



CITY COUNCIL ACTION REPORT

DATE: October 10, 2007

TO: Phillip L. Nelson, City Manager

FROM: Brian P. Murphy, Assistant City Manager/Economic Development Services
Mark F. Miller, Planning Director

SUBJECT: Public Hearing – Concept Development Plan Approval – The Pavilions of Troy Planned Unit Development (PUD 9) – Northwest corner of Big Beaver and Coolidge, Section 19 – O-S-C, O-M and P-1 Districts

Background:

- The Planning Commission recommended Concept Development Plan Approval of PUD 9 at the September 11, 2007 Special/Study meeting.
- The applicant proposes a phased mixed-use development on the 40-acre parcel. Phase 1 is proposed to include 100-250 residential units and 200,000-600,000 square feet of office and retail. The development at build out is proposed to have 750 residential units, 300,000 square feet of office, 500,000 square feet of retail and a 250 room hotel.
- Richard Carlisle of Carlisle/Wortman Associates, Inc., the City's Planning Consultant, prepared a report summarizing the project and recommending Concept Development Plan Approval. This report was revised on September 25, 2007.
- The proposed PUD meets the Standards for Approval of Section 35.30.00 of the City of Troy Zoning Ordinance.
- The proposed PUD is consistent with the Key Concepts of the Big Beaver Corridor Study.
- The PUD Agreement has been reviewed and approved by the City Attorney's Office.
- The applicant provided updated materials to be inserted into the City Council members' CDP binders.

Financial Considerations:

- There are no financial considerations for this item.

Legal Considerations:

- City Council has the authority to act on this application.
- Concept Development Plan Approval will have the effect of rezoning the subject parcel to PUD 9.

Policy Considerations:

- The item is consistent with City Council Goal I (Enhance the livability and safety of the community), Goal III (Retain and attract investment while encouraging redevelopment), and Goal V (Maintain relevance of public infrastructure to meet changing public needs).

Options:

- City Council can approve the application for Concept Development Plan Approval.
- City Council can approve the application for Concept Development Plan Approval with conditions.
- City Council can deny the application for Concept Development Plan Approval.

Approved as to form and legality:

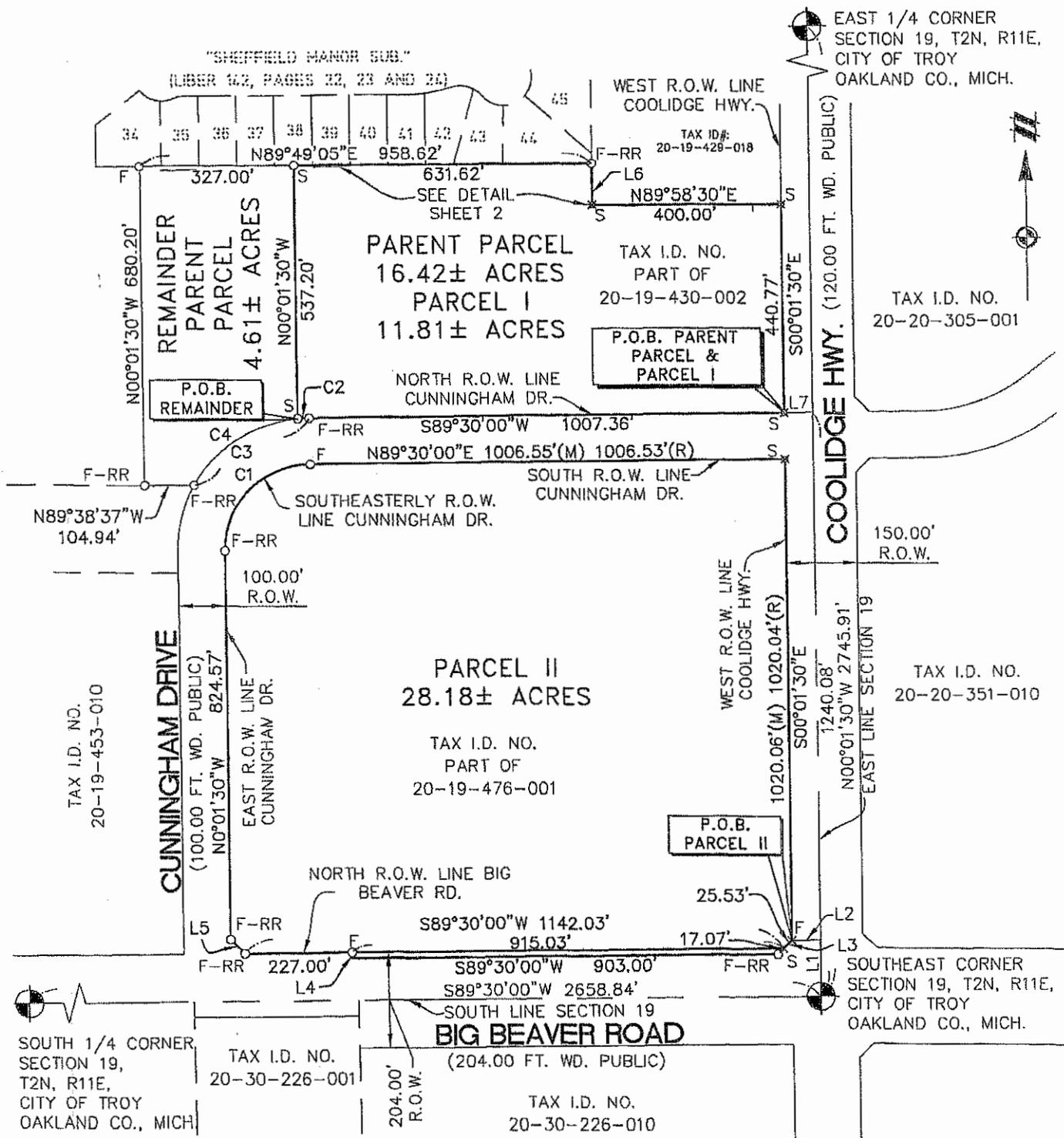
Lori Grigg Bluhm, City Attorney

Attachments:

1. Maps.
2. Report prepared by Carlisle/Wortman Associates, Inc., dated September 25, 2007.
3. Planning Commission Minutes from the September 11, 2007 Regular meeting.
4. PUD Agreement.
5. Public comment.
6. Updated CDP materials.

Prepared by RBS/MFM

cc: Applicant
File /PUD 9



TAX PARCEL No. 20-19-476-001 & 20-19-430-002

BEARING BASE: BEARINGS ARE BASED ON ALTA/ACSM LAND TITLE SURVEY BY GIFFELS-WEBSTER ENGINEERS, INC., JOB No. 17112, DATED JUNE WR, 2005.

I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON AUGUST 3, 2007, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000, AND THAT ALL OF THE REQUIREMENTS OF P.A. 132 1970, AS AMENDED, HAVE BEEN COMPLIED WITH.

CLIENT: RICHARDSON DEVELOPMENT GROUP	JOB: 06000244	CAD: 06000244SU-01
	DR. DLW	CH. JDH
	BOOK 102-104	PG. 16-17
	SHEET 1 OF 3	DATE: 8/6/07
FILE NO. 5102-201		
 www.atwell-hicks.com 866 850 4200		
ARIZONA FLORIDA ILLINOIS MICHIGAN OHIO PENNSYLVANIA TENNESSEE Engineering Surveying Planning Environmental Ecological Water Resources		

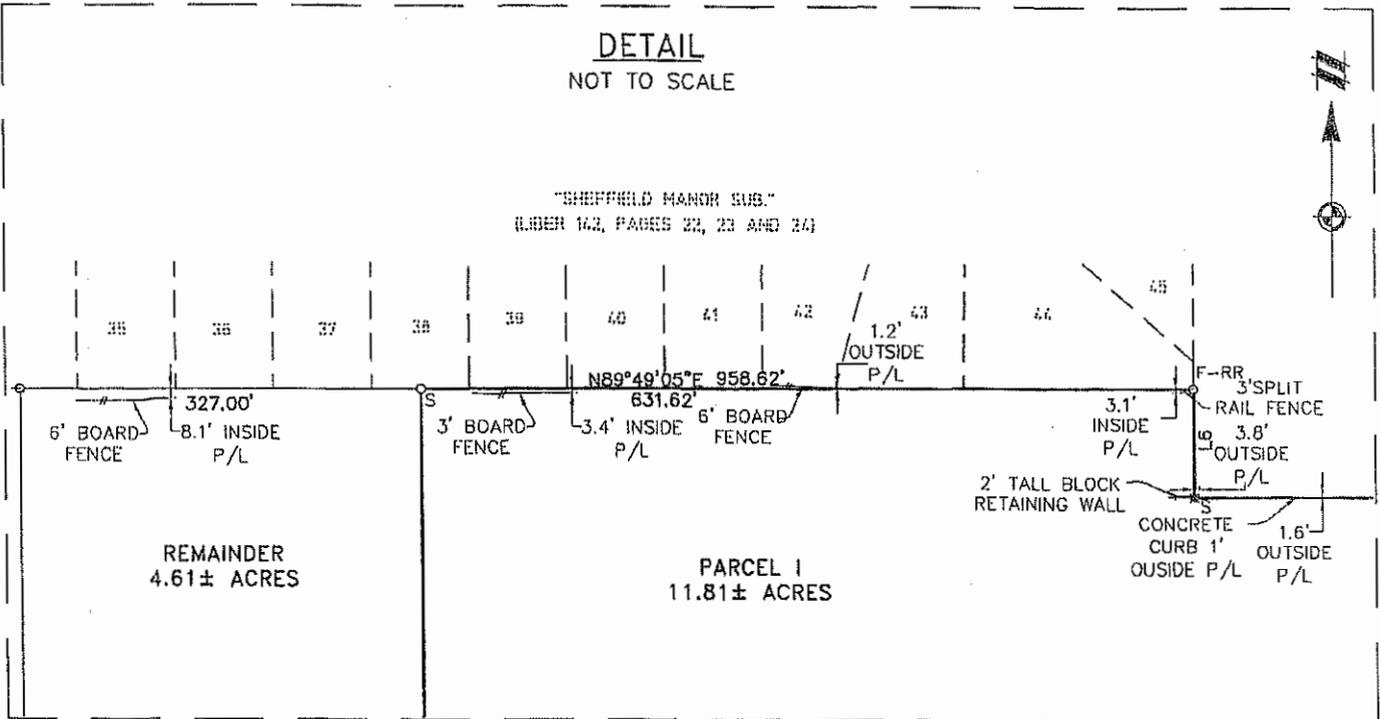


PROFESSIONAL SURVEYOR
NUMBER 49352

SCALE: 0 150 300
1 INCH = 300 FEET

DETAIL
NOT TO SCALE

"SHEPPARD MANOR SUB."
(LIBER 142, PAGES 22, 23 AND 24)



LEGEND

- O_F FOUND IRON PIPE
- O_{F-RR} FOUND IRON ROD
- O_S SET IRON PIPE
- x_S SET CHISLED X
- x_F FOUND PK NAIL
- x_S SET PK NAIL
- //— FENCE LINE
- P/L PROPERTY LINE
- ⊙ SECTION CORNER
- P.O.B. PLACE OF BEGINNING
- R.O.W. RIGHT-OF-WAY

LINE TABLE		
LINE	BEARING	LENGTH
L1	N00°01'30"E	120.00'
L2	S89°30'00"W	60.00'
L3	S44°48'54"W	42.60'
L4	N00°01'30"W	12.00'
L5	N45°15'40"W	42.22'
L6	S00°01'30"E	88.57'
L7	S89°30'00"W	60.00'

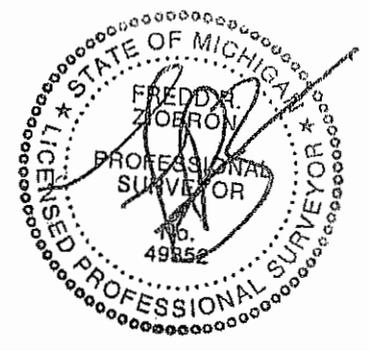
CURVE TABLE					
CURVE	LENGTH	RADIUS	DELTA	CHD. BEARING	CHORD
C1	289.06'	185.00'	89°31'26"	N44°44'15"E	260.54'
C2	24.33'	285.00'	4°53'29"	S87°03'17"W	24.32'
C3	299.93'	285.00'	60°17'48"	S59°21'06"W	286.28'
C4	275.60'	285.00'	55°24'21"	S56°54'21"W	264.99'

SECTION CORNER WITNESSES:
SOUTHEAST CORNER SECTION 19
FOUND REMON DISC, PS #17623
S06°E 85.00' TOP NW BOLT ON LIGHT POLE BASE
S86°E 86.60' TOP NW BOLT ON LIGHT POLE BASE
N68°W 57.20' TOP SE BOLT ON LIGHT POLE BASE
N17°E 92.50' TOP SW BOLT ON LIGHT POLE BASE

SOUTH 1/4 CORNER SECTION 19
FOUND REMON DISC, PS #17623
N11°W 55.20' PK & REMON WASHER WEST
FACE GUIDE POLE
N66°W 119.30' TOP NUT ON HYDRANT
S76°E 104.22' NW CORNER OF CB
S01°W 35.20' TOP NUT ON HYDRANT

EAST 1/4 CORNER SECTION 19
FOUND REMON DISC, PS #17623
WEST 49.88' PK & REMONE WASHER N FACE POWER POLE
EAST 60.11' FOUND CONCRETE MONUMENT
N35°E 5.27' SW CORNER LIGHT POLE BASE
S02°E 94.65' NW CORNER LIGHT POLE BASE

CLIENT: RICHARDSON DEVELOPMENT GROUP SKETCH & DESCRIPTION OF PARCELS I & II LOCATED IN SECTION 20 TOWN 2 NORTH, RANGE 11 EAST CITY OF TROY OAKLAND COUNTY, MICHIGAN	JOB: 06000244 DR. DLW	CAD: 06000244SU-01 CH. JDH
	BOOK: 102-104 SHEET 2 OF 3	PG. 16-17 DATE: 8/6/07
	FILE NO.: 5102-201A	
	www.atwell-hicks.com 866 830 4200	
	ARIZONA FLORIDA ILLINOIS MICHIGAN OHIO PENNSYLVANIA TENNESSEE	Engineering Surveying Planning



PROFESSIONAL SURVEYOR
NUMBER 49352

SCALE: 1 INCH = 100 FEET

PARENT PARCEL: (Tax I.D. No.: 20-19-430-002)

Commencing at the Southeast Corner of Section 19, T2N, R11E, City of Troy, Oakland County, Michigan; thence N00°01'30"W 1240.08 feet along the East line of said Section 19; thence S89°30'00"W 60.00 feet for a PLACE OF BEGINNING; thence S89°30'00"W 1007.36 feet along the North right-of-way line of Cunningham Drive (100.00 feet wide); thence continuing 299.93 feet along the arc of a 285.00 foot radius circular curve to the left, with a central angle of 60°17'48", having a chord which bears S59°21'06"W 286.28 feet along the North right-of-way line of said Cunningham Drive; thence N89°38'37"W 104.94 feet; thence N00°01'30"W 680.20 feet; thence N89°49'05"E 958.62 feet along the South line of "Sheffield Manor Subdivision" as recorded in Liber 142, Pages 22-24, Oakland County Records; thence S00°01'30"E 88.57 feet; thence N89°58'30"E 400.00 feet; thence S00°01'30"E 440.77 feet along the West right-of-way line of Coolidge Highway (120.00 feet wide) to the Place of Beginning, containing 16.42 acres of land, more or less. Being subject to easements, conditions, exceptions and restrictions of record, if any.

PARCEL I: (Part of Tax I.D. No.: 20-19-430-002)

Commencing at the Southeast Corner of Section 19, T2N, R11E, City of Troy, Oakland County, Michigan; thence N00°01'30"W 1240.08 feet along the East line of said Section 19; thence S89°30'00"W 60.00 feet for a PLACE OF BEGINNING; thence S89°30'00"W 1007.36 feet along the North right-of-way line of Cunningham Drive (100.00 feet wide); thence continuing 24.33 feet along the arc of a 285.00 foot radius circular curve to the left, with a central angle of 04°53'29", having a chord which bears S87°03'17"W 24.32 feet along the North right-of-way line of said Cunningham Drive; thence N00°01'30"W 537.20 feet; thence N89°49'05"E 631.62 feet along the South line of "Sheffield Manor Subdivision" as recorded in Liber 142, Pages 22-24, Oakland County Records; thence S00°01'30"E 88.57 feet; thence N89°58'30"E 400.00 feet; thence S00°01'30"E 440.77 feet along the West right-of-way line of Coolidge Highway (120.00 feet wide) to the Place of Beginning, containing 11.81 acres of land, more or less. Being subject to easements, conditions, exceptions and restrictions of record, if any.

REMAINDER PARCEL I: (Part of Tax I.D. No.: 20-19-430-002)

Commencing at the Southeast Corner of Section 19, T2N, R11E, City of Troy, Oakland County, Michigan; thence N00°01'30"W 1240.08 feet along the East line of said Section 19; thence S89°30'00"W 60.00 feet; thence S89°30'00"W 1007.36 feet along the North right-of-way line of Cunningham Drive (100.00 feet wide); thence continuing 24.33 feet along the arc of a 285.00 foot radius circular curve to the left, with a central angle of 04°53'29", having a chord which bears S87°03'17"W 24.32 feet along the North right-of-way line of said Cunningham Drive for a PLACE OF BEGINNING; thence 275.60 feet along the arc of a 285.00 foot radius compound circular curve to the left, with a central angle of 55°24'21", having a chord which bears S56°54'21"W 264.99 feet along the Northwesterly right-of-way line of said Cunningham Drive; thence N89°38'37"W 104.94 feet; thence N00°01'30"W 680.20 feet; thence N89°49'05"E 327.00 feet along the South line of "Sheffield Manor Subdivision" as recorded in Liber 142, Pages 22-24, Oakland County Records; thence S00°01'30"E 537.20 feet to the Place of Beginning, containing 4.61 acres of land, more or less. Being subject to easements, conditions, exceptions and restrictions of record, if any.

DESCRIPTION OF PARCEL II: (Tax I.D. No.: 20-19-476-001)

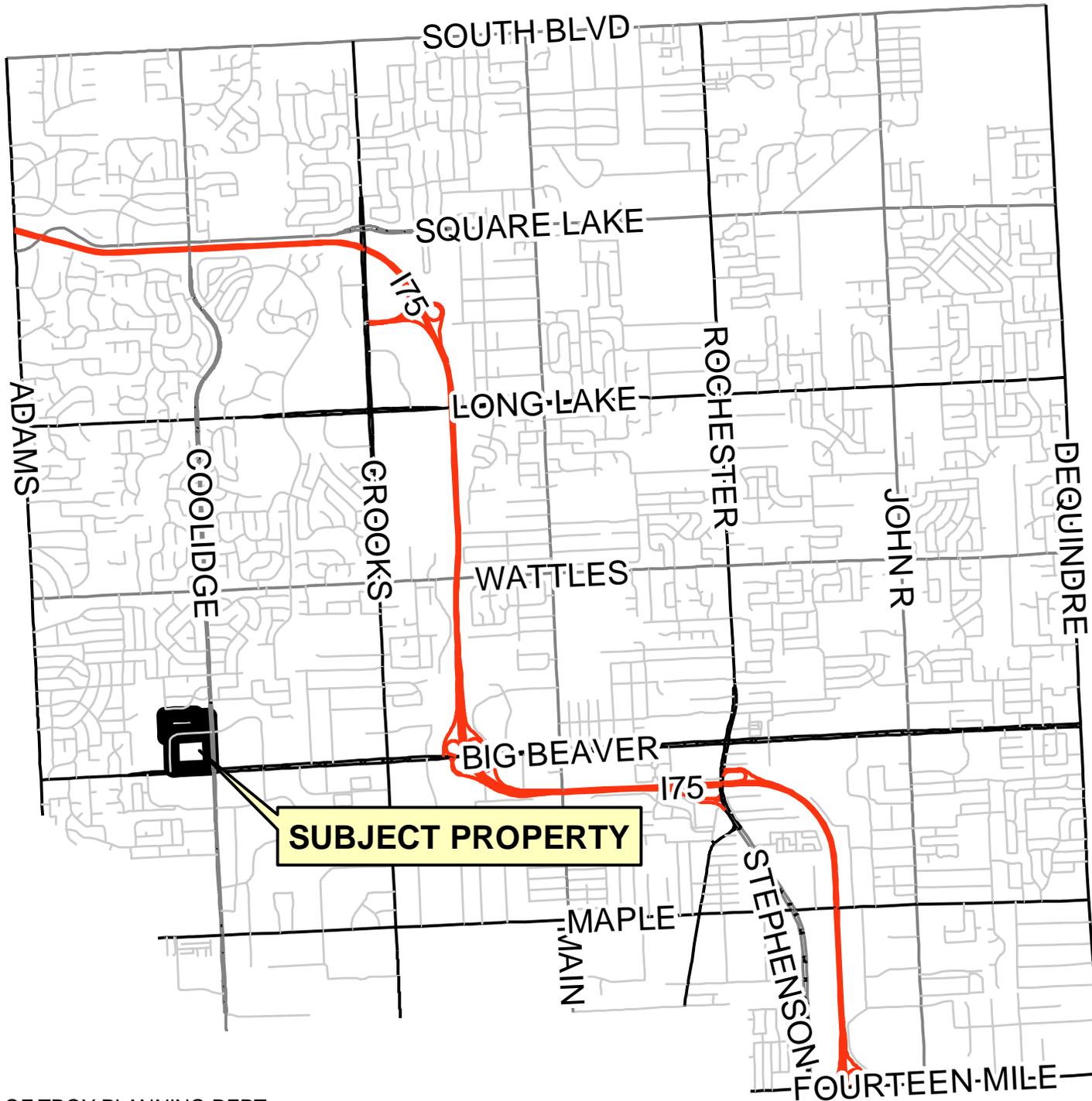
Commencing at the Southeast Corner of Section 19, T2N, R11E, City of Troy, Oakland County, Michigan; thence N00°01'30"W 120.00 feet along the East line of said Section 19; thence S89°30'00"W 60.00 feet for a PLACE OF BEGINNING; thence S44°48'54"W 42.60 feet; thence S89°30'00"W 903.00 feet; thence N00°01'30"W 12.00 feet; thence S89°30'00"W 227.00 feet along the North right-of-way line of Big Beaver Road (204.00 feet wide); thence N45°15'40"W 42.22 feet; thence N00°01'30"W 824.57 feet along the East right-of-way line of Cunningham Drive (100.00 feet wide); thence along the Southeasterly right-of-way line of said Cunningham Drive 289.06 feet along the arc of a 185.00 foot radius circular curve to the right, with a central angle of 89°31'26", having a chord which bears N44°44'15"E 260.54 feet; thence N89°30'00"E 1006.55 feet (recorded as 1006.53 feet) along the South right-of-way line of said Cunningham Drive; thence S00°01'30"E 1020.06 feet (recorded as 1020.04 feet) along the West right-of-way line of Coolidge Highway (120.00 feet wide) to the Place of Beginning. EXCEPTING that part of Parcel II described as follows: Commencing at the Southeast Corner of Section 19, T2N, R11E, City of Troy, Oakland County, Michigan; thence N00°01'30"W 120.00 feet along the East line of said Section 19; thence S89°30'00"W 60.00 feet; thence S44°48'54"W 25.53 feet for a PLACE OF BEGINNING; thence continuing S44°48'54"W 17.07 feet; thence S89°30'00"W 903.00; thence N00°01'30"W 12.00 feet; thence N89°30'00"E 915.03 feet along the Northerly right-of-way line of said Big Beaver Road to the Place of Beginning. Said parcel, less its exception contains 28.18 acres of land, more or less. Being subject to easements, conditions, exceptions and restrictions of record, if any.

CLIENT: RICHARDSON DEVELOPMENT GROUP SKETCH & DESCRIPTION OF PARCELS I & II LOCATED IN SECTION 20 TOWN 2 NORTH, RANGE 11 EAST CITY OF TROY OAKLAND COUNTY, MICHIGAN	JOB: 06000244 DR. DLW BOOK 102-104 SHEET 3 OF 3 FILE NO. 5102-201B	CAD 06000244SU-01 CH. JDH PG. 16-17 DATE: 8/6/07
	 ATWELL-HICKS www.atwell-hicks.com 866 850 4200	
	ARIZONA FLORIDA ILLINOIS MICHIGAN OHIO PENNSYLVANIA TENNESSEE Engineering Surveying Planning Environmental Ecological Water Resources	
	PROFESSIONAL SURVEYOR NUMBER 49352	

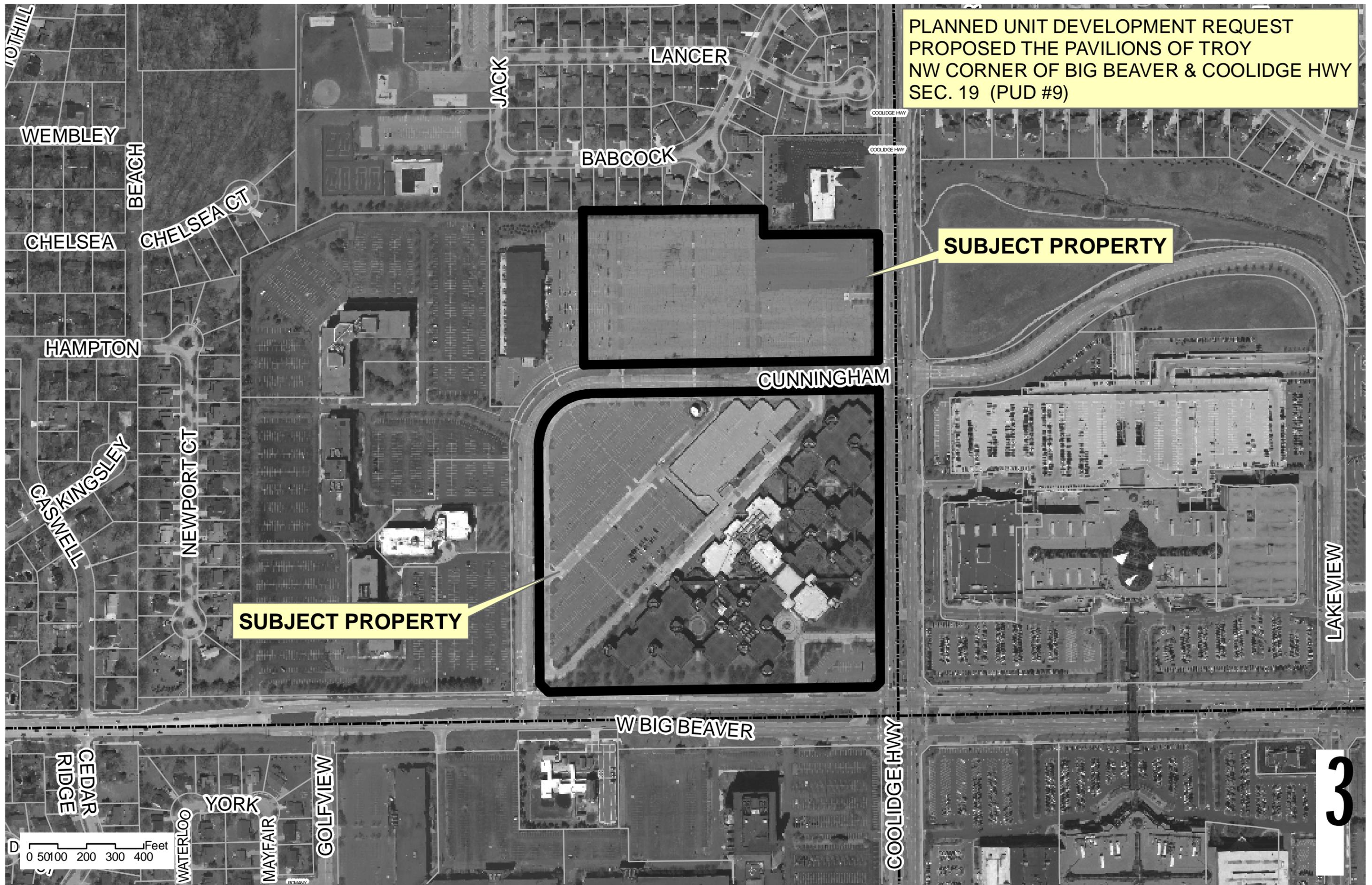


PROFESSIONAL SURVEYOR
 NUMBER 49352

CITY OF TROY



PLANNED UNIT DEVELOPMENT REQUEST
PROPOSED THE PAVILIONS OF TROY
NW CORNER OF BIG BEAVER & COOLIDGE HWY
SEC. 19 (PUD #9)

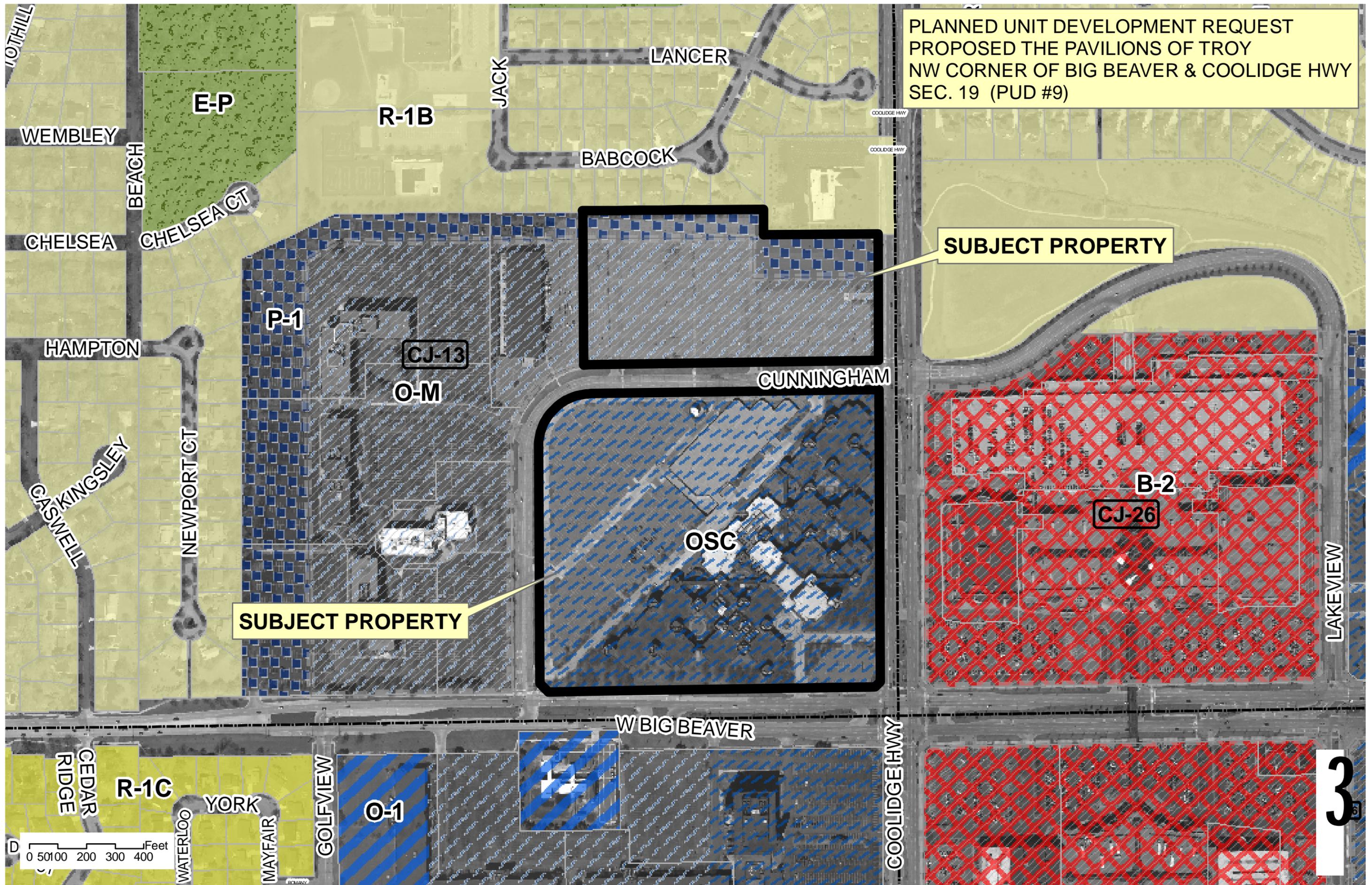


SUBJECT PROPERTY

SUBJECT PROPERTY

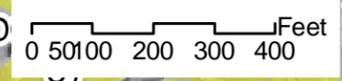
0 50 100 200 300 400 Feet

PLANNED UNIT DEVELOPMENT REQUEST
PROPOSED THE PAVILIONS OF TROY
NW CORNER OF BIG BEAVER & COOLIDGE HWY
SEC. 19 (PUD #9)



SUBJECT PROPERTY

SUBJECT PROPERTY





CARLISLE/WORTMAN ASSOCIATES, INC.
Community Planners /Landscape Architects

605 S. Main, Suite 1
Ann Arbor, MI 48104
734-662-2200
fax 734-662-1935

6401 Citation Drive, Suite E
Clarkston, MI 48346
248-625-8480
fax 248-625-8455

Date: September 25, 2007

Planned Unit Development/Site Plan Review For City of Troy, Michigan

GENERAL INFORMATION

Applicant	Richardson Development Group
Project Name:	Pavilions of Troy PUD
Plan Date:	September 4, 2007
Latest Revision:	September 4, 2007
Location:	Northeast corner of Big Beaver and Coolidge
Zoning:	O-S-C Office Service Commercial, O-M Office Medical, and P-1 Vehicle Parking
Action Requested:	<p>City Council approval of the Concept Development Plan. The procedure for review and approval of a PUD is a three-step process.</p> <ul style="list-style-type: none">• The first step is an application for and approval of a Concept Development Plan, along with a Development Agreement. The Concept Development Plan and Development Agreement are approved by the City Council following recommendation of the Planning Commission. Such action, if and when approved, shall confer upon the applicant approval of the Concept Development Plan and shall rezone the property to PUD in accordance with the terms and conditions of the Concept Development Plan approval. The Planning Commission recommended approval of the Concept Development Plan on September 11th.• The second step of the review and approval process is application for and approval of a Preliminary Development Plan (preliminary site plan) for the entire project, or for any

one or more phases of the project. City Council shall have the final authority to approve and grant Preliminary Development Plan approvals, following a recommendation by the Planning Commission.

- The third step of the review and approval process is the review and approval of a Final Development Plan (final site plan) for the entire project, or for any one or more phases of the project, and the issuance of building permits. Final Development Plans for Planned Unit Developments are submitted to the Planning Department for administrative review, and the Planning Department, with the recommendation of other appropriate City Departments, has final authority for approval of such Final Development Plans.

Required Information:

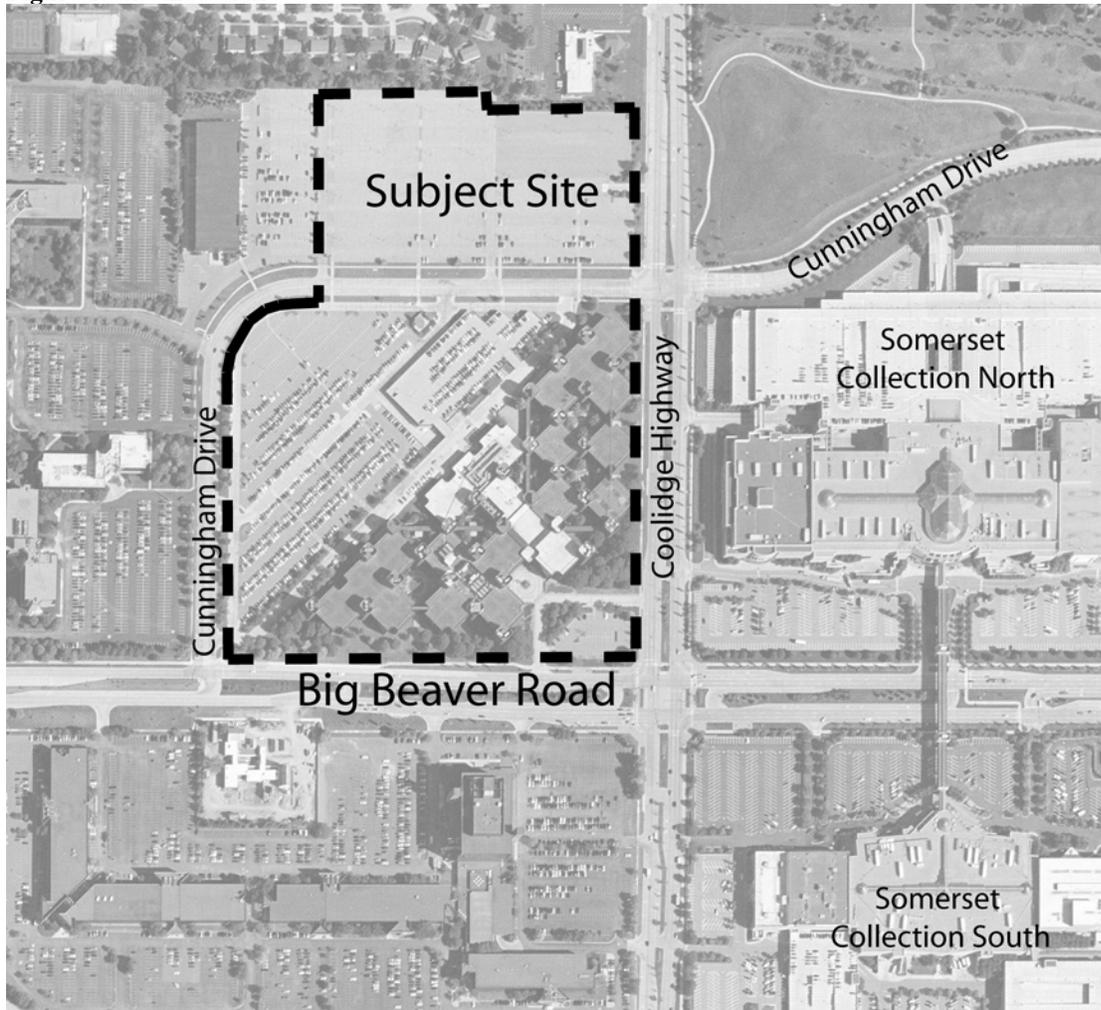
Provided. The applicant has submitted an extensive application which includes the following:

- PUD Application
- Executive Summary
- Conceptual Plan
- Community Impact Statement
- Development Guidelines
- Traffic Impact Assessment
- Shared Parking Analysis
- Environmental Impact Statement
- PUD Agreement
- Team Credentials

PROJECT, SITE DESCRIPTION, AND CONCEPT PLAN

The applicant proposes a visionary and aggressive reuse/redevelopment of the former K-Mart Headquarters site. With the exception of the Sears data processing operations located in the northwest corner of the site, the existing headquarters buildings are vacated.

