



# PLANNING COMMISSION MEETING AGENDA REGULAR MEETING

500 W. Big Beaver  
Troy, MI 48084  
(248) 524-3364  
[www.troymi.gov](http://www.troymi.gov)  
[planning@troymi.gov](mailto:planning@troymi.gov)

John J. Tagle, Chair, Donald Edmunds, Vice Chair  
Michael W. Hutson, Edward Kempen, Tom Krent, Philip Sanzica  
Gordon Schepke, Robert Schultz and Thomas Strat

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**November 13, 2012**

**7:00 P.M.**

**Council Chambers**

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1. ROLL CALL
2. APPROVAL OF AGENDA
3. APPROVAL OF MINUTES – October 23, 2012 Special/Study Meeting
4. PUBLIC COMMENTS – For Items Not on the Current Agenda

### **SITE CONDOMINIUM DEVELOPMENTS**

5. PRELIMINARY SITE PLAN REVIEW – Proposed Beachview Estates Site Condominium, 10 units/lots, West side of Beach Road, 1000' South of Long Lake, Section 18, Currently Zoned R-1A (One Family Residential) District
6. PRELIMINARY SITE PLAN REVIEW – Proposed Timbercrest Preserves Site Condominium, 14 units/lots, West of Dequindre, South of Wattles, West Side of Fernleigh Drive, Section 24, Currently Zoned R-1C (One Family Residential) District

### **OTHER BUSINESS**

7. APPROVAL OF 2013 PLANNING COMMISSION MEETING SCHEDULE
8. PUBLIC COMMENTS – For 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](mailto: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.

Chair Tagle called the Special/Study meeting of the Troy City Planning Commission to order at 7:00 p.m. on October 23, 2012 in the Council Board Room of the Troy City Hall.

1. ROLL CALL

Present:

Donald Edmunds  
Michael W. Hutson  
Edward Kempen  
Tom Krent  
Gordon Schepke  
Robert Schultz  
Thomas Strat  
John J. Tagle

Absent:

Philip Sanzica

Also Present:

R. Brent Savidant, Planning Director  
Susan Lancaster, Assistant City Attorney  
Ben Carlisle, Carlisle/Wortman Associates, Inc.

2. APPROVAL OF AGENDA

**Resolution # PC-2012-10-069**

Moved by: Schultz  
Seconded by: Krent

**RESOLVED**, To approve the agenda as printed.

Yes: All present (8)  
Absent: Sanzica

**MOTION CARRIED**

3. APPROVAL OF MINUTES

**Resolution # PC-2012-09-070**

Moved by: Edmunds  
Seconded by: Krent

**RESOLVED**, To approve the minutes of the October 10, 2012 Regular meeting as published.

Yes: All present (8)  
Absent: Sanzica

**MOTION CARRIED**

4. PUBLIC COMMENT – Items not on the Agenda

There was no one present who wished to speak.

5. ZONING BOARD OF APPEALS (ZBA) REPORT

Mr. Strat missed the October ZBA meeting therefore there was no ZBA report.

6. DOWNTOWN DEVELOPMENT AUTHORITY (DDA) REPORT

There was no October DDA meeting therefore no DDA report.

7. PLANNING AND ZONING REPORT

Mr. Savidant reported there is a continued upswing for single family residential development.

### **ZONING ORDINANCE TEXT AMENDMENT**

8. ZONING ORDINANCE TEXT AMENDMENT (File Number ZOTA 244) – Miscellaneous Zoning Ordinance Revisions

The Planning Commission discussed and reached consensus on four items:

1. Parking in front yard.
2. Regulations of extended stay facilities.
3. Spacing provisions for used automobile dealerships.
4. Rezoning Rochester Villas from R-1D to RT.

### **OTHER BUSINESS**

9. PUBLIC COMMENT – Items on Current Agenda

There was no one present who wished to speak.

10. PLANNING COMMISSION COMMENTS

There was general Planning Commission discussion.

The Special/Study meeting of the Planning Commission adjourned at 8:05 p.m.

Respectfully submitted,

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John Tagle, Chair

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R. Brent Savidant, Planning Director

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DATE: November 8, 2012

TO: Planning Commission

FROM: R. Brent Savidant, Planning Director

SUBJECT: PRELIMINARY SITE PLAN REVIEW – Proposed Beachview Estates Site Condominium, 10 units/lots, West side of Beach Road, 1000' South of Long Lake, Section 18, Currently Zoned R-1A (One Family Residential) District

The petitioner Mondrian Properties initially submitted the above referenced Preliminary Site Plan Approval application for an 8-unit site condominium. The property is currently zoned R-1A (One Family Residential) District. The Planning Commission considered this item at the June 26, 2012 Special/Study meeting and postponed the item for two weeks for the petitioner to come back with an alternate plan that takes into consideration comments made at the meeting. The petitioner requested postponement to provide him with time to investigate options.

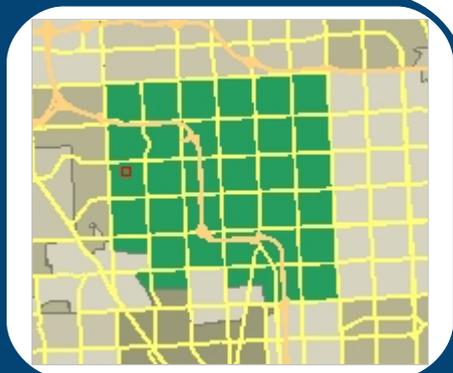
The petitioner proposes an alternative site layout that utilizes the One-Family Cluster Option (Section 10.04). The petitioner seeks a 20% density bonus, which requires that 50 percent of the property be dedicated open space held in common ownership. The petitioner is providing only 41% open space. Therefore the petitioner seeks a variance from this requirement from the Zoning Board of Appeals.

The Planning Commission can discuss the item at the November 13, 2012 Regular meeting but cannot take action until the Zoning Board of Appeals takes action on the variance request.

Attachments:

1. Maps
2. Report from Carlisle/Wortman Associates, Inc.
3. Minutes from June 26, 2012 Special/Study meeting (excerpt)
4. Minutes from July 10, 2012 Regular meeting (excerpt)

cc: Applicant  
File/Beachview Estates Site Condominium



### Legend

-  I-75
-  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

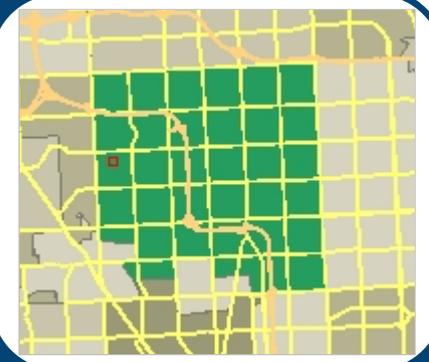
281 0 140 281 Feet

Scale 1: 1,685



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: 4/27/2012



## Legend

- I-75
- Road Centerline
  - Major Road
  - Industrial Road
  - Local Road
- Current Zoning Ordinance
  - (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

281 0 140 281 Feet

Scale 1: 1,685





CARLISLE

WORTMAN  
associates, inc.

605 S. Main Street, Ste. 1  
Ann Arbor, MI 48104

(734) 662-2200  
(734) 662-1935 Fax

Date: October 24, 2012

## Site Condominium Review For City of Troy, Michigan

<b>Applicant:</b>	Joe Maniaci, Mondrian Properties
<b>Project Name:</b>	Beachview Estates
<b>Plan Date:</b>	October 12, 2012
<b>Location:</b>	West side of Beach Road, south of W. Long Lake Road
<b>Zoning:</b>	R1-A, One-family Residential District
<b>Action Requested:</b>	Site Condominium Preliminary Approval, Cluster Option
<b>Required Information:</b>	Deficiencies noted

### PROJECT AND SITE DESCRIPTION

We are in receipt of a site condominium application which includes a site plan, landscape plan, topographic survey, tree preservation plan, wetlands letter, and application forms. The 6.02 acre site is currently unimproved and encumbered with a regulated wetland and tree cover. The applicant intends to gain approval for a 10-lot single family cluster detached site condominium project. By-right the 6.02 acre parcel could be developed into 8-units. Through the One-Family Cluster Option, the applicant is seeking approval for two additional units; however the consideration of the density bonus requires a variance from the Zoning Board of Appeals. See the procedure section below for more information.

Location of Subject Property:

West side of Beach Road, south of W. Long Lake Road.



Size of Subject Property:

The parcel is 6.02 net acres in area.

Proposed Uses of Subject Parcel:

Ten (10) detached, single family homes, developed through the One-Family Cluster Option.

Current Use of Subject Property:

The subject property is currently vacant.

Current Zoning:

The property is currently zoned R-1A, One-family Residential District.

Surrounding Property Details:

Direction	Zoning	Use
North	R-1A, One-family Residential District.	Single-family homes
South	R-1A, One-family Residential District.	Single-family homes
East	R-1B, One-family Residential District	Single-family homes
West	R-1A, One-family Residential District.	Single-family homes

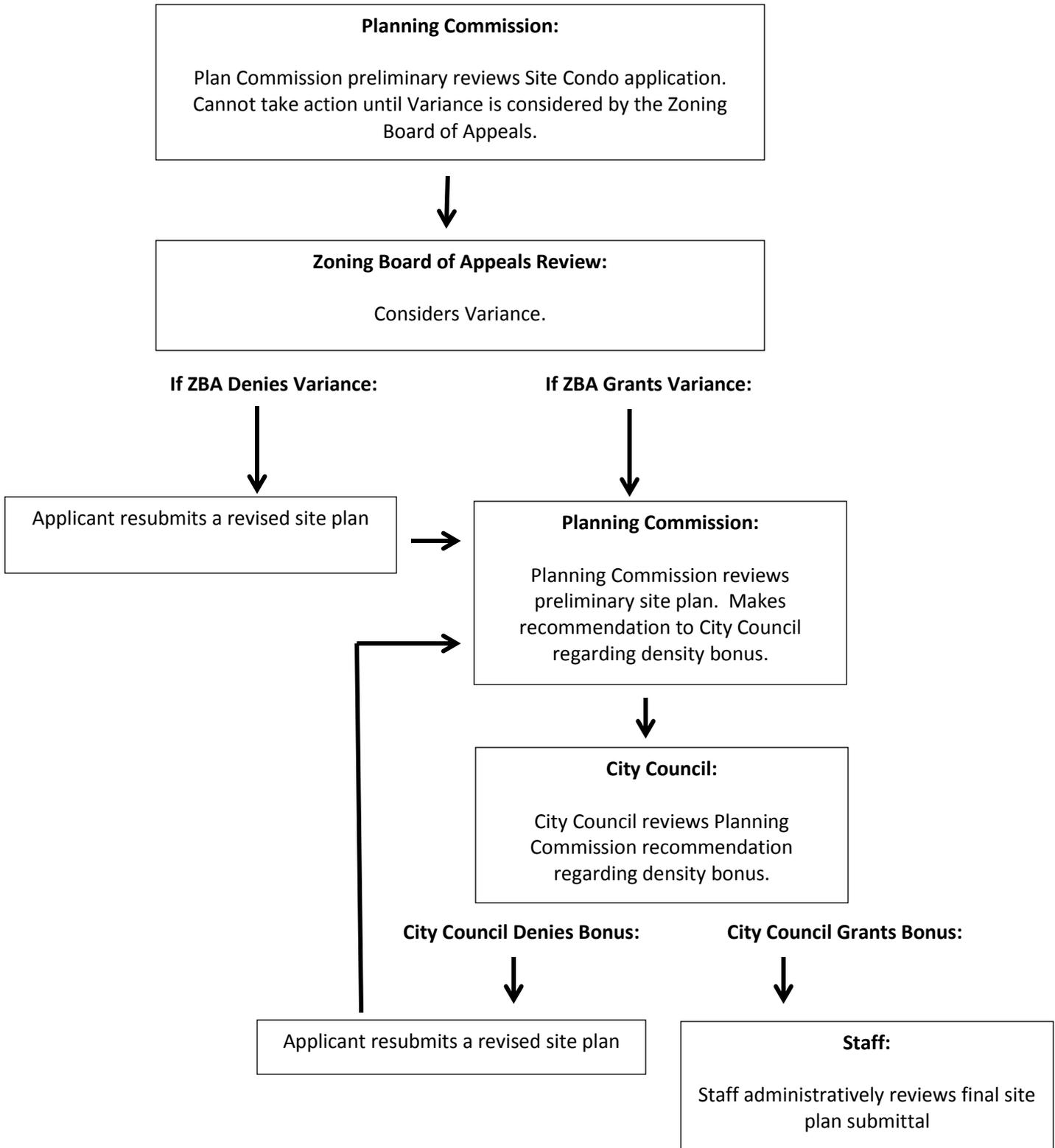
## **CLUSTER DEVELOPMENT BACKGROUND AND APPROVAL PROCEDURES**

As permitted under section 10.04 the applicant is proposing to develop the site in a cluster format. The cluster option allows innovation and greater flexibility in subdivision design in order to preserve open space as undeveloped land, and ensure the permanent preservation of environmental resources and other natural features.

Site condominiums are reviewed by the Planning Commission under Section 10.02 (Site Condominium Project Regulations) and Article 8 (Site Plan Review) and do not require City Council approval. However, as permitted in the cluster development provisions, the applicant is seeking a discretionary bonus to increase the number of units up to 20%. This discretionary density bonus is granted by the City Council based on a recommendation from the Planning Commission. The discretionary bonus is contingent upon the applicant including a minimum of fifty (50) percent of the property to be dedicated open space held in common ownership. Cluster developments that do not seek a density bonus only have to provide thirty (30) percent open space.

The applicant is seeking a density bonus and only providing 41% open space. Because the applicant is providing less open space than required to obtain a density bonus, the applicant is requesting from the ZBA a variance from the 50% open space requirement to be eligible for consideration of the density bonus. The proposed variance from the ZBA is only to allow the Planning Commission to consider and the City Council the ability to grant such discretionary bonus. If the variance is granted, City Council still has discretion to grant or deny the density bonus, and should only grant the bonus if there is a favorable recommendation by the Planning Commission. If the variance is denied the applicant is not eligible for the density bonus, unless the plans are revised to include at least 50 % of the property as open space.

Procedure Flow Chart:



## SITE ARRANGEMENT AND DISCRETIONARY DENSITY BONUS

The basic premise of cluster development is the preservation of open space. At a minimum, cluster development shall maintain a minimum of thirty (30) percent of the gross area of the site as dedicated open space held in common ownership. In order to encourage cluster development applicants are able to receive a discretionary bonus to increase the number of units up to 20%. The discretionary bonus is granted by the City Council based on a recommendation from the Planning Commission. The applicants are seeking the discretionary bonus to increase the total number of units from eight (8) to ten (10) units. The discretionary bonus is contingent upon the following:

1. *Include a minimum of fifty (50) percent of the property to be dedicated open space held in common ownership.*
2. *Include at least one (1) of the following elements:*
  - a. *Incorporates sustainable design options specifically related to the proposed density increase*
  - b. *Provides a perimeter transition area of at least one hundred fifty (150) feet in width around all borders of the development.*
  - c. *Donates or contributes land or amenities in order to provide a significant community benefit, such as for a school, park, fire station, or similar community benefit.*
  - d. *Other similar elements that the City Council, after favorable recommendation from the Planning Commission, determined to be of exceptional quality.*

As noted the applicant is only providing 41% open space. If the applicant were to increase the open space from 41% to 50%, in discussion with the applicant we believe that they would meet the second requirement for density bonus eligibility by comply with the Sustainable Design Project requirement.

We strongly encourage the applicant's attempt at providing a cluster development, and find that the cluster provided by the applicant is a better designed project than what was proposed as a conventional subdivision. The cluster development has permitted the applicant to provide open space in perpetuity and preserve a significant number of trees. The cluster design proposed is a benefit not only to the future owners of these units but also adjacent property owners. However, because this is an undeveloped site we also find that there is an opportunity to increase the overall open space and provide a cohesive neighborhood with accessible open space via:

- Reducing the rear yard of each lot and adding that area to common ownership;
- Reducing the side yard width between each building and/or providing shared driveways;
- Make the bio-retention/stormwater area more of a site amenity; and
- Providing a path between lots 6 and 7 to gain access to the large open space in the northeast corner of the development.

**Items to be addressed:** *Potential items to be addressed by applicant are contingent upon the granting of the variance by the Zoning Board of Appeals.*

## AREA, WIDTH, HEIGHT, SETBACKS and REGULATORY FLEXABILITY

The proposed site condominium consists of 10-units with lot sizes ranging between 11,094 square feet to 13,820 square feet. The average lot size is 11,944 square feet. The intent of the cluster development provisions is to relax the typical R-1A district bulk requirements in order encourage a less sprawling form

of development. As set forth in 10.05.E the applicant is able seek specific departures from the dimensional requirements of the Zoning Ordinance for yards and units as a part of the approval process. The table below outlines the bulk requirements for cluster development:

	<u>Required:</u>	<u>Provided:</u>	<u>Compliance:</u>
Density	Overall density shall not exceed the number of residential cluster units as developed under a conventional subdivision, unless a density bonus has been granted by City Council.	Applicant seeking 10 units	8 units is permitted based on underlying zoning, applicant seeking density bonus of two additional units
Perimeter Setback	Equal to the rear yard setback requirement for the underlying zoning district of the property directly adjacent to each border = 40 feet	53 foot minimum	Complies
Front Setback (building)	20 foot setback	25 foot minimum	Complies
Rear Setback (building)	25 foot setback	48 foot minimum	Complies
Side Setback (building)	7.5 foot setback	35 foot minimum	Complies
Open Space Requirements:  Minimum Percentage / Minimum Percentage for Density Bonus	30% / 50%	41%	Applicant complies with minimum open space requirements. Applicant is deficient in open space for density bonus.
Open Space Requirements:  Open space depth adjacent to exterior roads	100 feet in depth	88 feet in depth	Applicant is deficient in open space depth adjacent to Beach Road. At its discretion, the City Council, after favorable recommendation from the Planning Commission, may permit either minor reductions in width or variations in width of the open space along exterior roads.

If the applicant were able to provide the required open space, we would encourage the Planning Commission to consider granting a favorable recommendation to permit the minor open space depth reduction along Beach Road.

**Items to be addressed:** Potential items to be addressed by applicant are contingent upon the granting of the variance by the Zoning Board of Appeals.

**SITE ACCESS AND CIRCULATION**

Vehicular access:

Access to all ten (10) lots will be from a newly constructed public road off of Beach Road aptly named "Beachview Court". The proposed Beachview Court meets all public road requirements; however the City Traffic Engineering Department notes that:

1. The applicant shall show and maintain the 25' x 25' corner clearance on both sides of the new intersection of Beachview Court and Beach Road.
2. An access drive to the detention basin will need to be provided.

These items will be addressed in final engineering.

Pedestrian access:

The applicant is providing a 5-foot wide sidewalk along the entire length of the newly created Beachview Court; however has not shown a sidewalk along Beach Road. In previous submittals, the applicant did show a 5-foot wide sidewalk along Beach Road. The applicant should indicate if they are not proposing a sidewalk along Beach Road. If they are not providing a sidewalk they must seek a waiver from the Traffic Committee.

**Items to be Addressed:** *Provide a 5-foot wide sidewalk along Beach Road or seek a waiver from the Traffic Committee.*

## NATURAL RESOURCES

The subject property is currently unimproved and is encumbered with one regulated wetland and tree stands.

Wetlands:

Wetland "A" is located in the southwest corner of the lot, adjacent to the area proposed for stormwater management. Based a submitted letter from Professional Engineering Associates, Wetland "A" is a regulated wetland due to its location within 500' of a stream. As a result, the applicant is required to take the appropriate measures to protect this wetland. Prior to final site plan approval the applicant is required to receive the appropriate permits from MDEQ, Oakland County Soil Erosion, Oakland County Water Resources Commissioner, City of Troy, and any other appropriate body.

Trees:

Through the cluster design the applicant proposes to preserve a significant more number of individual trees and tree stands than previous submittals. More importantly by maintaining common open space in perpetuity, the trees along the perimeter of the site and those in the northeast corner of the site will remain for their natural life unless removed by action of the common homeowners association.

**Items to be Addressed:** *1.) Obtain all appropriate wetland permits from MDEQ, Oakland County Soil Erosion, Oakland County Water Resources Commissioner, City of Troy, and any other appropriate body prior to final site plan approval*

## LANDSCAPING

The Landscape Plan includes thirty-three (33) Norway Spruces to be planted as screening along Beach Road and a combination of five (5) Sugar Maples, seven (7) Red Maple, and seven (7) Red Oak along the newly created Beachview Court. All proposed species fall within Troy regulations and are not prohibited. In addition the proposed new planting, due to the cluster design the applicant is able to preserve a number of significant trees on site.

Though not required by ordinance, the applicant has shown the installation of twenty (20) Norway Spruces along the southern property line as part of an agreement with the adjacent property owner. The twenty (20) Norway Spruces are only shown on the Site Plan (Sheet P1) and should also be shown on the Landscape Plan.

Site condominium and subdivision landscaping are regulated by Section 13.02.F.2.

	<u>Required:</u>	<u>Provided:</u>	<u>Compliance:</u>
Frontage Screening	Beach Road: One evergreen tree for every 10 lineal feet = 33 trees	33 Spruce	Complies
Greenbelt Street Trees	Beachview Court: 1 tree for every 50 linear feet = 19 trees	19 street trees (5 Sugar Maples, 7 Red Maple, and 7 Red Oak)	Complies

The applicant has provided the required evergreen screen along Beach Road and the required greenbelt planting along Beachview Court. While, the applicant complies with all landscaping requirements, the applicant should relocate the proposed Red Maple that is located where the required access drive to the detention facility will be placed.

**Items to be Addressed:** Relocate the proposed Red Maple that is located where the required access drive to the detention facility will be placed.

**STORMWATER DETENTION**

The applicant’s stormwater detention will connect to a storm sewer approximately 240 feet south of the site through the adjacent southern property. The applicant has received an easement from the adjacent south side property owner. The Engineering Department has reviewed the proposed detention facility and offers the following comments:

1. Size the detention area for a 25-year storm.
2. An easement for detention outlet must be granted to the City of Troy; and
3. Ensure that the proposed detention outlet is spaced a great enough distance to be able to be bored underneath the existing natural water course and have enough cover.

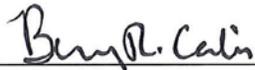
These issues will be addressed in final engineering.

**Items to be Addressed:** None

## RECOMMENDATIONS

We strongly encourage the applicant's attempt at providing a cluster development, and find that the cluster subdivision provided by the applicant is a better designed project than what was proposed as a conventional subdivision. The cluster development has permitted the applicant to provide open space in perpetuity and preserve a significant number of trees. The cluster design proposed is a benefit not only to the future owners of these units but also adjacent property owners. However, because this is an undeveloped site we also find that there is an opportunity to increase the overall open space and provide a cohesive neighborhood with accessible open space via:

- Reducing the rear yard of each lot and adding that area to common ownership;
- Reducing the side yard width between each building and/or providing shared driveways;
- Make the bio-retention/stormwater area more of a site amenity; and/or
- Providing a path between lots 6 and 7 to gain access to the large open space in the northeast corner of the development.



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**CARLISLE/WORTMAN ASSOC., INC.**  
Benjamin R. Carlisle, LEED AP, AICP

**SITE CONDOMINIUM DEVELOPMENT**

8. **PRELIMINARY SITE PLAN REVIEW** – Proposed Beachview Estates Site Condominium, 8 units/lots, West side of Beach Road, 1000’ South of Long Lake, Section 18, Currently Zoned R-1A (One Family Residential) District

Mr. Carlisle gave a report on the proposed site condominium development and stated the proposed development meets all Zoning Ordinance requirements. Mr. Carlisle recommended approval contingent on the applicant satisfying the requirements as noted in his report, dated June 21, 2012.

Mr. Savidant announced correspondence was received by Ali Bazoun of 4855 Beach, of which the Board members received a copy in their agenda packet.

Chair Tagle opened the floor for public comment.

Kathy Kolbe, 4699 White Oaks Court, Troy; addressed public notification of meeting, natural beauty of site, proposed sidewalk, elevations and construction traffic.

Ali Bazoun, 4855 Beach Road, Troy; addressed house representation on site plan and asked petitioner to consider landscape buffer for his property.

Paul Bringer of Dawda, Mann, Mulcahy & Sadler, PLC, 39533 Woodward Avenue, Bloomfield Hills; represents John Abbott of 4751 Beach Road and submitted correspondence dated June 26, 2012.

Chair Tagle closed the floor for public comment.

The petitioner, Joe Maniaci of Mondrian Properties, and Jeremy Carnahan, project civil engineer of Professional Engineering Associates, were present.

There was discussion on:

- Preservation of trees/aesthetics of site.
- Stormwater detention; drainage; grading.
- Cluster development option as alternative.
- Creative development.
- Abutting residential property to south and north.
- Potential for sidewalk waiver.
- Elimination of berm.
- Detention basin maintenance.

**Resolution # PC-2012-06-040**

Moved by: Hutson

Seconded by: Krent

**RESOLVED**, That Preliminary Site Condominium Approval, pursuant to Article 8 and Section 10.02 of the Zoning Ordinance, as requested for Beachview Estates Site

Condominium, 8 units/lots, West side of Beach Road, South of Long Lake, Section 18, within the R-1A (One Family Residential) District, be granted, subject to the following:

1. Obtain all appropriate wetland permits MDEQ, Oakland County Soil Erosion, Oakland County Water Resources Commissioner, City of Troy, and any other appropriate body prior to final site plan approval.
2. Selectively clear only those trees necessary and attempt to preserve as many significant trees as possible.
3. Show the proposed twenty (20) Norway Spruce allocated along the southern property line on the Landscape Plan.

Discussion on the motion on the floor.

**Resolution # PC-2012-06-041**

Moved by: Edmunds

Seconded by: Schepke

**RESOLVED**, To amend the Resolution to postpone the item for two weeks for the developer to come back with an alternate plan that takes into consideration comments made at tonight’s meeting.

Vote on the substitute motion on the floor.

Yes: Edmunds, Krent, Schepke, Schultz, Strat, Tagle

No: Hutson

Absent: Sanzica

**MOTION CARRIED**

Mr. Hutson said he opposes a postponement because the site plan meets all Zoning Ordinance requirements.

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**SITE CONDOMINIUM DEVELOPMENT**

7. **PRELIMINARY SITE PLAN REVIEW** – Proposed Beachview Estates Site Condominium, 8 units/ lots, West side of Beach Road, 1000' South of Long Lake, Section 18, Currently Zoned R-1A (One Family Residential)

Mr. Savidant gave a brief review of the application. Mr. Savidant said the petitioner is making a strong effort toward an alternative plan to incorporate Planning Commission comments expressed at the June 26, 2012 Special/Study meeting.

The petitioner requested a postponement of the item to allow additional time to work on an alternative plan.

**Resolution # PC-2012-07-047**

Moved by: Sanzica  
Seconded by: Schepke

**RESOLVED**, To postpone the item until such time that the applicant submits a complete site plan application.

Yes: All present (5)  
Absent: Schultz, Strat, Tagle

**MOTION CARRIED**



**LEGAL DESCRIPTION**

Part of the northwest 1/4 of Section 18, T. 2 N., R. 11 E., City of Troy, Oakland County, Michigan, commencing at the North 1/4 corner of Section 18; thence along the north-south line S 00°00'25" E, 838.80 feet to the Point of Beginning; thence continuing S 00°00'25" E, 391.05 feet; thence N 89°52'48" W, 607.22 feet to a point on the east line of "Countryside Estates No. 1" (L. 95, P. 27); thence along said line and also the east line of "Countryside Estates" (L. 82, P. 9) N 00°49'00" E, 421.49 feet; thence S 89°50'25" E, 180.00 feet; thence S 00°49'00" W, 30.00 feet; thence S 89°50'25" E, 421.59 feet to the Point of Beginning, containing 5.56 acres and subject to the rights of the public and of any governmental unit in any part of the land taken, used or deeded for road purposes and subject to easements and restrictions of record.

