencing

Site perimeter security fencing is highly discouraged, but will be permitted if necessary. Security fencing shall be a minimum of 5 feet off the property line, within the Tenant's site, and shall be planted on both sides. Security fencing shall be brown vinyl-clad, chain-link; barbed wire is not permitted. Fencing cannot be less than 6 feet nor more than 8 feet in height and is no substitute for planted buffer zones or screening strips.

### 2. Screen Walls

Where screening is required or preferred (see Chapter 9, Building Design Standards), screen walls and/or vegetative screening may be used. Screen walls shall be consistent with the exterior materials of the building; chain link or barbed wire is unacceptable for screening purposes. Screen walls shall be at least 6 feet in height and may be integrated with planting.

### 3. Decorative Walls

Seat walls, planter walls, etc., are encouraged. All walls shall be durable, consistent with the general site and building design, and meet all requirements of the New York City Building Code. Decorative walls may be complemented with ornamental landscaping. Climbing vines are encouraged. (See Appendix A.)

### 4. Site Furniture

Benches, trash receptacles, picnic tables, game tables, etc., are recommended wherever sitting areas or plazas are provided by the Tenant. These amenities shall be

attractive, of good quality and consistent with the general site and building design. Wood, wood and concrete, and stone are examples of acceptable materials.

Cast iron tree grates of architectural design shall be used for trees planted within paved areas, and shall be a minimum of 6 feet in diameter, or 5 feet square.

#### 5. Recreation Facilities

Tenant recreational lawn areas, outdoor eating areas, fitness courses, etc., are encouraged provided there is no conflict with adjacent properties. Tennis courts and other active recreational facilities are acceptable; however, they must be located to have no negative impact upon neighboring sites. Screening strips and Tenant Buffer Zones are adequate for their screening.

#### 6. Irrigation

Irrigation systems, particularly automatic systems, are encouraged for use in conjunction with the landscape plan. There should be no conflict with road and public rights-of-way and adjacent properties.

#### 7. Sculptures

Sculptures shall complement the architecture of the building and general site design. Sculptures may be combined with water features. (See Water Features, this section.) The height and scale of sculptures must be consistent with the building design and is subject to approval by the Review Committee.

#### 8. Water Features

Ponds, fountains and water sculptures are encouraged but should be designed with maintenance as a consideration. Features idle in the cold weather season must be visually attractive during that season, such as the combination of water and sculpture. Year round maintenance of water features is the responsibility of the Tenant.

#### 9. Natural Features

Wildflowers and native grasses are encouraged in the more naturalized site areas. In these areas informality of design is mandatory, to effect the best transition from the built environment to the natural buffer and screening strip areas.

## H. Site Lighting Standards

### 1. General Lighting

In general, site lighting shall be conceived as soft lighting, in keeping with the low-rise and quiet appearance of the development. As far as possible, light sources shall be invisible unless they are ornamental, semi-concealed or visible source types. Parking lot lighting shall be cut-off design.

Integrate the design of poles, bollards and fixtures with the general site design, subject to Review Committee approval. The finish for all exterior light poles, bollards and fixtures at The Teleport shall be dark bronze anodized aluminum.

All lights on Tenant sites must be maintained by the Tenant.

(For light sources and illumination levels, see Appendix C.)

## 2. Decorative Lighting

Decorative lighting is encouraged and, when used creatively, can achieve dramatic effect. Uplighting, downlighting, accent lighting, silhouette lighting, and light hue, are some lighting techniques which may be incorporated into the landscape design. Colored or moving lights are not permitted without special review and permission by The Teleport.

# I. Building/Site Relationship

The placement of building, parking, open space and other site elements has an important function in the integration of the Tenant site plan with the Master Plan concepts. (See drawing PH-1.)

Setbacks and building coverage are discussed under Zoning and Land Use. Landscaping treatments, geometry of roads and grading are discussed previously in this chapter. These requirements are not intended to preclude imaginative solutions to special site conditions. Deviations from the standards shall be reviewed at the schematic design conference, and if conditions warrant, exceptions can be made. Final placement and bulk will be established then.

The building's relationship to the site, to preservation of valuable vegetation and landscape features, and to drainage patterns will form a basis for judgment.

## 1. Finished Grade at Building

Determination of the building's finished grade will be based upon acceptable slopes for The Teleport utility mains in accordance with the requirements of the City of New York Building and Plumbing Codes. Additionally, there shall be no more than a 2 foot maximum variance from existing grades. In any case, the finished grade at buildings (immediately adjacent to the building exterior) cannot be less than elevation 8.2 feet, nor can there be any habitable space below elevation 11.2 feet (Richmond Borough Datum). The intent is for the Tenant to establish the building's ground elevation as close to existing grades as possible and preserve as much of the natural site features as possible, while servicing all utility connections and minimizing earth-moving operations. Should solution to specific functional requirements include a story below grade, provisions shall be made to direct subsoil water around the building, so that natural drainage is not impeded and drainage on adjoining sites is not disturbed.

## 2. Main Entrance

The main entrance should be accessible directly from the access road and be located near a drop-off area. The scale of the entry and its materials should respect the lowrise, quiet character of The Teleport.

A sign at the entrance is permitted, provided it is in keeping with the signage standards. Lighting levels must conform to the lighting criteria. (See Appendix C.)

## 3. Service Area

Locate the service area in the side yard whenever possible (side yard meaning the yard facing adjacent properties). Location at the front of the building is acceptable if necessary, due to a lot size or configuration constraint, but is not encouraged. Such areas must be designed to the highest standard of quality, their service identity concealed by creative grading and planting. (See Figures 7-22 and 7-23.) Never locate service areas on the Office Park side of the building. The service entrance shall be located so that there is no conflict with vehicular or pedestrian circulation. Screen the

service entrance with dense planting (see Appendix A) or screen walls (see Chapter 7, Site Development Standards, Section G, Site Amenities) to attenuate noise and produce a visual barrier. Area lighting shall be off the building, if possible; otherwise, it shall be of the same quality and design as general site lighting. Lighting arrangements shall not disturb the adjoining properties.

#### 4. Loading Docks

Treat loading docks similarly to service entrances. Outdoor equipment storage, if required at these areas, will be prohibited without screen walls.