Figure 1: Site Location



Located on forty (40), acres at the northwest section of Big Beaver and Coolidge, the project is envisioned as a mixed use project with a distinctive urban flavor. Planned in two phases, the project at full buildout will consist of residential, office, hotel, institutional and retail uses as follows:

- Residential uses (750 units), including townhomes, multiple family buildings, lofts, and senior housing
- Office uses (300,000 square feet) including general, professional, and medical offices, research, and financial institutions
- Hotel use (250 rooms)
- Retail uses (500,000 sq. ft.) including general and specialty retail, full service restaurants, and bars and take-out restaurants and entertainment and fitness center.

- Miscellaneous Institutional and accessory uses which may include public facilities, churches, and transit centers and will include parking structures and other accessory uses

Phase I will consist primarily of the central core of the project along with portions that extend out to Coolidge. The elements of Phase I include:

- Residential uses (100-250 units), including lofts, condominiums, and apartments.
- General office and retail uses (200,000-600,000 sq.ft.) including general and special retail, entertainment, restaurants, fitness centers, and offices.

Council Members should be aware that, while ranges of units and/or building areas are depicted for Phase I, the ultimate areas are depicted for Phase I, the ultimate threshold of what will be built is dictated by the total buildout indicated above.

THE CONCEPT PLAN

The Concept Plan organizes the site into four major thematic areas. The extreme northern boundary adjacent to the existing single family residential area to the north is designated as Residential Area where densities are the lowest and use is exclusively devoted to residential. Adjacent to the south is Transition Area which will also be predominantly residential but where a compatible mixture of retail and office uses will be introduced.

The core of the project will be the Pavilion Area envisioned as the central organizing feature of the project. While a significant number of residential units are included, (100-250 units), the Pavilion Area will include a concentration of retail, restaurant, and entertainment uses.

The Pavilion Area will be bordered on the east, (fronting Coolidge), and on the west, (fronting Cunningham), by the Border Area. This area will include residential, office, hotel, and retail uses.

SUMMARY OF SIGNIFICANT FINDINGS AND CONCLUSIONS

- **Land Use Mix** -The project will be unique to Troy by providing both a horizontal and vertical mix of uses. Proposed uses include: 750 residential units; 300,000 square feet of office space; 250 room hotel; and 500,000 square feet of retail use. The Pavilion will reuse/redevelop a site that is no longer viable and would otherwise be unusable in its present state.
- **Phasing**-The project will be built in two phases. Phase 1 is primarily the central core of the project and will include 100-250 residential units and 200-600,000 square feet of office and retail uses.
- **Sustainable Design**-The applicant has made a commitment to seek LEED certification to the extent possible for building design and low impact development (LID) methods for site design specifically to control stormwater quality and enhance quality.

- **Site Amenities**-The site will incorporate a number of publicly accessible site amenities that include an outdoor skating rink, gathering space for civic events, public art, outdoor seating areas and resident park and play areas.

Open space is reflective of a project which is urban in character and will consist of both landscape and greenspace.

- **Walkability**- Major features of the site will be interconnected with internal walkways that connect with walkways that border the site along Coolidge at Big Beaver. The site will be externally linked with three pedestrian crossings along Coolidge and one on Big Beaver.
- **Site Access/Traffic Assessment**-In addition to Cunningham, the site will be accessed at three points on Coolidge and one entrance on Big Beaver. A number of road improvements will occur for Phase 1 as further discussed and documented in a report by Birchler Arroyo and attached to this report.

Since the preparation of the Birchler Arroyo was issued, a supplemental report was prepared which discusses the issue of signage spacing and improvements. The general reaction from the RCOC was that the spacing and road improvements are acceptable.

- **Setbacks/Transitions**-The proposed project will provide a 100 foot setback along the northern residential boundary and will incorporate lower density residential uses as a transition. Building heights will not exceed 40 feet in height in this area.

Along Big Beaver, the setback was increased for 10 to 15 feet and along Coolidge Road the setback will be 25 feet.

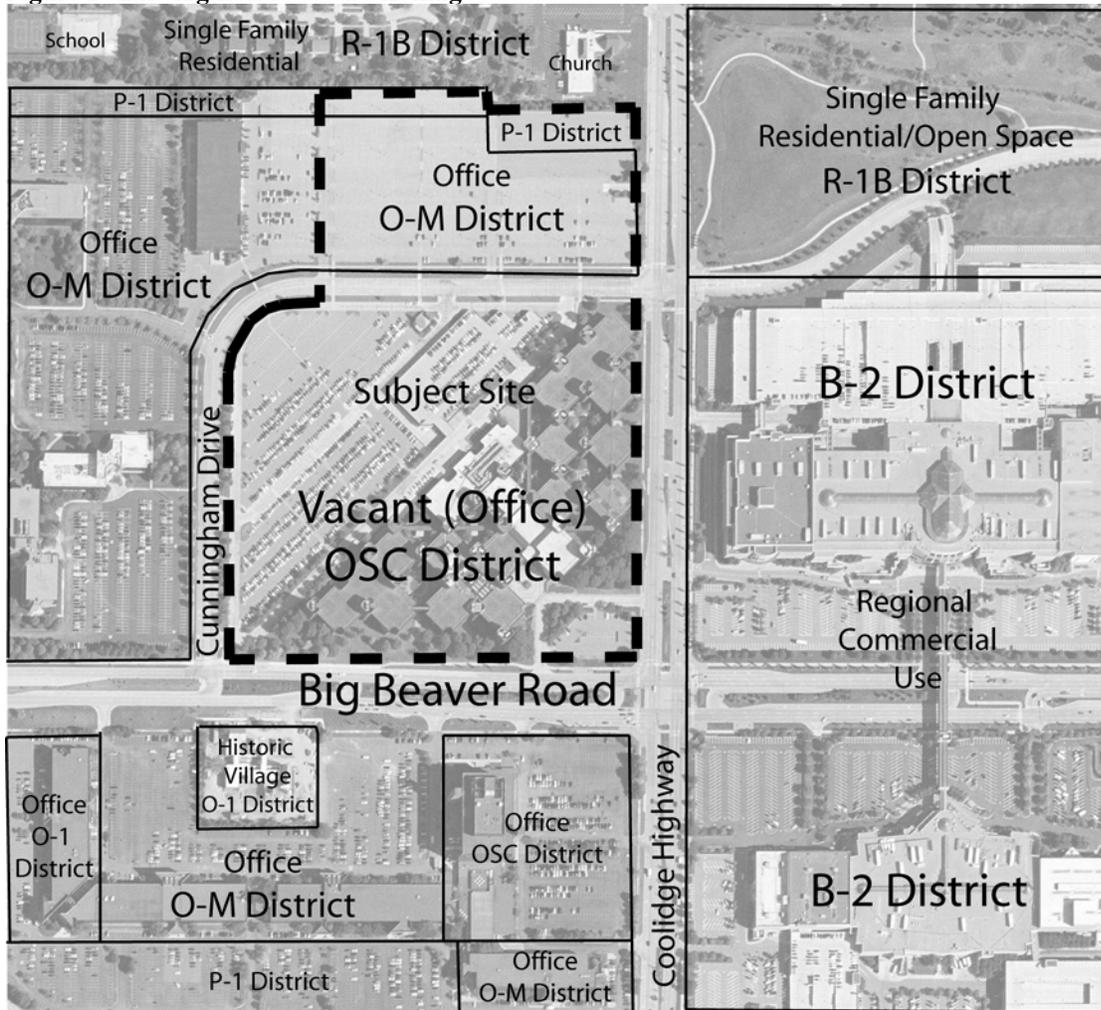
- **Visual Image/External Boundaries**-In response to comments, specific attention was paid to the visual image from external thoroughfares. Consistent with the Big Beaver Corridor Plan, landscape greenbelt concepts have been developed that will soften the image of parking in Phase 1 and the buildout of buildings in the latter phase.

As called for in the Corridor Plan, an iconic image will be created at the intersection of Big Beaver and Coolidge that will feature a backdrop of extensive greenery.

NEIGHBORING ZONING AND LAND USE

With the exception of the northerly boundary, the site is primarily surrounded by non-residential use. The area to the north is zoned, R-1B One Family Residential and is currently a residential subdivision and church. Across Big Beaver, the area is zoned O.S.C. Office Service Commercial, O.M., Office Mid-rise and O-1, Office Building all devoted to existing office. To the east, the area is zoned B-2, Community business devoted to Somerset and R-1B which is open space. Adjacent to the site to the west is O-M, Office Mid-rise.

Figure 2: Existing Land Use and Zoning



Items to be Addressed: none

MASTER PLAN

Master Plan designations replicate current zoning patterns. The subject site is designated Mid-rise Office, (inside Cunningham), and Low-rise Office, (North and West of Cunningham). The area to the north is planned for low density single family residential. The Northeast corner of Big Beaver and Coolidge is planned Regional Center and low density transition. The Southeast corner is planned Regional Center. The southwest corner is a combination of Mid-rise and Low-rise office.

Figure 3: Future Land Use



However, the Big Beaver Corridor Plan has a more ambitious vision for the site. Located within the area designated as “Troy City Center” an urban mixed use district is envisioned. This area is intended to become the heart of the City. The Building Use Plan calls for mixed use of office, residential and retail within the core of the site, multiple family as a transition to the north and some commercial along Coolidge. Therefore, the Pavilions of Troy PUD is consistent with the vision of the Corridor Plan.

Items to be Addressed: None.

PUD STANDARDS

The PUD provisions of the Zoning Ordinance are found in article XXXV. Criteria are set forth in Section 35.30.00 for consideration of a PUD project as a PUD. The following are our comments:

Section 35.30.00, A. The proposed development shall be applied for by a person or entity that has the legal right to execute a binding agreement concerning all process on the development.

The applicant, Richardson Development, is authorized to apply for Concept Development Plan approval on behalf of Diamond Troy JV LLC.

Section 35.30.00, B.: The applicant shall demonstrate that through the use of the PUD option, the development will accomplish a sufficient number of the following objectives, as are reasonably applicable to the site, providing:

1. A mixture of land uses that would otherwise not be permitted without the use of the PUD provided that other objectives of this Article are also met.

The project will include both a horizontal and vertical mix of uses, the first of its kind in the City of Troy. Such a project is consistent with the Big Beaver Corridor Plan and would be impossible to implement using conventional zoning techniques.

2. A public improvement or public facility (e.g. recreational, transportation, safety and security) which will enhance, add to or replace those provided by public entities, thereby furthering the public health, safety and welfare.

The Pavilions of Troy will include a variety of civic spaces designed for public gathering and events. The site will be interconnected with internal walkways that extend to and connect with walkways that border the site on Big Beaver and Coolidge. Both active (e.g. outdoor skating and play areas) and passive recreational and leisure activities will be incorporated in the site. Roadway improvements will be made to both Coolidge and Big Beaver to improve access into the site and to ensure more safe pedestrian access between the site and nearby uses.

3. A recognizable and material benefit to the ultimate users of the project and to the community, where such benefit would otherwise be infeasible or unlikely to be achieved absent these regulations.

The proposed project represents state of the art thinking in terms of viable sustainable mixed use development. As stated, implementing the project through conventional zoning techniques would not be possible. Further, the Corridor Plan calls for the type of uses proposed by the applicant.

4. Long term protection and preservation of natural resources, natural features, and historic and cultural resources, of a significant quantity and/or quality in need of protection or preservation, and which would otherwise be unfeasible or unlikely to be achieved absent

these regulations.

As the site is currently developed, there are few, if any, natural features which exist. The applicant has been challenged to develop the site using sustainable green building and site design techniques. As a result, a significant number of measures are identified in the Development Guidelines, Section 12. This includes seeking LEED certification, to the extent possible, for building design and employing low impact design methods for stormwater management to control quantity and enhance quality.

5. A compatible mixture of open space, landscaped areas, and/or pedestrian amenities.

Section 3 of the Development Guidelines discusses proposed project amenities which will include:

- *Ice skating rink*
- *Open air civic gathering space(s)*
- *Outdoor seating areas*
- *Public art*
- *Park and play areas for residents*

As indicated, the project will consist of a combination of greenspace, hardscape (plazas and walkways) and buffers. Of the 40 acres, 7.5 acres or 18.5% will be devoted to some form of open space. Given the urban nature of the project, some of the open space will be paved, or hardscape areas, devoted to walkways, plazas and sitting areas. There will also be green space in the form of transitional buffers and park/play area.

Also as requested, attention has been paid to the visual image from the adjoining thoroughfares. In keeping with the Big Beaver Corridor Plan, landscape greenbelt concepts are illustrated (Development Guidelines, Sec. 10) from both roadways that will be attractive and will soften the appearance of buildings and parking.

A particular concern has been expressed regarding the Big Beaver/Coolidge corner image. The Corridor Plan calls for a “green” gateway feature. A concept is illustrated in the Development Guidelines, Section 5, which will be installed during Phase I.

6. Appropriate land use transitions between the PUD and surrounding properties.

As requested, a more substantial buffer has been provided between the project and the residential area to the north. A 100’ setback will be provided from the nearest building

to the northerly property boundary.

7. Design features and techniques, such as green building and low impact design, which will promote and encourage energy conservation and sustainable development.

Section 12 of the Development Guidelines enumerates the variety of low impact and sustainable design measures that will be pursued. In addition to seeking LEED certifiable methods, a number of Low Impact Design methods will also be used.

8. Innovative and creative site and building designs, solutions and materials.

In addition to the sustainable design methods cited above, the mixed use nature of the project is intended to foster economic sustainability. The focus of the project on the Pavilions Area is the central focus of activity, the emphasis on street activity and the fostering of a walkable environment make this project unique.

The challenge for the bit the City and the applicant will be how this activity can be “exported” to the other three corners of Big Beaver and Coolidge to avoid the project becoming an enclave. This will require the active involvement of the City, DDA and other property owners.

9. The desirable qualities of a dynamic urban environment that is compact, designed to human scale, and exhibits contextual integration of buildings and city spaces.

Viable urban environments have a mix of uses with a strong emphasis on street activity. Ground floor retail, restaurant and entertainment uses along with both formal and informal outdoor activity will create this dynamic environment. A strong pedestrian network, as mitigated throughout the project, is essential to creating the environment.

10. The PUD will reasonably mitigate impacts to the transportation system and enhance non-motorized facilities and amenities.

A number of measures will be employed to offset traffic impact. These measures are discussed more fully in the section of this report entitled “Traffic Impact.” We have already discussed the enhanced walkability of the project.

11. For the appropriate assembly, use, redevelopment, replacement and/or improvement of existing sites that are occupied by obsolete uses and/or structures;

The Pavilions of Troy PUD will be redeveloping what would be an otherwise difficult building and property to simply reuse. Due to the single use nature of the existing building for office space, it is unlikely it can be occupied by either a single office user or divided for multiple users.

12. A complementary variety of housing types that are in harmony with adjacent uses;

As with the balance of the project, a mix of housing is provided to appeal to a broader market. Particularly noteworthy is the addition of senior housing to this site, thereby providing for a generational mix of residents.

13. A reduction of the impact of a non-conformity or removal of an obsolete building or structure.

Please refer to comment #11 above.

14. A development consistent with and meeting the intent of this Article; and will promote the intent of the plan meeting the requirements of the Municipal Planning Act or the intent of any applicable corridor or sub-area plans. If conditions have changed since the plan, or any applicable corridor or sub-area plans, were adopted, the uses shall be consistent with recent development trends in the area.

As mentioned earlier, while the proposed project does not meet the Master Land Use Plan designation for office use for the project, it does advance the Big Beaver Corridor Plan.

15. Includes all necessary information and specifications with respect to structures, heights, setbacks, density, parking, circulation, landscaping, amenities and other design and layout features, exhibiting a due regard for the relationship of the development to the surrounding properties and uses thereon, as well as to the relationship between the various elements within the proposed Planned Unit Development. In determining whether these relationships have been appropriately addressed, consideration shall be given to the following:
 - A. The bulk, placement, and materials of construction of the proposed structures and other site improvements.

In the Development Guidelines, Section 4, proposed architectural and building characteristic are provided in conceptual form. The concept set forth in Section 4 is consistent with the Big Beaver Corridor Plan which emphasizes the “street presence” of building and a sense of enclosure. This concept is modified in an

appropriate manner within the various districts of the site.

- B. The location and screening of vehicular circulation and parking areas in relation to surrounding properties and the other elements of the development.
Typical screening measures are provided in the Development Guidelines, Section 6. Views along perimeter streets are also provided in Section 9.
 - C. The location and screening of outdoor storage, loading areas, outdoor activity or work areas, and mechanical equipment.
Typical screening measures are discussed in the Development Guidelines, Section 9.
 - D. The hours of operation of the proposed uses.
Hours of operation for retail and business uses will be commensurate with normal operating hours. However, as is both typical and desired by a mixed use project of this nature, a 24/7 atmosphere is sought.
 - E. The location, amount, type and intensity of landscaping, and other site amenities.
Development Guidelines, Section 10, provides this information. Various concepts described throughout this Section suggest a strong commitment to the greenspace components of this project.
16. Parking shall be provided in order to properly serve the total range of uses within the Planned Unit Development. The sharing of parking among the various uses within a Planned Unit Development may be permitted. The applicant shall provide justification to the satisfaction of the City that the shared parking proposed is sufficient for the development and will not impair the functioning of the development, and will not have a negative effect on traffic flow within the development and/or on properties adjacent to the development.

Please refer to the section of this report entitled Parking and Loading.
17. Innovative methods of stormwater management that enhance water quality shall be considered in the design of the stormwater system.

As indicated earlier, the applicant has committed to stormwater management methods that will both control quantity and improve quality.
18. The proposed Planned Unit Development shall be in compliance with all applicable Federal, State and local laws and ordinances, and shall coordinate with existing public facilities.

On the basis of the information provided all applicable laws and ordinances will be observed.

Items to be Addressed: None.

COMPARATIVE INTENSITY ANALYSIS

Existing Site

The subject is 44.6 acres with 28.2 acres located within the inner ring created by Cunningham and 16.4 acres outside the inner ring north of Cunningham.

The existing buildings on the site consist of the Former K-Mart Headquarters at 932,772 square feet and the current Sears (K-Mart) data center at 89,158 square feet for a total of 1,021,930 square feet.

Current Zoning

The 28.2 acres within the inner ring are zoned OSC-Office Service Commercial. OSC would permit 30,000 square feet of building area per acre amounting to 845,300 square feet. The 16.4 acres north of Cunningham are OM-Mid-Rise-Office. OM would permit 20,000 square feet of building area per acre or 328,500 square feet.

Therefore, the total potential development as zoned is 1,173,800 square feet.

Big Beaver Corridor Plan

The site is located within the area designated as the Troy City Center which calls for more intense development than current zoning.

The plan designates the inner ring in an equal amount of mixed use retail, office and residential at 7-8 stories in height and multiple family at 4-6 stories in height. The ground floor lot coverage in this area could reach fifty (50) percent of the site area, with integrated parking provided with buildings. Using conservative estimates of build-out potential, approximately 2,300,000 square feet of building is possible in this area, not including parking.

The area north of Cunningham is designated for multiple family and commercial at much less intensity than the central core of the site. Assuming fifteen (15) percent lot coverage, the northerly portion of the site would accommodate over 300,000 square feet. Therefore, the total building potential based on the Corridor Plan is 2,600,000 square feet.

Pavilions PUD

Although specific square footages have not been provided for every use (i.e., dwellings and hotel), the applicant has represented that the overall project would be between 1.8 and 1.9 million square feet.

However, applying reasonable assumptions to the area associated with both the dwellings and hotel space, I arrived at the following estimates of total square feet:

<u>Uses</u>	<u>Sq. Ft.</u>
Residential (750 units @ 1200 sq.ft./unit)=	900,000
Hotel (250 rooms @ 600 sq.ft./room) =	150,000
Office=	300,000
Retail=	<u>500,000</u>
	1,850,000

Therefore, the applicant's representation of 1.8-1.9 million square feet seems reasonable. The intensity of the Pavilions project is well within the range of intensity anticipated by the Big Beaver Corridor Plan.

AREA, WIDTH, HEIGHT, SETBACKS

The project site is 40 acres in size with over 900 feet of frontage on Big Beaver and nearly 1500 feet of frontage on Big Beaver. The most critical issue of setbacks is at the perimeters addressed as follows in the Development Guidelines, Section 4:

- 100 foot building setback from the neighborhood to the north as defined in the Neighborhood District section.
- 15 foot building setback along Big Beaver Road.
- 25 foot building setback along Coolidge Highway.
- 10 foot building setback along Cunningham Road and the Sears Data Center.
- Zero lot lines internal to the project, consistent with the design of a dense multi-use environment.

The 100 foot setback to the north was increased in response to previous comments. The setback along Big Beaver has been increased from 10 to 15 feet to address comments regarding the area available to incorporate aesthetic improvements.

Internally, the applicant is requesting 0 lot line setbacks. Such an approach is typical with a project of this nature and is subject to applicable building code requirements. In reviewing the Concept Plan, there will be separation between certain buildings, primarily where such buildings are in proximity to parking structures.

Building height/massing is depicted in the Conceptual Plan, Section 2. Heights generally transition from the main road internally (i.e. greater heights along Big Beaver and Coolidge). In the central core of the project, Pavilion Area, heights range from 75-100 feet.

Along the northerly boundaries, where compatible heights are critical, heights are reduced from 75' to 40'. In other words, heights that are in closest proximity to the neighboring subdivision will not exceed 40'.

Items to be Addressed: None.

PARKING, LOADING

The applicant has submitted a detailed analysis evaluating characteristics of parking in a mixed use project. As with traditional traffic analysis, parking is treated by the Zoning Ordinance on the basis of individual uses. We have found that most mixed use projects will have different peak demand for the various uses. We think the Executive Summary (p.1) of the Shared Parking Analysis explains the concept very well:

The general principle of shared parking is that two or more uses can utilize a single parking space without encroachment. This concept has been newly revised with the development of compact, mixed-use town centers. This type of development lends itself to applying shared parking principles maximize the use of infrastructure while minimizing impacts to the environment created by the construction of unnecessary parking.

The specific methodology used by the applicant involves a combination of applying parking standards from the Urban Land Institute (ULI) coupled with adjustments for shared parking based on peak demand of various uses. This analysis further compares adjusted ULI industry standards with both actual and adjusted City of Troy standards. The result of the applicant's analysis will result in a 38% reduction in parking from what the City would require if each use would consider individually.

We have had extensive discussion regarding the methodology used by the applicant and agree that a conventional application of Ordinance standards would not be reasonable for a project of this nature. Furthermore, the applicant is willing to revisit the issue following completion of Phase I should the City request an evaluation.

We also note that the applicant has performed a parking analysis on a block-by-block basis, which is useful in determining whether the distribution of parking is appropriate. Assuming the applicant is correct in their calculation of the quantity of parking, the overall distribution seems reasonable.

Items to be Addressed: Language in the Development Agreement allowing City to request parking analysis after completion of Phase I.

SITE ACCESS AND CIRCULATION

In addition to traffic analyses performed by Dr. Abraham, the City's Traffic Engineer, Rod Arroyo of Birchler Arroyo has been retained to prepare a detailed analysis of the traffic impact study submitted by the applicant. A number of meetings have been held with the relevant parties of both the City and applicant. The full text of Mr. Arroyo's report is included as Attachment I, including a supplemental report issued later.

Site Access

The site is proposed to be accessed via existing and new driveways.

- A major boulevard entrance is proposed on Big Beaver.
- In addition to Cunningham, there will be three (3) access points to Coolidge.
- On Cunningham, there will be multiple access points.

The specific characteristics and limitations of each drive is described more fully in the Traffic Report prepared by Rod Arroyo.

Traffic Impact

As indicated in our report dated July 19, 2007 report, the basis for all traffic analysis rests within the accuracy of trip generation figures. Mixed use projects add complexity to the analysis because standard trip generation rates must be adjusted to compensate for varying peak demand. It is the conclusion of the Arroyo report that the applicant's traffic impact assessment accurately forecasts traffic volumes using accepted methodology. As a result, improvements will be needed.

Proposed Improvements

There are a number of road improvements anticipated during Phase I. A significant "non-improvement" will be keeping Cunningham in its current location. Cunningham is part of the northern collector system and its function will be preserved.

In summary, other Phase I improvements include:

- Addition of a new traffic signal and associated lane capacity improvements on Coolidge at the existing access into Somerset between Nordstrom and the parking garage. This will not only improve access into the site, but will facilitate pedestrian access across Coolidge.

- Closing of the first two median openings on Coolidge and constructing a new media opening (cross over) north of Big Beaver. This will allow northbound u-turns.
- The unsignalized eastbound-to-westbound crossover located east of Cunningham on Big Beaver will be closed and the traffic will be diverted to the crossover just west of Coolidge Highway. The signalized westbound-to-eastbound crossover on Big Beaver west of Coolidge Highway will be relocated 400 feet west of its current location.
- Lane and signal improvements at Big Beaver/Adams, Coolidge/Maple, and Big Beaver/Crooks.

Upon completion of the Phase I, the balance of the project calls for the northly access drive to be completed through the site and connected with Cunningham on the westerly boundary. The new intersection with Coolidge will require a traffic signal.

Both Rod Arroyo and Dr. Abraham expressed concerns about the close traffic signal spacing proposed by the applicant. This type of signal spacing is found in urban, downtown settings and can work well if properly coordinated. In this case, coordination along Coolidge Highway and along Big Beaver Road is necessary for smooth traffic flow.

The general reaction from the Road Commission's traffic signal department staff was that the proposed new signals and road improvements along Coolidge Highway appear to be workable. Additional analysis and adjustments will be necessary as this project comes on line. The RCOC staff felt they could operate the signal system so that northbound traffic on Coolidge Highway, north of Big Beaver Road, would not queue (back up) into the Big Beaver Road through lanes during the peak hour conditions identified in the Pavilions traffic study.

Birchler Arroyo recommends that the Applicant prepare an updated traffic impact study at the completion of Phase I to see how well the assumptions are working and make necessary adjustments for changes in tenant mix and traffic conditions. They also recommend that the City work with all major property owners in the area to coordinate holiday traffic management.

Pedestrian Circulation

A walkable environment is a goal of the Big Beaver Place and a key feature of the Pavilion project. The following summarizes the important pedestrian elements of the project:

- The Applicant is proposing three main pedestrian crossing locations on Coolidge Highway: Big Beaver Road (both sides), south of Cunningham, and the north side of the drive south of Cunningham. Currently, signalized pedestrian crossings are only provided at Big Beaver Road and Cunningham (over 1,200 feet apart). Adding a signal and pedestrian crossing at the drive south of Cunningham will significantly shorten the distance many Somerset North shoppers have to walk to cross Coolidge.
- The concept of iconic pedestrian bridges was raised in the Big Beaver Corridor Study. Although a bridge was not specifically envisioned across Coolidge at this location, the

City, Somerset Collection, and the Pavilions developer should explore the feasibility of a grade-separated pedestrian connection. This would make crossing the wide Coolidge Boulevard easier, provide protection from the elements, and potentially lead to fewer vehicular cross-over trips between the two sites. This issue need not be resolved at the Concept Plan stage.

- All major roadways in the Pavilions will have pedestrian paths on both sides. As noted in the Application, this is proposed to be a walkable development, with pedestrian linkages through. Connections are also to be provided to the existing path system along Big Beaver Road and Coolidge Highway. On-street parking will be provided on many internal roads, creating a buffer between moving traffic and pedestrian pathways.
- The only pedestrian crossing shown on Big Beaver, adjacent to the site, is the existing crossing at the Big Beaver / Coolidge intersection. An additional crossing may be feasible at the Big Beaver / Cunningham intersection, but it will require changes in signalization and adding pedestrian paths and striping in the Big Beaver right-of way. There may not be sufficient demand to warrant this improvement, but pedestrian activity in this area should be monitored through the build out of the project.

***Items to be Addressed:** Language in the Development Agreement allowing City to request an updated traffic study after completion of Phase I.*

ESSENTIAL SERVICES

The City Engineer has completed a preliminary evaluation concerning the ability of the city water and sanitary sewer systems to handle the estimated sewer flows and water demands from the proposed Pavilions of Troy. A complete copy of the report is included as Attachment II.

Sanitary Sewer:

The existing sanitary sewer system has the capacity to accept flows from at least Phase I of the development and may be sufficient to accommodate the entire project. The capacities of the existing sewers themselves were evaluated using standard engineering calculations. The result was that the existing sewers have capacity to handle the peak flows estimated for Phase I of the Pavilions. Analyses also indicate that the existing sewers may also have the capacity to serve the entire development. The calculations show that the existing sewers have slightly more flow capacity than the flow estimates calculated based on land uses, but additional analyses are needed.

When the office uses of both the K-Mart site and Pavilions site are equated to residential equivalent units or REU's which are used in the estimation of sanitary sewer flows, the K-Mart site equates to 896 REU's as compared to 450 REU's for Phase I of the Pavilions or almost half that of the K-Mart land use. While this is a good indication that the existing sewer system has the capacity to accommodate Phase I, other analyses were performed to confirm this preliminary conclusion.

The City is currently in the midst of an extensive sewer-metering program intended to identify capacity deficiencies. This must be completed before a determination can be made as to the adequacy of the existing sewer system to accommodate Phase II of the Pavilions of Troy. However, according to preliminary results, the City Engineer believes there would be sufficient capacity to serve both project phases.

Water Main:

An evaluation of the estimated water demands from the Pavilions indicates that the existing utilities in the area have the capacity to adequately serve the additional demands anticipated by both phases of the Pavilions development. However, the proposed Pavilions development may impact the system, further lowering the operating pressure range. Phase I does not have a negative impact on the water system since the water demands for this phase are below that of the existing K-Mart development.

The City Engineer has directed their consultants to identify what improvement to the water system in that area is needed so that the water pressure can be maintained at acceptable levels.

RECOMMENDATIONS

The proposed Pavilions of Troy is a well-conceived, mixed use project which incorporates state of the art thinking in terms of sustainability, excellence in design, mixed use and walkability. The proposed project is not only consistent with the concepts set forth in the Big Beaver Corridor Plan, it will be a catalyst to advance the plan elsewhere in the Corridor.

Throughout the project, the applicant has been receptive to recommendations and responsive to requests for more information. Further, the Plan has been modified to address concerns and comments. Although a Concept Plan at this stage, it is our opinion that the information submitted provides a template to move forward with the project. Therefore, we would recommend approval of the Concept Development Plan by the City Council.

CARLISLE/WORTMAN ASSOCIATES, INC.



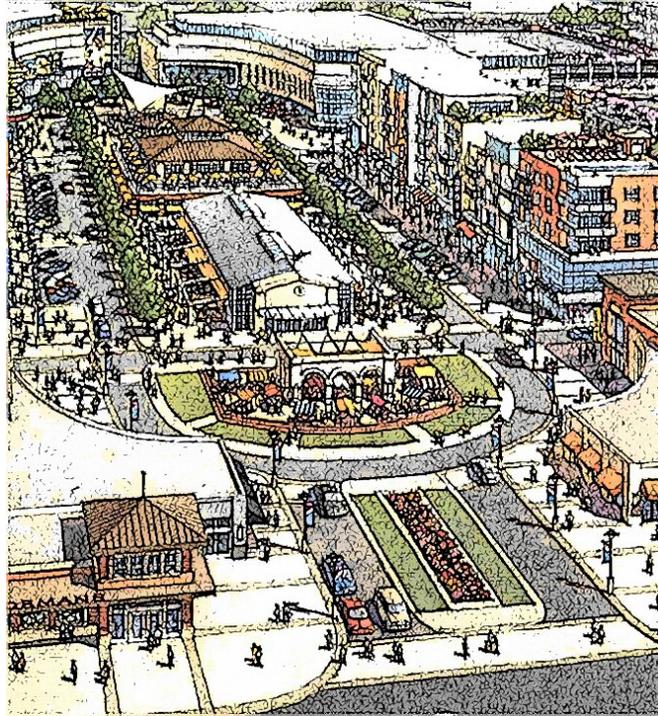
Richard K. Carlisle, PCP

225-02-2703

RKC: lh



Traffic Review



The Pavilions of Troy

Traffic Review Prepared By:

**Birchler Arroyo
Associates, Inc.**

September 6, 2007



Project Description

What is the Developer Proposing?

The Applicant, Richardson Development Group, Inc., is proposing a Planned Unit Development (PUD) project at the northwest corner of Big Beaver Road and Coolidge Highway in Troy, Michigan. The plan includes the demolition of the former Kmart World Headquarters building and redevelopment of the 40-acre site into a mixed-use project.

The project is proposed to be built in two phases. Phase 1 is expected to consist of 100-250 residential units and 200,000 to 600,000 square feet of non-residential uses. The total project at buildout is expected to include 750 residential units, 250 hotel rooms, and 800,000 square feet of other non-residential development. The other non-residential development includes retail, office, cinema, grocery store, fitness club, restaurants, entertainment, and recreation.

Birchler Arroyo Associates, Inc. has been retained by Carlisle Wortman Associates, Inc. to review the traffic impact study prepared by the Applicant's traffic consultant, TetraTech MPS / Wells & Associates.

Trip Generation

How Much Traffic Will The Proposed Development Generate?

The following tables forecast the number of trips that are expected to be generated by the Pavilions development. A *trip* is a single or one-direction vehicle movement with an origin or destination inside the project boundaries. Table 1 shows the weekday forecasts and Table 2 shows the Saturday forecasts.

Table 1—Weekday Trip Generation - The Pavilions

Land Use	AM Peak Hour			PM Peak Hour			Week-day
	In	Out	Total	In	Out	Total	
TOTAL TRIPS – PAVILIONS OF TROY	1,058	780	1,838	1,866	1,951	3,817	37,033
Total Internal Capture Trips	---	---	---	374	374	749	---
Somerset Synergy	---	---	---	298	315	614	---
Total Pass By Trips	---	---	---	301	259	561	---
TOTAL NEW TRIPS – PAVILIONS OF TROY	1,058	780	1,838	892	1,002	1,894	37,033

Source: TetraTech MPS



Table 2– Saturday Trip Generation—The Pavilions

Land Use	Saturday Peak Hour			Saturday
	In	Out	Total	
TOTAL TRIPS – PAVILIONS OF TROY	2,372	1,918	4,290	44,344
<i>Total Internal Capture Trips</i>	<i>472</i>	<i>472</i>	<i>945</i>	<i>---</i>
<i>Somerset Synergy</i>	<i>589</i>	<i>419</i>	<i>1,008</i>	<i>---</i>
<i>Total Pass By Trips</i>	<i>126</i>	<i>116</i>	<i>242</i>	<i>—</i>
TOTAL NEW TRIPS – PAVILIONS OF TROY	1,185	910	2,095	44,344

Source: TetraTech MPS

The “total trips” reflected in Tables 1 and 2 show a forecast of the total number of vehicles turning in and out of site driveways. Internal trips, “Somerset synergy” trips, and pass-by trips are deducted from this forecast to show “new trips” to the road network.

The “total internal capture trips” reflects the number of trips that are forecast to be from one Pavilions use to another and would not require leaving the site. For example, an office worker at Pavilions walking to an on-site restaurant and back has generated two pedestrian trips, but not two vehicle trips. The mixed-use nature of the project allows internal walking trips to replace some of the vehicular trips that would typically occur with a non-pedestrian project. These internal trips are subtracted from “total trips” as part of the calculation of new trips.

The “Somerset synergy” trips reflect the fact that large commercial centers tend to encourage comparison shopping and therefore create traffic “synergy”. Studies have shown that many shoppers at one large retail center were coming from or destined to another large retail center in the same or nearby community. The length of these trips are typically shorter and involve a different route of travel than “new trips”. This reflects that some shoppers at Somerset will also travel to Pavilions and vice versa. These trips will be short in length and have a different impact than a motorists traveling from home to one of the centers.

“Pass-by” trips reflect motorists already on the road network that stop at The Pavilions on the way to or from another destination. For example, a motorist traveling from work to home that stops for groceries at the Pavilions grocery store is not generating new traffic on the road network, only turning traffic in and out of the site.

The Applicant’s traffic consultant has followed guidelines from the Institute of Transportation Engineers as well as experience from other similar centers to adjust traffic forecasts for the factors described above.



