

PLANNING COMMISSION MEETING AGENDA REGULAR MEETING

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

January 24, 2023 7:00 P.M. Council Chambers

- ROLL CALL
- 2. APPROVAL OF AGENDA
- 3. <u>APPROVAL OF MINUTES</u> January 10, 2023
- 4. PUBLIC COMMENT For Items Not on the Agenda

PLANNED UNIT DEVELOPMENT

 PLANNED UNIT DEVELOPMENT (File Number PUD2020-0018) – Proposed Concept Development Plan for Long Lake and Crooks Masterplan Development, Northwest corner of Long Lake and Crooks, Section 8, Currently Zoned O Office.

PRELIMINARY SITE PLAN APPROVAL

6. PRELIMINARY SITE PLAN REVIEW (SP JPLN2022-0009) - Proposed Hills West, East side of Crooks, South of Wattles (3902 Crooks; 88-20-21-101-003), Section 21, Currently Zoned NN (Neighborhood Node "I") District

OTHER ITEMS

- 7. PLANNING COMMISSION ANNUAL REPORT FOR 2022
- 8. <u>PUBLIC COMMENT</u> For Items on the Agenda
- 9. PLANNING COMMISSION COMMENT
- 10. ADJOURN

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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

Chair Lambert called the Regular meeting of the Troy City Planning Commission to order at 7:01 p.m. on January 10, 2023, in the Council Chamber of the Troy City Hall. Chair Lambert and Vice Chair Perakis presented opening remarks relative to the role of the Planning Commission and procedure of 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:

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

2. <u>APPROVAL OF AGENDA</u>

Mr. Savidant announced the applicant for a potential Planned Unit Development application that was postponed at the December 13, 2022 meeting to tonight's agenda would like to postpone the item indefinitely for personal reasons.

Resolution # PC-2023-01-001

Moved by: Faison Support by: Tagle

RESOLVED, To approve the Agenda as prepared.

Yes: All present (9)

MOTION CARRIED

3. APPROVAL OF MINUTES – December 13, 2022

Resolution # PC-2023-01-002

Moved by: Fox

Support by: Buechner

RESOLVED, To approve the minutes of the December 13, 2022 Regular meeting as submitted.

Yes: Buechner, Faison, Fox, Hutson, Krent, Lambert, Malalahalli, Tagle

Abstain: Perakis

MOTION CARRIED

4. <u>PUBLIC COMMENT</u> – For Items Not on the Agenda

There was no one present who wished to speak.

ZONING ORDINANCE TEXT AMENDMENT

PUBLIC HEARING – ZONING ORDINANCE TEXT AMENDMENT (File Number ZOTA 257)
 Places of Worship

Ms. Dufrane introduced proposed revisions to the Zoning Ordinance relating to places of worship because of a Zoning Board of Appeals litigation decision. She stated a Federal District Court Judge made known that portions of Sections 4.21 and 6.21 of the Zoning Ordinance are not enforceable as written. Ms. Dufrane emphasized the proposed revised text is not a directive from the Court but that the proposed revisions were drafted by the administration after a comprehensive review.

There was discussion, some comments related to:

- Proposed revisions as relates to the protection of residentially zoned properties; i.e., parking, setbacks, frontage and access to major or minor arterial roads.
- · Zoning Ordinance definition of places of worship.
- Charge of the Zoning Administrator to interpret the Zoning Ordinance.
- Intent is to apply similar treatment to both religious institutions and nonreligious places of assembly and institutions.

Ms. Perakis stated she is not personally prepared this evening to recommend the text revisions as proposed.

PUBLIC HEARING OPENED

There was no one present who wished to speak.

PUBLIC HEARING CLOSED

Resolution # PC-2023-01-003

Moved by: Faison Seconded by: Tagle

RESOLVED, That the Planning Commission hereby recommends to the City Council that Articles 4 and 6 of Chapter 39 of the Code of the City of Troy, which includes provisions related to places of worship, be amended as printed on the proposed Zoning Ordinance Text Amendment.

Discussion on the motion on the floor.

Chair Lambert said he is happy the City came forth with language that both eliminates some of the discriminatory language in the City's Zoning Ordinance and at the same time protects the residential areas that might be impacted.

Vote on the motion on the floor.

Yes: Buechner, Faison, Fox, Hutson, Krent, Lambert, Malalahalli, Tagle

No: Perakis

MOTION CARRIED

SPECIAL USE AND PRELIMINARY SITE PLAN APPROVALS

6. <u>SPECIAL USE APPROVAL AND PRELIMINARY SITE PLAN REVIEW (File Number SU JPLN2022-0004)</u> – Proposed 2690 Crooks Road Apartments, East side of Crooks, South of Big Beaver (2690 Crooks), Section 28, Currently Zoned BB (Big Beaver) District

Mr. Carlisle reviewed the Special Use and Preliminary Site Plan application for 2690 Crooks Road Apartments. The applicant proposes to repurpose the existing 4-story Lindsey Center building and construct a new 5-story multiple family residential building. Mr. Carlisle addressed the number of units, access and circulation, site arrangement, shared parking with 911 and 999 W. Big Beaver sites, waiver to relocate required parking lot trees and architectural features. Mr. Carlisle explained the Special Use Approval relates to the proposed residential use on the first floor not facing a public right of way. He reported the application includes a traffic study reviewed by both the City Traffic Consultant OHM Advisors and Oakland County Road Commission (OCRC). Mr. Carlisle said OHM and OCRC representatives are present this evening to address traffic and proposed shared parking.

(Mr. Savidant exited the meeting at 7:31 p.m.; returned at 7:33 p.m.)

Mr. Carlisle said as part of the deliberation, the Planning Commission should consider compliance with Section 5.04E Big Beaver Design Standards, Section 8.06 Site Plan Review Standards and Section 9.02.D Special Use Standards, as well the required transparency for the east, north and south elevations, parking lot tree location, proposed shared parking and consideration of providing a three-dimensional (3-D) rendering of the entire development.

Mr. Carlisle reported any approval this evening should be subject to the conditions identified in his report dated January 4, 2023 as part of Final Site Plan approval. Mr. Carlisle reminded the Board there was no public comment at the Public Hearing conducted at their December 13, 2022 meeting.

Board members expressed confusion in the review and deliberation of this application because of its relationship to Agenda item # 7 on tonight's agenda.

It was determined the Planning Consultant would give a review on Agenda item #7, 911 and 999 W. Big Beaver Special Use Approval and Preliminary Site Plan application prior to taking any action on the 2690 Crooks Road application.

Applicant Jordan Jonna said the ownership structure of the subject parcels dictated the submission of individual applications. He noted that the south site (2690 Crooks) has sufficient parking to stand alone whether the north site (911 and 999 W. Big Beaver) is developed or not.

There was discussion, some comments related to:

- Building heights.
- Green recreational space deficiency.
- · Shared parking.
 - Coordination of parking during construction phases.
 - o Dynamics of shared parking among the various uses.

Resolution # PC-2023-01-xxx (motion withdrawn)

Moved by: Krent Seconded by: Faison

RESOLVED, The Planning Commission hereby approves a reduction in the total number of required parking spaces for the proposed 2690 Crooks Road residential development to 221 when a total of 312 spaces are required on the site based on the off-street parking space requirements for multi-family residential. This 91-space reduction is sufficient to meet parking demands based on shared parking provided on the abutting site to the north; and,

RESOLVED, That Special Use Approval and Preliminary Site Plan Approval for the proposed 2690 Crooks Road Apartments, east side of Crooks, south of Big Beaver (2690 Crooks), Section 28, Currently Zoned BB (Big Beaver) District, be granted, subject to the following conditions:

- 1. Increase the drive-aisle width to at least 26 feet.
- 2. Improve pedestrian circulation based on OHM's comments.
- 3. Confirm existing screening of trash enclosure.
- 4. Confirm building lighting.
- 5. Verify unit numbers.
- 6. Provide a shared parking agreement to the satisfaction of the City Attorney prior to Final Site Plan Approval.
- 7. Provide transparency calculations.

^{*}Refer to page 6, Agenda item #7 for additional comments that relate to both applications.

Discussion on the motion on the floor.

Concerns discussed were:

- Required landscape trees in parking lot; impact to number of parking spaces.
- Non-friendly pedestrian walkability of site.
- Enhancement of green space.
- Improvements to access, circulation, and shared parking.

Mr. Krent withdrew his motion from the floor. Mr. Faison was in support of its withdrawal.

Resolution # PC-2023-01-004

Moved by: Tagle Seconded by: Krent

RESOLVED, To postpone 2690 Crooks Road Apartments application so that the applicant may comply with the Zoning Ordinance requirements of interior parking lot landscaping, enhance the pedestrian walkways and to provide information to this Commission with regard to the distance to the parking spots for the residential units in excess of what is currently around the building.

Yes: All present (9)

MOTION CARRIED

7. PUBLIC HEARING - SPECIAL USE APPROVAL AND PRELIMINARY SITE PLAN REVIEW (File Number SU JPLN2022-0004) — Proposed 911 and 999 W. Big Beaver Mixed Use Development, Southeast corner of Big Beaver and Crooks (PIN 88-20-28-101-032, -034 and -047), Section 28, Currently Zoned BB (Big Beaver) District.

Mr. Carlisle reviewed the Special Use Approval and Preliminary Site Plan application for 911 and 999 W. Big Beaver that proposes to convert the existing Kelly Services site as a mixed use. He said the Special Use Approval relates to 1) a potential use of a financial institution drive-through, and 2) proposed residential use on the first floor not facing a public right of way. Mr. Carlisle said the applicant is seeking waivers for required setbacks for Buildings A and C. He noted the parking for Building E must be adjacent to the building.

Mr. Carlisle addressed access and site circulation, architectural features and deficiencies in the landscaping.

Mr. Carlisle reported as part of the deliberation, the Planning Commission should discuss compliance with Section 5.04.E Big Beaver Design Standards, Section 8.06 Site Plan Review Standards and Section 9.02D Special Use Standards, as well, architectural features, parking lot tree location, shared parking and setback waivers for placement of two buildings.

Mr. Carlisle said OHM and OCRC representatives are present this evening to address traffic and proposed shared parking.

Mr. Jonna addressed the relationship with Kelly Services Headquarters, complementary architectural features among buildings, development phases, current state of office space, parking deck and recreational amenities for all users of the sites. He addressed legal implications in the ownership structure of the subject parcels. Mr. Jonna said the project team is very comfortable with the proposed shared parking and briefly addressed parking calculations for both applications.

There was discussion, some comments related to:

- Shared parking and parking deck.
 - o Distance to residential.
 - Location of parking deck for all users.
 - Parking calculations.
 - o 2690 Crooks sufficient parking on its own.
- Improve walkability for pedestrians.
- Alternative site arrangement; access, circulation.
- Drive-through for financial institution.
- Open space deficiencies.
- Requirement for parking lot trees to break up pavement, create islands.
- Environmental resources.
- Recorded easement(s).
- Trash collection.

Project Architect Kevin Biddison addressed the subject parcels as relates to the residential use, public amenities and walking community.

Julie Kroll of Fleis & Vanderbrink addressed the parking study and analysis for both applications as relates to parking space calculations and number of parking spaces. She stated they are comfortable with the parking numbers.

PUBLIC HEAR OPENED

There was no one present who wished to speak.

PUBLIC HEARING CLOSED

Stephan Maxe of OHM Advisors addressed OHM comments on the traffic impact study as identified in their memorandum dated December 22, 0222 and their comments relating to the improvement of pedestrian circulation between the developments.

Resolution # PC-2023-01-005

Moved by: Fox

Seconded by: Buechner

RESOLVED, To postpone 911 and 999 W. Big Beaver Mixed Use Development application per the reasons discussed in the previous motion and including conditions as listed in the proposed Resolution (number one through nine) and that the applicant come back with a simplistic explanation and diagrams of the shared parking and circulation plans that clearly shows pedestrian amenities and how the subject sites are tied together.

Discussion on the motion on the floor.

- Easement to Tower Center Drive and to neighboring properties as relates to flow and connectivity.
- Drive-through facility as relates to environment, green space, walkability.
- Location of parking deck pursuant to Zoning Ordinance requirements.
- Concerns with pedestrian and vehicular circulation.
- Alternative commercial/retail uses other than drive-through financial institution.

Vote on the motion on the floor.

Yes: All present (9)

MOTION CARRIED

OTHER ITEMS

8. ELECTION OF OFFICERS

Chair Lambert opened the floor for nominations for Chair.

Ms. Perakis nominated David Lambert. Mr. Krent supported the nomination.

Acknowledging there were no further nominations, Chair Lambert closed the floor to nominations.

Roll Call vote on the nomination for *David Lambert as Chair*.

Yes: All present (9)

Chair Lambert opened the floor for nominations for Vice Chair.

Chair Lambert nominated Marianna Perakis. Mr. Buechner supported the nomination.

Acknowledging there were no further nominations, Chair Lambert closed the floor to nominations.

Roll Call vote on the nomination on the floor for *Marianna Perakis as Vice Chair*.

Yes: All present (9)

Chair Lambert opened the floor for nominations for Zoning Board of Appeals Representative.

Chair Lambert nominated Tyler Fox. Mr. Krent supported the nomination.

Acknowledging there were no further nominations, Chair Lambert closed the floor to nominations.

Roll Call vote on the recommendation of appointment for *Tyler Fox as ZBA Representative*.

Yes: All present (9)

9. PUBLIC COMMENT – For Items on the Agenda

There was no one present who wished to speak.

10. PLANNING COMMISSION COMMENT

There were general comments, some relating to:

- Welcome to Planning Commissioner Fox.
- Well wishes for the New Year.
- Potential future study on sustainability.

Ms. Dufrane gave an update on litigation of the Tollbrook (McClure and Alpine) matters.

11. ADJOURN

Respectfully submitted,

The Regular meeting of the Planning Commission adjourned at 9:45 p.m.

David Lambert, Chair		

Kathy L. Czarnecki, Recording Secretary

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ITEM #5

DATE: January 19, 2022

TO: Planning Commission

FROM: R. Brent Savidant, Community Development Director

SUBJECT: PLANNED UNIT DEVELOPMENT (File Number PUD2020-0018) – Proposed

Concept Development Plan for Long Lake and Crooks Masterplan Development, Northwest corner of Long Lake and Crooks, Section 8, Currently Zoned O Office.

The applicant Gensler submitted a Concept Development Plan (CDP) application for a Planned Unit Development (PUD) for the subject property. The site is currently vacant and is 24.88 acres in size. The applicant proposes a mixed use project comprised of residential, office, lodging, restaurants, parking deck, and a range of outdoor amenities.

A PUD is a development option that provides flexibility in the design and use of mixed-use projects. It is a multi-step process. The first step in the process is the CDP. For this step, the applicant seeks the following: (1) Approval of the overall concept; (2) Approval of the PUD Agreement; and, (3) Rezoning of the parcel to PUD. The next step in the process will be the Preliminary Development Plan (PDP). During the PDP step, detailed site plans are submitted for each phase of the project. For this project, we can expect numerous PDP's to be submitted over several years. The Planning Commission is a recommending body for PUD's; City Council is responsible for approving the CDP and PDP.

The Planning Commission held a public hearing on a proposed Concept Development Plan on August 9, 2022. The Planning Commission postponed the item after providing feedback to the applicant. The applicant revised the conceptual layout and presented the revised concept to the board on September 27, 2022. The attached report summarizes the application.

The attached report prepared by Carlisle/Wortman Associates, Inc. (CWA), the City's Planning Consultant, summarizes the project as revised. 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. Minutes from August 9, 2022 Planning Commission Regular meeting (excerpt)
- 4. Minutes from September 27, 2022 Planning Commission Regular meeting (excerpt)
- 5. Concept Development Plan and Draft PUD Agreement
- 6. Public comment.

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POTENTIAL RESOLUTION

<u>PLANNED UNIT DEVELOPMENT (File Number PUD2020-0018)</u> – Proposed Concept Development Plan for Long Lake and Crooks Masterplan Development, Northwest corner of Long Lake and Crooks, Section 8, Currently Zoned O Office.

Resolution # PC-2023-01-

Moved by: Seconded by

WHEREAS, The applicant Gensler submitted a Conceptual Development Plan application for a Planned Unit Development, located on the northwest corner of Long Lake and Crooks, in Section 8, approximately 24.88 acres in area; and

WHEREAS, The Concept Development Plan proposes multiple phases for a mixed-use development including office, residential, lodging, restaurant, retail and open space with public amenities; 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 Long Lake and Crooks Masterplan Development be granted, subject to the following:

Yes:
No:
Absent:

MOTION CARRIED/FAILED

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2,379

GIS Online



1,189 2,379 Feet 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.

TROY

GIS Online



2,379 0 1,189 2,379 Feet



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.



117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

Date: January 16, 2023

Planned Unit Development Concept Review For City of Troy, Michigan

Project Name: Long Lake and Crooks Planned Unit Development

Plan Date: November 2022

Location: Northwest Corner of Long Lake and Crooks

Current Zoning: O, Office

Proposed Zoning: Planned Unit Development (PUD)

Action Requested: Planned Unit Development (PUD) Concept Plan Approval

PROJECT AND SITE DESCRIPTION

A Planned Unit Development (PUD) application has been submitted to the City for the development of a mixed-use development at the northwest corner of Long Lake Road and Crooks Road. The 24-acre site is currently vacant with significant tree cover and wetlands.

Proposed Development

Though conceptual and subject to change, the applicant is proposing the following mix of uses:

- 1. Four to ten-story office complexes in two buildings
- 2. Parking surface and deck
- 3. Three to seven-story residential apartment building
- 4. Three to seven-story hotel/residential building
- 5. Three restaurant/retail buildings

Long Lake – Crooks PUD Concept Review January 16, 2023

- 6. Wetland preservation
- 7. Site amenities: Outdoor activity areas, pedestrian amenities, natural feature preservation, and programed outdoor space



Location of Subject Property:

Northwest Corner of Long Lake and Crooks

Proposed Use of Subject Parcel:

Mixed Use Development

Current Zoning:

O, Office

Proposed Zoning:

Planned Unit Development (PUD)

Surrounding Property Details

Direction	Zoning	Use
North	O, Office	Office
South	O, Office	Office/Commercial
East	RC, Research Center	Office
West	O, Office	Office

PUD PROCESS

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

The approval of a Planned Unit Development (PUD) is a three-step process:

Step 1-Concept Plan: The first step shall be application for and approval of a Concept Development Plan, which requires a legislative enactment amending the zoning district map so as to reclassify the property as a Planned Unit Development. A proposed Development Agreement shall be included and incorporated with the Concept Development Plan, to be agreed upon and approved coincident with said Plan. The Concept Development Plan and Development Agreement shall be approved by the City Council following the recommendation of the Planning Commission. Such action, if and when approved, shall confer upon the applicant approval of the Concept Development Plan and shall rezone the property to PUD in accordance with the terms and conditions of the Concept Development Plan approval.

Step 2- Preliminary Development Plan Approval: The second step of the review and approval process shall be the application for and approval of a Preliminary Development Plan (preliminary site plan) for the entire project, or for any one or more phases of the project. City Council shall have the final authority to approve and grant Preliminary Development Plan approvals, following a recommendation by the Planning Commission.

Step 3- Final Development Plan Approval: The third step of the review and approval process shall be the review and approval of a Final Development Plan (final site plan) for the entire project, or for any one or more phases of the project, and the issuance of building permits. Final Development Plans for Planned Unit Developments shall be submitted to the Zoning Administrator for administrative review, and the Zoning Administrator, with the recommendation of other appropriate City Departments, shall have final authority for approval of such Final Development Plans.

The applicant is seeking a recommendation of approval for their Concept Plan.

PUD INTENT

As set forth in Section 11.01, the intent of the Planned Unit Development option is to permit flexibility in the design and use of residential and non-residential land which, through the implementation of an overall development plan, when applicable to the site, will:

- 1. Encourage developments that will result in a long-term contribution to social, environmental and economic sustainability in the City of Troy.
- 2. Permit development patterns that respond to changing public and private needs.
- 3. Encourage flexibility in design and use that will result in a higher quality of development and a better overall project than would be accomplished under conventional zoning, and which can be accommodated without sacrificing established community values.
- 4. Provide for the long-term protection and/or preservation of natural resources, natural features, and/or historic and cultural resources.
- 5. Promote the efficient use and conservation of energy.
- 6. Encourage the use, redevelopment and improvement of existing sites where current ordinances do not provide adequate protection and safeguards for the site or its surrounding areas, or where current ordinances do not provide the flexibility to consider redevelopment, replacement, or adaptive re-use of existing structures and sites.
- 7. Provide for enhanced housing, employment, recreation, and shopping opportunities for the citizens of Troy.
- 8. Ensure the compatibility of design and use between various components within the PUD and with neighboring properties and uses. 9. Ensure development that is consistent with the intent of the Master Plan.

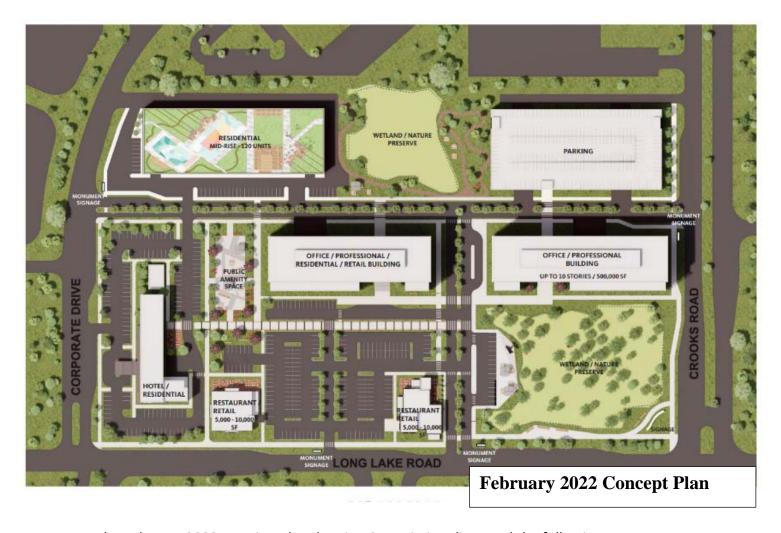
PREVIOUS CONCEPT PLANS

The design concept has evolved from January 2021 to January 2023.



At the January 2021 meeting, the Planning Commission discussed the following:

- More integration of mix of uses
- More activation of uses along Long Lake Road
- Water feature; location, vocal point, community attraction.
- Residential key component; multi-family, live/work
- Density and massing of project; building height
- Preservation of existing green space
- Applicant request for flexibility as relates to market demand and City vision
- Viability of office space and hotel
- Outdoor activities and attractions to engage residents and community
- Destination point for family and community gatherings
- Parking; expand parking structure, reduce surface parking, charging stations for electric vehicles
- Limited available land in City for development of this size
- Potential to attract large office headquarters



At the February 2022 meeting, the Planning Commission discussed the following:

- Create a destination point to attract people from within the complex and throughout the City
- Integrate a plaza, pedestrian path, promenade, village-like characteristics
- Reduce surface parking
- Provide more walkability
- Centrally relocate parking deck
- Reconfigure placement of buildings to connect to public amenity space
- Expand and centrally relocate public amenity space
- Be bold and creative with expanse of property
- Provide a visual illustration of project, such as a three-dimensional model



At the July 2022 meeting, the Planning Commission discussed the following:

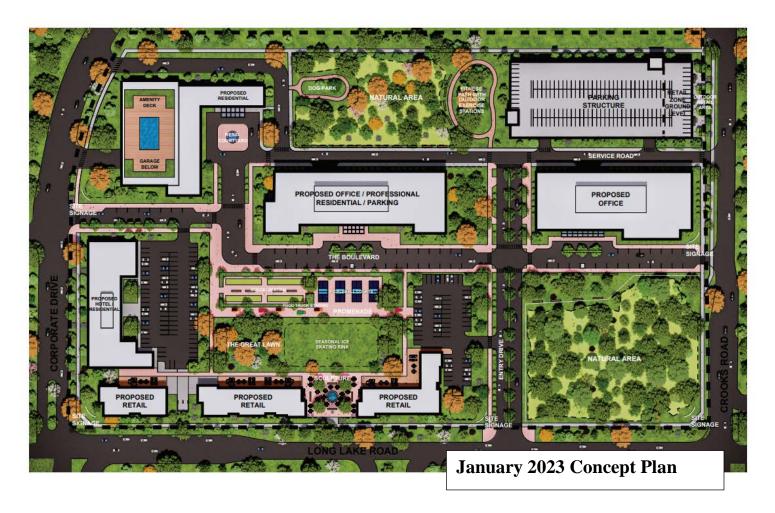
- Flexibility in terms of what gets built, timing and location as proposed by applicant
- Significance in determining appropriate uses and building heights
- Gateway to North Troy and wayfinding signage
- PUD Development Agreement
- Urban Residential (UR) zoning district; high density residential district in line with Master Plan
- Preservation of State-regulated wetlands
- Tree survey and mitigation; determined at each development phase, must meet site plan requirements
- Green space/open space must be generally consistent with approved concept plan; what, where, size, whether for public use determined at each development phase and must meet site plan requirements
- Housing types must be generally consistent with approved concept plan and must meet site plan requirements



At the September 2022 meeting, the Planning Commission discussed the following:

- Prepare a brochure/pamphlet to illustrate the community gathering space
- Food trucks; parking, competition with on-site restaurants
- Seasonal gathering space; functionality
- Add gardens, play structure
- Location of pickleball courts and outdoor exercise stations
- Parking
 - Applicant advised boulevard offers on-street parallel parking.
 - o Parking deck and office tower; levels of parking.
 - Shared parking.
 - o Review of parking at each development phase.
- Retail/restaurant buildings; facilitation of loading/unloading and waste management.
- Provide a 'grand' and 'eye-catching' entrance to development
- Hub for public transportation

CONCEPT PLAN- JANUARY 2023



After the September 2022 Planning Commission review, the applicant resubmitted a revised concept plan. Major changes since last Planning Commission review:

- Added trees to the "Great Lawn"
- Added internal pedestrian cross walks
- Added food truck staging area in "promenade"
- Converted "fitness center" in north natural area to "dog park"
- Added pedestrian area around retail/restaurant area that fronts on Long Lake Road
- Reconfigured parking around retail/restaurant area
- Removed parking from natural area that is located at southeast corner of site

DEVELOPMENT AREAS, and AMENITY AREAS

The applicant is proposing four (4) separate development areas and associated amenities areas. The numbering of the development areas is not reflective of the phasing as the applicant seeks flexibility on phasing based on market conditions.

Development Areas

The applicant has outlined the use parameters of the development areas in Section 2.2 (page 3) of the PUD Agreement:

- Development Area 1: Residential uses permitted as of right or requiring special approval, and their accessory uses, consistent with such uses in the UR – Urban Residential District and all associated surface parking.
- Development Area 2: Office uses permitted as of right or requiring special approval, and their accessory uses, consistent with such uses in the OM - Office Mixed Use District, the O - Office District, or the GB-General Business District, as referenced in the Zoning Ordinance, and a multistory parking structure and surface parking features.
- Development Area 3: Residential uses permitted as of right or requiring special approval, and their accessory uses, consistent such uses in the UR Urban Residential District as referenced in the Zoning Ordinance and all associated surface parking; Office uses permitted as of right or requiring special approval, and their accessory uses, consistent with such uses in the OM Office Mixed Use District, the O Office District, or the GB-General Business District, as referenced in the Zoning Ordinance; "Restaurant" and/or "Retail Business or Retail Sales" uses as defined by the Zoning Ordinance; Conference, meeting, and banquet facility uses permitted as of right or requiring special approval, and their accessory uses consistent with such uses the GB General Business District in the Zoning Ordinance; and, all associated surface parking.
- Development Area 4: Lodging or extended stay facility uses permitted as of right or requiring special approval, and their accessory uses, consistent with such uses in the GB General Business District identified in the Zoning Ordinance; and, Residential uses permitted as of right or requiring special approval, and their accessory uses, consistent such uses in the UR Urban Residential District as referenced in the Zoning Ordinance and all associated surface parking.
- Restaurant/Retail Areas: "Restaurant" and/ or "Retail Business or Retail Sales" uses as
 defined by the Zoning Ordinance, and their accessory uses, and all associated surface
 parking. At the discretion of the Developer, any or all of the Restaurant/Retail Areas)
 may be: (i) constructed at any time without being part of any Phase after the Developer
 has commenced construction of the first Phase; or, (ii) constructed at any time as part of
 any Phase.

CONCEPT DEVELOPMENT PLAN - DEVELOPMENT AREAS







Long Lake & Crooks Concept Development Plan

November 28, 2022 A-6

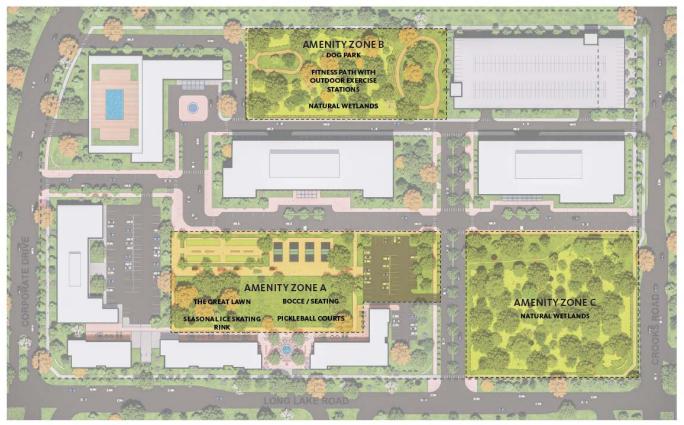
Amenity Areas

The applicant has outlined the use parameters of the amenity areas in Section 2.2 (page 3) of the PUD Agreement:

- Amenity Zone A "Open Space" as defined by the Zoning Ordinance for use as an open field activity area, including bocce ball court, pickleball courts, seasonal ice-skating rink, and associated surface parking.
- Amenity Zone B "Open Space" as defined by the Zoning Ordinance for use as a fitness
 path with outdoor exercise stations. A portion of Amenity Zone B is a regulated wetland
 area, will be restricted from development, and will remain in an "Undeveloped State" as
 defined in the Zoning Ordinance.
- Amenity Zone C Is a regulated wetland area, will be restricted from development, and shall remain in an "Undeveloped State" as defined in the Zoning Ordinance.

Amenity Zone A shall be developed as part of the first Phase. Amenity Zone B shall be developed as part of the second Phase, except for the regulated wetland area within Amenity Zone B which shall remain undeveloped. Amenity Zone C shall not be developed because it is a regulated wetland area.

DEVELOPMENT PLAN - AMENITY ZONES







Long Lake & Crooks Concept Development Plan

DEVELOPMENT GUIDELINES

The applicant proposes the following development parameters:

District	General Uses	Max Square	Min #	Min	Max #	Max
		Footage	Floors	Building Height	Floors	Building Height
Development Area 1	Residential	350,000 s.f	3	40'	7	90'
Development Area 2	Office / Parking Structure	500,000 s.f	4	60'	10	150'
Development Area 3	Office / residential / retail /	350,000 s.f	4	60'	10	150'
	parking structures					
Development Area 4	Hotel/residential	105,000 s.f	3	40'	7	90'
Retail / Restaurant Areas	Retail/restaurant	18,000 per	1	17.5′	2	35'
		building				

Minimum setbacks:

District	Front	Side	Rear
	Setback	Setbacks	Setbacks
Development Area 1	10'	20'	30'
Development Area 2	10'	20'	30'
Development Area 3	10'	20'	30'
Development Area 4	10'	20'	30'
Retail / Restaurant Areas	10'	20'	30'

CONCEPT DEVELOPMENT PLAN - MASSING

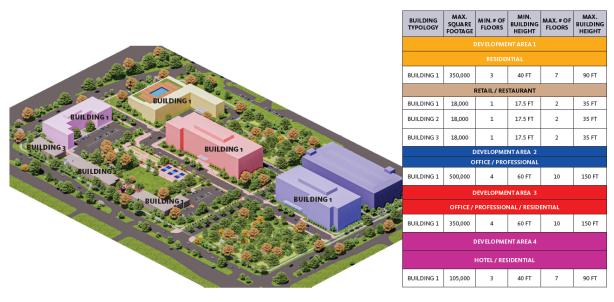


Illustration is a representation of a potential future maximum buildout based on buildout of each Development Area.



Long Lake & Crooks Concept Development Plan

November 28, 2022 A-13

USES

The applicant notes the allowance for all uses (permitted and special) in the OM - Office Mixed Use District, the O – Office District, or the GB-General Business District. There are uses in those districts which the Planning Commission should consider if they are appropriate. Permitted or special uses listed in the OM, O, and GB districts that the Planning Commission may want to discuss:

- Primary and secondary schools
- Convalescent center
- Post-secondary school
- Bus/transit passenger dispatching center
- Hospital
- Day Care and preschool
- Golf course
- Swimming pool club
- Fast food restaurant
- Restaurant drive-in
- Drive-through
- Retail, large format
- Shopping center
- Building and lumber supply
- Garden centers/nursery
- Commercial greenhouse
- Outdoor commercial recreation
- Dry cleaners/laundry
- Open air business , as a principal use
- Private clubs, fraternal organization, and lodge halls

- Commercial kennels
- Adult use business
- Mortuary/funeral home
- Prototype or experimental product design
- Basic research, design, pilot or experimental product development
- Laboratory
- Mini warehouse and self-storage
- Vehicle, recreational vehicles sales
- Vehicle repair station
- Vehicle fueling/multiuse station
- Oil change facility
- Vehicle washes
- Vehicle auctions
- Antique and classic vehicle sales
- Ambulance facilities
- Vehicle rental
- Commercial wind energy conversion system
- Wireless communication facility (Tower)

Based on the adopted City Master Plan goals and intent of the area and the applicant's vision for the site, there are uses in the OM, O, and GB districts that are not consistent with the intent of the area and not appropriate for future development of the site.

Items to be Addressed: Planning Commission should consider if certain listed uses are not appropriate.

PHASING

The applicant seeks flexibility in phasing, however, Section 2.3 (page 5) of the PUD Agreement notes a Phasing Plan. The applicant should clarify if they are proposing a set phasing schedule, for example Development Area 1 is the first phase, or if they seek greater phasing flexibility.

Items to be Addressed: Applicant shall clarify phasing and Planning Commission should consider proposed phasing.

TRAFFIC IMPACT STUDY

The applicant has submitted Traffic Impact Study, which will be reviewed by the OHM, the Road Commission, and MDOT. The traffic study identifies significant traffic impacts as a result of the development and identifies roadway improvements based on full build out. The applicant has provided a table of proposed associated roadway improvements.

MASTER PLAN

This site is located in the North Troy Special Area Plan. Located at the intersection of two main arterial roads with a direct access ramp to I-75, North strategically Trov is located to serve as a major employment hub Oakland County. North Troy currently is home to over 5,000 primarily daytime employees; in addition, there are over 2,000 households within one mile of the area. However, the area is dominated by single-use buildings office limited interconnections, and few amenities for these workers and nearby



residents. Preparing North Troy for the next generation of growth will require a broader and more creative real estate strategy that will tap into regional trends and market opportunities in order to create a more vibrant, attractive, and flexible work environment. A compatible and vibrant mix of uses will create a life and vibrancy, provide interconnections and a relationship with the adjacent neighborhoods, reduce automobile trips, and enhance walkability by providing destinations.

Priority 1 of the Special Area Plan was to provide a compatible and vibrant mix of uses. Applicable strategies to fulfill this priority includes:

- Promote service infill through property repurposing;
- Promote residential infill through property repurposing;

Long Lake – Crooks PUD Concept Review January 16, 2023

- Develop and strengthen the core; and
- Create a community gathering space.

Priority 2 is to improve multi-modal circulation and safety. Applicable strategies to fulfill this priority includes:

- Introduce pedestrian mid-block crossing; and
- Establish consistent landscape buffer and setbacks.

Priority 3 is to implement tactical placemaking. Applicable strategies to fulfill this priority includes:

- Create an identity through gateways and wayfinding;
- Facilitate health and wellness initiatives; and
- Encourage creative programming.

This specific site was identified in the Master Plan as an opportunity to define North Troy:

Building off the surrounding employment base and the highly trafficked Northfield Point Marketplace, the vacant parcel on the northwest corner of Long Lake and Crooks Road offers an opportunity to establish a core for North Troy. This core will provide a compatible mix of uses and should be the starting place of other strategies in the Plan, including pedestrian circulation improvements, landscaping, wayfinding, and creative programming. At the heart of the core is the community gathering space. -Page 192

Specifically for this site, the Master Plan identified residential infill, service infill, and a community gathering space. A vibrant mix of uses is supported by the Master Plan. However, there are some elements that the applicant should consider strengthening consistency with the Master Plan:

- 1. Work with City to establish midblock crossing across Crooks and Corporate Drive.
- 2. Clarify if central gathering areas are open for public activities and use.
- 3. Develop pilot gateway features and wayfinding signage to be implemented in rest of North Troy.

PUD AGREEMENT

The applicant has submitted a PUD Agreement, which is being reviewed by the City Attorneys office.

STANDARDS

When reviewing the PUD, the Planning Commission shall consider the following standards as set forth in Section 11.03:

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

- 2. A public improvement or public facility (e.g. recreational, transportation, safety and security) which will enhance, add to or replace those provided by public entities, thereby furthering the public health, safety and welfare.
- A recognizable and material benefit to the ultimate users of the project and to the community, where such benefit would otherwise be infeasible or unlikely to be achieved absent these regulations.
- 4. Long-term protection and preservation of natural resources, natural features, and historic and cultural resources, of a significant quantity and/or quality in need of protection or preservation, and which would otherwise be unfeasible or unlikely to be achieved absent these regulations.
- A compatible mixture of open space, landscaped areas, and/or pedestrian amenities.
- 6. Appropriate land use transitions between the PUD and surrounding properties.
- 7. Design features and techniques, such as green building and low impact design, which will promote and encourage energy conservation and sustainable development.
- 8. Innovative and creative site and building designs, solutions and materials.
- 9. The desirable qualities of a dynamic urban environment that is compact, designed to human scale, and exhibits contextual integration of buildings and city spaces.
- 10. The PUD will reasonably mitigate impacts to the transportation system and enhance non-motorized facilities and amenities.
- 11. For the appropriate assembly, use, redevelopment, replacement and/or improvement of existing sites that are occupied by obsolete uses and/or structures.
- 12. A complementary variety of housing types that is in harmony with adjacent uses.
- 13. A reduction of the impact of a non-conformity or removal of an obsolete building or structure.
- 14. A development consistent with and meeting the intent of this Article, which will promote the intent of the Master Plan or the intent of any applicable corridor or sub-area plans. If conditions have changed since the Plan, or any applicable corridor or sub-area plans were adopted, the uses shall be consistent with recent development trends in the area.
- 15. Includes all necessary information and specifications with respect to structures, heights, setbacks, density, parking, circulation, landscaping, amenities and other design and layout features, exhibiting a due regard for the relationship of the development to the surrounding properties and uses thereon, as well as to the relationship between the various elements within the proposed Planned Unit Development. In determining whether these relationships have been appropriately addressed, consideration shall be given to the following:
 - i. The bulk, placement, and materials of construction of the proposed structures and other site improvements.
 - ii. The location and screening of vehicular circulation and parking areas in relation to surrounding properties and the other elements of the development.
 - iii. The location and screening of outdoor storage, loading areas, outdoor activity or work areas, and mechanical equipment.
 - iv. The hours of operation of the proposed uses.
 - v. The location, amount, type and intensity of landscaping, and other site amenities.
- 16. Parking shall be provided in order to properly serve the total range of uses within the Planned Unit Development. The sharing of parking among the various uses within a Planned Unit Development may be permitted. The applicant shall provide justification to the satisfaction of the City that the shared parking proposed is sufficient for the development and will not impair the functioning of the development, and will not have a negative effect on traffic flow within the development and/or on properties adjacent to the development.
- 17. Innovative methods of stormwater management that enhance water quality shall be considered in the design of the stormwater system.

Long Lake – Crooks PUD Concept Review January 16, 2023

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

The Planning Commission should review the application considering the standards.

BENEFITS

The applicant has noted the following benefits:

- Horizontal mixed-use development consisted with Master Plan
- Development of an undeveloped and prominent site
- Outdoor plazas
- Outdoor dining areas
- Pedestrian circulation paths and activities around site
- Public art

The Planning Commission should consider the noted benefits.

SUMMARY

The Planning Commission should deliberate:

- 1. The proposed development guidelines (height/setbacks, etc);
- 2. The proposed allowable and special uses;
- 3. The proposed phasing;
- 4. If the proposed benefits are commensurate with the requested relief/development flexibility; and
- 5. If the PUD standards have been met.

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

PLANNED UNIT DEVELOPMENT

PUBLIC HEARING – PLANNED UNIT DEVELOPMENT (File Number PUD 2020-0018)
 Proposed Concept Development Plan for Long Lake and Crooks Masterplan Development, Northwest Corner of Long Lake and Crooks, Section 8, Currently Zoned O (Office) Zoning District

Mr. Carlisle said the Planned Unit Development (PUD) application before the Board this evening is a formal submittal. He said the Planning Commission discussed two draft concept plans presented by the applicant at their January 12, 2021 and February 8, 2022 meetings.

Mr. Carlisle explained the three-step PUD application process and addressed the intent of a PUD application. He addressed highlights of the concept plan, proposed mix of uses, the changes since last reviewed, the four separate development areas proposed and associated amenities within those areas. Mr. Carlisle reviewed the applicant's proposed development parameters, relating to maximum square footage, minimum and maximum number of floors, minimum and maximum building height, and dimensional setbacks.

Mr. Carlisle said the applicant seeks flexibility to build any development area in any sequence, with one restriction that development area 4 (hotel/residential) and retail/restaurant pads can be built as part of any phase except they cannot be the first development built on site. He said the applicant seeks flexibility of all permitted and special uses in Office Mixed (OM), Office (O), or General Business (GB) zoning districts.

In summary, Mr. Carlisle asked the Board to consider public comments at the Public Hearing, and as part of their deliberation, to consider 1) the proposed development guidelines relating to building height and setbacks; 2) the proposed permitted and special uses; 3) if the PUD Standards in Section 11.03 of the Zoning Ordinance are met; and 4) if the proposed benefits are commensurate with the requested relief/development flexibility.

Mr. Savidant clarified a modification/correction to the development guidelines proposed by the applicant. Development area 1 (hotel/residential) should read 350,000 square feet, not 105,000 square feet.

Discussion among administration and Planning Commission:

- Flexibility in terms of what gets built, timing and location as proposed by applicant.
- Significance in determining appropriate uses and building heights.
- Gateway to North Troy and wayfinding signage.
- PUD Development Agreement.
 - Ms. Dufrane stated agreement is essentially standard agreement language except for unique aspects relating to development phases and development areas.
- Urban Residential (UR) zoning district; high density residential district in line with Master Plan.
- Preservation of State-regulated wetlands.
- Tree survey and mitigation; determined at each development phase, must meet site plan requirements.
- Green space/open space must be generally consistent with approved concept plan; what, where, size, whether for public use determined at each development phase and must meet site plan requirements.
- Housing types must be generally consistent with approved concept plan and must meet site plan requirements.

Anthony Antone of Kojoian introduced the project team present in the audience; Project Architect Chris Beck of Gensler, Attorney Tyler Tennent of Dawda Mann PLC, Environmental Engineer Leslie Accardo of PEA, and CEO of Hunter Pasteur Homes Randy Wertheimer.

Mr. Antone stated the residential component (development area 1) would be the first phase of development. He said the proposed uses for the overall project are residential, office and retail and are defined in the PUD Development Agreement. Mr. Antone said the development configuration is based on the market and potential clients. He noted configuration might change during the development process. Mr. Antone said the Stateregulated wetlands (1.9 acres) will remain as is. He addressed proposed development areas, phases and amenities. He indicated adjacent businesses were notified of the proposed project.

Mr. Rahman asked if the center building could be moved to the street and the parking structure moved to an internal location. At the request of Mr. Rahman, an image was displayed on the wall monitor depicting a large green courtyard surrounded by building(s).

Mr. Antone stated moving the center building to the street would not be sensible from an architectural or marketing standpoint.

Mr. Wertheimer said placing residential the furthest point from a heavily trafficked and noisy street is essential for success. He noted the sequence of development phases would be residential, amenities, office, restaurant and hotel. Mr. Wertheimer said development area 3 would be flexible on what the market determines.

Ms. Perakis expressed dissatisfaction in what she views as no changes in the concept plan since last presented to the Board even though the Board offered specific suggestions. She said there is nothing unique about the proposed *Gateway to North Troy* development. Ms. Perakis recommended suggestions for the creation of a destination for residents to live, work and play: 1) phase 1 should be a pedestrian boulevard along with paths and natural features; 2) the parking structure with retail on the first floor should be the anchor building in the center of the PUD; 3) the pedestrian boulevard should run parallel to Long Lake with retail along Long Lake that fronts the pedestrian boulevard; 4) access to the pedestrian boulevard should be off Crooks and Corporate Drive. At the request of Ms. Perakis, images were displayed on the wall monitor that depicted existing parking structures located in Ann Arbor, East Lansing and Detroit. Ms. Perakis referenced page 192 of the Master Plan, "Strategy: Create a community gathering space" and addressed the application's relationship to the PUD Standards.

Mr. Wertheimer stated details of the concept plan would come forth with each phase and at site plan submittal. He said the team's focus is on the first step of approval of a concept plan and they look forward to providing specific details with individual site plan submittals. Mr. Wertheimer said the project team is asking for a consensus on the uses, building sizes and building heights at this time. He stated that 25% of the site is open green space. Mr. Wertheimer apologized if he is misinterpreting the PUD process and addressed the importance of landscape and architectural designs that would be presented at site plan review and approval.

Ms. Malalahalli said the concept plan appears industrial, like four rectangular Lego blocks with too much parking. She encouraged a concept plan that would *wow* the Board, to incorporate a promenade or plaza area, a connected pathway and a community stage to engage a public destination.

Mr. Tagle said it appears the development team has not *sold* the Planning Commission on its concept plan and encouraged the team to share a presentation inclusive of ideas, graphics and words that would get the Board excited about the project. He asked the applicant to address the product the team envisions for development area 1.

Mr. Wertheimer said the product would be a five to seven story luxury residential building similar to what one sees in Birmingham, West Bloomfield and Corktown. He identified some amenities as a rooftop pool, an expansive workout facility, a work-from-home office setting, state-of-the-art technology and concierge services.

Mr. Krent referenced a proposed development project at the former K-Mart Headquarters that *wowed* the Planning Commission with its pavilion style development.

Chair Lambert suggested a connected hub for public transportation.

Mr. Antone addressed the change in the configuration of office buildings since the pandemic. He said offices are becoming highly amenitized to bring employees back to what was the standard office building. Mr. Antone noted proposed parking is less than two acres of the overall project.

PUBLIC HEARING OPENED

- Laury Shah, 1448 Brentwood Drive, Troy; addressed personal visions of developing property; native grasses, lush vegetation, botanical garden, minimum height of buildings, noise buffer.
- Wei Cao, 6816 Vernmoor, Troy; shared concurrence with Planning Commission comments on the parking structure and amenities, encouraged a gathering destination and pedestrian boulevard.

PUBLIC HEARING CLOSED

Chair Lambert announced the Planning Department received 10 to 15 email messages, copies of which were placed in front of Board members prior to tonight's meeting. Chair Lambert shared the messages expressed concerns with the destruction of green space and building heights.

Mr. Hutson said he would like to see the PUD Development Agreement be modified to include: 1) reduce the three buildings to a maximum height of eight (8) stories; 2) that no development phase should commence until the first development phase is complete; and 3) that the permitted and special uses are specifically identified. Mr. Hutson said he agrees with comments expressed by Ms. Perakis.

Ms. Dufrane stated the Planning Commission as a recommending body to City Council is responsible to forward either an affirmative or negative recommendation to City Council. In response to the Board's query if it is appropriate to postpone the item, she responded it would be reasonable to postpone the application one time should the Board desire.

Resolution # PC-2022-08-045

Moved by: Lambert Support by: Buechner

RESOLVED, To postpone action on the PUD application to give the applicant an opportunity to consider input from the Commissioners on the overall concept plan and to give the Board a feel for what the entire project will look like.

Discussion on the motion on the floor.

Ms. Perakis addressed specific language she would like to incorporate in the Resolution as relates to parking structure location, pedestrian pathway, promenade/boulevard, relationship to Master Plan vision, uniqueness and creation of a destination point.

Mr. Antone and Mr. Wertheimer asked the Board to realistically consider the traffic impact and accessibility to the site as relates to the placement of the buildings.

Mr. Faison suggested design specifics should not be attached to the Resolution.

Mr. Hutson suggested to postpone the item with no specificity attached to the Resolution.

Ms. Dufrane said the attorney's office would collaborate with the applicant's attorney to tighten up the language on permitted and special uses.

Vote on the motion on the floor.

Yes: All present (9)

MOTION CARRIED

Ms. Perakis addressed existing traffic problems in the area and cautioned the applicant to not come back with an excuse that the traffic impact would prevent a pedestrian boulevard.

PLANNED UNIT DEVELOPMENT

5. <u>PLANNED UNIT DEVELOPMENT (File Number PUD 2020-0018)</u> – Revised Concept Development Plan for Long Lake and Crooks Masterplan Development, Northwest Corner of Long Lake and Crooks, Section 8, Currently Zoned O (Office) District

Mr. Carlisle gave a brief background of the proposed Planned Unit Development (PUD) application and identified some of the changes since last reviewed at the August 9, 2022 Planning Commission Regular meeting.

- Reconfigured residential building at northwest corner, moved building parallel to Corporate Drive.
- Reconfigured hotel/restaurant building at southwest corner, moved building parallel to Corporate Drive, located parking in rear.
- Added another retail/restaurant building, moved retail/restaurant buildings to front on Long Lake, parking in rear.
- Reconfigured internal pedestrian grid system and outdoor seating plaza area between two main retail/restaurant buildings on Long Lake.
- Significant addition to the central gathering space, dedicated green space and functional usable open space.
- Added green "street" and "boulevard" that bisects site north/south, east/west.
- Added pedestrian amenities and grid system to connect with pedestrian amenities.
- Reduced size of sculpture garden located next to wetland, added parking.
- Expanded open space and natural features area on the north end of site.
- Added small retail zone on ground level of parking deck.

Anthony Antone of Kojoian introduced project team members in the audience; Randy Wertheimer of Hunter Pasteur Homes, Chris Beck of Gensler, Chris Kojoian of Kojoian and Tyler Tennent of Dawda Mann PLC.

Mr. Antone said the team wants to make sure they are on the right track and is asking for the Board's feedback again before coming forward with the Concept Development Plan. He said "The Great Lawn" area would be an all-season gathering place with diverse amenities, identifying at this time an ice-skating rink, pickleball courts and bocce ball.

Board members complimented the team on the plan revisions and expressed overall satisfaction of the plan.

Some items Board members asked the project team to consider:

- Prepare a brochure/pamphlet to illustrate the community gathering space.
- Food trucks; parking, competition with on-site restaurants.
- Seasonal gathering space; functionality.
- Add gardens, play structure.
- Location of pickleball courts and outdoor exercise stations.
- Parking.
 - o Applicant advised boulevard offers on-street parallel parking.
 - o Parking deck and office tower; levels of parking.

- Shared parking.
- o Review of parking at each development phase.
- Retail/restaurant buildings; facilitation of loading/unloading and waste management.
- Provide a 'grand' and 'eye-catching' entrance to development.
- Hub for public transportation.

Mr. Savidant reviewed the PUD approval process.

Ms. Dufrane stated the elements of the PUD agreement encompass details relating to development phasing and open space.

Chair Lambert opened the floor for public comment.

Wei Cao, 6816 Vernmoor; addressed retail/restaurant portion of development, suggested smaller storefront retail/restaurants.

Chair Lambert closed the floor for public comment.

Mr. Antone said the market would drive tenancy of the project. He said a combination of larger and smaller retail/restaurant store fronts would be appealing.

City of Troy Planned Unit Development Concept Development Plan (CDP) Application And Application To Amend The Zoning District Map

Long Lake and Crooks Masterplan DevelopmentRe-Issuance: 11.28.22

CITY OF TROY PLANNED UNIT DEVELOPMENT CONCEPT DEVELOPMENT PLAN (CDP) APPLICATION AND APPLICATION TO AMEND THE ZONING DISTRICT MAP

CITY OF TROY PLANNING DEPARTMENT

TO THIS REQUEST FOR PLANNED UNIT DEVELOPMENT.

500 W. BIG BEAVER TROY, MICHIGAN 48084 PHONE: 248-524-3364

E-MAIL: planning@troymi.gov



CONCEPT DEVELOPMENT PLAN FEE \$3,000.00

\$5,000.00

PRIOR TO THE SUBMISSION OF AN APPLICATION-FOR APPROVAL OF A PLANNED UNIT DEVELOPMENT, THE APPLICANT SHALL HOLD A PRE-APPLICATION MEETING WITH THE PLANNING DEPARTMENT OF THE CITY AND ANY CITY STAFF AND OUTSIDE CONSULTANTS AS DEEMED APPROPRIATE BY THE CITY.

DA	ATE OF PRE-APPLICATION MEETING: September 25, 2020	
	EGULAR MEETINGS OF THE CITY PLANNING COMMISSION ARE DNTH AT 7:00 P.M. AT CITY HALL.	HELD ON THE SECOND AND FOURTH TUESDAYS OF EACH
1.	NAME OF THE PROPOSED DEVELOPMENT: Long Lake	e & Crooks Masterplan Development
2.	LOCATION OF THE SUBJECT PROPERTY: Northwest	t corner - Long Lake & Crooks
3.	ZONING CLASSIFICATION(S) OF THE SUBJECT PROPER	Current Zoning - Office
4.	TAX IDENTIFICATION NUMBER(S) OF SUBJECT PROPER	RTY:
5.	APPLICANT:	PROPERTY OWNER:
	NAME Chris Beck	NAME Tony Antone
	COMPANY Gensler	COMPANY Long Lake Crooks Development Associates
	ADDRESS _150 West Jefferson, Suite 1700	ADDRESS 39400 Woodward Ave, Suite 250
	CITY Detroit STATE MI ZIP 48226	
	TELEPHONE313.496.8966	TELEPHONE 248.644.7600
	E-MAILchris_beck@gensler.com	E-MAIL tantone@Kojaian.com
6.	THE APPLICANT BEARS THE FOLLOWING RELATIONSH Owner's Architect	IP TO THE OWNER OF THE SUBJECT PROPERTY:
7.	ATTACHED HERETO IS A SIGNED STATEMENT BY TH AUTHORITY TO EXECUTE A BINDING ACRES AT COMMENT OF THE PROPERTY OF	
8.	SIGNATURE OF APPLICANT	DATE 11.18.20
9.	SIGNATURE OF PROPERTY OWNER	1 Cabo DATE 11 117 /2020
	BY THIS SIGNATURE, THE PROPERTY OWNER AUTHORIZES PLACE	MENT OF A SIGN ON THE PROPERTY TO INFORM THE PUBLIC AS

Rev. Aug 2018

PLANNED UNIT DEVELOPMENT CONCEPT DEVELOPMENT PLAN (CDP) PRE-APPLICATION MEETING CHECKLIST

THE APPLICANT SHALL PROVIDE A MINIMUM OF THREE (3) COPIES OF THE FOLLOWING ITEMS, PLUS ONE (1) CD CONTAINING AN ELECTRONIC VERSION OF THE APPLICATION, TO THE PLANNING DEPARTMENT AT OR BEFORE THE PRE-APPLICATION MEETING. SEE SECTION 11.06(A).

- A SKETCH PLAN OF THE PROPOSED PLANNED UNIT DEVELOPMENT
- LEGAL DESCRIPTION OF THE PROPERTY, SCALE DRAWING AND THE TOTAL NUMBER OF ACRES IN THE PROJECT
- TOPOGRAPHICAL MAP OF THE PROJECT SITE
- A STATEMENT OF ALL PROPOSED USES IN THE PROJECT.
- THE KNOWN DEVIATIONS SOUGHT FROM THE ORDINANCE REGULATIONS OTHERWISE APPLICABLE
- THE NUMBER OF ACRES TO BE PRESERVED AS OPEN OR RECREATIONAL SPACE AND THE INTENDED USES OF SUCH SPACE
- ALL KNOWN NATURAL RESOURCES, NATURAL FEATURES, HISTORIC RESOURCES AND HISTORIC FEATURES; WHICH ARE TO BE PRESERVED
- A LISTING AND SPECIFICATION OF ALL SITE DEVELOPMENT CONSTRAINTS

PLANNED UNIT DEVELOPMENT CONCEPT DEVELOPMENT PLAN (CDP) CHECKLIST

THE FOLLOWING INFORMATION AND MATERIALS ARE NECESSARY FOR SUBMISSION. FOR A DETAILED DESCRIPTION OF REQUIRED ITEMS, SEE SECTION 11.06(C) OF THE ZONING ORDINANCE.

REQUIRED FEE
ONE (1) CD CONTAINING AN ELECTRONIC VERSION OF THE APPLICATION AND ONE (1) COPY OF THE DRAFT DEVELOPMENT AGREEMENT (PDF Format)
application shall include TWO (2) hard copies of the following information and materials, which shall be in an format together with a narrative explanation.
Date(s) and location of all meetings with representatives of adjoining neighborhoods, minutes and attendance record(s) of such meeting(s).
Certified boundary survey including legal description of the property, scale drawing and the total number of acres in the project.
Development concept: A summary explanation of the development concept shall describe the project and explain how the project will meet the intent of the PUD option as set forth in Section 11.01 and the criteria for consideration as a PUD as set forth in Section 11.03 hereof, as those sections reasonably apply to the site.
Density: The maximum density of the overall project and the maximum density for each proposed use and phase.
Road system: A general description of the road system and circulation pattern; the location of roads, entrances, exits and pedestrian walkways; a statement whether roads are intended to be public or private. Efforts shall be made to ensure that multiple transportation modes are safely and effectively accommodated in an effort to provide alternate modes of access and alleviate vehicle traffic congestion particularly as it pertains to the improvements along major roads.
<i>Utilities:</i> A general description and location of both on-site and off-site utilities including proposed water, sanitary sewer, storm sewer systems and utility lines; a general indication of the size and location of stormwater detention and retention ponds, and a map and text showing off-site utilities, existing and proposed, which will provide services to the project.
Open space/common areas: A general description of proposed open space and common areas; the total area of open space; the total area of open space in each proposed phase; the proposed uses of open space and common areas.
Uses: A list of all proposed uses; the location, type and land area to be devoted to each use, both overall and in each phase; a demonstration that all of the proposed uses are permitted under this Article.
Development guidelines: A plan of the site organization, including typical setback and lot dimensions; the minimum lot sizes for each use; typical minimum and maximum building height and size; massing models; conceptual building design; and the general character and arrangement of parking; fencing; lighting; berming; and building materials.
Parking and Traffic: A study of the parking requirements and needs; a traffic impact study and analysis.
Landscaping: A general landscaping plan; a landscape plan for entrances; a landscape plan for overall property perimeters; any theme/streetscape design; any proposed irrigation.
Natural resources and features: Floodway/floodplain locations and elevations; wetlands and watercourses; woodlands; location and description of other natural resources and natural features.

PLANNED UNIT DEVELOPMENT **CONCEPT DEVELOPMENT PLAN (CDP) CHECKLIST** (page 2)

Phasing information: The approximate location, area and boundaries of each phase; the proposed sequence of

development, including phasing areas and improvements; and the projected timing for commencement and completion of each phase.
Public services and facilities: A description of the anticipated demand to be generated by the development for public sewer, water, off-site roads, schools, solid waste disposal, off-site drainage, police and fire; a description of the sufficiency of each service and facility to accommodate such demands; the anticipated means by which any insufficient services and facilities will be addressed and provided.
Historical resources and structures: Their location, description and proposed preservation plan.
Site topography.
Signage: General character and location of entrance and internal road system signage; project identification signage; and temporary or permanent signage proposed for any other locations.
Amenities.
Zoning classification: Existing zoning classifications on and surrounding the site.
Specification of deviations: A specification of all deviations proposed from the regulations which would otherwise be applicable to the underlying zoning and to the proposed uses, which are proposed and sought for any phase or

Community impact statement: A community impact statement, which shall provide an assessment of the developmental, ecological, social, economic and physical impacts of the project on the natural environmental and physical improvements on and surrounding the development site. Information required for compliance with other ordinance provisions need not be duplicated in the community impact statement.

component of the Planned Unit Development; the safeguards, features and/or planning mechanisms proposed to achieve the objectives intended to be accomplished by any regulation from which a deviation is being sought.