**SITE BENCHMARK**

SET P.K. IN SOUTHWEST FACE OF UTILITY POLE ELEV. = 804.65

PRIMARY SOIL TYPE: MARLETTE SANDY LOAM AND OSHTEMO-BOYER LOAMY SANDS PER OAKLAND COUNTY SOIL SURVEY ISSUED MARCH 1982. NO GEOTECHNICAL INVESTIGATION HAS BEEN PERFORMED BY OWNER.

**REFERENCE BENCHMARKS**

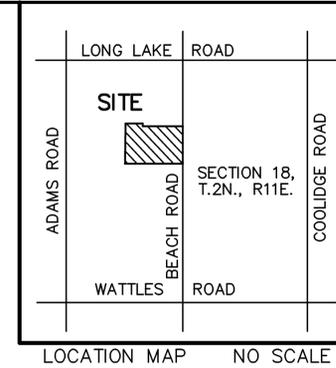
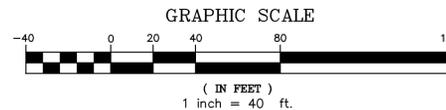
1. NORTH CORNER OF WEST WINGWALL OF BRIDGE AT BEACH RD. AND ROUGE RIVER CROSSINGS. ELEV. = 773.25 NAVD88 DATUM
2. ARROW ON HYDRANT 600' NO. OF BRIDGE AT BEACH RD. AND ROUGE RIVER - EAST SIDE OF BEACH, OPPOSITE RED FOX TRAIL. ELEV. = 780.44 NAVD88 DATUM
3. ARROW ON HYDRANT 1200' NO. OF BRIDGE AT BEACH RD. AND ROUGE RIVER. ELEV. = 787.26 NAVD88 DATUM

**NOTES:**

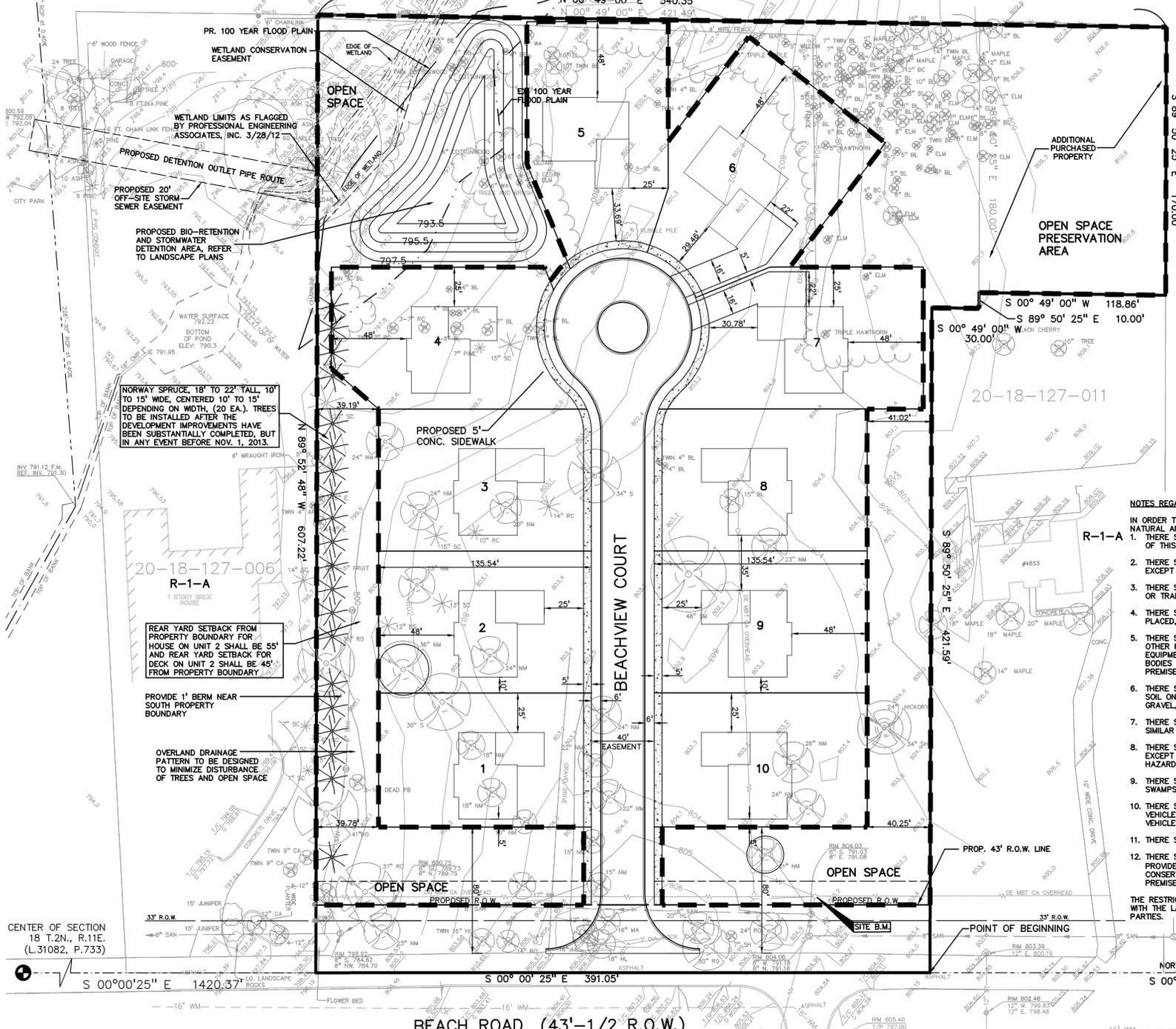
1. THE SANITARY SEWER SYSTEM WILL OUTLET TO AN EXISTING 8" SEWER ON THE WEST SIDE OF BEACH ROAD.
2. THE WATER SYSTEM WILL CONNECT TO THE EXISTING 16" WATER MAIN ON THE EAST SIDE OF BEACH ROAD.
3. STORMWATER WILL BE COLLECTED IN AN UNDERGROUND SYSTEM AND DETAINED IN A DETENTION BASIN ON THE SOUTH SIDE OF THE PROPERTY WHICH WILL HAVE A RESTRICTED OUTLET TO A STORM SEWER APPROXIMATELY 240' SOUTH OF THE SITE.
4. PAVEMENT SHALL BE 28" WD. BACK TO BACK, 7" THICK PORTLAND CEMENT CONCRETE WITH A 4" INTEGRAL MOUNTABLE CURB AND GUTTER.
5. SOIL EROSION CONTROL WILL BE PROVIDED PER THE O.C.W.R.C. AND CITY OF TROY REQUIREMENTS.
6. IMPROVEMENTS IN THE BEACH ROAD RIGHT-OF-WAY WILL BE DONE IN ACCORDANCE WITH THE CITY OF TROY DESIGN STANDARDS.
7. EXISTING AND PROPOSED 100 YEAR FLOOD PLAIN LIMITS SHOWN AS COMPUTED IN A HYDRAULIC STUDY PREPARED BY SPALDING-DEDECKER ASSOCIATES, INC., DATED APRIL 3, 2000 AND ACCEPTED BY THE CITY OF TROY ENGINEERING DEPARTMENT IN A LETTER DATED APRIL 6, 2000.
8. THE MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY HAS DETERMINED THAT IT DOES NOT HAVE JURISDICTION OVER THE FLOODPLAIN IN THIS AREA IN A LETTER DATED FEBRUARY 13, 1999.
9. TREES AND ANY RETAINING WALL ADJACENT TO THE ABBOTT PROPERTY ARE TO BE MAINTAINED IN GOOD CONDITION, AND REPAIRED AND REPLACED, IF AND WHEN NECESSARY, IN PERPETUITY, AT THE SOLE COST AND EXPENSE OF THE DEVELOPER, AND SUBSEQUENTLY THE CONDOMINIUM ASSOCIATION, FOR THE BENEFIT OF THE ABBOTT PROPERTY.
10. SOME PART OF THE HOUSE ON PROPOSED UNIT 2 WILL TOUCH A 25' FRONT SETBACK FROM THE SIDEWALK. THE DEVELOPER WILL USE ITS BEST EFFORTS TO CAUSE SOME PART OF THE HOUSES TO BE CONSTRUCTED ON PROPOSED UNITS 1 AND 3 TO TOUCH A 25' FRONT SETBACK FROM THE SIDEWALK FOR EACH OF THOSE UNITS.
11. THE GRADES SHOWN ON THE SITE PLAN APPLICATION WILL NOT BE RAISED MORE THAN 18" IF REQUIRED DURING THE PREPARATION OF THE FINAL ENGINEERING PLANS.
12. THE PROPOSED DETENTION BASIN AND OUTLET FROM THE PROPOSED DETENTION BASIN TO THE EASEMENT THAT WILL RUN ACROSS THE ABBOTT PROPERTY WILL INCLUDE AN APPROPRIATE OUTFLOW RESTRICTOR SYSTEM THAT WILL BE DESIGNED TO CONTROL THE RATE OF THE FLOW OF WATER THROUGH THE ABBOTT PARCEL. DEVELOPER WILL PROVIDE FOR APPROPRIATE RESTORATION OF THE SITE.
13. THE PROPOSED STORM DRAIN AND EASEMENT ACROSS THE ABBOTT PROPERTY WILL BE LOCATED IN SUCH A MANNER AS TO ATTEMPT TO MINIMIZE THE IMPACT TO THE EXISTING TREES ON THE ABBOTT PROPERTY, WHICH MAY CAUSE THE FINAL EASEMENT LOCATION TO BE SLIGHTLY NORTH OF THE CURRENT LOCATION SHOWN ON THE SITE PLAN.
14. IN THE EVENT THE DETENTION BASIN AND THE EASEMENT ACROSS THE ABBOTT PROPERTY ARE NOT OWNED BY THE CITY OF TROY, THE DETENTION BASIN AND THE OUTFLOW RESTRICTOR SYSTEM ARE TO BE MAINTAINED IN GOOD CONDITION, AND REPAIRED AND REPLACED, IF AND WHEN NECESSARY, IN PERPETUITY, AT THE SOLE COST AND EXPENSE OF THE DEVELOPER, AND SUBSEQUENTLY THE CONDOMINIUM ASSOCIATION, FOR THE BENEFIT OF, AND TO AVOID FLOODING ON, THE ABBOTT PROPERTY.
15. MR. ABBOTT SHALL BE GIVEN APPROPRIATE NOTICE BEFORE ANY WORK IS PERFORMED ON HIS PROPERTY. APPROPRIATE EVIDENCE OF INSURANCE SHALL BE DELIVERED TO MR. ABBOTT FROM THE DEVELOPER AND ALL CONTRACTORS WORKING ON THE ABBOTT PROPERTY PRIOR TO ANY WORK BEING PERFORMED, AND ALL WORK TO BE DONE ON THE ABBOTT PROPERTY SHALL BE DONE IN A MANNER THAT CAUSES THE LEAST POSSIBLE DISRUPTION TO THE USE OF THE ABBOTT PROPERTY.
16. NO WORK WHATSOEVER SHALL BE PERFORMED IN THE BEACH ROAD RIGHT-OF-WAY ALONG THE FRONTAGE OF THE ABBOTT PROPERTY WITHOUT THE MUTUAL AGREEMENT OF THE DEVELOPER AND THE OWNER OF THE ABBOTT PROPERTY.
17. HOUSES TO BE CONSTRUCTED WITHIN BEACHVIEW ESTATES SHALL CONTAIN A MINIMUM OF 3,000 SQUARE FEET OF FLOOR AREA, EXCLUDING GARAGES.
18. ALL SUBDIVISION DEVELOPMENT IMPROVEMENTS SHALL BE SUBSTANTIALLY INSTALLED AND COMPLETED, EXCEPTING ONLY PUNCH LIST OR MINOR ITEMS, WITHIN ONE YEAR OF THE DATE ON WHICH FINAL ENGINEERING APPROVAL IS GRANTED BY THE CITY.
19. THE MASTER DEED FOR BEACHVIEW ESTATES WILL INCLUDE A PROVISION THAT WILL CAUSE THE CONDOMINIUM ASSOCIATION FOR BEACHVIEW ESTATES TO BE BOUND BY APPLICABLE OBLIGATIONS AND RESTRICTIONS SET FORTH IN THESE NOTES.

COUNTRYSIDE ESTATES #1  
(L.95,P.27)  
LOT 22  
20-18-126-011

COUNTRYSIDE ESTATES SUBDIVISION (L.82,P.9)  
LOT 14  
20-18-126-010



NO.	BY	CHK	DESCRIPTION	DATE



**LEGEND**

● IRON FOUND	⊗ BRASS PLUG SET	⊕ SEC. CORNER FOUND
⊙ IRON SET	⊗ MONUMENT FOUND	⊕ RECORDED
⊙ NAIL FOUND	⊗ MONUMENT SET	⊕ MEASURED
⊙ NAIL & CAP SET		⊕ CALCULATED

**EXISTING**

- ELEC.—PHONE OR CABLE TV O.H. LINE, POLE & GUY WIRE
- UG-CATV—UNDERGROUND CABLE TV, CITY PEDESTAL
- ELEC.—PHONE—TELEPHONE U.G. CABLE, PEDESTAL & MANHOLE
- ELEC.—GAS—ELECTRIC U.G. CABLE, MANHOLE, METER & HANDHOLE
- GAS—GAS MAN. VALVE & GAS LINE MARKER
- WATER—WATERMAN, HYO., GATE VALVE, TAPPING SLEEVE & VALVE
- SEWER—SANITARY SEWER, CLEANOUT & MANHOLE
- STORM—STORM SEWER, CLEANOUT & MANHOLE
- COMB.—COMBINED SEWER & MANHOLE
- CATCH—CATCH BASIN
- INLET—INLET (NO INCOMING LINES)
- YARD—YARD DRAIN (2" DIA. & SMALLER)
- POST—POST INDICATOR VALVE
- VALVE—WATER VALVE BODY/IRRIANT VALVE BOX, SERVICE SHUTOFF
- TRANS.—MANHOLE, TRANSFORMER, IRRIGATION CONTROL VALVE
- UNDEF.—UNIDENTIFIED STRUCTURE
- SPOT—SPOT ELEVATION
- AS BUILT—AS BUILT ELEVATION
- CONTOUR—CONTOUR LINE
- FENCE—FENCE
- GUARD—GUARD RAIL
- STREET—STREET LIGHT
- SIGN—SIGN

**REFERENCE DRAWINGS**

- CONC.—CONCRETE
- ASPH.—ASPHALT
- WETLAND—WETLAND
- GRAVEL—GRAVEL SHOULDER

SANITARY SEWER CITY OF TROY, JOB #88-4-011 DATED 1/4/90

- NOTES REGARDING "ADDITIONAL PURCHASED PROPERTY"**
- IN ORDER TO ASSURE THAT THE PREMISES WILL BE PERPETUALLY PRESERVED IN ITS PRESENT NATURAL AND UNDEVELOPED CONDITION, THE FOLLOWING RESTRICTIONS ARE IMPOSED:
1. THERE SHALL BE NO CHANGE IN THE USE OR USES OF THE PREMISES THAT EXIST AS OF THE DATE OF THIS CONVEYANCE.
  2. THERE SHALL BE NO DISPLAY OF BILLBOARDS, SIGNS OR OTHER ADVERTISEMENTS ON THE PREMISES, EXCEPT TO PROVIDE WARNINGS.
  3. THERE SHALL BE NO CONSTRUCTION, PLACEMENT OR MAINTENANCE OF ANY WALKWAY, PATH, SIDEWALK, OR TRAIL OF ANY KIND OR NATURE ON THE PREMISES.
  4. THERE SHALL BE NO BUILDING OR OTHER TEMPORARY OR PERMANENT STRUCTURE CONSTRUCTED, PLACED, OR PERMITTED TO REMAIN ON THE PREMISES.
  5. THERE SHALL BE NO ACCUMULATIONS OR DUMPING OF SOIL, SAND, GRAVEL, CONCRETE, ROCK OR OTHER MINERAL OR FILL MATERIAL OR SUBSTANCE, TRASH, GARBAGE, CONSTRUCTION MATERIALS OR EQUIPMENT, HAZARDOUS WASTE OR OTHER POLLUTANTS, YARD WASTE, ASHES, GARBAGE, VEHICLE BODIES OR PARTS, ABANDONED PROPERTY OR OTHER UNSIGHTLY OR OFFENSIVE MATERIAL ON THE PREMISES.
  6. THERE SHALL BE NO ALTERATION OR MANIPULATION OF THE TOPOGRAPHY OR THE NATURAL MINERAL SOIL ON THE PREMISES. ALL FILLING, EXCAVATING, MINING, DRILLING, REMOVAL OF TOPSOIL, SAND, GRAVEL, ROCK, OR MINERALS IS PROHIBITED.
  7. THERE SHALL BE NO CONSTRUCTION OR PLACEMENT OF FENCES, SCREENS, HEDGES, WALLS OR OTHER SIMILAR BARRIERS ON THE PREMISES.
  8. THERE SHALL BE NO REMOVAL OR DESTRUCTION OF TREES, SHRUBS, PLANTS AND OTHER VEGETATION, EXCEPT FOR THE REMOVAL OF VEGETATION WHICH CONSTITUTES A SAFETY, HEALTH, OR ECOLOGICAL HAZARD.
  9. THERE SHALL BE NO ALTERATION OR MANIPULATION OF NATURAL WATER COURSES, SHORES, MARSHES, SWAMPS, WETLANDS OR OTHER WATER BODIES LOCATED ON THE PREMISES.
  10. THERE SHALL BE NO OPERATION OR STORAGE OF TRUCKS, AUTOMOBILES, DUNE BUGGIES, ALL-TERRAIN VEHICLES, MOTORCYCLES, MOTORBIKES, SNOWMOBILES, BULLDOZERS, BACKHOES, OTHER MOTORIZED VEHICLES OR MECHANICAL EQUIPMENT ON THE PREMISES.
  11. THERE SHALL BE NO INDUSTRIAL OR COMMERCIAL ACTIVITIES CONDUCTED ON THE PREMISES.
  12. THERE SHALL BE NO SEPARATION OR SPLIT-OFF OF LOTS, PIECES, OR PARCELS FROM THE PREMISES; PROVIDED, HOWEVER, THAT THE GRANTEE(S) MAY GRANT TO A PUBLIC BODY OR BODIES OPEN-SPACE, CONSERVATION OR HISTORIC PRESERVATION EASEMENTS WHICH APPLY TO ALL OR PART OF THE PREMISES.
- THE RESTRICTIONS SET FORTH HEREIN, INCLUDING THE BENEFITS AND BURDENS, SHALL RUN WITH THE LAND AND BE BINDING UPON THE HEIRS, TRANSFERREES, SUCCESSORS AND ASSIGNS OF THE PARTIES.

**OPEN SPACE CALCULATION:**  
GROSS SITE AREA: 5.63 ACRES  
OPEN SPACE PROVIDED: 2.31 ACRES (41%)

**CAUTION!!**  
THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE BASED ON RECORD DRAWINGS AND FIELD SURVEY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXISTENCE AND DEPTH OF ALL UTILITIES PRIOR TO THE START OF CONSTRUCTION.

THIS DRAWING AND DESIGN ARE THE PROPERTY OF PROFESSIONAL ENGINEERING ASSOCIATES, INC. THEY ARE NOT TO BE REPRODUCED OR COPIED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF PROFESSIONAL ENGINEERING ASSOCIATES, INC. ALL COMMON LAW RIGHTS OF COPYRIGHT AND OTHER RIGHTS ARE HEREBY SPECIFICALLY RESERVED. © 2012 PROFESSIONAL ENGINEERING ASSOCIATES, INC.

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTORS SHALL BE REQUIRED TO REMOVE SOIL AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL BE MADE TO APPLY TO CONTRACTORS AND SHALL BE LIMITED TO NORMAL WORKING HOURS AND CONSTRUCTION CONTRACTORS SHALL BE RESPONSIBLE TO NOTIFY THE OWNER AND HOLD DESIGN PROFESSIONAL PERSONS FROM ANY AND ALL LIABILITY, INCLUDING ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DESIGN PROFESSIONAL.

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Fax: (248) 689-1044  
website: www.peainc.com

**MONDRIAN PROPERTIES**  
50215 SCHOENHERR  
SHELBY TOWNSHIP, MI 48315

**PRELIMINARY SITE PLAN**  
**BEACHVIEW ESTATES SITE CONDOMINIUM**  
A PART OF THE NW 1/4 OF SECTION 18, T.2N., R.11E.  
CITY OF TROY, OAKLAND COUNTY, MICHIGAN

DES. JEC JEC SUR. RS  
DN. JEC SUR. RS  
P.M. DNH

ORIGINAL ISSUE DATE: OCT. 12, 2012  
PEA JOB NO. 2011-150  
SCALE: 1" = 40'  
DRAWING NUMBER:  
**P-1**





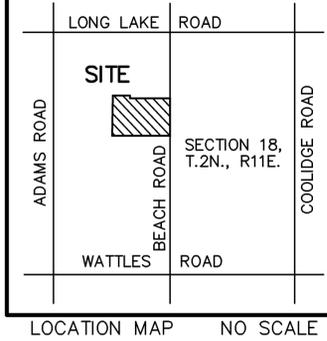
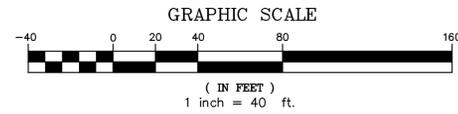
**LEGAL DESCRIPTION**  
 Part of the northwest 1/4 of Section 18, T. 2 N., R. 11 E., City of Troy, Oakland County, Michigan, commencing at the North 1/4 corner of Section 18; thence along the north/south 1/4 line S 00°00'25" E, 838.80 feet to the Point of Beginning; thence continuing S 00°00'25" E, 391.05 feet; thence N 89°52'48" W, 807.22 feet to a point on the east line of "Countryside Estates No. 1" (L. 95, P. 27); thence along said line and also the east line of "Countryside Estates" (L. 82, P. 9) N 00°49'00" E, 421.49 feet; thence S 89°50'25" E, 180.00 feet; thence S 00°49'00" W, 30.00 feet; thence S 89°50'25" E, 421.59 feet to the Point of Beginning, containing 5.55 acres and subject to the rights of the public and of any governmental unit in any part of the land taken, used or deeded for road purposes and subject to easements and restrictions of record.

**SITE BENCHMARK**  
 SET P.K. IN SOUTHWEST  
 FACE OF UTILITY POLE  
 ELEV. = 804.65

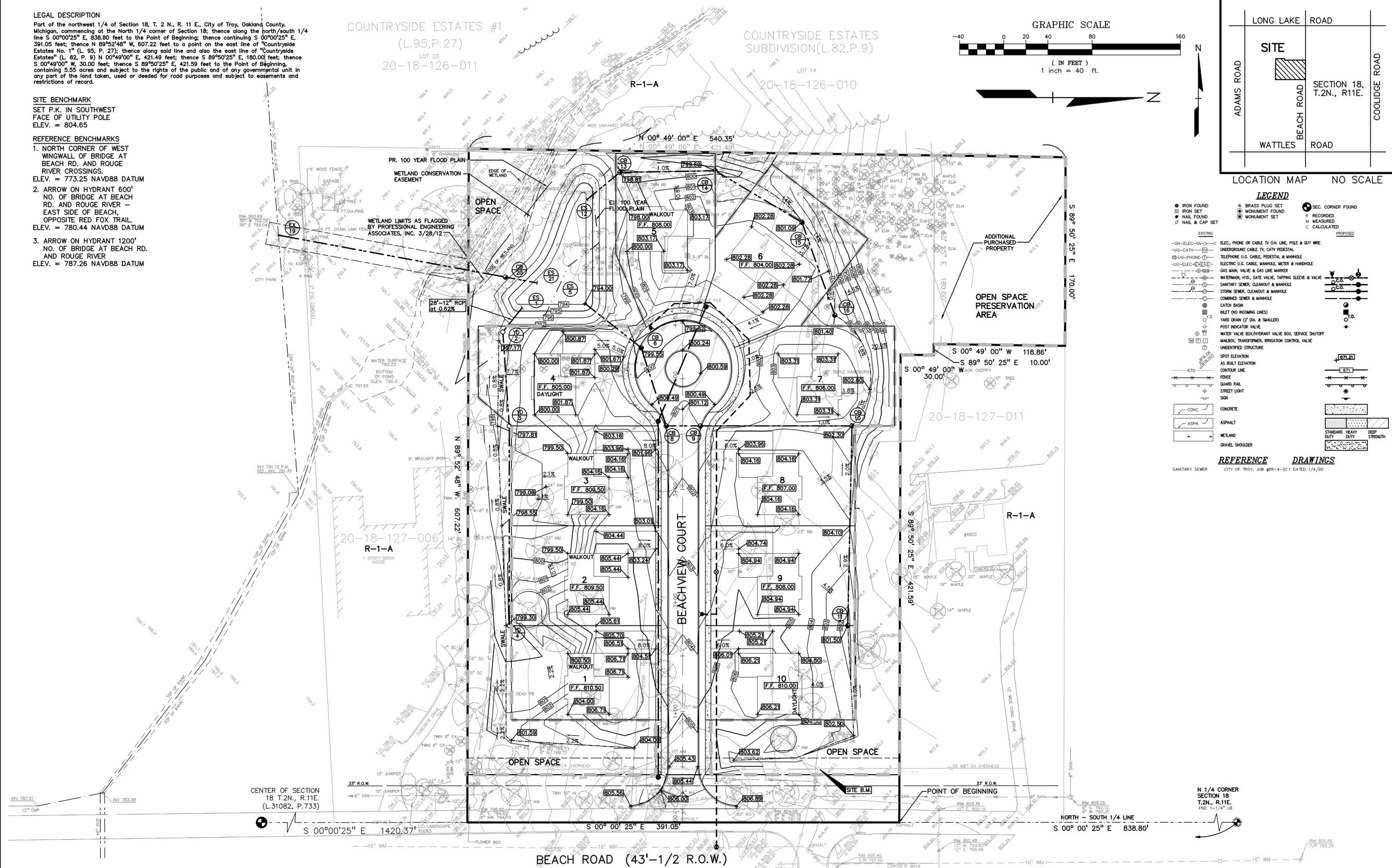
**REFERENCE BENCHMARKS**  
 1. NORTH CORNER OF WEST  
 WINGWALL OF BRIDGE AT  
 BEACH RD. AND ROUGE  
 RIVER CROSSINGS.  
 ELEV. = 773.25 NAVD88 DATUM  
 2. ARROW ON HYDRANT 600'  
 NO. OF BRIDGE AT BEACH  
 RD. AND ROUGE RIVER -  
 EAST SIDE OF BEACH,  
 OPPOSITE RED FOX TRAIL.  
 ELEV. = 780.44 NAVD88 DATUM  
 3. ARROW ON HYDRANT 1200'  
 NO. OF BRIDGE AT BEACH RD.  
 AND ROUGE RIVER  
 ELEV. = 787.26 NAVD88 DATUM

COUNTRYSIDE ESTATES #1  
 (L. 95, P. 27)  
 LOT 22  
 20-18-126-011

COUNTRYSIDE ESTATES  
 SUBDIVISION (L. 82, P. 9)  
 LOT 14  
 20-18-126-010



NO.	BY	CHK.	DESCRIPTION	DATE



**LEGEND**

● IRON FOUND	○ BRASS PLUG SET	○ SEC. CORNER FOUND
○ IRON SET	○ MONUMENT FOUND	○ RECORDED
● NAIL FOUND	○ MONUMENT SET	○ MEASURED
○ NAIL & CAP SET		○ CALCULATED

**EXISTING**

- ELEC. PHONE OR CABLE TV O.H. LINE, POLE & GUY WIRE
- UO-CATV
- UO-CATV
- UO-ELEC. TELEPHONE U.S. CABLE, PEDESTAL & MANHOLE
- UO-ELEC. ELECTRIC U.S. CABLE, MANHOLE, METER & HANDHOLE
- GAS MAIN, VALVE & GAS LINE MARKER
- WATER MAIN, HYD. GATE VALVE, TAPPING SLAVE & VALVE
- SANITARY SEWER, CLEANOUT & MANHOLE
- STORM SEWER, CLEANOUT & MANHOLE
- COMBINED SEWER & MANHOLE
- CATCH BASIN
- INLET (NO INCOMING LINES)
- YARD DRAIN (2" DIA. & SMALLER)
- POST INDICATOR VALVE
- WATER VALVE, SOFTENING VALVE BOX, SERVICE SHUTOFF
- MILKBOX, TRANSFORMER, BRIGATION CONTROL VALVE
- UNIDENTIFIED STRUCTURE
- SPOT ELEVATION
- AS BUILT ELEVATION
- CONTOUR LINE
- FENCE
- GUARD RAIL
- STREET LIGHT
- SIGN

**PROPOSED**

- CONC. CONCRETE
- ASPH. ASPHALT
- WETLAND
- GRAVEL SHOULDER
- STANDARD HEAVY DUTY
- DEEP STRENGTH

**REFERENCE DRAWINGS**  
 CITY OF TROY, JOB #88-4-011 DATED 1/4/90

**CAUTION!**  
 THE LOCATION AND DEPTH OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE THE PROPERTY OF THE UTILITIES AND ARE NOT TO BE USED, REPRODUCED, OR COPIED, IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF PROFESSIONAL ENGINEERING ASSOCIATES, INC. ALL COMMON LAW RIGHTS OF COPYRIGHT AND OTHER RIGHTS ARE HEREBY SPECIFICALLY RESERVED. © 2012 PROFESSIONAL ENGINEERING ASSOCIATES, INC.