How Does The Pavilions Compare To The Former Kmart Site?

The Applicant’s Traffic Consultant compared forecasted Pavilions traffic with traffic generated by the same 40-acre site when it was actively used as the world headquarters for Kmart. The p.m. peak hour comparison reflects *new* trips (discounting pass-by, internal capture, and synergy with Somerset trips). The a.m. peak hour and daily trip comparisons reflect total trips, with no discounted trips, because there are not sufficient studies to support reductions for these times, even though we know the factors causing reductions are present. The Pavilions is forecast to generate 261 more a.m. peak hour trips and 621 more p.m. peak hour trips. On a daily basis, Pavilions will generate over 4 times as much traffic.

Table 3—Trip Generation Comparison

Land Use	Size	A.M. Peak Hour Trips			P.M. Peak Hour NEW Trips			Daily Trips
		In	Out	Total	In	Out	Total	Total
Office Headquarters	1.16 Million Square feet	1,467	110	1,577	140	1,133	1,273	8,730
Pavilions Mixed-Use	See Application	1,058	780	1,838	892	1,002	1,894	37,033

Source: TetraTech MPS

Traffic Improvements

What Improvements Are Necessary For Proper Traffic Flow?

The Applicant’s traffic study included a number of key steps to determine what improvements must be made for traffic to flow acceptably in and around the subject site.

1. Existing traffic volumes were counted (weekday a.m. peak hour, weekday p.m. peak hour, and Saturday peak hour).
2. Existing traffic volumes were increased to reflect growth from other developments (background growth) based on forecasts prepared by the Southeast Michigan Council of Governments (SEMCOG).
3. Traffic from The Pavilions was added to the road network (existing plus background traffic).

The traffic study included a study area that extended out approximately one mile from the site boundaries. This study boundary was established in conjunction with the Road Commission for Oakland County (RCOC) and the City of Troy Traffic Engineer, Dr. John Abraham.



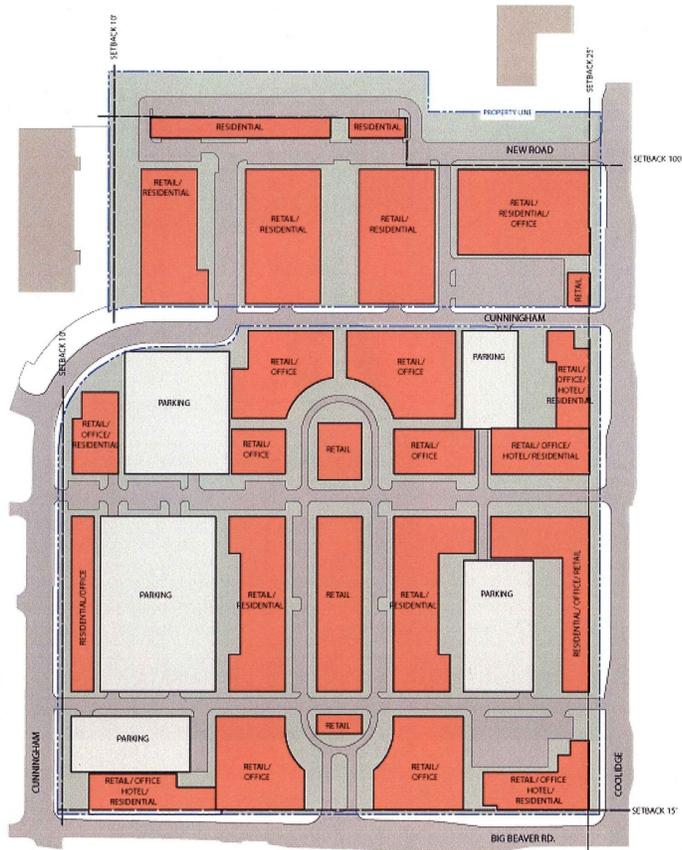
For Phase 1, the following road improvements have been identified by the Applicant's consultant:

1. Cunningham Road, which currently loops through the 40-acre site, connecting Big Beaver to Coolidge, will remain. It will serve as the western boundary of the project. "New Road" is proposed north of Cunningham, which will partially serve as the northern boundary of development for the project (see Figure 1). A portion of this new road will be built in Phase 1 for access to the grocery store (Figure 2). The remainder will be built in Phase 2 (Figure 3). The Big Beaver Corridor Study calls for parallel collector roads in the Big Beaver Road corridor located both north and south of Big Beaver Road. Cunningham is part of the northern collector road system and its function is preserved by The Pavilions of Troy concept plan.
2. A new traffic signal is proposed on Coolidge Highway, north of Big Beaver Road, at the existing driveway to Somerset located between Nordstrom and the parking garage (Drive #6—Figure 2). This will facilitate pedestrian movements across Coolidge and provide for vehicular movements between Somerset and The Pavilions. Because this drive is the first key ingress point north of Big Beaver Road, it will facilitate a significant northbound left-turn movement into the site. The applicant is proposing two left-turn lanes to handle this flow so that traffic does not queue (back up) into the northbound Coolidge through lanes. Because the turn lanes will require reducing the median width, east-west pedestrian crossings are proposed on the north side of the intersection only.
3. The first two median openings on Coolidge Highway, north of Big Beaver, will be closed. A new median opening (crossover) will be constructed just north of Big Beaver (approximately 150 feet north) to facilitate U-turns (Michigan lefts from Drive #7) to go northbound on Coolidge. This will prohibit direct left turns from Coolidge into Drive #7 and instead direct these left turners to Drive #6, where the new signal will be located.
4. The unsignalized eastbound-to-westbound crossover located east of Cunningham on Big Beaver will be closed and the traffic will be diverted to the crossover just west of Coolidge Highway. The signalized westbound-to-eastbound crossover on Big Beaver west of Coolidge Highway will be relocated 400 feet west of its current location.



The Pavilions of Troy Conceptual Plan

1. Land Use



Concept Plan

Images are representative of the design intent, but do not represent the actual design.

Conceptual Plan

Rev. 08-28-07

Source: Application

Figure I



Pavilions of Troy Road System & Circulation Plan - Phase 1

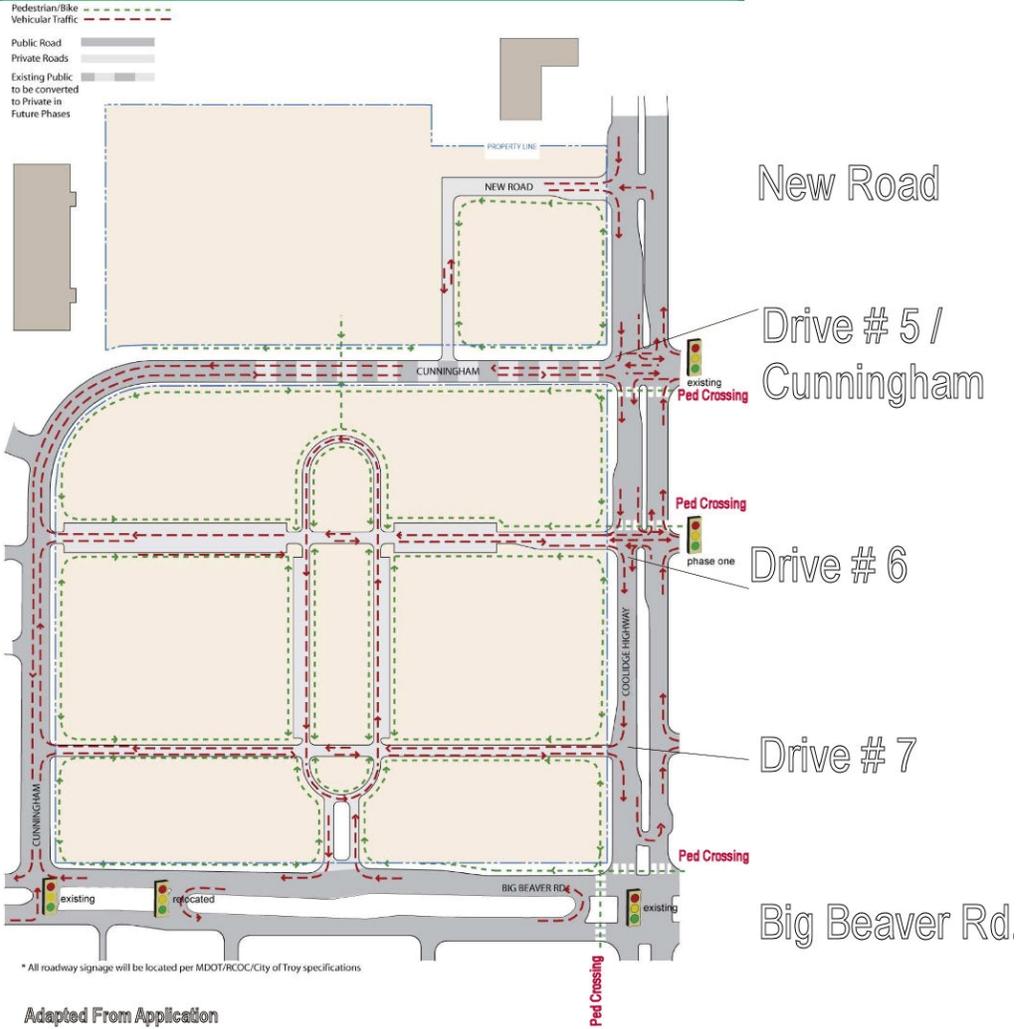
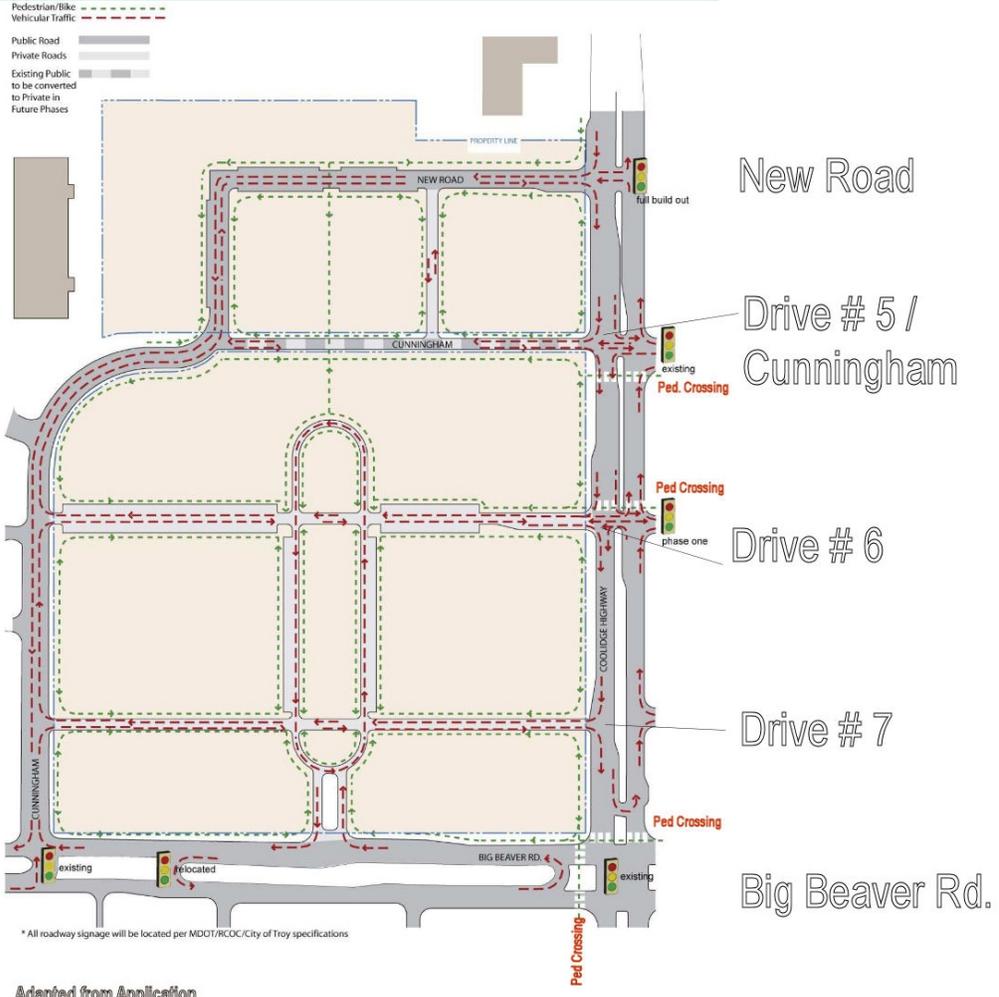


Figure 2



Pavilions of Troy Road System & Circulation Plan - Buildout



Adapted from Application

Figure 3



5. Lane and signal improvements at Big Beaver / Adams, Coolidge / Maple, and Big Beaver / Crooks are necessary. Big Beaver / Adams is currently operating at Level of Service (LOS) “E” during a.m. and p.m. peak hours. LOS “E” and “F” are considered unacceptable by most municipalities. For Adams and Big Beaver, exclusive right-turn lanes on the northbound and westbound approaches are necessary to achieve acceptable levels of service. The northbound right-turn lane addition would likely also require extending the existing second northbound through lane, north of Big Beaver, beyond its current length so that it will function as a true through lane. Traffic signal modifications to allow both protected (green arrow only) and permitted (flashing, yield to oncoming traffic) left turns are recommended by the traffic study.

For Coolidge and Maple, the eastbound and westbound left turns are currently an operational challenge. The study evaluated two possible improvement scenarios: 1) adding a third eastbound through lane and westbound right-turn lane on Maple or 2) constructing dual left-turn lanes on both eastbound and westbound approaches and adding a westbound right-turn lane. Signal timing and phasing modifications would be necessary also. With the addition of the dual left-turn lanes, the signal would need to allow both protected and permitted left turns for northbound Coolidge Highway. The dual left-turn lane option provides overall LOS “D” or better during all peak hours evaluated.

The Big Beaver and Crooks intersection currently operates at LOE “E” during the p.m. peak hour. This poor level of service can be mitigated by re-striping and changing signal timing so that the outer through lanes on both the northbound and southbound approaches function as through/right lanes. This better enables the intersection to handle the existing heavy volume of right turns.

For buildout, an additional traffic improvement will be necessary:

A new road is proposed to be built through the northern third of the project that will intersect with Coolidge Highway, north of Cunningham. This new intersection will require a traffic signal. In addition, the eastbound-to-northbound left turn at Cunningham is proposed to be relocated to this new intersection. Eastbound left turns will not be permitted at Cunningham and Coolidge under the buildout proposal by the Applicant.



Traffic Improvements—Site Access

How Will Site Access Work?

The following describes the proposed site access plan:

Big Beaver Road

1. One new boulevard driveway is proposed on Big Beaver Road. This will lead directly into the Pavilions area (the project's main street area). This drive will be right turns in and right turns out only.
2. Access to the site via Big Beaver will also be available indirectly from the existing Cunningham Drive / Big Beaver and Coolidge Highway / Big Beaver intersections (see next page).

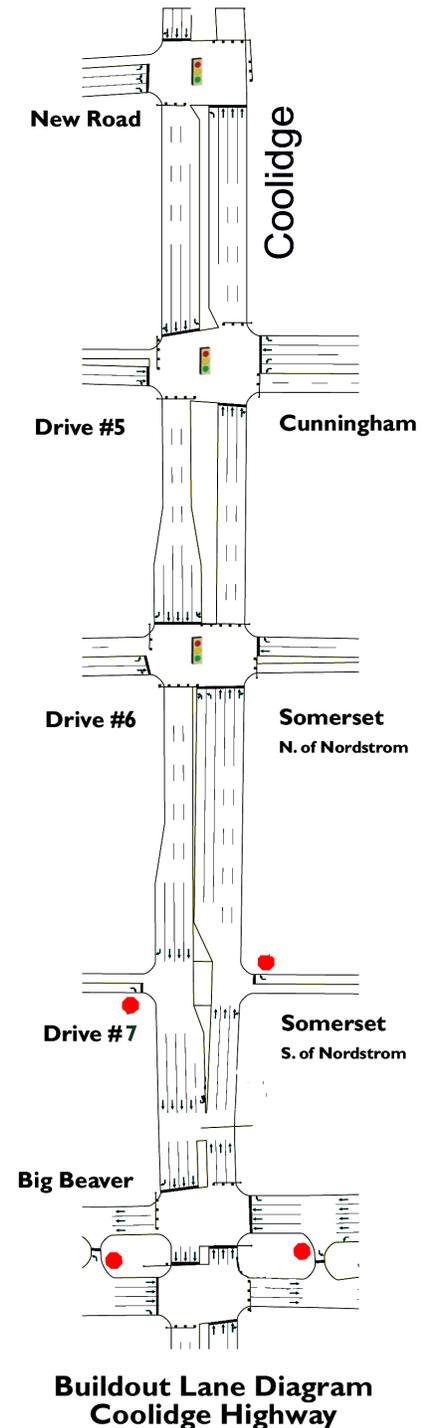
Cunningham Drive

1. There will be two driveways accessing the north-south portion of Cunningham Drive. These will be full access drives, with left turns and right turns permitted in and out of the site.
2. As part of Phase 2 (buildout), the function of Cunningham at Coolidge will be modified to eliminate all eastbound left turns. These will be shifted north to the New Road intersection with Coolidge (see Figure 3).
3. Along the east-west portion of Cunningham, there is proposed to be a single drive on the south side that will access a proposed parking garage (Figure 1). Three driveways are also proposed on the north side of Cunningham serving individual buildings and the grocery store parking lot.
4. The configuration of Cunningham at “the curve” is proposed to be modified so that traveling from Cunningham to the New Road is the through movement and continuing on Cunningham is a turning movement. We have raised concerns about the proposed geometrics of this change as well as the impact on the Big Beaver Road Corridor Study concept, which calls for Cunningham to be a parallel collector road to Big Beaver Road. This should be resolved through further analysis as part of the site plan, once it is prepared. This issue need not be fully addressed at the Concept Plan stage.



Coolidge Highway

1. There will be four points of access to Coolidge Highway, three of which will be signalized.
2. The northern access point, New Road, will initially be constructed as an unsignalized driveway serving the grocery store. It will initially allow right turns in and out and left turns in only. At buildout (see Figure 4), it will be signalized and it will allow all right turn and left turn movements.
3. Cunningham Drive will continue to allow east-west through traffic in all phases, preserving its function as an alternate to Big Beaver Road. As noted above, eastbound left turns will be shifted north as part of Phase 2.
4. Drive #6, which aligns with the existing drive between Nordstrom and the Somerset North Parking Garage, will be signalized. This drive will provide for a direct connection between the Somerset Collection and the Pavilions. It will also provide two northbound through lanes into the Pavilions, which will serve as a major ingress point from Coolidge Highway.
5. Drive #7 will be controlled by stop signs on both sides of Coolidge. Only right turns in and right turns out will be permitted at this location. Indirect left turns in will be accommodated via the new median cross-over north of Big Beaver Road (for Nordstrom entering).
6. One outstanding issue regarding Coolidge Highway access is coordination with the Road Commission regarding the proposed new traffic signal plan. The close signal spacing will require careful coordination of signals to provide smooth progression of traffic. A meeting has been scheduled by the Applicant with the Road Commission prior to the September 11, 2007 Planning Commission meeting.



Adapted from Applicant

FIGURE 4



Pedestrian Circulation

How Will Pedestrians Circulate To, From, and Through the Site?

1. The Applicant is proposing three main pedestrian crossing locations on Coolidge Highway: Big Beaver Road (both sides), Drive #6 (north side), and Drive #7 / Cunningham (south side). Currently, signalized pedestrian crossings are only provided at Big Beaver Road and Cunningham (over 1,200 feet apart). Adding a signal and pedestrian crossing at Drive # 6 will significantly shorten the distance many Somerset North shoppers have to walk to cross Coolidge.
2. The concept of iconic pedestrian bridges was raised in the Big Beaver Corridor Study. Although a bridge was not specifically envisioned across Coolidge at this location, the City, Somerset Collection, and the Pavilions developer should explore the feasibility of a grade-separated pedestrian connection. This would make crossing the wide Coolidge boulevard easier, provide protection from the elements, and potentially lead to fewer vehicular cross-over trips between the two sites. This issue need not be resolved at the Concept Plan stage.
3. The proposed pedestrian crossing at Drive #6 is located on the north side of the intersection. This is necessary because much of the median on the south side will be removed to provide for dual left turns into the site. On the north side, the median width will be over 15 feet and provide a refuge for pedestrians, who will be required to cross Coolidge in two steps due to the width of the road.
4. All major roadways in the Pavilions will have pedestrian paths on both sides, as shown on Figure 3 (green dashed lines). As noted in the Application, this is proposed to be a walkable development, with pedestrian linkages through. Connections are also to be provided to the existing path system along Big Beaver Road and Coolidge Highway. On-street parking will be provided on many internal roads, creating a buffer between moving traffic and pedestrian pathways.
5. The only pedestrian crossing shown on Big Beaver, adjacent to the site, is the existing crossing at the Big Beaver / Coolidge intersection. An additional crossing may be feasible at the Big Beaver / Cunningham intersection, but it will require changes in signalization and adding pedestrian paths and striping in the Big Beaver right-of-way. There may not be sufficient demand to warrant this improvement, but pedestrian activity in this area should be monitored through the build out of the project.



Conclusion

The traffic study prepared by TetraTech and Wells & Associates meets generally accepted practices for traffic impact studies. The findings indicate that acceptable levels of service can be maintained in the site vicinity (overall intersection level of service) with the construction of certain road improvements identified in the traffic study. A meeting is scheduled with the Road Commission for Oakland County for the week of September 3 to discuss traffic signal changes in the area. Results of that meeting will be provided verbally at the September 11, 2007 Planning Commission meeting.



Supplemental Report—September 2007

Members of the City review team and Applicant team met with traffic signal staff of the Road Commission for Oakland County on September 7, 2007 to review the project, with a particular focus on the proposed new drives, road improvements and traffic signals on Coolidge Highway. Although Coolidge Highway is a city street, the traffic signal system is maintained by the Road Commission.

Both Birchler Arroyo staff and Dr. Abraham, the City's traffic engineer, had expressed concerns about the close traffic signal spacing proposed by the Applicant. This type of signal spacing is found in urban, downtown settings and can work well if properly coordinated. In this case, coordination along Coolidge Highway and along Big Beaver Road is necessary for smooth traffic flow.

The general reaction from the Road Commission's traffic signal department staff was that the proposed new signals and road improvements along Coolidge Highway appear to be workable. As with any dense development area, there will be challenges. Additional analysis and adjustments will be necessary as this project comes on line. The RCOC staff felt comfortable that they could operate the signal system so that northbound traffic on Coolidge Highway, north of Big Beaver Road, would not queue (back up) into the Big Beaver Road through lanes during the peak hour conditions identified in the Pavilions traffic study.

We recommended that the Applicant's consultant prepare an updated traffic impact study at the completion of Phase 1 to see how well the assumptions are working and make necessary adjustments for changes in tenant mix and traffic conditions. We also recommend that the City work with all major property owners in the area to coordinate holiday traffic management. Regular meetings in advance of and during the holiday season with property stakeholders, City staff (planning, engineering, and public safety), RCOC and SMART would be advisable. We were involved in a similar stakeholders group in Novi for Twelve Oaks Mall and it was invaluable for addressing peak season traffic concerns.

MEMORANDUM

TO: Mark Miller, Planning Director

FROM: Steven Vandette, City Engineer

RE: Pavilions of Troy – Water and Sanitary Sewer Capacity Analysis

DATE: September 5, 2007

We have completed a preliminary evaluation and have made the following determinations concerning the ability of the city water and sanitary sewer systems to handle the estimated sewer flows and water demands from the proposed Pavilions of Troy:

Sanitary Sewer:

The existing sanitary sewer system has the capacity to accept flows from at least Phase I of the development. This determination is based in part on flow projections from the 1974 Sanitary Sewer Master Plan that became the basis for design of sewers all along Big Beaver as well as downstream to the outlet to Detroit. These sewers were constructed in 1980 and at various times throughout the decades leading to the present time. The flow projections included the K-mart site, which as an office development had a lower projected flow than from residential uses, but the sewers that were actually constructed were over designed so that additional flows could be accommodated if land uses changed or flow generation within the various zoning classifications changed for some reason. It was common practice at the time to over design, and still is, but history has actually shown the opposite in some cases such as with residential land uses where sewer flows have actually decreased due to smaller household sizes and lower overall population growth.

The K-mart building had slightly over 1 million square feet of floor space. This compares to Phase I of the Pavilions, which will have 400,000 to 500,000 square feet or roughly half the floor space of the K-mart office building. Phase I will also have a residential component of 150 to 250 units, which the K-mart site did not have. When the office uses of both the K-mart site and Pavilions site are equated to residential equivalent units or REU's which are used in the estimation of sanitary sewer flows, the K-mart site equates to 896 REU's as compared to 450 REU's for Phase I of the Pavilions or almost half that of the K-mart land use. While this is a good indication that the existing sewer system has the capacity to accommodate Phase I, other analyses were performed to confirm this preliminary conclusion.

The capacities of the existing sewers themselves were evaluated using standard engineering calculations. The result was that the existing sewers have capacity to handle the peak flows estimated for Phase I of the Pavilions. Our analysis also indicates that the existing sewers may also have the capacity to serve the entire development. The calculations show that the existing sewers have slightly more flow capacity than the flow estimates calculated based on land uses, but additional analyses are needed.

The consulting engineers for the developer took flow measurements in two sanitary sewers within the Big Beaver right-of-way in June 2007. These sewers would handle the flows from the Pavilions. The data from the two weeks of monitoring indicate that the flows were well below the capacity of the pipe and the peaking factor at approximately 2.0 was low relative to the peaking factor of 3 to 4 that was used for the design of the sewers. This data seems to indicate there is ample excess capacity, however; the metering was done during dry weather conditions and does not provide any information on the rain induced infiltration and inflow, which may or may not be present in these sewers.

We are currently in the midst of an extensive sewer-metering program, which began approximately two weeks ago with the collection of flow data from 19 meters placed throughout the city. These meters are intended to identify areas where we may have capacity deficiencies caused by changes in development patterns or flow generation over the several decades of city development, or deficiencies caused by excessive ground water infiltration or inflow. This infiltration and inflow must be evaluated before a determination can be made as to the adequacy of the existing sewer system to accommodate Phase II of the Pavilions of Troy. It is possible that some sources of infiltration and inflow may need to be removed before the flows from the Pavilions Phase II can be accommodated. Another method to provide more capacity within the system would be to construct parallel sewer lines called relief sewers, however; we do not anticipate that this will be necessary.

To summarize our preliminary analysis, we have concluded that the existing sewer system has the capacity to serve Phase I of the Pavilions of Troy. A determination on the capacity of the overall sewer system is expected in March or April of 2008.

Water Main:

Early this year we directed HRC to add the estimated water demands from the Pavilions and rerun the city water model (which was previously rerun as part of the 2004 Master Water Plan Study). Modeling results indicate that the existing water utilities in the area have the capacity to adequately serve the additional demands anticipated by both phases of the Pavilions development, however, water main pressures in the southeast corner of Section 19 are estimated in the range of 28 psi to 42 psi for existing conditions and 23 psi to 38 psi for future conditions during Peak Hour Demand periods. The proposed Pavilions development will somewhat tax the system, further lowering the operating pressure range to a low of 23 psi, with the system approaching the minimum service pressure of 20 psi. This occurs when Phases I and II are built out. Phase I does not have a negative impact on the water system since the water demands for this phase are below that of the existing K-mart development.

We have directed HRC to identify what improvement to the water system in that area are needed so that the water pressure in the future, with the Pavilions in place, is at least in the pressure range we would have without the Pavilions, which is 28 psi to 42 psi. Funding for this water main improvement may be funded by the development. Any improvement to further increase the pressure in that area may be funded by the City of Troy.

PLANNED UNIT DEVELOPMENT

5. **PUBLIC HEARING – PLANNED UNIT DEVELOPMENT (P.U.D. 9)** – Proposed The Pavilions of Troy Planned Unit Development, Northwest Corner of Big Beaver and Coolidge, Section 19, Currently Zoned O-S-C (Office-Service-Commercial), O-M (Office Mid-rise) and P-1 (Vehicular Parking) Districts

Mr. Miller outlined the procedure that would be followed on the presentation of the proposed planned unit development.

The petitioner, Hunter Richardson, representing Diamond Troy JV LLC, was present. Mr. Richardson gave a PowerPoint presentation of the proposed development. He extended his appreciation to City departments and the City's Planning Consultant for their responsiveness in the development process. The presentation covered:

- National and local development teams.
- Location; custom-designed project for Troy.
- Evolution of the proposed site.
- Status of Conceptual Development Plan (CDP) application.
- Neighborhood meetings.
- Planned Unit Development (PUD) process; first stage of 3-step process.
- Vision: authentic place, destination, sustainable (green) environment, livable community, connectivity, people's space, amenities, human scale and needs.
- Land uses: pavilions area, border area, transition area, residential (to the north).
- Project phases; Phase 1 must stand alone.
- Traffic impact, road system, circulation and parking.
- Development guidelines.
- Amenities: ice skating rink, civic gathering spaces, seating areas, gateway feature, public art, park for residents, play areas for children, bus shelters, pedestrian crossings.
- Residential buffer to the north, and views along perimeter streets.
- Open space.
- Sustainable design.
- Public benefit.
- Development timeline/schedule.

Richard Carlisle of Carlisle/Wortman Associates, Inc., was present. Mr. Carlisle detailed the three steps of the Planned Unit Development (PUD) process. He indicated all of the PUD criteria have been met in innovative ways and addressed the following concepts as relates to the PUD criteria.

- Horizontal and vertical mix of uses.
- Variety of civic spaces.
- Comfortable walkability of the site.
- Active and passive recreational space.
- Cross-generational characteristic of residential living.
- State of the art thinking in terms of viable sustainable mixed uses.
- Economic sustainability.
- Open space; greenscape and hardscape to create urban setting.
- Trend-setting sustainable design techniques.

- Appropriate use of vacant site; no attraction to single user.
- Roadway improvements to ensure safe pedestrian access.
- Perimeter and residential setbacks.
- Shared parking and caveat to re-evaluate parking after Phase 1 completion.
- Traffic studies as relates to site access, signalization and timing.
- Sanitary sewer and water service capacity.

Rod Arroyo of Birchler Arroyo Associates, Inc., provided a brief presentation on the traffic impact assessment. He addressed updates/revisions to the traffic documentation provided in the packets since last reviewed by the Planning Commission. The presentation covered:

- Compact, walkable communities.
- Grid traffic system; its positives and challenges.
- Additional traffic lights on Coolidge to alleviate backup on Big Beaver.
- Support from the Road Commission of Oakland County (RCOC).
- Re-evaluation of traffic after completion of Phase 1.

In closing, Mr. Carlisle recommended that the Planning Commission recommend approval of the PUD Concept Development Plan to City Council.

Chair Schultz opened the floor for Planning Commission comments. There were none. Chair Schultz stipulated a few ground rules on public comment prior to opening up the Public Hearing.

PUBLIC HEARING OPENED

Aaron Oesyreich of 870 Barilane, Troy, was present. Mr. Oesyreich spoke favorably of the proposed PUD.

Ilene Hill of 2139 Lancer Drive, Troy, was present. Ms. Hill spoke favorably of the proposed PUD and developer. She addressed the multitude of disruptions their neighborhood has experienced from previous major projects in the area. Ms. Hill voiced concerns with construction hours of operation, noise level, asbestos removal, dirt and dust, capacity of water and storm water runoff, traffic, parking, dumpsters, and locations of the proposed staging areas.

James Forrer of 3592 Eastbourne, Troy, was present. Mr. Forrer spoke favorably of the proposed PUD and complimented the petitioner on his presentation.

Michael Flesher of 2091 Lancer, Troy, was present. Mr. Flesher voiced a concern with the proposed food market as relates to noise and health. He also addressed the affect that the proposed development might have on home values in the neighborhood.

Mary Ellen Budabin of 2105 Babcock, Troy, was present. Ms. Budabin said the petitioner has not addressed her concerns. She stated the house depicted in the pictures displayed during the petitioner's presentation to simulate the residential buffer to the north is her home, which is located at the lowest part of the berm and within full view of the former K-Mart Headquarters parking lot. Ms. Budabin said her view with the proposed development would be a skyline of buildings, not blue sky; and that her life

would change. Ms. Budabin suggested a different layout orientation of the proposed townhouses so a view of a common area would be provided instead of an alleyway, garage door, utility meters, and upstairs' windows.

Tim Dalgleish of 3603 Salem, Troy, was present. Mr. Dalgleish said he would like the berms to be similar to those provided for the residents abutting Somerset North, and noted the two berms on each side of Coolidge should be equal distance. He voiced concerns with the proposed multi-screen movie theater as relates to the type of crowd it would attract.

John Bailey of 755 W. Big Beaver Road, Troy, was present. Mr. Bailey, incoming Chairperson for the Chamber of Commerce, spoke in favor of the proposed PUD.

Eric McPherson of 23435 Davey, Hazel Park, was present. Mr. McPherson was present to represent the Sheet Metal Workers. He indicated there are approximately 300 members of the building trade who live in Troy. Mr. McPherson encouraged the members to approve the proposed PUD in support of bringing area jobs to area workers.

Gino J. Delpup of 350 W. Big Beaver Road, Troy, was present. Mr. Delpup of Ford & Earl Associates and former resident of Troy spoke favorably of the proposed PUD. He said it would be a positive destination point for people.

Linda Shears of 1538 Wrenwood Drive, Troy, was present. Ms. Shears, a resident and Troy business owner, spoke on behalf of the Image and Arts Council of Troy. She said local artists and sculptors would heartily welcome the proposed PUD.

Thomas Gross of 350 W. Big Beaver Road, Troy, was present. Mr. Gross, CEO of Ford & Earl Associates, spoke in support of the proposed PUD.

Michelle Hodges, President of Troy Chamber of Commerce, was present. Ms. Hodges voiced strong support for the proposed PUD.

David Schreiber, representative of the Oakland County Economic Development Group, was present. Mr. Schreiber spoke favorably of the project.

Ted Wilson of 5038 Kellen Lane, Bloomfield Hills, was present. Mr. Wilson, a member of the Troy Chamber of Commerce Board of Directors, spoke in support of the proposed PUD. He addressed the high bar set by the petitioner for future developments, the vertical and horizontal mix of uses, and the positive economic expectations.

David Tonker of 2118 Shelley, Troy, was present. Mr. Tonker spoke favorably of the proposed PUD.

PUBLIC HEARING CLOSED

Mr. Vleck said he is impressed and amazed at the amount of support expressed tonight. He complimented the petitioner and the development teams.

Mr. Strat complimented the petitioner. He questioned what construction was inclusive of Phase 1, as envisioned on the project model. Mr. Strat asked if anything has been accomplished to incorporate a pedestrian walkway across Big Beaver.

Mr. Richardson said a pedestrian bridge has not been designed because they do not control enough of the environment to accomplish such, but he indicated they have not done anything from a planning perspective to preclude construction of one. Mr. Richardson addressed the three pedestrian crossings that would be designed with the intent to create refuge zones.

Mr. Miller addressed lane reconfiguration that would increase pedestrian safety zones.

Mr. Strat asked if a secondary lane with pedestrian refuge and boulevard area as portrayed in the Big Beaver Corridor Study would be incorporated in the project.

Mr. Richardson replied that concept was researched and it was determined that it did not add or contribute to what they were doing relative to the environment.

Ms. Troshynski complimented the petitioner for the effort he put forth to satisfy the people of Troy. She asked the petitioner to address cost factors that would result from proposed improvements.

Mr. Richardson said the matter of costs resulting from road improvements and sanitary, sewer and water improvements is under discussion with City Management, and indicated City Management has made a commitment toward resolution of those costs.

Ms. Troshynski stressed the importance of a pedestrian bridge from Somerset to The Pavilions.

Mr. Richardson said he strongly encourages a pedestrian bridge also and addressed the public-private partnership that would be necessary to attain a pedestrian bridge.

Mr. Littman asked if the Assessing Department researched the effect of the proposed development on neighboring home values.

Mr. Richardson said it is his experience that projects such as this provide a positive upturn to home values within the neighborhood.

Mr. Miller said he would ask the City Assessor to provide a report on the outcome of home values in correlation to this type of development.

Ms. Kerwin expressed her excitement to see the proposed development come to fruition.

Chair Schultz addressed the critical need for redevelopment in the City, and said the development would set the tone for future developments within the City. He said the development would truly keep Troy the *City of Tomorrow Today*.

Resolution # PC-2007-09-139

Moved by: Kerwin
Seconded by: Troshynski

WHEREAS, The Planning Commission reviewed a Concept Development Plan for a Planned Unit Development, pursuant to Article 35.50.01, as requested by Diamond Troy JV LLC for The Pavilions of Troy Planned Unit Development (PUD 9), located on the northwest corner of Big Beaver and Coolidge, located in Section 19, within the O-S-C, O-M and P-1 zoning districts, being approximately 40 acres in size; and

WHEREAS, The City's Planning Consultant Richard Carlisle of Carlisle/Wortman Associates, Inc. prepared a memorandum dated September 7, 2007 that recommends Concept Development Plan Approval of The Pavilions of Troy Planned Unit Development; and

WHEREAS, The proposed PUD meets the Eligibility Requirements set forth in Article 35.30.00; and

THEREFORE BE IT RESOLVED, That the Planning Commission recommends that Concept Development Plan Approval for The Pavilions of Troy Preliminary Planned Unit Development be granted.