Figure 7-22: Plan

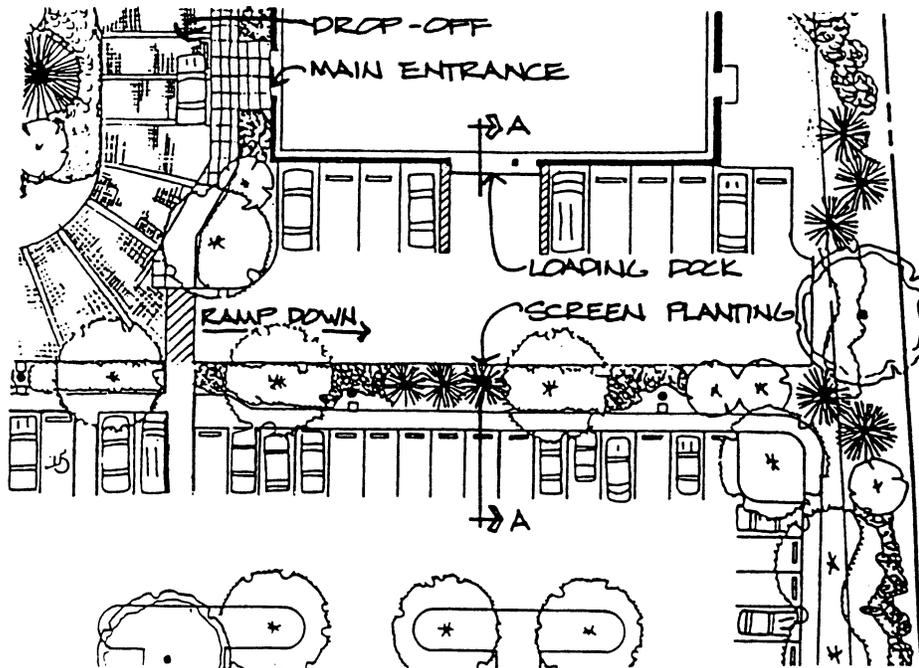
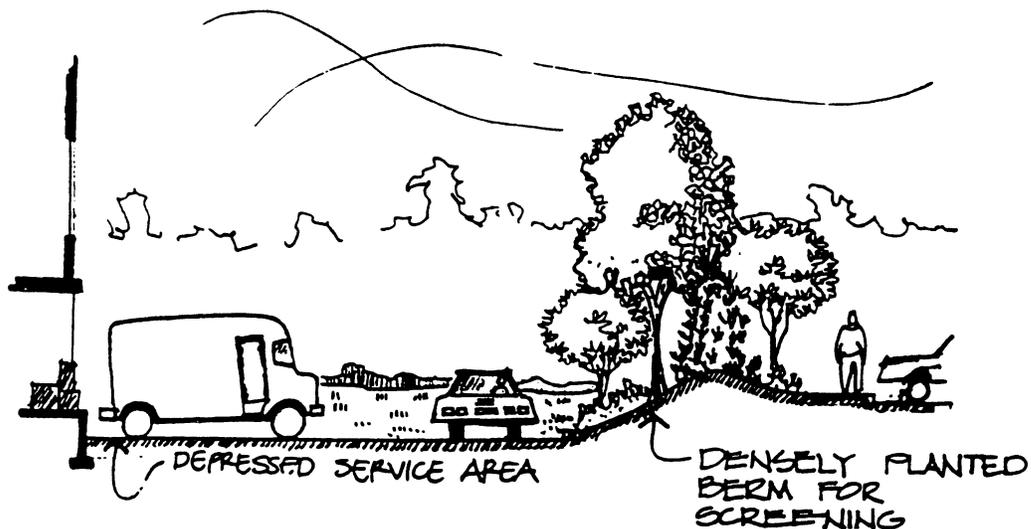


Figure 7-23: Typical Service Area



# 8 SIGNAGE

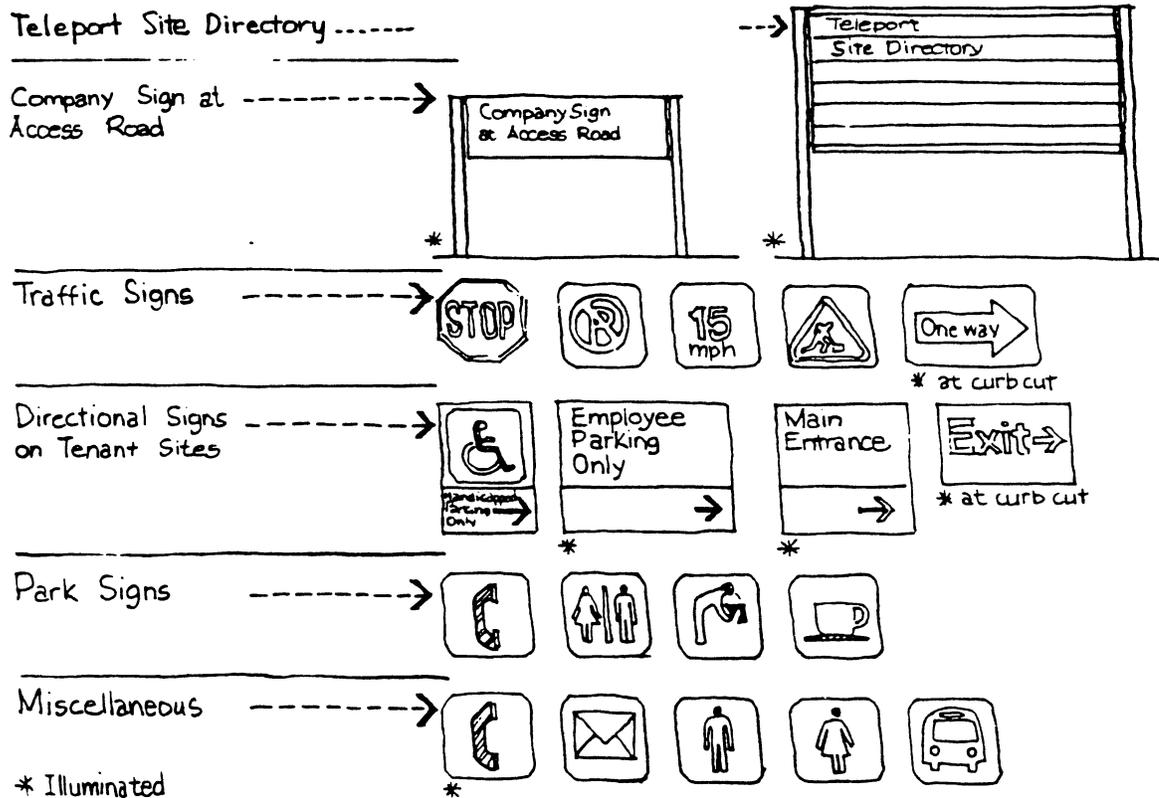
## A. General

All signage must be integrated with the site architecture and be consistent in format, lettering, material and coloring throughout the complex, except for company logos where the Tenant will have freedom to use the sign panel face as desired. Flashing or moving elements will not be permitted. All lettering, except for company logos and for construction signs, shall conform to graphic standards provided by The Teleport. All signage shall be subject to approval by the Review Committee.

A catalog of typical signs is shown in Figure 8-1.

Figure 8-1

## Signage groups



## 1. Design and Material

All signs shall be constructed of extruded aluminum post supports. Panels, including face, side, top and bottom panels, shall also be of aluminum detailed flush without flanges.

For the company identification sign fiberglass and/or acrylic plastic is permitted on the sign's front and rear panels.

## 2. Graphics

Graphics on aluminum panel faces shall be silk-screened or reflective die-cut vinyl, pressure sensitive legends.

Graphics on fiberglass and/or acrylic plastic panel faces shall be sub-surface printed and integral with the sign panel face. Stencil cut graphics in metal panels may be fiberglass and/or acrylic plastic in-fill.

## 3. Finish and Color

Aluminum posts and panels shall have dark bronze anodized aluminum finish. In the case of fiberglass and/or acrylic plastic, match the field color of the panel with the aluminum finish color. The graphics of company identification signs may vary in color and design.

