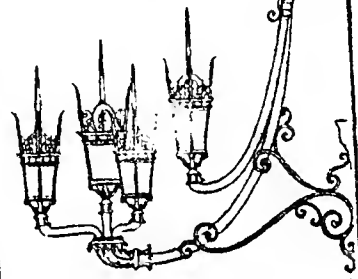




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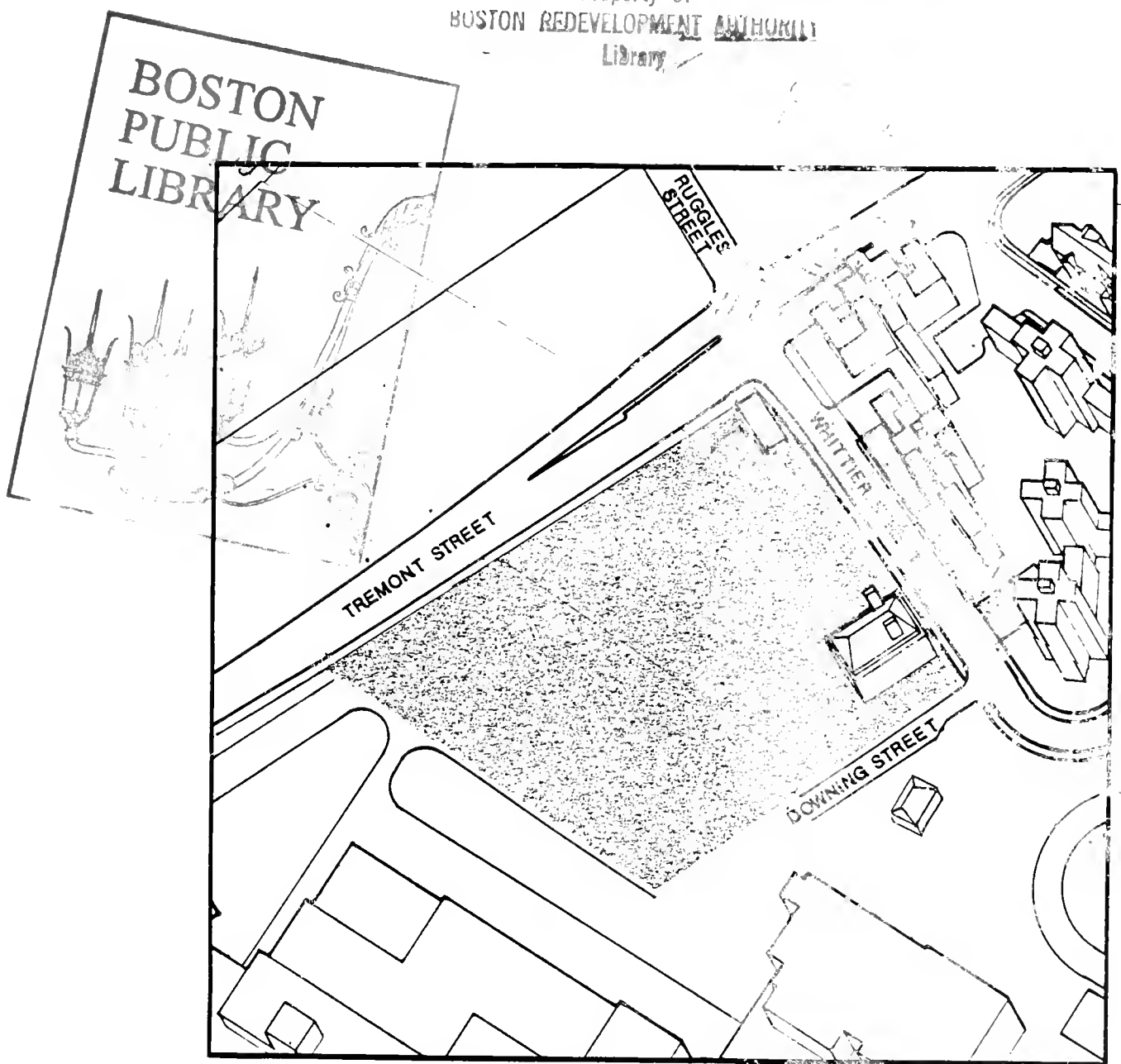


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# PARCEL 3

## BRA/NCAAA DEVELOPMENT FEASIBILITY STUDY

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**JACQUELYN HALL/THOMAS WELCH & ASSOC.**  
**DEVELOPMENT CONSULTANTS**

**STULL and LEE, INC. - ARCHITECTS & PLANNERS**  
**APRIL 1988**



# PARCEL 3 DEVELOPMENT FEASIBILITY STUDY

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## INTRODUCTION

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This feasibility analysis of Parcel 3 focused on formulating a viable development program capable of generating maximum economic benefits for NCAAAA facility improvements. The BRA has identified Parcel 3 as a potential site for the NCAAAA to be designated co-developer as part of the City of Boston's cultural institution linkage program. The NCAAAA consultants, in conjunction with BRA technical staff, have evaluated development options for Parcel 3 based on urban design considerations, financial integrity, and compatibility with existing as well as proposed land uses in the surrounding area. This preliminary assessment of Parcel 3 development potential was structured in the context of NCAAAA linkage objectives and based on available reference materials, experiential information, and relevant data extrapolated from comparable projects. The development analysis did not include market or traffic studies, geotechnical investigations, nor any empirical research. In evaluating programmatic options for Parcel 3, particular attention was given to ensuring that the land uses, urban form and density of the recommended development scenario would be compatible with the adjacent Whittier Street housing complex and complementary with proposed development plans for Parcel 22 and Parcel 18. The Roxbury IPOD planning objectives were also considered in this feasibility analysis, although the scope and scale of the recommended development scenario was not limited by specific IPOD zoning regulations.



## I. SUMMARY

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**A. MASTER PLANNING FRAMEWORK**

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The Parcel 3 feasibility study evaluated site capacity and recommended overall program parameters for BRA/NCAAA joint development. The development of Parcel 3 will begin reestablishing street presence and commercial activity in the Southwest Corridor which was disrupted by land clearance for the I-95 highway. In conjunction with public/private plans for development on Parcel 18 and Parcel 22 across Tremont Street, Parcel 3 presents an opportunity to re-establish the physical context and urban vitality in this re-emerging commercial district. Moreover, the location of Parcel 3 affords an important connection with the new Roxbury Community College campus as well as proposed development on Parcel 22A along New Dudley Street. The master planning framework for Parcel 3 development consists of two phases and has been structured so that the first phase is functionally, financially and physically independent. In addition, the second phase of the development program has been defined with flexibility to provide additional structured parking and options for either re-using or demolishing the Whittier Street Health Center building. The rationale for this phased approach is primarily related to market conditions (e.g. office space absorption rate, projected demand), and the attempt to ensure that Parcel 3 development enhances and does not compete with proposed Parcel 18 development.

The recommended Parcel 3 development scenario proposes a phased mixed-use commercial project with a total of 800,000 sq. ft. built space. The Phase I development program contains 356,000 sq. ft. of office use; 31,000 sq. ft. of retail use; and, 430 surface parking spaces. Phase I development would provide a total 396,000 sq. ft. of built space with 120,400 sq. ft. of at-grade parking. This scenario excludes development on approximately 24,000 sq. ft. of Parcel 3 currently occupied by the Whittier Health Center and associated parking area. As market conditions warrant, implementation of the Phase II development program would provide an additional 264,000 sq. ft. of office space and a parking structure for 430 vehicles.



1. PROGRAM DESCRIPTION

The recommended development scenario for Parcel 3 is based on a two-phased master plan with a total build-out of 800,000 square feet. The intended uses on the site would be first class office space as the primary use with ancillary retail uses and the required on-site parking.

The total build-out represents approximately 60% of the office space, and all of the retail space in two separate buildings, with the remainder of the available site for surface parking in Phase I. Phase II would be built on the Phase I surface parking lot and involve the remainder of the office component - approximately 40% and a parking garage of approximately 140,000 sq. ft.

**Development Program:**

	PHASE I	PHASE II
Office	365,000 sq. ft.	264,000 sq. ft.
Retail	31,000 sq. ft.	-
Parking	Surface lot (439 spaces)	Garage @ 140,000 s.f. (430 spaces)
<hr/>		
Total - each phase	396,000 sq. ft.	404,000 sq. ft.
Total - both phases	800,000 sq. ft.	
Total Parking - both phases	430 spaces	
FAR	3 (2.64 actual)	

The recommended scenario is based on a site area of 295,260 sq. ft. or 6.78 acres, including the abandoned rights-of-way and the parcel which has the Whittier Street Health Center and its parking lot. The development scenario assumes that the Whittier Street Health Center Building would be retained and renovated for the current use or converted to another use in Phase I. In Phase II the building would either remain or be demolished to free up this part of the site for an expanded building footprint and surface parking.



