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

May 23, 2023 7:00 P.M. Council Chambers

- ROLL CALL
- 2. APPROVAL OF AGENDA
- 3. APPROVAL OF MINUTES May 9, 2023
- 4. PUBLIC COMMENT For Items Not on the Agenda

PRELIMINARY SITE PLAN APPROVAL

 PRELIMINARY SITE PLAN REVIEW (SU JPLN2023-0001) - Proposed New Tower Troy, Office Building and Parking Deck, East side of Troy Center Drive, South of Big Beaver, 755 Big Beaver Road (PIN 88-20-28-101-067), Section 28, Currently Zoned BB (Big Beaver) District

OTHER ITEMS

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

.

Chair Lambert called the Regular meeting of the Troy City Planning Commission to order at 7:00 p.m. on May 9, 2023, in the Council Chamber of the Troy City Hall. Chair Lambert 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:

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

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

Resolution # PC-2023-05-025

Moved by: Krent Support by: Tagle

RESOLVED, To approve the Agenda as prepared.

Yes: All present (9)

MOTION CARRIED

3. <u>APPROVAL OF MINUTES</u> – April 11, 2023

Resolution # PC-2023-05-026

Moved by: Fox

Support by: Malalahalli

RESOLVED, To approve the minutes of the April 11, 2023 Regular meeting as submitted.

Yes: All present (9)

MOTION CARRIED

4. PUBLIC COMMENT – For Items Not on the Agenda

There was no one present who wished to speak.

SPECIAL USE APPROVAL AND PRELIMINARY SITE PLAN APPROVAL

PUBLIC HEARING - SPECIAL USE APPROVAL AND PRELIMINARY SITE PLAN REVIEW
 (SU JPLN2023-0002) — Proposed Kroger D-463 Fuel Station, West side of John R, South of
 Larchwood (PIN 88-20-26-435-029, 88-20-26-433-019, -020 and -021), Section 26, Currently
 Zoned IB (Integrated Industrial and Business) District

Mr. Carlisle provided background information on the Special Use Approval and Preliminary Site Plan application for a proposed Kroger Fuel Station. He announced the Planning Department received two email communications erroneously addressing the application as a proposed rezoning of the subject parcels. Mr. Carlisle said the application is not to rezone the subject parcels and the zoning district would not change. Mr. Carlisle addressed the "paper alley" that bifurcates the site. He said the applicant must seek to vacate the alley to proceed with the proposed application. Mr. Carlisle explained the process of an alley vacation application and said the Special Use and Site Plan application would come back before the Board for consideration.

Mr. Carlisle asked the Planning Commission to hold a public hearing and discuss the following items:

- Use of the property as a gas station.
- Consideration if a larger convenience store should be provided, which would better serve the surrounding neighborhood, including across John R Road.
- Adding additional parking spaces for EV fueling.
- Architecture and design of kiosk.
- Reduce light intensity under the canopy.
- Special Use Standards set forth in Section 9.02.D
- Site Plan Standards set forth in Section 8.06.

Mr. Carlisle recommended the Planning Commission postpone approval of the application to allow the applicant to revise the application, if necessary, based on Planning Commission discussion and to allow the applicant to submit an alley vacation application.

Discussion among administration and Planning Commission:

- EV parking spaces, charging stations.
- Location of handicapped parking in relation to store entrance.
- Detention basin as relates to off-site residential drainage and buffer.
- Alley vacation application review by Engineering Department.

Matthew Pisko was present to represent the Kroger Company of Michigan. He addressed the operations of the Kroger fuel stations and gave a history of the number of Kroger sites across the country, in the State of Michigan and in the City of Troy. Mr. Pisko identified the two Troy locations at Rochester Road and South Boulevard and indicated the proposed fuel station would serve the Kroger store to the north. Mr. Pisko addressed the reason the Kroger Company chose this specific location for a fueling station, the size of the convenience store, the number of full-time positions, and the hours of operation from 6 am to 10 pm. He provided architectural details of the fueling station kiosk and canopy. Mr. Pisko said the proposed intense lighting under the canopy would accommodate patrons to see better during evening hours of operation.

Mr. Pisko said there are no future development plans for the detention basin stating it offers a buffer for surrounding residential. He said it is standard practice for the Kroger Company to offer EV charging stations for the convenience of patrons in the parking lots of their grocery stores. Mr. Pisko said a security system would be in place and there would be no overnight vehicular parking permitted.

There was discussion, some comments related to:

- Choice of location; potential other sites to place fueling station.
- Size of convenience store as relates to traditional kiosk.
- Kiosk convenience items for purchase.
- Pedestrian connection to café.
- Provide and/or prep for EV charging stations.
- Deceleration lane.

PUBLIC HEARING OPENED

Lyle Detterman, 3208 Thatcher Drive, Rochester Hills. Mr. Detterman asked how the proposed application would affect the property he owns to the south and north across Larchwood (1991 Woodslee), specifically if the property would be landlocked. He addressed access off John R, buffer between the two properties, detention pond concern for mosquitoes and security during evening hours.

PUBLIC HEARING CLOSED

Mr. Savidant addressed the speaker's concerns expressed about security and the detention pond. He said detailed engineering drawings would be submitted and reviewed by the Engineering Department. Mr. Savidant said it is a requirement of the Zoning Ordinance that stormwater management must not negatively impact adjacent parcels.

Mr. Carlisle said there is no Zoning Ordinance requirement to provide a buffer between the two properties because the land uses are compatible. He noted though the Planning Commission could place conditions upon approval because it is a Special Use application. Chair Lambert suggested to the speaker that he communicate with the Kroger representative present this evening to address his concerns.

It was briefly discussed if Planning Commission concerns should be identified in the Resolution to postpone.

Resolution # PC-2023-05-027

Moved by: Faison Seconded by: Fox

RESOLVED, That Special Use Approval and Preliminary Site Plan Approval for the proposed Kroger D-463 Fuel Station, West side of John R, South of Larchwood (PIN 88-20-26-435-029, 88-20-26-433-019, -020 and -021), Section 26, Currently Zoned IB (Integrated Industrial and Business) District, be postponed, for the following reasons:

- 1. Allow the applicant the opportunity to amend the application, if necessary, based on Planning Commission discussion.
- 2. Allow the applicant the opportunity to submit an alley vacation application and the Planning Commission to hold a public hearing.

Yes: All present (9)

MOTION CARRIED

OTHER ITEMS

6. <u>PUBLIC COMMENT</u> – For Items on the Agenda

There was no one present who wished to speak.

7. PLANNING COMMISSION COMMENT

There were general comments, some relating to:

- State of the City address.
- Michigan Association of Planning Planners' Night Out; May 24, Woodbridge Pub in Detroit.
- Articles of interest shared among Planning Commission. Recent articles relate to parking.

Mr. Fox reported on the following two items considered at the April 18, 2023 Zoning Board of Appeals meeting:

- 3459 Talbot
- 944 Marengo

Kathy L. Czarnecki, Recording Secretary

8. ADJOURN

The Regular meeting of the Planning Commission adjourned	at 8:13 p.m.
Respectfully submitted,	
David Lambart Chair	
David Lambert, Chair	

https://d.docs.live.net/2f7ed4fe5f664ea8/Documents/Kathy/COT Planning Commission Minutes/2023/2023 05 09 Draft.docx

ITEM #5

DATE: May 19, 2023

TO: Planning Commission

FROM: R. Brent Savidant, Community Development Director

SUBJECT: PRELIMINARY SITE PLAN REVIEW (SU JPLN2023-0001) - Proposed New

Tower Troy, Office Building and Parking Deck, East side of Troy Center Drive, South of Big Beaver, 755 Big Beaver Road (PIN 88-20-28-101-067), Section 28,

Currently Zoned BB (Big Beaver) District

The petitioner PEA Group submitted the above referenced Preliminary Site Plan application for New Tower Troy, a proposed 7-story office building and 4-story parking deck located on the PNC Bank site.

The property is currently zoned BB (Big Beaver) Zoning District. Office buildings and parking decks are permitted by right in the BB district. The Planning Commission is responsible for granting Preliminary Site Plan approval for this item.

The memo prepared by OHM indicates some concern with parking calculations. Experts from both F & V (representing the applicant and OHM Advisors (representing the City) will attend the meeting to discuss parking and 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. Memo prepared by OHM Advisors, dated May 1, 2023.
- 4. Preliminary site plan

G:\SITE PLANS\SP JPLN2023-0001 NEW TROY TOWER\PC Memo 2023 05 23.docx

PROPOSED RESOLUTION

PRELIMINARY SITE PLAN REVIEW (SU JPLN2023-0001) - Proposed New Tower Troy, Office Building and Parking Deck, East side of Troy Center Drive, South of Big Beaver, 755 Big Beaver Road (PIN 88-20-28-101-067), Section 28, Currently Zoned BB (Big Beaver) District

i) District
the Zoning arking Deck, oned BB (Big
or
or
)

MOTION CARRIED/FAILED



GIS Online



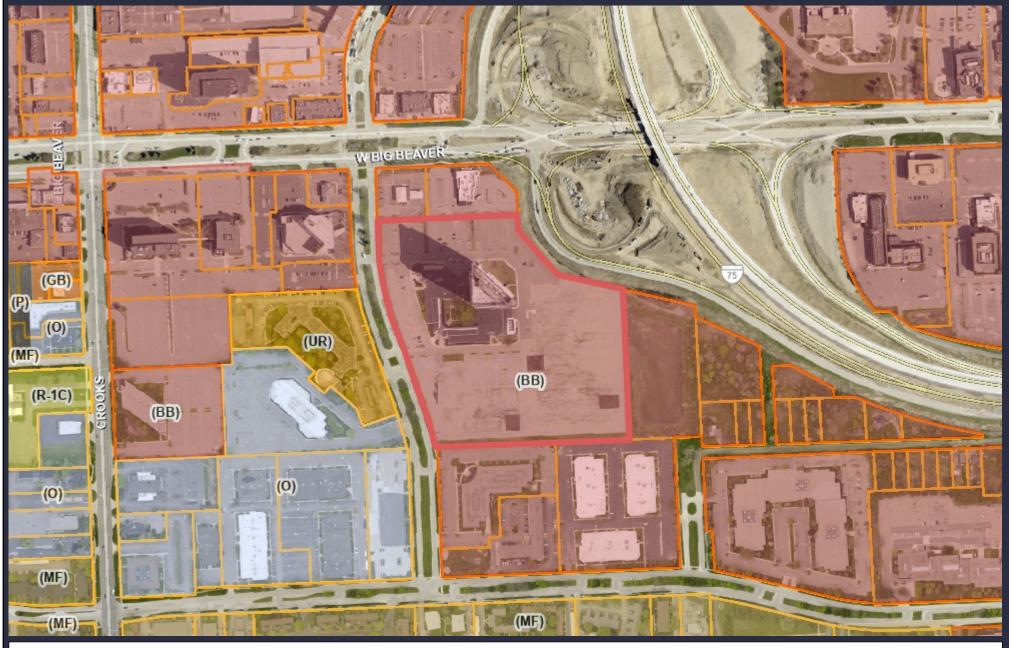
1,148 0 574 1,148Feet



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



1,148 0 574 1,148Feet



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:

March 15, 2023 April 21, 2023 May 2, 2023

For City of Troy, Michigan

Applicant: Leslie Accardo, PEA Group

Project Name: New Tower Troy

Location: 755 West Big Beaver Road

Plan Date: May 1, 2023

Zoning: BB, Big Beaver

Action Requested: Preliminary Site Plan Review

SITE DESCRIPTION

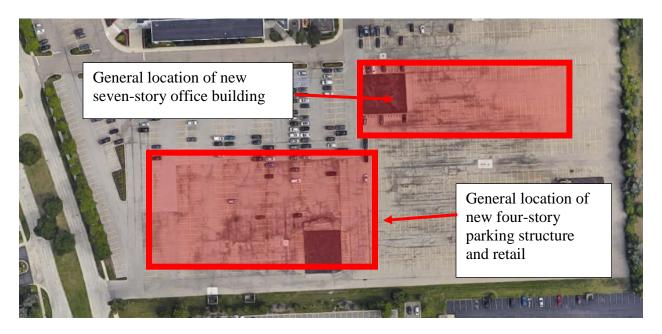
An application has been submitted to repurpose the existing surface parking lot to the south of PNC Tower to create an office building and parking structure. The 20-acre PNC site is located at the southeast corner of West Big Beaver Road and Troy Center Drive. The applicant plans on developing on the existing parking lot on the site. The existing office tower will remain. The new building is located to the south (rear) of the existing PNC Tower. The proposed office building will have seven (7) floors of office space while the parking structure will have four (4) floors of parking. The office building has a footprint of 36,833 sq ft and total area of 257, 831 sq ft. The parking structure has a building footprint of 78,000 sq ft and total area of 312,000 sq ft. In addition, the applicant proposes a 5,000 sq ft retail building that lines the parking deck and fronts on Troy Center Drive.

Access will remain as is with two points of access off Troy Center Drive south of PNC Tower and cross-access to the north. The applicant is proposing shared parking for all building on site.

Site Location:



Detailed Location:



Proposed Uses of Subject Parcel:

Proposed building to be constructed for office space and a parking structure.

Current Zoning:

The property is currently zoned BB, Big Beaver Form Based District.

Surrounding Property Details:

Direction	Zoning	Use
North	BB, Big Beaver	Office, Bank, Retail, Restaurant, Parking
South	BB, Big Beaver	Office, Hotel, Parking
East	BB, Big Beaver	Stormwater Detention, I-75
Most	UR, Urban Residential	Multi-Family Residential
West	O, Office	Office

NATURAL FEATURES

The site has been graded and improved for an office building and an associated parking structure.

Items to be addressed: None.

SITE ARRANGEMENT

The new seven-story office building will be placed to the south (rear) of the existing twenty-five-story PNC Tower. Access will remain with two points of access on Troy Center Dr, and cross access to the site to the north. There is shared parking south of the existing office building and east of the new office building.

Please note that in previous reviews have asked applicant to consider looking holistically at the site to better integrate the site with existing buildings (shared outdoor space, shared plaza, more interconnected walkways). In addition we also asked the applicant to consider swapping location of parking structure and office building as such:



They note that they desire to keep the office building in rear of the site for visibility on I-75.

Items to be addressed: None

AREA, WIDTH, HEIGHT, SETBACKS

The applicant proposes a new office building and a new parking structure. The new buildings are being reviewed together as Building Form F as set forth in Table 5.03.B.6.

	Required	Provided	Compliance
Front (Troy Center Dr)	10-foot build-to-line, up to 60-feet with PC approval.	60 feet	Complies
Side (south)	N/A, building may be placed up to property line	61 feet	Complies
Rear (I-75)	40-foot minimum setback	91 feet	Complies
Building Height	Minimum: 5 stories, 55 feet	Office Building: 7 stories, 117 feet	Complies
	Maximum: N/A	Parking Structure: 4 stories, 30 feet	-
Lot Coverage (Building, overall site)	lot coverage is 30% 26.17%; not known if		Unknown
Minimum Open Space (overall site)	N/A	73.83%	Complies
Parking Location	Cannot be located in front yard	Parking lot not in front yard	Complies

The parking structure is a multiple story building, which permits one (1) row of parking between the building and Troy Center Drive. The site complies with zoning requirements.

Items to be addressed: None

PARKING STRUCTURES IN BIG BEAVER DISTRICT

As set forth in Section 5.04.E.5.c, parking structures are permitted in the Big Beaver District provided that they meet the following requirements:

- 1. Parking structures shall be located behind buildings in locations that minimize visibility from public streets.
- 2. <u>Parking structures may be located along public street frontages, subject to the following standards:</u>
 - a. <u>Building height and placement requirements for principal building shall be met.</u>
 - b. A lining of retail, office, or residential use with a useable depth of no less than twenty (20) feet shall be provided.

New Troy Tower May 2, 2023

c. At least fifty (50) percent of the upper floors facing a public street shall consist of exposed openings. The openings shall be designed with one or more treatments: planter boxes with living plants; a rail or fence to give the appearance of a balcony; framing and mullions to give the appearance of large windows.

The applicant has added a 5,000 sq. ft retail area that lines the front of the parking structure adjacent to Troy Center Drive. The retail area is a depth between 20 to 35-feet. Tenants of the retail suites have not been identified.

Items to be addressed: None

ACCESS AND CIRCULATION

The applicant is proposing a pedestrian connection between the new office building and the new parking structure with concrete sidewalks and ramps. In addition, the applicant is proposing pedestrian connection between the existing PNC Tower building, Troy Center Drive, and the new office building and parking structure.

The City Fire Marshall and City Traffic consultant, OHM, should review access and circulation. Applicant may need to revised site plan based on their reviews.

Items to be addressed: None

PARKING

The applicant proposes to provide parking for the office building with the proposed parking structure and shared surface parking with PNC Tower and other uses on site.

The applicant has prepared the following parking demand study for shared parking based on the requirements of Section 13.06.G of the Zoning Ordinance. As set forth in Section 13.06.B.2, off-street parking for uses in all districts shall be on the same lot as the use or building served by the parking, unless joint parking with abutting properties and uses is provided in a form acceptable to the City Attorney and executed and recorded by the parties sharing the parking.



Land Uses	Size	Required Rate	Required Number	Shared Parking Peak Demand (11:00 AM)	Shared Parking with Actual Occupancy
Proposed Office (General)	204,000 sf GFA	1 space per 300 sf GFA	680	566	566
PNC Office (General)	586,467 sf GFA	1 space per 300 sf GFA	1,955	1,628	1,334
PNC Office (Medical/Dental)	15,038 sf GFA	1 space per 200 sf GFA	75	74	63
Bank	3,786 sf GFA	1 space per 200 sf GFA	19	9	9
Retail	1,288 sf GFA	1 space per 250 sf GFA	5	0	0
Granite City Restaurant	296 seats	1 space per 2 seats	148	12	12
Friends Café	95 seats	1 space per 2 seats	48	0	0
Ruth's Chris Steak House	400 seats	1 space per 2 seats	200	0	0
Total Parking Space	ces		3,155	2,298	2,043

Proposed Parking Supply	2,094	2,094	2,094
Difference	-1,056	-204	51

OHM has reviewed the shared parking and provided a summary memo.

Items to be Addressed: Review OHM's memo regarding shared parking.

LANDSCAPING

A landscaping plan has been provided on Sheet L-1.0. The following table discusses the development's compliance with the landscape requirements set forth in Section 13.02.

	Required:	Provided:	Compliance:
Greenbelt Planting			
Troy Center Dr:	444 ft / 30 = 15 trees	16 trees	Complies
1 tree every 30 feet			
Parking Lot Landscaping			
1 tree per every 8 parking spaces	416 spaces / 8 = 52 trees	28 in parking lot and 24 on perimeter	Complies, with Planning Commission approval
Overall			
Site landscaping: A minimum of fifteen percent (15%) of the site area shall be comprised of landscape material. Up to twenty-five percent (25%) of the required landscape area may be brick, stone, pavers, or other public plaza elements, but shall not include any parking area or required sidewalks.	15%	14.6 landscaping and 0.67 hardscape.	Complies

The applicant is required to provide fifty-two (52) parking lot trees. Twenty-eight (28) of the required fifty-two (52) are in parking lot and twenty-four (24) are along the perimeter of parking lot. Planning Commission may allow alternative location of parking lot trees.

Equipment / Trash Enclosure Screening:

The applicant has indicated they propose to screen at grade equipment with 14 evergreen shrubs. The applicant shows trash enclosures but does not indicate how they will be screened other than landscaping. We assume trash enclosure will also be screen with wall or fence.

Items to be Addressed: 1). Planning Commission to discuss parking lot tree location; 2). Provide trash enclosure screening details.

PHOTOMETRICS

The applicant provided a photometric plan which indicates the applicant is installing 35 parking lot lights and 32 canopy/under lights. It appears that photometrics have been met but the symbolism on the plan is not clear. The applicant should clarify symbols on photometric plan.

Items to be Addressed: Clarify symbolism on photometric plan.

FLOOR PLAN AND ELEVATIONS

Floor plans and elevations for the office building and parking structure have been provided.

New Office Building:

The ground floor of the office building has a height of twenty (20) feet while floors two through seven have floor to floor heights of fourteen (14) feet. The office building is topped by a painted screenwall for rooftop mechanicals with a height of ten (10) feet. The elevations of the office building show that the façade has stained, precast concrete panels with clear windows on the ground floor and grey tinted glass units on floors two through seven. All windows have aluminum window frames.

Parking Structure

The elevations of the parking structure show that the façade has stained structural precast concrete to match the office building. The parking structure appears to lack much architectural detail. Adding additional architectural details to the parking structure should be considered.

DESIGN STANDARDS AND SITE PLAN REVIEW STANDARDS

The Big Beaver District 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 5.05.E. outlines Design Standards:

- 1. Façade Variation
- 2. Pedestrian Access / Entrance
- 3. Ground Story Activation
- 4. Transitional Features
- 5. Site Access, Parking, and Loading

Please see Section 5.05.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.

New Troy Tower May 2, 2023

- d. Enhance the pedestrian realm by framing the sidewalk area with trees, awnings, and other features.
- e. Improve safety for pedestrians through site design measures.

Items to be Addressed: Planning Commission to consider if form-based design standards and site plan standards have been met.

SUMMARY

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

- a. Compliance with Section 5.05.E Big Beaver Design Standards.
- b. Compliance with Section 8.06 Site Plan Review Standards.
- c. Architecture and material use.
- d. Planning Commission to discuss parking lot tree location.
- e. Shared parking.

If the Planning Commission approves the preliminary site plan, the final site plan shall address the following:

- 1. Indicate how trash enclosures will be screened.
- 2. Clarify symbolism on photometric plan.
- 3. Review/discuss shared parking.

Sincerely,

CARLISLE/WORTMAN ASSOC., INC.

Benjamin R. Carlisle, LEED AP, AICP



memorandum

Date: May 1, 2023

To: Scott Finlay, PE

From: Sara Merrill, PE, PTOE & Lauren Hull, EIT

Re: New Tower, 755 W. Big Beaver Rd Preliminary Site Plan Review

We have reviewed the preliminary site plan for the proposed 7-story office building and 4-story parking garage with 5,500 SFT retail, located on the east side of Troy Center Drive south of Big Beaver Road. The development will utilize existing access points on Town Center Drive south of Big Beaver Road, with no new access points proposed. The plans were prepared by PEA Group and dated March 22nd, 2023.