Yes: All present (9)

MOTION CARRIED

THE PAVILIONS OF TROY

PLANNED UNIT DEVELOPMENT (“PUD”) AGREEMENT

Between

DIAMOND TROY JV LLC,
a Delaware limited liability company

and

THE CITY OF TROY,
a Michigan municipal corporation

THE PAVILIONS OF TROY
PLANNED UNIT DEVELOPMENT AGREEMENT

This Agreement is made this ____ day of _____, 2007, by and between Diamond Troy JV LLC, d/b/a The Pavilions of Troy (“Owner”), whose address is 300 Campus Drive, Suite 300, Florham Park, New Jersey 07932, and the City of Troy, a Michigan municipal corporation, the address of which is 500 West Big Beaver Road, Troy, Michigan 48084 (“City”).

RECITALS

A. This Planned Unit Development Agreement between the Owner and the City (“Agreement”) is made pursuant to Article XXXV of Chapter 39 of the Zoning Ordinance of the City of Troy, Section 35.10.00 et. seq. (“PUD Ordinance”). This Agreement applies to real property described at **Exhibit A**, commonly known as “The Pavilions of Troy” (“PUD Property”). The PUD Property consists of approximately 40 acres on two parcels, commonly known as Parcel I and Parcel II (Parcel I is approximately 12 acres and Parcel II is approximately 28 acres).

B. The PUD Property is presently occupied by the former Kmart World Headquarters, together with related accessory site improvements, including roads, parking areas, landscaping, sidewalks and signage, which was originally constructed in approximately 1972 and 1976.

C. The PUD Property was used for office purposes, as the Kmart World Headquarters, which has been closed and vacated by the Kmart Corporation (now known as Sears Holdings Management Corporation).

D. Owner is the fee simple owner of the entire PUD Property (Parcel I and Parcel II).

E. Owner and City desire to enter into this Agreement pursuant to the PUD Ordinance, in order to provide for the development of a mix of uses and to vest uses and development rights with respect to the PUD Property.

F. All references to ordinance sections in this Agreement, unless otherwise stated, are to the Ordinances of the City of Troy (“Troy Ordinances”).

G. Owner has submitted a complete PUD Concept Development Plan Application and Application to Amend the Zoning District Map for the PUD Property (collectively the “PUD Application”) to the City of Troy.

H. As part of the PUD Application, the Owner submitted multiple supporting documents and reports, including but not limited to, The Pavilions of Troy CDP Book, which includes a Conceptual Plan, Development Guidelines, surveys, environmental and community impact statements, traffic and shared parking studies, a preliminary draft of this Agreement and such other documents deemed necessary by the City and/or required by the PUD Ordinance to be submitted as part of the PUD Application. The completed PUD Application, together with all supporting documents referenced in this section, are collectively referred to as the “Concept Development Plan” (hereinafter “CDP”).

I. In accordance with §35.50.01(A) of the PUD Ordinance, Owner attended several pre-application meetings with the Planning Department of the City, together with staff and outside consultants, prior to submitting the CDP for approval.

J. In accordance with §35.50.01(B) of the PUD Ordinance, Owner held informational meetings with representatives of the adjoining neighborhoods, which meetings were held on June 7, 2007, July 12, 2007 and July 17, 2007; and a summary of such representatives’ comments were included with the CDP submittal.

K. The City of Troy Planning Commission (“Planning Commission”) held study sessions (which were open to the public) on July 24, 2007 and August 22, 2007, and after giving proper notice, held a public hearing on September 11, 2007, to consider the CDP, all in accordance with the PUD Ordinance.

L. The City and Owner have sought and received extensive review, counsel and advice from their respective representatives, staff, officials, attorneys and consultants.

M. Pursuant to Section 35.50.01(B) and (F) of the PUD Ordinance, and after a thorough review of the CDP, on September 11, 2007, the Planning Commission made a unanimous recommendation to the Troy City Council (“City Council”) to approve the CDP and this Agreement and to rezone the PUD Property to a Planned Unit Development District.

N. The City Council received and reviewed the Planning Commission recommendation, and pursuant to Section 35.50.01(B) of the PUD Ordinance, held a public hearing on October 15, 2007, after proper notice, to consider the CDP, the PUD Development Agreement and the requested rezoning.

O. On _____, after review of the CDP and full consideration of the Planning Commission recommendation, the Troy City Council approved the CDP and this PUD Development Agreement, and rezoned the PUD Property to the Planned Unit Development District, in accordance with Section 35.50.01(F). A copy of the City Council Resolution No. 2007- _____ is attached hereto as **Exhibit B**.

P. The parties desire to enter into this Agreement, pursuant to the PUD Ordinance.

NOW, THEREFORE, the City and the Owner, in consideration of mutual covenants of, and benefits derived by each of the parties to this Agreement, agree as follows:

I. DEFINITIONS

The following definitions shall apply to this Agreement, all defined terms used in this Agreement shall have the definitions described in this Article I:

“Agreement” shall mean this Planned Unit Development Agreement, together with all attached exhibits, which are incorporated herein by reference, and any amendments thereto.

“Alternative Traffic Improvements” shall mean those traffic improvements which may be constructed on certain sections of either Big Beaver Road or Coolidge Road located along the perimeter of the PUD Property.

“CDP” shall mean the Concept Development Plan for The Pavilions of Troy that was approved by the City Council, on _____2007. The CDP consists of the PUD Application, together with supporting documents as set forth and defined below as The Pavilions of Troy CDP Book, as defined below.

“CDP Period” shall mean that period of time commencing on the effective date of the adoption of the ordinance that rezones the PUD Property to Planned Unit Development District, and continuing for a period of five (5) years. In the event a protest petition, referendum or similar legal challenge to the rezoning of the PUD Property is filed, the CDP Period shall toll for so long as such legal challenge remains pending.

“Certificate of Occupancy” shall mean a temporary or final certificate of occupancy for a building or other structure issued pursuant to the Troy Ordinances.

“City” shall mean the City of Troy, a Michigan municipal corporation.

“City Council” shall mean the City of Troy City Council.

“Conceptual Plan” shall mean the Conceptual Plan that has been submitted as part of the CDP and approved by the City, which is included in The Pavilions of Troy CDP Book.

“Consent Judgment” shall mean that certain Consent Judgment pertaining to Parcel I, dated May 9, 1973 between Sheffield Development Company, a Michigan Co-Partnership, as Plaintiff, and the City of Troy, a Michigan municipal corporation, as Defendant, Oakland County Circuit Court Civil Action No. 70-69246, as amended on November 22, 1977; September 25, 1980; November 4, 1992 (Successor Plaintiff substituted: The Prudential Insurance Company of America, a New Jersey corporation); December 10, 1998 (Successor Plaintiffs substituted: WHC-SIX Real Estate Limited Partnership, a Delaware limited partnership and Kmart corporation, a Michigan corporation); and November 28, 2006 (Successor Plaintiffs substituted: Diamond Troy JV LLC, a Delaware limited liability company, GM Equities LLC, a Michigan limited liability company, Kmart Corporation, a Michigan corporation, and Sheffield Office II, L.L.C., a Delaware limited liability company).

“Declaration” shall mean any Declaration of Easements, Covenants, Conditions and Restrictions which may be recorded by Owner against the PUD Property subsequent to the Effective Date. In the event of any conflict between the Declaration and the terms of this Agreement, the terms of this Agreement shall control.

“Developer” shall mean Richardson Development Group, Inc., together with its successors, assigns and/or replacements who are or may be engaged by Owner in connection with the development of the PUD Property.

“Development Guidelines” shall mean the Development Guidelines that have been submitted as part of the CDP and approved by the City, and are included in The Pavilions of Troy CDP Book.

“Development Standards” shall mean, collectively, the City of Troy Development Standards, Details and Specifications for the engineering, design and construction of public improvements and private improvements within the City. Subject to the Deviations identified in **Exhibit G** attached hereto and made a part hereof, development of any approved Final Development Plan under this Agreement and the CDP shall be consistent with the Development Standards that are in effect at the time of the approval of such Final Development Plan under the CDP.

“Effective Date” shall mean the date that the last party to execute this Agreement executes this Agreement.

“Final Development Plan” and/or “FDP” shall mean one or more Final Development Plans, as defined in Section 35.50.03 of the PUD Ordinance that are submitted by Owner for all or any portion of the PUD Property.

“Infrastructure Improvements” shall mean the, sanitary sewer, storm sewer, water system, and other utility improvements to be installed by Owner within the PUD Property, which the City acknowledges may include renovations or improvements to the existing utility facilities.

“Master Deed” shall mean any Master Deed which may be recorded by Owner against all or any portion of the PUD Property subsequent to the Effective Date. In the event of any conflict between the Master Deed(s) and the terms of this Agreement, the terms of this Agreement shall control.

“New Road” shall mean the access road located at the north end of the PUD Property and identified as such in the CDP.

“Offsite Traffic Improvements” shall mean those improvements, including but not limited to traffic signals, turn lanes, roadways, median lanes and landscaping identified on the attached **Exhibit H**.

“Owner” shall mean Diamond Troy JV LLC, a Delaware limited liability company, or its successors and assigns appointed in accordance with the terms of this Agreement.

“Parcel I” shall mean that portion of the PUD Property consisting of approximately twelve (12) acres and identified as Parcel I on the survey attached hereto as **Exhibit C**.

“Parcel II” shall mean that portion of the PUD Property consisting of approximately twenty eight (28) acres and identified as Parcel II on the survey attached hereto as **Exhibit C**.

“Parties” or “parties” shall mean Owner and the City, as defined herein.

“Permitted Uses” shall mean the Permitted Uses identified in The Pavilions of Troy CDP Book, and which are attached as Exhibit D. All Permitted Uses and approved deviations set forth in this Agreement are permitted to be mixed within and throughout the PUD Property, in conformity with the approved CDP. The mix of uses within the PUD Property may occur vertically (i.e. a mix of uses existing within one or more structures) and/or horizontally (i.e. a mix of uses existing adjacent to one another on one horizontal plane and/or in one or more neighboring structures). It is acknowledged and agreed by the parties that two or more single or multiple story structures containing a mix of uses may exist adjacent to one another.

“Planning Commission” shall mean the City of Troy Planning Commission.

“The Pavilions of Troy” shall mean the planned unit development established pursuant to this Agreement.

“The Pavilions of Troy CDP Book” shall mean the book dated October 10, 2007, which was initially submitted on September 4, 2007 with the PUD Application, which was received by the City Planning Department on September 20, 2007, and which was further updated and submitted to the City Council as of the public hearing date of October 15, 2007. The Pavilions of Troy CDP Book shall include the following documents:

- (i) PUD Application, Final Revision Date 9/4/07, Pages 1-1 through 1-15
- (ii) Executive Summary, Final Revision Date 9/4/07, Pages 2-1 through 2-10
- (iii) Conceptual Plan, Final Revision Date 10/10/07, Pages 3-1 through 3-17
- (iv) Community Impact Statement, Final Revision Date 9/4/07, Pages 4-1 through 4-6
- (v) Development Guidelines, Final Revision Date 9/4/07, Pages 5-1 through 5-49 (with the exception of Page 5-49, which has a Final Revision Date of 10/10/07)
- (vi) Traffic Impact Assessment, Final Revision Date 5/31/07, Including the Supplemental Traffic Analysis dated 9/5/07
- (vii) Shared Parking Analysis, Final Revision Date 5/31/07
- (viii) Environmental Impact Statement, Final Revision Date 9/4/07, Pages 8-1 through 8-32, together with attached Exhibits and Agency Letters
- (ix) Boundary and Topographic Survey

“Phase 1” shall mean the area identified as Phase 1, which is further defined in Pages 3-10 to 3-13 of the Conceptual Plan in The Pavilions of Troy CDP Book. The City acknowledges and agrees that, notwithstanding anything to the contrary in this Agreement, Owner shall have the right to construct within Phase 1 500,000 Square Feet of retail use (as defined in Pages 3-3 and 3-4 of The Pavilions of Troy CDP Book); 100,000 Square Feet of office use (as defined in Pages 3-3 and 3-4 of The Pavilions of Troy CDP Book); and 250 residential units (as defined in Pages 3-3 and 3-4 of The Pavilions of Troy CDP Book). Owner acknowledges that the foregoing densities represent the maximum of each Permitted Use that Owner is entitled to construct within Phase 1 without the additional approval of the City Council.

“Preliminary Development Plan” and/or “PDP” shall mean one or more Preliminary Development Plans as set forth and defined in Section 35.50.02 of the PUD Ordinance that is/are submitted by Owner with respect to all or any portion of the PUD Property.

“PUD Application” is defined as set forth in Paragraph G of the Recitals.

“PUD Documents” shall mean, collectively:

- (i) The PUD Ordinance
- (ii) This PUD Agreement
- (iii) The PUD Application
- (iv) The Pavilions of Troy CDP Book
- (v) Any and all PDPs approved by Troy City Council for the PUD Property.
- (vi) Any and all FDPs that are administratively approved.
- (vii) Any and all amendments to the CDP which are mutually approved.
- (viii) The resolution in the official City Council minutes for the meeting at which approval is received.

“PUD Ordinance” shall mean Article XXXV of Chapter 39 of the Code of Ordinances of the City of Troy, Section 35.10.00 et. seq..

“PUD Property” shall mean the real property described on **Exhibit A** attached hereto and made a part hereof.

“Residential/ Retail Formula” shall mean the ratio of one residential unit for every 3,333 Square Feet of retail use on the PUD Property.

“Shared Parking Demand Study” shall mean the parking demand study conducted in accordance with Paragraph 43 herein.

“Shared Parking Demand Study Notice” shall mean the notice delivered by the City requiring Owner to conduct the Shared Parking Demand Study. The Shared Parking Demand Study Notice shall be delivered within three (3) years, but not earlier than two (2) years, after the date the last Certificate of Occupancy is issued by the City with respect to all construction included within Phase 1.

“Shared Parking Model” shall mean the shared parking model attached as **Exhibit E**.

“Square Footage” and/or “Square Feet” shall mean that term as defined on **Exhibit K**.

“Traffic Impact Study” shall mean the Traffic Impact Study dated May, 2007 and supplemented by the Supplemental Traffic Analysis dated September 5, 2007, prepared by TetraTech and Wells & Associates and included in The Pavilions of Troy CDP Book under the Traffic Impact Assessment Tab, as well as the Appendices which are incorporated and available with the Troy City Clerk or Planning Director.

“Troy Ordinances” shall mean the Ordinances of the City of Troy in effect as of the Effective Date of this Agreement.

II. GENERAL PROVISIONS

1. The Parties acknowledge that all of the foregoing Recitals, together with the foregoing definitions, are true and accurate and binding upon the Parties, their successors and assigns, and are incorporated in this Agreement and made a part hereof in the same manner and to the same extent as if such Recitals and/or definitions were set forth in detail at this point. All Exhibits attached hereto are made a part hereof in the same manner and to the same extent as if they were set forth in detail in this Agreement at those points in this Agreement where each such Exhibit is referenced.

2. The parties acknowledge that the approval of this CDP under Troy's PUD ordinance occurred only after extensive negotiation and review of the entire CDP, this Agreement, and all incorporated or attached Exhibits, as well as all referenced documents.

3. At this time, all of the PUD Property is currently owned by Owner, and Owner has provided the City with evidence of ownership. The City acknowledges that Owner has the sole discretion to transfer (including, without limitation, the sale, lease, conveyance, assignment, license, or other permit to use) any part or all of the PUD Property without the consent of the City. The provisions of the approved CDP, this Agreement and Troy Ordinances shall be enforceable against any successor or assign. Owner agrees to inform any purchaser, lessee, licensee or other user of the PUD Property of the provisions of this Agreement. Following any transfer of the PUD Property, the transferee shall be obligated to notify the City of such transfer of ownership, in accordance with MCL 211.27, et. seq. As used in the preceding sentence, "transfer of ownership" is defined in MCL 211.27 et. seq.

4. The City, through the City Council, hereby determines that: (a) the CDP complies with and satisfies all requirements of the PUD Ordinance; (b) the rezoning of the PUD Property

to Planned Unit Development District is consistent with the planning and zoning objectives of the City and the intent, purpose and requirements of the PUD Ordinance; and (c) this action to rezone the PUD Property is beneficial to the general health, safety and welfare of the citizens of the City.

5. The City Council hereby agrees with the recommendation of the Planning Commission, and deems that the CDP is consistent with the intent, purpose and objectives of the City, as described in the PUD Ordinance and the several City plans for future land use.

6. The CDP and this PUD Agreement are hereby deemed approved and Owner is hereby granted the right, power and authority to proceed to develop the Pavilions of Troy in accordance with The Pavilions of Troy CDP Book and this Agreement. The Owner may proceed to timely submit Preliminary Development Plans and Final Development Plans in accordance with the approved CDP and the PUD Ordinance. In the event of any conflict between the terms and provisions of this Agreement and the terms and provisions of the CDP, the terms and provisions of this Agreement shall control.

7. In accordance with the PUD Ordinance, the City hereby permits and approves the deviations from current Troy Ordinances set forth in the Development Guidelines tab, Pages 5-46 through 5-49 of The Pavilions of Troy CDP Book.

8. Upon execution of this Agreement, all terms and conditions of this Agreement are hereby deemed to RUN WITH THE LAND in perpetuity.

9. This Agreement shall be fully binding upon all successors-in-interest, heirs and assigns of whatever kind or nature, including without limitation, all purchasers of any kind, successors in fee, ground lessees, lessees, sublessees and assigns, regardless of the nature, type or form of such sale, conveyance, lease, assignment or any other form of transfer, conveyance or

license to use. Such transfers and conveyances further include without limitation, sale, lease or other transfer or conveyance of or license to use any condominium unit(s) or other form of land division, now known or later created, whatsoever that may be established now or in the future on the PUD Property. The City acknowledges and agrees that Owner may freely assign any part or all of its right, title, and/or interest in and to this Agreement, and any term, covenant or condition hereof, to any other person or entity without consent of the City. The City acknowledges and agrees that the Developer has, in lieu of the Owner, undertaken and will hereafter undertake some or all of the activities that are required of Owner under this Agreement or are otherwise necessary or convenient for the development of the PUD Property.

10. Any Declaration, Master Deed or similar document encumbering the PUD Property shall expressly reference this PUD Agreement. A copy of the Declaration, and any Master Deeds recorded against the PUD Property shall be provided to the Troy Planning Director immediately after recordation.

11. Pursuant to Section 35.50.01(F) of the PUD Ordinance, this Agreement is deemed effective and in full force and effect upon the Effective Date.

12. The City shall cause this Agreement to be recorded with the Oakland County Register of Deeds against the PUD Property. This recordation shall occur within fourteen (14) days of the Effective Date of the Agreement. In the event the City fails to record this Agreement within fourteen (14) days, then the Owner may record a fully executed original of this Agreement with the Oakland County Register of Deeds. The party recording this Agreement shall provide the other party with a copy immediately following recordation.

13. Upon execution of this Agreement, the PUD Property shall be deemed to be rezoned to a Planned Unit Development District, in accordance with the PUD Ordinance, and the

City shall take the steps necessary to amend the zoning map to designate the PUD Property as a Planned Unit Development District.

14. If, prior to the expiration of the CDP Period, Owner submits to the City Planning Department a Preliminary Development Plan (consistent with the PUD Ordinance), for all or any part of the PUD Property then, upon submittal of the first Preliminary Development Plan: (a) the CDP Period shall no longer apply; (b) the CDP shall have no expiration date; and (c) the CDP shall remain and be deemed in full force and effect for the development of the entire PUD Property as described in this Agreement, regardless of the period of time necessary for development of the PUD Property.

15. Prior to the expiration of the CDP Period, Owner can request an extension of the CDP period, which the City has the discretion to grant in accordance with Section 35.50.01 (F) of the PUD ordinance. If the CDP period has expired without the submittal of an acceptable Preliminary Development Plan that is in accordance with the CDP and the Troy ordinances, then the City may take such action as is permitted in the PUD Ordinance, which may include a unilateral City initiated re-zoning of the PUD Property in accordance with Section 35.60.02 of the PUD Ordinance.

16. Where any term or provision of this Agreement is in conflict with the provisions of the Troy Ordinances, the Development Standards, or any other City administrative rule or regulation, the terms of this Agreement and/or the approved CDP shall control. The PUD Ordinance in effect as of the Effective Date (a copy of which is attached hereto as **Exhibit F**), is hereby deemed the PUD Ordinance that governs this Agreement, and notwithstanding anything herein to the contrary, any amendment of the existing PUD Ordinance from or after the Effective Date hereof shall not govern, control or in any way affect the terms, conditions, interpretation

and/or enforcement of this Agreement. All sections of the Troy Ordinances referenced in this Agreement or the approved CPD or the PUD Ordinance refers to those sections of the Troy Ordinances in effect as of the Effective Date hereof, and except for the Development Standards, Building Code, and Fire Code provisions, future amendments to such Ordinances shall not govern, control or in any way effect the terms, conditions, interpretation and/or enforcement of this Agreement. Except for the Development Standards, the Building Code and the Fire Code provisions, the parties may, but are not obligated to mutually and voluntarily agree to amend this Agreement to include any amendments or subsequent updates to the Troy Ordinances. Subject to the deviations set forth in this Agreement, Owner shall comply with those Development Standards, Building Code, and Fire Code provisions that are effective as of the date any given FDP approval is granted.

17. All terms, provisions and conditions of this Agreement are authorized by applicable state and federal laws and constitutions. This Agreement is valid, entered into on a voluntary basis, and represents a permissible exercise of authority by the City.

18. All requirements and conditions of this Agreement are necessary, reasonable and in compliance with the PUD Ordinance and other applicable sections of the Troy Ordinances.

19. The parties shall act in good faith (in both time and substance) whenever there is a requirement to take action or give consent under this Agreement.

20. In the event that any portion of this Agreement is invalid or unenforceable, as determined by a Court of competent jurisdiction, the remaining portions of this Agreement shall remain fully enforceable, valid and in full force and effect.

21. For purposes of providing notices required or authorized under this Agreement, such notice shall be given to the applicable party to be notified, by personal delivery (supported

by an affidavit of service) or shall be sent via a recognized national overnight delivery service, marked for “next day” service and addressed as follows, or can be sent via facsimile to the following facsimile numbers, with a hard copy to follow via certified U.S. Mail, with postage fully paid, addressed as follows:

Notice to the City :	City of Troy 500 West Big Beaver Road Troy, Michigan 48084 Attention: Mayor Fax: (248) 524-0851
With copy to:	City of Troy 500 West Big Beaver Road Troy, Michigan 48084 Attention: City Clerk Fax: (248) 524-1770
With copy to:	City of Troy 500 West Big Beaver Road Troy, Michigan 48084 Attention: Planning Director Fax: (248) 524-3382
With copy to:	City of Troy 500 West Big Beaver Road Troy, Michigan 48084 Attention: City Attorney Fax: (248) 524-3259
Notice to Owner :	Diamond Troy JV LLC c/o BlackRock Realty 300 Campus Drive, 3 rd Floor Florham Park, New Jersey 07932 Attention: Debra Mistretta, Vice President Fax: (646) 521-4954
With a copy to:	Richardson Development Group Attention: J. Hunter Richardson, Jr. 11921 Freedom Drive, Suite 980 Reston, Virginia 20190 Fax: (703) 716-1044
With a copy to:	Richard D. Rattner, Esquire

Williams, Williams, Rattner & Plunkett, P.C.
380 N. Old Woodward Avenue, Suite 300
Birmingham, Michigan 48009
Fax: (248) 642-0856

Notice shall be effective on the date of receipt (in the case of personal delivery), or on the day following the deposit of such notice with the overnight courier, or on the day following the receipt of the facsimile (in the case of delivery by facsimile). Any party may change any of the addresses or the designated recipients of notice by following the notice procedure, as set forth above.

22. The Agreement shall be governed and construed in accordance with the laws of the State of Michigan, without regard to principles of conflict of laws.

23. This Agreement supersedes any and all prior inconsistent agreements, rules or administrative orders between the parties relative to the PUD Property. Notwithstanding anything to the contrary in this Agreement, the parties acknowledge that the Consent Judgment materially impacts Owner's ability to develop Parcel I in accordance with the CDP. Owner agrees to make good faith attempts to cause the Consent Judgment to be amended in order to allow the development of Parcel I consistent with this Agreement and the approved CDP. The City shall cooperate with Owner and agrees to execute a mutually satisfactory amendment to the Consent Judgment and/or Motion to Amend the Consent Judgment, which allows Owner to develop Parcel I in accordance with this Agreement and the approved CDP. If, despite its good faith efforts, Owner is unable to cause the Consent Judgment to be amended within five (5) years from the Effective Date, Owner shall have the right, but not the obligation, to apply for a Preliminary Development Plan which allows Owner to develop Parcel I consistent with the terms of the Consent Judgment. The City agrees to amend the CDP and this Agreement, as

necessary, to allow for the office use required under the Consent Judgment on Parcel I, provided such amendment is otherwise consistent with the PUD Ordinance.

24. Regardless of future master plans, other planning documents and/or zoning or other Troy Ordinance changes or amendments which may be adopted or affect the PUD Property, the Permitted Uses shall not be deemed in the future to be legal non-conforming uses, but rather shall continue to be permitted uses, subject to and in accordance with this Agreement and the approved CDP.

25. Any amendment to this Agreement and/or any Exhibit attached hereto, must be in writing and approved as to form and substance by each of the parties hereto, and any such amendment or modification to this Agreement or any Exhibit shall be approved by the City Council pursuant to the procedures set forth in the PUD Ordinance. Following the conveyance by Owner of a portion of the PUD Property, the successor Owner of that portion of the PUD Property shall, in accordance with the terms of this Agreement, be entitled to amend this Agreement with respect to such Successor Owner's property; provided however, such amendment shall be in compliance with any Declaration, Master Deed, deed restriction or other encumbrance that relates to the right, power and authority of such successor Owner to approve such an amendment and provided that the amendment is mutually agreeable to the City and the Successor Owner. Further, notwithstanding anything to the contrary in this Agreement, so long as Diamond Troy JV LLC owns all or any part of the PUD Property, Diamond Troy JV LLC shall be entitled to consent to any amendment to this Agreement and the CDP and any amendment to this Agreement and the CDP executed without Diamond Troy JV LLC's consent shall be void and of no effect. Any amendments to or modifications of this Agreement, or the

Exhibits attached hereto, shall be recorded by the City at the Oakland County Register of Deeds, following the effective date of such amendment or modification.

26. The parties to this Agreement represent that they have read this Agreement, have reviewed it with legal counsel and understand and agree to the terms and conditions hereof.

27. Each person signing this Agreement on behalf of any party hereby represents and warrants that he/she is a duly authorized representative and agent to that respective party and that he/she has the full authority to bind said party to all the covenants, warranties, representations, terms and conditions of this Agreement under all applicable local, state and federal laws and regulations.

III. THE PAVILIONS OF TROY DEVELOPMENT

28. The City hereby grants Owner the right to use and develop the PUD Property as set forth in this Agreement, any provision in the Troy Ordinances, Development Standards, laws, regulations or codes notwithstanding. Specifically, Owner shall have the right, but shall not be obligated, to develop 500,000 Square Feet of retail, 300,000 Square Feet of office, 750 residential units, and a hotel containing 250 guest rooms, together with ancillary amenities normally associated with a hotel of the type to be located on the PUD Property (such as, without limitation, a business center, meeting rooms, restaurants/bars, pool, fitness center), as set forth in the Conceptual Plan, Pages 3-2 through 3-6 of The Pavilions of Troy CDP Book. The Permitted Uses shall be limited to those uses which are expressly identified in Pages 3-2 through 3-6 of the Conceptual Plan, and which are attached as **Exhibit D**. Owner acknowledges that the foregoing densities represent the maximum of each Permitted Use that Owner is entitled to construct within The Pavilions of Troy without the additional approval of the City Council.

In connection with the Permitted Uses, Owner agrees to the following:

A. In the event the Owner chooses to place a grocery store retail component on Parcel I, the initial use shall be as a “specialty grocer” such as, by way of example only, Whole Foods, Plum Market, Fresh Fare, Nino Salvaggio’s or other similar niche grocery store.

B. Any hotel initially developed on the PUD Property shall be a minimum four star hotel, as rated by AAA (or other equivalent rating and rating service).

Notwithstanding anything to the contrary in this Agreement, Owner acknowledges that the retail use on Parcel I shall be limited to 75,000 Square Feet.

29. The parties acknowledge that the CDP, as contained in the Pavilions of Troy CDP Book, provides a conceptual overview for the development of The Pavilions of Troy and is not intended to be comprehensive. The specific design of each PDP submittal for The Pavilions of Troy will depend upon the size, mixture of uses, configuration and/or the Owner’s determination of the economic and market feasibilities of such PDP submittal. The specific design elements of the CDP, as set forth in The Pavilions of Troy CDP Book, are conceptual in nature and not intended to be used in all PDP submittals, but rather, are intended to be cumulative to all of The Pavilions of Troy. Accordingly, certain elements of the CDP, as set forth in The Pavilions of Troy CDP Book, may be determined by the Owner to be inappropriate, ineffective, impractical or obsolete, and therefore, may not be incorporated into the Pavilions of Troy. However, Owner acknowledges that The Pavilions of Troy CDP Book contains representations of the type of quality, design and planning that is to be included with all PDPs and FDPs submitted pursuant to this Agreement and the approved CDP. Owner agrees to incorporate quality materials, workmanship, and design, as well as concepts in

architectural design, amenities, pedestrian crossing, open space, green concepts, and other elements of the CDP that are similar to the CDP, as set forth in The Pavilions of Troy CDP Book.

30. In order to insure a mixed use development (both vertically and horizontally), Owner agrees to construct a mix of residential and retail uses in accordance with the Residential/Retail Formula, and shall include the required proportion of residential units with each phase that is submitted for approval. Notwithstanding the foregoing, the City acknowledges that Owner shall be entitled to submit a PDP to develop the retail component of Parcel I on a freestanding basis, independent of any residential component. In this event, this retail component of Parcel I shall be added to the next PDP submitted for purposes of calculating the required amount of residential units pursuant to the Residential/Retail Formula. For each PDP, Owner shall be allowed to decrease the number of residential units required to be constructed under this Paragraph by 1 unit for every 1,000 Square Feet of office or by 1 unit for every 2 hotel rooms developed, provided that in no event shall this reduction result in greater than a thirty-three percent (33%) reduction in the number of residential units required under this Paragraph. This residential requirement shall be cumulative, in that once Owner has completed 150 residential units on the PUD Property, Owner shall have fulfilled the residential requirement under this Paragraph (i.e., 500,000 Square Feet of retail divided by 3,333 equals 150 residential units). As used in this Paragraph, a residential unit shall be deemed “completed” at such time as a Certificate of Occupancy is issued by the City with respect to such residential unit. Except with respect to the retail component on Parcel I, which need not include a residential component, Owner shall be entitled to receive a certificate of occupancy for the retail uses in any PDP only after the proportion of residential units, hotel and/or office

space required for such PDP under this Paragraph is either enclosed and weather-proofed or a Certificate of Occupancy is issued by the City with respect to each such residential unit, hotel or office space.

31. The Owner agrees to install a significant identity feature for the site at the southeast corner of the development (Coolidge and Big Beaver), which shall be similar to the gateway feature proposal that is proposed in The Pavilions of Troy CDP Book or is otherwise mutually agreeable. The above referenced identity feature shall be included in any PDP or FDP for the southeast corner piece of the PUD Property, and shall be constructed prior to the issuance of any Certificate of Occupancy for a permanent structure at that corner.

32. Notwithstanding anything to the contrary in this Agreement, the parties acknowledge that the Offsite Traffic Improvements identified on **Exhibit H** constitute the only offsite traffic improvements which are required in connection with The Pavilions of Troy. Prior to obtaining the first Certificate of Occupancy for any building within Parcel II, the Offsite Traffic Improvements located adjacent to the PUD Property along Coolidge and Big Beaver Roads must be completed and accepted by the City and the Road Commission for Oakland County, as applicable.

33. All improvements to be constructed by Owner on the PUD Property shall comply with all building codes, except that if there are conflicts between the building codes and the terms of this Agreement, the terms of this Agreement shall control.

34. It is understood by the parties that the proposed CDP development will deviate from some of the requirements of the City's Ordinances, and some of these deviations, which are hereby approved, are listed in The Pavilions of Troy CDP Book. The City agrees to allow additional deviations from the Troy Ordinances that are consistent or similar to the deviations

that are listed in The Pavilions of Troy CDP Book. Each requested additional deviation from the Troy ordinances shall be explicitly identified in the PDP submittals for the PUD Property. If the City approves the PDP, then the identified additional deviations of the Troy ordinances which are incorporated into the approved PDP shall also be considered approved.

35. The parties acknowledge that all permanent, year round, environmentally controlled structures shall be equipped throughout with automatic fire protection systems conforming to the requirements of Chapter 9 Fire Protection Systems of the current State of Michigan Building Code, specifically related to “Automatic Sprinkler Systems” and “Automatic Fire Alarm and Detection Systems.” Notwithstanding the foregoing, the parties acknowledge that Owner shall not be required to install automatic sprinkler systems or automatic alarm and detection systems within: 1) detached accessory structures with no direct exposure to adjacent structures, which are less than 1,000 Square Feet and which regularly contain 10 or fewer occupants; and 2) open air roof structures or pavilions. The Owner shall otherwise comply with all City fire codes.

36. The parties acknowledge that year round indoor and outdoor entertainment events are planned to occur on the PUD Property, which could exceed the number, type and duration of special event allowances provided under Troy’s ordinances and policies and procedures. The City acknowledges that Owner shall not be required to obtain a special event approval for any of the entertainment events identified on **Exhibit J** attached hereto. For all other special events, the Troy City Council may approve health, safety, and welfare guidelines for Special Events on the PUD Property, and if drafted, these guidelines shall be followed in the administrative review of special events on the PUD property by the City Manager or his/ her designee. Absent such guidelines, the City Manager and his/her designee shall administratively review all other

proposed special event(s) for the PUD Property. The Master Deed(s) for each portion of the PUD Property shall contain an express statement advising any successor owners that outdoor or indoor entertainment or special events are expected to occur on the PUD Property. Special indoor or outdoor activities that fall within the regulations of Chapter 76 (Adult Use Businesses) are hereby prohibited on the PUD Property. In addition, no event shall allow for the consumption of alcohol outside the parameters of the outdoor restaurant seating unless an appropriate license is issued by the Michigan Liquor Control Commission (or any successor entity thereto).

37. The Planning Director or his/her designee shall have the authority to administratively approve accessory structures and/or use(s) for the PUD Property that is/are not otherwise designated on the PDP or FDP, but are similar to the accessory structures and/or uses identified on the Conceptual Plan, contained within The Pavilions of Troy CDP Book. Such accessory structures and/or uses shall include accessory structures for the outdoor sale of merchandise or food, such as a kiosk. Owner shall otherwise comply with any County or State or local regulations concerning the sale of food in any such accessory building.

38. The Owner has been advised by the City that the modeling results indicated that the existing water utilities in the area may not have the capacity to maintain the minimum operating pressures, as set forth in the City's 2004 Master Water update, due to additional demands anticipated by the full development of the CDP (as distinct from the development of Phase 1), as set forth in the Official Pavilions of Troy Conceptual Plan PUD Book. The City will conduct or contract a study to identify improvements to the City's water system that may be necessitated by the development of the entire site (as distinct from the development of Phase 1), so that the City is able to insure a minimum peak hour water pressure that ranges from 28

psi to 42 psi will be maintained. If improvements, enhancements, or upgrades to the City's water system are required in order to insure this minimum peak hour water pressure, then the Owner agrees to pay its proportional share of the necessary improvements, enhancements or upgrades in proportion to Owner's impact on the need for such improvement, enhancement or upgrade and the users located on the PUD Property in comparison to all the other offsite users that benefit from the system.

39. The City acknowledges that the existing storm sewer system which services the PUD Property is adequate to service the improvements anticipated to be developed as Phase 1. Following completion of all construction of structures to be included within Phase 1, any upgrades or other improvements to the existing storm sewer system will be designed by Owner to accommodate a 10 year storm event (as determined by the Oakland County Drain Commissioner), based on the net difference between the quantity of the existing flow for the PUD Property as of the Effective Date and the proposed flow for the PUD Property as of the specific PDP application. The flow calculations set forth in this paragraph shall be cumulative over the entire PUD Property, and shall not be limited to that portion of the PUD Property which is the subject of the PDP application. In the event the proposed flow for the PUD Property following the construction of the improvements contemplated by the PUD application exceeds the flow for the PUD Property as of the Effective Date, Owner will have an obligation to provide for on site detention of storm water.

40. The City acknowledges that the existing sanitary sewer system which services the PUD Property has sufficient capacity to support the improvements to be constructed in Phase 1. The City agrees that any sanitary sewer moratorium or similar tolling of the right to obtain a sanitary sewer permit from the City (which may in the future be imposed by the City) will apply

to the PUD Property in the same manner such moratorium or similar tolling applies to the remaining users of the sanitary sewer system within the City.

41. Owner shall dedicate all water mains and sanitary sewer mains within The Pavilions of Troy to the City and, in connection therewith, shall grant in the Declaration or otherwise mutually acceptable easements to the City for the maintenance, repair and replacement of such lines. Following the installation of such lines, Owner's project engineer shall notify the City that the lines have been installed, and the City shall promptly inspect such lines. The City shall approve such lines so long as they have been installed in accordance with the engineering plans approved as part of the applicable Final Development Plan. Following the City's inspection and approval of such lines, the City shall accept dedication of the lines to the City as public improvements.