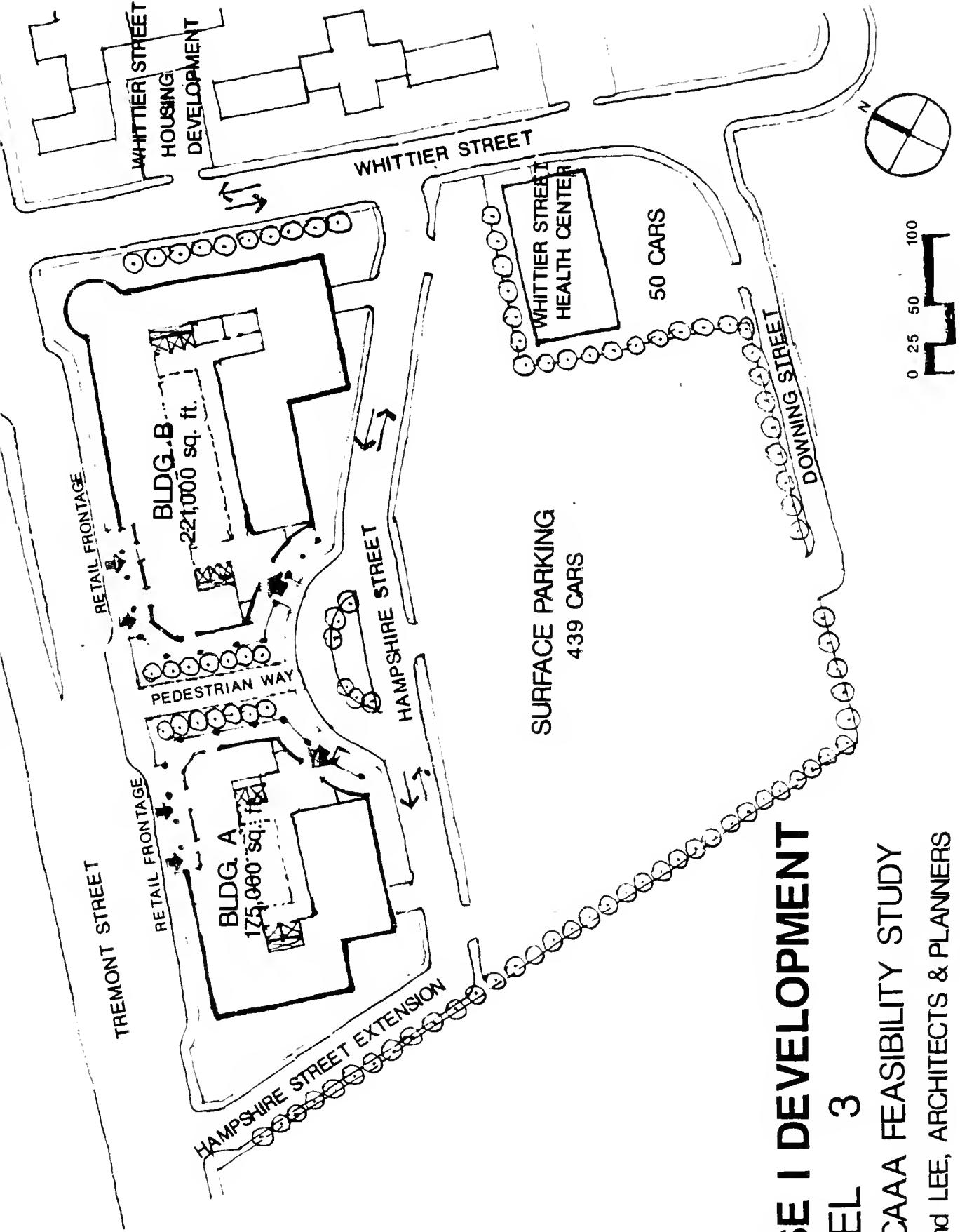


This scenario proposes a development scheme organized as a new urban complex. The buildings are arranged around a central courtyard, possibly with a water element relating to the one previously on the site. The two buildings fronting on to Tremont Street (Building's A & B), would have retail frontage along the street, flanking a pedestrian way leading to the main office entrances - essentially having two front doors. The other two buildings that comprise Phase II (Building C and the Parking Garage), would complete the complex and complement Phase I.

Buildings A and B were envisioned at seven stories each - consistent with the number of floors in the Whittier Street Housing Complex and no taller than 90 feet. This height would also relate to the base of the taller structures proposed at Parcel 18 across the street. Building A's floor plates would be arranged around a central interior space and would be approximately 25,000 gross square feet in size. Building B's floors would be similarly arranged, but with a prominent architectural feature at the Whittier/Tremont Street corner. The floor plates for Building B would be approximately 31,570 gross square feet in size.

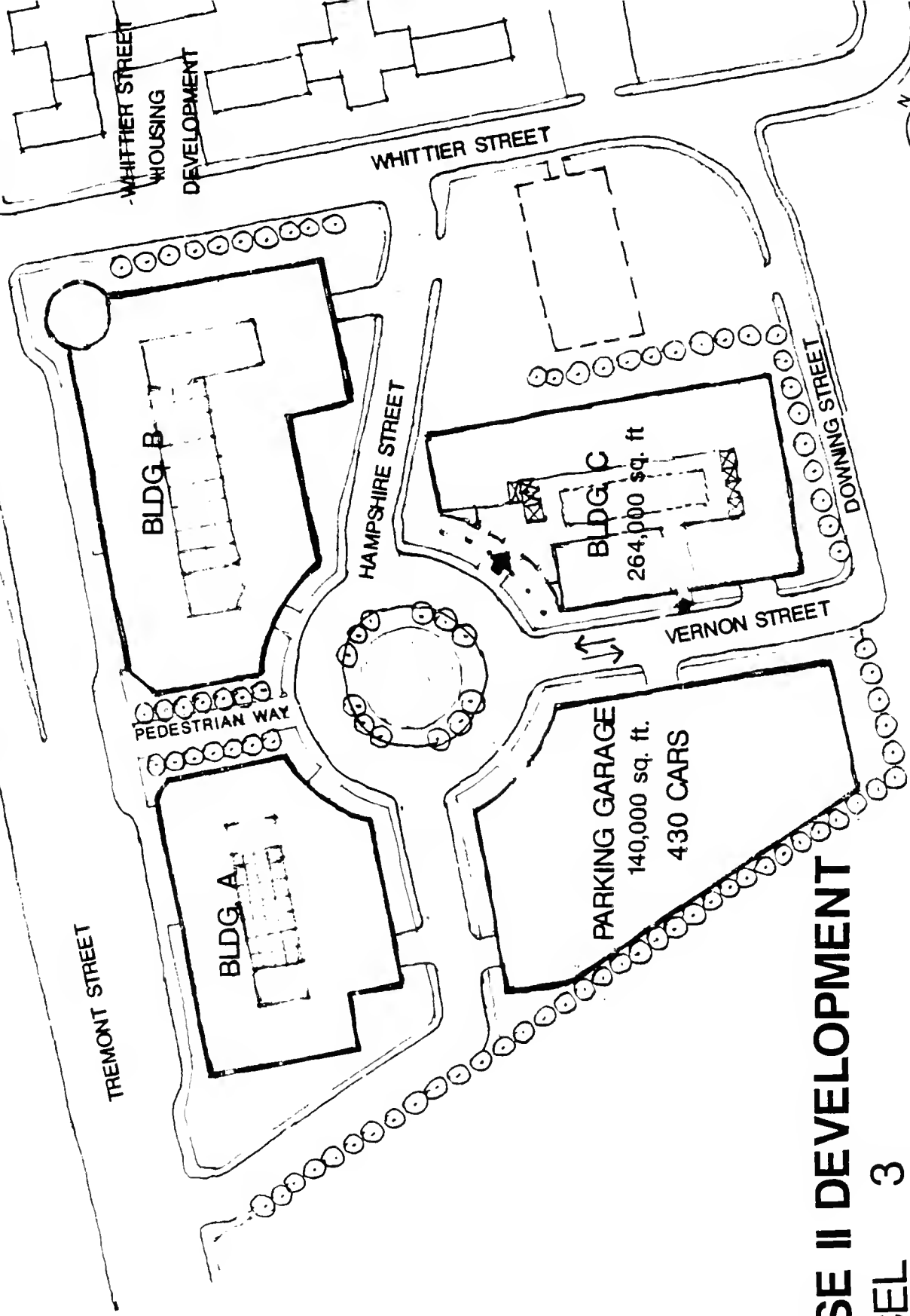
Building C, also at seven stories would be about 90 feet tall. The floors would have a central interior space with individual floor plates at approximately 37,700 gross square feet. The Parking Garage would have five levels and would be no taller than 50 feet. The garage plates at 28,000 gross square feet would be able to accommodate approximately 86 cars with about an 85% efficiency factor.





**PHASE I DEVELOPMENT**  
**PARCEL 3**  
 BRA/NCAAA FEASIBILITY STUDY  
 STULL and LEE, ARCHITECTS & PLANNERS





**PHASE II DEVELOPMENT**  
**PARCEL 3**

BRA/NCAAA FEASIBILITY STUDY  
 STULL and LEE, ARCHITECTS & PLANNERS



## 2. FINANCIAL ANALYSIS

In arriving at a Parcel 3 recommended program, three schemes were studied in detail:

- (1) **Scheme A:** a mixed use program consisting of 178,000 sq. ft. of office space, 31,000 sq. ft. of retail space, 151,000 sq. ft. of residential space (128 du's), and 280,000 sq. ft. of structured parking for a total of 640,000 sq. ft. of built space with 140,000 sq. ft. of the total below grade parking;
- (2) **Scheme B:** a mixed use program consisting of 629,000 sq. ft. of office space, 31,000 sq. ft. of retail space, and 280,000 sq. ft. of structured parking with 140,000 sq. ft. of parking below grade for a total of 940,000 sq. ft. of built space (800,000 sq. ft. above grade);
- (3) **Scheme C:** a two phased, mixed use program consisting of a first phase with 365,000 sq. ft. of office space, 31,000 sq. ft. of retail space and 123,000 sq. ft. of surface parking for a total of 396,000 sq. ft. of built space. A second phase of 264,000 sq. ft. of office space, 120,400 sq. ft. of structured parking and 30,800 sq. ft. of surface parking for a total of 384,400 sq. ft. of built space. The combined phases would yield 629,000 sq. ft. of office space, 31,000 sq. ft. of retail space, 120,400 sq. ft. of structured parking and 30,800 sq. ft. of surface parking for a total of 780,400 sq. ft. of built space.

It should be noted that the "market" perceives special locational attributes for Parcel 3, and, therefore, one element of a successful marketing strategy is a marked competitive advantage in rental rates. Accordingly, the rates/prices used in the analyses are at the low end of a plausible range, i.e., \$22.50 p/s.f. for office space, \$25 p/s.f. for retail space, \$150 p/month p/parking space and \$120 p/s.f. for apartment condominiums.

Since the proposed development program for Parcel 3 should be a net provider of "Linkage" benefits, all programmatic elements must contribute positively to the overall value of the Project. The application of this principle has resulted in a recommended program that does not include residential usage, because the analysis indicates that housing will require subsidization in order to be viable. We have excluded underground parking for the same reason, i.e., the cost of production cannot be justified on the "economics". It is imprudent to expend \$71 p/sf for an underground space when a \$12.50 p/s.f. space is readily available by constructing surface parking.

In addition to providing "Linkage" contributions, the project must provide an acceptable rate of return to the developer while at the same time maximizing a return to the City in the purchase of the land. Of the three schemes evaluated above only the third provided all the requisite returns ("Linkage"; return on investment; and purchase price) at acceptable levels.