ALL HARD COPY DRAWINGS SHALL BE FOLDED, STAPLED, SEALED AND SIGNED BY A STATE OF MICHIGAN PROFESSIONAL ENGINEER, REGISTERED ARCHITECT, REGISTERED LANDSCAPE ARCHITECT, OR PROFESSIONAL COMMUNITY PLANNER

PLANNING COMMISSION AGENDAS ARE ELECTRONIC

PLANNED UNIT DEVELOPMENT CONCEPT DEVELOPMENT PLAN (CDP) CHECKLIST

Neighborhood meeting:

Communication to immediate neighbors of the property was issued March 11, 2021 to solicit neighborhood comments regarding the proposed masterplan. The communication offered neighbors the opportunity to participate in either a virtual zoom meeting, or comment individually via written response. Neighbors included those to the west, along Corporate Drive, to the south, along Long Lake, and to the east, across Crooks. The developer of this proposed property owns the immediate property to the north. The masterplan graphic, along with contact information for responses to be submitted were included in the mailed communication to each of the neighbors.

No responses were received from any of the neighbors and as such no virtual meeting occurred.

See following page for copy of letter submitted.

Fax 313.965.8060

Gensler

03.11.21

Dear Mr. Dugan:

Re: 1175 W. Long Lake Rd

Troy, Michigan

You are being sent this letter as the owner of the above referenced property based on a review of publicly available information. Long Lake Crooks Development Associates, L.L.C. (the "Developer") intends to develop the vacant 24.08 property located at the northwest corner of the intersection of Crooks Road and Long Lake Road. It is planned to be a mixed-use development.

The Developer is required to notify nearby landowners of the proposed development and ask for comments. A proposed concept masterplan is enclosed for your reference. If you wish to verbally comment, please email Chris Beck no later than March 29th, 2021. A virtual Zoom meeting will be set up for you to provide verbal comments. Alternatively, you may also provide written comments to the undersigned no later than April 5th, 2021 by sending an email to chris_beck@gensler.com.

Before this development will occur, it must be thoroughly reviewed and approved by the City of Troy. The City will likely be in contact with you to advise you of the time and place of any public hearing that may be required for this development.

Thank you.

Chris Beck, AIA, LEED-AP BD&C Senior Associate

Gensler

Attachment: Crooks & Long Lake Masterplan

C: Brent Savidant (via email)

CROOKS & LONG LAKE // MASTER PLAN



LONG LAKE & CROOKS CONCEPT DEVELOPMENT PLAN

KOJAIAN + GENSLER + PEA GROUP + FLEIS & VANDENBRINK | NOVEMBER 28, 2022 | CDP

Planned Unit Development – Concept Development (CDP) Submittal

Project: Long Lake & Crooks Masterplan Development Original Submission Date: April 22, 2022 Revised Submission Date: November 28, 2022

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



Kojaian
Long Lake Crooks Development Associates, LLC
tantone@kojaian.com
39400 Woodward Avenue, Suite 250
Bloomfield Hills, MI 48304
(248) 644-7600
Contact: Anthony G. Antone, Vice President

Gensler

Gensler 150 West Jefferson, Suite 1700 Detroit, MI 48226 (313) 496-8966 Contact: Chris Beck, Project Manager



Fleis & Vandenbrink 27725 Stansbury Blvd., Suite 195 Farmington Hills, MI 48334 (248) 342-5786 Contact: Julie Kroll, PE, PTOE

PEA GROUP

PEA Group 2430 Rochester Court, Suite 100 Troy, MI 48083 (248) 528-7369 Contact: James Butler, PE



Dawda, Mann, Mulcahy, & Sadler 39533 Woodward, Suite 200 Bloomfield Hills, MI 48304 (248) 642-4248 Contact: Tyler D. Tennent

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A. Certified Boundary Survey – Refer to Appendix: Sheet C-1

Legal Description of Property

A parcel of land in a part of the southeast quarter of Section 8, T.02N., R.11 E., City of Troy, County of Oakland, State of Michigan described as follows:

Commencing at the Southeast corner of Section 8, T.02N., R.11 E., City of Troy, County of Oakland, State of Michigan, thence South 87 degrees 15 minutes 31 seconds West 130.00 feet; thence North 02 degrees 37 minutes 54 seconds West 100.00 feet to the north line of Long Lake Road (width varies) and the POINT OF BEGINNING: thence along the said north line the following three (3) courses and distances 1) South 87 degrees 15 minutes 31 seconds West 894. 70 feet; 2) North 02 degrees 30 minutes 26 seconds West 10.00 feet; 3) South 87 degrees 15 minutes 31 seconds West 364.00 feet; thence North 47 degrees 37 minutes 28 Seconds West 42.26 feet to the easterly line of Corporate Drive (120' wide); thence North 02 degrees 30 minutes 26 seconds West 424.81 feet to a point of curvature; thence 353.35 feet along a curve to right, said curve having a radius 710.00 feet, a central angle of 28 degrees 30 minutes 52 seconds, and a chord that bears North 11 degrees 45 minutes 00 seconds East 349.71 feet; thence North 87 degrees 15 minutes 31 seconds East 1240. 77 feet to the west line of Crooks Road (width varies); thence along said west line the following three (3) courses and distances: 1) South 02 degrees 37 minutes 54 seconds East 463.36 feet; 2) South 87 degrees 22 minutes 06 seconds West 10.00 feet; 3) South 02 degrees 37 minutes 54 seconds East 310.00 feet; thence South 42 degrees 18 minutes 48 seconds West 42.47 feet to the POINT OF BEGINNING.

Parcel 20-08-477-001 Vacant Land

B. Development Concept:

Long Lake Crooks Development Associates, L.L.C. (the "Developer") proposes a mixed-use development within the approximate 24.08-acre site bound by Long Lake Road to the south, Crooks Road to the east and Corporate Drive to the west (the "Site"). In concept, this development is envisioned to offer various needed services to the Long Lake corridor and surrounding community and create a development of mixed horizontal and vertical forms. The Site has the potential to be comprised of workplace / medical office space, retail, commercial, residential, and hospitality uses, with the desired overall potential of maximizing the developmental area and providing interconnectivity for vehicles and pedestrians.

The overall phasing of the development will be dependent on the market and the Developer's success and cadence in acquiring prospective users. Final Site configurations will be contingent on such cadence and specific user requirements, both of which will influence final building massing, location, and overall Site character. Final development solutions for each use will be individually issued for approval as part of the preliminary and final development approval process during future timeframes.

The basis of the documentation included within this Concept Development Plan and the PUD application is to demonstrate the desired intent of the overall Site development over a period of time. It is conceptual in nature, however, demonstrates a thoughtful and desired solution to the Site for which a planned unit development zoning status is needed. The descriptions and illustrations within this application form the basis of the development concept.

Development Areas:

The Concept Development Plan envisions several Site components identified as development areas (refer to appendix sheet A-6). Although sequentially numbered, these development areas are not intended to reflect a specific order of cadence, but to identify separate areas within the overall Site that will be developed through a phased approach.

<u>Development Area 1</u>: A residential component is intended for the northwest corner of the Site that will foster a permanent population and enhance further development of the remaining development areas. This residential component will support the increasing demands of the City's housing needs and satisfy a key component in the intended live / work / play environment the Site is focused to achieve.

<u>Development Area 2</u>: The largest development area of the Site is proposed for workplace / medical office and is generally intended to be the anchor development within the overall Site. This development area will support the functional needs of prospective users of the Site and/or nearby residents, bringing significant growth opportunities for the City and further energizing the area. If developed for either single anchor or multi-tenant configurations, the buildings in this development area will support the flexible workplace environment tenants seek within Class-A office/flex-tech space.

<u>Development Area 3</u>: This development area reflects an additional opportunity for added workplace, office, retail, and residential use. Centered within the Site, this development area can act as either a standalone anchor development or as an expansion of use based on the success of either Development Areas 1 & 2. Supporting parking will be included within the development footprint.

<u>Development Area 4</u>: The development area is for lodging with an intended inclusion of an anchor hotel. The building will be designed so that it is easily convertible to residential, (apartment or condominium), use if desired in the future. Currently located on the southwestern corner of the Site, the final location of the hotel may adjust along Corporate Drive dependent on the final retail / restaurant configuration in other areas of the Site. As with the retail and residential components, the hotel is deemed as an asset to both the immediate Site as well as the broader community.

The remaining areas along Long Lake, as illustrated on the Concept Development Plan, offer retail / restaurant opportunities. These intended areas provide destinations for the surrounding community while also supporting other developments on the Site. They are smaller in scale and are intended to energize the Long Lake and Corporate Drive frontage for both vehicular and pedestrian foot traffic by becoming favorite 'go-to' locations. They are not considered a separate development area, but intended to be built either as part of any phase of the development or separately after 50% completion of the first phase.

A combination of surface and structured parking will support the development of the Site based on the expected development uses. Surface parking will support the needs of the short-term visitors of office, retail, and hotel uses, while structured parking, situated away from the high visibility of Long Lake and Crooks will support the daily occupants of the larger office and mixed-use buildings. Each development area will meet all parking requirements as mandated for its use within the City guidelines.

The Developer requests the flexibility to choose the locations of each permitted use within a development area, the sequence of development, and the specific features and boundaries of

each area depicted in the Concept Development Plan. Market forces and user requirements are constantly changing. As a result, the PUD zoning concept, together with an appropriate Development Agreement, will facilitate this flexibility and encourage development without adversely impacting the preliminary and final development plan approval processes required by the City under the Zoning Ordinance.

All development areas shall be integrated through design elements including but not limited to architecture, materials, landscaping, pedestrian connectivity, street connectivity, and shared parking and in accordance to all City requirements.

Landscaping shall meet or exceed required landscaping for similar projects as per Chapter 39, Section 13.02.

Temporary undeveloped portions of the Site shall be appropriately maintained including grass cutting, snow removal, keeping the Site free of refuse, etc.

Amenity Areas:

Various amenities will be required as part of the development areas as shown in the Concept Development Plan – Amenity Zones (refer to appendix sheet A-7). The overall configuration of amenity areas is flexible however they have been purposefully located and sized based on proximity and use of each development area as well as connectivity and access to each other and the local community. Overall, amenity areas account for approximately 135,000 SF, (3 acres), of the total Site area, or 12%.

The amenity areas as illustrated include the following:

Amenity Area 1A: Open green spaces for flexible use, community seating areas / built shelters and fire pits.

Amenity Area 1B: Dog park, walking path.

Amenity Area 2A: Landscape / public art - sculpture garden, walking paths and seating.

Amenity Area 2B: Fitness path, pickle ball courts.

Amenity Area 3: Open green space, bocce ball, food truck staging area.

Overall: Connecting pathways/sidewalks allow both internal and public pedestrian access and engagement across all amenity areas. Continuity of landscape, vegetation and site furnishings will provide a cohesive and connected aesthetic across all parts of the Site.

Natural Areas:

Approximately 3.6 acres of natural wetland will be preserved on the Site, located within two distinct areas, <u>Natural Area 1</u> and <u>Natural Area 2</u>, as illustrated in the Concept Development Plan (refer to appendix sheet A-7). No development will occur within the natural areas. Viewed as part of the overall Site amenities, the wetlands further enhance the natural landscape and create buffers between development areas that support a more open site environment and will helping to minimize the appearance of overall densification. Vegetation within these areas will remain

untouched, except as may be required by the permitting authorities or to facilitate opportunities to clear low lying scrub vegetation for visual access as well as physical approach along the wetland boundaries.

Amenity areas have strategically been placed adjacent to these natural wetlands to further increase the openness and outdoor offerings to users of the Site and public alike.

C. Location Map - Refer to Appendix: Sheet C-0

D. Land Use Map – Refer to Appendix: Sheet A-1

Properties adjacent to site are: Office, Retail/Restaurant and Cemetery

E. Certified Boundary Survey – Refer to Appendix: Sheet C-1 Topographic Survey

F. Density Analysis:

	Zoning	Proposed
District	Max. % of Building Coverage	
OM - Office Mixed Use	40%	37%
UR – Urban Residential	50%	N/A
GB – General Business	N/A	10%
Overall Site	N/A	27%

G. Road/Circulation System

- Private Roads within Site
- Entrances
 - Crooks Road Boulevard
 - Main Entry with deceleration lane / Exit
 - Long Lake Road Boulevard
 - Main Entry with deceleration lane / Exit
 - Retail / Restaurant entry with deceleration lane / Exit
 - Corporate Drive Boulevard
 - Main Entry with deceleration lane / Exit
 - Hotel entry with deceleration lane / Exit
- Circulation Pattern
 - o Main routes are East to West from Crooks Road to Corporate Drive
 - Intersecting route from Long Lake Road
- Pedestrian walkways throughout the Site to provide walkability and easy access to amenities

H. Utilities - Refer to Appendix: Sheet C-3 Conceptual Utility Plan

- Gas Connect to existing from Crooks Road
- Electric Connect to existing from Long Lake Road
- Water / Fire
 - Connect to existing watermain from Corporate Drive
 - Connect to existing watermain from Crooks Road
- Sanitary Sewer Connect to existing from Long Lake Road
- Communications Connect to existing from Long Lake Road
- Storm
 - o Connect to the existing structure at the corner of Crooks Road and Long Lake
 - Underground detention area in parking lot near Detention Pond
 - o Detention Area will feature a natural pond with walking path and landscaping

I. Open Space/Common Areas:

The Site is currently vacant and not accessible to the public. The Concept Development Plan envisions that a portion of the Site will provide a park like setting and access to the pedestrian boulevards and retail/restaurants, which can be used at the leisure of residents and visitors. This interconnectivity to the Site features and outdoor amenities is a recognizable public benefit.

Open space is incorporated to the greatest extent possible while balancing building, parking and circulation needs within the boundaries of the Site. Open, vegetated areas are located to minimize large scale hardscape zones. Public access is focused primarily to the southern end of the Site, along the Long Lake corridor.

Continuous paved walking paths wrap the development area, connecting open spaces, as well as the incorporation of a potential natural pathways and seating areas.

Native, high quality, vegetation replaces the current low value tree stock and is intended to be incorporated throughout the development areas within open/common spaces, softening the more formal approach of the buildings and balancing human scale to surrounding built environment.

Refer to Appendix: Sheet C-2.0 and Sheet A-7 for Conceptual Site Plan, natural area, and site amenity diagramming.

J. Uses: Refer to Appendix: Sheet A-6, A-8, A-9, A-10, A-11

- Lodging / Residential
- Retail / Restaurant
- Office / Medical / Residential
- Parking Surface / Deck

The proposed uses are to be a mixture of commercial, retail, residential, and office, (live / work / play) with both structured and surface parking. All uses are subject to Preliminary Development Plan Approval and described as follows:

<u>Development Area 1</u>: Residential uses permitted as of right or requiring special approval, and their accessory uses, consistent with such uses in the UR – Urban Residential District and all associated surface parking.

<u>Development Area 2</u>: Office uses permitted as of right or requiring special approval, and their accessory uses, consistent with such uses in the OM - Office Mixed Use District, the O - Office District, or the GB-General Business District, as referenced in the Zoning Ordinance, and a multistory parking structure and surface parking features.

<u>Development Area 3</u>: Residential uses permitted as of right or requiring special approval, and their accessory uses, consistent such uses in the UR – Urban Residential District as referenced in the Zoning Ordinance and all associated surface parking; Office uses permitted as of right or requiring special approval, and their accessory uses, consistent with such uses in the OM - Office Mixed Use District, the O - Office District, or the GB-General Business District, as referenced in the Zoning Ordinance; "Restaurant" and/ or "Retail Business or Retail Sales" uses as defined by the Zoning Ordinance; Conference, meeting, and banquet facility uses permitted as of right or requiring special approval, and their accessory uses consistent with such uses the GB - General Business District in the Zoning Ordinance; and, all associated surface parking.

<u>Development Area 4</u>: Lodging or extended stay facility uses permitted as of right or requiring special approval, and their accessory uses, consistent with such uses in the GB – General Business District identified in the Zoning Ordinance; and, Residential uses permitted as of right or requiring special approval, and their accessory uses, consistent such uses in the UR – Urban Residential District as referenced in the Zoning Ordinance and all associated surface parking.

Restaurant/Retail Areas: "Restaurant" and/ or "Retail Business or Retail Sales" uses as defined by the Zoning Ordinance, and their accessory uses, and all associated surface parking.

Amenity Area 1A: "Open Space" as defined by the Zoning Ordinance for use as an open field activity area.

Amenity Area 1B: "Open Space" as defined by the Zoning Ordinance for use as a dog park.

Amenity Area 2A: "Open Space" as defined by the Zoning Ordinance for use as a public art or sculpture garden.

<u>Amenity Area 2B</u>: "Open Space" as defined by the Zoning Ordinance for use as a fitness trail and pickle ball courts.

Amenity Area 3: "Open Space" as defined by the Zoning Ordinance for use as a bocce ball court and outdoor seating.

<u>Natural Areas A and B</u>: Restricted from development and shall remain in an "Undeveloped State" as defined in the Zoning Ordinance.

K. Development Guidelines:

DISTRICT	MAX SQUARE FOOTAGE	MIN # FLOORS	MIN BUILDING HEIGHT	MAX # FLOORS	MAX BUILDING HEIGHT
DEVELOPMENT AREA 1	350,000 sf	3	40'	7	90'
DEVELOPMENT AREA 2	500,000 sf	4	60'	10	150'
DEVELOPMENT AREA 3	350,000 sf	4	60'	10	150'
DEVELOPMENT AREA 4	105,000 sf	3	40'	7	90'
RETAIL/RESTAURANT AREAS	18,000 per building	1	17.5'	2	35'

See Sheet A-12 for massing

MINIMUM SETBACKS (measured from perimeter property lines or public rights of way)

DISTRICT	FRONT	SIDE	REAR
	SETBACK	SETBACK	SETBACK
DEVELOPMENT AREA 1	10'	20'	30'
DEVELOPMENT AREA 2	10'	20'	30'
DEVELOPMENT AREA 3	10'	20'	30'
DEVELOPMENT AREA 4	10'	20'	30'
RETAIL/RESTAURANT	10'	20'	30'
AREAS			

L. Traffic Impact Study:

Refer to Appendix: Sheet TR-1 - Traffic Impact Study and Shared Parking Study.

Executive Summary

This report presents the results of a Traffic Impact Study (TIS) for the proposed master plan development located generally in the northeast quadrant of the Long Lake Road and Corporate Drive intersection adjacent to the west side of Crooks Road in Troy, Michigan.

This analysis is based on the conceptual development plan included with the application. This study includes an evaluation of the highest trip generation for the potential uses of the Site, thereby providing a conservative analysis. The land uses included herein were assumed for analysis purposes and do not necessarily reflect the actual proposed land uses on this Site.

The proposed conceptual plan evaluated in this study includes the development of the approximately 24-acre parcel with office, hotel, and retail/restaurant land uses. Parking for the Site was assumed to be provided through a combination of parking structures and surface parking. The Site access will be finalized at the site plan phase of the project, however for this analysis access was assumed via seven (7) site driveways; two (2) on SB Crooks Road, two (2) on Long Lake Road, and three (3) on Corporate Drive. Long Lake Road and Crooks Road are under the jurisdiction of the Road Commission for Oakland County (RCOC), whereas Corporate Drive is under the jurisdiction of the City of Troy.

The scope of this study was developed based on Fleis & VandenBrink's (F&V) knowledge of the study area, understanding of the development program, accepted traffic engineering practice and information published by the Institute of Transportation Engineers (ITE), and pursuant to the requirements of the City of Troy and the RCOC. Additionally, F&V solicited input regarding the scope of work from the City of Troy's engineering consultant (OHM Advisors).

Background Data

Due to the impacts of COVID-19 and the subsequent closures of businesses and schools, current traffic volume data is not representative of "typical" operations. In addition, the on-going construction on I-75 has significant impacts on the traffic volumes throughout the study network. Therefore, the traffic volume data necessary for this study were obtained from multiple sources:

- SCATS volume data was obtained from RCOC at the signalized study intersections within the network for use in this study. The SCATS data utilized for this study was obtained for September 13, 2018, prior to COVID-19 and the I-75 construction impacts.
- F&V subconsultant Traffic Data Collection, Inc. (TDC) performed weekday AM (7:00 AM to 9:00 AM) and PM (4:00 PM to 6:00 PM) peak hour turning movement counts on Wednesday, October 6, 2020 at the unsignalized intersections.

A 0.5% annual background growth rate was applied to the 2018 signalized traffic volumes to calculate the baseline 'existing' 2020 traffic volumes. COIVD-19 adjustment factors were applied at the unsignalized intersections to calculate the baseline 'existing' 2020 traffic volumes. The traffic volumes were then balanced upwards through the study network. 'Dummy nodes' were added at locations to account for sink and source volumes between intersections.

Trip Generation

The number of weekday peak hour (AM and PM) and daily vehicle trips that would be generated by the proposed development was forecast based on data published by ITE in the *Trip Generation Manual*, 10th Edition. The site trip generation forecast is summarized in **Table 1**. The proposed trip generation included in this analysis was reviewed with the City Traffic Consultant (OHM) prior to use in the study. *Note: Internal trip capture and pass-by trip reductions were not included in this study to provide a conservative analysis*.

Table E1: Trip Generation Summary

Land Use	ITE	Amount	t Units	Average Daily Traffic	AM Peak Hour (vph)			PM Peak Hour (vph)		
Lanu USE	Code	Amount	Ullits	(vpd)	In	Out	Total	In	Out	Total
High Turnover (Sit-down) Restaurant	932	54,000	SF	6,058	295	242	537	327	201	528
Hotel	310	308	Rooms	3,050	88	61	149	105	100	205
Medical-Dental Office Building	720	1,000,000	GFA SF	38,332	1,353	381	1,734	950	2,442	3,392
Total Trips				47,440	1,736	684	2,420	1,382	2,743	4,125

Site Trip Distribution

The site access for this analysis was assumed via seven (7) driveways: three (3) on Corporate Drive, two (2) on Long Lake Road, and two (2) on SB Crooks Road. The vehicular trips that would be generated by the proposed development were assigned to the study roads based on the proposed site access plan, the existing peak hour traffic patterns on the adjacent roadway network, and the methodologies published by ITE. The adjacent street traffic volumes were used to develop the trip distribution. In order to determine the projected site traffic distribution, it was assumed that the existing adjacent street traffic volumes in the AM are home-to-work based trips,

and in the PM are work-to-home based trips. Therefore, the trip distribution assumes trips are coming into the study network and entering the development for work in the AM peak hour, then leaving work and exiting the network towards home in the PM peak hour. The ITE trip distribution methodology assumes that new trips will return to their direction of origin. The site trip distribution used in the analysis is summarized in **Table E2**.

Table E2: Site Trip Distribution

From/To	Via	AM	PM
North	Crooks Road	28%	30%
South	Crooks Road	14%	19%
East	Long Lake Road	18%	17%
East	East I-75 Ramp		18%
West	Long Lake Road	12%	16%
	Total	100%	100%

Conclusions

The conclusions of this TIS are as follows:

Masterplan Development Assumptions

- This analysis is based on the Conceptual Development Plan included with the application. This study includes an evaluation of the highest trip generation associated with the potential uses for this Site. Therefore, the traffic analysis included herein provides a conservative analysis for this development. The land uses included herein were assumed for analysis purposes and do not necessarily reflect the actual proposed land uses on this Site.
 - The proposed conceptual plan evaluated in this study includes the development of the approximately 24-acre parcel with office, hotel, and retail/restaurant land uses.
 - Parking for the Site was assumed to be provided through a combination of parking structures and surface parking.
 - The site access will be finalized at the site plan phase of the project, however for this analysis access was assumed via seven (7) site driveways; two (2) on SB Crooks Road, two (2) on Long Lake Road, and three (3) on Corporate Drive.

Trip Generation Comparison

 A trip generation comparison analysis was performed to show the potential trip generation associated with development permitted under the existing Office (O) zoning. The results of the analysis indicate that the proposed development plan will generate more trips throughout the day and during both peak hours, as compared to a potential development currently permitted by right under the existing zoning.

Existing Conditions

- All approaches and movements at the study intersections currently operate acceptably, at LOS D or better during both peak periods, with the exception of the following:
 - The overall intersection of Crooks Road & Corporate Drive/I-75 Ramp is currently operating at LOS E during the AM peak period with multiple approaches and movements operating at LOS E and LOS F during both AM and PM peak periods.

- The southbound left-turn movement at the intersection of Corporate Drive & New King Drive is currently operating at LOS E during the AM peak period.
- The southbound approach at the intersection of EB Long Lake Road and Investment Drive is currently operating at LOS E during the AM peak hour and LOS F during the PM peak hour.
- The westbound right turn movement at the intersection of WB Long Lake Road & Corporate Drive is currently operating at LOS E during the AM peak hour.
- Review of SimTraffic network simulations indicates long vehicles queues at the signalized intersection of Crooks Road & Corporate Drive/I-75 Ramp during both peak periods. Microsimulations indicate acceptable operations at all other study intersections.

Background Conditions (without the proposed development)

- A conservative annual growth rate of 0.5% per year was applied to the 2020 traffic volumes in order to determine the background 2025 traffic volumes.
- The results of the background conditions analysis show that the study intersections will
 continue to operate in a similar manner to existing conditions, with some increases in the
 delay.

Future Conditions (with the proposed development)

- The results of the future conditions analysis show that, with the addition of the sitegenerated traffic, all study intersection approaches and movements will operate in a manner similar to existing and background conditions, with the exception of the following:
 - The intersection of Crooks Road & Corporate Drive/I-75 Ramp is expected to operate at LOS F during both AM and PM peak periods with significant increases in delay for the westbound approach during the AM peak hour and the eastbound approach during the PM peak hour.
 - The southbound left-turn on Crooks Road at Tower Drive exceeds the available storage length and impacts the upstream operation at the intersection of Crooks Road & Corporate Drive/I-75 Ramp.
 - The northbound left turn movement at NB to SB Crooks Road crossover north of Long Lake Road is expected to operate at LOS E during both AM and PM peak hours.
 - The southbound left turn movement at the SB to NB Crooks Road crossover north of Long Lake Road is expected to operate at LOS F during PM peak hour.
 - The southbound left turn movement at SB to NB Crooks Road crossover south of Long Lake Road is expected to operate at LOS F during the PM peak hour.
 - The eastbound right turn movement on the E. Site Drive at Crooks Road is expected to operate at LOS F during the PM peak hour.
 - The southbound right turn movement at WB Long Lake Road and S.E. Site Dr. is expected to operate at LOS F during the PM peak hour.
 - The westbound left turn movement at the N. Site Drive at the Corporate Drive is expected to operate at LOS E during the PM peak hour.

- The westbound left turn movement at the N.E. Site Drive & SB Crooks Road intersection is expected to operate at LOS F during the PM peak hour.
- The westbound left turn movement at the N.W. Site Drive & Corporate Drive intersection is expected to operate at LOS E and LOS F during the AM and PM peak hour, respectively.
- Review of SimTraffic network simulations indicates long vehicles queues at the signalized intersection of Crooks Road & Corporate Drive/I-75 Ramp during both peak periods. Additionally, long vehicle queues exceeding the available storage length were observed at the Tower Drive Crossover, the SB-to-NB Crossover located north and south of Long Lake Road. Microsimulations indicate acceptable operations at all other study intersections.

Access Management

- The results of the analysis indicate that right-turn deceleration tapers are recommended at the site driveways on Corporate Drive and full-width right-turn lanes are recommended at the proposed site driveway locations on Crooks Road and Long Lake Road.
- There are no site access driveways proposed at this time with this PUD. Therefore, the site access driveways will be further reviewed for access management and auxiliary lanes during the development of site plan(s) for this PUD.

Parking Study

- The proposed PUD includes the addition both surface parking spaces and one or more parking structures.
- A minimum of 4,580 parking spaces is recommended for this Site.

Project Phasing

There is no identifiable phasing plan at this juncture of the proposed development. The
overall development is assumed to be phased over time, based on tenant opportunities
and economic viability. As various areas are developed, a phasing plan will be formulated
in a manner where all parking and building requirements are met throughout each phase.

Recommendations

The recommendations of this TIS are as follows:

Recommended Intersection Improvement (Future 2025)

10 Crooks Road & Corporate Drive / I-75 Ramp

Eliminate the EB and WB left-turn movements and the split phasing

- Operate as median U-turn on east and west approaches.
- Construct new SB to NB crossover south of Corporate Drive.
- Construct additional westbound right-turn lane
- Extend the southbound left-turn storage length (~200 feet)

#30 NB Crooks Road & Tower Drive

Eliminate direct left turns and operate intersection with indirect left-turns.

- Close existing crossover at intersection
- Construct new NB to SB crossover north of Tower Drive

40 NB to SB Crooks Road X/O north of Long Lake Road

Provide signalization

50 SB to NB Crooks Road X/O north of Long Lake Road

Provide dual lane crossover

130 WB to EB Long Lake Road X/O west of Investment Drive

• Provide signalization

#140 SB to NB Crooks Road X/O south of Long Lake Road

- Provide dual lane crossover
- Provide signalization

160 SB Crooks Road & E. Site Drive

- Provide dual right-turn egress
- Provide a right-turn deceleration lane on Crooks Road

170 Corporate Drive & N. Site Drive

- Provide a two-lane egress approach
- Provide a right-turn deceleration lane on Corporate Drive

180 Corporate Drive & W. Site Drive

Provide a right-turn deceleration lane on Corporate Drive

190 WB Long Lake Road & SW. Site Drive

Provide a right-turn deceleration lane on Long Lake Road

200 WB Long Lake Road & SE. Site Drive

- Provide a two-lane egress approach
- Provide a right-turn deceleration lane on Corporate Drive

210 NB to SB Crooks Road XO north of Corporate Drive

- Provide dual lane crossover
- Provide signalization

220 SB to NB Crooks Road XO south of Tower Drive (NEW)

- Provide dual lane crossover
- Provide signalization

230 NB to SB Crooks Road X/O north of Tower Drive

• Relocate crossover further south to accommodate a NB to SB X/O south of Corporate Drive

240 SB to NB Crooks Road X/O south of Tower Drive

- Provide dual lane crossover
- Provide signalization

250 SB Crooks Road & NE. Site Drive

- Provide dual right-turn egress
- Provide a right-turn deceleration lane on Crooks Road

260 Corporate Drive & NW. Site Drive

• Provide a two-lane egress approach

M. Landscaping: Refer to Appendix: Sheets: L-1, T-1, T-2 and T-3

- Landscaping will be designed per Article 13 of the City of Troy Zoning Ordinance.
- Tree Survey Originally completed May 15, 2019
 - o 1179 trees 6" DBH or greater were identified and tagged (18 on adjacent property)
 - o One (1) tree on the property is in Good condition (Silver Maple)
 - o Remaining trees are noted as Fair, Poor or Very Poor

N. Natural Resources/Features:

The Site topography is gently sloping from the west to the east (elevation 800 to 774). Most of the Site drains to the southeast property corner and outlets into an existing culvert. Several areas of the property were shown to be disturbed with mounding, digging and evidence of earthwork/contour changes. No buildings or roads exist on the Site.

Wetlands – Refer to Appendix: Sheet A-2, C-1

Based upon the wetland delineation in March 2019, four (4) wetlands were found on the property. Two (2) wetlands were determined to be regulated by the Michigan Department of Environment, Energy & Great Lakes (EGLE). Wetland A and Wetland D is regulated by the City of Troy and EGLE and will need use permits for any impacts. Wetland A is dominantly scrub shrub with a dominance of common buckthorn (*Rhamnus cathartica*), riverbank grape (*Vitis riparia*) and silver maple (*Acer saccharinum*). Wetland D is primarily a scrub shrub wetland with a dominance of glossy buckthorn. The parcel did get processed through the State of Michigan's Wetland Assessment in June 2019. As determined by EGLE, a small stream was identified within the southern edge of Wetland A and drains directly into the existing storm end section. The on-site water travels within the storm pipe along Long Lake and discharges into the Sturgis Drain. It was this relationship to Sturgis Drain that EGLE determined the on-site water feature a stream and thus regulating Wetland A and D. Refer to Wetland Map below and review the included wetland report. Therefore, the City of Troy* and EGLE will require a use permit for Wetland A.

Refer to Wetlands Summary Report dated April 2, 2019 and Wetlands Identification Report from EGLE dated July 29, 2019

Woodlands – Refer to Appendix: Sheet A-4, T-1, T-2, T-3

Approximately, eighty-three percent (83%) of the 24-acre parcel is wooded. The woodland is split between upland and wetland. The table below provides a break-down of tree species counts and overall tree health condition. Based upon the 2019 tree survey, one thousand one hundred-eighty (1,180) trees were tagged based upon the City's tree ordinance of 6-inch diameter at breast height. Twenty-five (25) different tree species were identified on the parcel with 98.9% being deciduous and 1.1% being evergreen. A majority of the tagged trees showed signs of stress which lead to a poor to very poor overall health (82.8% trees were considered poor to very poor). Factors that contribute to a poor to very poor health condition include trunk rot, trunk alignment, pests/ disease, excessive vine coverings, lack of crown, major limb damage and limited twig growth. The higher quality trees which consists primarily of hardwoods are shown in the chart with bold text. They represent only approximately 20% of the woodland. Most of these trees were located within an old utility corridor in the western portion of the property. In addition, scrub shrub habitat was dominant on the parcel consisting mostly of common buckthorn (Rhamnus cathartica). Based upon the statistical data, the woodland represents a low-quality woodlot with a dominance of prohibited trees species as listed by the City (box elder, cottonwood, white and green ash, black locust, silver maple, white poplar, etc.). Tree replacements should focus on high-quality hardwood native and/or cultivars of native trees for re-establishment.

Table 1.0 – 2019 Tree Survey Health & Diversity Chart

Tree Type	Total Count	Poor/VP	Percentage of Total
American Beech	1	0	0.08%
American Elm	130	105	11.02%
Austrian Pine	5	5	0.42%
Basswood	60	38	5.08%
Black Locust	425	416	36.02%
Black Walnut	126	75	10.68%
Black Willow	1	1	0.08%
Blue Spruce	6	0	0.51%
Box elder	127	121	10.76%
Cottonwood	30	20	2.54%
Domestic Apple	8	8	0.68%
Green Ash	78	72	6.61%
Norway Maple	12	1	1.02%
Paper Birch	1	1	0.08%
Pear	1	1	0.08%
Red Maple	2	0	0.17%
Scotch Pine	2	2	0.17%
Shagbark Hickory	1	1	0.08%
Silver Maple	96	50	8.14%
Sugar Maple	8	2	0.68%
Thornapple/Hawthorne	25	25	2.12%
White Ash	1	1	0.08%
White Poplar	1	1	0.08%

Wild Black Cherry	23	22	1.95%
Yellow Birch	10	9	0.85%
TOTALS	1180	977 (82.80%)	100.00%
High Quality Tree Species	239	139 (58.16%)	20.25%
Deciduous Trees Evergreen Trees	1.10% 98.90%		

O. Parking Counts:

Refer to Appendix: Sheet TR-1 - Traffic Impact Study and Shared Parking Study, Section 10

P. Project Phasing:

There is no identifiable phasing plan at this juncture of the proposed development. The overall development is assumed to be phased over time, based on end-user opportunities and economic viability. As various areas are developed, a phasing plan will be formulated in a manner where all parking and building requirements are met throughout each phase.

Q. Public Services/Facilities:

Anticipated demand will be dependent upon the type of development and their uses. City of Troy has sufficient infrastructure to sufficiently support a development of this size and variety.

Much of the stormwater generated from the development will be collected and conveyed via an enclosed storm sewer network to an underground stormwater detention system. The underground detention system provides management of the stormwater rate and quality prior to its discharge into the Sturgis Drain.

R. Historical Resources and Structures:

Based upon available online resources and field observations, no known historic architecture, buildings, foundations and/or archeological features exist on the subject property. Historic aerial imagery suggests that the property was used primarily as agricultural property since 1940 to 1980.

From 1980, the site use changed to fallow field and developed into the wetlands and woodlands you see today. In 1963 – 1964, Interstate 75 was constructed, and Crooks Road entrance/ exit ramp was established. The introduction of the highway system energized the immediate surrounding area to develop into commercial and office/ mixed-use zoning.

Around 1999, the northern portion of the property was disturbed due to construction activity for the development of the office and mixed-use buildings and parking areas. In addition, the National Parks Services has only two sites listed on the historic register. The two listings are as follows:

- Brooks Farm: 3521 Big Beaver Road
- Caswell House: 60 West Wattles Road

Both historic sites are over 2.0 miles from the subject property. The proposed development will not adversely affect the listed historic parcels. The following figures show the progression of the subject parcel from 1940 through 1999. In summary, the parcel was heavily farmed for at least forty years with the last forty years being left to naturalized based upon its surroundings. Through

that time period, one house and accessory buildings have been shown to exist for approximately ten years.

Figure 4: 1940 B&W Aerial, Source: Oakland County Property Gateway. Property is utilized

as agricultural.

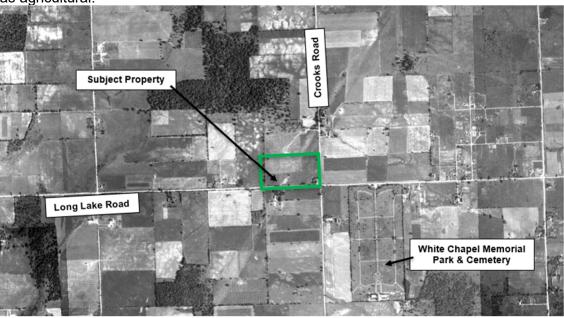


Figure 5: 1963 B&W Aerial, Source: Oakland County Property Gateway. Introduction of Interstate 75, house located in the southeast corner of property; overall property is utilized

as agricultural.



Figure 6: 1963 – Detail of house located at the southeast corner. House appears to be removed by 1974.

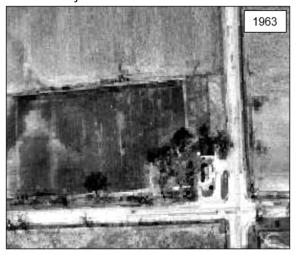




Figure 7: 1974 B&W Aerial, Source: Oakland County Property Gateway. Parcel continues as agricultural use



Figure 8: 1980 B&W Aerial, Source: Oakland County Property Gateway. It appears the parcel is not being farmed.



Figure 9: 1990 B&W Aerial, Source: Oakland County Property Gateway. Significant development surrounding the subject property with office and mix-use. From 1980 to 1990, Corporate Drive is constructed and Long Lake and Crooks Road becomes widen as a boulevard to address future traffic and growth.



Figure 10: 1999 B&W Aerial, Source - Google Earth. Parcel has developed wetlands and woodland area since approximately 1980 due to inactivity on the property (i.e. no farming, maintenance, etc.) Northern portion of the Site receives impacts from the construction activity to the north.



In summary, the Long Lake and Crooks Road 24-acre shares a similar history as most surrounding properties in Troy, Michigan. Once historically farmed, the Site was abandoned from farming and set aside for the future growth and development of the Detroit Metropolitan Area. As shown, this is one of the last large-scale pieces of property within the office and mixed-use zoning in the City of Troy. The resources on the Site are of poor quality due to the lack of land management or planning. As the surrounding properties were developed, this parcel received secondary impacts and disturbance which promotes pioneer plant and tree species to dominant.

S. Site Topography: Refer to Appendix: Sheet C-1

The Site topography is gently sloping from the west to the east (elevation 800 to 774). Most of the Site drains to the southeast property corner and outlets into an existing culvert. Several areas of the property were shown to be disturbed with mounding, digging and evidence of earthwork/contour changes. No buildings or roads were observed on the subject property.

T. Signage: Refer to Appendix: Sheet C-2

Final signage, based on individual area developments, will adhere to all city requirements / regulations as identified in City ordinances. In general, the following signage opportunities are assumed:

- Monument Signs Four (4) monument signs will be provided
 - Main Entrances on Crooks Road, Long Lake Road and Corporate Drive with tenant signage
 - Corner of Long Lake and Crooks with development signage
- Building Signs Signage will be provided for each of the structures within the property

• Directional Signs – Signage will be provided within the property related to parking, fire lanes, one-way traffic, etc.

U. Amenities:

Refer to Appendix: A-7 for locations and opportunities.

- Outdoor plazas to encourage interaction and engagement outside of the workplace.
- Outdoor dining areas opportunities within Retail / Entertainment locations as well as along 'pedestrian boulevard' where daily retail pop-ups can be incorporated.
- Pedestrian circulation paths and activity areas throughout the property for walkability, relaxation and encouragement of a healthy environment.
- Walking paths and activity areas for public and internal use.
- Public artwork

V. Existing Zoning Classification:

O - Office Building District Zoning

Development to support office uses and limited related retail and service uses which support an office environment.

Not supportive of prominent retail or other commercial components

Maximum height – 3 stories/ 36'
Density restrictions
Restaurants – not permitted
Hotel/Lodging – not permitted
Parking Decks – special approval only

W. Specification of Deviations:

The proposed re-zoning will shift from the current Site zoning of 'O' to the desired 'PUD', including variances of development use, maximum height and GSF.

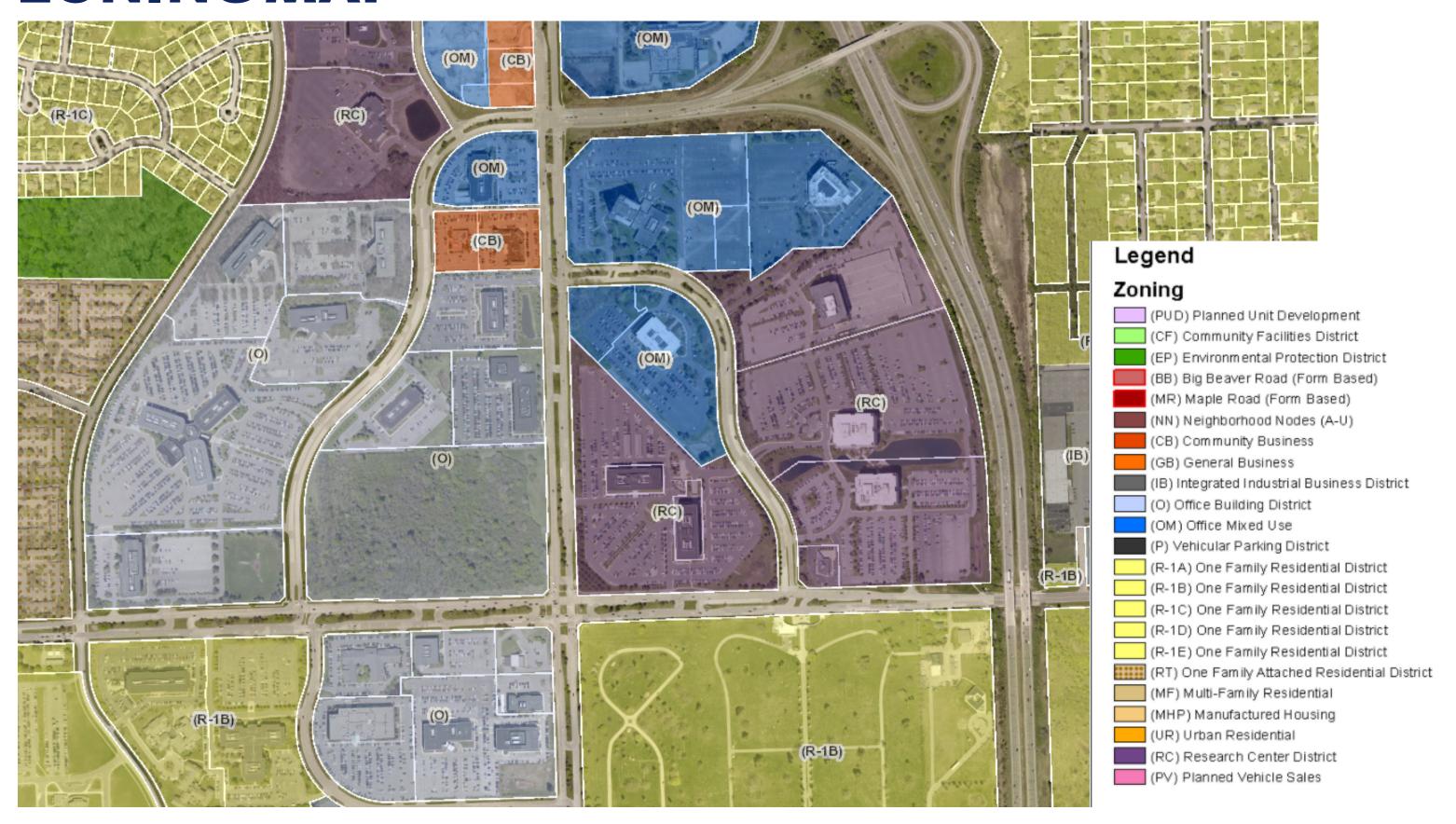
X. Community Impact Statement:

As part of the North Troy Master Plan, the integration of mixed-use developments will help encourage the public to remain in the area outside of the typical 9 to 5 office hours, which in turn will grow and strengthen the local economy and develop a larger presence for the Northfield district. Given the location of the Site, this development is intended to act as a gateway into the district, spearheading North Troy's positioning within the larger city context. It is hoped that the development of this vacant site will encourage further strategic redevelopment of properties within the surrounding area as the next generation of growth.

The development will be pedestrian-friendly and readily accessible, encouraging users to move from building to building in a campus / park-like setting. By enhancing site walkability and creating desirable public and private destinations, this gateway corner will be rejuvenated with new life and vibrancy that the district has currently been void of.

APPENDIX

ZONING MAP





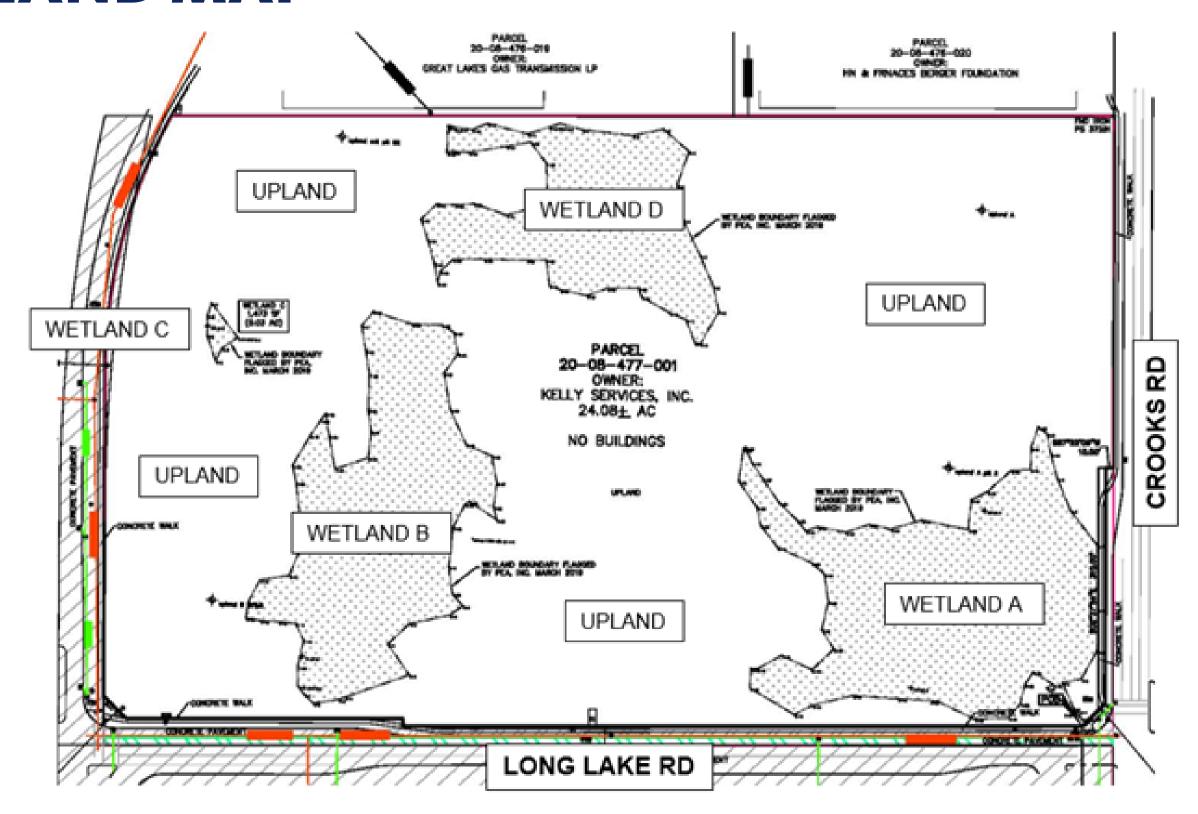
WETLANDS



FIGURE 1: SOURCE - OAKLAND COUNTY PROPERTY GATEWAY



WETLAND MAP



*City of Troy wetlands ordinance only regulates those wetlands regulated by the State of Michigan.



WOODLANDS





CONCEPT DEVELOPMENT PLAN - OVERALL

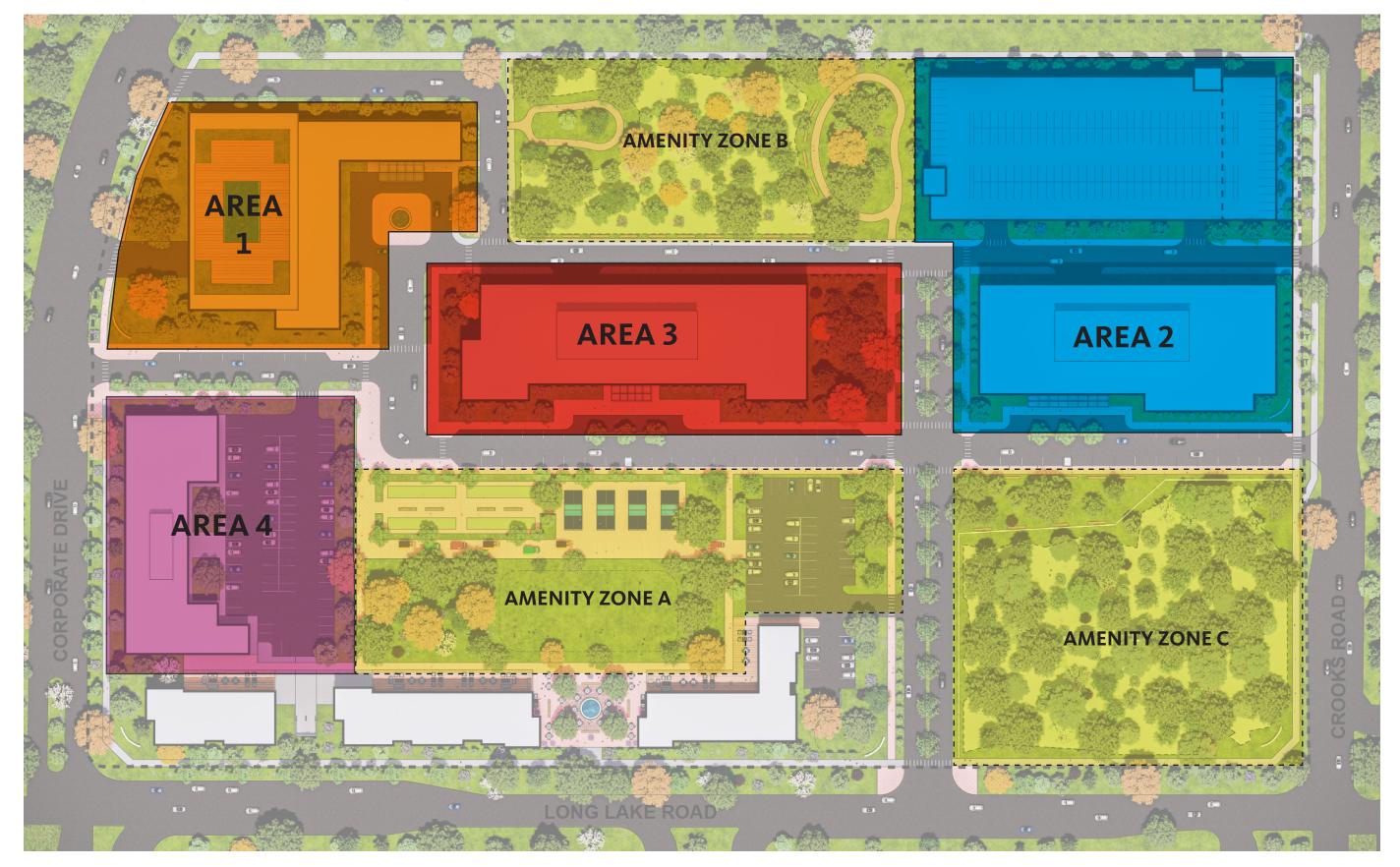




Illustration is a representation of a potential future maximum buildout based on buildout of each Development Area.



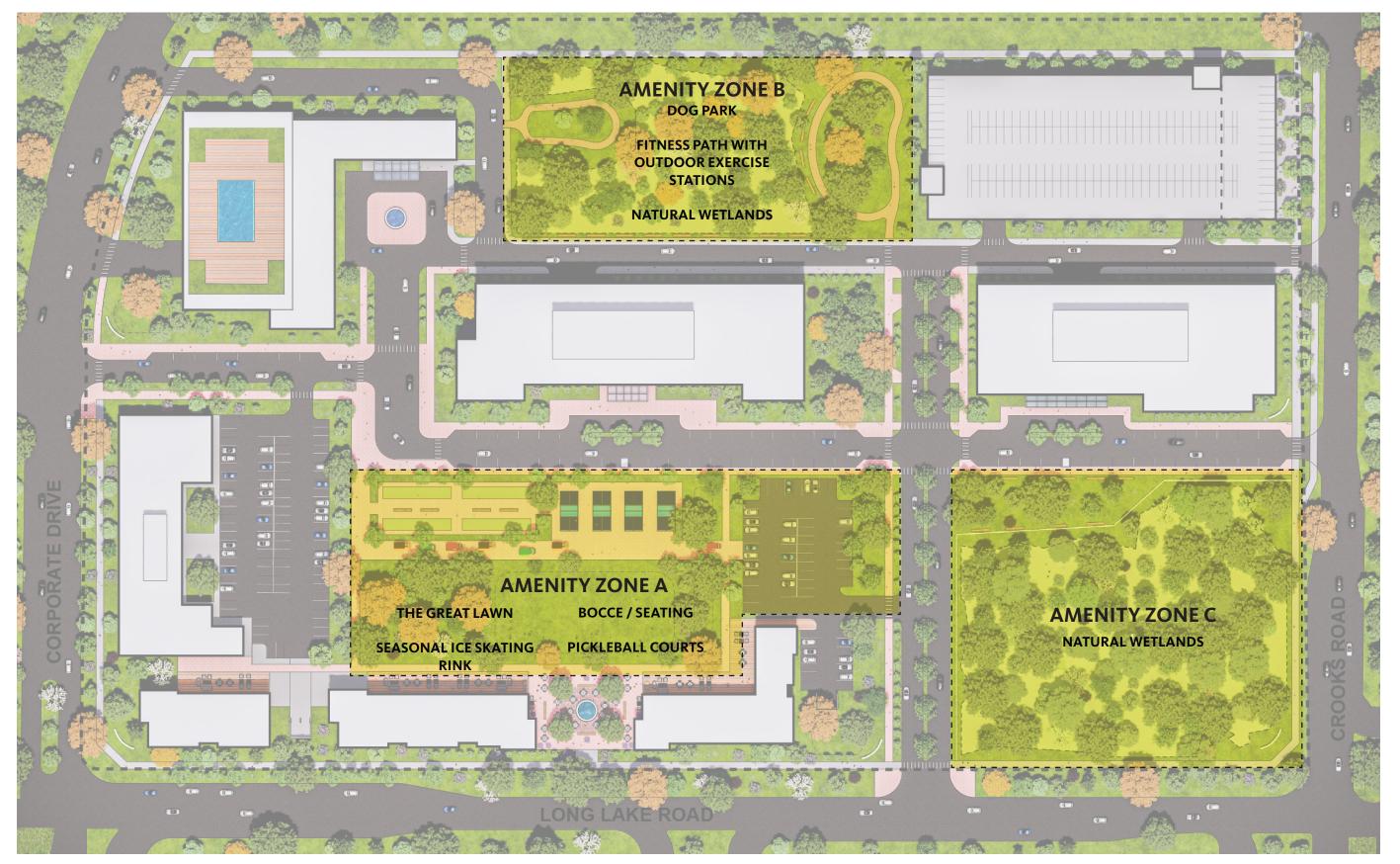
CONCEPT DEVELOPMENT PLAN - DEVELOPMENT AREAS







DEVELOPMENT PLAN - AMENITY ZONES







DEVELOPMENT AREA 1 - RESIDENTIAL

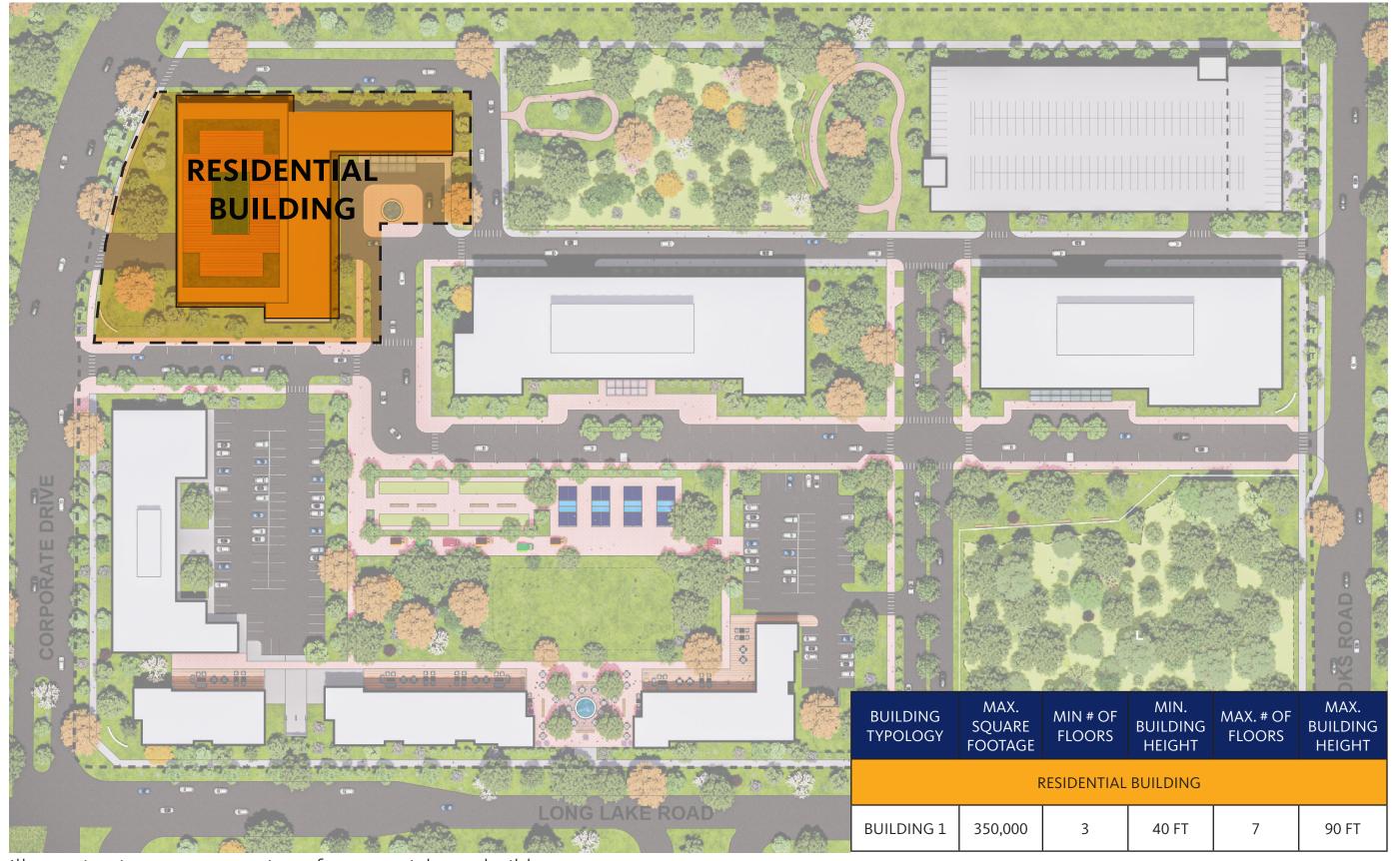




Illustration is a representation of a potential area buildout.