42. Except as otherwise provided by this Agreement and the approved CDP, the parties acknowledge and agree that Owner will have the right to develop The Pavilions of Troy in incremental phases as necessary to support the improvements contemplated by each PDP submittal, including, without limitation, the installation of Infrastructure Improvements, interior roadway and parking facilities. The specifics of the proposed phasing will be determined by Owner and identified upon submittal to the City of each Preliminary Development Plan submitted in connection with the development of The Pavilions of Troy, provided that Owner shall not be obligated to install any infrastructure, utilities and/or parking facilities beyond that which are mutually determined necessary to support the improvements contemplated by such PDP submittal. The parties acknowledge and agree that the initial PDP submittals for Parcel II will involve the construction of improvements primarily within Phase 1, but that one or more PDP submittals may include improvements for future phases. The City acknowledges and

agrees that Owner, or its successor(s), may determine that more than one PDP and FDP will be submitted to complete the development of Phase 1, and further, that PDP(s) for development of improvements outside of the Phase 1 area may be submitted prior to or simultaneously with a PDP for all or a part of the Phase 1. The sequence, timing and designation of which part of the PUD Property is to be developed, and the uses to be included in the respective PDP, shall be determined by Owner, in its sole discretion, but subject to the terms of this Agreement and the approved CDP.

43. The parking for the Pavilions of Troy is based on the Shared Parking Model, on a cumulative basis. Within three (3) years but not earlier than two (2) years following the completion of the improvements within Phase I, the City may request a re-evaluation of the Shared Parking, based on land use and actual usage on the PUD Property, by delivery to Owner of the Shared Parking Demand Study Notice. Upon receipt of the Shared Parking Demand Study Notice, Owner shall cause the Shared Parking Demand Study to be conducted by a qualified engineering firm, selected by Owner and approved by the City, who shall use parking utilization data collected during average weekday and weekend conditions, and analyzed in accordance with the standards published by the Urban Land Institute (ULI) and the Institute of Transportation Engineers (ITE). The Shared Parking Demand Study will compare actual usage versus projected usage, as outlined in the Shared Parking Model. If the measured parking occupancy exceeds 90% of the supply of parking spaces, as determined by the updated Shared Parking Model, Owner will implement such measures as are mutually deemed appropriate including, but not limited to, providing valet or valet assisted parking during peak periods, employee parking programs, increasing the effective parking supply, or securing the use of other parking facilities. Notwithstanding anything to the contrary in this Paragraph, Owner

shall only be obligated to incorporate such measures as may be recommended and/or approved by the qualified engineering firm referenced above. Owner will notify the City of such measures and, if requested by the City, will provide the City with evidence that the measures proposed by Owner will increase the effective parking supply. If the measured parking occupancy is less than 90% of the supply of parking spaces, as determined by the updated Shared Parking Model, Owner may adjust future parking supply to recognize the overparked condition so that the anticipated occupancy remains at approximately 90% of the supply of parking spaces.

44. The traffic flow for The Pavilions of Troy is based on the Traffic Impact Study, which is included under the Traffic Impact Assessment tab in The Pavilions of Troy CDP Book. Not earlier than two (2) years or later than three (3) years following the completion of the improvements to Phase 1, the City shall have the right to request that Owner, at its cost, obtain an update of the Traffic Impact Study as it relates to traffic on and directly adjacent to the PUD Property. If the updated traffic impact study indicates that the traffic intersection at Coolidge Road and Cunningham Road is operating at less than service level D, Owner shall promptly submit for the necessary approvals to build either the New Road, or other mutually acceptable Alternative Traffic Improvements and, upon receipt of such approvals, shall commence the installation of the New Road or mutually acceptable Alternative Traffic Improvements, as applicable. Provided, however, in the event the parties mutually agree to install such Alternative Traffic Improvements, then the amount Owner shall be obligated to contribute towards the construction of such Alternative Traffic Improvements shall not exceed the cost incurred or anticipated by Owner to be incurred to construct the New Road.

45. The proposed signage for The Pavilions of Troy shall be included in the PDPs and

FDPs submitted to the City. Owner will establish a signage district for the PUD Property which incorporates the concepts set forth in the deviations contained in **Exhibit I** attached hereto, which the parties acknowledge is conceptual only and is not binding on either party. This proposed signage district shall be submitted during the course of the approval process for the first PDP submitted and the parties shall thereafter negotiate in good faith the details of the signage district. Thereafter, the signage on the PUD Property shall not be subject to additional review by the City, except that the City has the ability to confirm that the signage is consistent with the approved signage district. The City acknowledges that Owner shall not be required to obtain a variance from the Troy Ordinances for any signage that is consistent with the signage district created by this Paragraph, or with respect to any signage otherwise approved by the City, pursuant to this Agreement.

46. Any dispute arising under this Agreement shall be resolved by binding arbitration which shall be conducted in accordance with the rules of the American Arbitration Association (“AAA”) at a hearing to be held at the offices of the AAA located in Southfield, Michigan in a proceeding which is conducted by a panel of three arbitrators, one of whom shall be appointed by Owner, one of whom shall be appointed by the City, and one of whom shall be an independent arbitrator appointed by the other two. The independent arbitrator shall be a certified professional planner of recognized standing in southeast Michigan. The decision of the arbitration panel shall be conclusively binding upon the parties. The parties may enforce the decision of the arbitration panel in a court of competent jurisdiction. Venue for filing any document to enforce the decision of the arbitration panel shall be exclusively in the 6th Judicial Circuit Court or the County of Oakland, State of Michigan, or the United States District Court for the Eastern District of Michigan.

47. This Agreement may be executed in multiple counterparts, each of which shall be deemed an original and all of which shall constitute one instrument.

[Signatures Follow on Next Page]

IN WITNESS WHEREOF, the undersigned have executed this Planned Unit Development Agreement as of the day and year first above-written.

WITNESSES:

OWNER:

DIAMOND TROY JV LLC,
a Delaware limited liability company

By: _____

Its: _____

CITY:

CITY OF TROY,
a Michigan municipal corporation

By: _____

Its: _____

STATE OF NEW JERSEY)
) ss:
COUNTY OF _____)

On this _____ day of _____, 2007, before me personally appeared _____ known to be the person described in and who executed the foregoing Planned Unit Development Agreement and acknowledged before me that he/she executed the same on behalf of DIAMOND TROY JV LLC, a Delaware limited liability company.

Notary Public, County of _____
State of New Jersey.
My Commission Expires: _____
(Acting in _____ County)

STATE OF MICHIGAN)
) ss:
COUNTY OF OAKLAND)

On this _____ day of _____, 2007, before me personally appeared _____ known to be the person described in and who executed the foregoing Planned Unit Development Agreement and acknowledged before me that he/she executed the same on behalf of the City of Troy, Michigan, a Michigan municipal corporation.

Notary Public, County of _____
State of Michigan.
My Commission Expires: _____
(Acting in _____ County)

TABLE OF EXHIBITS

Exhibit A – Legal Description of the PUD Property

Exhibit B – A copy of City Council Resolution No. _____, which rezones the PUD Property to Planned Unit Development District

Exhibit C – Survey

Exhibit D – Permitted Uses

Exhibit E - Shared Parking Model

Exhibit F – PUD Ordinance

Exhibit G – Deviations from Development Standards

Exhibit H –Offsite Traffic Improvements

Exhibit I – Conceptual Deviations to Sign Ordinance

Exhibit J – Approved Outdoor Entertainment Events

Exhibit K – Square Footage Calculation

EXHIBIT "A"

Legal Description for PUD Property

PARCEL I: (Part of Tax I.D. No.: 20-19-430-002)

Commencing at the Southeast Corner of Section 19, T2N, R11E, City of Troy, Oakland County, Michigan; thence N00°01'30"W 1240.08 feet along the East line of said Section 19; thence S89°30'00"W 60.00 feet for a PLACE OF BEGINNING; thence S89°30'00"W 1007.36 feet along the North right-of-way line of Cunningham Drive (100.00 feet wide); thence continuing 24.33 feet along the arc of a 285.00 foot radius circular curve to the left, with a central angle of 04°53'29", having a chord which bears S87°03'17"W 24.32 feet along the North right-of-way line of said Cunningham Drive; thence N00°01'30"W 537.20 feet; thence N89°49'05"E 631.62 feet along the South line of "Sheffield Manor Subdivision" as recorded in Liber 142, Pages 22-24, Oakland County Records; thence S00°01'30"E 88.57 feet; thence N89°58'30"E 400.00 feet; thence S00°01'30"E 440.77 feet along the West right-of-way line of Coolidge Highway (120.00 feet wide) to the Place of Beginning, containing 11.81 acres of land, more or less. Being subject to easements, conditions, exceptions and restrictions of record, if any.

DESCRIPTION OF PARCEL II: (Tax I.D. No.: 20-19-476-001)

Commencing at the Southeast Corner of Section 19, T2N, R11E, City of Troy, Oakland County, Michigan; thence N00°01'30"W 120.00 feet along the East line of said Section 19; thence S89°30'00"W 60.00 feet for a PLACE OF BEGINNING; thence S44°48'54"W 42.60 feet; thence S89°30'00"W 903.00 feet; thence N00°01'30"W 12.00 feet; thence S89°30'00"W 227.00 along the North right-of-way line of Big Beaver Road (204.00 feet wide); thence N45°15'40"W 42.22 feet; thence N00°01'30"W 824.57 feet along the East right-of-way line of Cunningham Drive (100.00 feet wide); thence along the Southeasterly right-of-way line of said Cunningham Drive 289.06 feet along the arc of a 185.00 foot radius circular curve to the right, with a central angle of 89°31'26", having a chord which bears N44°44'15"E 260.54 feet; thence N89°30'00"E 1006.55 feet (recorded as 1006.53 feet) along the South right-of-way line of said Cunningham Drive; thence S00°01'30"E 1020.06 feet (recorded as 1020.04 feet) along the West right-of-way line of Coolidge Highway (120.00 feet wide) to the Place of Beginning. EXCEPTING that part of Parcel II described as follows: Commencing at the Southeast Corner of Section 19, T2N, R11E, City of Troy, Oakland County, Michigan; thence N00°01'30"W 120.00 feet along the East line of said Section 19; thence S89°30'00"W 60.00 feet; thence S44°48'54"W 25.53 feet for a PLACE OF BEGINNING; thence continuing S44°48'54"W 17.07 feet; thence S89°30'00"W 903.00; thence N00°01'30"W 12.00 feet; thence N89°30'00"E 915.03 feet along the Northerly right-of-way line of said Big Beaver Road to the Place of Beginning. Said parcel, less its exception contains 28.18 acres of land, more or less. Being subject to easements, conditions, exceptions and restrictions of record, if any.

EXHIBIT “B”

**A copy of City Council Resolution No. _____, which rezones the PUD Property
to Planned Unit Development District**

Proposed Resolution # CC-2007-10-

Moved by:
Seconded by

WHEREAS, The petitioner Richardson Development Group, Inc. has requested Concept Development Plan approval, pursuant to article 35.50.01, for The Pavilions of Troy Planned Unit Development (PUD 9), located on the northwest corner of Big Beaver and Coolidge, in Section 19, within the O-S-C, O-M and P-1 zoning districts, being approximately 39.99 acres in size; and

WHEREAS, The Planning Commission recommended approval of the Concept Development Plan on September 11, 2007; and

WHEREAS, The proposed PUD meets the Standards for Approval set forth in Article 35.30.00; and

WHEREAS, The proposed Planned Unit Development, parcel 88-20-19-476-001 and part of parcel 88-20-19-430-002, is described in the following legal description and illustrated on the attached Sketch & Description drawing:

Parcel I

T2N, R11E, SE 1/4 of Section 19

Commencing at the Southeast corner of Section 19 thence N00°01'30"W, 1240.08 ft. along the East line of said Section 19; thence S89°30'00"W, 60.00 ft. to the Place of Beginning; thence S89°30'00"W, 1007.36 ft. along the North right-of-way line of Cunningham Dr. (100.00 ft. wide); thence continuing 24.33 ft. along the arc of a 285.00 ft. radius circular curve to the left, with a central angle of 04°53'29", having a chord which bears S87°03'17"W, 24.32 ft. along the North right-of-way line of said Cunningham Dr.; thence N00°01'30"W, 537.20 ft.; thence N89°49'05"E, 631.62 ft. along the South line of "Sheffield Manor Subdivision" as recorded in Liber 142, Pages 22-24, Oakland County Records; thence S00°01'30"E, 88.57 ft.; thence N89°58'30"E, 400.00 ft.; thence S00°01'30"E, 440.77 ft. along the West right-of-way line of Coolidge Hwy. (120.00 ft. wide) to the Place of Beginning, containing 11.81 ac. of land more or less. Being subject to easements, conditions, exceptions and restrictions of record, if any.

And

Parcel II

T2N, R11E, SE 1/4 of Section 19

Commencing at the Southeast corner of Section 19 thence N00°01'30"W, 120.00 ft. along the East line of said Section 19; thence S89°30'00"W, 60.00 ft. to the Place of Beginning; thence S44°48'54"W, 42.60 ft.; thence S89°30'00"W, 903.00 ft.; thence N00°01'30"W, 12.00 ft.; thence S89°30'00"W, 227.00 ft. along the North right-of-way line of Big Beaver Rd. (204.00 ft. wide); thence N45°15'40"W, 42.22 ft.; thence N00°01'30"W, 824.57 ft. along the East right-of-way line of Cunningham Dr. (100.00 ft. wide); thence along the Southeasterly right-of-way line of said Cunningham Dr. 289.06 ft. along the arc of a 185.00 ft. radius circular curve to the right, with a central angle of 89°31'26", having a chord which bears N44°44'15"E, 260.54 ft.; thence N89°30'00"E, 1006.55 ft. (recorded as 1006.53 ft.) along the South right-of-way line of said Cunningham Dr.; thence S00°01'30"E, 1020.06 ft. (recorded as 1020.04 ft.) along the West right-of-way line of Coolidge Hwy. (120 ft. wide) to the Place of Beginning. Excepting that part of Parcel II described as follows: Commencing at the Southeast Corner of Section 19; thence N00°01'30"W, 120.00 ft. along the East line of said Section 19; thence S89°30'00" W, 60.00 ft.; thence S44°48'54"W, 25.53 ft. to the Place of Beginning; thence continuing S44°48'54"W, 17.07 ft.; thence S89°30'00" W, 903.00 ft.; thence N00°01'30"W, 12.00 ft.; thence N89°30'00"E, 915.03 ft. along the Northerly right-of-way line of said Big Beaver Rd. to the Place of Beginning. Said parcel, less it's exception, contains 28.18 ac. of land, more or less. Being subject to easements, conditions, exceptions and restrictions of record, if any.

BE IT RESOLVED, That the Planning Director and City Clerk shall take whatever actions are necessary pursuant to City Ordinance to effect the rezoning of the subject parcels to PUD;

BE IT FURTHER RESOLVED, That the Zoning District Map of the City of Troy Zoning Ordinance is hereby **AMENDED** to delineate the subject parcels as PUD-009; and

BE IT FURTHER RESOLVED, That the Planned Unit Development Agreement is hereby **APPROVED**, and the Mayor and City Clerk are hereby **AUTHORIZED TO EXECUTE** the Planned Unit Development Agreement for The Pavilions of Troy Planned Unit Development on behalf of the City; a copy shall be **ATTACHED** to the original Minutes of this meeting; and

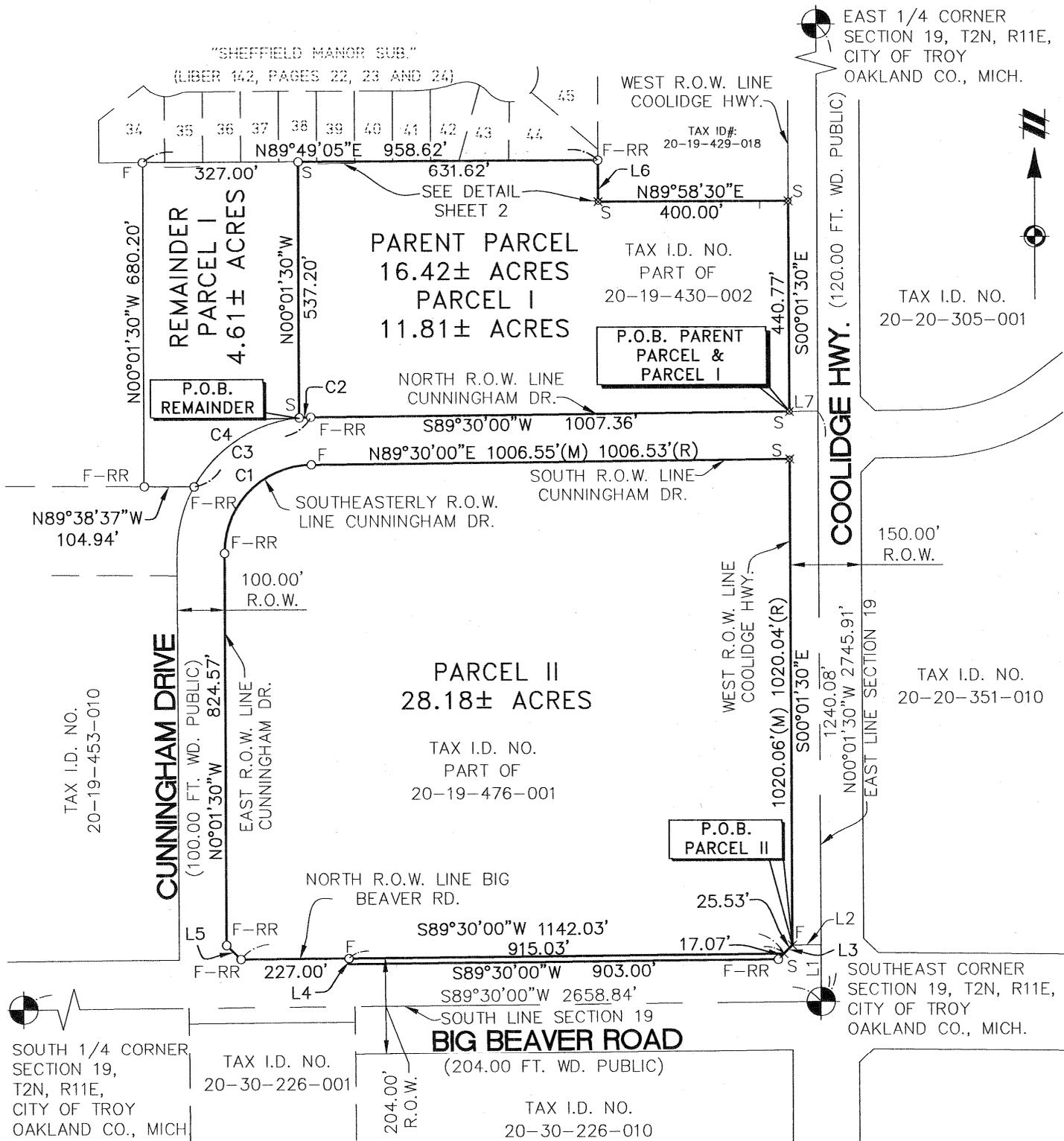
BE IT FURTHER RESOLVED, That the executed The Pavilions of Troy Planned Unit Development Agreement be **RECORDED** with the Oakland County Register of Deeds; and

BE IT FINALLY RESOLVED, That the Concept Development Plan for The Pavilions of Troy Planned Unit Development is hereby approved, and the petitioner is hereby permitted to submit Preliminary Development Plans pursuant to Article 35.50.02 of Chapter 39.

Yes:
No:
Absent:

EXHIBIT “C”

Survey of PUD Property



TAX PARCEL No. 20-19-476-001 & 20-19-430-002

BEARING BASE: BEARINGS ARE BASED ON ALTA/ACSM LAND TITLE SURVEY BY GIFFELS-WEBSTER ENGINEERS, INC., JOB No. 17112, DATED JUNE WR, 2005.

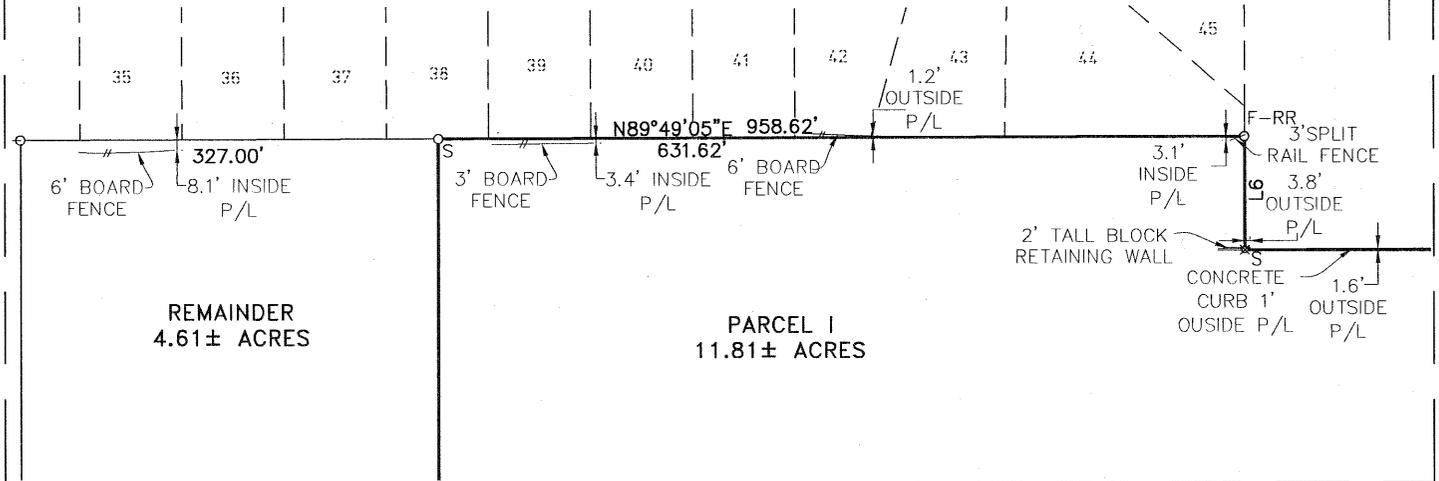
I HEREBY CERTIFY THAT I HAVE SURVEYED AND MAPPED THE LAND ABOVE PLATTED AND/OR DESCRIBED ON AUGUST 3, 2007, AND THAT THE RATIO OF CLOSURE ON THE UNADJUSTED FIELD OBSERVATIONS OF SUCH SURVEY WAS 1/5000, AND THAT ALL OF THE REQUIREMENTS OF P.A. 132 1970, AS AMENDED, HAVE BEEN COMPLIED WITH.

CLIENT RICHARDSON DEVELOPMENT GROUP SKETCH & DESCRIPTION OF PARCELS I & II LOCATED IN SECTION 20 TOWN 2 NORTH, RANGE 11 EAST CITY OF TROY OAKLAND COUNTY, MICHIGAN	JOB: 06000244	CAD 06000244SU-01
	DR. DLW	CH. JDH
	BOOK 102-104	PG. 16-17
	SHEET 1 OF 3	DATE: 8/6/07
	FILE NO. 5102-201	
ATWELL-HICKS www.atwell-hicks.com 866 850 4200		
SCALE: 1 INCH = 300 FEET		ARIZONA FLORIDA ILLINOIS MICHIGAN OHIO PENNSYLVANIA TENNESSEE Engineering Surveying Planning Environmental Ecological Water Resources

PROFESSIONAL SURVEYOR
NUMBER 49352

DETAIL
NOT TO SCALE

"SHEFFIELD MANOR SUB."
(LIBER 142, PAGES 22, 23 AND 24)



LEGEND

- O_F FOUND IRON PIPE
- O_{F-RR} FOUND IRON ROD
- O_S SET IRON PIPE
- ✕_S SET CHISLED X
- ✕_F FOUND PK NAIL
- ✕_S SET PK NAIL
- // FENCE LINE
- P/L PROPERTY LINE
- SECTION CORNER
- P.O.B. PLACE OF BEGINNING
- R.O.W. RIGHT-OF-WAY

LINE TABLE		
LINE	BEARING	LENGTH
L1	N00°01'30"E	120.00'
L2	S89°30'00"W	60.00'
L3	S44°48'54"W	42.60'
L4	N00°01'30"W	12.00'
L5	N45°15'40"W	42.22'
L6	S00°01'30"E	88.57'
L7	S89°30'00"W	60.00'

CURVE TABLE					
CURVE	LENGTH	RADIUS	DELTA	CHD. BEARING	CHORD
C1	289.06'	185.00'	89°31'26"	N44°44'15"E	260.54'
C2	24.33'	285.00'	4°53'29"	S87°03'17"W	24.32'
C3	299.93'	285.00'	60°17'48"	S59°21'06"W	286.28'
C4	275.60	285.00'	55°24'21"	S56°54'21"W	264.99'

SECTION CORNER WITNESSES:
SOUTHEAST CORNER SECTION 19
FOUND REMON DISC, PS #17623
S06°E 85.00' TOP NW BOLT ON LIGHT POLE BASE
S86°E 86.60' TOP NW BOLT ON LIGHT POLE BASE
N68°W 57.20' TOP SE BOLT ON LIGHT POLE BASE
N17°E 92.50' TOP SW BOLT ON LIGHT POLE BASE

SOUTH 1/4 CORNER SECTION 19
FOUND REMON DISC, PS #17623
N11°W 55.20' PK & REMON WASHER WEST
FACE GUIDE POLE
N66°W 119.30' TOP NUT ON HYDRANT
S76°E 104.22' NW CORNER OF CB
S01°W 35.20' TOP NUT ON HYDRANT

EAST 1/4 CORNER SECTION 19
FOUND REMON DISC, PS #17623
WEST 49.88' PK & REMONE WASHER N FACE POWER POLE
EAST 60.11' FOUND CONCRETE MONUMENT
N35°E 5.27' SW CORNER LIGHT POLE BASE
S02°E 94.65' NW CORNER LIGHT POLE BASE

CLIENT RICHARDSON DEVELOPMENT GROUP SKETCH & DESCRIPTION OF PARCELS I & II LOCATED IN SECTION 20 TOWN 2 NORTH, RANGE 11 EAST CITY OF TROY OAKLAND COUNTY, MICHIGAN	JOB: 06000244 DR. DLW	CAD 06000244SU-01 CH. JDH
	BOOK 102-104 SHEET 2 OF 3	PG. 16-17 DATE: 8/6/07
	FILE NO. 5102-201A	
	ATWELL-HICKS www.atwell-hicks.com 866 850 4200	
SCALE: 1 INCH = 100 FEET 	ARIZONA FLORIDA ILLINOIS MICHIGAN OHIO PENNSYLVANIA TENNESSEE	Engineering Surveying Planning Environmental Ecological Water Resources

PROFESSIONAL SURVEYOR
NUMBER 49352

PARENT PARCEL: (Tax I.D. No.: 20-19-430-002)

Commencing at the Southeast Corner of Section 19, T2N, R11E, City of Troy, Oakland County, Michigan; thence N00°01'30"W 1240.08 feet along the East line of said Section 19; thence S89°30'00"W 60.00 feet for a **PLACE OF BEGINNING**; thence S89°30'00"W 1007.36 feet along the North right-of-way line of Cunningham Drive (100.00 feet wide); thence continuing 299.93 feet along the arc of a 285.00 foot radius non-tangential circular curve to the left, with a central angle of 60°17'48", having a chord which bears S59°21'06"W 286.28 feet along the North right-of-way line of said Cunningham Drive; thence N89°38'37"W 104.94 feet; thence N00°01'30"W 680.20 feet; thence N89°49'05"E 958.62 feet along the South line of "Sheffield Manor Subdivision" as recorded in Liber 142, Pages 22-24, Oakland County Records; thence S00°01'30"E 88.57 feet; thence N89°58'30"E 400.00 feet; thence S00°01'30"E 440.77 feet along the West right-of-way line of Coolidge Highway (120.00 feet wide) to the Place of Beginning, containing 16.42 acres of land, more or less. Being subject to easements, conditions, exceptions and restrictions of record, if any.

PARCEL I: (Part of Tax I.D. No.: 20-19-430-002)

Commencing at the Southeast Corner of Section 19, T2N, R11E, City of Troy, Oakland County, Michigan; thence N00°01'30"W 1240.08 feet along the East line of said Section 19; thence S89°30'00"W 60.00 feet for a **PLACE OF BEGINNING**; thence S89°30'00"W 1007.36 feet along the North right-of-way line of Cunningham Drive (100.00 feet wide); thence continuing 24.33 feet along the arc of a 285.00 foot radius non-tangential circular curve to the left, with a central angle of 04°53'29", having a chord which bears S87°03'17"W 24.32 feet along the North right-of-way line of said Cunningham Drive; thence N00°01'30"W 537.20 feet; thence N89°49'05"E 631.62 feet along the South line of "Sheffield Manor Subdivision" as recorded in Liber 142, Pages 22-24, Oakland County Records; thence S00°01'30"E 88.57 feet; thence N89°58'30"E 400.00 feet; thence S00°01'30"E 440.77 feet along the West right-of-way line of Coolidge Highway (120.00 feet wide) to the Place of Beginning, containing 11.81 acres of land, more or less. Being subject to easements, conditions, exceptions and restrictions of record, if any.

REMAINDER PARCEL I: (Part of Tax I.D. No.: 20-19-430-002)

Commencing at the Southeast Corner of Section 19, T2N, R11E, City of Troy, Oakland County, Michigan; thence N00°01'30"W 1240.08 feet along the East line of said Section 19; thence S89°30'00"W 60.00 feet; thence S89°30'00"W 1007.36 feet along the North right-of-way line of Cunningham Drive (100.00 feet wide); thence continuing 24.33 feet along the arc of a 285.00 foot radius non-tangential circular curve to the left, with a central angle of 04°53'29", having a chord which bears S87°03'17"W 24.32 feet along the North right-of-way line of said Cunningham Drive for a **PLACE OF BEGINNING**; thence 275.60 feet along the arc of a 285.00 foot radius non-tangential circular curve to the left, with a central angle of 55°24'21", having a chord which bears S56°54'21"W 264.99 feet along the Northwesterly right-of-way line of said Cunningham Drive; thence N89°38'37"W 104.94 feet; thence N00°01'30"W 680.20 feet; thence N89°49'05"E 327.00 feet along the South line of "Sheffield Manor Subdivision" as recorded in Liber 142, Pages 22-24, Oakland County Records; thence S00°01'30"E 537.20 feet to the Place of Beginning, containing 4.61 acres of land, more or less. Being subject to easements, conditions, exceptions and restrictions of record, if any.

DESCRIPTION OF PARCEL II: (Tax I.D. No.: 20-19-476-001)

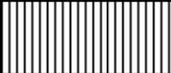
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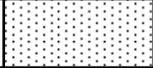
CLIENT RICHARDSON DEVELOPMENT GROUP	JOB: 06000244	CAD 06000244SU-01
	DR. DLW	CH. JDH
	BOOK 102-104	PG. 16-17
	SHEET 3 OF 3	DATE: 8/6/07
SKETCH & DESCRIPTION OF PARCELS I & II LOCATED IN		FILE NO. 5102-201B
SECTION 20 TOWN 2 NORTH, RANGE 11 EAST CITY OF TROY OAKLAND COUNTY, MICHIGAN		 ATWELL-HICKS www.atwell-hicks.com 866 850 4200
		ARIZONA FLORIDA ILLINOIS MICHIGAN OHIO PENNSYLVANIA TENNESSEE Engineering Surveying Planning Environmental Ecological Water Resources

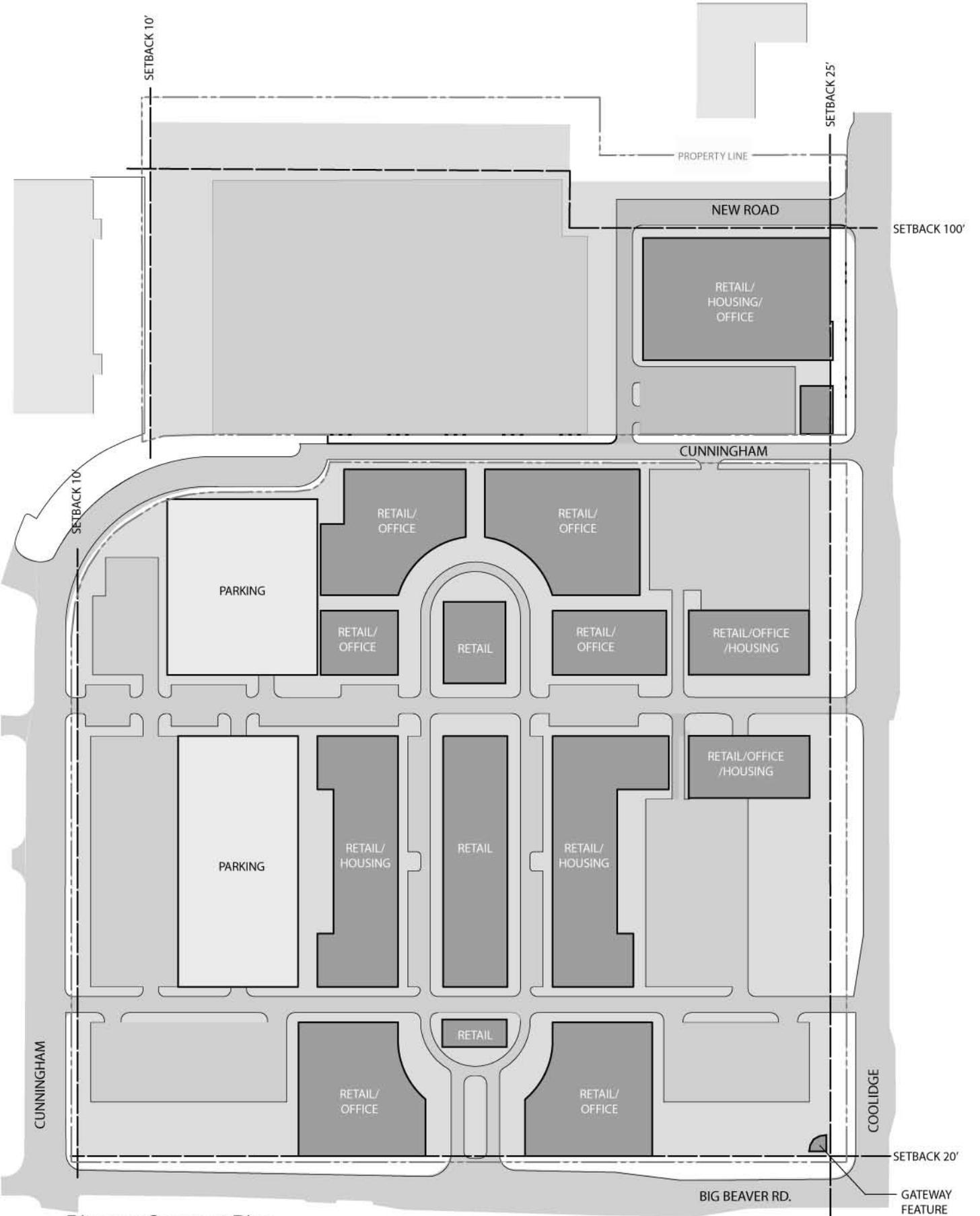
PROFESSIONAL SURVEYOR
NUMBER 49352

EXHIBIT “D”