The first scheme produced only minimal "Linkage" and a negative r.o.i. at a \$1 purchase price. The second scheme produced minimal "Linkage" and a barely acceptable r.o.i. after a refinancing in the tenth year at a \$1 purchase price. The recommended development program provides in the first phase for a dedicated "Linkage" payment to the NCAAA of \$1,382,320 as a development cost in addition to an equity participation in cash flow and residuals. Additionally, the r.o.i., measured as the internal rate of return (i.r.r.), is a comfortable 27.86%, providing sufficient margin to accommodate cost-overruns and a delayed rent-up. Finally, we have provided for a deferred payment of \$2,952,600 (\$10 p/s.f.) for the land, timed to occur at full rent-up and the securing of a permanent mortgage. Should the project move to a second phase, "Linkage" to the NCAAA is projected at \$2,079,604 and an additional payment of \$2,952,600 for the land could be accommodated from development proceeds. When phase 2 is completed, the ten year cash flow projections show an i.r.r. of 42.25%.

Finally, the ten year cash flow projections assume that the net rental income grows at an average rate of 3% p/annum, should this not hold the return can be dramatically affected; and, we have not attempted to account for the effects of the Internal Revenue Code on the return.

[This preliminary assessment of Parcel 3 development potential was structured in the context of NCAAA linkage of objectives and based on available reference materials, experiential information, and relevant data extrapolated from comparable projects. The following development analysis did not include market or traffic studies, geotechnical investigations, nor any empirical research.]



B. RECOMMENDED DEVELOPMENT SCENARIO

2. Financial Analysis: Phase I

02-Feb-88

DEVELOPMENT ASSUMPTIONS

PHASE	1 \$/S.F.	AREA in S.F.	\$ Cost	P/DU
OFFICE	\$89	365,000	\$32,485,000	
RETAIL	\$89	31,000	\$2,759,000	
RESIDENTIAL	\$81		\$0	\$0
PK. above grade	\$43		\$0	
PK. below grade	\$71		\$0	
PK. at grade	\$12.50	123,060	\$1,538,250	
=====				
TOTAL		396,000	\$36,782,250	
ABOVE GRADE		396,000		
LAND	\$0	295,260	\$0	
FAR		1.34		
FAR (ABOVE GRADE)		1.34		

REVENUE ASSUMPTIONS

	EFFICIENCY FACTOR	NET S.F.	RATE P/ANNUM	EXPENSES	N.O.I.
OFFICE	90%	328,500	\$22.50	\$6.00	\$5,420,250
RETAIL	90%	27,900	\$26.50	\$5.00	\$599,850
RESIDENTIAL	80%	0			
GARAGE/SURFACE PARKING		123,060	\$6.43	\$1.93	\$553,770
=====					
TOTALS		479,460			\$6,573,870

ASSUMING:

110 % DEBT COVERAGE

95 % OCCUPANCY

10.5 % PERMANENT INTEREST RATE

30 YEAR TERM

HYPOTHECATED VALUE OF STABILIZED YEAR =

\$51,366,246

FINANCING ASSUMPTIONS

CONSTRUCTION LOAN:

DEBT/COST	85%
LOAN AMOUNT	\$41,364,302
RATE	10.5%
TERM (MONTHS)	24
FEES	2.0%

PERMANENT LOAN (1st.):

DEBT COVERAGE	110%
RATE	10.5%
TERM (YEARS)	30

PERMANENT LOAN (2nd.):

DEBT COVERAGE	110%
RATE	13.5%
TERM (YEARS)	20



**B. RECOMMENDED DEVELOPMENT SCENARIO**

**2. Financial Analysis: Phase I**

02-Feb-88

PHASE 1

B.R.A./ NCAAA "PARCEL 3" DEVELOPMENT PRO-FORMA

ACQUISITION					\$1
CONSTRUCTION COST				\$30,584,525	
SOFT CONSTRUCTION COSTS:					
general requirments	7.00%			\$2,140,917	
overhead	5.00%			\$1,529,226	
profit	6.00%			\$1,835,072	
bond	1.00%			\$367,823	
permits,fees,etc...	0.88%			\$324,688	
TOTAL SOFT CONSTRUCTION COSTS				\$6,197,725	
SUB-TOTAL CONSTRUCTION					\$36,782,250
CONTINGENCY	7.0%				\$2,140,917
PROFESSIONAL FEES:					
architectural	6.0%			\$2,206,935	
legal,title				\$90,000	
marketing & promotion	\$0.95 P/S.F.			\$376,200	
accounting/audit				\$20,000	
construction management/development consulting				\$300,000	
SUB-TOTAL PROFESSIONAL FEES					\$2,993,135
OTHER DEVELOPMENT COSTS:					
insurance	0.8%			\$244,676	
taxes	1.5%			\$458,768	
linkage payment	\$4.67 P/S.F.			\$1,382,320	
surveys				\$12,000	
relocation expenses				\$30,000	
SUB-TOTAL OTHER COSTS					\$2,127,764
FINANCING COSTS:					
interest	10.5%	for	24 months	\$4,398,247	
fees	2.0%			\$837,761	
SUB-TOTAL FINANCING COSTS					\$5,236,008
TOTAL REPLACEMENT COSTS					\$49,280,075



B. RECOMMENDED DEVELOPMENT SCENARIO

2. Financial Analysis: Phase II

02-Feb-88	PHASE	1	2	3	4	5	6	7	8	9	10	TOTALS
NET RENTABLE SF:					479,460							
NET RENT P/SF:					\$13.71							
NET INCOME PROJECTIONS YEARS 1-10					10.50%							
NET RENTAL INCOME												
PERMANENT MORTGAGE												
CONSTRUCTION LOAN												
TOTAL SOURCES												
DEVELOPMENT COST												
DEBT SER. CONST. LOAN												
DEBT SER. PERM. LOAN												
DEFERRED LAND PAYMENT												
TOTAL USES												
CASH FLOW (EQUITY)												
IRR=												
RETURN ON EQUITY												
RETURN ON TIC												
ASSUMPTIONS:												
% RENTS INCREASE P/ANNUM												
LAND P/SF												





**B. RECOMMENDED DEVELOPMENT SCENARIO**

**2. Financial Analysis: Phase II**

02-Feb-88 PHASE	DEVELOPMENT ASSUMPTIONS			
	\$/S.F.	AREA in S.F.	\$ Cost	P/DU
OFFICE	\$103	264,000	\$27,192,000	
RETAIL	\$103	0	\$0	
RESIDENTIAL	\$94		\$0	\$0
PK. above grade	\$50	120,400	\$6,020,000	
PK. below grade	\$82		\$0	
PK. at grade	\$14.50	30,800	\$446,600	
=====				
TOTAL		384,400	\$33,658,600	
ABOVE GRADE		384,400		
LAND	\$10	295,260	\$2,952,600	
FAR (INCL. PHASE 1)		2.64		
FAR (ABOVE GRADE)		2.64		

REVENUE ASSUMPTIONS

	EFFICIENCY FACTOR	NET S.F.	RATE P/ANNUM	EXPENSES	N.O.I.
OFFICE	90%	237,600	\$26.08	\$6.96	\$4,542,912
RETAIL	90%	0	\$30.72	\$5.80	\$0
RESIDENTIAL	80%	0			
GARAGE/SURFACE PARKING		151,200	\$7.45	\$2.24	\$787,752
=====					
TOTALS		388,800			\$5,330,664

ASSUMING:

110 % DEBT COVERAGE  
 95 % OCCUPANCY  
 10.5 % PERMANENT INTEREST RATE  
 30 YEAR TERM  
 HYPOTHECATED VALUE OF STABILIZED YEAR = \$41,652,208

FINANCING ASSUMPTIONS

CONSTRUCTION LOAN:

DEBT/COST 85%  
 LOAN AMOUNT \$42,024,922  
 RATE 10.5%  
 TERM (MONTHS) 24  
 FEES 2.0%

PERMANENT LOAN (1st.):

DEBT COVERAGE 110%  
 RATE 10.5%  
 TERM (YEARS) 30

PERMANENT LOAN (2nd.):

DEBT COVERAGE 110%  
 RATE 11.5%  
 TERM (YEARS) 25



B. RECOMMENDED DEVELOPMENT SCENARIO

2. Financial Analysis: Phase II

02-Feb-88

PHASE 2

B.R.A./ NCAAA "PARCEL 3" DEVELOPMENT PRO-FORMA

ACQUISITION				\$2,952,600
CONSTRUCTION COST			\$27,987,203	
SOFT CONSTRUCTION COSTS:				
general requirments	7.00%		\$1,959,104	
overhead	5.00%		\$1,399,360	
profit	6.00%		\$1,679,232	
bond	1.00%		\$336,586	
permits,fees,etc...	0.88%		\$297,115	
TOTAL SOFT CONSTRUCTION COSTS			\$5,671,397	
-----				
SUB-TOTAL CONSTRUCTION				\$33,658,600
CONTINGENCY	7.0%			\$1,959,104
PROFESSIONAL FEES:				
architectural	6.0%		\$2,019,516	
legal,title			\$90,000	
marketing & promotion	\$1.10 P/S.F.		\$422,840	
accounting/audit			\$20,000	
construction management/development consulting			\$300,000	
SUB-TOTAL PROFESSIONAL FEES				\$2,852,356
OTHER DEVELOPMENT COSTS:				
insurance	0.8%		\$223,898	
taxes	1.5%		\$419,808	
linkage payment	\$5.41 P/S.F.		\$2,079,604	
surveys			\$12,000	
relocation expenses			\$30,000	
SUB-TOTAL OTHER COSTS				\$2,765,310
FINANCING COSTS:				
interest	10.5%	for	24 months	\$4,412,617
fees	2.0%			\$840,498
SUB-TOTAL FINANCING COSTS				\$5,253,115
TOTAL REPLACEMENT COSTS				=====
				\$49,441,085