At this time, OHM <u>does not recommend approval</u> of the preliminary site plan. The plans should be revised to eliminate discrepancies and to address the comments noted below. Additionally, a traffic impact study should be provided.

OHM's comments are as follows:

1. Parking:

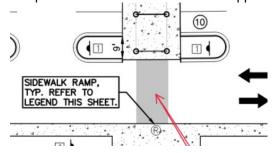
- a. The parking memo provided by Fleis & VandenBrink and the parking calculations on sheet C-1.0 and C-3.0 of the site plan do not match.
 - i. The parking memo includes 5,000 GFA of retail that is not listed on sheet C-3.0. The proposed parking deck plan shows 5,500 SF of first floor retail along Troy Center Drive, attached to the parking structure.
 - ii. The floor area of PNC General Office versus PNC Medical/Dental Office does not match.
 - iii. The parking memo has the shared parking peak demand occurring at 10:00 am, while sheet C-3.0 on the site plan has the shared parking peak demand occurring at 11:00 am
 - iv. With shared parking the parking memo shows a deficit of 204 parking spaces, while sheet C-1.0 and C-3.0 shows a deficit of 678 spaces and 569 parking spaces, respectively. While these numbers need to match, they both fail to meet the city ordinance.
- b. The shared parking study evaluated multiple scenarios, utilizing a reduction in parking for the office use on the basis of modal split (accounting for those who bike/walk, take transit, or work from home), as well as assuming an 85% peak occupancy rate at the PNC Tower. This



approach deviates from typical practice on shared parking studies within the City. OHM acknowledges the shift to hybrid ("work from home") office schedules has resulted in a prolonged reduction in parking demand, particularly along the Big Beaver corridor. However, even with a modal-split reduction, the results of the study show a deficit of 204 spaces.

Further, we object to a reduction in parking on the basis of a presumed peak occupancy rate. This approach is inconsistent with the language and intent of the ordinance.

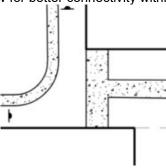
- c. The plans suggest that landbanked parking is proposed, although it is unclear how many and where these spaces will be located. Proposed landbanked parking spaces must be clearly shown. Sheet C-1.0 indicates that 660 landbanked spaces will be provided by constructing an additional two levels to the parking structure and 20 surface spaces. The parking plan sheet (PDF page 25) lists a 56-space 4-level parking deck landbank. OHM questions whether these would be "readily convertible" spaces eligible for landbanking, particularly as constructing these would require temporarily cordoning off a portion of parking spaces for an extended duration.
- d. A sufficient number of ADA-accessible parking spaces must be provided, with accessible parking dispersed throughout the site at appropriate locations. The number of accessible parking spaces should be listed on the plans. If additional ADA-spaces are required, the parking deficit may increase.
- e. Label parking space and aisle dimensions within the parking structure.
- 2. The westerly entrance to the parking structure appears quite narrow. Since the southerly site drive aisle is configured with one inbound lane (entering the site) and two outbound lanes along the length of the proposed parking deck, vehicles entering the structure may cause queues that affect the site driveway at Troy Center Drive. Revise to improve vehicular flow and safety.
- 3. Renderings appear to show limited sight distance exiting the parking structure. Review proposed sight distance at the parking structure and show sight lines on the plans.
- 4. Improve pedestrian connectivity throughout the site:
 - a. The parking deck stairwell on the south side of the site does not connect to any sidewalk.
 - b. Provide a direct route for pedestrians to travel to Troy Center Drive to the proposed 7-story office building.
 - c. Provide sidewalk ramps on both sides of a crosswalk. Applies throughout.



d. Show proposed crosswalks on the plans.



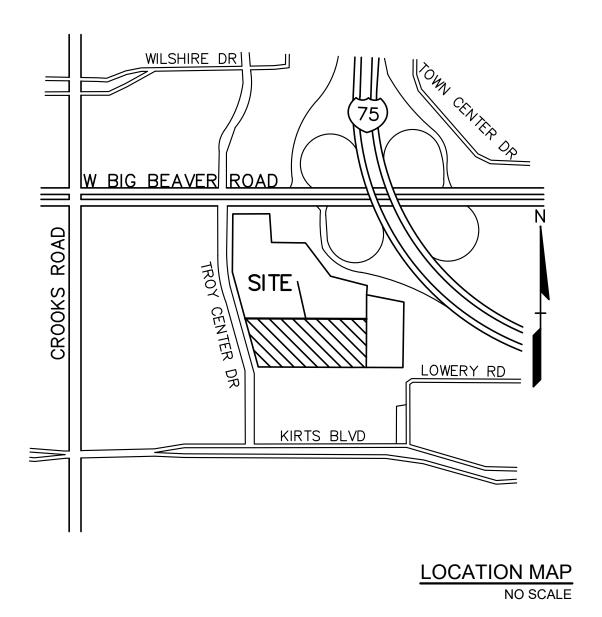
e. Connect sidewalk to allow for better connectivity within the site.



NEW TOWER TROY

755 BIG BEAVER ROAD CITY OF TROY, OAKLAND COUNTY, MICHIGAN

PERMIT / APPROVAL SUMMARY DATE SUBMITTED DATE APPROVED PERMIT / APPROVAL



DESIGN TEAM

OWNER/APPLICANT/DEVELOPER CIVIL ENGINEER

KOJAIAN 39400 WOODWARD AVENUE - STE 250 BLOOMFIELD HILLS, MI 48304 CONTACT: TONY ANTONE EMAIL: TANTONE@KOJAIAN.COM

PEA GROUP 1849 POND RUN AUBURN HILLS, MI 48326 CONTACT: LESLIE ACCARDO PHONE: 844.813.2949 EMAIL: LACCARDO@PEAGROUP.COM

ARCHITECT

LANDSCAPE ARCHITECT

YAMASAKI, INC. PEA GROUP 3011 WEST GRAND BLVD 7927 NEMCO WAY, STE. 115 SUITE 222 BRIGHTON, MI 48116 DETROIT. MICHIGAN 48202 CONTACT: JANET EVANS, PLA CONTACT: ROBERT SZANTNER PHONE: 844.813.2949 EMAIL: RSZANTNER@YAMASAKI-INC.COM EMAIL: JEVANS@PEAGROUP.COM GROUP **INDEX OF DRAWINGS**

NUMBER TITLE

COVER SHEET

OVERALL SITE AERIAL

OVERALL SITE PLAN

GRADING PLAN-WEST

GRADING PLAN-EAST

UTILTY PLAN-WEST

UTILITY PLAN-EAST

DETAILS

NOTES AND DETAILS

OVERALL LANDSCAPE PLAN

LANDSCAPE PLAN - WEST

LANDSCAPE PLAN - EAST

LANDSCAPE DETAILS

PHOTOMETRIC PLAN

FIRST FLOOR PLAN

NORTH ELEVATION

SOUTH ELEVATION

GARAGE FLOOR PLAN

RENDERING - VIEW FROM I-75

RENDERING - LOOKING EAST

WEST & EAST ELEVATIONS

RENDERING - RETAIL VIEW 1

RENDERING - RETAIL VIEW 2

REVISIONS

DATE

DESCRIPTION

TYPICAL FLOOR PLAN (2ND - 7TH)

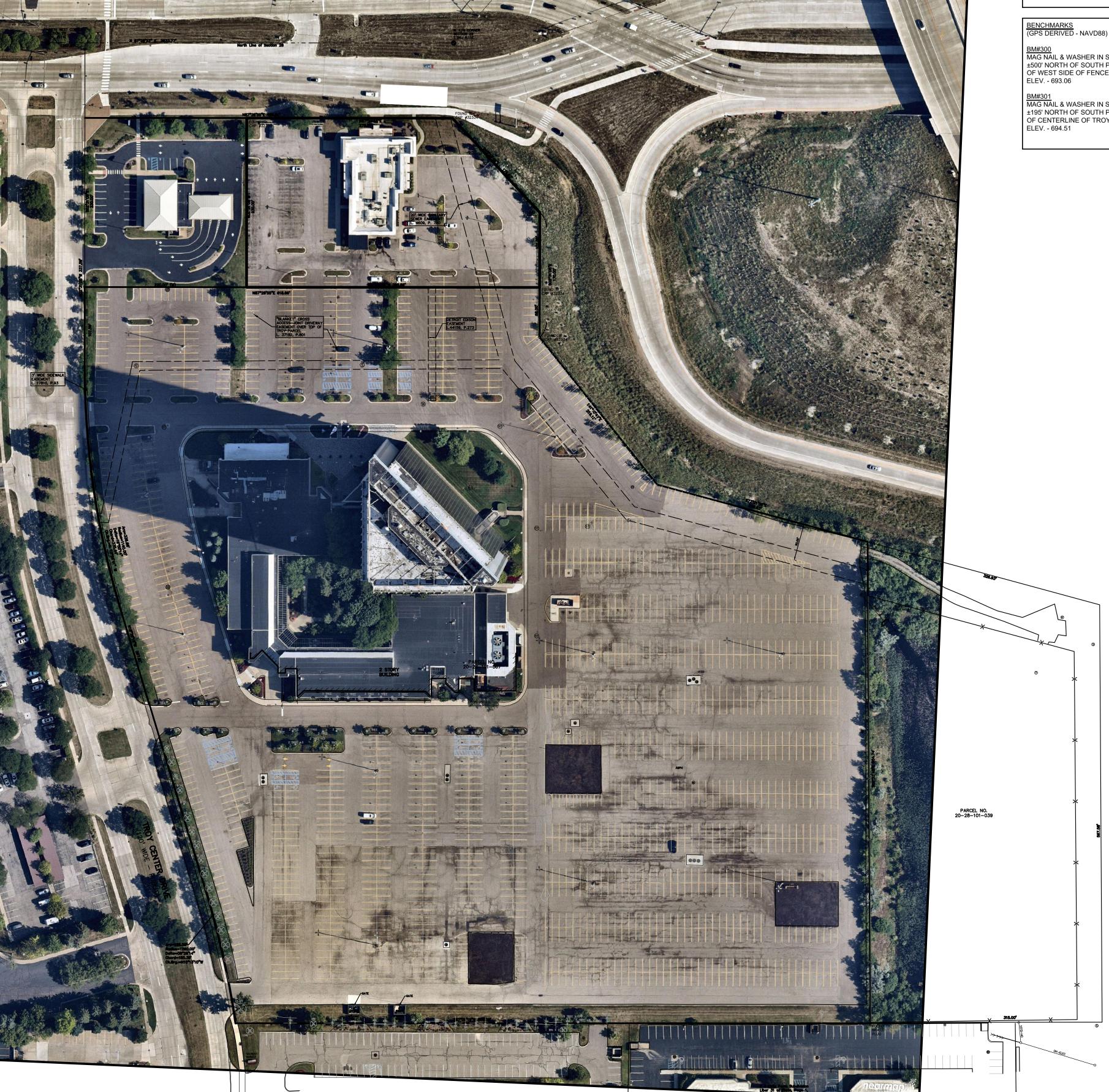
RENDERING - PARKING STRUCTURE AND RETAIL

PROPOSED PARKING STRUCTURE AND RETAIL ELEVATIONS

SITE PLAN-WEST

SITE PLAN-EAST

TOPOGRAPHIC SURVEY



PARCEL NO. 20-28-101-054

FLOOD NOTE:

BY GRAPHICAL PLOTTING, THE SUBJECT PARCEL LIES WITHIN "AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN" (ZONE X) PER FEMA FLOOD INSURANCE RATE MAP 26125C-0541F, EFFECTIVE SEPTEMBER 29, 2006.