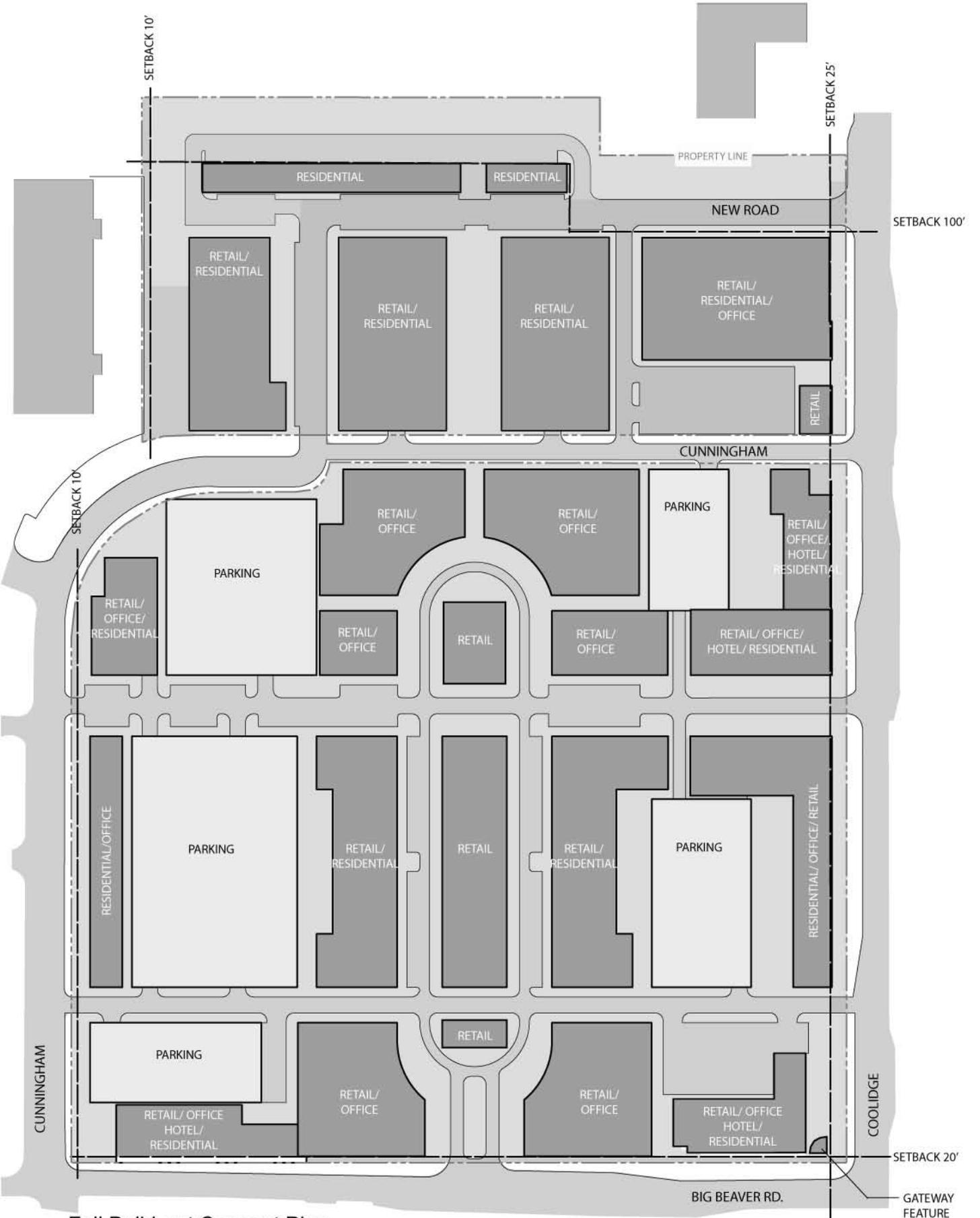
Permitted Uses

Permitted Uses	Residential Area	Transition Area	Pavilions Area	Border Area
				
Residential Uses (750 units)				
Townhomes and lofts	X	X	X	X
Multiple family buildings (condominiums, apartments)	-	X	X	X
Live/work units	-	X	X	X
Senior housing (independent, assisted living or nursing/congregate care)	-	X	X	X
Office Uses (300,000 sq. ft.)				
General, professional and medical offices (including but not limited to clinics, laboratories, and offices for similar professions including veterinarians)	-	X	X	X
Research offices	-	X	X	X
Financial institutions such as banks or credit unions	-	X	X	X
Hotel Uses (250 rooms)				
Hotel	-	-	X	X
Retail Uses (500,000 sq. ft.)				
General and specialty retail including but not limited to the following: <ul style="list-style-type: none"> ▪ Personal and convenience services (such as salons, spas, retail dry cleaners, repair shops) ▪ Sales of hard and soft goods and other merchandise (such as apparel, crafts, electronics, gifts, hardware, home furnishings, appliances, medical supplies, toys, pharmaceuticals) ▪ Stores that sell pets, pet supplies, and offer accessory pet services such as grooming or boarding ▪ Food Stores (such as grocery stores and specialty or gourmet markets, bakery, may include accessory flower shops, nurseries, delis, coffee shops, cafes, etc) 	-	X	X	X
Full Service Restaurants and Bars	-	-	X	X
Restaurants - take out, coffee shops, ice cream shops, deli or café	-	X	X	X

Permitted Uses	Residential Area	Transition Area	Pavilions Area	Border Area
				
Retail Uses (500,000 sq. ft.)				
Entertainment uses (such as cinemas, live theaters, performing arts centers, indoor recreation, billiard halls, arcades and dance studios)	-	-	X	X
Day care (children and adult)	-	X	X	X
Athletic or fitness clubs	-	X	X	X
Service establishment of a showroom or workshop (electrician, decorator, dressmaker, tailor, baker, painter, upholsterer; minor repair, photographic studios and similar establishments)	-	-	X	X
Institutional Uses				
Publicly owned and operated facilities (including post offices, libraries, museums, community and meeting, government offices, meeting facilities, and recreation facilities)	-	X	X	X
Churches	-	X	X	X
Schools (including universities and trade schools)	-	X	X	X
Transit Centers	-	X	X	X
Similar and Accessory Uses				
Uses similar to the above consistent with the intent of this PUD, as determined by the Planning Commission, provided parking is sufficient	X	X	X	X
Parking garages and on and off-street parking areas	X	X	X	X
Drive through windows (provided a maximum of three bays per use)	-	X	-	X
Accessory structures and uses customarily incidental to the listed uses and otherwise compatible with a pedestrian oriented environment (such as temporary and permanent outdoor pavilions, plazas, outdoor seating, outdoor performance stages, kiosks, sales stands, mobile sales carts, outdoor café seating, and transit stops/shelters and similar uses) to be approved administratively	X	X	X	X

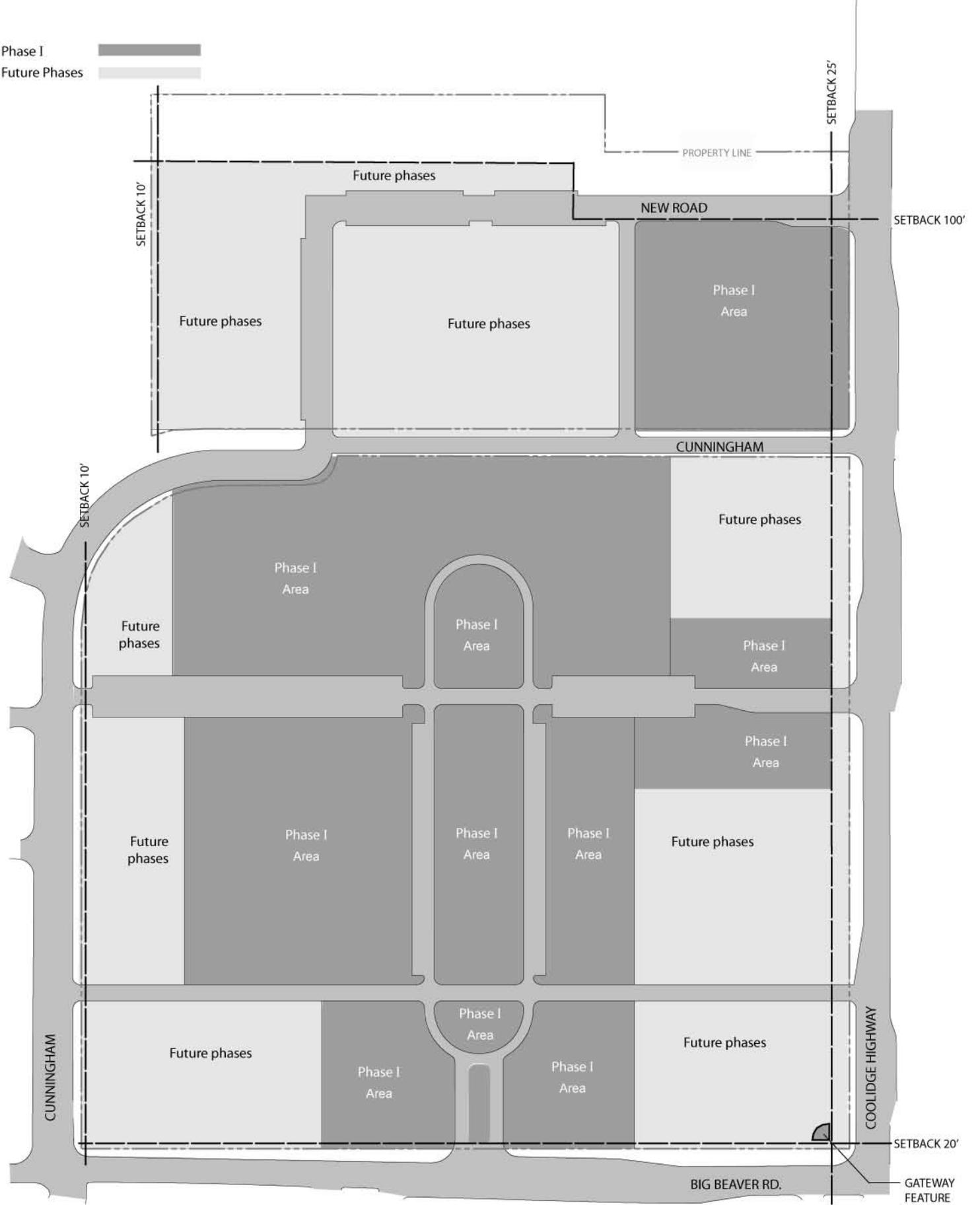


Phase I Concept Plan



Full Build-out Concept Plan

Phase I 
Future Phases 



Phasing Diagram

EXHIBIT “E”

Shared Parking Model

In the event the full program for the Phase I Area is submitted as a single Preliminary Development Plan (PDP), the minimum parking required for the Phase I Area will be 2,959 spaces as outlined in The Pavilions of Troy Shared Parking Study, prepared by Wells & Associates May 31, 2007. In the event the full build out program is submitted as a single PDP, the minimum parking required for The Pavilions of Troy will be 4,296 spaces, in accordance with the Shared Parking Study. Additional parking may be provided for each of these conditions at the discretion of Owner.

PDPs for Phase I Area Program

In the event the program for the Phase I Area is submitted for approval in multiple PDPs, the following methodology will be used to calculate the minimum number of parking spaces required for each individual PDP and all cumulative PDPs submitted to date.

The applicant will calculate the minimum parking requirement for the program for each individual PDP submitted and the cumulative minimum parking requirements of the program for all PDPs submitted to date to determine the cumulative required parking for the Project when that PDP is constructed in accordance with the effective parking ratios listed in the following schedule (Effective Parking Ratios from The Pavilions of Shared Parking Study, prepared by Wells & Associates, May 31, 2007, Page 31, Table 11):

<u>Use</u>	<u>Weekday</u>	<u>Weekend</u>
Retail	3.31	3.11 (per 1000 S.F. GLA)
Restaurant	11.63	16.00 (per 1000 S.F. GLA)
Cinema	0.02	0.11 (per seat)
Supermarket	5.23	4.76 (per 1000 S.F. GBA)
Health Club	4.27	4.71 (per 1000 S.F. GBA)
Office	3.13	0.02 (per 1000 S.F. GBA)
Residential	2.00	2.00 (per D.U.)
Residential Visitors	0.03	0.09 (per D.U.)

The required parking will be calculated for weekday and weekend conditions for each individual land use based on the proposed density for individual and collective PDPs, with all totals rounded up requiring one (1) full space. The greater of the aggregate weekday or aggregate weekend total, as increased by twenty percent (20%) will serve as the minimum parking required to serve the cumulative project. Additional parking spaces may be provided above and beyond this minimum requirement at the discretion of Owner.

The following is an example of how the methodology mentioned above would be applied to the cumulative PDP development program prior to the completion of the Phase I Area (the parties acknowledge that the following is an example only, and Owner shall have no obligation to submit a PDP application consistent with such sample):

Land Uses/Density (First PDP)

Retail:	200,000 S.F. (GLA)
Restaurant:	40,000 S.F. (GLA)
Cinema:	3,000 seats
Supermarket:	50,000 S.F. (GBA)
Health Club:	35,000 S.F. (GBA)
Office:	60,000 S.F. (GBA)
Residential Units:	200 D.U.

<u>Minimum Parking Required:</u>	<u>Weekday</u>	<u>Weekend</u>
Retail (200 * 3.31 or 3.11) =	662	622
Rest. (40 * 11.63 or 16.00) =	466	640
Cinema (3,000 * .02 or .11) =	60	330
Supermarket (50 * 5.23 or 4.76) =	262	238
Health Club (35 * 4.27 or 4.71) =	150	165
Office (60 * 3.13 or .02) =	188	2
Res. (200 * 2.0 or 2.0) =	400	400
Res. Visitors (200 * .03 or .09) =	<u>6</u>	<u>18</u>
Subtotal	2,194	2,415
Plus 20%	<u>439</u>	<u>483</u>
Aggregate Total	2,633	2,898
(* all totals rounded up)		

Minimum Parking Required = 2,898 spaces (weekend demand)

PDPs after Phase I Area Program Complete

Upon the completion of the program for the Phase I Area, all subsequent PDPs submitted for approval up to full build out will apply the following methodology to calculate the minimum number of parking spaces required for each individual PDP and all cumulative PDPs submitted to date.

The applicant will calculate the minimum parking requirement for the program for each individual PDP submitted and the cumulative minimum parking requirements of the program for all PDPs submitted to date to determine the cumulative required parking for The Pavilions of Troy when that PDP is constructed in accordance with the effective parking ratios listed in the following schedule (Effective Parking Ratios from The Pavilions of Shared Parking Study, prepared by Wells & Associates, May 31, 2007, Page 36, Table 12):

<u>Use</u>	<u>Weekday</u>	<u>Weekend</u>
Retail	3.02	2.92 (per 1000 S.F. GLA)
Restaurant	9.43	15.11 (per 1000 S.F. GLA)

Cinema	0.02	0.14 (per seat)
Supermarket	4.79	4.11 (per 1000 S.F. GBA)
Health Club	4.27	3.00 (per 1000 S.F. GBA)
Office	3.10	0.00 (per 1000 S.F. GBA)
Hotel	0.66	0.55 (per room)
Residential (Apt.)	2.00	2.00 (per D.U.)
Residential Visitors (Apt.)	0.03	0.15 (per D.U.)
Residential (Cono/TH)	2.00	0.15 (per D.U.)
Residential Visitors (Condo)	0.03	0.15 (per D.U.)
Senior Housing	0.69	0.81 (per D.U.)

The required parking will be calculated for weekday and weekend conditions for each individual land use based on the proposed density for individual and collective PDPs, with all totals rounded up requiring one (1) full space. The greater of the aggregate weekday or aggregate weekend total, as increased by thirty percent (30%) will serve as the minimum parking required to serve the cumulative project. Additional parking spaces may be provided above and beyond this minimum requirement at the discretion of Owner.

EXHIBIT “F”

PUD Ordinance

ARTICLE XXXV Planned Unit Development (PUD)

35.10.00 Intent:

The intent of the Planned Unit Development option is to permit flexibility in the design and use of residential and non-residential land which, through the implementation of an overall development plan, when applicable to the site, will:

- A. Encourage developments that will result in a long term contribution to social, environmental and economic sustainability in the City of Troy;
- B. Permit development patterns that respond to changing public and private needs;
- C. Encourage flexibility in design and use that will result in a higher quality of development and a better overall project than would be accomplished under conventional zoning, and which can be accommodated without sacrificing established community values;
- D. Provide for the long-term protection and/or preservation of natural resources, natural features, and/or historic and cultural resources;
- E. Promote the efficient use and conservation of energy;
- F. Encourage the use, redevelopment and improvement of existing sites where current ordinances do not provide adequate protection and safeguards for the site or its surrounding areas, or where current ordinances do not provide the flexibility to consider redevelopment, replacement, or adaptive re-use of existing structures and sites;
- G. Provide for enhanced housing, employment, recreation, and shopping opportunities for the citizens of Troy;
- H. Ensure the compatibility of design and use between various components within the PUD and with neighboring properties and uses; and
- I. Ensure development that is consistent with the intent of the land use plan meeting

the requirements of the Municipal Planning Act or the intent of any applicable corridor or sub-area plans.

A Planned Unit Development project is viewed as an integrated development concept. To that end, the provisions of this Article are not intended to be used as a device for avoiding the zoning requirements that would otherwise apply, but rather to allow flexibility and mixture of uses, and to improve the design, character and quality of new development. The use of a Planned Unit Development to permit variations from other requirements of this Ordinance shall only be approved when such approval results in improvements to the public health, safety and welfare in the area affected, and in accordance with the intent of this Article.

35.20.00 Uses Permitted:

The uses permitted within a Planned Unit Development shall be consistent with the intent of the plan meeting the requirements of the municipal Planning Act or the intent of any applicable corridor or sub-area plans. If conditions have changed since the plan, or any applicable corridor or sub-area plans, were adopted, the uses shall be consistent with recent development trends in the area. Other land uses may be authorized when such uses are determined to be consistent with the intent of this Article. Physical standards relating to matters such as building height, bulk, density, parking and setbacks will be determined based upon the specific PUD plan presented, and its design quality and

compatibility with adjacent uses, rather than being based upon the specific standards contained in the underlying zoning districts or in those districts within which the proposed uses otherwise occur. A Planned Unit Development plan, approved in accordance with the provisions of this Article, replaces the underlying zoning districts as the basis upon which the subject property is developed and its uses are controlled.

Standards for Approval:

A Planned Unit Development project may be applied for in any zoning district. In order to be considered for the Planned Unit Development option, it should be demonstrated that the following standards will be met, as reasonably applicable to the site:

- A. The proposed development shall be applied for by a person or entity who has the legal right to execute a binding agreement covering all parcels in the PUD.
- B. The applicant shall demonstrate that through the use of the PUD option, the development will accomplish a sufficient number of the following objectives, as are reasonably applicable to the site, providing:
 1. A mixture of land uses that would otherwise not be permitted without the use of the PUD, provided that other objectives of this Article are also met;
 2. A public improvement or public facility (e.g. recreational, transportation, safety and security) which will enhance, add to or replace those provided by public entities, thereby furthering the public health, safety and welfare;
 3. A recognizable and material benefit to the ultimate users of the project and to the community, where such benefit would otherwise be infeasible or unlikely to be achieved absent these regulations;
 4. Long term protection and preservation of natural resources, natural features, and historic and cultural resources, of a significant quantity and/or quality in need of protection or preservation, and which would otherwise be unfeasible or unlikely to be achieved absent these regulations;
 5. A compatible mixture of open space, landscaped areas, and/or pedestrian amenities;
 6. Appropriate land use transitions between the PUD and surrounding properties;
 7. Design features and techniques, such as green building and low impact design, which will promote and encourage energy conservation and sustainable development;
 8. Innovative and creative site and building designs, solutions and materials;
 9. The desirable qualities of a dynamic urban environment that is compact, designed to human scale, and exhibits contextual integration of buildings and city spaces;
 10. The PUD will reasonably mitigate impacts to the transportation system and enhance non-motorized facilities and amenities;
 11. For the appropriate assembly, use, redevelopment, replacement and/or improvement of existing sites that are occupied by obsolete uses and/or structures;

12. A complementary variety of housing types that are in harmony with adjacent uses;
13. A reduction of the impact of a non-conformity or removal of an obsolete building or structure;
14. A development consistent with and meeting the intent of this Article; and will promote the intent of the plan meeting the requirements of the Municipal Planning Act or the intent of any applicable corridor or sub-area plans. If conditions have changed since the plan, or any applicable corridor or sub-area plans, were adopted, the uses shall be consistent with recent development trends in the area.
15. Includes all necessary information and specifications with respect to structures, heights, setbacks, density, parking, circulation, landscaping, amenities and other design and layout features, exhibiting a due regard for the relationship of the development to the surrounding properties and uses thereon, as well as to the relationship between the various elements within the proposed Planned Unit Development. In determining whether these relationships have been appropriately addressed, consideration shall be given to the following:
 - A. The bulk, placement, and materials of construction of the proposed structures and other site improvements.
 - B. The location and screening of vehicular circulation and parking areas in relation to surrounding properties and the other elements of the development.
 - C. The location and screening of outdoor storage, loading areas, outdoor activity or work areas, and mechanical equipment.
 - D. The hours of operation of the proposed uses.
 - E. The location, amount, type and intensity of landscaping, and other site amenities.
16. Parking shall be provided in order to properly serve the total range of uses within the Planned Unit Development. The sharing of parking among the various uses within a Planned Unit Development may be permitted. The applicant shall provide justification to the satisfaction of the City that the shared parking proposed is sufficient for the development and will not impair the functioning of the development, and will not have a negative effect on traffic flow within the development and/or on properties adjacent to the development.
17. Innovative methods of stormwater management that enhance water quality shall be considered in the design of the stormwater system.

18. The proposed Planned Unit Development shall be in compliance with all applicable Federal, State and local laws and ordinances, and shall coordinate with existing public facilities.

35.40.00 Consistency with Plan:

In the event that an applicant proposes a Planned Unit Development wherein the predominant use or uses would not be consistent with the intent of the plan meeting the requirements of the Municipal Planning Act, applicable corridor or sub-area plans, recent development trends in the area, or this Article, the City may consider initiating an amendment to the plan or applicable corridor or sub-area plans. If an applicant proposes any such uses, the applicant shall provide supporting documentation in advance of or

simultaneous with the request for Concept Development Plan Approval.

35.50.00 Summary of the Approval Process:

- A. Step One: Conceptual Development Plan Approval. The procedure for review and approval of a PUD shall be a three-step process. The first step shall be application for and approval of a Concept Development Plan, which requires a legislative enactment amending the zoning district map so as to reclassify the property as a Planned Unit Development. A proposed Development Agreement shall be included and incorporated with the Concept Development Plan, to be agreed upon and approved coincident with said Plan. The Concept Development Plan and Development Agreement shall be approved by the City Council following the recommendation of the Planning Commission. Such action, if and when approved, shall confer upon the applicant approval of the Concept Development Plan and shall rezone the property to PUD in accordance with the terms and conditions of the Concept Development Plan approval.
- B. Step Two: Preliminary Development Plan Approval. The second step of the review and approval process shall be the application for and approval of a Preliminary Development Plan (preliminary site plan) for the entire project, or for any one or more phases of the project. City Council shall have the final authority to approve and grant Preliminary Development Plan approvals, following a recommendation by the Planning Commission.
- C. Step Three: Final Development Plan Approval. The third step of the review and approval process shall be the review and approval of a Final Development Plan (final site plan) for the entire project, or for any one or more phases of the project, and the issuance of building permits. Final Development Plans for Planned Unit Developments shall be submitted to the Planning Department for

administrative review, and the Planning Department, with the recommendation of other appropriate City Departments, shall have final authority for approval of such Final Development Plans.

35.50.01

Step One: Concept Development Plan Approval:

A. Preapplication Meeting. Prior to the submission of an application for approval of a Planned Unit Development, the applicant shall meet informally with the Planning Department of the City, together with such staff and outside consultants as deemed appropriate by the City. The applicant shall present at such conference, or conferences, a sketch plan of the proposed Planned Unit Development, as well as the following information:

1. A legal description of the property and the total number of acres in the project;
2. A topographical map of the site;
3. A statement as to all proposed uses;
4. The known deviations sought from the ordinance regulations otherwise applicable;
5. The number of acres to be preserved as open or recreational space and the intended uses of such space;
6. All known natural resources, natural features, historic resources and historic features; which of these are to be preserved; and
7. A listing and specification of all site development constraints.

B. Concept Development Plan. Thereafter, a Concept Development Plan conforming to the application provisions set forth herein shall be submitted. A proposed Development Agreement shall be incorporated with the Concept Development Plan submittal and shall be reviewed and approved coincident with the Plan. Such submissions shall be made to the Planning Director, who shall present the same to the Planning Commission for consideration at a regular or special meeting. The Concept Development Plan shall constitute an application to amend the zoning district map. Before making a recommendation to the City Council, the Planning Commission shall hold a Public Hearing on the proposal. Prior to the Planning Commission scheduling a Public Hearing, the applicant shall arrange for one or more informal meetings with representatives of the adjoining neighborhoods, soliciting their comments and providing same to the Planning Commission. The City shall be advised in advance as to the scheduling and location of all such meetings.

Thereafter, the Planning Commission shall make a recommendation to the City Council with regard to the Concept Development Plan. A Public Hearing shall be scheduled before the City Council, at which time they will consider the proposal along with the recommendations of the Planning Commission, the City staff, and comments of all interested parties. The City Council shall then take action to approve, approve with conditions, or disapprove the

Concept Development Plan. The City Council shall set forth in their resolution the reasons for such action, including any reasons for denial.

C. Application. The application for approval of a Concept Development Plan shall include the following information and materials, which shall be in a plan format together with a narrative explanation:

1. Development Concept: A summary explanation of the development concept of the proposed Planned Unit Development. The Concept Development Plan shall describe the project and explain how the project will meet the intent of the PUD option as set forth in Section 35.10.00 and the criteria for consideration as a PUD as set forth in Section 35.30.00 hereof, as those sections reasonably apply to the site.
2. Density: The maximum density of the overall project and the maximum density for each proposed use and phase.
3. Road System: A general description of the road system and circulation pattern; the location of roads, entrances, exits and pedestrian walkways; a statement whether roads are intended to be public or private.
4. Utilities: A general description and location of both on-site and off-site utilities including proposed water, sanitary sewer, storm sewer systems and utility lines; a general indication of the size and location of stormwater detention and retention ponds, and a map and text showing off-site utilities, existing and proposed, which will provide services to the project.
5. Open Space/Common Areas: A general description of proposed open space and common areas; the total area of open space; the total area of open space in each proposed phase; the proposed uses of open space and common areas.
6. Uses: A list of all proposed uses; the location, type and land area to be devoted to each use, both overall and in each phase; a demonstration that all of the proposed uses are permitted under this Article.
7. Development Guidelines: A plan of the site organization, including typical setback and lot dimensions; the minimum lot sizes for each use; typical minimum and maximum building height and size; massing models; conceptual building design; and the general character and arrangement of parking; fencing; lighting; berming; and building materials.
8. Parking and Traffic: A study of the parking requirements and needs; a traffic impact study and analysis.
9. Landscaping: A general landscaping plan; a landscape plan for entrances; a landscape plan for overall property perimeters; any theme/streetscape design; any proposed irrigation.
10. Natural Resources and Features: Floodway/floodplain locations and elevations; wetlands and water courses; woodlands; location and description of other natural resources and natural features.

11. Phasing Information: The approximate location, area and boundaries of each phase; the proposed sequence of development, including phasing areas and improvements; and the projected timing for commencement and completion of each phase.
 12. Public Services and Facilities: A description of the anticipated demand to be generated by the development for public sewer, water, off-site roads, schools, solid waste disposal, off-site drainage, police and fire; a description of the sufficiency of each service and facility to accommodate such demands; the anticipated means by which any insufficient services and facilities will be addressed and provided.
 13. Historical Resources and Structures: Their location, description and proposed preservation plan.
 14. Site Topography.
 15. Signage: General character and location of entrance and internal road system signage; project identification signage; and temporary or permanent signage proposed for any other locations.
 16. Amenities.
 17. Zoning Classification: Existing zoning classifications on and surrounding the site.
 18. Specification Of Deviations: A specification of all deviations proposed from the regulations which would otherwise be applicable to the underlying zoning and to the proposed uses, which are proposed and sought for any phase or component of the Planned Unit Development; the safeguards, features and/or planning mechanisms proposed to achieve the objectives intended to be accomplished by any regulation from which a deviation is being sought.
 19. Community Impact Statement: A community impact statement, which shall provide an assessment of the developmental, ecological, social, economic and physical impacts of the project on the natural environmental and physical improvements on and surrounding the development site. Information required for compliance with other ordinance provisions need not be duplicated in the community impact statement.
 20. Environmental Impact Statement: An environmental impact statement in accordance with the provisions of Article VII of this Chapter shall be submitted.
- D. Standards for Approval. In making a determination as to whether to approve a proposed Planned Unit Development proposal, the Planning Commission and the City Council shall be guided by the intent and criteria as set forth in Sections 35.10.00 through 35.40, as reasonably applicable to the site.
- E. Planned Unit Development Agreement. In conjunction with a request for

Concept Development Plan approval, the applicant shall submit one or more proposed documents which, when agreed upon by all parties, shall serve as the PUD Agreement. As a part of the Concept Development Plan approval process, the applicant and the City Council shall each authorize execution of a PUD Development Agreement. The PUD Development Agreement shall include, but shall not be limited to, items such as the following:

1. A summary description of the nature and character of the proposed development, including uses, densities and site improvements as approved in the Concept Development Plan.
2. A statement of the conditions upon which Conceptual Development Plan Approval by the City Council is based, with particular attention given to those conditions which are unique to this particular PUD Plan. These conditions may include matters such as, but not limited to, architectural standards, building elevations and materials, site lighting, pedestrian facilities, and landscaping.
3. A summary of the public improvements (streets, utilities, etc.) and any other material benefits offered by the applicant, which are to be carried out in conjunction with the proposed PUD development, along with a summary of the financial guarantees which will be required and provided in order to ensure completion of those improvements, as well as the form of such guarantees which will be acceptable to the City.
4. A document specifying and ensuring the maintenance of any open space or common areas contained within the PUD development (e.g. through a property owners association, or through conveyance to the City with maintenance deposit, etc.).

Upon the granting of Concept Development Plan approval, the Planned Unit Development Agreement shall be recorded in the office of the Oakland County Register of Deeds by the City of Troy, referencing the legal description of the subject property.

5. A statement that if there is a conflict between the Zoning Ordinance, the Conceptual Development Plan and the Planned Unit Development Agreement, the Planned Unit Development Agreement shall control.
- F. Effect of Concept Development Plan Approval. If the City Council approves the Concept Development Plan and the Development Agreement, the zoning map shall be amended to designate the property as a Planned Unit Development. Such action, if and when approved, shall confer Concept Development Plan approval for five (5) years (herein to be referred to as CDP Period). The five year CDP Period commences upon the effective date of adoption of the ordinance that rezones the parcel to PUD by City Council.

During the CDP Period, the applicant shall be permitted to submit at least one (or more, at the option of the applicant, if the project is proposed in phases) Preliminary Development Plan application(s), seeking Preliminary Development Plan approval in the manner hereinafter provided. Upon the submittal of the first Preliminary Development Plan for one or more phases of the PUD project, the five (5) year expiration period shall no longer apply to the CDP and the CDP shall remain in full force and effect for the development of the entire PUD project, including without limitation, the development of all future phases of the entire PUD Property. Any submittals of Preliminary Development Plans shall comply with all the requirements of Section 3.43.00 of the Troy Zoning Ordinance for Preliminary Site Plan submittals and any additional requirements of the Planning Department reasonably needed to demonstrate consistency with the CDP and compliance with Section 35.50.02. Any Preliminary Development Plans that do not comply with these requirements shall not be considered submittals for purposes of this Paragraph. After submittal of the first Preliminary Development Plan, the timing for the issuance of permits and construction of the PUD project and/or all future phases, shall, be determined as set forth in Section 35.50.02.G.

Upon the request of the applicant, prior to the expiration of the Concept Development Plan, the City Council may extend the expiration date of the Concept Development Plan. In determining whether to extend the expiration date of the Concept Development Plan, approval of an extension may be granted if the ordinances and laws applicable to the project have not changed in a manner which would substantially affect the project as previously approved.

In the event of the expiration of the Concept Development Plan, the applicant may either make application for a new Concept Development Plan or make application for some other zoning classification. Following Final Development Plan Approval for one or more phases or for the entire PUD, no use or development of the subject property may occur which is inconsistent with the approved Final Development Plan and Development Agreement. There shall be no use or development of the subject property until a new concept development plan or rezoning is approved.

35.50.02 Step Two: Preliminary Development Plan Approval:

- A. Development of property classified as a PUD shall require Preliminary Development Plan approval, which shall be granted by City Council following a recommendation by the Planning Commission. Application(s) shall be

submitted to the Planning Commission and City Council for review and approval consistent with the approved Concept Development Plan.

- B. Preliminary Development Plan approval may be applied for and granted with respect to the entire PUD development or as to one or more phases. However, if the project is developed in phases, the design shall be such that upon completion, each phase or cumulative result of approved phases shall be capable of standing on its own in terms of the presence of services, facilities, and open space, and shall contain the necessary components to ensure protection of natural resources and the health, safety, and welfare of the users of the Planned Unit Development and properties in the surrounding area.

The Preliminary Development Plan shall specify the public improvements required to be constructed in addition to and outside of the proposed phase or phases for which

approval is sought, which are determined to be necessary in order to support and service such phase or phases.

Further, the Preliminary Development Plan may require the recordation of permanent or temporary easements, open space agreements, and other instruments in order to ensure the use and development of the public improvements on the property as proposed and/or to promote and/or protect the public health, safety and welfare in a manner consistent with the intent and spirit of this Article.

- C. Following receipt of an application for Preliminary Development Plan approval for either the entire PUD development, or for any one or more phases thereof, the Planning Commission shall conduct a public hearing to determine that:
 - 1. The Preliminary Development Plan continues to meet and conform to the criteria for, the intent of and the objectives contained in the approved Concept Development Plan. In the event that the Planning Commission determines that the Preliminary Development Plan does not continue to meet or conform to the criteria for, the intent of and/or the objectives contained in the approved Concept Development Plan, The Planning Commission shall make this determination a part of their recommendation. If City Council determines the Preliminary Development Plan does not conform to the Concept Development Plan, the applicant shall either revise the Preliminary Development Plan to so conform, or, shall seek an amendment to the Concept Development Plan in accordance with Section 35.70.00 hereof; and
 - 2. The Preliminary Development Plan meets the requirements, standards and procedures set forth Section 03.40.00 *et seq.* (Site Plan Review/Approval)

of the Zoning Ordinance and any other applicable requirements as set forth in this Article.

- D. Except as herein otherwise modified, Preliminary Development Plan approval shall be based upon the requirements, standards and procedures set forth Section 03.40.00 *et seq.* of the Zoning Ordinance (Site Plan Review/Approval). In addition to the information required in such Section, the applicant shall also submit the following:
1. A demonstration, including map and text, that the requirements of Section 35.50.02.B hereof have been met.
 2. To the extent not provided by the information submitted in accordance with Section 03.40.00 *et seq.* of the Zoning Ordinance, the following additional information and documentation shall be submitted:
 - a. Sufficient information to demonstrate compliance with any applicable project design standards as approved during Concept Development Plan review.
 - b. A site plan showing the type, location and density of all structures and uses.
 - c. A plan showing all open spaces, including preserves, recreational areas, and historic resources, including but not limited to all similar such uses and spaces, and the purpose proposed for each area.
 - d. Expert opinion of an independent consultant with regard to a market need for the use or uses proposed and the economic feasibility of the project.
 - e. A specification of all deviations proposed from the regulations which would otherwise be applicable to the underlying zoning and to the proposed uses. This specification shall state the reasons and mechanisms to be utilized for the protection of the public health, safety and welfare in lieu of the regulations which would otherwise apply to a traditional development.
 - f. Additional landscaping details as required by the Planning Commission and/or the City Council in order to achieve a specific purpose consistent with the spirit of this Article.
 - g. The general improvements which will constitute a part of each phase or phases proposed, including, without limitation, lighting, signage, visual and noise screening mechanisms, utilities, and further including the aesthetic qualities of the general improvements.
- E. The Planning Commission shall proceed with the review of a Preliminary Development Plan in the manner herein specified and in accordance with the provisions of Section 03.40.00 *et seq.* of the Zoning Ordinance. The Planning

Commission shall provide a recommendation to City Council who shall have the authority to approve or deny the Preliminary Development Plan.

- F. At the conclusion of the Planning Commission's review, the Planning Commission shall either recommend approval of the Preliminary Development Plan, with or without conditions, or recommend denial. If the Planning Commission recommends denial, the minutes of the meeting shall include the reasons for recommending denial. If approval is recommended with conditions, the minutes shall include a statement of the conditions.
- G. Following receipt of the Planning Commission's recommendation of a Preliminary Development Plan, the City Council shall conduct a public hearing to determine that:
 - 1. The preliminary development plan continues to meet and conform to the criteria for, the intent of and the objectives contained in the approved Concept Development Plan. In the event that the City Council determines that the Preliminary Development Plan does not continue to meet or conform to the criteria for, the intent of and/or the objectives contained in the approved Concept Development Plan, the City Council shall deny the application. If City Council determines the Preliminary Development Plan does not conform to the Concept Development Plan, the applicant shall either revise the Preliminary Development Plan to so conform, or, shall seek an amendment to the Concept Development Plan in accordance with Section 35.70.00 hereof; and
 - 2. The preliminary development plan meets the requirements, standards and procedures set forth in Section 03.40.00 *et seq.* (site plan review/approval) of the zoning ordinance and any other applicable requirements as set forth in this article.
- A. City Council's approval of the Preliminary Development Plan shall be effective for a period of three (3) years, during which period of time the applicant is authorized to submit a Final Development Plan (final site plan, engineering and construction plans) for site improvements, together with all other documents necessary for Final Development Plan approval and the issuance of Building Permits. The applicant may apply to the City for extension of the three (3) year period for approval of the Preliminary Development Plan.

35.50.03 Step Three: Final Development Plan Approval:

Upon receipt of Preliminary Development Plan approval, the applicant shall be entitled to submit a Final Development Plan for the entire development (or one or more phases) to the Planning Department for its review and approval, and the Planning Department

shall have final authority for the review and approval of Final Development Plans. In conjunction with the application for approval of a Final Development Plan, the applicant shall submit evidence of completion of the Preliminary Development Plan Approval process in accordance with this Article. Following their review of the Final Development

Plan, the Planning Department shall approve, approve with conditions, or disapprove the Final Development Plan. In the event of denial, the Planning Department shall set forth in writing the reasons for such action. Construction shall commence in accordance with the Final Development Plan within two (2) years from the date of approval. The applicant may apply to the Planning Commission for an extension of the one (1) year period within which to commence construction upon good cause shown.

35.60.00 Amendment or Abandonment:

35.60.01 Any proposed amendment of the Planned Unit Development which seeks to alter the intent, the conditions or terms of the Concept Development Plan as approved and/or the terms or conditions of Final Development Plan approval, shall be presented to and considered by the Planning Commission and the City Council at Public Hearings, following the procedures set forth for Concept Development Plan approval.

35.60.02 Abandonment of Concept Development Plan: Following any action evidencing abandonment of the Concept Development Plan, whether through failure to proceed during the Concept Development Plan period as required under this Article, or through notice of abandonment given by the property owners, applicants or their successors, the City Council shall be entitled to take any necessary and appropriate action to rescind the Concept Development Plan approvals, to invalidate any related Development Agreements, and to rezone the subject property from PUD to an appropriate classification. Abandonment shall be deemed to rescind any and all rights and approvals

granted under and as part of the Concept Development Plan, and the same shall be deemed null and void. Evidence of such actions shall be recorded in the office of the Oakland County Register of Deeds, and referenced to the subject property.

