

ALTERNATIVE USE SCENARIOS & OPTIONS FOR

CITY OF ANN ARBOR'S NORTH MAIN

AND

WEST WASHINGTON STREET SERVICE YARDS

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In partial fulfillment of Masters of Business Administration and Master of Architecture degree requirements at the University of Michigan

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RE 750 INDEPENDENT STUDY

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I. EXECUTIVE SUMMARY

This report is provided for use by the Ann Arbor Municipal Garage Task Force which is investigating alternate uses of the city service yards located on West Washington Street and North Main Street. Its purpose is to assist the committee in 1) recommending zoning and area plan guidelines, 2) deciding weather to sell or lease the sites. This will be accomplished by assessing the risks associated with developing these two parcels of land which are currently owned by the city of Ann Arbor. The report was written as partial fulfillment of Masters of Business Administration and Master of Architecture degree requirements at the University of Michigan. The authors have varying backgrounds and chose this project to expand their knowledge of the real estate development process.

The sites are currently utilized as city garages, but the growth of the city has led many officials to believe that the sites are no longer being utilized in their highest and best use. A proposed strategy is to consolidate these sites into one city garage at a location further from the downtown core. Ideally the proceeds from the sale or development of the existing sites will finance the consolidation and move. Thus the focus of this report is to address critical issues which must be considered by the Ann Arbor Municipal Garage Task Force in choosing alternative uses for the West Washington and North Main sites.

It should be realized early on that this is a very involved decision process. This report is <u>not</u> designed to recommend a proposed development strategy. The purpose of this plan is to provide a base analysis of items that need to be considered in the development decision process. There are numerous decisions which the task force will need to make and hopefully, this report will be beneficial in shedding insight into many of those decisions, such as the following:

DECISION ALTERNATIVES:

- 1) Should the city eventually sell or lease the sites for redevelopment
- 2) Should the city take an active or passive role in the redevelopment?
- 3) What proportion and density for residential and retail use should be recommended?
- 4) What should be the focus of any retail space that is approved pedestrian or vehicular

- 5) What should be done with the buildings that are currently on or adjacent to the sites
- 6) What role should the city play in the financing of the development
- 7) Should the city conduct further market research in the surrounding neighborhoods before a decision is made
- 8) Should the city conduct further environmental analysis at this time?

II. PROJECT BACKGROUND

The two sites are both currently owned by the City of Ann Arbor and used as service yards and garages. The sites are both in central city neighborhoods which are not well served by their presence. The city is planning to combine the yards and move their function to a more appropriate location. This will open the sites for redevelopment to a use that is more appropriate given the surrounding areas.

Political issues are often a major consideration in real estate development, and this deal offers an exceptional example. However, with proper planning and procedures, political risks can be virtually eliminated. There are basically two factions which must be considered as political constraints: the citizens of the surrounding neighborhoods and the city government.

Our analysis of the surrounding neighborhoods has revealed two very organized groups of active citizens: the Old West Side and the North Central Property Owners. It is imperative that the entire planning process proceed with the consent and involvement of both neighborhood factions. The neighbors have expressed their concerns about the uses of the parcels and their continued input can only benefit all involved parties.

The City of Ann Arbor should also play a very active role in this development. With current ownership of the parcels, the city has an opportunity to benefit the adjacent downtown communities. The proximity of these parcels to downtown gives the city the ability to control usage of two ideally located parcels. Both parcels are on high volume streets for traffic entering and leaving the downtown core. With continued input from city officials throughout the development cycle, the political concerns surrounding permits and approvals can be minimized, and the best use of these parcels for the citizens of Ann Arbor can be realized.

III. NORTH MAIN DEVELOPMENT ANALYSIS

A. Market Research

1. Neighborhood Analysis

The subject property is situated in an area of Ann Arbor formally known as the North-Central neighborhood. According to a recent demographic and socioeconomic profile of this neighborhood, it is a very diverse mix with most of the residents being married couples with families. Traditionally, this area has been one of the lowest cost residential areas in the city of Ann Arbor. A recent neighborhood census indicated that over 75% of the dwellings in the area were built before 1940, demonstrating that most of the housing stock is dated.