BM#300
MAG NAIL & WASHER IN SOUTH SIDE OF LIGHT POLE BASE, ±500' NORTH OF SOUTH PROPERTY LINE AND ±115' WEST OF WEST SIDE OF FENCE.

BM#301 MAG NAIL & WASHER IN SOUTH SIDE OF LIGHT POLE BASE, ±195' NORTH OF SOUTH PROPERTY LINE AND ±600' EAST OF CENTERLINE OF TROY CENTER DRIVE.

LEGAL DESCRIPTION:

SITE DATA TABLE:

ZONING: (BB) BIG BEAVER ROAD

BUILDING LOT COVERAGE = 26.17%

SETBACK REQUIREMENTS:

PARKING CALCULATIONS:

PNC Office (Medical/Dental)

Parking Data Summary

(No Shared Parking)

Proposed Parking

Parking Count per City Ordinance

Parking at Peak Demand (2:00pm)

Landbanked parking (23.2%)

Deck (2 additional levels to be add Subtotal

OPEN SPACE:
MINIMUM OPEN SPACE REQUIRED = N/A
PROVIDED OPEN SPACE = 73.83%

Total Parking Provided

Parking Count per City Ordinance with Shared

Granite City Restaurant NC Center Restaurant

SIDE:

SIDE: REAR

PROPOSED USE: MIXED-USE

SITE AREA: 20.02 ACRES (872,149 SQ.FT.) GROSS

BUILDING FOOTPRINT AREAS = 228,254.40± SQ.FT.

BUILDING INFORMATION:
MAXIMUM ALLOWABLE BUILDING HEIGHT = ?? FEET (? STORIES) PROPOSED BUILDING HEIGHT = 7 STORIES (84 FEET HIGH)

> 571,430 SF GFA 1 space per 300 SF GFA 30,075 SF GFA 1 space per 200 SF GFA

3,786 SF GFA 1 space per 200 SF GFA 1,288 SF GFA 1 space per 200 SF GFA

1 space per 2 seats

LOADING PROVIDED = (3) SPACES AT 10'x50' =1500 SQ.FT. AT BACK OF BUILDING

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

296 Seats

485 Seats

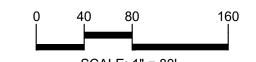
PARCEL 20-28-101-067

LAND SITUATED IN THE CITY OF TROY, OAKLAND COUNTY, MICHIGAN DESCRIBED AS FOLLOWS:

PART OF THE NORTHWEST 1/4 OF SECTION 28, TOWNSHIP 2 NORTH, RANGE 11 EAST, CITY OF TROY, OAKLAND COUNTY, MICHIGAN, DESCRIBED AS: COMMENCING AT THE NORTHWEST CORNER OF SECTION 28; THENCE ALONG THE NORTH LINE OF SAID SECTION 28, NORTH 87 DEGREES 28 MINTUES 23 SECONDS EAST, 1257.91 FEET; THENCE SOUTH 02 DEGREES 31 MINUTES 05 SECONDS EAST, 332.19 FEET ALONG THE EAST RIGHT-OF-WAY LINE OF TROY CENTER DRIVE (120 FEET WIDE) TO THE POINT-OF-BEGINNING: THENCE NORTH 87 DEGREES 28 MINUTES 55 SECONDS EAST, 618.66 FEET TO THE SOUTHWESTERLY RIGHT-OF-WAY LINE OF I-75 EXPRESSWAY; THENCE ALONG SAID RIGHT-OF-WAY, SOUTH 02 DEGREES 31 MINUTES 05 SECONDS EAST, 68.00 FEET AND SOUTH 41 DEGREES 10 MINUTES 40 SECONDS EAST, 256.12 FEET AND SOUTH 77 DEGREES 21 MINUTES 56 SECONDS EAST, 296.62 FEET; THENCE SOUTH 02 DEGREES 53 MINUTES 48 SECONDS EAST, 654.74 FEET TO THE NORTH LINE OF "F.J. KIRTS FARM" SUBDIVISION; THENCE ALONG A PORTION OF SAID SUBDIVISION, SOUTH 87 DEGREES 26 MINUTES 19 SECONDS WEST, 863.38 FEET TO A NON-TANGENT CURVE ON THE EASTERLY RIGHT-OF-WAY OF TROY CENTER DRIVE (120 FEET WIDE); THENCE ALONG SAID RIGHT-OF-WAY ON A CURVE TO THE LEFT HAVING AN ARC DISTANCE OF 185.55 FEET, RADIUS OF 1260.00 FEET, CENTRAL ANGLE OF 08 DEGREES 26 MINUTES 14 SECONDS, AND A CHORD BEARING OF NORTH 15 DEGREES 13 MINUTES 10 SECONDS WEST, 185.38 FEET AND NORTH 19 DEGREES 26 MINUTES 18 SECONDS WEST, 397.91 FEET AND ALONG A CURVE TO THE RIGHT AN ARC DISTANCE OF 336.66 FEET, RADIUS OF 1140.00 FEET, A CENTRAL ANGLE OF 16 DEGREES 55 MINUTES 14 SECONDS, AND A CHORD BEARING OF NORTH 10 DEGREES 58 MINUTES 41 SECONDS WEST, 335.44 FEET AND NORTH 02 DEGREES 31 MINUTES 05 SECONDS WEST, 107.59 FEET TO THE POINT-OF-BEGINNING. COPTAINING 20.022 ACRES OF LAND, MORE OR LESS.









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.

