



PLANNING COMMISSION MEETING AGENDA REGULAR MEETING

500 W. Big Beaver
Troy, MI 48084
(248) 524-3364
www.troymi.gov
planning@troymi.gov

Michael W. Hutson, Chair, and Mark Maxwell, Vice Chair
Donald Edmunds, Tom Krent, Philip Sanzica, Robert Schultz
Thomas, Strat, John J. Tagle and Lon M. Ullmann

July 12, 2011

7:30 P.M.

Council Chamber

1. ROLL CALL
2. APPROVAL OF AGENDA
3. APPROVAL OF MINUTES – June 28, 2011 Special/Study meeting
4. PUBLIC COMMENTS – For Items Not on the Agenda

SPECIAL USE REQUEST

5. PUBLIC HEARING - SPECIAL USE REQUEST AND PRELIMINARY SITE PLAN REVIEW (File Number SU 188 A) – Proposed First Romanian Baptist Church Building Addition, East Side of John R, North of Big Beaver (3244 John R), Section 24, Currently Zoned R-1D (One Family Residential) District

STUDY ITEM

6. POTENTIAL REZONING AND PRELIMINARY SITE PLAN REVISION (File Number SP 921) – Briggs Park Condominium, East side of Rochester, North side of Lamb, Section 14, Currently Zoned RT (One Family Attached Residential), EP (Environmental Protection) and R-1C (One Family Residential) Districts, Potential Rezoning to R-1E (One Family Residential)

OTHER BUSINESS

7. SUSTAINABLE DEVELOPMENT PROCESS – Discuss Draft Document
8. PUBLIC COMMENTS – Items on Current Agenda
9. PLANNING COMMISSION COMMENTS

ADJOURN

NOTICE: People with disabilities needing accommodations for effective participation in this meeting should contact the City Clerk by e-mail at clerk@troymi.gov or by calling (248) 524-3317 at least two working days in advance of the meeting. An attempt will be made to make reasonable accommodations.

The Special/Study Meeting of the Troy City Planning Commission was called to order by Chair Hutson at 7:30 p.m. on June 28, 2011 in the Council Board Room of the Troy City Hall.

1. ROLL CALL

Present:

Donald Edmunds
Michael W. Hutson
Tom Krent
Mark Maxwell
Philip Sanzica
Robert M. Schultz
Thomas Strat
John J. Tagle
Lon M. Ullmann

Also Present:

R. Brent Savidant, Planning Director
Allan Motzny, Assistant City Attorney
Zachary Branigan, Carlisle/Wortman Associates, Inc.
Kathy Czarnecki, Recording Secretary

2. APPROVAL OF AGENDA

Resolution # PC-2011-06-038

Moved by: Schultz
Seconded by: Maxwell

RESOLVED, To approve the Agenda as prepared.

Yes: All present (9)

MOTION CARRIED

3. APPROVAL OF MINUTES

Resolution # PC-2011-06-039

Moved by: Edmunds
Seconded by: Strat

RESOLVED, To approve the minutes of the June 14, 2011 Regular meeting as published.

Yes: All present (9)

MOTION CARRIED

4. PUBLIC COMMENT

There was no one present who wished to speak.

5. BOARD OF ZONING APPEALS (BZA) REPORT

Mr. Strat gave a summary of the June 21, 2011 Board of Zoning Appeals meeting.

6. DOWNTOWN DEVELOPMENT AUTHORITY (DDA) REPORT

There was no DDA meeting in June.

7. PLANNING AND ZONING REPORT

Mr. Savidant gave a report on current planning and zoning matters.

REZONING REQUEST

8. PUBLIC HEARING – REZONING APPLICATION (File Number Z 738) – Proposed Holiday Inn Express Hotel & Suites, East side of Stephenson Hwy, North of 14 Mile (466 Stephenson Highway), Section 35, From RC (Research Center) District to OM (Office Mixed Use) District

PUBLIC HEARING OPENED

No one was present to speak.

PUBLIC HEARING CLOSED

Resolution #2011-06-040

Moved by: Schultz

Seconded by: Strat

WHEREAS, That the Planning Commission hereby recommends to the City Council that the RC to OM rezoning request, located on the east side of Stephenson Highway, north of 14 Mile (466 Stephenson Highway), within Section 35, being approximately 3.05 acres in size, be granted.

Yes: All present (9)

MOTION CARRIED

STUDY ITEMS

9. STORM WATER 101 – Presentation by Kelly Cave, Director of the Water Quality Management Division, Wayne County Department of Environment

10. PUBLIC LIBRARIES – Presented by Mark Maxwell, Troy Planning Commission

OTHER ITEMS

11. PUBLIC COMMENT – Items on Current Agenda
There was no one present who wished to speak.

12. PLANNING COMMISSION COMMENT
There was general Planning Commission discussion.

ADJOURN

The Special/Study Meeting of the Planning Commission adjourned at 9:30 p.m.

Respectfully submitted,

Michael W. Hutson, Chair

Kathy L. Czarnecki, Recording Secretary

DATE: July 7, 2011

TO: Planning Commission

FROM: R. Brent Savidant, Planning Director

SUBJECT: PUBLIC HEARING - SPECIAL USE REQUEST AND PRELIMINARY SITE PLAN REVIEW (File Number SU 188 A) – Proposed First Romanian Baptist Church Building Addition, East Side of John R, North of Big Beaver (3244 John R), Section 24, Currently Zoned R-1D (One Family Residential) District

The applicant, First Romanian Baptist Church, proposes a 2,233 square foot addition to an existing 7,000 square foot church. In addition they propose a 1,496 square foot basement, to be used for storage only.

The attached report prepared by Carlisle/Wortman Associates, Inc. summarizes the project.

Please be prepared to discuss the application at the July 12, 2011 Planning Commission Regular meeting.

Attachments:

1. Maps.
2. Report prepared by CWA.

cc: Applicant
File/ SU 188 A

G:\SPECIAL USE\SU 188 A First Romanian Baptist Church Bldg Addn Sec 24\SU-188 A PC Memo 07 12 2011.docx

SPECIAL USE APPROVAL AND PRELIMINARY SITE PLAN REVIEW

PUBLIC HEARING - SPECIAL USE REQUEST AND PRELIMINARY SITE PLAN REVIEW
(File Number SU 188 A) – Proposed First Romanian Baptist Church Building Addition, East Side of John R, North of Big Beaver (3244 John R), Section 24, Currently Zoned R-1D (One Family Residential) District

Proposed Resolution # PC-2011-07-

Moved by:

Seconded by:

RESOLVED, The Planning Commission hereby approves a reduction in the number of required parking spaces for the proposed First Romanian Baptist Church Building Addition, to 98 when a total of 129 spaces are required on the site based on off-street parking space requirements. This 31-space reduction is justified provided the worship facility and social hall are used exclusively of one another at all times.

BE IT FURTHER RESOLVED, That Special Use Approval and Preliminary Site Plan Approval for the proposed First Romanian Baptist Church Building Addition, located on the east side of John R Road, north of Big Beaver, at 3244 John R, Section 24, within the R-1D zoning district, be granted, subject to the following:

1. The worship facility and social hall shall be used exclusively of one another at all times.
2. Add a sidewalk and safe pedestrian crossing between John R Road and the main building entrance.
3. Add a bicycle rack for two (2) bicycles.
4. Provide additional landscaping along the north, east, and south sides.

_____) or
(denied, for the following reasons: _____) or
(postponed, for the following reasons: _____)

Yes:

No:

Absent:

MOTION CARRIED / DENIED



Legend

- Road Centerline
 - Major Road
 - Industrial Road
 - Local Road
- Ponds and Basins
- Streams and Creeks
- Parcels
- Aerial Photos - 2010
 - Red:Band_1
 - Green:Band_2
 - Blue:Band_3

301 0 150 301 Feet

Scale 1: 1,805





- Legend**
- Road Centerline
 - Major Road
 - Industrial Road
 - Local Road
 - Ponds and Basins
 - Streams and Creeks
 - Parcels
 - Aerial Photos - 2010
 - Red:Band_1
 - Green:Band_2
 - Blue:Band_3



Scale 1: 1,090



Note: The information provided by this application has been compiled from recorded deeds, plats, tax maps, surveys, and other public records and data. It is not a legally recorded map survey. Users of this data are hereby notified that the source information represented should be consulted for verification.

Printed: 5/31/2011



Legend

- Road Centerline**
 - Major Road
 - Industrial Road
 - Local Road
- Form Based Zoning (Current)**
 - (PUD) Planned Unit Development
 - (CF) Community Facilities District
 - (EP) Environmental Protection District
 - (BB) Big Beaver Road (Form Based)
 - (MRF) Maple Road (Form Based)
 - (NN) Neighborhood Nodes (A-U)
 - (CB) Community Business
 - (GB) General Business
 - (IB) Integrated Industrial Business District
 - (O) Office Building District
 - (OM) Office Mixed Use
 - (P) Vehicular Parking District
 - (R-1A) One Family Residential District
 - (R-1B) One Family Residential District
 - (R-1C) One Family Residential District
 - (R-1D) One Family Residential District
 - (R-1E) One Family Residential District
 - (RT) One Family Attached Residential District
 - (MR) Multi-Family Residential
 - (MHP) Manufactured Housing
 - (UR) Urban Residential
 - (RC) Research Center District
 - (PV) Planned Vehicle Sales
- Ponds and Basins
- Streams and Creeks
- Parcels
- Aerial Photos - 2010**
 - Red:Band_1
 - Green:Band_2
 - Blue:Band_3

338 0 169 338Feet

Scale 1: 2,027





Legend

Road Centerline

-  Major Road
-  Industrial Road
-  Local Road

Form Based Zoning (Current)

-  (PUD) Planned Unit Development
-  (CF) Community Facilities District
-  (EP) Environmental Protection District
-  (BB) Big Beaver Road (Form Based)
-  (MRF) Maple Road (Form Based)
-  (NN) Neighborhood Nodes (A-U)
-  (CB) Community Business
-  (GB) General Business
-  (IB) Integrated Industrial Business District
-  (O) Office Building District
-  (OM) Office Mixed Use
-  (P) Vehicular Parking District
-  (R-1A) One Family Residential District
-  (R-1B) One Family Residential District
-  (R-1C) One Family Residential District
-  (R-1D) One Family Residential District
-  (R-1E) One Family Residential District
-  (RT) One Family Attached Residential District
-  (MR) Multi-Family Residential
-  (MHP) Manufactured Housing
-  (UR) Urban Residential
-  (RC) Research Center District
-  (PV) Planned Vehicle Sales

Ponds and Basins

Streams and Creeks

Parcels

Aerial Photos - 2010

-  Red:Band_1
-  Green:Band_2
-  Blue:Band_3

179 0 90 179Feet

Scale 1: 1,074





CARLISLE/WORTMAN ASSOCIATES, INC.

Community Planners /Landscape Architects

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734-662-2200
fax 734-662-1935

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Clarkston, MI 48346
248-625-8480
fax 248-625-8455

Date: July 7, 2011

Special Use Request For City of Troy, Michigan

Applicant: First Romanian Baptist Church

Project Name: First Romanian Baptist Church of Troy Social Hall

Plan Date: May 16, 2011

Location: 3244 John R Road

Zoning: R-1D

Action Requested: Special Use and Preliminary Site Plan Approval

Required Information: Deficiencies noted

PROJECT AND SITE DESCRIPTION

We are in receipt of a special use application for the addition of a social hall to an existing church property. The project proposes several changes, including a new addition of 2,233 square feet and a revised parking area.

Location of Subject Property:

The property is located on the east side of John R Road, north of Big Beaver Road.

Size of Subject Property:

The parcel is 1.681 acres.

Proposed Uses of Subject Parcel:

The applicant proposes to continue using the site as a church.

Current Use of Subject Property:

The subject property is currently a church.

Current Zoning:

The property is currently zoned R-1D, Single Family Residential District.

Zoning Classification of Adjacent Parcels and Current Land Use:

North: R-1D, Single Family Residential District; single family homes

West: (across John R Road) R-1D, Single Family Residential District; single family homes

South: R-1E, Single Family Residential District; single family homes.

East: R-1D, Single Family Residential District; single family homes

Places of worship are permitted in the R-1D District as uses subject to special use approval.

Also, there are specific use provisions for places of worship established in Section 6.21.

Section 6.21.B states:

“Facilities incidental to the main religious sanctuary must be used for church, worship, or religious education purposes, in a manner which is consistent with residential zoning and compatible with adjacent residential property. Associated uses on the site such as recreation centers, retreat facilities, conference centers, schools convents, and others shall meet all requirements of this Ordinance for such uses.”

Consequently, the addition of a social hall is permitted within the R-1D as an accessory to the main church, provided it meets the basic requirements for places of worship in the R-1D District.

BUILDING LOCATION AND SITE ARRANGEMENT

The existing church is located in the center of the overall site. The site is accessed via a single driveway at the center of the site’s frontage on John R Road. There is 360 degree circulation and parking surrounding the building. The addition would require the removal of some spaces on the east side of the building, adjacent to the single family homes there, but would still allow for cars to circulate around the building.

Items to be Addressed: *None*

AREA, WIDTH, HEIGHT, SETBACKS

The conditions for special use approval for a place of worship are established in Section 6.21. There are several dimensional requirements that must be considered here. First, the setbacks for all side of the project are 50 feet, which is a greater setback requirement than for most uses within the R-1D District. Also, parking is not permitted in a required yard that is adjacent a public street, nor is parking permitted adjacent to residentially zoned property.

Parking does exist on the east, south, and north sides adjacent residential, within the required 50-foot yards (setbacks). This is a legal, nonconforming condition. This application does not increase the level of nonconformity or change these previously existing nonconforming conditions, however. Consequently, the parking is permitted to remain. Further, this application actually reduces the level of nonconformity in that it removes parking spaces within the existing setback area, which we will describe in more detail later in the review.

While height data has not been provided by the applicant for the existing portion of the building, we can confirm, based on observations made during a site visit, the existing building does not exceed maximum requirements and the proposed height of the addition does not exceed maximum requirements.

Required and Provided Dimensions:

Sections 4.06.C and 6.21 require the following setbacks and height limits:

	<u>Required:</u>	<u>Provided:</u>
Setbacks		
Front (west)	50 feet	80.7 feet
Side (north)	50 feet	58.6 feet
Side (south)	50 feet	93 feet
Rear (east, proposed)	50 feet	50.16 feet
Building Height	25 Feet, 2.5 stories	22 feet, 6 inches

Items to be Addressed: None

PARKING

Parking:

The site plan indicates a total of 98 parking spaces, which includes 3 barrier-free parking spaces.

Parking Calculations:

The application only calculates parking for the existing main worship area, and the applicant’s letter seems to indicate that their position is that the addition would not require any additional parking. While in practice that could be accurate, it is not accurate in terms of the requirements of the Ordinance. Section 13.06.D.3 requires that, for places of worship, “*seating capacity shall be based upon the building code requirements currently in effect. In cases where a place of assembly has both fixed seats and open assembly areas, requirements shall be computed separately for each type and added together.*” Consequently, overall parking required must be computed by adding these two separate uses together. The parking calculations are as follows:

<u>Required</u>	<u>Provided</u>
<p>(places of worship)</p> <p>One (1) space per 3 seats or 6 feet of bench seating in the main worship area. This church has 3 choir benches (23 feet each for a total of 69 feet) and 23 congregation benches (13.5 feet each for a total of 310.5 feet). Total linear feet of bench seating = 379.5 feet. 379.5 feet / 6 feet per space required = 63.25 spaces (rounded down to 63 spaces required per Section 13.06.D.4)</p>	
<p>(banquet halls or conference rooms, and similar uses without fixed seats)</p> <p>1 space for every 2 persons of capacity authorized by the fire or building code, or 1 space for each 100 square feet of net floor area, whichever is greater, plus any required parking for other uses, such as restaurants, gift shops, etc. This spaces has 2,233 square feet of gross floor area (net floor area is not specifically identified as such, but the main open hall is 1,992 uninterrupted square feet, the remaining square feet are basement for storage and stairwells, which are not considered usable).</p> <p>Using the 1 space per 100 square feet calculation, 19.92 (20) spaces would be required. However, the building code states that <i>occupancy for unconcentrated assembly spaces with tables and chairs is one person for every 15 net square feet</i>. In this case, given the estimated 1,992 square feet of net area, maximum capacity would be 132.8 (132) persons. $132/2 = 66$ spaces required.</p> <p>This is a conservative interpretation, as the occupancy calculation could also be done assuming that the hall could be used with only chairs (<i>one person for every 7 net square feet = 1,992/7 = 284 capacity, requiring 142 spaces</i>) or standing only (<i>one person for every 5 net square feet = 1,992/5 = 398 capacity, requiring 199 spaces</i>).</p> <p>We believe the more conservative approach is permissible, given that the facility will be used primarily for baby showers, fellowship meals, etc., as stated in the applicant's request.</p>	<p>98 spaces</p>
<p>Total required spaces is 63+ 66 = 129 spaces</p>	

The site is technically deficient in parking. However, the uses on the site will not occur concurrently. The social hall uses do not take place at the same time as services. The hall use requires 66 spaces, well under the provided 98. The Church itself requires 63 spaces, also under the provided 98. Section 13.06.F.2 states that *“The City may grant deviations from off-street parking requirements. These deviations may require more or less parking based upon a finding that such deviations are more likely to provide a sufficient number of parking spaces to accommodate the specific characteristics of the use in question.”* We are confident that the proposed new use is

permissible on this site and that the majority of users will be using each facility at separate and distinct times.

We are comfortable with the Planning Commission granting a deviation from required parking for this site based on the applicant intended use, provided that it is conditioned on the fact that no use of the additional Social Hall shall occur concurrently with a service. This would prohibit, for instance, a new service starting in the worship facility if the Social Hall were being used for a breakfast or meal at the same time. All use must be exclusive to the site at any given time.

Items to be Addressed: *Planning Commission should consider granting a parking deviation from the required number of spaces (129 when only 98 are provided) conditioned on the worship facility and social hall being used exclusively of one another at all times.*

SITE ACCESS AND CIRCULATION

Proposed Circulation:

The site is accessed via an existing drive. The plan would not alter on-site circulation or access.

Sidewalks:

The site has a 5-foot wide sidewalk along its John R Road frontage (matching others in the area), and sidewalks along the building's sides to allow for safe pedestrian circulation. No pedestrian connection exists between the main building and the main sidewalk along John R Road. The applicant should be required to provide a sidewalk connection from the main sidewalk to the parking lot surface, and reserve a striped or contrasted surface walkway across the parking area to facilitate safe and dedicated pedestrian access to the building from the street (in accordance with Section 13.10.C.5.b). Also, Section 13.10.C.4 requires that "all sites with parking of 10 spaces or greater shall provide a bike rack for at least two bicycles within 50 feet of the building entrance." A bike rack should be added to the site plan to meet this requirement.

Items to be Addressed: *Add a sidewalk and safe pedestrian crossing from John R Road and a bike rack for two bikes.*

NATURAL RESOURCES

The site is previously developed and contains no significant natural features, although there are mature landscaping elements. The proposed plan would not impact any protected natural features. Please see our landscaping and site access and circulation sections of this review for more information with regard to screening.

Items to be Addressed: *None.*

LANDSCAPING

The site plan provides all required information with regard to landscaping for the purposes of this review. It shows the location, species, and size of all existing trees on site and provides accurate

landscaped area calculations. The site plan meets current Ordinance requirements for street trees and landscaped area (over 35%, when 20% is required).

No additional parking or major revisions to the parking area are proposed to necessitate or provide an opportunity for additional parking lot landscape islands, and the site is surrounded by walls for screening. We believe there would be a benefit, given the change in operational hours that will follow the addition, to adding more trees along the north, east, and south boundaries of the site. While the wall may technically meet minimum Ordinance screening requirements, we feel the Planning Commission should explore this issue with the applicant.