**B. RECOMMENDED DEVELOPMENT SCENARIO**

**2. Financial Analysis: Phase II**

05-FEB-88 PHASE	2 NET RENTABLE SF:		388,800		110.0% REQUIRED COVERAGE		11.5% INTEREST RATE		25 YEAR TERM		
	05-FEB-88 PROJECT	NET RENT P/SF:	NET RENT P/SF:	\$13.71	110%	30 YEARS	110%	11.5%	25	YEAR TERM	
NET INCOME PROJECTIONS YEARS 1-10	INT. RATE ON PERM. MORTGAGE	10.50%	TERM:	30 YEARS	6	7	8	9	10	TOTALS	
YEAR	1	2	3	4	5	6	7	8	9	10	TOTALS
SOURCES:											
NET SALES PROCEEDS			\$0								\$0
PERMANENT MORTGAGE			\$97,337,123								\$97,337,123
NET RENTAL INCOME	\$7,398,949	\$7,620,917	\$13,180,209	\$13,575,615	\$13,982,884	\$14,402,370	\$14,834,441	\$15,279,475	\$15,737,859	\$16,209,995	\$132,222,714
CONSTRUCTION LOAN	\$21,012,461	\$21,012,461									\$42,024,922
TOTAL SOURCES	\$28,411,410	\$28,633,379	\$110,517,332	\$13,575,615	\$13,982,884	\$14,402,370	\$14,834,441	\$15,279,475	\$15,737,859	\$16,209,995	\$271,584,760
USES:											
DEVELOPMENT COST	\$28,428,674	\$21,012,461									\$49,441,085
DEBT SER. CONST. LOAN		\$42,024,922									\$42,024,922
DEBT SER. PERM. LOAN	\$5,638,407	\$5,638,407	\$61,568,155	\$11,872,820	\$11,872,820	\$11,872,820	\$11,872,820	\$11,872,820	\$11,872,820	\$11,872,820	\$155,954,708
DEFERRED LAND PAYMENT											\$0
TOTAL USES	\$34,067,031	\$26,650,868	\$103,593,078	\$11,872,820	\$11,872,820	\$11,872,820	\$11,872,820	\$11,872,820	\$11,872,820	\$11,872,820	\$247,420,715
CASH FLOW (EQUITY)	(\$7,416,163)	\$1,982,511	\$6,924,254	\$1,702,795	\$2,110,064	\$2,529,550	\$2,961,622	\$3,406,655	\$3,865,039	\$4,337,175	\$24,166,044
IRR=	4.2-2.5%										
RETURN ON EQUITY	26.73%	100.00%		28.63%	116.43%	91.96%	78.37%	66.94%	58.20%	51.29%	
RETURN ON TIC	2.01%	7.05%		1.73%	2.14%	2.57%	3.01%	3.46%	3.92%	4.40%	
ASSUMPTIONS:											
% RENTS INCREASE P/ANNUM	3.0%										



**C. PUBLIC BENEFITS**

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Consistent with the City of Boston "Parcel to Parcel Linkage Program" goals and requirements, the feasibility study examined options for public benefits. The BRA has identified Parcel 3 as an initial source of "Linkage" funds to assist the NCAAA institutional development and capital improvement plan. In that regard, the Parcel 3 linkage concept has been devised to generate maximum short-term capital contribution for NCAAA proposed facility improvements as well as future revenue for NCAAA operating endowment funds.

1. The National Center of Afro-American Artists (NCAAA) has embarked upon an ambitious development venture intended to finance capital improvements for NCAAA facilities and to establish an endowment fund for anticipated operating expenses. Based on the preliminary facility feasibility study prepared by the BRA/NCAAA architectural consultant, Stull and Lee, Inc., the facility improvements are scheduled to be completed during the next 3-5 years on a phased and concurrent basis.
  - Elma Lewis School of Fine Arts: The present ELSFA building at 122 Elm Hill Avenue will be rehabilitated for instruction and related administrative office uses, installation of new heating/mechanical systems and refurbishing the building exterior and site landscaping. The projected construction period is April 1988 - September 1988 with estimated development costs of \$4 million.
  - Performing Arts Center: The NCAAA Performing Arts Center will be constructed at 300 Seaver Street overlooking Franklin Park and adjacent to the ELSFA building. The proposed new "granite and glass" structure will incorporate facade artifacts of the former temple located on the site. This NCAAA facility will include a 1,200 seat performance hall and multi-use banquet/reception hall. The projected construction period is September 1989 - June 1990 with estimated development costs of \$18 million.
  - Museum: The NCAAA Museum located in the gothic puddingstone mansion at 200 Walnut Avenue will be rehabilitated including restoration of the building exterior, renovation of the interior for gallery/exhibit and administrative uses. The stone wall surrounding the grounds will be reconstructed with landscaping and other site improvements. The projected construction period is August 1988 - November 1988 with estimated development costs of \$3.8 million.





## C. PUBLIC BENEFITS (continued)

- Playhouse in the Park: The NCAAA Playhouse in the Park will recreate the outdoor amphitheater in Franklin Park for seasonal production of national, international and local stage events. The proposed Playhouse will include seating for 600 patrons with terraced areas within the natural environs of the Playstead ruins. The preferred construction period is May - June 1988 with estimated development costs of \$1.7 million.

## 2. Parcel 3 Linkage Contributions

The recommended development scenario for Parcel 3 has been structured programmatically and financially to provide optimum economic benefits for the NCAAA institutional plan. There are three primary potential sources of linkage funds: (1) land payment to NCAAA as co-developer; (2) direct capital contribution from other co-developer; (3) equity percentage of project cash flow and residuals.

On that basis, these sources potentially generate NCAAA dedicated linkage payments as follows:

Phase I

- (1) Negotiable Percentage of \$2,952,600 land payment in year 3.
- (2) \$1,382,320 direct capital contribution.
- (3) Negotiable percentage of projected cash flow from year 4 - year 10  
(\$2,132,679 - \$2,446,624).

Phase II

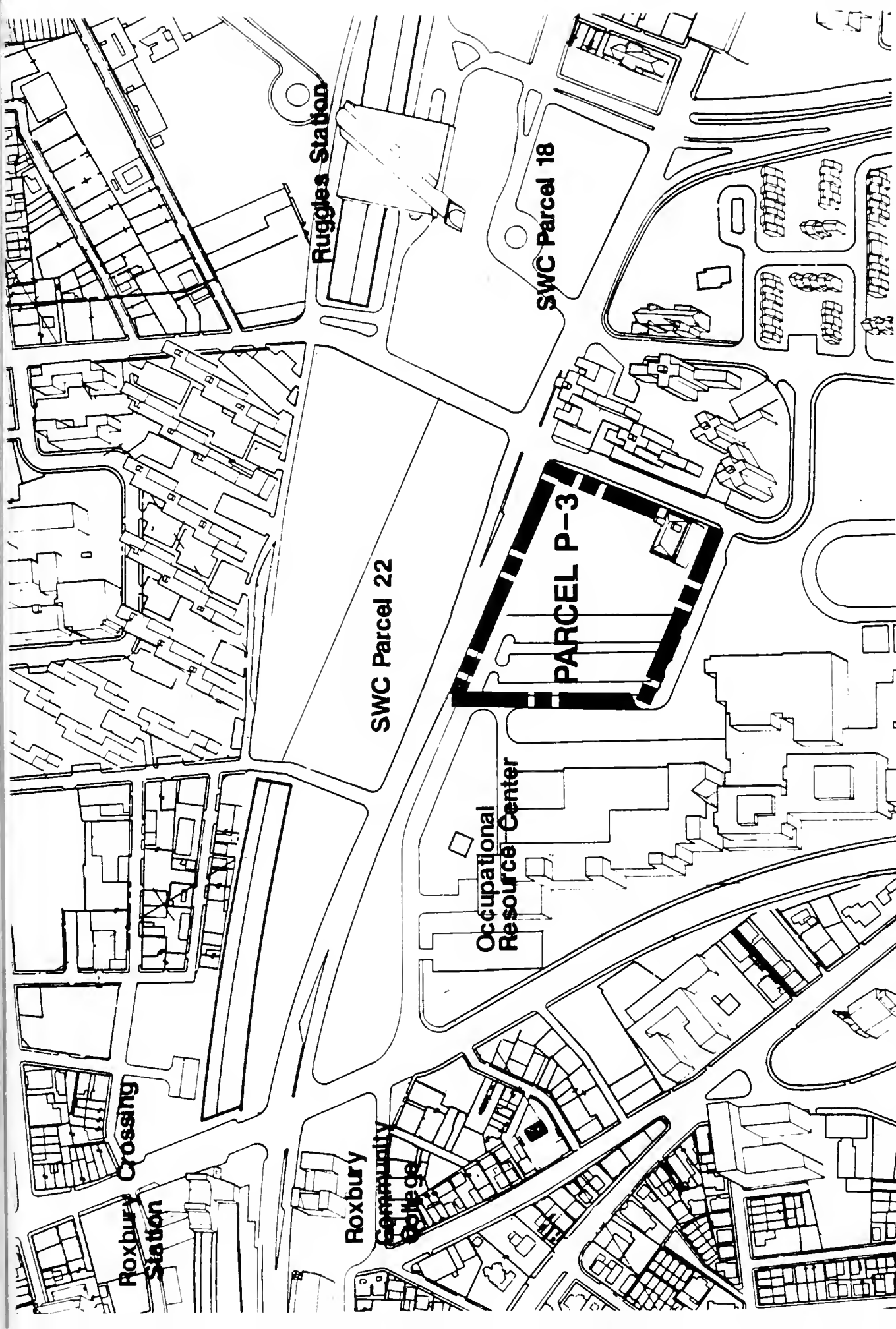
- (1) Negotiable percentage of \$2,952,600 land acquisition in year 1.
- (2) \$2,079,604 direct capital contribution.
- (3) Negotiable percentage of cash flow from year 4 - year 10  
(\$1,782,795 - \$4,337,175).