## 4. Illumination

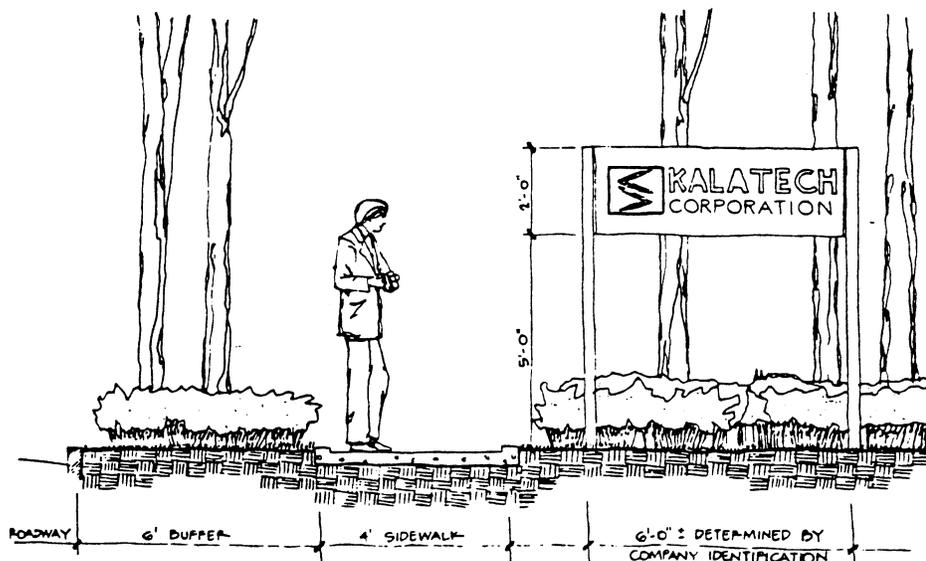
Illuminate all illuminated signs internally. The sketches in this section identify signs which may be illuminated.

# B. Sign Design

## 1. Tenant Site Entrances

Locate a company identification sign (see Figure 8-2) at the Tenant entrance drive to accommodate its function (vis-a-vis vehicular traffic), as well as simultaneously integrating it with other entrance elements. (See Chapter 7, Site Development Standards for additional recommendations on locations.)

**Figure 8-2: Company Identification Sign**







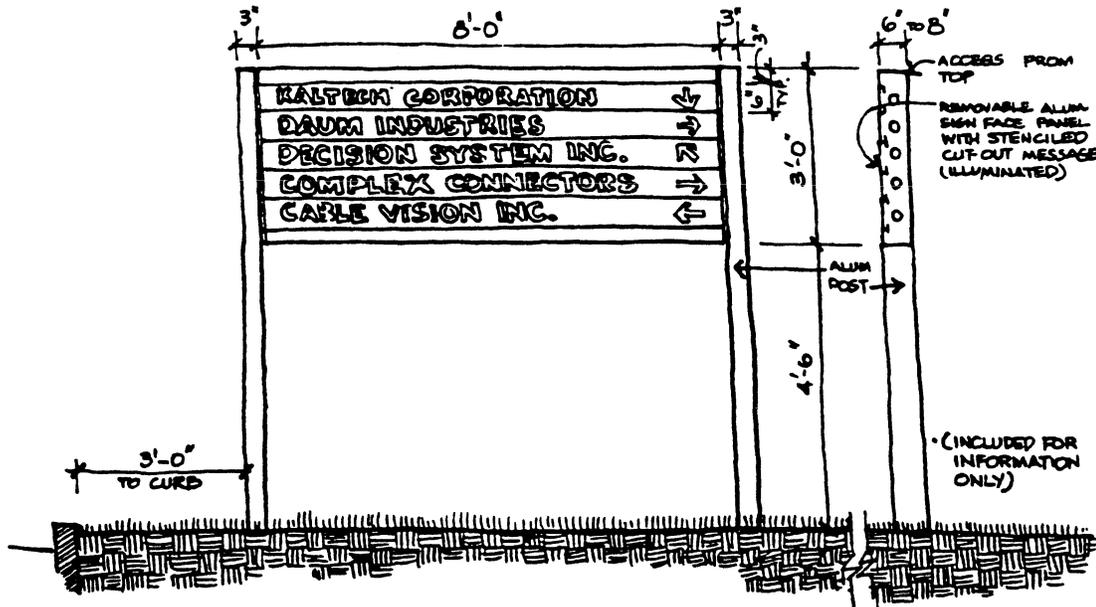
## 5. Teleport Road Signs

Teleport's road signs will be constructed according to the standards described above. At key points, directory signs will guide vehicles to various destinations. An illustrative directory sign is shown in Figure 8-6.

## 6. Temporary Signs

Signs required during construction and site development, and those required for maintenance purposes should be located as necessary for safety and work progress.

Figure 8-6: Directory Sign On Teleport Roads



## 7. Temporary Advertising Signs

Each tenant site is allowed one temporary advertising sign. All sign layouts must be submitted for approval and must meet the following basic requirements:

- 1) The sign shall be constructed of CDX exterior grade plywood with (2) pressure-treated wood posts.
- 2) The sign face shall be 6 foot high by 8 foot wide, and 2 feet above the ground plane.
- 3) The sign shall have a white painted background with 2 colors, maximum.

# 9 BUILDING DESIGN STANDARDS

---

One goal of The Teleport's Master Plan is the integration of buildings with the natural site landscape. It is expected that existing stands of trees should serve as design elements to complement each structure's architectural expression. Massing, detailing, textures and colors shall respect the generally low-rise building and wooded character of The Teleport.

All building proposals will be evaluated by the Review Committee on the basis of close integration with The Teleport's natural landscape.

The exterior color palette should include a range of neutral tones. However, use of color accents, which may be appropriate for the building design, is possible. The Review Committee will provide guidance and basic exterior color scheme approval.

## A. Building Materials and Construction

All buildings must have permanent structural frames and exterior finishes. Permanence implies that buildings will age without deteriorating, given a minimum level of maintenance. This is achieved using quality building materials and methods of construction. To maintain the value of all Teleport development, certain materials and finishes are not allowed. (See Paragraph 8 of Section B of this chapter.) For some building systems, performance guarantees have been mandated.

## B. Finishes For Exterior Walls and Openings

### 1. Fire Rating

Generally, provisions of the New York City Building Code apply, however, Class I-E or any type of Class II construction is not permitted. All buildings must be protected throughout by sprinklers or other approved automatic fire suppressant systems.

### 2. Concrete

Architectural concrete may be used as an exposed surface material, both cast-in-place or as precast panels. Exposed structural concrete without additional treatment is not permitted. All coloring must be integral; surface coating is prohibited. The surface finish of the proposed panels must be carefully evaluated for possible future discoloration due to weathering or leaching of alkali. Where indicated, a protective clear sealer should be specified. Expansion and control joints shall be incorporated to prevent future cracks.

### 3. Masonry

Examples of acceptable masonry materials are textured concrete block, brick, glass block, prefaced concrete masonry unit, granite, terra cotta, marble, limestone and slate. For any porous masonry material, a protective clear sealer should be specified to prevent moisture penetration. All masonry materials must be used in their natural coloring. Painted surfaces or field applied texture coatings are not permitted.

### 4. Metal

Insulated metal panels of stainless steel, aluminum and baked enamelled steel may be used. When using metal as an exterior material, an appropriate scale of the panel grid and the quality of detailing are particularly important and should be carefully studied to complement the low-rise character of the development. Special considerations include

flatness of panels, expansion details and weathertightness. Standing seams and exposed fastenings are not permitted in preformed metal panel details. Metal finishes may be anodized or baked enamel. Natural finish is permitted on all noncorroding metals with the exception of galvanized steel and aluminum. Paint is prohibited.

#### 5. Glass and Acrylic Plastic

Glass assemblies, like all other exterior materials, must meet the New York State Energy Conservation Construction Code requirements. The use of insulating glass or double glazing is recommended. Acrylic plastic, while permitted as a material for skylights (see Section C, this chapter—Roof Materials), is not permitted for windows and building entrances.