Items to be Addressed: Consider additional screening landscaping.

LIGHTING

The applicant has not provided a photometric plan for this project. Full lighting details will be provided for final site plan approval.

Items to be Addressed: None.

SPECIAL USE

In the R-1D District, places of worship are permitted as a special use. This project would significantly alter the conditions of the original approval of this project and would impact adjacent properties. It contemplates improvements on the site that change the plan that was approved for this property. As such, a special use permit must be issued for the revised site plan to allow the project to move forward.

For any special use, according to Section 9.02.D, the Planning Commission shall “...review the request, supplementary materials either in support or opposition thereto, as well as the Planning Department’s report, at a Public Hearing established for that purpose, and shall either grant or deny the request, table action on the request, or grant the request subject to specific conditions.”

Use Standards

The applicant should be aware that Section 6.21 lists several conditions for places of worship (items labeled “not applicable” are not impacted by the application submitted and reviewed). They are as follows:

- A. *All religious activities shall take place in a fully enclosed building except as may be approved by the City. Satisfied.*
- B. *Facilities incidental to the main religious sanctuary must be used for church, worship, or religious education purposes, in a manner which is consistent with residential zoning and compatible with adjacent residential property. Associated uses on the site such as recreation*

centers, retreat facilities, conference centers, schools convents, and others shall meet all requirements of this Ordinance for such uses. See comments PARKING, above.

C. The site shall have frontage on and primary access to a major or minor arterial. Satisfied.

D. Buildings of greater than the maximum height allowed in the District in which a place of worship is located, may be allowed provided that the front, side and rear yards are increased one (1) foot for each foot of building height which exceeds the maximum height allowed. Satisfied.

E. Front, side and rear yard setbacks shall be a minimum of fifty (50) feet. Satisfied.

F. Parking shall not be permitted in the required yards adjacent to any public street or adjacent to any land zoned for residential purposes, other than that which is developed or committed for uses other than the construction of residential dwellings. Such yards shall be maintained as landscaped open space. Legal existing nonconformity. See "AREA, WIDTH, HEIGHT, SETBACKS," above.

G. Traffic from events, including church worship services and other large assemblies, shall be controlled so as not to create congestion or unreasonable delays on the public street. This item can be satisfied with cooperation from the City of Troy during special events. We believe that if the Planning Commission grants the parking deviation with the conditions noted herein, this item will be satisfied.

Standards of Approval

Section 9.03 states that before approving any requests for Special Use Approval, the Planning Commission shall consider:

1. Compatibility with Adjacent Uses. The Special Use shall be designed and constructed in a manner harmonious with the character of adjacent property and the surrounding area. In determining whether a Special Use will be harmonious and not create a significant detrimental impact, as compared to the impacts of permitted uses. The addition will add some square footage to the site, but will likely be used mainly by the existing congregation. However, it will operate at different times of day than the existing worship center, extending the number of days and hours that the site is active. Given that the parking on the east side is actually being removed in exchange for the building expansion there, we believe that the net impact to the immediate neighbors to the east will be largely avoided. The Planning Commission may wish to add conditions restricting the hours of operation for the social hall addition to mitigate for this condition. It is common for places of worship to have attached gathering areas such as this, but special consideration should be given to this case because the small size of the site and its legal nonconformity with regard to setbacks on the north, east, and south sides.

2. Compatibility with the Master Plan. The proposed Special Use shall be compatible and in accordance with the goals and objectives of the City of Troy Master Plan and any associated

*sub-area and corridor plans. **The use is common to single-family areas, and complies with the Master Plan.***

3. *Traffic Impact. The proposed Special Use shall be located and designed in a manner which will minimize the impact of traffic, taking into consideration: pedestrian access and safety; vehicle trip generation (i.e. volumes); types of traffic, access location, and design, circulation and parking design; street and bridge capacity and, traffic operations at nearby intersections and access points. Efforts shall be made to ensure that multiple transportation modes are safely and effectively accommodated in an effort to provide alternate modes of access and alleviate vehicular traffic congestion. **The site must add a safe and dedicated sidewalk and pedestrian crosswalk to accommodate safe walkable access to the main building from the existing John R Road sidewalk. Also, a bike rack must be added. With these conditions met, and the nature of the existing access and small size of the facility, we believe this condition will be met.***
4. *Impact on Public Services. The proposed Special Use shall be adequately served by essential public facilities and services, such as: streets, pedestrian or bicycle facilities, police and fire protection, drainage systems, refuse disposal, water and sewage facilities, and schools. Such services shall be provided and accommodated without an unreasonable public burden. **A bike rack and sidewalks must be added to meet this requirement. Also, the Fire Department has indicated that an additional hydrant must be provided on-site during final site plan approval. We do not expect any additional impact on other public services, such as police or utilities, beyond what would normally be experienced for the existing church. The engineering department has reviewed the site plan as submitted and has no objections.***
5. *Compliance with Zoning Ordinance Standards. The proposed Special Use shall be designed, constructed, operated and maintained to meet the stated intent of the zoning districts and shall comply with all applicable ordinance standards. **Several items need to be addressed, as noted herein, to meet this requirement.***

The Planning Commission is also required to generally consider the following for any special use application:

1. *The nature and character of the activities, processes, materials, equipment, or conditions of operation; either specifically or typically associated with the use. **See above. We believe that with conditions, the proposed additional use may be permissible.***
2. *Vehicular circulation and parking areas. **With a parking deviation as noted above, we believe the site plan is acceptable in this regard.***
3. *Outdoor activity, storage and work areas. **N/A.***
4. *Hours of operation. **See above. We believe that with conditions, the proposed additional use may be permissible in this regard.***

5. *Production of traffic, noise vibration, smoke, fumes odors, dust, glare and light. We do not anticipate any additional impact after initial construction in this regard.*

Items to be addressed: Address Ordinance compliance issues noted herein.

SUBMITTAL REQUIREMENTS

Submittal requirements for a special use request have been met. On the office record copy, Sheet 1 of the site plan was sealed by Nathan Robinson, PE. The architectural drawings on Sheets A01 thru A09 were all sealed by the architect, Dan Voicu.

Items to be Addressed: None.

RECOMMENDATIONS

This project represents a logical and permissible addition to an existing place of worship. There are several outstanding elements that should be addressed or discussed prior to approval, most notably the required parking deviation. We are confident that the outstanding issues, with guidance from the Planning Commission, can be addressed during final site plan approval. Consequently, we recommend the Planning Commission grant the required parking deviation, conditioned on the following:

1. No use of the additional social hall shall occur concurrently with a service.

Further, we recommend that the request for special use approval be granted, conditioned on the following:

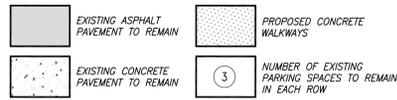
1. Add a sidewalk and safe pedestrian crossing from John R Road.
2. Add a bike rack for two bikes.
3. Provide additional screening landscaping along the north, east, and south sides.

The Planning Commission may also wish to discuss a restriction on hours of operation with the applicant, although we have no formal recommendation with regard to the potential hours. The applicant should also be aware of the Fire Department's requirement for an additional hydrant. This must be addressed during final site plan review.



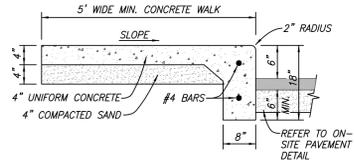
CARLISLE/WORTMAN ASSOCIATES, INC.
Zachary G. Branigan, LEED AP, AICP
Associate

LEGEND

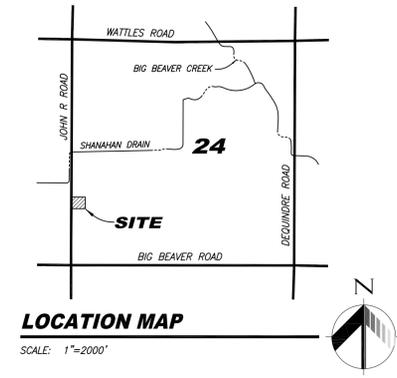
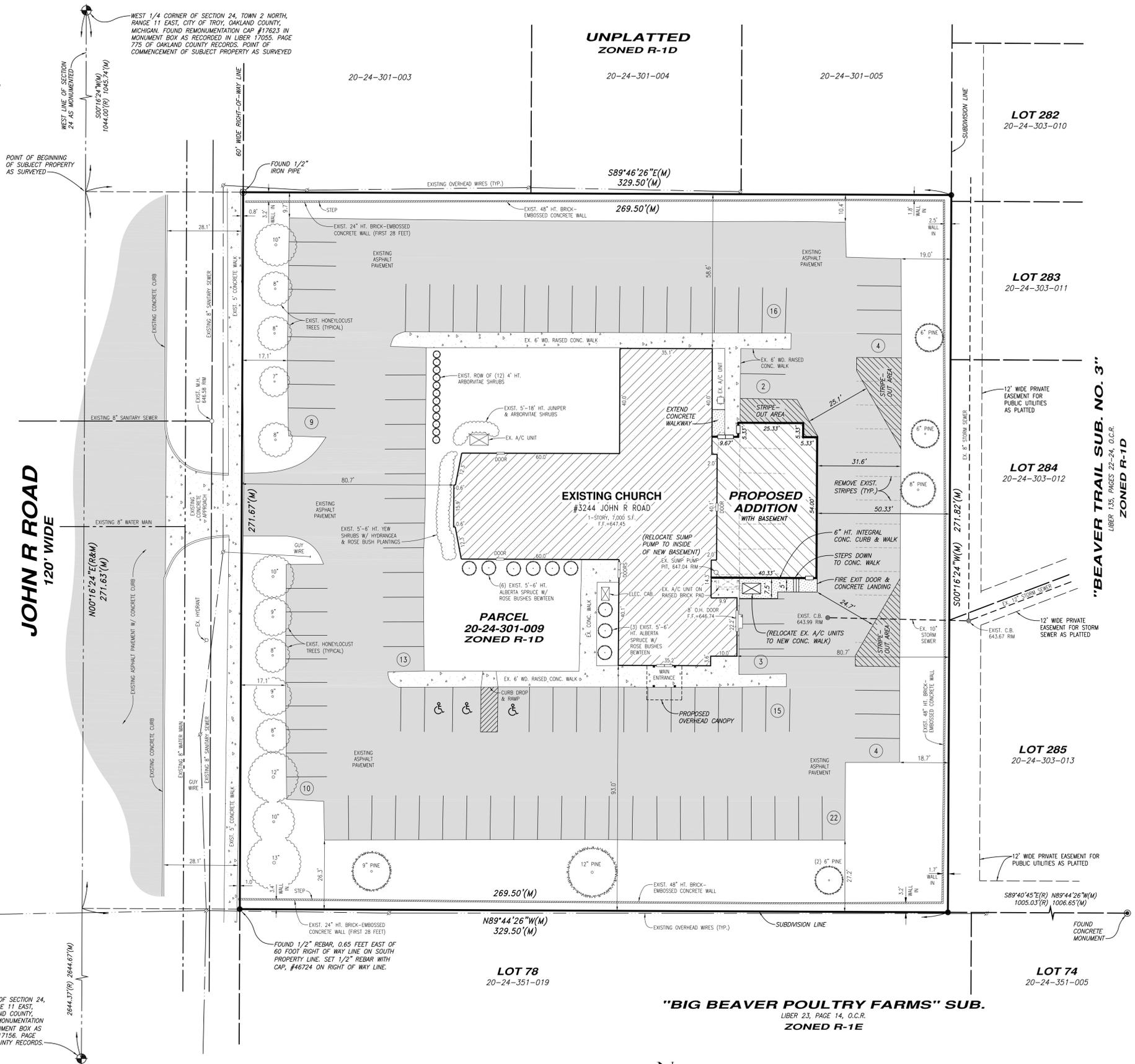


6" HT. INTEGRAL CONCRETE CURB & WALK DETAIL

(NO SCALE)



JOHN R ROAD
120' WIDE



PROPERTY DESCRIPTION

SIDWELL #20-24-301-009
LAND SITUATED IN THE CITY OF TROY, OAKLAND COUNTY, MICHIGAN DESCRIBED AS: PART OF THE SOUTHWEST 1/4 OF SECTION 24, TOWN 2 NORTH, RANGE 11 EAST, CITY OF TROY, OAKLAND COUNTY, MICHIGAN AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 24, EXCLUDING THE SOUTH 260 FEET OF THE NORTH 1044 FEET, ALSO EXCLUDING THAT PART PLATTED INTO, "BEAVER TRAIL SUB. NO. 3" AS RECORDED IN LIBER 135 OF PLATS, PAGES 22-24 OF OAKLAND COUNTY RECORDS, ALSO EXCLUDING THE WEST 60 FEET TAKEN FOR JOHN R ROAD.

ALSO DESCRIBED AS:
COMMENCING AT THE WEST 1/4 CORNER OF SAID SECTION 24; THENCE SOUTH 00 DEGREES 16 MINUTES 24 SECONDS WEST 1044.00 FEET RECORD (1045.74 MEASURED) ALONG THE WEST LINE OF SAID SECTION 24 TO THE POINT OF BEGINNING; THENCE SOUTH 89 DEGREES 46 MINUTES 26 SECONDS EAST 329.50 FEET TO THE WEST LINE OF "BEAVER TRAIL SUB. NO. 3" AS RECORDED IN LIBER 135 OF PLATS, PAGES 22-24 OF OAKLAND COUNTY RECORDS; THENCE SOUTH 00 DEGREES 16 MINUTES 24 SECONDS WEST 271.82 FEET ALONG SAID WEST LINE TO THE NORTH LINE OF "BIG BEAVER POULTRY FARMS" AS RECORDED IN LIBER 23 OF PLATS, PAGE 14 OF OAKLAND COUNTY RECORDS; THENCE NORTH 89 DEGREES 44 MINUTES 26 SECONDS WEST 329.50 FEET ALONG SAID NORTH LINE TO THE WEST LINE OF SAID SECTION 24; THENCE NORTH 00 DEGREES 16 MINUTES 24 SECONDS EAST 271.63 FEET ALONG THE WEST LINE OF SAID SECTION 24 TO THE POINT OF BEGINNING, EXCLUDING THE WEST 60 FEET TAKEN FOR JOHN R ROAD.

SITE CRITERIA

- PARCEL SUMMARY:**
ADDRESS: 3244 JOHN R ROAD
PARCEL ID NO.: 20-24-301-009
EXISTING ZONING: R-10 (SINGLE FAMILY RESIDENTIAL)
ADJACENT ZONINGS: R-10 & R-11-1E
GROSS AND NET SITE AREA: 73,235 S.F. (1.681 ACRE)
- BUILDING & USE SUMMARY:**
EXISTING & PROPOSED USE: CHURCH
BUILDING AREA:
EXISTING: 7,000 S.F. (GROSS)
PROPOSED ADDITION: 2,233 S.F. (GROSS)
PROPOSED BASEMENT*: 1,496 S.F. (NET)
TOTAL = 9,233 S.F. GROSS, OR 10,729 S.F. INCLUDING BASEMENT
**NOTE: THE BASEMENT IS TO BE USED FOR STORAGE ONLY.
MAXIMUM BUILDING HEIGHT: 30'
EXISTING BUILDING HEIGHT: 15'-4"± (SAME AS PROPOSED ADDITION)
LOT COVERAGE ALLOWED: 30% x 73,235 = 21,970 S.F.
LOT COVERAGE PROPOSED: 9,233 S.F. / 73,235 S.F. = 12.6%
- SETBACK SUMMARY:**
BUILDING: REQUIRED: 50'; PROVIDED: 80.7' (EXISTING)
FRONT (TO JOHN R RD. R.O.W.): 50'; PROVIDED: 50.16' (PROPOSED)
REAR: 50'; PROVIDED: 50'
SIDE (NORTH): 50'; PROVIDED: 58.6' (EXISTING)
SIDE (SOUTH): 50'; PROVIDED: 93.0' (EXISTING)
- PARKING SUMMARY:**
SPACES REQUIRED: 1 SPACE FOR EACH 3 SEATS OR 6 FEET OF BENCH SEATING IN THE MAIN UNIT OF WORSHIP. (23 CHOR BENCHES) x (13'-6") / 6 = 51.75
TOTAL SPACES REQUIRED = 63
SPACES PROVIDED: 98 SPACES (INCLUDES 3 BARRIER-FREE SPACES).
- LANDSCAPING SUMMARY:**
LANDSCAPE OPEN SPACE REQUIRED: 20%
LANDSCAPE OPEN SPACE PROVIDED: 25,682 S.F. / 73,235 = 35.1%
ALL TREES AND LANDSCAPING SHOWN ON THIS PLAN ARE EXISTING. NO CHANGES TO THE LANDSCAPING ARE PROPOSED.
- UTILITY SUMMARY:**
ALL UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE EXISTING.
• SANITARY SEWER: EXISTING WATER LEAD TO MUNICIPAL SEWER.
• WATER MAIN: EXISTING WATER SERVICE TO MUNICIPAL MAIN.
• STORM SEWER: ENCLOSED STORM SEWER PIPE.
NO CHANGES TO THE UTILITIES ARE PROPOSED.

GENERAL NOTES

- SURVEY AND TOPOGRAPHIC INFORMATION SHOWN IS AS PERFORMED BY AZTEC LAND SURVEYORS INC., JOB NO. 11-013, DATED 2-1-2011.
- UNDERGROUND UTILITY INFORMATION IS SHOWN AS DETERMINED FROM FIELD SURVEY WORK AND AVAILABLE RECORDS FROM THE CITY OF TROY. NO GUARANTEE IS GIVEN TO THE COMPLETENESS OR ACCURACY THEREOF. OWNER AND/OR CONTRACTOR SHALL FIELD VERIFY EXISTING UTILITIES PRIOR TO ANY EXCAVATION WORK BEING PERFORMED, IF ANY.
- A CURRENT TITLE POLICY HAS NOT BEEN FURNISHED AT TIME OF SURVEY. THEREFORE EASEMENTS AND/OR ENCUMBRANCES AFFECTING SUBJECT PARCEL MAY NOT BE SHOWN.
- NO WORK IS PROPOSED WITHIN JOHN R ROAD RIGHT-OF-WAY.

CONTRACTOR'S NOTE

The locations of existing underground utilities are shown in an approximate way only. The contractor shall determine the exact location of all existing utilities before commencing work. He agrees to be fully responsible for any and all damages which might be occasioned by his failure to exactly locate and preserve any and all underground utilities.

The contractor shall be responsible for adhering to all applicable local, state, and federal standards, specifications, and guidelines for construction.