However, there is an emerging trend toward renovation and refurbishment of area homes, especially those built in the early 1900's. In fact, housing values in this neighborhood have shown a gradual upward trend over the past several years. Also, this once primarily rental neighborhood has undergone a dramatic change to one of predominantly owner occupied homes. According to two Ann Arbor appraisal firms, the most recent sales prices for homes in the area ranged from \$75,000 to \$140,000 with the average around \$90,000.

There is a noticeable cohesiveness and pride about the neighborhood particularly evidenced by its strong neighborhood organization known as the North-Central Property Owners Association. The North-Central area is primarily composed of residential properties, however, there are several commercial establishments, most of which are on the North Main Street corridor and along the Conrail tracks on the neighborhood's western fringe. The neighborhood contains very little retail development, except for its southern edge bordering Kerry Town. Those retail establishments which do exist in the central part of the neighborhood are few in number, and are either converted residences or stand-alone structures.

Traffic Volume on North Main

A primary attribute of the subject site location is its frontage on North Main street. The North Main corridor is significant, not only because it is one of Ann Arbor's most widely travelled thoroughfares, but because it connects area businesses, residents and M-14 freeway traffic with downtown Ann Arbor. According to the Ann Arbor - Ypsilanti Urban Area

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Transportation Study completed in 1989, approximately 18,000 vehicles travel along North Main (between Huron street and M-14) each day, with peak traffic occurring around 5 p.m. This is important because drive-by traffic often plays a critical role in the success of commercial real estate developments from both an advertising and patronage standpoint.

2. Neighborhood Survey

The neighborhood surrounding the service yard were surveyed to determine the thoughts and concerns of area residents about new development for the site. Approximately 30 households were approached of which about 20 were willing to respond to the survey. The questions were largely opened ended and respondents were encouraged to give lengthy answers. The following questions served as a guide for the canvasers to motivate discussion about the site:

Would you like to see the city yard move?

The general response was yes. Residents would prefer to see the yard moved as they felt it was somewhat noisy and an eyesore. Most residents are very familiar with the activities of the yard, but few were aware that the city was planning to move the yard.

What would you like to see on the site?

This question elicited a wide spectrum of answers. We followed up with these related questions to gain insight into the residents needs and concerns:

What are your thoughts about retail space? Small neighborhood center vs. larger strip center? What types of shops would you frequent? What are your thoughts about housing? Apartments vs. condominiums?

Many respondents felt retail and or housing would be appropriate. Most felt that rental apartments were more appropriate than condominiums or single family homes. However, some were opposed to a large apartment complex, stating that Ann Arbor "already has enough apartments".

The same was true for retail space. Some respondents welcomed the opportunity for nearby shopping while others were very opposed to another "strip center like Westgate or Plymouth Road". The most commonly requested shop was a grocery, although some respondents stated that they only shop at Meijer's or Kroger's and never use smaller stores.

Some respondents would like to see the site converted into a park, although, others felt the area already has enough parks. Nearly all respondents were opposed to office space and any type of "tower" on the site.

What other concerns about development on the site do you have?

Increased traffic congestion was commonly cited. Neighborhood residents were also concerned about the effect on their property values. Some were concerned that a new development might increase their property assessments, while others want to see a development that improves the neighborhood, and therefore protects or improves the investment in their home. Another concern is the railroad spur on the site. Some residents near the tracks complain about the noise at night. Others claim they never hear it but enjoy seeing it go through the area.

3. Retail Market Data and Competitive Analysis

The results of our neighborhood survey indicate a fairly strong demand for neighborhood retail development. Given the lack of retail and service establishments in the central part of the neighborhood area, a development that includes at least some retail space is suggested as a higher and better use of the land. We have gathered rental rate data for neighborhood and community retail centers in Ann Arbor to help establish an appropriate rent structure for a retail project on the subject property. The information outlined in the following table has been provided by landlords, tenants and area real estate brokers: (These centers, however, are not suggestive of the size appropriate for this site.)