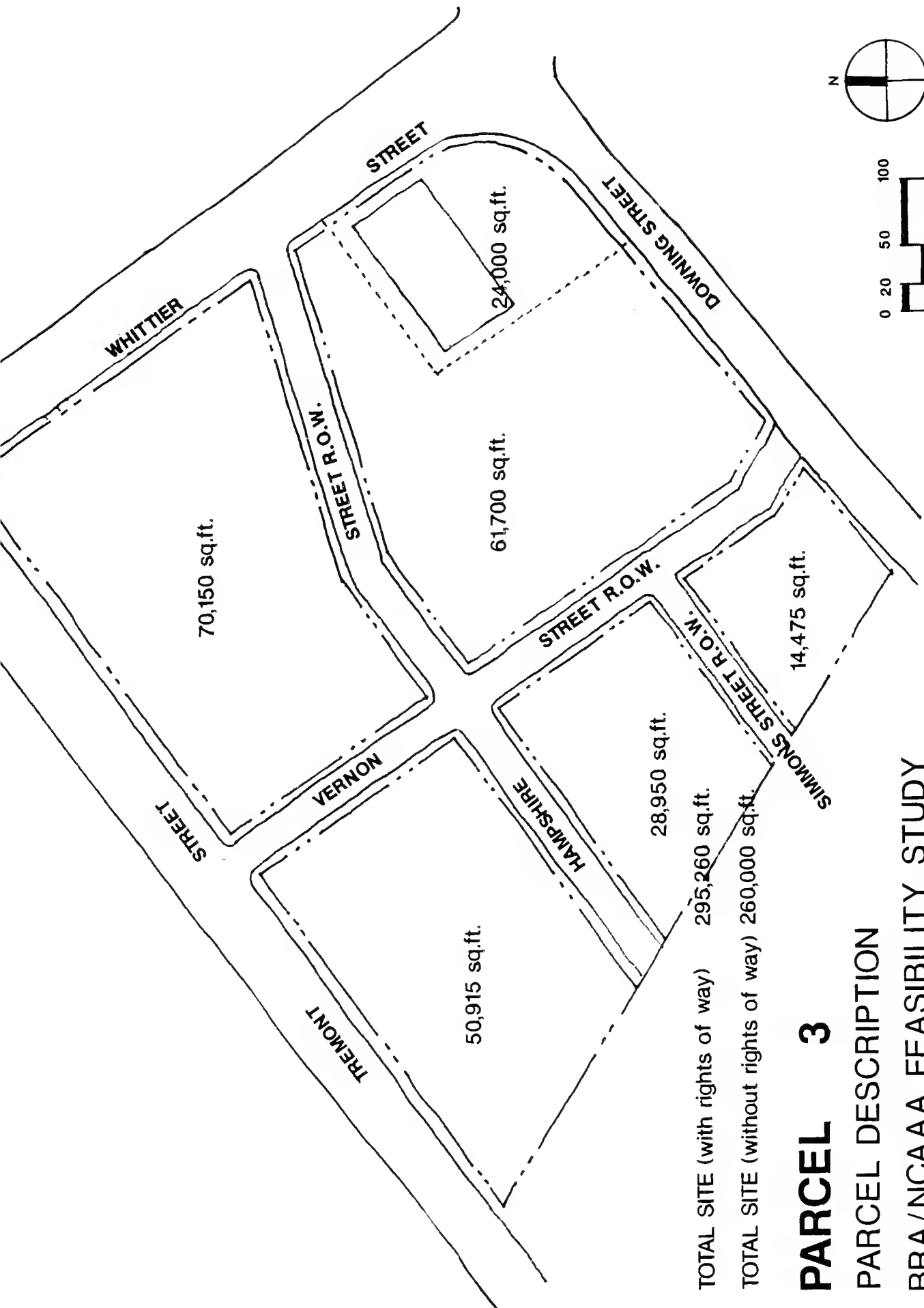
## II. URBAN DESIGN FEASIBILITY

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TOTAL SITE (with rights of way) 295,260 sq.ft.  
 TOTAL SITE (without rights of way) 260,000 sq.ft.

**PARCEL 3**  
 PARCEL DESCRIPTION  
 BRA/NCAAAA FEASIBILITY STUDY  
 STULL and LEE, ARCHITECTS & PLANNERS





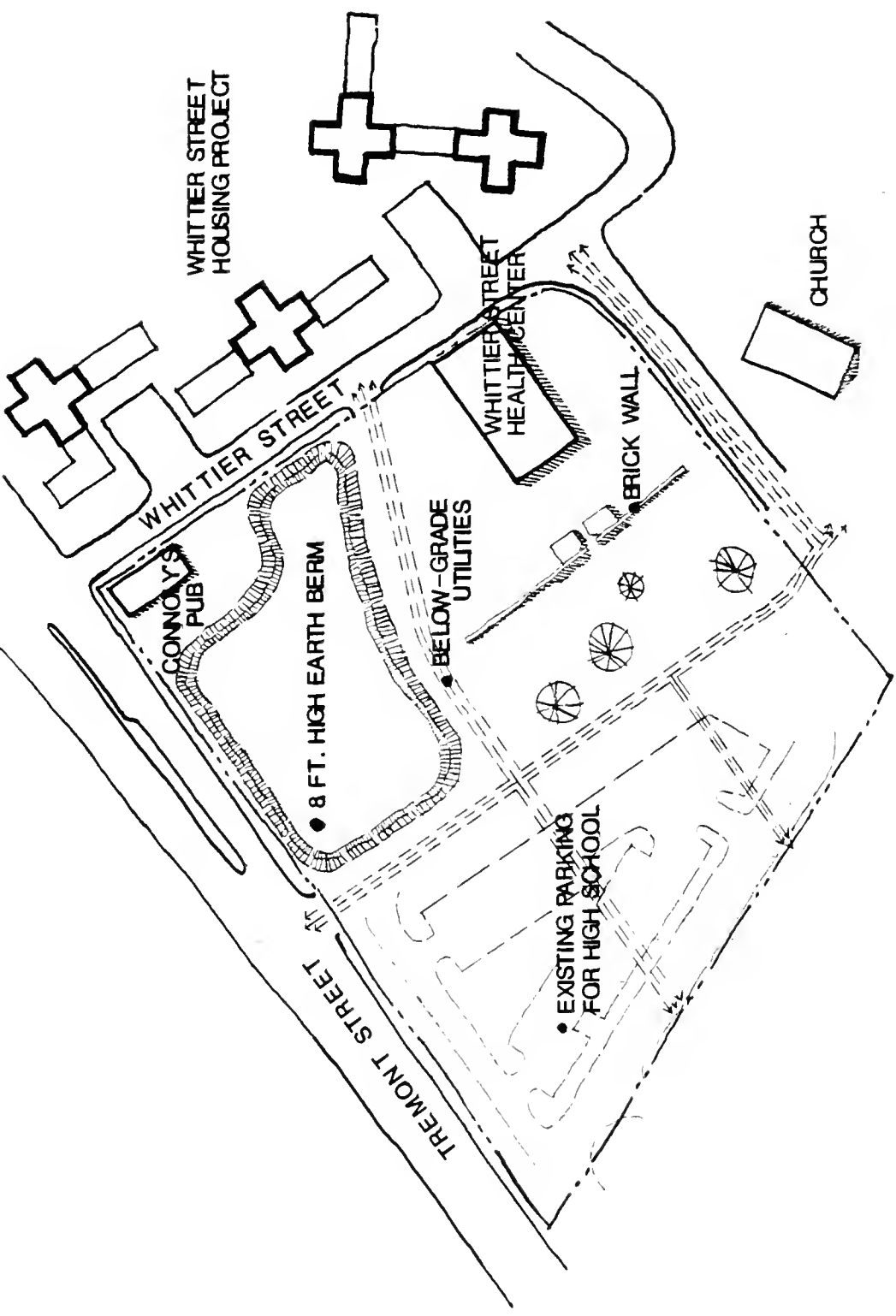
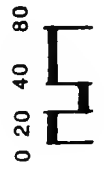
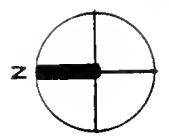
In its current state, the Parcel P-3 site, like that of Parcel 18 across Tremont Street, is a prime location for certain building types of commercial use. These uses would benefit from the proximity to downtown, nearby institutions, mass transit, and ease of vehicular access. The site has the added advantage of being able to accommodate other uses such as neighborhood related or support retail. At approximately six acres (excluding the existing and on-site rights-of-way), and relatively unencumbered, it is one of few development parcels along Tremont Street which would lend itself for development in excess of half a million square feet.

Aside from the virtues of Parcel P-3 mentioned above, several planning and design related issues both on and off site will directly effect the type, configuration and size of development that could be built here. In order to ascertain the true development potentials of the site, consideration for broader urban design issues as well as specific site planning issues should be assessed. These categories of issues affecting development possibilities on this site are as follows:

### Site Constraints

- o Existing Underground Utilities: Parcel P-3 has several major utility lines (gas; water; sewer; and storm drain) below the three abandoned rights-of-way that traverse the site. These utility lines tie into the main systems for the general area and would be too costly to remove or relocate to accomodate new development on the site. As far as their relationship to alternatives for site layout, these utilities would likely be regarded as a limiting factor in terms of building location. Also, these underground utilities would necessitate the granting of easements that would permit the necessary unobstructed vertical access for repair work above the finish grade.
- o Existing Parking Lot for High School: The portion of the site west of the Vernon Street right-of-way is occupied by a paved parking lot which currently serves the high school complex. Inclusion of the parking lot with the development parcel would add substantially to the Tremont Street frontage.
- o Existing Structures: The development parcel is currently occupied by two structures: Connolly's Pub, a single story brick structure of roughly 1,500 square feet, at the corner of Tremont and Whittier Streets; and the Whittier Street Health Center, a four and a half story brick structure of approximately 35,000 square feet. There also exists a long brick wall and two small out-buildings behind the health center structure. The single story building on the site does not possess any architectural merit whatsoever, and when removed would free up approximately 1,800 square feet of the development parcel. The Whittier Street Health Center is regarded as having some architectural merit, possibly worth preserving. This building, because of its size and location, would limit flexibility in site layout and organization if retained. If not, approximately 30,000 square feet of the development parcel could be freed up for new development, creating the opportunity for a larger building footprint in the quadrant of the site.





**PARCEL 3**  
**SITE CONSTRAINTS**  
 BRA/NCAAA FEASIBILITY STUDY  
 STULL and LEE, ARCHITECTS & PLANNERS



- o Existing Topography: The development parcel currently has two distinct topographic features: A 4 to 8 feet drop in grade from the Western portion of the site and Tremont Street. Also an 8 feet high, level earth mound covers almost the entire northeastern quadrant of the site. The earth mound might be used as fill for regrading the depressed portion of the site.
- o Subsurface Conditions: Parcel P-3 exists, as does much of the surrounding area, as a result of the filling in of the original Shawmut Peninsula. Because of this there are unconfirmed suspicions that water problems would be encountered beyond one or two levels below grade. This situation would have an obvious economic effect on the potentials for below-grade parking on the site.