Glazed curtain wall assemblies may be used. To insure long-term performance, careful detailing is required for expansion, weathertightness and condensation drainage.

#### 6. Ceramic Tile

Use of ceramic tile as an exterior material shall be limited to accent areas or panels.

#### 7. Louvers and Grilles

Louvers and/or grilles should be designed to harmonize with the building facade. Anodized aluminum, stainless steel and baked enamelled steel are examples of acceptable materials. Painted louvers and grilles are not permitted.

#### 8. Prohibited Materials for Walls and Openings:

- a) *Plywood.*
- b) *Wood Siding.*
- c) *Wood Shingles or Shakes.*
- d) *Cement Asbestos Siding or Shingles.*
- e) *Composition Siding such as Hardboard Siding.*
- f) *Composite Building Panels such as Metal Faced Plywood or Wood Core Panels, Exposed Aggregate with epoxy matrix on a back-up material, and Simulated Grain textured composite panels.*
- g) *All plastics.*
- h) *Plaster (stucco).*

## C. Roofs

#### 1. Flat Roofs

Built-up roofing, roll roofing, sheet roofing and membrane roofing may all be used.

#### 2. Sloped Roofs

For sloped roofs, slate and preformed metal are examples of appropriate materials. Metal shall have a baked enamel or anodized finish with sufficient finish guarantees. Standing seams and exposed fastenings are not permitted.

#### 3. Skylights

Skylights of glass and acrylic plastic are permitted and encouraged.

#### 4. Warranties

A minimum 5-year warranty for all roof assemblies shall be mandated by the specifications.

#### 5. Terraces

Roofs other than at the highest level which adjoin habitable building spaces shall be treated as terraces landscaped with planting and paving.

## 6. Prohibited Materials for Roofs

- a) *Asbestos Cement Shingles.*
- b) *Asphalt Shingles.*
- c) *Exposed Sheetmetal Roofing.*
- d) *Wood Shingles or Shakes.*
- e) *Metal Shingles.*

## 7. Fire Stairs

All fire exit stairs shall be inside the building walls. Exterior fire escapes or ladders are not permitted, with the exception of access ladders to mechanical penthouse roofs.

## 8. Hoists, Cranes and Conveyors

Permanent hoists, cranes and conveyors are prohibited. Roof mounted hoist beams are permitted, provided they are carefully detailed and located.

## 9. Storm Leaders

Exposed storm leaders are not permitted. All roof drainage shall be piped to connect with the site's storm drainage system.

## 10. Electro-Mechanical Elements

Overhead cables are not permitted.

Electric conduits or ductwork must not be exposed on any exterior walls. Metering equipment for gas, electricity and water must not be exposed on exterior walls.

Through-the-wall or window HVAC units are prohibited.

Electro-mechanical equipment may be placed on roofs. It shall be completely enclosed by mechanical penthouses, open to the sky or roofed, depending on equipment type. Mechanical penthouses shall be integral in design with the building and employ the same finishes and materials, as well as designed for noise attenuation. Performance standards for electro-mechanical equipment are described in Section F of this chapter, Electro-Mechanical Systems.

## 11. Window Washing Equipment

Window washing equipment shall be stored in an enclosed penthouse constructed to the requirements described above.

## 12. Flues

Set flues from chimneys and exhaust systems back from the parapet to minimize their visibility from the ground level of adjoining properties or public spaces.

Electro-mechanical equipment, window washing equipment, flues and other necessary but unsightly elements shall not be placed on lower roofs where they may be visible from adjacent higher buildings.

# D. Prohibited Building Systems

- 1. Air supported structures
- 2. Mobile buildings.

## E. Special Buildings

Some auxiliary buildings are expected at The Teleport for the common benefit of all users, providing such services as data processing equipment maintenance and repair.

Generally, the same standards described for Tenant buildings apply to these buildings. Because of different usage, some exceptions may be made, with the permission of the Review Committee, in building material conformance. Wood trim, wood decks, railings and trellises may be used. Incandescent lighting is permitted and recommended in these buildings.

## F. Electro-Mechanical Systems

All electro-mechanical systems shall be provided by the Tenant in accordance with all applicable code requirements, and all authorities having jurisdiction, as previously specified. In addition, such systems shall conform to design criteria as specified hereinafter.

### 1. Electrical Systems

a) *PVC insulated wiring and conduits within buildings are prohibited.*

#### b) *Fire Alarm*

*Provide each building with a protective fire alarm system. It shall be of the zone coded type, incorporating individually coded manual stations, smoke detectors, connections to waterflow and supervisory sprinkler and standpipe devices, and alarm sounding gongs or horns. It shall include provisions for the automatic controls of fans, dampers, smoke doors and the like.*

*Individual building protective fire alarm systems and any optional building security systems shall each tie, via leased telephone lines, into off-site central station agencies reporting to the Municipal Fire and/or Police Departments.*

*The tenant shall also tie these systems into an on-site central monitoring system maintained by The Teleport.*

#### c) *Emergency Generator*

*Diesel-engine driven emergency generators can be provided for each building or tenant by the Tenant, to supply egress lighting, exit signs, the fire protective alarm system, other essential alarm and communications systems, essential mechanical building service equipment, and "optional" loads. The generators shall each be located in an approved area and equipped with a residential type muffler to limit the noise emission to code accepted values.*

#### d) *Energy Efficiency*

*All equipment which consumes electrical energy shall be of an energy efficient type wherever available. In particular:*

- 1) Motors 1½ HP and larger shall be deemed by the industry as "high efficiency", and shall have a full load power factor of not less than 85%.*
- 2) Transformers shall be of the high efficiency type with "H-115" insulation systems.*
- 3) Lighting within buildings should incorporate concepts such as task lighting and energy efficient fixtures. Use of incandescent lamps should be limited to locations where they enhance architectural concepts.*
- 4) Ballasts for discharge type lamps shall be of the low energy type. Consideration should be given to the use of solid state ballasts.*
- 5) Provide local and/or central switching systems to permit lights in unoccupied spaces to be readily controlled on a space by space basis.*
- 6) Maximum advantage should be taken of daylight when designing the lighting systems and their controls.*
- 7) PVC cable*

## 2. Mechanical Systems

### a) Systems and Technology

*The mechanical systems for the buildings shall incorporate the latest available technology to allow energy efficient and flexible operation, to facilitate interior space modifications, and to provide a comfortable environment. The systems must meet the requirements of the New York State Energy Conservation Construction Code.*

### b) Energy

*For heating, subject to the building's requirements, both natural gas and electricity are available. For cooling, both electricity and natural gas are available.*

### c) Criteria

*The systems will be designed to require no reheat. In special cases the Review Committee may grant permission for the use of reheat, based on comparative analysis. Furthermore, systems should be designed to require no mechanical refrigeration below 50° F outside air temperature.*

### d) Design Loads

*The heating, ventilation and air conditioning (HVAC) system shall be designed to maintain 78° F temperature inside at 50% relative humidity with 89° F dry bulb and 75° F wet bulb outside in summer, and 68° F inside temperature with 15° F dry bulb outside in winter. The air conditioning system should be designed to permit use at an average of 4 watts per square foot for lighting and appliance loads without exceeding design temperatures. Cooling loads for computers and other similar equipment are additional.*

### e) Filtration

*All systems should provide adequate filtration of both outside air, required by code for ventilation, and recirculated air.*