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL BE MADE TO THE CONTRACTOR AND NOT LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND HOLD DESIGN PROFESSIONAL LIABILITY FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT EXCEPT LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DESIGN PROFESSIONAL.

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**MONDRIAN PROPERTIES**  
 50215 SCHOENHERR  
 SHELBY TOWNSHIP, MI 48315

**PRELIMINARY GRADING PLAN**  
**BEACHVIEW ESTATES SITE CONDOMINIUM**  
 A PART OF THE LAND IN SECTION 18, T. 2N., R. 11E., CITY OF TROY, OAKLAND COUNTY, MICHIGAN

DES.	JEC	DN	JEC	SUR.	RS	P.M.	DNT
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ORIGINAL  
 ISSUE DATE: OCT. 12, 2012  
 PEA JOB NO. 2011-150  
 SCALE: 1" = 40'  
 DRAWING NUMBER:  
**P-2**



**PROFESSIONAL ENGINEERING ASSOCIATES, INC.**  
Civil Engineers | Land Surveyors | Landscape Architects

Howell Office • 2900 E. Grand River Ave. • Howell, MI 48843  
(P) 517.546.8583 • (F) 517.546.8973 • [www.peainc.com](http://www.peainc.com)

April 4, 2012

**PEA Project No. 2011-150**

Mondrian Properties  
50215 Schoenher  
Shelby Township, MI 48315

**RE: WETLAND DELINEATION  
BEACHVIEW ESTATES  
CITY OF TROY, OAKLAND COUNTY, MI**

On March 28, 2012, Professional Engineering Associates evaluated the subject property for the field indicators of the presence of wetlands as defined by the State of Michigan. Pink wetland survey ribbons were used to delineate a wetland boundary on the 5.5 acre site when all three wetland indicators were present (wetland hydrology, hydric soils, and hydrophytic vegetation) as defined by USACE wetland delineation manual (1987) and the Interim Regional Supplement, Midwest Manual (2008).

The site is located on the west side of Beach Road between Long Lake and Wattles Roads in the City of Troy. The property is undeveloped but previously disturbed. There are areas of rubble and evidence of past clearing and grading. The site is currently vegetated including fields at the east end of the site, scrub brush and wooded areas at the west end of the site.

At the time of the delineation, one wetland was identified on the property. This wetland consisted of a stream that transects the southwest corner of the site. The following report summarizes the characteristics of the wetlands on the property as it appeared at the time of the delineation.

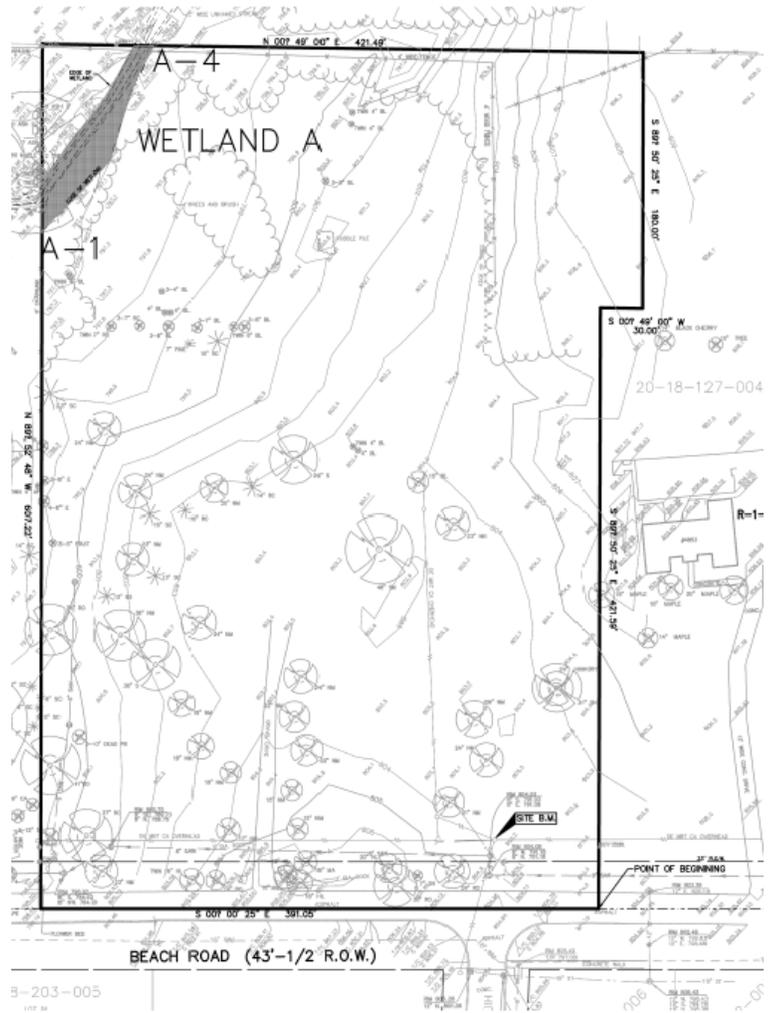
**WETLAND AREA 'A' - FLAG # A-1 TO A-4**

This wetland is located at the southwest corner of the site and is approximately 2800 sf on the site, but extends off the site. It consists of an unnamed stream that has evidence of bed, bank, and flow and the fringe area on either side of the stream. On the west side of the stream the wetland extends only to the top of bank. On the east side the wetland extends up to 20' past the top of bank of the stream. The stream itself varies in depth from 6" to 24" and exhibited almost no flow on the day of the site inspection. The wetland consisted of all three wetland indicators. The hydrology indicators include water stained leaves, sediment deposits, saturation, water marks, and surface water. A soils evaluation revealed hydric soil was present (thick dark surface, A12). Hydrophytic vegetation was dominant including box elder (*Acer negundo*), red twig dogwood (*Cornus stolonifera*), Bluegrass (*Poa pratensis*). The wetland boundary was defined by the change in hydrology.





*Photo of wetland & stream near sample point location at southwest corner of wetland*



**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY WETLAND REGULATIONS**

Wetlands within 500' of an inland lake, pond, river, or stream, as defined by Part 303 of the Wetlands Protection Act are considered a regulated wetland.

Wetlands that are not within 500' of an inland lake, pond, river, or stream but are more than 5 acres in size, are considered regulated wetlands.

The MDEQ reserves the right to regulate wetlands less than 5 acres in size and more than 500 feet from an inland lake, pond, river, or stream if the MDEQ has determined that these wetlands are essential to the preservation of the State's natural resources.

The MDEQ requires that any wetland alterations that total over 1/3 of an acre in size must be mitigated. The MDEQ can also require mitigation of smaller areas of disturbance, if they believe the wetland to be of high environmental significance for habitat or water quality. The preference of the MDEQ is that wetland mitigation takes place on the project property.

**OPINION OF REGULATORY STATUS**

Many factors influence the extent of a wetland boundary, including weather patterns, drainage, changes in vegetation, and activities on the site or on adjacent properties at the time of the investigation. The wetland observations completed by PEA for the subject parcel are based on the conditions of the site at the time of our investigation and current policy regarding the procedures used to delineate wetlands.

Please be advised that the MDEQ, U.S. Army Corps of Engineers, and the U.S. Environmental Protection Agency regulate wetlands and ultimately reserve final judgment on the extent of wetlands on any given site. The determination of a wetland on a specific site can vary depending on the conditions offered above, as well as on the agency representative conducting the determination, and current wetland regulations.

The following regulatory status of the wetlands is the opinion of Professional Engineering Associates, Inc. based on the field conditions at the time of the wetland delineation and verification on March 28 , 2012.

**Wetland Area 'A' - Regulated** due to its location within 500' of a stream

Prepared by:

**PROFESSIONAL ENGINEERING ASSOCIATES, INC.**  
Jeffrey T. Smith, RLA, LEED A.P.  
Senior Landscape Architect

**WETLAND DETERMINATION DATA FORM – Midwest Region**

Project/Site: Beachview Estates City/County: Troy, Oakland Sampling Date: 3-28-12  
 Applicant/Owner: \_\_\_\_\_ State: MI Sampling Point: A  
 Investigator(s): JTS Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_  
 Slope (%): Flat - 1% Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No _____	
Remarks:			

**VEGETATION – Use scientific names of plants.**

Tree Stratum (Plot size: <u>30'R</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Prunus pennsylvanica</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. <u>Acer negundo</u>	<u>50</u>	<u>Y</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>55</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>15'R</u> )				
1. <u>R. Cornus stolonifera</u>	<u>50</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Acer negundo</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
<u>65</u> = Total Cover				
Herb Stratum (Plot size: <u>5'R</u> )				
1. <u>Poa pratensis</u>	<u>25</u>	<u>Y</u>	<u>FAC-</u>	
2. <u>Fragaria virginiana</u>	<u>3</u>	<u>N</u>	<u>FAC-</u>	
3. <u>Taraxacum officinale</u>	<u>2</u>	<u>N</u>	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>30</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____				
Remarks: (Include photo numbers here or on a separate sheet.)				

**SOIL**

Sampling Point: \_\_\_\_\_

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
8"	10YR 3/2	80	N/A				Mucky Mineral	
10"	10YR 4/4	75	10YR 4/6	25	RLD	PL	Mucky Mineral	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 5 cm Mucky Peat or Peat (S3)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- Coast Prairie Redox (A16)
- Iron-Manganese Masses (F12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks: water in hole @ 18"

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
<input checked="" type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input checked="" type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input checked="" type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)		

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches): 24"  
 Water Table Present? Yes  No  Depth (inches): 18"  
 Saturation Present? (includes capillary fringe) Yes  No  Depth (inches): \_\_\_\_\_

Wetland Hydrology Present? Yes  No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: 10' wet. water channel, no flow, up to 2' deep

**NOTES :**

- SECOND FLOOR FRAMING SUPPORTING ELEMENTS HAVE BEEN DESIGNED FOR DEAD LOAD = 10 PSF  
LIVE LOAD = 40 PSF
- ALL FLOOR JOISTS SHALL BE 2x12 HEM-FIR #2 JOISTS @ 16" O.C. UNLESS OTHERWISE NOTED.
- ALL HEADERS IN BEARING WALLS SHALL BE MIN. (2) 2x8 HEM-FIR #2 OR BETTER UNLESS OTHERWISE NOTED.
- PROVIDE MIN. (2) 2x4 / (2) 2x6 SFF STUD GRADE OR BETTER PER STUD WALL SIZE UNDER EACH END OF ALL HEADERS/ BEAMS, UNLESS OTHERWISE NOTED.
- ALL EXTERIOR BEARING WALLS ARE 2x4 / 2x6 SFF STUD GRADE OR BETTER @ 16" O.C. UNLESS OTHERWISE NOTED.
- JOIST LAYOUT SHOWN IN THE FRAMING PLAN IS ONLY FOR GUIDANCE & SHALL NOT BE USED AS SHOP DIMS. SUPPLIER TO ENSURE THE UNOBSTRUCTED PLUMBING, HVAC OPENING & HEADROOM CLEARANCE.
- ALL MULTI JACKS / STUDS TO BE GLUED AND NAILED WITH 2 ROWS OF 12d NAILS @ 12" O.C. (TYPICAL)
- PROVIDE SOLID BLOCKING/CONTINUOUS POST ALL THE WAY TO BASEMENT TO PROVIDE CONTINUOUS BEARING PATH
- SPACING OF JOISTS UNDER CERAMIC/ MARBLE TILE FINISHES SHALL NOT BE MORE THAN 16" O.C.
- PROVIDE DBL. JOIST UNDER ALL PARTITION WALLS PARALLEL TO JOIST DIRECTION UNLESS NOTED OTHERWISE.
- ALL INTERIOR BEARING WALLS ARE 2x4 SFF STUD GRADE OR BETTER @ 16" O.C. UNO.
- PROVIDE 4"x3 1/2"x1/4" THK. STL. ANGLE @ OPENINGS LESS THAN 5'-0" WIDTH TO SUPPORT BRICK VENEER. PROVIDE 6"x4"x3/8" THK. STL. ANGLE (LLV) @ OPENINGS GREATER THAN 5'-0" WIDTH UNO.

NOTCHES IN SAUN LUMBER SHALL BE IN COMPLIANCE WITH R602.1, R502.2 AND R602.6 OF THE MICHIGAN 2000 CODE

**FLOOR JOIST REQUIREMENT.**

ALL FLOOR JOIST LAYOUTS SHOWN ON PLAN ARE BASED ON L/480 LIVE LOAD DEFLECTION. JOIST MANUFACTURER IS TO DESIGN THE FLOOR SYSTEM BASED ON THIS. IF LAYOUT CHANGES TRUSS COMPANY MUST NOTIFY THE DESIGNER IMMEDIATELY

**NOTE TO TRUSS MANUFACTURER**

PRE-ENG W/D GIRDER TRUSSES SHOWN ON PLAN ARE LOCATED SPECIFICALLY TO ALLOW BEARING ON STL. BEAMS & BASEMENT WALLS. IF GIRDER LOCATIONS ARE MOVED TRUSS COMPANY MUST NOTIFY THE DESIGNER IMMEDIATELY

**EGRESS WINDOW REQUIREMENTS**

- MIN. NET CLEAR OPENING 5.7 SQ. FDT. ( SECOND FLOOR BEDROOM )
- MIN. NET CLEAR OPENING 5.0 SQ. FT. ( FIRST FLOOR BEDROOM OPENING )
- MIN. CLEAR HEIGHT 24"
- MIN. CLEAR WIDTH 20"
- MAX. SILL HEIGHT 44"

**AREAS THAT REQ. TEMPERED GLASS**

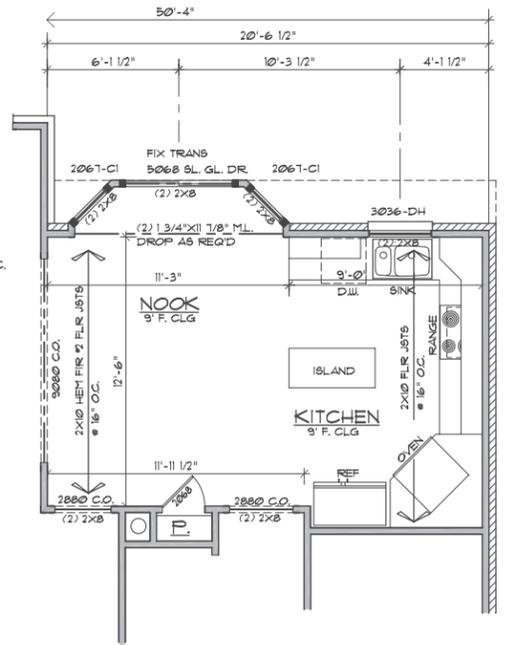
- FIXED AND SLIDING PANELS OF SLIDING TYPE DOORS
- SHOWER AND BATHUB DOORS AND ENCLOSURES (IF APPLICABLE)
- PANELS WITH A GLAZED AREA IN EXCESS OF 9 SQ. FT. WITH LOWEST EDGE LESS THAN 18 INCHES ABOVE THE FINISHED FLOOR LEVEL
- ALL OTHER AREAS AS CODE REQUIRES

**FIRE SEPARATION**

FOR CONDITIONS WITH LIVING SPACE OVER GARAGE ONLY  
HOUSE WALL: SYSTEM SIMILAR TO UL DES. UL305: 1 LAYER 5/8" SHEETROCK BRAND GYPSUM PANELS, WATER RESISTANT, FIRECODE CORE EACH SIDE - 2" x 6" STUDS 16" O.C. - 5 1/2" INSULATION

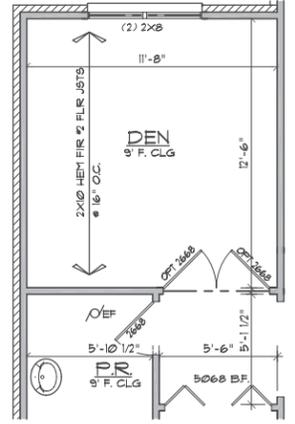
EXTERIOR GARAGE WALL: (SUPPORTING LIVING SPACE ONLY). SYSTEM SIMILAR TO UFP 8105: 1 LAYER 5/8" FIRE SHIELD GYPSUM WALLBOARD - 2" x 6" STUDS @ 16" O.C. - 1/2" APA WOOD SHEATHING.

CEILING: SYSTEM SIMILAR TO C 2601: 2 LAYERS 5/8" FIRE SHIELD WALLBOARD - UNFACED GLASS FIBER BATTS SUSPENDED ABOVE DRYWALL WITH WIRE HANGERS PROVIDING A CONTINUOUS 1/2" MINIMUM AIRSPACE BETWEEN DRYWALL AND INSULATION.



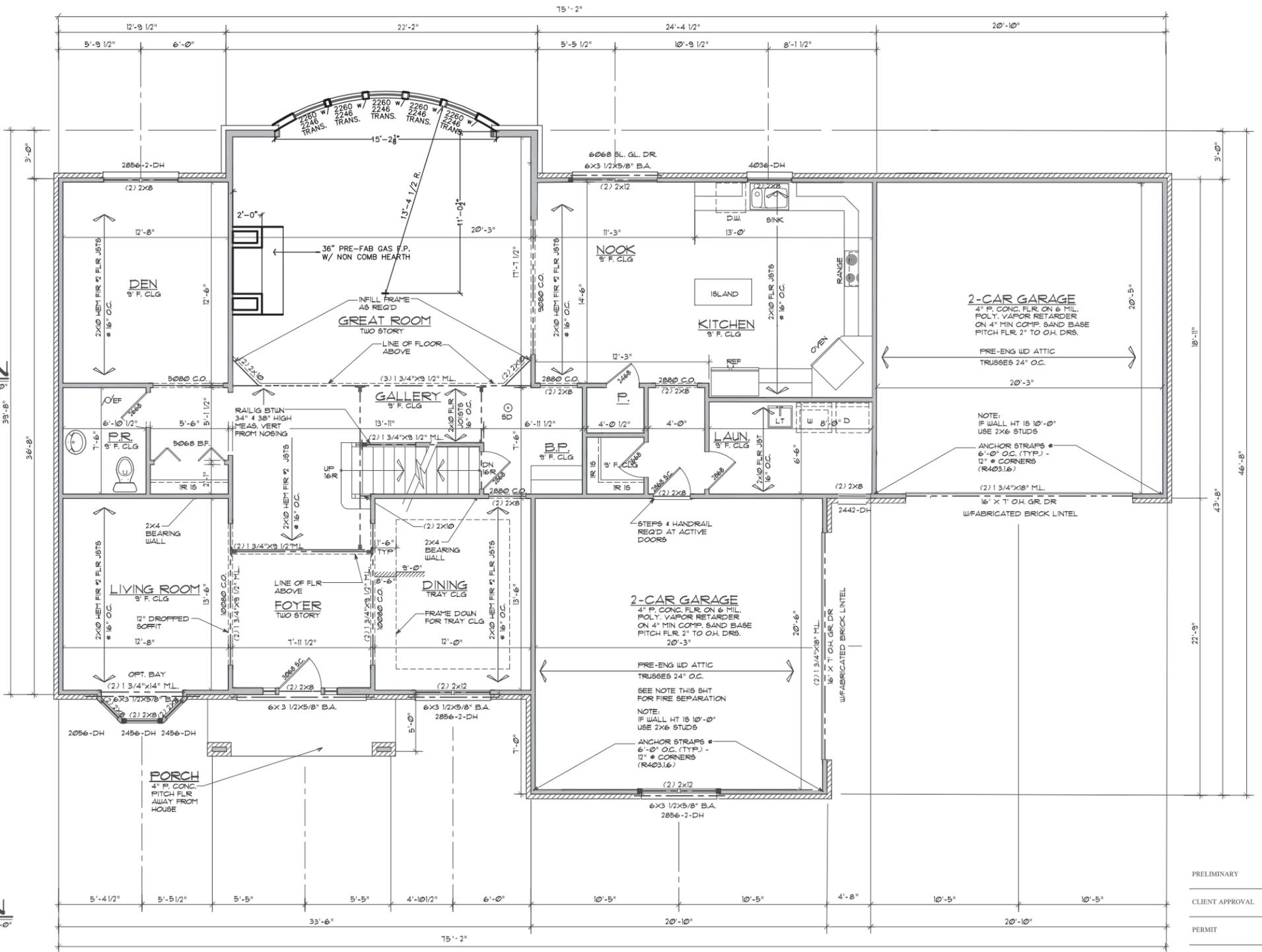
**OPTIONAL BAY AT KITCHEN**  
SCALE: 1/4" = 1'-0"

NAME: \_\_\_\_\_  
DATE: \_\_\_\_\_



**OPTIONAL DBL DR AT DEN**  
SCALE: 1/4" = 1'-0"

NAME: \_\_\_\_\_  
DATE: \_\_\_\_\_



**FIRST FLOOR PLAN**

NO SCALE  
ALL WALLS ARE 3 1/2" UNLESS NOTED OTHERWISE.  
ALL EXTERIOR BEARING HEADERS SHALL BE (2) 2x8 UNLESS NOTED OTHERWISE

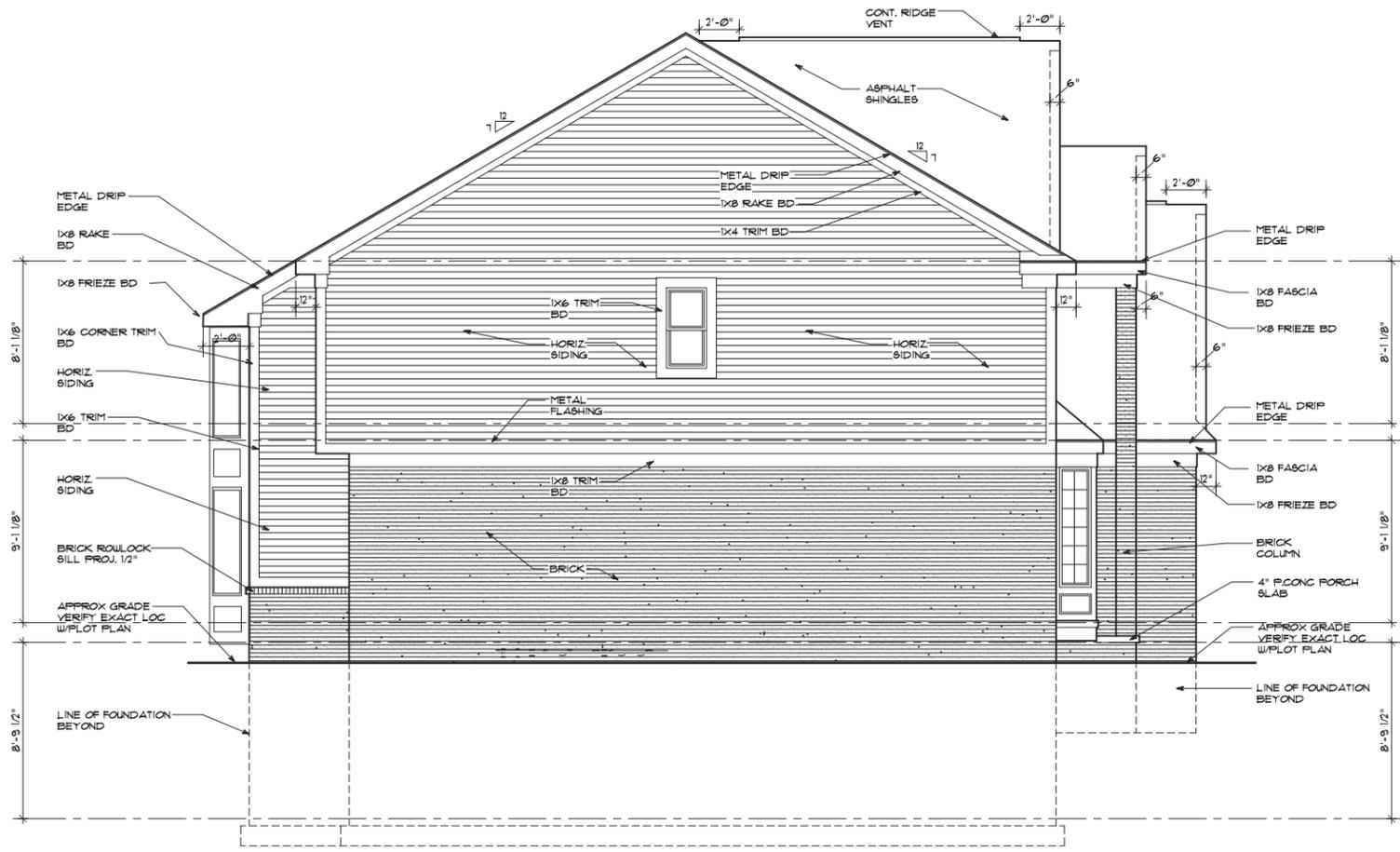
1946 @  
415 @ GARAGE X2

**WINDOW NOMENCLATURE**

FIRST TWO DIGITS = GLASS WIDTH, LAST TWO DIGITS = GLASS HEIGHT. LETTERS INDICATE UNIT TYPE. EXAMPLES:  
2436C IS 24" WIDE x 36" HIGH CASEMENT  
2028CH IS 20" WIDE x 28" HIGH DBL. HUNG  
3620A IS 36" WIDE x 20" HIGH ALUING  
2468FXD IS 24" WIDE x 68" HIGH FIXED.

