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PLANNING COMMISSION
MEETING AGENDA
REGULAR MEETING

Marianna Perakis, Chair, Lakshmi Malalahalli, Vice Chair
Toby Buechner, Carlton Faison, Tyler Fox, Michael W. Hutson, Tom Krent,
Dave Lambert and John J. Tagle

May 27, 2025 **7:00 P.M.** **Council Chambers**

1. ROLL CALL
2. APPROVAL OF AGENDA
3. APPROVAL OF MINUTES – May 13, 2025
4. PUBLIC COMMENT – For Items Not on the Agenda

PRELIMINARY SITE PLAN APPROVAL

5. PRELIMINARY SITE PLAN APPROVAL – (SP JPLN2025-0001) – Proposed GFA Forsyth Site Condominium, 9 single family detached units, North of Wattles, West of Dequindre (4189 and 4197 Forsyth; PIN 88-20-13-401-028, -037 & -038), Section 13, Presently zoned R-1C One Family Residential Zoning District.

OTHER ITEMS

6. PUBLIC COMMENT – For Items on the Agenda
7. PLANNING COMMISSION COMMENT
8. ADJOURN

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

Televised Live, Government Channel WTRY (10 WideOpenWest and 17 Comcast) Replayed Wednesdays 3:00 pm, 6:00 pm and 11:00 pm

Chair Perakis called the Regular meeting of the Troy City Planning Commission to order at 7:02 p.m. on May 13, 2025, in the Council Chamber of the Troy City Hall. Chair Perakis and Vice Chair Malalahalli presented opening remarks relative to the role of the Planning Commission and procedure for tonight's meeting.

1. ROLL CALL

Present:
Toby Buechner
Carlton M. Faison
Tyler Fox
Michael W. Hutson
Tom Krent
David Lambert
Lakshmi Malalahalli
Marianna Perakis
John J. Tagle

Also Present:
Ben Carlisle, Carlisle Wortman & Associates
R. Brent Savidant, Community Development Director
Julie Quinlan Dufrane, Assistant City Attorney
Kathy L. Czarnecki, Recording Secretary

2. APPROVAL OF AGENDA

Resolution # PC-2025-028
Moved by: Faison
Support by: Buechner

RESOLVED, To approve the agenda as prepared.

Yes: All present (9)

MOTION CARRIED

3. APPROVAL OF MINUTES – April 22, 2025

Resolution # PC-2025-05-029
Moved by: Malalahalli
Support by: Lambert

RESOLVED, To approve the minutes of April 22, 2025 Regular meeting as submitted.

Yes: All present (9)

MOTION CARRIED

4. PUBLIC COMMENT – For Items Not on the Agenda

Mary Ellen Barden, 2105 Babcock; addressed the agenda material provided to Planning Commission for their meetings.

PLANNED UNIT DEVELOPMENT

5. PLANNED UNIT DEVELOPMENT – (PUD021 JPLN2024-0012) – Proposed Somerset West Concept Development Plan and Preliminary Development Plan for Phase 1A, North side of Big Beaver, West side of Coolidge (3100 W. Big Beaver; PIN 88-20-19-476-002, 88-20-19-476-003 and 88-20-19-430-004), Section 19, Presently Zoned PUD (Planned Unit Development) Zoning District

Mr. Carlisle explained the three step approval process of the Somerset West Planned Unit Development (PUD) application. He reviewed the proposed Concept Development Plan (CDP) and Preliminary Development Plan (PDP) for Phase 1A since last reviewed at the Planning Commission April 22, 2025 Regular meeting. Mr. Carlisle specifically addressed the applicant's responses to the eight conditions cited in the motion to postpone.

In summary, Mr. Carlisle asked the Planning Commission in its deliberations to consider if the Concept Development Plan meets the PUD Standards set forth in Section 11.03 and if the Preliminary Development Plan for Phase 1A meets the Site Plan Review Design Standards set forth in Section 8.06.

Some comments among Board and administration related to:
- Outline of 17 acres purchased by the University of Michigan (U of M Health).
- Open space requirements.
- Application of the PUD Agreement in relationship to the Zoning Ordinance requirements.

Ms. Dufrane suggested the Board incorporate in its Resolution any considerations it might want City Council to address.

Nate Forbes of Forbes Frankel Troy Ventures LLC addressed the company's continuing reinvestment in the Somerset Collection, their philosophical interest in the Big Beaver corridor and the City of Troy and the demolition of the former K-Mart Headquarters. He presented a video of the proposed mixed-use project, bringing attention to the pedestrian walkways and beautifully landscaped areas. The presentation included renderings of the mixed-use project, open space, medical facility, parking, elevations, building materials and color schemes.

Some comments during discussion related to the following:
- Expanse and vision of the open space.
- Demolition of the former K-Mart Headquarters at a cost of $6.5 million.

- Townhomes and drive-through uses; applicant addressed reason to keep uses in the PUD Agreement.
- Construction of residential units as relates to the Consent Judgment.
- Parking; deck and surface only, no underground.
- Unknown economic and development climate.
- Installation of the infrastructure is not dependent on U of M Health development.
- U of M Health presence increases interest in Troy community and ancillary uses.
- High standards held by both U of M Health and the applicant.
- Concept Plan illustration; consideration to include pictures and renderings.

Ms. Dufrane expressed how the applicant and the administration are trying to achieve a balance between predictability and flexibility in the PUD Agreement. She reminded the Board that each phase of the development will be before them for consideration.

Mr. Forbes addressed how they are dependent on market fluctuations. He said they will find the balance and build an exceptional mixed-use project.

Chair Perakis opened the floor for public comment.

- Mary Ellen Barden, 2105 Babcock; addressed the impact of the project to her home during construction phase, shared pictures of existing unsightly condition behind her home, asked the applicant to provide an appropriate barrier to alleviate her concerns and concerns of the neighbors to the north.
- Jasper Gill, 3120 Newport; spoke in support of the proposed project, addressed its positive economic impact.

Chair Perakis closed the floor for public comment.

Resolution # PC-2025-05-030

Moved by: Fox
Support by: Faison

WHEREAS, The applicant Forbes Frankel Troy Ventures LLC submitted a Conceptual Development Plan application for a Planned Unit Development, located on the northwest corner of Big Beaver and Coolidge, in Section 19, approximately 40 acres in area; and

WHEREAS, The applicant also submitted a Preliminary Development Plan application for Phase 1A of the proposed Planned Unit Development, including internal roads and utilities; and

WHEREAS, The Concept Development Plan proposes multiple phases for a mixed-use development including up to 500,000 square of feet of office, up to 300,000 square feet of retail, up to 750 residential units and up to 250 hotel rooms and open space public amenities; and

WHEREAS, The Concept Development Plan contemplates the development of up to 17 acres of the site by U of M Health, a constitutional corporation per the Michigan Constitution; and

WHEREAS, The Concept Development Plan will be implemented through submittal of Preliminary Development Plans for each phase of development; and

WHEREAS, Each Preliminary Development Plan will require a Planning Commission public hearing and City Council public hearing prior to approval; and

WHEREAS, The proposed Concept Development Plan meets the Standards for Approval set forth in Section 11.03.

THEREFORE BE IT RESOLVED, That the Planning Commission recommends to City Council that Concept Development Plan Approval for the proposed Somerset West Planned Unit Development be **granted**.

BE IT FINALLY RESOLVED, That the Planning Commission recommends to City Council that Preliminary Development Plan Approval for Phase 1A of the Somerset West Planned Unit Development be **granted**.

Discussion on the motion on the floor.

Ms. Dufrane clarified that each Preliminary Development Plan granted approval is given three years to complete construction per the Zoning Ordinance regulations. She said the applicant can request an extension of any approved Preliminary Development Plan and that request would be handled administratively. Ms. Dufrane said any substantial revisions to any approved plan would bring the item back to the Planning Commission for consideration.

Mr. Lambert said he feels the applicant should be granted flexibility because (1) the applicant has demolished the former K-Mart Building; (2) the applicant is bringing in the U of M Health facility as an important anchor; and (3) the applicant is providing multi uses for both businesses and residential units to supplement the Somerset Collection. Mr. Lambert said he is confident the applicant heard the comments expressed this evening from one neighbor to the north and is assured the applicant will accommodate all the neighbors to the north with a nice view of the project.

Vote on the motion on the floor.

Yes: All present (9)

MOTION CARRIED

CONDITIONAL REZONING

6. PUBLIC HEARING – CONDITIONAL REZONING APPLICATION (JPCR2025-002) – Proposed Northland Enclave, West side of Corporate, North of Long Lake (5455 Corporate, PIN 88-20-08-451-004), Section 8, From O (Office) Zoning District to CB (Community Business) and MF (Multifamily) Zoning Districts

Mr. Buechner exited the meeting at 8:25 p.m.; returned at 8:27 p.m.

Mr. Carlisle reviewed the Conditional Rezoning application for Northland Enclave. He addressed how the application relates to the Master Plan (North Troy Special Area Plan) and the voluntary conditions offered by the applicant. He said removing an underperforming office building and repurposing the site for commercial and residential use is consistent with the overall intent of the transformation of North Troy. Mr. Carlisle addressed the site layout and circulation, parking, landscaping, lighting, floor plans, elevations, building materials and color schemes.

In summary, Mr. Carlisle asked the Planning Commission in its deliberations to consider if the application meets the Conditional Rezoning Standards (Section 16.04.C.3) and Site Plan Review Design Standards (Section 8.06). He said any approval should be subject to the conditions identified in the Planning Consultant report dated May 6, 2025.

A video presentation prepared by the applicant was shown.

Erion Nikolla of Eureka Innovation Development and Project Engineer James Butler of PEA Associates were present. The applicant distributed to the Board members updated printouts of the site plan, site layout, landscape plan, elevations, building materials and various colored renderings.

Mr. Nikolla addressed the challenge of repurposing the building and their mission to offer economically attainable and viable housing. Mr. Nikolla explained the shared access easement to the south. He said demolition is scheduled in the summer and construction would start as soon as final engineering plans are approved. Mr. Nikolla addressed the price range for the mix of two and three story homes ($300,000+).

Some comments during discussion related to the following:

- Internal vehicular and pedestrian circulation.
  - Turning radiuses of trucks at the northwest corner.
  - Safety concerns of the drive aisle.
  - Crosswalks provided.
- Style, design, color scheme, building material of residential units.
- Commercial tenants; small uses, no restaurant.
- Landscaping.
  - Arborvitae, evergreens, retaining rock wall between residential and commercial.
  - Existing landscaping to the south remains.
  - Landscaping to the north will be replaced.

- Gravel walking path; approximately one acre.
- Placement/location of mechanical equipment.
- Design of entrance to the project.
- Front doors of residential units limit outdoor seating, engagement with neighbors.
- Consideration by applicant to create front porches.
- Consideration by applicant to add seating (benches) in center courtyard.
- Consideration to mirror commercial front and rear elevations.

Mr. Nikolla confirmed the voluntary conditions offered are:
- 7 foot wide by 7 foot deep front walkways.
- Additional benches.
- Facades of the retail building mimic each other.
- Approval of the Site Plan application.

PUBLIC HEARING OPENED

There was no one present who wished to speak.

PUBLIC HEARING CLOSED

Moved by: Fox
Support by: Buechner

RESOLVED, That the Planning Commission hereby recommends to the City Council that the O (Office) to CB (Community Business) and MF (Multifamily) Conditional Rezoning request, as per Section 16.04 of the City of Troy Zoning Ordinance, located on the West side of Corporate, North of Long Lake (5455 Corporate, PIN 88-20-08-451-004), within Section 8, being approximately 8.22 acres in size, be **granted,** for the following reasons:

1. The request complies with the Master Plan.
2. The rezoning would permit greater flexibility in use and development of the property.
3. The conditions offered by the applicant reasonably protect the adjacent properties.
4. The rezoning would be compatible with surrounding zoning and land use.
5. The site can be adequately served with municipal water and sewer.

BE IT FURTHER RESOLVED, That the Planning Commission recommends the following site plan design considerations:

1. Increase stacking by one (1) space.
2. Provide screening around exterior air conditioning units.
3. Reduce lighting levels to 0.1 footcandles along retail boundaries adjacent to residential.
4. Provide color renderings of side and rear (garage) elevations.
5. Redesign the residential walkups to the doors to be 7 foot wide.
6. Include additional park benches on the property for public seating.

7 Redesign the facade on the rear of the commercial building to mimic aspects from the front of the commercial building.
8. Include the Site Plan as a voluntary condition of the Conditional Rezoning application to the satisfaction of the City Attorney.

Discussion on the motion on the floor.

Ms. Dufrane said the motion is okay but noted she does not necessarily like the wording '*to the satisfaction of the City Attorney*' when it is a voluntary Conditional Rezoning Agreement.

Mr. Buechner spoke in support of the application. He said it is a great reuse of an office building, he likes the green area, the walking path, play area and the offer of the missing middle housing.

Mr. Fox spoke in support of the application. He said it offers an affordable housing product.

Vote on the motion on the floor.

Yes: All present (9)

MOTION CARRIED

SPECIAL USE APPROVAL AND PRELIMINARY SITE PLAN APPROVAL

7. SPECIAL USE APPLICATION (SU JPLN2024-0031) – Proposed Barbat Troy Vehicle Fueling/Multi Use Station, Southeast corner of Crooks Road and South Boulevard (1981 South Boulevard, PIN 88-20-04-100-059), Section 4, Currently Zoned NN (Neighborhood Node "U") District

Mr. Carlisle reviewed the Special Use and Preliminary Site Plan application for the Barbat Troy Vehicle Fueling/Multi Use Station since last considered by the Planning Commission at their February 25, 2025 Regular meeting, at which time a Public Hearing was conducted. Mr. Carlisle outlined the applicant's responses to the issues identified in the motion to postpone.

In summary, Mr. Carlisle asked the Planning Commission in its deliberations to consider if the application meets the Site Plan Review Design Standards (Section 8.06) and the Special Use Standards (Section 9.03). Mr. Carlisle asked any approval of the Site Plan and Special Use application be subject to 1) consider eliminating signage/graphics on the canopy face and have it be metal or brick to match the building; 2) acknowledge on the site plan that the fueling center and restaurant is to be constructed and opened at the same time; and 3) provide a 3D model of the canopy and building in context with the surrounding site.

Present were Duane Barbat, Eric Williams of Stonefield Engineering and Project Architect John Abro.

Some comments during discussion related to the following:

- Shared driveway; turning radiuses for trucks.
- Fuel truck delivery; approximately one hour, six times a month, potential to block traffic maneuverability.
- Parking; location of barrier-free space.
- Number of existing fueling stations in the area.
- Public comment received at the public hearing; majority in opposition.
- Project will serve the northbound traffic.
- Applicant agrees to acknowledge on site plan that restaurant and convenience store will open at the same time as fueling station.
- Elevations; consideration to break up masonry walls, add articulation, landscaping; consideration to center entrance door.
- Canopy striping/color required by *Shell* brand.
- Location of the bike rack.
- Location of EV charging stations; one station serves four cars at one time; infrastructure in place for additional EV charging stations.
- Hours of operation; fueling center/convenience store 24/7, restaurant 10 a.m. to 11 p.m.

Mr. Fox stated he does not support the development because it is an autocentric use at a major intersection of the City. He noted many residents spoke in opposition at the public hearing. Mr. Fox said he sees no difference between the development under consideration this evening and the El Car Wash that the Board denied.

Mr. Barbat respectfully disagreed. He said a car wash is 100% auto related. Mr. Barbat said their product in addition to fuel offers food, convenience store items, and an opportunity for families and friends to gather.

Moved by: Lambert
Support by: Krent

RESOLVED, That Special Use Approval and Preliminary Site Plan Approval for the proposed Barbat Troy Vehicle Fueling/Multi Use Station, Southeast corner of Crooks and South Boulevard (1981 South Boulevard), Section 4, Currently Zoned NN (Neighborhood Node) District, be **granted,** subject to the following conditions:

1. Fueling center and restaurant to be constructed and opened concurrently.
2. Design features to the building to be approved by Planning staff per Planning Commission comments during tonight's meeting.
3. Include bike rack relocation on the site.

Discussion on the motion on the floor.

Mr. Lambert said the proposed use is much better than the condition of the Rite Aid building on site. He said with respect to the other fueling centers in the neighborhood, the role of the Planning Commission is to consider what is in the best interest of the community at that location.

Chair Perakis recalled the businesses to the east were happy about the project.

Ms. Malalahalli spoke in support and expressed appreciation to the applicant for working with the Board.

Vote on the motion on the floor.

Yes: Buechner, Faison, Hutson, Krent, Lambert, Malalahalli, Perakis, Tagle
No: Fox

MOTION CARRIED

OTHER ITEMS

8. PUBLIC COMMENT – For Items on the Agenda

There was no one present who wished to speak.

9. PLANNING COMMISSION COMMENT

There were general comments, some related to:

- Mr. Savidant announced the Planning Commission May 27, 2025 meeting is still scheduled. He said the administration and sub-committee are continuing to work on the zoning language for the revised Master Plan.
- Mr. Hutson addressed the role of the Board in its consideration of a conditional rezoning application.
- Mr. Krent announced an Oakland County Planners Gathering on May 20.
- Ms. Dufrane reported good news on two Tollbrook legal cases.
- Ms. Dufrane addressed Mr. Hutson's comments on the Board's consideration of the conditional rezoning this evening. She said it became clear, after much discussion on the site plan, that it was important to ask the applicant for clarification if the site plan was a voluntary condition to the conditional rezoning application.

10. ADJOURN

The Regular meeting of the Planning Commission adjourned at 10:31 p.m.

Respectfully submitted,

Marianna J. Perakis, Chair

Kathy L. Czarnecki, Recording Secretary

https://d.docs.live.net/2f7ed4fe5f664ea8/Documents/Kathy/COT Planning Commission Minutes/2025/2025 05 13 Draft.docx

ITEM #5

DATE: May 22, 2025

TO: Planning Commission

FROM: R. Brent Savidant, Community Development Director

SUBJECT: PRELIMINARY SITE PLAN APPROVAL – (SP JPLN2025-0001) – Proposed GFA Forsyth Site Condominium, 9 singe family detached units, North of Wattles, West of Dequindre (4189 and 4197 Forsyth; PIN 88-20-13-401-028, -037 & -038), Section 13, Presently zoned R-1C One Family Residential Zoning District.

The petitioner GFA Development, Inc. submitted the above referenced Preliminary Site Plan application for a 9-unit site condominium, comprised of one family detached homes. The Planning Commission is authorized to approve Preliminary Site Plans for site condominiums.

This application proposes to extend both Rockington and Stonington to the north to provide for 9 a new 9-unit site condominium. Both of those streets were approved in 2015 as part of the 25-unit Pinery Woods Site Condominium.

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 the recommendations included therein.

Attachments:

1. Maps
2. Report prepared by Carlisle/Wortman Associates, Inc.
3. Traffic memo, prepared by OHM, dated January 9, 2025.
4. Wetland Delineation, prepared by PEA Group, dated November 1, 2024
5. Preliminary Site Plan

PROPOSED RESOLUTION

PRELIMINARY SITE PLAN APPROVAL – (SP JPLN2025-0001) – Proposed GFA Forsyth Site Condominium, 9 single family detached units, North of Wattles, West of Dequindre (4189 and 4197 Forsyth; PIN 88-20-13-401-028, -037 & -038), Section 13, Presently zoned R-1C One Family Residential Zoning District.

Resolution # PC-2025-05-
Moved by:
Support by:

RESOLVED, That Preliminary Site Condominium Approval, pursuant to Article 8 and Section 10.02 of the Zoning Ordinance, as requested for the proposed GFA Forsyth Site Condominium, 9 units/lots, North of Wattles, West of Dequindre, (4189 and 4197 Forsyth; PIN 88-20-13-401-028, -037 & -038), Section 13, approximately 12.62 acres in size, Currently Zoned R-1C (One Family Residential) District, be (granted, subject to the following conditions):

_____) or

(denied, for the following reasons: _____) or

(postponed, for the following reasons:_____)

Yes:
No:
Absent:

MOTION CARRIED

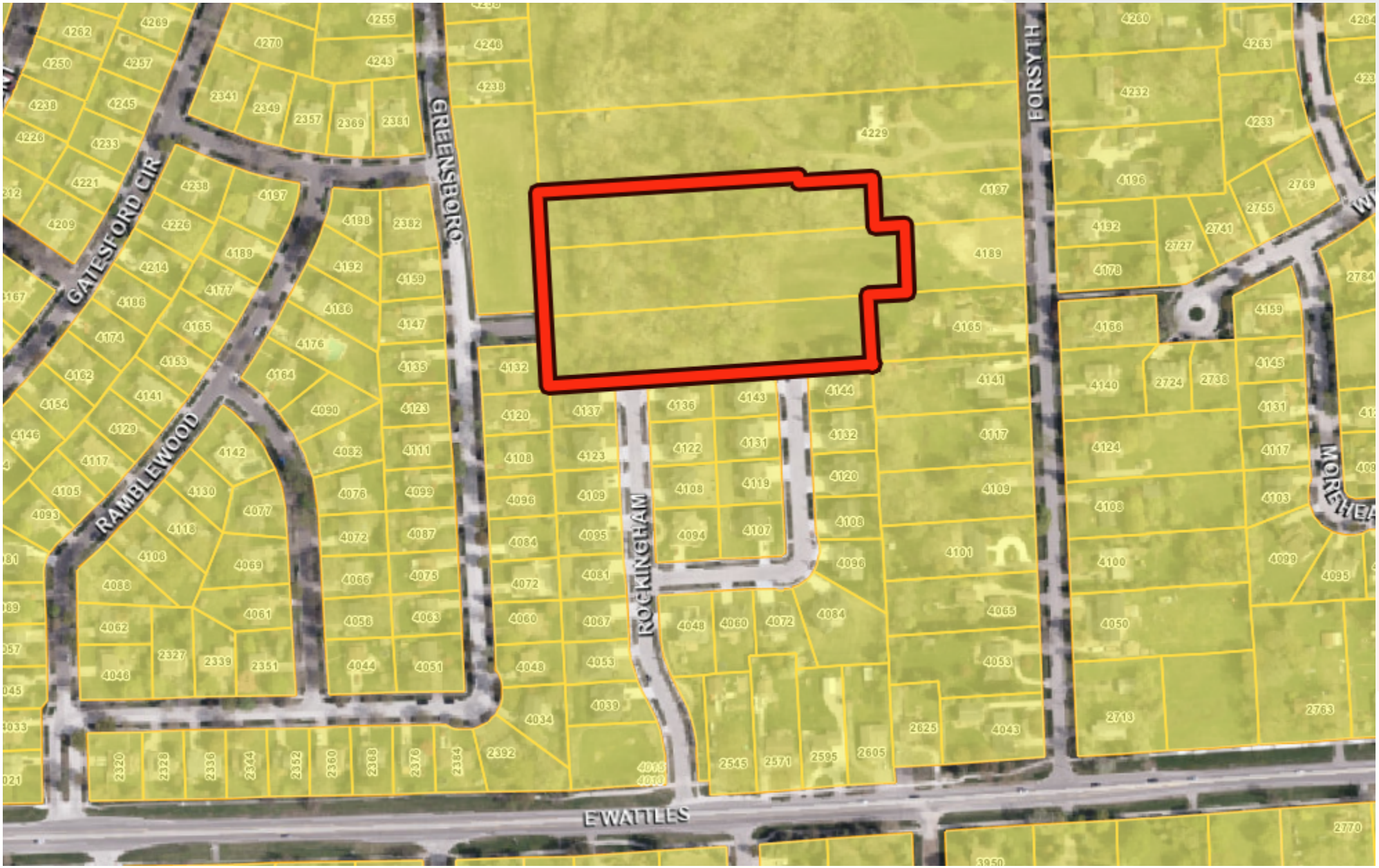
GIS Online

0 350 700 ft

Print Date: 5/19/2025

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.