3 WORKING DAYS BEFORE YOU DIG CALL MISS DIG
1-800-482-7171
(TOLL FREE) for the location of underground utilities



CLIENT: MANNA PAPST
CHURCH OF TROY
600 PASTOR JOHN G. COVAGE
TRIOY MI 48063
(248) 231-5026

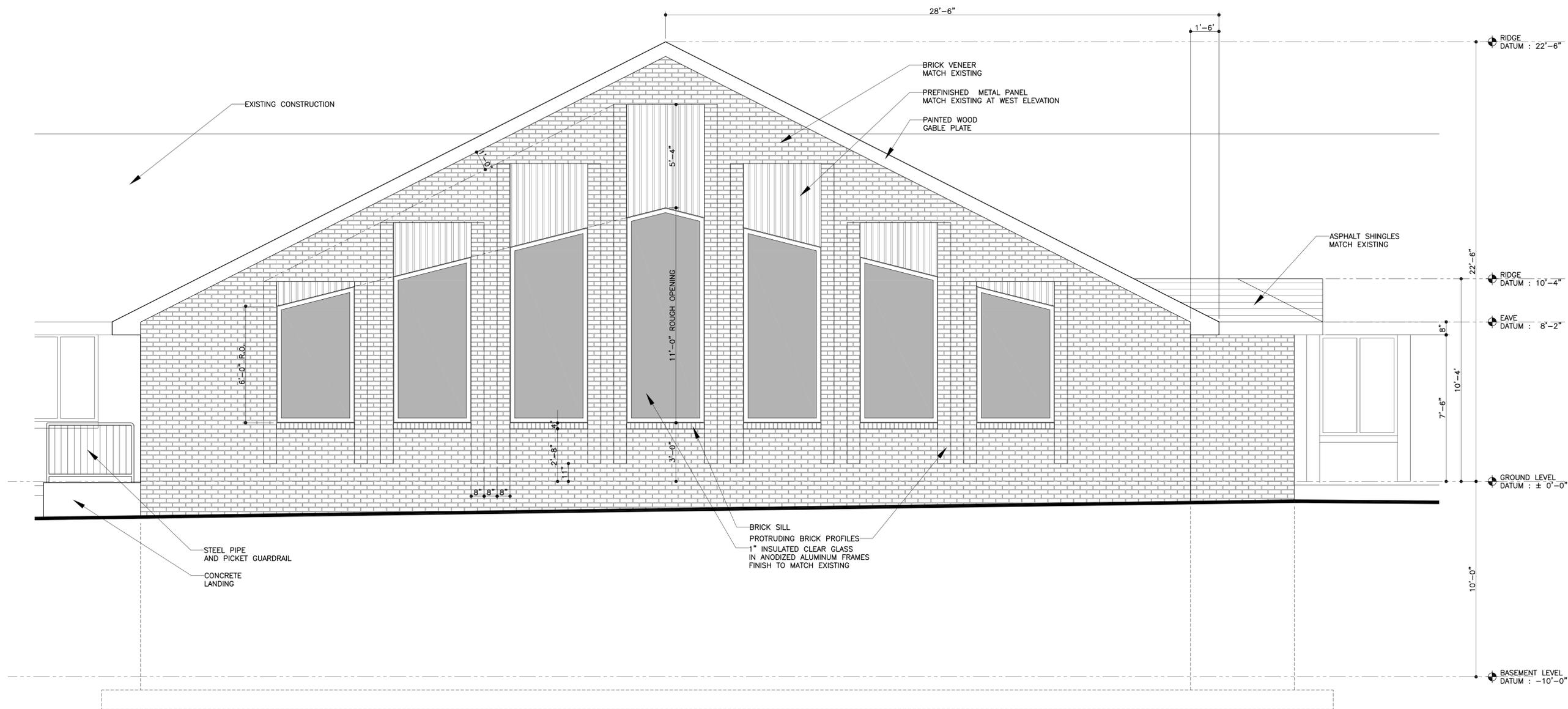
REVISIONS:

PROJECT: **First Romanian Baptist Church of Troy**
#3244 JOHN R ROAD
PARCEL NO. 20-24-301-009
PART OF SECTION 24, TOWN 2 NORTH, RANGE 11 EAST, CITY OF TROY, OAKLAND COUNTY, MICHIGAN

PLANNING & LAND DEVELOPMENT CONSULTING
P.O. Box 182158, Shelby Township, Michigan 48318
Phone 586.453.8097 Fax 586.580.0053

PLAN: **SITE PLAN for SPECIAL USE REQUEST**

SHEET: **1** OF **1**
MUNICIPAL REVIEW NUMBERS:



EAST ELEVATION
SCALE : 3/8" = 1'-0"

RIDGE DATUM : 22'-6"
RIDGE DATUM : 10'-4"
EAVE DATUM : 8'-2"
GROUND LEVEL DATUM : ± 0'-0"
BASEMENT LEVEL DATUM : -10'-0"

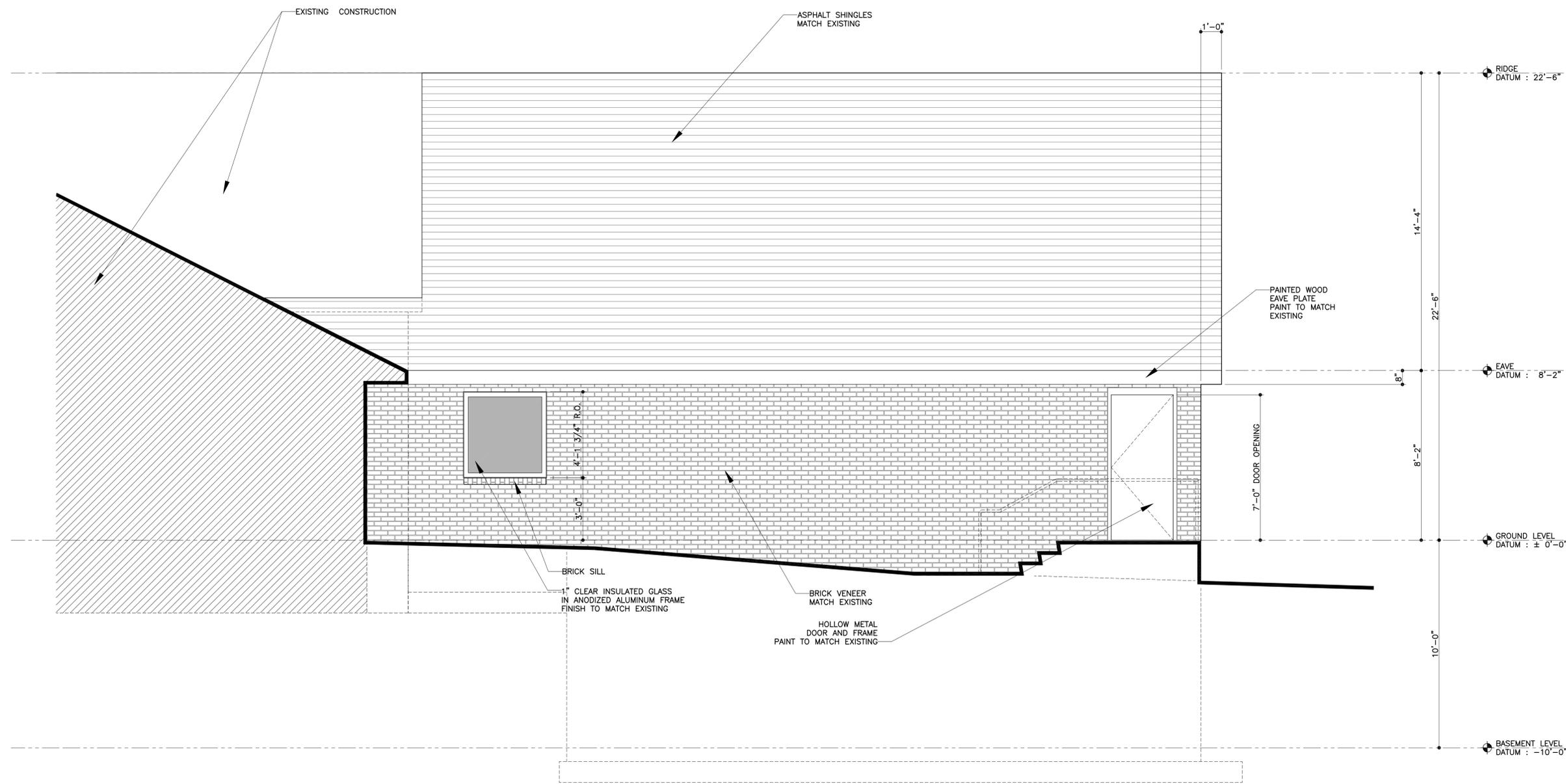
No.	Description	Date
1	Issued For Special Use Approval	05 / 17 / 2011

AN ADDITION TO
**THE FIRST ROMANIAN
BAPTIST CHURCH**
3244 JOHN R. ROAD
TROY, MICHIGAN 48063

Building Elevations
Date: 04 11 2011 Scale: 1/4" = 1'-0"

A 06

Created by Neevia docuPrinter trial version



SOUTH ELEVATION
SCALE : 3/8" = 1'-0"

No.	Description	Date
1	Issued For Special Use Approval	05/17/2011

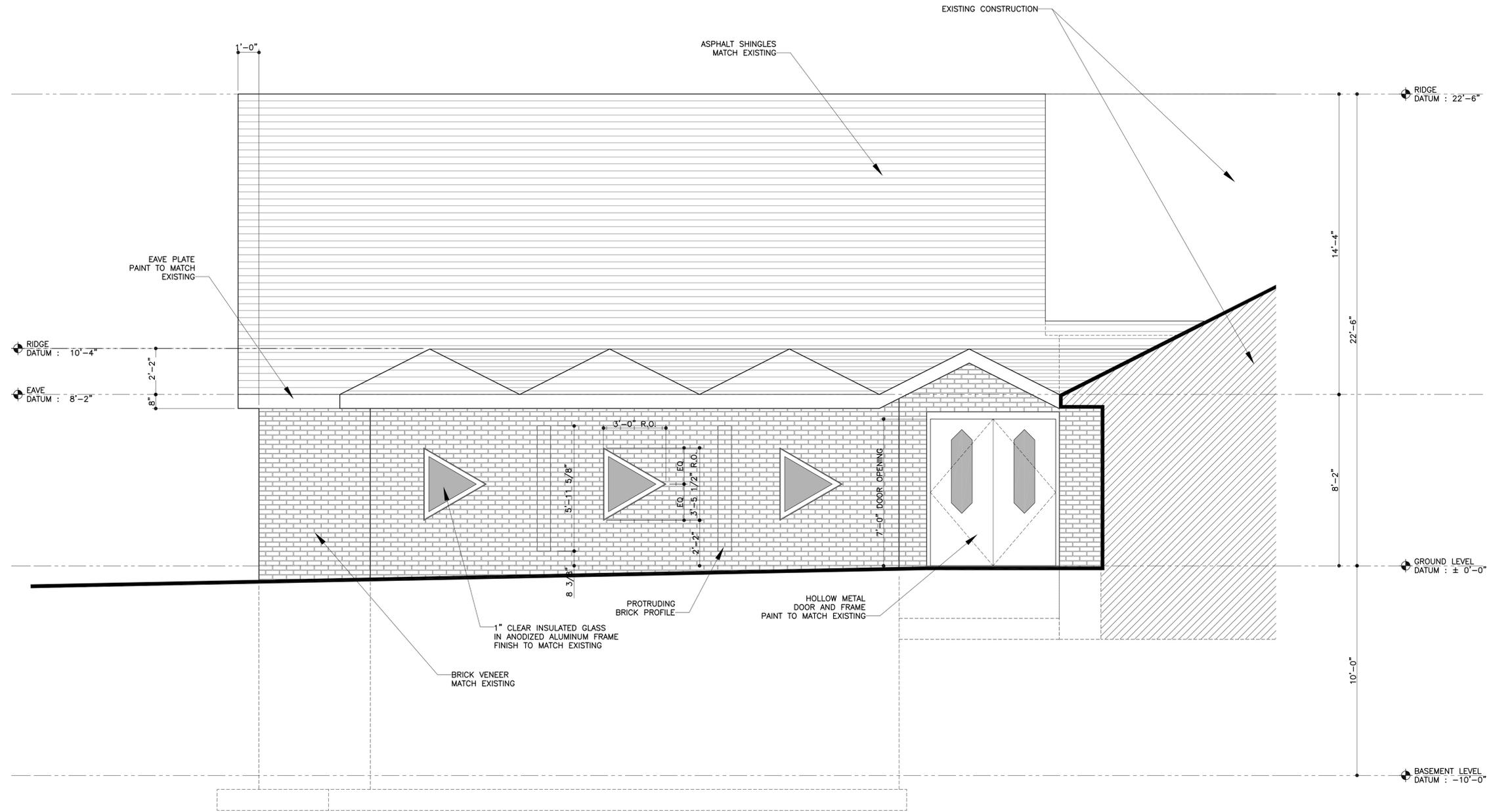
AN ADDITION TO
THE FIRST ROMANIAN
BAPTIST CHURCH

3244 JOHN R. ROAD
TROY, MICHIGAN 48063

Building Sections

Date 04 11 2011 Scale 1/4" = 1'-0"

A 07



NORTH ELEVATION
SCALE : 3/8" = 1'-0"

No.	Description	Date
1	Issued For Special Use Approval	05/17/2011

AN ADDITION TO
**THE FIRST ROMANIAN
BAPTIST CHURCH**

3244 JOHN R. ROAD
TROY, MICHIGAN 48063

Building Sections
Date 04 11 2011 Scale 1/4" = 1'-0"

A 08

DATE: July 7, 2011

TO: Planning Commission

FROM: R. Brent Savidant, Planning Director

SUBJECT: POTENTIAL REZONING AND PRELIMINARY SITE PLAN REVISION (File Number SP 921) – Briggs Park Condominium, East side of Rochester, North side of Lamb, Section 14, Currently Zoned RT (One Family Attached Residential), EP (Environmental Protection) and R-1C (One Family Residential) Districts

Briggs Park Condominium received Preliminary Site Plan Approval from the Planning Commission on December 13, 2005. Final Site Plan Approval was granted administratively on September 28, 2006. The approved layout included 54 units within 16 buildings, comprised of a combination of attached 3-unit and 4-unit buildings. To date, only 12 units have been constructed.

This project was discussed by the Planning Commission at the May Special/Study meeting. Since that time he has decided to consider a rezoning to R-1E. The applicant intends to redesign the site to replace 42 proposed attached units (in 12 buildings) with 32 unattached units. This would result in a decrease of 10 units on the site. The street and underground utilities have already been constructed. The proposed setback of the units from the street and perimeter property lines would not change. The area of the site upon which the residential units are located is zoned RT, which does not permit detached residential dwellings with 15 feet of separation between buildings. The applicant would need to rezone to R-1E to achieve this setback. The sketch provided shows the proposed layout. Note that a detailed review has not been conducted at this time.

The Master Plan classifies this area as Rochester Road: Green Corridor.

The applicant believes the detached units will be more marketable than the attached units, and seeks feedback from the Planning Commission on this matter.

Please be prepared to discuss this item at the July 12, 2011 Regular meeting.

Attachments:

1. Maps
2. Site information, provided by applicant
3. City of Troy Master Plan (excerpt)

cc: Applicant
File

G:\SITE PLANS\SP 921 Briggs Park Condominiums Sec 14\Potential Revision\Briggs Park PC Memo 07 12 11.docx



NOWAK & FRAUS

Consulting Engineers
Land Surveyors
Land Planners

46777 Woodward Avenue
Pontiac, Michigan 48342
Tel. (248) 332-7931
Fax. (248) 332-8257

PROJECT
**Briggs Park
Condominium**

CLIENT
Michigan Home Builders
2617 Beacon Hill Drive
Auburn Hills, MI 48328

PROJECT LOCATION
Part of the SW 1/4 of
Section 14
T. 2 North, R. 11 East
City of Troy,
Oakland County, Michigan

SEAL

DATE/ REVISION

06-20-06 Per City of Troy
07-21-06 Per City of Troy

SHEET
**Paving and Grading
Plan**

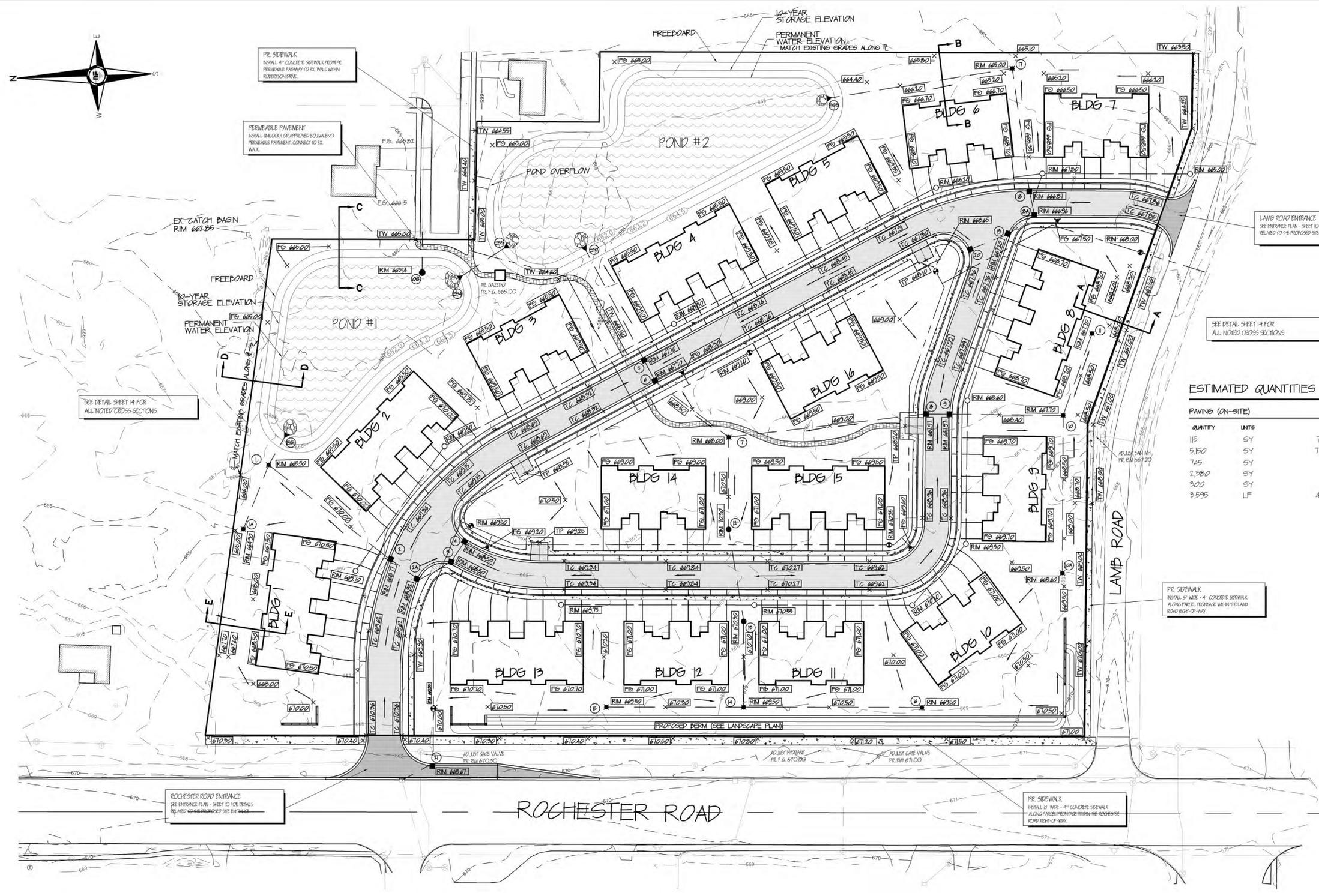
DRAWN BY:
SWS
DESIGNED BY:
R.M. / SWS
APPROVED BY:
R.M.

DATE:
02-16-06

SCALE:
1" = 50'
N/F JOB NO.

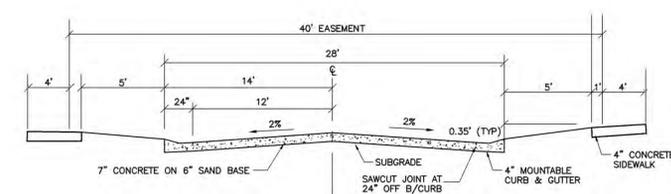
SHEET NO. **D622**

5



ESTIMATED QUANTITIES

PAVING (ON-SITE)		DESCRIPTION
QUANTITY	UNITS	
115	SY	T' CONCRETE SECTION (PARKING)
5,150	SY	T' CONCRETE SECTION (ROADWAY)
745	SY	8" CONCRETE BIKE PATH
2,380	SY	4" CONCRETE SIDEWALK
300	SY	PERMEABLE PATHWAY
3,555	LF	4" MOUNTABLE CURB AND GUTTER



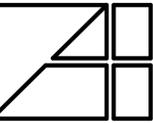
TYPICAL 40' EASEMENT SECTION
CONCRETE PAVEMENT W/4" MONOLITHIC CURB AND GUTTER
N.T.S.