Center	Location	Rate (triple net)	Total Size(S.F.)
S. Main Center (under constr.)	S. Main Street near Madison	\$14-15	12,000
Kerrytown Shops	S. Fifth @ W. Kingsley	\$15-35	42,000
Broadway Shops	Broadway @ Maiden Lane	\$11	N/A
Westgate Center	Stadium @ Jackson	\$12-13	189,000
N. Campus Plaza	Plymouth Rd.	\$14-15	40,000
Plymouthview Center	Plymouth Rd.	\$14.50	12,000

As the above table illustrates, these retail developments vary widely in size and location. The rental rates, quoted net of operating expenses are for smaller tenants. Anchor tenants in these centers are paying on average two to three dollars less per square foot than the other tenants. One exception, however, is the Kerrytown Shops. On average, smaller tenants in this enclosed specialty retail center pay a higher per square foot rent. None of the projects have significant vacancies. The South Main Center, which is closer to the subject and has similar demographic surroundings has successfully preleased nearly all of its space prior to groundbreaking. The developer of South Main Center, Realco Development Inc., expressed a strong degree of confidence with its ability to prelease retail space in the vicinity of the subject site at North Main as well at rental rates from \$12-15 per square foot.

Considering the rental rates which have been obtained on the South Main Center project, it is reasonable to set an asking rate threshold on the proposed development of \$12 triple net for anchor tenants and \$14 triple net for smaller tenants. Also, given the varying demand for space, we suggest devoting 40% of the space to grocery/drug store tenants and 60% to smaller tenants.

Potential Retail Tenants

Consistent with the neighborhood residents' wishes, community scaled retail and service tenants were targeted for this development. The variety of uses considered were (1) grocery, (2) delicatessen or small restaurant, (3) pharmacy, (4) ice cream/yogurt, (5) cleaner/laundry,

(6) barber/salon, (7) video rental, (8) bakery and (9) day care (10) branch of City Library. The primary emphasis was on integrating existing area businesses into a single attractive, centralized environment. A secondary focus was placed on marketing the proposed retail development to tenants that were larger or national in scope. We have conducted preliminary leasing discussions with a number of North-Central area businesses and received some favorable responses:

Mr. Johnnie Rush, owner of Rush's Barber Shop on Broadway has shown a high degree of interest in this concept and location. He has indicated a preference for 1,500 square feet to operate a barber and beauty salon. Rush also heads the Loan Approval Committee for the Ann Arbor Community Development Association, and has agreed to act as our pipeline to area entrepreneurs who are seeking to initiate or expand their businesses.

The proprietor of a small restaurant specializing in ribs and chicken known as Mr. Rib Inc. expressed strong interest in moving to our proposed development. He is presently located in 1,200 square feet on North Main, across the street from the subject property, and would like to expand his operation to include distribution capabilities. Therefore, he is willing to lease 3,500 square feet at \$12 triple net if a retail center is constructed on the site.

Similarly, a retail center concept on the subject site was favorably received by Ms. Hortense Howard, owner and director of Sitters Unlimited, a quality drop-in day care center located on Broadway near Maiden Lane. She expressed an interest in leasing 3,500 to 4,000 square feet at \$14 triple net which is the amount of space necessary by law to maintain her current 18 child capacity. Although the Ann Arbor Community Center (next door to the subject site) offers day care services, Ms. Howard does not expect any real competitive conflicts due to the drop-in nature of her concept.

Given this strong level of interest from neighborhood business owners and and area comparables, we are comfortable that these tenant commitments will create the necessary momentum to spur additional leasing activity in the proposed center. In addition, we are confident that there is sufficient demand to achieve the preleasing objectives of most financing institutions for this type of property and location.

4. Residential Market Data and Competitive Analysis

Along with retail, the site is well suited for some type of residential development. The surrounding neighborhood is very residentially oriented, and additional housing such as apartments will compliment and promote the redevelopment that is gaining momentum.

The final selection of an apartment type should be based on the quality of the design and the overall development. The site is well suited for an urban village which emphasizes quality. To create this urban village, the development could include units with a broad range of rents to attract a wide cross section of tenants. This aspect of the analysis will require further study and will require further professional input. After considering several types of housing, moderately priced garden apartments appear to be the most appropriate for the site.

At this stage of the analysis, we will assume that the development will include moderately priced units. This represents the most likely rental range even if some type of urban village is ultimately proposed. Furthermore, from a marketing perspective, this type of product is appropriate given the character of the neighborhood and the overall condition of the Ann Arbor apartment market. A development with only low priced apartments would not fit in with the neighborhood because it could potentially hurt the on going improvements in the area. Likewise, construction of only high priced units is not suggested because the neighborhood is not considered a prime location for that use. Also, several high priced apartment complexes have come on line in the past few years, thus creating strong competition within this submarket.