GIS Online



0 350 700 ft

Print Date: 5/19/2025

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.

Carlisle | Wortman
ASSOCIATES, INC.
117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

Date: January 10, 2025
May 21, 2025

Preliminary Site Condominium Review
For
City of Troy, Michigan

Project Name: GFA- Forsyth

Applicant: Gary Abitheira

Plan Date: April 30, 2025

Location: 4165, 4189, & 4197 Forsyth Drive

Zoning: R-1C, One-Family Residential District

Action Requested: Preliminary Site Plan Review

PROJECT AND SITE DESCRIPTION

An application has been submitted to construct a new site condominium development at 4165, 4189, and 4197 Forsyth Drive. The development contains nine (9) single-family detached units and will be an extension of the existing Pinery Woods neighborhood to the south. Three (3) units will be off an extension of Rockingham Drive. and six (6) units will be off an extension of Stonington Drive. Both Rockingham Drive and Stonington Drive are accessed off of Wattles Drive.

The subject site is 4.15 acres and contains three (3) parcels. The parcels are currently encumbered by tree cover, wetlands, and one (1) existing home. The applicant proposes the use of lot averaging as permitted by Section 10.01.

The subject site is surrounded by single-family homes and zoned R-1C, One-Family Residential District.

Location of Subject Site:

Size of Subject Site:
The site contains three (3) parcels, measuring 4.15 acres total.

Proposed Use of Subject Site:
Nine (9) single-family lots via lot averaging.

Current Use of Subject Site:
There is currently one (1) single-family home on site at 4165 Forsyth Drive.

Current Zoning:
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/vacant

NATURAL RESOURCES

Topography: A topographic survey has been provided on Sheet P-1. The site is relatively flat with minor elevation changes. In a report dated November 1, 2024, PEA Group states that the site is predominantly flat with shallow depressions.

Wetlands: The subject site contains four (4) wetlands, with the largest measuring 0.17 acres. In October 2024, wetland surveys were performed by both PEA Group and the U.S. Army Corps of Engineers. Determination reports by both groups indicate that wetlands on site are not regulated by EGLE; although, they note that the site likely receives drainage from surrounding properties. Reports from PEA Group and USACE are provided under separate cover.

Woodlands: Most of the site is undeveloped and encumbered with tree cover. The tree inventory provided identifies 248 existing trees on site. A tree replacement plan is provided on Sheet T-1.0, with details outlined in the table below.

Replacement Details		
Protected Tree	**Inches Removed**	**Replacement Required**
Landmark	59 inches	59 inches
Woodland	657 inches	329 inches
Preservation/Mitigation	**Inches Preserved**	**Credit**
Landmark	63 inches	126 inches
Woodland	262 inches	524 inches
Total	**Zero (0) inches required for replacement.**	

Items to be Addressed: *None.*

SITE ARRANGEMENT

The subject site is 4.15 acres, with one (1) existing home and immense tree coverage. As part of this project, the existing home will be removed and nine (9) new single-family homes will be constructed. These new homes will be a continuation of the Pinery Woods neighborhood directly

to the south (just north of Wattles Road). Both Rockingham Drive and Stonington Drive will be extended northwards into the new development. Three (3) homes will be located on Rockingham Drive and six (6) homes will be located on Stonington Drive. T-turnarounds are provided where each road ends. A detention pond is located along the site's west side. T-turnarounds shall be approved by the Engineering and Fire Departments.

Although the lots vary in size, the average lot width is 81.6 feet and the average lot area is 10,510 square feet.

Items to be Addressed: *None*

AREA, WIDTH, HEIGHT, SETBACKS

Dimensional standards of the R-1C Zoning District are outlined in Section 4.06.

	Required	Provided	Compliance
Front	30 feet	30 feet	Complies
Side	10 feet	10+ feet	Complies
Rear	40 feet	40 feet	Complies
Building Height	30 feet/2.5 stories	Approx. 27 feet/ 2 stories	Complies
Maximum % of Lot Area Covered By Buildings	30%	14%	Complies
Minimum Lot Size Per Dwelling Unit	85 feet wide/ 10,500 SF in area	85 feet wide/ 10,510 SF in area (on average)	Complies
Minimum Floor Area Per Unit	1,200 square feet	3,000+ square feet	Complies

Items to be Addressed: *None.*

SITE ACCESS AND CIRCULATION

Vehicular:

The nine (9) new lots will be a continuation of the Pinery Woods neighborhood to the south. This neighborhood has one (1) access point off Wattles. No additional access points will be constructed, but both Rockingham Drive and Stonington Drive will be extended for vehicular access. T-turnarounds will be provided where each road ends.

There was internal discussion about requiring a connection to Greensboro Drive; however, the applicant has future plans to extend development further north. If and when the future development occurs, the applicant will be required to provide a secondary connection point

Pedestrian:
A five (5) foot wide concrete sidewalk is provided along both sides of Rockingham Drive and Stonington Drive. This new sidewalk will connect to the existing sidewalk system along both roads.

Items to be Addressed: *None.*

LANDSCAPING

	Required	Provided	Compliance
Internal Street Landscaping: 1 tree per 50 lineal feet of internal public or private street	766.54 LF/50= 15 trees (each street)	Rockingham Dr: 17 trees Stonington Dr: 15 trees	Complies
Tree Replacement: Woodland: for trees with DBH 6 inches or larger, 50% of the original DBH removed Landmark: 100% of original DBH removed	388 inches	650 inches credit	Complies

Stormwater Management:
A detention pond is proposed along the site's west side. We refer to the City Engineer for further review of stormwater management.

We note that although some internal street trees are located at the edge of the detention pond, this area may benefit from additional landscaping. Section 13.02.F.2.d. states that landscaping should be provided around stormwater retention/detention areas to enhance site condominium developments.

Items to be Addressed: *None.*

FLOOR PLANS AND ELEVATIONS

The applicant has provided floor plans and elevations for two (2) housing types, referred to as "The Troywood" and "Vanderpool."

Floor Plans:
Both housing types contain a 3-car garage, four (4) bedrooms, and four (4) restrooms. Site plans show the area of the Troywood as 3,549 square feet, however the area of the Vanderpool is not indicated.
Elevations:
Three (3) variations of elevations have been provided. Building materials for each include brick veneer, vinyl siding, asphalt shingles, and fascia. It appears that additional materials, such as stone veneer, are optional and may be included as desired by the buyer. The proposed building height is listed as 2-stories. While no specific height is listed, the scale provided measures the height at approximately twenty-seven (27) feet.

Items to be Addressed: *None.*

SITE PLAN REVIEW STANDARDS

Section 8.06 outlines Site Plan Review Design Standards.

1. *Development shall ensure compatibility to existing commercial districts and provide a transition between land uses.*
    a. *Building design shall enhance the character of the surrounding area in relation to building and parking placement, landscape and streetscape features, and architectural design.*
    b. *Street fronts shall provide a variety of architectural expression that is appropriate in its context and prevents monotony.*
    c. *Building design shall achieve a compatible transition between areas with different height, massing, scale, and architectural style.*

2. *Development shall incorporate the recognized best architectural building design practices.*
    a. *Foster a lasting impact on the community through the provision of high quality design, construction, and detailing.*
    b. *Provide high quality, durable materials, such as but not limited to stone, brick, glass, and metal. E.I.F.S. or material equivalent shall only be used as an accent material.*
    c. *Develop buildings with creativity that includes balanced compositions and forms.*
    d. *Design roofs that are appropriate to the architectural style of the building and create an appropriate visual exterior mass of the building given the context of the site.*
    e. *For commercial buildings, incorporate clearly defined, highly visible customer entrances using features such as canopies, porticos, arcades, arches, wing walls, ground plane elements, and/or landscape planters.*
    f. *Include community amenities that add value to the development such as patio/ seating areas, water features, art work or sculpture, clock towers, pedestrian plazas with park benches or other features located in areas accessible to the public.*

3. *Enhance the character, environment and safety for pedestrians and motorists.*
    a. *Provide elements that define the street and the pedestrian realm.*
    b. *Create a connection between the public right of way and ground floor activities.*
    c. *Create a safe environment by employing design features to reduce vehicular and pedestrian conflict, while not sacrificing design excellence.*
    d. *Enhance the pedestrian realm by framing the sidewalk area with trees, awnings, and other features.*
    e. *Improve safety for pedestrians through site design measures.*

Items to be Addressed: *Planning Commission to consider if site plan standards have been met.*

CONCLUSION

The Planning Commission should consider whether the proposed project meets Site Plan Review Design Standards of Section 8.06.

Sincerely,

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

CARLISLE/WORTMAN ASSOC., INC.
Shana Kot
Community Planner

memorandum

Date: January 9, 2025

To: Scott Finlay, PE

From: Stephen Dearing, PE, PTOE & Lauren Hull, EIT, RSP_1

Re: Proposed Forsyth Development

The Forsyth development is proposed along both Rockingham Drive and Stonington drive north of Wattles Road between John R Road and Dequindre Road. The proposed site contains nine single-family homes. Three of these homes are proposed on the east side of Rockingham Drive. The remaining six homes are proposed to be off of Stonington Drive. The proposed site will utilize the existing access points on Rockingham Drive and Stonington Drive.

To determine the expected trips generated from this site, ITE's Trip Generation website was used. Land use code 210 – Single-Family Detached Housing was utilized.

Table 1. Trips Generated

	AM Peak			PM Peak		
	In	**Out**	**Total**	**In**	**Out**	**Total**
9 Homes	2	6	8	7	3	10

As shown in the table above, the land use code provides minimal addition in trips to the surrounding network. During each peak hour, approximately one vehicle is entering or exiting the site every six minutes.

Overall, the amount of traffic generated from this proposed site will not provide excessive impacts to Rockingham drive, Stonington Drive, Wattles Road or the surrounding roadway network.

OHM Advisors
34000 PLYMOUTH ROAD
LIVONIA, MICHIGAN 48150
T 734.522.6711
F 734.522.6427
OHM-Advisors.com

PEA GROUP

844.813.2949
PEAGROUP.COM

November 1, 2024
PEA Project No: 18-0028

Gary Abitheria
GFA Development, Inc.
985 Elmsford Drive
Troy, MI 48083

RE: Wetland Delineation
(PIN 20-13-401-007,027, 028, 037, 038)
GFA Forsyth Troy
4229 Forsyth Drive
Troy, Oakland County, MI

On October 30, 2024, PEA Group evaluated the subject property for the field indicators of the presence of wetlands as defined by the State of Michigan. Pink wetland survey ribbons and pin flags were used to delineate a wetland boundary on the 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 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral-Northeast (Version 2.0).

The evaluated portion of the site consisted of approximately 5 acres of land in the City of Troy in Oakland County, Michigan. The site is in a residential area between Forsyth Drive and Greensboro Drive and north of Stonington Drive. Big Beaver Creek is enclosed in a pipe directly west of the property and the buried pipe cuts into the southwestern corner of the site. Due to its enclosure, the creek is not hydrologically connected to the site. The Gibson Drain lies approximately 1,000 feet north of the property. The evaluated portion of the site featured a variety of woody and herbaceous vegetation, such as silver maple, American basswood, northern red oak, red maple, common buckthorn, calico aster, hop sedge, and creeping-jenny. The terrain is predominantly flat with shallow depressions. Brush piles were stacked in the western and southern portions of the site. Soil sampling conducted at multiple points revealed soils with a primarily loamy texture. The field surveillance revealed four (4) wetlands on the property. The following report summarizes the characteristics of these wetlands as they appeared at the time of the delineation.

Wetland 'A': Flags A-1 to A-51

This forested wetland follows a narrow drainage pattern within the eastern portion of the site. The area likely receives surface runoff from surrounding properties. The portion of Wetland A on the subject property is approximately 7,562 SF (0.17 acres) in size. It contained wetland vegetation including silver maple (*Acer saccharinum*), American elm (*Ulmus americana*), and creeping-jenny (*Lysimachia nummularia*). Wetland A exhibited multiple indicators of hydrology, comprising water-stained leaves (B9), drainage patterns (B10), and saturation visible on aerial imagery (C9), as well as the hydric soil indicator Redox Dark Surface (F6). Upland species such as American basswood, fescue grass, and domestic apple were found along the wetland boundary. The wetland boundary was discerned where the hydrology indicators were no longer present, and the vegetation switched to primarily upland species.

Wetland 'B': Flags B-1 to B-6

This forested wetland lies near the western edge of the site and is approximately 1,390 SF (0.04 acres) in size. Wetland B likely receives surface runoff from surrounding properties. It contained wetland vegetation, including swamp white oak (*Quercus bicolor*), dark-green bulrush (*Scirpus atrovirens*), and fowl manna grass (*Glyceria striata*). Wetland B exhibited two (2) indicators of hydrology (i.e., water-stained leaves (B9) and drainage patterns (B10)), as well as two (2) hydric soil indicators (i.e., Depleted Below Dark Surface (A11) and Depleted Matrix (F3)). Upland species including creeping thistle, ground ivy, and black locust were found along the wetland boundary. The wetland boundary was detected where the hydrology indicators were no longer present, and the vegetation switched to primarily upland species.

Wetland 'C': Flags C-1 to C-4

This forested wetland is located near the southern edge of the assessed area and spans an estimated surface area of 313 SF (0.007 acres). Wetland C contains several hydrophytic plant species, including hop sedge (*Carex lupulina*), fowl manna grass (*Glyceria striata*), creeping-jenny (*Lysimachia nummularia*), and eastern cottonwood (*Populus deltoides*). The area exhibited water-stained leaves (B9) as an indicator of wetland hydrology, as well as the Redox Dark Surface (F6) hydric soil indicator. Typical vegetation characteristic of upland areas was observed at the boundaries of the wetland, such as fescue grass, tall

goldenrod, and ground ivy. The wetland boundary was detected where the hydrology indicators were no longer present, and the vegetation switched to primarily upland species.

Wetland 'D': Flags D-1 to D-8

This emergent wetland is located within the western sector of the assessed area and spans an estimated surface area of 1,564SF (0.03 acres). The wetland is primarily characterized by wetland vegetation, including American elm (*Ulmus americana*), creeping-jenny (*Lysimachia nummularia*), and fowl manna grass (*Glyceria striata*). Indicators of wetland hydrology within the area include water-stained leaves (B9) and saturation visible on aerial imagery (C9). The soil profile aligned with the characteristics of the Depleted Below Dark Surface (A11) hydric soil indicator. Typical vegetation characteristic of upland areas was observed at the boundaries of the wetland and included species such as red clover, common dandelion, and fescue grass.

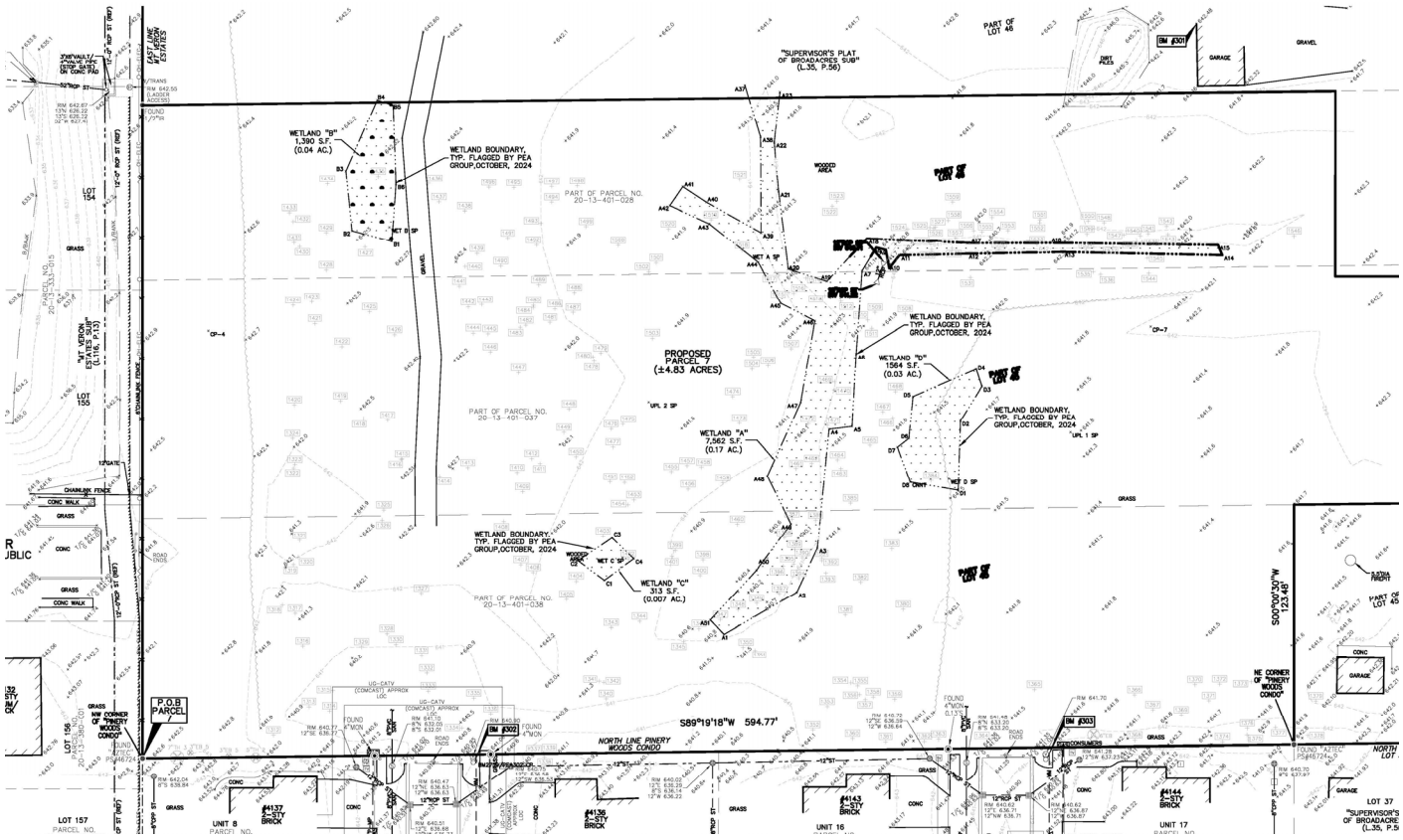
NRCS Web Soil Survey Map

List Soils – 12—Brookston and Colwood loams, 0 to 2 percent slopes. **Hydric.**
ShbuaB—Shebeon-Urban land complex, 0 to 4 percent slopes. Not hydric.

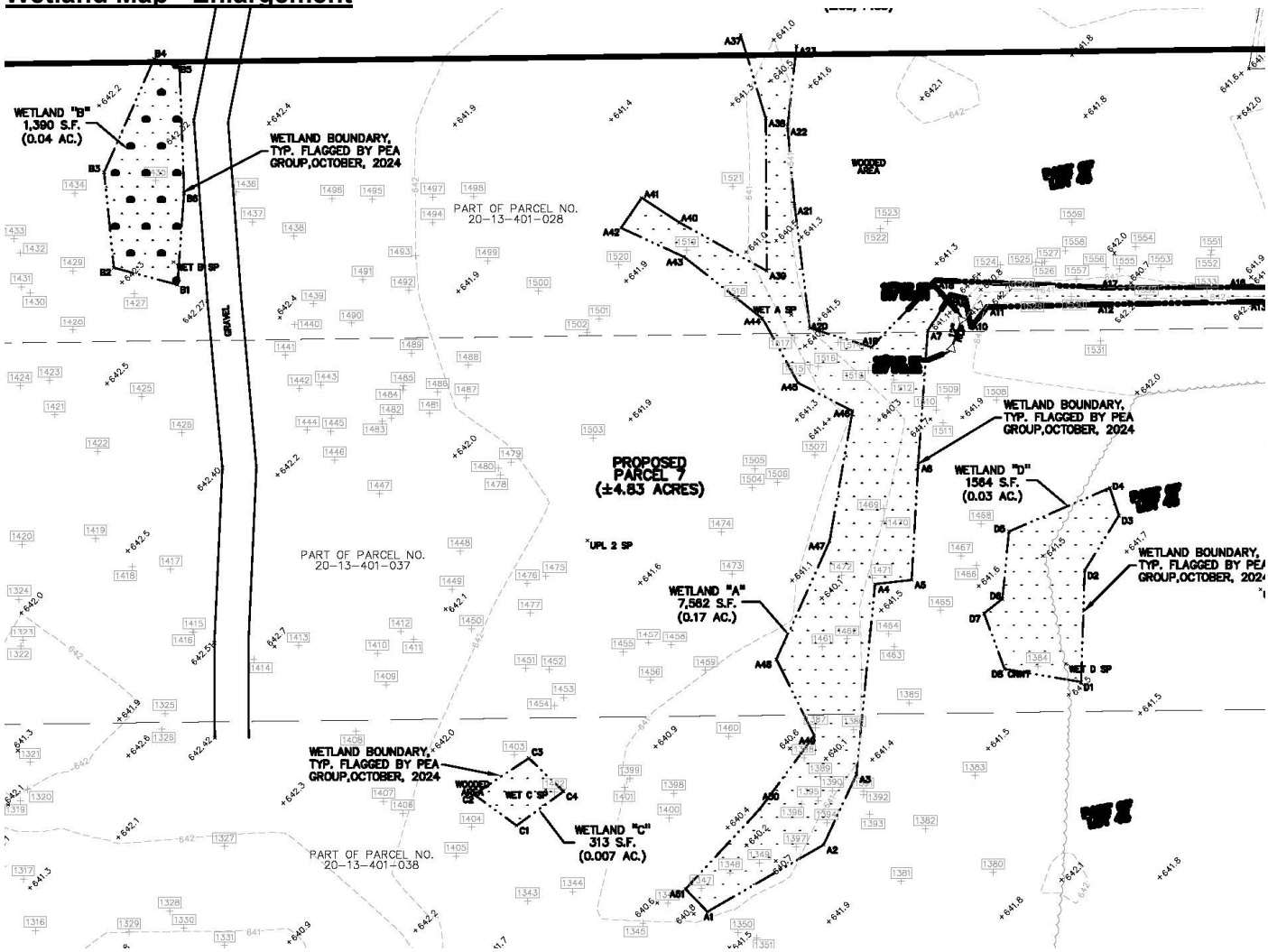
EGLE Wetland Mapper

Green areas are wetlands as identified on national wetland inventory and MIRIS maps.
Yellow areas are areas which have wetland soils.
Green/yellow areas are areas identified on NWI and MIRIS maps and soil areas which include wetland soils.
The evaluated area is outlined in red.