DEVELOPMENT AREA 2 - OFFICE / PROFESSIONAL

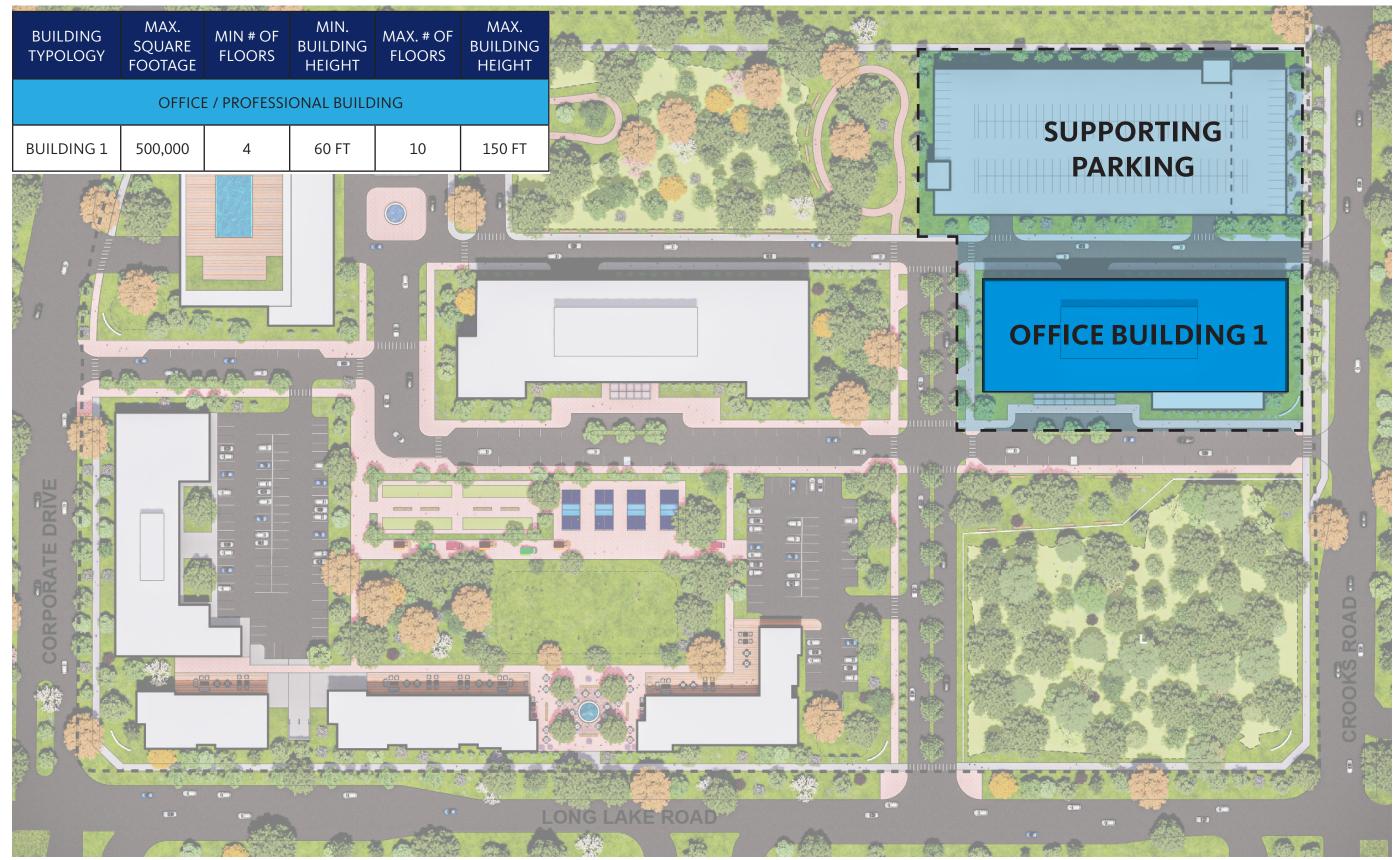




Illustration is a representation of a potential area buildout.



DEVELOPMENT AREA 3 - OFFICE / PROFESSIONAL / RESIDENTIAL

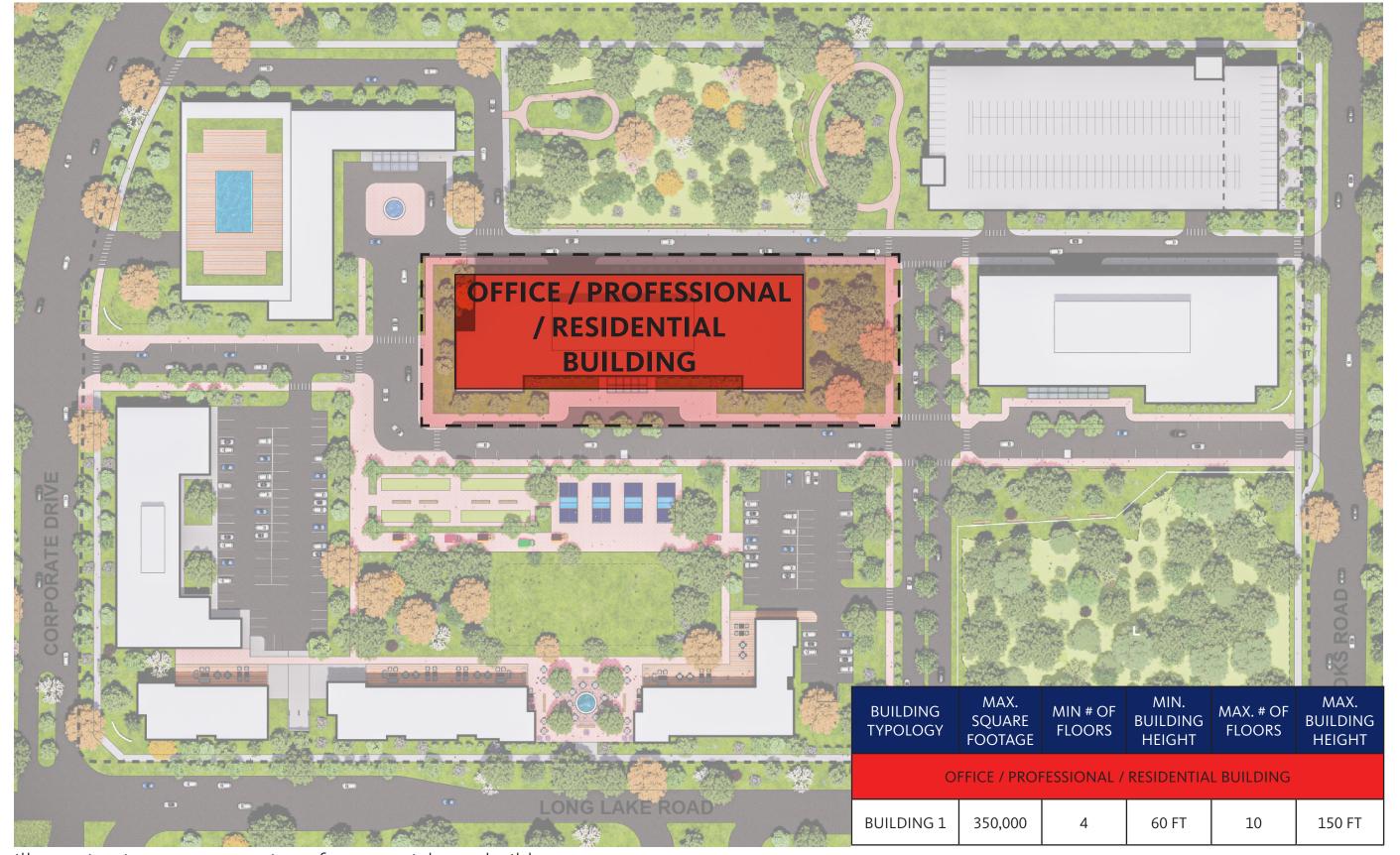




Illustration is a representation of a potential area buildout.



DEVELOPMENT AREA 4 - HOTEL / RESIDENTIAL

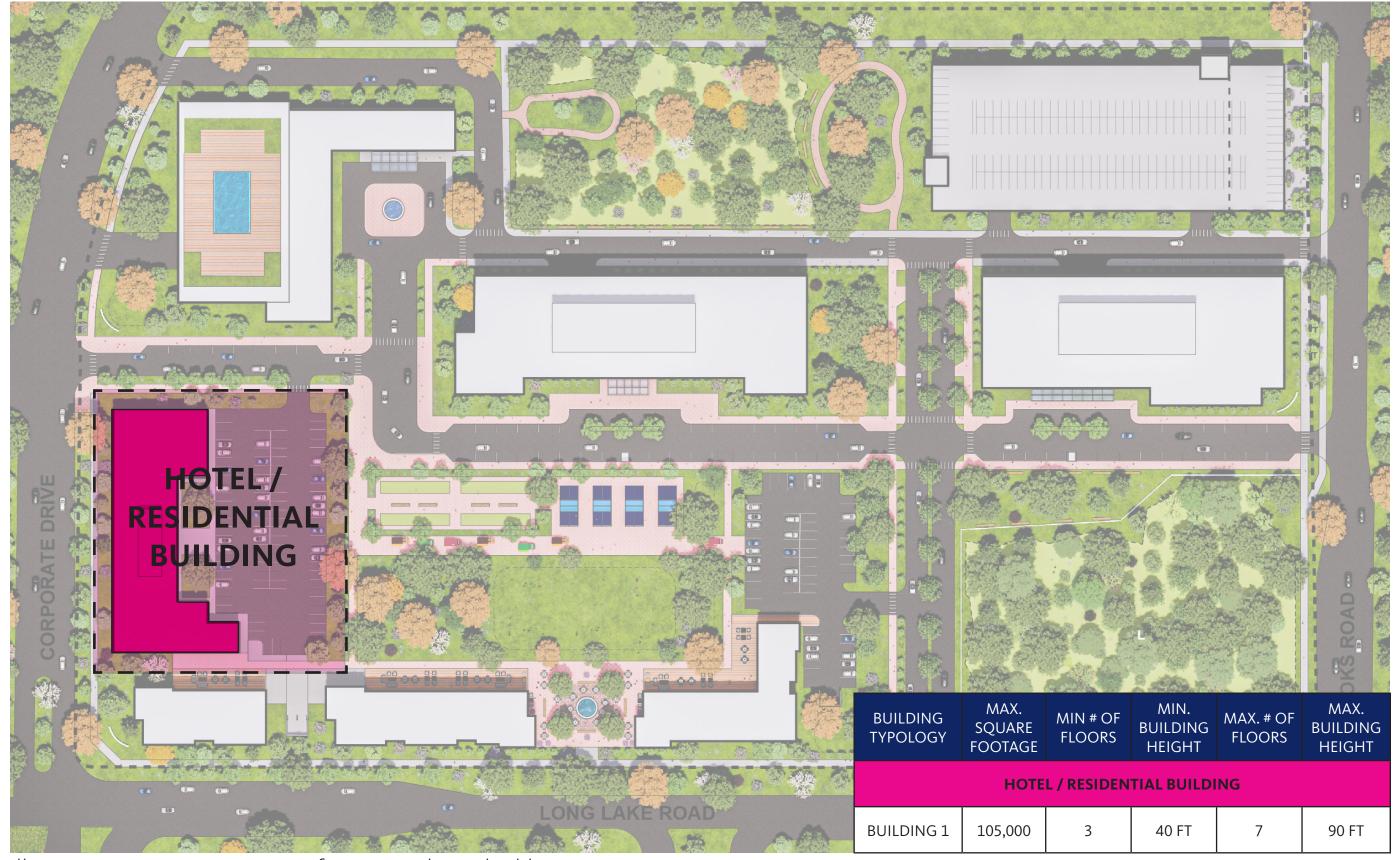
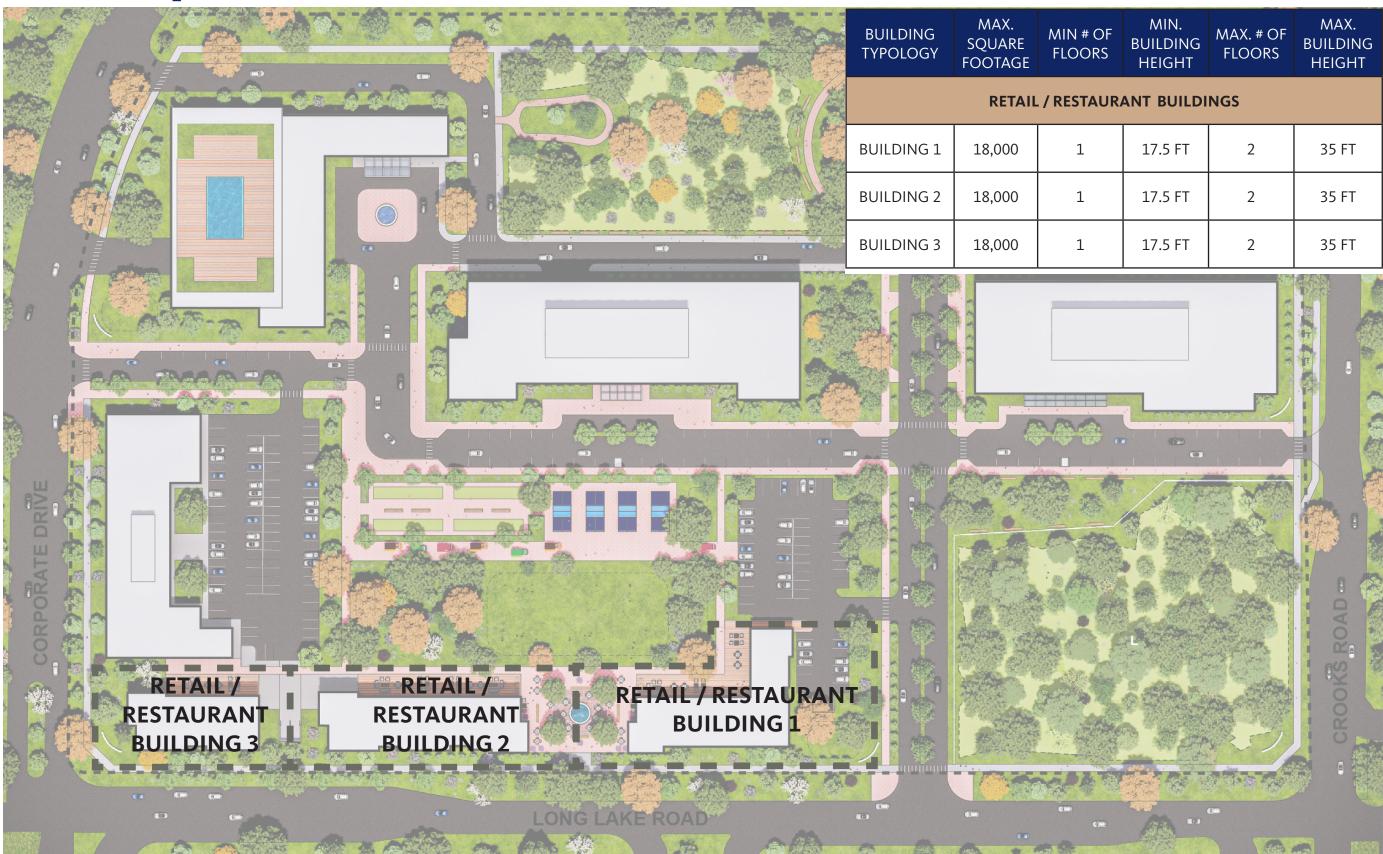




Illustration is a representation of a potential area buildout.

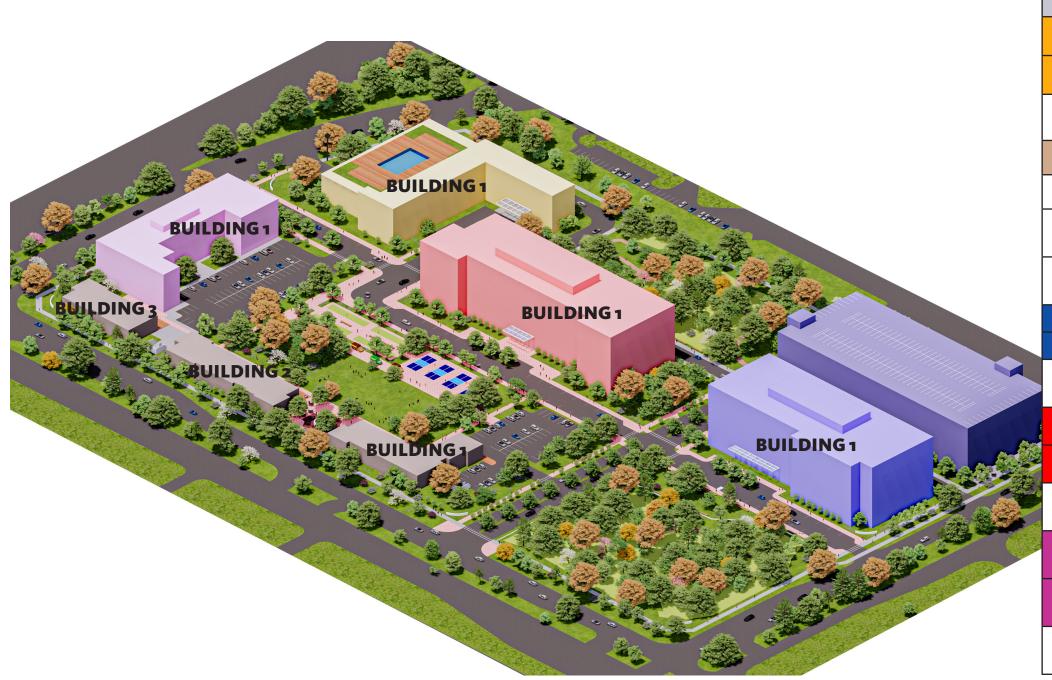


RETAIL / RESTAURANT





CONCEPT DEVELOPMENT PLAN - MASSING



	BUILDING TYPOLOGY	MAX. SQUARE FOOTAGE	MIN. # OF FLOORS	MIN. BUILDING HEIGHT	MAX. # OF FLOORS	MAX. BUILDING HEIGHT					
			DEVELOPME	NT AREA 1							
	RESIDENTIAL										
	BUILDING 1	350,000	3	40 FT	7	90 FT					
	RETAIL / RESTAURANT										
	BUILDING 1	18,000	1	17.5 FT	2	35 FT					
	BUILDING 2	18,000	1	17.5 FT	2	35 FT					
	BUILDING 3	18,000	1	17.5 FT	2	35 FT					
		D	EVELOPME	NT AREA 2							
		0	FFICE / PRO	FESSIONAL							
	BUILDING 1	500,000	4	60 FT	10	150 FT					
A STATE OF THE PARTY OF THE PAR		D	EVELOPME	NT AREA 3							
		OFFICE /	PROFESSION	NAL / RESIDI	ENTIAL						
	BUILDING 1	350,000	4	60 FT	10	150 FT					
		Г	DEVELOPME	NT AREA 4							
		ı	HOTEL / RES	IDENTIAL							
	BUILDING 1	105,000	3	40 FT	7	90 FT					

Illustration is a representation of a potential future maximum buildout based on buildout of each Development Area.





































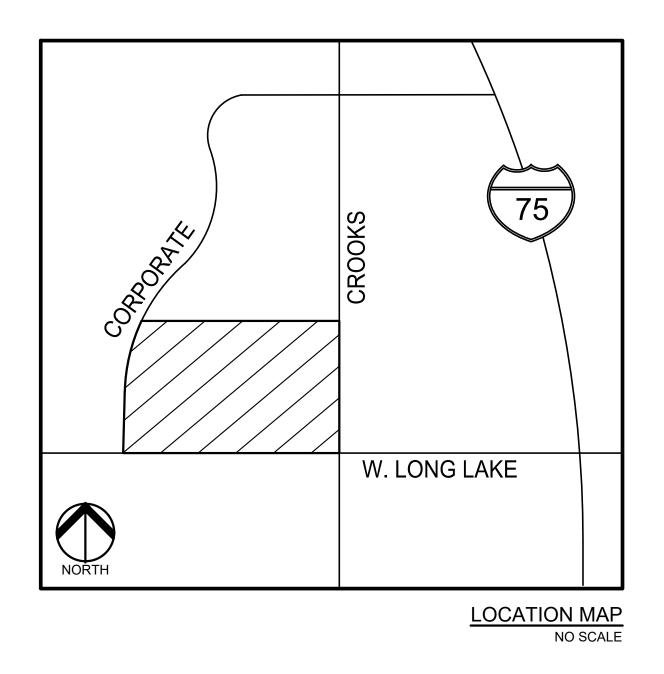




UL OBO

LONG LAKE & CROOKS MASTERPLAN DEVELOPMENT

LONG LAKE AND CROOKS ROAD CITY OF TROY, OAKLAND COUNTY, MICHIGAN



	INDEX OF DRAWINGS
NUMBER	TITLE
	COVER SHEET
C-1.0	TOPOGRAPHIC SURVEY
C-3.0	PRELIMINARY SITE PLAN
C-5.0	PRELIMINARY UTILITY PLAN
L-1.0	PRELIMINARY LANDSCAPE PLAN

DESIGN TEAM

CLIENT

KOJAIAN MANAGEMENT
LONG LAKE CROOKS DEVELOPMENT ASSOCIATES, LLC
39400 WOODWARD AVE, STE. 250
BLOOMFIELD HILLS, MI 48304
CONTACT: TONY ANTONE
PHONE: 248.644.7600
EMAIL: TANTONE@KOJAIAN.COM

ARCHITECT

GENSLER
150 W JEFFERSON, STE. 1700
DETROIT, MI 48226
CONTACT: CHRIS BECK
PHONE: 313.496.8966
EMAIL: CHRIS_BECK@GENSLER.COM

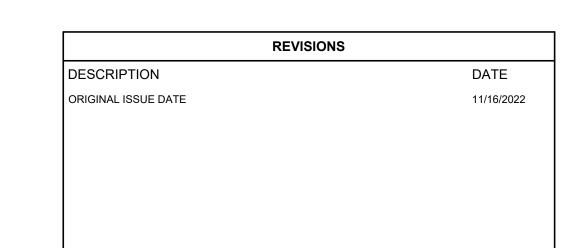
CIVIL ENGINEER

PEA GROUP 1849 POND RUN AUBURN HILLS, MI 48326 CONTACT: GREG BONO, PE PHONE: 844.813.2949 EMAIL: GBONO@PEAGROUP.COM

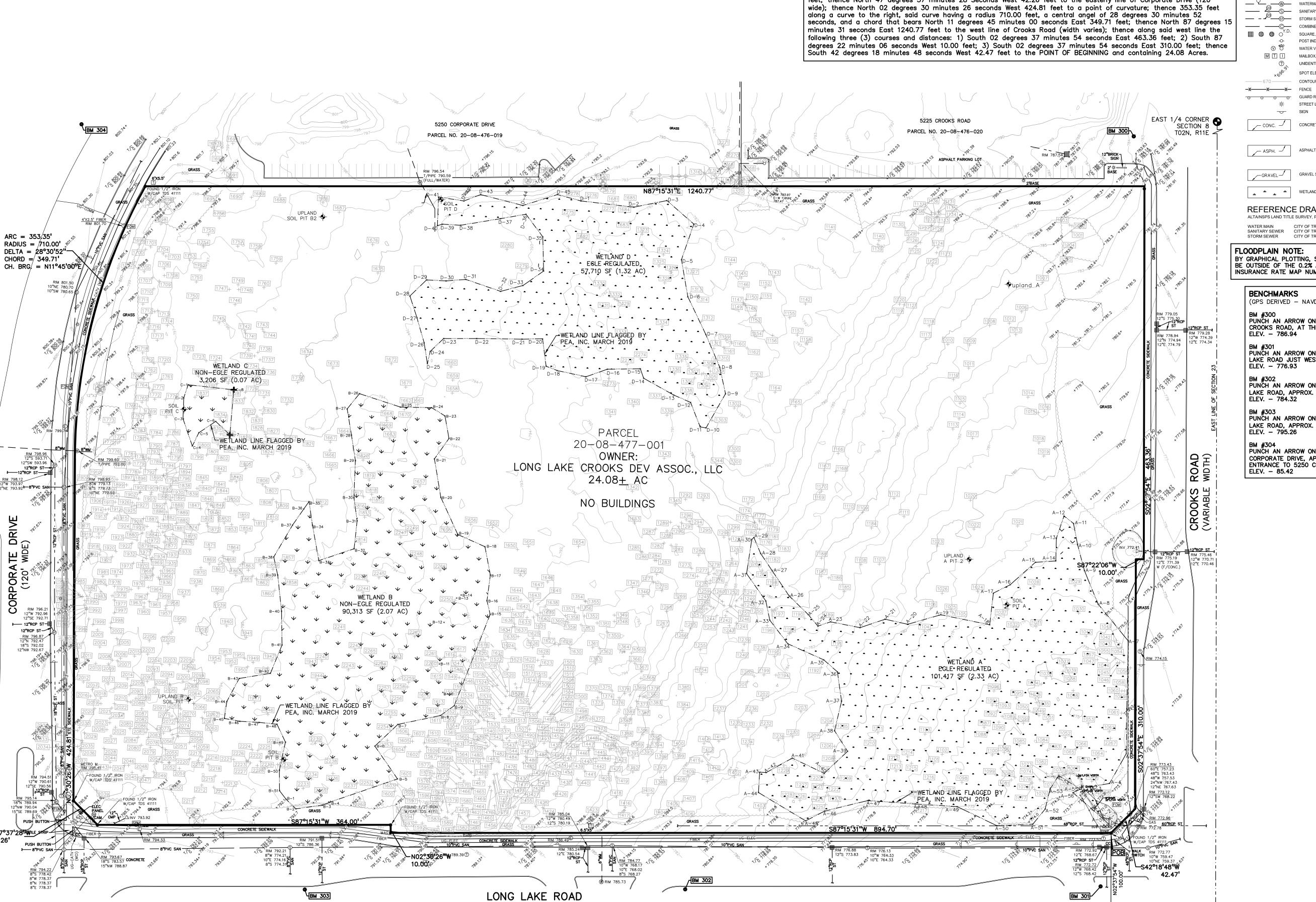
LANDSCAPE ARCHITECT

PEA GROUP
7927 NEMCO WAY, STE. 115
BRIGHTON, MI 48116
CONTACT: JANET EVANS
PHONE: 844.813.2949
EMAIL: JEVANS@PEAGROUP.COM









(VARIABLE WIDTH)

SOUTH 1/4 CORNER SECTION 8

T02N, R11E

LEGAL DESCRIPTION

of Michigan described as follows:

(Per Seaver Title Agency Commitment File No. 63-15403143-SCM, Revision 6, Commitment Date May 06, 2019.)

A parcel of land in a part of the southeast quarter of Section 8, T.O2N., R.11E., City of Troy, County of Oakland, State

Commencing at the Southeast corner of Section 8, T.02N., R.11E., City of Troy, County of Oakland, State of Michigan, thence South 87 degrees 15 minutes 31 seconds West 130.00 feet; thence North 02 degrees 37 minutes 54 seconds

West 100.00 feet to the north line of Long Lake Road (width varies) and the POINT OF BEGINNING; thence along said

féet; thence North 47 degrees 37 minutes 28 Seconds West 42.26 feet to the easterly line of Corporate Drive (120'

north line the following three (3) courses and distances 1) South 87 degrees 15 minutes 31 seconds West 894.70 feet;

2) North 02 degrees 30 minutes 26 seconds West 10.00 feet; 3) South 87 degrees 15 minutes 31 seconds West 364.00

LEGEND

IRON FOUND

MAIL FOUND

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-OH-ELEC-VV-O--- ELEC., PHONE OR CABLE TV O.H. LINE, POLE & GUY WIRE

COMBINED SEWER & MANHOLE

POST INDICATOR VALVE

UNIDENTIFIED STRUCTURE

SPOT ELEVATION CONTOUR LINE

☆ STREET LIGHT

ELECTRIC U.G. CABLE, MANHOLE, METER & HANDHOLE

-UG-CATV-TV- UNDERGROUND CABLE TV, CATV PEDESTAL

-⊠-UG-PHONE-T TELEPHONE U.G. CABLE, PEDESTAL & MANHOLE

R RECORDED M MEASURED

SEC. CORNER FOUND C CALCULATED

GROUP t: 844.813.2949 www.peagroup.com

GAS MAIN, VALVE & GAS LINE MARKER — Ç _____ W— WATERMAIN, HYD., GATE VALVE, TAPPING SLEEVE & VALVE SANITARY SEWER, CLEANOUT & MANHOLE SQUARE, ROUND & BEEHIVE CATCH BASIN, YARD DRAIN WATER VALVE BOX/HYDRANT VALVE BOX, SERVICE SHUTOFF MAILBOX, TRANSFORMER, IRRIGATION CONTROL VALVE

GRAVEL SHOULDER

REFERENCE DRAWINGS

ALTA/NSPS LAND TITLE SURVEY, PEA JOB NO. 2019-096, DATED APRIL 9, 2019, REVISED 5/17/2019

WATER MAIN CITY OF TROY GIS MAP SANITARY SEWER CITY OF TROY GIS MAP CITY OF TROY GIS MAP

FLOODPLAIN NOTE: BY GRAPHICAL PLOTTING, SITE IS WITHIN ZONE 'X', AREA DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN PER FLOOD INSURANCE RATE MAP NUMBER 26125C0531F, DATED SEPTEMBER 29, 2006.

BENCHMARKS (GPS DERIVED - NAVD88)

SOUTHEAST CORNER SECTION 8 TO2N, R11E

BM #300
PUNCH AN ARROW ON A HYDRANT LOCATED ON THE WEST SIDE OF CROOKS ROAD, AT THE SOUTH ENTRANCE TO 5225 CROOKS RD.

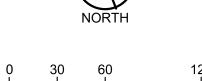
BM #301
PUNCH AN ARROW ON A HYDRANT LOCATED IN AN ISLAND IN W. LONG
LAKE ROAD JUST WEST OF CROOKS ROAD.
ELEV. — 776.93

BM #302 PUNCH AN ARROW ON A HYDRANT LOCATED IN AN ISLAND IN W. LONG LAKE ROAD, APPROX. 650'± WEST OF CROOKS ROAD.

PUNCH AN ARROW ON A HYDRANT LOCATED IN AN ISLAND IN W. LONG LAKE ROAD, APPROX. 350'± EAST OF CORPORATE DRIVE. ELEV. - 795.26

PUNCH AN ARROW ON A HYDRANT LOCATED ON THE WEST SIDE OF CORPORATE DRIVE, APPROX. 290'± SOUTHWEST FROM THE SOUTH ENTRANCE TO 5250 CORPORATE DRIVE.









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 UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION. LOCATION MAP

. LONG LAKE

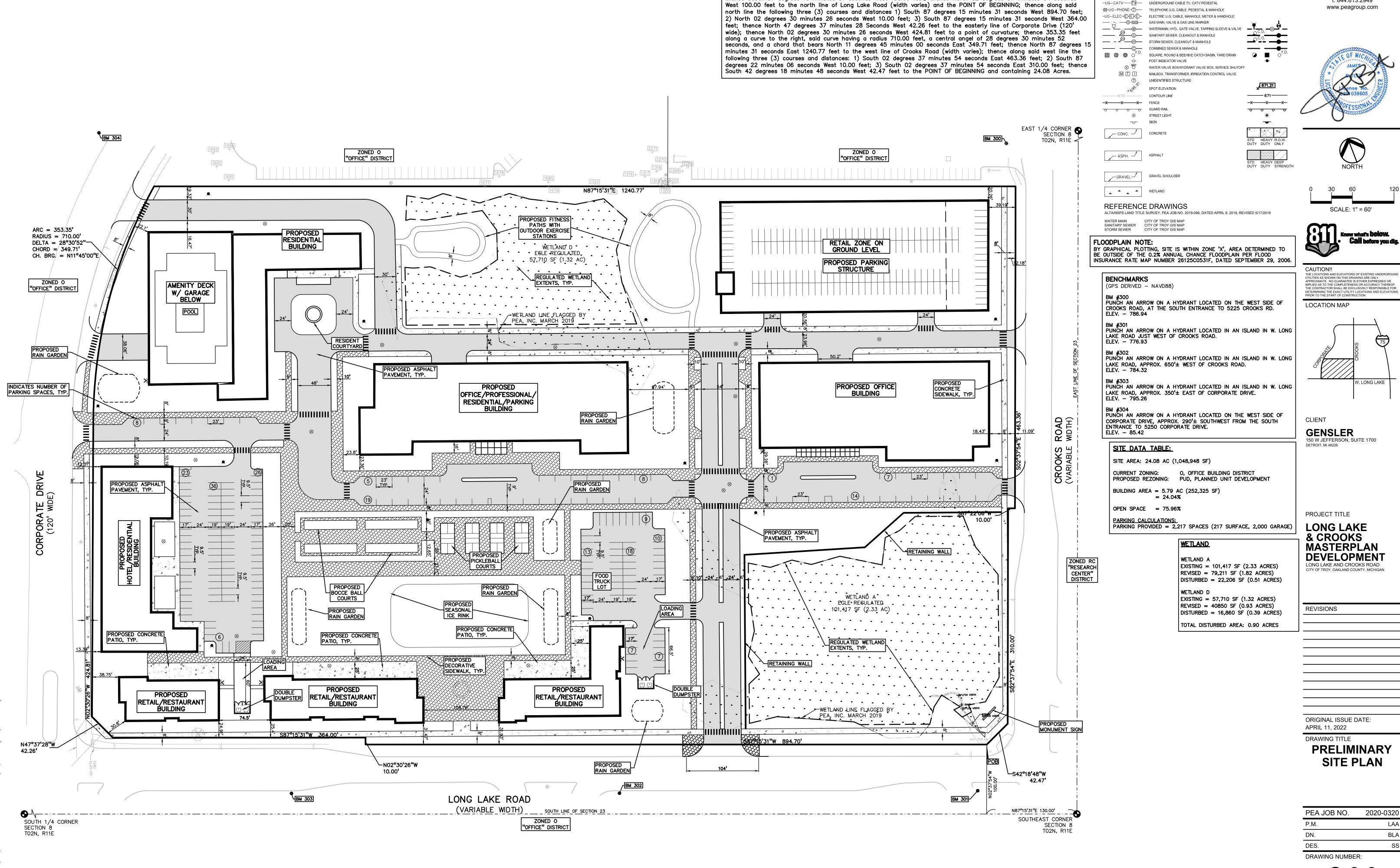
GENSLER
150 W JEFFERSON, SUITE 1700
DETROIT, MI 48226

PROJECT TITLE **LONG LAKE** & CROOKS **MASTERPLAN** DEVELOPMENT
LONG LAKE AND CROOKS ROAD
CITY OF TROY, OAKLAND COUNTY, MICHIGAN

ORIGINAL ISSUE DATE: APRIL 11, 2022

TOPOGRAPHIC SURVEY

2020-0320 PEA JOB NO.



LEGAL DESCRIPTION

of Michigan described as follows:

(Per Seaver Title Agency Commitment File No. 63-15403143-SCM, Revision 6, Commitment Date May 06, 2019.)

A parcel of land in a part of the southeast quarter of Section 8, T.O2N., R.11E., City of Troy, County of Oakland, State

Commencing at the Southeast corner of Section 8, T.02N., R.11E., City of Troy, County of Oakland, State of Michigan, thence South 87 degrees 15 minutes 31 seconds West 130.00 feet; thence North 02 degrees 37 minutes 54 seconds

SEC. CORNER FOUND R RECORDED M MEASURED GROUP C CALCULATED

LEGEND

BRASS PLUG SET

MONUMENT SET

-OH-ELEC-W-O- ELEC., PHONE OR CABLE TV O.H. LINE, POLE & GUY WIRE

MONUMENT FOUND

IRON FOUND

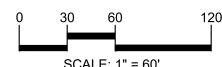
Ø NAIL & CAP SET



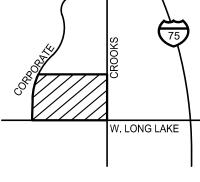
t: 844.813.2949



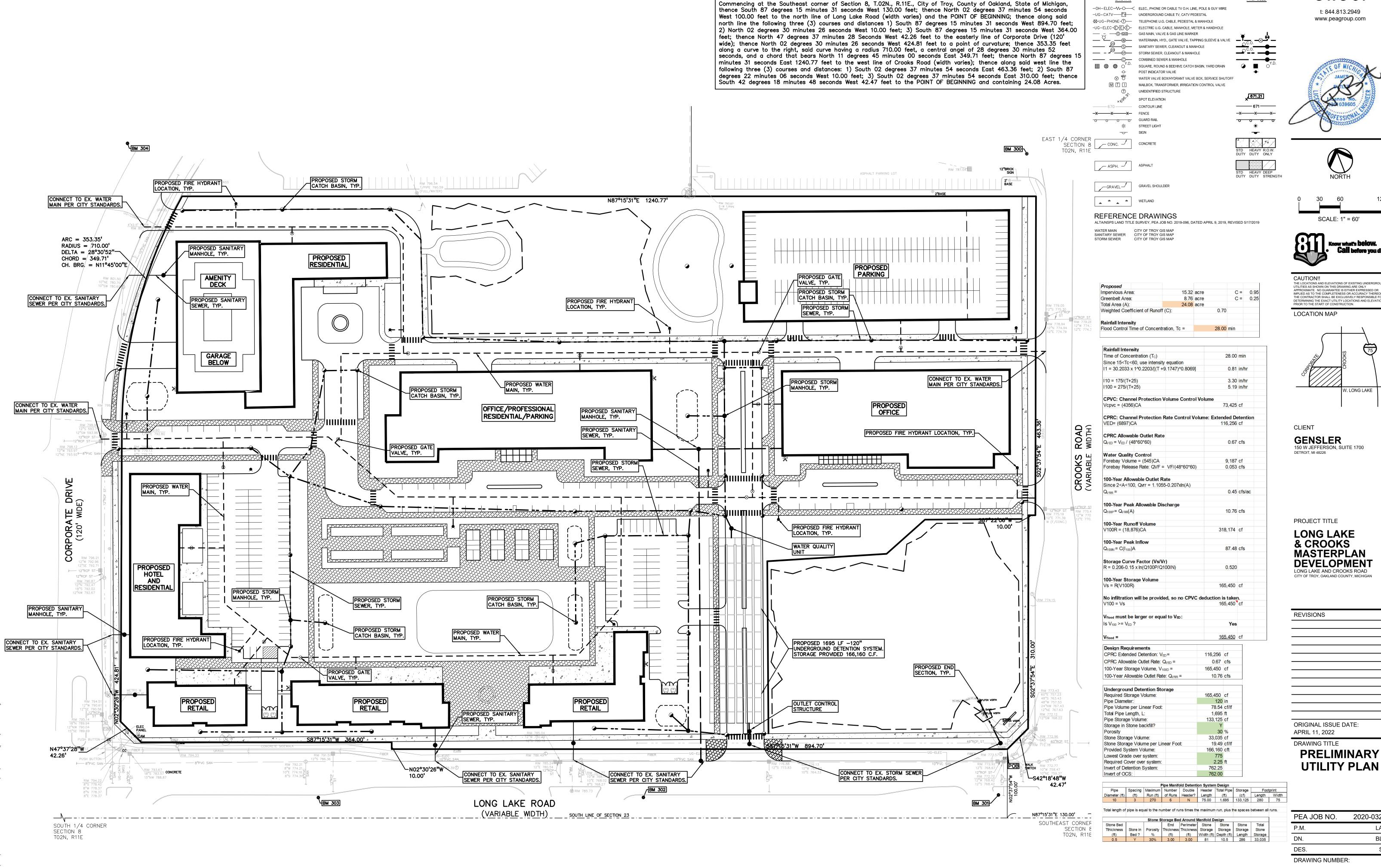








2020-0320 LAA BLA



LEGAL DESCRIPTION

of Michigan described as follows:

(Per Seaver Title Agency Commitment File No. 63-15403143-SCM, Revision 6, Commitment Date May 06, 2019.)

A parcel of land in a part of the southeast quarter of Section 8, T.02N., R.11E., City of Troy, County of Oakland, State

GROUP

LEGEND

SEC. CORNER FOUND

R RECORDED

M MEASURED

C CALCULATED

BRASS PLUG SET

MONUMENT SET

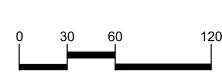
MONUMENT FOUND

IRON FOUND

Ø NAIL & CAP SET

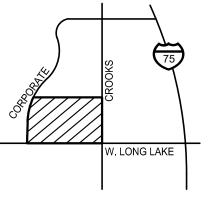






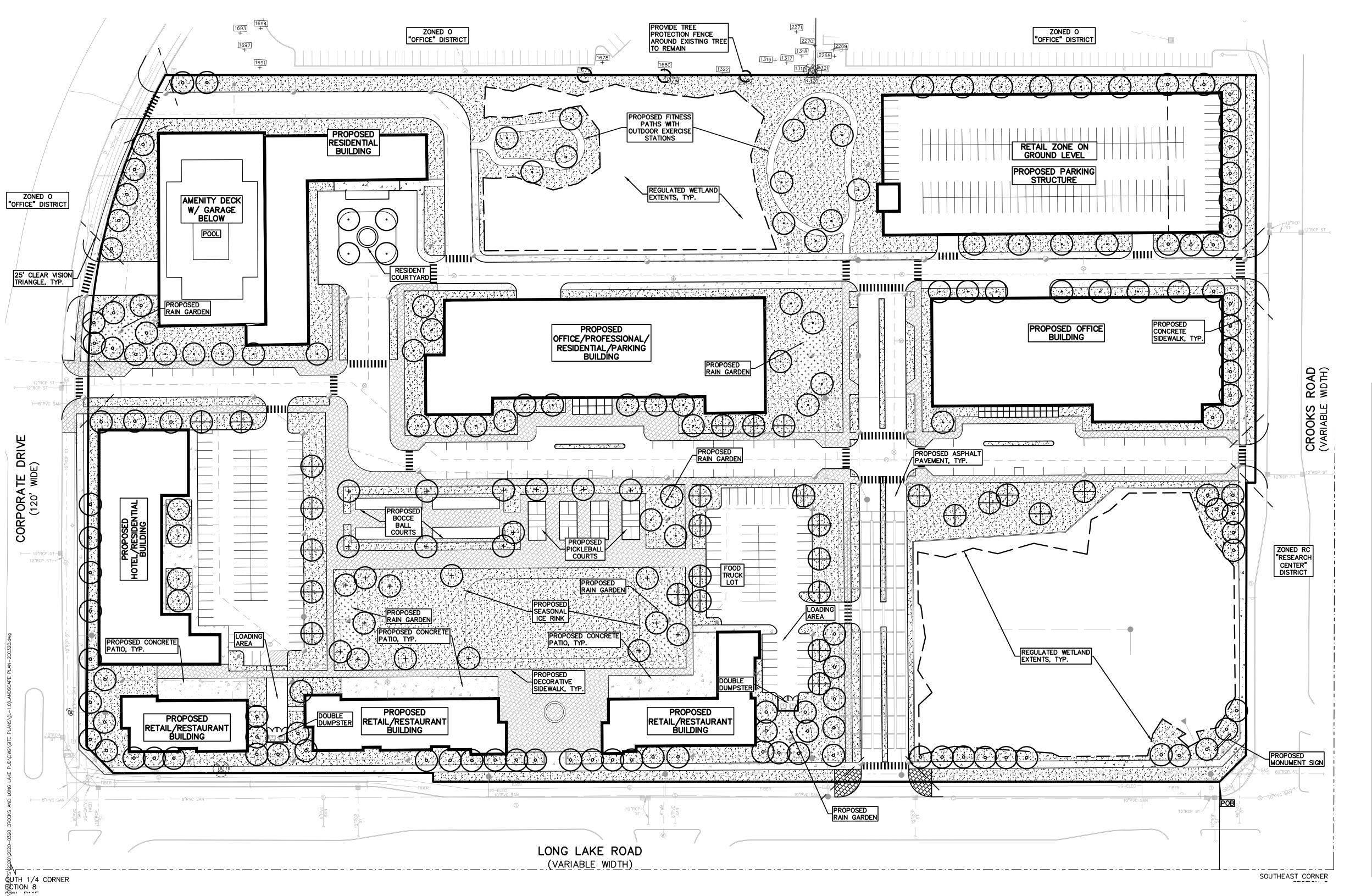


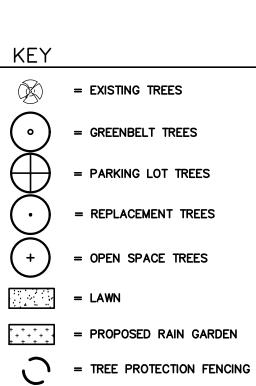
THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS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



REVISIONS			
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uns.		
	PEA JOB NO.	2020-0320
	P.M.	LAA
	DN.	BLA
	DES.	SS
		D.





LANDSCAPE CALCULATIONS:

PER CITY OF TROY ZONING ORDINANCE: PROPOSED PUD GREENBELT (13.02.D)

REQUIRED: MIN. 10 FEET IN WIDTH, ONE DECIDUOUS TREE

PER 30 LINEAL FEET, MIN. CALIPER OF 2.5" CROOKS RD: 773.36 LF/30 = 26 TREESLONG LAKE RD: 1258.7 LF/30 = 42 TREESCORPORATE DR: 774.52 LF/30 = 26 TREES

CROOKS RD: 26 TREES LONG LAKE RD: 42 TREES CORPORATE DR: 26 TREES

PARKING LOT SCREENING (13.02.C.3)

REQUIRED: PARKING LOTS THAT FRONT ON A PUBLIC ROADWAY SHALL BE SCREENED BY A LANDSCAPED BERM AT LEAST THREE (3) FEET IN HEIGHT ALONG THE PERIMETER OF THE ROAD RIGHT-OF-WAY. ALTERNATIVE LANDSCAPE PLANTINGS OR A SOLID WALL THAT DOES NOT EXCEED THREE (3) FEET IN HEIGHT MAY BE APPROVED.

PARKING LOT LANDSCAPE (13.02C.2)

REQUIRED: ONE TREE PER 8 SPACES, MIN. OF 3' FROM BACK OF CURB OR 5' WHERE THERE IS A CAR OVERHANG.

217 SURFACE PARKING SPACES/8 = 27 TREES PROVIDED:

BUFFER ZONE (13.02.B)

REQUIRED: A LANDSCAPE BUFFER SHALL BE CONSTRUCTED TO CREATE A VISUAL SCREEN AT LEAST SIX (6) FEET IN HEIGHT ALONG ALL ADJOINING BOUNDARIES WHEN A PROPOSED USE IS EITHER MORE INTENSE OR INCOMPATIBLE WITH AN ADJOINING PROPERTY, AS SET FORTH IN TABLE

TREE REPLACEMENT: TO BE DETERMINED

WOODLAND: 30 CALIPER INCHES LANDMARK: 131.5 CALIPER INCHES

TOTAL: 161.5 CALIPER INCHES OR (65) 2.5" TREES PROVIDED: 65 REPLACEMENT TREES ESTIMATED

65 REPLACEMENT TREES AND 23 ADDITIONAL OPEN SPACE TREES PROVIDED

GENERAL PLANTING NOTES:

SYMMETRICAL CROWNS.

CROWNS SHALL NOT BE ACCEPTED.

- 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
- 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.
- 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.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON LANDSCAPE PLAN PRIOR TO PRICING THE WORK.
- THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL NOT MEETING SPECIFICATIONS.
- ALL SINGLE STEM SHADE TREES TO HAVE STRAIGHT TRUNKS AND
- . ALL SINGLE TRUNK SHADE TREES TO HAVE A CENTRAL LEADER; TREES WITH FORKED OR IRREGULAR TRUNKS WILL NOT BE ACCEPTED.
- ALL MULTI STEM TREES SHALL BE HEAVILY BRANCHED AND HAVE
- ALL EVERGREEN TREES SHALL BE HEAVILY BRANCHED AND FULL TO THE GROUND, SYMMETRICAL IN SHAPE AND NOT SHEARED FOR THE LAST FIVE
- 10. ALL TREES TO HAVE CLAY OR CLAY LOAM BALLS, TREES WITH SAND BALLS WILL BE REJECTED.

SYMMETRICAL CROWNS. ONE SIDED TREES OR THOSE WITH THIN OR OPEN

- 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. CONTRACTOR SHALL NOT INSTALL PLANTS UNDER BUILDING OVERHANG AND SHALL NOTIFY LANDSCAPE ARCHITECT IF DRAWINGS CONFLICT WITH BUILDING OVERHANGS.

ΛEG GROUP t: 844.813.2949 www.peagroup.com



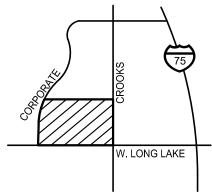






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LOCATION MAP



GENSLER 150 W JEFFERSON, SUITE 1700 DETROIT, MI 48226

PROJECT TITLE

LONG LAKE & CROOKS **MASTERPLAN DEVELOPMENT** LONG LAKE AND CROOKS ROAD

CITY OF TROY, OAKLAND COUNTY, MICHIGAN

REVISIONS	

ORIGINAL ISSUE DATE: APRIL 11, 2022

DRAWING TITLE **PRELIMINARY** LANDSCAPE **PLAN**

2020-0320 PEA JOB NO. AEH JLE DRAWING NUMBER:



t: 844.813.2949		Very Poor	Acer negundo	Box elder	10	BX	1322		Poor	Ulmus americana
www.peagroup.com	x2	Fair	Acer saccharinum	Silver Maple	21	SM	1323		Very Poor	Fraxinus pennsylvanica
		Fair	Acer saccharum	Sugar Maple	6	SU	1324		Very Poor	Fraxinus pennsylvanica
		Poor	Acer negundo	Box elder	6	BX	1325	x1	Fair	Ulmus americana
	x1	Fair	Ulmus americana	American Elm	25	Е	1326	x2	Fair	Acer saccharinum
								The state of the s		

		BX	10	Box elder	Acer negundo	Very Poor	
	1323	SM	21	Silver Maple	Acer saccharinum	Fair	x2
	1324	SU	6	Sugar Maple	Acer saccharum	Fair	
	1325	BX	6	Box elder	Acer negundo	Poor	
	1326	E	25	American Elm	Ulmus americana	Fair	x1
	1327	ВС	12	Wild Black Cherry	Prunus serotina	Very Poor	
_	1328	BX	8	Box elder	Acer negundo	Poor	
_	1329	BX	19	Box elder	Acer negundo	Poor	
_	1330	BX E	9	Box elder	Acer negundo	Poor	
	1331 1332	BX	24	American Elm Box elder	Ulmus americana Acer negundo	Poor Poor	
	1333	BX	19	Box elder	Acer negundo Acer negundo	Poor	
	1334	BX	6	Box elder	Acer negundo	Poor	
	1335	BX	6	Box elder	Acer negundo	Poor	
	1336	BX	9	Box elder	Acer negundo	Poor	
	1337	ВХ	12	Box elder	Acer negundo	Poor	х3
	1338	GA	6	Green Ash	Fraxinus pennsylvanica	Poor	
	1339	ВХ	8	Box elder	Acer negundo	Poor	x2
_	1340	SM	22	Silver Maple	Acer saccharinum	Fair	
_	1341	SM	22	Silver Maple	Acer saccharinum	Fair	
_	1342 1343	BX BX	6 8	Box elder Box elder	Acer negundo Acer negundo	Poor Poor	
	1344	BC	9	Wild Black Cherry	Prunus serotina	Very Poor	x2
_	1345	E	12	American Elm	Ulmus americana	Fair	AZ
	1346	BL	8	Black Locust	Robinia pseudoacacia	Poor	
	1347	BW	18	Black Walnut	Juglans nigra	Fair	
	1348	BL	9	Black Locust	Robinia pseudoacacia	Poor	
	1349	BL	12	Black Locust	Robinia pseudoacacia	Poor	
	1350	ВХ	9	Box elder	Acer negundo	Poor	
	1351	BX	15	Box elder	Acer negundo	Poor	
-	1352	BL	15	Black Locust	Robinia pseudoacacia	Poor	
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-	1354	BL	12	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor	
}	1356	BL	12	Black Locust	Robinia pseudoacacia	Poor	
	1357	BX	13	Box elder	Acer negundo	Poor	
	1358	BL	13	Black Locust	Robinia pseudoacacia	Poor	
	1359	BL	8	Black Locust	Robinia pseudoacacia	Poor	
	1360	BL	7	Black Locust	Robinia pseudoacacia	Very Poor	
	1361	ВХ	35	Box elder	Acer negundo	Poor	
	1362	BX	16	Box elder	Acer negundo	Poor	
_	1363	BX	28	Box elder	Acer negundo	Poor	
_	1364	E B\M	15 9	American Elm	Ulmus americana	Poor	
-	1365 1366	BW E	19	Black Walnut American Elm	Juglans nigra Ulmus americana	Poor Poor	
	1367	BX	16	Box elder	Acer negundo	Fair	
	1368	BW	16	Black Walnut	Juglans nigra	Poor	
	1369	ВС	21	Wild Black Cherry	Prunus serotina	Poor	
	1370	ВХ	10	Box elder	Acer negundo	Poor	
	1371	BL	10	Black Locust	Robinia pseudoacacia	Poor	
	1372	BL	14	Black Locust	Robinia pseudoacacia	Poor	
_	1373	BX	35	Box elder	Acer negundo	Poor	
	1374 1375	BX BC	13 17	Box elder Wild Black Cherry	Acer negundo Prunus serotina	Poor Poor	
	1376	BX	12	Box elder	Acer negundo	Poor	
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	1377	BX	15	l Box elder	1 Acci ilcualido		
-	1377 1378	BX BX	15 6	Box elder Box elder	Acer negundo	Poor	
					-		
-	1378	ВХ	6	Box elder	Acer negundo	Poor	
	1378 1379	BX BX BW E	6 8	Box elder Box elder Black Walnut American Elm	Acer negundo Acer negundo	Poor Poor	
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1323				Acer negunao	Very Poor	
	SM	21	Silver Maple	Acer saccharinum	Fair	x2
1324	SU	6	Sugar Maple	Acer saccharum	Fair	
1325	BX	6	Box elder	Acer negundo	Poor	
1326	E	25	American Elm	Ulmus americana	Fair	x1
1327	вс	12	Wild Black Cherry	Prunus serotina	Very Poor	
1328	BX	8	Box elder	Acer negundo	Poor	
1329	вх	19	Box elder	Acer negundo	Poor	
1330	BX	9	Box elder	Acer negundo	Poor	
1331	E	18	American Elm	Ulmus americana	Poor	
1332	BX	24	Box elder	Acer negundo	Poor	
1333	BX	19	Box elder	Acer negundo	Poor	
1334	BX	6	Box elder	Acer negundo	Poor	
1335	BX	6	Box elder	Acer negundo	Poor	
1336	BX	9	Box elder	Acer negundo	Poor	
1337	BX	12	Box elder	Acer negundo	Poor	x3
1338	GA	6	Green Ash	Fraxinus pennsylvanica	Poor	Λ0
1339	BX	8	Box elder	Acer negundo	Poor	x2
1340	SM	22		Acer negundo Acer saccharinum	Fair	X2
		22	Silver Maple			
1341	SM		Silver Maple	Acer saccharinum	Fair	
1342	BX	6	Box elder	Acer negundo	Poor	
1343	BX	8	Box elder	Acer negundo	Poor	_
1344	BC	9	Wild Black Cherry	Prunus serotina	Very Poor	x2
1345	E	12	American Elm	Ulmus americana	Fair	
1346	BL	8	Black Locust	Robinia pseudoacacia	Poor	
1347	BW	18	Black Walnut	Juglans nigra	Fair	
1348	BL	9	Black Locust	Robinia pseudoacacia	Poor	
1349	BL	12	Black Locust	Robinia pseudoacacia	Poor	
1350	BX	9	Box elder	Acer negundo	Poor	
1351	BX	15	Box elder	Acer negundo	Poor	
1352	BL	15	Black Locust	Robinia pseudoacacia	Poor	
1353	BL	17	Black Locust	Robinia pseudoacacia	Poor	
1354	BL	9	Black Locust	Robinia pseudoacacia	Very Poor	
1355	BL	12	Black Locust	· · · · · · · · · · · · · · · · · · ·	Poor	
1355	BL BL	12 12		Robinia pseudoacacia	Poor	
-			Black Locust	Robinia pseudoacacia		
1357	BX	13	Box elder	Acer negundo	Poor	
1358	BL	13	Black Locust	Robinia pseudoacacia	Poor	
1359	BL	8	Black Locust	Robinia pseudoacacia	Poor	
1360	BL	7	Black Locust	Robinia pseudoacacia	Very Poor	
1361	BX	35	Box elder	Acer negundo	Poor	
1362	вх	16	Box elder	Acer negundo	Poor	
1363	BX	28	Box elder	Acer negundo	Poor	
1364	E	15	American Elm	Ulmus americana	Poor	
1365	BW	9	Black Walnut	Juglans nigra	Poor	
1366	E	19	American Elm	Ulmus americana	Poor	
1367	BX	16	Box elder	Acer negundo	Fair	
1368	BW	16	Black Walnut	Juglans nigra	Poor	
1369	BC	21	Wild Black Cherry	Prunus serotina	Poor	
1370	BX	10	Box elder		Poor	
				Acer negundo		
1371	BL	10	Black Locust	Robinia pseudoacacia	Poor	
1372	BL	14	Black Locust	Robinia pseudoacacia	Poor	
1373	BX	35	Box elder	Acer negundo	Poor	
1374	BX	13	Box elder	Acer negundo	Poor	
1375	ВС	17	Wild Black Cherry	Prunus serotina	Poor	
1376	BX	12	Box elder	Acer negundo	Poor	
1377	BX	15	Box elder	Acer negundo	Fair	
1378	BX	6	Box elder	Acer negundo	Poor	
1379	BX	8	Box elder	Acer negundo	Poor	
1380	BW	16	Black Walnut	Juglans nigra	Poor	
1381	Е	8	American Elm	Ulmus americana	Poor	
1382	BX	6	Box elder	Acer negundo	Poor	
1383	BW	21	Black Walnut	Juglans nigra	Fair	
1384	GA	8	Green Ash	Fraxinus pennsylvanica	Poor	
1385	BX	15	Box elder	Acer negundo	Poor	
1386	BX	23	Box elder	Acer negundo	Poor	
1387	E		American Elm	Ulmus americana	Poor	
	_ ,	31			1 (7.7.	
-	RY	31 26		Acer negundo		
1388	BX BI	26	Box elder	Acer negundo Robinia pseudoacacia	Poor	
1388 1389	BL	26 6	Box elder Black Locust	Robinia pseudoacacia	Poor Poor	
1388 1389 1390	BL BL	26 6 6	Box elder Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor Very Poor	
1388 1389 1390 1391	BL BL BL	26 6 6 7	Box elder Black Locust Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia	Poor Poor Very Poor Very Poor	
1388 1389 1390 1391 1392	BL BL BL BL	26 6 6 7 14	Box elder Black Locust Black Locust Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia	Poor Poor Very Poor Very Poor Poor	
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1388 1389 1390 1391 1392 1393 1394 1394 1395 1396	BL BL BL BL BL BL GA	26 6 6 7 14 8 8 14	Box elder Black Locust Green Ash	Robinia pseudoacacia Fraxinus pennsylvanica	Poor Poor Very Poor Very Poor Poor Poor Poor Very Poor Very Poor	
1388 1389 1390 1391 1392 1393 1394 1395 1396 1397	BL	26 6 6 7 14 8 8 14 8	Box elder Black Locust Green Ash Black Walnut	Robinia pseudoacacia Fraxinus pennsylvanica Juglans nigra	Poor Poor Very Poor Poor Poor Poor Poor Poor Poor Poor	
1388 1389 1390 1391 1392 1393 1394 1395 1396 1397 1398	BL	26 6 6 7 14 8 8 14 8 8	Box elder Black Locust Black Walnut Box elder	Robinia pseudoacacia Fraxinus pennsylvanica Juglans nigra Acer negundo	Poor Poor Very Poor Poor Poor Poor Poor Poor Poor Poor	
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1388 1389 1390 1391 1392 1393 1394 1395 1396 1397 1398 1399 1400 1401 1402 1403 1404 1405 1406 1407 1408 1409 1410 1411 1412 1413 1414 1415 1416 1417 1418 1419 1420 1421 1422 1423 1424	BL BL BL BL BL BL BL BL BC BW BX BW BX BW BC BW BC BW BC BW BW BC BW BW BC BW	26 6 6 7 14 8 8 8 13 7 10 14 8 6 8 17 12 8 10 7 7 7 6 9 9 15 15 15 15 24 6 7 6 23 22 6	Box elder Black Locust Black Walnut American Elm Black Walnut American Elm Black Walnut Black Locust	Robinia pseudoacacia Fraxinus pennsylvanica Juglans nigra Acer negundo Juglans nigra Robinia pseudoacacia Acer negundo Fraxinus pennsylvanica Ulmus americana Juglans nigra Ulmus americana Juglans nigra Juglans nigra Ulmus americana Fraxinus pennsylvanica Ulmus americana Fraxinus pennsylvanica Ulmus americana Fraxinus pennsylvanica Ulmus americana Fraxinus pennsylvanica Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Pyrus communis Ulmus americana Robinia pseudoacacia Pyrus communis Ulmus americana Ulmus americana Ulmus americana Ulmus americana Ulmus americana	Poor Poor Very Poor Poor Poor Poor Poor Poor Poor Poor	