CLIENT

YAMASAKI, INC. 3011 WEST GRAND BOULEVARD CITY OF TROY, OAKLAND COUNTY, MICHIGAN

PROJECT TITLE

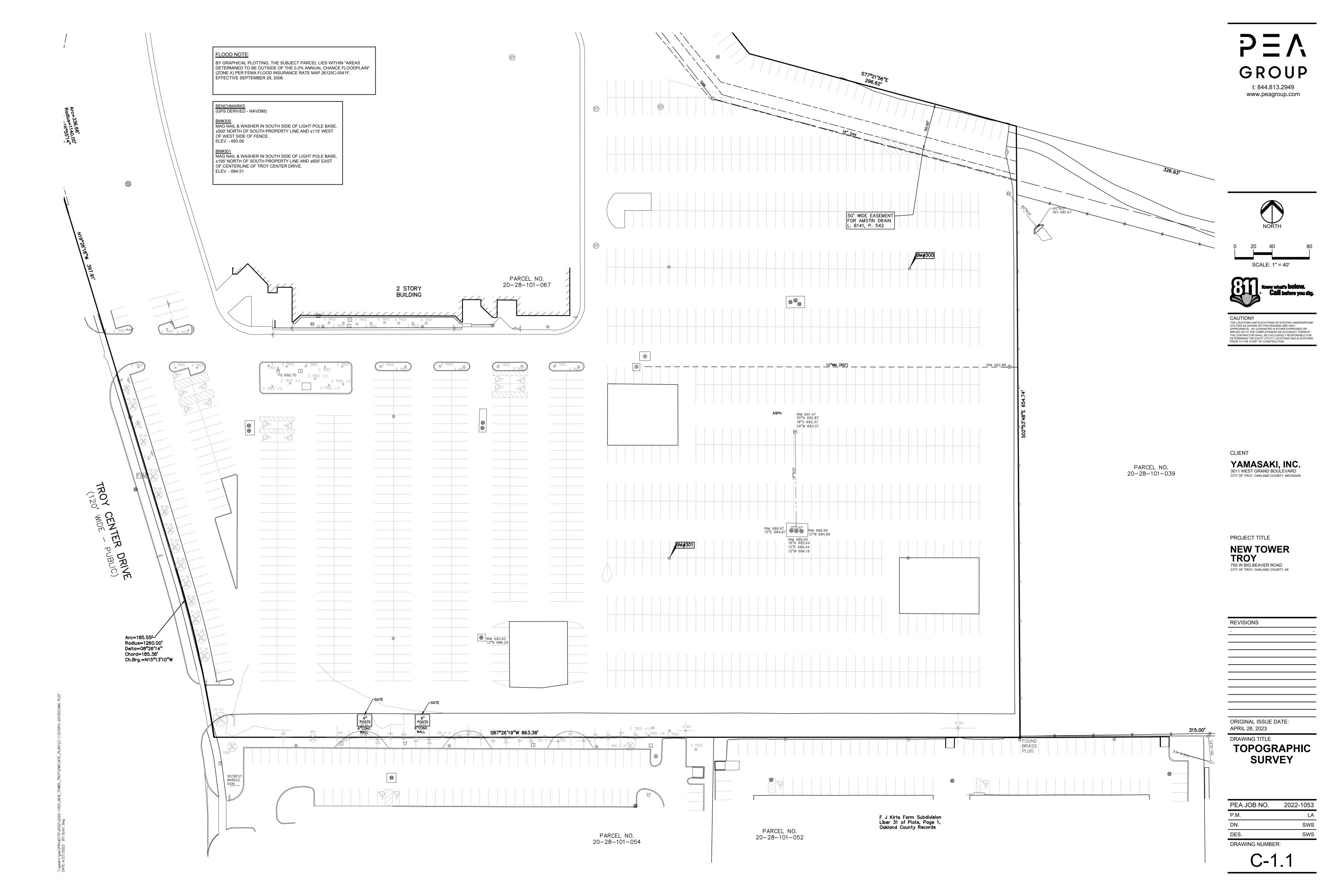
NEW TOWER TROY 755 W BIG BEAVER ROAD CITY OF TROY, OAKLAND COUNTY, MI

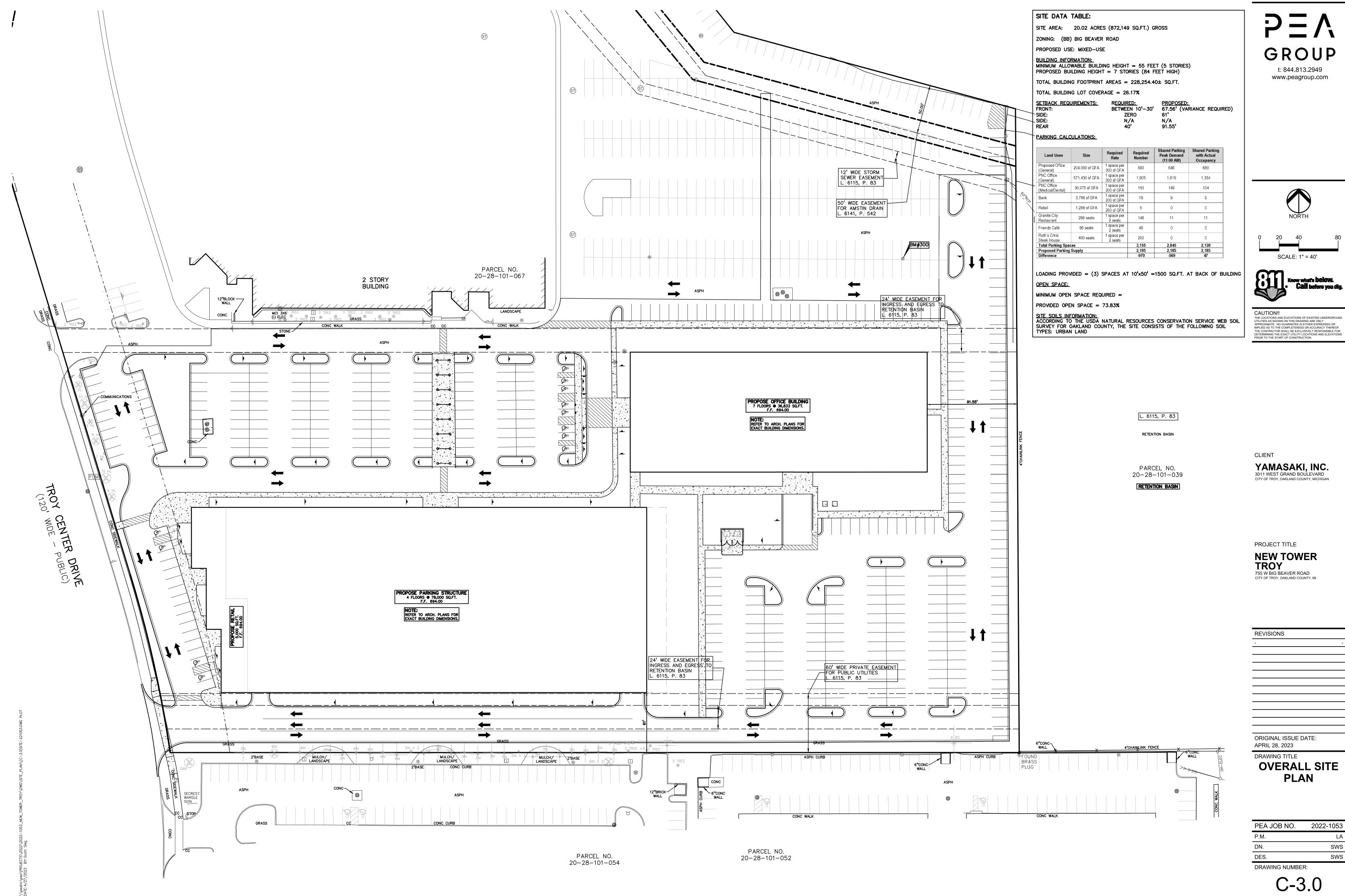
ORIGINAL ISSUE DATE:

DRAWING TITLE **OVERALL SITE AERIAL**

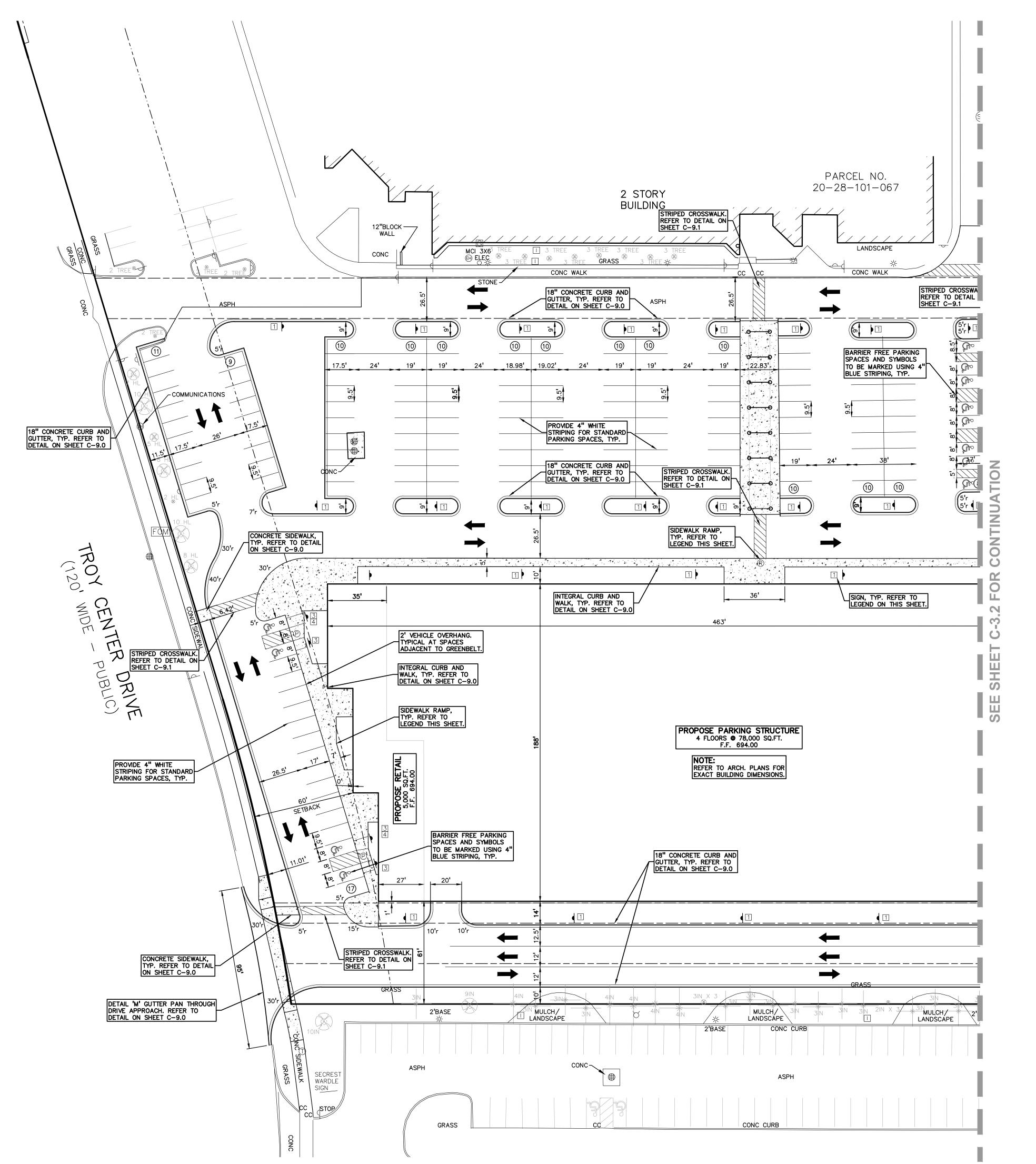
APRIL 28, 2023

PEA JOB NO. 2022-1053 SWS DES. SWS DRAWING NUMBER:





2022-1053 SWS SWS



GENERAL NOTES:

THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT. ALL DIMENSIONS SHOWN ARE TO BACK OF CURB, FACE OF SIDEWALK, OUTSIDE FACE OF BUILDING, PROPERTY LINE, CENTER OF MANHOLE/CATCH BASIN OR

CENTERLINE OF PIPE UNLESS OTHERWISE NOTED. 'NO PARKING-FIRE LANE' SIGNS SHALL BE POSTED ALONG ALL FIRE LANES AT

100 FOOT INTERVALS OR AS DIRECTED BY THE FIRE OFFICIAL.

3. REFER TO NOTES & DETAILS SHEET FOR ON-SITE PAVING DETAILS.

4. REFER TO NOTES & DETAILS SHEET FOR ON-SITE SIDEWALK RAMP DETAILS

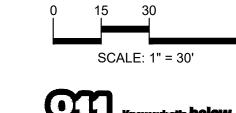
GRAVEL — - · - — - · - — SETBACK LINE

LEGEND:

STD HEAVY DEEP DUTY DUTY STRENGTH ASPHALT PAVEMENT CONCRETE CURB AND GUTTER REVERSE GUTTER PAN LIGHTPOLE ————— FENCE GUARD RAIL

CONCRETE PAVEMENT

SIDEWALK RAMP LEGEND: SIDEWALK RAMP 'TYPE R' SIDEWALK RAMP 'TYPE F' SIDEWALK RAMP 'TYPE P" CURB DROP ONLY REFER TO LATEST MDOT R-28 STANDARD RAMP AND DETECTABLE WARNING DETAILS



GROUP

t: 844.813.2949

www.peagroup.com

SIGN LEGEND: 'NO PARKING FIRE LANE' SIGN 'STOP' SIGN 'BARRIER FREE PARKING' SIGN 'VAN ACCESSIBLE' SIGN 'CROSSWALK' SIGN 'NO PARKING LOADING ZONE' SIGN 6 REFER TO DETAIL SHEET FOR SIGN DETAILS



CAUTION!! THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY 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.