Wetland Map – Overall *(refer to the full size topographical base map for clarity)*



Wetland Map - Enlargement



Michigan Department of Environment, Great Lakes, and Energy

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 hydrologically connected to a river or stream, as defined by Part 301, are considered regulated.

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.

Wetlands that are listed within the rare or imperiled MDEQ list found on the Michigan's Rare Wetlands section of the website (26 of the 33 wetland communities are rare; 8 of the 26 rare are imperiled).

Wetlands with a documented presence of a threatened or endangered species.

Mitigation

EGLE typically requires that only wetland alterations that total over 1/3 of an acre in size be mitigated per the EGLE|USACE Joint Permit Application language, EGLE may also require mitigation of smaller areas of disturbance at their discretion per the Wetland Protection Act that calls for zero net loss wetlands. Mitigation may be constructed on-site, off-site or credits may be purchased from pre-approved EGLE wetland mitigation banks.

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 at the site at the time of our investigation and current policy regarding the procedures used to delineate wetlands.

Please be advised that EGLE, U.S. Army Corps of Engineers, and the U.S. Environmental Protection Agency regulate wetlands and ultimately reserve final judgement 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 PEA Group based on the field conditions at the time of the wetland delineation of October 30, 2024.

Wetland A: Non-Regulated - fails all rules of Part 303.
Wetland B: Non-Regulated - fails all rules of Part 303.
Wetland C: Non-Regulated - fails all rules of Part 303.
Wetland D: Non-Regulated - fails all rules of Part 303.

Prepared by:
PEA Group

Sara Prussing
Ecological Technician II

Theresa Pardington, PLA, PWS, ISA-CA
Ecological Department Manager

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 18-0028/GFA Forsyth Troy City/County: Troy/Oakland Sampling Date: 10/30/2024

Applicant/Owner: GFA Development, Inc./Gary Abitheria State: MI Sampling Point: Upl 1

Investigator(s): T. Pardington, PWS & David Brodwyn Section, Township, Range: 02N11E13

Landform (hillslope, terrace, etc.): Depressions on moraines Local relief (concave, convex, none): None

Slope (%): 0-2 Lat: 42.5808283662757 Long: -83.0973854992888 Datum: WGS84

Soil Map Unit Name: Brookston and Colwood loams (12) NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	If yes, optional Wetland Site ID: _____
Wetland Hydrology Present?	Yes _____	No X	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches): _____
Water Table Present?	Yes _____	No X	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No X	Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: Upl 1

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	0 = Total Cover		
Herb Stratum (Plot size:)			
1. Plantago lanceolata	10	N	FACU
2. Trifolium pratense	60	Y	FACU
3. Taraxacum officinale	10	N	FACU
4. Festuca rubra	30	Y	FACU
5. Glechoma hederacea	2	N	FACU
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	112 = Total Cover		
Woody Vine Stratum (Plot size:)			
1. N/A			
2.			
3.			
4.			
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	112	x 4 =	448
UPL species	0	x 5 =	0
Column Totals:	112 (A)		448 (B)

Prevalence Index = B/A = 4.0

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Upl 1

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-13	10YR 2/2	100					Loamy	
13-17	2.5Y 5/4	95	10YR 5/8	5	C	M	Loamy	

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]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** X

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 18-0028/GFA Forsyth Troy City/County: Troy/Oakland Sampling Date: 10/30/2024

Applicant/Owner: GFA Development, Inc./Gary Abitheria State: MI Sampling Point: Upl 2

Investigator(s): T. Pardington, PWS & David Brodwyn Section, Township, Range: 02N11E13

Landform (hillslope, terrace, etc.): Depressions on moraines Local relief (concave, convex, none): None

Slope (%): 0-2 Lat: 42.5808473243791 Long: -83.098196235416 Datum: WGS84

Soil Map Unit Name: Brookston and Colwood loams (12) NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No _____	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	If yes, optional Wetland Site ID: _____

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches): _____
Water Table Present?	Yes _____	No X	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No X	Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: Upl 2

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. Populus deltoides	2	Y	FAC
2. Acer saccharinum	2	Y	FACW
3. Acer rubrum	5	Y	FAC
4.			
5.			
6.			
7.			
	9	= Total Cover	

Sapling/Shrub Stratum (Plot size:)			
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum (Plot size:)			
1. Trifolium pratense	5	N	FACU
2. Glechoma hederacea	5	N	FACU
3. Prunella vulgaris	10	N	FAC
4. Taraxacum officinale	5	N	FACU
5. Plantago major	5	N	FACU
6. Festuca rubra	80	Y	FACU
7.			
8.			
9.			
10.			
11.			
12.			
	110	= Total Cover	

Woody Vine Stratum (Plot size:)			
1. N/A			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	2	x 2 =	4
FAC species	17	x 3 =	51
FACU species	100	x 4 =	400
UPL species	0	x 5 =	0
Column Totals:	119 (A)		455 (B)

Prevalence Index = B/A = 3.8

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test is >50%
- ___ Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

Despite the dominance test, the area was dominated by facultative upland species and not hydrophytic species.

SOIL

Sampling Point: Upl 2

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-17	10YR 2/1	100						Sandy/loamy

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]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** X

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 18-0028/GFA Forsyth Troy City/County: Troy/Oakland Sampling Date: 10/30/2024

Applicant/Owner: GFA Development, Inc./Gary Abitheria State: MI Sampling Point: Upl 3

Investigator(s): T. Pardington, PWS & David Brodwyn Section, Township, Range: 02N11E13

Landform (hillslope, terrace, etc.): Depressions on moraines Local relief (concave, convex, none): None

Slope (%): 0-2 Lat: 42.5814320553515 Long: -83.0987251605679 Datum: WGS84

Soil Map Unit Name: Brookston and Colwood loams (12) NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 _____	No X	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	If yes, optional Wetland Site ID: _____

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches): _____
Water Table Present?	Yes _____	No X	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No X	Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: Upl 3

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus rubra	5	Y	FACU
2. Tilia americana	5	Y	FACU
3. Acer saccharinum	5	Y	FACW
4.			
5.			
6.			
7.			
	15	= Total Cover	

Sapling/Shrub Stratum (Plot size:)			
1. N/A			
2.			
3.			
4.			
5.			
6.			
7.			
	0	= Total Cover	

Herb Stratum (Plot size:)			
1. Prunella vulgaris	15	Y	FAC
2. Taraxacum officinale	10	Y	FACU
3. Trifolium pratense	10	Y	FACU
4. Cirsium arvense	5	N	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	40	= Total Cover	

Woody Vine Stratum (Plot size:)			
1. N/A			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	15	x 3 =	45
FACU species	35	x 4 =	140
UPL species	0	x 5 =	0
Column Totals:	55 (A)		195 (B)

Prevalence Index = B/A = 3.5

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: Upl 3

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-9	10YR 2/1	100					Loamy	
9-16	10YR 2/1	50						Loamy/clayey
	10YR 4/2	35	10YR 5/8	13	C	M		
			7.5YR 3/4	2	C	M		

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]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** X

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 18-0028/GFA Forsyth Troy City/County: Troy/Oakland Sampling Date: 10/30/2024

Applicant/Owner: GFA Development, Inc./Gary Abitheria State: MI Sampling Point: Wet A

Investigator(s): T. Pardington, PWS & David Brodwyn Section, Township, Range: 02N11E13

Landform (hillslope, terrace, etc.): Depressions on moraines Local relief (concave, convex, none): None

Slope (%): 0-2 Lat: 42.5810552082104 Long: -83.0979624343031 Datum: WGS84

Soil Map Unit Name: Brookston and Colwood loams (12) NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No _____	**Is the Sampled Area within a Wetland?** **Yes** X **No** _____
Hydric Soil Present?	Yes X	No _____	If yes, optional Wetland Site ID: _____
Wetland Hydrology Present?	Yes X	No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- X Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches): _____
Water Table Present?	Yes _____	No X	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No X	Depth (inches): _____

Wetland Hydrology Present? **Yes** X **No** _____

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: Wet A

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. Ulmus americana	10	Y	FACW
2. Populus deltoides	15	Y	FAC
3. Acer saccharinum	20	Y	FACW
4.			
5.			
6.			
7.			
	45	= Total Cover	

Sapling/Shrub Stratum (Plot size:)			
1. Rhamnus cathartica	10	Y	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	

Herb Stratum (Plot size:)			
1. Symphyotrichum lateriflorum	10	Y	FAC
2. Prunella vulgaris	10	Y	FAC
3. Agrimonia parviflora	5	N	FAC
4. Lysimachia nummularia	15	Y	FACW
5. Carex lupulina	5	N	OBL
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	45	= Total Cover	

Woody Vine Stratum (Plot size:)			
1. N/A			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	45	x 2 =	90
FAC species	50	x 3 =	150
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		245 (B)

Prevalence Index = B/A = 2.4

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test is >50%
- X Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

Upland vegetation near wetland boundary: basswood, Festuca spp., red clover, domestic apple, red raspberry

SOIL

Sampling Point: Wet A

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/2	95	10YR 4/6	5	C	M	Loamy	
4-17	10YR 3/2	55	7.5YR 3/4	30	C	M		Prominent redox conc.
	10YR 5/2	15						Loamy/clayey

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]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** X **No** _____

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 18-0028/GFA Forsyth Troy City/County: Troy/Oakland Sampling Date: 10/30/2024

Applicant/Owner: GFA Development, Inc./Gary Abitheria State: MI Sampling Point: Wet B

Investigator(s): T. Pardington, PWS & David Brodwyn Section, Township, Range: 02N11E13

Landform (hillslope, terrace, etc.): Depressions on moraines Local relief (concave, convex, none): None

Slope (%): 0-2 Lat: 42.5810795800351 Long: -83.0987068557375 Datum: WGS84

Soil Map Unit Name: Brookston and Colwood loams (12) NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	If yes, optional Wetland Site ID: _____
Wetland Hydrology Present?	Yes X	No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

Brush piles were atop most of the wetland, as well as ~6" of wood chips.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- X Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches): _____
Water Table Present?	Yes _____	No X	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No X	Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: Wet B

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus bicolor	15	Y	FACW
2. Carya ovata	5	Y	FACU
3. Populus deltoides	5	Y	FAC
4.			
5.			
6.			
7.			
	20	= Total Cover	

Sapling/Shrub Stratum (Plot size:)			
1. Rhamnus cathartica	5	Y	FAC
2.			
3.			
4.			
5.			
6.			
7.			
	5	= Total Cover	

Herb Stratum (Plot size:)			
1. Scirpus atrovirens	15	Y	OBL
2. Symphyotrichum lateriflorum	5	N	FAC
3. Juncus tenuis	10	Y	FAC
4. Glyceria striata	5	N	OBL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	35	= Total Cover	

Woody Vine Stratum (Plot size:)			
1. N/A			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	15	x 2 =	30
FAC species	25	x 3 =	75
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	60 (A)		140 (B)

Prevalence Index = B/A = 2.3

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test is >50%
- X Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

Upland vegetation near wetland boundary: creeping thistle, ground ivy, basswood, black locust.

SOIL

Sampling Point: Wet B

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 2/1	100						Loamy/sandy
6-18	10YR 4/2	60	10YR 5/8	5	C	M	Clayey	
	10YR 2/1	35						

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]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** X **No** _____

Remarks:

Wood chips abundant in the upper 6" of soil.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 18-0028/GFA Forsyth Troy City/County: Troy/Oakland Sampling Date: 10/30/2024

Applicant/Owner: GFA Development, Inc./Gary Abitheria State: MI Sampling Point: Wet C

Investigator(s): T. Pardington, PWS & David Brodwyn Section, Township, Range: 02N11E13

Landform (hillslope, terrace, etc.): Depressions on moraines Local relief (concave, convex, none): None

Slope (%): 0-2 Lat: 42.5806241945933 Long: -83.0982341604428 Datum: WGS84

Soil Map Unit Name: Brookston and Colwood loams (12) NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	If yes, optional Wetland Site ID: _____
Wetland Hydrology Present?	Yes X No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches): _____
Water Table Present?	Yes _____	No X	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No X	Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: Wet C

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. Tilia americana	5	Y	FACU
2. Populus deltoides	20	Y	FAC
3.			
4.			
5.			
6.			
7.			
	25	= Total Cover	

Sapling/Shrub Stratum (Plot size:)			
1. Crataegus crus-galli	5	Y	FAC
2. Rhamnus cathartica	15	Y	FAC
3.			
4.			
5.			
6.			
7.			
	20	= Total Cover	

Herb Stratum (Plot size:)			
1. Glyceria striata	5	N	OBL
2. Elymus canadensis	2	N	FACU
3. Symphyotrichum lateriflorum	10	Y	FAC
4. Solidago rugosa	5	N	FAC
5. Lysimachia nummularia	5	N	FACW
6. Fraxinus pennsylvanica	2	N	FACW
7. Carex lupulina	10	Y	OBL
8.			
9.			
10.			
11.			
12.			
	39	= Total Cover	

Woody Vine Stratum (Plot size:)			
1. N/A			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	7	x 2 =	14
FAC species	55	x 3 =	165
FACU species	7	x 4 =	28
UPL species	0	x 5 =	0
Column Totals:	84 (A)		222 (B)

Prevalence Index = B/A = 2.6

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test is >50%
- X Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

Upland vegetation near wetland boundary: tall goldenrod, ground ivy, Festuca spp. grass

SOIL

Sampling Point: Wet C

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 2/1	95	7.5YR 6/8	5	C	M	Loamy	

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]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** X **No** _____

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: 18-0028/GFA Forsyth Troy City/County: Troy/Oakland Sampling Date: 10/30/2024

Applicant/Owner: GFA Development, Inc./Gary Abitheria State: MI Sampling Point: Wet D

Investigator(s): T. Pardington, PWS & David Brodwyn Section, Township, Range: 02N11E13

Landform (hillslope, terrace, etc.): Depressions on moraines Local relief (concave, convex, none): None

Slope (%): 0-2 Lat: 42.5807545472044 Long: -83.0976152790779 Datum: WGS84

Soil Map Unit Name: Brookston and Colwood loams (12) NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X 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 X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	If yes, optional Wetland Site ID: _____
Wetland Hydrology Present?	Yes X	No _____	

Remarks: (Explain alternative procedures here or in a separate report.)

Mowed area

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
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- ___ Hydrogen Sulfide Odor (C1)
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- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
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- ___ Stunted or Stressed Plants (D1)
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- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches): _____
Water Table Present?	Yes _____	No X	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No X	Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

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

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: Wet D

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer rubrum	5	Y	FAC
2. Populus grandidentata	5	Y	FACU
3.			
4.			
5.			
6.			
7.			
	10	= Total Cover	

Sapling/Shrub Stratum (Plot size:)			
1. Ulmus americana	5	Y	FACW
2. Rhamnus carthartica	5	Y	FAC
3. Fraxinus pennsylvanica	2	N	FACW
4. Cornus amomum	2	N	FACW
5.			
6.			
7.			
	14	= Total Cover	

Herb Stratum (Plot size:)			
1. Apocynum cannabinum	15	Y	FAC
2. Glyceria striata	5	N	OBL
3. Symphyotrichum lateriflorum	5	N	FAC
4. Lysimachia nummularia	45	Y	FACW
5. Rumex crispus	5	N	FAC
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	75	= Total Cover	

Woody Vine Stratum (Plot size:)			
1. N/A			
2.			
3.			
4.			
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 83 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	54	x 2 =	108
FAC species	35	x 3 =	105
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	99 (A)		238 (B)

Prevalence Index = B/A = 2.4

Hydrophytic Vegetation Indicators:

- ___ Rapid Test for Hydrophytic Vegetation
- X Dominance Test is >50%
- X Prevalence Index is ≤3.0[1]
- ___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

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Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

Upland vegetation near wetland boundary: red clover, common dandelion, Festuca spp.

SOIL

Sampling Point: Wet D

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 3/2	100					Loamy	
7-18	10YR 5/2	60	10YR 4/6	10	C	M		Loamy/clayey
	10YR 3/2	28	7.5YR 4/6	2	C	M		

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

Hydric Soil Indicators:

- ___ Histosol (A1)
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- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
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- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
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- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
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- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]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** X **No** _____

Remarks:

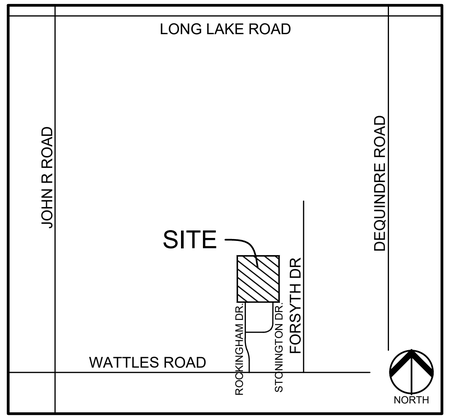
PRELIMINARY SITE PLANS

GFA - FORSYTH

4165, 4189, 4197 FORSYTH DRIVE

TROY, OAKLAND COUNTY, MICHIGAN

PERMIT / APPROVAL SUMMARY		
DATE SUBMITTED	DATE APPROVED	PERMIT / APPROVAL



LOCATION MAP
NO SCALE

INDEX OF DRAWINGS	
NUMBER	TITLE
	COVER SHEET
P-1	TOPOGRAPHIC SURVEY
P-2	PRELIMINARY SITE PLAN
P-3	PRELIMINARY GRADING PLAN
P-4	PRELIMINARY UTILITY PLAN
L-1.0	LANDSCAPE PLAN
L-1.1	LANDSCAPE DETAILS
T-1.0	TREE PRESERVATION PLAN
T-1.1	TREE INVENTORY
A-2	TROYWOOD - FIRST FLOOR PLAN
A-3	TROYWOOD - SECOND FLOOR PLAN
A2	VANDERPOOL - FLOOR PLANS

DESIGN TEAM

OWNER/APPLICANT/DEVELOPER

GFA DEVELOPMENT, INC.
986 ELMSFORD DRIVE
TROY, MI 48083
CONTACT: GARY ABITHEIRA
PHONE: 248.840.2828
EMAIL: GABITHEIRA@WIDEOPENWEST.COM

CIVIL ENGINEER

PEA GROUP
1849 POND RUN
AUBURN HILLS, MI 48326
CONTACT: JOHN B. THOMPSON, PE
PHONE: 844.813.2949
EMAIL: JTHOMPSON@PEAGROUP.COM

LANDSCAPE ARCHITECT

PEA GROUP
7927 NEMCO WAY, STE. 115
BRIGHTON, MI 48116
CONTACT: LYNN WHIPPLE, PLA
PHONE: 844.813.2949
EMAIL: LWHIPPLE@PEAGROUP.COM

PEA GROUP

REVISIONS	
DESCRIPTION	DATE
ORIGINAL ISSUE DATE	1/7/2025
REVISED PER PLANNING REVIEW DATED 01/10/25	4/30/2025

STATE OF MICHIGAN
JOHN BRUCE THOMPSON
License No. 6201043292
LICENSED PROFESSIONAL ENGINEER

NOT FOR CONSTRUCTION

PEA GROUP GFA - FORSYTH | PEA JOB NO. 2018-028| PRELIMINARY SITE PLANS

LEGAL DESCRIPTION (Per PEA Group)

PROPOSED CONDO PARCEL

A parcel of land situated in the Southeast 1/4 of Section 13, Town 2 North, Range 11 East, City of Troy, Oakland County, Michigan, described as being Lots 45, 46 and 47 of "Supervisor's Plat of Broadacres Sub", as recorded in Liber 35, Page 56, Oakland County Records, being more particularly described as:

Beginning at the Northwest corner of "Pinery Woods Condominium", Oakland County Condominium Plan No. 2134, as recorded in Liber 48830, Page 53, Oakland County Records;
thence along the north–south 1/4 line of said Section 13, said line also being the east line of "Mt Veron Estates Sub" as recorded in Liber 116, Page 13, Oakland County Records, N00°00'30"E, 349.29 feet;
thence N89°19'18"E, 476.10 feet;
thence S00°00'30"W, 12.00 feet;
thence N89°19'18"E, 140.00 feet;
thence S00°00'30"W, 83.00 feet;
thence N89°19'18"E, 45.00 feet;
thence S00°00'30"W, 130.81 feet;
thence S89°19'18"W, 66.33 feet;
thence S00°00'30"W, 123.48 feet to the northeast corner of the aforementioned "Pinery Woods Condominium";
thence along the north line of said condominium, S89°19'18"W, 594.77 feet to the aforementioned northwest corner of said Condominium and the POINT OF BEGINNING.