Rent levels for apartments are generally established by analyzing competitive apartment complexes. The following complexes were selected for this analysis: Arbor Landings, Burlington Woods, Ponds of Georgetown, Signature Villas and Village Green. These comparables were chosen because they have moderate rents and a high level of amenities. Although the absorption rates for these developments have not been included, it is recommended that this information be included before development plans are finalized. This information is necessary for understanding demand for this type of development. The following table gives the average rent levels and sizes for various apartments:

Apartment	Bedrooms	Sq. Ft.	Rent/Month	Rent/S.F. per month	Rent/S.F. per year
Arbor Landings	1BD	852	\$635	\$.734	\$8.81
	2BD	1120	745	.665	7.98
Burlington Woods	2BD	1008	\$740	\$.734	\$8.81
	2BD +	1137	800	.703	7.44
Ponds of Georgetown	2BD	1050	\$790	\$.752	\$9.02
	3BD	1350	950	.703	8.44
Signature Villas	1BD	916	\$720	\$.786	\$9.43
	2BD	1015	790	.778	9.34
Village Green	1BD	850	\$500	\$.588	\$7.06
	2BD	1100	850	.772	9.26

When considering these comparable properties, several factors are important to analyze. All of these properties are in outlying areas of the city, and therefore, the North Main site can command a higher rent due to its location near downtown, the medical center, and the University of Michigan central campus. Also, slightly smaller apartments are recommended due to the high cost of land in this location compared to suburban settings. Potential tenants are likely to accept smaller units in exchange for this prime location. The North Main site is not large enough for outdoor amenities such as a swimming pool or tennis courts. However, nearby public parks provide these for area residents.

Overall, the site can command rents that are slightly higher than the units listed above. For the purposes of financial analysis, the following table presents suggested size and rent for residential units on this site.

Bedrooms	% of Units	Sq. Ft.	Rent/Month	Rent/Sq. Ft. per month	Rent/Sq. ft per year
One	40	700	\$595	\$.85	\$10.20
Two	40	870	\$700	\$.80	\$9.60
Two plus den	20	1000	\$800	\$.80	\$9.60

5. Development Mix

Given the market analysis above, some combination of retail and residential development is recommended as the optimal use for the site. This will provide new housing for the area and increased shopping convenience for area residents and commuters driving by on North Main. However, the optimal mix of residential and retail space is driven by factors other than marketing. Demand for both property types, residential and retail, is very large. From a marketing viewpoint, the site could accommodate all retail space or all residential space. A mix of property uses is recommended because this will better serve the diverse interests of neighborhood residents and the needs and concerns of the entire Ann Arbor community.

Determining an optimal mix for the final development is both a political and financial decision. It will likely be based on tradeoffs that include the sale price of the land, community need for moderately priced housing and convenient retail, available construction loan financing and density of the proposed development. In an effort to investigate the impact of these tradeoffs, the following matrix proposes three mixed use development alternatives for further study:

	Apartment Units	Retail Space (Sq. Ft.)	
Scenario 1:	36	25,000	
Scenario 2:	36	18,000	
Scenario 3:	48	12,000	

Scenerio 1 is a relatively dense development. With these scenerios we are attempting to show the tradeoffs between height/density and open space. The impact of this decision will be greatest on the financial returns and land price. The financial and economic implications of these three development scenarios are illustrated and discussed in the North Main Financial Analysis section of this report.

B. SITE PLAN AND ARCHITECTURE

1. Site Plan

The North Main site presents some interesting and difficult site planning issues. Since the site is located directly above the Allen Creek drain, certain design compromises have to be made. Furthermore, the site is located almost entirely in a floodplain, giving control over certain planning issues to the Michigan Department of Natural Resources. Other important site planning features include the Ann Arbor railroad spur along the west border of the property, its frontage along three roads (North Main, Summit and Felch) and the steep slopes along the west and north sides of the site.