PRELIMINARY
CLIENT APPROVAL
PERMIT
REVISION
PROJECT #
SHEET No





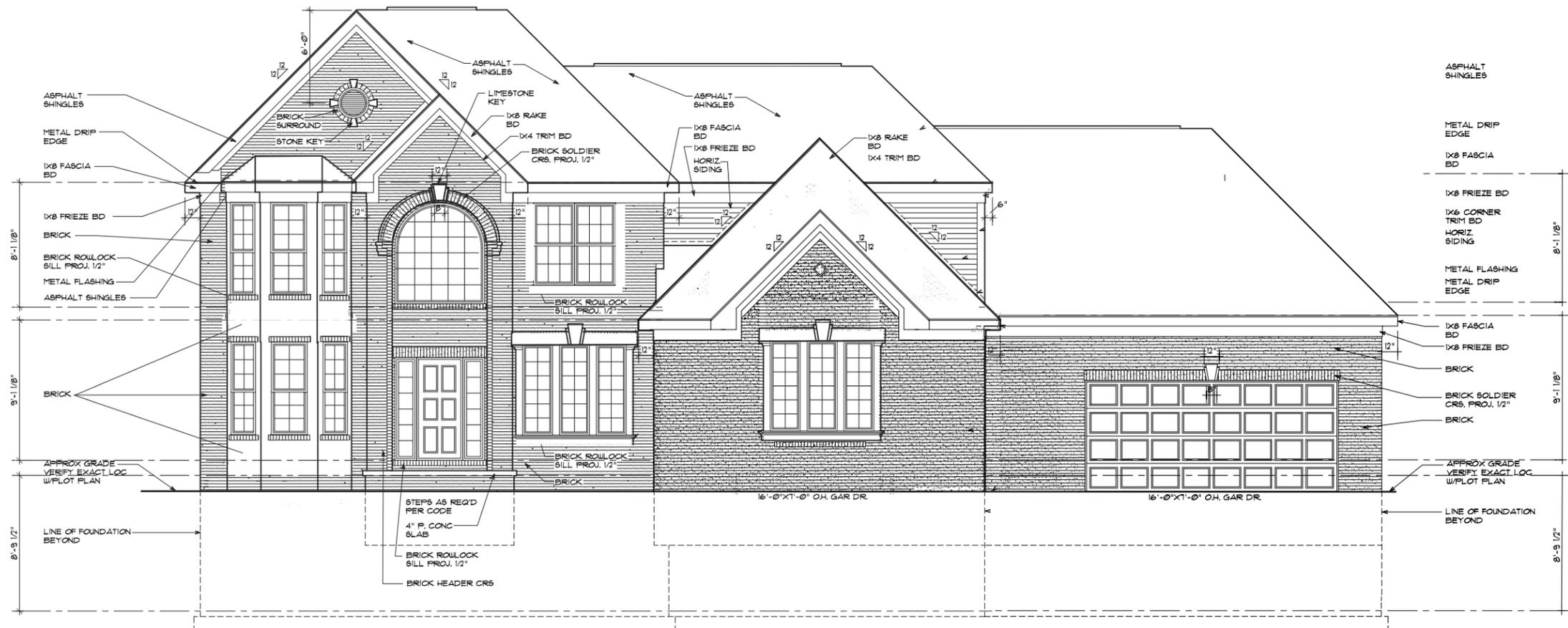
**LEFT ELEVATION**  
SCALE: 1/4" = 1'-0"

**ELEVATION NOTES**

1. PROVIDE DRIP CAPS AT ALL WINDOWS AND DOORS
2. ALL ROOF SADDLES TO BE PLYWOOD SHEATHED WITH ICE & WATER SHIELD AND SHINGLES.
3. PROVIDE ICE & WATER SHIELD MIN. 6'-0" COVERAGE AT ALL VALLEYS
4. FIREPLACE FLUE TO BE MIN 2'-0" ABOVE ANY ROOF SURFACE WITHIN 10'-0" HORIZONTALLY, MIN 3'-0" PENETRATION ABOVE ROOF TOP.

**NOTE:**  
GUTTERS AND DOWNSPOUTS ARE NOT SHOWN FOR CLARITY. DOWNSPOUTS SHALL BE LOCATED TO ALLOW DRAINAGE TO FLOW AWAY FROM HOUSE, ADJACENT STRUCTURES AND COMMON PROPERTY LINES. LOCATE DOWNSPOUTS IN NON-VISUALLY OFFENSIVE LOCATIONS. DO NOT LOCATE DOWNSPOUTS ON FRONT FACADE OF HOUSE OR ALONG FRONT FACING PORCH COLUMNS.

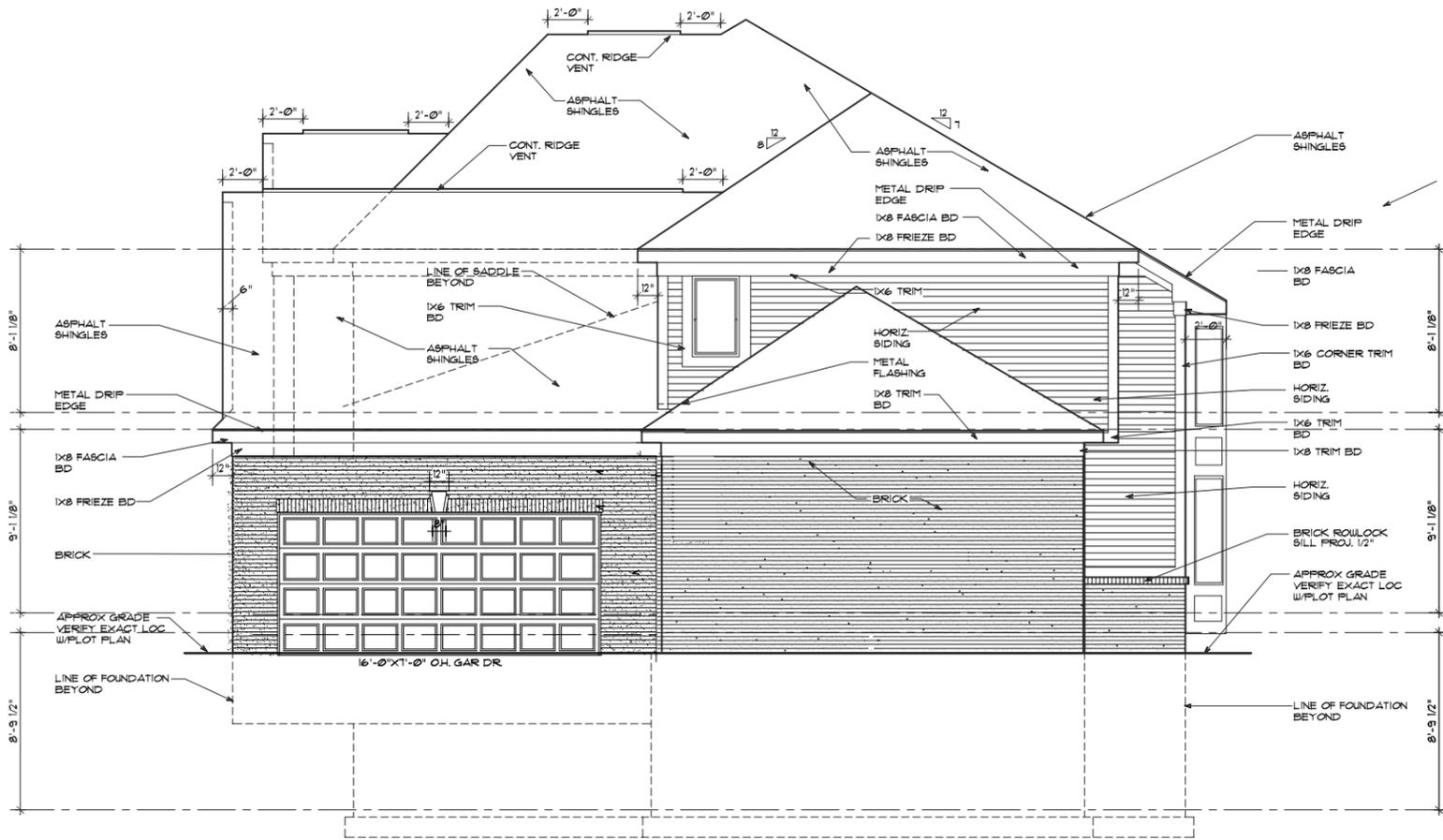
**NOTE:**  
PLUMBING AND HVAC VENTS SHALL BE GROUPED IN ATTIC TO LIMIT THE NUMBER OF ROOF PENETRATIONS. ALL ROOF PENETRATIONS SHALL OCCUR TO THE REAR OF THE HOUSE AND BE PAINTED TO MATCH THE ROOF COLOR.



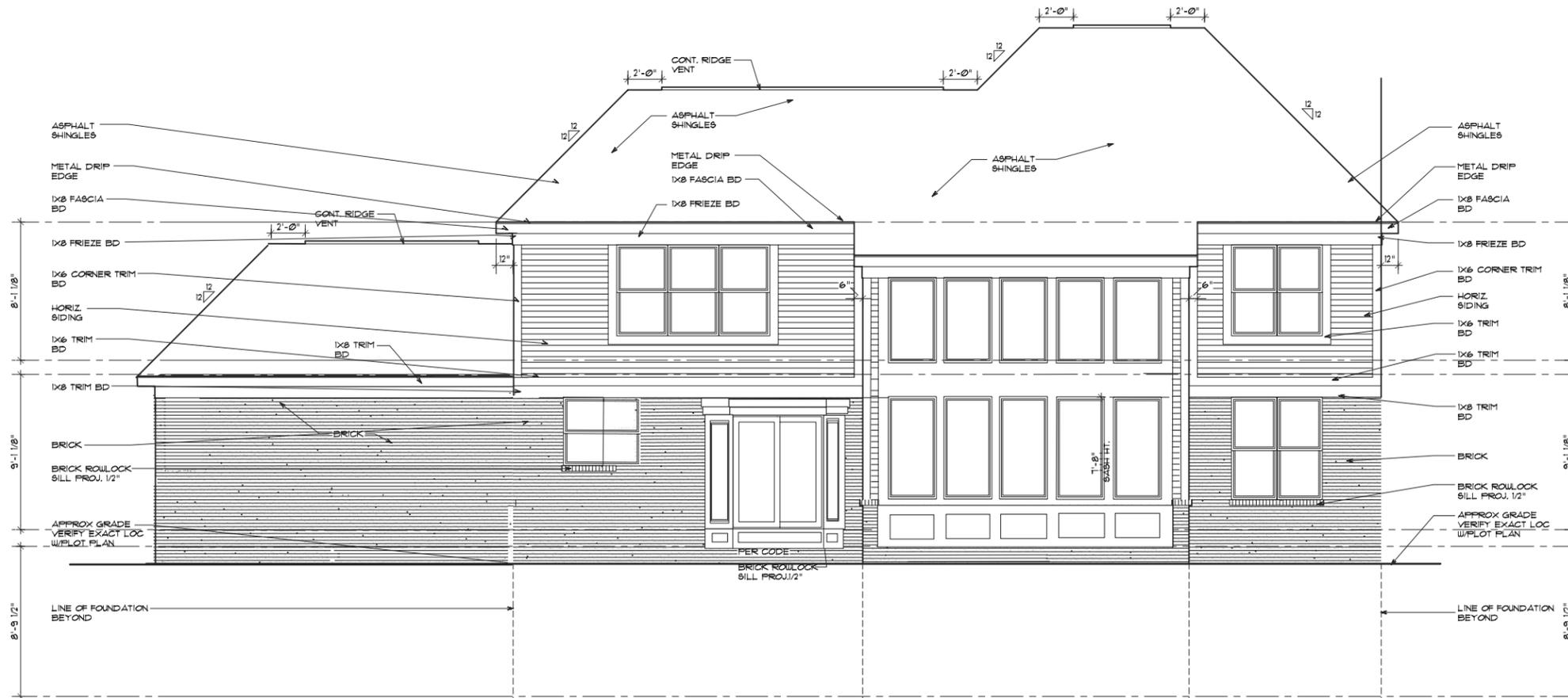
**FRONT ELEVATION**  
SCALE: 1/4" = 1'-0"

ELEVATIONS

- PRELIMINARY
- CLIENT APPROVAL
- PERMIT
- REVISION
- PROJECT #



**RIGHT ELEVATION**  
SCALE: 1/4" = 1'-0"



**REAR ELEVATION**  
SCALE: 1/4" = 1'-0"

**ELEVATION NOTES**

1. PROVIDE DRIP CAPS AT ALL WINDOWS AND DOORS
2. ALL ROOF SADDLES TO BE PLYWOOD SHEATHED WITH ICE & WATER SHIELD AND SHINGLES.
3. PROVIDE ICE & WATER SHIELD MIN. 6'-0" COVERAGE AT ALL VALLEYS
4. FIREPLACE FLUE TO BE MIN 2'-0" ABOVE ANY ROOF SURFACE WITHIN 10'-0" HORIZONTALLY, MIN 3'-0" PENETRATION ABOVE ROOF TOP.

**NOTE:**

GUTTERS AND DOWNSPOUTS ARE NOT SHOWN FOR CLARITY. DOWNSPOUTS SHALL BE LOCATED TO ALLOW DRAINAGE TO FLOW AWAY FROM HOUSE, ADJACENT STRUCTURES AND COMMON PROPERTY LINES. LOCATE DOWNSPOUTS IN NON-VISIBLY OFFENSIVE LOCATIONS. DO NOT LOCATE DOWNSPOUTS ON FRONT FACADE OF HOUSE OR ALONG FRONT FACING PORCH COLUMNS.

**NOTE:**

PLUMBING AND HVAC VENTS SHALL BE GROUPED IN ATTIC TO LIMIT THE NUMBER OF ROOF PENETRATIONS. ALL ROOF PENETRATIONS SHALL OCCUR TO THE REAR OF THE HOUSE AND BE PAINTED TO MATCH THE ROOF COLOR.

- PRELIMINARY
- CLIENT APPROVAL
- PERMIT
- REVISION

PROJECT #

SHEET No



**SKETCH OF DESCRIPTION  
PROPOSED OPEN SPACE**

LEGAL DESCRIPTION

(Per Professional Engineering Associates)

PROPOSED OPEN SPACE (Part of Parcels 20-18-127-011 & 20-18-127-012)

Part of the Northwest 1/4 of Section 18, Town 2 North, Range 11 East, City of Troy, Oakland County, Michigan, Commencing at the North 1/4 corner of Section 18; thence along the north-south 1/4 line of said Section 18, S00°00'25"E, 838.80 feet to the north line of Tax Parcel 20-18-127-012; thence along said north line, N89°50'25"W, 43.00 feet to the proposed west line of Beach Road (proposed 43 foot half width) and the Point of Beginning;

thence along said proposed line, S00°00'25"E, 170.65 feet;

thence S89°59'35"W, 49.39 feet;

thence N00°00'25"W, 130.54 feet;

thence S89°59'35"W, 264.95 feet;

thence N00°02'39"W, 35.78 feet;

thence S89°59'35"W, 89.99 feet;

thence S00°00'25"E, 84.98 feet;

thence N52°15'47"W, 99.48 feet;

thence S37°44'13"W, 109.99 feet;

thence S52°15'47"E, 83.83 feet;

thence S89°59'35"W, 75.91 feet;

thence S00°00'25"E, 89.99 feet;

thence N89°57'13"E, 90.33 feet;

thence N67°14'14"E, 66.62 feet;

thence S43°37'00"E, 7.15 feet;

thence S52°25'36"E, 9.75 feet;

thence S67°21'14"W, 9.52 feet;

thence S00°00'34"E, 135.54 feet;

thence N89°59'35"E, 64.35 feet;

thence N40°27'17"E, 39.49 feet;

thence S89°59'51"E, 264.99 feet;

thence N00°00'25"W, 130.54 feet;

thence N89°59'35"E, 49.37 feet to the aforementioned proposed west line of Beach Road;

thence along said proposed line, S00°00'25"E, 170.43 feet to the south line of Tax Parcel 20-18-127-012;

thence along said south line, N89°52'48"W, 564.22 feet to a point on the east line of "Countryside Estates No. 1" (Liber 95, Page 27, Oakland County Records);

thence along said east line and also the east line of "Countryside Estates" (Liber 82 of plat, Page 9, O.C.R.), N00°49'00"E, 540.35 feet to the north line of Tax Parcel 20-18-127-011;

thence along said north line, S89°50'25"E, 170.00 feet;

thence S00°49'00"W, 118.86 feet to the south line of said Tax Parcel 20-18-127-011;

thence along said south line, S89°50'25"E, 10.00 feet to the east line of said Tax Parcel;

thence along said east line, S00°49'00"W, 30.00 feet to the aforementioned north line of said Tax Parcel 20-18-127-012;

thence along said north line, S89°50'25"E, 378.59 feet to the Point of Beginning.

Containing 2.310 acres of land, more or less.

PROFESSIONAL  
ENGINEERING  
ASSOCIATES

CLIENT:  
MONDRIAN PROPERTIES  
50215 SCHOENHERR  
SHELBY TOWNSHIP, MI 48315

SCALE: 1"= 100'

JOB No: 2011-150

DATE: 10-10-12

DWG. No: 2 of 2

2430 Rochester Ct. Suite 100  
Troy, MI 48083-1872  
(248) 689-9090



**PROFESSIONAL ENGINEERING ASSOCIATES, INC.**

Civil Engineers | Land Surveyors | Landscape Architects

Corporate Office • 2430 Rochester Court • Suite 100 • Troy, MI 48083  
(P) 248.689.9090 • (F) 248.689.1044 • [www.peainc.com](http://www.peainc.com)

October 12, 2012

**PEA Project No. 2011-150**

City of Troy  
500 W. Big Beaver Rd.  
Troy, MI 48084

**RE: NATURAL FEATURES ANALYSIS  
BEACHVIEW ESTATES  
CITY OF TROY, OAKLAND COUNTY, MI**

The Beachview Estates site is located on the west side of Beach Road between Long Lake and Wattles Roads in the City of Troy. The site is currently vegetated, including fields at the east end of the site, scrub brush and wooded areas at the west end of the site.

An unnamed stream crosses the southwest corner of the development. This stream runs from northwest to southeast and varies in depth from 6 inches to 24 inches. The stream continues through a small pond on the property south of the Beachview Estates parcel, and enters an enclosed storm sewer system near Beach Road.

The site is generally well drained. Grades slope from the north to south at 2% to 5% on average. A small wetland exists adjacent to the stream. This wetland exhibits wetland hydrology, hydric soils, and hydrophytic vegetation as defined by USACE wetland delineation manual (1987) and the Interim Regional Supplement, Midwest Manual (2008). (Please see attached wetland report).

Trees are clustered sporadically throughout the site, with a large group of mostly 5 inch to 10 inch trees near the northwest corner. The remainder of the trees are spread throughout an open meadow area. A variety of species have been identified, including red oak, cottonwood, white cedar, norway maple, black locust, sugar maple, scotch pine, box elder, hawthorne, american elm, black cherry, honey locust, crab apple, and sugar maple.

The majority of the site exhibits signs of previous disturbance. This is not a pristine natural site. There is evidence of clearing in the past, particularly in the meadow area that takes up the majority of the site. There is a gravel driveway, brush and rubbish piles, and overhead utilities on the site.

The highest quality natural features of the site are the wetland and trees in the southwest corner of the site.

Sincerely,

**PROFESSIONAL ENGINEERING ASSOCIATES, INC.**

A handwritten signature in blue ink that reads "Jeremy E. Carnahan". The signature is fluid and cursive, with the first name being the most prominent.

Jeremy E. Carnahan, PE  
Senior Project Engineer



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October 12, 2012

**PEA Project No. 2011-150**

City of Troy  
500 W. Big Beaver Rd.  
Troy, MI 48084

**RE: OPEN SPACE SUMMARY  
BEACHVIEW ESTATES  
CITY OF TROY, OAKLAND COUNTY, MI**

The proposed Beachview Estates one-family cluster option development incorporates a significant amount of open space. The ownership of the open space will ultimately be by the condominium association. The Beachview Estates covenants, conditions and restrictions will dictate the allowable use and maintenance of the open space.

Proposed and potential uses: there are a number of large high quality trees that are located in the open space. These trees, along with the open space will provide a screening buffer for neighboring properties, reduce noise from Beach Road, provide a common area for residents to enjoy, provide a bio-detention basin area to improve water quality of storm water runoff, and will preserve natural features, including a wetland and stream.

The anticipated timeframe for the dedication of the open space will depend on construction and home sales, but the intent is to transfer the responsibility for maintenance of the open space to the condominium association within 12 to 18 months of the site plan approval.

Sincerely,

**PROFESSIONAL ENGINEERING ASSOCIATES, INC.**

A handwritten signature in blue ink that reads "Jeremy E. Carnahan". The signature is written in a cursive, flowing style.

Jeremy E. Carnahan, PE  
Senior Project Engineer



**PROFESSIONAL ENGINEERING ASSOCIATES, INC.**

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October 12, 2012

**PEA Project No. 2011-150**

City of Troy  
500 W. Big Beaver Rd.  
Troy, MI 48084

**RE: OPEN SPACE NARRATIVE  
BEACHVIEW ESTATES  
CITY OF TROY, OAKLAND COUNTY, MI**

The site work construction plans for the Beachview Estates development will include many provisions for protecting natural features on the site. The most environmentally sensitive area of the site is the southwest corner of the property where the wetland and stream is located. This area will be completely preserved. The grading and utilities will be designed to minimize disturbance to significant trees where possible. The developer does not propose any reduction of wetlands on-site and has opted to discharge the proposed detention basin into a storm sewer to help alleviate erosion and flooding issues directly downstream.

Silt fence will be installed at the limits of construction to prevent sediment buildup and erosion in areas outside of the bounds of work. Tree protection fencing will be installed anywhere that construction approaches trees intended to be preserved. Where possible, the design engineer will make every effort to preserve significant individual trees when performing the detailed grading and utility design.

**Guarantee of Open Space**

The developer agrees to provide language in the Master Deed that will ensure that all portions of the development will be maintained as approved and that all commitments for such maintenance are binding on successors and future owners of the subject property.

Sincerely,

**PROFESSIONAL ENGINEERING ASSOCIATES, INC.**

A handwritten signature in blue ink that reads "Jeremy E. Carnahan".

Jeremy E. Carnahan, PE  
Senior Project Engineer

A handwritten signature in black ink that reads "Joseph Maniaci".

Joseph Maniaci  
Mondrian Properties

DATE: November 8, 2012

TO: Planning Commission

FROM: R. Brent Savidant, Planning Director

SUBJECT: PRELIMINARY SITE PLAN REVIEW – Proposed Timbercrest Preserves Site Condominium, 14 units/lots, West of Dequindre, South of Wattles, West side of Fernleigh Drive, Section 24, Currently Zoned R-1C (One Family Residential) District

The petitioner Mondrian Properties submitted the above referenced Preliminary Site Plan Approval application for a 14-unit site condominium. The property is currently zoned R-1C (One Family Residential) District. The Planning Commission is responsible for granting Preliminary Site Plan Approval for site condominium applications.

The attached report prepared by Carlisle/Wortman Associates, Inc. (CWA), the City's Planning Consultant, summarizes the project. CWA prepared the report with input from various City departments including Planning, Engineering, Public Works and Fire. City Management supports the findings of fact contained in the report and recommends approval of the project, as noted.

Attachments:

1. Maps
2. Report prepared by Carlisle/Wortman Associates, Inc.
3. Wetland report

cc: Applicant  
File/Timbercrest Preserves Site Condominium

G:\SUBDIVISIONS & SITE CONDOS\Timbercrest Preserves Site Condo Sec 24\Preliminary Review PC Memo 11 13 12.docx

PROPOSED RESOLUTION

PRELIMINARY SITE PLAN REVIEW – Proposed Timbercrest Preserves Site Condominium, 14 units/lots, West of Dequindre, South of Wattles, West side of Fernleigh Drive, Section 24, Currently Zoned R-1C (One Family Residential) District

**Proposed Resolution # PC-2012-11-**

Moved by:

Seconded by:

**RESOLVED**, That Preliminary Site Condominium Approval, pursuant to Article 8 and Section 10.02 of the Zoning Ordinance, as requested for Timbercrest Preserves Site Condominium, 14 units/lots, south of Wattles, west side of Fernleigh Drive, Section 24, within the R-1C (One Family Residential) District, be granted, subject to the following:

1. Indicate treatment of proposed Timbercrest Drive stub.
2. Add note to Lot 7 stating that “driveway placement shall be on the south side of the lot so as to not impact the placement of the sidewalk ramp for pedestrian crossing of Timbercrest Drive”.
3. There should be a minimum of 2’ from the face of the existing utility poles to the edge of sidewalk along Fernleigh Drive.
4. Relocate the four (4) trees that are proposed at the corners of Branchmoor and Timbercrest (NE and SE corners).