Containing 4.98 acres of land, more or less.

BENCHMARKS:
(CITY OF TROY DATUM - NAVD88)

BM #301
BENCH TIE IN NORTHWEST GARAGE.
ELEV. - 645.81

BM#302 (CITY OF TROY BM #2759)
ARROW ON TOP OF HYDRANT, EAST SIDE OF ROCKINGHAM AT HOUSE #4136.
ELEV. - 643.19

BM #303 (CITY OF TROY BM #2758)
ARROW ON TOP OF HYDRANT #13-176, EAST SIDE OF STONINGTON AT HOUSE #4144.
ELEV. - 643.91

BM #304 (CITY OF TROY BM#1766)
ARROW ON TOP OF HYDRANT #13-30 AT HOUSE #4189 FORSYTH.
ELEV. - 644.67

BM #305 (CITY OF TROY BM#1767)
ARROW ON TOP OF HYDRANT #13-31 AT SOUTH PROP. LINE OF HOUSE #4321 FORSYTH.
ELEV. - 644.25

LEGEND:

- EX. OH, ELEC, POLE & GUY WIRE
- EX. U.G. CABLE TV & PEDESTAL
- EX. U.G. COMMUNICATION LINE, PEDESTAL & MANHOLE
- EX. U.G. ELEC,MANHOLE, METER & HANDHOLE
- EX. GAS LINE
- EX. GAS VALVE & GAS LINE MARKER
- EX. TRANSFORMER & IRRIGATION VALVE
- EX. WATER MAIN
- EX. HYDRANT, GATE VALVE & POST INDICATOR VALVE
- EX. WATER VALVE BOX & SHUTOFF
- EX. SANITARY SEWER
- EX. SANITARY CLEANOUT & MANHOLE
- EX. COMBINED SEWER MANHOLE
- EX. STORM SEWER
- EX. CLEANOUT & MANHOLE
- EX. SQUARE, ROUND & BEEHIVE CATCH BASIN
- EX. YARD DRAIN, U.G. ROOF DRAIN & DOWNSPOUT
- EX. UNIDENTIFIED STRUCTURE
- EX. MAILBOX, SIGN, LIGHTPOLE & GUARD POST
- EX. FENCE
- EX. GUARD RAIL
- EX. DEC. TREE, CONIFEROUS TREE & SHRUB
- EX. TREE TAG, & TREE LINE
- EX. SPOT ELEVATION
- EX. CONTOUR
- EX. WETLAND

- IRON FOUND / SET
- NAIL FOUND / NAIL & CAP SET
- BRASS PLUG SET
- MONUMENT FOUND / SET
- SECTION CORNER FOUND
- R M C — RECORDED / MEASURED / CALCULATED

REFERENCE DRAWINGS:

WATER MAIN	TROY GIS MAP ONLINE, DATED 2/15/19
SANITARY SEWER	TROY GIS MAP ONLINE, DATED 2/15/19
STORM SEWER	TROY GIS MAP ONLINE, DATED 2/15/19 HENRY-GRAHAM DRAIN, LAST REVISED 8/17/71
ELECTRIC	NOT RECEIVED AS OF 5/17/24
TELEPHONE	NOT RECEIVED AS OF 5/17/24
GAS	CE QS MAP #02-61-13-4, DATED 1/02/19
CATV	COMCAST PDF 20190307082347, DATED 3/7/19

PEA GROUP
t: 844.813.2949
www.peagroup.com

NORTH

0 15 30 60
SCALE: 1" = 30'

811 Know what's below. Call before you dig.

CAUTION!!
THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

CLIENT
GFA DEVELOPMENT, INC.
3301 MIRAGE DRIVE
TROY, MI 48083

PROJECT TITLE
GFA FORSYTH
TROY, MICHIGAN

REVISIONS	
REV PER REVIEW - 01/10/25	04/30/25

ORIGINAL ISSUE DATE:
JANUARY 7, 2025

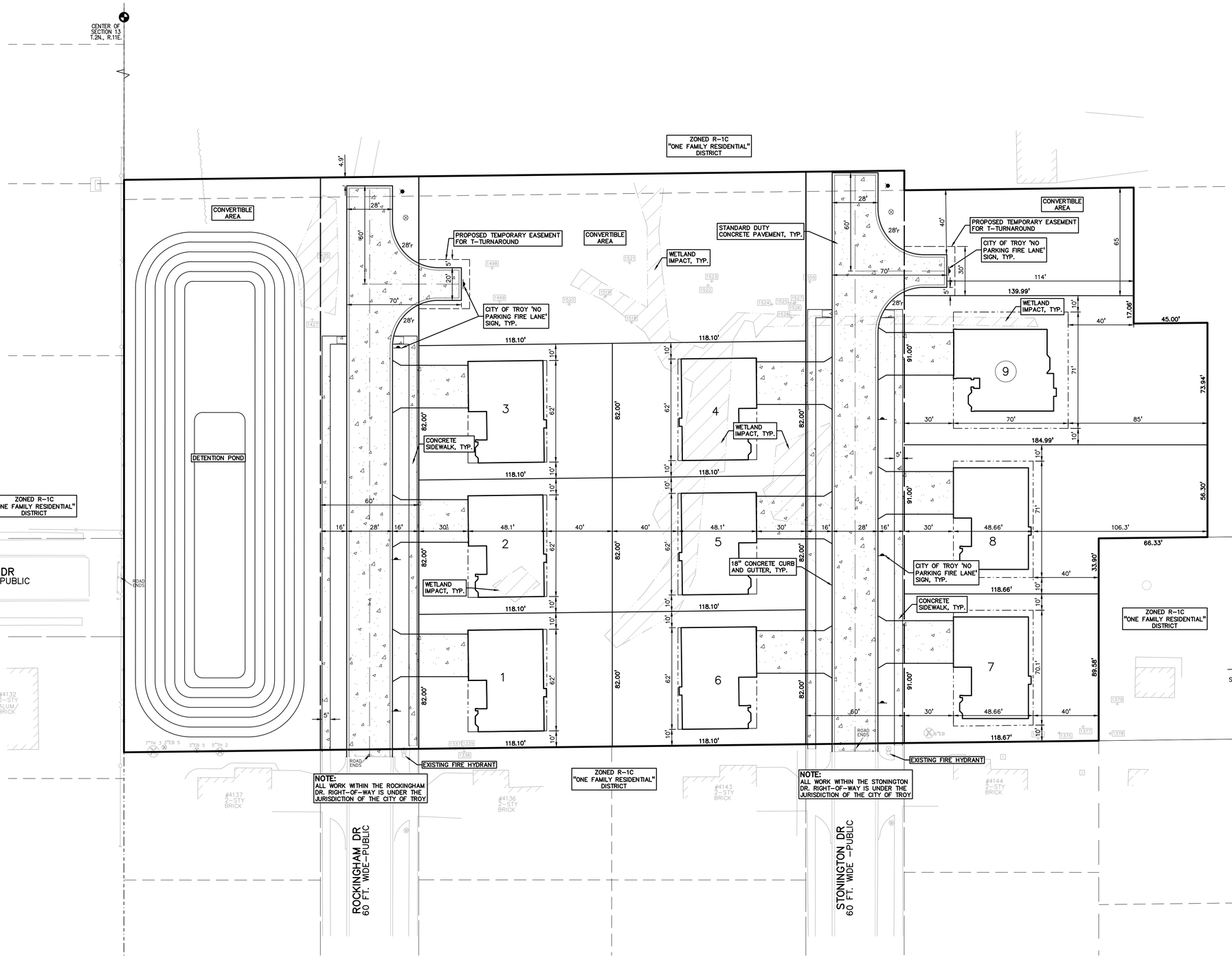
DRAWING TITLE
TOPOGRAPHIC SURVEY

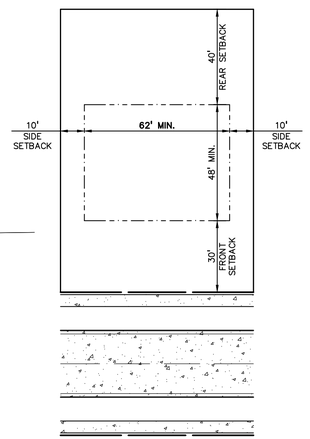
PEA JOB NO.	2018-028
P.M.	JBT
DN.	KMB
DES.	DSK

DRAWING NUMBER:
P-1

NOT FOR CONSTRUCTION

S:\PROJECTS\2018\2018-028 FORSYTH TROY - JV\DWG\SITE PLANS\GFA-TOPO-18028.dwg PLOT DATE: 4/29/2025 BY: Kyle Buckner





TYPICAL UNIT SETBACK DETAIL

LEGEND:

- CONCRETE PAVEMENT (STD DUTY / HEAVY DUTY / R.O.W. ONLY)
- ASPHALT PAVEMENT (STD DUTY / HEAVY DUTY / DEEP STRENGTH)
- GRAVEL
- WETLAND
- CONCRETE CURB AND GUTTER
- REVERSE GUTTER PAN
- SETBACK LINE
- SIGN
- LIGHTPOLE
- FENCE
- GUARD RAIL

SITE DATA TABLE:

SITE AREA: 4.98 ACRES NET AND GROSS

ZONING: R-1C "ONE FAMILY RESIDENTIAL"

PROPOSED USE: 9 SINGLE FAMILY LOTS
10% LOT AREA REDUCTION: 10,500 SF. TO 9,450 SF. MIN.
MINIMUM LOT SIZE = 9,684 SF.
AVERAGE LOT SIZE = 11,050 SF.
10% LOT WIDTH REDUCTION: 85 FT TO 76.5 FT
MINIMUM LOT WIDTH = 82 FT
AVERAGE LOT WIDTH = 85 FT

BUILDING INFORMATION:
- MAXIMUM ALLOWABLE BUILDING HEIGHT = 30 FT.(2.5 STORIES)
- PROPOSED BUILDING HEIGHT = 2 STORIES
- MINIMUM BUILDING FOOTPRINT AREA = 1,200 SF.
- % OF SITE AREA COVERED BY BUILDINGS = 14%
- MAXIMUM % OF LOT AREA COVERED BY BUILDING = 30%

SETBACK REQUIREMENTS:	REQUIRED:	PROPOSED:
FRONT	30'	30'
SIDE	10'	10'
SIDE	10'	10'
REAR	40'	40'

SITE SOILS INFORMATION:
ACCORDING TO THE USDA NATURAL RESOURCES CONSERVATION SERVICE WEB SOIL SURVEY FOR OAKLAND COUNTY, THE SITE CONSISTS OF THE FOLLOWING SOIL TYPES:

BROOKSTON AND COLWOOD LOAMS
SHEBEON-URBAN LAND COMPLEX

LOT DIM. TABLE		
LOT #	WIDTH (LF)	AREA (SF)
1	82.0	9684
2	82.0	9684
3	82.0	9684
4	82.0	9684
5	82.0	9684
6	82.0	9684
7	91.0	10714
8	91.0	14559
9	91.0	16079
AVERAGE LOT AREA		11051
AVERAGE LOT WIDTH		85

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0 15 30 60

SCALE: 1" = 30'

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CLIENT
GFA DEVELOPMENT, INC.
3301 MIRAGE DRIVE
TROY, MI 48083

PROJECT TITLE
GFA FORSYTH
TROY, MICHIGAN

REVISIONS
REV PER REVIEW - 01/10/25 04/30/25

ORIGINAL ISSUE DATE:
JANUARY 7, 2025

DRAWING TITLE
PRELIMINARY SITE PLAN

PEA JOB NO.	2018-028
P.M.	JBT
DN.	KMB
DES.	DSK

DRAWING NUMBER:
P-2

NOT FOR CONSTRUCTION

S:\PROJECTS\2018\2018-028 FORSYTH TROY - JV\DWG\SITE PLANS\[P-2]SITE-180328.dwg PLOT DATE=4/30/2025 BY:Kyle Buchner

BENCHMARKS:
(CITY OF TROY DATUM - NAVD88)

BM #301
BENCH TIE IN NORTHWEST GARAGE.
ELEV. - 645.81

BM#302 (CITY OF TROY BM #2759)
ARROW ON TOP OF HYDRANT, EAST SIDE OF ROCKINGHAM AT HOUSE #4136.
ELEV. - 643.19

BM #303 (CITY OF TROY BM #2758)
ARROW ON TOP OF HYDRANT #13-176, EAST SIDE OF STONINGTON AT HOUSE #4144.
ELEV.- 643.91

BM #304 (CITY OF TROY BM#1766)
ARROW ON TOP OF HYDRANT #13-30 AT HOUSE #4189 FORSYTH.
ELEV.- 644.67

BM #305 (CITY OF TROY BM#1767)
ARROW ON TOP OF HYDRANT #13-31 AT SOUTH PROP. LINE OF HOUSE #4321 FORSYTH.
ELEV.- 644.25

GRADING LEGEND:

- +698.91 / 622.50 — EXISTING SPOT ELEVATION / PROPOSED SPOT ELEVATION: TYPICALLY TOP OF PAVEMENT IN PAVED AREAS, GUTTER GRADE IN CURB LINES.
- 670 — EXISTING CONTOUR
- 922 — PROPOSED CONTOUR
- PROPOSED REVERSE GUTTER PAN
- PROPOSED RIDGE LINE
- PROPOSED SWALE/DITCH

ABBREVIATIONS

T/C = TOP OF CURB	G = GUTTER GRADE
T/P = TOP OF PAVEMENT	FF = FINISH FLOOR
T/S = TOP OF SIDEWALK	FG = FINISH GRADE
T/W = TOP OF WALL	RIM = RIM ELEVATION
B/W = BOTTOM OF WALL	

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PEA JOB NO.	2018-028
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DES.	DSK

DRAWING NUMBER:
P-3

NOT FOR CONSTRUCTION

S:\PROJECTS\2018\2018-028 FORSYTH TROY - JV1\DWG\SITE PLANS\[P-3]GRADE-18028.dwg PLOT DATE: 4/29/2025 BY: Kyle Buckner

WATER MAIN BASIS OF DESIGN:
(Unit Factors Based on Oakland County Unit Assignment Factors)
Residential Dwelling

ULTIMATE DESIGN

Number of Lots	**9.0**
REU	**9.0**
People / REU	**3.5**
	32 People
Average Flow (150 GPCPD)	**4,800 G.P.D.**
	0.007 C.F.S.
	0.005 M.G.D.
Design Max. Flow = (2*avg)	**9,600 G.P.D.**
	0.015 C.F.S.
	0.010 M.G.D.

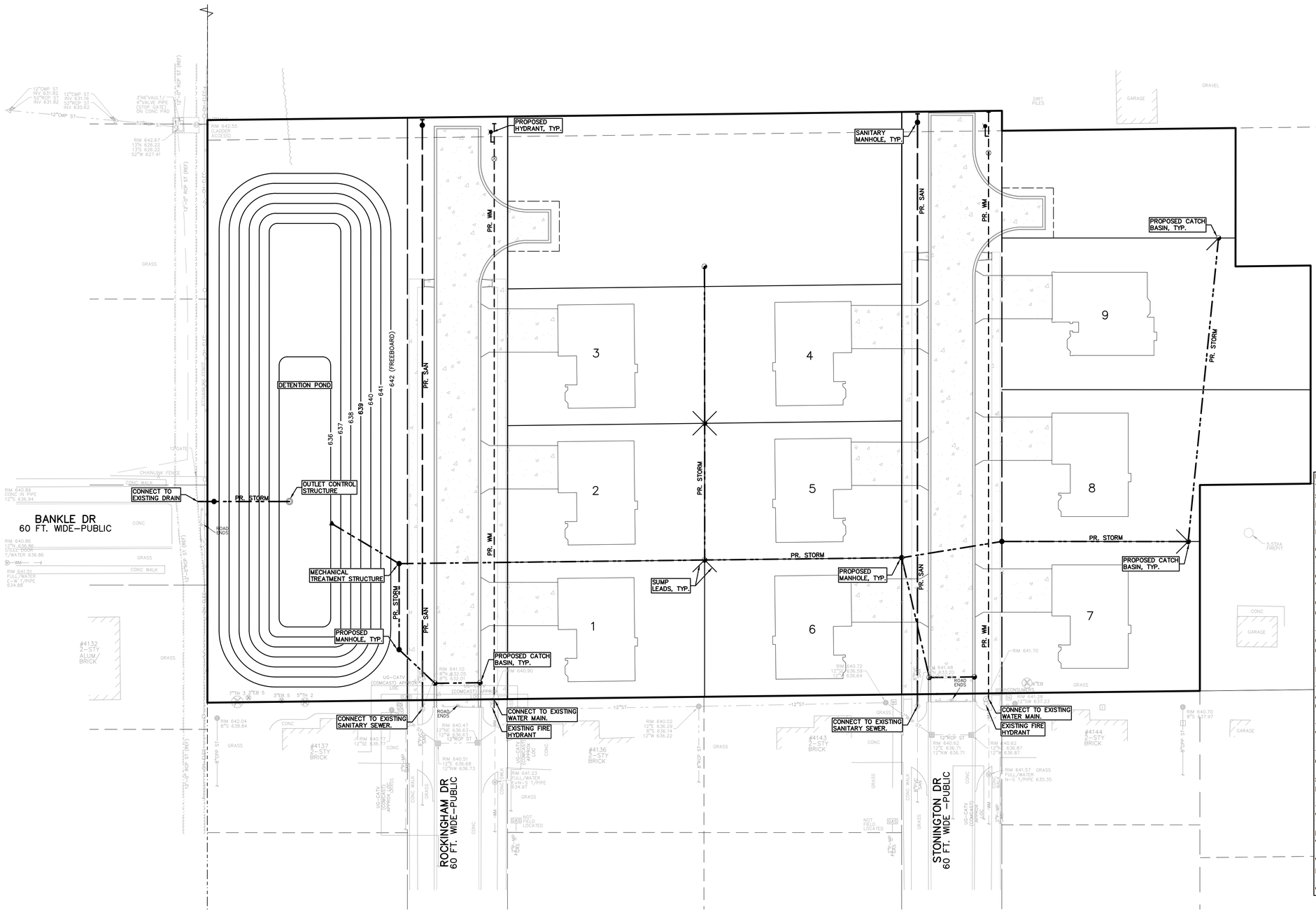
SANITARY SEWER BASIS OF DESIGN:
(Unit Factors Based on Oakland County Unit Assignment Factors)
Residential Dwelling

ULTIMATE DESIGN

Number of Lots	**9.0**
REU (1.0 Per Dwelling)	**9.0**
People / REU	**3.5**
Population (P)	**32 People**
Average Flow (100 GPCPD)	**3,200 G.P.D.**
	0.005 C.F.S.
P (1000s)	**0.032**
Peaking Factor (PF)	**4.35**
PF = (18+sqrt(P))/(4+sqrt(P))	
Peak Flow (G.D.P.)	**13,921 G.P.D.**
Peak Flow (C.F.S.)	**0.022 C.F.S.**
8" Pipe Capacity Provided	**0.766 C.F.S.**

UTILITY LEGEND:

- EX. OH. ELEC, POLE & GUY WIRE
- EX. U.G. CABLE TV & PEDESTAL
- EX. U.G. COMMUNICATION LINE, PEDESTAL & MANHOLE
- EX. U.G. ELEC.,MANHOLE, METER & HANDHOLE
- EX. GAS LINE
- EX. GAS VALVE & GAS LINE MARKER
- EX. TRANSFORMER & IRRIGATION VALVE
- EX. WATER MAIN
- EX. HYDRANT, GATE VALVE & POST INDICATOR VALVE
- EX. WATER VALVE BOX & SHUTOFF
- EX. SANITARY SEWER
- EX. SANITARY CLEANOUT & MANHOLE
- EX. COMBINED SEWER MANHOLE
- EX. STORM SEWER
- EX. CLEANOUT & MANHOLE
- EX. SQUARE, ROUND, & BEEHIVE CATCH BASIN
- EX. YARD DRAIN & ROOF DRAIN
- EX. UNIDENTIFIED STRUCTURE
- PROPOSED WATER MAIN
- PROPOSED HYDRANT AND GATE VALVE
- PROPOSED TAPPING SLEEVE, VALVE & WELL
- PROPOSED POST INDICATOR VALVE
- PROPOSED SANITARY SEWER
- PROPOSED SANITARY CLEANOUT & MANHOLE
- PROPOSED STORM SEWER
- PROPOSED STORM SEWER CLEANOUT & MANHOLE
- PROPOSED CATCH BASIN, INLET & YARD DRAIN



Proposed				
Natural Greenspace area:	0.00	acre	C =	0.25
Select NCRS Soil type:	C			
Improved Greenspace area:	2.97	acre	C =	0.25
Select NCRS Soil type:	C			
Wooded Area:	0.00	acre	C =	0.25
Select NCRS Soil type:	C			
Impervious Area:	2.00	acre	C =	0.95
Greenbelt Area:	2.97	acre	C =	0.25
Total Area (A):	4.97	acre		
Weighted Coefficient of Runoff (C):			0.53	
Rainfall Intensity				
Flood Control Time of Concentration, Tc =			20.00	min

Design Requirements		
CPRC Extended Detention: V_{ED} =	18,167	cf
CPRC Allowable Outlet Rate: Q_{VED} =	0.11	cfs
100-Year Storage Volume, V_{100D} =	23,554	cf
100-Year Allowable Outlet Rate: Q_{VRR} =	2.44	cfs
100 Year Peak Inflow: Q_{100IN} =	14.28	cfs

Detention Basin

CPRC Storage Elevation:	637.64	18,167	cf
100-yr Storage Elevation:	638.05	23,554	cf

Elev. (ft)	Area (sf)	Vol. (cf)	Total Vol. (cf)
635.00	0	0	0
636.00	4,983	2,492	2,492
637.00	10,616	7,800	10,291
638.00	14,187	12,402	22,693
639.00	17,975	16,081	38,774
640.00	21,990	19,983	58,756
641.00	26,231	24,111	82,867
Bottom Elevation of Pond:			635.00