The Allen Creek Drain is a large underground storm water drain which was recently replaced. It consists of underground sewer piping approximately ten feet in diameter, and wanders through Ann Arbor approximately along the Ann Arbor Railroad tracks through downtown. Difficulty arises because no building structure can be placed directly above the drain. While the structural complications this presents are not particularly complicated, special consideration must be given to the feature.

Furthermore, the site is in a floodplain, thus giving control or at least significant input, to the Department of Natural Resources. The regulations currently do not allow newly constructed living space to be lower than the level of the 100-year flood level. In order to effectively plan this site, the 100-year level must be determined through civil engineering means, and then the site plan must keep new living space above that level. For the purposes of this study, we have assumed that the level is such that a one-story first floor parking level will raise the living space high enough to avoid any floodplain problems.

The railroad spur presents another interesting planning feature. Market research shows mixed reactions to this item, with some people viewing the tracks as an interesting asset and others viewing it as having a negative impact on the site. There is no doubt that the site design should take the tracks into account and use them as an asset as much as possible. One site plan proposal utilized the slopes leading up to the tracks as open space, creating an opportunity for a unique railside park and playground. The low traffic volume on the rail spur should keep inconveniences and the danger level to a minimum, although safety features will still be required to protect children.

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The steep slopes along the north (leading up to the railroad tracks) should be viewed as an asset in construction design. The natural features allow lower level parking along the south side of any potential designs, while allowing second level egress onto the ground level on the north. These slopes are a strong asset, although they do complicate the site planning. Egress issues onto Summit are complicated by the slopes, but the topography is a solvable problem through with careful planning.

Finally, access is a key issue since the site fronts on three streets. Obviously, the major traffic along North Main makes this street the obvious choice for a main entrance to neighborhood retail development. Area residents have expressed concern over any access to Felch, so this should be limited to a private entrance for the housing development at the very most. The Summit frontage provides natural access for services and entry to the rear of the site.

2. Retail

The visibility of the North Main site makes it a prime location for a neighborhood retail center. The North Main site is a key link between downtown Ann Arbor and M-14 which carries a large amount of commuter traffic. For this reason, it is our opinion that the most feasible location for a retail center would be near the North Main St. and Summit St. intersection where the highest level of visibility would be achieved. The committee will ultimately decide whether the retail component of the development is neighborhood oriented or sized and designed to attract North Main Street traffic.

Currently, there are four houses that line Summit St. at this intersection. Further study is required to determine the role of these houses in relation to the highest and best use of this site. The study group initially identified four different approaches to this corner property.

- (1) Simply leave them as is and orient the retail center around them.
- (2) Relocate the houses to a different location on the site.
- (3) Purchase and renovate them in order to tie them into the retail center.
- (4) Purchase and remove them.

Although the most economically feasible approach would be to remove the houses, market research indicates that leaving them intact would be more favorable to the neighborhood.

Due to the heavy vehicular use of North Main St. as a transitional link between downtown Ann Arbor and North Ann Arbor, the study group has determined that an exclusively pedestrian retail center would not be the most feasible approach to this site. However, any vehicular oriented retail development should be extremely sensitive to the surrounding neighborhood. The study group identified three potential retail center types. These include:

- A community oriented combination of retail on the ground level with residential or office flats above
- Retail in a typical vehicular oriented mall
- * Retail that is accessible by vehicles but organized around a pedestrian mall

In any case, the size of any retail center on this site should not exceed 15,000 - 25,000 sq. ft., using approximately 2.6 - 3 acres of the entire site.

The key issue in the design of a retail center on the North Main site is that of good design and proper context. The site, as we have mentioned earlier, is a link to downtown Ann Arbor yet it is very much in a neighborhood setting. Therefore, any retail structure designed for this site should be residential in scale and appearance. Following are just a few key issues with regard to design and context that should be addressed.

- Units should not exceed three stories in height
- Materials used should be in harmony with the surrounding houses (i.e wood and brick)
- Allowances should be made for abundant green space and attractive landscaping
- Special attention should be given to the appearance of the roof of the center, as this is the view received by most of the residents to the west of the railroad tracks (i.e. no fake mansards or roof mounted HVAC equipment that is uncovered)
- Special attention should be given to loading zones and egress routes
- Signage should be tasteful and well integrated with the design of the center
- Center should have a pedestrian focus and be well linked to neighbors both by foot and by car

3. Residential

The design of a housing development for the North Main site is an interesting opportunity to utilize key features of the site to develop an interesting housing type.