\_\_\_\_\_ ) or

(denied, for the following reasons: \_\_\_\_\_ ) or

(postponed, for the following reasons: \_\_\_\_\_ )

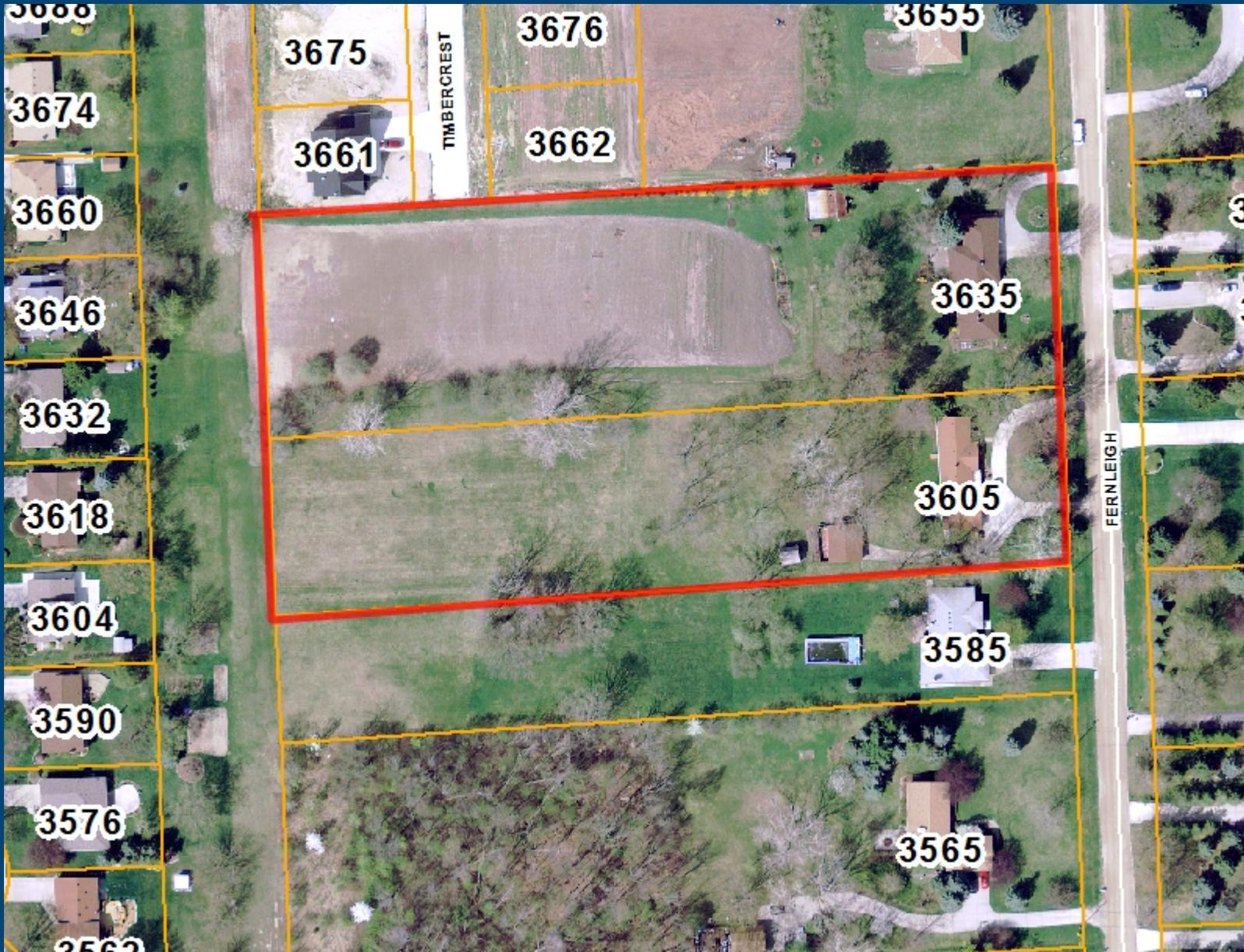
Yes:

No:

**MOTION PASSED / FAILED**

# Timbercrest Preserves Site Condominium

City of Troy Planning Department



### 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

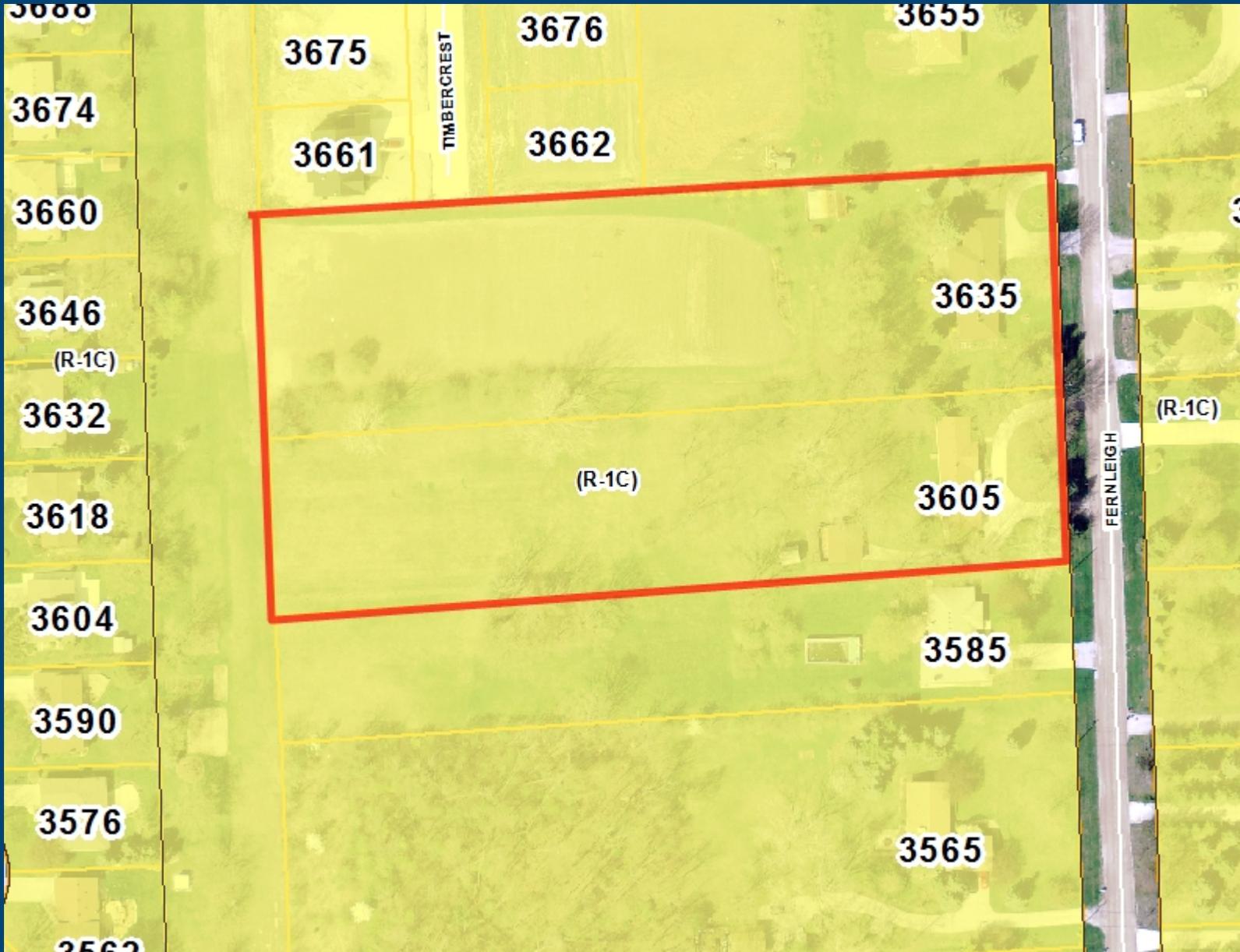
234 0 117 234 Feet

Scale 1: 1,404



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: 10/15/2012



### Legend

#### Road Centerline

-  Major Road
-  Industrial Road
-  Local Road

#### Current Zoning Ordinance

-  (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

234 0 117 234Feet

Scale 1: 1,404





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

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

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

Date: October 30, 2012

## **Site Condominium Review For City of Troy, Michigan**

**Applicant:** Joe Maniaci

**Project Name:** Timbercrest Preserves

**Plan Date:** October 15, 2012

**Location:** West side of Fernleigh Road, south of Wattles Road

**Zoning:** R1-C, One-family Residential District

**Action Requested:** Site Condominium Approval

**Required Information:** Deficiencies noted

### **PROJECT AND SITE DESCRIPTION**

The applicant proposes to construct a 14-lot single family detached site condominium project on the west side of Fernleigh Road. The proposed site condominium is an extension of the Timbercrest Farms subdivision, which is located directly to the north. The applicant proposes similar lot sizes and configuration to the approved and partially built Timbercrest Farms subdivision.

Access to the subdivision will be via an extension to the existing Timbercrest Drive and the construction of a new road (Branchmoor Drive) off Fernleigh Road. The proposed residential use is permitted by right in the R-1C District.

Location of Subject Property:

West side of Fernleigh Road, south of Wattles Road.



Size of Subject Property:

The parcel is 4.482 acres in area.

Proposed Uses of Subject Parcel:

The applicant proposes to use the site for fourteen (14) detached, single family homes.

Current Use of Subject Property:

The subject property is currently vacant.

Current Zoning:

The property is currently zoned R-1C, One-family Residential District.

Surrounding Property Details

Direction	Zoning	Use
North	R-1C, One-family Residential District.	Single-family homes
South	R-1C, One-family Residential District	Single-family homes
East	R-1C, One-family Residential District	Single-family homes
West	R-1C, One-family Residential District.	Single-family homes

**NATURAL RESOURCES**

The subject property is currently improved with two single-family homes, which will be demolished as part of the subdivision construction. Used as two homesteads, the subject property shows evidence of prior grading. The applicant has provided a tree survey. Most onsite trees will be removed as part of the subdivision site preparation; however the applicant is proposing to retain approximately 13 trees that ring the perimeter of the subject property. The applicant has not noted any other site natural resources.

*Items to be Addressed: None*

**AREA, WIDTH, and HEIGHT**

Required and Provided Dimensions:

Table 4.06.C establishes the requirements for the R-1C District. The requirements and the proposed dimensions are as follows:

	<u>Required:</u>	<u>Provided:</u>	<u>Compliance:</u>
Front	30 foot setback	30 foot setback	Complies
Rear	40 foot setback	40 foot setback	Complies
Sides	10 foot minimum for least side setback, 20 foot minimum combined setback	10 foot minimum for least side setback, 20 foot minimum combined setback	Complies
Density (number of units)	3.1 units per acre = 11 units	3.1 units per acre = 11 units	Complies
Lot Size per Unit	10,500 square feet (for projects with sewer)	9,539 square feet smallest*; 10,710 square feet average	Complies
Maximum Height	30 feet, 2.5 story	26 feet	Complies
Lot Width	85 feet	77.25 feet smallest*	Complies
Maximum Lot Area Covered by Buildings	30 percent	22 percent	Complies
Minimum Floor Area per Unit	1,200 square feet	2,679 square feet	Complies

\*The lot size average option has been applied and Section 10.02 standards have been met.

*Items to be Addressed: None*

## ACCESS and CIRCULATION

The applicant proposes to extend the existing Timbercrest Drive and construct a new road (Branchmoor Drive) off Fernleigh Road. The road pattern provides for a consistent development pattern between the proposed Timbercrest Preserve and the approved Timbercrest Farms subdivisions. Timbercrest Drive will be stubbed at the southern end of the subdivision which allows for an extension if/when future lots are developed on the property to the south. The applicant has not indicated the treatment of this stubbed end. At minimum this stub should be landscaped. Both the road extension and newly proposed Branchmoor are proposed as 60-foot wide public roads. Engineering has reviewed the preliminary street provisions and layout, and has no concerns.

### Pedestrian access:

The applicant is installing a 5-foot wide sidewalk along the west side of Fernleigh Road and adding a 5-foot wide sidewalk along both sides of the newly constructed Branchmoor Drive and a 5-foot wide sidewalk along both sides of the extended Timbercrest Drive. In addition to serving this development, these sidewalks provide a direct connection from to the Timbercrest Farms to the north. Pedestrian access is sufficient.

***Items to be Addressed:*** Indicate treatment of proposed Timbercrest Drive stub.

## SITE LAYOUT

The 14-unit development carries on the same development pattern as the approved Timbercrest Farms subdivision. However, we offer the following site layout issues that should be addressed by the applicant:

- A note should be added to Lot 7 stating that “driveway placement shall be on the south side of the lot so as to not impact the placement of the sidewalk ramp for pedestrian crossing of Timbercrest Drive”. There have been instances where sidewalk ramps lead to driveways on the opposite side. The developer should consider ramp locations relative to development of individual lots.
- The proposed sidewalk along Fernleigh Drive will be adjacent to the existing utility poles. There should be a minimum of 2’ from the face of the pole to the edge of sidewalk.
- Trees proposed at the corners of Branchmoor and Timbercrest (NE and SE corners) should be removed from the area of the 25’ x 25’ corner clearance triangles, extended. This would remove four (4) trees from the landscape plan (one each on the north and south side of Branchmoor and one each on the east side of Timbercrest, north and south of Branchmoor). These trees will need to be relocated.
- Extend the sanitary sewer to a manhole at the south property line. Currently it is proposed as stopping ¼ of the way on lot 6. A future connection to the sanitary sewer would require that the majority of the front of lot 6 be disturbed to connect to the sanitary to continue it to the south.

***Items to be Addressed:*** Address site layout issues.

## LANDSCAPE

Site condominium and subdivision landscaping are regulated by Section 13.02.F.2. The plan includes 31 Ginkgo and 6 Colorado Green Spruce. All proposed species fall within Troy regulations and are not prohibited.

Landscaping requirements and treatment by applicant are:

- a. *The frontage of all internal public or private streets shall be landscaped with the equivalent of one (1) tree for every fifty (50) lineal feet, or fraction thereof. Such street trees shall meet the minimum size, spacing and species requirements set forth in Sections 13.02.H, Minimum Size and Spacing Requirements, and Section 13.02.I, Prohibited Species.*

**The applicant has provided a total of eighteen (18) Ginkgo trees along the newly created Branchmoor, thirteen (13) Ginkgo trees along the extended Timbercrest Drive, and six (6) Colorado Spruce along Fernleigh Drive. The applicant complies with this provision.**

- b. *Where a subdivision or site condominium contains uses which are more intense or incompatible with an adjoining property, the screening requirements set forth in Section 13.02.B, Screening Between Land Uses, shall be met. The preservation of existing trees along perimeter boundaries is encouraged regardless of whether screening is required.*

### **Not Applicable**

- c. *Where a subdivision or site condominium abuts a public road right-of way located outside of the proposed subdivision or site condominium, the screening requirements set forth in Section 13.02.B, Screening Between Land Uses shall be met in the following manner:*
  1. *Where a subdivision or site condominium abuts I-75 or a street right-of-way of two hundred and four (204) feet as designated in the City of Troy Master Plan, the screening alternative number 3, as set forth in Section 13.02, subsection B.2.c, shall be required.*
  2. *Where a subdivision or site condominium abuts a street right-of-way of either one hundred and twenty (120) or one hundred and fifty (150) feet as designated in the City of Troy Master Plan, the screening alternative number 2, as set forth in Table 13.02-A, shall be required.*

### **Not Applicable**

- d. *A landscape plan for a subdivision or site condominium development shall also include landscaping details of the entrance to the development, stormwater retention and/or detention areas, community buildings and other recreational areas, and any other site improvement which would be enhanced through the addition of landscaping.*

**The applicant is not providing any additional landscaping.**

**Items to be Addressed: none**

## SITE CONDOMINIUM IMPROVEMENTS

The plans were signed and sealed by Nathan Robinson, Engineer.

Section 10.02.C requires that all site condominium projects shall comply with the standards and procedures set forth in Article 8, Site Plan Review and several unique standards. The only standard for the preliminary plan is that the street pattern and fully dimensioned residential parcel layout, including proposed building configurations, as well as preliminary sanitary sewer, storm sewer, and water main layout must also be submitted. This submittal includes all the required information. Section 10.02.E. regulates physical improvements associated with condominium projects. It requires the following:

1. *Principal access and circulation through a site condominium shall be provided by public streets constructed to City standards, within sixty (60) foot wide rights-of-way. Secondary access and circulation through such developments, on which some of the residential parcels may have their sole frontage, may be provided by twenty-eight (28) foot wide streets constructed to City public street standards, within forty (40) foot private easements for public access. **Satisfied.***
2. *Principal access to site condominium of five (5) acres or less in area may be provided by way of twenty-eight (28) foot wide streets constructed to City public street standards, within forty (40) foot private easements for public access, when in the opinion of the City Council the property configuration is such that the provision of conforming dwelling unit parcels is impractical. **Not applicable.***
3. *All entrances to major or secondary thoroughfares shall include deceleration, acceleration and passing lanes as required by Engineering Standards of the City of Troy. **Not applicable.***
4. *Sidewalks shall be constructed, in accordance with City Standards, across the frontage of all dwelling unit parcels. Utilities shall be placed within street rights-of-way, or within easements approved as to size and location by the City Engineer. **Satisfied.***
5. *All shall be served by public water, sanitary sewer, storm sewer and detention/retention systems constructed to City standards, at the expense of the developer. Easements over these systems shall be conveyed and recorded before occupancy permits are issued for dwelling units. **The applicant has proposed full utilities, but all proposed configurations and easements are subject to approval by the City engineering department.***

All condominium projects are subject to Section 8.05.A.7, which establishes the requirements for a preliminary site plan submittal, which is required under the site condominium regulations. Three additional requirements are specifically identified for residential projects. The three additional requirements, identified in 8.05.A.7.o, include:

- i. *Calculation of the dwelling unit density allowable and a statement of the number of dwelling units, by type, to be provided. **Satisfied.***
- ii. *Topography on site and fifty (50) feet beyond, drawn at two (2) foot contour intervals, with existing drainage courses, flood plains, wetlands, and tree stands indicated. **Satisfied.***

- iii. *The typical floor plans and elevations of the proposed buildings, with building height(s).*  
**Satisfied.**

**Items to be Addressed:** *none*

## RECOMMENDATIONS

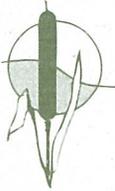
We support the proposed project and believe the project does meets requirements. We recommend the Planning Commission approve the preliminary site condominium application conditioned on the applicant satisfying the following requirements:

1. *Indicate treatment of proposed Timbercrest Drive stub.*
2. *A note should be added to Lot 7 stating that "driveway placement shall be on the south side of the lot so as to not impact the placement of the sidewalk ramp for pedestrian crossing of Timbercrest Drive".*
3. *There should be a minimum of 2' from the face of the existing utility poles to the edge of sidewalk along Fernleigh Drive.*
4. *Relocate the four (4) trees that are proposed at the corners of Branchmoor and Timbercrest (NE and SE corners).*



---

**CARLISLE/WORTMAN ASSOC., INC.**  
**Benjamin R. Carlisle, LEED AP, AICP**



King & MacGregor  
Environmental  
Inc.

November 2, 2012

Sent Via Email & US Mail

Mr. Joseph Maniaci  
**Mondrian Properties**  
50215 Schoenherr Road  
Shelby Township, MI 48325

KME File No. 12158

Re: Preliminary Wetland Evaluation –Timbercrest Preserves Site Condominium  
3605 and 3635 Fernleigh Drive Properties, City of Troy, Oakland County

Dear Mr. Maniaci:

Pursuant to your request, we conducted a preliminary wetland evaluation on the above referenced approximately 4.48-acres of property located on the west side of Fernleigh Drive in the northeast quarter of Section 24, Town 2 North, Range 11 East. The intent of this evaluation is to provide a description of the approximate size, location, and character of any wetlands identified within the subject property as well as an opinion regarding the possible jurisdiction of the Michigan Department of Environmental Quality (MDEQ). The methods used to conduct this wetland determination are consistent with our understanding of the procedures and general practices used by the MDEQ.

#### **Resource Information Evaluation**

This evaluation included review of available resource information including the Natural Resources Conservation Service Web Soil Survey, U.S. Geological Survey (USGS) topographic mapping, the MDEQ Oakland County Final Wetland Inventory map, and recent aerial photography. The soil survey indicates the subject property contains Capac sandy loam soil. Capac is considered a somewhat poorly drained soil type though it is not considered a hydric soils. Hydric soils are soils formed under extended periods of inundation or saturation during the growing season and, unless artificially drained, typically support wetland habitats. The USGS map shows the property to be nearly level and not containing any wetland. A linear surface drainage feature is shown near the western boundary of the subject property within the adjacent subdivision. The MDEQ map shows no wetlands or areas containing wetland soils on the property. It also shows a linear surface drainage feature near the western property boundary. Recent aerial photography shows the property to contain two residential structures, assorted outbuildings, landscaping and mowed lawn, and areas dedicated for gardening.

#### **On-Site Evaluation**

The subject property is bordered by Fernleigh Drive to the east and residential development on the remaining sides. An on-site evaluation was conducted on October 24, 2012. The weather was clear. Conditions observed were consistent with recent aerial photography. Most of the property is mowed lawn, including two shallow swales, and consists of typical lawn grass species such as tall fescue and Canada bluegrass as well as forbs such as dandelion and English plantain. The fallow gardening areas were dominated by agricultural weeds such as field thistle and horseweed. The linear surface drainage feature indicated on maps near the western property boundary was not observed. Based on the Boundary & Topographic Survey prepared by Aztec Land Surveyors Inc., the Henry-Graham County Drain is enclosed in a 13-foot diameter storm sewer in a drain easement which adjoins the western property boundary.

2520 Woodmeadow SE  
Grand Rapids, MI 49546  
Phone: 616/957-1231  
Fax: 616/957-2198

43050 Ford Road, Suite 130  
Canton, MI 48187  
Phone: 734/354-0594  
Fax: 734/354-0593

14039 Lakeside Avenue  
Bear Lake, MI 49614  
Phone: 231/864-7279

**Evaluation Results**

Wetlands are identified based on the presence of three parameters; 1) evidence of hydrology sufficient to support wetland vegetation; 2) a predominance of plant species adapted for growing in areas with extended periods of inundation or saturation during the growing season (wetland vegetation); and, 3) soils characterized by physical indicators of extended periods of inundation or saturation. Given the residential character of the subject property and given that no evidence of wetland hydrology or areas of predominantly wetland vegetation were observed, it is concluded that no wetlands are present on the subject property.

Please be advised the information provided in this report is a professional opinion. The ultimate decision on wetland boundary locations and jurisdiction thereof rests with the MDEQ. In addition, the physical characteristics of the site can change with time, depending on the weather, vegetation patterns, drainage, activities on adjacent parcels, or other events. Any of these factors can change the presence or extent of wetlands on the site. Verification of wetland boundary and wetland jurisdictional determinations can be obtained from the MDEQ through an application to their Wetland Identification Program.

Thank you for the opportunity to provide this preliminary wetland evaluation. If you have any questions, please contact me at your convenience.

Sincerely,



**King & MacGregor Environmental, Inc.**

Woody L. Held



**BENCHMARKS**

SITE BENCHMARK #1  
ELEVATION = 641.69 (NAVD 88 DATUM)  
CITY BENCHMARK #1785, MAG. NAIL IN  
EAST FACE OF UTILITY POLE ON THE  
WEST SIDE OF FERNLEIGH ROAD AT  
EXISTING RESIDENCE #3635 (SUBJECT  
PROPERTY).

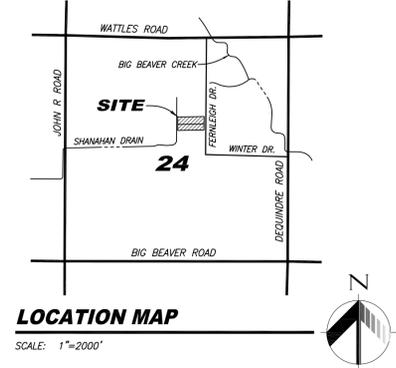
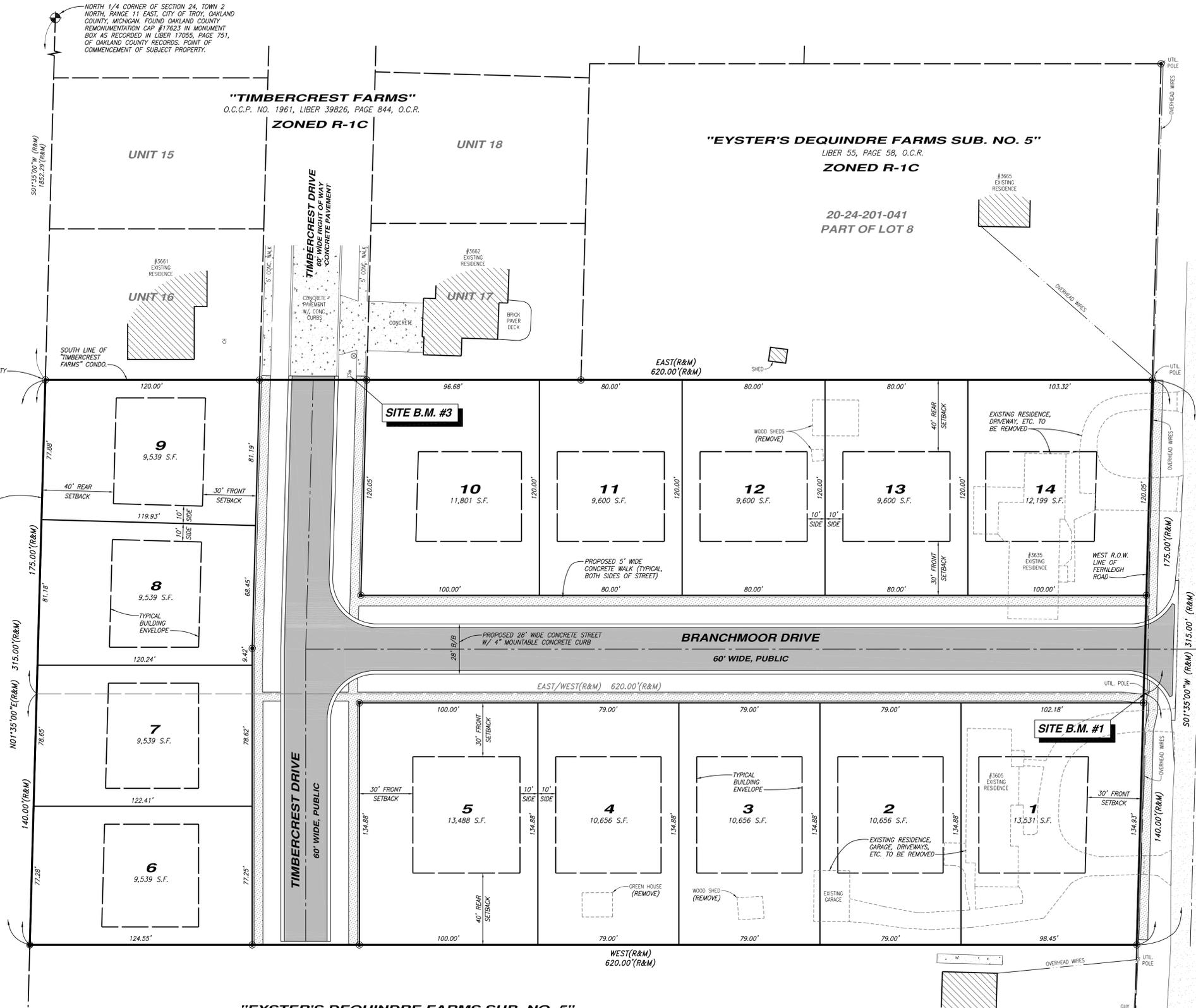
SITE BENCHMARK #2  
ELEVATION = 641.98 (NAVD 88 DATUM)  
TOP OF HYDRANT ON EAST SIDE OF  
FERNLEIGH DRIVE ACROSS FROM HOUSE  
#3635 (SUBJECT PROPERTY).

SITE BENCHMARK #3  
ELEVATION = 643.00 (NAVD 88 DATUM)  
TOP OF HYDRANT ON EAST SIDE OF  
TIMBERCREST DRIVE AT THE END OF THE  
STREET, IN FRONT OF HOUSE #3662.

NORTH 1/4 CORNER OF SECTION 24, TOWN 2  
NORTH, RANGE 11 EAST, CITY OF TROY, OAKLAND  
COUNTY, MICHIGAN. FOUND OAKLAND COUNTY  
REMONUMENTATION CAP #17823 IN MONUMENT  
BOX AS RECORDED IN LIBER 17055, PAGE 751,  
OF OAKLAND COUNTY RECORDS. POINT OF  
COMMENCEMENT OF SUBJECT PROPERTY.

NORTH-SOUTH 1/4 LINE OF  
SECTION 24 & WEST LINE  
OF "EYSTER'S DEQUINDRE  
ROAD FARMS SUB. NO. 5"

"OLDE FORCE SUB."  
LIBER 130, PAGES 21-23, O.C.R.  
20-24-180-025  
OUTLOT "A"  
ZONED R-1C



**PROPERTY DESCRIPTION (AS FURNISHED BY CLIENT)**

PARCEL NO. 20-24-201-012  
THE SOUTH 175 FEET OF LOT 8, "EYSTER'S DEQUINDRE FARMS SUBDIVISION  
NO. 5", BEING A PART OF THE NORTHEAST 1/4 OF SECTION 24, TOWN 2  
NORTH, RANGE 11 EAST, TROY TOWNSHIP (NOW CITY OF TROY), OAKLAND  
COUNTY, MICHIGAN AS RECORDED IN LIBER 55 OF PLATS, PAGE 58 OF  
OAKLAND COUNTY RECORDS.

PARCEL NO. 20-24-201-013  
THE NORTH 140 FEET OF LOT 9, "EYSTER'S DEQUINDRE FARMS SUBDIVISION  
NO. 5", BEING A PART OF THE NORTHEAST 1/4 OF SECTION 24, TOWN 2  
NORTH, RANGE 11 EAST, TROY TOWNSHIP (NOW CITY OF TROY), OAKLAND  
COUNTY, MICHIGAN AS RECORDED IN LIBER 55 OF PLATS, PAGE 58 OF  
OAKLAND COUNTY RECORDS.