Black Walnut

 1427
 BW
 7

 1428
 BW
 14

 1429
 E
 9

Ulmus americana

Juglans nigra

Poor Fair Fair

GROUP	
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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 UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

LOCATION MAP

CLIENT

GENSLER
150 W JEFFERSON, SUITE 1700
DETROIT, MI 48226

PROJECT TITLE

LONG LAKE & CROOKS MASTERPLAN DEVELOPMENT LONG LAKE AND CROOKS ROAD CITY OF TROY, OAKLAND COUNTY, MICHIGAN

REVISIONS

ORIGINAL ISSUE DATE: OCTOBER 20, 2020

TREE LIST SHEET 1

PEA JOB NO.	2020-0320
P.M.	LAA
DN.	KRD
DES.	GMB
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NO.	CODE	DBH	COMMON NAME	LATIN NAME	COND	COMMENTS
001 002	BL BL	6	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
003	BL	7	Black Locust	Robinia pseudoacacia	Very Poor	
004	CT BL	28 16	Cottonwood Black Locust	Populus deltoides Robinia pseudoacacia	Fair Very Poor	dead
006	BL	16	Black Locust	Robinia pseudoacacia	Poor	x2
007	BL SM	15 20	Black Locust Silver Maple	Robinia pseudoacacia Acer saccharinum	Poor Very Poor	x1
009	SM	17	Silver Maple	Acer saccharinum	Poor	
)10	CT BX	37 8	Cottonwood Box elder	Populus deltoides Acer negundo	Fair Poor	
)12	BX	21	Box elder	Acer negundo	Poor	
)13	BX CT	6 17	Box elder Cottonwood	Acer negundo Populus deltoides	Poor Fair	
015	CT	18	Cottonwood	Populus deltoides Populus deltoides	Poor	x1
)16	BX	6	Box elder	Acer negundo	Poor	
)17	BX SM	36 15	Box elder Silver Maple	Acer negundo Acer saccharinum	Poor Poor	
)19	вх	17	Box elder	Acer negundo	Poor	
020	BX SM	10 38	Box elder Silver Maple	Acer negundo Acer saccharinum	Poor Poor	
)22	SM	23	Silver Maple	Acer saccharinum	Fair	
)23	GA BX	9	Green Ash Box elder	Fraxinus pennsylvanica Acer negundo	Poor Poor	
)25	SM	27	Silver Maple	Acer saccharinum	Fair	
)26	SM	29	Silver Maple	Acer saccharinum	Fair	
)27	SM BX	9 8	Silver Maple Box elder	Acer saccharinum Acer negundo	Poor Poor	
)29	вх	17	Box elder	Acer negundo	Very Poor	
)30	E SM	8 24	American Elm Silver Maple	Ulmus americana Acer saccharinum	Poor Poor	x1
32	GA	12	Green Ash	Fraxinus pennsylvanica	Poor	<u></u>
)33	SM GA	21 7	Silver Maple Green Ash	Acer saccharinum Fraxinus pennsylvanica	Fair Poor	
)35	GA E	6	American Elm	Fraxinus pennsylvanica Ulmus americana	Poor	x1
)36	SM	34	Silver Maple	Acer saccharinum	Fair	
)37	SM E	14 12	Silver Maple American Elm	Acer saccharinum Ulmus americana	Poor Poor	
)39	E	8	American Elm	Ulmus americana	Poor	
)40)41	BX CT	9 33	Box elder Cottonwood	Acer negundo Populus deltoides	Very Poor Poor	
)42	CT	18	Cottonwood	Populus deltoides	Poor	
)43	CT CT	28 23	Cottonwood Cottonwood	Populus deltoides Populus deltoides	Poor Poor	
)45	E	13	American Elm	Ulmus americana	Poor	
)46	СТ	17	Cottonwood	Populus deltoides	Poor	
)47)48	E E	7 8	American Elm American Elm	Ulmus americana Ulmus americana	Poor Fair	
)49	E	8	American Elm	Ulmus americana	Poor	
)50)51	SM SM	13 17	Silver Maple Silver Maple	Acer saccharinum Acer saccharinum	Fair Poor	
)52	E	8	American Elm	Ulmus americana	Fair	
)53)54	E CT	14 15	American Elm Cottonwood	Ulmus americana Populus deltoides	Poor Poor	
)55	CT	13	Cottonwood	Populus deltoides	Poor	
)56	SM	9	Silver Maple	Acer saccharinum	Poor	
)57)58	CT E	31 12	Cottonwood American Elm	Populus deltoides Ulmus americana	Poor Poor	
)59	СТ	29	Cottonwood	Populus deltoides	Poor	
)60)61	E CT	9 27	American Elm Cottonwood	Ulmus americana Populus deltoides	Very Poor Fair	
062	SM	9	Silver Maple	Acer saccharinum	Very Poor	
)63)64	SM E	8 6	Silver Maple American Elm	Acer saccharinum Ulmus americana	Poor Poor	
)65	SM	13	Silver Maple	Acer saccharinum	Poor	
)66)67	E SM	6	American Elm Silver Maple	Ulmus americana Acer saccharinum	Poor Poor	x1
068	SM	17	Silver Maple	Acer saccharinum Acer saccharinum	Poor	X I
069	BWW	25	Black Willow	Salix nigra	Very Poor	
)70)71	CT CT	7 8	Cottonwood Cottonwood	Populus deltoides Populus deltoides	Poor Fair	
72	СТ	12	Cottonwood	Populus deltoides	Poor	x1
073	CT CT	6 10	Cottonwood Cottonwood	Populus deltoides Populus deltoides	Fair Poor	
75	СТ	14	Cottonwood	Populus deltoides	Poor	
)76)77	CT CT	16 10	Cottonwood Cottonwood	Populus deltoides Populus deltoides	Fair Fair	
778	E	10	American Elm	Ulmus americana	Fair	
79	GA	6	Green Ash	Fraxinus pennsylvanica	Poor	
)80)81	E SM	7 16	American Elm Silver Maple	Ulmus americana Acer saccharinum	Fair Fair	
)82	SM	27	Silver Maple	Acer saccharinum	Poor	
)83)84	SM SM	14 8	Silver Maple Silver Maple	Acer saccharinum Acer saccharinum	Poor Poor	
085	SM	13	Silver Maple	Acer saccharinum	Fair	
)86)87	GA E	6 10	Green Ash American Elm	Fraxinus pennsylvanica Ulmus americana	Poor Poor	
)88	SM	15	Silver Maple	Acer saccharinum	Fair	
)89	SM	19 18	Silver Maple	Acer saccharinum	Poor	
)90)91	SM E	18 6	Silver Maple American Elm	Acer saccharinum Ulmus americana	Fair Poor	
92	SM	20	Silver Maple	Acer saccharinum	Fair	
)93)94	SM E	17 12	Silver Maple American Elm	Acer saccharinum Ulmus americana	Poor Poor	
)95	SM	13	Silver Maple	Acer saccharinum	Poor	
)96	SM	7	Silver Maple	Acer saccharinum	Poor	
)97)98	TH E	7 6	Thornapple/Hawthorne American Elm	Cragaegus spp. Ulmus americana	Poor Poor	
99	SM	17	Silver Maple	Acer saccharinum	Fair	x1
100	E GA	12 10	American Elm Green Ash	Ulmus americana Fraxinus pennsylvanica	Fair Poor	
102	E	9	American Elm	Ulmus americana	Poor	
103	AP	9	Domestic Apple	Malus sylvestris	Poor	x4
104	SM	24	Silver Maple	Acer saccharinum	Poor	

1107	SM	13	Silver Maple	Acer saccharinum	Fair	
1108	GA	7	Green Ash	Fraxinus pennsylvanica	Poor	
1109	SM	14	Silver Maple	Acer saccharinum	Fair	
1110 1111	GA SM	13 23	Green Ash Silver Maple	Fraxinus pennsylvanica Acer saccharinum	Fair Poor	
1112	SM	13	Silver Maple	Acer saccharinum	Poor	
1113 1114	RM BX	10 12	Red Maple Box elder	Acer rubrum Acer negundo	Fair Poor	
1115	SM	24	Silver Maple	Acer negando Acer saccharinum	Fair	x2
1116	SM	28	Silver Maple	Acer saccharinum	Fair	
1117 1118	RM GA	8	Red Maple Green Ash	Acer rubrum Fraxinus pennsylvanica	Fair Poor	
1119	BX	21	Box elder	Acer negundo	Poor	x1
1120	BX	28	Box elder	Acer negundo	Poor	
1121 1122	BX BC	9 18	Box elder Wild Black Cherry	Acer negundo Prunus serotina	Poor Poor	
1123	BX	10	Box elder	Acer negundo	Poor	
1124	BX	21	Box elder	Acer negundo	Poor	
1125 1126	BX BX	7 8	Box elder Box elder	Acer negundo Acer negundo	Poor Poor	
1127	BX	8	Box elder	Acer negundo	Poor	х3
1128	BX	7	Box elder	Acer negundo	Poor	2
1129 1130	BX BX	9	Box elder Box elder	Acer negundo Acer negundo	Poor Poor	x2
1131	BX	10	Box elder	Acer negundo	Poor	
1132	BX	7	Box elder	Acer negundo	Poor	x1
1133 1134	BX AP	9 10	Box elder Domestic Apple	Acer negundo Malus sylvestris	Poor Poor	x1
1135	AP	7	Domestic Apple	Malus sylvestris	Poor	
1136	AP	7	Domestic Apple	Malus sylvestris	Poor	
1137 1138	AP AP	9	Domestic Apple Domestic Apple	Malus sylvestris Malus sylvestris	Poor Poor	
1139	AP	6	Domestic Apple	Malus sylvestris	Poor	x1
1140 1141	AP BC	7	Domestic Apple	Malus sylvestris	Poor Poor	x1
1141	E BC	21 8	Wild Black Cherry American Elm	Prunus serotina Ulmus americana	Poor	
1143	Е	7	American Elm	Ulmus americana	Fair	
1144	BX	23	Box elder	Acer negundo	Poor	
1145 1146	SU BX	12 6	Sugar Maple Box elder	Acer saccharum Acer negundo	Fair Fair	
1147	BX	8	Box elder	Acer negundo	Poor	
1148	BX	6	Box elder	Acer negundo	Poor	
1149 1150	BX BX	10 6	Box elder Box elder	Acer negundo Acer negundo	Poor Poor	
1151	BX	6	Box elder	Acer negundo	Poor	
1152	BX	6	Box elder	Acer negundo	Poor	
1153 1154	BX BX	8	Box elder Box elder	Acer negundo Acer negundo	Poor Poor	
1155	BX	8	Box elder	Acer negundo	Poor	
1156	BX	7	Box elder	Acer negundo	Poor	
1157 1158	E BC	22 24	American Elm Wild Black Cherry	Ulmus americana Prunus serotina	Poor Very Poor	x1
1159	BX	8	Box elder	Acer negundo	Poor	X.
1160	BX	10	Box elder	Acer negundo	Poor	
1161 1162	BX BX	7 8	Box elder Box elder	Acer negundo Acer negundo	Poor Poor	
1163	BX	8	Box elder	Acer negundo	Poor	
1164	BX	6	Box elder	Acer negundo	Poor	
1165				1 Acer negundo	Poor	
1165 1166	BX BX	9	Box elder	Acer negundo		x2
1166 1167	BX BX BX		Box elder Box elder Box elder	Acer negundo Acer negundo Acer negundo	Poor	x2
1166 1167 1168	BX BX BX	9 12 6 18	Box elder Box elder Box elder	Acer negundo Acer negundo Acer negundo	Poor Poor Poor	x2
1166 1167 1168 1169	BX BX BX GA	9 12 6 18	Box elder Box elder Box elder Green Ash	Acer negundo Acer negundo Acer negundo Fraxinus pennsylvanica	Poor Poor Poor	x2
1166 1167 1168	BX BX BX	9 12 6 18	Box elder Box elder Box elder	Acer negundo Acer negundo Acer negundo	Poor Poor Poor	x2
1166 1167 1168 1169 1170 1171 1172	BX BX BX GA GA BX BL	9 12 6 18 12 6 6 6	Box elder Box elder Box elder Green Ash Green Ash Box elder Black Locust	Acer negundo Acer negundo Acer negundo Fraxinus pennsylvanica Fraxinus pennsylvanica Acer negundo Robinia pseudoacacia	Poor Poor Poor Very Poor Poor Poor	
1166 1167 1168 1169 1170	BX BX BX GA GA BX	9 12 6 18 12 6 6	Box elder Box elder Box elder Green Ash Green Ash Box elder	Acer negundo Acer negundo Acer negundo Fraxinus pennsylvanica Fraxinus pennsylvanica Acer negundo	Poor Poor Poor Very Poor Poor	x2 x3 x1
1166 1167 1168 1169 1170 1171 1172 1173 1174 1175	BX BX BX GA GA TH BL BL	9 12 6 18 12 6 6 9	Box elder Box elder Box elder Green Ash Green Ash Box elder Black Locust Thornapple/Hawthorne	Acer negundo Acer negundo Acer negundo Acer negundo Fraxinus pennsylvanica Fraxinus pennsylvanica Acer negundo Robinia pseudoacacia Cragaegus spp. Robinia pseudoacacia Robinia pseudoacacia	Poor Poor Poor Very Poor Poor Poor Poor	х3
1166 1167 1168 1169 1170 1171 1172 1173 1174 1175 1176	BX BX BX GA GA BX BL TH BL BL BX	9 12 6 18 12 6 6 9 14 8 8	Box elder Box elder Box elder Box elder Green Ash Green Ash Box elder Black Locust Thornapple/Hawthorne Black Locust Black Locust Black Locust Black Locust	Acer negundo Acer negundo Acer negundo Acer negundo Fraxinus pennsylvanica Fraxinus pennsylvanica Acer negundo Robinia pseudoacacia Cragaegus spp. Robinia pseudoacacia Robinia pseudoacacia Acer negundo	Poor Poor Poor Poor Poor Poor Poor Poor	х3
1166 1167 1168 1169 1170 1171 1172 1173 1174 1175	BX BX BX GA GA TH BL BL	9 12 6 18 12 6 6 9 14 8	Box elder Box elder Box elder Box elder Green Ash Green Ash Box elder Black Locust Thornapple/Hawthorne Black Locust Black Locust	Acer negundo Acer negundo Acer negundo Acer negundo Fraxinus pennsylvanica Fraxinus pennsylvanica Acer negundo Robinia pseudoacacia Cragaegus spp. Robinia pseudoacacia Robinia pseudoacacia	Poor Poor Poor Very Poor Poor Poor Poor Poor Poor Poor Poor	х3
1166 1167 1168 1169 1170 1171 1172 1173 1174 1175 1176 1177 1178	BX BX BX GA GA BX BL TH BL BL BX BL BX BL	9 12 6 18 12 6 6 6 9 14 8 8 10 10	Box elder Box elder Box elder Box elder Green Ash Green Ash Box elder Black Locust Thornapple/Hawthorne Black Locust Black Locust Box elder Black Locust Box elder Black Locust Box elder Box elder	Acer negundo Acer negundo Acer negundo Acer negundo Fraxinus pennsylvanica Fraxinus pennsylvanica Acer negundo Robinia pseudoacacia Cragaegus spp. Robinia pseudoacacia Robinia pseudoacacia Acer negundo Robinia pseudoacacia Acer negundo Acer negundo Acer negundo	Poor Poor Poor Poor Poor Poor Poor Poor	х3
1166 1167 1168 1169 1170 1171 1172 1173 1174 1175 1176 1177 1178 1179	BX BX BX GA GA BX BL TH BL BL BX BX BX BX BX BX BX	9 12 6 18 12 6 6 9 14 8 8 10 10 12 10 13	Box elder Box elder Box elder Green Ash Green Ash Box elder Black Locust Thornapple/Hawthorne Black Locust Black Locust Black Locust Box elder Black Locust Box elder Box elder Box elder	Acer negundo Acer negundo Acer negundo Acer negundo Fraxinus pennsylvanica Fraxinus pennsylvanica Acer negundo Robinia pseudoacacia Cragaegus spp. Robinia pseudoacacia Robinia pseudoacacia Acer negundo Robinia pseudoacacia Acer negundo Acer negundo Acer negundo Acer negundo	Poor Poor Poor Poor Poor Poor Poor Poor	х3
1166 1167 1168 1169 1170 1171 1172 1173 1174 1175 1176 1177 1178	BX BX BX GA GA BX BL TH BL BL BX BL BX BL	9 12 6 18 12 6 6 6 9 14 8 8 10 10	Box elder Box elder Box elder Box elder Green Ash Green Ash Box elder Black Locust Thornapple/Hawthorne Black Locust Black Locust Box elder Black Locust Box elder Black Locust Box elder Box elder	Acer negundo Acer negundo Acer negundo Acer negundo Fraxinus pennsylvanica Fraxinus pennsylvanica Acer negundo Robinia pseudoacacia Cragaegus spp. Robinia pseudoacacia Robinia pseudoacacia Acer negundo Robinia pseudoacacia Acer negundo Acer negundo Acer negundo	Poor Poor Poor Poor Poor Poor Poor Poor	х3
1166 1167 1168 1169 1170 1171 1172 1173 1174 1175 1176 1177 1178 1179 1180 1181 1182	BX BX BX BX GA GA BX BL TH BL BX BL BX BL BX BL BX	9 12 6 18 12 6 9 14 8 8 10 10 12 10 13 17 9 14	Box elder Box elder Box elder Green Ash Green Ash Box elder Black Locust Thornapple/Hawthorne Black Locust Black Locust Black Locust Box elder Black Locust Box elder Black Locust Box elder Box elder Box elder Box elder Box elder	Acer negundo Acer negundo Acer negundo Acer negundo Fraxinus pennsylvanica Fraxinus pennsylvanica Acer negundo Robinia pseudoacacia Cragaegus spp. Robinia pseudoacacia Robinia pseudoacacia Acer negundo Robinia pseudoacacia Acer negundo Acer negundo Acer negundo Acer negundo Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Poor Poor	х3
1166 1167 1168 1169 1170 1171 1172 1173 1174 1175 1176 1177 1178 1179 1180 1181 1182 1183 1184	BX BX BX BX GA GA BX BL TH BL BX BL BX BL BX BL BX	9 12 6 18 12 6 6 9 14 8 8 10 10 12 10 13 17 9 14 6	Box elder Box elder Box elder Green Ash Green Ash Box elder Black Locust Thornapple/Hawthorne Black Locust Black Locust Box elder Black Locust Box elder Black Locust Box elder Box elder Box elder Box elder Box elder Black Locust Box elder Box elder Box elder Box elder Black Locust Black Locust	Acer negundo Acer negundo Acer negundo Acer negundo Fraxinus pennsylvanica Fraxinus pennsylvanica Acer negundo Robinia pseudoacacia Cragaegus spp. Robinia pseudoacacia Robinia pseudoacacia Acer negundo Robinia pseudoacacia Acer negundo Acer negundo Acer negundo Acer negundo Robinia pseudoacacia Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Poor Poor	x3 x1
1166 1167 1168 1169 1170 1171 1172 1173 1174 1175 1176 1177 1178 1179 1180 1181 1182	BX BX BX BX GA GA BX BL TH BL BX BL BX BL BX BL BX	9 12 6 18 12 6 9 14 8 8 10 10 12 10 13 17 9 14	Box elder Box elder Box elder Green Ash Green Ash Box elder Black Locust Thornapple/Hawthorne Black Locust Black Locust Black Locust Box elder Black Locust Box elder Black Locust Box elder Box elder Box elder Box elder Box elder	Acer negundo Acer negundo Acer negundo Fraxinus pennsylvanica Fraxinus pennsylvanica Acer negundo Robinia pseudoacacia Cragaegus spp. Robinia pseudoacacia Robinia pseudoacacia Acer negundo Robinia pseudoacacia Acer negundo Acer negundo Acer negundo Robinia pseudoacacia Acer negundo Acer negundo Acer negundo Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Poor Poor	х3
1166 1167 1168 1169 1170 1171 1172 1173 1174 1175 1176 1177 1178 1179 1180 1181 1182 1183 1184 1185 1186	BX BX BX BX GA GA BX BL TH BL BX	9 12 6 18 12 6 6 9 14 8 8 10 10 12 10 13 17 9 14 6 13 12 12	Box elder Box elder Box elder Green Ash Green Ash Box elder Black Locust Thornapple/Hawthorne Black Locust Black Locust Black Locust Box elder Black Locust Box elder Box elder Box elder Box elder Black Locust Box elder Box elder Box elder Black Locust Box elder Black Locust Box elder Black Locust Box elder Black Locust Box elder Box elder Box elder Box elder Box elder	Acer negundo Acer negundo Acer negundo Fraxinus pennsylvanica Fraxinus pennsylvanica Acer negundo Robinia pseudoacacia Cragaegus spp. Robinia pseudoacacia Robinia pseudoacacia Acer negundo Robinia pseudoacacia Acer negundo Acer negundo Acer negundo Acer negundo Fraxinus pennsylvanica Acer saccharinum Acer negundo Acer negundo	Poor Poor Poor Poor Poor Poor Poor Poor	x3 x1
1166 1167 1168 1169 1170 1171 1172 1173 1174 1175 1176 1177 1178 1179 1180 1181 1182 1183 1184 1185 1186 1187 1188	BX BX BX BX GA GA BX BL TH BL BL BX BL BX	9 12 6 18 12 6 6 9 14 8 8 10 10 10 12 10 13 17 9 14 6 13 12 12 7	Box elder Box elder Box elder Green Ash Green Ash Box elder Black Locust Thornapple/Hawthorne Black Locust Black Locust Box elder Black Locust Box elder Black Locust Box elder Box elder Box elder Box elder Black Locust Box elder Box elder Box elder Black Locust Box elder Green Ash Silver Maple Box elder Box elder Box elder	Acer negundo Acer negundo Acer negundo Fraxinus pennsylvanica Fraxinus pennsylvanica Acer negundo Robinia pseudoacacia Cragaegus spp. Robinia pseudoacacia Robinia pseudoacacia Acer negundo Robinia pseudoacacia Acer negundo Acer negundo Acer negundo Acer negundo Fraxinus pennsylvanica Acer saccharinum Acer negundo Acer negundo Cragaegus spp.	Poor Poor Poor Poor Poor Poor Poor Poor	x3 x1
1166 1167 1168 1169 1170 1171 1172 1173 1174 1175 1176 1177 1178 1179 1180 1181 1182 1183 1184 1185 1186	BX BX BX BX GA GA BX BL TH BL BX	9 12 6 18 12 6 6 9 14 8 8 10 10 12 10 13 17 9 14 6 13 12 12	Box elder Box elder Box elder Green Ash Green Ash Box elder Black Locust Thornapple/Hawthorne Black Locust Black Locust Black Locust Box elder Black Locust Box elder Box elder Box elder Box elder Black Locust Box elder Box elder Box elder Black Locust Box elder Black Locust Box elder Black Locust Box elder Black Locust Box elder Box elder Box elder Box elder Box elder	Acer negundo Acer negundo Acer negundo Fraxinus pennsylvanica Fraxinus pennsylvanica Acer negundo Robinia pseudoacacia Cragaegus spp. Robinia pseudoacacia Robinia pseudoacacia Acer negundo Robinia pseudoacacia Acer negundo Acer negundo Acer negundo Acer negundo Fraxinus pennsylvanica Acer saccharinum Acer negundo Acer negundo	Poor Poor Poor Poor Poor Poor Poor Poor	x3 x1
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1214			l , . <u>-</u> .			
4045	Е	6	American Elm	Ulmus americana	Poor	
1215	GA	7	Green Ash	Fraxinus pennsylvanica	Very Poor	
1216	GA	10	Green Ash	Fraxinus pennsylvanica	Very Poor	
1217	E	14	American Elm	Ulmus americana	Fair	x1
1218	SM	14	Silver Maple	Acer saccharinum	Fair	x2
1219	GA	15	Green Ash	Fraxinus pennsylvanica	Poor	
1220	GA	9	Green Ash	Fraxinus pennsylvanica	Poor	
1221	GA	8	Green Ash	Fraxinus pennsylvanica	Very Poor	
1222	Е	8	American Elm	Ulmus americana	Poor	
1223	E	9	American Elm	Ulmus americana	Poor	
1224	E	8	American Elm	Ulmus americana	Poor	
1225	Е	9	American Elm	Ulmus americana	Poor	
1226	SM	8	Silver Maple	Acer saccharinum	Fair	
1227	SM	13	Silver Maple	Acer saccharinum	Fair	
1228	GA	8	Green Ash	Fraxinus pennsylvanica	Very Poor	x1
				<u> </u>		XI
1229	SM	10	Silver Maple	Acer saccharinum	Fair	
1230	GA	8	Green Ash	Fraxinus pennsylvanica	Fair	
1231	GA	6	Green Ash	Fraxinus pennsylvanica	Poor	
1232	BL	10	Black Locust	Robinia pseudoacacia	Poor	
1233	GA	6	Green Ash	Fraxinus pennsylvanica	Poor	
1234	E	15	American Elm	Ulmus americana	Very Poor	
1235	GA	6	Green Ash	Fraxinus pennsylvanica	Poor	
1236	GA	9	Green Ash	Fraxinus pennsylvanica	Poor	
1237	GA	6	Green Ash	Fraxinus pennsylvanica	Poor	
1238	SM	12	Silver Maple	Acer saccharinum	Poor	
1239	E	15	American Elm	Ulmus americana	Fair	
1240	SC	13	Scotch Pine	Pinus sylvestris	Poor	
1240	BL	17	Black Locust	Robinia pseudoacacia	Poor	
				· · · · · · · · · · · · · · · · · · ·		
1242	BL	16	Black Locust	Robinia pseudoacacia	Poor	
1243	BL	14	Black Locust	Robinia pseudoacacia	Poor	
1244	BL	6	Black Locust	Robinia pseudoacacia	Poor	
1245	BL	8	Black Locust	Robinia pseudoacacia	Poor	
1246	BL	8	Black Locust	Robinia pseudoacacia	Poor	
1247	BL	6	Black Locust	Robinia pseudoacacia	Very Poor	
1248	BL	14	Black Locust	Robinia pseudoacacia	Poor	
1249	BL	12	Black Locust	Robinia pseudoacacia	Poor	
1250	BL	15	Black Locust	Robinia pseudoacacia	Poor	
1251	BL	14	Black Locust	Robinia pseudoacacia	Poor	
1252	BL	8	Black Locust	Robinia pseudoacacia	Poor	
1253	BL	7	Black Locust	Robinia pseudoacacia	Poor	
1254	BW	15	Black Walnut	Juglans nigra	Poor	
1254	E	15	American Elm	Ulmus americana	Poor	
1256	BL	8	Black Locust	Robinia pseudoacacia	Poor	
1257	BL	12	Black Locust	Robinia pseudoacacia	Poor	
1258	BL	12	Black Locust	Robinia pseudoacacia	Poor	
1259	BL	12	Black Locust	Robinia pseudoacacia	Poor	
1260	BL	13	Black Locust	Robinia pseudoacacia	Poor	
1261	Е	15	American Elm	Ulmus americana	Fair	
1262	BX	15	Box elder	Acer negundo	Poor	
1263	BL	13	Black Locust	Robinia pseudoacacia	Poor	
1264	BX	17	Box elder	Acer negundo	Poor	
12UH						
1265	BL	13	Black Locust	Robinia pseudoacacia	Poor	
1265			Black Locust	Robinia pseudoacacia		x1
1265 1266	BL	15	Black Locust Black Locust	Robinia pseudoacacia	Poor Poor Poor	x1
1265 1266 1267	BL BX		Black Locust Black Locust Box elder	Robinia pseudoacacia Acer negundo	Poor Poor	x1
1265 1266 1267 1268	BL BX BL	15 18 8	Black Locust Black Locust Box elder Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia	Poor Poor Poor	
1265 1266 1267 1268 1269	BL BX BL BC	15 18 8 20	Black Locust Black Locust Box elder Black Locust Wild Black Cherry	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina	Poor Poor Poor	x2
1265 1266 1267 1268 1269 1270	BL BX BL BC BC	15 18 8 20 9	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Wild Black Cherry	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Prunus serotina	Poor Poor Poor Poor	
1265 1266 1267 1268 1269 1270 1271	BL BX BL BC BC	15 18 8 20 9	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Wild Black Cherry Wild Black Cherry	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Prunus serotina Prunus serotina	Poor Poor Poor Poor Poor Poor	x2
1265 1266 1267 1268 1269 1270 1271 1272	BL BX BL BC BC BC	15 18 8 20 9 19	Black Locust Black Locust Box elder Black Locust Wild Black Cherry	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Prunus serotina Prunus serotina Prunus serotina Prunus serotina	Poor Poor Poor Poor Poor Poor Poor	x2
1265 1266 1267 1268 1269 1270 1271 1272 1273	BL BX BL BC BC BC BC	15 18 8 20 9 19 13	Black Locust Black Locust Box elder Black Locust Wild Black Cherry	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Prunus serotina Prunus serotina Prunus serotina Prunus serotina Prunus serotina	Poor Poor Poor Poor Poor Poor Very Poor	x2
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274	BL BX BL BC BC BC BC BC BC	15 18 8 20 9 19 13 13	Black Locust Black Locust Box elder Black Locust Wild Black Cherry	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina	Poor Poor Poor Poor Poor Very Poor Very Poor	x2
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275	BL BX BL BC BC BC BC BC BC BC BC	15 18 8 20 9 19 13 13 12	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Very Poor Poor	x2
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274	BL BX BL BC BC BC BC BC BC	15 18 8 20 9 19 13 13	Black Locust Black Locust Box elder Black Locust Wild Black Cherry	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina	Poor Poor Poor Poor Poor Very Poor Very Poor	x2
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275	BL BX BL BC BC BC BC BC BC BC BC	15 18 8 20 9 19 13 13 12	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Very Poor Poor	x2
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276	BL BX BL BC	15 18 8 20 9 19 13 13 12 17	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Very Poor Poor Poor Poor	x2
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277	BL BX BL BC	15 18 8 20 9 19 13 13 12 17 19	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Cherry Black Locust Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Very Poor Poor Poor Poor Poor Poor Poor	x2
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278	BL BX BL BC	15 18 8 20 9 19 13 13 12 17 19 19	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Cherry Black Locust Black Locust Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279	BL BX BL BC	15 18 8 20 9 19 13 13 12 17 19 19 6	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust Black Locust Black Locust Black Locust Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281	BL BX BL BC BC BC BC BC BC BC BC BC BL BL BL BL BL BL BL	15 18 8 20 9 19 13 13 13 12 17 19 19 6 15 18	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x1
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281	BL BX BL BC BC BC BC BC BC BC BC BL BL BL BL BL BL BL BL BL	15 18 8 20 9 19 13 13 12 17 19 19 6 15 18 12 12	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Cherry Black Locust Black Docust Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Acer negundo Acer negundo	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283	BL BX BL BC BC BC BC BC BC BC BL	15 18 8 20 9 19 13 13 12 17 19 19 6 15 18 12 12 8	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Acer negundo Acer negundo Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x1
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284	BL BX BL BC BC BC BC BC BC BC BL	15 18 8 20 9 19 13 13 13 12 17 19 19 6 15 18 12 12 12 8 9	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Acer negundo Acer negundo Robinia pseudoacacia Juglans nigra	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x1
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285	BL BX BL BC BC BC BC BC BC BC BL	15 18 8 20 9 19 13 13 12 17 19 19 6 15 18 12 12 8 9	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Acer negundo Acer negundo Robinia pseudoacacia Juglans nigra Juglans nigra	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x1
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285 1286	BL BX BL BC BC BC BC BC BC BL	15 18 8 20 9 19 13 13 12 17 19 19 6 15 18 12 12 8 9 9	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust Black Walnut Black Walnut Black Walnut	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Acer negundo Acer negundo Robinia pseudoacacia Juglans nigra Juglans nigra Juglans nigra	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x1
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285 1286 1287	BL BX BL BC BC BC BC BC BC BC BL	15 18 8 20 9 19 13 13 12 17 19 19 6 15 18 12 12 12 8 9 9	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust Black Walnut Black Walnut Black Walnut Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Acer negundo Acer negundo Robinia pseudoacacia Juglans nigra Juglans nigra Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x1
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285 1286 1287 1288	BL BX BL BC BC BC BC BC BC BL	15 18 8 20 9 19 13 13 12 17 19 19 6 15 18 12 12 8 9 9 12 9	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust Black Valnut Black Walnut Black Locust Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Acer negundo Acer negundo Robinia pseudoacacia Juglans nigra Juglans nigra Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x1
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285 1286 1287 1288	BL BX BL BC BC BC BC BC BC BL BL BL BL BL BL BL BL BL BX	15 18 8 20 9 19 13 13 13 12 17 19 19 6 15 18 12 12 8 9 9 12 9 9 13	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust Black Valnut Black Walnut Black Locust Black Locust Black Locust Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Acer negundo Acer negundo Robinia pseudoacacia Juglans nigra Juglans nigra Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x1
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285 1286 1287 1288 1289 1290	BL BX BL BC BC BC BC BC BC BL	15 18 8 20 9 19 13 13 12 17 19 19 6 15 18 12 12 9 9 12 9 9 13 8	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust Black Walnut Black Walnut Black Walnut Black Locust Black Locust Black Locust Black Cocust Black Locust Black Locust Black Locust Black Locust Black Walnut Black Walnut Black Locust Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Acer negundo Acer negundo Robinia pseudoacacia Juglans nigra Juglans nigra Juglans nigra Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x1
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285 1286 1287 1288 1289 1290 1291	BL BX BL BC BC BC BC BC BC BL BL BL BL BL BL BL BL BL BX	15 18 8 20 9 19 13 13 12 17 19 19 6 15 18 12 12 8 9 9 12 9 9 13 8 9	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust Black Valnut Black Walnut Black Locust Black Locust Black Locust Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Acer negundo Acer negundo Robinia pseudoacacia Juglans nigra Juglans nigra Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x1
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285 1286 1287 1288 1289 1290	BL BX BL BC BC BC BC BC BC BL	15 18 8 20 9 19 13 13 13 12 17 19 19 6 15 18 12 12 8 9 9 12 9 9 13 8 9 8	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust Black Walnut Black Walnut Black Walnut Black Locust Black Locust Black Locust Black Cocust Black Locust Black Locust Black Locust Black Locust Black Walnut Black Walnut Black Locust Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Acer negundo Acer negundo Robinia pseudoacacia Juglans nigra Juglans nigra Juglans nigra Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x1
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285 1286 1287 1288 1289 1290 1291	BL BX BL BC BC BC BC BC BC BC BL BW BW BW BW BU BL	15 18 8 20 9 19 13 13 12 17 19 19 6 15 18 12 12 8 9 9 12 9 9 13 8 9	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust Black Walnut Black Walnut Black Locust Black Locust Black Locust Black Locust Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Acer negundo Acer negundo Robinia pseudoacacia Juglans nigra Juglans nigra Juglans nigra Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x1
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285 1286 1287 1288 1289 1290 1291 1292	BL BX BL BC BC BC BC BC BC BC BL BW BW BW BW BU BL	15 18 8 20 9 19 13 13 13 12 17 19 19 6 15 18 12 12 8 9 9 12 9 9 13 8 9 8	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust Black Walnut Black Walnut Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Acer negundo Acer negundo Robinia pseudoacacia Juglans nigra Juglans nigra Juglans nigra Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x1
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285 1286 1287 1288 1289 1290 1291 1292 1293	BL BX BL BC BC BC BC BC BC BL	15 18 8 20 9 19 13 13 13 12 17 19 19 6 15 18 12 12 8 9 9 12 9 9 13 8 9 9 11 13 8 9 9 10	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust Black Cocust Black Locust Black Locust Black Walnut Black Walnut Black Locust Blasswood Basswood	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Acer negundo Acer negundo Robinia pseudoacacia Juglans nigra Juglans nigra Juglans nigra Robinia pseudoacacia Tilia americana	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x1
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285 1286 1287 1288 1289 1290 1291 1292 1293 1294	BL BX BL BC BC BC BC BC BC BL BW BW BW BW BW BW BU BU BL	15 18 8 20 9 19 13 13 12 17 19 19 6 15 18 12 12 12 8 9 9 12 9 9 13 8 9 10 11	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust Black Walnut Black Walnut Black Wolnut Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Acer negundo Acer negundo Acer negundo Robinia pseudoacacia Juglans nigra Juglans nigra Juglans nigra Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x1
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285 1286 1287 1288 1289 1290 1291 1292 1293 1294 1295	BL BX BL BC BC BC BC BC BC BL BW BW BW BW BW BL	15 18 8 20 9 19 13 13 13 12 17 19 19 6 15 18 12 12 8 9 9 12 9 9 13 8 9 10 11 10	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust Black Cherry Wild Black Locust Black Locust Black Locust Black Locust Black Locust Black Walnut Black Walnut Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Acer negundo Acer negundo Acer negundo Robinia pseudoacacia Juglans nigra Juglans nigra Juglans nigra Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x1
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285 1286 1287 1288 1290 1291 1292 1293 1294 1295 1296 1297	BL BX BC BC BC BC BC BC BC BL BL BL BL BL BL BL BL BL BW BW BW BW BW BU BL	15 18 8 20 9 19 13 13 12 17 19 19 6 15 18 12 12 12 8 9 9 12 9 9 13 8 9 9 11 10 10 10	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust Black Cherry Wild Black Cherry Wild Black Locust Black Locust Black Locust Black Locust Black Locust Black Walnut Black Walnut Black Walnut Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Acer negundo Acer negundo Acer negundo Robinia pseudoacacia Juglans nigra Juglans nigra Juglans nigra Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x1
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285 1286 1287 1288 1289 1290 1291 1292 1293 1294 1295 1296 1297 1298	BL BX BC BC BC BC BC BC BC BC BL BL BL BL BL BL BL BL BL BW BW BW BW BW BU BL	15 18 8 20 9 19 13 13 13 12 17 19 19 6 15 18 12 12 8 9 9 12 9 9 13 8 9 11 10 10 10 16 12	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust Black Cherry Wild Black Locust Black Locust Black Locust Black Locust Black Locust Black Walnut Black Walnut Black Walnut Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Acer negundo Acer negundo Robinia pseudoacacia Juglans nigra Juglans nigra Juglans nigra Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x1
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285 1286 1287 1288 1289 1290 1291 1292 1293 1294 1295 1296 1297 1298 1299	BL BC BC BC BC BC BC BC BC BL BL BL BL BL BL BL BL BC	15 18 8 20 9 19 13 13 13 12 17 19 19 6 15 18 12 12 8 9 9 12 9 9 13 8 9 9 11 10 10 10 16 12 10	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust Black Cherry Wild Black Cherry Wild Black Locust Black Locust Black Locust Black Locust Black Locust Black Walnut Black Walnut Black Walnut Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Acer negundo Acer negundo Acer negundo Robinia pseudoacacia Juglans nigra Juglans nigra Juglans nigra Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x1
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285 1286 1287 1288 1289 1290 1291 1292 1293 1294 1295 1296 1297 1298 1299 1300	BL BC BC BC BC BC BC BC BC BC BL BL BL BL BL BL BL BL BC	15 18 8 20 9 19 13 13 13 12 17 19 19 6 15 18 12 12 8 9 9 12 9 9 13 8 9 9 11 10 10 16 12 10 9	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust Black Cherry Black Locust Black Locust Black Locust Black Walnut Black Walnut Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Acer negundo Acer negundo Acer negundo Robinia pseudoacacia Juglans nigra Juglans nigra Juglans nigra Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x1
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285 1286 1287 1288 1290 1291 1292 1293 1294 1295 1296 1297 1298 1299 1300 1301	BL BC BC BC BC BC BC BC BC BC BL BL BL BL BL BL BL BL BC	15 18 8 20 9 19 13 13 13 12 17 19 19 6 15 18 12 12 12 8 9 9 12 9 9 13 8 9 10 11 10 10 16 12 10 9 12	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust Black Cherry Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Acer negundo Acer negundo Robinia pseudoacacia Juglans nigra Juglans nigra Juglans nigra Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x1
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285 1286 1287 1288 1290 1291 1292 1293 1294 1295 1296 1297 1298 1299 1300 1301 1301	BL BC BC BC BC BC BC BC BC BL BL BL BL BL BL BL BL BC	15 18 8 20 9 19 13 13 13 12 17 19 19 6 15 18 12 12 8 9 9 12 9 9 13 8 9 10 11 10 10 16 12 10 9 12 7	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust Black Cherry Black Cocust Black Locust Black Cocust Black Walnut Black Walnut Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Acer negundo Acer negundo Acer negundo Robinia pseudoacacia Juglans nigra Juglans nigra Juglans nigra Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x1
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285 1286 1287 1288 1289 1290 1291 1292 1293 1294 1295 1296 1297 1298 1299 1300 1301 1302 1303	BL BC BC BC BC BC BC BC BC BC BL BL BL BL BL BL BL BL BC	15 18 8 20 9 19 13 13 13 12 17 19 19 6 15 18 12 12 8 9 9 12 9 9 13 8 9 9 11 10 10 16 12 10 9 12 7 6	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust Black Cherry Black Coust Black Locust Black Coust Black Cocust Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Acer negundo Acer negundo Robinia pseudoacacia Juglans nigra Juglans nigra Juglans nigra Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x1
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285 1286 1287 1288 1289 1290 1291 1292 1293 1294 1295 1296 1297 1298 1299 1300 1301 1302 1303 1304	BL BC BC BC BC BC BC BC BC BL BL BL BL BL BL BL BL BL BW BW BW BW BW BU BL	15 18 8 20 9 19 19 13 13 12 17 19 19 6 15 18 12 12 8 9 9 12 9 9 13 8 9 9 11 10 10 10 16 12 10 9 12 7 6 12 7	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust Black Cherry Black Locust Black Locust Black Locust Black Locust Black Walnut Black Walnut Black Cocust Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Acer negundo Acer negundo Acer negundo Robinia pseudoacacia Juglans nigra Juglans nigra Juglans nigra Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x1
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285 1286 1287 1288 1290 1291 1292 1293 1294 1295 1296 1297 1298 1299 1300 1301 1302 1303 1304 1305	BL BC BC BC BC BC BC BC BC BL BL BL BL BL BL BL BL BW BW BW BW BU BU BL	15 18 8 20 9 19 13 13 12 17 19 19 6 15 18 12 12 8 9 9 12 9 9 13 8 9 9 11 10 10 10 10 10 10 10 10 10 10 10 10	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust Black Cherry Black Coust Black Locust Black Locust Black Walnut Black Walnut Black Cocust Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Acer negundo Acer negundo Acer negundo Robinia pseudoacacia Juglans nigra Juglans nigra Juglans nigra Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x1
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1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285 1286 1287 1288 1289 1290 1291 1292 1293 1294 1295 1296 1297 1298 1299 1300 1301 1302 1303 1304 1305 1306 1307 1308 1309	BL BC BC BC BC BC BC BC BL BL	15 18 8 20 9 19 13 13 13 12 17 19 19 6 15 18 12 12 12 8 9 9 12 9 9 13 8 9 9 11 10 10 10 16 12 10 9 12 7 6 12 9 10 12 9 10 12 15	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust Black Cherry Black Coust Black Locust Black Coust Black Walnut Black Walnut Black Walnut Black Locust Black Cherry Wild Black Cherry Yellow Birch Yellow Birch Yellow Birch Yellow Birch	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Acer negundo Acer negundo Acer negundo Robinia pseudoacacia Juglans nigra Juglans nigra Juglans nigra Robinia pseudoacacia Robinia pseudoacac	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x1
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1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285 1286 1287 1288 1289 1290 1291 1292 1293 1294 1295 1290 1291 1292 1293 1294 1295 1296 1297 1298 1299 1300 1301 1302 1303 1304 1305 1306 1307 1308 1307 1308 1310 1311 1312 1313	BL BC BC BC BC BC BC BC BC BL BL	15 18 8 20 9 19 19 13 13 13 12 17 19 19 6 15 18 12 12 8 9 9 12 9 9 13 8 9 9 11 10 10 16 12 10 9 12 7 6 12 9 10 12 17 15	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust Black Walnut Black Walnut Black Walnut Black Locust Black Cherry Wild Black Cherry	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Acer negundo Acer negundo Robinia pseudoacacia Juglans nigra Juglans nigra Juglans nigra Auglans nigra Robinia pseudoacacia Robinia pseu	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x1
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285 1286 1287 1288 1289 1290 1291 1292 1293 1294 1295 1296 1297 1298 1299 1300 1301 1302 1303 1304 1305 1306 1307 1308 1309 1310 1311 1312 1313 1314	BL BC BC BC BC BC BC BC BC BL BL	15 18 8 20 9 19 19 13 13 12 17 19 19 6 15 18 12 12 12 8 9 9 12 9 9 13 8 9 9 12 9 9 13 8 9 10 11 10 10 16 12 10 9 12 7 6 12 9 10 12 7 6 12 7 6 12 7	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust Black Cherry Black Locust Black Locust Black Walnut Black Walnut Black Cocust Black Locust Black Cherry Wild Black Cherry	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Acer negundo Acer negundo Robinia pseudoacacia Juglans nigra Juglans nigra Juglans nigra Robinia pseudoacacia Robin	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x2
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285 1286 1287 1288 1289 1290 1291 1292 1293 1294 1295 1290 1291 1292 1293 1294 1295 1296 1297 1298 1299 1300 1301 1302 1303 1304 1305 1306 1307 1308 1307 1308 1310 1311 1312 1313	BL BC BC BC BC BC BC BC BC BL BL	15 18 8 20 9 19 19 13 13 13 12 17 19 19 6 15 18 12 12 8 9 9 12 9 9 13 8 9 9 11 10 10 16 12 10 9 12 7 6 12 9 10 12 17 15	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust Black Walnut Black Walnut Black Walnut Black Locust Black Cherry Wild Black Cherry	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Acer negundo Acer negundo Robinia pseudoacacia Juglans nigra Juglans nigra Juglans nigra Auglans nigra Robinia pseudoacacia Robinia pseu	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x2
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285 1288 1289 1290 1291 1292 1293 1294 1295 1296 1297 1298 1297 1298 1299 1300 1311 1302 1303 1304 1305 1306 1307 1308 1309 1310 1311 1312 1313 1314	BL BC BC BC BC BC BC BC BC BL BL	15 18 8 20 9 19 19 13 13 12 17 19 19 6 15 18 12 12 12 8 9 9 12 9 9 13 8 9 9 12 9 9 13 8 9 10 11 10 10 16 12 10 9 12 7 6 12 9 10 12 7 6 12 7 6 12 7	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust Black Cherry Black Locust Black Locust Black Walnut Black Walnut Black Cocust Black Locust Black Cherry Wild Black Cherry	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Acer negundo Acer negundo Robinia pseudoacacia Juglans nigra Juglans nigra Juglans nigra Robinia pseudoacacia Robin	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x2
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285 1286 1287 1288 1289 1290 1291 1292 1293 1294 1295 1296 1297 1298 1299 1300 1301 1302 1303 1304 1305 1306 1307 1308 1309 1310 1311 1312 1313 1314 1315	BL BC BC BC BC BC BC BC BC BC BL BL BL BL BL BL BL BL BW BW BW BW BU	15 18 8 20 9 19 13 13 13 12 17 19 19 6 15 18 12 12 8 9 9 12 9 9 13 8 9 9 12 9 9 13 8 9 10 11 10 10 16 12 10 9 12 7 6 12 9 10 12 17 15 14 14 14 12 17 15 7	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust Black Cherry Black Locust Black Locust Black Locust Black Walnut Black Walnut Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Acer negundo Acer negundo Robinia pseudoacacia Juglans nigra Juglans nigra Juglans nigra Juglans nigra Robinia pseudoacacia Robinia pseudoaca	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x2
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285 1286 1287 1288 1289 1290 1291 1292 1293 1294 1295 1290 1291 1292 1293 1294 1295 1296 1297 1298 1299 1300 1301 1302 1303 1304 1305 1306 1307 1308 1307 1308 1310 1311 1312 1313 1314 1315 1316	BL BC BC BC BC BC BC BC BC BL BL	15 18 8 20 9 19 19 13 13 13 12 17 19 19 6 15 18 12 12 8 9 9 12 9 9 13 8 9 9 12 9 9 13 13 8 9 9 12 9 9 13 13 8 9 10 11 10 10 16 12 10 9 12 7 6 12 9 10 12 15 14 14 14 12 17 15 7	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust Black Cherry Black Locust Black Locust Black Walnut Black Walnut Black Walnut Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Acer negundo Acer negundo Robinia pseudoacacia Juglans nigra Juglans nigra Juglans nigra Juglans nigra Robinia pseudoacacia Robinia pseudoaca	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x2
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285 1286 1287 1288 1289 1290 1291 1292 1293 1294 1295 1296 1297 1298 1299 1300 1301 1302 1303 1304 1305 1306 1307 1308 1309 1311 1312 1313 1314 1315 1316 1317 1318	BL BC BL	15 18 8 20 9 19 19 13 13 12 17 19 19 6 15 18 12 12 12 8 9 9 12 9 9 13 8 9 9 12 9 9 13 8 9 10 11 10 10 10 16 12 10 9 12 7 6 12 9 10 12 7 6 12 9 10 12 17 15 14 14 14 12 17 15 7	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust Black Walnut Black Walnut Black Walnut Black Locust	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Acer negundo Acer negundo Robinia pseudoacacia Juglans nigra Juglans nigra Juglans nigra Juglans nigra Robinia pseudoacacia Robinia pseu	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x2
1265 1266 1267 1268 1269 1270 1271 1272 1273 1274 1275 1276 1277 1278 1279 1280 1281 1282 1283 1284 1285 1286 1287 1288 1289 1290 1291 1292 1293 1294 1292 1293 1294 1295 1296 1297 1298 1299 1300 1301 1302 1303 1304 1305 1306 1307 1308 1309 1310 1311 1312 1313 1314 1315 1316 1317	BL BC BC BC BC BC BC BC BC BC BL BL BL BL BL BL BL BW BW BW BW BW BW BU BL	15 18 8 20 9 19 19 13 13 12 17 19 19 6 15 18 12 12 12 8 9 9 12 9 9 13 8 9 9 12 9 9 13 8 9 10 11 10 10 16 12 10 9 12 7 6 12 9 10 12 7 6 12 17 15 7 19 19 22 17	Black Locust Black Locust Box elder Black Locust Wild Black Cherry Black Locust Black Walnut Black Walnut Black Walnut Black Locust Black Locust Black Locust Black Locust Black Locust Black Cherry Wild Black Cherry Green Ash Box elder Yellow Birch	Robinia pseudoacacia Acer negundo Robinia pseudoacacia Prunus serotina Robinia pseudoacacia Acer negundo Acer negundo Robinia pseudoacacia Juglans nigra Juglans nigra Juglans nigra Robinia pseudoacacia Robinia ps	Poor Poor Poor Poor Poor Poor Poor Poor	x2 x1 x1 x1 x2

1430	BL	7	Black Locust	Robinia pseudoacacia	Poor	1
1431	СТ	30	Cottonwood	Populus deltoides	Poor	
1432 1433	CT CT	39 23	Cottonwood Cottonwood	Populus deltoides Populus deltoides	Fair Poor	
1434	СТ	23	Cottonwood	Populus deltoides	Poor	
1435 1436	BC BL	8	Wild Black Cherry Black Locust	Prunus serotina Robinia pseudoacacia	Poor Poor	
1437	BL	8	Black Locust	Robinia pseudoacacia	Poor	
1438 1439	BL BX	9	Black Locust Box elder	Robinia pseudoacacia Acer negundo	Poor Poor	
1440	BW	9	Black Walnut	Juglans nigra	Poor	
1441 1442	E BW	8 18	American Elm Black Walnut	Ulmus americana Juglans nigra	Poor Fair	
1443	BL	7	Black Locust	Robinia pseudoacacia	Poor	
1444 1445	TH BL	7 8	Thornapple/Hawthorne Black Locust	Cragaegus spp. Robinia pseudoacacia	Poor Poor	
1446	BX	6	Box elder	Acer negundo	Poor	
1447 1448	BL E	16 9	Black Locust American Elm	Robinia pseudoacacia Ulmus americana	Very Poor Poor	
1449	E	16	American Elm	Ulmus americana	Poor	no tag in h20, move E
1450 1451	E BL	9	American Elm Black Locust	Ulmus americana Robinia pseudoacacia	Poor Poor	x1
1452	BC	6	Wild Black Cherry	Prunus serotina	Poor	
1453 1454	BL BL	8	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
1455	В	8	Basswood	Tilia americana	Poor	
1456 1457	BW BL	22 7	Black Walnut Black Locust	Juglans nigra Robinia pseudoacacia	Fair Poor	
1458	BL	8	Black Locust	Robinia pseudoacacia	Poor	4
1459 1460	BL B	10 7	Black Locust Basswood	Robinia pseudoacacia Tilia americana	Poor Poor	x1
1461	BL	6	Black Locust	Robinia pseudoacacia	Poor	
1462 1463	BL B	8	Black Locust Basswood	Robinia pseudoacacia Tilia americana	Poor Fair	
1464	BL	9	Black Locust	Robinia pseudoacacia	Poor	
1465 1466	BL BL	6 9	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	1
1467	BL	8	Black Locust	Robinia pseudoacacia	Poor	
1468 1469	BL BL	6 8	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
1470	BL	7	Black Locust	Robinia pseudoacacia	Poor	
1471 1472	BL BL	10 12	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	-
1473	BL	6	Black Locust	Robinia pseudoacacia	Poor	
1474 1475	BL BL	8 10	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
1476	BL	13	Black Locust	Robinia pseudoacacia	Poor	
1477 1478	BL BL	8 15	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Fair	
1479	BL	8	Black Locust	Robinia pseudoacacia	Poor	
1480 1481	BL BL	9 14	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
1482	BL	13	Black Locust	Robinia pseudoacacia	Poor	
1483 1484	BL BL	6 6	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
1485	BL	13	Black Locust	Robinia pseudoacacia	Poor	x1
1486 1487	BL BL	6 15	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
1488	BC	8	Wild Black Cherry	Prunus serotina	Poor	
1489 1490	BL BL	8 6	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
1491	BL	12	Black Locust	Robinia pseudoacacia	Poor	
1492 1493	BL BL	6 6	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
1494	BL	9	Black Locust	Robinia pseudoacacia	Poor	
1495 1496	BL YB	9 10	Black Locust Yellow Birch	Robinia pseudoacacia Betula alleghaniensis	Poor Fair	
1497	BL	7	Black Locust	Robinia pseudoacacia	Poor	
1498 1499	BL BL	15 12	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
1500	В	12	Basswood	Tilia americana	Poor	
1501 1502	BC BL	15 9	Wild Black Cherry Black Locust	Prunus serotina	Poor Poor	
1503	BL	9	Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor	
1504 1505	BL BL	12 12	Black Locust Black Locust	Robinia pseudoacacia	Poor Poor	
1505	BL	12	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor	
1507 1508	BL BL	14 14	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
1508	BL	12	Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor	
1510 1511	BL BL	9	Black Locust	Robinia pseudoacacia	Poor Poor	
1511 1512	BL	10	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor	
1513 1514	BL BL	14 10	Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
1514	BL	9	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Very Poor	
1516 1517	BL BL	13 12	Black Locust	Robinia pseudoacacia	Poor	
1517	BL	7	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor	
1519 1520	BL BL	9	Black Locust	Robinia pseudoacacia	Poor Poor	
1520 1521	BL	7	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor	
1522 1523	E BL	8 8	American Elm Black Locust	Ulmus americana Robinia pseudoacacia	Poor Poor	
1524	BL	10	Black Locust	Robinia pseudoacacia	Poor	
1525 1526	E BL	13 13	American Elm Black Locust	Ulmus americana	Poor Poor	
1526	BL	12	Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor	
1528 1529	BL BX	15 7	Black Locust Box elder	Robinia pseudoacacia	Poor Poor	
1529 1530	BL	17	Black Locust	Acer negundo Robinia pseudoacacia	Poor	
1531 1532	BL E	13 9	Black Locust	Robinia pseudoacacia	Poor Fair	
1532 1533	BL	9	American Elm Black Locust	Ulmus americana Robinia pseudoacacia	Poor	
1534	BL	12	Black Locust	Robinia pseudoacacia	Poor	
1535 1536	BL BL	8 13	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
1537	BL	9	Black Locust	Robinia pseudoacacia	Poor	
1538 1539	BL E	6 13	Black Locust American Elm	Robinia pseudoacacia Ulmus americana	Poor Poor	1
1540	BL	13	Black Locust	Robinia pseudoacacia	Poor	
1541 1542	BL BL	16 18	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	x1
		14	Black Locust	Robinia pseudoacacia	Very Poor	<u> </u>