The study group initially identified three potential housing types. These included:

- (1) A three to five story apartment building
- (2) Attached and clustered low-rise rental or ownership dwellings
- (3) Residential low-rise flats above retail and office spaces

Of these initial types, the two deemed most feasible for further study were the clustered attached dwellings and the flats above retail space. These units will be two to three stories high plus garages.

In terms of density, the space remaining after placement of the retail center is approximately 1.5 to 2.5 acres. We recommend a density of from 15 to 20 dwelling units per acre, or from 22 to 50 dwellings on the site. Obviously, parking and open space requirements are important here.

The housing should certainly be of high quality. The neighborhood surrounding this property is undergoing gentrification, and there is a great deal of pride among area residents. Since most of the homes in the area were built before 1940, this is a good opportunity to create a new pocket of high quality design in the middle of the area.

Obviously, the question of ownership structure must be addressed. The two options, personal ownership (condominium) or rental (apartments), create different questions and opportunities. It is unlikely that the City of Ann Arbor wants to get directly involved in the ownership and management of an apartment complex, yet some city participation is key to the success of the project. One possible solution is to design and build the units to high quality condominium specifications but to leave the decision of lease versus sale of the units left to the eventual developer.

Amenities should include parking, a small laundry room in each unit, exterior decks and/or patios, private entrances, ceramic tile, good quality appliances, lots of glass, some use of brick and wood on the exterior, and ample space in the master suite and great rooms.

The exact housing style is not as important at this point, although it should blend nicely with the surrounding area: steeper roof slopes, a variety of exterior materials, good landscaping, lots of lighting, a pedestrian feel, a sense of neighborliness, and effective pedistrian links to the surrounding neighborhood.

C. CONSTRUCTION

1. Construction Analysis

There are a wide variety of construction alternatives for this site. The architecture and site planning will be greatly influenced by the desires of the surrounding community. At present, the area displays construction ranging from wood frame and siding, to painted concrete block, to face brick veneer, to steel frame. It is anticipated that construction will be good quality and make creative use of open spaces. Since the Allen Creek Flood Plain necessitates that construction of living and retail areas be above ground, this will have an adverse effect on the total construction cost. We have assumed for this study that all demolition and environmental clean-up will be performed by the city of Ann Arbor and will not impact the development cost. The final design specifications have not been determined, so the construction budgets presented will represent a range of architectural configurations and construction types.

2. Retail

The site allows a variety of different configurations. The retail space will most likely range from 12,000 - 25,000 square feet. Construction will allow for flexibly styled individual store sizes from 500 - 1,800 square feet. Local brick outlets may provide discounts on a bulk purchase for the residential/retail development. Larger or anchor tenants may wish to use more than one space. Specifications for tenants finishes will be determined on an individual basis. Allotments for improvements will be determined based on leasing agreements. A barrier-free design will need to be incorporated in the retail space.

3. Residential

It is anticipated that the residential and retail developments will be architecturally compatible. Construction, however, will not be as costly for the residential site. Ground level parking garages or carports will provide the most efficient method of complying with the flood plain living space restrictions. Separate entry ways provide the resident with added privacy. Creative architecture and landscaping can make the railroad track more appealing.

V. FINANCIAL ANALYSIS

1. FINANCIAL ASSUMPTIONS

Several important assumptions are employed in the financial analysis contained in Appendix B. They are explained in brief below:

- 1) For each site, the three scenarios of commercial and residential mixes are based on market research data and architectural constraints which are discussed in the marketing sections of the report.
- 2) The residential portion of each site assumes a townhouse concept with no common area. (i.e., 100% efficiency).
- 3) The commercial portion of each site also assumes a 100% efficiency. We have assumed the ability to pro-rate common area expenses to each tenant.
- 4) Construction costs (hard and soft costs, but not including land) are assumed as:

\$63 per square foot for residential building

- \$29 per square foot for residential site improvements
- \$62 per square foot for commercial building
- \$21 per square foot for commercial site improvements
- 5) The equity requirement section assumes that the city of Ann Arbor will contribute the land in exchange for a fixed "coupon" type return of 9%. The full value of the land will be returned when the project is sold.
- 6) Permanent mortgage rate assumes that the city of Ann Arbor's Pension fund will provide funds at 9% on a 30 year amortization.
- 7) Commercial leases are assumed to be Triple Net with tenants paying real estate taxes, insurance, maintenance, and utilities.
- 8) The property tax rate assumes a 100% tax abatement in year 1, and a phased-in return to the full tax rate over 3 years.
- 9) Depreciation is prorated for the commercial property at 31.5 years and the residential property at 27.5 years useful lives.
- 10) Construction loan financing is assumed to be available at 10 percent for one year with a 1.5 point origination fee.
- 11) The West Washington site will be purchased from the City in a normal fee simple arrangement. Calculations assume that the existing car wash property on Liberty St. will be purchased and combined with the small portion of the service yard connecting to Liberty Street.

2. FINANCIAL ANALYSIS

As discussed in the North Main and West Washington marketing sections, each site has been analyzed using a variety of development mixes that include residential and commercial usage. The detailed financial analysis for each site contain general assumptions about the proposed developments, as well as specific assumptions about the particular project's financing and construction. Details calculations are included in Appendix B.

While the nature of these proposals is preliminary, it should be understood that the financial returns to a private developer will dictate the intrinsic land value of each site. Determining this land price is one of the primary goals of this financial analysis. Outlined below are the the proposed land prices for each site with the corresponding returns to the developer:

North Main Site:

	Proposed Land Value	Commercial Use	Residential Use	Developer Return	
Scenario 1	\$800,000	25,000 sf	24 units	12.18%	-25
Scenario 2	\$300,000	18,000 sf	36 units	4.85%	
Scenario 3	\$200,000	12,000 sf	48 units	7.99%	

West Washington Residential:

	Proposed Land Value	Residential Use	Developer Return
Scenario 1	\$500,000	60 units	11.49%
Scenario 2	\$500,000	60 units	11.49%
Scenario 3	\$450,000	54 units	13.51%

West Washington Commercial:

	Proposed Land Value	Residential Use	Developer Return
Scenario 1	\$150,000	6,125 sf	12.71%
Scenario 2	\$90,000	4,000 sf	12.51%
Scenario 3	\$500,000	8,000 sf	14.86%

Important to note in the the data illustrated above is the variation in land cost resulting from the different land uses. With a heavy emphasis on commercial space in the North Main site, implied land value increases dramatically. Conversely, if residential use is emphasized, the land price which makes development feasible is substantially lower. It is this trade-off between the social benefits of increased housing in Ann Arbor and maximizing the City's land value that cannot be answered here.

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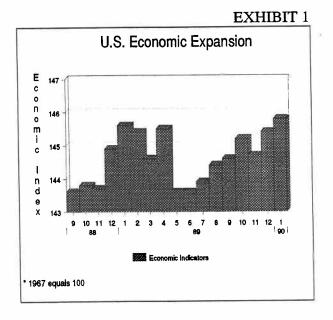
Tota = \$ 1.0 M. to

APPENDIX A

A. Economic Cycle

The economy places a significant risk on all aspects of the real estate development process. It is the driving force in the demand and pricing of properties. Our analysis of the economy first takes a brief look at the national economy and then focuses more closely on the Michigan economy. Following these macroeconomic reviews, we focus the balance of our economic analysis on the local Ann Arbor economy.

The national economy continues to grow at a moderate pace. Analysts are predicting the longest U.S. peace-time expansion to continue through 1990 (its seventh year). As *Exhibit 1* shows, the Commerce Department's Index of Leading Indicators climbed 0.3 percent to 144.4 in August 1989. Unemployment and inflation are stable, and interest rates are moderate and are expected to remain so. Currently, the national economy is favorable, yet the future cannot be predicted with certainty.



1. Michigan

The Michigan economy has rebounded from the turbulent times of the early 80's when pressure from foreign automobile competition forced layoffs and the effects rippled through nearly every business in the state. However, the last half of the decade saw the big three get back on their feet and the economy prosper. Today, within the automotive industry, automated manufacturing continues to expand and appears promising for the future strength of the Michigan economy. In addition, the Michigan economy has diversified into other high tech industries such as information technology, chemicals, and pharmaceuticals.