**PROPERTY DESCRIPTION (AS SURVEYED)**

COMBINED PARCEL:  
THE SOUTH 175 FEET OF LOT 8 AND THE NORTH 140 FEET OF LOT 9,  
"EYSTER'S DEQUINDRE FARMS SUBDIVISION NO. 5", BEING A PART OF THE  
NORTHEAST 1/4 OF SECTION 24, TOWN 2 NORTH, RANGE 11 EAST, TROY  
TOWNSHIP (NOW CITY OF TROY), OAKLAND COUNTY, MICHIGAN AS RECORDED IN  
LIBER 55 OF PLATS, PAGE 58 OF OAKLAND COUNTY RECORDS, BEING MORE  
PARTICULARLY DESCRIBED AS:

COMMENCING AT THE NORTH 1/4 CORNER OF SAID SECTION 24; THENCE  
SOUTH 01 DEGREES 35 MINUTES 00 SECONDS WEST 1852.29 FEET ALONG  
THE NORTH-SOUTH 1/4 LINE OF SAID SECTION 24, SAID LINE ALSO BEING THE  
WEST LINE OF SAID "EYSTER'S DEQUINDRE FARMS SUBDIVISION NO. 5" TO THE  
POINT OF BEGINNING; THENCE DUE EAST 620.00 FEET TO THE WEST RIGHT OF  
WAY LINE OF FERNLEIGH ROAD (60 FEET WIDE); THENCE SOUTH 01 DEGREES  
35 MINUTES 00 SECONDS WEST 315.00 FEET ALONG SAID WEST RIGHT OF  
WAY LINE; THENCE DUE WEST 620.00 FEET TO SAID NORTH-SOUTH 1/4 LINE;  
THENCE ALONG SAID NORTH-SOUTH 1/4 LINE NORTH 01 DEGREES 35  
MINUTES 00 SECONDS EAST 315.00 FEET TO THE POINT OF BEGINNING,  
CONTAINING 4.48 ACRES OF LAND, MORE OR LESS, SUBJECT TO ANY AND ALL  
EASEMENTS OR RIGHT OF WAY OF RECORD, IF ANY.

**SITE CRITERIA**

- PARCEL SUMMARY:**  
ADDRESS: #3635 & #3605 FERNLEIGH DRIVE  
PARCEL ID NO.: 20-24-201-012 & -013  
EXISTING ZONING: R-1C, SINGLE FAMILY RESIDENTIAL  
ADJACENT ZONINGS: R-1C, SINGLE FAMILY RESIDENTIAL  
GROSS & NET SITE AREA: 195,225 S.F. (4.482 ACRES)
- USE SUMMARY:**  
EXISTING USE: SINGLE FAMILY RESIDENTIAL ACREAGE PARCELS.  
PROPOSED USE: SINGLE FAMILY RESIDENTIAL SITE CONDOMINIUM W/  
LOT AVERAGING OPTION.  
ALLOWABLE DENSITY: 3.1 UNITS PER ACRE OF GROSS SITE AREA  
PROPOSED DENSITY: 14 UNITS (3.1 UNITS PER ACRE)
- UNIT SUMMARY:**  
AVERAGE UNIT AREA REQUIRED: 10,500 S.F.  
AVERAGE UNIT AREA PROVIDED: 10,710 S.F.  
LOT AVERAGING OPTION ALLOWS FOR 10% REDUCTION IN MIN. UNIT AREA:  
MINIMUM UNIT AREA REQUIRED: 9,450 S.F.  
MINIMUM UNIT AREA PROVIDED: 9,539 S.F.  
LOT AVERAGING OPTION ALLOWS FOR 10% REDUCTION IN MIN. UNIT WIDTH:  
MINIMUM UNIT WIDTH REQUIRED: 85' x 90' = 76.5'  
MINIMUM LOT WIDTH PROVIDED: 77.25'
- BUILDING SETBACK SUMMARY:**  
FRONT: 30' MIN.  
REAR: 40' MIN.  
SIDE: 10' MIN. ONE SIDE; 20' MIN. TOTAL
- BUILDING CONSTRUCTION SUMMARY:**  
MAXIMUM ALLOWABLE BUILDING HEIGHT: 30' (2.5 STORY)  
PROPOSED BUILDING HEIGHT: 28' ± (NOT TO EXCEED 30')  
MAXIMUM ALLOWABLE LOT COVERAGE: 30%  
PROPOSED MAXIMUM LOT COVERAGE: 22% ± (NOT TO EXCEED 30%)  
MINIMUM REQUIRED FLOOR AREA PER UNIT: 1,200 S.F.  
PROPOSED FLOOR AREA PER UNIT: 2,679 S.F. ±

**SHEET INDEX**

- SITE PLAN.
- PRELIMINARY GRADING & UTILITY PLAN.
- TREE PRESERVATION & LANDSCAPE PLAN.

SUPPLEMENTALS:  
• BOUNDARY & TOPOGRAPHICAL SURVEY.  
• TYPICAL HOUSE FLOOR PLANS & ELEVATIONS.

**NOTES**

- CONDOMINIUM LAYOUT AND DIMENSIONS ARE TENTATIVE AND ARE SUBJECT TO MODIFICATION UPON FINAL ENGINEERING APPROVAL AND COMPUTATION OF THE MASTER DEED EXHIBIT "B".
- THE DEVELOPER SHALL COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES OF THE CITY OF TROY, THE COUNTY OF OAKLAND, AND THE STATE OF MICHIGAN.
- REFER TO PRELIMINARY GRADING & UTILITY PLAN FOR UTILITIES TO SERVE THE PROPOSED UNITS.
- NO SIGNAGE IS PROPOSED AS A PART OF THIS DEVELOPMENT. "NO PARKING-FIRE LANE" SIGNS SHALL BE INSTALLED AS DIRECTED BY THE CITY FIRE DEPARTMENT IF AND AS REQUIRED.
- NO SITE LIGHTING IS PROPOSED AS A PART OF THIS DEVELOPMENT.
- ALL WORK WITHIN ANY PUBLIC EASEMENT AND/OR RIGHT-OF-WAY SHALL REQUIRE PERMITS FROM THE CITY OF TROY.

**CONTRACTOR'S NOTE**

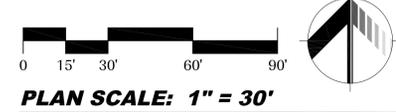
The locations of existing underground utilities are shown in an approximate way only. The contractor shall determine the exact location of all existing utilities before commencing work. He agrees to be fully responsible for any and all damages which might be occasioned by his failure to exactly locate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

**LEGEND**

- EXISTING CONCRETE PAVEMENT TO REMAIN
- EXISTING GRAVEL TO REMAIN
- PROPOSED CONCRETE STREET PAVEMENT
- PROPOSED CONCRETE SIDEWALKS

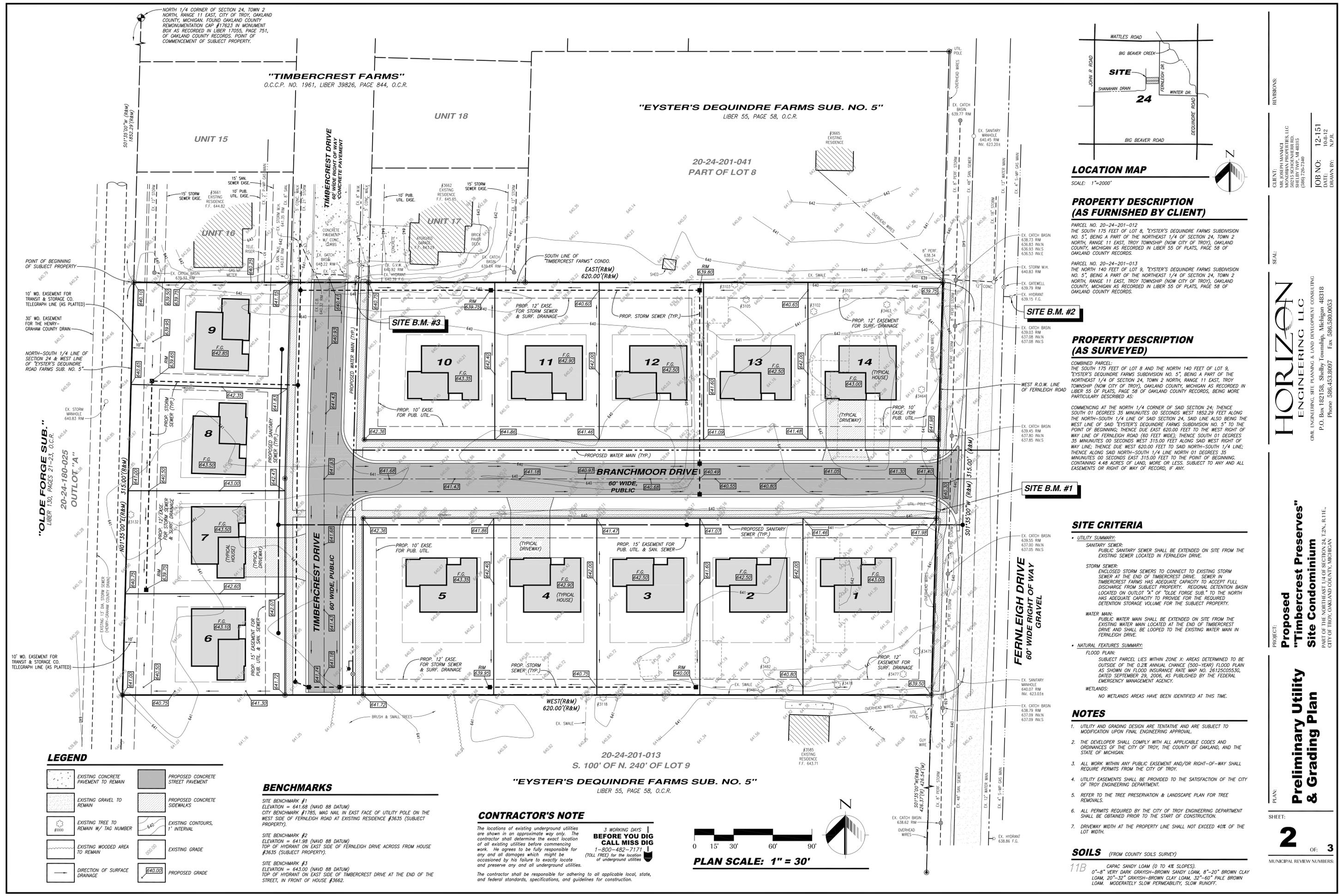


REVISIONS:  
CLIENT:  
MR. JOSEPH MANACI  
MR. JAMES M. HERRICK  
SHELBY TWP., MI 48015  
(989) 756-7340  
JOB NO: 12-151  
DATE: 10-8-12  
DRAWN BY: N.P.R.

SEAL:  
**HORIZON**  
ENGINEERING LLC  
CIVIL ENGINEERING, SITE PLANNING & LAND DEVELOPMENT CONSULTING  
P.O. Box 182158, Shelby Township, Michigan 48318  
Phone 586.453.8097 Fax 586.580.0053

PROJECT:  
**Proposed "Timbercrest Preserves" Site Condominium**  
PART OF THE NORTHEAST 1/4 OF SECTION 24, T.2N., R.11E., CITY OF TROY, OAKLAND COUNTY, MICHIGAN

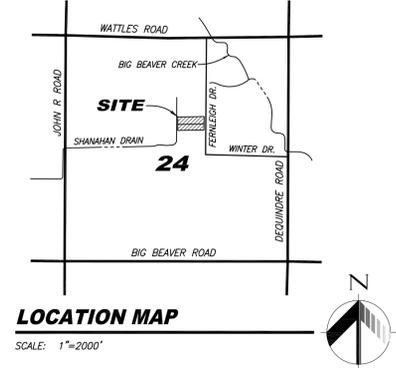
SHEET:  
**1** OF **3**  
MUNICIPAL REVIEW NUMBERS:



NORTH 1/4 CORNER OF SECTION 24, TOWN 2 NORTH, RANGE 11 EAST, CITY OF TROY, OAKLAND COUNTY, MICHIGAN FOUND OAKLAND COUNTY REMONUMENTATION CAP #17623 IN MONUMENT BOX AS RECORDED IN LIBER 17055, PAGE 751, OF OAKLAND COUNTY RECORDS. POINT OF COMMENCEMENT OF SUBJECT PROPERTY.

"TIMBERCREST FARMS"  
O.C.C.P. NO. 1961, LIBER 39826, PAGE 844, O.C.R.

"EYSTER'S DEQUINDRE FARMS SUB. NO. 5"  
LIBER 55, PAGE 58, O.C.R.



**LOCATION MAP**  
SCALE: 1"=2000'

**PROPERTY DESCRIPTION (AS FURNISHED BY CLIENT)**  
PARCEL NO. 20-24-201-012 THE SOUTH 175 FEET OF LOT 8, "EYSTER'S DEQUINDRE FARMS SUBDIVISION NO. 5", BEING A PART OF THE NORTHEAST 1/4 OF SECTION 24, TOWN 2 NORTH, RANGE 11 EAST, TROY TOWNSHIP (NOW CITY OF TROY), OAKLAND COUNTY, MICHIGAN AS RECORDED IN LIBER 55 OF PLATS, PAGE 58 OF OAKLAND COUNTY RECORDS.

PARCEL NO. 20-24-201-013 THE NORTH 140 FEET OF LOT 9, "EYSTER'S DEQUINDRE FARMS SUBDIVISION NO. 5", BEING A PART OF THE NORTHEAST 1/4 OF SECTION 24, TOWN 2 NORTH, RANGE 11 EAST, TROY TOWNSHIP (NOW CITY OF TROY), OAKLAND COUNTY, MICHIGAN AS RECORDED IN LIBER 55 OF PLATS, PAGE 58 OF OAKLAND COUNTY RECORDS.

**PROPERTY DESCRIPTION (AS SURVEYED)**  
COMBINED PARCEL: THE SOUTH 175 FEET OF LOT 8 AND THE NORTH 140 FEET OF LOT 9, "EYSTER'S DEQUINDRE FARMS SUBDIVISION NO. 5", BEING A PART OF THE NORTHEAST 1/4 OF SECTION 24, TOWN 2 NORTH, RANGE 11 EAST, TROY TOWNSHIP (NOW CITY OF TROY), OAKLAND COUNTY, MICHIGAN AS RECORDED IN LIBER 55 OF PLATS, PAGE 58 OF OAKLAND COUNTY RECORDS, BEING MORE PARTICULARLY DESCRIBED AS:

COMMENCING AT THE NORTH 1/4 CORNER OF SAID SECTION 24; THENCE SOUTH 175 FEET OF LOT 9, SAID SECTION 24, SAID LINE ALSO BEING THE NORTH-SOUTH 1/4 LINE OF SAID SECTION 24, SAID LINE ALSO BEING THE WEST LINE OF SAID "EYSTER'S DEQUINDRE FARMS SUBDIVISION NO. 5" TO THE POINT OF BEGINNING, THENCE DUE EAST 620.00 FEET TO THE WEST RIGHT OF WAY LINE OF FERNLEIGH ROAD (60 FEET WIDE); THENCE SOUTH 01 DEGREES 35 MINUTES 00 SECONDS WEST 315.00 FEET ALONG SAID WEST RIGHT OF WAY LINE; THENCE DUE WEST 620.00 FEET TO SAID NORTH-SOUTH 1/4 LINE; THENCE ALONG SAID NORTH-SOUTH 1/4 LINE NORTH 01 DEGREES 35 MINUTES 00 SECONDS EAST 315.00 FEET TO THE POINT OF BEGINNING, CONTAINING 4.48 ACRES OF LAND, MORE OR LESS, SUBJECT TO ANY AND ALL EASEMENTS OR RIGHT OF WAY OF RECORD, IF ANY.

**SITE CRITERIA**

- UTILITY SUMMARY:**
  - SANITARY SEWER:** PUBLIC SANITARY SEWER SHALL BE EXTENDED ON SITE FROM THE EXISTING SEWER LOCATED IN FERNLEIGH DRIVE.
  - STORM SEWER:** ENCLOSED STORM SEWERS TO CONNECT TO EXISTING STORM SEWER AT THE END OF TIMBERCREST DRIVE. SEWER IN TIMBERCREST FARMS HAS ADEQUATE CAPACITY TO ACCEPT FULL DISCHARGE FROM SUBJECT PROPERTY. REGIONAL DETENTION BASIN LOCATED ON OUTLOT "A" OF "OLDE FORGE SUB." TO THE NORTH HAS ADEQUATE CAPACITY TO PROVIDE FOR THE REQUIRED DETENTION STORAGE VOLUME FOR THE SUBJECT PROPERTY.
  - WATER MAIN:** PUBLIC WATER MAIN SHALL BE EXTENDED ON SITE FROM THE EXISTING WATER MAIN LOCATED AT THE END OF TIMBERCREST DRIVE AND SHALL BE LOOPED TO THE EXISTING WATER MAIN IN FERNLEIGH DRIVE.
- NATURAL FEATURES SUMMARY:**
  - FLOOD PLAIN:** SUBJECT PARCEL LIES WITHIN ZONE X; AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE (500-YEAR) FLOOD PLAIN AS SHOWN ON FLOOD INSURANCE RATE MAP NO. 26125C050536, DATED SEPTEMBER 29, 2006, AS PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.
  - WETLANDS:** NO WETLANDS AREAS HAVE BEEN IDENTIFIED AT THIS TIME.

**NOTES**

- UTILITY AND GRADING DESIGN ARE TENTATIVE AND ARE SUBJECT TO MODIFICATION UPON FINAL ENGINEERING APPROVAL.
- THE DEVELOPER SHALL COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES OF THE CITY OF TROY, THE COUNTY OF OAKLAND, AND THE STATE OF MICHIGAN.
- ALL WORK WITHIN ANY PUBLIC EASEMENT AND/OR RIGHT-OF-WAY SHALL REQUIRE PERMITS FROM THE CITY OF TROY.
- UTILITY EASEMENTS SHALL BE PROVIDED TO THE SATISFACTION OF THE CITY OF TROY ENGINEERING DEPARTMENT.
- REFER TO THE TREE PRESERVATION & LANDSCAPE PLAN FOR TREE REMOVALS.
- ALL PERMITS REQUIRED BY THE CITY OF TROY ENGINEERING DEPARTMENT SHALL BE OBTAINED PRIOR TO THE START OF CONSTRUCTION.
- DRIVEWAY WIDTH AT THE PROPERTY LINE SHALL NOT EXCEED 40% OF THE LOT WIDTH.

**SOILS** (FROM COUNTY SOILS SURVEY)  
CAPAC SANDY LOAM (0 TO 4% SLOPES).  
0"-8" VERY DARK GRAYISH-BROWN SANDY LOAM, 8"-20" BROWN CLAY LOAM, 20"-32" GRAYISH-BROWN CLAY LOAM, 32"-60" PALE BROWN LOAM, MODERATELY SLOW PERMEABILITY, SLOW RUNOFF.

"OLDE FORGE SUB."  
LIBER 130, PAGES 21-23, O.C.R.  
20-24-180-025  
OUTLOT "A"

**LEGEND**

	EXISTING CONCRETE PAVEMENT TO REMAIN		PROPOSED CONCRETE STREET PAVEMENT
	EXISTING GRAVEL TO REMAIN		PROPOSED CONCRETE SIDEWALKS
	EXISTING TREE TO REMAIN W/ TAG NUMBER		EXISTING CONTOURS, 1' INTERVAL
	EXISTING WOODED AREA TO REMAIN		EXISTING GRADE
	DIRECTION OF SURFACE DRAINAGE		PROPOSED GRADE

**BENCHMARKS**

**SITE BENCHMARK #1**  
ELEVATION = 641.68 (NAVD 88 DATUM)  
CITY BENCHMARK #1785, MAG NAIL IN EAST FACE OF UTILITY POLE ON THE WEST SIDE OF FERNLEIGH ROAD AT EXISTING RESIDENCE #3635 (SUBJECT PROPERTY).

**SITE BENCHMARK #2**  
ELEVATION = 641.58 (NAVD 88 DATUM)  
TOP OF HYDRANT ON EAST SIDE OF FERNLEIGH DRIVE ACROSS FROM HOUSE #3635 (SUBJECT PROPERTY).

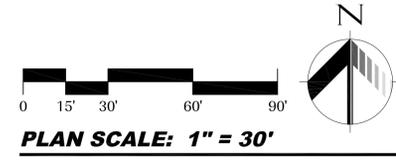
**SITE BENCHMARK #3**  
ELEVATION = 643.00 (NAVD 88 DATUM)  
TOP OF HYDRANT ON EAST SIDE OF TIMBERCREST DRIVE AT THE END OF THE STREET, IN FRONT OF HOUSE #3662.

**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



REVISIONS:

CLIENT: MR. JOSEPH MANACI, 3025 SCHOENBERG, SHELBY TWP., MI 48315, (981) 752-7340

JOB NO: 12-151  
DATE: 10-8-12  
DRAWN BY: N.P.R.

SEAL: **HORIZON ENGINEERING LLC**  
CIVIL ENGINEERING, SITE PLANNING & LAND DEVELOPMENT CONSULTING  
P.O. Box 182158, Shelby Township, Michigan 48318  
Phone: 586.453.8097 Fax: 586.580.0053

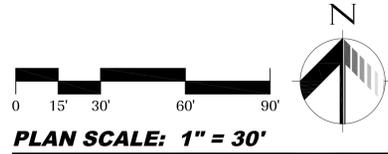
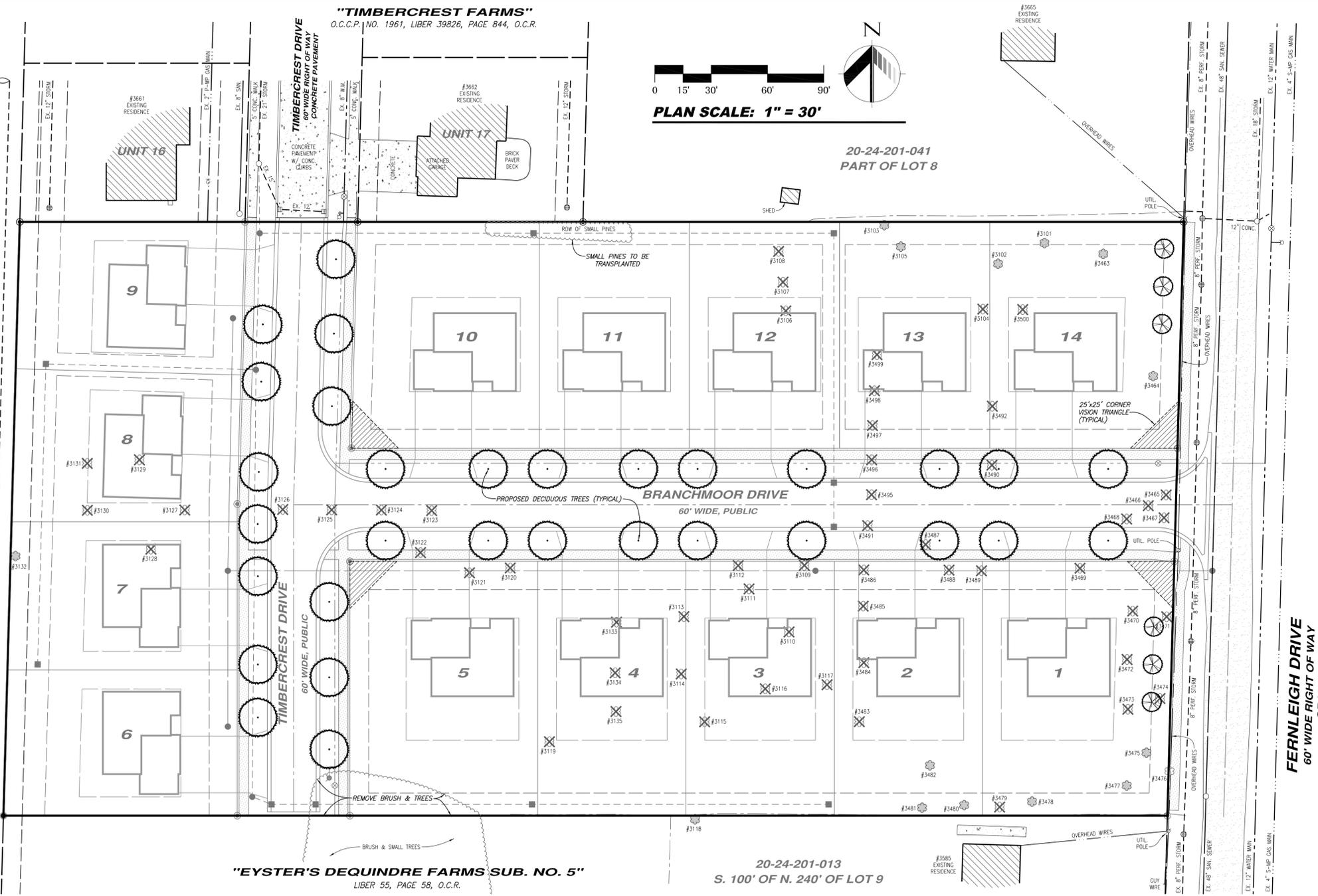
PROJECT: **Proposed Timbercrest Preserves" Site Condominium Preliminary Utility & Grading Plan**

PLAN: **2** OF **3**

SHEET: **2** OF **3**

MUNICIPAL REVIEW NUMBERS:

"OLDE FORGE SUB."  
LIBER 130, PAGES 21-23, O.C.R.  
20-24-190-025  
OUTLOT "A"



**SITE CRITERIA**

LANDSCAPING SUMMARY:

TREES REQUIRED:  
ONE LARGE DECIDUOUS TREE EVERY 50 FEET OF LOCAL ROAD FRONTAGE.

TREES PROVIDED:  
FERNLEIGH DRIVE: 255'/50' = 5.1 = 6 TREES  
BRANCHMOOR DRIVE: 440'/50' = 8.8 = 9 TREES (EACH SIDE)  
TIMBERCREST DRIVE (WEST SIDE): 315'/50' = 6.3 = 7 TREES  
TIMBERCREST DRIVE (EAST SIDE): 255'/50' = 5.1 = 6 TREES

**NOTES**

- UTILITY AND GRADING DESIGN ARE TENTATIVE AND, TOGETHER WITH THE EXTENT OF TREE PRESERVATION, ARE SUBJECT TO MODIFICATION UPON FINAL ENGINEERING DESIGN AND APPROVAL.
- THE DEVELOPER SHALL COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES OF THE CITY OF TROY, THE COUNTY OF OAKLAND, AND THE STATE OF MICHIGAN.

**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.

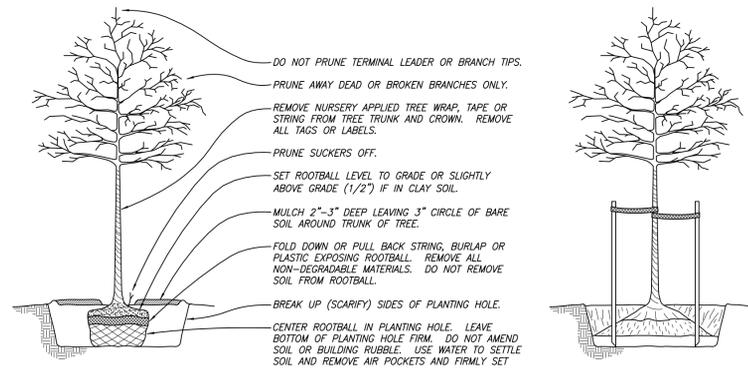
The contractor shall be responsible for adhering to all applicable local, state, and federal standards, specifications, and guidelines for construction.