Robinia pseudoacacia

1544 BL 17

1545						
	BL	12	Black Locust	Robinia pseudoacacia	Poor	
1546 1547	BL BL	10 9	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
1548	BL	8	Black Locust	Robinia pseudoacacia	Poor	
1549	BL	12	Black Locust	Robinia pseudoacacia	Poor	
1550 1551	BL BL	6 7	Black Locust Black Locust	Robinia pseudoacacia	Poor Poor	
1552	BL	6	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor	
1553	BL	12	Black Locust	Robinia pseudoacacia	Poor	x2
1554	BL	8	Black Locust	Robinia pseudoacacia	Poor	
1555 1556	BL E	13 13	Black Locust American Elm	Robinia pseudoacacia Ulmus americana	Poor Poor	
1557	BL	14	Black Locust	Robinia pseudoacacia	Poor	
1558	BL	13	Black Locust	Robinia pseudoacacia	Poor	
559	BL	15	Black Locust	Robinia pseudoacacia	Poor	
1560 1561	BL BL	17 9	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
562	BL	7	Black Locust	Robinia pseudoacacia	Poor	
563	BL	19	Black Locust	Robinia pseudoacacia	Poor	
564 565	BL BL	9 17	Black Locust Black Locust	Robinia pseudoacacia	Poor Poor	
566	E	8	American Elm	Robinia pseudoacacia Ulmus americana	Poor	
567	BL	16	Black Locust	Robinia pseudoacacia	Poor	
568	BL	8	Black Locust	Robinia pseudoacacia	Poor	
569 570	BL BL	6 8	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
571	BL	8	Black Locust	Robinia pseudoacacia	Poor	
572	BX	6	Box elder	Acer negundo	Poor	
573	BL	9	Black Locust	Robinia pseudoacacia	Poor	
574 575	BL BL	12 13	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
576	BL	14	Black Locust	Robinia pseudoacacia	Poor	
577	BX	12	Box elder	Acer negundo	Poor	
578 579	BL SM	7	Black Locust	Robinia pseudoacacia Acer saccharinum	Poor Fair	
579 580	SM BL	14	Silver Maple Black Locust	Robinia pseudoacacia	Poor	
581	BL	15	Black Locust	Robinia pseudoacacia	Poor	
582	BL	12	Black Locust	Robinia pseudoacacia	Poor	
583 584	BL BW	7 16	Black Locust Black Walnut	Robinia pseudoacacia Juglans nigra	Poor Fair	
585	BL	8	Black Locust	Robinia pseudoacacia	Poor	
586	BL	8	Black Locust	Robinia pseudoacacia	Poor	
587	BL	13	Black Locust	Robinia pseudoacacia	Poor	
588 589	BL BL	13 8	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
590	BL	10	Black Locust	Robinia pseudoacacia	Poor	
591	BL	6	Black Locust	Robinia pseudoacacia	Poor	
592	BL	9	Black Locust	Robinia pseudoacacia	Poor	
593 594	BL E	10 8	Black Locust American Elm	Robinia pseudoacacia Ulmus americana	Poor Poor	
595	SM	14	Silver Maple	Acer saccharinum	Fair	
596	E	16	American Elm	Ulmus americana	Very Poor	
597 598	BL E	16 21	Black Locust American Elm	Robinia pseudoacacia Ulmus americana	Poor Poor	
599	BX	10	Box elder	Acer negundo	Poor	x1
600	BW	7	Black Walnut	Juglans nigra	Poor	
601	BW	10	Black Walnut	Juglans nigra	Fair	
602	SM E	12 15	Silver Maple American Elm	Acer saccharinum Ulmus americana	Poor Fair	
604	BL	17	Black Locust	Robinia pseudoacacia	Poor	
605	BL	16	Black Locust	Robinia pseudoacacia	Poor	
1606	BL	8	Black Locust	Robinia pseudoacacia	Very Poor	
1607 1608	BL BL	9 8	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
609	E	16	American Elm	Ulmus americana	Poor	
610	SM	16	Silver Maple	Acer saccharinum	Fair	
611	BL SM	6	Black Locust	Robinia pseudoacacia	Poor	
613		16	Silver Manle		Fair	
	BX	16 6	Silver Maple Box elder	Acer saccharinum	Fair Poor	
614	BX SM				Fair Poor Fair	
615	SM SM	6 16 6	Box elder Silver Maple Silver Maple	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum	Poor Fair Fair	
615 616	SM SM TH	6 16 6 10	Box elder Silver Maple Silver Maple Thornapple/Hawthorne	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum Crataegus spp.	Poor Fair Fair Poor	v ⁷
615 616 617	SM SM	6 16 6	Box elder Silver Maple Silver Maple	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum	Poor Fair Fair	x7
615 616 617 618 619	SM SM TH TH	6 16 6 10 8	Box elder Silver Maple Silver Maple Thornapple/Hawthorne Thornapple/Hawthorne	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum Crataegus spp. Crataegus spp. Juglans nigra Juglans nigra	Poor Fair Fair Poor Poor	x7
615 616 617 618 619 620	SM SM TH TH BW BW	6 16 6 10 8 21 18 22	Box elder Silver Maple Silver Maple Thornapple/Hawthorne Thornapple/Hawthorne Black Walnut Black Walnut Black Walnut	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum Crataegus spp. Crataegus spp. Juglans nigra Juglans nigra Juglans nigra	Poor Fair Poor Poor Fair Fair Fair	x7
615 616 617 618 619 620 621	SM SM TH TH BW BW BW	6 16 6 10 8 21 18 22 16	Box elder Silver Maple Silver Maple Thornapple/Hawthorne Thornapple/Hawthorne Black Walnut Black Walnut Black Walnut American Elm	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum Crataegus spp. Crataegus spp. Juglans nigra Juglans nigra Juglans nigra Ulmus americana	Poor Fair Poor Poor Fair Fair Fair Fair Fair	x7
615 616 617 618 619 620 621	SM SM TH TH BW BW	6 16 6 10 8 21 18 22	Box elder Silver Maple Silver Maple Thornapple/Hawthorne Thornapple/Hawthorne Black Walnut Black Walnut Black Walnut	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum Crataegus spp. Crataegus spp. Juglans nigra Juglans nigra Juglans nigra	Poor Fair Poor Poor Fair Fair Fair	x7
615 616 617 618 619 620 621 622 623 624	SM SM TH TH BW	6 16 6 10 8 21 18 22 16 22 19	Box elder Silver Maple Silver Maple Thornapple/Hawthorne Thornapple/Hawthorne Black Walnut Black Walnut Black Walnut American Elm Black Walnut Black Walnut Black Walnut	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum Crataegus spp. Crataegus spp. Juglans nigra Juglans nigra Juglans nigra Ulmus americana Juglans nigra Juglans nigra Juglans nigra Juglans nigra Juglans nigra Juglans nigra	Poor Fair Poor Poor Fair Fair Fair Fair Fair Fair Fair Fai	x7
615 616 617 618 619 620 621 622 623 624 625	SM SM TH TH BW BW BW E BW BW BW BW BW BW	6 16 6 10 8 21 18 22 16 22 19	Box elder Silver Maple Silver Maple Thornapple/Hawthorne Thornapple/Hawthorne Black Walnut Black Walnut Black Walnut American Elm Black Walnut Black Walnut Black Walnut Black Walnut Black Walnut	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum Crataegus spp. Crataegus spp. Juglans nigra Juglans nigra Juglans nigra Ulmus americana Juglans nigra	Poor Fair Poor Poor Fair Fair Fair Fair Fair Fair Fair Fai	x7
615 616 617 618 619 620 621 622 623 624 625 626	SM SM TH TH BW	6 16 6 10 8 21 18 22 16 22 19	Box elder Silver Maple Silver Maple Thornapple/Hawthorne Thornapple/Hawthorne Black Walnut Black Walnut Black Walnut American Elm Black Walnut Black Walnut Black Walnut	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum Crataegus spp. Crataegus spp. Juglans nigra Juglans nigra Juglans nigra Ulmus americana Juglans nigra Juglans nigra Juglans nigra Juglans nigra Juglans nigra Juglans nigra	Poor Fair Poor Poor Fair Fair Fair Fair Fair Fair Fair Fai	x7
615 616 617 618 619 620 621 622 623 624 625 626 627 628	SM SM TH TH BW	6 16 6 10 8 21 18 22 16 22 19 19	Box elder Silver Maple Silver Maple Thornapple/Hawthorne Thornapple/Hawthorne Black Walnut Black Walnut American Elm Black Walnut Black Walnut American Elm Black Walnut Black Walnut Black Walnut Black Walnut Black Walnut	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum Crataegus spp. Crataegus spp. Juglans nigra Juglans nigra Juglans nigra Ulmus americana Juglans nigra	Poor Fair Poor Poor Fair Fair Fair Fair Fair Fair Fair Fai	x7
615 616 617 618 619 620 621 622 623 624 625 626 626 627 628	SM SM TH TH BW	6 16 6 10 8 21 18 22 16 22 19 19 9 18 15 9	Box elder Silver Maple Silver Maple Thornapple/Hawthorne Thornapple/Hawthorne Black Walnut Black Walnut American Elm Black Walnut	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum Crataegus spp. Crataegus spp. Juglans nigra Juglans nigra Juglans nigra Ulmus americana Juglans nigra	Poor Fair Poor Poor Fair Fair Fair Fair Fair Fair Fair Fai	x7
615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630	SM SM TH TH BW BW BW E BW	6 16 6 10 8 21 18 22 16 22 19 19 9 18 15 9	Box elder Silver Maple Silver Maple Thornapple/Hawthorne Thornapple/Hawthorne Black Walnut Black Walnut American Elm Black Walnut	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum Acer saccharinum Crataegus spp. Ulglans nigra Juglans nigra Juglans nigra Ulmus americana Juglans nigra	Poor Fair Poor Poor Fair Fair Fair Fair Fair Fair Fair Fai	x7
615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630	SM SM TH TH BW BW BW E BW	6 16 6 10 8 21 18 22 16 22 19 19 9 18 15 9 26	Box elder Silver Maple Silver Maple Thornapple/Hawthorne Thornapple/Hawthorne Black Walnut Black Walnut American Elm Black Walnut	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum Crataegus spp. Crataegus spp. Juglans nigra Juglans nigra Juglans nigra Ulmus americana Juglans nigra	Poor Fair Poor Poor Fair Fair Fair Fair Fair Fair Fair Fai	x7
615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633	SM SM TH TH BW BW BW E BW	6 16 6 10 8 21 18 22 16 22 19 19 9 18 15 9 26 16 8 6 8	Box elder Silver Maple Silver Maple Thornapple/Hawthorne Thornapple/Hawthorne Black Walnut Black Walnut American Elm Black Walnut Black Locust Black Locust Black Locust	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum Acer saccharinum Crataegus spp. Crataegus spp. Juglans nigra Juglans nigra Juglans nigra Ulmus americana Juglans nigra Auglans nigra Juglans nigra Robinia pseudoacacia Robinia pseudoacacia	Poor Fair Fair Poor Fair Fair Fair Fair Fair Fair Fair Fai	x7
615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634	SM SM TH TH BW BW BW E BW	6 16 6 10 8 21 18 22 16 22 19 19 9 18 15 9 26 16 8 6 8	Box elder Silver Maple Silver Maple Thornapple/Hawthorne Thornapple/Hawthorne Black Walnut Black Walnut American Elm Black Walnut	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum Acer saccharinum Crataegus spp. Crataegus spp. Juglans nigra Juglans nigra Juglans nigra Ulmus americana Juglans nigra Auglans nigra Juglans nigra Auglans nigra Juglans nigra Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia	Poor Fair Poor Poor Fair Fair Fair Fair Fair Fair Fair Fai	x7
615 616 617 618 619 620 621 622 623 624 625 626 626 627 628 630 631 632 633 634 635	SM SM TH TH BW BW BW E BW	6 16 6 10 8 21 18 22 16 22 19 19 9 18 15 9 26 16 8 6 8	Box elder Silver Maple Silver Maple Thornapple/Hawthorne Thornapple/Hawthorne Black Walnut Black Walnut American Elm Black Walnut Black Locust Black Locust Black Locust	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum Acer saccharinum Crataegus spp. Crataegus spp. Juglans nigra Juglans nigra Juglans nigra Ulmus americana Juglans nigra Auglans nigra Juglans nigra Robinia pseudoacacia Robinia pseudoacacia	Poor Fair Fair Poor Fair Fair Fair Fair Fair Fair Fair Fai	x7
615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636	SM SM TH TH BW	6 16 6 10 8 21 18 22 16 22 19 19 9 18 15 9 26 16 8 6 8 14 17 9	Box elder Silver Maple Silver Maple Thornapple/Hawthorne Thornapple/Hawthorne Black Walnut Black Walnut American Elm Black Walnut Black Locust Black Locust Black Walnut	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum Crataegus spp. Crataegus spp. Juglans nigra Juglans nigra Juglans nigra Ulmus americana Juglans nigra Auglans nigra Juglans nigra Juglans nigra Juglans nigra Auglans nigra Juglans nigra Juglans nigra Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Juglans nigra Juglans nigra Juglans nigra	Poor Fair Poor Poor Fair Fair Fair Fair Fair Fair Fair Fai	x7
615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638	SM SM TH TH BW	6 16 6 10 8 21 18 22 16 22 19 19 9 18 15 9 26 16 8 6 8 14 17 9 9	Box elder Silver Maple Silver Maple Thornapple/Hawthorne Thornapple/Hawthorne Black Walnut Black Walnut American Elm Black Walnut Black Locust	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum Acer saccharinum Crataegus spp. Crataegus spp. Juglans nigra Robinia pseudoacacia	Poor Fair Poor Fair Poor Fair Fair Fair Fair Fair Fair Fair Fai	x7
615 616 617 618 619 620 621 622 623 624 625 626 627 628 630 631 632 633 634 635 636 637 638 639	SM SM TH TH BW	6 16 6 10 8 21 18 22 16 22 19 19 9 18 15 9 26 16 8 6 8 14 17 9 9	Box elder Silver Maple Silver Maple Thornapple/Hawthorne Thornapple/Hawthorne Black Walnut Black Walnut Black Walnut American Elm Black Walnut Black Locust	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum Acer saccharinum Crataegus spp. Crataegus spp. Juglans nigra Abulans nigra Robinia pseudoacacia	Poor Fair Foor Fair Fair Fair Fair Fair Fair Fair Fai	x7
615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640	SM SM TH TH BW	6 16 6 10 8 21 18 22 16 22 19 19 9 18 15 9 26 16 8 6 8 14 17 9 9	Box elder Silver Maple Silver Maple Thornapple/Hawthorne Thornapple/Hawthorne Black Walnut Black Walnut American Elm Black Walnut Black Locust	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum Acer saccharinum Crataegus spp. Crataegus spp. Juglans nigra Robinia pseudoacacia	Poor Fair Poor Fair Poor Fair Fair Fair Fair Fair Fair Fair Fai	x7
615 616 617 618 619 620 621 622 623 624 625 626 627 628 630 631 632 633 634 635 636 637 638 639 640 641	SM SM TH TH BW	6 16 6 10 8 21 18 22 16 22 19 19 9 18 15 9 26 16 8 6 8 14 17 9 9 15 16 13 9	Box elder Silver Maple Silver Maple Thornapple/Hawthorne Thornapple/Hawthorne Black Walnut Black Walnut Black Walnut American Elm Black Walnut Black Locust	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum Acer saccharinum Crataegus spp. Crataegus spp. Juglans nigra Robinia pseudoacacia	Poor Fair Poor Fair Poor Fair Fair Fair Fair Fair Fair Fair Fai	x7
615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643	SM SM TH TH BW	6 16 6 10 8 21 18 22 16 22 19 19 9 18 15 9 26 16 8 6 8 14 17 9 9 15 16 16 17 23	Box elder Silver Maple Silver Maple Thornapple/Hawthorne Thornapple/Hawthorne Black Walnut Black Walnut Black Walnut American Elm Black Walnut Black Locust	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum Acer saccharinum Crataegus spp. Urataegus spp. Juglans nigra Auglans nigra Juglans nigra Juglans nigra Robinia pseudoacacia	Poor Fair Poor Fair Fair Fair Fair Fair Fair Fair Fai	x7
615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644	SM SM TH TH BW	6 16 6 10 8 21 18 22 16 22 19 19 9 18 15 9 26 16 8 6 8 14 17 9 9 15 16 16 8 8 14 17 9 9	Box elder Silver Maple Silver Maple Thornapple/Hawthorne Thornapple/Hawthorne Black Walnut Black Walnut Black Walnut American Elm Black Walnut Black Locust	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum Crataegus spp. Crataegus spp. Juglans nigra Auglans nigra Juglans nigra Robinia pseudoacacia	Poor Fair Poor Fair Fair Fair Fair Fair Fair Fair Fai	x7
615 616 617 618 619 620 621 622 623 624 625 626 627 628 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645	SM SM TH TH BW	6 16 6 10 8 21 18 22 16 22 19 19 9 18 15 9 26 16 8 6 8 14 17 9 9 15 16 16 17 23	Box elder Silver Maple Silver Maple Thornapple/Hawthorne Thornapple/Hawthorne Black Walnut Black Walnut Black Walnut American Elm Black Walnut Black Locust	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum Acer saccharinum Crataegus spp. Urataegus spp. Juglans nigra Auglans nigra Juglans nigra Juglans nigra Robinia pseudoacacia	Poor Fair Poor Fair Fair Fair Fair Fair Fair Fair Fai	x7
615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647	SM SM TH TH BW	6 16 6 10 8 21 18 22 16 22 19 19 9 18 15 9 26 16 8 6 8 14 17 9 9 15 16 16 8 17 9 9 17 23 8 17 18 18 18 18 18 18 18 18 18 18 18 18 18	Box elder Silver Maple Silver Maple Thornapple/Hawthorne Thornapple/Hawthorne Black Walnut Black Locust	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum Crataegus spp. Crataegus spp. Juglans nigra Robinia pseudoacacia	Poor Fair Fair Fair Fair Fair Fair Fair Fai	x7
615 616 617 618 619 620 621 622 623 624 625 626 627 628 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648	SM SM TH TH BW	6 16 6 10 8 21 18 22 16 22 19 19 9 18 15 9 26 16 8 6 8 14 17 9 9 15 16 16 8 17 28 17 29 18 18 18 18 18 18 18 18 18 18 18 18 18	Box elder Silver Maple Silver Maple Thornapple/Hawthorne Thornapple/Hawthorne Black Walnut Black Locust	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum Crataegus spp. Crataegus spp. Juglans nigra Robinia pseudoacacia	Poor Fair Poor Fair Fair Fair Fair Fair Fair Fair Fai	
615 616 617 618 619 620 621 622 623 624 625 626 627 628 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649	SM SM TH TH BW	6 16 6 10 8 21 18 22 16 22 19 19 9 18 15 9 26 16 8 6 8 14 17 9 9 15 16 13 9 17 23 8 12 14 14 14 18 17	Box elder Silver Maple Silver Maple Thornapple/Hawthorne Thornapple/Hawthorne Black Walnut Black Locust	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum Crataegus spp. Crataegus spp. Juglans nigra Robinia pseudoacacia	Poor Fair Poor Fair Fair Fair Fair Fair Fair Fair Fai	x7
615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650	SM SM TH TH BW	6 16 6 10 8 21 18 22 16 22 19 19 9 18 15 9 26 16 8 6 8 14 17 9 9 15 16 13 9 17 23 8 12 14 14 18	Box elder Silver Maple Silver Maple Thornapple/Hawthorne Thornapple/Hawthorne Black Walnut Black Locust	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum Crataegus spp. Crataegus spp. Juglans nigra Robinia pseudoacacia	Poor Fair Poor Fair Fair Fair Fair Fair Fair Fair Fai	
615 616 617 618 619 620 621 622 623 624 625 626 627 628 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652	SM SM TH TH BW	6 16 6 10 8 21 18 22 16 22 19 19 9 18 15 9 26 16 8 6 8 14 17 9 9 15 16 13 9 17 23 8 12 14 14 18 17 22 9 13	Box elder Silver Maple Silver Maple Thornapple/Hawthorne Thornapple/Hawthorne Black Walnut Black Cocust Black Locust	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum Crataegus spp. Crataegus spp. Juglans nigra Robinia pseudoacacia	Poor Fair Poor Fair Fair Fair Fair Fair Fair Fair Fai	
615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653	SM SM TH TH BW	6 16 6 10 8 21 18 22 16 22 19 19 9 18 15 9 26 16 8 6 8 14 17 9 9 15 16 13 9 17 23 8 12 14 14 14 18 17 22 9	Box elder Silver Maple Silver Maple Thornapple/Hawthorne Thornapple/Hawthorne Black Walnut Black Locust	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum Crataegus spp. Crataegus spp. Juglans nigra Robinia pseudoacacia	Poor Fair Fair Fair Fair Fair Fair Fair Fai	
615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654	SM SM TH TH BW	6 16 6 10 8 21 18 22 16 22 19 19 9 18 15 9 26 16 8 6 8 14 17 9 9 15 16 13 9 17 23 8 12 14 14 18 17 22 9 13	Box elder Silver Maple Silver Maple Thornapple/Hawthorne Thornapple/Hawthorne Black Walnut Black Cocust Black Locust	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum Crataegus spp. Crataegus spp. Juglans nigra Robinia pseudoacacia	Poor Fair Poor Fair Fair Fair Fair Fair Fair Fair Fai	
615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656	SM SM TH TH BW	6 16 6 10 8 21 18 22 16 22 19 19 9 18 15 9 26 16 8 6 8 14 17 9 9 15 16 13 9 17 23 8 12 14 14 14 18 17 22 9 17 23 18 18 18 18 18 18 18 18 18 18 18 18 18	Box elder Silver Maple Silver Maple Thornapple/Hawthorne Thornapple/Hawthorne Black Walnut Black Cocust Black Locust	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum Crataegus spp. Crataegus spp. Juglans nigra Auglans nigra Juglans nigra Robinia pseudoacacia	Poor Fair Poor Fair Poor Fair Fair Fair Fair Fair Fair Fair Fai	
1614 1615 1616 1617 1618 1619 1620 1621 1622 1623 1624 1625 1626 1627 1638 1634 1635 1636 1637 1638 1639 1640 1641 1642 1645 1644 1645 1646 1647 1648 1649 1650 1651 1655 1656 1657 1658 1656 1657 1658 1657 1658 1657 1658 1657 1658 1657 1658 1657 1658 1657 1658 1657 1658 1657 1658 1657 1658 1657 1658 1657 1658 1657 1658 1657 1658 1657 1658 1655 1656 1657 1658 1655 1656 1657 1658 1655 1656 1657 1658 1655 1656 1657 1658 16	SM SM TH TH BW	6 16 6 10 8 21 18 22 16 22 19 19 9 18 15 9 26 16 8 6 8 14 17 9 9 15 16 13 9 17 23 8 12 14 14 14 18 17 22 9 17 23 18 18 18 18 18 18 18 18 18 18 18 18 18	Box elder Silver Maple Silver Maple Thornapple/Hawthorne Thornapple/Hawthorne Black Walnut Black Locust	Acer saccharinum Acer negundo Acer saccharinum Acer saccharinum Crataegus spp. Crataegus spp. Juglans nigra Robinia pseudoacacia	Poor Fair Poor Fair Poor Fair Fair Fair Fair Fair Fair Fair Fai	

4000			I			
1660 1661	SM SM	6 17	Silver Maple Silver Maple	Acer saccharinum Acer saccharinum	Fair Fair	
1662	E	12	American Elm	Ulmus americana	Poor	
1663 1664	SM GA	15 13	Silver Maple Green Ash	Acer saccharinum	Fair	
1665	E	8	American Elm	Fraxinus pennsylvanica Ulmus americana	Poor Poor	
1666	E	17	American Elm	Ulmus americana	Poor	
1667 1668	TH GA	6 7	Thornapple/Hawthorne Green Ash	Crataegus spp. Fraxinus pennsylvanica	Poor Poor	
1669	SM	17	Silver Maple	Acer saccharinum	Poor	
1670	SM	18	Silver Maple	Acer saccharinum	Poor	
1671 1672	SM SM	18 17	Silver Maple Silver Maple	Acer saccharinum Acer saccharinum	Poor Poor	
1673	SM	25	Silver Maple	Acer saccharinum	Poor	
1674 1675	BX GA	8	Box elder Green Ash	Acer negundo	Poor Very Poor	
1676	GA GA	6	Green Ash	Fraxinus pennsylvanica Fraxinus pennsylvanica	Fair	
1677	NM	8	Norway Maple	Acer platanoides	Fair	
1678 1679	BS BX	10 12	Blue Spruce Box elder	Picea pungens Acer negundo	Fair Poor	
1680	BX	9	Box elder	Acer negundo	Poor	
1681	BX	12	Box elder	Acer negundo	Poor	
1682 1683	BX BX	15 8	Box elder Box elder	Acer negundo Acer negundo	Poor Very Poor	
1684	BX	14	Box elder	Acer negundo	Very Poor	
1685 1686	BX CT	6 24	Box elder Cottonwood	Acer negundo Populus deltoides	Poor Poor	
1687	SM	16	Silver Maple	Acer saccharinum	Fair	x3
1688	GA	6	Green Ash	Fraxinus pennsylvanica	Very Poor	
1689 1690	BW BW	8	Black Walnut Black Walnut	Juglans nigra Juglans nigra	Fair Fair	
1691	BS	14	Blue Spruce	Picea pungens	Good	
1692	BS	13	Blue Spruce	Picea pungens	Good	
1693 1694	BS BS	14	Blue Spruce Blue Spruce	Picea pungens Picea pungens	Good Good	
1695	BW	9	Black Walnut	Juglans nigra	Poor	
1696 1697	BL BI	23	Black Locust	Robinia pseudoacacia	Fair	
1697 1698	BL BL	15 22	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Fair Poor	
1699	BL	9	Black Locust	Robinia pseudoacacia	Fair	
1700 1701	BW BL	24 8	Black Walnut Black Locust	Juglans nigra Robinia pseudoacacia	Fair Poor	
1701	BW	15	Black Walnut	Juglans nigra	Fair	
1703	BW	26	Black Walnut	Juglans nigra	Fair	
1704 1705	BW TH	10 6	Black Walnut Thornapple/Hawthorne	Juglans nigra Crataegus spp.	Very Poor Poor	x1
1706	BW	12	Black Walnut	Juglans nigra	Poor	
1707	BW	25	Black Walnut	Juglans nigra	Fair	
1708 1709	BW BW	9	Black Walnut Black Walnut	Juglans nigra Juglans nigra	Poor Poor	
1710	BW	15	Black Walnut	Juglans nigra	Poor	
1711 1712	BW BW	30 25	Black Walnut Black Walnut	Juglans nigra Juglans nigra	Fair Fair	
1713	BL	19	Black Locust	Robinia pseudoacacia	Poor	
1714	BL	16	Black Locust	Robinia pseudoacacia	Poor	
1715 1716	BL BL	26 15	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Fair	
1717	BL	24	Black Locust	Robinia pseudoacacia	Poor	
1718	В	13	Basswood	Tilia americana	Poor	
1719 1720	BL BL	36 14	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
1721	BW	7	Black Walnut	Juglans nigra	Poor	
1722 1723	BW BW	9	Black Walnut Black Walnut	Juglans nigra Juglans nigra	Poor Poor	
1724	BW	12	Black Walnut	Juglans nigra	Poor	x1
1725	BX	6	Box elder	Acer negundo	Poor	
1726 1727	BW BW	19 10	Black Walnut Black Walnut	Juglans nigra Juglans nigra	Poor Poor	
1728	BW	12	Black Walnut	Juglans nigra	Poor	
1729	BW	14	Black Walnut	Juglans nigra	Poor	
1730 1731	BX BW	8 18	Box elder Black Walnut	Acer negundo Juglans nigra	Fair Poor	
1732	BL	16	Black Locust	Robinia pseudoacacia	Poor	
1733 1734	BW BW	13 6	Black Walnut Black Walnut	Juglans nigra	Poor Poor	
1734	BW	12	Black Walnut	Juglans nigra Juglans nigra	Poor	
1736	BW	8	Black Walnut	Juglans nigra	Poor	
1737 1738	BW BW	13 14	Black Walnut Black Walnut	Juglans nigra Juglans nigra	Poor Poor	
1739	BL	8	Black Locust	Robinia pseudoacacia	Poor	
1740	BL	14	Black Locust	Robinia pseudoacacia	Poor	
1741 1742	BW BW	9	Black Walnut Black Walnut	Juglans nigra Juglans nigra	Poor Poor	
1743	BW	7	Black Walnut	Juglans nigra	Poor	
1744 1745	BW BW	15 6	Black Walnut Black Walnut	Juglans nigra Juglans nigra	Poor Poor	
1745	BC	12	Wild Black Cherry	Prunus serotina	Poor	x1
1747	BW	8	Black Walnut	Juglans nigra	Poor	
1748 1749	BX TH	7	Box elder Thornapple/Hawthorne	Acer negundo Crataegus spp.	Very Poor Poor	x1
1750	BW	16	Black Walnut	Juglans nigra	Poor	
1751	BW	10	Black Walnut	Juglans nigra	Poor	
1752 1753	BW BW	9 12	Black Walnut Black Walnut	Juglans nigra Juglans nigra	Poor Very Poor	
1754	BW	9	Black Walnut	Juglans nigra	Poor	
1755 1756	BW BW	10	Black Walnut Black Walnut	Juglans nigra	Poor	
1/56 1757	BW	6 9	Black Walnut Black Walnut	Juglans nigra Juglans nigra	Poor Poor	
1758	BW	8	Black Walnut	Juglans nigra	Fair	
1759 1760	GA BX	12 14	Green Ash Box elder	Fraxinus pennsylvanica Acer negundo	Poor Fair	
1761	BL	18	Black Locust	Robinia pseudoacacia	Poor	
1762	BL	19	Black Locust	Robinia pseudoacacia	Poor	
1763 1764	E BW	13 6	American Elm Black Walnut	Ulmus americana Juglans nigra	Poor Fair	
1765	BL	7	Black Locust	Robinia pseudoacacia	Poor	
1766 1767	GA BY	7	Green Ash	Fraxinus pennsylvanica	Very Poor	x2
1767 1768	BX SM	10	Box elder Silver Maple	Acer negundo Acer saccharinum	Poor Poor	x4
1769	SH	12	Shagbark Hickory	Carya ovata	Poor	
1770 1771	BW BL	16 24	Black Walnut Black Locust	Juglans nigra Robinia pseudoacacia	Fair Poor	
1771	TH	9	Thornapple/Hawthorne	Crataegus spp.	Poor	
1773	BW	14	Black Walnut	Juglans nigra	Poor	
1774	BL	9	Black Locust	Robinia pseudoacacia	Poor	

1775 1776	BL BW	10 12	Black Locust Black Walnut	Robinia pseudoacacia Juglans nigra	Poor Fair	
1777	BL	10	Black Locust	Robinia pseudoacacia	Poor	
1778	В	13	Basswood	Tilia americana	Fair	
1779 1780	B BL	12 8	Basswood Black Locust	Tilia americana Robinia pseudoacacia	Fair Poor	
1781	BL	6	Black Locust	Robinia pseudoacacia	Poor	
1782	TH	6	Thornapple/Hawthorne	Crataegus spp.	Poor	
1783 1784	BL B	16 16	Black Locust Basswood	Robinia pseudoacacia Tilia americana	Fair Fair	x1
1785	BL	18	Black Locust	Robinia pseudoacacia	Poor	X I
1786	Е	15	American Elm	Ulmus americana	Poor	
1787	BL	28	Black Locust	Robinia pseudoacacia	Poor	0
1788 1789	B BL	14 10	Basswood Black Locust	Tilia americana Robinia pseudoacacia	Fair Poor	x2
1790	В	15	Basswood	Tilia americana	Poor	x1
1791	TH	7	Thornapple/Hawthorne	Crataegus spp.	Poor	
1792 1793	SU BL	13 19	Sugar Maple Black Locust	Acer saccharum Robinia pseudoacacia	Fair Fair	
1794	BL	17	Black Locust	Robinia pseudoacacia	Very Poor	dead
1795	E	17	American Elm	Ulmus americana	Poor	
1796 1797	BW BL	18 18	Black Walnut Black Locust	Juglans nigra Robinia pseudoacacia	Fair Fair	
1798	В	7	Basswood	Tilia americana	Poor	
1799	BL	10	Black Locust	Robinia pseudoacacia	Poor	
1800 1801	BL SU	6 7	Black Locust	Robinia pseudoacacia Acer saccharum	Poor Poor	
1802	BL	13	Sugar Maple Black Locust	Robinia pseudoacacia	Poor	
1803	BL	17	Black Locust	Robinia pseudoacacia	Poor	
1804	BL	1	Black Locust	Robinia pseudoacacia	Poor	
1805 1806	BW BL	9 16	Black Walnut Black Locust	Juglans nigra Robinia pseudoacacia	Fair Poor	
1807	WA	6	White Ash	Fraxinus americana	Poor	
1808	BL	8	Black Locust	Robinia pseudoacacia	Poor	
1809 1810	BL BL	10 8	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
1811	BL	27	Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor	x1
1812	SM	18	Silver Maple	Acer saccharinum	Poor	
1813 1814	SM GA	16 9	Silver Maple Green Ash	Acer saccharinum	Poor	
1814 1815	GA GA	13	Green Ash Green Ash	Fraxinus pennsylvanica Fraxinus pennsylvanica	Poor Very Poor	
1816	GA	8	Green Ash	Fraxinus pennsylvanica	Poor	
1817	GA	9	Green Ash	Fraxinus pennsylvanica	Poor	
1818 1819	GA GA	13 14	Green Ash Green Ash	Fraxinus pennsylvanica Fraxinus pennsylvanica	Poor Poor	
1820	GA	8	Green Ash	Fraxinus pennsylvanica	Very Poor	
1821	GA	10	Green Ash	Fraxinus pennsylvanica	Poor	x1
1822 1823	BL BL	6 16	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
1824	BL	13	Black Locust	Robinia pseudoacacia	Poor	
1825	TH	7	Thornapple/Hawthorne	Crataegus spp.	Poor	x3
1826 1827	BL BL	7 8	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
1828	BL	12	Black Locust	Robinia pseudoacacia	Poor	
1829	BL	13	Black Locust	Robinia pseudoacacia	Poor	
1830 1831	GA BW	15 16	Green Ash Black Walnut	Fraxinus pennsylvanica	Poor Poor	
1832	BL	13	Black Locust	Juglans nigra Robinia pseudoacacia	Poor	
1833	BW	14	Black Walnut	Juglans nigra	Poor	
1834	BL	12	Black Locust	Robinia pseudoacacia	Poor	
1835 1836	BL BW	13 13	Black Locust Black Walnut	Robinia pseudoacacia Juglans nigra	Poor Fair	
1837	BW	8	Black Walnut	Juglans nigra	Poor	
1838	В	16	Basswood	Tilia americana	Poor	x1
1839 1840	B BL	6 9	Basswood Black Locust	Tilia americana Robinia pseudoacacia	Poor Poor	x1
1841	BL	13	Black Locust	Robinia pseudoacacia	Poor	Λ.
1842	BL	13	Black Locust	Robinia pseudoacacia	Poor	
1843 1844	BL BL	14 6	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
1845	BL	7	Black Locust	Robinia pseudoacacia	Very Poor	
1846	BL	13	Black Locust	Robinia pseudoacacia	Poor	
1847 1848	BL BL	10 8	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
1849	BL	16	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor	
1850	BL	10	Black Locust	Robinia pseudoacacia	Poor	
1851 1852	TH BL	8 16	Thornapple/Hawthorne Black Locust	Crataegus spp.	Poor Poor	x2
1852 1853	BL BL	16 13	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor	
1854	BL	13	Black Locust	Robinia pseudoacacia	Poor	
1855	BL	9	Black Locust	Robinia pseudoacacia	Poor	
1856 1857	BL B	12 10	Black Locust Basswood	Robinia pseudoacacia Tilia americana	Poor Poor	
1858	BW	14	Black Walnut	Juglans nigra	Fair	
1859	GA B\A/	7	Green Ash	Fraxinus pennsylvanica	Poor	
1860 1861	BW BL	14 7	Black Walnut Black Locust	Juglans nigra Robinia pseudoacacia	Poor Poor	
1862	BW	14	Black Walnut	Juglans nigra	Poor	
1863	BL	6	Black Locust	Robinia pseudoacacia	Poor	<u> </u>
1864 1865	BL BL	17 15	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Very Poor Poor	
1866	BL	26	Black Locust	Robinia pseudoacacia	Poor	
1867	BL	6	Black Locust	Robinia pseudoacacia	Poor	
1868 1869	BL SM	13 19	Black Locust Silver Maple	Robinia pseudoacacia Acer saccharinum	Poor Fair	x2
1870	BL	12	Black Locust	Robinia pseudoacacia	Poor	Λ <u>΄</u>
1871	BL	29	Black Locust	Robinia pseudoacacia	Poor	_
1872 1873	BL BL	10 13	Black Locust	Robinia pseudoacacia	Poor Poor	
1873 1874	BL	13 8	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor	
1875	BL	12	Black Locust	Robinia pseudoacacia	Poor	
1876	В	12	Basswood	Tilia americana	Poor	x1
1877 1878	B BL	10 17	Basswood Black Locust	Tilia americana Robinia pseudoacacia	Poor Poor	x1
1879	BL	16	Black Locust	Robinia pseudoacacia	Poor	
1880	BL	16	Black Locust	Robinia pseudoacacia	Poor	
1881 1882	BW B	19 7	Black Walnut Basswood	Juglans nigra Tilia americana	Fair Poor	
	GA GA	14	Green Ash	Fraxinus pennsylvanica	Poor	
1883	BL	14	Black Locust	Robinia pseudoacacia	Poor	
1884				Juglans nigra	Fair	
1884 1885	BW	21	Black Walnut	+		
1884		21 9 8	Black Walnut Basswood Black Locust	Tilia americana Robinia pseudoacacia	Poor Very Poor	





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CLIENT GENSLER
150 W JEFFERSON, SUITE 1700
DETROIT, MI 48226

PROJECT TITLE

LONG LAKE & CROOKS MASTERPLAN DEVELOPMENT LONG LAKE AND CROOKS ROAD CITY OF TROY, OAKLAND COUNTY, MICHIGAN

ORIGINAL ISSUE DATE: OCTOBER 20, 2020

TREE LIST SHEET 2

2020-0320 PEA JOB NO. LAA KRD GMB DES. DRAWING NUMBER:

1890	BL	13	Black Locust	Robinia pseudoacacia	Poor	
1891	GA	9	Green Ash	Fraxinus pennsylvanica	Poor	
1892	В	6 15	Basswood	Tilia americana	Poor	
1893 1894	GA B	16	Green Ash Basswood	Fraxinus pennsylvanica Tilia americana	Poor Poor	
1895	В	6	Basswood	Tilia americana	Poor	
1896 1897	B BL	28 6	Basswood Black Locust	Tilia americana Robinia pseudoacacia	Fair Poor	
1898	В	6	Basswood	Tilia americana	Poor	
1899	В	16	Basswood	Tilia americana	Fair	x1
1900 1901	BL B	13 8	Black Locust Basswood	Robinia pseudoacacia Tilia americana	Poor Poor	
1902	В	15	Basswood	Tilia americana	Poor	
1903	SU	17	Sugar Maple	Acer saccharum	Fair	
1904 1905	BL BL	12 13	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
1906	SM	17	Silver Maple	Acer saccharinum	Poor	
1907 1908	BL BW	13 7	Black Locust Black Walnut	Robinia pseudoacacia Juglans nigra	Poor Poor	
1909	BW	8	Black Walnut	Juglans nigra	Poor	
1910	BL	14	Black Locust	Robinia pseudoacacia	Poor	
1911 1912	SM BL	12 15	Silver Maple Black Locust	Acer saccharinum Robinia pseudoacacia	Poor Poor	
1913	SM	25	Silver Maple	Acer saccharinum	Fair	x2
1914	ш	8	American Elm	Ulmus americana	Very Poor	
1915 1916	BL BL	13 14	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
1917	SM	9	Silver Maple	Acer saccharinum	Poor	x4
1918	SM	28	Silver Maple	Acer saccharinum	Fair	
1919 1920	BL BL	7 13	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
1921	BL	7	Black Locust	Robinia pseudoacacia	Poor	
1922 1923	BL TH	7	Black Locust Thomapple/Hawthome	Robinia pseudoacacia Crataegus spp.	Very Poor Poor	
1923	В	14	Basswood	Tilia americana	Poor	
1925	BL	9	Black Locust	Robinia pseudoacacia	Poor	
1926 1927	В В	13 6	Basswood Basswood	Tilia americana Tilia americana	Fair Fair	
1928	BL	8	Black Locust	Robinia pseudoacacia	Poor	
1929	SU	22	Sugar Maple	Acer saccharum	Fair	
1930 1931	B BL	6 15	Basswood Black Locust	Tilia americana Robinia pseudoacacia	Poor Poor	
1932	В	6	Basswood	Tilia americana	Poor	
1933 1934	BL B	9	Black Locust Basswood	Robinia pseudoacacia Tilia americana	Poor Fair	x1
1935	В	15	Basswood	Tilia americana	Fair	X1
1936	BW	24	Black Walnut	Juglans nigra	Fair	
1937 1938	BW BL	7 10	Black Walnut Black Locust	Juglans nigra Robinia pseudoacacia	Poor Poor	
1939	BL	21	Black Locust	Robinia pseudoacacia	Poor	
1940	BL	13	Black Locust	Robinia pseudoacacia	Poor	
1941 1942	SM BW	16 14	Silver Maple Black Walnut	Acer saccharinum Juglans nigra	Fair Fair	
1943	BL	15	Black Locust	Robinia pseudoacacia	Poor	
1944 1945	<u>В</u> Е	14 17	Basswood American Elm	Tilia americana Ulmus americana	Poor Very Poor	
1946	E	6	American Elm	Ulmus americana	Poor	
1947	BL	13	Black Locust	Robinia pseudoacacia	Poor	
1948 1949	BL TH	14 8	Black Locust Thornapple/Hawthorne	Robinia pseudoacacia Crataegus spp.	Poor Poor	×4
1950	BW	12	Black Walnut	Juglans nigra	Fair	X1
1951	BW	16	Black Walnut	Juglans nigra	Poor	
1952 1953	BL BW	14 17	Black Locust Black Walnut	Robinia pseudoacacia Juglans nigra	Poor Poor	
1954	NM	8	Norway Maple	Acer platanoides	Poor	
1955 1956	BW BW	17 19	Black Walnut Black Walnut	Juglans nigra Juglans nigra	Poor Poor	x1
1957	BL	14	Black Locust	Robinia pseudoacacia	Poor	X1
1958	TH	6	Thornapple/Hawthorne	Crataegus spp.	Poor	
1959 1960	B BL	21 12	Basswood Black Locust	Tilia americana Robinia pseudoacacia	Poor Poor	x1
1961	TH	10	Thornapple/Hawthorne	Crataegus spp.	Poor	x1
1962	В	10	Basswood	Tilia americana	Fair	
1963 1964	BW BL	15 15	Black Walnut Black Locust	Juglans nigra Robinia pseudoacacia	Fair Poor	
1965	В	8	Basswood	Tilia americana	Poor	
1966	BL	18	Black Locust	Robinia pseudoacacia	Poor	
1967 1968	BL BL	10 15	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
1969	BL	20	Black Locust	Robinia pseudoacacia	Poor	
1970 1971	BL B	15 8	Black Locust Basswood	Robinia pseudoacacia Tilia americana	Poor Poor	
1971 1972	BW B	16	Black Walnut	Juglans nigra	Poor	
1973	BL	9	Black Locust	Robinia pseudoacacia	Poor	
1974 1975	BL E	16 17	Black Locust American Elm	Robinia pseudoacacia Ulmus americana	Poor Very Poor	
1975	GA	17	Green Ash	Fraxinus pennsylvanica	Very Poor Very Poor	
1977	BL	12	Black Locust	Robinia pseudoacacia	Poor	_
1978 1979	BL BL	13 6	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
1980	BL	8	Black Locust	Robinia pseudoacacia	Poor	
1981	BL	18	Black Locust	Robinia pseudoacacia	Poor	_ _
1982	BW BL	12 8	Black Walnut Black Locust	Juglans nigra Robinia pseudoacacia	Poor Poor	
1983		8	American Elm	Ulmus americana	Poor	
1983 1984	E		Black Locust	Robinia pseudoacacia	Poor	
1984 1985	BL	10 16		•	Door	
1984 1985 1986		10 16 12	Black Locust Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
1984	BL BL	16	Black Locust	Robinia pseudoacacia		
1984 1985 1986 1987 1988 1989	BL BL BL BL	16 12 15 6	Black Locust Black Locust Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia	Poor Poor Poor	
1984 1985 1986 1987 1988	BL BL BL BL	16 12 15	Black Locust Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
1984 1985 1986 1987 1988 1989 1990 1991	BL BL BL BL BL BL BL BL	16 12 15 6 8 9	Black Locust	Robinia pseudoacacia	Poor Poor Poor Poor Poor	
1984 1985 1986 1987 1988 1989 1990 1991 1992 1993	BL BL BL BL BL BL BL BL BL	16 12 15 6 8 9 11	Black Locust	Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor	
1984 1985 1986 1987 1988 1989 1990 1991	BL BL BL BL BL BL BL BL	16 12 15 6 8 9	Black Locust	Robinia pseudoacacia	Poor Poor Poor Poor Poor	
1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996	BL BL BL BL BL BL BL BL E	16 12 15 6 8 9 11 9 13 8	Black Locust American Elm American Elm	Robinia pseudoacacia Ulmus americana Ulmus americana	Poor Poor Poor Poor Poor Poor Poor Poor	
1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997	BL B	16 12 15 6 8 9 11 9 13 8 13	Black Locust American Elm American Elm Black Locust	Robinia pseudoacacia Ulmus americana Ulmus americana Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Poor Poor	
1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997	BL BL BL BL BL BL BL BL E	16 12 15 6 8 9 11 9 13 8	Black Locust American Elm American Elm	Robinia pseudoacacia Ulmus americana Ulmus americana	Poor Poor Poor Poor Poor Poor Poor Poor	
1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000	BL B	16 12 15 6 8 9 11 9 13 8 13 14 13 8	Black Locust American Elm American Elm Black Locust Black Locust Black Locust Black Locust	Robinia pseudoacacia Ulmus americana Ulmus americana Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Poor Poor	
1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001	BL B	16 12 15 6 8 9 11 9 13 8 13 14 13 8 14	Black Locust American Elm American Elm Black Locust	Robinia pseudoacacia Ulmus americana Ulmus americana Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Poor Poor	
1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997	BL B	16 12 15 6 8 9 11 9 13 8 13 14 13 8	Black Locust American Elm American Elm Black Locust Black Locust Black Locust Black Locust	Robinia pseudoacacia Ulmus americana Ulmus americana Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Poor Poor	
1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001	BL B	16 12 15 6 8 9 11 9 13 8 13 14 13 8 14 12 14	Black Locust American Elm American Elm Black Locust	Robinia pseudoacacia Ulmus americana Ulmus americana Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia Robinia pseudoacacia	Poor Poor Poor Poor Poor Poor Poor Poor	

2005 2006	BL BW	15 10	Black Locust Black Walnut	Robinia pseudoacacia Juglans nigra	Poor Fair	
2007	BL	13	Black Locust	Robinia pseudoacacia	Poor	
2008	BL SM	17 16	Black Locust Silver Maple	Robinia pseudoacacia Acer saccharinum	Poor Fair	
2010 2011	BL BL	13 13	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
2012	BL	14	Black Locust	Robinia pseudoacacia	Poor	
2013 2014	BL E	16 15	Black Locust American Elm	Robinia pseudoacacia Ulmus americana	Poor Poor	
2015	E	6	American Elm	Ulmus americana	Poor	
2016 2017	E BL	24 8	American Elm Black Locust	Ulmus americana Robinia pseudoacacia	Fair Poor	
2018 2019	BL BW	10 8	Black Locust Black Walnut	Robinia pseudoacacia Juglans nigra	Poor Poor	
2020	BL	8	Black Locust	Robinia pseudoacacia	Poor	
2021	BL BL	10 11	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
2023 2024	BL E	22 13	Black Locust American Elm	Robinia pseudoacacia Ulmus americana	Poor Poor	
2024	BL	7	Black Locust	Robinia pseudoacacia	Poor	
2026 2027	BL SM	6 15	Black Locust Silver Maple	Robinia pseudoacacia Acer saccharinum	Poor Fair	x1
2028	SM	20	Silver Maple	Acer saccharinum	Fair	x2
2029 2030	BL BL	16 6	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
2031 2032	BW BL	14 15	Black Walnut Black Locust	Juglans nigra Robinia pseudoacacia	Fair Poor	
2032	BL	7	Black Locust	Robinia pseudoacacia	Poor	
2034 2035	BL BL	16 19	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
2036	Е	7	American Elm	Ulmus americana	Poor	
2037 2038	BL GA	13 16	Black Locust Green Ash	Robinia pseudoacacia Fraxinus pennsylvanica	Poor Fair	
2039	E	27	American Elm	Ulmus americana	Poor	
2040 2041	E NM	25 12	American Elm Norway Maple	Ulmus americana Acer platanoides	Fair Fair	
2042 2043	E BL	7 12	American Elm Black Locust	Ulmus americana Robinia pseudoacacia	Poor Poor	
2044	BL	10	Black Locust	Robinia pseudoacacia	Poor	
2045 2046	E E	28 9	American Elm American Elm	Ulmus americana Ulmus americana	Poor Fair	
2047	В	12	Basswood	Tilia americana	Poor	x1
2048 2049	E BL	19 18	American Elm Black Locust	Ulmus americana Robinia pseudoacacia	Very Poor Poor	
2050 2051	BL NM	10 10	Black Locust Norway Maple	Robinia pseudoacacia Acer platanoides	Poor Fair	
2052	NM	8	Norway Maple	Acer platanoides	Fair	
2053 2054	NM E	6 23	Norway Maple American Elm	Acer platanoides Ulmus americana	Fair Poor	
2055	NM	6	Norway Maple	Acer platanoides	Fair	
2056 2057	BW E	18 13	Black Walnut American Elm	Juglans nigra Ulmus americana	Poor Poor	
2058	E	10	American Elm	Ulmus americana	Poor	
2059 2060	BL BL	8 17	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
2061 2062	BW BL	16 6	Black Walnut Black Locust	Juglans nigra Robinia pseudoacacia	Poor Poor	
2063	BL	6	Black Locust	Robinia pseudoacacia	Poor	
2064 2065	<u>В</u>	16 16	Basswood Basswood	Tilia americana Tilia americana	Fair Fair	
2066 2067	В	6 16	Basswood Basswood	Tilia americana Tilia americana	Poor Fair	
2068	B B	13	Basswood	Tilia americana	Fair	
2069 2070	B B	12 17	Basswood Basswood	Tilia americana Tilia americana	Poor Poor	
2071	В	17	Basswood	Tilia americana	Fair	
2072 2073	B NM	12 14	Basswood Norway Maple	Tilia americana Acer platanoides	Poor Fair	
2074 2075	NM GA	14 14	Norway Maple Green Ash	Acer platanoides Fraxinus pennsylvanica	Fair Poor	
2076	NM	6	Norway Maple	Acer platanoides	Fair	
2077 2078	BL BL	19 18	Black Locust Black Locust	Robinia pseudoacacia Robinia pseudoacacia	Poor Poor	
2079	BL	14	Black Locust	Robinia pseudoacacia	Poor	
2080 2081	E BL	18 19	American Elm Black Locust	Ulmus americana Robinia pseudoacacia	Poor Poor	
2082 2083	B BL	14	Basswood	Tilia americana Robinia pseudoacacia	Poor	
2083	В	13 12	Black Locust Basswood	Tilia americana	Poor Poor	
2085 2086	GA BL	15 15	Green Ash Black Locust	Fraxinus pennsylvanica Robinia pseudoacacia	Fair Poor	
2087	В	16	Basswood	Tilia americana	Poor	
2088 2089	PB B	6 15	Paper Birch Basswood	Betula papyrifera Tilia americana	Poor Poor	
2090 2091	B B	17 16	Basswood Basswood	Tilia americana Tilia americana	Poor Poor	
2091	BL	16	Black Locust	Robinia pseudoacacia	Very Poor	
2093 2094	NM B	12 10	Norway Maple Basswood	Acer platanoides Tilia americana	Fair Fair	
2095	GA	12	Green Ash	Fraxinus pennsylvanica	Poor	
2096 2097	E BW	6 23	American Elm Black Walnut	Ulmus americana Juglans nigra	Poor Fair	
2098	E	12	American Elm	Ulmus americana	Poor	
2099 2100	BW E	21 6	Black Walnut American Elm	Juglans nigra Ulmus americana	Poor Poor	
2201	D	13	Jump in sequence	Tilia amoricana	Poor	v1
2201 2202	B B	13 14	Basswood Basswood	Tilia americana Tilia americana	Poor Fair	x1
2203 2204	E BW	9 38	American Elm Black Walnut	Ulmus americana Juglans nigra	Poor Fair	
2205	BW	19	Black Walnut	Juglans nigra	Poor	
2206 2207	TH TH	9	Thornapple/Hawthorne Thornapple/Hawthorne	Crataegus spp. Crataegus spp.	Poor Poor	
2208 2209	NM BW	13 6	Norway Maple Black Walnut	Acer platanoides Juglans nigra	Fair Poor	
2210	PW	6	White Poplar	Juglans nigra Populus alba	Poor Poor	
2211 2212	E E	7 6	American Elm American Elm	Ulmus americana Ulmus americana	Poor Poor	
2213	E	15	American Elm	Ulmus americana	Very Poor	
2214 2215	E TH	6 19	American Elm Thornapple/Hawthorne	Ulmus americana Crataegus spp.	Poor Poor	x1
2216	BL	16	Black Locust	Robinia pseudoacacia	Poor	
2217	BL	8	Black Locust	Robinia pseudoacacia	Poor	

American Elm

Ulmus americana

Poor







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LOCATION MAP

CLIENT

GENSLER
150 W JEFFERSON, SUITE 1700
DETROIT, MI 48226

PROJECT TITLE

LONG LAKE & CROOKS MASTERPLAN DEVELOPMENT
LONG LAKE AND CROOKS ROAD
CITY OF TROY, OAKLAND COUNTY, MICHIGAN

REVISIONS		
-		

ORIGINAL ISSUE DATE: OCTOBER 20, 2020

DRAWING TITLE TREE LIST -

SHEET 3

PEA JOB NO.	2020-0320
P.M.	LAA
DN.	KRD
DES.	GMB
DRAWING NUMBER	₹:

LONG LAKE & CROOKS MASTERPLAN DEVELOPMENT STATE OF MICHIGAN COUNTY OF OAKLAND CITY OF TROY

DEVELOPMENT AGREEMENT FOR "LONG LAKE & CROOKS MASTERPLAN DEVELOPMENT" PLANNED UNIT DEVELOPMENT

RECITALS

- A. Developer is the owner of certain real property located at the northwest corner of Long Lake and Crooks Roads in the City of Troy, Oakland County, Michigan, consisting of one (1) parcel and containing approximately 24.08 acres, as more particularly described on attached **Exhibit A** (the "Property").
- B. Developer has petitioned for an Amendment to Chapter 39 of the Troy City Code (the "Zoning Ordinance") for the rezoning of the Property to Planned Unit Development ("PUD"), pursuant to Article 11 of the Zoning Ordinance, for the development to be known as "Long Lake & Crooks Masterplan Development", sometimes also referred to herein as the "Development" or the "Planned Unit Development".
- C. Developer has demonstrated the need for the zoning of the Property as PUD consistent with the intent of Section 11.03 of the Zoning Ordinance because, among other features, the Developer proposes: (i) a mixture of land uses that would otherwise not be permitted without the use of the PUD; (ii) to provide a recognizable and material benefit to the ultimate users of the

project and to the community, where such benefit would otherwise be infeasible or unlikely to be achieved absent the PUD designation; (iii) to encourage compatible mixture of open space, landscaped areas, and pedestrian amenities; (iv) to use appropriate land use transitions between the PUD and surrounding properties; (v) to use innovative and creative site and building designs, solutions and materials; (vi) to provide the desirable qualities of a dynamic urban environment that is compact, designed to human scale, and exhibits contextual integration of buildings and city spaces; (vii) to encourage uses for the appropriate assembly, use, redevelopment, replacement, and improvement of an existing vacant site; (viii) to promote the intent of the City's Master Plan and the intent of any applicable corridor or sub-area plans and consistent with recent development trends in the area; and, (ix) to include all necessary information and specifications with respect to structures, heights, setbacks, density, parking, circulation, landscaping, amenities, and other design and layout features, exhibiting a due regard for the relationship of the Development to the surrounding properties and uses thereon, as well as to the relationship between the various elements within the proposed Development.

D. Developer has received, and the City has approved, the Concept Development Plan, a copy of which is attached as **Exhibit B** ("Concept Development Plan"), pursuant to Section 11.06 of the Zoning Ordinance subject to the terms of this Agreement.

NOW, THEREFORE, as an integral part of the grant of rezoning of the Property to PUD known as the "Long Lake & Crooks Masterplan Development" and its development, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

ARTICLE I

GENERAL TERMS

- 1.1 <u>Binding Effect</u>. This Agreement incorporates all PUD Documents, as defined below, and shall run with the land. References in this Agreement or in any PUD Documents to "Developer" shall include Developer's successors and assigns. It is the intent of the City and Developer to put all future owners of the Property, and parties in interest, on notice of the rights, obligations, and restrictions contained herein, by recording this Agreement and its attached Exhibits with the Oakland County Register of Deeds. The terms and conditions of this Agreement shall be considered "Deed Restrictions" binding upon all developers and any successors or assigns of the Property.
- 1.2 <u>PUD Documents</u>. The Property shall be developed and improved in accordance with the following, which shall be referred to collectively as the "PUD Documents":
 - A. Article 11 of the Zoning Ordinance, and amendments, if any, as of the Effective Date;
 - B. This Agreement;
 - C. The PUD Application received by the City of Troy Planning Department on , 2022;

D. The following documents:

General Description of Document	Date of Document	Drafter or Preparer

- E. The Resolution and the official minutes of the meeting at which the City Council approved the PUD, including any and all conditions of the approval contained therein, an Affidavit of Property Ownership to be recorded with the Oakland County Register of Deeds prior to commencement of construction and prior to the sale, lease, rental, or occupancy by tenants of any portion of the Property, contain the legal description of the entire Property, specifying the date of the Concept Development Plan approval, and rezoning of the Property to PUD by the City Council, and declaring that all future development of the Property has been authorized, restricted, and required to be carried out in accordance with this Agreement, and the amendment to the Zoning Ordinance granting rezoning to PUD;
- F. All Preliminary Development Plans, as defined in Section 11.07 of the Zoning Ordinance, approved by City Council; and,
- G. All Final Development Plans, as defined in Section 11.08 of the Zoning Ordinance, approved by the Zoning Administrator or by the Community Development Director of the City.
- 1.3 Amendment to Zoning Ordinance. Troy City Council Resolution #______ (the "Resolution") and this Agreement shall be considered an amendment to the Zoning Ordinance and the Zoning Map, reclassifying the zoning of the Property, which was not previously rezoned to PUD, and the Resolution constitutes the land authorization for the Property in accordance with the Zoning Ordinance. All uses and improvements completed on the Property shall be in substantial conformity with Article 11 of the Zoning Ordinance and the PUD Documents.

ARTICLE II

DEVELOPER'S RIGHTS, OBLIGATIONS, AND PROPERTY RESTRICTIONS

- 2.1 <u>Development Rights</u>. Developer shall have the right to develop and use the Property, and make improvements and modifications to the Property, in accordance with the PUD Documents. Any changes to the Development shall be approved in accordance with the PUD Documents in effect at the time of the proposed changes.
- 2.2 <u>Permitted Uses</u>. The City acknowledges and approves that the Development shall consist of separate areas within which there will be separate permitted uses, but which together will relate to each other in an acceptable and cohesive development. The separate areas are depicted on the Concept Development Plan as development areas, amenity zones, retail/restaurant

areas, and natural areas and are more fully defined in this Agreement. The permitted uses of the Development described below are consistent with the intent of the City's Master Plan or the intent of any applicable corridor or sub-area plans, and otherwise consistent with Section 11.02 of the Zoning Ordinance, and are to be a mixture of commercial, retail, residential, and office uses, and identified as follows:

- A. <u>Development Area 1</u> Residential uses permitted as of right or requiring special approval, and their accessory uses, consistent with such uses in the UR Urban Residential District, and all associated surface parking.
- B. Development Area 2 Office uses permitted as of right or requiring special approval, and their accessory uses, consistent with such uses in the OM Office Mixed Use District, the O Office District, or the GB-General Business District as referenced in the Zoning Ordinance, a multi-story parking structure, "Restaurant" and/ or "Retail Business or Retail Sales" uses and their accessory uses as defined by the Zoning Ordinance, and all associated surface parking.
- C. <u>Development Area 3</u> Residential uses permitted as of right or requiring special approval, and their accessory uses, consistent with such uses in the UR Urban Residential District as referenced in the Zoning Ordinance and all associated surface parking; Office uses permitted as of right or requiring special approval, and their accessory uses, consistent with such uses in the OM Office Mixed Use District, the O Office District, or the GB-General Business District, as referenced in the Zoning Ordinance; "Restaurant" and/or "Retail Business or Retail Sales" uses as defined by the Zoning Ordinance; Conference, meeting, and banquet facility uses permitted as of right or requiring special approval, and their accessory uses consistent with such uses the GB General Business District in the Zoning Ordinance; and all associated surface parking.
- D. <u>Development Area 4</u> Lodging or extended stay facility uses permitted as of right or requiring special approval, and their accessory uses, consistent with such uses in the GB General Business District identified in the Zoning Ordinance; and, Residential uses permitted as of right or requiring special approval, and their accessory uses, consistent such uses in the UR Urban Residential District as referenced in the Zoning Ordinance and all associated surface parking.
- E. <u>Restaurant/Retail Areas</u> "Restaurant" and/ or "Retail Business or Retail Sales" uses as defined by the Zoning Ordinance, and their accessory uses, and all associated surface parking.
- F. <u>Amenity Zone A</u> "Open Space" as defined by the Zoning Ordinance for use as an open field activity area, including bocce ball court, pickleball courts, seasonal ice-skating rink, and associated surface parking.