### **Building Related**

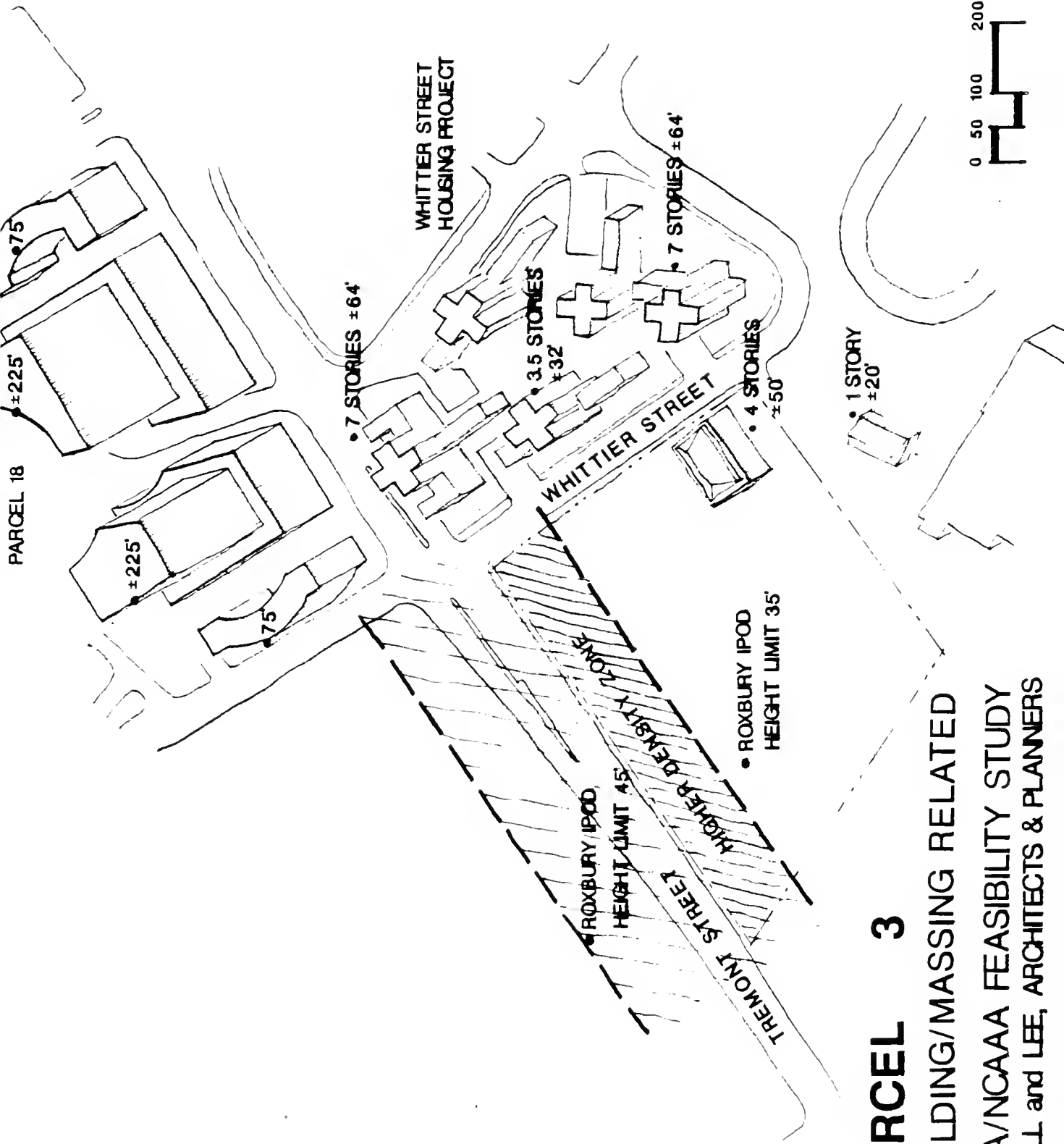
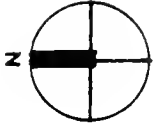
- o IPOD Restrictions: The Roxbury IPOD establishes certain restrictions that would effect the size and location of buildings on the site. Replacing some of the existing zoning designations, the IPOD does not establish density standards but allows the current zoning restrictions of FAR 1 and 2 to govern. This would only permit roughly 350,000 square feet of building area for the entire Parcel P-3 site.

The IPOD also establishes height restrictions of 45 feet along Tremont Street and 35 feet in the interior of the site. It does not specify to what depth of the site the 45 feet height limit extends to. Given the restrictive nature of the IPOD designations, it also allows for relief from these restrictions based on the provisions that doing so does not negatively impact the surrounding neighborhood and that it should facilitate certain public benefits to the community.

Depending on the ultimate set of density and building height restrictions that would apply, the site is capable of accomodating a development program far in excess of what the existing zoning and IPOD restrictions would allow.

- o Density and Building Bulk Concentration: Since the Tremont Street frontage is the obvious business address and orientation for the site, and in keeping with the intent of the IPOD, building mass and bulk should be distributed to reflect these facts. As much as possible of the development program should be configured to relate to the Tremont Street frontage. This is the best location for the higher building elements on the site, not only because it relates to the spirit of the Tremont Street Boulevard Planning District, but also because it would help re-establish the fabric along the street and relate to other high density development in the area.
- o Since vehicular access from Tremont Street is problematic, the building layout could also provide for a site interior front door similar to the one planned for Parcel-18.





PARCEL 18

WHITTIER STREET HOUSING PROJECT

**PARCEL 3**  
 BUILDING/MASSING RELATED  
 BRA/NCAAAA FEASIBILITY STUDY  
 STULL and LEE, ARCHITECTS & PLANNERS



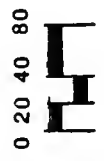
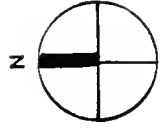
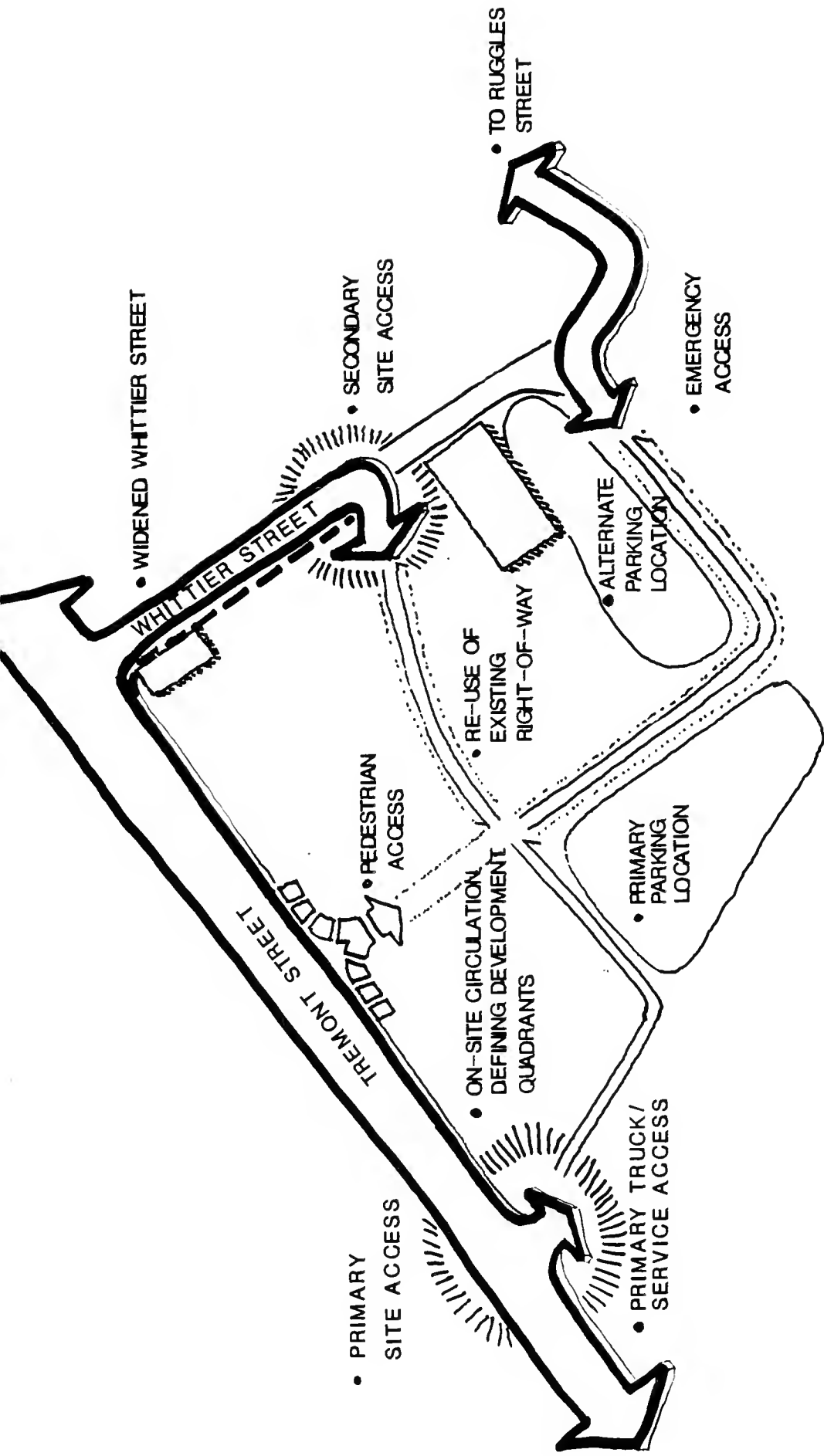


- o **Adjacent Buildings:** Currently the only buildings that establish any precedent in terms of size and height for what is to be built on Parcel P-3 would be the Whittier Street Housing Complex, Roxbury Community College, the proposed Parcel 18 development and to some extent the Madison Park High School Complex. These buildings, with their combination of low and midrise massing elements suggest equally tall or taller buildings could be built on Parcel P-3 and not be an imposition to the surrounding area.

### **Access/Circulation**

- o **Primary Site Access:** Although the site enjoys good frontage along Tremont Street, it is apparent that vehicular access would be somewhat restricted because its high speed nature. Currently no curb cuts exist into the site along the Tremont Street frontage. The former Vernon Street right-of-way which used to intersect with Tremont has been blocked off. It is probably unlikely that this curb cut would be reopened because of its proximity to the Whittier Street intersection. However, it may provide primary pedestrian access to the interior of the site.
- o Given the size of development likely to take place on the site, the existing traffic patterns in the area, and the configuration of the site, it is clear that there should be at least two primary access points from Tremont Street. The best location for a new curb cut would be at the extreme western corner of the site, halfway to the New Dudley Street intersection. The other access point would be at the Whittier Street intersection. Whittier Street could be widened down to the existing Hampshire Street right-of-way. These two access points would work in conjunction with on-site circulation and require minimal changes to existing traffic patterns. Vehicular access from Cabot and Downing Streets should be restricted because of the apparent impacts on the Whittier Street and Madison Park Housing Complexes.
- o **Re-use of Existing Rights-of-Way/On-Site Circulation:** Two of the abandoned rights-of-way on the site divide it into roughly four major development quadrants. Since they have existing utilities below them, if re-used, they should provide a framework for on-site circulation, for both vehicles and pedestrians.
- o **Parking:** Since it is unlikely that any substantial amount of the on-site parking requirement will be accommodated in below grade structures, surface lots and above grade structures should be considered. The southwest quadrant of the development parcel could accommodate a parking structure of appreciable size and would not require much site maneuvering for access. This location, could possibly serve as revenue producing parking in excess of the on-site requirements for the development program.