HATCH LEGEND

	PROPOSED CONCRETE SIDEWALK
	PROPOSED T' CONCRETE PAVEMENT
	PROPOSED PERMEABLE PAVEMENT
	PROPOSED 4" CONCRETE PAVEMENT

LEGEND

TC 600.00	PR. TOP OF CURB ELEVATION
TW 600.00	PR. TOP OF WALK ELEVATION
TP 600.00	PR. TOP OF PWMT. ELEVATION
FG 600.00	FINISH GRADE ELEVATION
	DRAINAGE DIRECTION



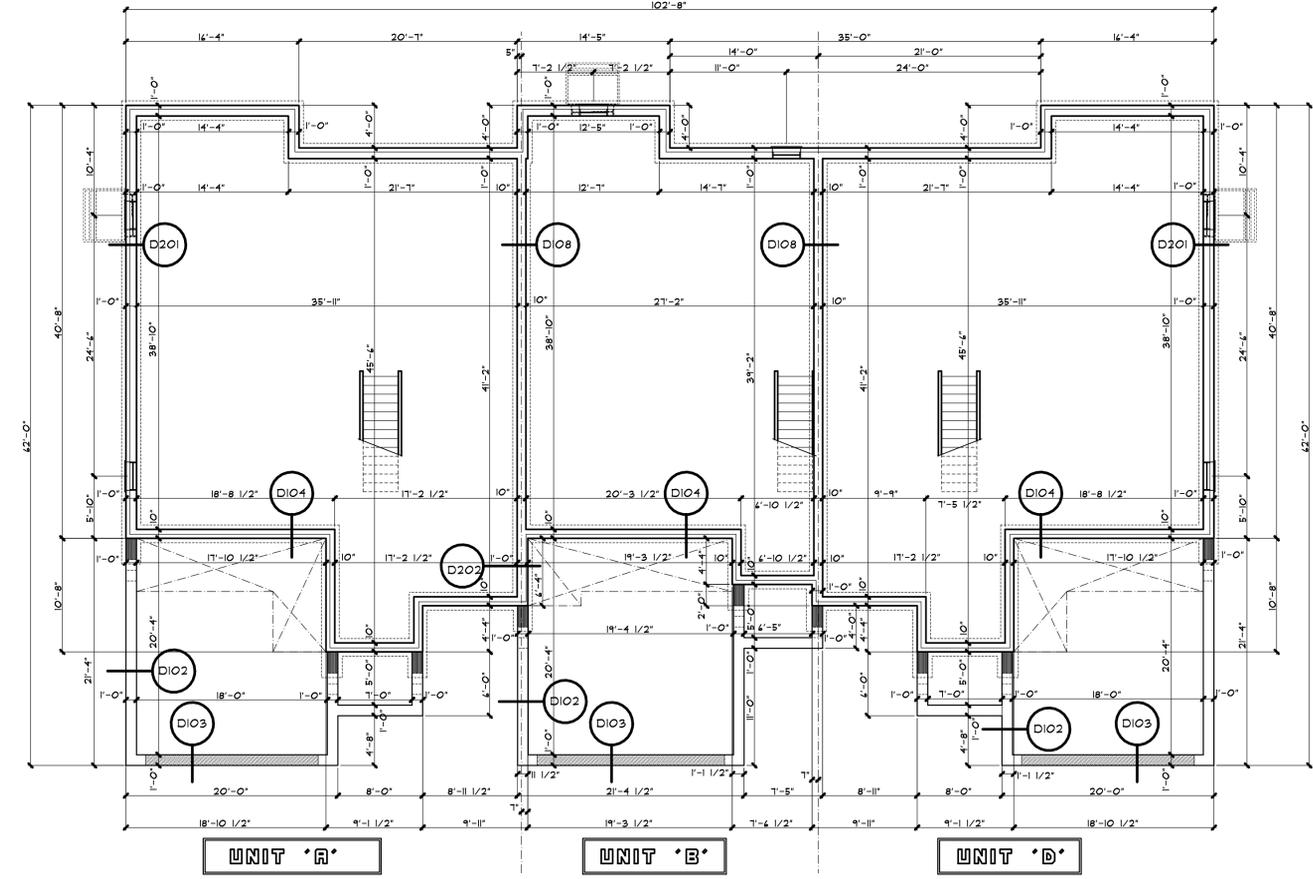
Interior Design
 2445 Franklin Road
 Bloomfield Hills, MI 48302
 248-334-5000

BUILDING PLANS
 BUILDING #300 (3 UNITS)
 UNITS A/B/D

CLIENT/PROJECT
 MICHIGAN HOME BUILDERS
 BRIGGS PARK CONDOMINIUM
 TROY, MICHIGAN

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 PRELIMINARY 10-03-05
 BIDS 02-06-08
 PERMITS 02-06-08
 CONSTRUCTION 02-06-08
 REVISIONS

DRAWN BY
 DZ
 CADD FILE
 BLDG#300IABDIDc5
 CHECKED BY
 AM
 JOB NUMBER
 05378
 DATE
 02-06-08
 SHEET NUMBER



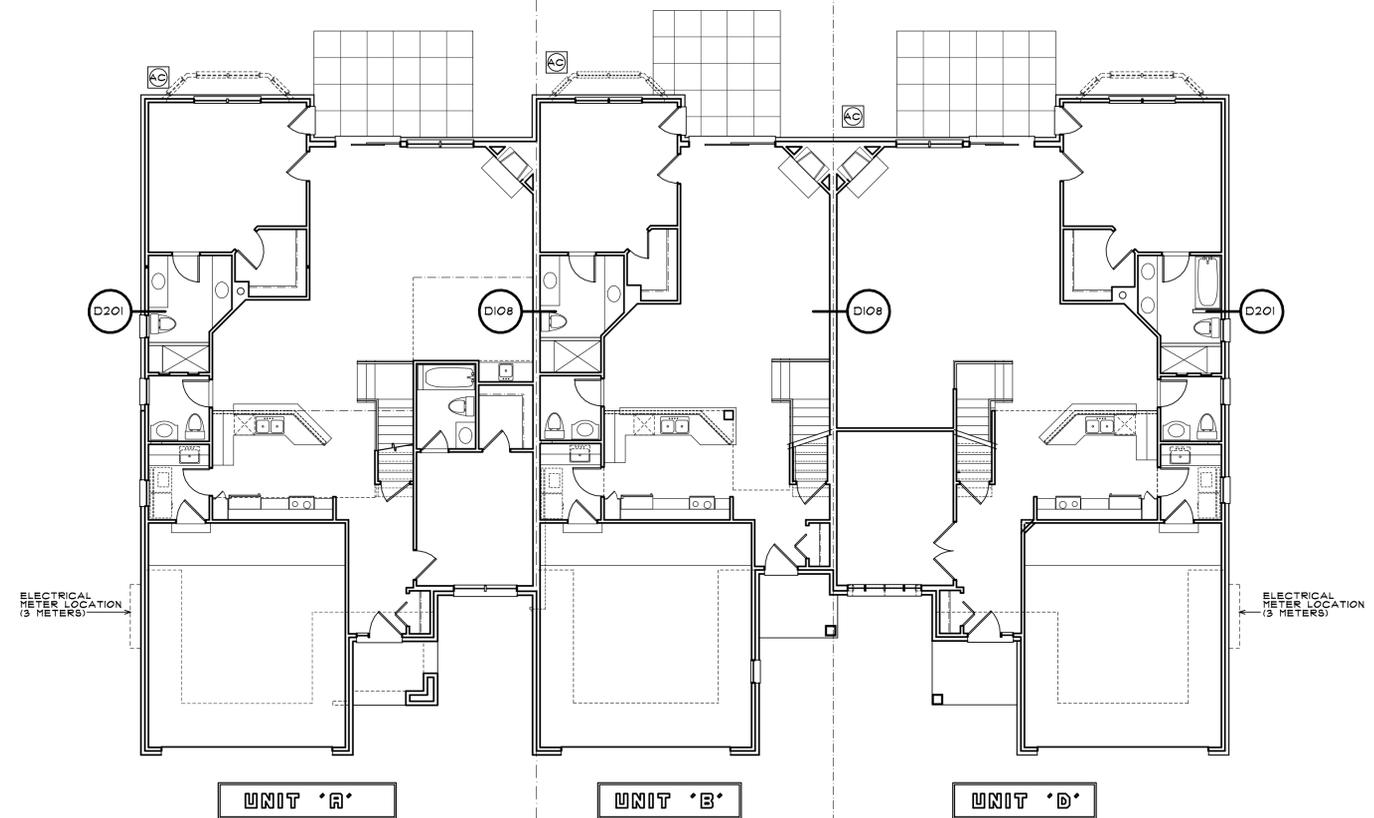
FOUNDATION PLAN

NOTE: SEE 1/4" SCALE UNIT PLANS FOR ADDITIONAL NOTES, DIMENSIONS & STRUCTURAL INFORMATION

NOTE: PATIO, DECK, AND BAY ARE SUBJECT TO CIVIL ENGINEER VERIFICATION PERIMETER YARD AND DETENTION AREA

NOTE: WATER METER LOCATIONS TO BE DETERMINED BY BUILDER

SCALE: 1/8" = 1'-0"



FIRST FLOOR PLAN

NOTE: SEE 1/4" SCALE UNIT PLANS FOR ADDITIONAL NOTES, DIMENSIONS & STRUCTURAL INFORMATION

NOTE: PATIO, DECK, AND BAY ARE SUBJECT TO CIVIL ENGINEER VERIFICATION PERIMETER YARD AND DETENTION AREA

NOTE: WATER METER LOCATIONS TO BE DETERMINED BY BUILDER

SCALE: 1/8" = 1'-0"

ALL INTERIOR PARTITION DIMENSIONS ARE 3/16" UNLESS NOTED OTHERWISE.

BEFORE CONSTRUCTION OBTAIN WINDOW & DOOR ROUGH OPENING SIZES FROM WINDOW/DOOR SUPPLIER.

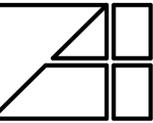
TRUSS DESIGNER/FABRICATOR SEE SHEET T-1 FOR ADDITIONAL NOTES & INFORMATION

SEE SHEET N-1 FOR ADDITIONAL NOTES REGARDING DRAWINGS & CONSTRUCTION.

SEE SHEET N-1 FOR TREATED WOOD & ENGINEERED WOOD PRODUCTS AND ANCHOR ATTACHMENTS

DO NOT SCALE THESE DRAWINGS. USE CALCULATED DIMENSIONS. IF VARIATIONS OCCUR CONTACT ARCHITECT FOR CLARIFICATION.

BUILDING #300
 BRIGGS PARK



Interior Design
 2445 Franklin Road
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 248-334-5000

BUILDING PLANS
 BUILDING #300 (3 UNITS)
 UNITS A/B/D

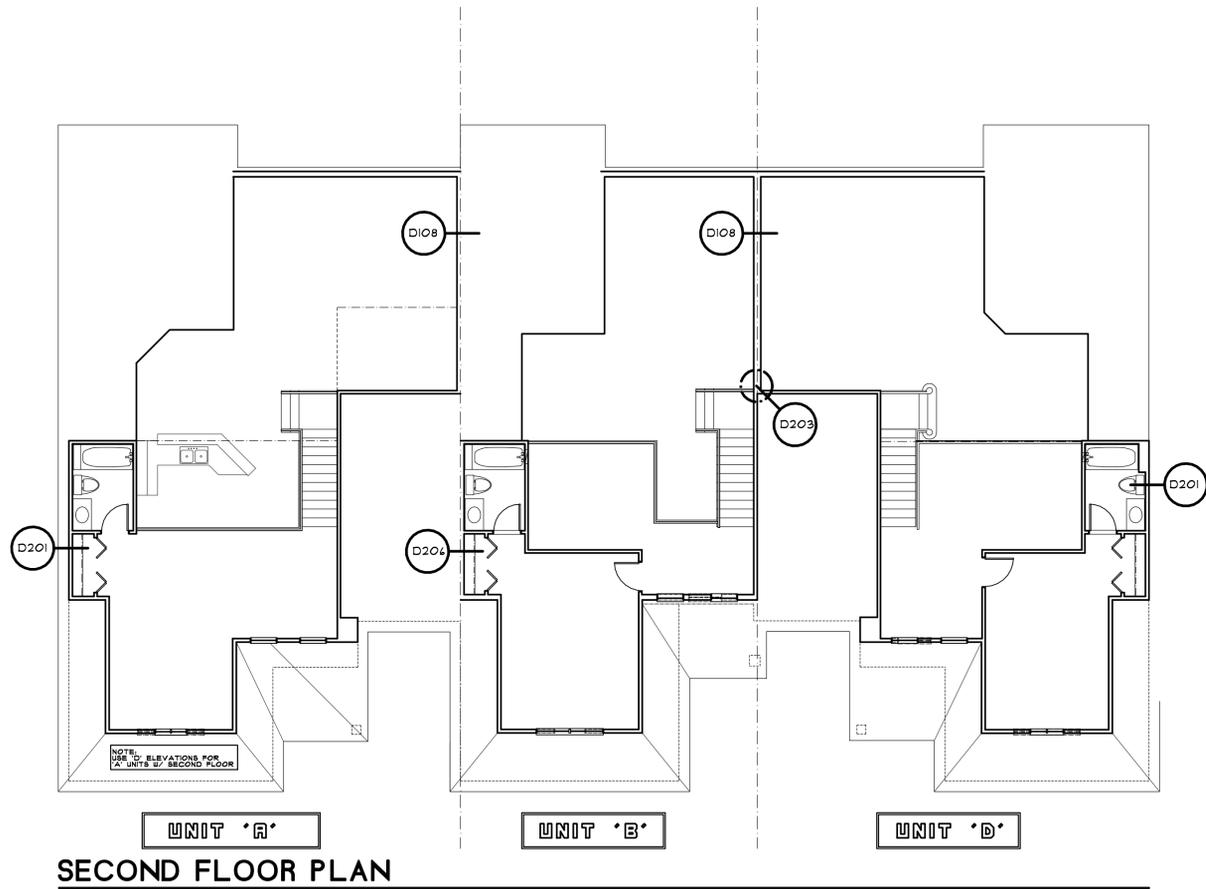
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■ PRELIMINARY
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 ■ BIDS
 02-06-08
 ■ PERMITS
 02-06-08
 ■ CONSTRUCTION
 02-06-08

REVISIONS

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 BLDG#300IABD.Dwg
 CHECKED BY
 AM
 JOB NUMBER
 05378
 DATE
 02-06-08
 SHEET NUMBER



SECOND FLOOR PLAN

NOTE:
 SEE 1/4" SCALE UNIT
 PLANS FOR ADDITIONAL
 NOTES, DIMENSIONS &
 STRUCTURAL INFORMATION

SCALE : 1/8" = 1'-0"

ALL INTERIOR PARTITION DIMENSIONS ARE 3/16"
 UNLESS NOTED OTHERWISE.

BEFORE CONSTRUCTION OBTAIN WINDOW & DOOR ROUGH
 OPENING SIZES FROM WINDOW/DOOR SUPPLIER.

TRUSS DESIGNER/FABRICATOR SEE SHEET T-1 FOR
 ADDITIONAL NOTES & INFORMATION

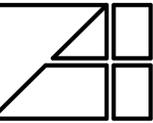
SEE SHEET N-1 FOR ADDITIONAL NOTES
 REGARDING DRAWINGS & CONSTRUCTION.

SEE SHEET N-1 FOR TREATED WOOD & ENGINEERED
 WOOD PRODUCTS AND ANCHOR ATTACHMENTS

DO NOT SCALE THESE DRAWINGS. USE CALCULATED DIMENSIONS.
 IF VARIATIONS OCCUR CONTACT ARCHITECT FOR CLARIFICATION.

BUILDING #300
BRIGGS PARK

Alexander V. Bogaerts + Associates, P.C. • Architecture • Planning • Interior Design