- G. <u>Amenity Zone B</u> "Open Space" as defined by the Zoning Ordinance for use as a fitness path with outdoor exercise stations. A portion of Amenity Zone B is a regulated wetland area, will be restricted from development, and will remain in an "Undeveloped State" as defined in the Zoning Ordinance.
- H. <u>Amenity Zone C</u> Is a regulated wetland area, will be restricted from development, and shall remain in an "Undeveloped State" as defined in the Zoning Ordinance.

The City recognizes that the permitted uses identified above within each of the above areas merely provide the range of actual uses available for selection by the Developer. Such permitted uses within each of the above areas shall be selected by the Developer, in its sole discretion, recognizing the uses are subject to market demand, end-user requirements, development patterns, and other factors outside of the control of the Developer. Developer shall be provided with flexibility in selecting such permitted uses, and any combination of the permitted uses, to provide Developer the opportunity to construct and use a higher quality development and a better overall project than would be accomplished under conventional zoning, and which will be accommodated without sacrificing established community values. It is also recognized that Developer shall be provided with flexibility in altering the uses within the Amenity Zones referenced above so long as such uses are consistent with the "Open Space" definition in the Zoning Ordinance.

Sequencing and Phasing of Development. Due to the unique nature and scale of the Development, the City recognizes that the Developer shall be afforded maximum flexibility in the sequencing and phasing of the Development to attract investment and end users consistent with the Phasing Plan, as described below. Any phase described below shall be generally referenced alone as a "Phase" and together as "Phases" for purposes of this Agreement. Developer shall be permitted to apply for all approvals, including Preliminary Development Plan approval and Final Development Plan approval, for any portion of the Development, including the Phases or Restaurant/Retail Areas, at any time consistent with the Phasing Plan, within the sole discretion of the Developer, and the City shall be obligated to review and promptly process such requests for approval as provided for under the Zoning Ordinance. Developer shall be permitted, but not required, to commence construction and development of any Phase or Restaurant/Retail Area at any time consistent with the Phasing Plan, within the sole discretion of the Developer, and the City shall be obligated to review and process such requests for construction and development approvals as provided for under the Zoning Ordinance; provided, however, that once construction is commenced in any Phase or Restaurant/Retail Area, the Developer shall complete the development and construction of such Phase or Restaurant/Retail Area. Undeveloped Phases or Restaurant/Retail Areas shall be appropriately maintained by Developer, including grass cutting and refuse removal. Developer shall not clear-cut trees within any unapproved and undeveloped Phase or Restaurant/Retail Area without the approval of the Community Development Director.

The Development is planned as a multiple phase development, each of which shall include the associated infrastructure improvements within and necessary to serve such Phase or Restaurant/Retail Area. The Phases of the Development (the "Phasing Plan") are set forth below.

RESIDENTIAL MID-RISE PHASE: The Residential Mid-Rise Phase is depicted on the Concept Development Plan as **Development Area 1**. This Phase includes a residential mid-rise building not to exceed seven (7) stories with associated parking, driveways, and sidewalks.

OFFICE/PROFESSIONAL PHASE: The Office/Professional Phase is depicted on the Concept Development Plan as **Development Area 2** and includes an office/professional building not to exceed ten (10) stories, a parking deck, with associated surface parking, driveways, and sidewalks.

OFFICE/PROFESSIONAL/RESIDENTIAL/RETAIL/PARKING PHASE: The Office/Professional/Residential/Retail/Parking Phase is depicted on the Concept Development Plan as **Development Area 3** and includes the office/professional/residential/retail/parking building not to exceed ten (10) stories, an associated parking deck within the building and with associated surface parking, driveways, and sidewalks.

LODGING/EXTENDED STAY/RESIDENTIAL PHASE: The Lodging/Extended Stay/ Residential Phase is depicted on the Concept Development Plan as **Development Area 4** and includes a not to exceed seven (7) story lodging, extended stay facility, or residential (apartment or condominium) building with associated surface parking, driveways, and sidewalks.

Amenity Zone A shall be developed as part of the first Phase. Amenity Zone B shall be developed as part of the second Phase, except for the regulated wetland area within Amenity Zone B which shall remain undeveloped. Amenity Zone C shall not be developed because it is a regulated wetland area.

At the discretion of the Developer, any or all of the Restaurant/Retail Areas (depicted as Restaurant/Retail Building #1, Restaurant/Retail Building #2, and Restaurant/Retail Building #3 on the Concept Development Plan) may be: (i) constructed at any time without being part of any Phase after the Developer has commenced construction of the first Phase; or, (ii) constructed at any time as part of any Phase.

Upon commencement of the first Phase, all regulated wetland areas shall be restricted from any development and shall remain in an "Undeveloped State" as defined in the Zoning Ordinance.

- 2.4 <u>Duration</u>. The Concept Development Plan shall remain in full force and effect so long as Developer requests Preliminary Development Plan approval for the first Phase within five (5) years from the Effective Date. Developer may commence construction of the first Phase within two (2) years of Final Development Plan approval of the first Phase and shall thereafter, in its sole discretion, commence construction of any other Phase or Restaurant/Retail Area no later than twenty (20) years from the commencement of construction of the first Phase. Developer has a right to request an extension for good cause from the City not less than 90 days prior to the expiration date of any deadlines.
- 2.5 <u>Relationship of Phases and Areas</u>. Each Phase or Restaurant/Retail Area developed shall be capable of standing on its own in terms of the presence of Improvements, as defined below, to serve such Phase or Restaurant/Retail Area. Developer shall not be required to construct

Improvements outside of a particular Phase or Restaurant/Retail Area and shall not be required to connect any such Improvements between any non-contiguous Phase or Restaurant/Retail Area, until the last of the Phases and Restaurant/Retail Areas described above is completed.

- 2.6 <u>Vesting</u>. To the extent construction has commenced on a particular Phase or Restaurant/Retail Area, Developer shall be deemed to have obtained vested rights with respect to that Phase or Restaurant/Retail Area and shall be permitted to complete that Phase or Restaurant/Retail Area in accordance with applicable approvals.
- 2.7 <u>Preliminary Development Plan Submittal</u>. Preliminary Development Plans for each Phase, Amenity Zone, or Restaurant/Retail Area shall be consistent with the Concept Development Plans and this Agreement, and each Preliminary Development Plan shall be submitted for approval to the City with corresponding traffic and parking studies to be reviewed and approved administratively by the City Engineer, the Road Commission for Oakland County, and the Michigan Department of Transportation as may be required by applicable law. The scope of the traffic and parking studies shall be approved by the City Engineer consistent with the Zoning Ordinance and this Agreement.
- 2.8 <u>Statement of Conditions</u>. As part of the PUD and as a condition of said approval and to satisfy the PUD zoning standards, Developer's obligations shall include the following, plus any other requirements set forth in the PUD Documents, this Agreement and Exhibits, attached hereto and made a part hereof, which are designated as the obligations of the Developer:
 - A. The Development will facilitate the interconnectivity of vehicular and pedestrian access through a network of sidewalks and internal roads.
 - B. The Developer will preserve in perpetuity certain natural wetland areas on the Property.
 - C. The Development will include amenity zones with bocce ball courts pickleball courts, seasonal ice skating rink, fitness path with outdoor exercise stations, outdoor activity areas, and a pedestrian loop and boulevard throughout the Property, each accessible to the public and as shown on the Concept Development Plan.
 - D. The Development will provide large open spaces and landscaped areas which exceed the requirements of the City in a workable integrated design.

The City acknowledges that the Development will have numerous community benefits and, among them, the Development will: (a) eliminate existing under-development of the Property as well as encourage the assemblage and division of parcels within the Property to create a consistent development that provides a logical transition with the surrounding properties; (b) promote and be consistent with the redevelopment goals of the City's Master Plan; (c) incorporate and implement numerous goals and strategies of the City's Master Plan; and, (d) provide a higher quality of development than could be achieved under conventional zoning.

- 2.9 <u>Development Standards</u>. The Property shall be developed, if at all, consistent with the City of Troy development standards, the Zoning Ordinance, and other City ordinances, or any amendments thereto, and consistent with the PUD Documents (the "Approved Standards"), without the need for any additional approvals from the City for such standards, because the City has determined that the Approved Standards are a reasonable approach for the PUD as listed in Article 11 of the Zoning Ordinance for the Development including but not limited to the following purposes:
 - A. To encourage developments that will result in a long-term contribution to social, environmental, and economic sustainability in the City;
 - B. To permit development patterns that respond to changing public and private needs;
 - C. To encourage flexibility in design and use that will result in a higher quality of development and a better overall project than would be accomplished under conventional zoning, and which can be accommodated without sacrificing established community values;
 - D. To encourage the use, redevelopment, and improvement of existing sites where current ordinances do not provide the flexibility to consider redevelopment of sites;
 - E. To ensure the compatibility of design and use among various components within the PUD and with neighboring properties and uses;
 - F. To ensure development that is consistent with the intent of the City's Master Plan; and,
 - G. To encourage an integrated development.

The Approved Standards, as well as other approved features of the Development contained in this Agreement, are not intended to avoid the zoning requirements that would otherwise apply, but rather to allow flexibility and mixture of uses, and to improve the design, character, and quality of Development and any variations from the requirements of the Zoning Ordinance, because they are improvements to the public health, safety, and welfare in the area affected and in accordance with the intent of Article 11 of the Zoning Ordinance.

The City recognizes that the boundaries of each of the Phases, Amenity Zones, and Restaurant/Retail Areas shown on the Concept Development Plan may need to change in light of market demand, end-user requirements, development patterns, and other factors outside of the control of the Developer. Therefore, to provide Developer with flexibility in design and use that will result in a higher quality of development and a better overall project than would be accomplished under conventional zoning, and which will be accommodated without sacrificing established community values, the boundaries of such Phases, Amenity Zones, or Restaurant/Retail Areas shown on the Concept Development Plan may be enlarged or reduced, at the sole discretion of the Developer, so long as the Developer complies with the Approved Standards as specified herein.

Modifications regarding the density, mix of types of buildings, number of units per building, and location of buildings shall be permitted under this Agreement to allow the Developer flexibility and as may be reasonably necessary to comply with applicable laws or regulations, subject to this Section. Developer shall have the right, in its sole discretion, to modify interior floor plans subject to compliance with all other City ordinances. Minor modifications to the PUD Documents resulting from engineering considerations, site conditions, or other governmental requirements may be administratively approved by the Zoning Administrator or Community Development Director.

Landscaping shall meet or exceed required landscaping for similar projects pursuant to Chapter 39, Section 13.02 of the Zoning Ordinance.

- 2.10 <u>General Maintenance</u>. Developer shall maintain all common areas, storm water drainage and retention facilities, landscaped areas, parking areas, and sidewalks in good working order and appearance. Developer may establish an Association or Associations to assume the maintenance obligations set forth in this Agreement in which event the Association or Associations shall succeed to the Developer's obligations for those portions of the Property defined in the instrument establishing each Association, and Developer shall be relieved of all obligations and liability with respect thereto.
- 2.11 <u>Conveyance by Developer</u>. In the event Developer conveys all or any portion of the Property, it shall establish easements over and across the Property providing that all portions of the Property shall have full egress and ingress for both vehicular and pedestrian use and for egress and ingress to a public road, and access over, under, and across portions of the common areas necessary for installation, construction, repair, and maintenance of utilities affecting and placed upon the Property, which may provide for shared participation in the cost of maintenance and repair. Developer may, however, designate specific parking areas for use by specific areas of the Development.
- 2.12 <u>Construction Trailers</u>. Developer shall comply with the City Code and Ordinances, make any necessary application for permits, and obtain any necessary permits for the use of construction trailers, and for rental, occupancy, and advertising signs.

ARTICLE III

PUBLIC IMPROVEMENTS

3.1 Water and Sanitary Sewer Systems. Developer shall, at its sole expense, construct and install improvements and/or connections tying into the municipal water and sanitary sewer systems, including any required fire hydrant, consistent with the Phasing Plan. Such improvements shall be designed and constructed in accordance with any Final Development Plan approved under Section 11.08 of the Zoning Ordinance, approved engineering construction plans, and all applicable City, County, and State standards, codes, regulations, ordinances, and laws. Such water and sanitary sewer service facilities, including any on-site and off-site facilities, extensions, and easements to reach the area to be served, shall be completed, approved, and dedicated to the City to the extent necessary to fully service all proposed and existing facilities, structures, and uses for such Phase or Restaurant/Retail Area. Consistent with the Phasing Plan, all water and sanitary

system improvements required shall be completed before construction of the buildings to be erected in the applicable Phase or Restaurant/Retail Areas and shall be completed, approved and dedicated to and accepted by the City, if required, to the extent necessary to fully service all proposed and existing facilities, structures and uses, within such Phase or Restaurant/Retail Area to be served thereby, prior to issuance of any building permits within such Phase or Restaurant/Retail Area. The water and sanitary sewer improvements within each Phase or Restaurant/Retail Area must be completed such that, upon completion and any dedication of such improvements, they are fully sufficient to provide the required capacity for water and sewer services to such buildings to be erected within such Phase or Restaurant/Retail Area according to the applicable laws, ordinances, codes, regulations, and standards at the time of construction of buildings to be erected within such Phase or Restaurant/Retail Area. The Developer shall post security in the form of cash or check or certificate of deposit, irrevocable letter of credit, or a performance bond (the "Security"), as specified in a separate agreement approved by the City for any water and sanitary sewer systems undergoing construction. The Security shall be in an amount equal to the estimated cost of installation, or a performance bond in an amount equal to the cost of construction plus ten percent (10%), as specified in a bona fide contract for installation of such improvements approved by the City Engineer. The agreement shall also authorize the City, at its option, to complete these improvements as required by the City Engineer, if Developer fails to complete the water and sanitary sewer improvements in a timely fashion, once construction has commenced. All performance bonds shall be issued by institutions licensed and admitted to do business in the State of Michigan. Building permits for the buildings to be erected on the Property within the Development to be served by the water and sanitary sewer improvements in question shall be issued upon the posting of such Security and execution of such agreement, which shall be approved by the City Attorney in the exercise of reasonable discretion.

Storm Water Drainage. Developer shall, at its sole expense, construct and install storm water and retention and/or detention systems consistent with the Phasing Plan. Such improvements shall be designed and constructed in accordance with any Final Development Plan approved under Section 11.08 of the Zoning Ordinance, approved engineering construction plans, and all applicable City, County and State standards, codes, regulations, ordinances, and laws. All storm water and retention and/or detention system improvements required shall be completed before construction of the buildings to be erected within a Phase or Restaurant/Retail Area and shall be completed and approved to the extent necessary to fully service all proposed and existing facilities, structures and uses, within such Phase or Restaurant/Retail Area, prior to issuance of any building permits. The Developer shall post Security, as specified in a separate agreement approved by the City, for any storm water and retention and/or detention system systems undergoing construction. The Security shall be in an amount equal to the estimated cost of installation, or a performance bond in an amount equal to the cost of construction plus ten percent (10%), as specified in a bona fide contract for installation of such improvements approved by the City Engineer. The agreement shall also authorize the City, at its option, to complete these improvements as required by the City Engineer, if Developer fails to complete the storm water and retention and/or detention system improvements in a timely fashion, once construction has commenced. All performance bonds shall be issued by institutions licensed and admitted to do business in the State of Michigan. Building permits for the buildings to be erected within the Development to be served by the storm water and retention and/or detention system improvements in question shall be issued upon the posting of such Security and execution of such agreement, which shall be approved by the City Attorney in the exercise of reasonable discretion. During the

development of the Property, the Developer or its successors or assigns shall be obligated to maintain the storm water and retention and/or detention system and facilities for such applicable Phase or Restaurant/Retail Area in a fully operational condition.

- 3.3 Streets, Boulevards, Sidewalks, Non-Motorized Paths, Drives, Entryways and Parking Areas. Developer shall, at its sole expense, construct and install streets, boulevards, sidewalks, non-motorized paths, drives, entryways, and parking areas consistent with the Phasing Plan. All internal streets, boulevards, sidewalks, non-motorized paths, drives, entryways, and parking areas will be private. Such improvements shall be designed and constructed in accordance with any Final Development Plan approved under Section 11.08 of the Zoning Ordinance, approved engineering construction plans, and all applicable City, County, and State standards, codes, regulations, ordinances, and laws. The Developer shall post Security, as specified in a separate agreement approved by the City, for any streets, boulevards, sidewalks, non-motorized paths, drives, entryways, and parking areas undergoing construction. The Security shall be in an amount equal to the estimated cost of installation, or a performance bond in an amount equal to the cost of construction plus ten percent (10%), as specified in a bona fide contract for installation of such improvements approved by the City Engineer. The agreement shall also authorize the City, at its option, to complete these improvements as required by the City Engineer, if Developer fails to complete the streets, boulevards, sidewalks, non-motorized paths, drives, entryways, and parking areas in a timely fashion, once construction has commenced. All performance bonds shall be issued by institutions licensed and admitted to do business in the State of Michigan. Building permits for the buildings to be erected within the Development to be served by the streets, boulevards, sidewalks, non-motorized paths, drives, entryways, and parking areas in question shall be issued upon the posting of such Security and execution of such agreement, which shall be approved by the City Attorney in the exercise of reasonable discretion. At all times, during and after completion of construction, Developer, its successor and assigns, shall cause all internal streets, boulevards, sidewalks, non-motorized paths, drives, entryways, and parking areas to be maintained, repaired and kept in an unimpeded, unobstructed, safe and passable condition at all times to allow for the free flow and circulation of traffic throughout the Development when completed, and within each Phase Restaurant/Retail Area prior to completion of the Development, except for temporary closures or obstruction due to repairs or snow. Developer shall install and maintain an adequate gravel surface base as determined by the City Engineer for all entrance ways and internal drive areas to provide for access for construction traffic, City personnel, emergency and firefighting equipment for such specific site and prior to construction of a final base course. The aforementioned agreement for completion shall provide that the paving of all areas referenced in this Section within an applicable Phase or Restaurant/Retail Area shall be completed and approved (including topcoat and parking lot striping) prior to the issuance of more than ninetyfive percent (95%) of any certificates of occupancy for buildings within a Phase or Restaurant/Retail Area, but in any event such paving shall be completed within two (2) years of issuance of the first building permit for a building within such Phase or Restaurant/Retail Area.
- 3.4 <u>Improvements</u>. The City acknowledges that any Phase or Restaurant/Retail Area as may be shown on the Concept Development Plan may be constructed, and operated, at different times consistent with the Phasing Plan, at the discretion of the Developer, depending on market forces and the feasibility of doing so, and that the Developer should be afforded flexibility in its approach to develop the Property in a reasonable and efficient manner. Therefore, notwithstanding anything to the contrary contained in Sections 3.1, 3.2, and 3.3 above: (a) the City shall permit the

Developer to construct and operate upon any Phase or Restaurant/Retail Area so long as the improvements referenced in Sections 3.1, 3.2, and 3.3 above (the "Improvements") adequately service all proposed and existing facilities, structures, and uses within such Phase or Restaurant/Retail Area and shall issue all permits, approvals, and consents accordingly; (b) it shall not be a condition of this Agreement that Developer must complete all of the Improvements on the entire Property before any Phase or Restaurant/Retail Area on the Concept Development Plan is commenced or completed, including the streets, boulevards, sidewalks, non-motorized paths, drives, entryways, and parking areas; and, (c) the City shall not withhold certificates of occupancy, or any other approval, for any buildings in a specific Phase or Restaurant/Retail Area shown on the Concept Development Plan solely because Improvements are not completed within other Phases or Restaurant/Retail Areas.

- 3.5 <u>Assignment of Maintenance Obligations</u>. Developer shall have the right to assign its maintenance obligations under this Agreement to an Association or Associations and to any successors and assigns including any successor developer or owner of a portion of the Development. Upon the assignment to and assumption by an Association or any successor developer or owner of any of Developer's maintenance obligations, as set out in this Agreement and otherwise, Developer shall have no further obligations or liability with respect thereto. All successors and assigns of Developer shall agree to be bound by the obligations for common area maintenance contained in this Agreement.
- 3.6 <u>Regular Inspections</u>. For purposes of maintenance obligations set forth in this Article, the term "maintenance," "maintain" and "maintained" shall mean and include regular inspections.
- 3.7 Reduction of Security. At the Developer's request, but not more frequently than once a month, the Security may be reduced by the same percentage as the percentage of completion of each component of the Improvements as determined by the City's engineer in the exercise of reasonable discretion. The balance of any Security shall be returned to Developer within thirty (30) days following the determination of the City that any particular portion of the Improvements have been completed consistent with the approved engineering plans. A minimum of ten percent (10%) of the Security shall be maintained by the City until such time as final approval has been issued for all Improvements commenced.

ARTICLE IV

THE CITY'S RIGHTS AND OBLIGATIONS

4.1 <u>Notice of Deficiencies and Cure Period</u>. The City, in each instance, shall provide by written thirty (30) days' notice to Developer documentation of any and all deficiencies and shall provide Developer with an adequate time period in which to cure any deficiencies under this Agreement, which shall be enough time for Developer, its successors, or assigns, to cure the deficiency, taking into consideration applicable weather and related conditions. Subject to Force Majeure, as defined below, if following the expiration of the period set forth to cure any deficiencies, such deficiencies have not been cured, the City shall thereupon have the power and authority, but not the obligation, to take any of the following actions, in addition to any actions authorized under City ordinance and/or State law:

- (a) Demand that the non-performance, deficiency, or obligation be fulfilled, performed, or completed before Developer assigns its obligations to another owner of the Property and set a specific date to complete the performance, fulfill the obligation, or correct the deficiency. If Developer has not completed the performance, fulfilled the obligation, or corrected the deficiency by the date specified, the Developer shall not assign its obligations to a subsequent owner of the applicable portion of the Property to which the non-performance, deficiency, or obligation pertains and the City may proceed under Section 4.1(b).
- (b) Enter upon the Property or cause its agents or contractors to enter upon the Property and perform such obligation or take such corrective measures as reasonably found by the City Administration to be appropriate. In addition to any financial assurance given to ensure completion of the improvements, the additional costs and expense of making and financing such action by the City, including without limitation notices by the City, upon written documentation of such additional costs and expenses, and reasonable legal fees incurred by the City, plus an administrative fee in the amount of ten percent (10%) of the total of all such costs and expenses incurred, shall be paid by Developer within thirty (30) days of City's invoicing to Developer.
- (c) The City may initiate legal action for the enforcement of any of the provisions, requirements, and obligations set forth in the PUD Documents.
- (d) The City may issue a stop work order as to any or all aspects of then uncompleted portions of the Development to which the non-performance, deficiency, or obligation pertains detailing in writing the uncompleted portions of the Development, may deny the issuance of any requested building permit or certificate of occupancy within any part or all of the Development, regardless of whether the Developer is the named applicant for such permit or certificate of occupancy, and may suspend further inspections of any or all aspects of the Development until such issues have been satisfactorily resolved.
- (e) The City may, until as such non-performance, deficiency, or obligation has been cured: (i) initiate proceedings to rezone any part of the undeveloped portions of the Property in control of the Developer for which such non-performance, deficiency, or obligation pertains to its former zoning designation, or (ii) in the event that such non-performance, deficiency, or obligation is a material default of this Agreement by such Developer, terminate this Agreement with respect to the portion of the Property to which the deficiency pertains, which termination shall only be effective if the deficiency remains uncured for a period of sixty (60) days from receipt by Developer of the notice of termination.
- 4.2 <u>Right of Entry</u>. At any time throughout the period of development and construction of any part of the Development, the City, its contractors, representatives, consultants, and agents, shall be permitted and are hereby granted authority to enter upon such portion of the Property being developed or constructed for the purpose of inspecting and/or completing the respective improvements, and for the purposes of inspecting for compliance with and enforcement of the PUD Documents.
- 4.3 <u>Deviations Permitted</u>. To the extent the PUD Documents deviate from or conflict with the City of Troy development standards, the Zoning Ordinance, or other City ordinances, or any amendments thereto, the PUD Documents shall control, and the City shall not require any

additional approvals, waivers, or variances with respect to such deviations. All improvements constructed in accordance with the PUD Documents shall be deemed to be conforming under the Zoning Ordinance and in compliance with all ordinances of the City.

4.4 <u>Permits and Approvals</u>. Other than provided for in this Agreement or as required by Article 11 of the Zoning Ordinance, the City shall not require any additional land use related permits or approvals for the Development such as site plan approval under Article 8 of the Zoning Ordinance, special land use approval under Article 9 of the Zoning Ordinance, and variances under Article 15 of the Zoning Ordinance.

ARTICLE V

MISCELLANEOUS PROVISIONS

- 5.1 Amendments. This Agreement may not be modified, replaced, amended, or terminated without the prior written consent of the parties to this Agreement. Developer shall have the right to delegate its rights and obligations under this Agreement to a successor owner of all of the Property or to one or more successor owners of portions of the Property in accordance with this Agreement. Until the rights and responsibilities under this Agreement are transferred to a third party under this Agreement, Developer and the City shall be entitled to modify, replace, amend, or terminate this Agreement, without requiring the consent of any other person or entity whatsoever, regardless of whether such person has any interest in the Property, including mortgagees and others.
- 5.2 <u>Governing Law</u>. This Agreement shall be governed by and construed in accordance with the laws of the State of Michigan.
- of the PUD Documents, such documents shall control in the following order: (a) this Agreement and the attached Exhibits which are made a part hereof; (b) Article 11 of the Zoning Ordinance and amendments, if any; (c) Final Development Plans, and (d) the Concept Development or Preliminary Development Plans. Where there is a question with regard to applicable regulations for a particular aspect of the Development, or with regard to clarification, interpretation, or definition of terms or regulations, and there are no apparent express provisions of the PUD Documents which apply, the City in the reasonable exercise of its discretion shall determine the regulations of the City's Ordinances that are applicable, provided such determination is not inconsistent with the nature and intent of the PUD Documents or in violation of applicable Federal or Michigan law; and, provided that Developer, its successors or assigns, shall have the right to challenge or contest the determination of the City in any court having jurisdiction.
- 5.4 <u>General Interpretation and Findings</u>. The terms of the PUD Documents, including this Agreement, have been negotiated by the undersigned parties and such documentation represents the product of the joint efforts and agreement of the Developer and the City. Developer and the City fully accept and agree to the final terms, conditions, requirements, and obligations of the PUD Documents, and shall not be permitted in the future to claim that the effect of these PUD Documents results in an unreasonable limitation upon uses of all or a portion of the Property or claim that enforcement of any of the PUD Documents causes an inverse condemnation or taking

of all or a portion of the Property. Furthermore, it is agreed that the improvements and undertakings set forth in the PUD Documents are necessary and roughly proportional to the burden imposed in order to ensure that services and facilities affected by the Development will be capable of accommodating increased services and facility loads, traffic, and storm water drainage caused by the development thereof, to protect the natural environment and conserve natural resources, to ensure compatibility with adjacent uses of land, to promote use of the Property in a socially and economically desirable manner, and to achieve other legitimate objectives authorized under the Michigan Zoning Enabling Act, MCL 125.3101, et seq. It is further agreed and acknowledged hereby that all of such improvements are substantially related to the burdens to be created by the Development contemplated hereby, and all such improvements and the requirements and regulations of the Development under the PUD Documents and the Zoning Ordinance, without exception, are clearly and substantially related to the legitimate interests in protecting the public health, safety and general welfare. All Exhibits attached to this Agreement are made a part hereof and are incorporated herein by reference.

- 5.5 <u>Counterparts</u>. This Agreement may be executed in multiple counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same agreement. The signature of any party to any counterpart shall be deemed to be a signature to, and may be appended to, any other counterpart.
- 5.6 <u>Successors and Assigns</u>. This Agreement shall be binding on and shall inure to the benefit of the parties and their respective successors and assigns, as more particularly provided herein.
- 5.7 Force Majeure. Provided that the Developer is proceeding in good faith and with reasonable diligence to develop the Development in light of existing economic conditions, and is otherwise in compliance with this Agreement, the City will not unreasonably refuse to extend any time periods under this Agreement for a reasonable time to enable the Developer to complete the Development or any portion of it. Any delay or failure of Developer to perform its obligations in this Agreement shall be excused to the extent that it is caused by an unforeseen, unpreventable event or occurrence beyond its reasonable control such as, by way of example and not by way of limitation, an order of the State of Michigan, United States of America or local governmental body, an outbreak and/or the spread of an epidemic, pandemic (including, without limitation, COVID-19), or other disease causing local, regional, or national emergency, acts of God, actions by governmental authority (whether valid or invalid), fires, floods, riot, natural disasters, wars, economic downturn, loss of funding, diminished funding, terroristic threat or action, or sabotage (collectively, a "Force Majeure"); provided the Developer promptly notifies the City of the event of a Force Majeure, the anticipated duration of the event of Force Majeure, and the steps taken to remedy the failure; and provided further that commercially reasonable efforts shall be used to minimize the extent and effect of the Force Majeure event.
- 5.8 <u>Effective Date</u>. For the purpose of confirming the rights, obligations, and restrictions in connection with the Development to be undertaken on the Property, once the City Council has enacted an Amendment to the Zoning Ordinance rezoning the Property to PUD as approved this Agreement, the effective date of the rezoning and this Agreement shall be the date on which City Council approves this Agreement (the "Effective Date"). After this Agreement granting rezoning is effective, the Planning Director of the City shall take what actions are

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necessary to correct the Zoning Map to show the rezoning of the Property, and this Agreement shall be binding upon the City and the Developer.

[Signatures appear on the following page]

DEVELOPER:

LONG LAKE CROOKS DEVELOPMENT ASSOCIATES, L.L.C.,

a Michigan limited liability company

		g
	Ву:	Long Lake Crooks Development-MM, Inc., a Michigan corporation Its: Manager
		By:Anthony G. Antone Its: Vice-President
STATE OF MICHIGAN)) SS. COUNTY OF OAKLAND)		
by Anthony G. Antone, the Vice-Presiden	t of Lo	eme this day of
		, Notary Public, Notary Public County, Michigan My Commission Expires: Acting in the County of

		CITY:
		CITY OF TROY, a Michigan municipal corporation
		By: Ethan Baker Its: Mayor
		By:Aileen Dickson Its: City Clerk
STATE OF MICHIGAN)	
COUNTY OF OAKLAND)) SS.	
The foregoing instrument wa by Ethan Baker, Mayor and A corporation, on behalf of the	Aileen Dickson	ed before me this day of, 2023, a, City Clerk of the City of Troy, a Michigan municipal
		, Notary Public
		County, Michigan My Commission Expires:
		Acting in the County of

COOPERATIVELY DRAFTED BY:

Tyler D. Tennent
Dawda Mann, PLC
Dawda Mann Building
39533 Woodward Avenue, Suite 200
Bloomfield Hills, Michigan 48304
AND
Julie Q. Dufrane
Assistant City Attorney
City of Troy
500 W. Big Beaver Road
Troy, Michigan 48084

WHEN RECORDED RETURN TO:

Aileen Dickson City Clerk City of Troy 500 W. Big Beaver Road Troy, MI 48084

INDEX OF EXHIBITS

EXHIBIT A - LEGAL DESCRIPTION OF PROPERTY

EXHIBIT B - CONCEPT DEVELOPMENT PLAN

EXHIBIT A

LEGAL DESCRIPTION OF PROPERTY

Land situated in the City of Troy, County of Oakland, and State of Michigan, being more particularly described as follows:

Part of the Southeast 1/4, Section 8, Town 2 North, Range 11 East, City of Troy, Oakland County, Michigan, beginning at point distant South 87 degrees 15 minutes 31 seconds West 90.00 feet and North 02 degrees 37 minutes 54 seconds West 75.00 feet from Southeast Section corner; thence South 87 degrees 15 minutes 31 seconds West 1328.70 feet along Northerly right of way line of Long Lake Road; thence North 02 degrees 30 minutes 26 seconds West 489.76 feet; thence along curve to right, radius 710.00 feet, chord bears North 11 degrees 45 minutes 00 seconds East 349.71 feet, distance of 353.35 feet; thence North 87 degrees 15 minutes 31 seconds East 1240.77 feet; thence South 02 degrees 37 minutes 54 seconds East 828.33 feet along Westerly right of way line of Crooks Road to beginning, EXCEPT that part lying Southerly and Southwesterly of line described as beginning at point distant South 87 degrees 15 minutes 31 seconds West 90 feet and North 02 degrees 37 minutes 54 seconds West 100 feet from Southeast Section corner; thence South 87 degrees 15 minutes 31 seconds West 934.70 feet; thence North 02 degrees 30 minutes 26 seconds West 10 feet; thence South 87 degrees 15 minutes 31 seconds West 364 feet; thence North 47 degrees 37 minutes 28 seconds West 43 feet to point of ending, also EXCEPT that part lying Easterly and Southeasterly of line described as beginning at point distant South 87 degrees 15 minutes 31 seconds West 130 feet and North 02 degrees 37 minutes 54 seconds West 100 feet from Southeast Section corner; thence North 42 degrees 18 minutes 48 seconds East 42.47 feet; thence North 02 degrees 37 minutes 54 seconds West 310 feet to the point of ending.

Tax Parcel No.: 20-08-477-001

EXHIBIT B

CONCEPT DEVELOPMENT PLAN

From: RICHARD KILLEWALD

To: Planning

Subject: Long Lake/Crooks Development

Date: Sunday, March 7, 2021 10:29:27 PM

Planning Commissioners,

My name is Rick Killewald. I am a 30+ year resident of north Troy. I am writing you with a concern after reading the Troy Times article regarding the proposed development at Long lake and Crooks roads.

North Troy has an enormous amount of building vacancies along the north Crooks road areas. It also has an unsightly demolition site, the old Northfield Hilton vacant land, to add to the glut of "for lease" signs; along with other newly constructed buildings seeking tenants. Have you drove by this area, (Crooks Road from Long Lake to Square Lake), lately? The vacant/for lease signs are staggering. Additionally, behind the newly constructed Panera building, Crooks and I75 exit, sit two large vacant office buildings. And now you want to put another hotel/office/retail development on the corner of Long Lake and Crooks. Are you serious? How many more vacant buildings do you want in this area? And a hotel? In this area of Troy? Last I checked, Double Tree Hotel is never over booked. Don't you have enough hotels at Big Beaver that you feel compelled to stick another one at the proposed sight? Why? Is the demand really there? Don't think so.

Planning Commissioners Jerry Rauch and Michael Hutson said it right in the Troy Times article. They are concerned about the <u>glut</u> of vacancies in the area. YES!! Will you other commissioners pay attention! Look for yourselves! We north Troy residents have to look at these "eye-sores" everyday.

Furthermore, is there a need to destroy this wooded parcel of land on the cited corner. Is it necessary to destroy every wooded parcel of land in Troy for more concrete vacant buildings? You are responsible to the City of Troy residents to do the right thing even if it means saying NO at this time to a developer.

Please recognize your responsibility to the city, and reconsider this proposed development!

Thank you,

Rick

From: <u>lintroy2015@gmail.com</u>

To: Planning

Subject: Long Lake /Crooks Development

Date: Tuesday, August 9, 2022 10:22:34 PM

CAUTION: This email did not originate from within the City of Troy. Do not click links or open attachments unless you recognize the sender and know the content is safe.

After streaming tonight's meeting, I want to express my thanks and appreciation to the Planning Board, and especially to Ms Malalahalli & Ms Perakis. And to all who realized the developers did not hear the board. Please continue to protect Troy's last oasis from short sighted development.

Why would a developer think Troy residents want another boring, overcrowded Big Beaver/Crooks corner? Or a KMart headquarters corner? Troy's office parking lots still show lack of work force returning.

Are ten-story buildings necessary in that development?

Troy needs green spaces. It's difficult to maintain trees and plants in areas covered in concrete and asphalt. It's great that so many new trees were planted along Northfield Parkway this year.

The board's job is not easy. Thank you for the hours spent at meetings and in preparations. Each board member's words and actions leave their mark on our city.

Thank you. Ellen Schmidt 1745 Brentwood Dr

Sent from my iPhone

From: <u>steveandlisabarnett@yahoo.com</u>

To: Planning

Subject: The Long Lake & Crooks PUD: Planned Unit Developments-PUD-030

Date: Friday, August 5, 2022 8:58:20 AM

CAUTION: This email did not originate from within the City of Troy. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Board members.

RE: The Long Lake & Crooks PUD: Planned Unit Developments-PUD-030

I sincerely hope that you will not consider this property for commercial development. We have to preserve the remaining green spaces in this beautiful City of Troy. This area is a natural habitat for our wildlife and greatly enhances our neighborhood with its natural beauty. It is also a very popular area to walk and exercise. My wife and I love to walk our dog past the woods, enjoying nature.

We feel that there is already an abundance of newer vacant commercial properties in Troy, why do we need to build more? I urge you to please preserve this beautiful and natural habitat that our neighborhood loves so much and enjoys.

Sincerely,

Stephen Barnett 4344 Bender Court Troy, MI 48098 248-641-8098 From: <u>crystal geiser</u>
To: <u>Planning</u>

Subject: Planning commission meeting 8.9.22 **Date:** Monday, August 8, 2022 3:53:55 PM

CAUTION: This email did not originate from within the City of Troy. Do not click links or open attachments unless you recognize the sender and know the content is safe.

To Whom It May Concern,

I am a lifelong resident of Troy and have heard about the request that has been made to rezone a parcel of land at Long Lake and Crooks to allow for more development and a 10 story building. I would like my voice to be heard in this matter that I am firmly against allowing this. Our city is currently full of unused office spaces with "for lease" signs everywhere. Creating more space for this purpose would be irresponsible. Additionally, the idea of overwhelming our city with a 10 story building would not do anything more than create an eye-sore. Troy has been a city where everyone wants to live. We have the perfect combination of enough businesses to be convenient and offer jobs while still having green spaces and a feeling of calm. Adding unnecessary huge buildings sets the precedent for others to start wanting to do that as well and turn our safe, family city into nothing but unused sky-scrapers. This piece of land was zoned specifically and purchased knowing what it was zoned for. There is no reason to change it and negatively impact all the residents of Troy to appease a big business who has no vested interest in the wellbeing of the residents here.

Thank you for your consideration in this matter.

Crystal Geiser 5207 Cardinal Dr. Troy, MI From: <u>Karen Liska</u>
To: <u>Planning</u>

Subject: Long Lake & Crooks PUD

Date: Friday, August 5, 2022 12:36:00 PM

CAUTION: This email did not originate from within the City of Troy. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Members of the Planning Commission:

My husband and I just purchased a new home in Troy in July at Long Lake and Rochester Roads. We are looking forward to moving into our new neighborhood and watching our children grow and thrive in our new community. One of the draws for us to the area was the abundance of nature, both in the specific segments set aside (such as the Stage Nature Center) and in the naturally-occuring wooded landscapes around the city. Therefore, it was with great concern that I learned about the proposed re-zoning of one of the few remaining large parcels of wooded land. Specifically the Long Lake & Crooks PUD, which seeks re-zoning from "O" to "PUD" along with variances of development use, maximum height and gross square footage. I urge the Commission to consider the safety, health and welfare risks inherent to this request.

While the current zoning is "O" and we understand office development in that area could also impact the wildlife and health of the area, the demands on the land placed by the proposed development do far more to tax the natural resources and impact the experience of residents. There are also concerns about traffic safety and density, and of course increased carbon emissions and health risks, from such a large proposed development. The proposed shifts (such as allowing 10 story buildings on that land) would also alter the character of that neighborhood away from the residential character we specifically sought out and that other neighbors enjoy for their families. The domino effects of granting this proposal also matter: will other building owners bordering residential areas seek to increase their building sizes?

We chose Troy for its nature, and for a place where we and our children can bike in residential neighborhoods and explore with freedom. We enjoy visiting the businesses on Big Beaver Road, and are grateful for the contributions of industry and government buildings in other sections of the city designed for those uses. To take a parcel that is 80% wooded and allow a development that is wholly out of character for the neighborhood in which it sits will have an outsize impact on the experience of living in the city from the perspectives of the environment, safety, and resident welfare. I would urge the Commission to reach a decision in this matter that preserves the natural resources and character of the neighborhood. There are many examples around the world of developments that allow nature and industrial progress and residential use to co-exist, and I am certain a city like Troy that is known for its innovation and ingenuity as much as it is known as a place where families can grow and thrive can facilitate such a plan. As Tony Antone said himself in an interview with Crain's Detroit Business, https://www.crainsdetroit.com/voices-kirk-pinho/real-estate-insider-weighing-fategateway-north-troy, "there's just so few parcels left like this." If this *is* to become the "Gateway to North Troy," let's make sure it's a gateway that residents want to stay within and not exit from.

Thank you,

Karen Liska

From: Brent Savidant
To: Jackie Ferencz

Subject: FW: Please Preserve Our Green Spaces!

Date: Monday, March 1, 2021 4:13:06 PM

Please save in Public Input folder in Long Lake PUD folder.

----Original Message-----

From: Jackie Ferencz On Behalf Of Planning Sent: Monday, March 1, 2021 8:54 AM To: Brent Savidant <SavidantB@troymi.gov> Subject: FW: Please Preserve Our Green Spaces!

Jackie Ferencz

Administrative Assistant | City of Troy Planning Dept

O: 248.524.3364

----Original Message-----

From: C Angell <charangell1@gmail.com> Sent: Saturday, February 27, 2021 5:36 PM To: Planning <planning@troymi.gov> Subject: Please Preserve Our Green Spaces!

Hello,

Now, I see in the Troy Times that the proposed development on Crooks and Long Lake, which is in the area where I live, is being proposed as a "maximum flexibility" site.

I no longer see the Troy "City of Tree" signs - I suppose because we no longer are. Which is very sad.

We are losing all our green spaces, which made Troy a beautiful city, reduced noise and pollution.

I agree that we DO NOT NEED MORE BUILDINGS / PLAZA'S in our city.

We need to ensure that IF a site is developed, that developers set aside a green space and leave an area of trees in tact - otherwise, what will happen is Troy will have more ugly office buildings and plaza's with huge For Lease signs, that seem a permanent fixture, on the property. A fountain is not on par with green spaces / trees.

Please take a stand on protecting our green spaces and help protect our environment and beautiful city.

Charlene Angell 6660 Tree Knoll Dr Troy, MI 48098 From: <u>Lisa</u>
To: <u>Planning</u>

Subject: Long lake and Crooks rezoning **Date:** Friday, August 5, 2022 9:05:43 AM

CAUTION: This email did not originate from within the City of Troy. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Attn: Planning Commission

Re: Long lake and Crooks rezoning

I am a Troy resident and like to voice my opinion on this matter.

We already have so much vacant office space available in Troy. There is not enough demand for this project.

Also, as a resident of this near by proposed project, this is another example of the greenery being taken away. We purchased our home for this reason. We thought Troy would be thoughtful in planning.

Low rise is in place and it should stay that way.

Traffic is already going to be an issue with the Wellington Apartments a mile away.

It is understandable if there is a need. But with so many existing vacancies, it doesn't make sense to disturb 28 acres.

Please do not rezone this land!

Lisa Paglino 248 225-1442 1061 Redding Drive Troy, MI 48098 Date: August 4, 2022

To: Planning Department

From: Laury Shah

1448 Brentwood Drive

Troy, MI 48098

Re: Long Lake & Crooks PUD- PUD-030

Dear Planning Department and City Council Members,

As a resident in Northfield Hills, my home sits on Northfield Parkway. I am very concerned about the maximum height variance the applicant seeks in this design proposal. The Flagstar Bank building that is on Corporate Drive, directly across from the 24- acre parcel in question, is a low-rise 4 story building. This building is hidden from my residential view due to trees that have grown tall over the years. So, I do not feel that the Flagstar bank is oppressive to me from my residence. If you travel west bound on Long Lake Road from Adams, you cannot visually see the top of the Flagstar bank buildings (starting at 1450 W Long Lake Rd) upon approach. Approaching west on Long Lake to Corporate Drive, I know that seeing tops of green trees and blue sky and clouds is so much more inviting to me in comparison to the oppressive feeling I would feel possibly with a 10-story building. Most of the surroundings from the parcel are residential neighborhoods. Therefore, I think the variance should not be approved and that the number of stories should not exceed 6 stories.

I respectfully want to ask, was the PEA tree reported impartially completed? I know PEA was hired by Kojaian and are working with the city of Troy with respect to allowable tree species, but I really would like to see more trees saved to cover the circumference of the parcel. I would request a thicker density of trees in the circumference of the area. I would like the tops of the trees to be higher than the buildings. This would provide a more peaceful and green space visually.

I understand the newer concept of mixed-use development with the possibility of having a positive effect on our social lives and better usage of space, but with this parcel's very close proximity to 1-75, it is going to be loud in that parcel. Especially, with the added proximity directly on a busy intersection (Crooks and Long Lake). From my home, just about 3000 (south) to 4000 feet (west) from the I-75 freeway, it can be very loud and it has gotten louder surprisingly from the newer "sound barriers" built along I-75.

Also, if we allow the variance of maximum building height, will the other many buildings on Corporate Drive and New King Street (currently very many listed for lease with open parking lots) be removed and rezoned for maximum height as well? I would not be in favor of that.

Lastly, I would like to request that a thorough written report of all valuable native plants be listed for public viewing and that the developer allows access to a responsible party to carefully retrieve these

native plants from this parcel before building commences. I know for a fact that a valuable native plant, Joe Pye weed (a valuable pollinator plant) and wild bergamot are on this parcel.

Thank you, Laury Shah

From: <u>Deanna Vetrone</u>
To: <u>Planning</u>

Subject: Parcel at Long Lake and Crooks **Date:** Priday, August 5, 2022 12:48:38 PM

CAUTION: This email did not originate from within the City of Troy. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Planning Commission Members,

I am writing to implore you to do everything you can to save the 24 wooded acres at the corner of Long Lake and Crooks. I still do not understand how land can be clear cut when scientist after scientist continues to warn us about the loss of trees and natural habitats and global warming. Troy should have established a land preserve years ago so this land could have been purchased and preserved. We do not need more offices in a city where offices lay empty and the future of office work is more remote than in person. I moved to Troy when I was a little girl in 1977 and the loss of farms and woods has been devastating to the quality of life in this city. Those woods support so many animals and plants and help to make living in the city healthier and more tolerable. Please, if you cannot stop the development, then please only allow minimal development with the largest amount of preserved trees. Sincerely,

Deanna Vetrone 5798 Faircastle Drive Troy 48098 From: Amanda Winters
To: Planning

Subject: Long lake and crooks

Date: Tuesday, August 9, 2022 10:19:53 PM

CAUTION: This email did not originate from within the City of Troy. Do not click links or open attachments unless you recognize the sender and know the content is safe.

This parcel of land needs to be left as a green space. Troy needs more green space. Not condos, not more business, not more housing! Just stop building out every last inch of Troy!

Amanda Winters Troy resident for 42 years. 2971 Quail Run Drive Troy, Mi 48098

Sent from my iPhone

PARCEL 88-20-08-477-001

Salim Huerta Jr

From:

Monika <moonbirdm@gmail.com>

Sent: To: Sunday, August 21, 2022 4:52 PM Planning

Subject:

PUD2020-0018 Northwest corner of Long Lake and Crooks

CAUTION: This email did not originate from within the City of Troy. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Commissioners,

This is regarding tearing down the little bit of forest that Troy has left to offer. There are so many office buildings that glut this area already. Why add more buildings that will end up being mostly empty? There have been low vacancy rates even prior to COVID-19 in office buildings. I've worked in the area for 15 years and have seen the empty buildings and parking lots over those 15 years.

Tearing down trees that provide health benefits to Troy residents appears uncaring.

"Spending time around trees and looking at trees reduces stress, lowers blood pressure and improves mood. Numerous studies show that both exercising in forests and simply sitting looking at trees reduce blood pressure as well as the stress-related hormones cortisol and adrenaline."

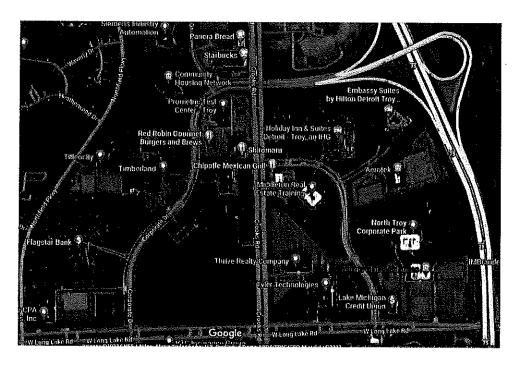
Immerse Yourself in a Forest for Better Health - NYS Dept. of Environmental Conservation

Building more parking lots and even adding a parking structure is disturbing. Just take a drive on Corporate Drive and look at all the empty parking lots and all the For Lease signs that clutter this road. Adding non-permeable parking lots and more concrete to the area will exacerbate the issues with the storm water system. These trees and shrubs manage rainwater runoff.

"Trees are increasingly recognized for their importance in managing runoff. Their leaf canopies help reduce erosion caused by falling rain. They also provide surface area where rain water lands and evaporates. Roots take up water and help create conditions in the soil that promote infiltration."

Soak Up the Rain: Trees Help Reduce Runoff | US EPA

I'm including a snippet of the area which shows how much this area has been over developed already and hasn't met expectations:



Thank you for your time. Monika Sipe

Additional benefits of having trees in a city:

Building greener cities: nine benefits of urban trees (fao.org)

Urban trees can help to mitigate some of the negative impacts and social consequences of urbanization, and thus make cities more resilient to these changes. Here are nine ways in which urban trees and forests contribute to making cities socio-economically and environmentally more sustainable:

- Trees can contribute to the increase of local food and nutrition security, providing food such as
 fruits, nuts and leaves for both human consumption and fodder. Their wood, in turn, can be used for
 cooking and heating.
- 2. Trees play an important role in **increasing urban biodiversity**, providing plants and animals with a favourable habitat, food and protection.
- 3. A mature tree can absorb up to 150 kg of CO₂ per year. As a result, trees play an important role in **climate change mitigation**. Especially in cities with high levels of pollution, trees can improve air quality, making cities healthier places to live in.
- 4. Strategic placement of trees in cities can help to **cool the air** between 2 and 8 degrees Celsius, thus reducing the urban "heat island" effect, and helping urban communities to adapt to the effects of climate change.
- 5. Large trees are excellent **filters for urban pollutants** and fine particulates. They absorb pollutant gases (such as carbon monoxide, nitrogen oxides, ozone and sulfer oxides) and filter fine particulates such as dust, dirt or smoke out of the air by trapping them on leaves and bark.
- 6. Research shows that living in close proximity of urban green spaces and having access to them, can **improve physical and mental health**, for example by decreasing high blood pressure and stress. This, in turn, contributes to the well-being of urban communities.
- 7. Mature trees **regulate water flow** and play a key role in preventing floods and reducing the risk of natural disasters. A mature evergreen tree, for instance, can intercept more than 15 000 liters of water per year.

- 8. Trees also help to **reduce carbon emissions** by helping to conserve energy. For example, the correct placement of trees around buildings can reduce the need for air conditioning by 30 percent, and reduce winter heating bills by 20-50 percent.
- 9. Planning urban landscapes with trees can **increase property value**, by up to 20 percent, and attract tourism and business.

From: Cindy D

To: Planning

Subject: PUD Project

Date: Tuesday, January 12, 2021 8:27:15 PM

Good Evening,

I love what Ms. Perakis proposed. I remember telling you back in 2016 that I like being able to walk to Starbucks from Northfield Pkwy. Our kids use to ride their bikes to get frozen yogurt. Make it a place to go for the already occupied offices and for the local neighborhoods.

When I saw their proposal I hated it. My neighbor disliked it. This is an opportunity to create something special and lasting.

Thank you,

Cindy Desmon Troy Resident

ITEM #6

DATE: January 19, 2023

TO: Planning Commission

FROM: R. Brent Savidant, Community Development Director

SUBJECT: PRELIMINARY SITE PLAN REVIEW (SP JPLN2022-0009) - Proposed Hills West,

East side of Crooks, South of Wattles (3902 Crooks; 88-20-21-101-003), Section

21, Currently Zoned NN (Neighborhood Node "I") District

The petitioner Hills West LLC. submitted the above referenced Preliminary Site Plan application for one 15-unit building and one 14-unit multi-family apartment buildings (29 units total). Both buildings are 2 ½ stories/29'6" in height. Multi-family is permitted by right in the NN (Neighborhood Node "I") Zoning District.

The applicant submitted a Preliminary Site Plan application for the same site that included two15-unit apartment buildings (30 units total). The application was denied by the Planning Commission on January 25, 2022. This is considered a new application.

A representative of OHM Advisors, the City's Traffic Consultant, will attend the meeting to address any questions related to traffic.

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. Preliminary Site Plan.

G:\SITE PLANS\SP JPLN2022-0009 HILLS WEST NEW SUBMITTAL\PC Memo 2023 01 24.docx

PROPOSED RESOLUTION

PRELIMINARY SITE PLAN REVIEW (SP JPLN2022-0009) - Proposed Hills West, East side of Crooks, South of Wattles (3902 Crooks; 88-20-21-101-003), Section 21, Currently Zoned NN (Neighborhood Node "I") District

Resolution # PC-2023-01- Moved by: Seconded by:	
RESOLVED , That Preliminary Site Plan Approval, pursuant to Article 8 of the Zoni Ordinance, as requested for the proposed Hills West 29-unit apartment development, Easide of Crooks, South of Wattles, Section 21, Currently Zoned NN (Neighborhood Node District, be granted, subject to the following:	ast
) or	
(denied, for the following reasons:) or	
(postponed, for the following reasons:)	
Yes: No:	

MOTION CARRIED/FAILED

TROY

GIS Online



835 0 417 835 Feet



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.

TROY

GIS Online







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.



117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

Date: January 20, 2022 March 22, 2022 September 15, 2022 December 28, 2022 January 17, 2023 January 19, 2023

For City of Troy, Michigan

Applicant: DesignHaus

Project Name: Hills West

Plan Date: November 3, 2022 (received)

Location: Crooks Road, south of Wattles

Zoning: Neighborhood Node (NN) – I

Action Requested: Site Plan Approval

SITE DESCRIPTION

The subject site is located on the east side of Crooks Road, south of Crooks Road. The site is approximately 1.3 acres in area and is proposed for development as multiple-family residential. The applicant is proposing to construct two (2) multi-family buildings on the site, one with fifteen (15) dwelling units and one with fourteen (14) units. Both buildings will be 2.5 stories in height.

Access is via Crooks Road. There is no direct access to Barilane Court. The property is zoned Neighborhood Node (NN) and multiple family residential is a permitted use.

The properties to the south of the subject site is zoned R1-B, One Family Residential, and NN, Neighborhood Node to the north, east, and west.

Hills West January 19, 2023

Site Location:



Hills West January 19, 2023



Proposed Uses of Subject Parcel:

Twenty-nine (29) multi-family dwelling units.

<u>Current Use of Subject Property</u>:

Single Family Home

Current Zoning:

The property is currently zoned NN, Neighborhood Node District.

Surrounding Property Details:

Direction	Zoning	Use
North	NN, Neighborhood Node	Commercial
South	R1-B, Single Family	Single Family Residential
East	NN, Neighborhood Node	Multi-Family Residential
West	NN, Neighborhood Node	Vacant

Hills West January 19, 2023

PREVIOUS PLANNING COMMISSION REVIEW

The Planning Commission discussed the project at the January 25, 2022 meeting. There was lengthy discussion on a variety of topics including traffic, guest parking, tree mitigation, open space/landscaping calculations, compliance with Design Standards, compliance with Site Plan Review Standards, cross-access, Neighborhood Node zoning designations, intensity of Site Type A and Site Type B.

See the January 22 meeting minutes for more details.

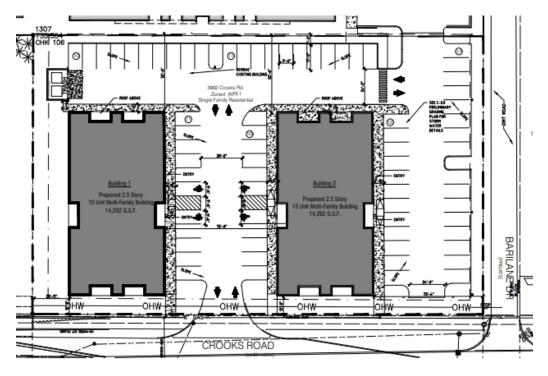
After discussion, the Planning Commission, the Planning Commission moved:

That Preliminary Site Plan Approval, pursuant to Article 8 of the Zoning Ordinance, as requested for the proposed Hills West 30-unit apartment development, East side of Crooks, South of Wattles, (3902 Crooks, PIN 88-20-21-101-003), Section 21, Currently Zoned NN (Neighborhood Node "I") District, be denied, for the following reasons:

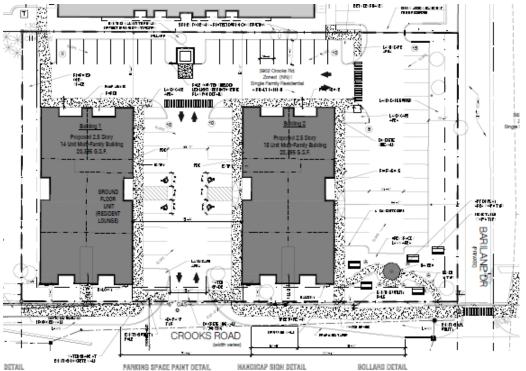
- 1. The orientation of the buildings violates the Zoning Ordinance
- 2. Planning Commission does not approve the tree mitigation requirement.
- 3. The open space failed the Zoning Ordinance calculations
- 4. The site Design Standards fail to promote public health, safety and welfare, primarily due to traffic issues.
- 5. The project fails to meet the transition requirements of the zoning ordinance as well as density requirements.

The motion passed 8-0.

CHANGES SINCE LAST PLANNING COMMISSION REVIEW



January 2022 Plan



November 2022 Plan

The applicant has proposed the following changes to the Site Plan since the last submittal:

- Reduced the number of units from thirty (30) to twenty-nine (29)
- Relocated trash enclosure
- Changed floor plans and elevations to have entrance front on Crooks
- Increased landscape area from 20% to 22.3%
- Shifted buildings/parking to the north to provide additional buffering along Barilane Drive
- Reduced lot coverage from 28.1% to 26.23%
- Reduced overall parking by 12 spaces
- Enhanced Crooks Road/Barilane Corner with walking path, gazebo, picnic tables, benches, and increased landscaping
- Preserving twelve (12) onsite trees
- Added sidewalk connection to northern apartment building
- Updated frontage glazing for transparency requirements
- Provided photometric plan

NATURAL FEATURES

Topography: A topographic survey has been provided on sheet C-2.0. The site has a

slightly higher elevations in the northeast section of the site.

Wetlands: There are no wetlands on site.

Floodplain: There is no floodplain on site.

Woodlands: A tree inventory and replacement plan has been provided on Sheet L100,

with replacement trees shown in the landscape plan on Sheet L101.

Replacement Details					
Protected Tree	Inches Removed	Replacement Required			
Landmark	72 inches	72 inches			
Woodland	102 inches	51 inches			
	•				
Preservation/Mitigation	Inches Preserved	Credit			
Landmark / Woodland	136 inches	272 inches			
Protected Replacement Required	149 Inches				
Preservation Credit	0 Inches				
Total	+ 149-inch				
Total Tree Mitigation	Not applicable				

Items to be addressed: None

SITE ARRANGEMENT

The applicant is proposing to construct two (2) multi-family buildings on the site, one with fifteen (15) units and one with fourteen (14) units. The buildings will be located on the western side of the site with parking and an access drive between the two buildings.

Items to be addressed: None.