Rainfall Intensity		
Time of Concentration (T_C)	20.00	min
Since 15<Tc<60, use intensity equation		
I1 = 30.2 /[(T + 9.17)^.81]	1.97	in/hr
I10 = 50.12 / [(T + 9.17)^.81]	3.26	in/hr
I100 = 83.3/[(T + 9.17)^.81]	5.42	in/hr
CPVC: Channel Protection Volume Control Volume		
Vcpvc = (4719)CA	12,430	cf
CPRC: Channel Protection Rate Control Volume: Extended Detention		
VED= (6897)CA	18,167	cf
CPRC Allowable Outlet Rate		
$Q_{VED} = V_{ED} / (48*60*60)$	0.11	cfs
100-Year Allowable Outlet Rate		
Qvrr = Qa		
Q_{VRR} =	0.78	cfs/ac
Receiving System Restricted Flow Rate QVRR =	0.49	cfs/ac
100-Year Peak Allowable Discharge		
Area, A =	4.97	ac
$Q_{100P} = Q_{VRR}(A)$	2.44	cfs
100-Year Runoff Volume		
V100R = (18,985)CA	50,008	cf
100-Year Peak Inflow		
$Q_{100IN} = C(I_{100})A$	14.28	cfs
Storage Curve Factor (Vs/Vr)		
R = 0.206-0.15 x ln(Q100P/Q100IN)	0.471	
100-Year Storage Volume		
Vs = R(V100R)	23,554	cf
No infiltration will be provided, so no CPVC deduction is taken.		
V100 = Vs	23,554	cf
V_{flood} must be larger or equal to V_{ED} :		
Is V_{100} >= V_{ED} ?	**Yes**	
V_{flood} =	23,554	cf

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PRELIMINARY UTILITY PLAN

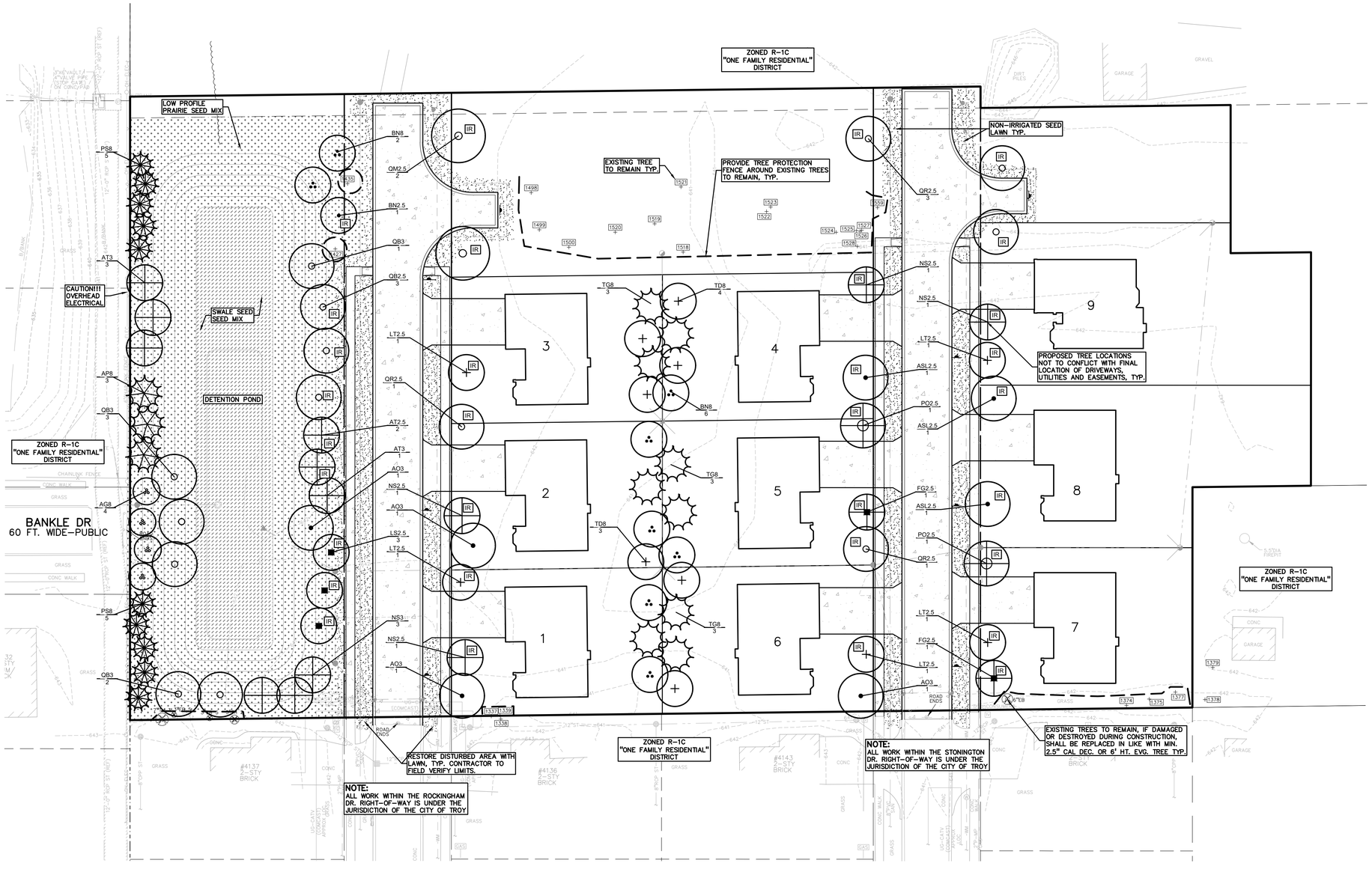
PEA JOB NO.	2018-028
P.M.	JBT
DN.	KMB
DES.	DSK

DRAWING NUMBER:
P-4

S:\PROJECTS\2018\2018-028 FORSYTH TROY - JM\PLANSET PLANS\P-4UTIL-18028.dwg PLOT DATE:4/29/2025 BY:Kyle Buckner

PLANT SCHEDULE

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING	DESIGNATION	REMARKS
DECIDUOUS TREES								
AO3	4	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	3" CAL.	B&B	PER PLAN	NATIVE	REPLACEMENT TREE
ASL2.5	3	ACER SACCHARUM 'LEGACY'	LEGACY SUGAR MAPLE	2.5" CAL.	B&B	PER PLAN	NATIVE	
AG8	4	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE SERVICEBERRY	8' HT.	B&B	PER PLAN	NATIVE	MULTI-TRUNK REPLACEMENT TREE
AT2.5	2	ASIMINA TRILOBA	PAWPAW	2.5" CAL.	B&B	PER PLAN	NATIVE	
AT3	4	ASIMINA TRILOBA	PAWPAW	3" CAL.	B&B	PER PLAN	NATIVE	REPLACEMENT TREE
BN2.5	1	BETULA NIGRA	RIVER BIRCH	2.5" CAL.	B&B	PER PLAN	NATIVE	SINGLE-STEM
BN8	8	BETULA NIGRA	RIVER BIRCH	8' HT.	B&B	PER PLAN	NATIVE	MULTI-TRUNK REPLACEMENT TREE
FG2.5	2	FAGUS GRANDIFOLIA	AMERICAN BEECH	2.5" CAL.	B&B	PER PLAN	NATIVE	
LS2.5	3	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	2.5" CAL.	B&B	PER PLAN	NON-NATIVE	
LT2.5	5	LIRIODENDRON TULIPIFERA	TULIP POPLAR	2.5" CAL.	B&B	PER PLAN	NATIVE	
NS2.5	4	NYSSA SYLVATICA	TUPELO	2.5" CAL.	B&B	PER PLAN	NATIVE	
NS3	3	NYSSA SYLVATICA	TUPELO	3" CAL.	B&B	PER PLAN	NATIVE	REPLACEMENT TREE
PO2.5	2	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	2.5" CAL.	B&B	PER PLAN	NATIVE	
QB2.5	3	QUERCUS BICOLOR	SWAMP WHITE OAK	2.5" CAL.	B&B	PER PLAN	NATIVE	
QB3	6	QUERCUS BICOLOR	SWAMP WHITE OAK	3" CAL.	B&B	PER PLAN	NATIVE	REPLACEMENT
QM2.5	2	QUERCUS MACROCARPA	BURR OAK	2.5" CAL.	B&B	PER PLAN	NATIVE	
QR2.5	5	QUERCUS RUBRA	RED OAK	2.5" CAL.	B&B	PER PLAN	NATIVE	
TD8	10	TAXODIUM DISTICHUM	BALD CYPRESS	8' HT.	B&B	PER PLAN	NATIVE	REPLACEMENT TREE
	71	SUBTOTAL:						
EVERGREEN TREES								
AP8	3	ABIES BALSAMEA PHANEROLEPIS	CANAAN BALSAM FIR	8' HT.	B&B	PER PLAN	NATIVE	REPLACEMENT TREE
PS8	10	PINUS STROBUS	EASTERN WHITE PINE	8' HT.	B&B	PER PLAN	NATIVE	REPLACEMENT TREE
TG8	6	THUJA STANDISHII X PLICATA 'GREEN GIANT'	GREEN GIANT ARBORVITAE	8' HT.	B&B	PER PLAN	ADAPTED NATIVE	REPLACEMENT TREE
	19	SUBTOTAL:						



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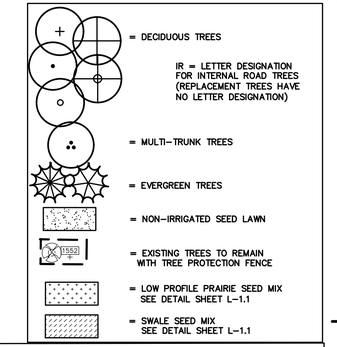

LANDSCAPE CALCULATIONS:

PER CITY OF TROY ZONING ORDINANCE, ZONED R1-C

13.02.F. SUBDIVISION AND SITE CONDOMINIUM STANDARDS
REQUIRED: 1 TREE PER 50 LF OF INTERNAL ROADS = IR
766.54 LF / 50 = 15.33 TREES TREES REQUIRED (EACH SIDE)

PROVIDED: 32 PROPOSED TREES

REPLACEMENT TREES:
REQUIRED: 122" REPLACEMENT TREES = 58: 3" CAL. TREES OR 8' HT.

PROVIDED: 19- 8' EVG, 27- 3" DEC TREES AND 12- 8' MULTI-TRUNK TREES

FOR TREE LIST, SEE SHEET T-1.0

TREE INVENTORY/PRESERVATION CALCULATIONS

WOODLAND TREES		
WOODLAND TREES REMOVED:	**89**	(REPLACE AT 50% OF REMOVED DBH)
802" DBH x 0.5 =	**401"**	REPLACEMENT
WOODLAND TREES SAVED:	13	(CREDIT OF 2X DBH)
117" DBH x 2 =	**234"**	CREDIT
401 - 234 =	167	
167" DBH REQUIRED FOR WOODLAND REPLACEMENT		

LANDMARK TREES		
LANDMARK TREES REMOVED:	4	(REPLACE AT 100% OF REMOVED DBH)
83" DBH x 1 =	**83"**	REPLACEMENT
LANDMARK TREES SAVED:	2	(CREDIT OF 2X DBH)
39" DBH x 2 =	**78"**	CREDIT
83 - 78 =	5	
5" DBH REQUIRED FOR LANDMARK REPLACEMENT		

172" TOTAL DBH REQUIRED FOR REPLACEMENT	

EXEMPT TREES		
(NO REPLACEMENT REQUIRED FOR EXEMPT TREES)		
SAVED EXEMPT TREES:	5	**Trees**
EXEMPT TREES ON SITE:	133	**Trees**
TOTAL SAVED TREES 6" AND ABOVE ON SITE:	20	Trees
TOTAL TREE CREDITS	0	----TREE CREDITS

NOTE: TREES SHALL BE PLACED AT A MINIMUM OF 5' AWAY FROM UTILITY LEADS.

GENERAL PLANTING NOTES:

1. LANDSCAPE CONTRACTOR SHALL VISIT SITE, INSPECT EXISTING SITE CONDITIONS AND REVIEW PROPOSED PLANTING AND RELATED WORK. IN CASE OF DISCREPANCY BETWEEN PLAN AND PLANT LIST, PLAN SHALL GOVERN QUANTITIES. CONTACT LANDSCAPE ARCHITECT WITH ANY CONCERNS.
2. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL ON SITE UTILITIES PRIOR TO BEGINNING CONSTRUCTION ON HIS/HER PHASE OF WORK. ELECTRIC, GAS, TELEPHONE, CABLE TELEVISION MAY BE LOCATED BY CALLING MISS DIG 1-800-482-7171. ANY DAMAGE OR INTERRUPTION OF SERVICES SHALL BE THE RESPONSIBILITY OF CONTRACTOR. CONTRACTOR SHALL COORDINATE ALL RELATED ACTIVITIES WITH OTHER TRADES ON THE JOB AND SHALL REPORT ANY UNACCEPTABLE JOB CONDITIONS TO OWNER'S REPRESENTATIVE PRIOR TO COMMENCING.
3. ALL PLANT MATERIAL TO BE PREMIUM GRADE NURSERY STOCK AND SHALL SATISFY AMERICAN ASSOCIATION OF NURSERYMEN STANDARD FOR NURSERY STOCK. ALL LANDSCAPE MATERIAL SHALL BE NORTHERN GROWN, NO. 1. GRADE.
4. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON LANDSCAPE PLAN PRIOR TO PRICING THE WORK.
5. THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL NOT MEETING SPECIFICATIONS.
6. ALL SINGLE STEM SHADE TREES TO HAVE STRAIGHT TRUNKS AND SYMMETRICAL CROWNS.
7. ALL SINGLE TRUNK SHADE TREES TO HAVE A CENTRAL LEADER; TREES WITH FORKED OR IRREGULAR TRUNKS WILL NOT BE ACCEPTED.
8. ALL MULTI STEM TREES SHALL BE HEAVILY BRANCHED AND HAVE SYMMETRICAL CROWNS. ONE SIDED TREES OR THOSE WITH THIN OR OPEN CROWNS SHALL NOT BE ACCEPTED.
9. ALL EVERGREEN TREES SHALL BE HEAVILY BRANCHED AND FULL TO THE GROUND, SYMMETRICAL IN SHAPE AND NOT SHEARED FOR THE LAST FIVE GROWING SEASONS.
10. ALL TREES TO HAVE CLAY OR CLAY LOAM BALLS, TREES WITH SAND BALLS WILL BE REJECTED.
11. NO MACHINERY IS TO BE USED WITHIN THE DRIP LINE OF EXISTING TREES; HAND GRADE ALL LAWN AREAS WITHIN THE DRIP LINE OF EXISTING TREES.
12. ALL TREE LOCATIONS SHALL BE STAKED BY LANDSCAPE CONTRACTOR AND ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF THE PLANT MATERIAL.
13. IT IS MANDATORY THAT POSITIVE DRAINAGE IS PROVIDED AWAY FROM ALL BUILDINGS.
14. ALL PLANTING BEDS SHALL RECEIVE 3" SHREDDED HARDWOOD BARK MULCH WITH PRE EMERGENT, SEE SPECIFICATIONS. SHREDDED PALETTE AND DYED MULCH WILL NOT BE ACCEPTED.
15. ALL LANDSCAPED AREAS SHALL RECEIVE 3" COMPACTED TOPSOIL.
16. SEE SPECIFICATIONS FOR ADDITIONAL COMMENTS, REQUIREMENTS, PLANTING PROCEDURES AND WARRANTY STANDARDS.
17. FOR NON-LAWN SEED MIX AREAS, AS NOTED ON PLAN, BRUSH MOW ONCE SEASONALLY FOR INVASIVE SPECIES CONTROL.
18. CONTRACTOR SHALL NOT INSTALL PLANTS UNDER BUILDING OVERHANG AND SHALL NOTIFY LANDSCAPE ARCHITECT IF DRAWINGS CONFLICT WITH BUILDING OVERHANGS.
19. TREES SHALL NOT CONFLICT/ BLOCK PROPOSED REGULATORY/ DIRECTION SIGNAGE, MONUMENT SIGNS, ADDRESS OR LIGHT POLES. SHIFT TREES AS NECESSARY TYP.

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PEA GROUP
t: 844.813.2949
www.peagroup.com

STATE OF MICHIGAN
LYNN A. WHIPPLE
LANDSCAPE ARCHITECT
No. 3901001191
REGISTERED LANDSCAPE ARCHITECT

NORTH

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SCALE: 1" = 30'

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P.M.	JBT
DN.	CAL
DES.	LAW

DRAWING NUMBER:
L-1.0

S:\PROJECTS\2018\2018-028 FORSYTH, TROY - JM\DWG\SITE PLANS\[L-1.0]LANDSCAPE PLAN - 18028.dwg PLOT DATE: 4/30/2025 BY: Charlotte L Esperance

NATIVE SEED MIX, BY STANTEC NATIVE PLANT NURSERY, 574-586-2412, OR EQUAL SPECIES TO BE NATIVE TO COUNTY, NO INVASIVE SPECIES ALLOWED

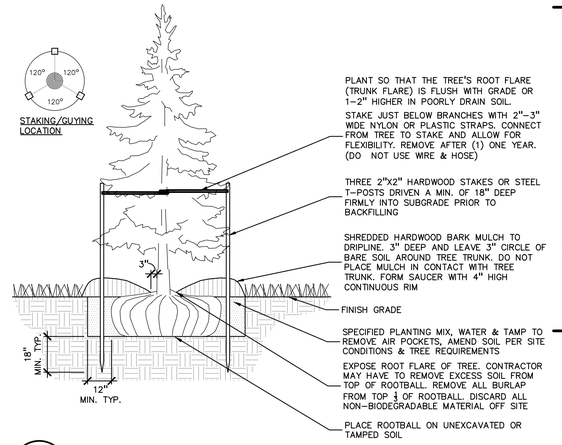
FOR ALL SEED MIXES, PROVIDE EROSION MAT ON SLOPES AND AREAS OF WASH OUT TYP. INSTALL AND PREP PER MANUFACTURES SPECIFICATIONS.

Low-profile Prairie Seed Mix
Stantec Native Plant Nursery 574-586-2412
stantec.com/native-plant-nursery

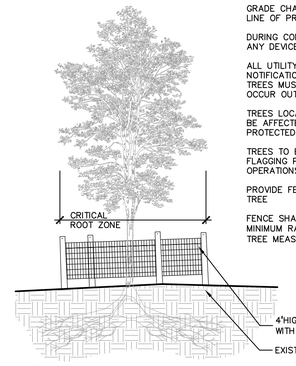
Botanical Name	Common Name
Permanent Grasses:	
Bouteloua curtipendula	Side Oats Grama
Carex spp.	Prairie Carex Mix
Elymus canadensis	Canada Wild Rye
Koeleria pyramidata	June Grass
Panicum virgatum	Switch Grass
Schizachyrium scoparium	Little Bluestem
Temporary Cover:	
Avena sativa	Common Oat
Lolium multiflorum	Annual Rye
Forbs:	
Amorpha canescens	Lead Plant
Anemone cylindrica	ThimbleWeed
Asclepias syriaca	Common Milkweed
Asclepias tuberosa	Butterfly MilkWeed
Baptisia alba	White Wild Indigo
Chamaecrista fasciculata	Partridge Pea
Coreopsis lanceolata	Sand Coreopsis
Coreopsis palmata	Prairie Coreopsis
Dalea candida	White Prairie Clover
Dalea purpurea	Purple Prairie Clover
Desmanthus illinoensis	Illinois Sensitive Plant
Echinacea purpurea	Broad-Leaved Purple Coneflower
Eryngium yuccifolium	Rattlesnake Master
Lespedeza capitata	Round-Head Bush Clover
Liatris aspera	Rough Blazing Star
Lupinus perennis	Wild Lupine
Monarda fistulosa	Wild Bergamot
Oligoneuron rigidum	Stiff Goldenrod
Parthenium integrifolium	Wild Quinine
Penstemon digitalis	Foxglove Beard Tongue
Penstemon hirsutus	Hairy Beard Tongue
Pycnanthemum virginianum	Common Mountain Mint
Ratibida pinnata	Yellow Coneflower
Rudbeckia hirta	Black-Eyed Susan
Rudbeckia subtomentosa	Sweet Black-Eyed Susan
Silphium terebinthinaceum	Prairie Dock
Solidago speciosa	Showy Goldenrod
Symphyotrichum ericoides	Heath Aster
Symphyotrichum laeve	Smooth Blue Aster
Symphyotrichum novae-angliae	New England Aster
Tradescantia ohiensis	Common Spiderwort
Verbena stricta	Hoary Vervain
Vernonia spp.	Ironweed (Various Mix)
Veronicastrum virginicum	Culvers Root

Swale Seed Mix
Stantec Native Plant Nursery 574-586-2412
stantec.com/native-plant-nursery

Botanical Name	Common Name
Permanent Grasses/Sedges:	
Andropogon gerardii	Big Bluestem
Carex comosa	Bristly Sedge
Carex cristatella	Crested Oval Sedge
Carex lurida	Bottlebrush Sedge
Carex spp.	Prairie Sedge Mix
Carex vulpinoidea	Brown Fox Sedge
Elymus virginicus	Virginia Wild Rye
Glyceria striata	Fowl Manna Grass
Panicum virgatum	Switch Grass
Scirpus atrovirens	Dark Green Rush
Scirpus cyperinus	Wool Grass
Spartina pectinata	Prairie Cord Grass
Temporary Cover:	
Avena sativa	Common Oat
Lolium multiflorum	Annual Rye
Forbs:	
Alisma spp.	Water Plantain (Various Mix)
Asclepias incarnata	Swamp Milkweed
Coreopsis tripteris	Tall Coreopsis
Eutrochium maculatum	Spotted Joe-Pye Weed
Iris virginica	Blue Flag
Liatris spicata	Marsh Blazing Star
Lobelia cardinalis	Cardinal Flower
Lobelia siphilitica	Great Blue Lobelia
Lycopus americanus	Common Water Horehound
Pycnanthemum virginianum	Common Mountian Mint
Rudbeckia triloba	Brown-Eyed Susan
Sagittaria latifolia	Common Arrowhead
Senna hebecarpa	Wild Senna
Silphium terebinthinaceum	Prairie Dock
Symphyotrichum novae-angli	New England Aster
Verbena hastata	Blue Vervain
Zizia aurea	Golden Alexanders