CLIENT

YAMASAKI, INC. 3011 WEST GRAND BOULEVARD CITY OF TROY, OAKLAND COUNTY, MICHIGAN

PROJECT TITLE

NEW TOWER TROY 755 W BIG BEAVER ROAD

CITY OF TROY, OAKLAND COUNTY, MI

REVISIONS

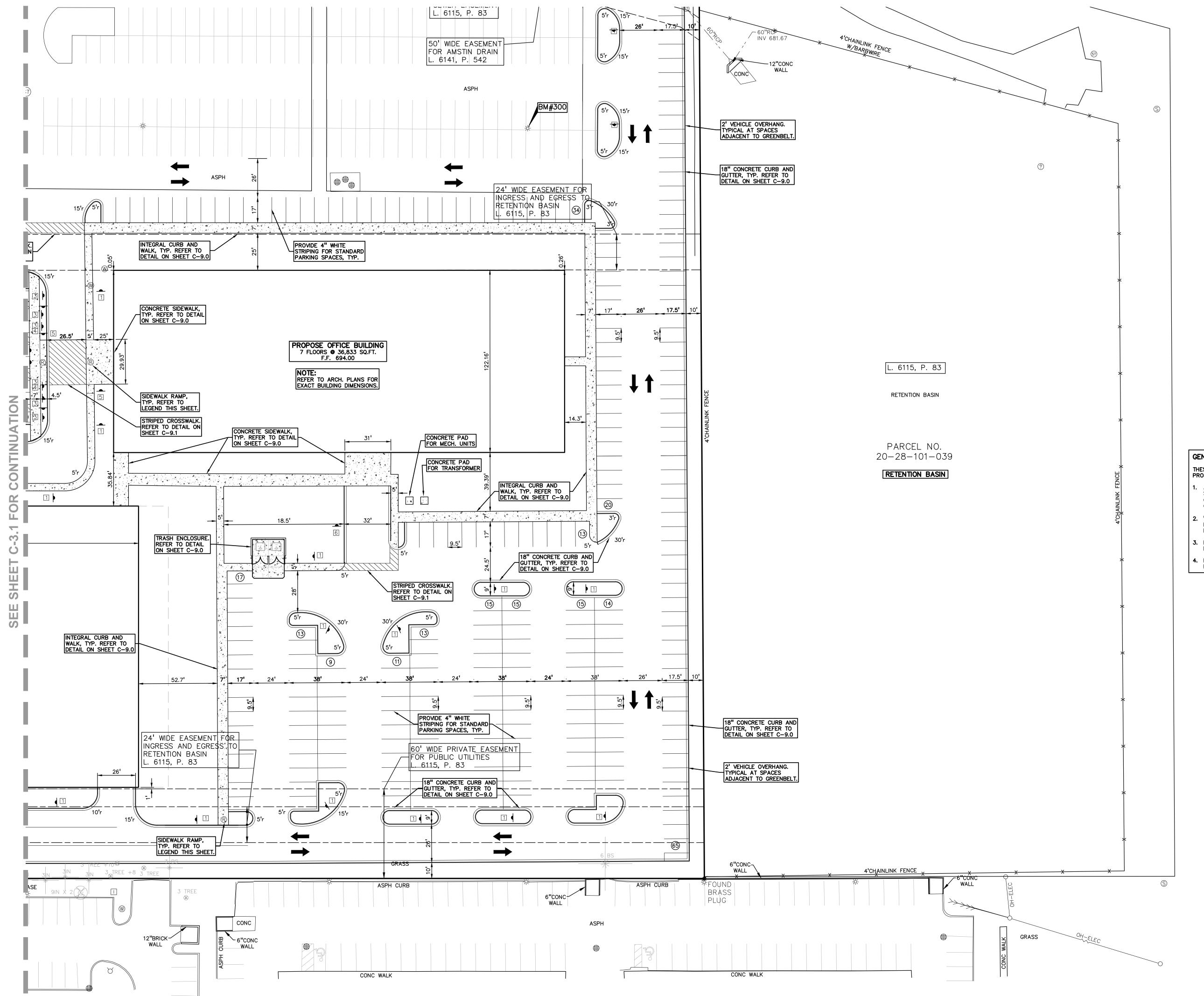
DRAWING TITLE **SITE PLAN WEST**

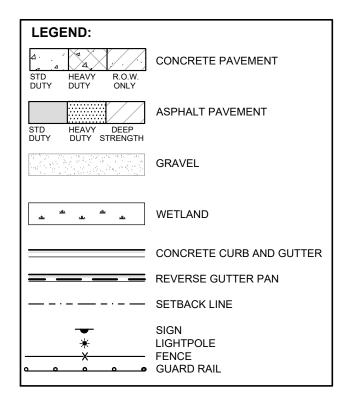
ORIGINAL ISSUE DATE:

APRIL 28, 2023

PEA JOB NO. 2022-1053 SWS DES. SWS

DRAWING NUMBER:







SIDEWALK RAMP LEGEND:

SIDEWALK RAMP 'TYPE R' ®

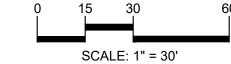
SIDEWALK RAMP 'TYPE F' ©

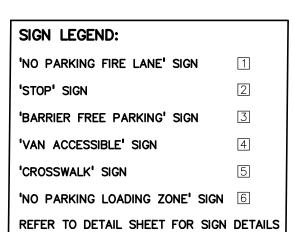
SIDEWALK RAMP 'TYPE P" ©

CURB DROP ONLY

REFER TO LATEST MDOT R-28 STANDARD RAMP AND DETECTABLE WARNING DETAILS









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.

GENERAL NOTES:

THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS

- 1. ALL DIMENSIONS SHOWN ARE TO BACK OF CURB, FACE OF SIDEWALK, OUTSIDE FACE OF BUILDING, PROPERTY LINE, CENTER OF MANHOLE/CATCH BASIN OR CENTERLINE OF PIPE UNLESS OTHERWISE NOTED.
- 2. 'NO PARKING-FIRE LANE' SIGNS SHALL BE POSTED ALONG ALL FIRE LANES AT 100 FOOT INTERVALS OR AS DIRECTED BY THE FIRE OFFICIAL.
- 3. REFER TO NOTES & DETAILS SHEET FOR ON-SITE PAVING
- 4. REFER TO NOTES & DETAILS SHEET FOR ON-SITE SIDEWALK RAMP DETAILS

CLIENT

YAMASAKI, INC. 3011 WEST GRAND BOULEVARD CITY OF TROY, OAKLAND COUNTY, MICHIGAN

PROJECT TITLE

NEW TOWER TROY 755 W BIG BEAVER ROAD CITY OF TROY, OAKLAND COUNTY, MI

REVISIONS
]-

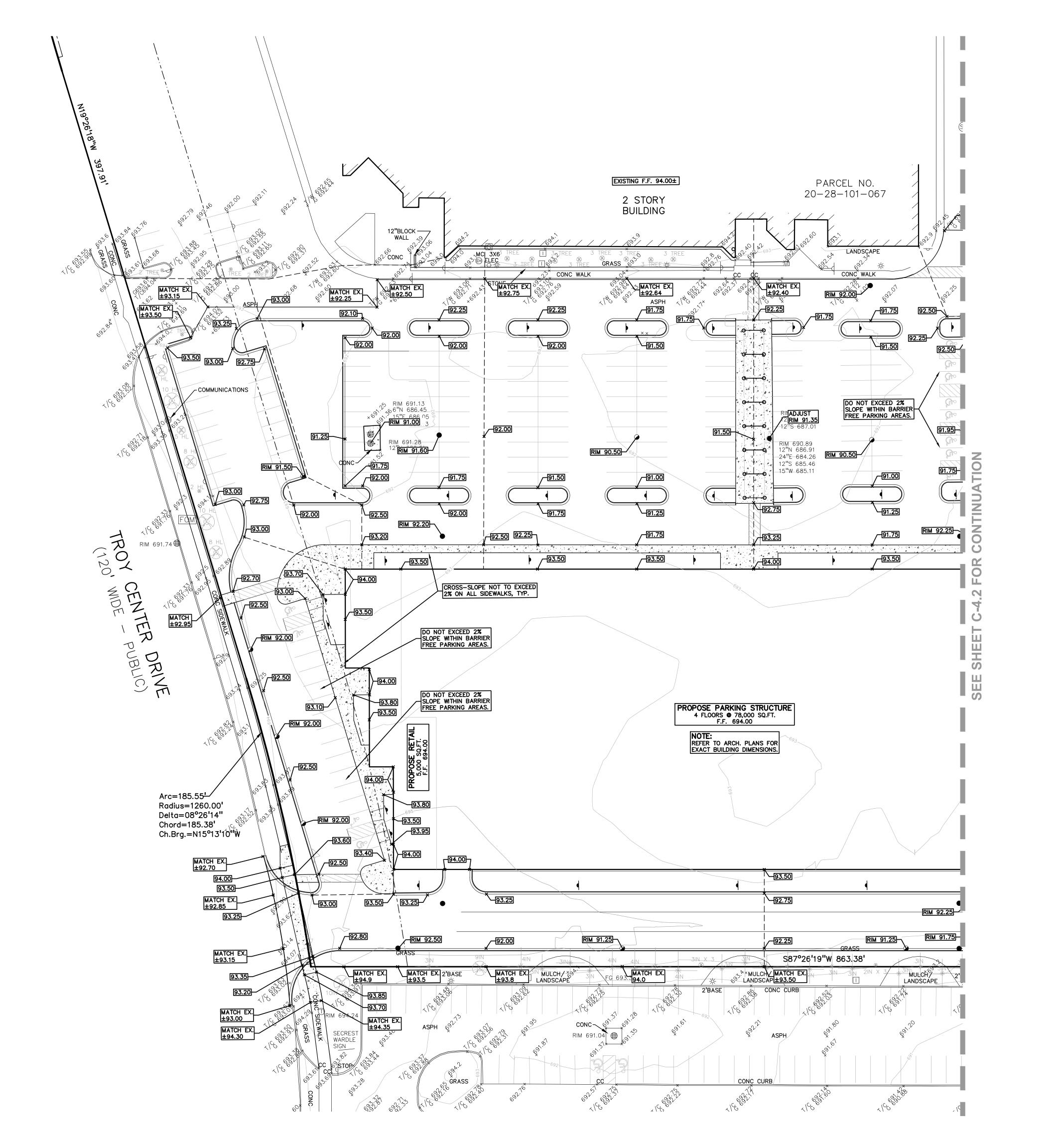
ORIGINAL ISSUE DATE: APRIL 28, 2023

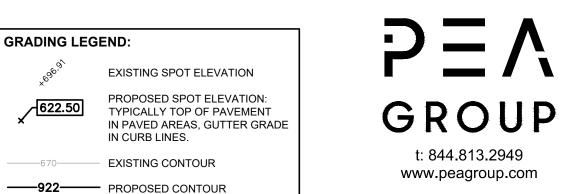
DRAWING TITLE

SITE PLAN EAST

PEA JOB NO.	2022-1053
P.M.	LA
DN.	SWS
DES.	SWS
DRAWING NUMBER	R:

C-3.2





ABBREVIATIONS

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

REFER TO GRADING NOTES ON SHEET C-9.0.

PROPOSED REVERSE GUTTER PAN

- - - PROPOSED RIDGE LINE

----- PROPOSED SWALE/DITCH

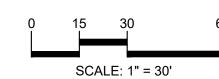
RETAINING WALL NOTE:
TOP OF WALL (T/W) AND BOTTOM OF WALL (B/W)
GRADES ARE THE FINISH GRADE AT THE TOP AND
BOTTOM OF THE RETAINING WALL, NOT ACTUAL TOP
AND BOTTOM OF THE WALL STRUCTURE.

EARTHWORK BALANCING NOTE:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPORTING OR EXPORTING ALL MATERIALS AS REQUIRED TO PROPERLY GRADE THIS PROJECT TO THE FINISHED ELEVATIONS SHOWN ON THE APPROVED PLANS. THE CONTRACTOR SHALL MAKE THEIR OWN DETERMINATION OF CUT AND FILL QUANTITIES AND ALLOW FOR REMOVAL OF EXCESS OR IMPORTATION OF ADDITIONAL MATERIAL AT NO ADDITIONAL COST TO THE OWNER.

REFER TO GRADING NOTES ON SHEET C-9.0.







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.

CAUTION!!