### f) Equipment Location

*HVAC systems should be based on above grade equipment contained within the buildings and/or on roof mounted equipment. Through-the-wall HVAC units are not acceptable. Roof mounted equipment may be located in penthouses of architecturally approved design.*

### g) Energy Conservation

*In the project design, energy conservation should receive serious consideration. Value Engineering analyses must be made for each building to determine whether any of the hereinafter listed Energy Conservation Systems apply. Parameters such as the hours of use of building sections for sizing HVAC equipment, interior loads such as computers or other heat producing equipment, and ventilation requirements must be considered when the recommendations in the following paragraphs are evaluated for each building.*

### h) Recommendations for Energy Conservation

*Recommendations for implementation of the basic established criteria which severely limit the use of reheat and prohibit the use of mechanical refrigeration below 50° F outside air temperature follow:*

#### 1) Cooling

*To accomplish the latter, direct cooling by means of condenser water (Strainer Cycle or fin plate heat exchanger) or the application of the Econocycle should be used, through the use of an enthalpy controller, to take advantage of 100% cool outside air, whenever available, for free cooling.*

#### 2) Heating

*For winter heating, use of interior building heat from lights, computers and other power consuming equipment should be evaluated, and is strongly recommended. Such features as local or central heat pumps, fan powered or induction type air terminal units using ceiling plenum return air for heating, or a combination of similar systems, should be carefully evaluated. Additional areas of evaluation are the use of heat recovery from exhaust and spill air for pre-heating outdoor air, and the use of heat recovery from condenser water to preheat domestic hot water in summer.*

#### 3) Thermal Storage

*Thermal storage of either ice or chilled water should be evaluated, although the lack of basement areas and the limited size of each building will probably limit the use of such systems.*

#### 4) Solar Energy

*The use of active solar energy systems for either domestic hot water (Solar plates) or domestic hot water heating and cooling (Vacuum tubes) should be studied. Since these systems have so far proven to be economically unattractive, a cost analysis should be included in the evaluation.*

- i) *Plumbing*  
*All plumbing fixtures shall be of the water saving type.*
- j) *Sprinklers*  
*Buildings shall be totally sprinklered.*
- k) *Storm Leaders*  
*The use of external storm leaders will not be permitted.*

# 10 ENERGY DESIGN STANDARDS

---

There is a nationwide consensus on the importance of energy-efficient design and, similarly, it has been established as an important goal at The Teleport. Use of materials with high thermal properties, passive solar design and environmental use of landscaping are all common techniques to improve the energy performance of buildings. Active solar energy systems have also emerged during the last decade; however, they have not always proven economical.

## A. Passive Solar Design Considerations

Assuming a long-term use of these buildings, some aspects of passive solar design should be considered:

1. Orientation and location of the building on the site.
2. Massing of buildings or building parts to create shadows for reducing heat gain and wind velocities affecting infiltration in the winter.
3. Building configuration to incorporate features such as interior courtyards or clustering building parts.
4. Amount, location and shading of fenestration.
5. Use of vestibules and/or revolving doors to reduce infiltration at the entrances.
6. Proper orientation of the building and appropriate location of windows, etc., to encourage natural ventilation.

## B. Thermal Properties of Materials

Glass assemblies, exterior wall components, roof materials, service entrance doors and other exterior building elements should be designed for reasonably higher insulating values than those minimally required by codes.

## C. Landscaping

The emphasis on ornamental use of plants, trees, shrubs and ground covers can be altered to control environmental aspects of the site and building planning and to aid in energy conservation. Some possible considerations for landscape planning include:

1. Plants and trees arranged to impede high wind velocities and reduce infiltration.
2. Dense foliage and eyebrow planting to shade the fenestration.
3. Insulating value of earth berms.
4. Fleshy leaves and ground covers to control excessive sound.
5. Specific types of foliage to filter dust and remove other pollutants from the air.

If solar heating and cooling systems are proposed, substantiate the proposals with a comparative cost analysis for Review Committee examination. Initial description of measures may be in outline form, cross-referenced with the drawings.

# 11 CONSTRUCTION STANDARDS

---

## A. Contract Limit Line

All construction activity will be confined to the Tenant lot. This includes temporary contractor's offices, parking, material storage and staging areas. A fence must be erected at the contract limit line and only one access to each construction site will be permitted. Vegetation outside the contract limit line must not be disturbed during the construction process.

Sidewalk sheds must be erected where required by code. Construction of both fences and sidewalk sheds must conform to the requirements of the New York City Building Code.

## B. Environmental Control

The specification for noise control methods must include provision for locating noise generating equipment away from property lines and maintaining it in good working order. The Teleport and adjoining Tenants shall be notified prior to pile driving or blasting. Scheduling of such activities should attempt to minimize noise impact.

The specifications should also include provisions for daily rubbish and dust control. Means for the latter, such as water sprinkling, will be strictly enforced.

## C. Scheduling

The construction schedule filed with The Teleport will be followed. To encourage compliance with the schedule, it is recommended that the specifications contain a reward/penalty clause. The Teleport should be notified of any delays.

## D. Temporary Facilities

Construction offices may be housed in mobile or other temporary buildings to be dismantled at completion of the project. The tenant will provide temporary power and water connections and temporary sanitary facilities to the construction site.

# 12 MAINTENANCE

---

Each Tenant will be responsible for the maintenance of all lands, buildings, improvements and landscaped areas within their property lines. The Teleport or the Review Committee reserves the right to perform or require such maintenance at the expense of the Tenant.

In various parts of the development, the following maintenance standards must be kept:

## A. Site Maintenance

### 1. Paved Areas

Pavement surfaces, sidewalks and plazas will be kept clean and washed frequently. Parking lots must be kept free of snow and leaves as seasonal demand dictates. Cracks, joints and other openings in the pavement surfaces should be repaired promptly.

### 2. Grounds Keeping

Lawns and other ground cover will be kept well trimmed with procedures for fertilizing, trimming, and weeding set on a timely basis. During the fall season removal of leaves should occur within a reasonable time period. Catch basins and other drainage collection points must be cleaned regularly, and a regular grounds keeping schedule maintained.

### 3. Trees and Other Plants

Seasonal fertilizing, annual pruning and cutting dead branches should occur as required, with extra care given new planting during its initial establishment on the site.

### 4. Watering

All plants should be watered weekly during the growing season, and lawn areas watered daily during the summer months.

## B. Building Maintenance

### 1. Cleaning

To insure the quality standards projected for the development, buildings will be well maintained and clean at all times. Service provisions should cover necessary cleaning of masonry and washing and polishing of metals, particularly at the main entrances. Broken glass, damaged windows, light poles and lamps must be repaired or replaced promptly.

### 2. Snow and Refuse Removal

Snow removal and refuse collection services within the Tenant's property are the Tenant's responsibility. (Refer to Chapter 2—Teleport Organization, in this Manual.)

### 3. Equipment Storage

All maintenance equipment should be well screened or stored within buildings. It should not be visible from streets, public spaces or neighboring lots.

# 13 DESIGN AND CONSTRUCTION REVIEW PROCEDURES

---

A project Review Committee has been appointed to study each proposal at several stages during the design of the building and site. Direct Committee responsibilities include considering all submittals, scheduling special reviews, preparing responses and supervising compliance with the design and development criteria (see Chapter 2, The Teleport Organization). The Committee will also recommend design standard updates as necessary in the future. Additions and alterations to completed developments are subject to Committee review and approval.