3 EVERGREEN TREE PLANTING DETAIL
SCALE: 1" = 3'–0"



TREE PROTECTION WILL BE ERECTED PRIOR TO START OF CONSTRUCTION ACTIVITIES AND SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE

NO PERSON MAY CONDUCT ANY ACTIVITY WITHIN THE DRIP LINE OF ANY TREE DESIGNATED TO REMAIN; INCLUDING, BUT NOT LIMITED TO PLACING SOLVENTS, BUILDING MATERIAL, CONSTRUCTION EQUIPMENT OR SOIL DEPOSITS WITHIN DRIP LINES

GRADE CHANGES MAY NOT OCCUR WITHIN THE DRIP LINE OF PROTECTED TREES

DURING CONSTRUCTION, NO PERSON SHALL ATTACH ANY DEVICE OR WIRE TO ANY REMAINING TREE

ALL UTILITY SERVICE REQUESTS MUST INCLUDE NOTIFICATION TO THE INSTALLER THAT PROTECTED TREES MUST BE AVOIDED. ALL TRENCHING SHALL OCCUR OUTSIDE OF THE PROTECTIVE FENCING

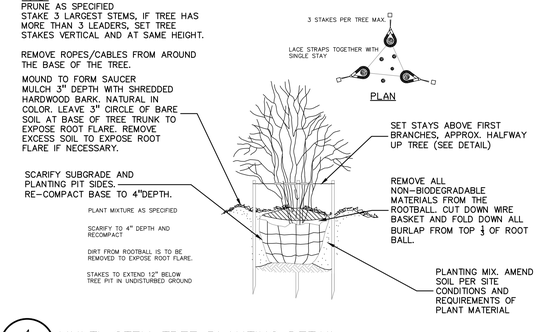
TREES LOCATED ON ADJACENT PROPERTY THAT MAY BE AFFECTED BY CONSTRUCTION ACTIVITIES MUST BE PROTECTED

TREES TO BE PRESERVED SHALL BE IDENTIFIED WITH FLAGGING PRIOR TO THE TREE CLEARING OPERATIONS

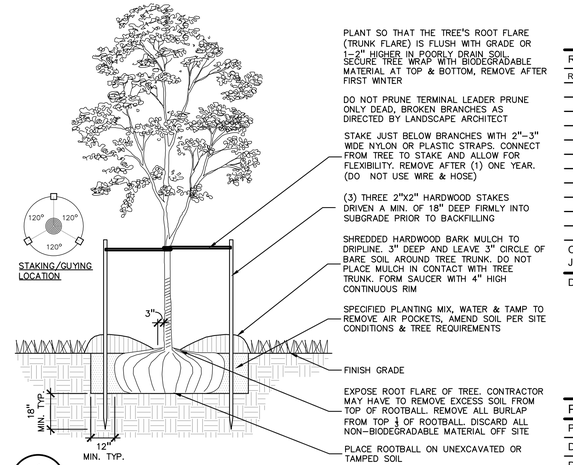
PROVIDE FENCE AROUND CRITICAL ROOT ZONE OF TREE

FENCE SHALL BE PLACED IN A CIRCLE WITH A MINIMUM RADIUS OF 1' PER 1" DIAMETER OF THE TREE MEASURED AT 4.5' ABOVE GROUND

2 TREE PROTECTION DETAIL
SCALE: 1" = 3'–0"



4 MULTI–STEM TREE PLANTING DETAIL
SCALE: 1" = 2'–0"



1 DECIDUOUS TREE PLANTING DETAIL
SCALE: 1" = 3'–0"

NOT FOR CONSTRUCTION

PEA GROUP
t: 844.813.2949
www.peagroup.com

STATE OF MICHIGAN
LYNN A. WHIPPLE
LANDSCAPE ARCHITECT
No. 41538
REGISTERED LANDSCAPE ARCHITECT

811 Know what's below. Call before you dig.

CAUTION!!
THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

CLIENT
GFA DEVELOPMENT, INC.
3301 MIRAGE DRIVE
TROY, MI 48083

PROJECT TITLE
GFA FORSYTH
TROY, MICHIGAN

REVISIONS

REV PER REVIEW - 01/10/25	04/30/25

ORIGINAL ISSUE DATE:
JANUARY 7, 2025

DRAWING TITLE
LANDSCAPE DETAILS

PEA JOB NO.	2018-028
P.M.	JBT
DN.	CAL
DES.	LAW

DRAWING NUMBER:
L-1.1

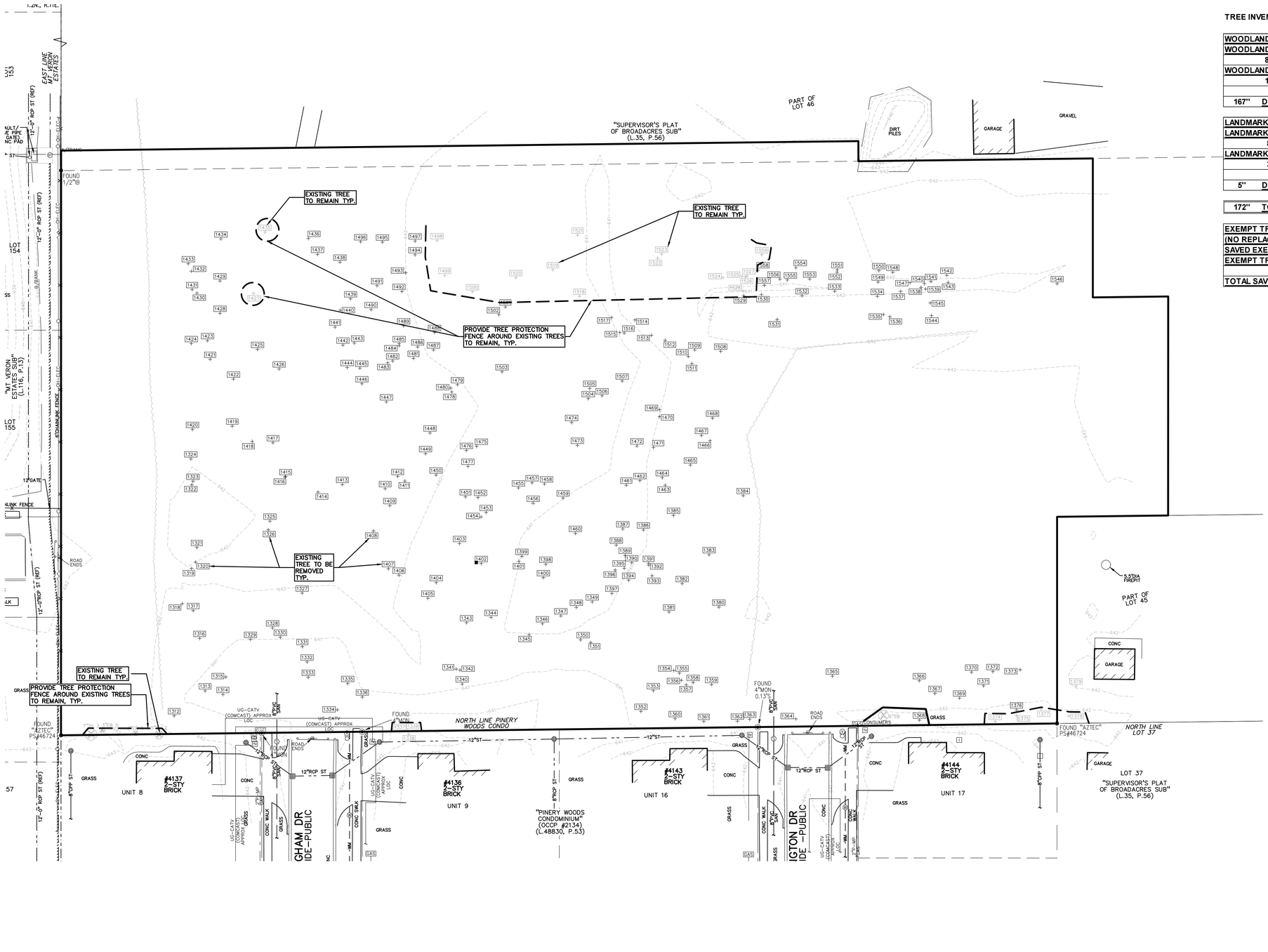
S:\PROJECTS\2018\2018-028 FORSYTH TROY - JA\CIVIL\SITE PLANS\L-1.1\LANDSCAPE DETAILS-18-028.DWG PLOT DATE: 4/30/2025 BY: Charlotte L Esperance

KEY:

= EXISTING TREES TO BE REMOVED

= EXISTING TREES TO REMAIN PROVIDE TREE PROTECTION FENCE

= TREE PROTECTION FENCE



TREE INVENTORY/PRESERVATION CALCULATIONS

WOODLAND TREES			
WOODLAND TREES REMOVED:	**89**	(REPLACE AT 50% OF REMOVED DBH)	
802" DBH x 0.5 =		**401"** REPLACEMENT	
WOODLAND TREES SAVED:	13	(CREDIT OF 2X DBH)	
117" DBH x 2 =		**234"** CREDIT	
401 -	234	=	167
167" **DBH REQUIRED FOR WOODLAND REPLACEMENT**			

LANDMARK TREES			
LANDMARK TREES REMOVED:	4	(REPLACE AT 100% OF REMOVED DBH)	
83" DBH x 1 =		**83"** REPLACEMENT	
LANDMARK TREES SAVED:	2	(CREDIT OF 2X DBH)	
39" DBH x 2 =		**78"** CREDIT	
83 -	78	=	5
5" **DBH REQUIRED FOR LANDMARK REPLACEMENT**			

172"	**TOTAL DBH REQUIRED FOR REPLACEMENT**

EXEMPT TREES		
(NO REPLACEMENT REQUIRED FOR EXEMPT TREES)		
SAVED EXEMPT TREES:	5	**Trees**
EXEMPT TREES ON SITE:	133	**Trees**
TOTAL SAVED TREES 6" AND ABOVE ON SITE:	20	Trees

NOT FOR CONSTRUCTION

PEA GROUP
t: 844.813.2949
www.peagroup.com

LYNN A. WHIPPLE LANDSCAPE ARCHITECTURE No. 1301 REGISTERED LANDSCAPE ARCHITECT STATE OF MICHIGAN

NORTH

0 15 30 60

SCALE: 1" = 30'

811 Know what's below. Call before you dig.

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CLIENT

GFA DEVELOPMENT, INC.
3301 MIRAGE DRIVE
TROY, MI 48083

PROJECT TITLE

GFA FORSYTH
TROY, MICHIGAN

REVISIONS

REV PER REVIEW - 01/10/25	04/30/25

ORIGINAL ISSUE DATE:
JANUARY 7, 2025

DRAWING TITLE

TREE PRESERVATION PLAN

PEA JOB NO.	2018-028
P.M.	JBT
DN.	KMB
DES.	DSK

DRAWING NUMBER:
T-1.0

S:\PROJECTS\2018\2018-028 FORSYTH TROY - JV\DWG\SITE PLANS\[T-1.0]TREE PRESERVATION PLAN.dwg PLOT DATE: 4/30/2025 BY: Charlotte L. Esperance

TAG NO.	DBH	COMMON NAME	LATIN NAME	COND	COMMENTS	CLASS	SAVE / REMOVE	ON-SITE	REPLACE
1312	11	Box-elder	Acer-negundo	Fair		INVASIVE	R	Y	-
1313	9	American-Elm	Ulmus-americana	Good		INVASIVE	R	Y	-
1314	14	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1315	7	American-Elm	Ulmus-americana	Good		INVASIVE	R	Y	-
1316	8	Basswood	Tilia-americana	Fair		WOODLAND	R	Y	REPLACE
1317	13	American-Elm	Ulmus-americana	Good		INVASIVE	R	Y	-
1318	18	Red-Oak	Quercus-rubra	Good		LANDMARK	R	Y	REPLACE
1319	6	Sugar-Maple	Acer-saccharum	Good		WOODLAND	R	Y	REPLACE
1320	6	Sugar-Maple	Acer-saccharum	Fair		WOODLAND	R	Y	REPLACE
1321	9	Shagbark-Hickory	Carya-ovata	Good		WOODLAND	R	Y	REPLACE
1322	8	American-Elm	Ulmus-americana	Good		INVASIVE	R	Y	-
1323	6	American-Elm	Ulmus-americana	Good		INVASIVE	R	Y	-
1324	9	Domestic-Apple	Malus-sylvestris	Good		WOODLAND	R	Y	REPLACE
1325	14	Cottonwood	Populus-deltoides	Fair		INVASIVE	R	Y	-
1326	16	Cottonwood	Populus-deltoides	Good		INVASIVE	R	Y	-
1327	10	Bur-oak	Quercus-macrocarpa	Good		WOODLAND	R	Y	REPLACE
1328	10	Basswood	Tilia-americana	Fair		WOODLAND	R	Y	REPLACE
1329	8	American-Elm	Ulmus-americana	Good		INVASIVE	R	Y	-
1330	10	American-Elm	Ulmus-americana	Good		INVASIVE	R	Y	-
1331	9	Basswood	Tilia-americana	Good	x1	WOODLAND	R	Y	REPLACE
1332	8	American-Elm	Ulmus-americana	Good		INVASIVE	R	Y	-
1333	7	American-Elm	Ulmus-americana	Good		INVASIVE	R	Y	-
1334	9	American-Elm	Ulmus-americana	Good		INVASIVE	R	Y	-
1335	13	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1336	7	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1337	13	Basswood	Tilia-americana	Good		WOODLAND	S	Y	-
1339	10	Basswood	Tilia-americana	Good		WOODLAND	S	Y	-
1340	34	Cottonwood	Populus-deltoides	Good		INVASIVE	R	Y	-
1341	7	Thornapple/Haw-thorne	Cragaegus-spp.	Good	x1	WOODLAND	R	Y	REPLACE
1342	8	Thornapple/Haw-thorne	Cragaegus-spp.	Poor		WOODLAND	R	Y	-
1343	11	Sugar-Maple	Acer-saccharum	Good	x1	WOODLAND	R	Y	REPLACE
1344	19	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1345	27	Cottonwood	Populus-deltoides	Good		INVASIVE	R	Y	-
1346	22	Cottonwood	Populus-deltoides	Fair		INVASIVE	R	Y	-
1347	11	Silver-Maple	Acer-saccharinum	Good	x1	INVASIVE	R	Y	-
1348	16	Silver-Maple	Acer-saccharinum	Fair	x1	INVASIVE	R	Y	-
1349	17	Silver-Maple	Acer-saccharinum	Good	x1	INVASIVE	R	Y	-
1350	11	Cottonwood	Populus-deltoides	Good		INVASIVE	R	Y	-
1351	16	Cottonwood	Populus-deltoides	Good		INVASIVE	R	Y	-
1352	8	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1353	6	Bitternut-Hickory	Carya-cordiformis	Fair		WOODLAND	R	Y	REPLACE
1354	9	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1355	9	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1356	6	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1357	7	Basswood	Tilia-americana	Fair	x1	WOODLAND	R	Y	REPLACE
1358	7	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1359	26	Cottonwood	Populus-deltoides	Good		INVASIVE	R	Y	-
1360	24	Bitternut-Hickory	Carya-cordiformis	Good		LANDMARK	R	Y	REPLACE
1361	6	Basswood	Tilia-americana	Fair		WOODLAND	R	Y	REPLACE
1362	8	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1363	12	Red-Oak	Quercus-rubra	Good		WOODLAND	R	Y	REPLACE
1364	12	Silver-Maple	Acer-saccharinum	Fair		INVASIVE	R	Y	-
1365	13	Scotch-Pine	Pinus-sylvestris	Good		WOODLAND	R	Y	REPLACE
1366	15	Scotch-Pine	Pinus-sylvestris	Good		WOODLAND	R	Y	REPLACE
1367	7	Red-Pine	Pinus-resinosa	Fair		WOODLAND	R	Y	REPLACE
1368	10	American-Elm	Ulmus-americana	Good		INVASIVE	R	Y	-
1369	7	Red-Pine	Pinus-resinosa	Fair		WOODLAND	R	Y	REPLACE
1370	12	Scotch-Pine	Pinus-sylvestris	Fair		WOODLAND	R	Y	REPLACE
1371	7	Scotch-Pine	Pinus-sylvestris	Good		WOODLAND	R	Y	REPLACE
1372	10	Scotch-Pine	Pinus-sylvestris	Fair		WOODLAND	R	Y	REPLACE
1373	11	Scotch-Pine	Pinus-sylvestris	Fair		WOODLAND	R	Y	REPLACE
1374	6	Bur oak	Quercus macrocarpa	Good		WOODLAND	S	Y	-
1375	30	Silver Maple	Acer saccharinum	Good	x4	INVASIVE	S	Y	-
1376	8	Red Oak	Quercus-rubra	Good		WOODLAND	R	Y	REPLACE
1377	11	American Elm	Ulmus americana	Good		INVASIVE	S	Y	-
1380	11	Silver-Maple	Acer-saccharinum	Good	x3	INVASIVE	R	Y	-
1381	8	American-Elm	Ulmus-americana	Good		INVASIVE	R	Y	-
1382	9	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1383	9	American-Elm	Ulmus-americana	Fair		INVASIVE	R	Y	-
1384	8	Bigtooth-Aspen	Populus-grandidentata	Fair		INVASIVE	R	Y	-
1385	12	Silver-Maple	Acer-saccharinum	Good	x1	INVASIVE	R	Y	-
1386	7	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1387	16	Cottonwood	Populus-deltoides	Fair		INVASIVE	R	Y	-
1388	18	Cottonwood	Populus-deltoides	Fair		INVASIVE	R	Y	-
1389	16	Cottonwood	Populus-deltoides	Fair		INVASIVE	R	Y	-
1390	23	Cottonwood	Populus-deltoides	Fair		INVASIVE	R	Y	-
1391	6	American-Elm	Ulmus-americana	Good		INVASIVE	R	Y	-
1392	11	Cottonwood	Populus-deltoides	Fair		INVASIVE	R	Y	-
1393	19	Cottonwood	Populus-deltoides	Good		INVASIVE	R	Y	-
1394	17	Cottonwood	Populus-deltoides	Good		INVASIVE	R	Y	-
1395	12	Cottonwood	Populus-deltoides	Fair		INVASIVE	R	Y	-
1396	17	Cottonwood	Populus-deltoides	Fair		INVASIVE	R	Y	-
1397	31	Cottonwood	Populus-deltoides	Good		INVASIVE	R	Y	-
1398	21	Silver-Maple	Acer-saccharinum	Good	x2	INVASIVE	R	Y	-
1399	6	American-Elm	Ulmus-americana	Good		INVASIVE	R	Y	-
1400	8	American-Elm	Ulmus-americana	Good		INVASIVE	R	Y	-
1401	7	American-Elm	Ulmus-americana	Good		INVASIVE	R	Y	-
1402	6	Basswood	Tilia-americana	Good		WOODLAND	R	Y	REPLACE
1403	20	Cottonwood	Populus-deltoides	Fair	x1	INVASIVE	R	Y	-
1404	12	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1405	8	Shagbark-Hickory	Carya-ovata	Good		WOODLAND	R	Y	REPLACE
1406	16	Cottonwood	Populus-deltoides	Fair	x3	INVASIVE	R	Y	-
1407	16	Cottonwood	Populus-deltoides	Good		INVASIVE	R	Y	-
1408	11	Silver-Maple	Acer-saccharinum	Good	x1	INVASIVE	R	Y	-
1409	13	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1410	6	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1411	6	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1412	6	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1413	33	Cottonwood	Populus-deltoides	Good	x1	INVASIVE	R	Y	-