Interior Design
 2445 Franklin Road
 Bloomfield Hills, MI 48302
 248-334-5000

BUILDING ELEVATIONS
 BUILDING #300 (3 UNITS)
 UNITS A/B/D

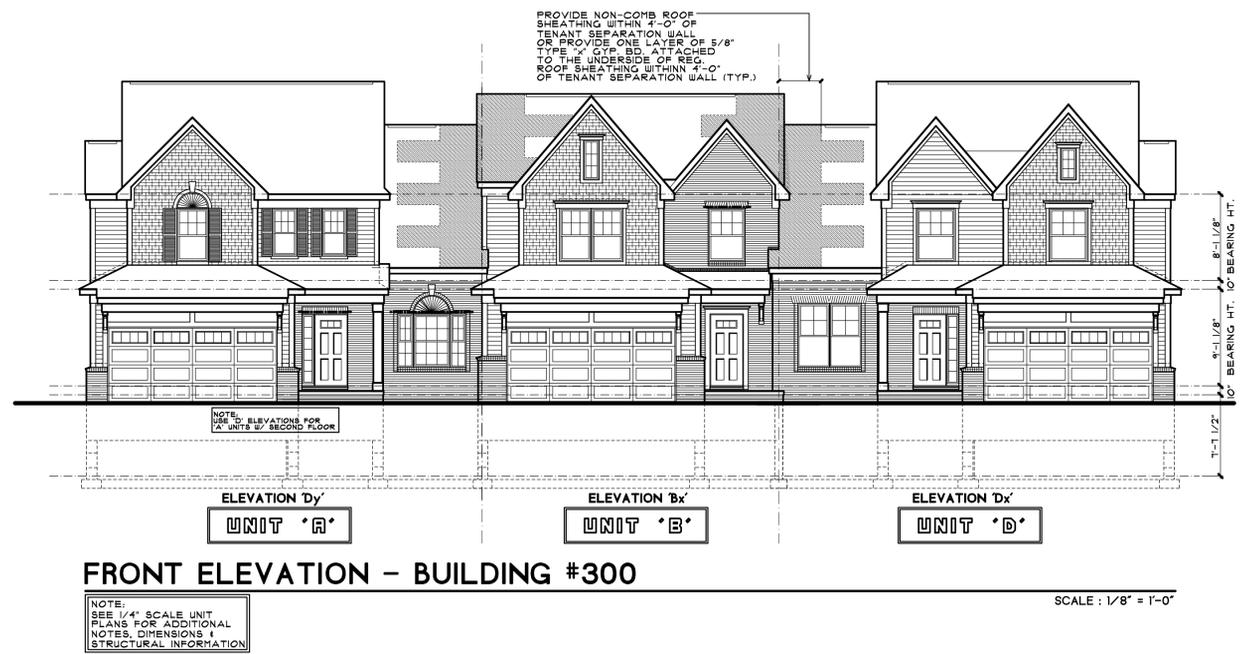
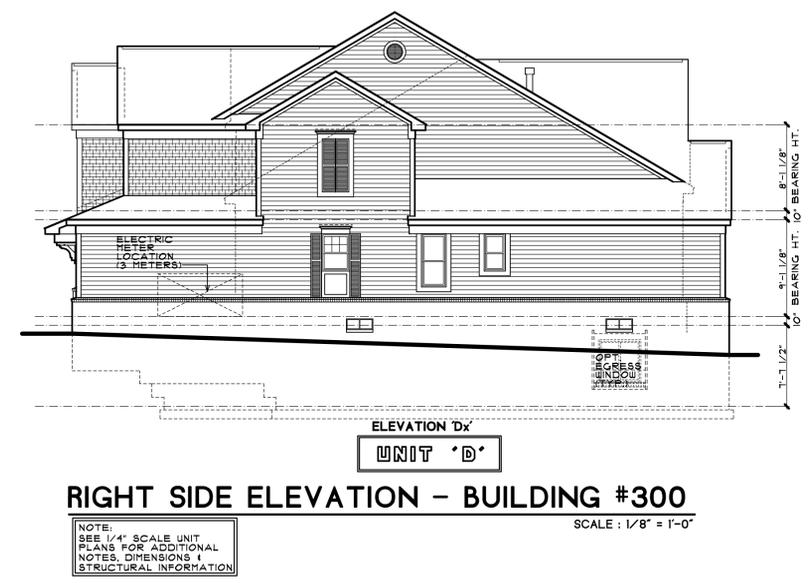
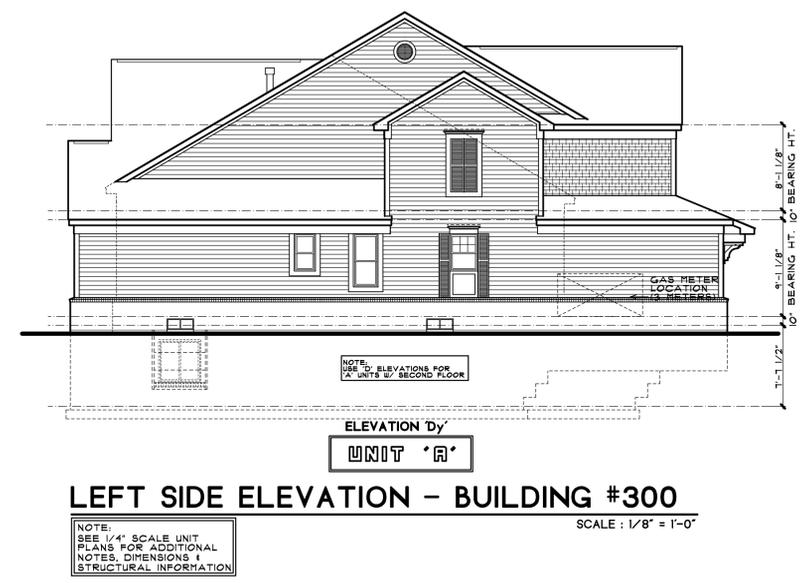
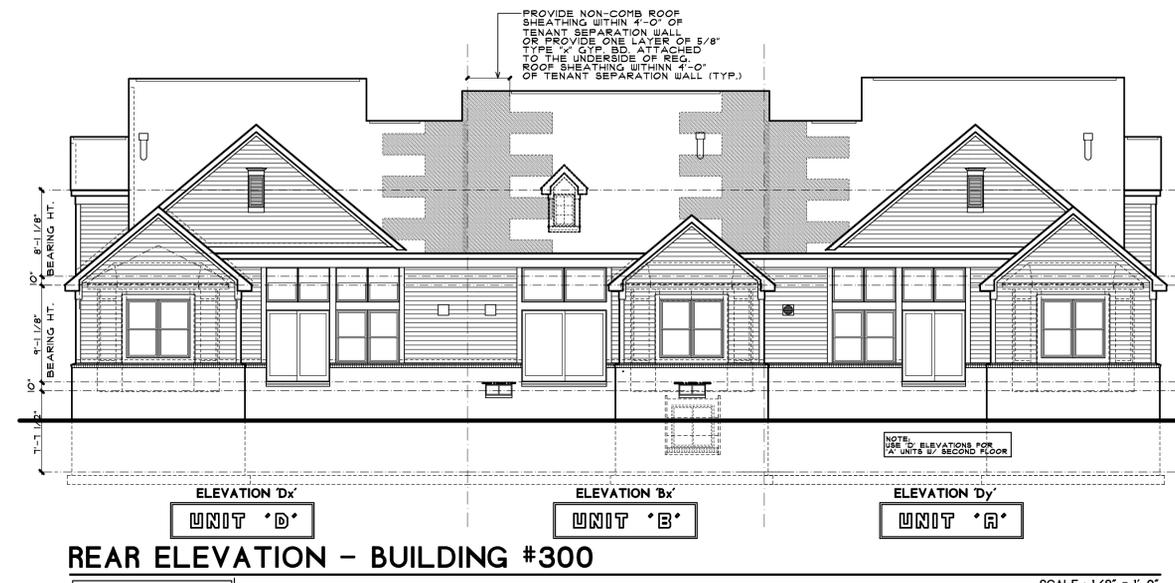
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 TROY, MICHIGAN

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- PRELIMINARY 10-03-05
- BIDS 02-06-08
- PERMITS 02-06-08
- CONSTRUCTION 02-06-08

REVISIONS

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 CHECKED BY
 AM
 JOB NUMBER
 05378
 DATE
 02-06-08
 SHEET NUMBER



ALL INTERIOR PARTITION DIMENSIONS ARE 3/16" UNLESS NOTED OTHERWISE.

BEFORE CONSTRUCTION OBTAIN WINDOW & DOOR ROUGH OPENING SIZES FROM WINDOW/DOOR SUPPLIER.

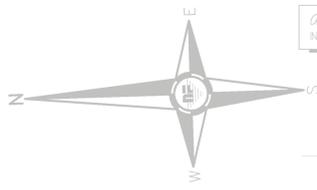
TRUSS DESIGNER/FABRICATOR SEE SHEET T-1 FOR ADDITIONAL NOTES & INFORMATION

SEE SHEET N-1 FOR ADDITIONAL NOTES REGARDING DRAWINGS & CONSTRUCTION.

SEE SHEET N-1 FOR TREATED WOOD & ENGINEERED WOOD PRODUCTS AND ANCHOR ATTACHMENTS

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BUILDING #300
 BRIGGS PARK



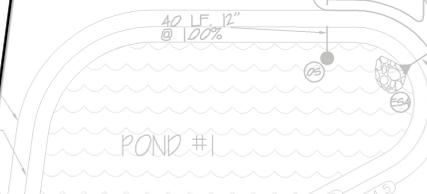
ROUTED RIP RAP
INSTALL ROUTED RIP RAP AT EACH POND INLET (TYP)

ODDC PERMIT
A PERMIT FROM THE OAKLAND COUNTY DRAIN COMMISSIONER'S OFFICE WILL BE REQUIRED FOR CONNECTION TO THE EX. VORSE DRAIN

FREEDBOARD
PERMANENT WATER ELEVATION

DISCHARGE DIRECTLY TO THE RETENTION PONDS

FREEDBOARD
10-YEAR STORAGE ELEVATION
PERMANENT WATER ELEVATION



SUMP LEAD
4" PVC SUMP LEAD (10' MIN)

1 YEAR
Contributing Area
Runoff Coef
 $V_r = 4.32(A)$
ORIFICE
1 year storage
Outlet elev
hw
 $A_m = V_r / h_w$
 $a = (2.303(A_m))$
A" diameter
#holes = a
Therefore, c
at an elev

- A) 10" San T
- B) 15" Stn D
- C) 15" Wmain
- D) 15" Stn D
- E) 10" San T
- F) 15" Stn D
- G) 15" Wmain
- H) 15" Stn D
- I) 15" Wmain
- J) 15" Stn D
- K) 15" Wmain
- L) 15" Stn D
- M) 15" San T
- N) 15" Stn D
- O) 15" Wmain
- P) 15" Stn D
- Q) 15" Wmain
- R) 15" Stn D
- S) 15" San T
- T) 15" Stn D
- U) 15" Wmain
- V) 15" Stn D
- W) 15" San T
- X) 15" Stn D
- Y) 15" Wmain
- Z) 15" Stn D

DIFFIN Development Consultants
CIVIL ENGINEERING • SURVEYING • CONSTRUCTION SERVICES
24353 TARA DRIVE, SOUTH LYON, MICHIGAN 48178
PH: (248) 943-8244, FAX: (866) 690-4307
WEB: www.diffindevelopment.com



REVISIONS

CLIENT:
**REVISED SITE PLAN
BRIGGS PARK**

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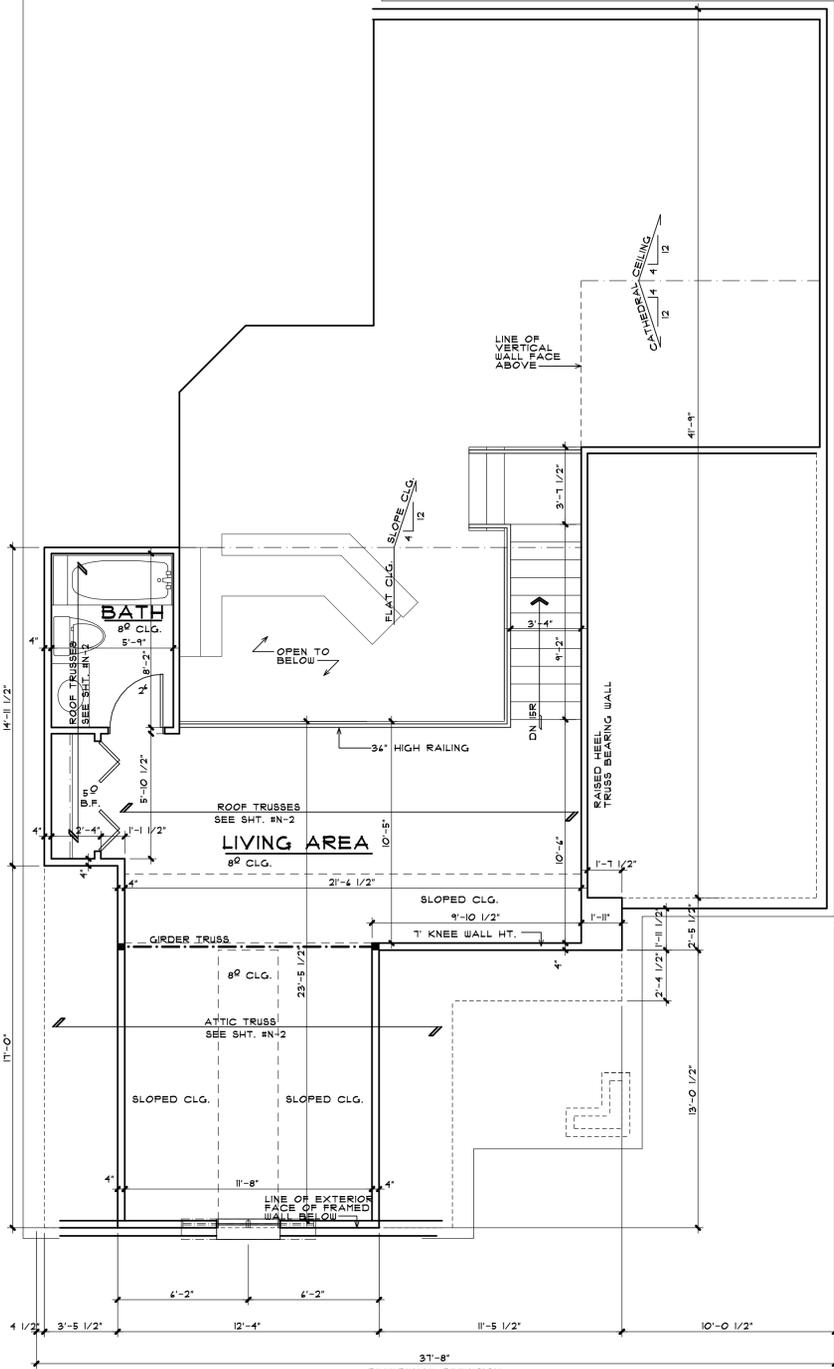
SECTION 14
TOWN 2 NORTH, RANGE 11 EAST
CITY OF TROY
OAKLAND COUNTY, MICHIGAN

Date: 6-22-11
Drawn By: MD
P.E.: Matthew A. Diffin
SCALE: 1 inch = 40 ft
Job No.: 110601
Sheet No.
1 OF 1



STRUCTURAL NOTES:

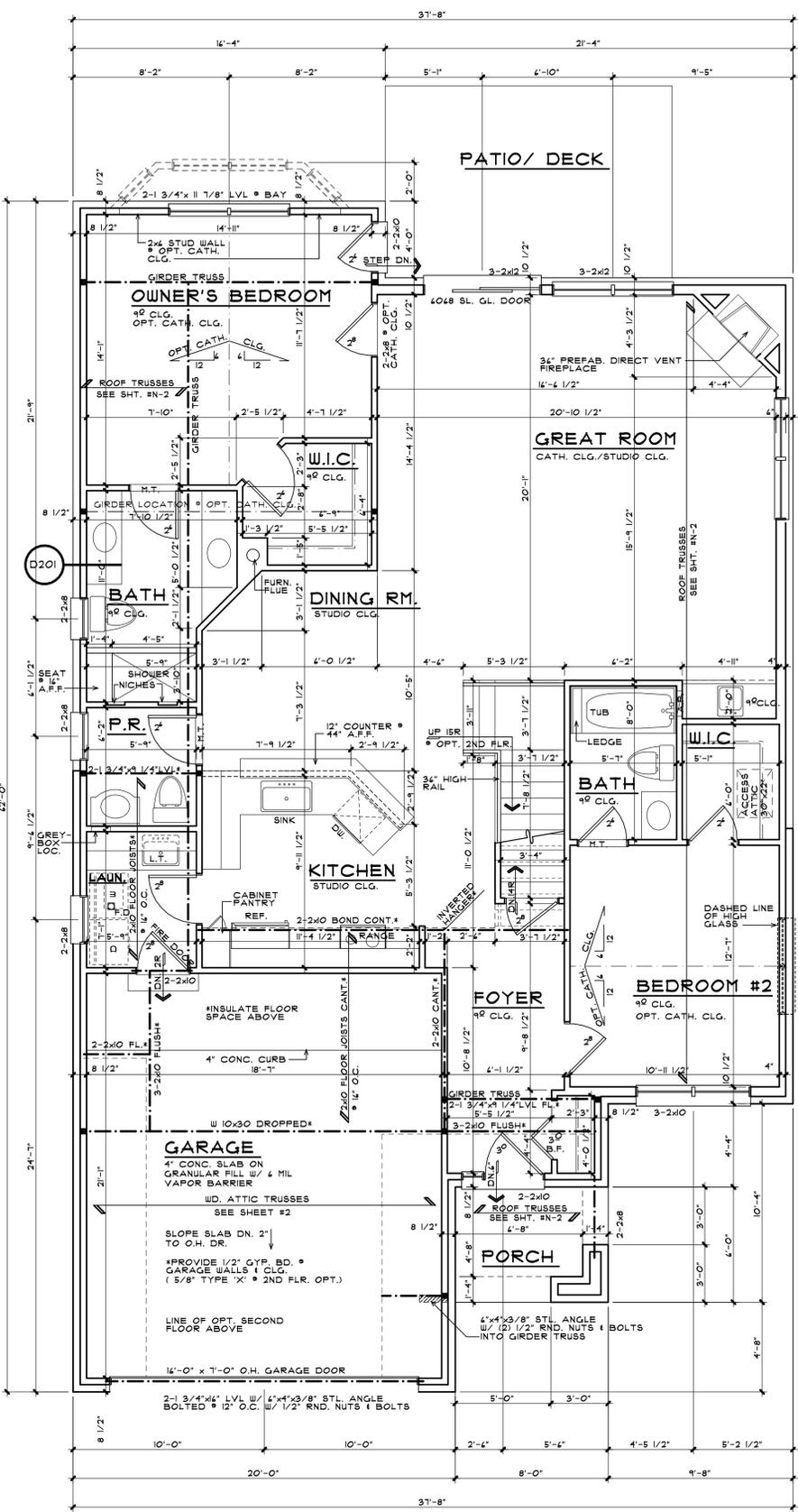
(2) 2x8 HEADERS TO BEAR ON (1) ONE JACK STUD UNLESS NOTED OTHERWISE.
 (2) 2x10 LARGER HEADERS TO BEAR ON (2) TWO JACK STUDS UNLESS NOTED OTHERWISE.
 ALL PRE-ENGINEERED HEADERS TO BEAR ON REQUIRED NUMBER OF STUDS TO MATCH WIDTH OF HEADER MATERIAL OR ON (2) TWO JACK STUDS (USE THE GREATER OF THE TWO CHOICES) AT PARALLEL WALL CONDITION UNLESS NOTED OTHERWISE.
 ALL PRE-ENGINEERED LUMBER HEADERS SHALL BE BUILT-UP FROM THE NUMBER OF HEADERS INDICATED ON DRAWINGS. ALL MEMBERS SHALL BE SECURED WITH NAILS OR BOLTS AS SPECIFIED BY THE MANUFACTURER FOR SIZES INDICATED.
 ALL GIRDER TRUSSES TO BEAR ON (2) TWO STUDS MINIMUM OR AS REQUIRED TO MATCH NUMBER OF TRUSS PLYS UNLESS NOTED OTHERWISE.
 TRUSS FABRICATOR/CONTRACTOR TO PROVIDE ALL HANGERS W/ MODEL NO. CLEARLY STAMPED I LAYOUT DRAWINGS CLEARLY INDICATING LOCATION OF VARIOUS HANGERS REQUIRED.
 CARPENTER CONTRACTOR TO INSTALL NAIL SIZES I NUMBER REQD AS SPECIFIED FOR EACH TYPE OF HANGER.



NOTE: USE 'D' ELEVATIONS FOR 'A' UNITS W/ SECOND FLOOR

SECOND FLOOR PLAN - UNIT 'A'

SCALE: 1/4" = 1'-0"

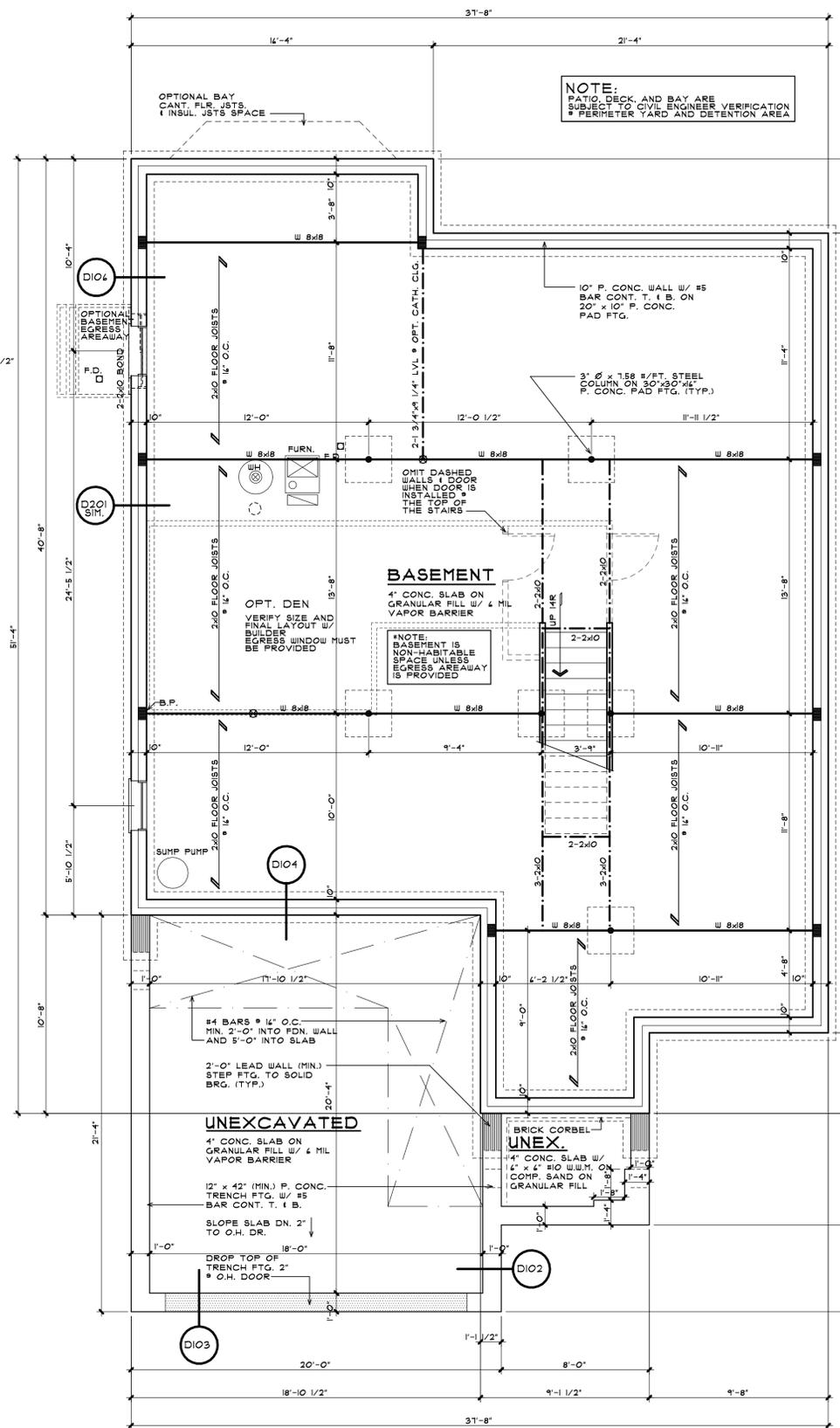


SQUARE FOOTAGE	
1ST FLOOR	1578 SQ FT
2ND FLOOR	420 SQ FT
TOTAL	1998 SQ FT

OPTIONAL BAY IS 18 ADDITIONAL SQUARE FEET

FIRST FLOOR PLAN - UNIT 'A'

SCALE: 1/4" = 1'-0"



NOTE: PATIO, DECK, AND BAY ARE SUBJECT TO CIVIL ENGINEER VERIFICATION & PERIMETER YARD AND DETENTION AREA

FOUNDATION PLAN - UNIT 'A'

SCALE: 1/4" = 1'-0"

ALL INTERIOR PARTITION DIMENSIONS ARE 3/16" UNLESS NOTED OTHERWISE. BEFORE CONSTRUCTION OBTAIN WINDOW & DOOR ROUGH OPENING SIZES FROM WINDOW/DOOR SUPPLIER. TRUSS DESIGNER/FABRICATOR SEE SHEET #2 FOR ADDITIONAL NOTES & INFORMATION. SEE SHEET #3 & 4 FOR ADDITIONAL DETAILS REGARDING DRAWINGS & CONSTRUCTION. SEE SHEET #1 FOR ADDITIONAL NOTES REGARDING DRAWINGS & CONSTRUCTION. DO NOT SCALE THESE DRAWINGS. USE CALCULATED DIMENSIONS. IF VARIATIONS OCCUR CONTACT ARCHITECT FOR CLARIFICATION.