CLIENT

YAMASAKI, INC. 3011 WEST GRAND BOULEVARD CITY OF TROY, OAKLAND COUNTY, MICHIGAN

PROJECT TITLE

NEW TOWER TROY 755 W BIG BEAVER ROAD CITY OF TROY, OAKLAND COUNTY, MI

REVISIONS

GRADING PLAN
WEST

ORIGINAL ISSUE DATE:

APRIL 28, 2023

 PEA JOB NO.
 2022-1053

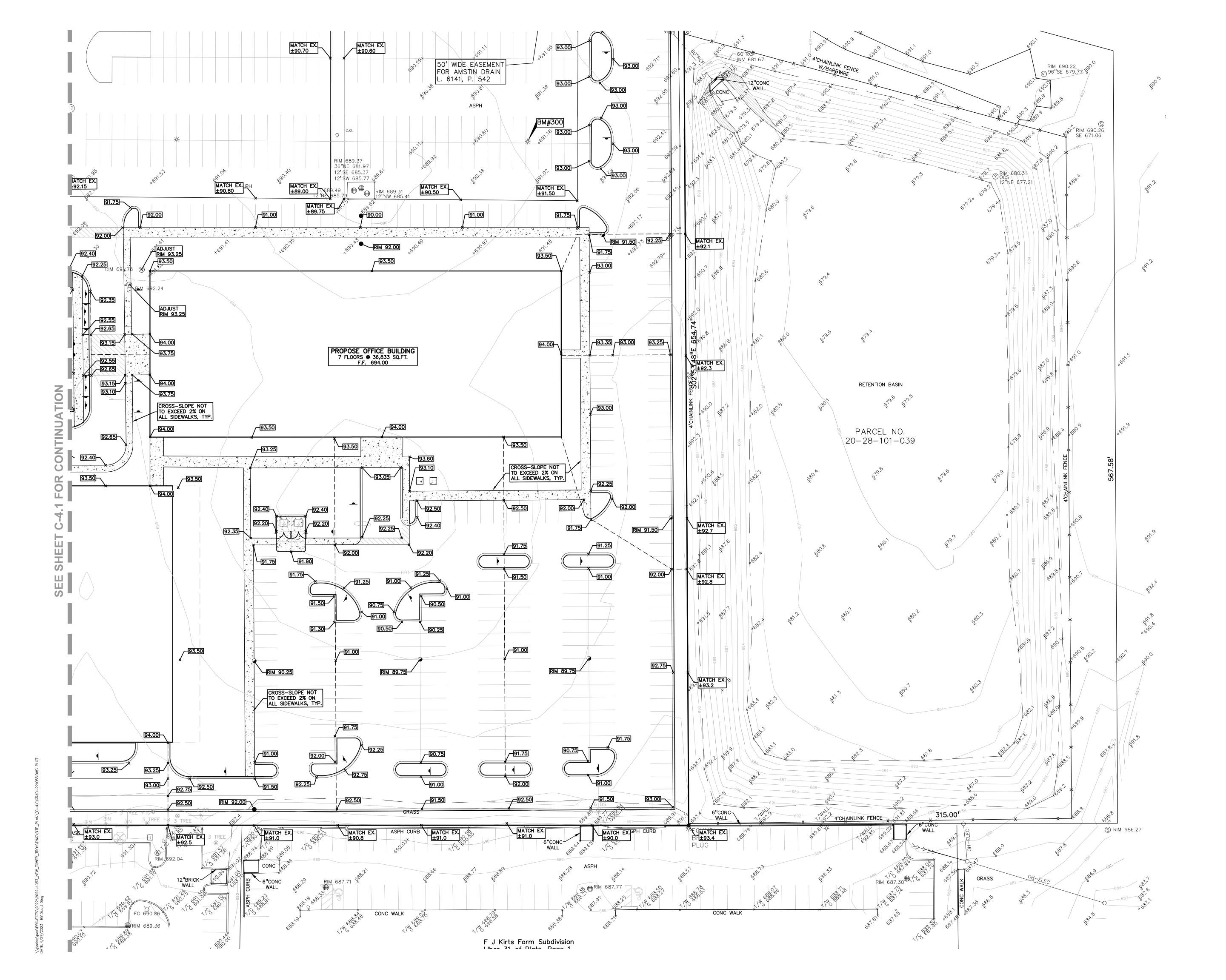
 P.M.
 LA

 DN.
 SWS

SWS

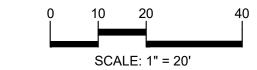
DRAWING NUMBER:

DES.











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.

CLIENT

YAMASAKI, INC. 3011 WEST GRAND BOULEVARD CITY OF TROY, OAKLAND COUNTY, MICHIGAN

PROJECT TITLE

NEW TOWER
TROY
755 W BIG BEAVER ROAD
CITY OF TROY, OAKLAND COUNTY, MI

REVISIONS
- -

DRAWING TITLE

GRADING PLA

ORIGINAL ISSUE DATE:

GRADING PLAN EAST

PEA JOB NO. 2022-1053

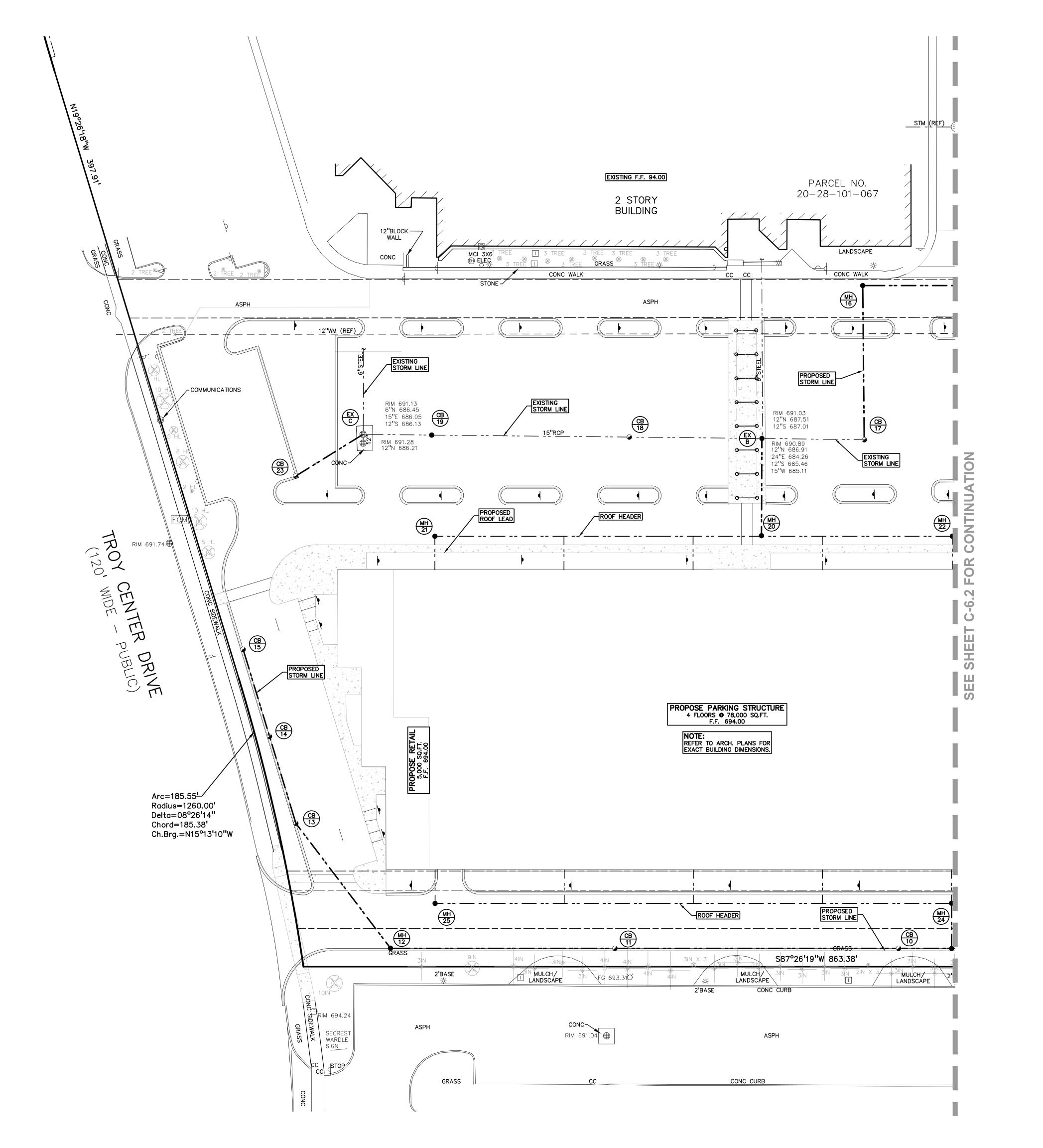
P.M. LA

DN. SWS

DES. SWS

DRAWING NUMBER:

C-4.2











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.

CLIENT

YAMASAKI, INC. 3011 WEST GRAND BOULEVARD CITY OF TROY, OAKLAND COUNTY, MICHIGAN

PROJECT TITLE

NEW TOWER TROY 755 W BIG BEAVER ROAD CITY OF TROY, OAKLAND COUNTY, MI

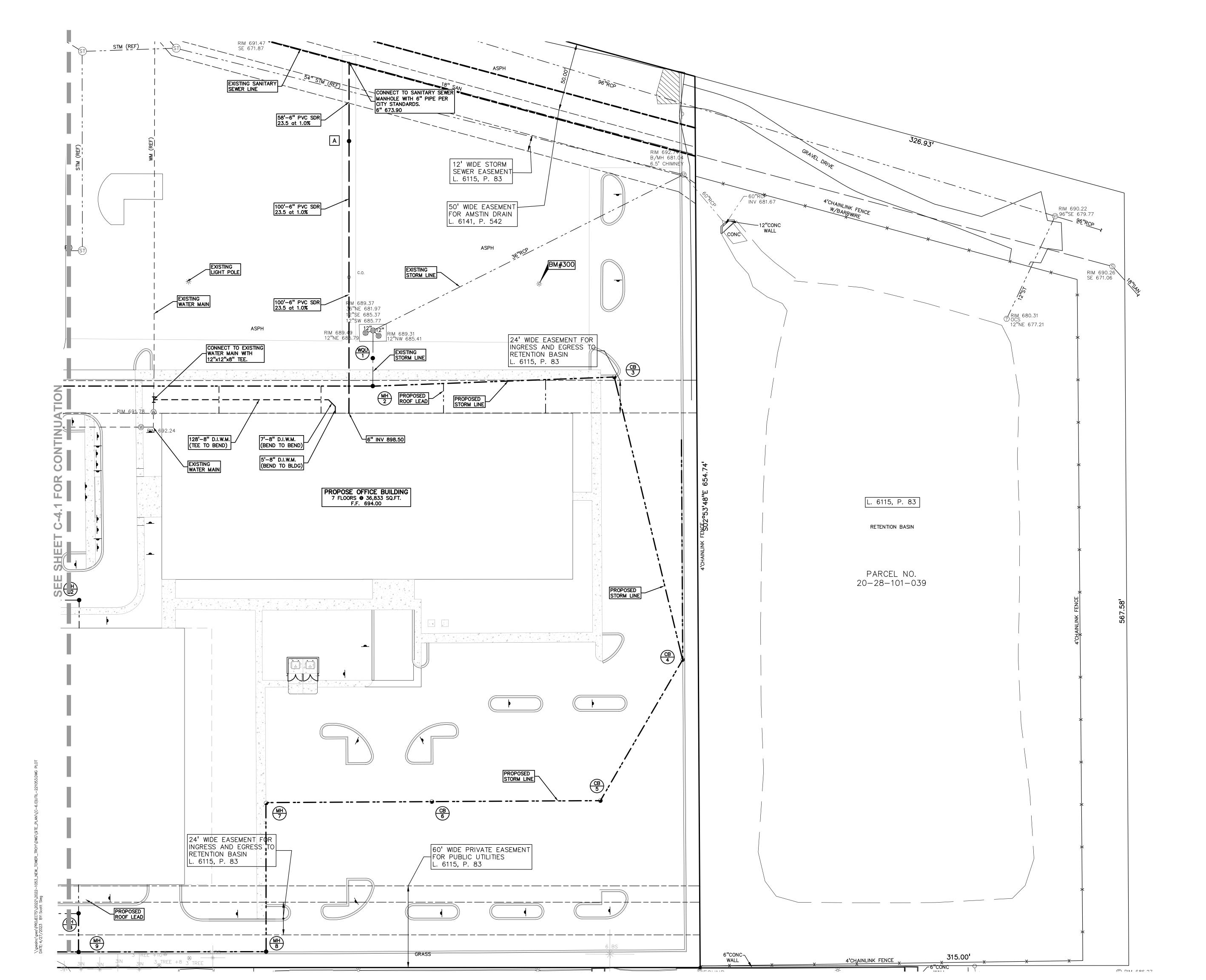
REVISIONS
<u>-</u>

ORIGINAL ISSUE DATE: APRIL 28, 2023

DRAWING TITLE
UTILITY PLAN
WEST

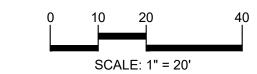
PEA JOB NO.	2022-1053
P.M.	LA
DN.	SWS
DES.	SWS
DRAWING NUMBER:	

C-6.1











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.