AREA, WIDTH, HEIGHT, SETBACKS

Table 5.03.B.3, Building Form C, Standards Applicable to All Districts of the Zoning Ordinance establishes the dimensional requirements for the NN, Neighborhood Node District. The requirements of Building form C and the proposed dimensions are shown in the following table.

	Required	Provided	Compliance
Front (Crooks)	10-foot build-to-line	12-feet	Complies
Side (north)	N/A, building may be placed up to property line	12-feet	Complies
Side (south)	N/A, building may be placed up to property line	86-feet	Complies
Rear (South)	30-foot minimum setback	52-feet	Complies
Building Height	Any building, or portion of a building, on a parcel abutting a one-family residentially zoned parcel shall not exceed 2.5-stories, 30 feet in height.	2.5 stories, 29.5 feet (to mid-point of ridge).	Complies but see discussion below
Lot Coverage (Building)	30%	26.33%	Complies
Minimum Open Space	20%	31.57%	Complies
Parking Location	Cannot be located in front yard	Parking lots not in front yard	Complies

Building Height and Story Discussion:

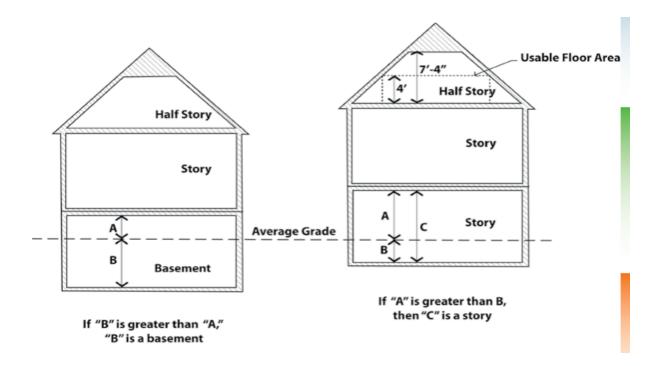
Because this site is adjunct to one-family residentially zoned property, the applicant shall comply with Section 5.06.E.3.c, which limits height and stories to 2.5 stories and 30-feet. As set forth in the Zoning Ordinance, building height is defined as the following:

The term "building height" shall mean the vertical distance as measured from the established grade to the highest point of the roof for flat roofs, including walls or parapets that extend above the horizontal roof surface; to the deck line of mansard roofs; and to the average height between eaves and ridge for gable, hip, and gambrel roofs. When a non-residential building is located on sloping terrain, the height may be measured from the average ground level of the grade at the building wall. When a residential building is located on sloping terrain, the height shall be measured from the highest grade adjacent to the front of the structure to the highest point of the roof for flat roofs, including walls or parapets that extend above the horizontal roof surface; to the deck line of mansard roofs; and to the average height between eaves and ridge for gable, hip, and gambrel roofs. For residential buildings, the major or main roof over the living area shall be used to determine building height, with the following exception: when the total horizontal roof area of dormers and/or minor gables enclosing the living area exceeds twenty (20) percent of the total horizontal area of the roof to which such dormers or gables are attached, the predominant height of such dormers or gables shall be used as the basis for the determination of the building height.

Story and half-story is defined as the following:

STORY: That part of a building, except a mezzanine, included between the surface of one (1) floor and the surface of the next floor, or if there is not a floor above, then the ceiling next above. A story thus defined shall not be counted as a story when more than fifty (50) percent by cubic content, is below the height level of the adjoining ground.

STORY, HALF: An uppermost story lying under a sloping roof, the usable floor area of which, at a height of four feet above the floor, does not exceed two-thirds (2/3) of the floor area in the story directly below and the height above at least two hundred (200) square feet of floor space is seven feet four inches (7'4"). When the usable floor area of such a story, at a height of four (4) feet above the floor, does exceed two-thirds (2/3) of the floor area of the story directly below, it shall be counted as a full story.



During the review process, we had asked the applicant to confirm that the building complied with the 2.5 story maximum. The applicant's architect provided additional plans and the required calculations. The City's Building Official reviewed the plans and the calculations and confirmed that the building meets the 2.5 story requirement as defined in the Zoning Ordinance. The applicant's architect plans and calculations, and the Building Official's response are provided in your packet.

Items to be addressed: None

PARKING

Section 13.06.G of the Zoning Ordinance requires:

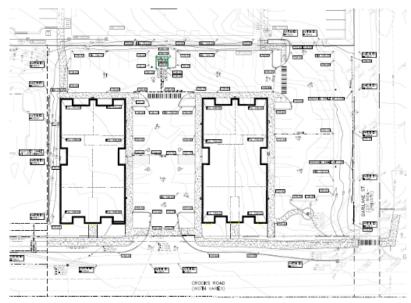
	Required	Provided
Residential (General): 2 spaces per unit	29 units = 58 spaces	62 spaces
Barrier Free	4	4
Bicycle Parking	2	Internal to building
Loading	0	0
Total	58 spaces	62 spaces

Items to be Addressed: None

SITE ACCESS AND CIRCULATION

Access is via Crooks Road, with a cross-access to the Westington development. There is no direct access to Barilane Court. The site plan was reviewed by the Citys Engineer and Engineering Consultant OHM.

The City's Traffic Consultant, OHM, will attend the meeting to discuss any traffic and circulation issues.



Items to be addressed: none

TRAFFIC

As directed by the City the applicant has provided a Traffic Impact Study for both the Westington Phase II and the Hills West developments. Please note that the traffic study has not been revised as the applicant has reduced the overall number of units and thus reduced the traffic impact. The traffic review is based on 162 units. The revised total is 147 units.

Summary:

The proposed development includes three (3) multi-family residential homes developments: Westington Phase I, Westington Phase II, and West Hills. The number of peak hour (AM and PM), and daily vehicle trips that would be generated by the proposed residential were forecast based on data published in the Institute of Transportation Engineers (ITE) Trip Generation Manual 11 th Edition, and the ITE Trip Generation Handbook, 3rd Edition. The site trip generation was reviewed and approved by the City of Troy (OHM) prior to use in the analysis and is summarized in Table E2.

Land Use	Phase	Amount (units)	Average Traffic (vpd)	Daily	AM (vph	Peak)	Hour	PM (vph	Peak)	Hour
					In	Out	Total	In	Out	Total
Multifamily Residential	Westington Phase I	102	701		11	35	46	36	21	57
	Westington Phase II	16	206		4	10	14	11	6	17
	West Hills	29	206		3	10	13	10	6	16

Total Trips	162	1,114	18	55	73	57	33	90
		-/ ·						

To/From	Via	AM	PM
North	Crooks Road	31%	28%
South	Crooks Road	39%	41%
East	Wattles Road	14%	16%
West	Wattles Road	16%	15%
Total		100%	100%

ANALYSIS SUMMARY

The conclusions of this TIS are as follows:

- 1. Existing Conditions (2021): The result of the existing condition analysis indicates that all the study intersection approaches will operate at LOS D or better with the exceptions as follows:
- Crooks Road & Wattles Road: The eastbound and westbound left and through movements are operating at LOS E during both AM and PM peak periods. Review of SimTraffic network simulations indicates long vehicle queues for these movements especially for eastbound through movement during the PM peak hour; however, these vehicle queues were observed to dissipate and were not present throughout the peak periods.
- Crooks Road & 7-11 Drive: Although the westbound egress movements at 7-11 driveway currently operate at LOS D or better during the peak periods, long vehicle queue are observed on the site driveway during the PM peak hour. The northbound traffic at Wattles Road intersection occasionally extends past this driveway during peak periods and blocks the egress movements at the 7-11 Drive. This causes westbound egress vehicles to wait longer to find gaps within the through traffic along Crooks Road.
- 2. Background Conditions (2023): The results of the background conditions analysis indicates that all study intersection approaches and movements will continue to operate in a manner similar to existing conditions with the following exceptions:
 - Crooks Road & Wattles Road: The southbound left-turn movement is expected to operate in LOS E during the PM peak hour at the intersection of Crooks Road & Wattles Road intersection due to the traffic growth in background (2023) conditions. However, the projected additional delay is only 1.6 seconds, which is not significant.
- 3. Future Conditions (2023): The results of the future conditions analysis indicates that with the addition of site generated traffic, all the study intersection approaches and delays continue to operate in a manner similar to background conditions with the exceptions as follows:
 - Crooks Road & Wattles Road: The overall intersection is expected to operate at LOS E during the PM peak hour. However, the overall delay at this intersection is

expected to increase by only 0.4 seconds, which will be indiscernible from background condition intersection operations.

 Crooks Road & Site Drive (West Hills): The westbound egress movements at West Hills driveway are expected to operate at LOS E during the PM peak periods with a 95th percentile queue length of 43 feet (2 vehicles), which is not significant. These vehicles will be contained within the project site and will not impact traffic operations at the adjacent streets. Moreover, the review of SimTraffic network simulation indicates the egress vehicles are able to find adequate gaps within through traffic along Crooks Road.

RECOMMENDATIONS

The results of this study indicate that with the addition of site generated traffic, all the study intersection approaches and delays will continue to operate in a manner similar to existing conditions with minor additional delays. Therefore, no mitigation measures are recommended to accommodate the site generated traffic volumes.

The applicant TIS was reviewed by OHM, the City's Traffic Consultant. OHM concludes:

I have reviewed the Traffic Impact Study for the Westington & West Hills development site, a proposed residential development located at the corner of Crooks and Wattles Roads. The applicant has proposed 162 dwelling units. The Traffic Impact Study was prepared by Fleis & Vandenbrink and is dated November 1, 2021.

OHM recommends approval of the TIS. While there are a few corrections and changes that could be made for this report, they are minor and would not impact the conclusions contained in the TIS.

Items to be addressed: None

LANDSCAPING

A landscaping plan has been provided on Sheet L101. The following table discusses the development's compliance with the landscape requirements set forth in Section 13.02.

	Required:	Provided:	Compliance:
Greenbelt Planting			
Crooks: 1 tree every 30 feet	306 / 30 = 11	11 trees	Complies
Southern property line:			
Landscape buffering: Required buffering between two differentiating land uses. Alternative 1 or 2.	1 large evergreen every 10 feet or 1 narrow evergreen every 3 feet.	1 large evergreen every 10 feet	Complies

	Alternative screening method may be considered by the Planning Commission.	along northern property line.	
Parking Lot Landscaping			
1 tree per every 8 parking	8 trees	10 trees	Complies
spaces			
Overall			
Site landscaping: A minimum of twenty percent (20%) of the site area shall be comprised of landscape material. Up to twenty-five percent (25%) of the required landscape area may be brink, stone, pavers, or other public plaza elements, but shall not include any parking area or required sidewalks.	20%	22%	Complies

<u>Transformer / Trash Enclosure:</u>

The applicant has indicated a central trash enclosure. There will be one trash enclosure with two trash containers contained within a 6-foot-high masonry brick wall.

Items to be Addressed: None

PHOTOMETRICS

The applicant is provided a lighting plan, proposing eleven (11) building lights and three (3) pole mounted lights. The photometric plan meets ordinance requirements.

Items to be Addressed: None

FLOOR PLAN AND ELEVATIONS

Floor plans and elevations have been provided on sheets A100, A101, A102, and A200. The elevations provided show architectural details, variations in material and pattern (brick, hardiboard siding, and limestone headers roof), as well as general color scheme.

Items to be Addressed: None

DESIGN STANDARDS AND SITE PLAN REVIEW STANDARDS

The Neighborhood Node design standards as well as Site Plan review standards provide the Planning Commission with direction when reviewing the proposed site plan and design features of this development.

Section 5.06.E. outlines Design Standards:

- 1. Building Orientation and Entrance
- 2. Ground Story Activation
- 3. Transitional Features
- 4. Site Access, Parking, and Loading

Please see Section 5.06.E for standard details.

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.

SUMMARY

As part of the deliberation, the Planning Commission and applicant shall discuss:

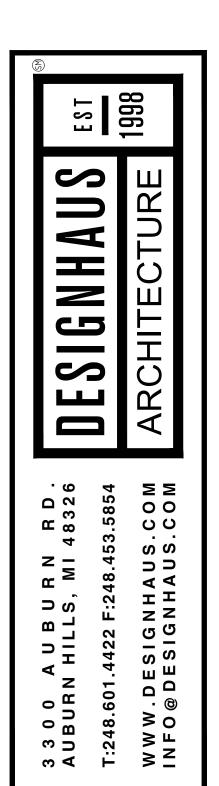
- 1. Compliance with Design Standards
- 2. Compliance with Site Plan Review Standards

Sincerely,

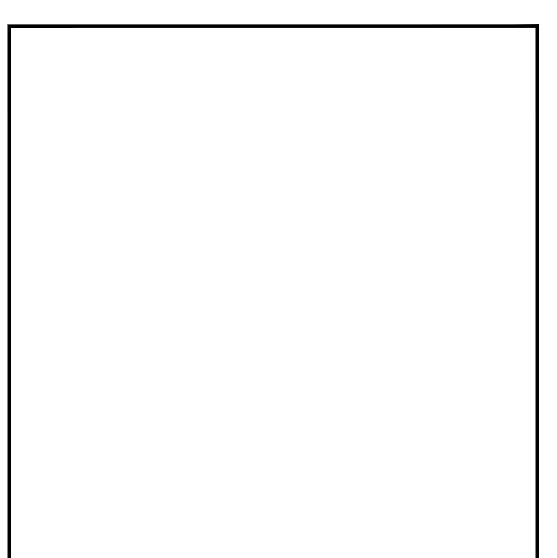
CARLISLE/WORTMAN ASSOC., INC. Benjamin R. Carlisle, LEED AP, AICP

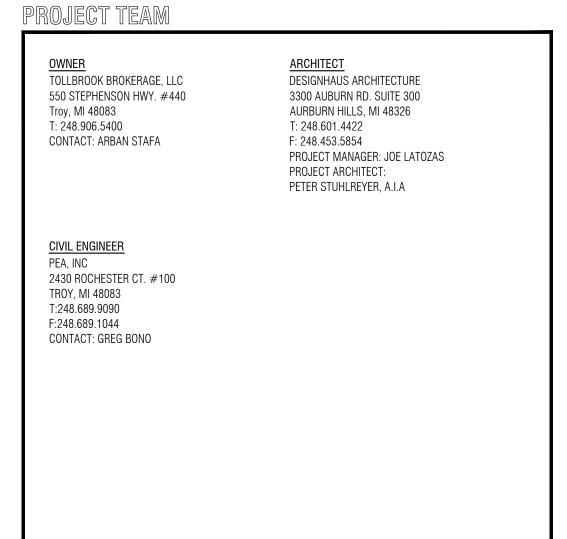
Hills West

3902 Crooks Rd. Troy, MI 48098









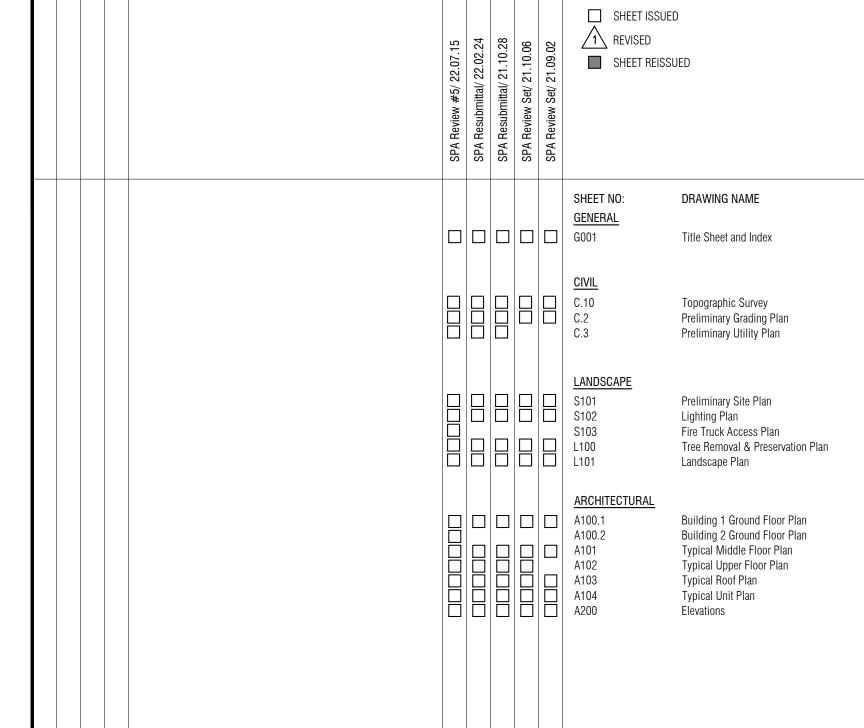
STATEMENT OF SELECTED DESIGN PROFESSIONAL

CHARGE FOR REVIEW AND APPROVAL.

PETER STUHLREYER. A.I.A. MICHIGAN IDENTIFICATION # 44668 DESIGNHAUS ARCHITECTURE

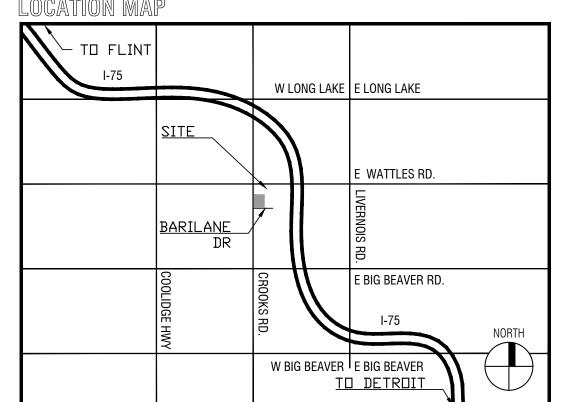
REGISTERED DESIGN PROFESSIONAL IN CHARGE:

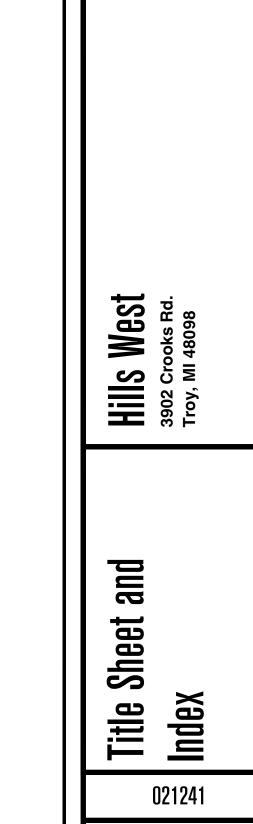
THESE CONSTRUCTION DOCUMENTS WERE PREPARED FOR COMPLIANCE WITH THE MICHIGAN CONSTRUCTION CODES IN EFFECT AT THE TIME OF PERMIT SUBMITTAL. ALL ENGINEERS, CONTRACTORS AND SUPPLIERS INVOLVED WITH THIS PROJECT SHALL COMPLY WITH THE SAME CODES ISSUED AND APPROVED CODE MODIFICATIONS AND/OR MUNICIPAL CONSTRUCTION BOARDS OF APPEALS RULINGS AND WHENEVER REQUIRED SHALL PROVIDE SHOP DRAWINGS AND SUBMITTALS CLEARLY DESCRIBING COMPLIANCE TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE



INDEX OF DRAWINGS







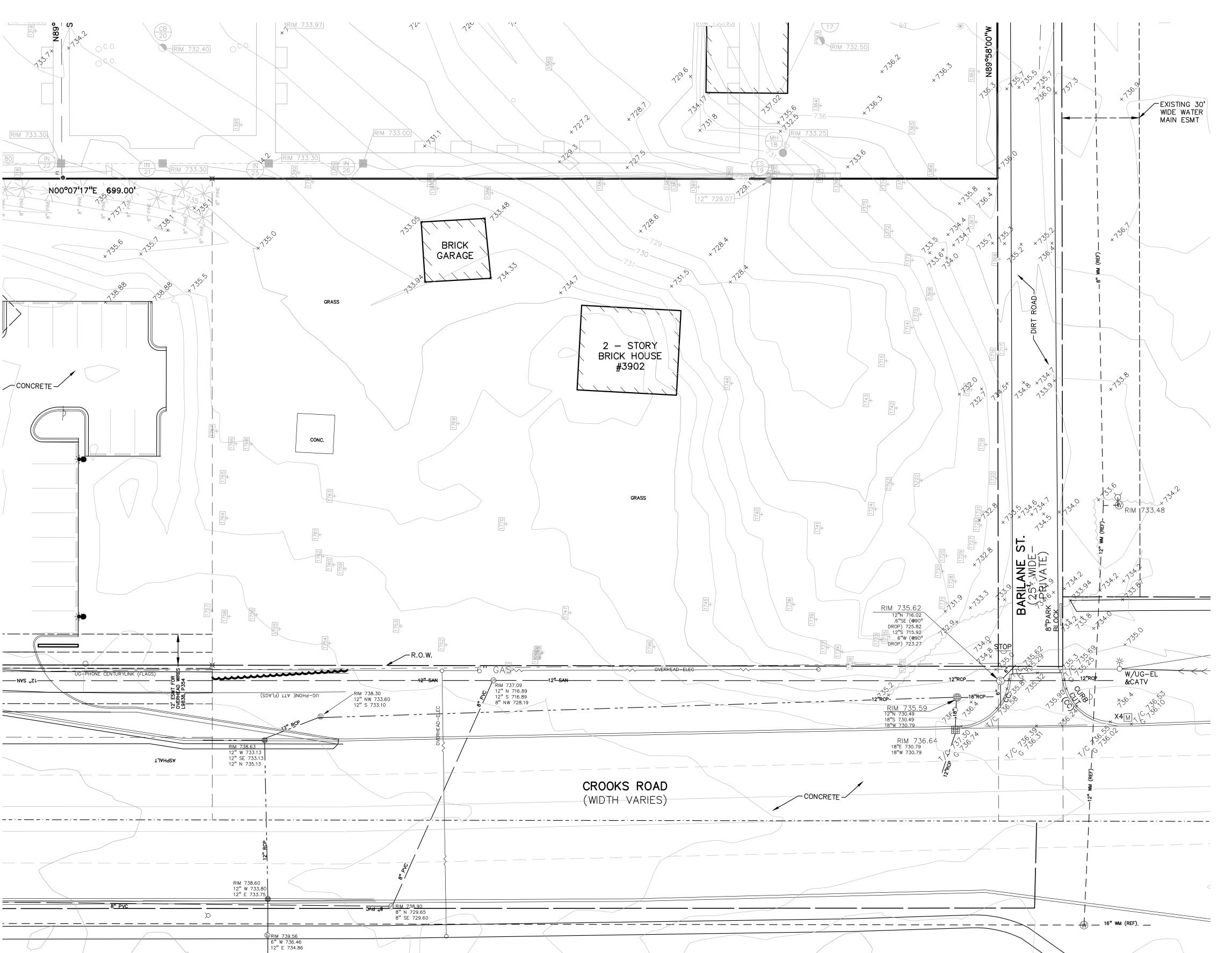
SPA Review #5

SPA Resubmittal

SPA Review Set

SPA Review Set

Revision/Issue



LEGEND

SEC. CORNER FOUND IRON FOUND BRASS PLUG SET
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WATERMAIN, HYD., GATE VALVE, TAPPING SLEEVE & VALVE SANITARY SEWER, CLEANOUT & MANHOLE — – – © ____ STORM SEWER, CLEANOUT & MANHOLE COMBINED SEWER & MANHOLE SQUARE, ROUND & BEEHIVE CATCH BASIN, YARD DRAIN

POST INDICATOR VALVE WATER VALVE BOX/HYDRANT VALVE BOX, SERVICE SHUTOFF UNIDENTIFIED STRUCTURE SPOT ELEVATION ------670 ------- CONTOUR LINE **-X---X-** FENCE

☆ STREET LIGHT SIGN CONC. CONCRETE

ASPH. ASPHALT

GRAVEL GRAVEL SHOULDER AND AND METLAND

BENCHMARKS (GPS DERIVED - NAVD88 DATUM)

BM#300
SET BENCH TIE IN SOUTH FACE POWER POLE ±200 FEET
SOUTH OF CENTERLINE OF W. WATTLES RD. ±15 FEET EAST
OF BACK OF CURB OF CROOKS RD.
ELEVATION - 742.48

ARROW ON HYDRANT SOUTH SIDE OF W. WATTLES RD. NEAR WEST PROPERTY LINE.

ELEVATION - 738.25

CAUTION!!

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

WETLAND NOTE:
THERE ARE NO REGULATED WETLANDS ON SITE.

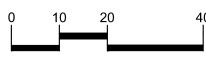
ΛΞς GROUP

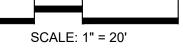
t: 844.813.2949

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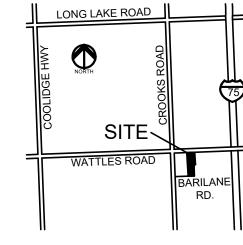








LOCATION MAP LONG LAKE ROAD



CLIENT

TROY WESTINGTON LLC 1612 MUER RD TROY, MI 48084

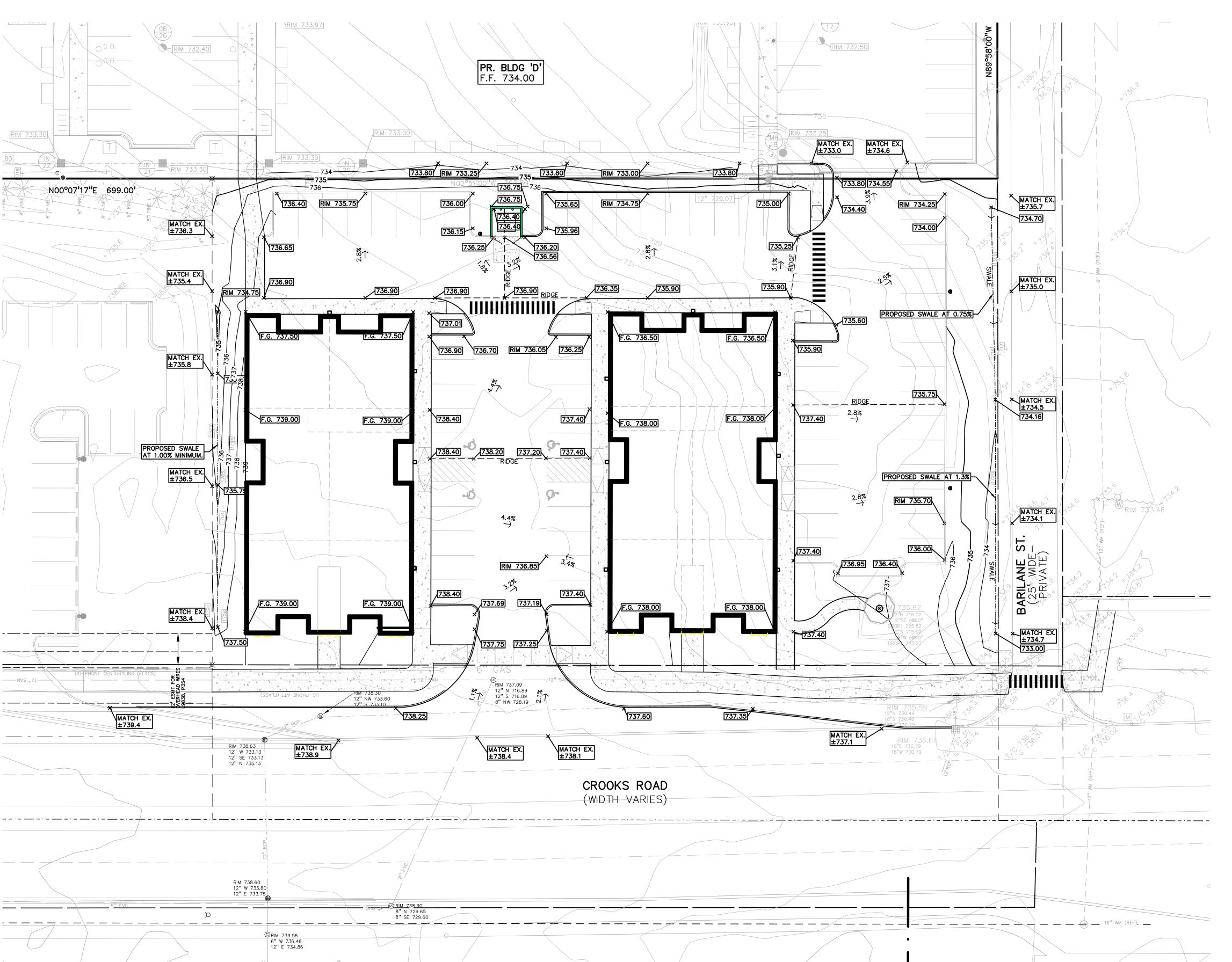
PROJECT TITLE

HILLS WEST 3902 CROOKS ROAD TROY, MI 48098

ORIGINAL ISSUE DATE: OCTOBER 20, 2021 DRAWING TITLE

TOPOGRAPHIC SURVEY

2019-268 PEA JOB NO. KRD DES. DRAWING NUMBER:



LEGEND IRON FOUND RASS PLUG SET SEC. CORNER FOUND MONUMENT FOUND R RECORDED MAIL FOUND MONUMENT SET M MEASURED Ø NAIL & CAP SET C CALCULATED -OH-ELEC-W-O- ELEC., PHONE OR CABLE TV O.H. LINE, POLE & GUY WIRE -UG-CATV-TV- UNDERGROUND CABLE TV, CATV PEDESTAL -⊠-UG-PHONE-(T)---- TELEPHONE U.G. CABLE, PEDESTAL & MANHOLE -UG-ELEC-E-E- ELECTRIC U.G. CABLE, MANHOLE, METER & HANDHOLE — _ _ _ GAS MAIN, VALVE & GAS LINE MARKER WATERMAIN, HYD., GATE VALVE, TAPPING SLEEVE & VALVE SANITARY SEWER, CLEANOUT & MANHOLE — - - STORM SEWER, CLEANOUT & MANHOLE SQUARE, ROUND & BEEHIVE CATCH BASIN, YARD DRAIN POST INDICATOR VALVE WATER VALVE BOX/HYDRANT VALVE BOX, SERVICE SHUTOFF M T I MAILBOX, TRANSFORMER, IRRIGATION CONTROL VALVE UNIDENTIFIED STRUCTURE 671.21 SPOT ELEVATION 671 _____670 _____ CONTOUR LINE **-X---X-** FENCE -x----x---x-OOOO GUARD RAIL 0 0 0 0 ☆ STREET LIGHT ── SIGN _ CONC. CONCRETE

BENCHMARKS (GPS DERIVED - NAVD88 DATUM)

ASPH. ASPHALT

عهد عهد MELTYND

GRAVEL GRAVEL SHOULDER

BM#300 SET BENCH TIE IN SOUTH FACE POWER POLE ±200 FEET SOUTH OF CENTERLINE OF W. WATTLES RD. ±15 FEET EAST OF BACK OF CURB OF CROOKS RD. ELEVATION - 742.48

BM#302 ARROW ON HYDRANT SOUTH SIDE OF W. WATTLES RD. NEAR WEST PROPERTY LINE. ELEVATION - 738.25

WETLAND NOTE: THERE ARE NO REGULATED WETLANDS ON SITE.

SYMBOLS: GRADING PROPOSED SPOT ELEVATION: PROPOSED SPOT ELEVATION:
TYPICALLY TOP OF PAVEMENT IN PAVED

622.50 AREAS, GUTTER GRADE IN CURB LINES. PROPOSED CONTOUR LINE ----922----ABBREVIATIONS:

T/C = TOP OF CURBG' = GUTTER GRADET/P = TOP OF PAVEMENTT/S = TOP OF SIDEWALKT/W = TOP OF WALLB/W = BOTTOM OF WALL F.G. = FINISH GRADE RIM = RIM ELEVATION

SIDEWALK RAMP LEGEND: SIDEWALK RAMP 'TYPE P' REFER TO LATEST MDOT R-28 STANDARD RAMP AND DETECTABLE WARNING DETAILS ÞΞΛ GROUP t: 844.813.2949

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CAUTION!!

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LOCATION MAP LONG LAKE ROAD SITE WATTLES ROAD

CLIENT

TROY WESTINGTON LLC 1612 MUER RD TROY, MI 48084

PROJECT TITLE

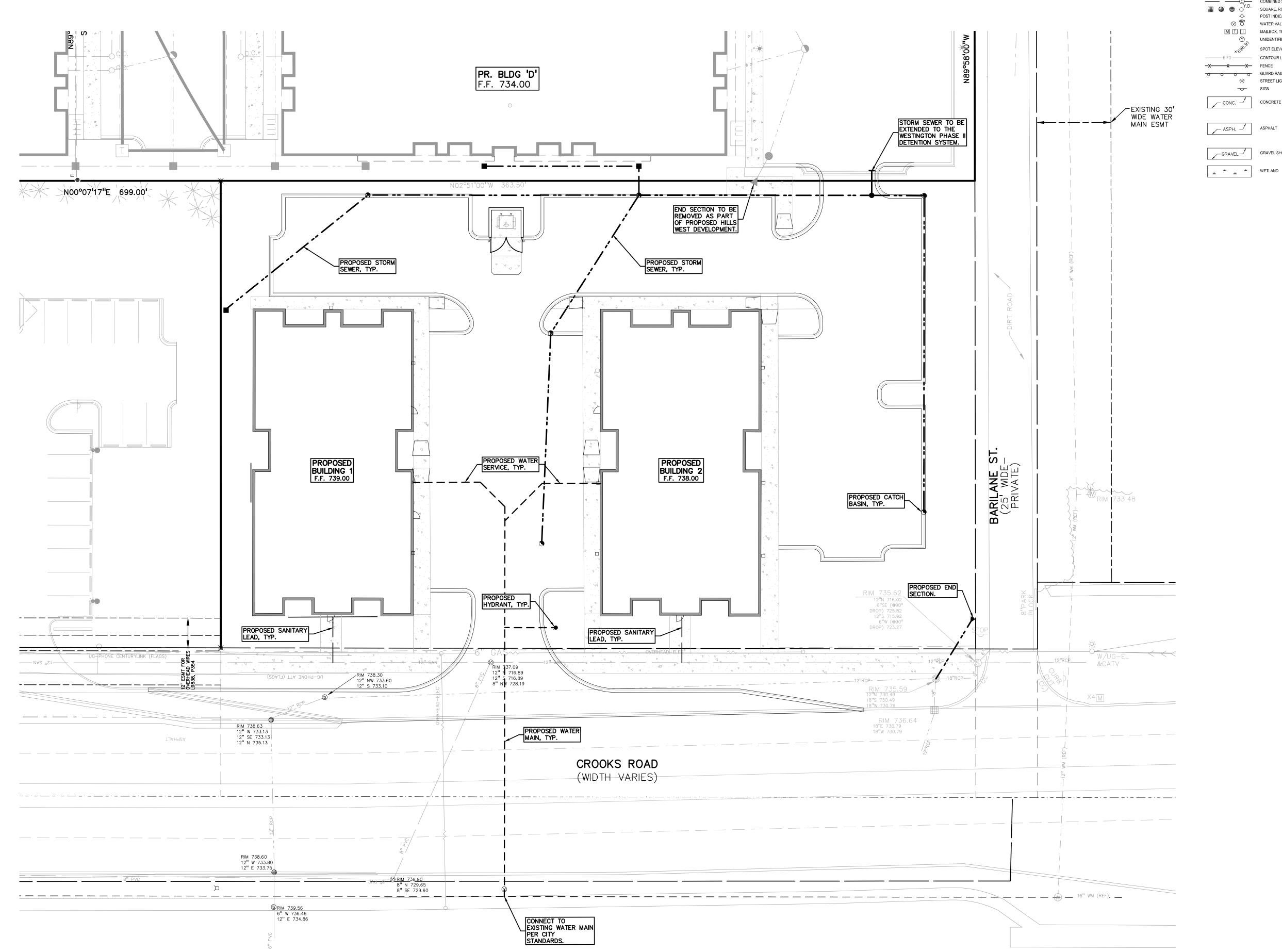
HILLS WEST 3902 CROOKS ROAD TROY, MI 48098

REVISIONS	
CITY COMMENTS	7/15/2

ORIGINAL ISSUE DATE: OCTOBER 20, 2021 DRAWING TITLE

PRELIMINARY GRADING PLAN

PEA JOB NO.	2019-268
P.M.	GMB
DN.	KRD
DES.	GMB
DRAWING NUMBER:	



LEGEND IRON FOUND RASS PLUG SET SEC. CORNER FOUND MONUMENT FOUND R RECORDED MAIL FOUND MONUMENT SET M MEASURED Ø NAIL & CAP SET C CALCULATED -OH-ELEC-W-O-C ELEC., PHONE OR CABLE TV O.H. LINE, POLE & GUY WIRE -UG-CATV-TV- UNDERGROUND CABLE TV, CATV PEDESTAL -⊠-UG-PHONE-Ū--- TELEPHONE U.G. CABLE, PEDESTAL & MANHOLE -UG-ELEC-E-E-E- ELECTRIC U.G. CABLE, MANHOLE, METER & HANDHOLE GAS MAIN, VALVE & GAS LINE MARKER

WATERMAIN, HYD., GATE VALVE, TAPPING SLEEVE & VALVE

GAS MAIN, VALVE & GAS LINE MARKER

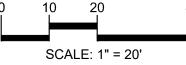
WATERMAIN, HYD., GATE VALVE, TAPPING SLEEVE & VALVE SANITARY SEWER, CLEANOUT & MANHOLE — – — STORM SEWER, CLEANOUT & MANHOLE COMBINED SEWER & MANHOLE SQUARE, ROUND & BEEHIVE CATCH BASIN, YARD DRAIN POST INDICATOR VALVE WATER VALVE BOX/HYDRANT VALVE BOX, SERVICE SHUTOFF M T MAILBOX, TRANSFORMER, IRRIGATION CONTROL VALVE UNIDENTIFIED STRUCTURE x 671.21 SPOT ELEVATION 671 -----670 ------ CONTOUR LINE **-X---X-** FENCE _x---x---x-OOOOGUARD RAIL 0 0 0 0 ☆ STREET LIGHT SIGN CONC. CONCRETE ASPH. ASPHALT GRAVEL GRAVEL SHOULDER



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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 UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION. LOCATION MAP LONG LAKE ROAD



CLIENT

TROY WESTINGTON LLC 1612 MUER RD TROY, MI 48084

PROJECT TITLE

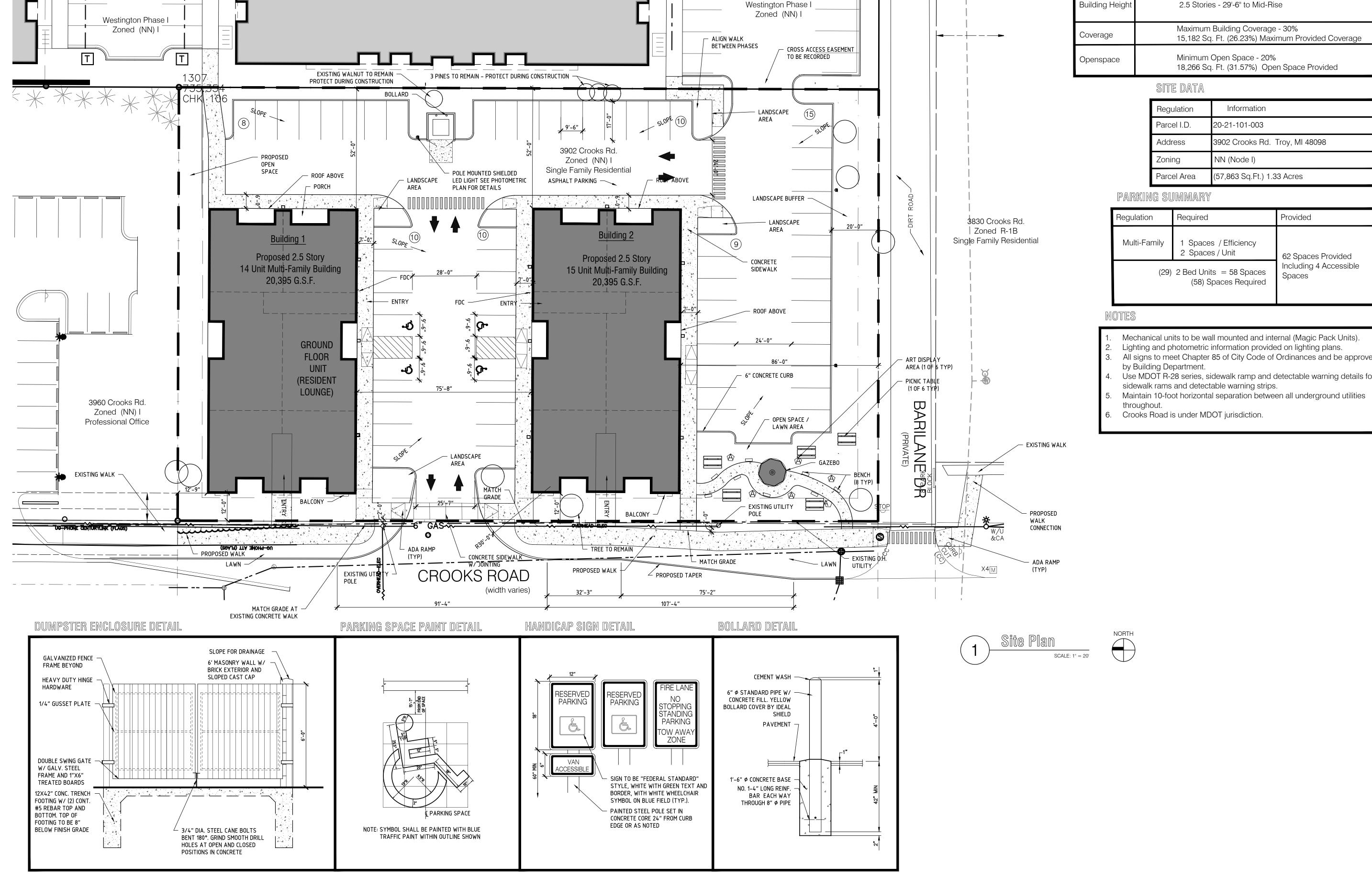
HILLS WEST 3902 CROOKS ROAD TROY, MI 48098

REVISIONS	

ORIGINAL ISSUE DATE: OCTOBER 20, 2021 DRAWING TITLE

PRELIMINARY UTILITY PLAN

PEA JOB NO.	2019-268
P.M.	GMB
DN.	KRD
DES.	GMB
DRAWING NUMBER:	



ZONING SCHEDULE OF REGULATIONS

Regulation	Provided per (NN) I
Setbacks	West Front Build to Line (Crooks Rd.): 12.0' South Side: 86'-00" North Side:12'-9" Rear: 52'-6"
Building Height	2.5 Stories - 29'-6" to Mid-Rise
Coverage	Maximum Building Coverage - 30% 15,182 Sq. Ft. (26.23%) Maximum Provided Coverage
Openspace	Minimum Open Space - 20% 18,266 Sq. Ft. (31.57%) Open Space Provided

Regulation	Information
Parcel I.D.	20-21-101-003
Address	3902 Crooks Rd. Troy, MI 48098
Zoning	NN (Node I)
Parcel Area	(57,863 Sq.Ft.) 1.33 Acres

Regulation	Required	Provided
Multi-Family	1 Spaces / Efficiency 2 Spaces / Unit	62 Spaces Provided
(29)	2 Bed Units = 58 Spaces (58) Spaces Required	Including 4 Accessible Spaces

- Mechanical units to be wall mounted and internal (Magic Pack Units).
- All signs to meet Chapter 85 of City Code of Ordinances and be approved
- Maintain 10-foot horizontal separation between all underground utilities

9

000 AUS. 3 3 0 0 A U B U R AUBURN HILLS, T:248.601.4422 F:248



SPA Review #5 **SPA Resubmittal SPA Review Set SPA Review Set** Revision/Issue

Hills West 3902 Crooks Rd. Troy, MI 48098

Plan Site

021241

For inquiries contact Gasser Bush at quotes@gasserbush.com or 734.266.6705

DRAWING NOTE:

This drawing was generated from an electric image for estimation purposes only. Layout to be verfified in field by others.

MOUNTING HEIGHT NOTE:

Mounting height is measured from grade to face od fixture. Pole height should be calculated as the mounting height less base height.

GENERAL NOTE:

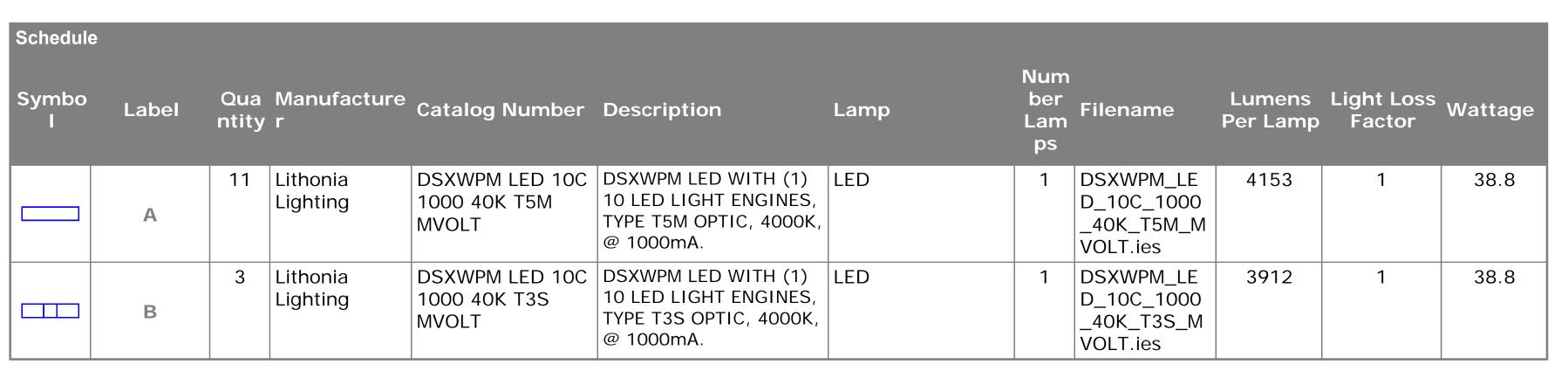
All site lighting to comply with City of Troy lighting standards (Section 13.05)

The engineer and/or architect must determine applicability of the layout to existing/ future field conditions. This lighting layout represents illumination level calculated from laboratory data taken under controlled conditions in accordance with illumination engineering society approved methods. Actual performance of any manufacture's luminaire may vary due to variation in electrical voltage, tolerance in lamps, and other variable field conditions. Mounting heights indicated are from grade and/or floor up.

These lighting calculations are not a substitute for independent engineering analysis of lighting systems suitability and safety. The engineer and/or architect is responsible to review for Michigan Energy Code and lighting Quality Compliance.

Unless exempt, project must comply with lighting controls requirements defined in ASHARE 90.132013. For specific information contact GBA controls group at ASG@gaserbush.com or 734-266-6705

ALL Pole Mounting Fixtures mounted at 15'-0" ALL Building Mounting Fixtures mounted at 12'-0"



Statistics						
Description	Symbol	Avg	Max	Min	Avg/Min	Max/Min
Calc Zone #1	+	0.8 fc	4.8 fc	0.0 fc	N/A	N/A





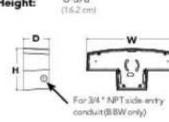




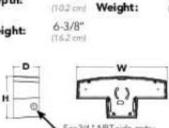
d"series

Specifications Luminaire Width: 13-3/4" Weight:

Height: 6-3/8"



Back Box (BBW, ELCW)



4" ELCW 10 lbs

Introduction

The D-Series Wall luminaire is a stylish, fully integrated LED solution for building-mount applications. It features a sleek, modern design and is carefully engineered to provide long-lasting, energy-efficient lighting with a variety of optical and control options for customized performance.

DSSTXD Tortured sandstone

With an expected service life of over 20 years of
nighttime use and up to 74% in energy savings
over comparable 250W metal halide luminaires
the D-Series Wall is a reliable, low-maintenance
lighting solution that produces sites that are
exceptionally illuminated.

DSXW1LED											
Series	LEDs	Orère Current	Color tem	pesature	Distribu	rtion	Voltage	Mountie	lg	Control Opt	licets
DSXW1 LED	10C 10LEJs (and enginel 20C 20LEDs (two engines)	350 350 mA 530 530 mA 700 700 mA 1000 1000 mA {1A}*	30K 40K 50K AMBPC	3000K 4000K 5000K Amber phosphor converted	TZS TZM T3S T3M T4M T4TM	Type! Medium Type!! Medium Type!! Medium Type!! Medium Type!V Medium Farward Throw Medium	MW0LT ² 120 ² 208 ³ 240 ⁴ 277 ¹ 347 ¹⁴ 480 ¹⁴	120000	d included Surface mounting bracket Surface- mounted back box (for conduit entry): 1	Shipped in PE DMG PIR PIRH PIRHFC3V PIRH1FC3V ELCW	stalled Photoxiccoic, cdl, button type* 0-10v dimming wirespulled outside foaue (for use with an external control, order at separately) 180° motion/ambient light sensor, <15° maght 1 180° motion/ambient sensor, 8-15′ mounting height, ambient sensor enabled at 11c 11 Motion/ambient sensor, 15-30′ mounting height ambient sensor enabled at 11c 11 Motion/ambient sensor, 15-30′ mounting height ambient sensor enabled at 11c 11 Emergency bartery backup (includes external component enclosure), (A Tide 20 Noncompliant
Other Option	i			Rrish	ramii						

SPD	Separate surge protection is
	Accessories
Che	to mit and ahipped separately

HS House-side shidd 11

DSXMMS U House side shield (one per DSXVIPSW II - Bnd-determit spikes DSWITWG U Weegand axessory DSXMTVGU Vandal guardancesory

1 20C 1000 is not available with PR, PRH, PRHPC3V or PRH1FC3V.

SF Single fuse (120, 277 or 347V) 111 BSW Sird-datement spikes DBLXD Black

VG Vandal guard

DDL Diffused droplens

DF Double fuse (308, 240 or 480V) 13 WG Wire guard

2 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Single-fuse (SF) requires 120, 277 or 347 voltage option. Double-fuse (DF) requires 208, 240 or 480 voltage option.
 Only available with 200, 700mA or 1000mA. Not available with PIR or PIRM.

5 Back box ships installed on future. Cannot be field installed. Cannot be ordered as an accessory. 6 Photocontrol (PE) requires 120, 206, 240, 277 or 347 voltage option. Not available with motion/ambient light sensors (PIR or PIRH). Reference Motion Sensor table on page 3.

DNAXD Natural aluminum

DWHXD White

DBLBXD Textured black

DDBTXD Textured dark bronze

DNAEXD Textured natural aluminum

10 Not available with ELCW.

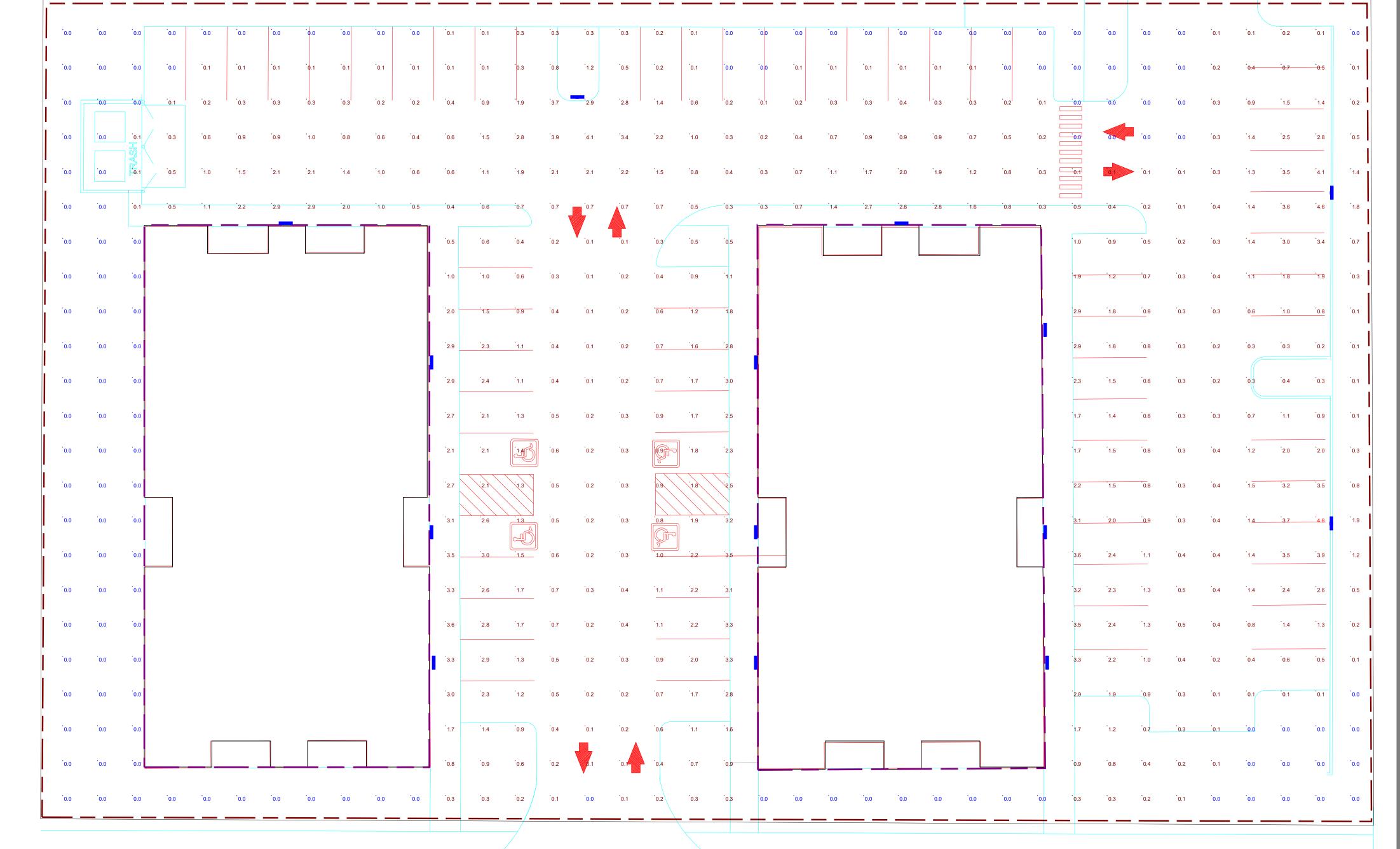
Also available as a separate accessory, see Accessories information.
 Not available with ELCW.

LITHONIA LIGHTING COMMERCIAL OUTDOOR

One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-705-7378 • www.thoma.com © 2013-2019 Acuity Brands Lighting, Inc. All rights reserved.