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2445 Franklin Road
Bloomfield Hills, MI 48302
248-334-5000

SHEET TITLE

FOUNDATION PLAN
FIRST FLOOR PLAN
SECOND FLR. PLAN

CLIENT/PROJECT

BRIGGS PARK LLC
BRIGGS PARK SINGLE FAMILY

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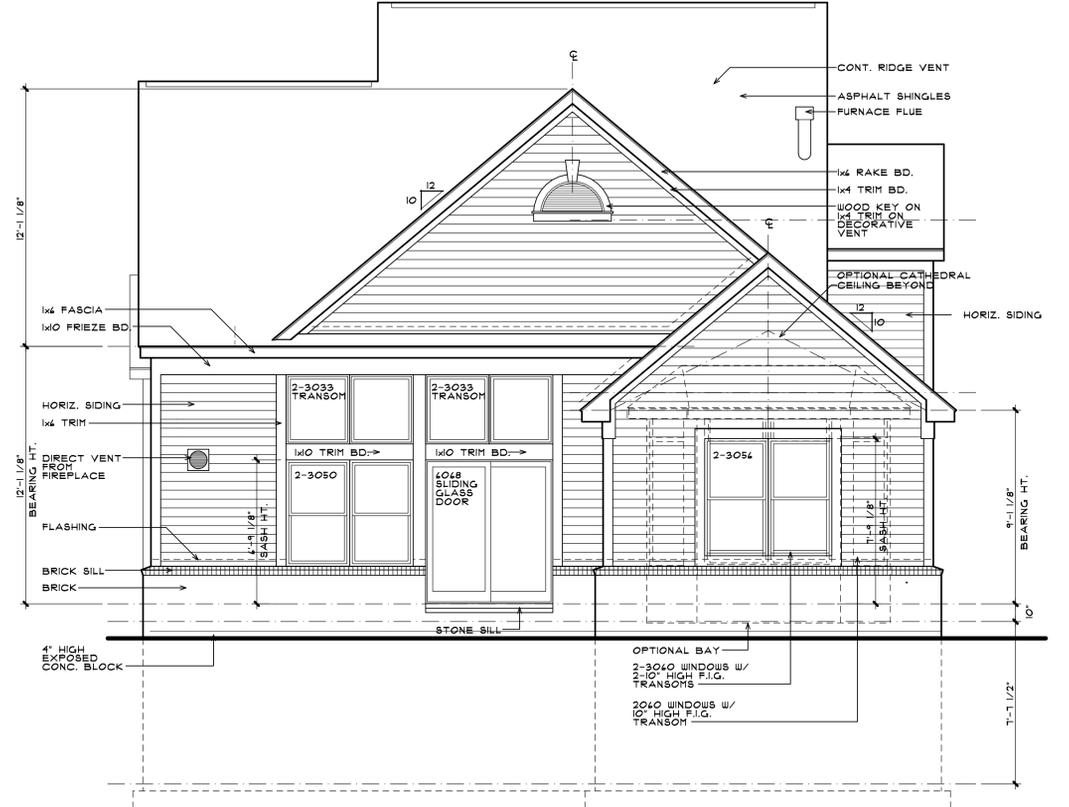
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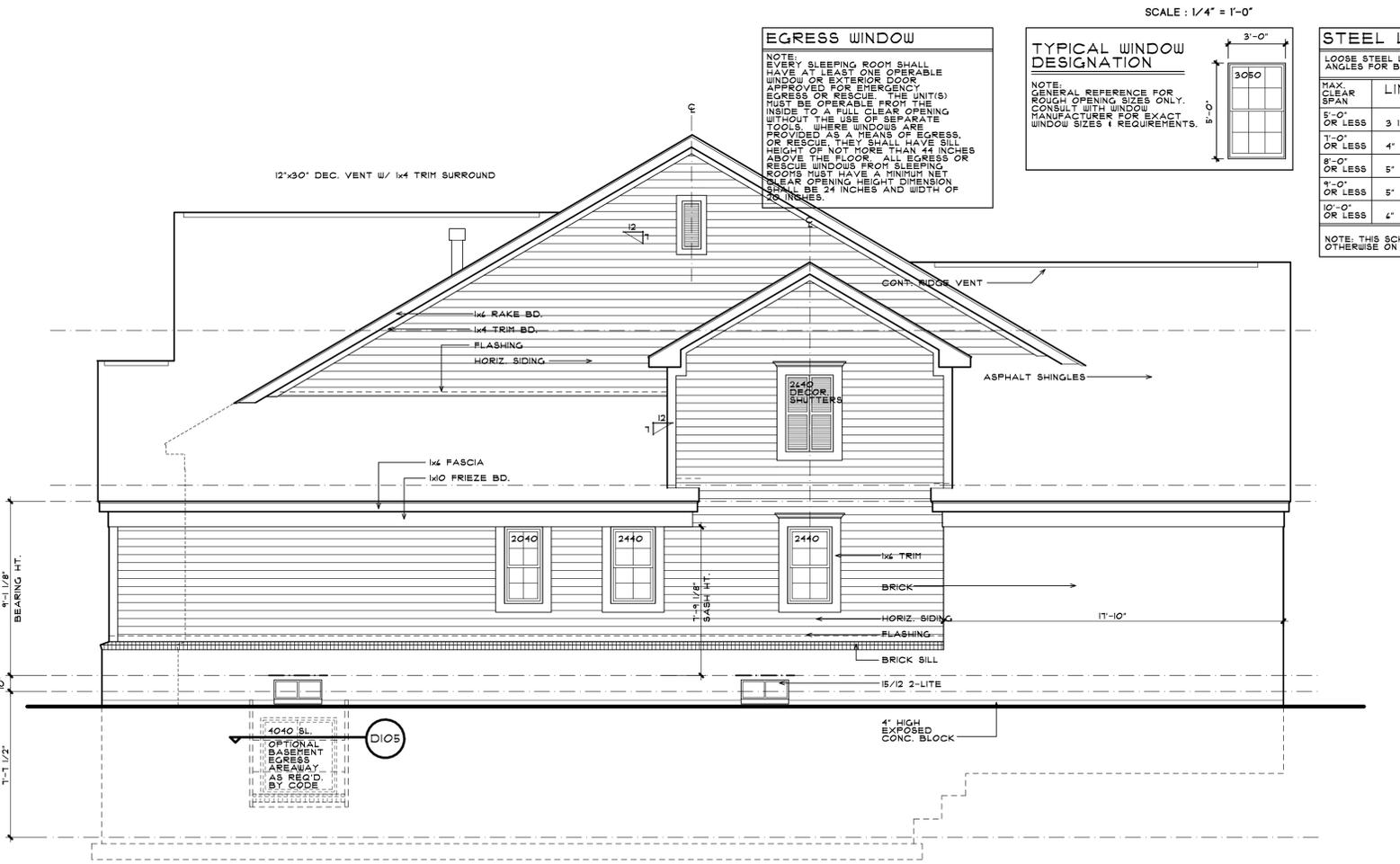
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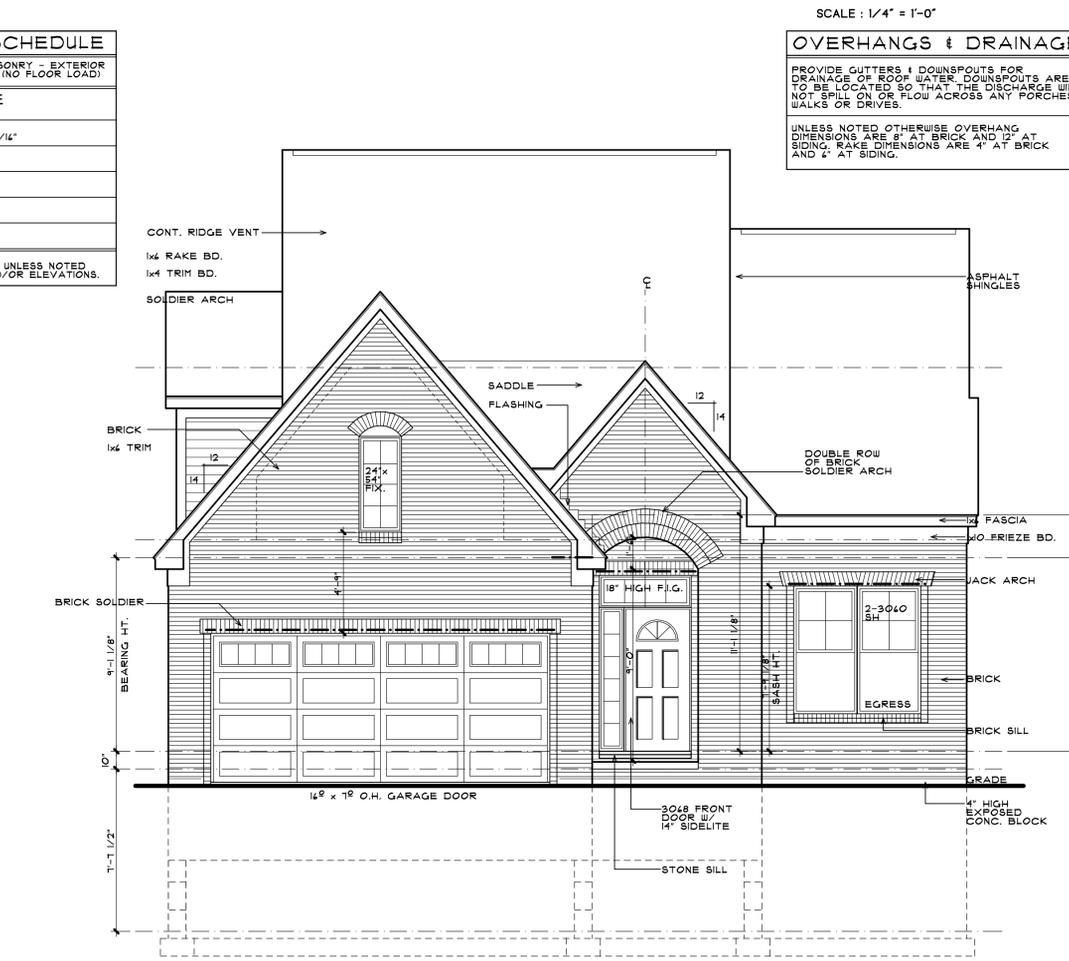
RIGHT SIDE ELEVATION - UNIT 'A'



REAR ELEVATION UNIT 'A'



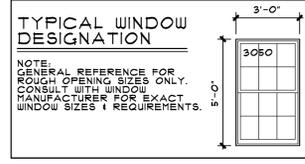
LEFT SIDE ELEVATION UNIT 'A'



FRONT ELEVATION UNIT 'A'

SCALE : 1/4" = 1'-0"

EGRESS WINDOW
 NOTE: EVERY SLEEPING ROOM SHALL HAVE AT LEAST ONE OPERABLE WINDOW OR EXTERIOR DOOR APPROVED FOR EGRESS OR RESCUE. THE UNIT(S) MUST BE OPERABLE FROM THE INSIDE TO A FULL CLEAR OPENING WITHOUT THE USE OF SEPARATE TOOLS. WHERE WINDOWS ARE PROVIDED AS A MEANS OF EGRESS, OR RESCUE, THEY SHALL HAVE SILL HEIGHT OF NOT MORE THAN 44 INCHES ABOVE THE FLOOR. ALL EGRESS OR RESCUE WINDOWS FROM SLEEPING ROOMS MUST HAVE A MINIMUM NET CLEAR OPENING HEIGHT DIMENSION BE 24 INCHES AND WIDTH OF 20 INCHES.



STEEL LINTEL SCHEDULE
 LOOSE STEEL LINTELS FOR MASONRY - EXTERIOR ANGLES FOR BRICK OR STONE (NO FLOOR LOAD)

MAX. CLEAR SPAN	LINTEL SIZE
5'-0" OR LESS	3 1/2" x 3 1/2" x 5/16"
7'-0" OR LESS	4" x 3 1/2" x 5/16"
8'-0" OR LESS	5" x 3 1/2" x 5/16"
9'-0" OR LESS	5" x 3 1/2" x 3/8"
10'-0" OR LESS	4" x 3 1/2" x 3/8"

NOTE: THIS SCHEDULE APPLIES UNLESS NOTED OTHERWISE ON THE PLANS AND/OR ELEVATIONS.

OVERHANGS & DRAINAGE
 PROVIDE GUTTERS & DOWNSPOUTS FOR DRAINAGE OF ROOF WATER. DOWNSPOUTS ARE TO BE LOCATED SO THAT THE DISCHARGE WILL NOT SPILL ON OR FLOW ACROSS ANY PORCHES, WALKS OR DRIVES.
 UNLESS NOTED OTHERWISE OVERHANG DIMENSIONS ARE 8" AT BRICK AND 12" AT SIDING. RAKE DIMENSIONS ARE 4" AT BRICK AND 4" AT SIDING.

ALL INTERIOR PARTITION DIMENSIONS ARE 3/16" UNLESS NOTED OTHERWISE. BEFORE CONSTRUCTION OBTAIN WINDOW & DOOR ROUGH OPENING SIZES FROM WINDOW/DOOR SUPPLIER. TRUSS DESIGNER/FABRICATOR SEE SHEET #2 FOR ADDITIONAL NOTES & INFORMATION. SEE SHEET #3 & 4 FOR ADDITIONAL DETAILS REGARDING DRAWINGS & CONSTRUCTION. SEE SHEET #1 FOR ADDITIONAL NOTES REGARDING DRAWINGS & CONSTRUCTION. DO NOT SCALE THESE DRAWINGS. USE CALCULATED DIMENSIONS. IF VARIATIONS OCCUR CONTACT ARCHITECT FOR CLARIFICATION.

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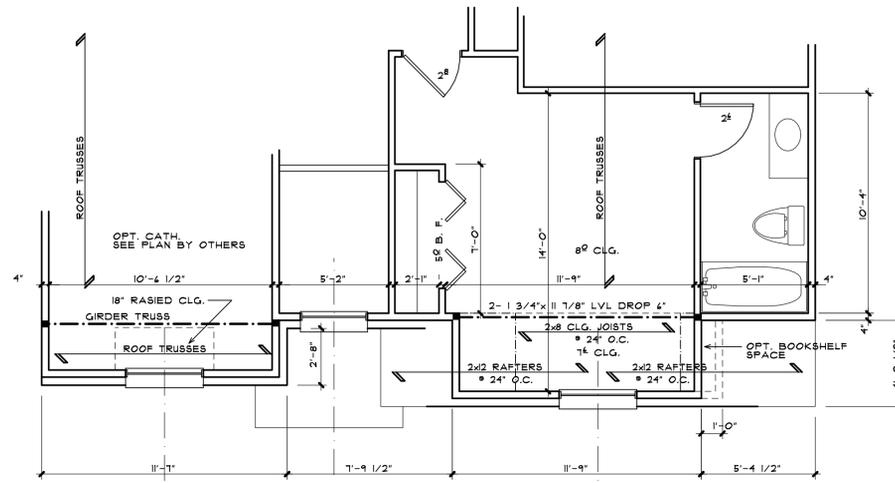
CLIENT/PROJECT: BRIGGS PARK LLC
 BRIGGS PARK SINGLE FAMILY
 TROY, MI

SHEET TITLE: ELEVATIONS
 PRELIMINARY

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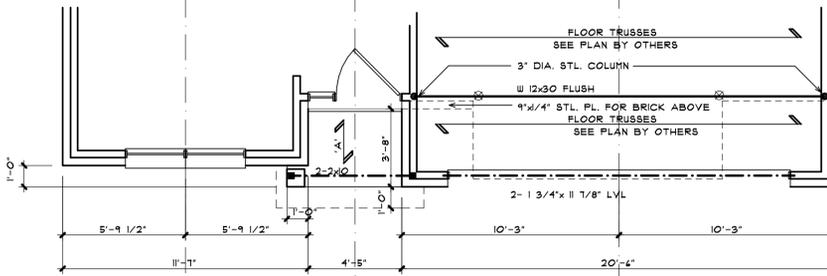
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 DATE: _____
 SHEET NUMBER: _____



PARTIAL SECOND FLOOR PLAN

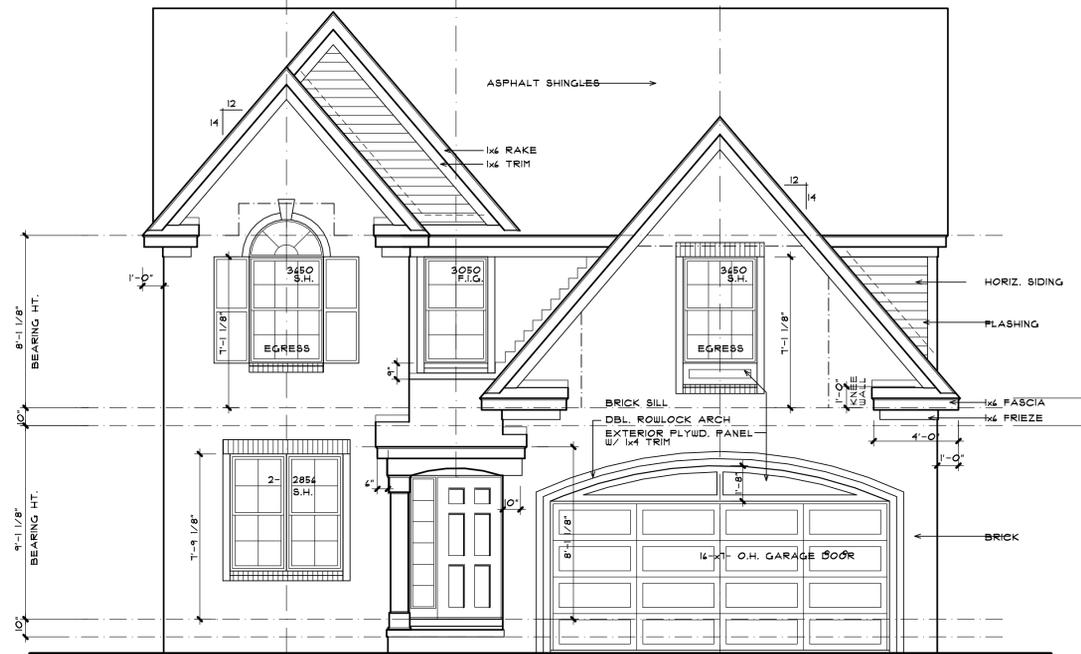
SCALE: 1/4" = 1'-0"



PARTIAL FIRST FLOOR PLAN

'A' = 2x8 RAFTERS & 2x4 CEILING JOISTS @ 24" O.C.