**PLANTING NOTES**

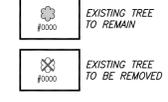
- ALL CONSTRUCTION AND PLANT MATERIAL LOCATIONS TO BE ADJUSTED ON SITE IF NECESSARY TO AVOID UTILITIES, STRUCTURES, DRIVEWAYS, ETC.
- ANY SUBSTITUTIONS OF PLANT MATERIAL OR ALTERATION IN PLANT SIZES OR SPECIFICATIONS SHALL BE IN ACCORDANCE WITH CITY OF TROY ORDINANCE STANDARDS. ALL STREET TREES SHALL MEET THE MINIMUM SIZE, SPACING AND SPECIES REQUIREMENTS AS SET FORTH BY THE CITY OF TROY'S ZONING ORDINANCE, SECTION 13.02.H, "MINIMUM SIZE AND SPACING REQUIREMENTS" AND SECTION 13.02.I, "PROHIBITED SPECIES".
- ALL LARGE TREES AND EVERGREENS TO BE STAKED, CUYED, AND WRAPPED.
- PLANT BEDS TO BE MULCHED AND DRESSED WITH 4" OF SHREDDED HARD BARK.
- DIG SHRUB PITS 1" LARGER THAN SHRUB ROOT BALLS AND TREE PITS 2" LARGER THAN ROOT BALLS. BACKFILL WITH ONE PART TOP SOIL FROM EXCAVATED PLANTING HOLE.
- REMOVE ALL TWINE, WIRE, AND BURLAP FROM THE TREE AND SHRUB EARTH BALLS AND FROM TREE TRUNKS.
- LAWN TREES TO BE MULCHED WITH A 2" WIDE MINIMUM OF 6" DEEP SHREDDED BARK RING OR APPROVED ALTERNATE DESIGN FOR TRUNK PROTECTION.
- PROVIDE HYDRO-SEEDING AND/OR SOD FOR ALL NEW LAWN AREAS.
- INSTALLATION OF PLANT MATERIAL SHALL BE IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF NURSERYMEN LANDSCAPE STANDARDS.
- PLANT MATERIAL, ESPECIALLY EVERGREENS, TO BE PLANTED HIGHER THAN NORMAL WHEN HEAVY SOIL CONDITIONS (CLAY, ETC.) PREVAIL.
- ALL PLANTING AREAS TO BE PREPARED WITH APPROPRIATE SOIL MIXTURES AND FERTILIZER BEFORE PLANT INSTALLATION.
- PLANT TREES AND SHRUBS GENERALLY NO CLOSER THAN THE FOLLOWING DISTANCES FROM SIDEWALKS, CURBS, AND PARKING STALLS:
  - SHADE TREES.....5 FT.
  - ORNAMENTAL AND EVERGREEN TREES.....10 FT. (CRAB, PINE, SPRUCE, ETC.)
  - SHRUBS THAT ARE LESS THAN 1 FOOT TALL AND WIDE AT MATURITY.....2 FT.
- NO TREES OR EVERGREENS TO BE INSTALLED UNDER ANY PROPOSED OR EXISTING UTILITY LINES AS SHOWN ON THE OVERALL LANDSCAPE PLAN. REFER TO ENGINEERING PLANS FOR EXACT LOCATIONS OF UTILITY LINES.
- FOR EXISTING TREE PROTECTION, A 4-FOOT HIGH ORANGE SNOW FENCE SHALL BE ERECTED AROUND TREE DRIP LINES PRIOR TO LAND CLEARING AND SITE CONSTRUCTION AND MAINTAINED THROUGHOUT SITE DEVELOPMENT PERIOD. NO CUTTING, FILLING OR TRESPASSING SHALL OCCUR INSIDE FENCED AREAS WITHOUT PRIOR CITY APPROVAL.

**TREE INVENTORY**

TAG NO.	BOTANICAL NAME	COMMON NAME	D.B.H. (INCHES)	CONDITION	TAG NO.	BOTANICAL NAME	COMMON NAME	D.B.H. (INCHES)	CONDITION
3101	PINUS SP.	PINE	11	GOOD	3463	JUGLANS SP.	WALNUT	24	GOOD
3102	PINUS SP.	PINE	11	GOOD	3464	ACER SP.	MAPLE	23	GOOD
3103	PINUS SP.	PINE	20	GOOD	3465	PINUS SP.	PINE	11	GOOD
3104	TILIA SP.	BASSWOOD	18	GOOD	3466	PINUS SP.	PINE	11	GOOD
3105	PINUS SP.	PINE	13	GOOD	3467	PINUS SP.	PINE	11	GOOD
3106	MALUS SP.	APPLE	8	GOOD	3468	PINUS SP.	PINE	11	GOOD
3107	MALUS SP.	APPLE	7	GOOD	3469	ACER SP.	MAPLE	36	GOOD
3108	MALUS SP.	APPLE	TWIN 6	GOOD	3470	ACER SP.	MAPLE	28	GOOD
3109	ACER SP.	MAPLE	24	GOOD	3471	PINUS SP.	PINE	14	GOOD
3110	POPULUS SP.	POPLAR	22	GOOD	3472	PINUS SP.	PINE	16	GOOD
3111	ACER SP.	MAPLE	TWIN 12	POOR	3473	ACER SP.	MAPLE	22	GOOD
3112	MALUS SP.	APPLE	15	GOOD	3474	PINUS SP.	PINE	13	GOOD
3113	ACER SP.	MAPLE	QUAD 14	GOOD	3475	PINUS SP.	PINE	14	GOOD
3114	ACER SP.	MAPLE	9	GOOD	3476	PINUS SP.	PINE	11	GOOD
3115	ACER SP.	MAPLE	TWIN 12	FAIR	3477	POPULUS SP.	ASPEN	32	GOOD
3116	ACER SP.	MAPLE	25	GOOD	3478	ACER SP.	MAPLE	20	GOOD
3117	POPULUS SP.	POPLAR	TWIN 17	GOOD	3479	PINUS SP.	PINE	11	POOR
3118	QUERCUS SP.	OAK	24	GOOD	3480	ACER SP.	MAPLE	18	GOOD
3119	MALUS SP.	APPLE	10	GOOD	3481	ACER SP.	MAPLE	TRIPLE 14	GOOD
3120	ACER SP.	MAPLE	16	GOOD	3482	ACER SP.	MAPLE	18	GOOD
3121	ACER SP.	MAPLE	16	GOOD	3483	ACER SP.	MAPLE	18	GOOD
3122	POPULUS SP.	POPLAR	36	GOOD	3484	ACER SP.	MAPLE	20	GOOD
3123	MALUS SP.	APPLE	14	FAIR	3485	ACER SP.	MAPLE	12	GOOD
3124	MALUS SP.	APPLE	16	FAIR	3486	ACER SP.	MAPLE	15	GOOD
3125	MALUS SP.	APPLE	16	FAIR	3487	PINUS SP.	PINE	20	GOOD
3126	MALUS SP.	APPLE	16	FAIR	3488	ACER SP.	MAPLE	TWIN 11	GOOD
3127	MALUS SP.	APPLE	12	FAIR	3489	PINUS SP.	PINE	16	GOOD
3128	POPULUS SP.	POPLAR	32	GOOD	3490	PINUS SP.	PINE	12	GOOD
3129	ULMUS SP.	ELM	QUAD 6	GOOD	3491	ACER SP.	MAPLE	24	GOOD
3130	MALUS SP.	APPLE	19	FAIR	3492	ACER SP.	MAPLE	14	GOOD
3131	MALUS SP.	APPLE	TWIN 10	FAIR	3493	ACER SP.	MAPLE	24	GOOD
3132	MALUS SP.	APPLE	TWIN 15	FAIR	3494	ACER SP.	MAPLE	26	GOOD
3133	ACER SP.	MAPLE	24	GOOD	3497	ACER SP.	MAPLE	16	POOR
3134	ACER SP.	MAPLE	24	FAIR	3498	ACER SP.	MAPLE	28	GOOD
3135	ACER SP.	MAPLE	31	GOOD	3499	ACER SP.	MAPLE	28	GOOD
					3500	PINUS SP.	PINE	20	GOOD



**LEGEND**



**PLANT SCHEDULE & COST ESTIMATE**

QUANTITY:	SYMBOL:	BOTANICAL NAME:	COMMON NAME:	SIZE:	UNIT PRICE:	INSTALLATION COST:	UNIT TOTAL:
37 EACH	(Symbol)	GINKGO BILOBA (MALE), OR TILIA TOMENTOSA	STERLING LINDEN	2.5" CAL.	\$300.00	\$25.00	\$10,075.00
6 EACH	(Symbol)	PICEA PUNGENS	COLORADO GREEN SPRUCE	5' HT.	\$300.00	\$25.00	\$1,950.00
<b>TOTAL TREES: 37</b>						SUBTOTAL COST: \$12,025	5% CONTINGENCY: \$601
						<b>TOTAL ESTIMATE: \$12,626</b>	

REVISIONS:

CLIENT: MR. JOSEPH MANACI, JR., LLC  
2025 SCHROEDER RD.  
SHELBY TWP., MI 48315  
(586) 726-7340

JOB NO: 12-151  
DATE: 10-8-12  
DRAWN BY: N.P.R.

SEAL: HORIZON ENGINEERING LLC  
CIVIL ENGINEERING, SITE PLANNING & LAND DEVELOPMENT CONSULTING  
P.O. Box 182158, Shelby Township, Michigan 48318  
Phone 586.453.8097 Fax 586.580.0053

PROJECT: Proposed "Timbercrest Preserves" Site Condominium  
PART OF THE NORTHEAST 1/4 OF SECTION 94, T.2N., R.1E., CITY OF TROY, OAKLAND COUNTY, MICHIGAN

PLANNING: Tree Preservation & Landscape Plan

SHEET: 3 OF 3  
MUNICIPAL REVIEW NUMBERS:

**CONSTRUCTION NOTES**

OPENINGS BETWEEN THE GARAGE AND RESIDENCE SHALL BE EQUIPPED WITH EITHER SOLID WOOD DOORS NOT LESS THAN 1-3/8 INCHES IN THICKNESS OR 20 MINUTE RATED DOORS, OR EQUIVALENT.

SAFETY GLAZING SHALL BE PROVIDED AT THE FOLLOWING LOCATIONS:  
 -GLAZING IN EGRESS AND MEANS OF EGRESS DOORS EXCEPT JALOUSIES  
 -GLAZING IN ALL UNFRAMED SWINGING DOORS  
 -GLAZING IN AN INDIVIDUAL, FIXED, OR OPERABLE PANEL, ADJACENT TO A DOOR WHERE THE NEAREST VERTICAL EDGE IS WITHIN A 24 INCH RADIUS OF THE DOOR IN A CLOSED POSITION AND WHOSE BOTTOM EDGE IS LESS THAN 60 INCHES ABOVE THE FLOOR OR WALKING SURFACE.

PROVIDE 5/8 INCH TYPE 'X' GYPSUM WALL BOARD ON THE GARAGE SIDE ADJACENT TO THE RESIDENCE AND ITS ATTIC AREA OR EQUIVALENT.

EVERY SLEEPING ROOM SHALL HAVE AT LEAST ONE OPERABLE WINDOW OR EXTERIOR DOOR APPROVED FOR EMERGENCY ESCAPE OR RESCUE. THE UNITS 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 A 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 OF 5.7 SQUARE FEET (5 SQUARE FEET ON GRADE FLOORS). THE MINIMUM NET CLEAR OPENING HEIGHT DIMENSION SHALL BE 24 INCHES. THE MINIMUM NET CLEAR OPENING WIDTH DIMENSION SHALL BE 20 INCHES.

A MINIMUM 3 FEET BY 3 FEET LANDING SHALL BE REQUIRED ON EACH SIDE OF AN EGRESS DOOR OR DOORWALL. THE FLOOR OR LANDING SHALL NOT BE MORE THAN 1-1/2 INCHES LOWER THAN THE TOP OF THE THRESHOLD.

WINDOWS ARE PERMITTED PROVIDED THE WIDTH OF THE TREAD AT A POINT NOT MORE THAN 12 INCHES FROM THE SIDE WHERE THE TREADS ARE NARROWER IS NOT LESS THAN 10 INCHES DEEP. THE MINIMUM WIDTH OF ANY TREAD SHALL NOT BE LESS THAN 6 INCHES, AND THE AVERAGE WIDTH OF ANY TREAD IS NOT LESS THAN 9 INCHES.

FIRESTOPPING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENINGS (BOTH VERTICAL AND HORIZONTAL) AND TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN STORIES, AND BETWEEN THE TOP STORY AND THE ROOF SPACE. FIRESTOPPING SHALL BE PROVIDED IN WOOD-FRAME CONSTRUCTION IN THE FOLLOWING LOCATIONS:  
 -IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES, AT THE CEILING AND FLOOR LEVEL.  
 -AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES, WHICH OCCUR AT SOFFITS, DROP CEILING, ETC.  
 -IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM RUN.  
 -AT OPENINGS AROUND VENTS, PIPES, DUCTS, CHIMNEYS AND FIREPLACES AT CEILING AND FLOOR LEVELS, WITH NON-COMBUSTIBLE MATERIALS.

EXCEPT AS PROVIDED IN THE ITEM ABOVE, FIRESTOPPING SHALL CONSIST OF 2 INCH NOMINAL LUMBER, OR (2) THICKNESSES OF 1 INCH NOMINAL LUMBER WITH BROKEN LAP JOINTS, OR (1) THICKNESS OF 23/32 INCH PLYWOOD WITH JOINTS BACKED BY 23/32 INCH PLYWOOD, OR (1) THICKNESS OF 3/4 INCH TYPE 2-M PARTICLEBOARD WITH JOINTS BACKED BY 3/4 INCH TYPE 2-M PARTICLEBOARD, OR OTHER APPROVED MATERIALS. THE INTEGRITY OF ALL FIRESTOPS SHALL BE MAINTAINED.

IN SHOWER AND BATH AREAS, FLOORS AND WALLS SHALL BE FINISHED WITH A SMOOTH, HARD AND NON-ABSORBANT SURFACE TO A HEIGHT OF NOT LESS THAN 6 FEET ABOVE FINISHED FLOOR. IN AREAS SUBJECT TO REPEATED DAMPNESS AND MOISTURE ACCUMULATION, WATER RESISTANT GYPSUM BOARD IS TO BE INSTALLED IN ACCORDANCE WITH GA-216 AS LISTED IN SECTION 5-26.502.

RAFTERS AND CEILING JOISTS SHALL BE PROVIDED WITH LATERAL SUPPORT AT POINTS OF BEARING TO PREVENT ROTATION.

RAFTER OR TRUSS TIES SHALL BE PROVIDED, WHEN ROOF TRUSSES AND ASSEMBLIES MAY BE SUBJECT TO WIND UPLIFT PRESSURES OF 20 PER SQUARE FOOT OR GREATER AND SHALL BE DESIGNED IN ACCORDANCE WITH ASCE 7, AS LISTED IN 5-26.702

A READILY ACCESSIBLE ATTIC ACCESS FRAMED OPENING NOT LESS THAN 22 INCHES BY 30 INCHES SHALL BE PROVIDED TO ANY ATTIC HAVING A CLEAR HEIGHT OVER 30 INCHES.

ASPHALT SHINGLE ROOFS SHALL HAVE ICE AND WATER SHIELDS, OR (2) LAYERS OF 15 POUND FELT CEMENTED TOGETHER FOR A DISTANCE OF 2 FEET INSIDE THE OUTSIDE WALLS AND AN UNDERLAYMENT OF NOT LESS THAN ONE PLY OF NUMBER 15 FELT, APPLIED AS REQUIRED IN SECTION R-802 AND TABLE NUMBER R-803.4

CHIMNEYS SHALL EXTEND AT LEAST 2 FEET HIGHER THAN ANY PORTION OF THE BUILDING WITHIN 10 FEET BUT SHALL NOT BE LESS THAN 3 FEET ABOVE THE POINT WHERE THE CHIMNEY PASSES THROUGH THE ROOF.

**NOTE: EGRESS WINDOWS**

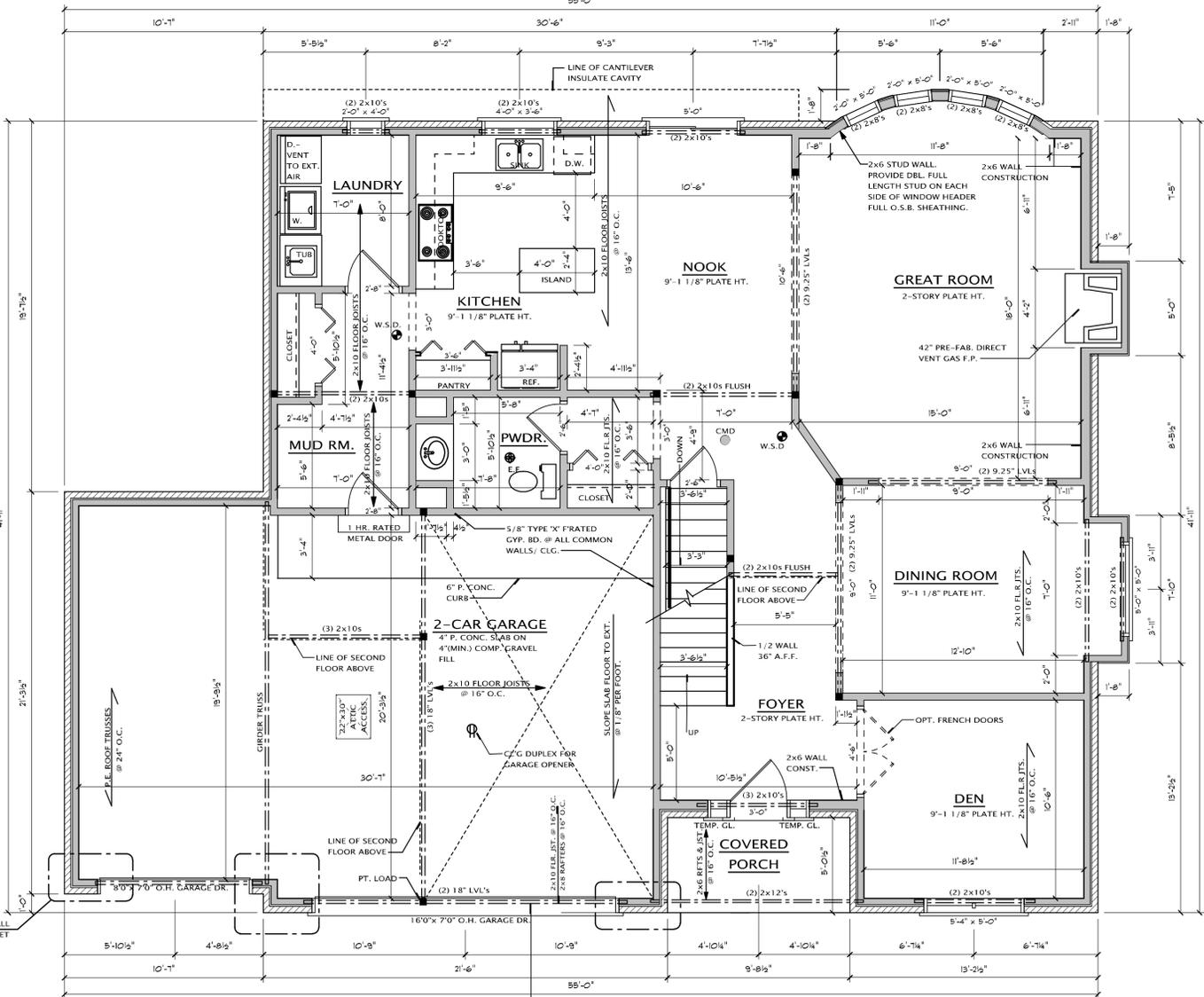
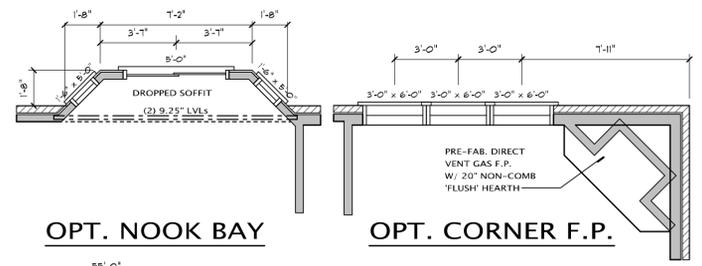
EVERY SLEEPING ROOM SHALL HAVE AT LEAST ONE OPERABLE WINDOW OR EXTERIOR DOOR APPROVED FOR EMERGENCY ESCAPE OR RESCUE. EACH EGRESS WINDOW SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5.7 SQUARE FEET. THE NET CLEAR OPENING SHALL BE AT LEAST 24 INCHES IN HEIGHT AND AT LEAST 20 INCHES IN WIDTH. THE BOTTOM OF THE CLEAR OPENING SHALL NOT BE MORE THAN 44 INCHES ABOVE THE FLOOR. (EXCEPTION: THE MINIMUM NET CLEAR OPENING FOR GRADE FLOOR WINDOWS SHALL BE 5 SQUARE FEET.)

ALL BEARING WALLS SHALL HAVE FLOOR JOIST UNDER EACH BEARING STUD. TYP. ALL BEARING WALLS

PROVIDE ALL ATTIC ACCESS W/ WEATHER STRIPPING

**OPERABLE WINDOW NOTE:**  
 ALL WINDOWS THAT ARE OPERABLE AND THE BOTTOM OF THE WINDOW IS 72" OR MORE ABOVE GRADE, SHALL BE 24" ABOVE FINISH FLOOR TO THE BOTTOM OF THE WINDOW.

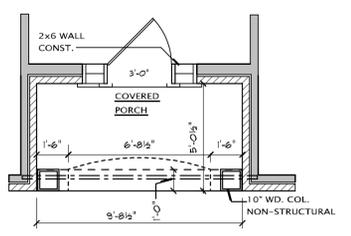
NOTE: ALL WINDOW SIZES ON PLAN REPRESENT ROUGH OPENING SIZES FOR FELLA WINDOWS. THERMOSTAT LINE. VERIFY WINDOW SCHEDULE W/ CONTRACTOR.



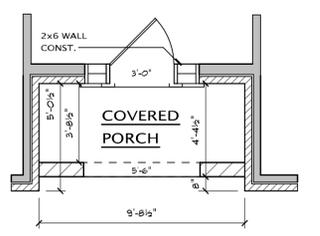
**FIRST FLOOR PLAN**

1ST FLOOR: 1,394 sq. ft.  
 2ND FLOOR: 1,285 sq. ft.  
 TOTAL: 2,679 sq. ft.

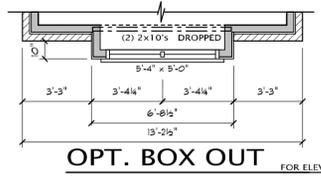
SCALE: 1/4" = 1'-0"



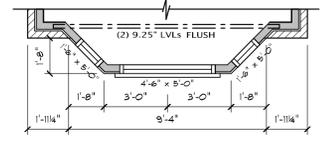
**OPT. FRONT ENTRY**  
 FOR ELEVATION 'C'



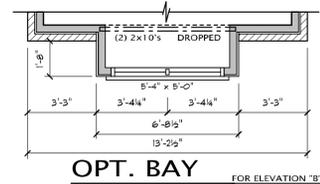
**OPT. FRONT ENTRY**  
 FOR ELEVATION 'E & D'



**OPT. BOX OUT**  
 FOR ELEVATION 'C'



**OPT. DEN BAY**  
 FOR ELEVATION 'D.E. & G.'



**OPT. BAY**  
 FOR ELEVATION 'B'

**JMP**  
 Design + Build, Inc.  
 16161 LEONE DR.  
 MACOMBE, MICHIGAN 48042  
 TEL: 586.232.4045  
 FAX: 586.232.4037  
 JPROS@JMPNOTRMAIL.COM

THE IDEAS AND DESIGN CONCEPTS EXPRESSED HEREIN AND THE GRAPHICALLY DISPLAYED ARRANGEMENT OF THEIR COMPONENTS REPRESENTED BY THIS DRAWING HAVE BEEN DEVELOPED FOR THE EXCLUSIVE USE OF THE SPECIFIED PROJECT AND ARE THE SOLE PROPERTY OF JMP Design + Build, Inc. INCORPORATED. A CONVEYANCE OR DISCLOSURE OF THE IDEAS DESIGN CONCEPTS OR USE OF ANY GRAPHICALLY DISPLAYED ARRANGEMENTS OF THE COMPONENTS SHALL BE AT THE DISCRETION AND ONLY THROUGH THE EXPRESSED WRITTEN CONSENT OF JMP Design + Build, Inc. ALL MATERIALS HEREIN ARE PROPRIETARY AND COPYRIGHTED