# PARCEL 3

## ACCESS/CIRCULATION

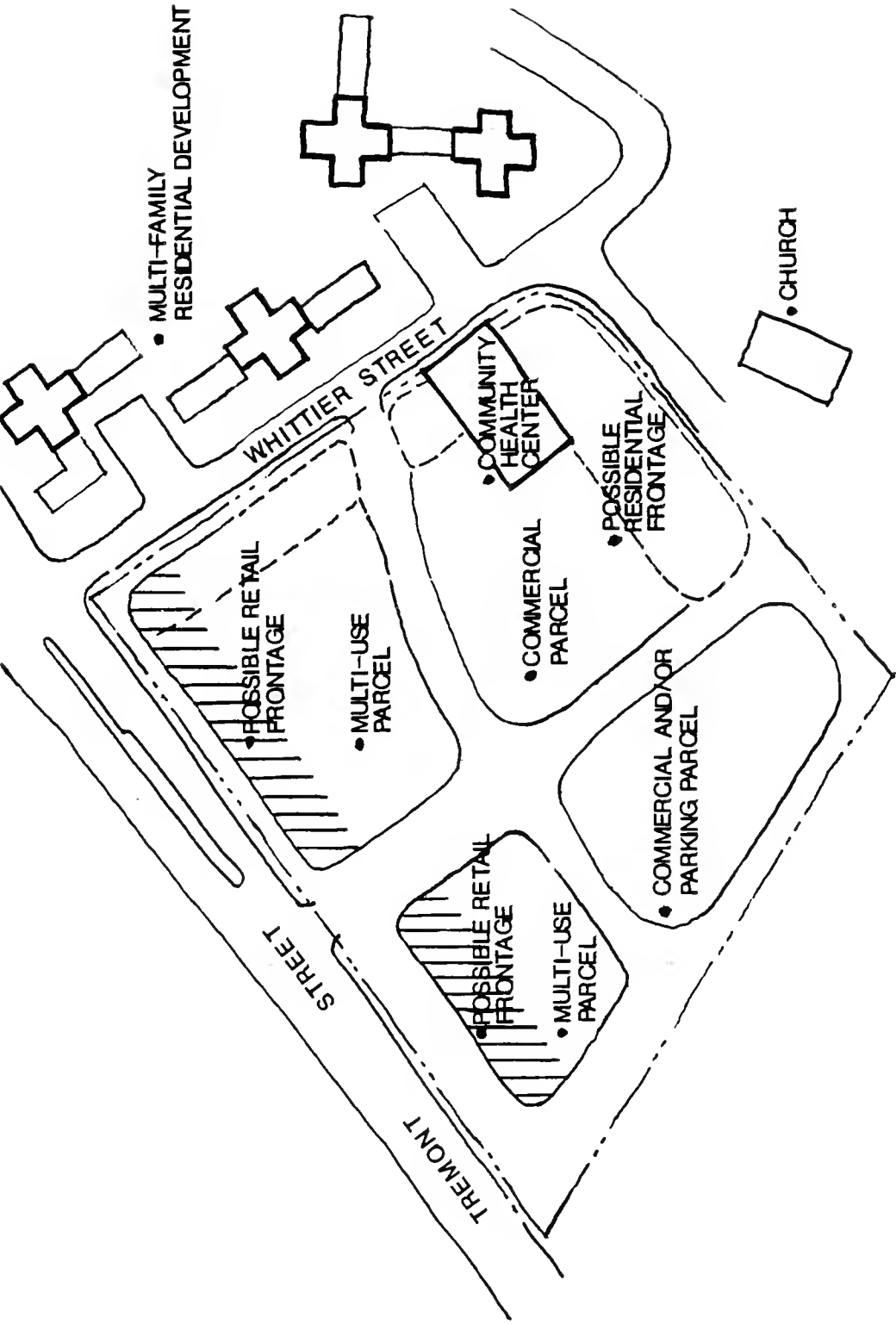
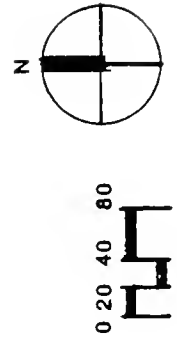
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## Use-Related

- o **Multi-Use Parcels:** Since development on the site will in all probability be situated in the four quadrants, the two fronting on Tremont Street could accommodate multi-use structures with ground floor retail activity. This would relate somewhat to the nature of the street. These parcels would provide a retail frontage supporting the primary on-site uses and to some extent convenience retail for the immediate neighborhood.
- o **Commercial Parcels:** The two rear quadrants can accommodate the remainder of the commercial development program and the required parking structure.
- o **Residential Component:** Should residential uses become a definite part of the development program, they should be restricted to the eastern and southern portion of the site. Residential buildings at this location would have some physical and use relationships to the existing Whittier Street Development and might allow for a scale transition to the commercial buildings. Along with the inclusion of a residential component, there will be the requirements for parking and on-site open space which would diminish significantly the site area available for commercial development.





# PARCEL 3

USE RELATED

BRA/NCAAA FEASIBILITY STUDY  
STULL and LEE, ARCHITECTS & PLANNERS





### III. PROGRAM FEASIBILITY

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### III. PROGRAM FEASIBILITY

#### Scheme A

27-Jan-88

## DEVELOPMENT ASSUMPTIONS

	\$/S.F.	AREA in S.F.	\$ Cost	P/DU
OFFICE	\$89	178,000	\$15,842,000	
RETAIL	\$89	31,000	\$2,759,000	
RESIDENTIAL	\$81	151,000	\$12,231,000	\$95,555
PK. above grade	\$43	140,000	\$6,020,000	
PK. below grade	\$71	140,000	\$9,940,000	
-----				
TOTAL		640,000	\$46,792,000	
ABOVE GRADE		500,000		
LAND	\$0	295,260	\$0	
FAR		2.17		
FAR (ABOVE GRADE)		1.69		

## REVENUE ASSUMPTIONS

	EFFICIENCY FACTOR	NET S.F.	RATE P/ANNUM	EXPENSES	N.O.I.
OFFICE	90%	160,200	\$22.50	\$6.00	\$2,643,300
RETAIL	90%	27,900	\$26.50	\$5.00	\$599,850
RESIDENTIAL	80%	120,800	—		
GARAGE		280,000	\$6.43	\$1.93	\$1,260,000
-----					
TOTALS		588,900			\$4,503,150
ASSUMING:					
110 % DEBT COVERAGE					
95 % OCCUPANCY					
10.5 % PERMANENT INTEREST RATE					
30 YEAR TERM					
HYPOTHECATED VALUE OF STABILIZED YEAR =					\$35,186,262

## FINANCING ASSUMPTIONS

CONSTRUCTION LOAN:	
DEBT/COST	85%
LOAN AMOUNT	\$52,899,180
RATE	10.5%
TERM (MONTHS)	24
FEES	2.0%
PERMANENT LOAN (1st.):	
DEBT COVERAGE	110%
RATE	10.5%
TERM (YEARS)	30
PERMANENT LOAN (2nd.):	
DEBT COVERAGE	110%
RATE	13.5%
TERM (YEARS)	20



### III. PROGRAM FEASIBILITY

#### Scheme A

27-Jan-88

#### B.R.A. / NCAA "PANEL 3" DEVELOPMENT PRO-FORMA

ACQUISITION					\$0
CONSTRUCTION COST				\$38,907,655	
SOFT CONSTRUCTION COSTS:					
general requirements	7.00%			\$2,723,536	
overhead	5.00%			\$1,945,383	
profit	6.00%			\$2,334,459	
bond	1.00%			\$467,920	
permits, fees, etc...	0.88%			\$413,047	
				-----	
TOTAL SOFT CONSTRUCTION COSTS				\$7,884,345	
				-----	
SUB-TOTAL CONSTRUCTION					\$46,792,000
CONTINGENCY	7.0%				\$2,723,536
PROFESSIONAL FEES:					
architectural, engineer	6.0%			\$2,807,520	
legal, title				\$90,000	
marketing & promotion	\$0.55 P/S.F.			\$352,000	
accounting/audit				\$20,000	
construction management/development consulting				\$300,000	
				-----	
SUB-TOTAL PROFESSIONAL FEES					\$3,569,520
OTHER DEVELOPMENT COSTS:					
insurance	0.8%			\$311,261	
taxes	1.5%			\$583,615	
operating deficit				\$1,600,000	
surveys				\$12,000	
relocation expenses				\$30,000	
				-----	
SUB-TOTAL OTHER COSTS					\$2,536,876
FINANCING COSTS:					
interest	10.5%	for	24 months	\$5,554,414	
fees	2.0%			\$1,057,984	
				-----	
SUB-TOTAL FINANCING COSTS					\$6,612,398
					=====
TOTAL REPLACEMENT COSTS					\$62,234,329









### III. PROGRAM FEASIBILITY

#### Scheme A

27-Jan-88

B.R.A. "P3"