TAG NO.	DBH	COMMON NAME	LATIN NAME	COND	COMMENTS	CLASS	SAVE / REMOVE	ON-SITE	REPLACE
1414	12	White-Mulberry	Morus-alba	Fair	x1	INVASIVE	R	Y	-
1415	8	American-Elm	Ulmus-americana	Good	x1	INVASIVE	R	Y	-
1416	19	Cottonwood	Populus-deltoides	Good		INVASIVE	R	Y	-
1417	17	Cottonwood	Populus-deltoides	Good		INVASIVE	R	Y	-
1418	10	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1419	9	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1420	10	Black-Locust	Robinia-pseudoacacia	Good		INVASIVE	R	Y	-
1421	15	Black-Locust	Robinia-pseudoacacia	Fair		INVASIVE	R	Y	-
1422	10	Black-Locust	Robinia-pseudoacacia	Good		INVASIVE	R	Y	-
1423	11	Basswood	Tilia-americana	Good	x1	WOODLAND	R	Y	REPLACE
1424	16	Black-Locust	Robinia-pseudoacacia	Good	x2	INVASIVE	R	Y	-
1425	18	Cottonwood	Populus-deltoides	Good		INVASIVE	R	Y	-
1426	10	Shagbark-Hickory	Carya-ovata	Good		WOODLAND	R	Y	REPLACE
1427	21	Bur oak	Quercus macrocarpa	Good		LANDMARK	S	Y	-
1428	11	Black-Locust	Robinia-pseudoacacia	Fair		INVASIVE	R	Y	-
1429	9	Basswood	Tilia-americana	Fair	x3	WOODLAND	R	Y	REPLACE
1430	11	Black-Locust	Robinia-pseudoacacia	Fair		INVASIVE	R	Y	-
1431	10	Black-Locust	Robinia-pseudoacacia	Fair	x1	INVASIVE	R	Y	-
1432	11	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1433	9	Pignut-Hickory	Carya-glabra	Good		WOODLAND	R	Y	REPLACE
1434	7	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1435	18	Swamp White Oak	Quercus bicolor	Good		LANDMARK	S	Y	-
1436	11	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1437	14	Silver-Maple	Acer-saccharinum	Good	x2	INVASIVE	R	Y	-
1438	23	Red-Oak	Quercus-rubra	Good		LANDMARK	R	Y	REPLACE
1439	9	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1440	7	Basswood	Tilia-americana	Good		WOODLAND	R	Y	REPLACE
1441	11	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1442	9	Basswood	Tilia-americana	Good	x1	WOODLAND	R	Y	REPLACE
1443	11	Basswood	Tilia-americana	Good		WOODLAND	R	Y	REPLACE
1444	8	Basswood	Tilia-americana	Good		WOODLAND	R	Y	REPLACE
1445	11	Basswood	Tilia-americana	Good		WOODLAND	R	Y	REPLACE
1446	7	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1447	11	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1448	7	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1449	9	Silver-Maple	Acer-saccharinum	Good	x1	INVASIVE	R	Y	-
1450	6	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1451	12	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1452	6	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1453	11	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1454	8	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1455	8	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1456	7	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1457	16	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1458	12	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1459	9	American-Elm	Ulmus-americana	Good	x3	INVASIVE	R	Y	-
1460	17	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1461	21	Cottonwood	Populus-deltoides	Fair		INVASIVE	R	Y	-
1462	18	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1463	14	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1464	12	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1465	9	Basswood	Tilia-americana	Good	x1	WOODLAND	R	Y	REPLACE
1466	7	Bur-oak	Quercus-macrocarpa	Good		WOODLAND	R	Y	REPLACE
1467	8	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1468	6	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1469	24	Cottonwood	Populus-deltoides	Good		INVASIVE	R	Y	-
1470	22	Cottonwood	Populus-deltoides	Good		INVASIVE	R	Y	-
1471	11	American-Elm	Ulmus-americana	Good		INVASIVE	R	Y	-
1472	27	Cottonwood	Populus-deltoides	Good		INVASIVE	R	Y	-
1473	7	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1474	12	Silver-Maple	Acer-saccharinum	Poor		INVASIVE	R	Y	-
1475	13	Cottonwood	Populus-deltoides	Good		INVASIVE	R	Y	-
1476	14	Silver-Maple	Acer-saccharinum	Good	x2	INVASIVE	R	Y	-
1477	13	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1478	16	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1479	7	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1480	9	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1481	8	Basswood	Tilia-americana	Fair		WOODLAND	R	Y	REPLACE
1482	6	Basswood	Tilia-americana	Good		WOODLAND	R	Y	REPLACE
1483	8	Basswood	Tilia-americana	Good		WOODLAND	R	Y	REPLACE
1484	10	Basswood	Tilia-americana	Good		WOODLAND	R	Y	REPLACE
1485	8	Basswood	Tilia-americana	Good		WOODLAND	R	Y	REPLACE
1486	7	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1487	7	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1488	19	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1489	14	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1490	6	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1491	13	Shagbark-Hickory	Carya-ovata	Good		WOODLAND	R	Y	REPLACE
1492	8	Shagbark-Hickory	Carya-ovata	Good		WOODLAND	R	Y	REPLACE
1493	8	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1494	8	Basswood	Tilia-americana	Good	x1	WOODLAND	R	Y	REPLACE
1495	7	Basswood	Tilia-americana	Good		WOODLAND	R	Y	REPLACE
1496	13	Bur-oak	Quercus-macrocarpa	Good		WOODLAND	R	Y	REPLACE
1497	7	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1498	10	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	S	Y	-
1499	8	Basswood	Tilia-americana	Good		WOODLAND	S	Y	-
1500	7	Shagbark-Hickory	Carya-ovata	Good		WOODLAND	S	Y	-
1501	6	American-Elm	Ulmus-americana	Good		INVASIVE	R	Y	-
1502	11	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1503	9	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1504	21	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1505	9	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1506	25	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1507	9	Silver-Maple	Acer-saccharinum	Good	x2	INVASIVE	R	Y	-
1508	36	Box-elder	Acer-negundo	Good		INVASIVE	R	Y	-
1509	8	American-Elm	Ulmus-americana	Good		INVASIVE	R	Y	-
1510	12	Bitternut-Hickory	Carya-cordiformis	Fair		WOODLAND	R	Y	REPLACE
1511	13	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1512	21	Silver-Maple	Acer-saccharinum	Good	x1	INVASIVE	R	Y	-
1513	19	Cottonwood	Populus-deltoides	Good		INVASIVE	R	Y	-

TAG NO.	DBH	COMMON NAME	LATIN NAME	COND	COMMENTS	CLASS	SAVE / REMOVE	ON-SITE	REPLACE
1514	21	Silver-Maple	Acer-saccharinum	Good	x1	INVASIVE	R	Y	-
1515	11	Silver-Maple	Acer-saccharinum	Good		INVASIVE	R	Y	-
1516	13	Cottonwood	Populus-deltoides	Good		INVASIVE	R	Y	-
1517	21	Cottonwood	Populus-deltoides	Good		INVASIVE	R	Y	-
1518	10	American Elm	Ulmus americana	Good		INVASIVE	S	Y	-
1519	6	Domestic Apple	Malus sylvestris	Good		WOODLAND	S	Y	-
1520	11	Swamp White Oak	Quercus bicolor	Good		WOODLAND	S	Y	-
1521	10	Bur oak	Quercus macrocarpa	Good		WOODLAND	S	Y	-
1522	7	Domestic Apple	Malus sylvestris	Poor		WOODLAND	S	Y	-
1523	7	Domestic Apple	Malus sylvestris	Poor		WOODLAND	S	Y	-
1524	6	Bitternut Hickory	Carya cordiformis	Fair		WOODLAND	S	Y	-
1525	10	Bitternut Hickory	Carya cordiformis	Good		WOODLAND	S	Y	-
1526	6	American Elm	Ulmus americana	Good		INVASIVE	S	Y	-
1527	7	Bitternut Hickory	Carya cordiformis	Good		WOODLAND	S	Y	-
1528	40	Cottonwood	Populus deltoides	Good		INVASIVE	S	Y	-
1529	9	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1530	10	American-Elm	Ulmus-americana	Good		INVASIVE	R	Y	-
1531	21	Cottonwood	Populus-deltoides	Good		INVASIVE	R	Y	-
1532	18	Basswood	Tilia-americana	Good	x1	LANDMARK	R	Y	REPLACE
1533	11	American-Elm	Ulmus-americana	Good		INVASIVE	R	Y	-
1534	12	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1535	7	Wild-Black-Cherry	Prunus-serotina	Fair		WOODLAND	R	Y	REPLACE
1536	7	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1537	9	American-Elm	Ulmus-americana	Good		INVASIVE	R	Y	-
1538	31	Cottonwood	Populus-deltoides	Good		INVASIVE	R	Y	-
1539	7	American-Elm	Ulmus-americana	Good		INVASIVE	R	Y	-
1540	10	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1541	14	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1542	10	American-Elm	Ulmus-americana	Good		INVASIVE	R	Y	-
1543	10	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1544	7	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1545	8	American-Elm	Ulmus-americana	Good		INVASIVE	R	Y	-
1546	12	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1547	12	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1548	8	Bitternut-Hickory	Carya-cordiformis	Good	x1	WOODLAND	R	Y	REPLACE
1549	7	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1550	13	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1551	8	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1552	10	Bitternut-Hickory	Carya-cordiformis	Good	x2	WOODLAND	R	Y	REPLACE
1553	11	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1554	14	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1555	6	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1556	8	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1557	6	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1558	11	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	R	Y	REPLACE
1559	13	Bitternut-Hickory	Carya-cordiformis	Good		WOODLAND	S	Y	-

NOTE: A LINE STRIKE OUT INDICATES TREE TO BE REMOVED

PEA GROUP
t: 844.813.2949
www.peagroup.com

STATE OF MICHIGAN
LYNN A. WHIPPLE
LANDSCAPE ARCHITECT
No. 1301
REGISTERED LANDSCAPE ARCHITECT

811 Know what's below. Call before you dig.

CAUTION!!
THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED THAT ALL UTILITIES ARE SHOWN. IT SHALL BE THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

CLIENT
GFA DEVELOPMENT, INC.
3301 MIRAGE DRIVE
TROY, MI 48083

PROJECT TITLE
GFA FORSYTH
TROY, MICHIGAN

REVISIONS
REV PER REVIEW - 01/10/25 04/30/25

ORIGINAL ISSUE DATE:
JANUARY 7, 2025

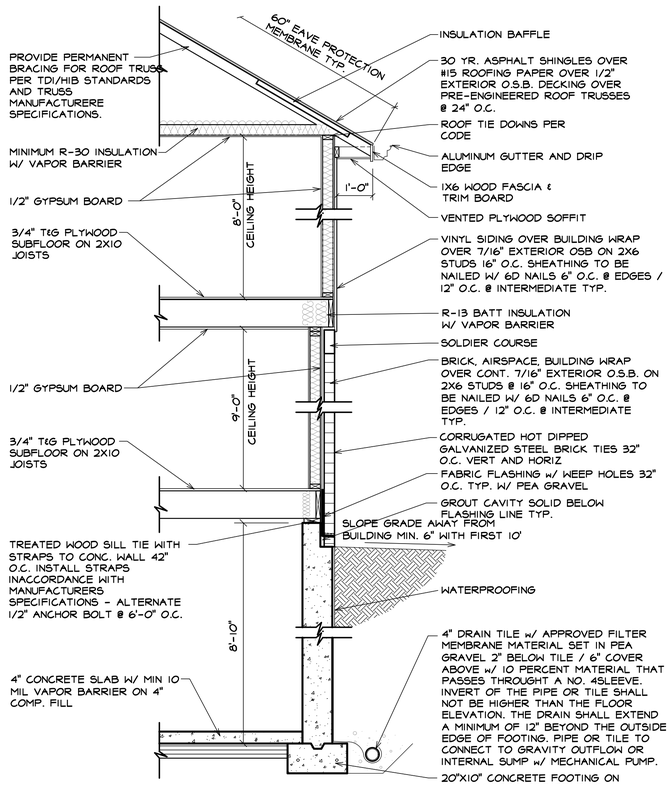
DRAWING TITLE
TREE INVENTORY

PEA JOB NO.	2018-028
P.M.	JBT
DN.	CAL
DES.	LAW

DRAWING NUMBER:
T-1.1

NOT FOR CONSTRUCTION

S:\PROJECTS\2018-028 FORSYTH, TROY - JA\CIVIL\SITE PLANS\[T-1.0]TREE PRESERVATION PLAN.dwg PLOT DATE: 4/30/2025 BY: Charlotte L. Esperance



TYP. WALL SECTION

SCALE: 1/2" = 1'-0"

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

NOTE:
ALL DIMENSIONS TO FINISHED FRAME ADD 5" FOR BRICK.

LEGEND

(S) ALL NEW SMOKE DETECTOR TO BE HARDWIRED & INTERLINKED TO OTHER DETECTORS

NOTE:
IN DWELLING UNITS, WHERE THE OPENING OF AN OPERABLE WINDOW IS LOCATED MORE THAN 72 INCHES ABOVE THE FINISHED GRADE OR SURFACE BELOW, THE LOWEST PART OF THE CLEAR OPENING OF THE WINDOW SHALL BE A MINIMUM OF 24 INCHES ABOVE THE FINISHED FLOOR OF THE ROOM IN WHICH THE WINDOW IS LOCATED. GLAZING BETWEEN THE FLOOR AND 24 INCHES SHALL BE FIXED OR HAVE OPENINGS THROUGH WHICH A 4-INCH-DIAMETER SPHERE CANNOT PASS. WINDOWS WILL HAVE A FALL PREVENTION DEVICE AND OPERATION FOR EMERGENCY ESCAPE. PER. (MRC 2015, SECTION R312)

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

MICHIGAN RESIDENTIAL CODE 2015 (MRC 2015)

NOTE:
CONTRACTOR TO MEET OR EXCEED THE INSULATION CODE MINIMUMS PER CHAPTER 11 MRC 2015

NOTE:
CONTRACTOR TO PROVIDE FIRE STOPPING PER MRC 2015 CODE

NOTE:
CONTRACTOR TO EXTEND ALL PIPE VENTS & AIR INTAKES TO BACK SIDE OF HOUSE.

NOTE:
CONTRACTOR TO VERIFY ALL DIMENSION PRIOR TO CONSTRUCTION.

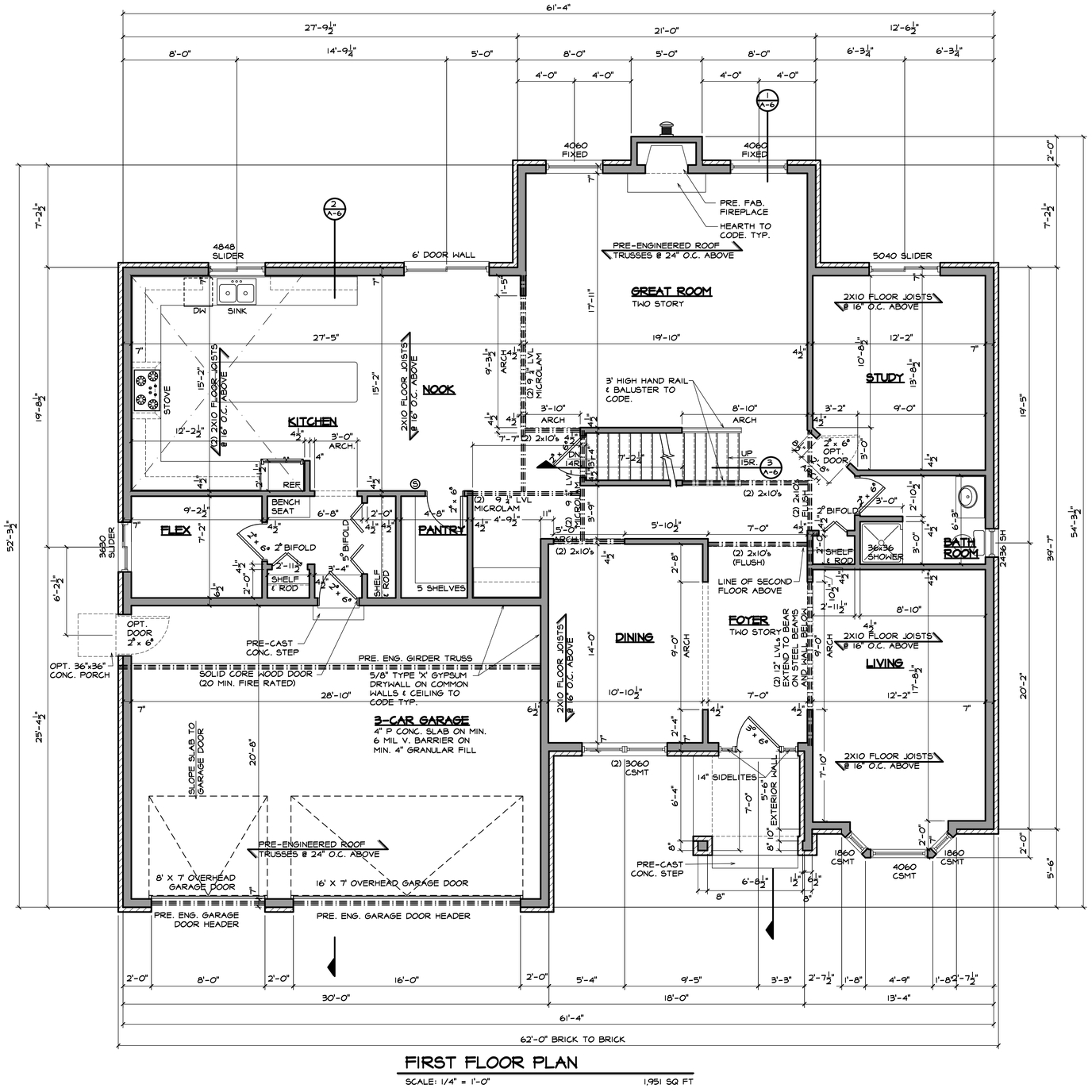
NOTE:
PROVIDE SOLID BRIDGING AT JOIST END @ EVERY OTHER JOIST SPACE. TYP.

NOTE:
USE 2x6 STUDS IN GARAGE IF PLATE HEIGHT EXCEEDS 10'-0" DUE TO GRADE CONDITIONS.

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

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

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



FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0" 1,951 SQ FT

MGA Architects/Designers

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4351 Delemere Court
Royal Oak, MI 48073

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248.549.7300 facs.

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Client:

GFA Development

985 Elmsford Rd.
Troy, MI 48083

Project Title:

The Troywood

Troy, MI

Sheet Title:

First Floor Plan

Project Number: 16310
Drawn By: KWK, AJM
Checked By: AJM
Approved By: AJM
Date: 03-28-16

Issued:

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03-31-16
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09-15-21
Revised
02-14-22
Revised
02-18-22

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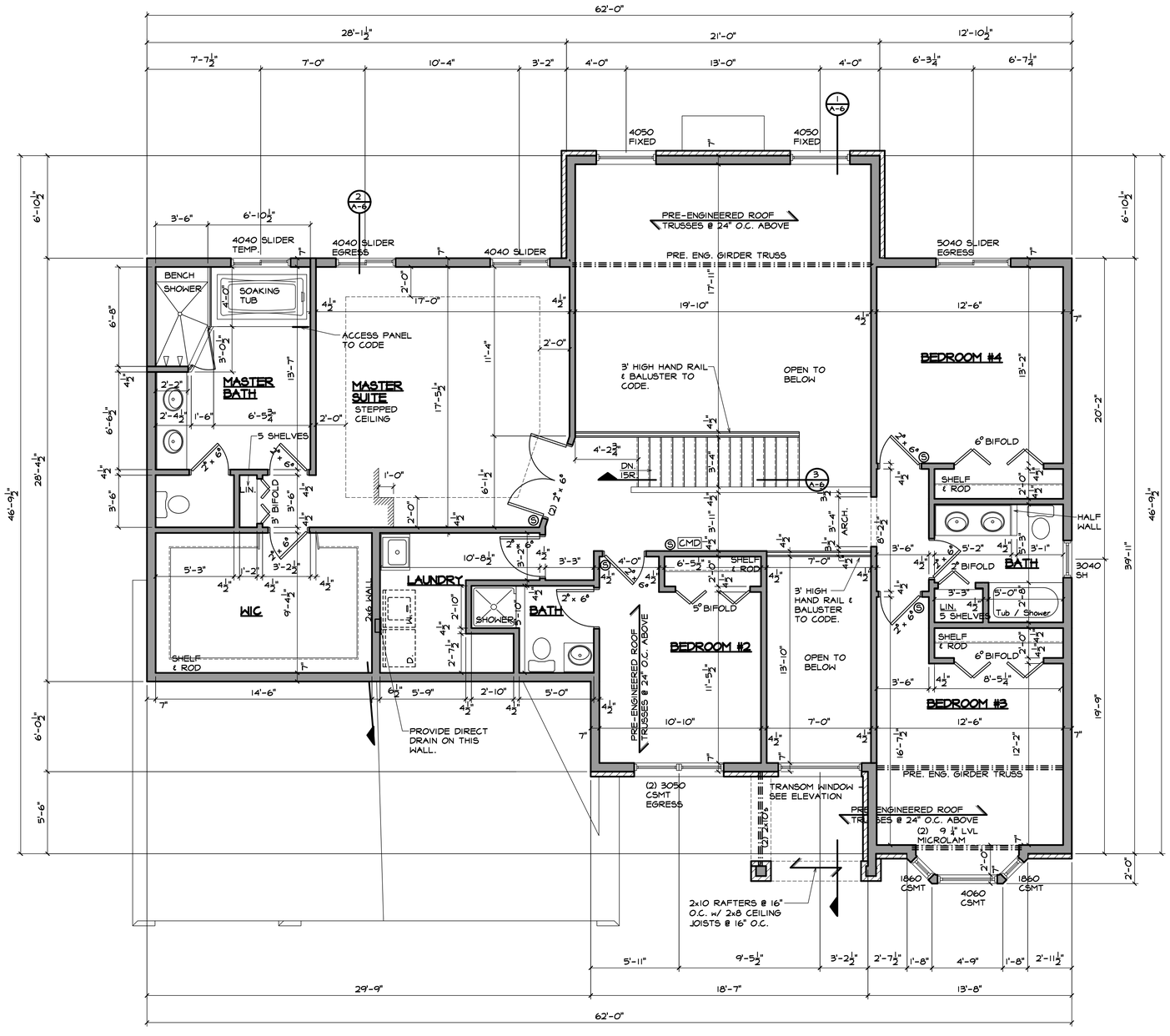
A-2



SECOND FLOOR PLAN

SCALE: 1/4" = 1'-0" 1,598 SQ FT

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

LEGEND

(S) ALL NEW SMOKE DETECTOR TO BE HARDWIRED & INTERLINKED TO OTHER DETECTORS

NOTE:
IN DWELLING UNITS, WHERE THE OPENING OF AN OPERABLE WINDOW IS LOCATED MORE THAN 72 INCHES ABOVE THE FINISHED GRADE OR SURFACE BELOW, THE LOWEST PART OF THE CLEAR OPENING OF THE WINDOW SHALL BE A MINIMUM OF 24 INCHES ABOVE THE FINISHED FLOOR OF THE ROOM IN WHICH THE WINDOW IS LOCATED. GLAZING BETWEEN THE FLOOR AND 24 INCHES SHALL BE FIXED OR HAVE OPENINGS THROUGH WHICH A 4-INCH-DIAMETER SPHERE CANNOT PASS. WINDOWS WILL HAVE A FALL PREVENTION DEVICE AND OPERATION FOR EMERGENCY ESCAPE. PER. (MRC 2015, SECTION R312)

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

MICHIGAN RESIDENTIAL CODE 2015 (MRC 2015)

NOTE:
CONTRACTOR TO MEET OR EXCEED THE INSULATION CODE MINIMUMS PER CHAPTER 11 MRC 2015

NOTE:
CONTRACTOR TO PROVIDE FIRE STOPPING PER MRC 2015 CODE

NOTE:
CONTRACTOR TO EXTEND ALL PIPE VENTS & AIR INTAKES TO BACK SIDE OF HOUSE.

NOTE:
CONTRACTOR TO VERIFY ALL DIMENSION PRIOR TO CONSTRUCTION.

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

NOTE:
USE 2x6 STUDS IN GARAGE IF PLATE HEIGHT EXCEEDS 10'-0" DUE TO GRADE CONDITIONS.