Although diversification has eased some pressure, the automotive industry continues to be the dominant force in the Michigan economy and poses the greatest area of economic risk. It appears that the big three are once again competitive, but many factors including oil prices could cause downturns in the automobile industry. These in turn create a ripple affect softening the entire Michigan economy including Ann Arbor. Residential and commercial

development is most likely to succeed while the economy is strong. With a growing economy the sites will benefit from a strong demand for space.

2. Ann Arbor

The subject property is in a prime location to benefit from the thriving, diverse economy of Ann Arbor. The area is lauded for a high quality of life and is increasing in population as the community and the economy continue to grow. The risks associated with the local economy appear to be low for this type of development for the following reasons:

- Ann Arbor offers a consistently strong economy due to the large impact of the University of Michigan and industries affiliated with and related to the university. The U of M provides a stable employment base that is often shielded from general economic downturns. Over 35,000 students support the economy's strong and consistent retail and residential real estate sector. In addition, the University of Michigan faculty and student body has a positive influence on the development of Ann Arbor by creating an upscale and cosmopolitan environment which supports unique boutiques, ethnic restaurants, and numerous cultural activities.
- The city is well prepared for future growth because local businesses and government have established clear plans and goals for growth in downtown Ann Arbor and surrounding neighborhoods. The Ann Arbor Area Chamber of Commerce has established the following economic development goals for 1988 and beyond:
 - Expansion of existing firms
 - Creation of new firms
 - Attraction of Fortune 1000 research companies and institutes
 - Attraction of space industry related firms
 - Construction of a major convention/meeting facility
 - Expand downtown development
 - Redevelop North Main Street/Huron River Corridor
 - Expand exporting by Ann Arbor area firms
- Local business and government are committed to growth that will benefit the project site on North Main. The site is close to downtown and will benefit from continued growth as workers will want to live near their work place. Also, the retail portion of the development will benefit from the increasing residential population that wants to live, work and shop in the area.

In summary, the state and national economy remain stable, although growth has slowed over the past six months. Unemployment and inflation are low, and while interest rates are moderately high. The most likely area of risk at this time is the potential for a downturn in the automobile industry which will adversely effect the Detroit area economy. Since Detroit and the automobile industry are the dominant economic force in Michigan, the ripple affect may cause some softening of the Ann Arbor economy.

Overall, we estimate that there will be little economic risk to redeveloping the two service yards. Our largest concern is a general slowdown in the economy that would depress real estate values and soften demand for retail and residential space. Given the non-cyclical nature of the Ann Arbor economy, however, this is not a likely scenario. The other direct impact on this project could come from rising interest rates creating higher debt service payments than expected. Again, we see this as an unlikely scenario due to the slowing economy and the Federal Reserve Board's desire to prevent a recession by keeping interest rates stable.

B. Demographics

Demographics also support projects of this nature in Ann Arbor. The City of Ann Arbor was estimated to have a population of 112,000 people in 1986 by the Washtenaw County Metropolitan Planning Commission, an increase of 3.7% since 1980. The diversified economy and multitude of cultural and physical amenities is expected to attract more people to Ann Arbor in the future. SEMCOG has projected the City of Ann Arbor population to increase 19.5% from 1980 to 2005. this increase in population and density should contribute to a strong consummer base for retail expansion.

The number of households in Ann Arbor is also expected to increase. In 1980, the city contained 38,839 households. According to National Planning Data Corporation, this figure has increased to 40,059 households in 1987, an estimated increase of 1,220 households in seven years. Of the 70% of Ann Arbor's 1,980 households having two or more occupants, over 60% of these households were married couple families. This percentage is expected to remain constant over the 1987 to 1992 period.

Although Ann Arbor is influenced by a large student population, the City's median household income is quite high. According to National Planning Data Corporation, the median household income is \$25,520 in 1987, up from \$18,554 in 1980, and is forecasted to increase to \$28,570 by 1992. It is important to note that the number of households with annual incomes of over \$50,000 is estimated to be 8,396 (or 21% of the total) by 1992. This

translates into a 26.5% increase from 1987 to 1992 in the number of households earning \$50,000 or more annually in the City of Ann Arbor. This should continue to make Ann Arbor a very attractive market for both retail and residential development.