## A. Design Reviews

Outlined below are submittal requirements for each of the three mandatory design conferences. The sequence and submittal requirements for each conference may be altered by Tenant request and Review Committee approval. If necessary, the Review Committee or the Tenant may request intermediate reviews and meetings.

### 1. Pre-Design Conference

After completion of lease arrangements and selection of the architect and other consultants for a Tenant site, but before the beginning of preliminary design, the Committee will discuss the proposal with the Tenant and its representatives.

At this time the Tenant will make available:

- a) *A project description.*
- b) *Titleblock information, listing Tenant, architect and other consultants.*
- c) *A topographical survey of the parcel at a scale of 1 inch = 50 feet. Base data shown on the survey should include:*
  - 1) *Boundary lines of the lot with metes and bounds.*
  - 2) *Topography shown by contours at one foot intervals.*
  - 3) *Easements.*
  - 4) *Existing roads, grades and pavement limits.*
  - 5) *Existing vegetation; location and description of notable natural features of major landscape value; location of trees of caliper of 6 inches or larger and outlines of smaller trees and shrubs.*
  - 6) *Water, sanitary sewer, storm sewer, electric, gas and signal connections to the property.*
  - 7) *Setbacks and buffer zones mandated by the Design Manual and Zoning Drawings. The Teleport will provide information needed to complete items 6 and 7.*
  - 8) *Vicinity drawing showing neighboring parcels and buildings.*
  - 9) *A brief description of the intended use of the building and development.*

The Tenant should be prepared to discuss special program needs, as well as unusual functional and environmental aspects of the proposal. If unique architectural concepts or design elements are contemplated, they should also be presented at this conference.

### 2. Schematic Design Conference

Submittal requirements are:

- a) *Site plan at a scale of 1 inch = 20 feet or 1 inch = 30 feet showing building location, entrance, service area, site amenities, parking and road layout, grading, site drainage and refuse removal.*
- b) *Utilities site plan at a scale of 1 inch = 20 feet or 1 inch = 30 feet showing existing utilities, extensions and connections, location of service areas, meters, transformers, etc.*
- c) *Site landscaping plan at a scale of 1 inch = 20 feet or 1 inch = 30 feet showing building location, entrance, service area, site amenities, parking, road layout, existing and new planting and other natural features of the site. The plan shall show schematic grading, all sign locations on the site, and methods of erosion and siltation control.*

- d) *Cross sections through the site at a scale of 1 inch = 20 feet or 1 inch = 30 feet showing building massing/grading relationship, buffer zones and other functional planting.*
- e) *Preliminary landscape budget.*
- f) *Schematic building plans, sections and elevations at a scale of 1/16 inch = 1'-0" and a minimum of one partial section and elevation at a scale of 1/8 inch = 1'-0".*
- g) *A perspective view.*
- h) *A mass-model at a scale of 1 inch = 50 feet showing the complete site and any adjoining buildings within 100 feet of the property lines.*
- i) *A description of operating characteristics to permit assessment of noise, odor, vibration, smoke, dust, gases, radiation or liquid wastes.*
- j) *Outline specifications.*
- k) *Samples of (major) exterior materials with colors.*

### 3. Final Design Conference

A complete design development set of drawings and specifications is required for this review. The documents must include:

- a) *Site plan at a scale of 1 inch = 20 feet showing the building foot-print, final grading and drainage and contract limit line.*
- b) *Landscaping plan showing all new and existing plantings preservation methods of existing trees and other plants and the extent of seeding or sodding. Note density of plant materials.*
- c) *Cost estimate for the landscape work.*
- d) *Floor plans, elevations and sections of the building, courtyards, plazas, etc. at a scale of 1/8 inch = 1'-0" or larger, depending on the type of project.*
- e) *A color rendering of the building.*
- f) *An outline description of criteria indicating compliance with the New York City Building Code and Design Manual. It should include, but not be limited to, the following:*
  - 1) *Occupancy type, type of construction, and number of occupants.*
  - 2) *Means of egress, and fire rating of exit enclosures.*
  - 3) *Fire ratings of the structural frame; exterior walls, interior partitions in general, and elevator and other shafts.*
  - 4) *"U" value calculations of the envelope, and window area calculations.*
  - 5) *Handicap requirements.*
  - 6) *Fire Department connections and firemen's access points.*
  - 7) *Fire protection systems.*
- g) *Specifications outlining all architectural, mechanical and electrical systems. Requirements noted under items f and g will aid The Teleport Division of the Port Authority in its function as a building permit agency.*

### 4. Final Project Approval

The Tenant shall submit for final review, seven complete sets of working drawings, as well as one complete set of reproducibles, showing on each sheet the seal and signature of a registered architect or engineer licensed to practice in the State of New York. Seven sets of specifications shall accompany the drawings. Any changes in code compliance criteria (see paragraph 3f above) or material samples must be resubmitted. A copy of a rendering is desirable. A construction schedule and tenant electrical load forecast must be included. The Tenant Electrical Load Forecast should list all equipment including make and model numbers, physical size and electrical load. The Committee will review the contract documents and respond within thirty (30) days. The Committee may request a meeting to discuss modifications necessary on drawings or in the specifications. Documents required by other legal agreements are in addition to the submittals required here. Committee will review the contract documents and respond within thirty (30) days. The Committee may request a meeting to discuss modifications necessary on drawings or in the specifications.



APPENDIX "A" (continued)

BOTANICAL AND COMMON NAMES	CATEGORIES																RECOMMENDED USES		
	Major tree	Minor tree	Shrub	Ground cover	Vine	Deciduous	Evergreen	Name in area and/or natural/res well	Provides dense shade	Leaf color other than green	Ornamental fall color	Conspicuously attractive flower	Conspicuously attractive fragrance	Conspicuously attractive bark	Thorns	Liter (fruits, seed pods, etc)			
Acer rubrum	•																•	Within roadway median	
Acer saccharum	•																	•	Within parking island 10' wide or more
Sugar maple																		•	Small parking islands and street trees
American larch canadensis																		•	Slope stabilization up to 1:2
Shadow Serviceberry																		•	Slope stabilization up to 1:3
Betula species																		•	Exceptionally fast growing
Birches																		•	Cascading over walls or planter
Cercis canadensis																		•	Woodland edge plantings
Eastern Redbud																		•	Ornamental plantings
Cornus species																		•	In moist or wet soil conditions
Dogwoods																		•	In dry or sandy soil conditions
Hawthorn																		•	Growth up vertical wall
Crataegus species																		•	Within clear sight zones
White Ash																		•	In buffer or screen, or as windbreaker
Gleditsia triacanthos -ternis																		•	In wind exposed areas
Thornless Honeylocust																		•	In protected areas
Liquidambar styraciflua																		•	In full sun
Sweetgum																		•	In partial shade
Magnolia soulangiana																		•	Tolerates deep shade
Saucer Magnolia																		•	
Crab Apples																		•	
Nyssa sylvatica																		•	
Black Tupelo																		•	
Oxyendrum alabrum																		•	
Sourwood																		•	
Picea species																		•	
Spruces																		•	
Pinus thunbergii																		•	
Japanese Black Pine																		•	
Pinus resinosa																		•	
Red Pine																		•	
Pinus strobus																		•	
White Pine																		•	
Platanus acerifolia																		•	
London Plane Tree																		•	
Fraxinus species																		•	
Cherrys																		•	
Pinus katerina Bradford																		•	
Bradford Pear																		•	
Quercus borealis																		•	
Red Oak																		•	
Quercus palustris																		•	
Pin Oak																		•	
Robinia pseudacacia																		•	
Black Locust																		•	
Saiku species																		•	
Willows																		•	
Sassafras albidum																		•	
Sassafras																		•	
Sophora japonica																		•	
Japanese Pagoda Tree																		•	
Japanese Snowbell																		•	
Triacanthia																		•	
Littleleaf Linden																		•	
Tsuga canadensis																		•	
Canada Hemlock																		•	
Zakura sericea																		•	
Japanese Zakura																		•	