SCALE: 1/4" = 1'-0"



FRONT ELEVATION 'B'

SCALE: 1/4" = 1'-0"

WINDOW SILLS
 PROVIDE GUTTERS & DOWNSPOUTS FOR DRAINAGE OF ROOF WATER. DOWNSPOUTS ARE TO BE LOCATED SO THAT THE DISCHARGE WILL NOT SPILL ON OR FLOW ACROSS ANY PORCHES, WALKS OR DRIVES.
 UNLESS NOTED OTHERWISE OVERHANG DIMENSIONS ARE 8" AT BRICK AND 12" AT SIDING. RAKE DIMENSIONS ARE 4" AT BRICK AND 2" AT SIDING.

OVERHANGS & DRAINAGE
 UNLESS NOTED OTHERWISE OVERHANG DIMENSIONS ARE 8" AT BRICK AND 12" AT SIDING. RAKE DIMENSIONS ARE 4" AT BRICK AND 2" AT SIDING.

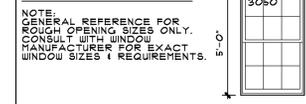
STEEL LINTEL SCHEDULE

LOOSE STEEL LINTELS FOR MASONRY - EXTERIOR ANGLES FOR BRICK OR STONE (NO FLOOR LOAD)

MAX. CLEAR SPAN	LINTEL SIZE
5'-0" OR LESS	3 1/2" x 3 1/2" x 5/16"
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9'-0" OR LESS	5" x 3 1/2" x 3/8"
10'-0" OR LESS	4" x 3 1/2" x 3/8"

NOTE: THIS SCHEDULE APPLIES UNLESS NOTED OTHERWISE ON THE PLANS AND/OR ELEVATIONS.

TYPICAL WINDOW DESIGNATION



EGRESS WINDOW

NOTE:
 EVERY SLEEPING ROOM SHALL HAVE AT LEAST ONE OPERABLE WINDOW OR EXTERIOR DOOR APPROVED FOR EMERGENCY EGRESS OR RESCUE. THE UNIT(S) MUST BE OPERABLE FROM THE INSIDE TO A FULL CLEAR OPENING WITHOUT THE USE OF SEPARATE TOOLS. WHERE WINDOWS ARE PROVIDED AS A MEANS OF EGRESS, OR RESCUE, THEY SHALL HAVE SILL HEIGHT OF NOT MORE THAN 44 INCHES ABOVE THE FLOOR. ALL EGRESS OR RESCUE WINDOWS FROM SLEEPING ROOMS MUST HAVE A MINIMUM NET CLEAR OPENING HEIGHT DIMENSION SHALL BE 24 INCHES AND WIDTH OF 20 INCHES.

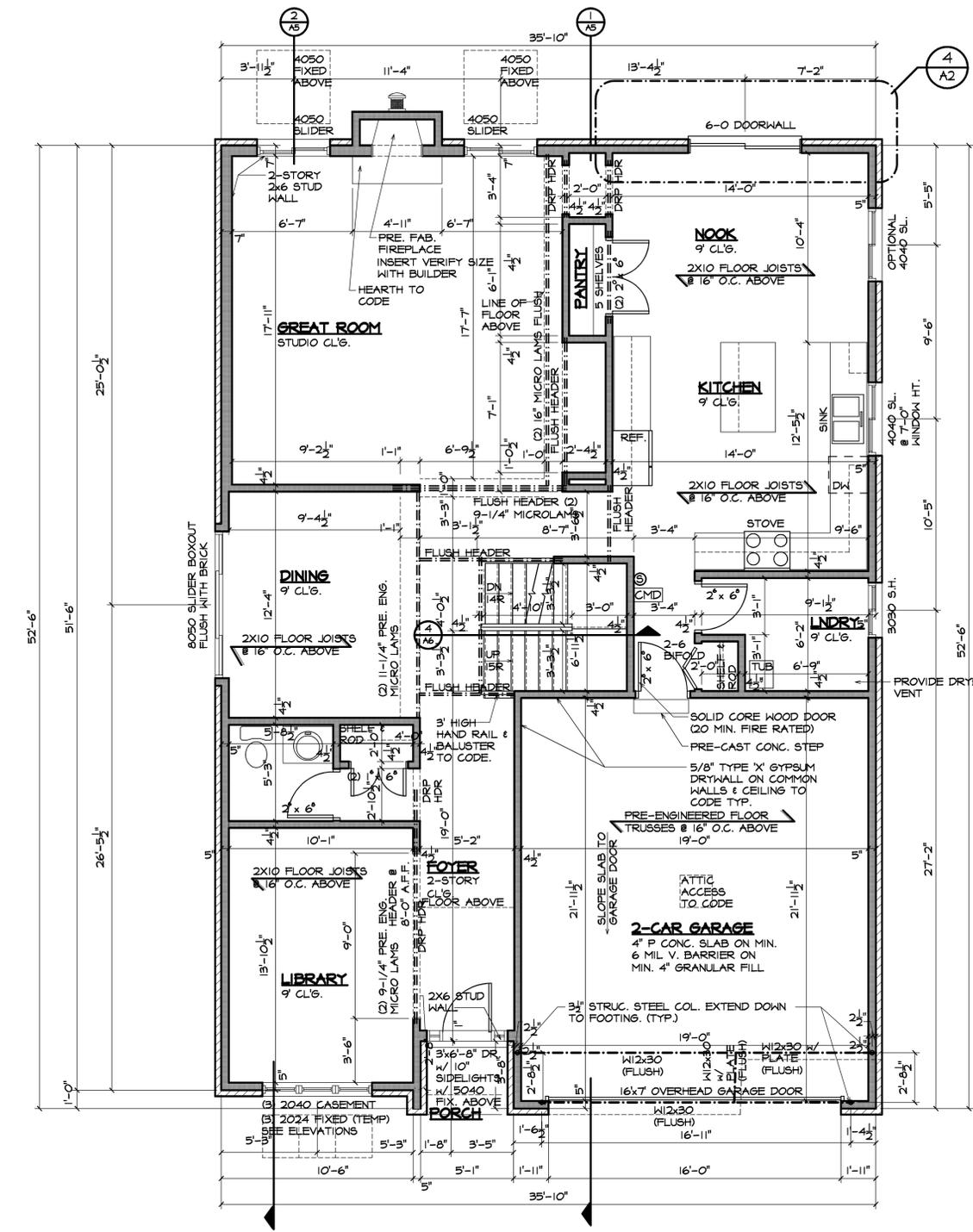
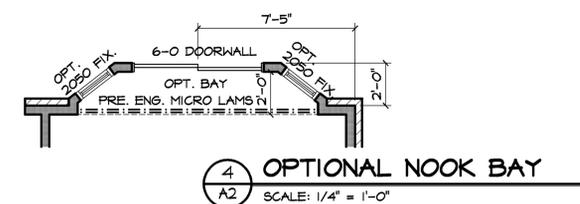
NOTE:
 FOR ALL ADDITIONAL INFORMATION COORDINATE WITH PLAN BY NGA ARCHITECTS - #019325

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CLIENT/PROJECT
 TROWBRIDGE HOMES
 ALT. ELEVATION
 SHEET TITLE
 ELEVATION 'B'
 SHEET NUMBER
 CADIEUX 2

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 1180
 DATE
 11-19-10
 SHEET NUMBER



NOTE:
ALL INTERIOR DECORATIVE COLUMNS.
CONTRACTOR TO USE (2) SIMPSON A21
CLIPS SECURED TO FLOOR & CEILING.
VERIFY IN FIELD.

NOTE:
ALL EXTERIOR COLUMNS. CONTRACTOR TO
USE (2) SIMPSON A21-Z CLIPS SECURED TO
FOUNDATION w/ (1) 1/2" DIA. GALV. BOLT, DRILL
& EPOXY FILLED, MIN. 3" INBEDMENT & TO
BEAM ABOVE w/ (2) 10d x 1 1/2" GALV. NAILS.

MULTIPLE-MEMBER CONNECTIONS
FOR TOP-LOADED BEAMS
• MINIMUM OF (3) ROWS OF 10d
(0.128"x3") NAILS @ 12" ON
CENTER.
• MINIMUM OF (4) ROWS OF 10d
(0.128"x3") NAILS @ 12" ON
CENTER FOR 14" OR DEEPER
BEAMS.

ATTIC VENTILATION CALCULATION
1,961 SQ. FT. OF ROOF / 300 = 6.2 / 2
= 3.3 S.F. x 144 = 471 SQ. IN. LEAVE VENT
& 471 SQ. IN. OF RIDGE VENT / 18 = 26'
IN LENGTH OF VENTING

NOTE:
TRUSS DRAWINGS TO BE
SUBMITTED TO ARCHITECT FOR
REVIEW PRIOR TO FABRICATION.

NOTE:
ALL DIMENSIONS TO
FINISHED FRAME
ADD 4" FOR BRICK.

CMD ALL CARBON MONOXIDE
DEVICE MAY BE BATTERY-
POWERED, PLUG-IN OR
WITHOUT BATTERY.
BACKUP, WIRED INTO THE
DWELLING'S AC POWER
LINE WITH SECONDARY
BATTERY BACKUP, OR
CONNECTED TO A SYSTEM
BY MEANS OF A CONTROL
PANEL. PER CODE.

NOTE:
PROVIDE SELF-ILLUMINATED
SWITCH AT TOP AND BOTTOM
OF EACH STAIR CONTROLLING
LIGHT FOR THAT STAIR

NOTE:
PROVIDE SELF-ILLUMINATED
SWITCH AT TOP AND BOTTOM
OF EACH STAIR CONTROLLING
LIGHT FOR THAT STAIR

NOTE:
CONTRACTOR TO VERIFY ALL
DIMENSION PRIOR TO CONSTRUCTION.

NOTE:
CONTRACTOR TO VERIFY WINDOW
MANUFACTURER BEFORE
ORDERING NEW WINDOWS

NOTE:
PROVIDE SOLID BRIDGING AT JOIST
END @ EVERY OTHER JOIST SPACE.
TYP.

NOTE:
USE 2X6 STUDS IN GARAGE IF
PLATE HEIGHT EXCEEDS 10'-0" DUE
TO GRADE CONDITIONS.

NOTE:
PROVIDE PIN OR BLOCKING TO
PREVENT SLIDING DOORS TO OPEN
BEYOND 4". PIN OR BLOCK TO
REMAIN IN PLACE UNTIL DECK OR
LANDING IS CONSTRUCTED OUTSIDE
DOOR.

NOTE:
MINIMUM HEADER SIZE TO BE (2)
2X10'S FOR OPENINGS UP TO SIX
FOOT IN LENGTH UNLESS NOTED
OTHERWISE.

LEGEND
Ⓢ SMOKE DETECTOR
HARDWIRED AND
INTERLINKED TO
OTHER DETECTORS

NOTE:
TRUSS DRAWINGS TO BE
SUBMITTED TO ARCHITECT FOR
REVIEW PRIOR TO FABRICATION.

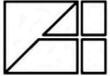


Streetscape Elevaton

Briggs Park

Troy, MI

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Rochester Road: Green Corridor



- *Regional model for a green corridor*
- *A strong focus on access management*
- *Heightened emphasis on strong stormwater management techniques*
- *Retail catering to regional traffic*
- *Innovative site design techniques applied through PUD use to allow for redevelopment for shallow lots*

Rochester Road carries high volumes of traffic causing backups at intersections. The abutting development pattern from Big Beaver Road north to Long Lake Road is a continuous row of highway-oriented commercial uses. North of Long Lake Road, the land use pattern evolves, becoming a mix of commercial and office near the intersections and older single-family homes and multiple-family complexes in between.

If Rochester Road is to have a defined role and pleasing character in the City, it must undergo a significant transformation over time. Ultimately, the Rochester Road Corridor will become a regional showcase for effective stormwater management and enhancement of the natural environment, while encouraging a combination of high-quality land uses. Effective landscaping focused on

native plantings, and improved land use and access management along Rochester will create a green corridor that provides a high level of service for motorists, and which provides an effective natural buffer between high traffic volumes and people visiting adjacent properties. The creation of this green corridor would occur primarily in the right-of-way along road frontages and in the median of a future boulevard.

While the emphasis on innovative stormwater management is specifically called on for the Rochester Road Corridor, new low-impact techniques are to be encouraged elsewhere throughout the City of Troy. As noted in Chapter 7, innovative stormwater management is a priority for the community. Rochester Road will play an important role in this City-wide initiative by proving a regional showcase for such techniques.

New construction along the corridor may include detention and retention basins that work together from site-to-site with other features to create a continuous, linear landscape feature. By connecting properties, the basins create visual relief from traffic. **Low impact development methods will be used throughout the corridor to filter stormwater runoff.** Rochester Road will also be characterized by effective new signage, high-quality lighting, and effective, complementary site and architectural design.

Uses along Rochester Road will include a variety of mixed uses, established in a “pulsing” pattern where the most intense mixed-use or exclusively non-residential development will occur near the Neighborhood Nodes situated along its main intersections. Lower-impact uses, such as small scale retail or condominiums should be encouraged along the corridor frontage between these nodes.

DATE: July 7, 2011
TO: Planning Commission
FROM: R. Brent Savidant, Planning Director
SUBJECT: SUSTAINABLE DEVELOPMENT PROCESS – Discuss Draft Document

The recently adopted Zoning Ordinance contains Sustainable Development provisions that promote environmentally sustainable and energy efficient design and development practices (see Section 12.01).

There are provisions identified throughout the Zoning Ordinance where the use of sustainable design measures may be used to satisfy, modify, or replace a specific requirement. Once prequalified as a Sustainable Design Project (SDP), the use of a sustainable design measure to satisfy a specific Ordinance requirement is authorized. Approval of a site plan with a modification permitted under this Section shall be considered the formal approval of the SDP status of the project.

The process requires the creation of an SDP checklist, separate from the Zoning Ordinance. A draft document was handed out to the Planning Commission for review and comment at the June 14, 2011 Regular meeting. City staff and some Planning Commission members provided comments on the first draft, many of the comments were incorporated into the attached revised document.

Please be prepared to discuss the document at the July 12, 2011 Regular meeting.

Attachment:
Draft Sustainable Development document (revised)

cc: File/Sustainable Development Option

G:\Sustainable Development Option\PC Memo 07 12 11.docx

City of Troy

Sustainable Development Checklist

Established by Section 12.01 of the City of Troy Zoning Ordinance

DRAFT

July 8, 2011

Adopted by the Troy Planning Commission on XXXXXX

TROY Sustainable Development Project Checklist

1. Summary

The purpose of the Sustainable Development Project (SDP) option is to encourage development and redevelopment in the City of Troy to incorporate features designed to minimize adverse impacts on the natural and built environment. The SDP option is established by Section 12.01 of the Zoning Ordinance. SDP status will empower applicants to seek a modification from certain elements of the Zoning Ordinance and receive benefits directly related to the sustainable features proposed for their project.

This SDP application includes a variety of areas within which a project can provide sustainable measures in exchange for regulatory flexibility. Once it has been determined that a project design has included measures which are directly related to and which mitigate for the modification sought by the applicant, Prequalified SDP status can be awarded by the Sustainable Development Review Committee (SDRC). There are 7 groups of potential measures provided which can be applied to a variety of areas within the Zoning Ordinance.

2. Zoning Ordinance Sections for which SDP status may be granted

The SDP process is voluntary, and may be applied to any application requiring site plan review under Section 8.02 of the Zoning Ordinance. This includes conventional projects requiring site plan review or special use approval. SDP projects may receive modifications from the Zoning Ordinance in the following six areas:

- A. Lot Coverage: For projects having SDP status, maximum lot coverage may be reduced in the R1-A through R1-C Districts, RT, MF, UR, CF, IB, OM, and RC Districts (Sections 4.06.D.5, 4.07.D.5, 4.08.D.6, 4.09.D.6, 4.11.D.3, 4.15.D.4, 4.17.D.5, 4.18.D.6,)
- B. IB Front Yard Parking: For projects having SDP status, Front yard parking may be permitted in the IB District (Section 4.15.D.3.a)
- C. One Family Cluster Density Bonus: SDP Status may be used as a qualifying factor for a dwelling unit density bonus in projects utilizing the One-Family Cluster Option (Section 10.04.D.2.a)
- D. One Family Cluster Dimensional Modifications: SDP Status may be used as a qualifying factor for dimensional requirement flexibility in projects utilizing the One-Family Cluster Option (Section 10.04.E.2)
- E. Landscaping Flexibility: All landscaping requirements within Section 13.02, Landscaping, may be modified for projects having SDP status. This includes greenbelt landscaping, screening, parking lot landscaping, and general

landscaping requirements (Section 13.02).

- F. Parking Requirement Deviations: Projects with SDP status are automatically eligible for a parking deviation if the measures proposed and the Prequalified SDP status is granted for measures directly related to the requested change in parking (Section 13.06.F).

3. Application Requirements and Administration

Figure 1: SDP Process Summary

Steps	
1	Applicant files an application seeking Prequalified SDP status for one of the purposes identified herein.
2	Zoning Administrator reviews the application to ensure that measures intended to satisfy the Prerequisites are proposed for the area of relief being sought, and that at least one qualifying measure is proposed for the area of relief being sought (Table 1)
3	The Sustainable Design Review Committee meets and considers the application within 30 days of the Zoning Administrator’s formal determination that the application is complete.
4	The Committee takes action on the request. If the Committee finds that the proposed measures will adequately offset the requested modification, the Committee shall grant the applicant Prequalified SDP status.
5	The project goes through the site plan approval process.
6	The SDP status is ratified by final site plan approval

Projects seeking SDP status shall meet the following criteria and prequalification:

- A. Application: The application for SDP status shall contain the following information:
 1. Applicant’s name, address, and telephone number.
 2. Common description of the property and complete legal description.
 3. Dimensions of land, including width, length, acreage, and frontage.
 4. Existing zoning and current land use of the property under consideration and zoning and current land use of all adjacent properties.
 5. General location of all existing structures, roadways, and natural features.
 6. The general location of all proposed buildings, roadways, parking areas, and any other changes proposed to be made on the subject property.
 7. A specific list of proposed sustainable design measures being proposed with the following supporting information:
 - a. Any manufacturer information, such as specifications or cut sheets that detail the technology, attributes, and anticipated benefits of the features or equipment.
 - b. Identification on the drawings providing information about the location,

general design, and application of the sustainable design features being proposed.

- c. A specific list of the areas within the Ordinance for which benefits are being sought with the SDP application.
- d. A long-term maintenance plan documenting the proposed method of care for the measures being proposed.