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

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

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

MGA Architects/Designers

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248.549.7300 facs.

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Client:

GFA Development

985 Elmsford Rd.
Troy, MI 48083

Project Title:

The Troywood

Troy, MI

Sheet Title:

Second Floor Plan

Project Number: 16310
Drawn By: KWK, AJM
Checked By: AJM
Approved By: AJM
Date: 03-28-16

Issued:

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02-14-22
Revised
02-18-22

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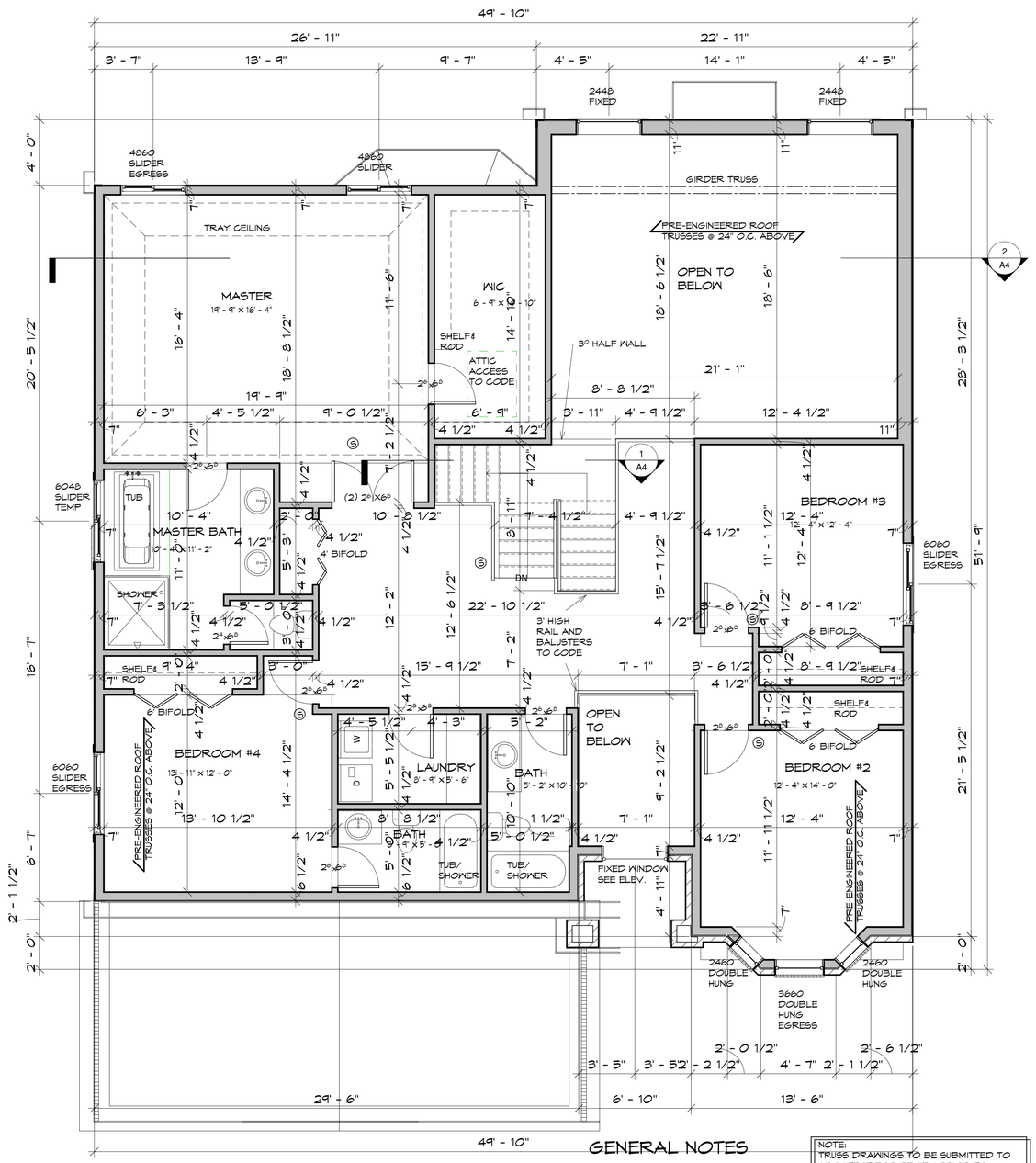


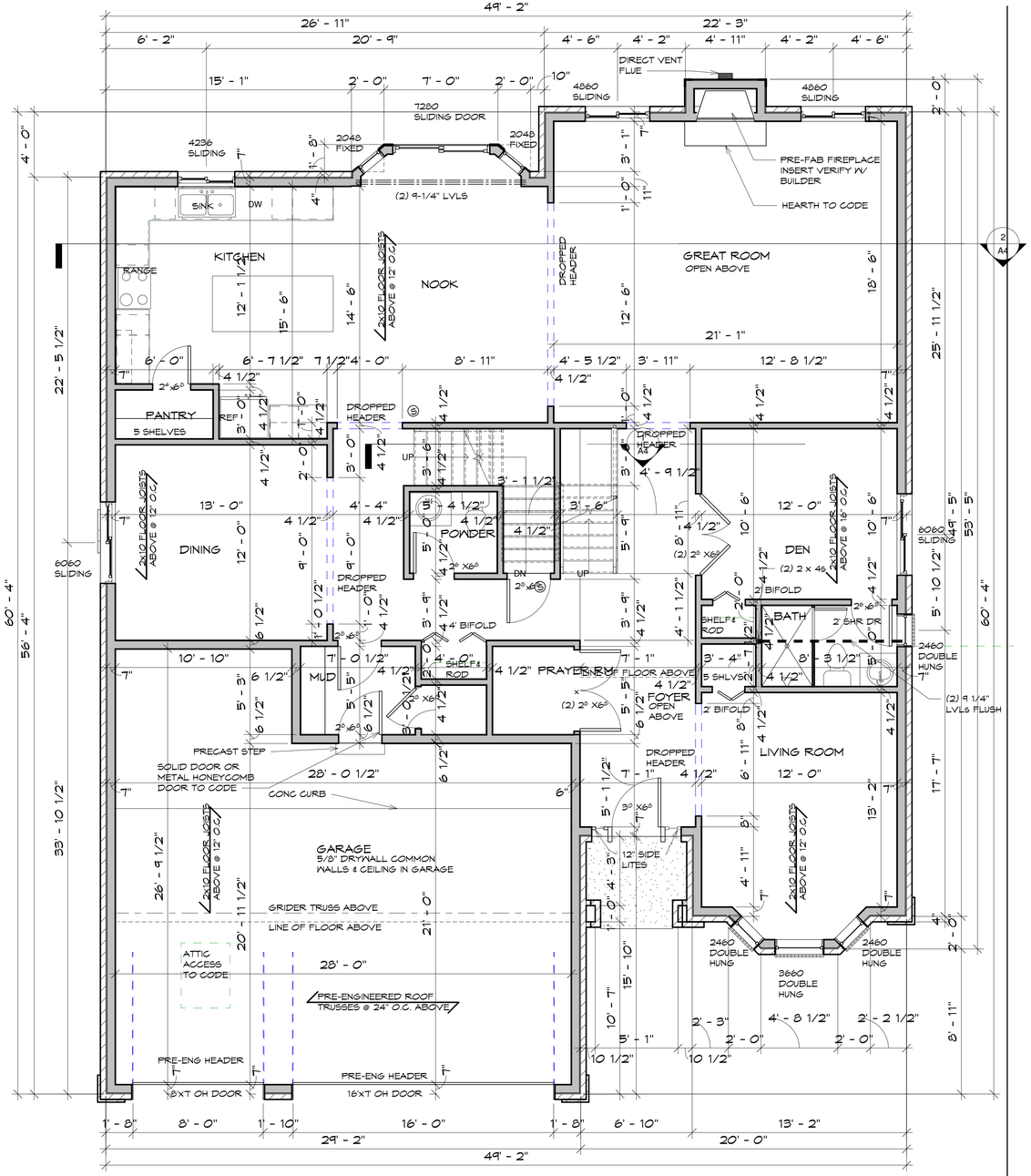
SECOND FLOOR
1/4" = 1'-0"

GENERAL NOTES

1. MICHIGAN RESIDENTIAL CODE 2015 (MRC 2015)
2. CONTRACTOR TO PROVIDE FIRE STOPPING PER MRC 2015
3. PROVIDE SOLID BRIDGING AT JOIST END @ EVERY OTHER JOIST
5. PROVIDE SELF-ILLUMINATED SWITCH AT TOP & BOTTOM OF EACH STAIR, CONTROLLING LIGHT FOR THAT STAIR
6. PROVIDE PIN OR BLOCKING TO PREVENT DOORS TO OPEN BEYOND 4". PIN OR BLOCK TO REMAIN IN PLACE UNTIL DECK OR LANDING IS CONSTRUCTED OUTSIDE OF DOOR.
7. MINIMUM HEADER SIZE TO BE (2) 2X10'S FOR OPENINGS UP TO SIX FOOT IN LENGTH UNLESS NOTED OTHERWISE.
8. USE 2x6 WOOD STUDS IN GARAGE IF PLATE HEIGHT EXCEEDS 10'-0" DUE TO GRADE CONDITIONS.
9. CONTRACTOR TO VERIFY ALL DIMENSION PRIOR TO CONSTRUCTION.
10. CONTRACTOR TO VERIFY WINDOW MANUFACTURER BEFORE ORDERING NEW WINDOWS
11. PROVIDE PIN OR BLOCKING TO PREVENT DOORS TO OPEN BEYOND 4". PIN OR BLOCK TO REMAIN IN PLACE UNTIL DECK OR LANDING IS CONSTRUCTED OUTSIDE OF DOOR.

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

(S) SMOKE DETECTOR HARDWIRED & INTERLINKED TO OTHER DETECTORS



FIRST FLOOR
1/4" = 1'-0"

MGA Architects/Designers
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Royal Oak, MI 48073

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www.mga-architects.net

Client:

GFA Development

985 Elmsford
Troy, MI

Project Title:

Vanderpool

Oak Forest
Troy, MI

Sheet Title:

FLOOR PLANS

Project Number: 18301
Drawn By: AJM,MJN
Checked By: AJM
Approved By: AJM
Date: 05-22-16

Issued:
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02-21-2018
Revised
03-07-2018

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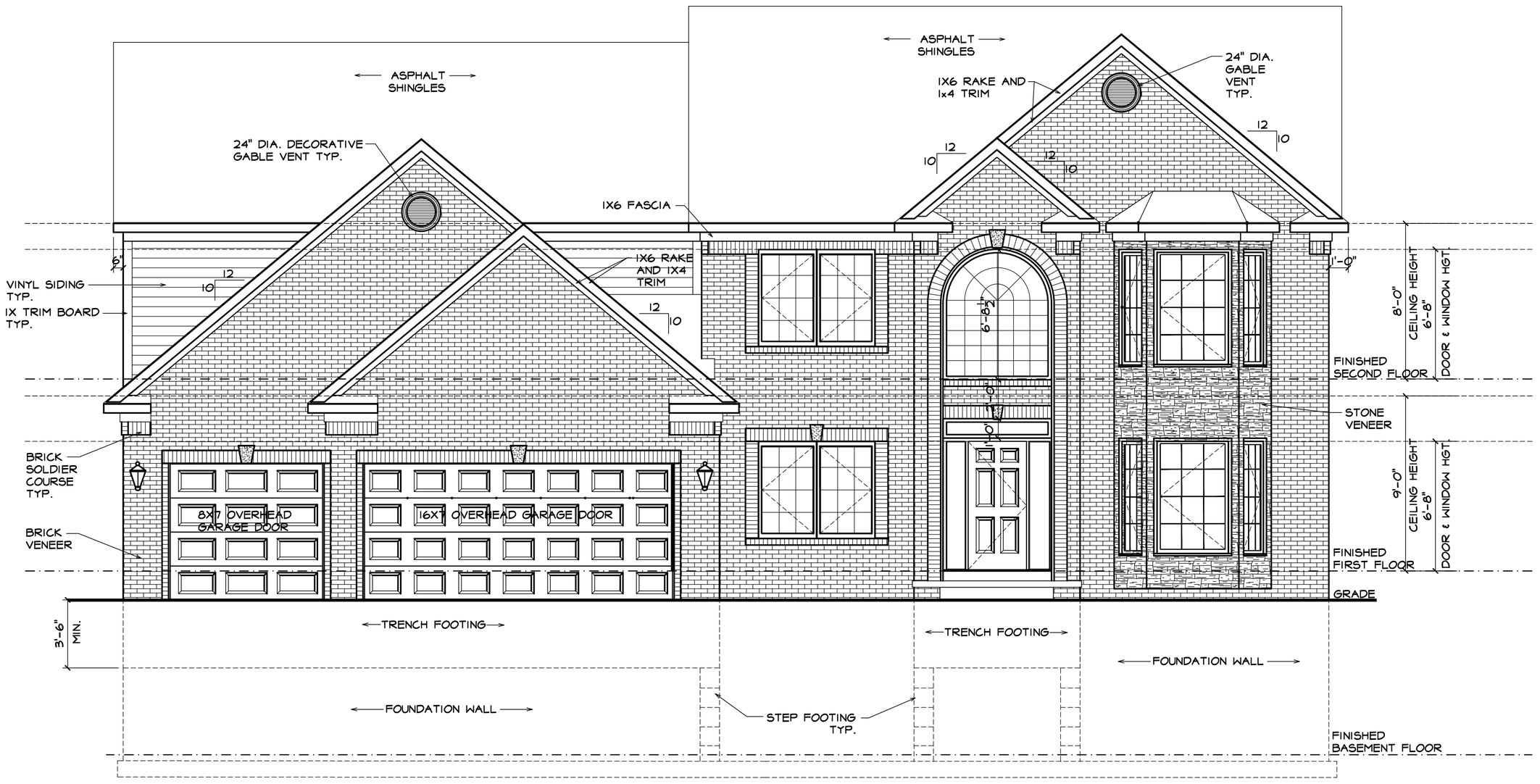
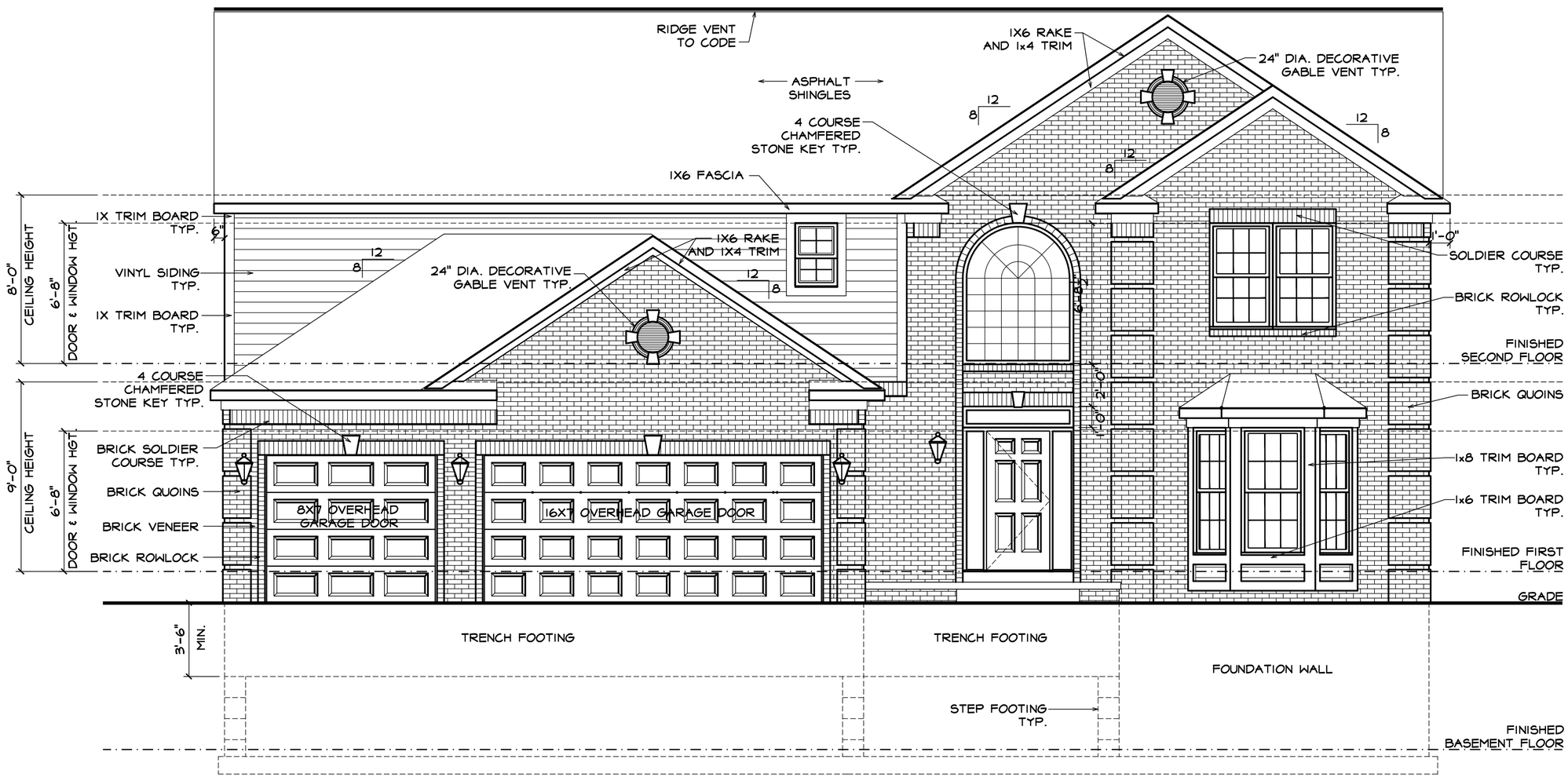


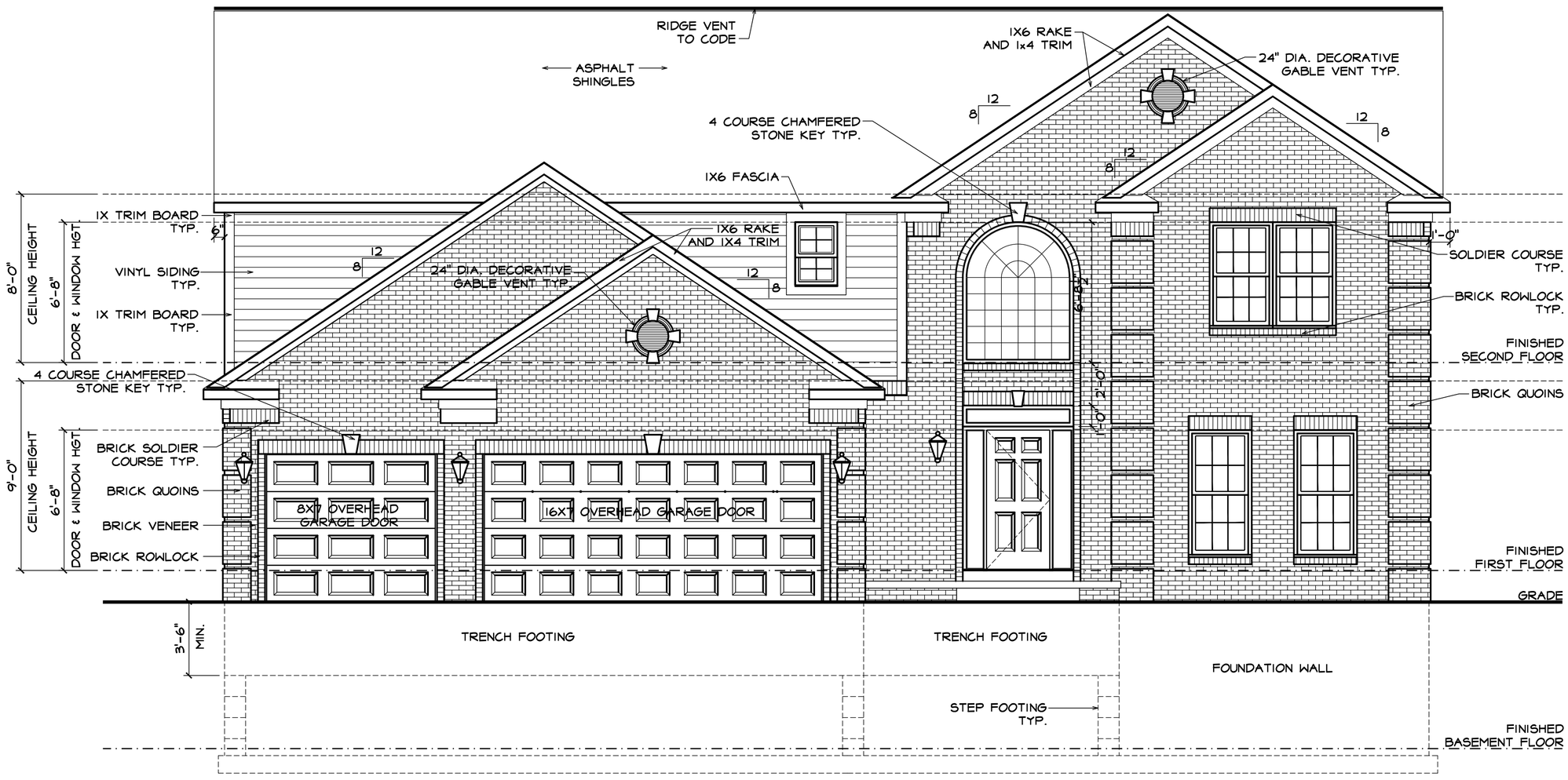
FRONT ELEVATION "A"

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



FRONT ELEVATION "B"

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



FRONT ELEVATION "C"

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

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818 West Eleven Mile Road
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www.moisseev-gordon.com

Client:
GFA Development
985 Elmsford
Troy, MI 48083

Project Title:
New Subdivision
Troy, MI

Sheet Title:
Elevations

Project Number: 25304
Drawn By: MM
Checked By: AJM
Approved By: AJM
Date: 05-14-25

Issued:
PlanningReview
05-14-25

A-1

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