# APPENDIX “B”

---

## Grading Standards

Condition	Max. ©	Min. ©
Access Roads	6.0	1.0
Service Roads	*	1.0
Pedestrian/Bicycle Paths	8.0	1.0
Handicap Ramps	8.0	1.0
Parking Areas		
• Slope along curb	5.0	1.0
• Cross slope	3.0	1.0
Terrace/Plaza/Sitting Areas		
• Concrete	2.0	0.5
• Flagstone, Slate, Brick, etc.	2.0	1.0
Lawn Areas		
• Recreational	3.0	1.5
• Mowed Grass Embankments	(1:3)	–
Steep embankments (require vegetative erosion control, rip-rap, retaining wall, etc.)	All slopes steeper than 1:3	
Swale Side Slopes	10.0 (1:2 in vegetated areas)	2.0
Longitudinal Slope of Swales		
• Grassed invert	8.0	1.0
• Paved invert in parking lots only	12.0	0.5

\* A maximum grade of 6% for service roads is preferable when the grade change does not exceed six feet. When the change of grade exceeds six feet, it is preferable to increase the percent slope to keep the service road length under 100 feet, up to a maximum slope of 12 percent.

# APPENDIX “C”

---

## Lighting Design Criteria

### A. Areas

1. Internal Site Roadways (classified as intermediate-use collector roads)
  - a) *Main entrance security road: 2 foot footcandles average maintained level.*
  - b) *Circulation roads to various buildings and to parking areas: 0.9 footcandles average maintained level.*
  - c) *Drop-off areas at buildings: 1.4 footcandles average maintained level.*
2. Parking Areas (classified as low activity areas)

Vehicular traffic: 0.5 footcandles average maintained level.  
Pedestrian areas: 0.8 footcandles average maintained level.
3. Pedestrian Areas (walks/ramps/plazas): 0.6 footcandles average maintained level.
4. Park Areas: 0.2 footcandles at key points in park.

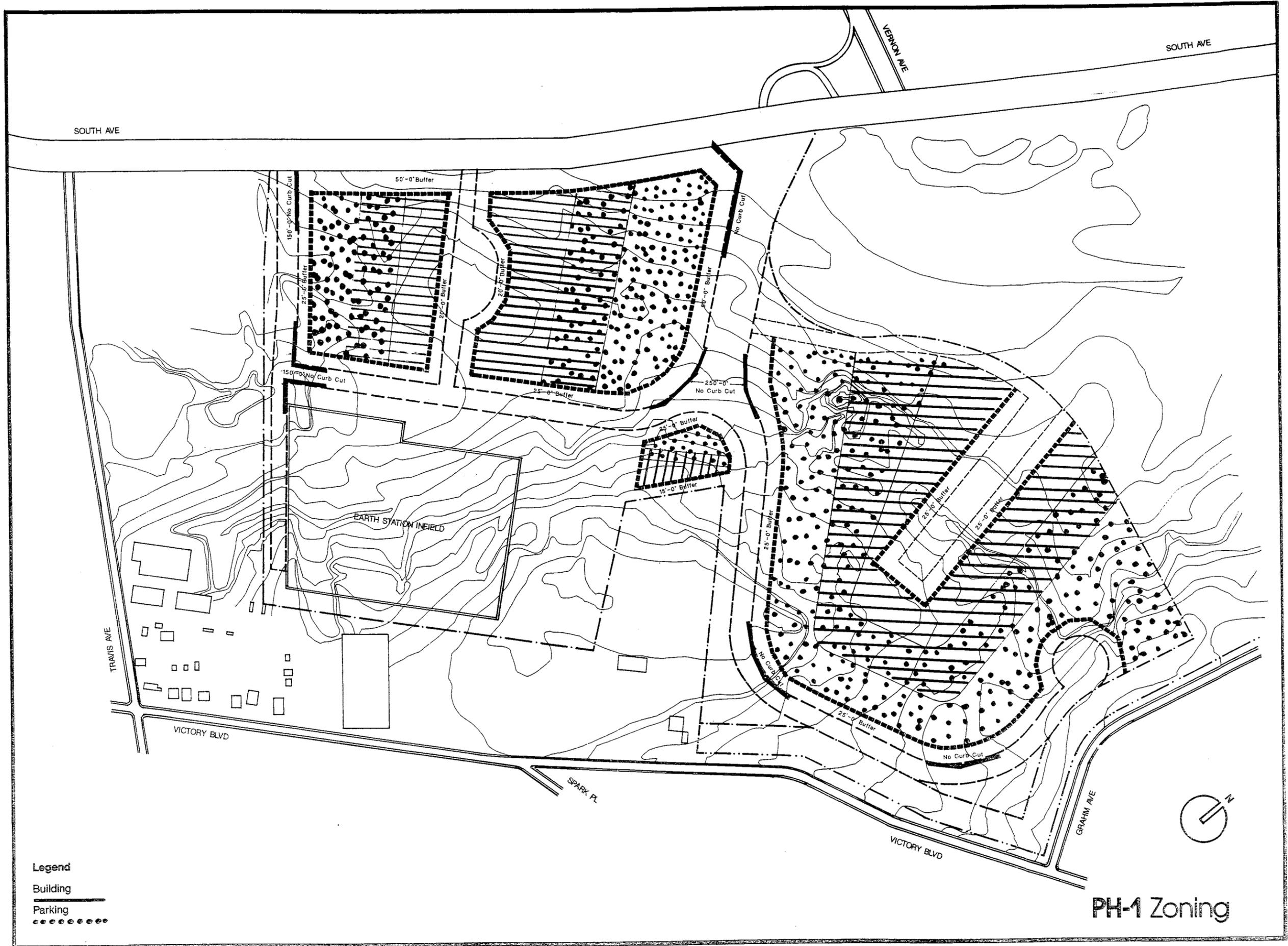
### B. Types of Lighting Equipment

#### 1. Roadways and Parking Areas

These areas shall be lighted using low brightness metal halide lamp fixtures mounted on 12 to 14 foot poles. The fixtures shall have up-light as required to illuminate roadway and parking area trees bordering these areas. Spacing and location of fixtures shall be adjusted to provide proper lighting levels.