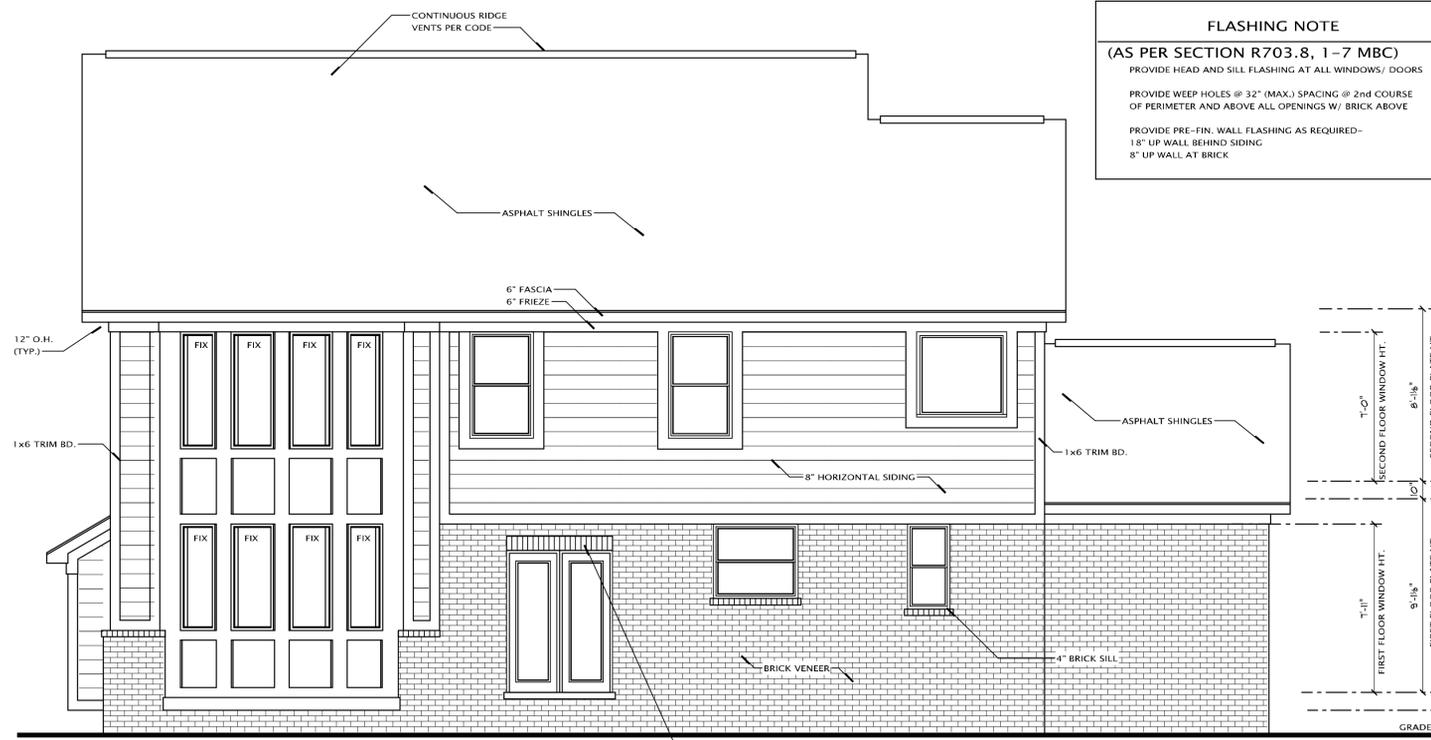
**MANDOLIN STANDARD**

**MONDRIAN PROPERTIES**  
 50215 SCHOEHNERR RD.  
 SHELBY TWP., MI

SHEET TITLE:  
**FIRST FLOOR PLAN**

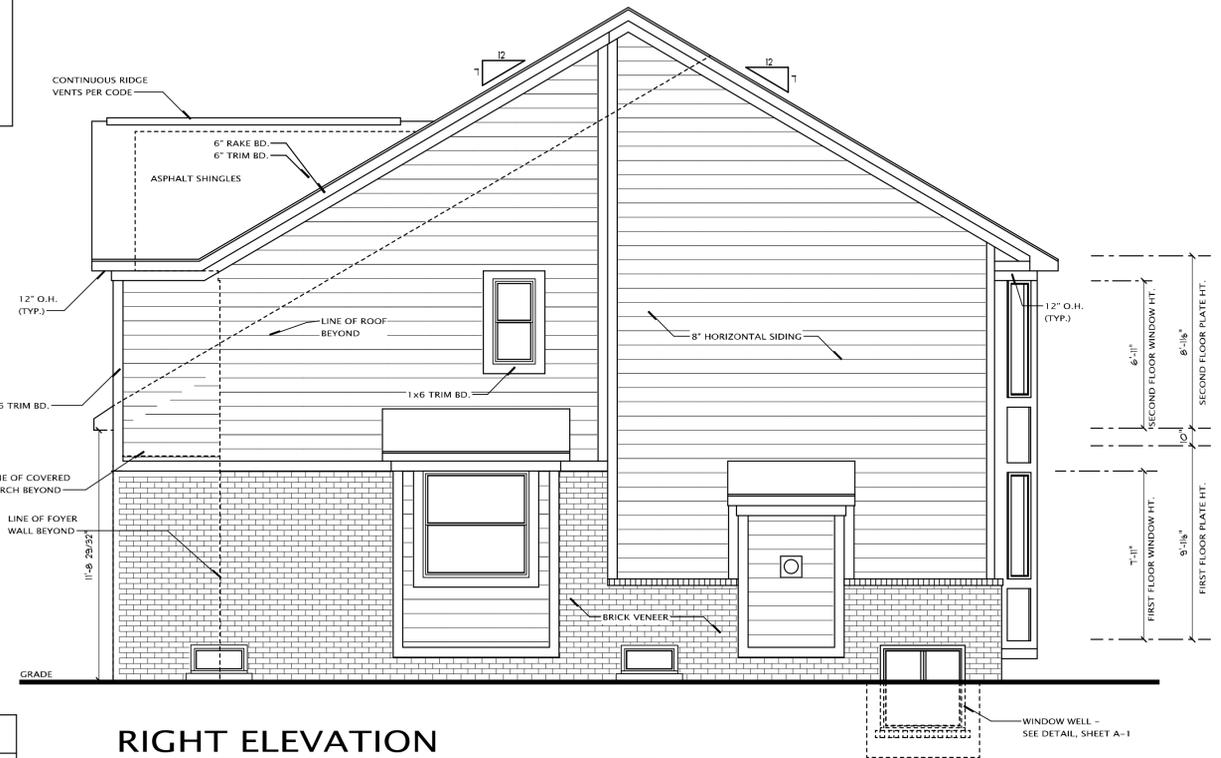
DATE:	DRAWN BY:
1/15/12	J.V.C.
2/29/12	CHECKED BY:
03/12/12	J.P.
JOB NUMBER:	
12 - 108	
SHEET NUMBER:	





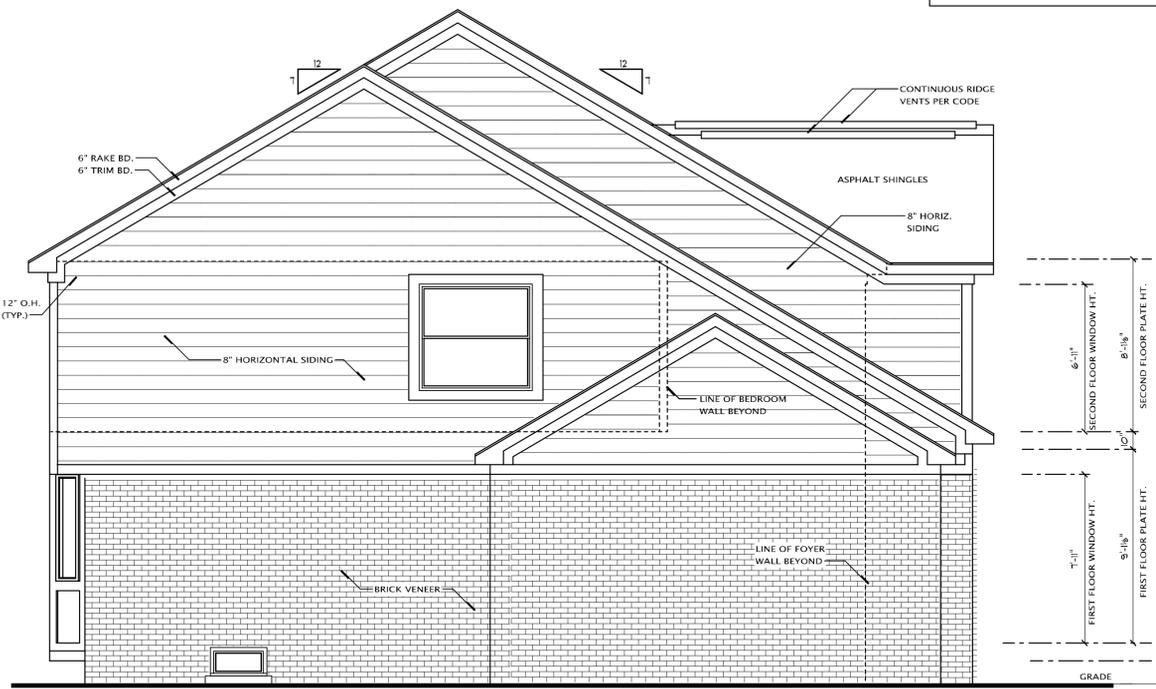
**REAR ELEVATION**

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



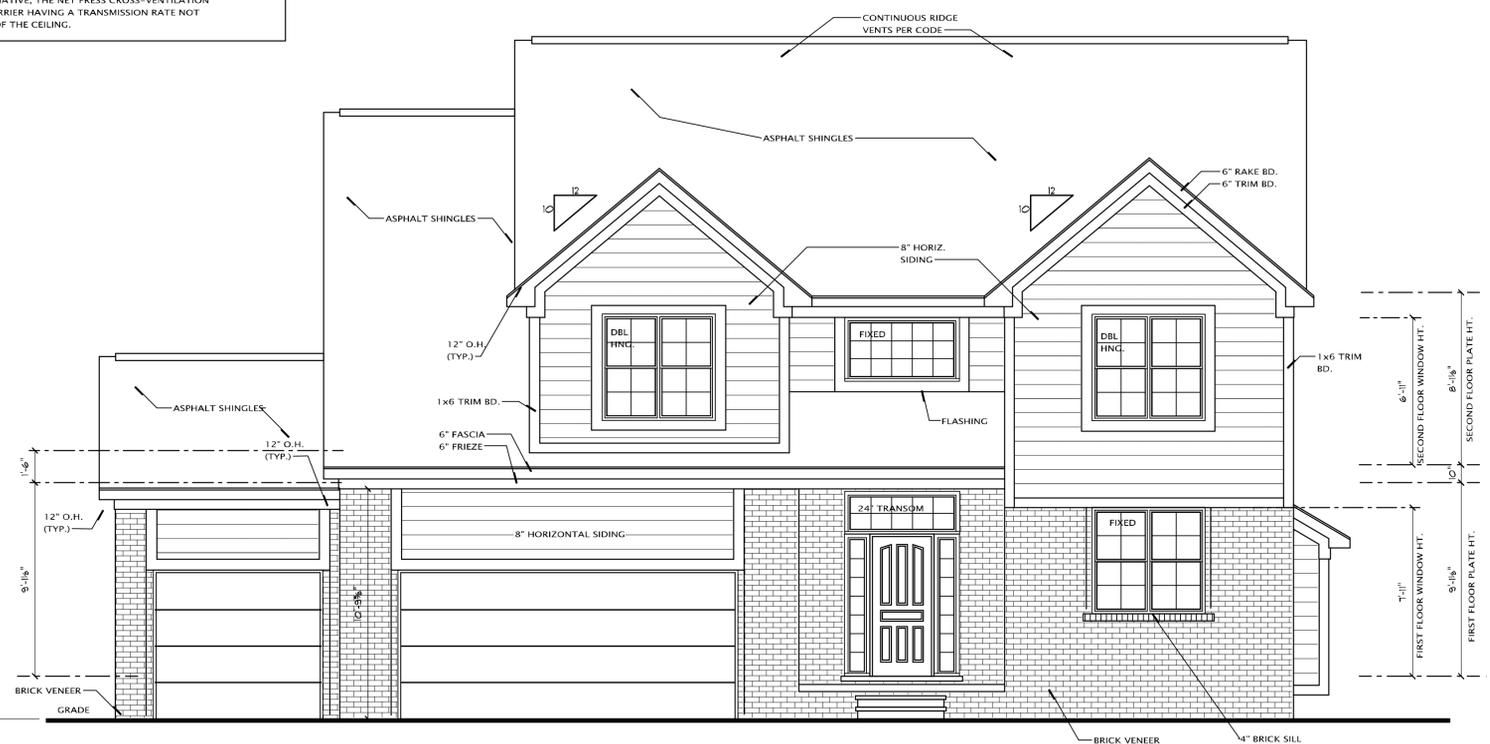
**RIGHT ELEVATION**

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



**LEFT ELEVATION**

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



**STANDARD FRONT ELEVATION "A"**

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

THE IDEAS AND DESIGN CONCEPTS EXPRESSED HEREIN AND THE GRAPHICALLY DISPLAYED ARRANGEMENT OF THEIR COMPONENTS REPRESENTED BY THIS DRAWING HAVE BEEN DEVELOPED FOR THE EXCLUSIVE USE OF THE SPECIFIED PROJECT AND ARE THE SOLE PROPERTY OF JMP Design & Build, Inc. INCORPORATED. A CONVEYANCE OR DISCLOSURE OF THE IDEAS DESIGN CONCEPTS OR USE OF ANY GRAPHICALLY DISPLAYED ARRANGEMENTS OF THE COMPONENTS SHALL BE AT THE DISCRETION AND ONLY THROUGH THE EXPRESSED WRITTEN CONSENT OF JMP Design & Build, Inc. ALL MATERIALS HEREIN ARE PROPRIETARY AND COPYRIGHTED

**MANDOLIN STANDARD**

BUILDER

**MONDRIAN PROPERTIES**

50215 SCHOEHNERR RD.  
SHELBY TWP., MI

SHEET TITLE:

**GABLE ELEVATIONS**

DATE:  
1/15/12  
2/29/12  
03/12/12

DRAWN BY:

J.V.C.

CHECKED BY:

J.P.

JOB NUMBER:

12 - 108

SHEET NUMBER:

PROPERTY DESCRIPTIONS: (AS FURNISHED BY CLIENT)

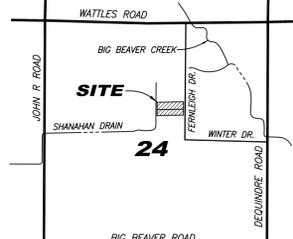
PARCEL NO. 20-24-201-012
THE SOUTH 175 FEET OF LOT 8, 'EYSTER'S DEQUINDRE FARMS SUBDIVISION NO. 5', BEING A PART OF THE NORTHEAST 1/4 OF SECTION 24, TOWN 2 NORTH, RANGE 11 EAST, CITY OF TROY, OAKLAND COUNTY, MICHIGAN AS RECORDED IN LIBER 55 OF PLATS, PAGE 58 OF OAKLAND COUNTY RECORDS.

PARCEL NO. 20-24-201-013
THE NORTH 140 FEET OF LOT 9, 'EYSTER'S DEQUINDRE FARMS SUBDIVISION NO. 5', BEING A PART OF THE NORTHEAST 1/4 OF SECTION 24, TOWN 2 NORTH, RANGE 11 EAST, CITY OF TROY, OAKLAND COUNTY, MICHIGAN AS RECORDED IN LIBER 55 OF PLATS, PAGE 58 OF OAKLAND COUNTY RECORDS.

PROPERTY DESCRIPTION: (AS SURVEYED)

COMBINED PARCEL:
THE SOUTH 175 FEET OF LOT 8 AND THE NORTH 140 FEET OF LOT 9, 'EYSTER'S DEQUINDRE FARMS SUBDIVISION NO. 5', BEING A PART OF THE NORTHEAST 1/4 OF SECTION 24, TOWN 2 NORTH, RANGE 11 EAST, CITY OF TROY, OAKLAND COUNTY, MICHIGAN AS RECORDED IN LIBER 55 OF PLATS, PAGE 58 OF OAKLAND COUNTY RECORDS, BEING MORE PARTICULARLY DESCRIBED AS:

COMMENCING AT THE NORTH 1/4 CORNER OF SAID SECTION 24; THENCE SOUTH 01 DEGREES 35 MINUTES 00 SECONDS WEST 1852.28 FEET ALONG THE NORTH-SOUTH 1/4 LINE OF SAID SECTION 24, SAID LINE ALSO BEING THE WEST LINE OF SAID 'EYSTER'S DEQUINDRE FARMS SUBDIVISION NO. 5' TO THE POINT OF BEGINNING; THENCE DUE EAST 620.00 FEET TO THE WEST RIGHT OF WAY LINE OF FERLEIGH ROAD (60 FEET WIDE); THENCE SOUTH 01 DEGREES 35 MINUTES 00 SECONDS WEST 315.00 FEET ALONG SAID WEST RIGHT OF WAY LINE; THENCE DUE WEST 620.00 FEET TO SAID NORTH-SOUTH 1/4 LINE; THENCE ALONG SAID NORTH-SOUTH 1/4 LINE NORTH 01 DEGREES 35 MINUTES 00 SECONDS EAST 315.00 FEET TO THE POINT OF BEGINNING, CONTAINING 4.48 ACRES OF LAND, MORE OR LESS, SUBJECT TO ANY AND ALL EASEMENTS OR RIGHT OF WAY OF RECORD, IF ANY.



LOCATION MAP

SCALE: 1" = 2000'

TREE INVENTORY

TAG # BOTANICAL NAME COMMON NAME D.B.H. (IN) CONDITION

Table with 5 columns: TAG #, BOTANICAL NAME, COMMON NAME, D.B.H. (IN), CONDITION. Lists various tree species like PINUS SP, MALUS SP, ACER SP, etc.

LEGEND

- FOUND MONUMENT AS NOTED
SET 1/2" REBAR WITH CAP #46724
UTILITY POLE
GUY WIRE ANCHOR
TELEPHONE RISER/ELEC. METER
GAS METER
MANHOLE (AS NOTED)
ROUND CATCH BASIN
SQUARE CATCH BASIN
END SECTION
GATEWELL/SHUT-OFF VALVE
FIRE HYDRANT
EXISTING GRADE ELEVATION
EXISTING TREE & TAG NUMBER

BASIS OF BEARING

SOUTH 01°35'00" WEST, BEING THE NORTH-SOUTH 1/4 LINE OF SECTION 24 AS PLATTED IN 'EYSTER'S DEQUINDRE FARMS SUBDIVISION NO. 5' AND AS MONUMENTED IN FIELD.

PARCEL AREAS

PARCEL NO. 20-24-201-012
TOTAL = 108,458.53 SQUARE FEET = 2.49 ACRES
PARCEL NO. 20-24-201-013
TOTAL = 96,708.79 SQUARE FEET = 1.99 ACRES
COMBINED PARCEL:
TOTAL = 195,225.28 SQUARE FEET = 4.48 ACRES

POINT OF BEGINNING

POINT OF BEGINNING OF SUBJECT PROPERTY

30' WD. EASEMENT

FOR THE HENRY- GRAHAM COUNTY DRAIN

NORTH-SOUTH 1/4 LINE OF SECTION 24 & WEST LINE OF 'EYSTER'S DEQUINDRE FARMS SUB. NO. 5'

10' WD. EASEMENT FOR TRANSIT & STORAGE CO. TELEGRAPH LINE (AS PLATTED)

'OLDE FORGE SUB. NO. 5'

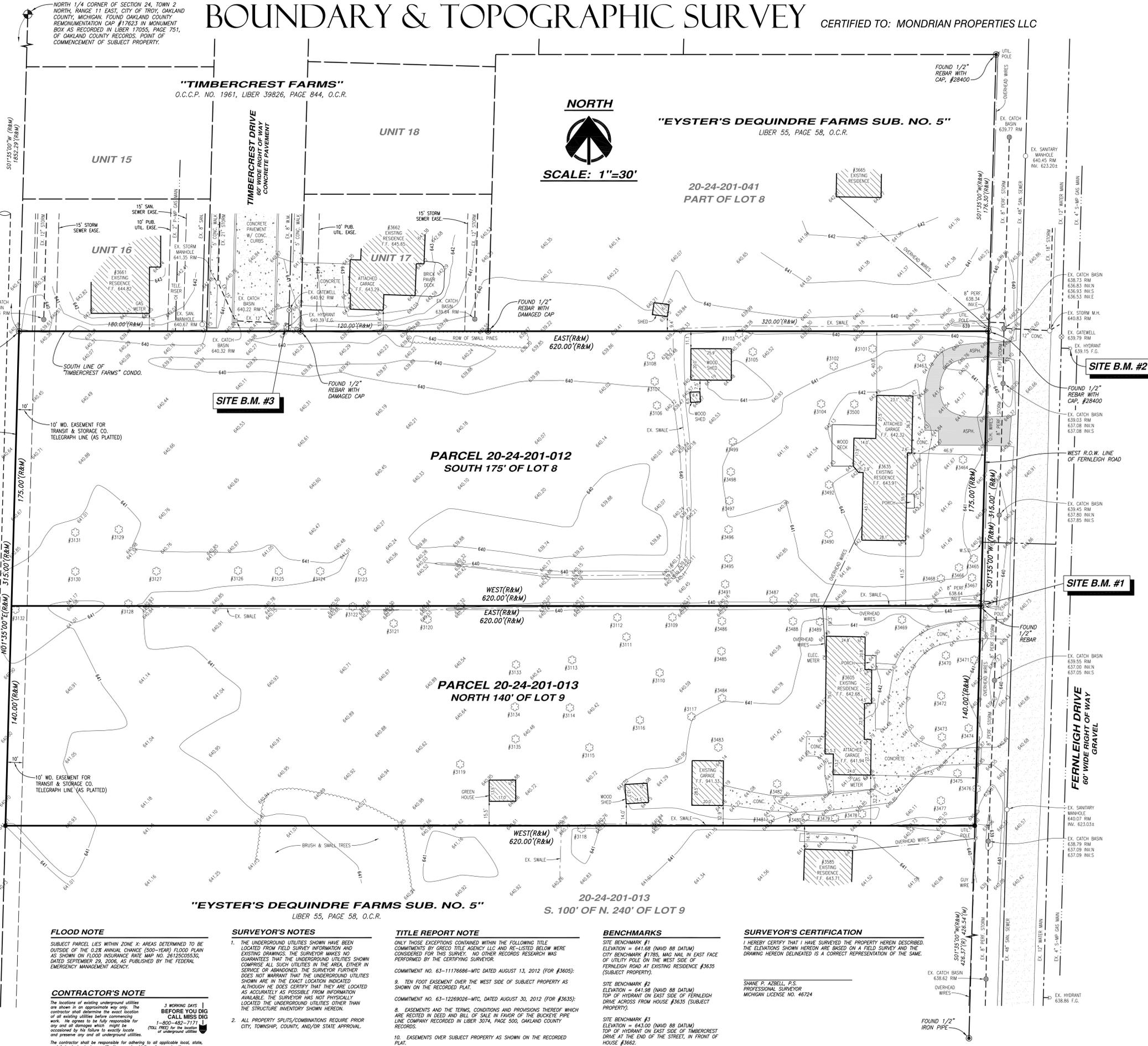
LIBER 130, PAGES 21-23, O.C.R.

20-24-180-025 OUTLOT 'A'

10' WD. EASEMENT FOR TRANSIT & STORAGE CO. TELEGRAPH LINE (AS PLATTED)

BOUNDARY & TOPOGRAPHIC SURVEY

CERTIFIED TO: MONDRIAN PROPERTIES LLC



NORTH



SCALE: 1"=30'

'TIMBERCREST FARMS' O.C.C.P. NO. 1961, LIBER 39826, PAGE 844, O.C.R.

'EYSTER'S DEQUINDRE FARMS SUB. NO. 5' LIBER 55, PAGE 58, O.C.R.

PARCEL 20-24-201-012 SOUTH 175' OF LOT 8

PARCEL 20-24-201-013 NORTH 140' OF LOT 9

'EYSTER'S DEQUINDRE FARMS SUB. NO. 5' LIBER 55, PAGE 58, O.C.R.

FLOOD NOTE

SUBJECT PARCEL LIES WITHIN ZONE X: AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE (500-YEAR) FLOOD PLAIN AS SHOWN ON FLOOD INSURANCE RATE MAP NO. 28125C0530, DATED SEPTEMBER 29, 2006, AS PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

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.

SURVEYOR'S NOTES

- 1. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES OTHER THAN THE STRUCTURE INVENTORY SHOWN HEREON.
2. ALL PROPERTY SPLITS/COMBINATIONS REQUIRE PRIOR CITY, TOWNSHIP, COUNTY, AND/OR STATE APPROVAL.

TITLE REPORT NOTE

- ONLY THOSE EXCEPTIONS CONTAINED WITHIN THE FOLLOWING TITLE COMMITMENTS BY GRECO TITLE AGENCY LLC AND RE-LISTED BELOW WERE CONSIDERED FOR THIS SURVEY. NO OTHER RECORDS RESEARCH WAS PERFORMED BY THE CERTIFYING SURVEYOR.
COMMITMENT NO. 63-11176886-MTC DATED AUGUST 13, 2012 (FOR #3605):
9. TEN FOOT EASEMENT OVER THE WEST SIDE OF SUBJECT PROPERTY AS SHOWN ON THE RECORDED PLAT.
COMMITMENT NO. 63-12269026-MTC, DATED AUGUST 30, 2012 (FOR #3635):
4. EASEMENTS AND THE TERMS, CONDITIONS AND PROVISIONS THEREOF WHICH ARE RECIPIED IN DEED AND BILL OF SALE IN FAVOR OF THE SUBJECTS P&L COMPANY RECORDED IN LIBER 3074, PAGE 500, OAKLAND COUNTY RECORDS.
10. EASEMENTS OVER SUBJECT PROPERTY AS SHOWN ON THE RECORDED PLAT.

BENCHMARKS

- SITE BENCHMARK #1
ELEVATION = 641.68 (NAVD 88 DATUM)
CITY BENCHMARK #1735, M&C MAIL IN EAST FACE OF UTILITY POLE ON THE WEST SIDE OF FERLEIGH ROAD AT EXISTING RESIDENCE #3635 (SUBJECT PROPERTY).
SITE BENCHMARK #2
ELEVATION = 641.68 (NAVD 88 DATUM)
TOP OF HYDRANT ON EAST SIDE OF FERLEIGH DRIVE ACROSS FROM HOUSE #3635 (SUBJECT PROPERTY).
SITE BENCHMARK #3
ELEVATION = 643.00 (NAVD 88 DATUM)
TOP OF HYDRANT ON EAST SIDE OF TIMBERCREST DRIVE AT THE END OF THE STREET, IN FRONT OF HOUSE #3662.

SURVEYOR'S CERTIFICATION

I HEREBY CERTIFY THAT I HAVE SURVEYED THE PROPERTY HEREIN DESCRIBED. THE ELEVATIONS SHOWN HEREON ARE BASED ON A FIELD SURVEY AND THE DRAWING HEREON DELIVERED IS A CORRECT REPRESENTATION OF THE SAME.
SWANE P. AZBELL, P.S.
PROFESSIONAL SURVEYOR
MICHIGAN LICENSE NO. 46724

AZTEC LAND SURVEYORS INC.
BOUNDARY & TOPOGRAPHIC SURVEY
JOB NO: 12-245
DATE: 10/9/12
DRAWN BY: S.A.
CHECKED BY: S.A.
MUNICIPAL REVIEW NUMBERS: 1 OF 1
PHONE: 566-306-1293
P.O. BOX 353
HOLLY, MI 48442
FAX: 480-287-8799

# CITY OF TROY MICHIGAN PUBLIC NOTICE CITY PLANNING COMMISSION

In accordance with the provisions of the Michigan State Law, Notice is hereby given that the Planning Commission of the City of Troy will hold Public Meetings in the City Hall, 500 West Big Beaver Road, Troy, Michigan, (248) 524-3364, on the following dates:

## 2013 PLANNING COMMISSION MEETING DATES

<u>Date</u>	<u>Meeting</u>	<u>Date</u>	<u>Meeting</u>
January 8	Regular <sup>1</sup>	July 9	Regular <sup>1</sup>
January 22	Special/Study <sup>2</sup>	July 23	Special/Study <sup>2</sup>
February 12	Regular <sup>1</sup>	August 13	Regular <sup>1</sup>
		August 27	Special/Study <sup>2</sup>
March 12	Regular <sup>1</sup>	September 10	Regular <sup>1</sup>
March 26	Special/Study <sup>2</sup>	September 24	Special/Study <sup>2</sup>
April 9	Regular <sup>1</sup>	October 8	Regular <sup>1</sup>
April 23	Special/Study <sup>2</sup>	October 22	Special/Study <sup>2</sup>
May 14	Regular <sup>1</sup>	November 12	Regular <sup>1</sup>
May 28	Special/Study <sup>2</sup>	November 26	Special/Study <sup>2</sup>
June 11	Regular <sup>1</sup>	December 10	Regular <sup>1</sup>
June 25	Special/Study <sup>2</sup>		

All of the above **Regular<sup>1</sup>** meetings will be held in the City Council Chambers of the City Hall Building at 7:00 p.m. and are Open to the Public.

All of the above **Special/Study<sup>2</sup>** meetings will be held in Council Board Room of the City Hall Building at 7:00 p.m. and are Open to the Public.

This notice is hereby posted as required by Section 4 of the Open Meetings Act (MCLA 15.261 et seq.)

---

R. Brent Savidant, AICP / PCP  
Planning Director

Posted: xxxxx, 2013

**NOTICE:** *People with disabilities needing accommodations for effective participation in this meeting should contact the City Clerk by e-mail at [clerk@troymi.gov](mailto: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.*

PROPOSED RESOLUTION

**Resolution # PC-2012-11-**

Moved by:

Seconded by:

**RESOLVED**, That the Troy City Planning Commission hereby establishes the following schedule for their meetings during the calendar year 2013:

1. Regular Meetings will be held on the second Tuesday of each month.
2. Special/Study Meetings will be held on the fourth Tuesday of each month, as necessary, with the exception of February 26 and December 24.
3. If additional Special/Study Meetings become necessary, alternate Special/Study Meeting dates may be set at the discretion of the Commission.

Yes:

Absent:

**MOTION CARRIED/FAILED**