DSXW1-LED

Rev. 8/15/19





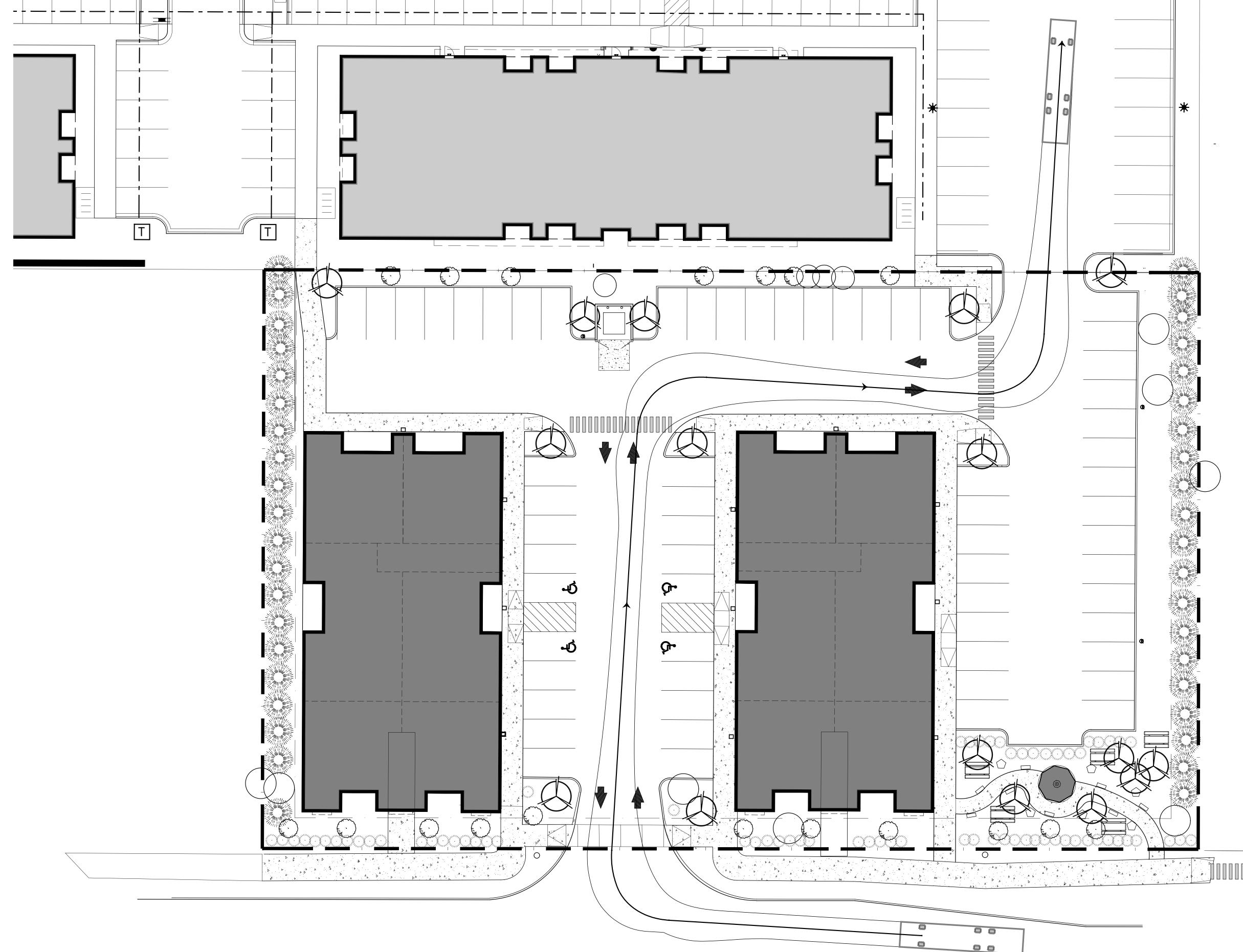
Plan View

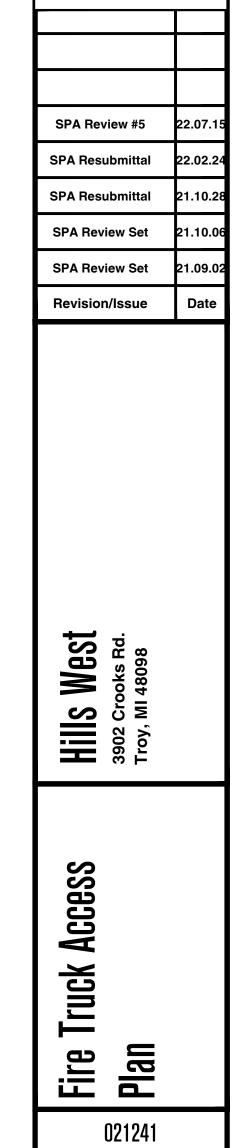
1 of 1

VISUAL

Designer Date 2/24/2022 Scale

Not to Scale Drawing No. Summary





\$103

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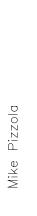
ESIGNHAUS

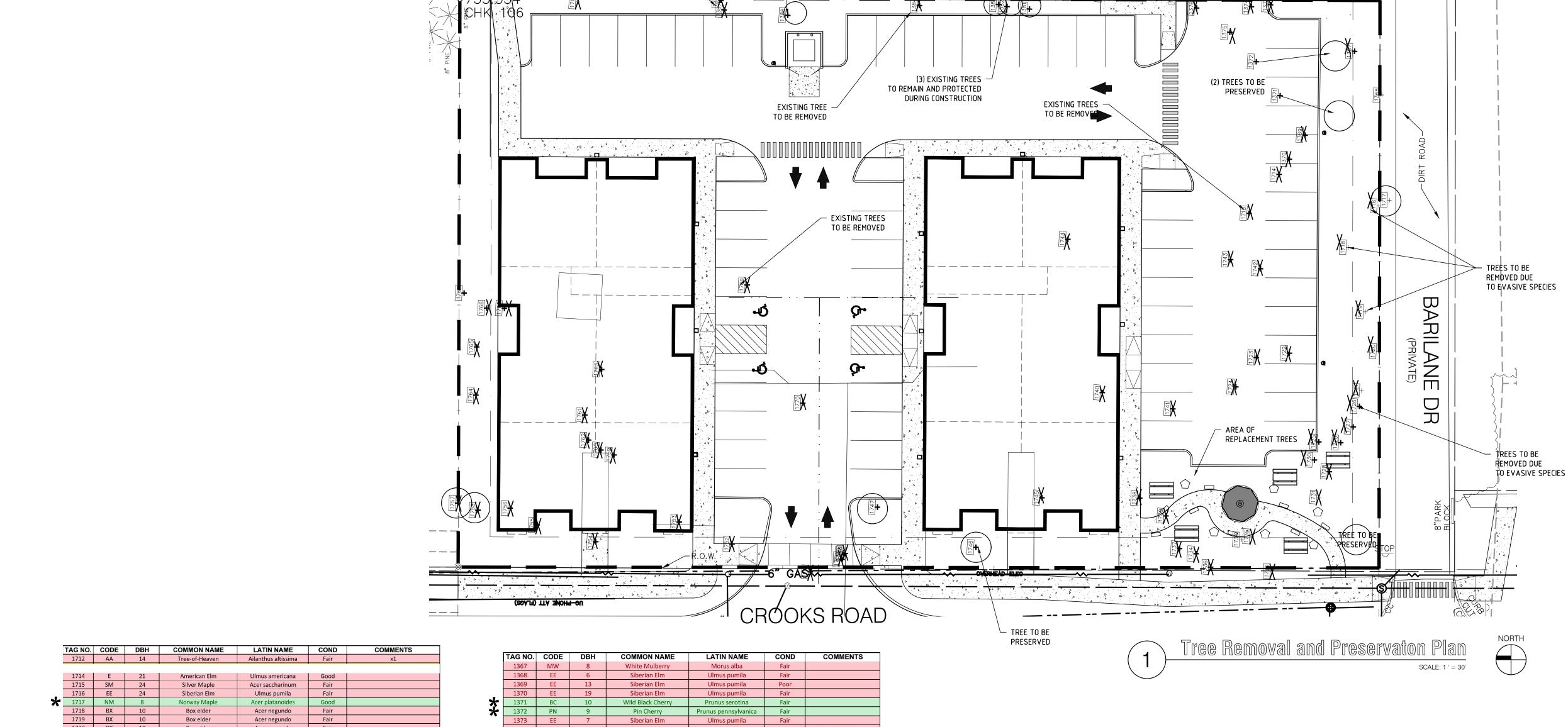
3 3 0 0 A U B U R N R D . AUBURN HILLS, MI 48326 T:248.601.4422 F:248.453.5854 W W W. DESIGNHAUS.COM INFO@DESIGNHAUS.COM

PETER M. STUHLREYER ARCHITECT 14666









EXISTING TREE

TO REMAIN AND PROTECTED

EXISTING TREE — TO BE REMOVED

Box elder Acer negundo Siberian Elm Siberian Elm Siberian Elm White Mulberry Box elder Acer negundo American Elm Box elder Acer negundo Morus alba Fair
Ulmus americana Good
Acer negundo Very Poor White Mulberry Siberian Elm Siberian Elm

Morus alba

Acer negundo

Ulmus pumila

White Mulberry

REMOVED TREES ACCOUNTED FOR IN PHASE II —

TAG NO.	CODE	DBH	COMMON NAME	LATIN NAME	COND	COMMENTS
1367	MW	8	White Mulberry	Morus alba	Fair	
1368	EE	6	Siberian Elm	Ulmus pumila	Fair	
1369	EE	13	Siberian Elm	Ulmus pumila	Poor	
1370	EE	19	Siberian Elm	Ulmus pumila	Fair	
1371	ВС	10	Wild Black Cherry	Prunus serotina	Fair	
1372	PN	9	Pin Cherry	Prunus pennsylvanica	Fair	
1373	EE	7	Siberian Elm	Ulmus pumila	Fair	
1374	MW	9	White Mulberry	Morus alba	Fair	
1375	EE	9	Siberian Elm	Ulmus pumila	Very Poor	
1376	PN	10	Pin Cherry	Prunus pennsylvanica	Poor	
			· · · · · · · · · · · · · · · · · · ·		. 551	
1381	JP	13	Jack Pine	Pinus banksiana	Fair	
1381 1382	JP JP	13 9	·			
			Jack Pine	Pinus banksiana	Fair	
1382	JP	9	Jack Pine Jack Pine	Pinus banksiana Pinus banksiana	Fair Fair	
1382 1383	JP JP	9	Jack Pine Jack Pine Jack Pine	Pinus banksiana Pinus banksiana Pinus banksiana	Fair Fair Fair	
1382 1383 1384	JP JP BX	9 9 14	Jack Pine Jack Pine Jack Pine Box elder	Pinus banksiana Pinus banksiana Pinus banksiana Acer negundo	Fair Fair Fair Fair	

WOODLAND TREES REMOVED - 102" (50% REPLACEMENT VALUE) = 51" REQUIRED REPLACEMENT TREES

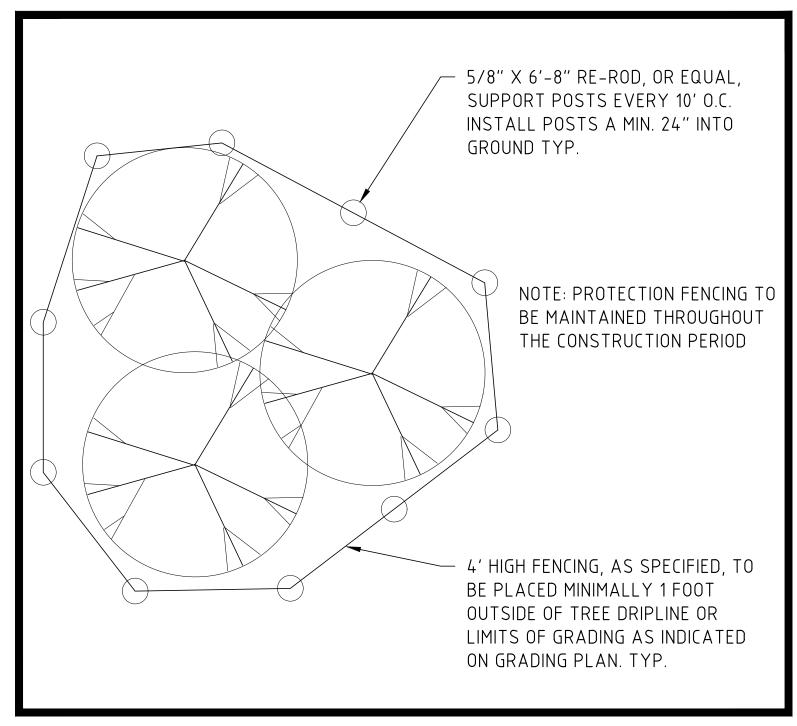
<u>LANDMARK TREES REMOVED</u> - 72" (100% REPLACEMENT VALUE) = 72 REQUIRED REPLACEMENT TREES

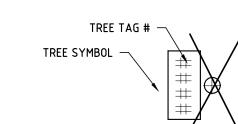
TREES PRESERVED - 136" (X2 REPLACEMENT VALUE) 272" REPLACEMENT TREE CREDIT

WOODLAND TREES TO BE REMOVED (50% REPLACEMENT) INVASIVE TREES TO BE REMOVED (0% REPLACEMENT) EXISTING TREES TO REMAIN (X2 REPLACEMENT) LANDMARK TREES REMOVED (100% REPLACEMENT) EXISTING TREES REMAINING FOR PRESERVATION CREDIT

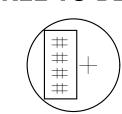
TREE PROTECTION DETAIL

REMOVED TREES ACCOUNTED FOR IN PHASE II





EXISTING TREE TO BE REMOVED



EXISTING TREE TO REMAIN

ON SITE LANDMARK TREES REMOVED - 3 ON SITE WOODLAND TREES REMOVED - 10 LANDMARK CALIPER INCHES= 72" (@100% REPLACEMENT) WOODLAND CALIPER INCHES - 102" (@ 50% REPLACEMENT) = 51" CALIPER INCHES TO BE REPLACED = 123" CALIPER INCHES PRESERVED- 136" (X2 REPLACEMENT CREDIT = 272") 123" (TO BE REPLACED) - 272" (CREDIT) = O REPLACEMENT TREES REQUIRED

NOTE: NO REPLACEMENT TREES REQUIRED

9 00

S S

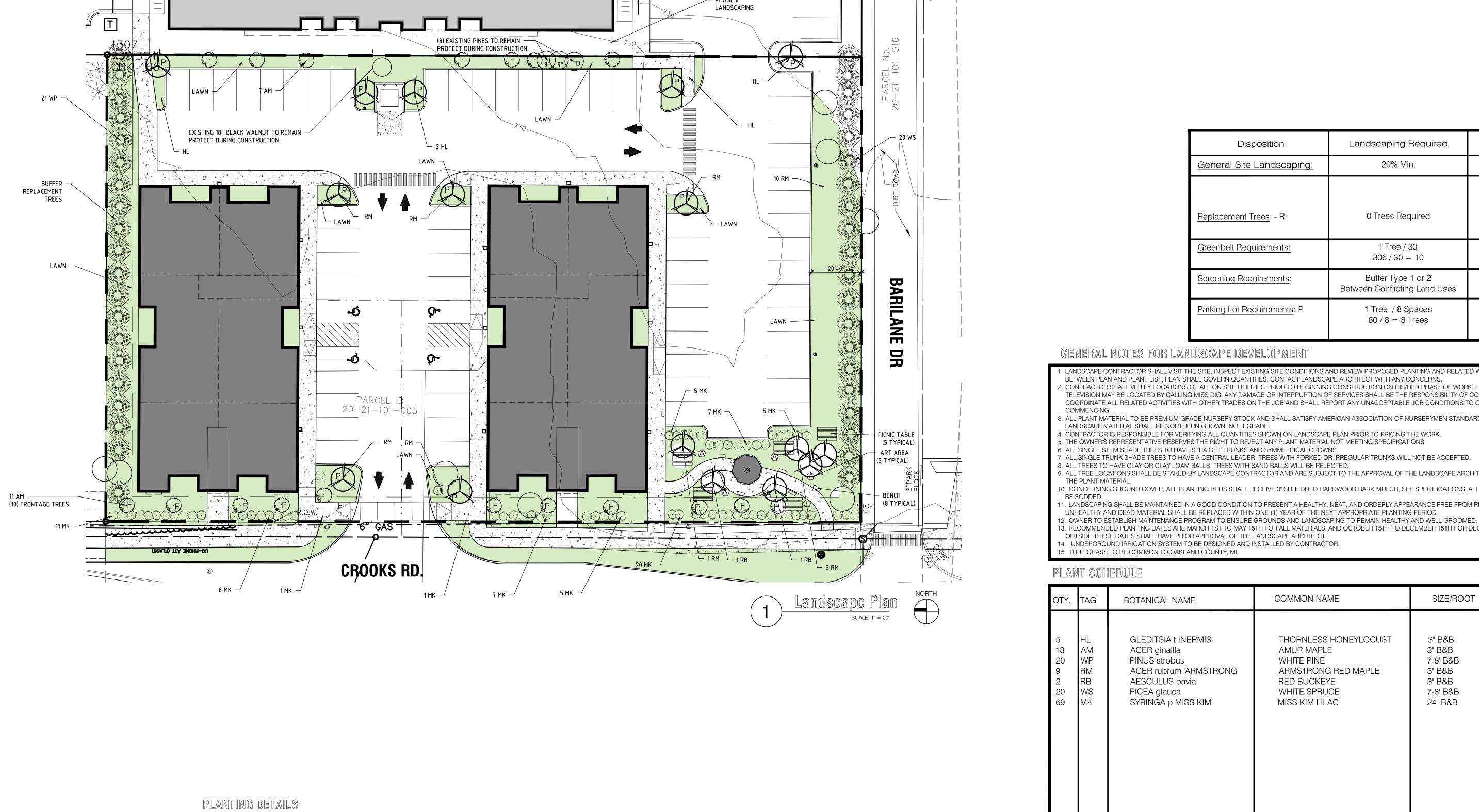


SPA Review #5 **SPA Resubmittal SPA Review Set SPA Review Set** Revision/Issue

Hills West 3902 Crooks Rd. Troy, MI 48098

Preservation Plan Tree Removal

021241



9 Landscaping Provided +22.30% w Plant Material 00 0 Provided S S 10 Trees Along Crooks R.O.W. Type 1 @ North and South Property Lines 10 Trees

- LANDSCAPE CONTRACTOR SHALL VISIT THE SITE, INSPECT EXISTING SITE CONDITIONS AND REVIEW PROPOSED PLANTING AND RELATED WORK. IN CASE OF DISCREPANCY

- 9. ALL TREE LOCATIONS SHALL BE STAKED BY LANDSCAPE CONTRACTOR AND ARE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION OF
- 11. LANDSCAPING SHALL BE MAINTAINED IN A GOOD CONDITION TO PRESENT A HEALTHY, NEAT, AND ORDERLY APPEARANCE FREE FROM REFUSE AND DEBRIS. ALL

a=.				0175 (0007	Revision/Issue
QTY.	TAG	BOTANICAL NAME	COMMON NAME	SIZE/ROOT	
5 18 20 9 2 20 69	HL AM WP RM RB WS MK	GLEDITSIA t INERMIS ACER ginallla PINUS strobus ACER rubrum 'ARMSTRONG' AESCULUS pavia PICEA glauca SYRINGA p MISS KIM	THORNLESS HONEYLOCUST AMUR MAPLE WHITE PINE ARMSTRONG RED MAPLE RED BUCKEYE WHITE SPRUCE MISS KIM LILAC	3" B&B 3" B&B 7-8' B&B 3" B&B 7-8' B&B 24" B&B	Hills West 3902 Crooks Rd. Troy, MI 48098
					— 88 ±

EVERGREEN TREES	DECIDUOUS TREES	PERENNIALS	
NOTE: REMOVE ALL TAGS, STRINGS, PLASTICS, AND ANY OTHER MATERIALS WHICH ARE UNSIGHTLY OR COULD CAUSE GIRDLING. RUBBER HOSE (BLACK) PLASTIC BANDS COVER PLANTING WITH 4" SHREDDED HARDWOOD BARK MULCH TO 6" BEYOND OUTERMOST BRANCHES. LEAVE 3" BARE	DO NOT CUT LEADER	PERENNIALS-SIZE AND SPACING AS SHOWN ON PLAN 3" SHREDDED BARK MULCH PLANTING MIXTURE: 50% TOPSOIL, 50% SPHAGNUM PEAT MIXTURE UNDISTURBED SOIL	
SOIL AROUND TREE (3) 2"X2" HARDWOOD STAKES OR EQUIVALENT DRIVEN 6"-8" OUTSIDE OF ROOTBALL. REMOVE AFTER ONE YEAR. TOPSOIL SET PLANT MATERIAL 6" HIGHER THAN ORIGINAL DEPTH. CUT ALL BINDING AND REMOVE BURLAP FROM TOP 1/3 OF ROOTBALL. AMEND SOIL PER SITE CONDITIONS AND REQUIREMENTS OF THE TREE.	PLASTIC BANDS (3) 2"X2"X8" HARDWOOD STAKE SET 18" INTO UNDISTURBED SOIL TREE WRAP UNDISTURBED SOIL TREE WRAP ON TOP 1/3 OF BALL. SLASH BURLAP AND CUT WIRE ON ROOTBALL AT 18" INTERVALS (BOTH HORIZONTAL AND VERTICAL)	NOTE: PLANT SHRUB AT SAME RELATIONSHIP TO FINISHED GRADE AS IT HAD TO GRADE AT PLACE OF ORIGIN VARIES AT SHREDDED BARK MULCH CUT AND REMOVE BURLAP FROM TOP 1/3 OF BALL. SLASH REMAINING BURLAP LIMIT OF BARE ROOT SPREAD UNDISTURBED SOIL	Tot T T Ir T

Total Trees: 74 Total Shrubs: 69 Total New Plant Material Provided: 143 Plants

Irrigation Cost Estimate: \$6,500.00 Total Landscape Cost Estimate: \$50,745.00

0 WOODLAND REPLACEMENT TREES PROVIDED

PLANT SPACING: FRONTAGE TREES - 30' O.C. EVERGREEN TREES - 10' O.C. NARROW EVERGREEN TREES - 5' O.C. SHRUBS - 3' O.C. PERENNIALS / GRASSES - 3' O.C.

Landscape 021241

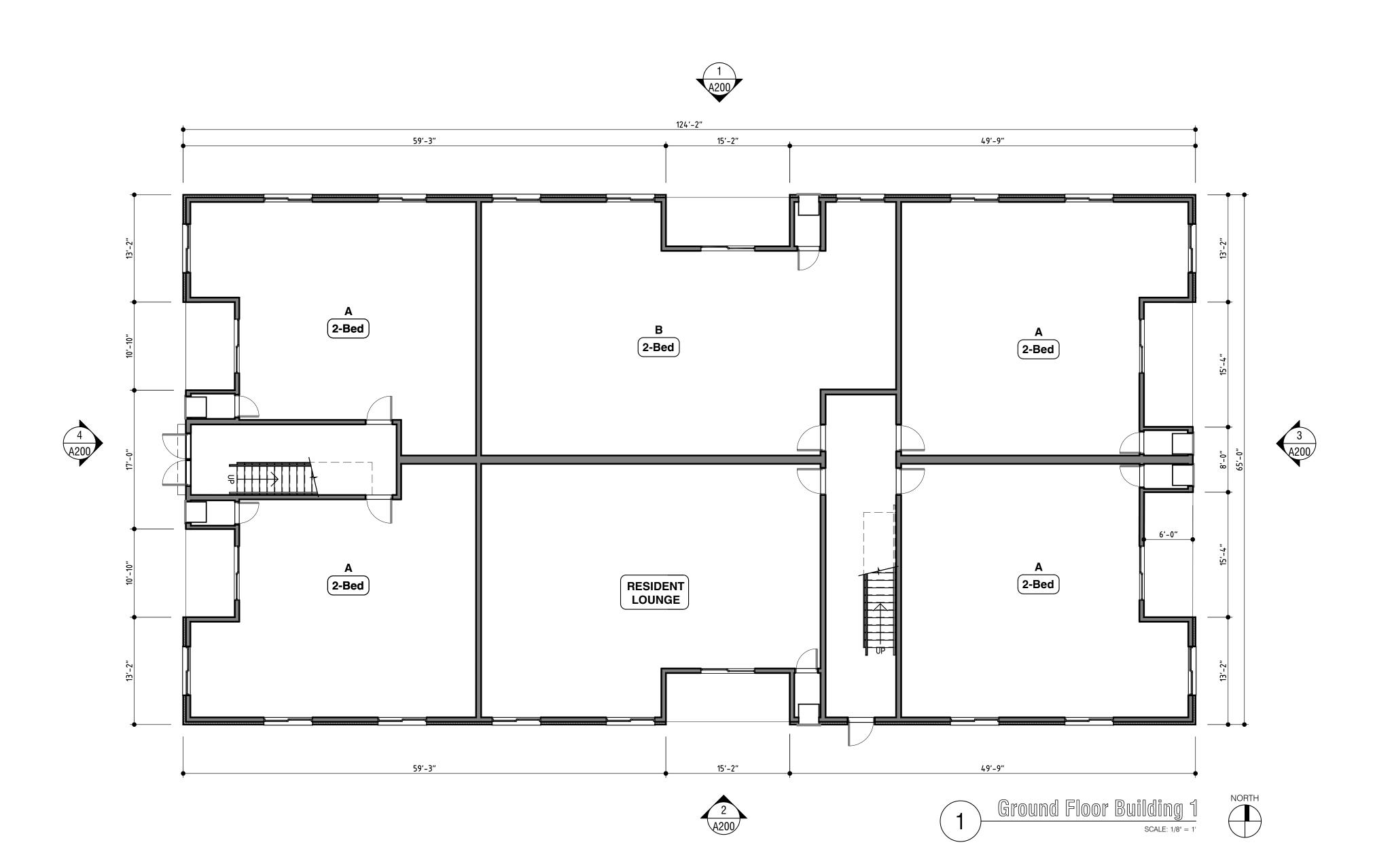
Plan

SPA Review #5

SPA Resubmittal

SPA Review Set

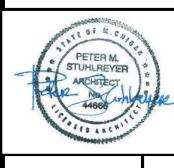
SPA Review Set



	А	В	С	D	TOTAL	
GROUND FLOOR	8	3*	0	0	11	
MIDDLE FLOOR	8	4	0	0	12	
UPPER FLOOR	0	0	4	2	6	
TOTAL	16	7	4	2	29	
ALL UNITS 2 BEDRO	OMS		* One B-Ty Resident	ype Unit replac Lounge	ced with	

3 3 0 0 A U B U R N R D . AUBURN HILLS, MI 48326 T:248.601.4422 F:248.453.5854 W W W . D E S I G N H A U S . C O M I N F O @ D E S I G N H A U S . C O M

ESIGNHAU



AND STREET, ST		
	+	
SPA Review #5	22.07.15	
SPA Resubmittal	22.02.24	
SPA Resubmittal	21.10.28	
SPA Review Set	21.10.06	
SPA Review Set	21.09.02	
Revision/Issue	Date	

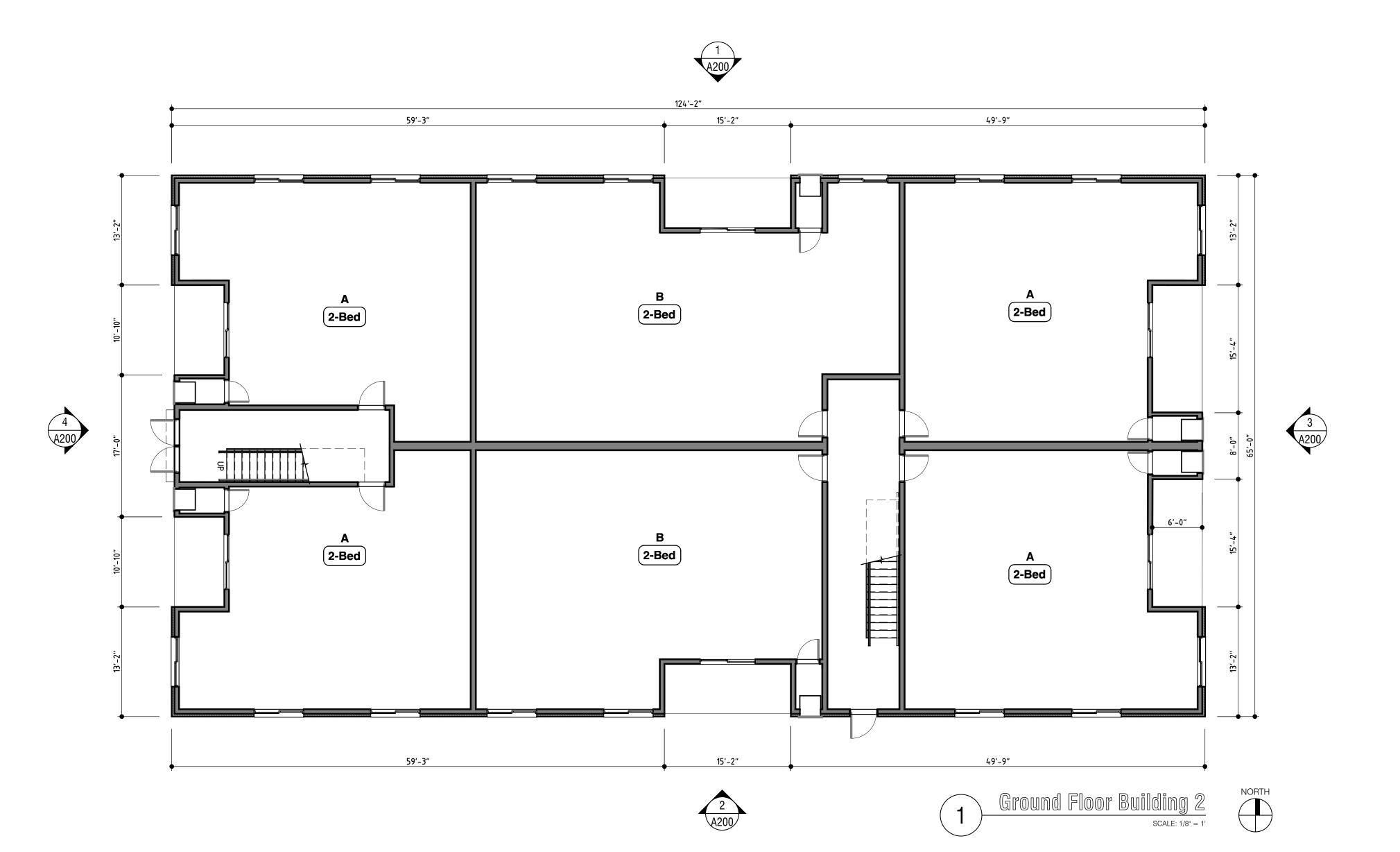
SPA Resubmittal	21.10.
SPA Review Set	21.10.
SPA Review Set	21.09.
Revision/Issue	Date

s West	Crooks Rd. MI 48098	

Hills 3902 Cr Troy, M

Building 1 Ground Floor Plan

	Α	В	С	D	TOTAL
GROUND FLOOR	8	3*	0	0	11
MIDDLE FLOOR	8	4	0	0	12
UPPER FLOOR	0	0	4	2	6
TOTAL	16	7	4	2	29
ALL UNITS 2 BEDROOMS * One B-Type Unit replaced with Resident Lounge					



ESIGNHAU

3 3 0 0 A U B U R N R D . AUBURN HILLS, MI 48326 T:248.601.4422 F:248.453.5854 W W W . D E S I G N H A U S . C O M I N F O @ D E S I G N H A U S . C O M

PETER M.
STUHLREYER
ARCHITECT
No.
44688

10 VICE		
SPA Review #5	22.07.15	
SPA Resubmittal	22.02.24	
SPA Resubmittal	21.10.28	
SPA Review Set	21.10.06	
SPA Review Set	21.09.02	
Revision/Issue	Date	

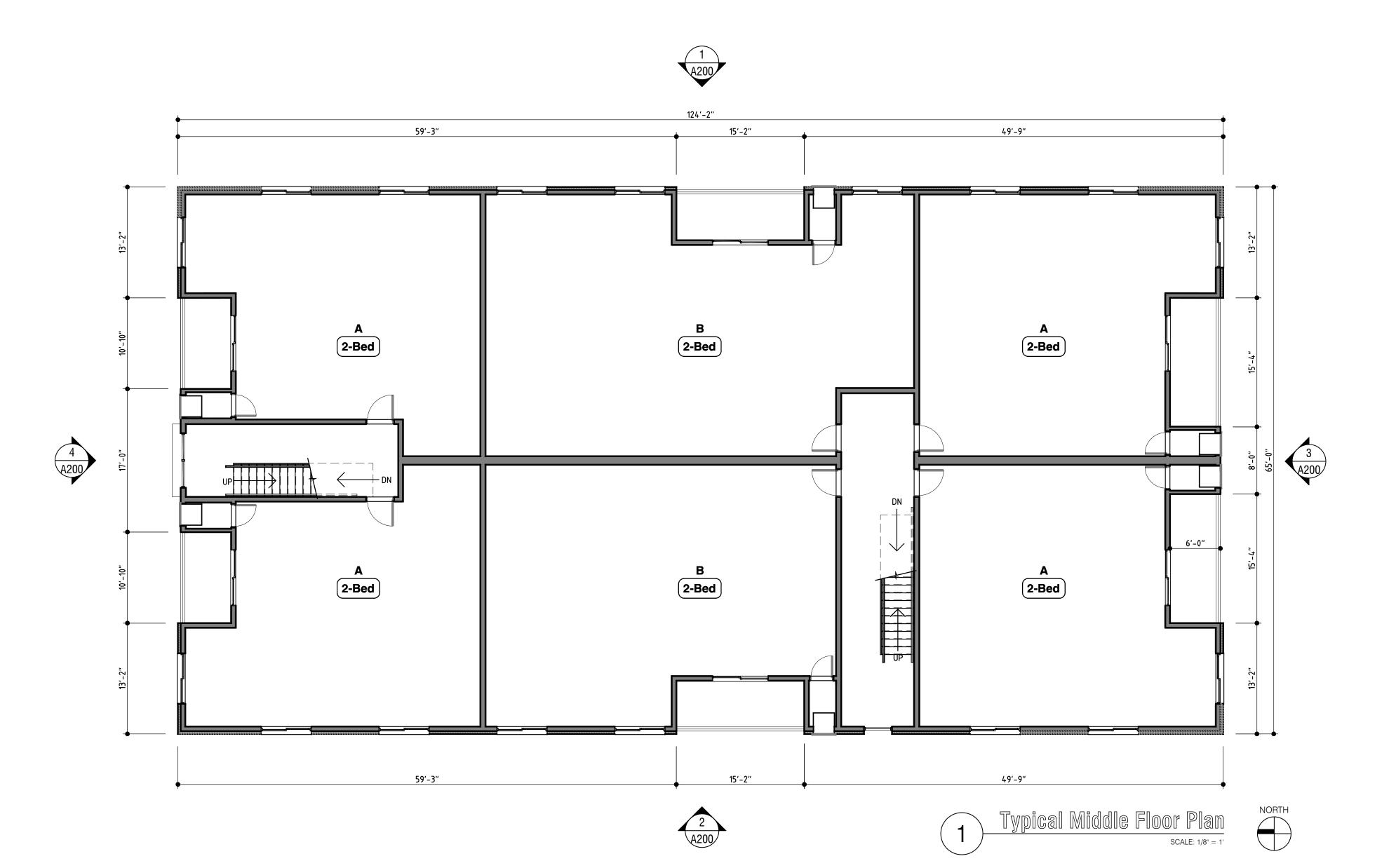
PA Resubmittal	22.02.24
PA Resubmittal	21.10.28
PA Review Set	21.10.06
PA Review Set	21.09.02
evision/Issue	Date

Hills West 3902 Crooks Rd. Troy, MI 48098

Building 2 Ground Floor Plan

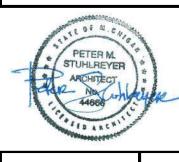
021241

		A	В	С	D	TOTAL		(
	GROUND FLOOR	8	3*	0	0	11		
	MIDDLE FLOOR	8	4	0	0	12		
	UPPER FLOOR	0	0	4	2	6		
	TOTAL	16	7	4	2	29		
•	ALL UNITS 2 BEDROOMS * One B-Type Unit replaced with Resident Lounge							



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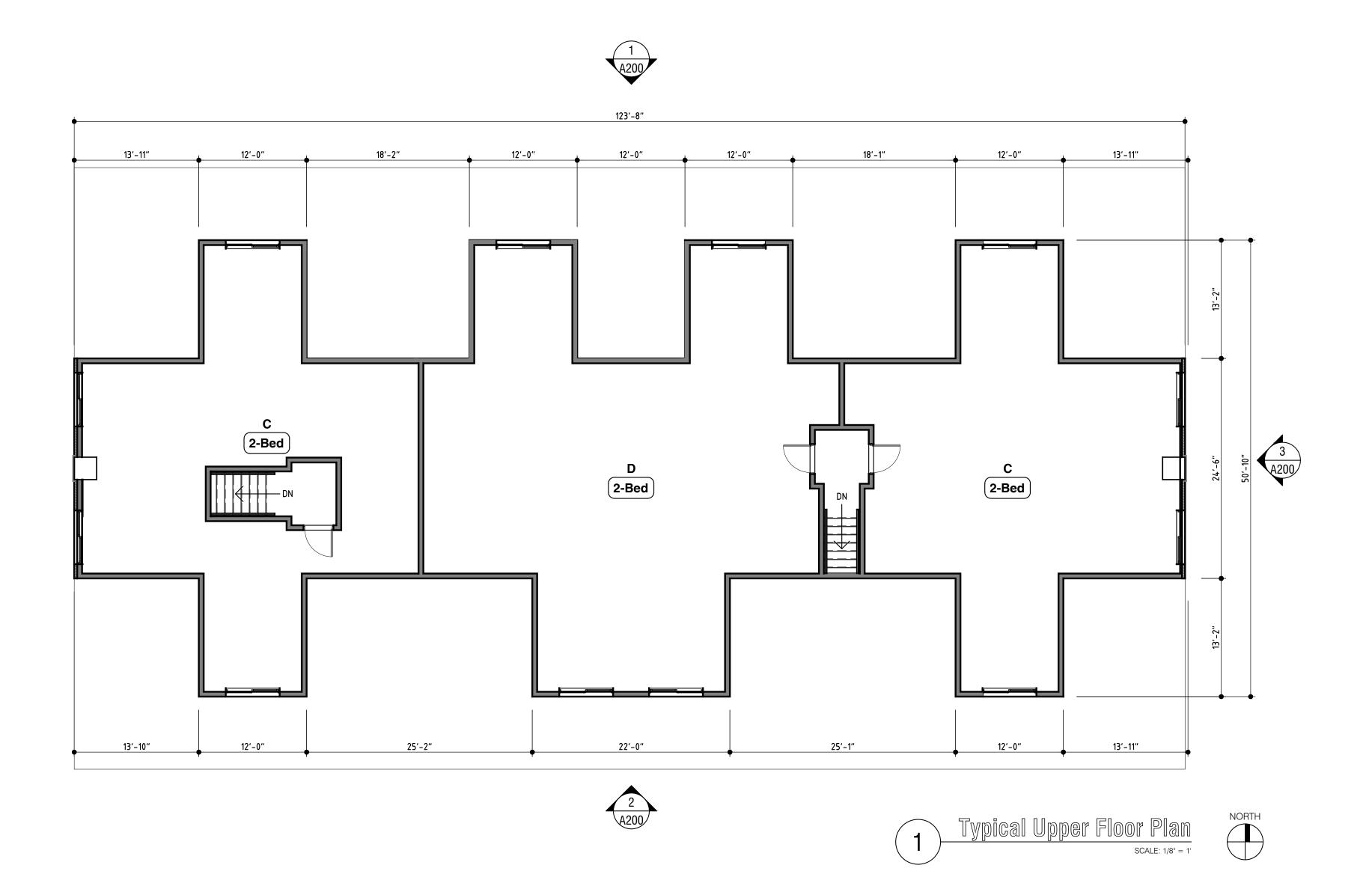
A STATE OF THE PARTY OF THE PAR	
SPA Review #5	22.07.15
SPA Resubmittal	22.02.24
SPA Resubmittal	21.10.28
SPA Review Set	21.10.06
SPA Review Set	21.09.02
Revision/Issue	Date

Hills West 3902 Crooks Rd. Troy, MI 48098

Typical Middle Floor Plan

021241 A101

		А	В	С	D	TOTAL	(V)	5)
	GROUND FLOOR	8	3*	0	0	11		1 S
	MIDDLE FLOOR	8	4	0	0	12		3
	UPPER FLOOR	0	0	4	2	6		
	TOTAL	16	7	4	2	29		
,	ALL UNITS 2 BEDRO	OMS		* One B-Ty Resident	/pe Unit replac Lounge	ed with		HA



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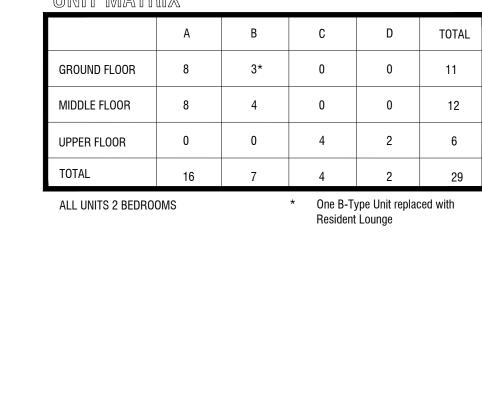


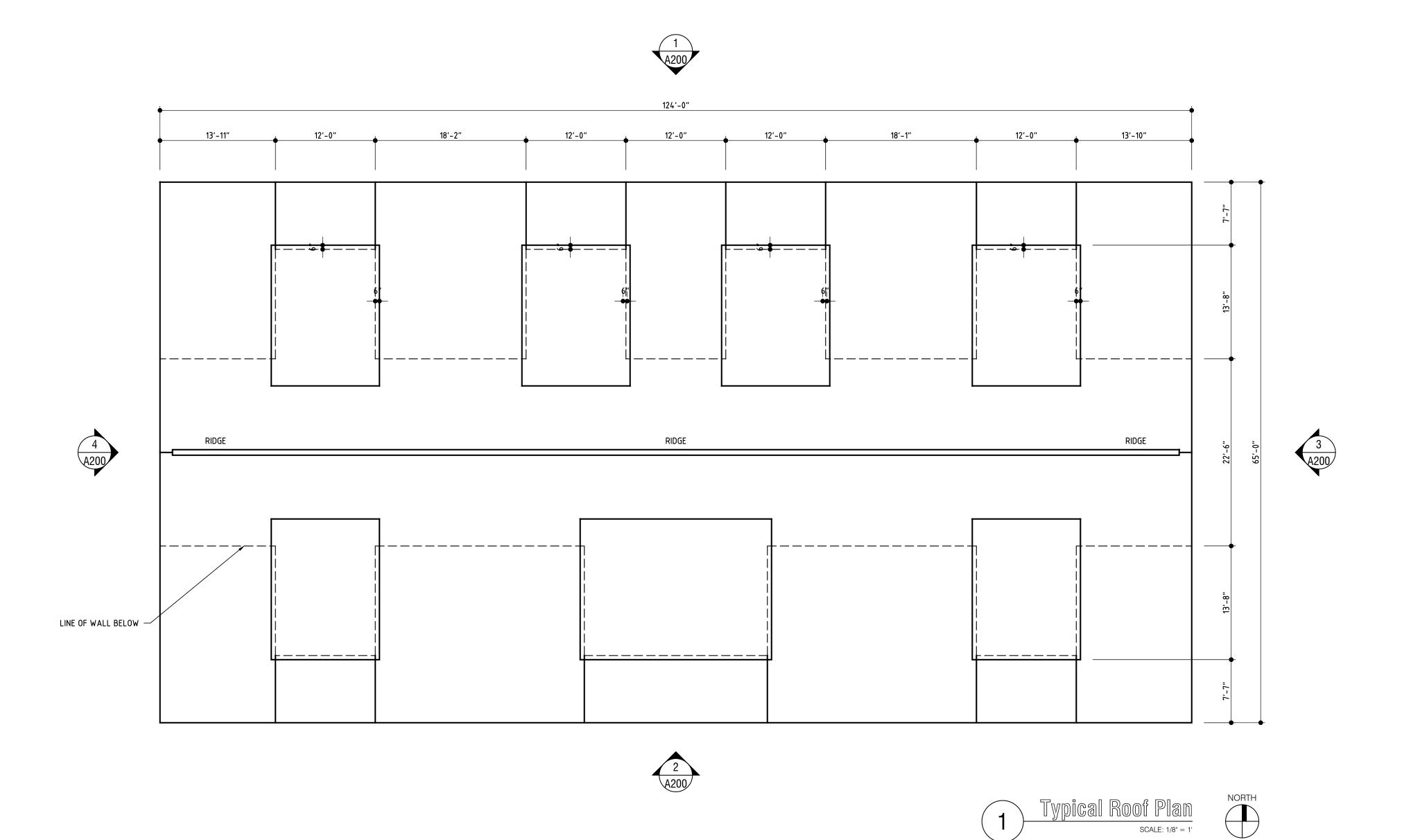
LB VICE	
SPA Review #5	22.07.15
SPA Resubmittal	22.02.24
SPA Resubmittal	21.10.28
SPA Review Set	21.10.06
SPA Review Set	21.09.02
Revision/Issue	Date

Hills West 3902 Crooks Rd. Troy, MI 48098

Typical Upper Floor Plan

021241 A102





SPA Review #5 **SPA Resubmittal SPA Review Set SPA Review Set** Revision/Issue

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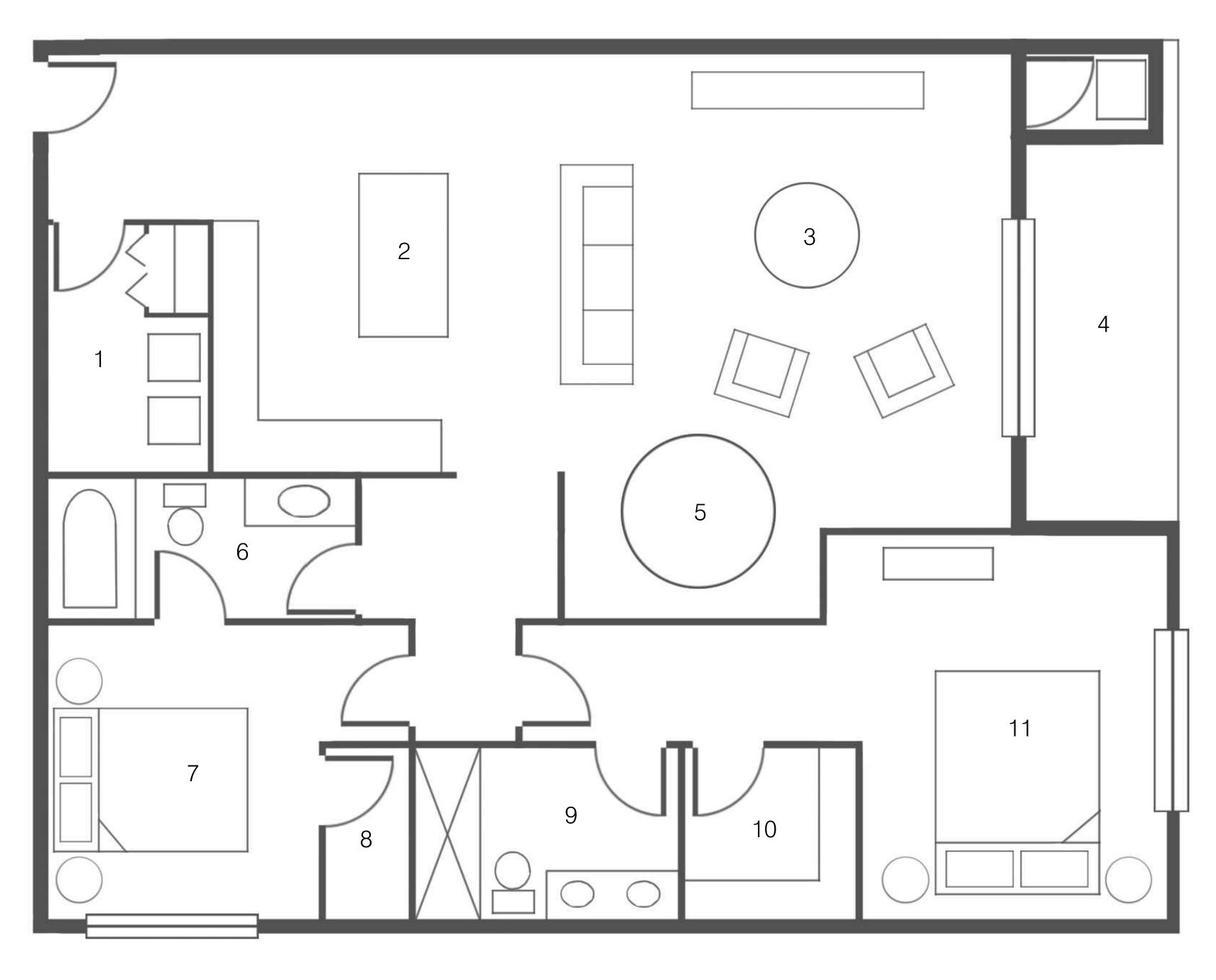
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Hills West 3902 Crooks Rd. Troy, MI 48098

Typical Roof Plan

021241





SCALE: N.T.S

- Laundry

- Laundry
 Kitchen
 Living Room
 Balcony
 Dining Room
 Bathroom
 Bedroom
 Closet
 Bathroom
 Walk in Closet
 Master Bedroom

Hills West 3902 Crooks Rd. Troy, MI 48098 **Typical Unit Plan**

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SPA Review #5

SPA Resubmittal

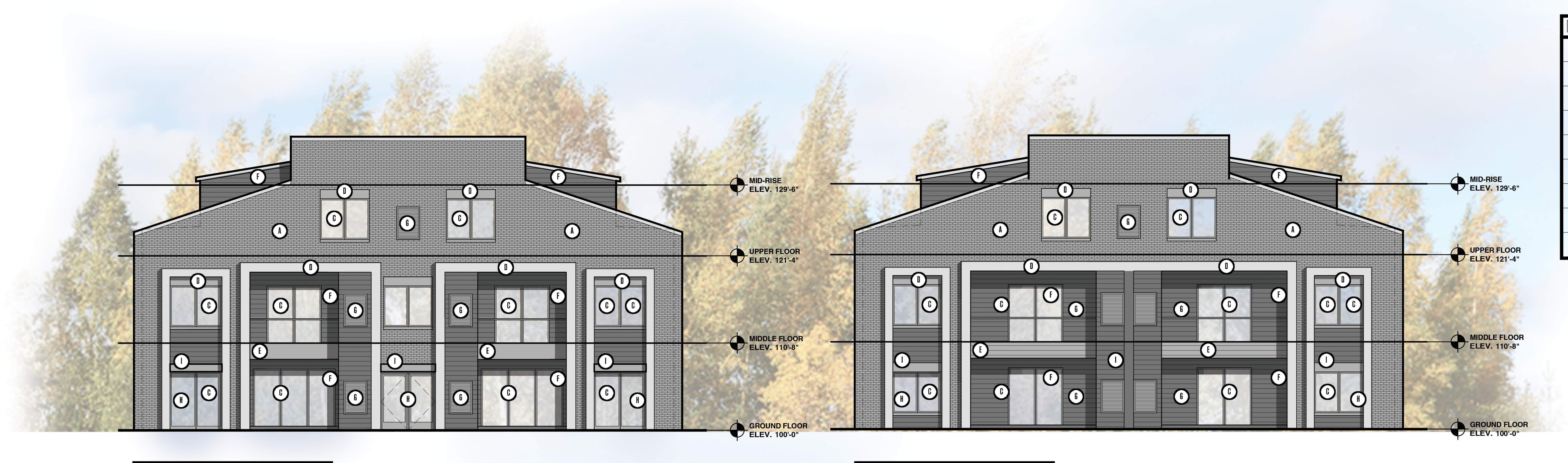
SPA Review Set

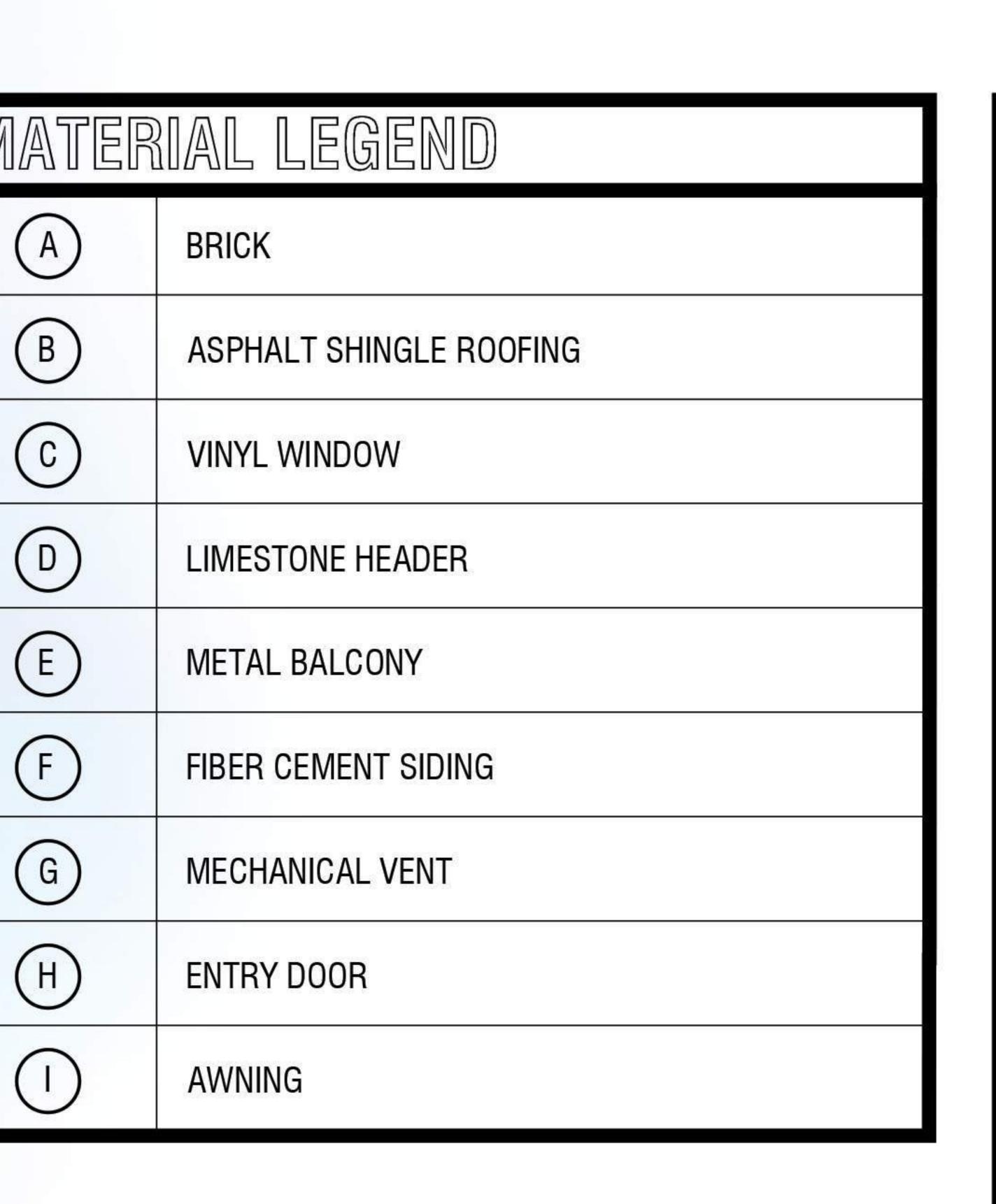
SPA Review Set

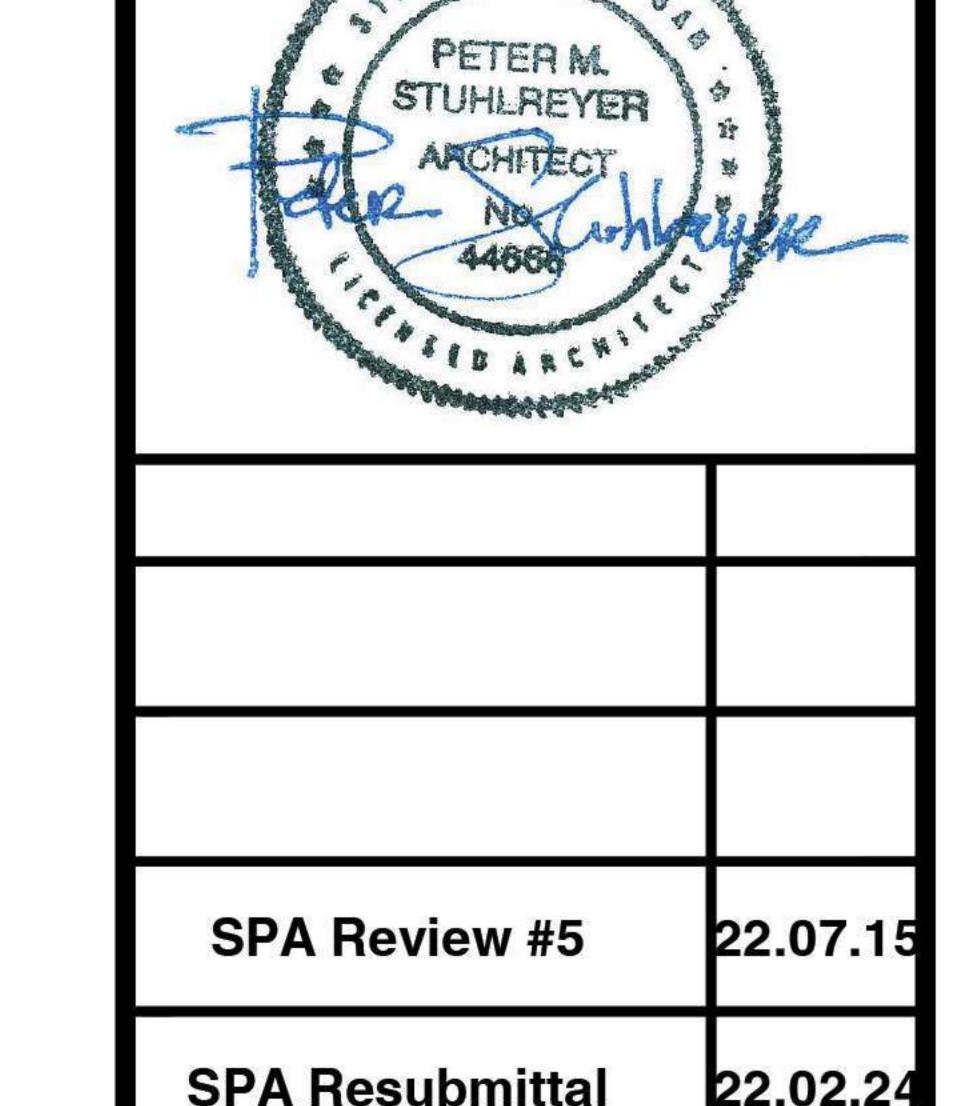
Revision/Issue

021241

A104







SPA Resubmittal SPA Review Set SPA Review Set 21.09.02

SCALE: 1/8" = 1'

TOTAL AREA BETWEEN 2'-0" & 8'-0": 402 SF

REQUIRED TRANSPARENCY: 50%

TOTAL AREA BETWEEN 2'-0" & 8'-0": 402 SF REQUIRED TRANSPARENCY: 30% PROVIDED TRANSPARENCY: 33%

SCALE: 1/8" = 1'

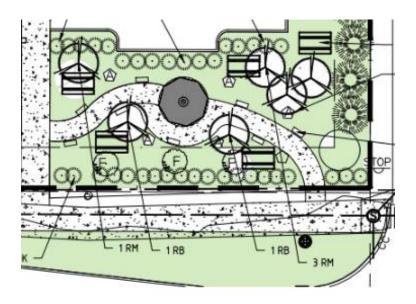


TOTAL AREA BETWEEN 2'-0" & 8'-0": 745 SF





HILLS WEST CORNER ART POCKET PARK



Six 4-7 ft. abstract art garden sculptures throughout Pocket Park. Below are types of art sculptures that are planned to be incorporated throughout the art pocket park. Art will be as below or similar.



- Black covered gazebo



- Eight (8ft long) park benches in forest green and black as below or similar.



- Five black picnic tables as below or similar





ITEM #7



PLANNING COMMISSION 2022 ANNUAL REPORT

The Michigan Planning Enabling Act requires that municipal planning commissions prepare an annual written report to the legislative body concerning operations and the status of planning activities undertaken during the calendar year. In accordance, the following information has been compiled:

PLANNING COMMISSION

In 2022 the Planning Commission consisted of Dave Lambert (Chair), Marianna Perakis (Vice Chair), Toby Buechner, Carlton Faison, Michael Hutson, Tom Krent, Lakshmi Malalahalli, Sadek Rahman, John Tagle.

Lakshmi Malalahalli was Zoning Board of Appeals (ZBA) Representative.

The Planning Commission held 20 meetings during the year.

John Tagle and Michael Hutson served on the Sustainable Design Review Committee.

Planning Commission Training

Planning Commission members Krent and Buechner attended training sessions at the Michigan Association of Planning (MAP) Annual Conference, held in October, 2022. Planning Commission member Buechner completed the Citizen Planner course.

Planning Commission Sub-Committee Meetings

Planning Commission Chair Lambert established a 4-member Sub-Committee with the task of studying the Neighborhood Nodes and preparing a draft Neighborhood Node section as part of the Master Plan amendment effort. Meetings were held on April 5, April 13 and May 25 and were open to the public.



PLANNING COMMISSION 2022 ANNUAL REPORT

SITE PLAN REVIEWS

The Planning Commission considered the following applications in 2022:

Project	Description	PC Action
SUJPLN2021- 026	Biggby Coffee Drive-Through Window Addition, North side of Long Lake, East of Rochester, Section 11	Special Use Approval and Preliminary Site Plan Approval granted with conditions 1/11/22
SUJPLN2021- 024	Red Wagon Fuel Station, West side of Livernois, north of Maple, Section 28	Special Use Approval and Preliminary Site Plan Approval granted with conditions 1/11/22
Village of Troy PUD	Mixed residential PUD, 126 units, South side of Long Lake, west of Rochester, Section 15	Recommended approval to City Council 12/13/22
SP JPLN2021- 0016	The Westington II, South of Wattles, East of Crooks, Section 21	Preliminary Site Plan Approval denied 1/25/22
SP JPLN2021- 0017	Hills West, East side of Crooks, South of Wattles, Section 21	Preliminary Site Plan Approval denied 1/25/22
PUD 2020-0018	Long Lake and Crooks Mixed Use PUD, NW corner of Long Lake and Crooks, Section 8	No action taken
SP JPLN2021- 0027	780 West Maple Industrial Building, East side of Barrett, North of Maple, Section 28	Special Use Approval and Preliminary Site Plan Approval granted with conditions 2/22/22
SP JPLN2020- 0017	Janineh Medical Building, East side of Rochester, South of Square Lake, Section 11	Postponed 3/8/22
Potential PUD	Concept Plan Discussion, East side of Stephenson Highway, North of Fourteen Mile, Section 35	Considered 3/22/22, no action taken
SP JPLN2021- 0023	Eckford Woods One Family Cluster, 26 units/lots, North side of Eckford, West of Rochester, Section 15	Recommended approval 4/26/24
SP JPLN2021- 0028	Golden Villas, South side of Square Lake, West of Dequindre, Section 12	Recommended approval 5/10/24
SP JPLN2022- 0002	Norton & Quill Site Condominium, 4 units, NW corner of Norton Street and Quill Creek Drive, Section 3	granted with conditions 5/10/22
SP JPLN2022- 0016	Automark Collision Center, North side of Maplelawn, West of Crooks, Section 29	Preliminary Site Plan Approval granted with conditions 5/24/22
Concept Plan	Jeanne M. Stine Community Park Pavilion and Ice Skating Amenity, Troy Civic Center, SE corner of Town Center Drive and Civic Center Drive, Section 21	Preliminary Site Plan supported 11/1/22



PLANNING COMMISSION 2022 ANNUAL REPORT

SP JPLN2019- 0014	Lange View Estates, 8 units, SE corner of Livernois and Leetonia, Section 15,	Preliminary Site Plan Approval denied 5/24/22
SP JPLN2022- 0017	Abbey Estates Site Condominium, 4 units/lots, North side of Wattles, West of Rochester, Section 15	Preliminary Site Plan Approval granted with conditions 5/24/22
DDA Project	DDA Big Beaver Landscape Improvements	Presented to Planning Commission 11/1/22, no action taken
Potential PUD	Concept Plan discussion, Mixed residential project, East of Livernois, North of Square Lake, Section 35	Considered 7/26/22, no action taken

ZONING ORDINANCE AMENDMENTS

The Planning Commission considered the following amendment applications in 2022:

Amendment	Description	PC Action
CR2022-001	Homestead Condominiums, 30 units, Section	Recommended approval of
	22, From R-1E to RT	conditional rezoning request 7/26/22

CITY OF TROY MASTER PLAN

The Planning Commission considered the Master Plan at the following Regular meetings in 2022:

Date	Action	
March 8	Established Sub-Committee	
June 28	Presentation of Sub-Committee recommendations	

CHAPTER 13 HISTORIC PRESERVATION

The Planning Commission considered the following item in 2022:

Project	Description	Planning Commission Action
54 E. Square Lake Road	Application to de-list	Planning Commission reviewed application
		and took no action on 3/22/22