(Rev. 04-02-07)

35.60.03 PUBLIC NOTICE FOR PLANNED UNIT DEVELOPMENT PUBLIC HEARINGS:

A. For public hearings required with respect to a Planned Unit Development, notice shall be given not less than 15 days before each public hearing at which the Planned Unit Development will be considered. Notice shall be given by publication in a newspaper that circulates in the City of Troy, and by personal delivery or mailing to the following:

1. The applicant.
2. The owner(s) of the property, if the applicant is not the owner.
3. The owners of all real property within 300 feet of the boundary for the property for which approval has been requested, as shown by the latest assessment roll, regardless of whether the owner and property is located within the City of Troy.
4. The occupants of any structures within 300 feet of the boundary for the property for which the approval has been requested, regardless of whether the owner and property is located within the City of Troy.

B. The notice shall include:

1. The nature of the Planned Unit Development being proposed.
2. The property(ies) for which the request has been made.
3. A listing of all existing street addresses within the property(ies) which is(are) the subject of the proposed Planned Unit Development. Street addresses do not need to be created and listed if no such addresses exist. If there are no street addresses, another means of identification may be used.
4. The location where the application documents can be viewed and copied prior to the date the application will be considered.
5. The date, time and location of when the hearing on the application will take place.
6. The address at which written comments should be directed prior to the consideration.

(Enacted: 09-18-06; Effective: 10-01-06)

35.60.03 *Abandonment of Preliminary Development Plan:* Approved Preliminary Development Plans for which a Final Development Plan has not been submitted as required under Section 35.50.02.G., shall be considered abandoned for the purposes of this Article. The applicant may request a twelve month extension of Preliminary Development Plan approval, which will be considered and acted upon by the City Council following a Public Hearing. A written request for extension must be received by the City before the expiration of the three year Preliminary Plan Approval period.

35.60.04 *Abandonment of Final Development Plan:* Approved Final Development Plans, upon which construction does not commence within a two year period from the date of a Final Development Plan approval, shall be considered abandoned for the purposes of this Article. The applicant may request a twelve month extension of Final Development Plan approval, which will be considered and acted upon by the City Council following a Public Hearing. A written request for extension must

be received by the City before the expiration of the two-year Final Plan Approval period.

35.70.00 Appeals:

The Board of Zoning Appeals shall have no authority in matters covered by this Article. Modifications to plans or proposals submitted under this Article shall be processed in accordance with the amendment procedures covered under Section 35.60.00 hereof.

35.80.00 Violations:

Any violation of the approved PUD Final Plan or the PUD Agreement shall be considered a violation of the Zoning Ordinance, which shall be subject to the enforcement actions and penalties described in Section 02.50.00 of the Zoning Ordinance.

(Rev. 04-02-07)

EXHIBIT "G"

Deviations from Development Standards

1. The City acknowledges that Owner shall be entitled to submit for final engineering approval for sanitary sewer, water main and any public storm sewer systems or other public utilities prior to the first PDP application for the PUD Property.
2. The proximity of buildings along street corridors will require that all proposed utilities be placed under road or sidewalk pavement and proposed easements for public utilities overlap each other.
3. Prior to obtaining final PDP approval, the City will allow Owner to make submittals intended for review of final engineering plans including grading and soil erosion.
4. Owner shall be entitled to install sanitary sewers at a minimum depth from top of curb (or road centerline if uncurbed) to the top of any sanitary sewer of five feet (5'-0") at local control points, and at locations where the sewer grade is parallel to the road grade.
5. Improved open drains (including, without limitation, bio swales, infiltration trenches and rain gardens) may be permitted upon special circumstances, with Engineering Department approval. The open drains shall be designed to include the following:
 - (a) Side slopes no steeper than six (6) horizontal to one (1) vertical, where such slopes abut the development being proposed.
 - (b) Four (4) to one (1) slopes, with four (4) foot chain link fencing, may be considered, with the approval of the City Engineer, along a development boundary.
6. Owner shall be entitled to install HDPE or corrugated metal storm sewer pipe in lieu of concrete.
7. Owner may install fire hydrants within the standard twenty five (25') feet set back from street intersections, provided such installation is not closer than ten (10') feet from such intersections. Additionally, steel post (or bollards) may not be required if they detract from the overall design. Protection of hydrants may be accomplished by alternate methods (including, without limitation, landscape islands).
8. Owner may install fire hydrants within the standard twenty five (25') foot set back from any building provided such fire hydrants will not be located within the road or at similar inappropriate locations.
9. Owner shall be entitled to install roads within the project which include a width of twenty eight (28') feet, B-C to B-C.

10. Owner shall be entitled to provide for a vertical curve of the road which is less than one hundred (100') feet, where appropriate.
11. Owner shall be entitled to include pavement radii that are less than twenty (20') feet.
12. Roads which are internal to the project may not have curbs, when approved by the City Engineer.
13. Owner shall not be obligated to comply with the standard of Air Entraining Portland Cement, Type I–A, A.S.T.M. Designation C-150 in the areas where Owner elects to use porous pavement.
14. Owner shall not be obligated to comply with the concrete standard of M.D.O.T. Grade 35P; a concrete mix proportion of one (1) part cement, one and one-half (1 ½) parts fine aggregate and two (2) parts coarse aggregate measured by volume with a maximum of six (6) gallons of water per sack of cement; and attain a minimum compressive strength of 3,500 p.s.i. after twenty-eight (28) days, in those areas where Owner elects to use porous pavement.
15. In connection with the completion of construction on Phase 1, Owner shall have no obligation to install deceleration lanes along Coolidge Highway and or Cunningham Road.

EXHIBIT “H”

Offsite Traffic Improvements

Big Beaver Road:

1. Remove unsignalized EB to WB crossover immediately east of Cunningham Drive.
2. Relocate existing signalized WB to EB crossover approximately 300 feet to the west.

Coolidge Highway:

1. Construct SB to NB crossover with 100 feet of storage approximately 100 feet north of Big Beaver Road.
2. Remove existing SB to NB crossover located at Somerset North southern driveway.
3. Construct SB right turn deceleration lane at Pavilions Drive 7 (as identified in The Pavilions of Troy CDP Book) with 50 feet of storage and 75 foot taper.
4. Remove existing NB to SB crossover located between Somerset North southern driveway and Somerset North northern driveway.
5. Construct NB dual left turn lanes within 350 feet of storage at Pavilions Drive 6 (as identified in The Pavilions of Troy CDP Book)/Somerset North driveway.
6. Construct SB right turn deceleration lane at Pavilions Drive 6 (as identified in The Pavilions of Troy CDP Book) with 100 feet of storage and 75 foot taper.
7. Install three phase traffic signal at the Pavilions Drive 6/Somerset North northern driveway.
8. Construct exclusive EB left turn lane on Cunningham Drive with 300 feet of storage and an appropriate taper per the Road Commission for Oakland County standards.
9. Construct exclusive WB right turn lane on Cunningham Drive with 150 feet of storage and an appropriate taper per the Road Commission for Oakland County standards.

10. Re-stripe SB right turn lane at Cunningham Drive to operate a shared through/right turn lane. Minimal modifications will be necessary to the median south of Cunningham to provide for proper transition.

EXHIBIT I

CONCEPTUAL DEVIATIONS TO SIGN ORDINANCE

1. **Sign Measurement.** The area of any sign will be measured by enclosing the text and/or logos that comprise the sign’s language within a parallelogram or rectangle. Architectural features such as decorative walls, columns, planting areas and water features are not considered to be part of the sign for measurement purposes.
2. **Corner Identity** (Southeast corner of the site at the intersection of Big Beaver Road and Coolidge Highway)

<i>Minimum Setback</i>	<i>Maximum Height</i>	<i>Maximum Area</i>
<i>20 ft</i>	<i>25 ft</i>	<i>200 sq. ft.</i>

3. **Entries to Pavilions of Troy** (Vehicular entrances to the site from Big Beaver Road, Coolidge Highway and Cunningham Drive)

<i>Minimum Setback</i>	<i>Maximum Height</i>	<i>Maximum Area</i>
<i>10 ft</i> <i>(but 30 ft from existing residential district)</i>	<i>20 ft</i>	<i>200 sq. ft.</i>

4. **Directories**
Up to four directories will be located within the site, to assist in way-finding. Directories will be a maximum of 10 feet and 50 sq. ft. per side.
5. **Theater**
The theater will have two dedicated ground signs, one on Big Beaver and one on Coolidge. The theater sign can be up to 30 feet tall and up to 200 Square Feet in area.
6. **Wall Signs Facing External Streets** (Big Beaver Road and Coolidge Highway)
Wall signs facing external streets will be allowed any number of wall signs, such that the total combined area of all wall signs shall not exceed 10% of the wall.
7. **Wall Signs Facing Internal Streets** (any street within the site, including Cunningham)
Wall signs facing internal streets will be allowed any number of wall signs, such that the total combined area of all wall signs shall not exceed 20% of the wall.
8. **Signs Adjacent to Existing Residential Neighborhood** (North of New Road)
In recognition of the existing residents along Babcock, the required setback for ground signs from adjacent residentially zoned property will be the same as for buildings within the zoning district, and no sign will be located closer than 100 feet to any property line of an adjacent R-1 District, except when adjacent to the church, where a 10 foot setback will be maintained.

10. Miscellaneous Signs

Incidental, directional, and other noncommercial signs such as parking garage signage and accessory wayfinding that serve to direct or inform the public shall be permitted in any number up to 40 sq. ft.

EXHIBIT J

APPROVED OUTDOOR ENTERTAINMENT EVENTS

Owner will not be obligated to obtain a special event allowance or similar approval for the following events (including any uses incidental to such events):

Outdoor Music Performances
Outdoor Theater
Outdoor Puppet Shows
Outdoor Movies
Carnivals
Farmer's Markets
Theme markets (i.e. Starbucks Festival)
Tastes of the Town
Festivals
Seasonal Celebrations (i.e. Oktoberfest)
Car/Motorcycle Shows
Parades
Ice Rink Performances
Charitable Events (i.e. Host for Race for Cure, Walk-a-thons)
Sports Events (i.e. 5-K, 10-K, Marathon, Bicycle Races, etc.)

The foregoing events (including any uses incidental to such events) shall be subject to the following:

- (1) Such events shall not create a "nuisance", as that term is defined in the Troy Ordinances, to any property or persons outside of the boundaries of the PUD Property. For purposes of this paragraph only, the PUD Property shall be deemed to include Cunningham Road between Big Beaver Road and Coolidge Road.
- (2) If any such event occurs partially on site and partially offsite (i.e., parade, 10k run, marathon), then Owner shall obtain a special event permit for that portion of the event occurring offsite.
- (3) If any event requires extra services to be performed by the City (i.e., police and fire services, clean up), then Owner shall reimburse the City for the incremental cost of such additional services.

EXHIBIT K

SQUARE FOOTAGE CALCULATION

1. For purposes of retail use, the Square Footage shall be equal to 92.5% of the retail gross building area (as that term is defined by the Troy Ordinances). For example, if the part of a building used for retail use has a gross building area of 1,000 square feet, then such building shall be deemed to contain 925 square feet of retail use, which will be counted against the 500,000 square feet of retail use allowed hereunder.

2. For purposes of office use, the Square Footage shall be equal to 90% of the office gross building area (as that term is defined by the Troy Ordinances). For example, if the part of a building used for office use has a gross building area of 1,000 square feet, then such building shall be deemed to contain 900 square feet of office use, which will be counted against the 300,000 square feet of office use allowed hereunder.

For purposes of these calculations, gross building areas for vertical penetrations (such as, without limitation, elevators, vertical shafts, lobbies, stairs and atriums) relating to uses located above the retail use shall be attributable to the such above located use.

Kathy Czarnecki

From: Mark F Miller
Sent: Friday, October 05, 2007 7:18 AM
To: Brent Savidant; Kathy Czarnecki
Subject: FW: Pavilions project

From: Cynthia A Stewart
Sent: Thursday, October 04, 2007 4:44 PM
To: Phillip L. Nelson; Brian P Murphy; Mark F Miller
Subject: FW: Pavilions project

From: Barry and Susan McBride [mailto:bsuemcbride@wowway.com]
Sent: Thursday, October 04, 2007 4:44 PM
To: Louise Schilling; dave@lambert.net; rbeltram@wideopenwest.com; cristinabroomfield@yahoo.com; Wade Fleming; Mfhowryl@umich.edu; stinejm@wwnet.net
Cc: Cynthia A Stewart
Subject: Pavilions project

I live in the neighborhood to the north of the project and have attended meetings hosted by Hunter. I have also been a visitor to the Reston project. Beyond that, I will state proudly that as a 20 year docent at the Cranbrook Art Museum, I have been exposed to fine design. As well, I have visited cities in many parts of the world. I have followed architectural trends and learned from environmentalists so possess some wisdom of the ages.

I accept that the Pavilions will be our neighbors. I hope it will prove to be the amiable arrangement that we have experienced with Somerset North. You have your work cut out for you as you wrestle with a project that appears to be too dense and is not integrated well into the Big Beaver-Coolidge corner. It has been suggested that the proposal should be **angled in the direction of the corner**. I think that idea has a great deal of merit and should not be ignored.

Hunter has told us that building green isn't an option due to cost. Why is that off the table when you are talking up green at every other opportunity? How fine it would be to think of this as a **Pavilion of Pride**.

This project is a ten year project. Will it be relevant to our life in Troy at that time? I see little that makes me proud or excited in the plans. We are the folks who will inhale the dust and hear the noise for the next decade and so far we have 100 feet of grass to absorb all of this commotion. I think we can do better than that.

Thank you for your vigilance and your devotion to your duties. Sincerely, Susan McBride

1599 Witherbee
Troy, Michigan 48084-2533
October 4, 2007

City Council
City of Troy
500 West Big Beaver
Troy, MI 48084

Dear City Council, City Manager, Planning Commission, Planning Department, and
Fellow Citizen and Neighbors:

The enclosed master plan and related information enclosed are a response to the
comments made at the City Council meeting on September 24, 2007.

1. The new development should on the northwest corner of Big Beaver and Coolidge form a corner for the City entrance courtyard hub space with its plaza and provide direct pedestrian access to the core of the new development. This should be implemented in the first phase. Regardless of tough economic times initial development will appear complete and become a screen for later development.
2. City entrance sculpture should be city scale, not a building landscape element.
3. Development along Big Beaver West of Coolidge should have more floors/general common height and utilized zoning (see density and height pg 3-9 building massing) provide front access benefits for investors and assists the City in defining Big Beaver as a linear space. This portion of the development should also be included in the first phase.
4. Developer wants to maximize square footage development of site by using a north to south grid system with simplicity of structural system and its lower costs. (Note: Curved walls of interior "Village Green" is costlier in structure and construction and style foreign. A pavilion is defined as "an open building often in a Garden or Park." What was shown belongs in urban classical Rome, Italy.)
5. North Cumingham is relocated as indicated in developer's sheet Land Usage Conceptual Plan 3-6. Housing located south of the north ring road enables direct pedestrian safe access to Village Green. Note: Adjoining North neighbors did not want development close to them as originally planned.
6. There should be pedestrian access from the northwest and northeast. There should not be access across Coolidge from roadway between North Parking Garage and North Somerset to new development. Safety is enhanced. Number of traffic lights along Coolidge is to be minimized. (Note: A costly proposed

pedestrian bridge from North Parking Garage across Coolidge has limited use and interferes with type traffic below and confuses drivers.)

7. Development should recognize City's national asset. The Kresge Foundation.
8. With maximum building and paved development on the site there is concern for "Urban Heat Islands" impact. (Note: Pavement could be gray perforated and ecological. In Europe, pavements often are gray cobblestone.) Since development on site is maximized green roofs (which people would enjoy using) should surround the interior core development creating a center having both the benefits of Town and Country.

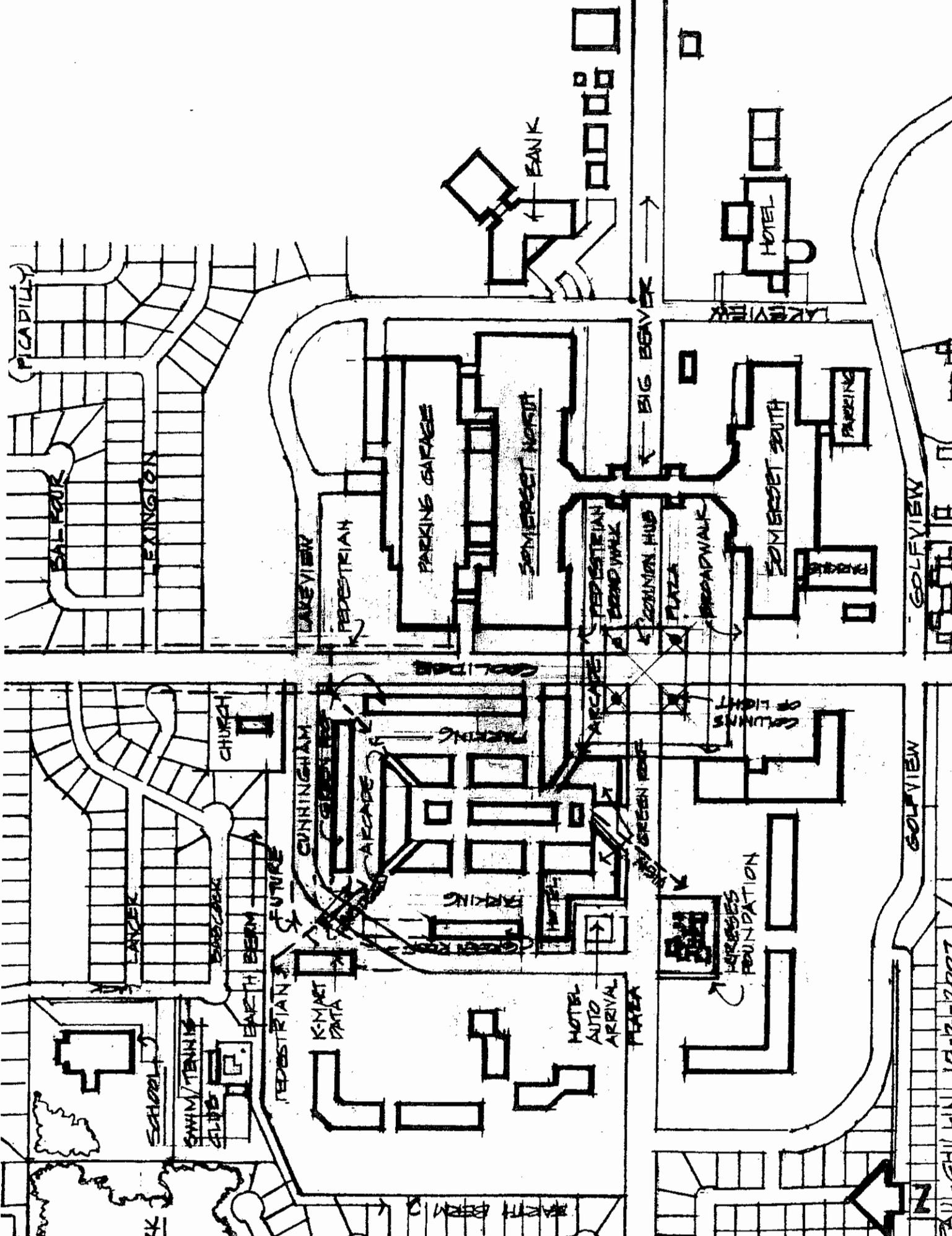
Negative gated image of two meaningless Guard house pavilions at Main entrance are removed.

This revised master plan answers the above concerns and unified (not divides) Somerset Collection and the new development. The aims of the Big Beaver Corridor Study are achieved.

Sincerely,



Paul Chu Lin, Architect NCARB
Educator
Master Planner

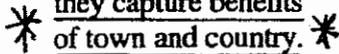


ZULCHU LIN 10-12-2007

Development

How to make most of sprawl

■ Communities need to create an identity so they capture benefits of town and country.



By Joel Kotkin

The battle's over. For half a century, legions of planners, urbanists, environmentalists and big city editorialists have waged war against sprawl. Now it's time to call it a day and declare a victor.

The winner is, yes, sprawl.

Since 1950, more than 90 percent of U.S.

Joel Kotkin, an Irvine senior fellow at the New America Foundation, teaches urban and suburban history at the Southern California Institute of Architecture.

metropolitan population growth has taken place in the suburbs. Roughly two out of three people in the nation's metro areas are suburban dwellers. "The 'burbs" have become the homeland of American success, with an increasing share of our national wealth and half the poverty of the urban core.

During the next quarter century, according to a Brookings Institution study, the nation will add 50 percent to the current stock of houses, offices and shops — the great majority taking place in lower-density loca-

Model suburbs

Examples of suburbs with urban-like features:

■ The Chicago suburb of Naperville, Ill., has a well-appointed old town center and a riverside park.

■ Valenica, Calif., has a well-defined town center, paths for pedestrians and cyclists, a lake and a range of housing types.

Source: Joel Kotkin

tions, not traditional inner cities.

Once we acknowledge this reality, we can turn to the task of making the best of it. In terms of space, quality of life, safety and privacy, the suburbs have given us much more of what we call the American Dream than cities ever could. What they have failed to do, often miserably, is to live up to their promise of becoming self-contained, manageable communities that can both coexist amiably with the natural environment and offer a sense of identity.

The great challenge of the 21st century, not to mention the main economic opportunity, lies in transforming suburban sprawl into something more efficient, interesting and humane.

City living won't die; instead, it likely will become, as urban analyst Bill Fulton has put it, primarily a "niche lifestyle" preferred mostly by the young, the childless and the rich.

Please see *SPRAWL*, Page 20A

SPRAWL

Continued from Page 17A

But just as cities won't prosper if they don't cater to the niche resident, the suburbs must evolve from a pale extension of the city into something more like a self-sustaining archipelago of villages. This concept has its roots in the late 19th and early 20th centuries, when visionaries like writer H.G. Wells saw movement to the periphery as a bold alternative to the horrors of the contemporary industrial city.

Perhaps the most influential advocate of suburbia was British planner Ebenezer Howard. Horrified by the disorder, disease and crime of the Edwardian industrial metropolis, he advocated peripheral "garden cities," self-contained towns with pleasant cottages and their own employment base. "Town and country must be married," Howard preached, "and out of this joyous union will spring a new hope, a new life, a new civilization."

Yet the suburbs have largely failed in creating Howard's "new civilization." They lack a basic definition of what they are, and the boundaries between them are often vague. This is sprawl's least admirable quality: It produces vast "slurbs" of undistinguished, unappealing space.

Yet build them, and people come. It's amazing, given that suburbs often suffer from a deadening lack of things to do. Then there's the traffic.

Ironically, this may prove the new imperative for suburbia's evolution. With transit to downtowns and other suburbs increasingly dicey, suburbs are being forced to supply an ever-wider array of basic needs, from cultural infrastructure to shopping and business services.

The urbanization of suburbia — the creation of a more sophisticated, self-sufficient community — is already beginning. Cities are restoring the commercial cores of what had once been autonomous small towns. Often devastated by malls and big-box shopping centers, these downtowns once gave suburban towns a sense of distinctiveness — something many now wish to recover. Other places are attempting to create whole new communities, with their own defined town centers complete with fine restaurants and smart shops.

For example, Naperville, Ill., has grown from another Chicago suburb into a definable place, with a well-appointed old town center and a riverside park. "Our downtown is what keeps us together," says Christine Jeffries, a civic leader in the community of 138,000. "It gives us an identity."

This new principle can be seen in

some newer developments, such as Valencia in Southern California. With a well-defined town center, paths for pedestrians and cyclists, a lake and a range of housing types, Valencia is closer to a traditional village environment than the prototypical sprawl suburb.

With this new development has come the construction of large-scale cultural and religious institutions in the periphery. At a time when downtown churches are closing, new churches, as well as synagogues, mosques and Hindu temples reflecting suburbia's growing ethnic diversity, are rising.

Village environments might also provide an affordable housing alternative for people who want to be in the suburbs but can't yet swing the much-desired single-family house. They could offer a congenial environment for singles and younger couples without children.

This redefinition of suburbia into someplace more diverse, interesting and multifaceted represents one of the most revolutionary developments of our times. It provides us with an opportunity to stop complaining about sprawl and start learning how to make better the places that most of us have chosen as home.

Distributed by the Washington Post.

Hot times in the city

High-density development can create 'urban heat islands' that may add to global warming.

By Ali Modarres

LOS ANGELES' accelerating quest to create centers of higher population density — especially downtown, in Hollywood and in Mid-Wilshire — may be on a collision course with California's crusade to slow global warming by reducing its greenhouse gas emissions. And the potential trouble comes from an unlikely source — buildings.

High-density development is usually considered environmentally friendly if it occurs near subway, rail or bus lines, and people can abandon their cars to get around. But unless people actually do take advantage of public transit and reduce their energy consumption, the environmental costs may outweigh the benefits.

One effect of high-density development that can potentially increase energy consumption is a phenomenon known as the "urban heat island." This is principally caused by the construction materials — brick, concrete, asphalt, stone and other substances — used most often in building central cities. Because these materials retain heat and cool slowly, they raise the ambient air temperature and make central cities a few degrees warmer than rural and suburban areas. For instance, the temperature difference between Phoenix and its outlying areas can be upward of 10 degrees. The difference is even more pronounced at night because rural and suburban areas have fewer buildings, less concrete and asphalt and more vegetation, and thus cool faster.

Packing taller residential buildings closer together to increase density, without making room for significant areas of green space, such as parks or shaded plazas, only worsens the effect.

This is not an earth-shattering revelation. Researchers have known about the effect of the urban heat island on ambient air temperature for more than 100 years. More recently, however, heat-island studies of such cities as London, Athens, Tokyo, Beijing, Phoenix and Los Angeles have not only shown the problem worsening but have documented the rising level of energy consumption associated with it. The greater the density and the less green space nearby, the more severe the urban heat island can become.

Current research does not suggest that urban heat islands directly contribute to global warming. But they may be a factor in another way. The amount of greenhouse-gas-producing energy needed to operate buildings — heating, cooling and lighting them — makes up a significant portion of our overall energy consumption. Any phenomenon that increases the

urban heat island effect — such as more high-density development without consideration for green space and energy efficiency — could potentially result in still-higher energy consumption and greenhouse gas emissions, primarily because of the greater use of air conditioning.

Just how much energy do buildings consume?

According to the Energy Department's 2006 Building Energy Data Book, 39% of primary energy in the U.S. is consumed in buildings, accounting for 38% of annual carbon dioxide emissions. In addition, 68% of all energy consumed in residential buildings — houses, apartment buildings, condo towers and so forth — goes for heating (space and water), cooling and lighting. This energy consumption produces 66% of carbon dioxide emissions of all U.S. residential buildings.

Higher-density development, because it might worsen the urban heat island effect, could increase such energy consumption, especially the amount of energy used to cool high-rise apartment and condo complexes.

A study of Los Angeles by the Heat Island Group at the environmental energy technologies division of the Lawrence Berkeley National Laboratory suggests

the amount of energy involved. It estimated that "the demand for electric power rises nearly 2% for every degree Fahrenheit the daily maximum temperature rises." Compensating for the effect of the urban heat island could cost millions of dollars annually, and could result in significant increases in energy consumption and carbon dioxide emissions.

In such an environmentally friendly state as California, how green should new development in L.A. be? Has the possible effect of the urban heat island on global warming been fully evaluated?

Developers in California cities are not required to account for the effects of their buildings on global warming in their environmental impact reports. But that could change. In a recent lawsuit, state Atty. Gen. Jerry Brown targeted sprawl in San Bernardino County as a generator of global warming emissions. The county settled and will have to begin reducing its greenhouse gas emissions in the next 2 1/2 years.

Short of a lawsuit, there are many ways to lessen the potential warming effects of high-density development and its effect on energy consumption and carbon dioxide emissions. The Environmental Protection Agency's Heat Island Reduction Initiative funds research into the problem,

and the U.S. Green Building Council promotes construction and design practices that improve the energy efficiency of buildings. These may include the roofs and green walls that incorporate vegetation to improve the energy efficiency of buildings; and passive heating and cooling, which often involve natural ventilation or solar energy.

These practices can make future residential and office buildings more comfortable without the need to blast air conditioning units all day and into the night. More important is the creation of more open spaces because they help cool the ambient temperature.

Increasing density downtown and other areas of Los Angeles need not intensify the urban heat island. We have technological know-how to mitigate the problem. By using it to build more efficient buildings, Los Angeles can be the forefront of California's campaign to promote the ideals of sustainable development and smart growth.

Ali Modarres is a professor of urban geography and the associate director of the Pal Brown Institute at Cal State. He is the co-author of "City and Environment."

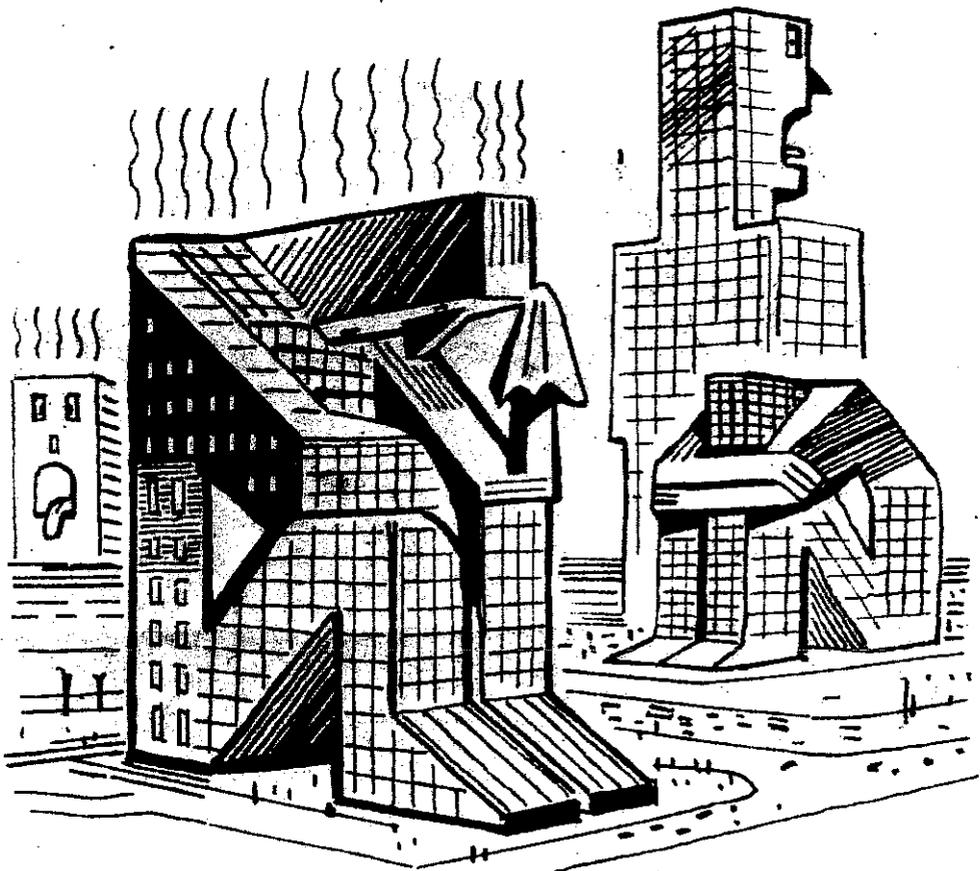


Illustration by [unreadable]



Building Green

A new design aesthetic is sweeping the world, as builders, engineers and architects rethink structures for a warming globe. The message: Don't fight nature—make it a partner

THE ADAM J. LEWIS CENTER FOR ENVIRONMENTAL Studies at Oberlin College, above, is a beauty of a building. But if the structure's facade resembles a jewelbox reflected in a watery mirror, it's what's inside the building that makes it so compelling to envious architects: the state of the art disinfectant system that

cleans toilet water for reuse. (No, not in the drinking fountain.) Now consider the Phillip J. Merrill Environmental Center in Annapolis, Md. It's as earth friendly as an old windmill. The headquarters of the Chesapeake Bay Foundation, it displays more wood construction than the typical large building these days. But to understand what its designers did to make it truly

...what you know. The Adara J. Lewis
...Environmental Studies at Oberlin
...with a workshop and
...for future green architects

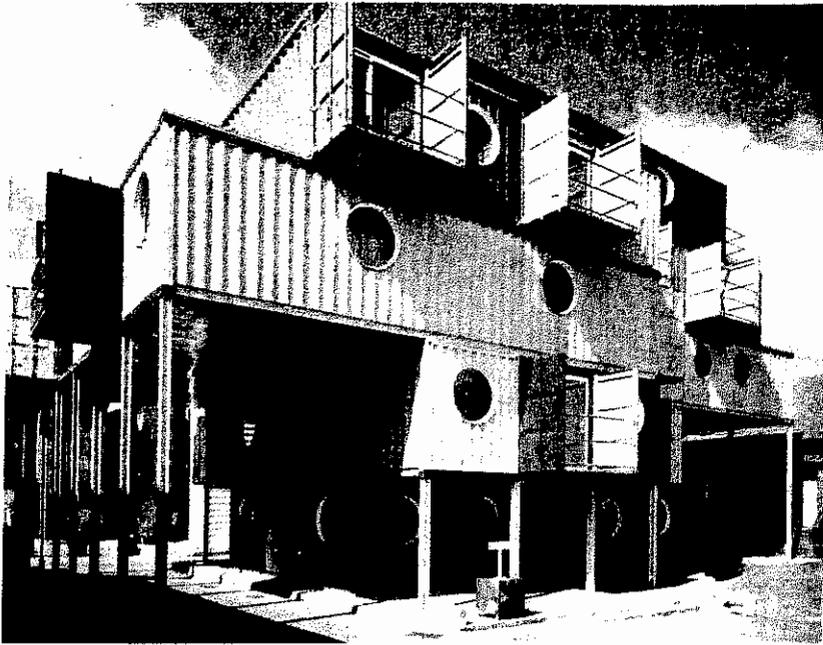


different, you would have to know that one third of the energy it uses comes from geothermal heat pumps that utilize the earth's warmth and photovoltaic building panels that convert sunlight into electricity. Or that rainfall collected on the roof can be channeled into huge holding tanks for reuse in irrigation. Or that its sunscreen overhangs are made from recycled pickle barrels. Whole platoons of enforcement lawyers for the Environmental Protection Agency could not be more ecologically effective than its waterless composting toilets, bamboo floors and timber cut from sustainably harvested wood.

These buildings epitomize today's green architecture, a catch all term for design and construction practices that take into ac-

count a whole checklist of environmental goals. How a building is sited, how well it reuses its wastewater, how efficiently it is heated and cooled - those are all questions green architects examine closely. To answer them, they employ a new generation of supplies that include nonpolluting paints, low flow toilets and windows glazed to admit sunlight but reduce heat radiation. But green design is not all about high tech. One simple idea: windows on high rises that actually open. That facilitates natural air ventilation systems, also known as breezes. Eureka!

The thing about buildings is that they are, par excellence, the very thing nature is not. Ever since people moved out of caves, which were pretty much all natural if you don't count the



Shipshape Old metal shipping containers are piled together to form a colorful recycled house in London, complete with nautical portholes

paintings on the walls, structures have been the prime markers of human settlement, a process that often comes with unhappy consequences for the environment. John Denver's *Rocky Mountain High*—"More people, more scars upon the land"—is not a song you hear much at architecture conventions.

No one can deny that when it comes to the environment, buildings are right up there with automobiles as polluters. Homes, schools, office towers and shopping centers dirty their own little rivers of water every day. Their air-conditioning and heating systems waste large amounts of electrical and fossil-fuel power. Toxic ingredients leach from building materials and foul the air. Thirty years ago, only a few environmentally minded architects cared about such things.

That began to change in the 1970s with that decade's oil shocks, which produced a short-lived vogue for alternative heating technologies. The simultaneous rise of environmentalism also inspired what you might call hobbit architecture, cottages crowned with listless greenery and the odd solar panel. But it wasn't until the 1990s that green architecture gained a foothold in mainstream building. That was in part the result of a growing realization that "sustainable" buildings have lower long-term heating and cooling costs. States began offering tax incentives for construction that put less pressure on power grids or water supplies. Coming of age at the same time was a generation of architects who were knowledgeable about environmentally conscious construction materials and techniques.

In 1998 the U.S. Green Building Council, an association of architects, builders and other green specialists, adopted the Leadership in Energy and Environmental Design (LEED) certification system, which sets out standards that a building must meet to qualify as environmentally friendly. The council estimates that some 3% of new building starts each year have a few earth-friendly features, and the number is increasing. "The growth of green building is driven partly by energy efficiency and other cost savings," council president and CEO Christine Ervin told *TIME* in 2002, "but also by the need of businesses to

attract the best employees. These buildings can make very attractive workplaces."

Some of the most prominent names in architecture have turned green. The three-sided Commerzbank Tower in Frankfurt, Germany, is a major work by a renowned British architect, Sir Norman Foster. At 53 stories, it is not only one of the tallest buildings in Europe but also one of the leafiest. All around its triangular interior atrium are gardens in the sky, set at different elevations, so that no worker is more than a few floors away from a sizable patch of greenery, visible through windows that actually open.