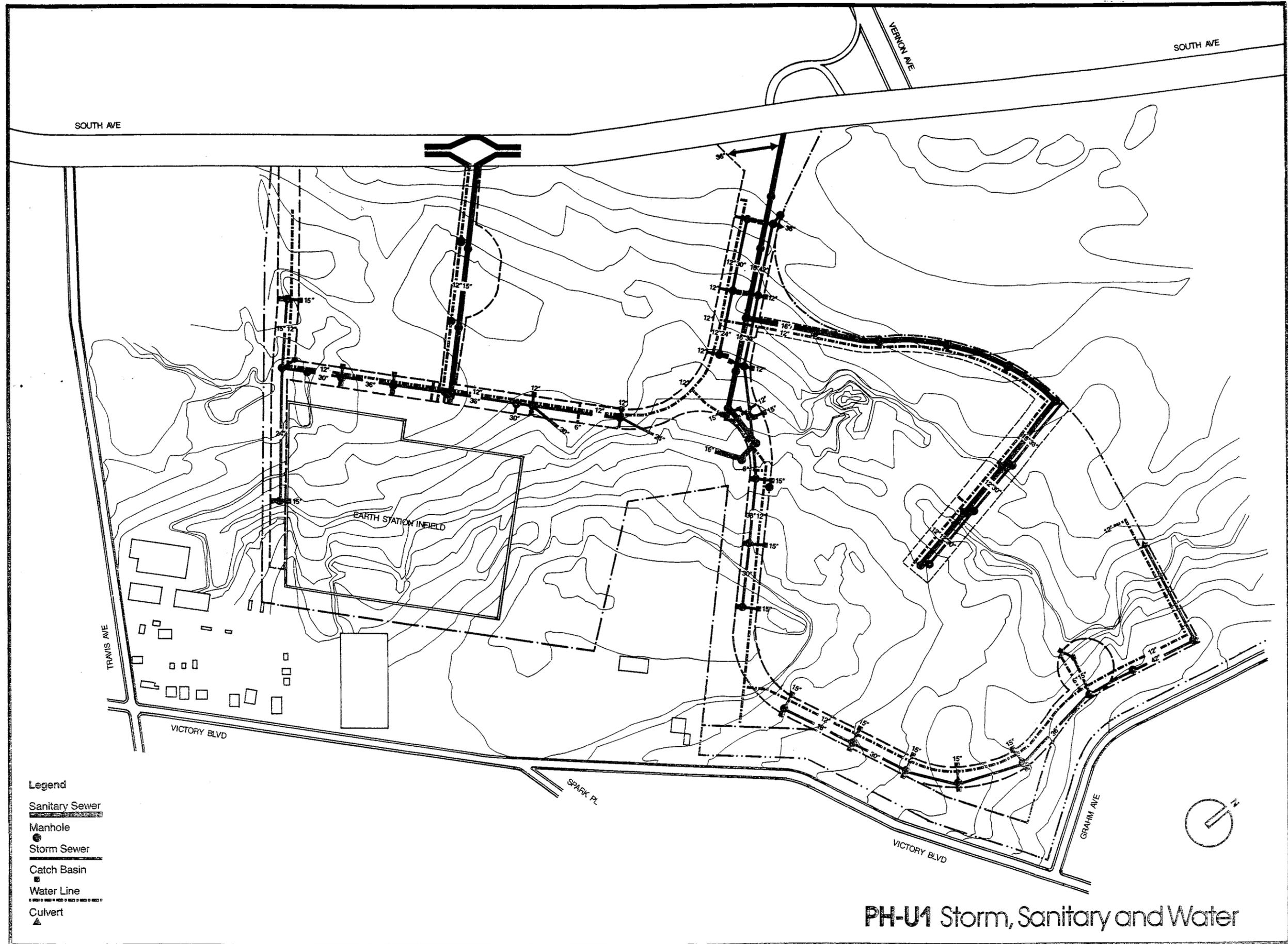
#### 2. Pedestrian and Park Areas

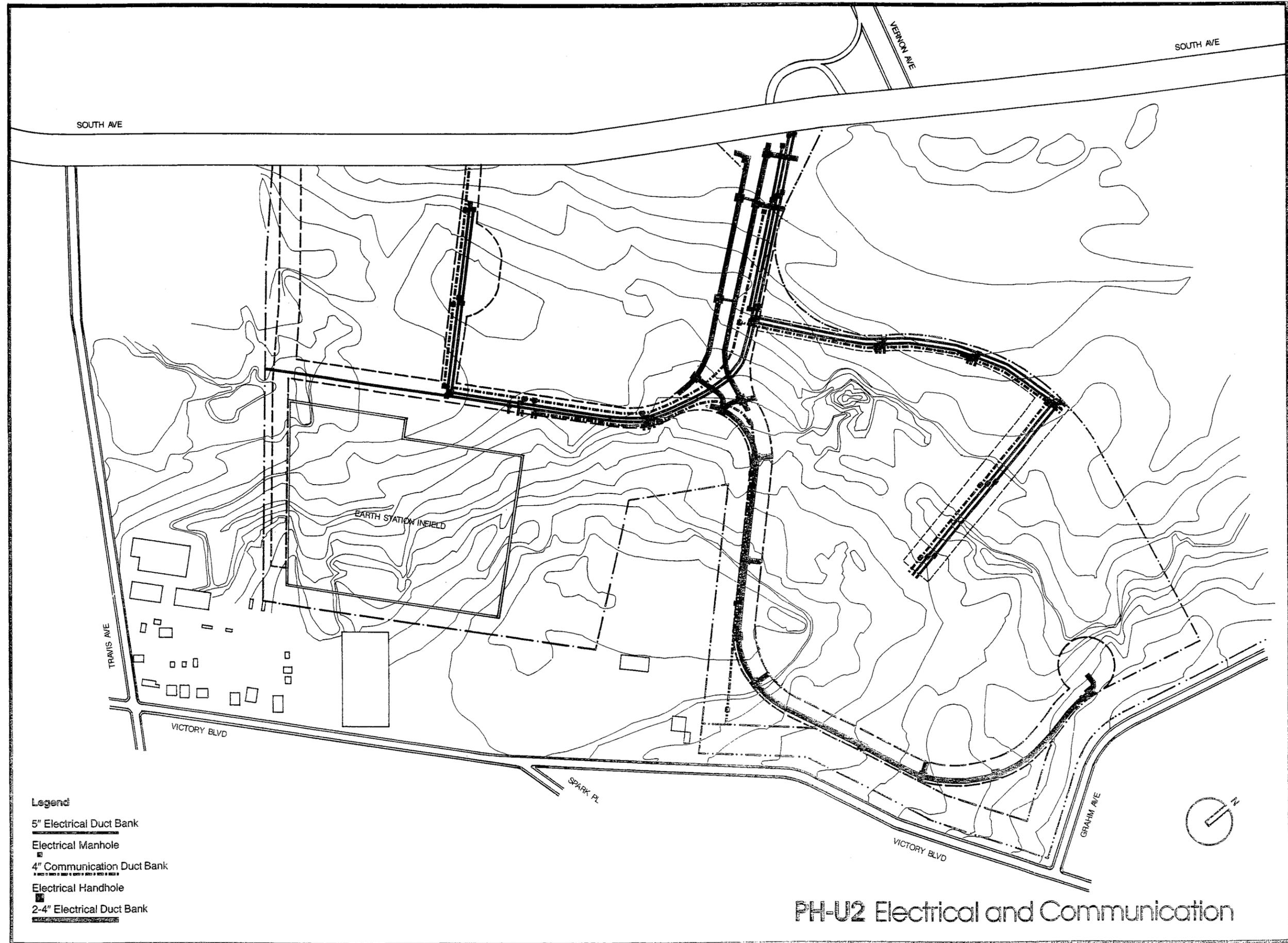
These areas shall be lighted with low brightness mercury vapor lamp fixtures, pole mounted or bollard type lighting equipment judiciously located to provide safe and secure conditions. Where handrails are required, lighting may be incorporated in the handrail design.



- Legend**
- Building
  - Parking

**PH-1 Zoning**





**Legend**

- 5" Electrical Duct Bank
- Electrical Manhole
- 4" Communication Duct Bank
- Electrical Handhole
- 2-4" Electrical Duct Bank

**PH-U2 Electrical and Communication**