## HOUSING AND COMMERCIAL DEVELOPMENT BUDGET

	COMMERCIAL	%	HOUSING	%	TOTALS	%
	\$	ERR	\$	ERR	\$	
ACQUISITION COST	\$0					0.00%
CONSTRUCTION:						
NEW p/SF \$85.64	\$18,601,000	60.33%	\$12,231,000	39.67%	\$30,832,000	49.54%
REHAB p/SF						
GARAGES p/sf \$57.00	\$13,917,120		\$2,042,880	100.00%	\$15,960,000	25.65%
SITE PREP./DEMO					(incl. above)	
SITE IMPROVEMENTS						
SUB-TOTAL	\$32,518,120	69.50%	\$14,273,880	30.50%	\$46,792,000	75.19%
RELATED COSTS:						
ARCHITECTURAL/ENGINEERING	\$1,951,087	69.50%	\$856,433	30.50%	\$2,807,520	4.51%
(as a % of construction)	6.00%					
PERMITS					incl. above	
INSURANCE	\$216,311	69.50%	\$94,950	30.50%	\$311,261	0.50%
P.E. TAXES	\$405,583	69.50%	\$178,031	30.50%	\$583,615	0.94%
CONSTRUCTION LOAN INTEREST	\$3,860,042	69.50%	\$1,694,372	30.50%	\$5,554,414	8.93%
FINANCING FEES	\$735,246	69.50%	\$322,737	30.50%	\$1,057,984	1.70%
LEGAL	\$62,546	69.50%	\$27,454	30.50%	\$90,000	0.14%
MARKETING	\$244,623	69.50%	\$107,377	30.50%	\$352,000	0.57%
DEVELOPER FEES					incl. below	
CONST. MGMT/CONSULTING	\$208,485	69.50%	\$91,515	30.50%	\$300,000	0.48%
TITLE INSURANCE					incl. above	0.00%
RECORDING FEES					incl. above	0.00%
OPERATING DEFICIT	\$1,111,921	69.50%	\$488,079	30.50%	\$1,600,000	2.57%
SURVEY	\$8,339	69.50%	\$3,661	30.50%	\$12,000	0.02%
ACCOUNTING/AUDIT	\$13,899	69.50%	\$6,101	30.50%	\$20,000	0.03%
CONTINGENCY	\$1,892,722	69.50%	\$830,813	30.50%	\$2,723,536	4.38%
RELOCATION EXPENSES	\$20,849	69.50%	\$9,151	30.50%	\$30,000	0.05%
TOTAL COSTS	\$43,249,773	69.50%	\$18,984,556	30.50%	\$62,234,329	
COMPONENT VALUE	\$35,186,262		\$14,496,000 ✓		\$49,682,262	
SURPLUS (DEFICIT)	(\$8,063,511)		(\$4,488,556)		(\$12,552,068)	



### III. PROGRAM FEASIBILITY

#### Scheme B

27-Jan-88

## DEVELOPMENT ASSUMPTIONS

	\$/S.F.	AREA in S.F.	\$ Cost	P/DU
OFFICE	\$89	629,000	\$55,981,000	
RETAIL	\$89	31,000	\$2,759,000	
RESIDENTIAL	\$81	0	\$0	\$0
PK. above grade	\$43	140,000	\$6,020,000	
PK. below grade	\$71	140,000	\$9,940,000	
-----				
TOTAL		940,000	\$74,700,000	
ABOVE GRADE		800,000		
LAND	\$0	295,260	\$0	
FAR		3.18		
FAR (ABOVE GRADE)		2.71		

## REVENUE ASSUMPTIONS

	EFFICIENCY FACTOR	NET S.F.	RATE P/ANNUM	EXPENSES	N.O.I.
OFFICE	90%	566,100	\$22.50	\$6.00	\$9,340,650
RETAIL	90%	27,900	\$26.50	\$5.00	\$599,850
RESIDENTIAL	80%	0			
GARAGE		280,000	\$6.43	\$1.93	\$1,260,000
-----					
TOTALS		874,000			\$11,200,500

ASSUMING:  
 110 % DEBT COVERAGE  
 95 % OCCUPANCY  
 10.5 % PERMANENT INTEREST RATE  
 30 YEAR TERM  
 HYPOTHECATED VALUE OF STABILIZED YEAR = \$87,517,344

## FINANCING ASSUMPTIONS

CONSTRUCTION LOAN:

DEBT/COST	85%
LOAN AMOUNT	\$83,956,252
RATE	10.5%
TERM (MONTHS)	24
FEES	2.0%

PERMANENT LOAN (1st.):

DEBT COVERAGE	110%
RATE	10.5%
TERM (YEARS)	30

PERMANENT LOAN (2nd.):

DEBT COVERAGE	110%
RATE	13.5%
TERM (YEARS)	20



### III. PROGRAM FEASIBILITY

#### Scheme B

27-Jan-88

## B.R.A. / NCAA "PARCEL 3" DEVELOPMENT PRO-FORMA

ACQUISITION					\$0
CONSTRUCTION COST				\$62,113,221	
SOFT CONSTRUCTION COSTS:					
general requirements	7.00%			\$4,347,925	
overhead	5.00%			\$3,105,661	
profit	6.00%			\$3,726,793	
bond	1.00%			\$747,000	
permits, fees, etc...	0.88%			\$659,399	
TOTAL SOFT CONSTRUCTION COSTS				\$12,586,779	
SUB-TOTAL CONSTRUCTION					\$74,700,000
CONTINGENCY	7.0%				\$4,347,925
PROFESSIONAL FEES:					
architectural, engineer	6.0%			\$4,482,000	
legal, title				\$90,000	
marketing & promotion	\$0.55 P/S.F.			\$517,000	
accounting/audit				\$20,000	
construction management/development consulting				\$300,000	
SUB-TOTAL PROFESSIONAL FEES					\$5,409,000
OTHER DEVELOPMENT COSTS:					
insurance	0.8%			\$496,906	
taxes	1.5%			\$931,698	
operating deficit				\$2,350,000	
surveys				\$12,000	
relocation expenses				\$30,000	
SUB-TOTAL OTHER COSTS					\$3,820,604
FINANCING COSTS:					
interest	10.5%	for	24 months	\$8,815,406	
fees	2.0%			\$1,679,125	
SUB-TOTAL FINANCING COSTS					\$10,494,531
TOTAL REPLACEMENT COSTS					\$98,772,061









### III. PROGRAM FEASIBILITY

#### Scheme B

27-Jan-88

B.R.A. "P3"

## HOUSING AND COMMERCIAL DEVELOPMENT BUDGET

	COMMERCIAL	%	HOUSING	%	TOTALS	%
	\$	ERR	\$	ERR	\$	
ACQUISITION COST	\$0		\$0		\$0	0.00%
CONSTRUCTION:						
NEW p/SF \$89.00	\$58,740,000	100.00%	\$0	0.00%	\$58,740,000	59.47%
REHAB p/SF						
GARAGES p/sf \$57.00	\$15,960,000		\$0	100.00%	\$15,960,000	16.16%
SITE PREP./DEMO					(incl. above)	
SITE IMPROVEMENTS						
SUB-TOTAL	\$74,700,000	100.00%	\$0	0.00%	\$74,700,000	75.63%
RELATED COSTS:						
ARCHITECTURAL/ENGINEERING	\$4,482,000	100.00%	\$0	0.00%	\$4,482,000	4.54%
(as a % of construction)	6.00%					
PERMITS					incl. above	
INSURANCE	\$496,906	100.00%	\$0	0.00%	\$496,906	0.50%
R.E.TAXES	\$931,698	100.00%	\$0	0.00%	\$931,698	0.94%
CONSTRUCTION LOAN INTEREST	\$8,815,406	100.00%	\$0	0.00%	\$8,815,406	8.93%
FINANCING FEES	\$1,679,125	100.00%	\$0	0.00%	\$1,679,125	1.70%
LEGAL	\$90,000	100.00%	\$0	0.00%	\$90,000	0.09%
MARKETING	\$517,000	100.00%	\$0	0.00%	\$517,000	0.52%
DEVELOPER FEES					incl. below	
CONST. MGMT/CONSULTING	\$300,000	100.00%	\$0	0.00%	\$300,000	0.30%
TITLE INSURANCE					incl. above	0.00%
RECORDING FEES					incl. above	0.00%
OPERATING DEFICIT	\$2,350,000	100.00%	\$0	0.00%	\$2,350,000	2.38%
SURVEY	\$12,000	100.00%	\$0	0.00%	\$12,000	0.01%
ACCOUNTING/AUDIT	\$20,000	100.00%	\$0	0.00%	\$20,000	0.02%
CONTINGENCY	\$4,347,925	100.00%	\$0	0.00%	\$4,347,925	4.40%
RELOCATION EXPENSES	\$30,000	100.00%	\$0	0.00%	\$30,000	0.03%
TOTAL COSTS	\$98,772,061	100.00%	\$0	0.00%	\$98,772,061	
COMPONENT VALUE	\$87,517,344		\$0		\$87,517,344	
SURPLUS (DEFICIT)	(\$11,254,717)		\$0		(\$11,254,717)	







B.R.A. "P3" CONDOMINIUMS PRICE SCHEDULE

PURCHASE PRICE BY UNIT SIZES: (INCLUDES 1 ON-SITE PARKING SPACE P/UNIT)

NUMBER OF UNITS	# OF B.R.'s	AVG. NET SQ. FT.	PURCHASE PRICE	\$ PRICE P/SQ. FT.	TOTAL PROCEEDS	AVG. PRICE
32	1	800	\$96,000	\$120.00	\$3,072,000	\$113,250
80	2	950	\$114,000	\$120.00	\$9,120,000	
16	3	1,200	\$164,000	\$120.00	\$2,304,000	
TOTALS	128	120,800		\$120.00	\$14,496,000	TOTAL SALES PROCEED
					(\$579,840)	BROKERAGE
					\$13,916,160	NET PROCEEDS
					(\$18,984,556)	TOTAL COST
					(\$5,068,396)	
					-26.7%	RETURN ON COST
					-35.0%	RET. ON GROSS SALES

RESIDENTIAL AFFORDABILITY ANALYSIS FOR B.R.A. "P3"

	1 B.R.	2 B.R.	3 B.R.
PURCHASE PRICE	\$96,000	\$114,000	\$144,000
% DOWN PAYMENT	10%	10%	10%
DOWN PAYMENT	\$9,600	\$11,400	\$14,400
AMOUNT FINANCED	\$86,400	\$102,600	\$129,600
INTEREST RATE	10.0%	10.0%	10.0%
TERM (YEARS)	30	30	30
DEBT SERVICE CONSTANT	10.53%	10.53%	10.53%
PRINCIPAL AND INTEREST	\$9,099	\$10,805	\$13,648
REAL ESTATE TAXES	\$1,187	\$1,433	\$1,844
INSURANCE	\$300	\$345	\$375
CONDOMINIUM FEE	\$1,080	\$1,240	\$1,420
TOTAL PAYMENTS divided by:	\$11,665	\$13,823	\$17,287
AFFORDABILITY FACTOR	35%	35%	35%
REQUIRED INCOME	\$33,329	\$39,494	\$49,392



RENTAL ANALYSIS  
2 BEDROOM UNIT

TDC	\$105,000
MORTGAGE	\$89,250
DEBT CONSTANT	12.5%
DEBT SERVICE w/110% COVERAGE	\$12,272
OPERATING EXPENSES	\$4,000
DIVIDEND 10.0%	\$1,575
	-----
SUB-TOTAL	\$15,156
VACANCY/BAD DEBT ALLOWANCE	5.0%
	-----
TOTAL	\$15,954
PER MONTH	\$1,329





ROXBURY  
P225  
1988

PARCEL 3 BRA/NCAAA  
DEVELOPMENT FEASIBILITY  
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