Natural air circulation is a preoccupation of green architects. With the widespread adoption of air conditioning after World War II, office buildings were built to be more airtight than a mummy's tomb. Now designers are rediscovering principles of ventilation and air circulation familiar to 19th century builders. The Rocky Mountain Institute took part in an environmental upgrade of the vintage Executive Office Building and the White House in 1993. "We discovered that the old office building was already designed with a natural ventilation system—a fairly brilliant one," says William Browning, the institute's senior consultant for green development. Parts of that system, which once linked chimneys and other air passages, are back in operation.

Not everything green is rosy. To provide sunlight that reduces reliance on electrical lighting, environmentally conscious designers tend to favor open-plan workplaces over offices with doors that close. That can be good for nature, less good for quiet and privacy. And big suburban residential developers are not piling in yet. Reduced long-term energy costs, for instance, are not an important incentive to builders who plan to sell right away the homes they build.

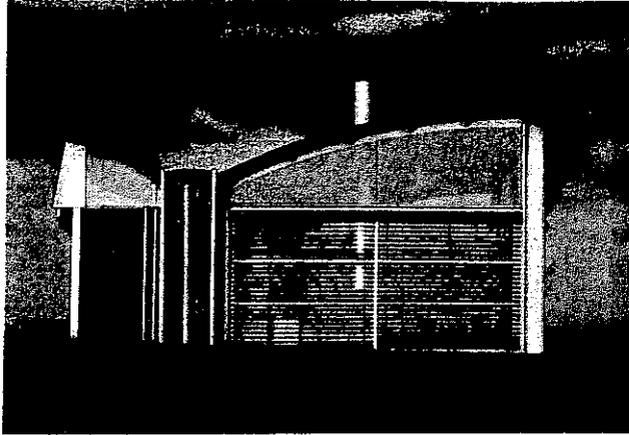
Some green architecture is literally green. Dwellings that nestle directly into the landscape like caves, with carpets of

When Blueprints Go Green

The U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) program measures a building's planet-friendly factor based on five criteria:

- Sustainable site development
- Water savings
- Energy efficiency
- Materials selection
- Indoor environmental quality

earth and grass rolling over them as roofing, were among the first examples of green architecture in the 1970s. Buildings like those may be related to Bronze Age settlements dug into the earth. But they operate on principles that can be adapted to modern midtown high-rises. Since 2001, Chicago's City Hall, a 1911 Classical Revival building, has been topped by a "green roof": a 20,000-sq.-ft. garden that was planted as a climate-control mechanism. In summer the garden helps keep the building cool by shielding it under a layer of moist material. In winter it insulates against cold. Not incidentally, it also provides a habitat for birds, butterflies and grasshoppers. But not yet for people—the garden is closed to the public. Sometimes nature needs to work in peace. ■



Magney House

Architect **Glenn Murcutt** Location **Bingle Bingle, New South Wales, Australia** Year Completed **1984**

Aesthetics meet ecology in the buildings of Pritzker Prize-winning Australian architect Glenn Murcutt. He designed Magney House, which overlooks the ocean, for a couple who had camped on the rugged site for years and wanted a home that would remind them of a tent. The sloping roof echoes the contours of nearby hills and catches rainwater, used both for drinking and to cool the house. Louvers, eaves and sliding doors protect the home from the scorching sun and bone-chilling cold. An undulating ceiling redirects natural light to every area of the house. Metal sheathing, brick walls and an insulated foundation slab lock heat inside during winter and keep it out in summer, conserving energy year-round.

Commerzbank Tower

Architect **Norman Foster** - Location **Frankfurt, Germany** - Year Completed **1997**

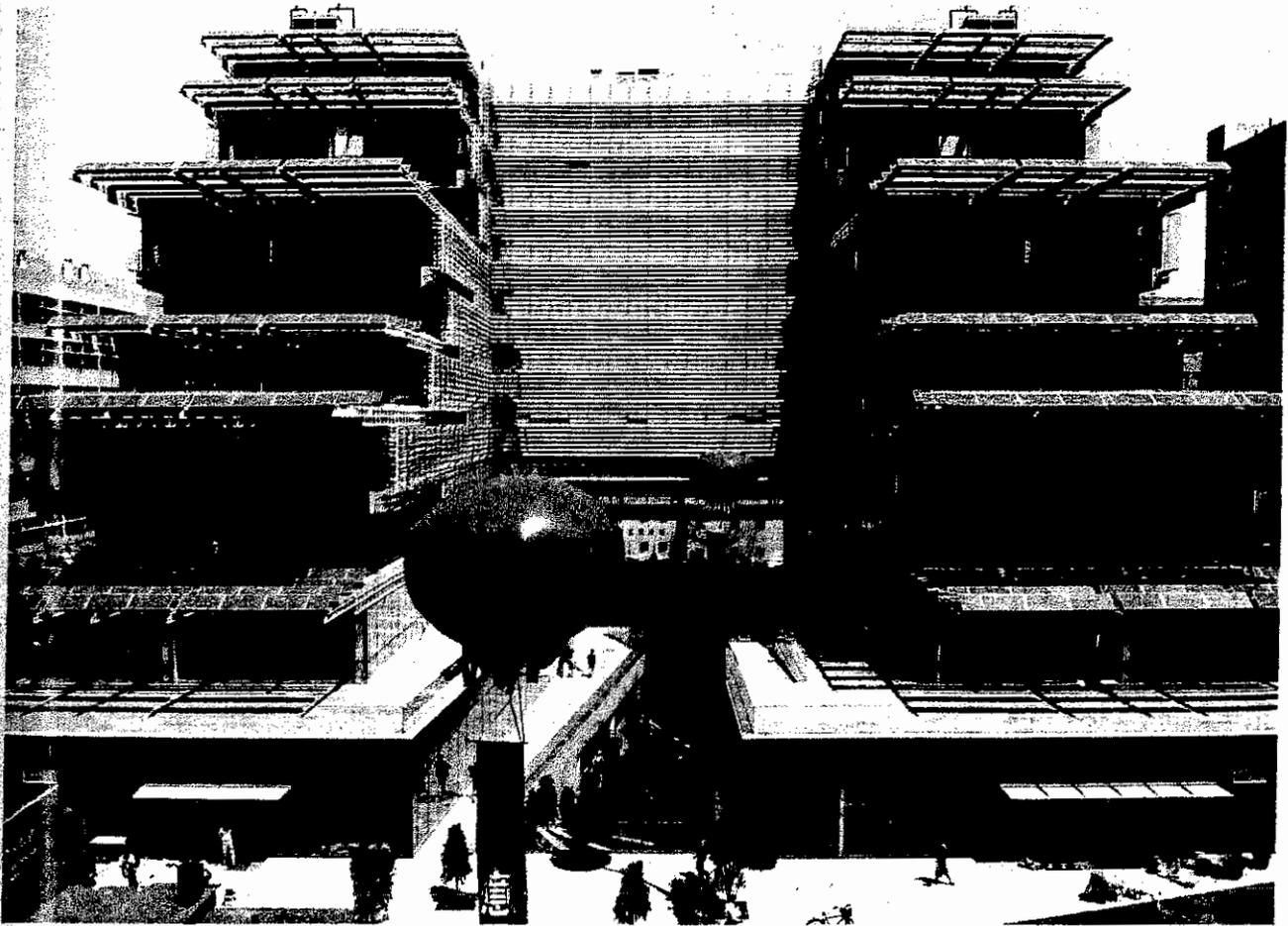
Green architecture went mainstream in 1997, with British architect Sir Norman Foster's design for the Commerzbank Tower in Frankfurt, Germany. At the urging of Germany's Green Party, which governed Frankfurt in the early 1990s, when the building was being planned, Foster included many environmental innovations, such as high-performance glass that deflects heat and reduces the need for air conditioning.

While generations of Modernist architects used technical tricks to create the illusions of "air" and "light" within sealed environments, Foster went low-tech to let in the real things. The windows on Commerzbank Tower actually open, a rarity in high-rise office buildings. And the three-sided building is hollow—a triangular atrium soars more than 700 ft. from the lobby to the building's roof, further helping air circulate throughout the structure.

The atrium is connected to the outside world by nine three-story "sky gardens," which spiral around the building's exterior at eight-story intervals. The spacing means that no point within the building is more than a few floors away from a green space, and almost every room in the structure has a view of at least one garden. The large openings in the building's skin created by these gardens allow fresh air to ventilate through the entire tower, while also permitting natural light to flood the interior. Throughout the day, most offices receive at least some direct sunlight, either from the outside or from daylight that shines through the gardens and the atrium. Not only does this make for a pleasant working environment, but the design requires less electricity for artificial light. Electric consumption is cut further by automatic dimmers, which sense natural light and turn down lamps.

Some of the building's most important design improvements are hidden behind walls and ceilings. Much of the open space is made possible by the use of steel as the building's main construction material, rather than cheaper (and bulkier) concrete. Internal louvers boost air circulation. Water consumption is reduced by the use of "gray water" (which has already been cycled through the climate-control system) to flush toilets. The sum of all these innovations is what Foster calls "the world's first ecological office tower." The influential architect, knighted in 1990 and made a life peer in 1999, has gone on to create other planet-friendly office buildings around the world, including the Hearst Tower in Manhattan.





■ SIEEB Building, Tsinghua University

Architect **Mario Cucinella** Location **Beijing**
Year Completed **2006**

Designed by Italian architect Mario Cucinella and built by a partnership of Italian and Chinese construction firms, the Sino-Italian Ecological and Energy-Efficient Building (SIEEB) at Tsinghua University in Beijing was commissioned to be a showcase for green building technologies and a model for future designs that aim to reduce CO₂ emissions in China, one of the world's leading producers of greenhouse gases.

The 10-story, U-shaped structure is designed to be a magnet for sunlight: its two wings feature setbacks that allow the sun to filter through ceilings and to be gathered by the solar-power panels visible at the end of each level. The building also features adjustable canopies that extend or retract automatically, based on the season, temperature and time of day. As a result, it absorbs maximum sunlight in winter and deflects most solar heat in summer.

The building is powered entirely by natural gas, which supplies both heat and light. It is designed to consume 70% less energy than other Chinese buildings of similar size. Radiant heat sources are located in ceilings; the heat is reduced when sensors detect a room is empty. Water is recycled within the building—a hallmark of green design—and a computer-operated intelligent building management system automatically switches off lights and climate-control systems when they are not needed. Architect Cucinella was honored in 2004 as the year's Outstanding Architect by the U.S.-based World Renewable Energy Congress.

■ Chicago City Hall Roof Garden

Landscape Architect **Weston Solutions, Inc.** Location **Chicago**
Year Completed **2001**

Chicago's Mayor Richard M. Daley put a green roof on the city's 1911 City Hall building in 2001. The 20,000-sq.-ft. garden features bottlebrush grasses, wild rye and thousands of other plantings. Created as a pilot program to reduce the building's cooling and heating costs and serve as a model for other Chicago buildings, it has succeeded in both aims. The insulating layer of soil and plants cools the building in summer and helps hold heat in winter, reducing climate-control costs by some \$6,000 a year. And the idea has taken root on more than 300 other Chicago rooftops, making Carl Sandburg's City of Broad Shoulders the City of Aerial Gardens.



The Politicians: Michael Bloomberg and Arnold Schwarzenegger



Brighter days *New York City Mayor Michael Bloomberg touts the merits of an energy-efficient light bulb at a 2007 press conference*

On an unseasonably hot May day in Central Park in 2007, New York City Mayor Michael Bloomberg—the pint-size billionaire whose last name needs no elaboration for anyone who knows anything about finance or the media—was talking about saving the planet. With the mayors of more than 30 of the world's largest cities at his side, Bloomberg was opening a climate summit, highlighting his ambitious plan to slash the Big Apple's carbon emissions. Together, the mayors pledged to enlist their 250 million constituents in the fight against global warming. "Unfortunately, partisan politics has immobilized Washington," Bloomberg said. "But the public wants this problem solved. Cities can't wait any longer for national governments to act."

Bloomberg is acting, all right. His PlaNYC calls for the city to cut greenhouse gases 30% by 2030. It seeks to quadruple the city's bike lanes, convert the city's taxis to hybrids and impose a congestion fee for driving into Manhattan (as expected, that proposal met early resistance from New York State legislators).

On Sept. 26, 2006, Arnold Schwarzenegger—the fridge-size multimillionaire whose last name needs no elaboration, period—signed a bill restricting the carbon emissions of factories, utilities and refineries. The former Hollywood action star, who has been Governor of the Golden State since 2003, has already tricked out two of his five Hummers, one to run on biofuel and another on hydrogen. The feds have done nothing on fuel efficiency in two decades, but as of midsummer 2007, 11 states said they would

follow California's lead if President George W. Bush grants a waiver excusing states from the federal Clean Air Act, which places emission-regulation authority in Washington's hands.

In May 2007, after signing a climate deal with Ontario, the Terminator said he had a message for Detroit: "Get off your butt!" He had a similar message for Washington. "Eventually, the Federal government is going to get on board," he said. "If not, we're going to sue."

The Hollywood brute and the Wall Street mogul may look like the oddest couple since *Twins*, but there's a reason Arnold calls Bloomberg his soul mate. They're both self-confident, self-made men who rose to stardom from middle-class obscurity. Both have run as Republicans with liberal social values, though Bloomberg made waves in June 2007 when he announced he was leaving the G.O.P. to become an independent, fueling speculation that he might run for the presidency in 2008. Both men are distressed by the lack of environmental leadership at the federal level—and both are thinking globally and acting locally, working hard to make their bailiwicks greener.

"These are two exceptional and forceful guys who don't need the job at all; they had pretty damn good lives before they got into politics," says their mutual friend Warren Buffett. "They're in office to get things done. And they're doing that a lot better than anyone in D.C."

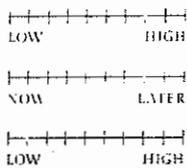
Nowhere is that more evident than on green issues—and Bloomberg and Schwarzenegger aren't acting alone. Washington rejected the Kyoto Protocol, but more than 600 U.S. mayors have pledged to meet its emissions-reduction standards. Denver Mayor John Hickenlooper's Greenprint Denver is an aggressive plan to reduce the city's greenhouse-gas emissions. And Utah Governor Jon Huntsman is the first Republican to join Schwarzenegger and Democrats in signing the Western Regional Climate Action Initiative, a plan that will improve the states' energy efficiency up to 25% and create a regional carbon-trading system. Looks like there's still room for pioneers out West.



"Get off your butt!" *California Governor Arnold Schwarzenegger has become an outspoken advocate for caps on hydrocarbon emissions*

TOP: NIAN NGUYEN AP; GETTY IMAGES; BOTTOM: JEFF CHIU/AP IMAGES

ARE CORN HUSKS BETTER THAN CORN FOR PRODUCING ENERGY? ETHANOL IS THE alternative fuel that could finally wean the U.S. from its expensive oil habit and in turn prevent the millions of tons of carbon emissions that go with it. As of 2007, the Department of Energy has doubled its 2005 commitment to funding research into biofuels—any nonpetroleum fuel source, including corn, soybean, switchgrass, municipal waste and (ick) used cooking oil. Already, half of the nearly 11 billion bushels of corn produced each year is turned into ethanol, and most new cars are capable of running on E10 (10% ethanol and 90% gas).



Yet the eco-friendly fuel is beginning to look less chummy of late. Some of the 114 ethanol plants in the U.S. use natural gas and, yes, even coal to run the processors. And ethanol has to be trucked. Existing gas pipelines can't carry it because it corrodes iron. Then there are the economics. Producers depend on federal subsidies, and increasing demand for corn as

fuel means the kernels keep getting pricier.

That's why researchers are prospecting for more alternatives, preferably ones that don't rely on food crops or a 51¢-per-gal. tax break. Municipal waste, wood pulp and leftover grain and corn husks are all quite attractive; they can produce something called cellulosic ethanol, which contains more energy than corn. But they don't give up their bounty easily, so for now they're more expensive than corn-based ethanol to produce. Undeterred, researchers at several cellulosic-ethanol plants are developing innovative enzyme concoctions and heating methods to make the process more economic. Nothing like haste to make something out of waste.



Reducing your impact on the earth is not just a question of what you drive but also of what you live in. Residential energy use accounts for 16% of greenhouse-gas emissions. If you begin thinking green at the blueprint stage, however, low-tech, pragmatic techniques will maximize your new home's efficiency. Installing green systems from the ground up is cheaper than retrofitting. "Doing simple things could drastically reduce your energy costs, by 40%," says Oru Bose, a sustainable-design architect in Santa Fe, N.M.

For example, control heat, air and moisture leakage by sealing windows and doors. Insulate the garage, attic and basement with natural, nontoxic materials like reclaimed blue jeans. Reduce solar heat in windows with large overhangs and double-pane glass. Emphasize natural cross ventilation. "You don't need to have 24th century solutions to solve 18th century problems," Bose says. Next, consider renewable energy sources like solar turbines and geothermal heat pumps to help power your home. When you're ready to get creative, GreenHomeGuide.com will help you find bamboo flooring, cork tiles and countertops made from recycled wastepaper.



The hottest thing in household energy savings is the compact fluorescent lightbulb (CFL), a funny-looking swirl that fits into standard sockets. CFLs cost three to five times as much as conventional incandescent bulbs yet use one-quarter the electricity and last several years longer. They are available virtually everywhere lightbulbs are sold.

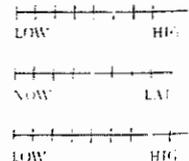
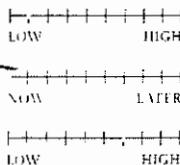
One caveat: most labels don't say "CFL" (GE calls its

bulbs Energy Savers), and in some cases the telltale twist is enclosed in frosted glass. The wattage gives them away: many 7-watt CFLs are comparable to a regular 40-

watt bulb, 26 watts is the typical CFL equivalent of 100 watts and so on. Or just look for the Energy Star label.

CFLs have come a long way since they were first introduced in the mid-'90s (they don't flicker as much when you turn them on, for one thing), but because each bulb still contains 5 mg of mercury, you're not supposed to toss them out with the regular trash, where they could end up in a landfill. The bulbs are one more thing for you to sort in the recycling bin.

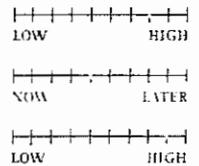
Light-emitting diodes, or LEDs (see item 4), don't have this problem, but they can require a bit of DIY rewiring. LEDs work great as accents and task lights, and you can also buy LED desk and floor lamps. But if you're just looking to put a green bulb in your favorite table lamp, CFL is the way to go.





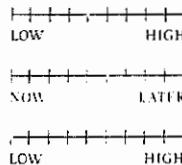
Picture of destruction
Hurricanes damage forests. After one tore through southern Sweden in 2005, cleared logs leave the image of a tree

IT SEEMS LIKE SIMPLE ARITHMETIC: A TREE CAN ABSORB UP TO A TON OF carbon dioxide over its lifetime, so planting one should be an easy way to mitigate climate change—and planting many of them should make a real difference. Turns out it's not so simple: where you plant the trees is what matters. Recent studies have shown that trees in temperate latitudes—including most of the U.S.—actually have a net warming effect on the climate. Why? The heat absorbed by dark leaves outweighs the carbon they soak up.



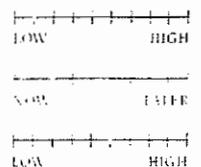
The poor, much maligned coal plant: our current versions of this workhorse of energy production not only emit compounds that damage the environment, but they also are not even efficient. More than half the heat the average coal plant generates is simply lost when coal is burned—yes, it goes up in smoke. But in co-generation power plants, that excess heat is captured and reused for domestic and industrial heating, nearly doubling a plant's efficiency.

No one believes coal plants, no matter how efficient we make



them, are the ideal solution to the world's growing energy problems, but like it or not, thermal power will remain the backbone of our electricity grid for the foreseeable future. If we're going to continue to burn coal and oil, we might as well make sure all that carbon doesn't go to waste.

Going on vacation doesn't have to mean leaving your green conscience at home. Car-sharing service Zipcar rents hybrid cars in five U.S. cities, Toronto and London. A few specialty companies offer rental cars that run on biodiesel fuel, a clean-burning substance derived from renewable sources like vegetable oil. Bio-Beetle rents eco-friendly cars, ranging from Passats to Jeeps, in Hawaii and Los Angeles. A week's rental in L.A. runs from \$200 to \$300. And competitor EV Rental



Cars has started to expand beyond the West Coast.

TOP: JOCKE BERGLUND / FOTOFLYGET; BOTTOM: NO CREDIT

Troy will be permanent site of zero-energy home

By ROBIN RUEHLEN
C & G Staff Writer

Thanks to Lawrence Technological University, Troy will soon be home to an amazing example of energy conservation for years to come.

From Oct. 12-20, a delegation of LTU students, Troy city officials and members of the Troy Chamber of Commerce will visit Washington, D.C., to participate in the Solar Decathlon competition, which is sponsored by the Depart-

ment of Energy.

The group brings with it a 700-square-foot home designed by the LTU students to use the sun to generate all the power it needs for heating, cooling, lighting and appliances — plus leftover energy to power a small electric vehicle.

Chamber President Michele Hodges said that after the competition, the home will be delivered to Troy on Oct. 23 and will be reconstructed on the Civic Center Campus as a "living laboratory of sustainable practices."

"We thought it was a very exciting opportunity to say we're committed to sustainable practices, and a great vehicle to educate residents and the trades alike on importance of sustainability," she said.

The city purchased the home with the help of \$150,000 in federal funding secured by Congressman Joe Knollenberg, R-Troy, and donations for re-construction, the site and the foundation.

"Worldwide, only 20 universities have

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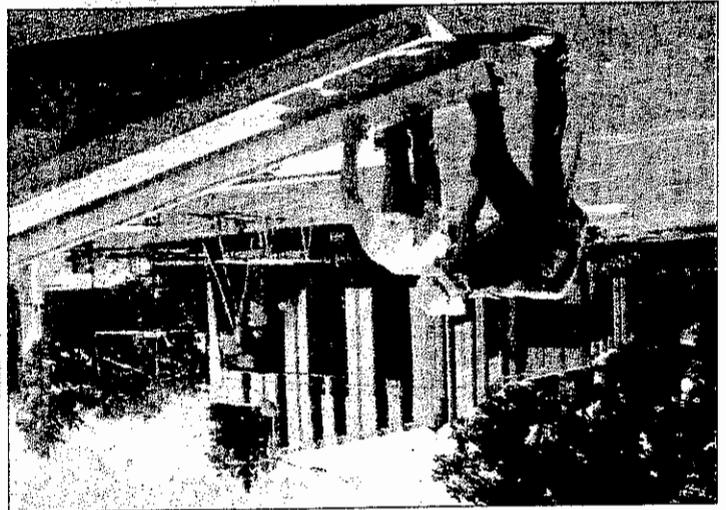


Photo provided by Lawrence Technological University

Lawrence Technological University student Eric Christie, left, and recent graduate Elliott Schmitt work on a test frame for the photovoltaic panels that will supply the Solar Decathlon house with electricity.

designed to take advantage of the fact that warm air rises, and a water heating system uses the sun's rays to heat enough water for an entire day.

Hodges said the home would be reconstructed as quickly as possible on the Civic Center site once it is returned to Michigan.

"I understand it goes up again quite easily," she said. The plans went before the Planning Commission on Sept. 25 and will be reviewed by City Council in October.

"We hope to have a big community celebration once it's back in Troy, as well as exciting events and programming there," she said. The competition will take place on the National Mall, and the winning university will be announced on Oct. 19. For more information on the LTU solar house, visit www.solar.ltu.edu.

You can reach Staff Writer Robin Ruehlen at ruehlen@candnews.com or (586) 279-1105. Staff Writer Kristine Deniske contributed to this report.

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been chosen to participate, and the students were further challenged by having to utilize materials readily available in stores today," Hodges said.

Students began work on the project in the fall of 2005, writing a proposal to the U.S. Department of Energy to get into the competition, and they began planning and designing their structure in early 2006. Construction started in March.

LTU architecture professor Phillip Ploewright said the core and programming there, she said. Philip Ploewright said the core of about 20 students has been working hard for years on the project, which has become a major learning experience for them.

"These guys are, literally, working seven years ahead of where they are," he said. "They're working in a professional capacity." Hearers in the floor are

Land plan eyes a 'greener' future

Get ready for a "very unique" vision for your city.

Planning Director Mark Miller said the first draft of the city of Troy Master Plan will be completed by the end of November and will be different from others the city has had in the past.

"We have developed a master plan that's very unique," said Miller. "This is really going to be a really strong policy document."

Why is a master plan so important for the city?

For one, it's pretty much a blueprint for how the city's going to look in the future. It will incorporate elements from the Big Beaver Corridor Study and the 20/20 Future Vision Study to come up with the definitive plan for the city's housing, development, recreation and policy.

On a daily basis, the master plan will give city staff a guide when dealing with potential developers and creating ordinances. Monthly, city council members will refer to the plan when making decisions about land use proposals. It will be evaluated yearly to discern whether the goals of the city still agree with what's laid out in the plan.

The Troy Planning Commission, along with city staff, has been working on the plan for nearly a year.

Once the initial draft is completed, it will go to members of the city council and the business community for review, then it will make its way to the public.

"We want to get feedback on that," said Miller. "It's a document that evolves."

So far, the master plan has touched on public transportation, and how to accommodate the aging population with housing and recreation offerings. One of the sections also includes how to make Troy a "green" city, one that uses sustainable developments and conserves resources for the future.

For more information on the master plan, call the planning department at (248) 524-3364.

Thursday, October 4, 2007

The Observer & Eccentric Newspapers

OUR VIEWS

'Green' scene sets right tone for Troy

The master plan being developed for the city of Troy is likely to be an innovative product showing the year of hard work put into it. The plan is expected to be completed by the end of November.

Perhaps one of the most striking things about it is the promise that it will focus on a "greener" Troy. What that means is it will encourage developments that are sustainable — generate their own power and conserve water and other resources.

A master plan sets policy on how the city will look and operate in the future, and going green is a wonderful way of ensuring that there will be a good quality of life in this corner of the planet.

In setting that objective, city planners aren't just jumping on a band wagon, but they're recognizing we can do more to improve the environment.

Already showing that it can be done are the Kresge Foundation and Walsh College with additions to their Troy facilities. The new Baker Middle School also was built with an eye toward such environmental things as the use of natural light. Finally, a housing development in Troy is advertising its "green" features.

Adding momentum is the drive by the Troy Chamber of Commerce to bring a solar house built by Lawrence Technological University students to the Civic Center for a sort of consciousness raising of what the possibilities are.

Of course, going "green" is but one aspect of the master plan under development. The plan itself is the keystone to the city's future, and it will include elements from the Big Beaver corridor study and the futures study.

For all the details, the residential and business communities will have to wait until the end of November. But city planners promise that everyone will have an opportunity to view and comment on the plan. That is especially important to keep everyone happy with the place they have chosen to work and live.

The plan will also be an important tool in attracting new business to the city. So residents and business people will need to look at the plan as a comprehensive document that will impact all facets of life in Troy.

While the master plan will require careful review, the master plan should not take another year to receive City Council approval.

With a collective vision for the city, the road map being developed to lead Troy into the future should be one most

Economist puts odds of recession in U.S. at 1 in 3

By SARAH A. WEBSTER
FREE PRESS BUSINESS WRITER

Global Insight chief economist Nariman Behravesch said Thursday that the risks of a recession in the United States are real and potentially damaging to the automotive market going forward.

"Consumer spending will slow," he said, predicting a recovery in mid-2008 at the earliest.

Behravesch, speaking at Global Insight's Global Automotive Conference in Dearborn, said he expects the Federal Reserve to cut interest rates two more times to revive the economy and help prevent a recession.

Still, he pegged the risk of a recession at one out of three and said he believes the value of the U.S. dollar will continue to fall.

He said the "epicenter" of the problem remains low-quality home loans, largely unloaded on overseas banks.

This is the worst housing market since the 1982 recession, which was the worst since the Great Depression, he said.

While the auto-market problem is largely limited to the United States, he said he believes the worldwide auto industry is in for a downturn after a recent boom period.

"We may be at or close to a cyclical peak for the global automotive industry," Behravesch told a crowd of about 200 auto industry insiders.

He added there will be "no joy for autos in the U.S."

George Magaliano, director of Global Insight's North American automotive division, said Detroit's automakers would continue posting declines through 2012, despite their strong performance in the crossover segment. He predicted that poor performance in passenger cars would cause most of the declines.

Contact SARAH A. WEBSTER at 313-222-5394 or swebster@freepress.com.

THE NEW YORK TIMES, FRIDAY, OCTOBER 5, 2007

Can a Plucky U.S. Economy Surmount \$80 Oil? A New Chief Is Expected For Sprint

By MICHAEL M. GRYNBAUM

Oil prices, an economic scourge in decades past, have soared to record levels in recent years. But the fallout often seemed negligible: Americans kept spending; employment kept growing; factories, construction crews and retail stores stayed busy.

Now, however, the economy may be starting to sputter as damage from the weak housing market drags down growth. If payrolls drop significantly, will high-price crude oil begin to cause pain in a way that it hasn't in nearly three decades?

Many economists do not think so, maintaining that if the United States entered a recession, the price of oil would quickly drop.

"The United States is the single largest oil-consuming nation in the world," said Stephen P. A. Brown, director of energy economics at the Federal Reserve Bank of



PAUL SINDONA/ASSOCIATED PRESS

Gas prices varied last month, breaching \$4 for full service in Menlo Park, Calif.

That view is by no means unanimous. The global economy has been growing rapidly, and oil consumption overseas keeps rising. A few economists say it is possible that even if the American economy weak-

"Our relative importance in the global markets is diminishing," said Larry Goldstein, president of the Petroleum Industry Research Foundation in New York. An American economic slowdown, he said, "won't have a visible impact on high oil demand and it won't have a visible impact on high oil prices."

If that view proves to be right, the United States could conceivably find itself in a situation reminiscent of the 1970s, with weak economic growth and high-price oil taking a double bite out of consumers' pocketbooks.

The situation is murky in part because there is little historical precedent for understanding today's oil market. Less than a decade ago, oil fell below \$11 a barrel. Oil at \$50 was a distant prospect, and the prevailing wisdom was that a run-up of that extent would do serious economic damage.

But as the global economy boomed, oil

By LAURA M. HOLSON
Sprint Nextel's board is seeling a new chief executive to buoy the company's fortunes bot on Wall Street and with investor who have grown increasingly impatient with company's less-than-stellar performance, according to people apprised of the executive search.

Gary D. Forsee, Sprint's chief executive who oversaw the company's merger with Nextel Communications in 2005, has been under pressure from the board to

A Good Bet Goes Sour In China

Not long ago, investors in a company called China Expert Technology thought they had a winner.

Profits were rising as the company got more contracts with local governments in China.

The newest contract was from a different province, indicating the company's reputation was spreading.

Even better, the company kept its books in accordance with United States accounting rules, rather than the presumably more

HIGH & LOW FINANCE



JAMIE REEVE/REUTERS

Recent high prices of crude oil underlined American dependence on gasoline. On roads like this Los Angeles-area freeway, traffic jams are not limited to rush hours.

Can U.S. Economy, Hobbled by Housing, Surmount \$80 Oil?

From First Business Page

about the rising price of gasoline, but the economy shrugged off pump prices that would exceed \$3 a gallon, and kept growing.

On Sept. 20, crude oil for next-month delivery settled at a record price of \$83.32 a barrel and has stayed above \$80 most days since, ending yesterday at \$81.44, up \$1.50 from Wednesday. (Adjusted for inflation, the record high for oil was nearly \$102 a barrel early in 1980, after the Iranian revolution, but that price level did not last long.)

Part of the reason that costly oil has not done too much damage, it seems clear, is that the economy has become less sensitive to energy prices than it was in the 1970s.

Two important trends reinforced each other, economists say. Driven by higher prices, many industries became more efficient in their use of fuel. And services, which require less energy than manufacturing, became a far bigger share of the economy. Over all, the amount of energy needed to produce \$1 of economic output has been cut nearly in half since 1980, Energy Department figures show.

Some economists do say that high-price oil has been a strain on the economy in the last few years. But the effect may have been to shave a bit off an otherwise healthy growth rate, so the impact, they say, has been hard to see.

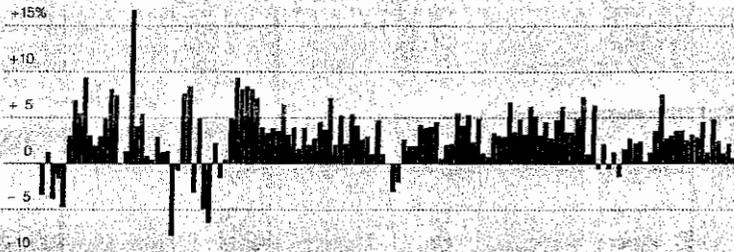
"High oil prices slow economic activity, but they came at the most opportune time they could come," Mr. Goldstein said. "Consumers were in the best position to absorb the high-price shock."

Some businesses, particularly in transportation, have had a marked rise in costs because of

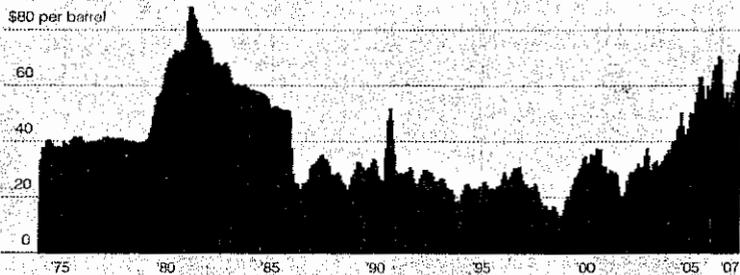
No Longer So Shocking

In the past, sharp rises in oil prices helped push the American economy into recession. But lately the economy has absorbed the shock of high oil prices without losing much of its stride.

Change in gross domestic product



Oil prices, inflation-adjusted



Sources: Energy Information Administration; Bureau of Economic Analysis; Haver Analytics

expensive crude oil. When they were able to stay ahead, it was because of the strong growth in their markets.

Airlines worldwide expect to spend \$132 billion for jet fuel this year, up from \$40 billion in 2002. The industry estimates that the

share of operating costs devoted to fuel has doubled in six years.

Similarly, the American trucking industry expects to spend \$107 billion on diesel fuel this year, up from \$45 billion in 2002. This means that fuel eats up nearly twice as much of the in-

dustry's annual revenue, but a boom in business has protected the bottom line. "Had this happened 10 years ago, the industry would have been decimated," said Bob Costello, chief economist at the American Trucking Associations, a trade group.

With expensive gasoline ready taking money out of consumers' pockets, some worry that a recession would cut them to cut back even more. Economists say that if there is to be a recession, oil prices could fall quickly enough to give consumers some relief.

The United States still counts for nearly a quarter of the world oil market, despite the fact that global economic growth in China's share has grown steadily for more than a decade, a major factor driving up prices. But China still uses less than 9 percent of the world's oil.

The United States "is still the biggest economy in the world," said Brian Pearce, chief economist for the International Air Transport Association. "I'm not expecting to see oil prices back where they were in 2002, by a means. But I think if there is a sharp U.S. slowdown, that will bring oil prices off."

What about the possibility of continued growth abroad will send oil prices higher, perhaps enough to increase the risk of a recession in the United States?

Economists and oil executives say they do not see market fundamentals that would cause that anytime soon. "Most people that are doing long-term planning in the oil business are using a crude price somewhere around \$60 a barrel," said Lynn Westfall, chief economist of the Tesoro Corporation, a leading refiner.

But they concede that a political crisis, accompanied by potential supply disruptions, could be enough to send oil past the psychologically important \$100 mark — if only briefly. "If there was a war between Iran and the West, the price of oil could go very high," Mr. Brown of the Dallas Fed said.

Paula P Bratto

From: Julie Daniels [Jdoffice@comcast.net]
Sent: Wednesday, August 29, 2007 11:23 AM
To: Paula P Bratto
Subject: 16 & Coolidge

We are very excited about the developments at 16 and Coolidge. I would like to see more residential, parks, grass area for concerts, restaurants - a place where people can eat, walk, jog, picnic etc.

Please no more office space... I think it would be a big mistake to add anymore office space in our city. Everywhere I turn while driving, I see so many for lease, for rent, retail space available, office space available, 4,000 sq ft avail, 12,000 sq ft avail etc., signs. It's a shame Troy can't fill up these spaces first before building more space to become available.

Thanks for your time. Julie

Paula P Bratto

From: Bishop, Thomas [TBishop@Letica.com]
Sent: Wednesday, August 22, 2007 4:02 PM
To: Paula P Bratto
Subject: Pavilions of Troy Project

As a 14 year resident of Troy, I am excited to learn of the subject new development proposal. As a resident of Somerset North however, I am concerned about the impact of the dramatic increase in automobile and pedestrian traffic that this project would bring to the Coolidge / Big Beaver / Cunningham intersections. I have heard a rumor about a right of way being cut from Alpine, behind LaSalle Bank, and into Cunningham at Lakeside. Would this indeed be part of the Pavilions proposal? How would the increase in traffic be handled in this area?

I plan to attend the 9/11 public hearing, however would appreciate some additional information in advance of the meeting. Thank you.

Sincerely,
Tom Bishop
1855 Lexington Drive
Troy, MI 48084

Paula P Bratto

From: LinSchaf01@aol.com
Sent: Friday, May 04, 2007 9:56 AM
To: Paula P Bratto
Subject: Troy Corridor Project

I think that this project would be wonderful for the City of Troy. I live in Troy and love the City. This would add to the warm feeling that we have in this City. If we can afford this go for it! We also need more job opportunity in Michigan and this would help.

Troy is a great place to live!

Linda Schaffer
2541 Athena Drive
Troy, MI 48083

See what's free at AOL.com.