- B. Prerequisites and Qualifying Measures: The application will first be reviewed by the Zoning Administrator to ensure that it specifically lists the benefits for which the application is being filed and demonstrates that the areas of the Ordinance for which an application is seeking or benefits are proportionally related to the SDP measures being proposed. *Every area of the Ordinance for which modification can be sought has at least one category of potential measures from which the applicant MUST select and incorporate sustainable design measures. These required sustainable design measure categories are Prerequisites.*

For instance, if an applicant wishes to provide less open space (exceeding lot coverage) than is required by the Ordinance, the categories of measures identified as Prerequisites include measures that would mitigate the negative consequences of providing insufficient open space. In this example, the applicant would be required to provide measures in each of the following areas of stormwater quantity control, stormwater quality control and reduction of heat island effect.

Every area of modification also has measure categories identified as Qualifying. Every project must, in addition to the Prerequisites, provide a measure in one Qualifying category. For instance, in the example above, in addition to providing measures in the Prerequisite categories (stormwater quantity control, stormwater quality control and reduction of heat island effect), they would also be required to provide a measure in one of the following Qualifying areas: redevelopment and reuse, brownfield redevelopment, light pollution reduction, or water recycling.

- C. Sustainable Design Review Committee: Within 30 days of the Zoning Administrator's formal determination that the application is complete, the Committee shall review any application that has been determined to meet the minimum required criteria for application for SDP status and has met the prerequisite standard of proposing measures directly related to the area or areas from which the applicant is seeking modification. The Committee will review the proposal and each proposed measure and requested modification contained in the application. If the Committee finds that the proposed measures will adequately offset the requested modification, the Committee shall grant the application Prequalified SDP status.

- D. Compliance: Throughout the course of site plan or special use approval, the SDP application and findings of the Sustainable Design Review Committee shall be contained in the application. These materials will be reviewed throughout the process by the Zoning Administrator or designee for compliance to Prequalified SDP status. The applicant shall enjoy SDP benefits or modification as outlined in the Prequalified SDP application approved by the Committee. Once a project is complete, the Zoning Administrator shall make a determination that the Committee's findings are confirmed. If a change to the project affects the conditions spelled out in the Prequalified SDP findings, the applicant shall lose the benefits provided by the SDP status or shall reappear before the Committee to request a revised prequalification.

- E. Prequalified SDP status shall become permanent when the Zoning Administrator grants final site plan approval, at which time the project is determined to have achieved full SDP status. The measures and modifications approved as part of the full SDP status are, like any element contained within an approved site plan, a required element of that final site plan and must be adhered to.

4. Sustainable Design Measures

The SDP option provides for seven areas where an applicant can provide sustainable design measures to seek flexibility in the six areas noted in Section 2, above. It is incumbent upon the applicant to devise an application submission demonstrating that the measure is met. The measures may be applied to the area of regulatory flexibility as follows in Table 1.

Table 1: Prerequisite and Qualifying Measures

P = Prerequisite. To obtain Prequalified SDP status, a project MUST include measures in the categories identified as a Prerequisite, below. (Example: Lot Coverage flexibility can only be granted if stormwater quality, stormwater quantity, heat island effect, and water efficient landscaping measures are proposed.)

Q = Qualifying. This measure will qualify as a supporting measure to achieve SDP status for the area under consideration for modification. These options help mitigate the potentially negative factors resulting from the requested modification. Every project qualifying for SDP status must provide at least one Qualifying measure in addition to the Prerequisites for the area of modification.

X = Indicates that this measure will not satisfy the requirements to achieve SDP status.

	A		B		C		D	E	F			G		
Category	Stormwater		Site Selection		Transportation		Light Pollution	Heat Islands	Water Resources			Renewables		
	Quality	Quantity	Redevelopment and Reuse	Brownfields	Alternative Fuel Vehicle Facilities	Commuter			Water Efficient Landscaping	Water Use Reduction	Water Recycling	Solar	Wind	Geothermal
Lot Coverage	P	P	Q	Q	X	X	Q	P	P	X	Q	X	X	X
IB District Front Yard Parking	P	P	Q	Q	Q	Q	P	Q	Q	X	Q	X	X	X
One Family Cluster Density Bonus	P	P	X	X	Q	Q	P	Q	Q	Q	Q	Q	Q	Q
One Family Cluster Dimensional Flexibility	P	P	X	X	Q	Q	P	Q	Q	Q	Q	Q	Q	Q
Landscaping Flexibility	P	P	X	X	X	X	X	Q	P	Q	Q	X	X	X
Parking Requirement Deviations	Q	Q	Q	Q	P	P	P	Q	X	X	X	X	X	X

A. Stormwater

Urban development has complicated and, in many cases, impeded the natural cycle of our water resources. By introducing impervious surfaces on a large scale the recharging of groundwater, infiltration of stormwater into the landscape, and flow and volume of rivers and streams have been disrupted. Further, contaminants from automobiles, chemicals from industry, eroded soils, and other undesirable substances have become commonplace, and are frequently washed away with stormwater into the natural environment. By improving the way stormwater is managed on-site, development can mitigate these potentially negative consequences. Low Impact Design techniques reduce the quantity of stormwater leaving a site, and also improve the quality of that water.

Stormwater Quantity

To receive Prequalified SDP status for stormwater quantity measures, an applicant may propose to do the following, or additional measures not specifically listed here, provided that the applicant can demonstrate that similar benefits will be realized:

- RAIN GARDENS
- SWALES
- MANUFACTURED WETLANDS
- GREEN ROOF
- CISTERNS
- PERMEABLE PAVING
- PRESERVATION OF NATURAL AREAS BEYOND WHAT IS REQUIRED

Stormwater Quality

To receive Prequalified SDP status for stormwater quality measures, an applicant may propose to do the following, or additional measures not specifically listed here, provided that the applicant can demonstrate that similar benefits will be realized:

- RAIN GARDENS
- SWALES
- MANUFACTURED WETLANDS
- GREEN ROOF
- CISTERNS
- PERMEABLE PAVING
- PRESERVATION OF NATURAL AREAS BEYOND WHAT IS REQUIRED

B. Site Selection

Renovation of an existing building or site is often more sustainable than new construction. The renovation of existing facilities reduces landfill waste and reduces the need for new materials. Also, the renovation of existing facilities often eliminates the need for changes to underground utilities, access and circulation, and open space, given that building footprints are often preserved. These advantages mean that redevelopment properties can often be revitalized more quickly, efficiently, and sustainably than new construction.

Brownfield projects are often situated in excellent, high-traffic or well developed areas, although in many brownfield cases the site must be redeveloped from the ground up. There is a disadvantage, however, to the developer in that there is often costly mitigation that must occur in order to make the site useful. Using SDP, the City can incentivize brownfield redevelopment.

Redevelopment and Reuse

To receive Prequalified SDP status for redevelopment and reuse measures, an applicant may propose to do the following:

- USE A SITE IS PREVIOUSLY DEVELOPED AND VACANT

Brownfield Site

To receive Prequalified SDP status for brownfield site measures, an applicant may propose to do the following:

- USE A SITE THAT IS CLASSIFIED OR IS ELIGIBLE TO BE CLASSIFIED AS A BROWNFIELD SITE

C. Transportation

Purpose:

Electric, hybrid, natural gas, fuel cell, or other alternative fuel vehicles help reduce greenhouse gas emission and fuel demands. Supporting these vehicles also encourages innovation and job creation in the automotive industry, thereby supporting job growth in Troy and Southeast Michigan. The infrastructure for alternative fuel vehicles is in its infancy, although a few simple elements can be incorporated into new development and redevelopment to empower adopters of new automotive technology to function in Troy. This approach will also help Troy compete for residents and companies that are attracted to this aggressive approach to promoting new technology.

Beyond alternative fuel vehicles, the community realizes even more benefit from those who choose transit or non-motorized means to get to the homes, jobs, and everyday activities. Successful regional transit will allow a wider range of people to choose Troy as a home or destination. Non-motorized transportation has both an environmental and overall community health benefit. Both options increase the number of pedestrians on the street, supporting the density in certain areas that are called for in the City of Troy Master Plan.

Alternative Fuel Vehicle Facilities

To receive Prequalified SDP status for alternative fuel vehicle measures, an applicant may propose to do the following:

- INSTALL RECHARGING STATIONS FOR NOT LESS THAN 2.5% OF THE PROVIDED PARKING SPACES

- INSTALL PRIORITY PARKING FOR HYBRID OR ALTERNATIVE FUEL VEHICLES FOR NOT LESS THAN 5% OF THE PROVIDED PARKING SPACES

Commuter Accommodations

To receive Prequalified SDP status for commuter measures, an applicant may propose to do the following:

- PROVIDE NON-MOTORIZED PATHWAYS AND BICYCLE AMENITIES THROUGHOUT THE PROJECT BEYOND THOSE REQUIRED BY THE ORDINANCE
- PROVIDE COMMUTER LOCKERS AND SHOWERS AND SECURE, COVERED BICYCLE PARKING FOR NOT LESS THAN 10% OF THE ESTIMATED STAFF OR RESIDENTS AND 5% OF THE ANTICIPATED CUSTOMERS
- PROVIDE COVERED SHELTER FOR TRANSIT PASSENGERS ON ESTABLISHED TRANSIT ROUTES

D. Light Pollution

Purpose:

Light pollution takes many forms, and can have many negative consequences. Simple problems, like trespass of excess light from one property to another, can be a nuisance. Substantial light pollution can create glare that makes night visibility for drivers a challenge. Regional light pollution can limit the ability to see the night sky clearly, and inappropriate light levels have been shown to affect sleep behavior. Further, by reducing unnecessary lighting, there is an energy reduction benefit that, on a widespread scale, can significantly reduce energy demand.

Light Pollution Reduction Measures

To receive Prequalified SDP status for light pollution reduction measures, an applicant may propose to do the following:

- REDUCE PROVIDED LIGHTING BY USING AUTOMATIC DEVICES FOR ALL NON EMERGENCY LIGHTING BY AT LEAST 50% BETWEEN 11 PM AND 5 AM AND HAVE FULL CUTOFF SHIELDING ON ALL FIXTURES TO PREVENT LIGHT TRESPASS

E. Heat Islands

Purpose:

Heat island effect is when atmospheric temperatures, indoors or outdoors, are artificially increased by elements of the built environment. For instance, a large expanse of

asphalt absorbs and slowly releases heat throughout a parking area, where an expanse of grass would have remained cooler and avoided such an “island” of increased heat.

Techniques such as a high-reflectivity roof, sun shades, increased landscaping over a large parking area, or the use of a light, highly reflective pavement material can reduce the heat island effect and help maintain more comfortable temperatures that are closer to the natural condition on a site. These techniques reduce energy demands and naturally preserve comfort for the people who visit or reside in such places.

Heat Island Effect Reduction

To receive Prequalified SDP status for heat island effect measures, an applicant may propose to do the following:

- PLACE A MINIMUM OF 50% OF PARKING UNDERGROUND OR UNDER A STRUCTURE HAVING A ROOF SRI (SOLAR REFLECTANCE) OF AT LEAST 29 OR A STRUCTURE HAVING A GREEN ROOF
- SHADE 50% OR MORE OF THE SITE HARDSCAPE (PARKING, DRIVES, WALKS, COURTS, ETC., NOT INCLUDING BUILDINGS) WITH ANY OF THE FOLLOWING ALONE OR IN COMBINATION:
 - USE AN OPEN GRID PAVEMENT SYSTEM
 - LANDSCAPING CANOPY (WITHIN 5 YEARS OF PLANTING)
 - SOLAR ENERGY STRUCTURES
 - USING A STRUCTURE HAVING A ROOF SRI OF AT LEAST 29 OR A STRUCTURE HAVING A GREEN ROOF
 - USE HARDSCAPE MATERIALS WITH AN SRI OF AT LEAST 29
- USE ROOFING MATERIALS WITH AN SRI OF AT LEAST 29 (FOR ROOFS WITH A STEEP SLOPE – GREATER THAN 2:12) OR AT LEAST 78 (FOR ROOFS WITH A LOW SLOPE – EQUAL TO OR LESS THAN 2:12) FOR AT LEAST 75% OF THE ROOF SURFACE AREA.
- USE A GREEN ROOF FOR AT LEAST 75% OF THE ROOF SURFACE AREA.
- USE A COMBINATION OF THE MINIMUM SRI ROOF MATERIALS AND GREEN ROOF MATERIALS FOR AT LEAST 75% OF THE ROOF SURFACE AREA

F. Water Resources

Purpose:

While the State of Michigan is surrounded by the Great Lakes, most communities obtain their water from groundwater sources. Given the effect of urban development on the natural recharging of groundwater, there is a benefit in many communities to reduce the amount of water used for everyday activities. Even in Troy, the cost of bringing water in through the regional water network is considerable in terms of the long-term demands placed on the network of underground utilities. By reducing the amount of water wasted in everyday use, the community will extend the useful life of its water resources and the water infrastructure.

Using water efficient landscaping, such as drought tolerant native species, reduces the need for water and maintenance costs. Reducing water use inside a building at the point of consumption is easily achieved through water efficient fixtures. Water recycling is often more involved, but has the added benefit of reducing stormwater quantity, in keeping with other measures within the SDP process.

Water Efficient Landscaping

To receive Prequalified SDP status for water efficient landscaping measures, an applicant may propose to do the following:

- REDUCE WATER CONSUMPTION DEMANDS FOR IRRIGATION BY MORE THAN 50% USING NATIVE SPECIES OVER CONVENTIONAL LANDSCAPING
- INSTALL IRRIGATION SYSTEMS USING ONLY CAPTURED RAINWATER OR RECYCLED WASTEWATER

Water Use Reduction

To receive Prequalified SDP status for water use reduction measures, an applicant may propose to do the following:

- REDUCE WATER CONSUMPTION BY 20% OR MORE OVER CONVENTIONAL DESIGN BY USING WATER EFFICIENT TOILETS (DUAL FLUSH, WATERLESS, LOW FLOW, ETC.), LOW FLOW FAUCETS, LOW FLOW SHOWERS, HIGH-EFFICIENCY WASHING MACHINES OR DISHWASHERS, ETC.

Water Recycling

To receive Prequalified SDP status for water recycling measures, an applicant may propose to do the following:

- CAPTURE MORE THAN 50% OF THE SITE'S WASTEWATER FOR NON-POTABLE USES

G. Renewables

Purpose:

Renewable sources of energy, such as wind, solar, or geothermal, represent cleaner, reliable sources of energy that do not place the same kind of long-term demands on the natural environment that are characteristic of fossil fuels. While not always ideally suited to the climate or condition present in every region or even specific property,

renewable sources of energy do represent inexhaustible sources of energy. Solar power, for instance, can generate electricity or provide thermal energy to heat water or even to warm the air inside a building. Geothermal energy takes advantage of the reliable consistent temperatures within the soil beneath our feet. Wind power can enhance the electrical supply without any need for fuel.

Renewable energy represents a large potential growth area in the economy. By incentivizing the installation of renewable capacity, the City of Troy is also supporting job creation in manufacturing, research and development.

Solar

To receive Prequalified SDP status for solar energy measures, an applicant may propose to do the following:

- PROVIDE ON-SITE SOLAR ENERGY COLLECTORS OR SOLAR THERMAL SYSTEMS TO PRODUCE NOT LESS THAN 10% OF THE SITES ANTICIPATED ELECTRICITY USE AND/OR REDUCE THE LOAD FOR WATER HEATING BY NOT LESS THAN 50% FOR SOLAR THERMAL DEVICES.

Wind

To receive Prequalified SDP status for wind energy measures, an applicant may propose to do the following:

- PROVIDE ON-SITE WIND ENERGY CONVERSION SYSTEMS TO PRODUCE NOT LESS THAN 10% OF THE ANTICIPATED ELECTRICITY USEAGE.

Geothermal

To receive Prequalified SDP status for geothermal energy measures, an applicant may propose to do the following:

- PROVIDE ON-SITE GEOTHERMAL SYSTEM REDUCE THE LOAD FOR BUILDING HEATING AND COOLING BY NOT LESS THAN 50%.

4. Definitions

- Alternative Fuel Vehicles- Motorized vehicles that use an energy source other than gasoline, or a combination of gasoline and another form of energy
- Bicycle Amenities- Services provided that make the use of bicycles more use friendly, such as covered storage, bike racks, pathways etc.
- Brownfield- Abandoned, idle, or under-used industrial and commercial properties

where expansion or redevelopment is hindered or complicated by real or perceived environmental conditions (SEMCOG 2008)

- Captured Rainwater – Rainwater collected in rain barrels or cisterns for later use
- Cisterns- Containers that store large quantities of stormwater above or below ground (SEMCOG 2008)
- Contaminants- Pollutants which have negative effects the natural environment, sometimes being washed away by stormwater into the environment.
- Drought Tolerant – Plants that do not normally require artificial irrigation
- Glare- An effect of light pollution which causes decreased visibility
- Greenhouse Gas- A gas which is trapped within the atmosphere creating a heating effect on the environment, called the Greenhouse Effect
- Green Roof- A rooftop system that may include vegetation, waterproofing, insulation, fabrics, growth media, and other synthetic components allowing the roof to slow the rate of stormwater runoff (SEMCOG 2008)
- Groundwater- Natural water bearing subsurface layers of porous stone, sand, gravel, silt or clay via infiltration (SEMCOG 2008)
- Full Cutoff Shielding- A buffer used to block light from an affected area
- Hardscape- Paved surfaces such as parking lots, driveways, sidewalks, courts etc. not including buildings
- Heat Island Effect- When atmospheric temperatures, indoors or outdoors, are artificially increased by elements of the built environment
- High-Reflectivity Roof-- A type of roofing used to decrease the effects of the urban heat island, by reflecting heat that would otherwise be absorbed
- Impervious Surfaces- A surface that prevents the infiltration of water into the ground such as roofs, streets, sidewalks, driveways, parking lots, and highly compacted soils (SEMCOG 2008)
- Light Pollution- Pollution caused by light, in the form of excess light or the causation for a nuisance
- Low Impact Design- Site design and stormwater management techniques that infiltrate, filter, store, evaporate, and detain runoff close to its source, and that result in maintaining a site's pre-settlement hydrology (Troy Zoning Ordinance, 2011)
- Manufactured Wetlands- A man-made wetland used to create more efficient systems of water run-off and retention
- Native Species- Plants that historically co-evolved with the local ecology, geology and climate (SEMCOG 2008)
- Permeable Paving – Paving that allows liquids to pass through (SEMCOG 2008)
- Prerequisites-- The sustainable design measures that must be met before an application can be approved.
- Qualifying Measures- Measures that need to be met in addition to the prerequisites in order for a sustainable design project to be considered
- Rain Gardens-Landscaping that provides on-site detention, filtering of rainwater, groundwater recharge, and helps reduce runoff volume (Troy Master Plan, 2008).
- Recharging Stations- Stations that can be used to recharge alternative fuel vehicles requiring electricity
- Renewable Energy Installations – Equipment or structures that are designed to

capture energy generated from natural resources such as sunlight, wind, rain, tides, and geothermal heat, which are renewable (naturally replenished)

- SRI (Solar Reflectance Index)- The amount of solar energy reflected off of a surface measured by the Solar Reflectance Index http://eetd.lbl.gov/coolroof/ref_01.htm
- Stormwater- Water consisting of precipitation runoff or snowmelt (SEMCOG 2008)
- Stormwater quantity- The amount of stormwater runoff
- Stormwater quality- The condition of the stormwater, including the amount of contaminants
- Swales- A shallow stormwater channel that can be vegetated with some combination of grasses, shrubs, and/or trees designed to slow, filter, and often infiltrate stormwater runoff (SEMCOG 2008)
- Water Efficient Landscaping- Landscaping which effectively processes water in the most efficient manner possible, reducing negative effects of poor stormwater management
- Water Recycling – The reuse of water from common domestic applications
- Watershed- The geographic area that drains to a specific watercourse outlet. The watershed for a major river may encompass a number of smaller sub-watersheds that ultimately contribute to their common outlet (SEMCOG 2008).