CLIENT

YAMASAKI, INC. 3011 WEST GRAND BOULEVARD CITY OF TROY, OAKLAND COUNTY, MICHIGAN

PROJECT TITLE

NEW TOWER

TROY

755 W BIG BEAVER ROAD
CITY OF TROY, OAKLAND COUNTY, MI

REVISIONS

ORIGINAL ISSUE DATE: APRIL 28, 2023

UTILITY PLAN
EAST

	PEA JOB NO.	2022-1053
	P.M.	LA
	DN.	SWS
	DES.	SWS
,	DRAWING NUMBER:	

C-6.2

GENERAL NOTES:

THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT

- ALL CONSTRUCTION, WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT OSHA, AND MUNICIPALITY STANDARDS AND REGULATIONS
- . THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER AND/OR THE AUTHORITY HAVING JURISDICTION 3 BUSINESS DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- THE CONTRACTOR SHALL CONTACT THE ENGINEER SHOULD THEY ENCOUNTER ANY DESIGN ISSUES DURING CONSTRUCTION. IF THE CONTRACTOR MAKES DESIGN MODIFICATIONS WITHOUT THE WRITTEN DIRECTION OF THE DESIGN ENGINEER, THE CONTRACTOR DOES SO
- ALL NECESSARY PERMITS, TESTING, BONDS AND INSURANCES ETC., SHALL BE PAID FOR BY THE CONTRACTOR. THE OWNER SHALL PAY FOR ALL CITY INSPECTION FEES.
- THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE 811/ONE CALL UTILITY LOCATING CENTER, THE CITY ENGINEER AND/OR THE AUTHORITY HAVING JURISDICTION 3 BUSINESS DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION. IF NO NOTIFICATION IS GIVEN AND DAMAGE RESULTS, SAID DAMAGE WILL BE REPAIRED AT SOLE EXPENSE OF THE CONTRACTOR. IF EXISTING UTILITY LINES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER SO THAT THE CONFLICT MAY BE RESOLVED.
- CONTRACTOR SHALL VERIFY THAT THE PLANS AND SPECIFICATIONS ARE THE VERY LATEST PLANS AND SPECIFICATIONS AND FURTHERMORE, VERIFY THAT THESE PLANS AND SPECIFICATIONS HAVE BEEN APPROVED. ALL ITEMS CONSTRUCTED BY THE CONTRACTOR PRIOR TO RECEIVING FINAL APPROVAL, HAVING TO BE ADJUSTED OR RE-DONE, SHALL BE AT THE CONTRACTORS EXPENSE. SHOULD THE CONTRACTOR ENCOUNTER A CONFLICT BETWEEN THESE PLANS AND/OR SPECIFICATIONS, THEY SHALL SEEK CLARIFICATION IN WRITING FROM THE ENGINEER BEFORE COMMENCEMENT OF CONSTRUCTION. FAILURE TO DO SO SHALL BE AT SOLE EXPENSE TO THE CONTRACTOR.
- ANY WORK WITHIN THE STREET OR HIGHWAY RIGHTS-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AGENCIES HAVING JURISDICTION AND SHALL NOT BEGIN UNTIL ALL NECESSARY PERMITS HAVE BEEN ISSUED FOR THE WORK.
- ALL PROPERTIES OR FACILITIES IN THE SURROUNDING AREAS, PUBLIC OR PRIVATE, DESTROYED OR OTHERWISE DISTURBED DUE TO CONSTRUCTION, SHALL BE REPLACED AND/OR RESTORED TO THE ORIGINAL CONDITION BY THE CONTRACTOR.
- THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BARRICADING, SIGNAGE, LIGHTS AND TRAFFIC CONTROL DEVICES TO PROTECT THE WORK AND SAFELY MAINTAIN TRAFFIC IN ACCORDANCE WITH LOCAL REQUIREMENTS AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION). THE DESIGN ENGINEER, OWNER, CITY AND STATE SHALL NOT BE HELD LIABLE FOR ANY CLAIMS RESULTING FROM ACCIDENTS OR DAMAGES CAUSED BY THE CONTRACTOR'S FAILURE TO COMPLY WITH TRAFFIC AND PUBLIC SAFETY REGULATIONS DURING THE CONSTRUCTION PERIOD.
- 10. THE USE OF CRUSHED CONCRETE IS PROHIBITED ON THE PROJECT WITHIN 100 FEET OF ANY WATER COURSE (STREAM, RIVER, COUNTY DRAIN, ETC.) AND LAKE, REGARDLESS OF THE APPLICATION OR LOCATION OF THE WATER COURSE OR LAKE RELATIVE TO THE
- 1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ADJUST THE TOP OF ALL EXISTING AND PROPOSED STRUCTURES (MANHOLES, CATCH BASINS, INLETS, GATE WELLS ETC.) WITHIN GRADED AND /OR PAVED AREAS TO FINAL GRADE SHOWN ON THE PLANS. ALL SUCH ADJUSTMENTS SHALL BE INCIDENTAL TO THE JOB AND WILL NOT BE PAID FOR SEPARATELY.

PAVING NOTES:

- IN AREAS WHERE NEW PAVEMENTS ARE BEING CONSTRUCTED, THE TOPSOIL AND SOIL CONTAINING ORGANIC MATTER SHALL BE REMOVED PRIOR TO PAVEMENT CONSTRUCTION.
- REFER TO ARCHITECTURAL PLANS FOR DETAILS OF FROST SLAB AT EXTERIOR BUILDING DOORS.
- CONSTRUCTION TRAFFIC SHOULD BE MINIMIZED ON THE NEW PAVEMENT. IF CONSTRUCTION TRAFFIC IS ANTICIPATED ON THE PAVEMENT STRUCTURE, THE INITIAL LIFT THICKNESS COULD BE INCREASED AND PLACEMENT OF THE FINAL LIFT COULD BE DELAYED UNTIL THE MAJORITY OF THE CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED. THIS ACTION WILL ALLOW REPAIR OF LOCALIZED FAILURE, IF ANY DOES OCCUR, AS WELL AS REDUCE LOAD DAMAGE ON THE PAVEMENT SYSTEM.
- . ALL EXPANSION JOINTS AND CONCRETE PAVEMENT JOINTS TO BE SEALED.
- . CONCRETE PAVEMENT JOINTING UNLESS SHOWN OTHERWISE IN THE PLANS OR REQUIRED BY THE AUTHORITY HAVING JURISDICTION; 5.1. WHERE PROPOSED CONCRETE ABUTS A STRUCTURE, PROVIDE A MINIMUM 1/2" EXPANSION JOINT. THE JOINT FILLER BOARD MUST
- BE AT LEAST THE FULL DEPTH OF THE CONCRETE AND HELD DOWN A 1/2" TO ALLOW FOR SEALING. 5.2. WHERE PROPOSED CONCRETE ABUTS EXISTING CONCRETE OR IN BETWEEN POURS OF PROPOSED CONCRETE (CONSTRUCTION JOINT), PROVIDE 5/8" DOWELS EVERY 30" CENTER TO CENTER HALF WAY ALONG THE THICKNESS OF THE PROPOSED PAVEMENT. ALTERNATE DOWELS SIZES AND SPACING MUST BE APPROVED THE ENGINEER PRIOR TO COMMENCING WORK AND VIA THE
- SUBMITTAL PROCESS. 5.3. WHERE PROPOSED CONCRETE ABUTS EXISTING OR PROPOSED SIDEWALK OR CURBING, PROVIDE A MINIMUM 1/2" EXPANSION JOINT. 5.4. CONTROL, LONGITUDINAL AND/OR TRANSVERSE JOINTS SHALL BE PLACED TO PROVIDE PANELS WITHIN THE PAVEMENT AS SQUARE AS POSSIBLE WITH THE FOLLOWING MAXIMUM SPACING PARAMETERS: 5.4.1. 6-INCH THICK CONCRETE PAVEMENT: 12' X 12'
- 5.4.2. 8-INCH THICK CONCRETE PAVEMENT: 15' X 15' 5.5. IRREGULAR-SHAPED PANELS MAY REQUIRE THE USE OF REINFORCING MESH OR FIBER MESH AS DETERMINED BY THE ENGINEER. THE USE OF MESH MUST BE APPROVED THE ENGINEER PRIOR TO COMMENCING WORK AND VIA THE SUBMITTAL PROCESS.
- 5.6. IF A JOINT PLAN IS NOT PROVIDED IN THE PLANS, THE CONTRACTOR SHALL SUBMIT ONE TO THE ENGINEER FOR REVIEW PRIOR TO COMMENCING WORK AND VIA THE SUBMITTAL PROCESS.
- 3. CONCRETE CURBING JOINTING UNLESS SHOWN OTHERWISE IN THE PLANS OR REQUIRED BY THE AUTHORITY HAVING JURISDICTION 6.1. JOINTS WHEN ADJACENT TO ASPHALT PAVEMENT 6.1.1. PLACE CONTRACTION JOINTS AT 10' INTERVALS
- 6.1.2. PLACE 1/2" EXPANSION JOINT AT CATCH BASINS, EXISTING AND PROPOSED SIDEWALK OR EXISTING CURBING. 6.1.3. PLACE 1" EXPANSION JOINT:
- 6.1.3.1. AT SPRING POINTS OF INTERSECTIONS OR ONE OF THE END OF RADIUS LOCATIONS IN A CURVE 6.1.3.2. AT 400' MAXIMUM INTERVALS ON STRAIGHT RUNS
- 6.1.3.3. AT THE END OF RADIUS AT OPPOSITE ENDS IN A CURBED LANDSCAPE ISLAND 6.2. JOINTS WHEN TIED TO CONCRETE PAVEMENT
- 6.2.1. PLACE CONTRACTION JOINTS OPPOSITE ALL TRANSVERSE CONTRACTION JOINTS IN PAVEMENT 6.2.2. PLACE 1/2" EXPANSION JOINT AT CATCH BASINS, EXISTING AND PROPOSED SIDEWALK OR EXISTING CURBING.
- 6.2.3. PLACE 1" EXPANSION JOINT OPPOSITE ALL TRANSVERSE EXPANSION JOINTS IN PAVEMENT
- 6.2.4. CURB AND GUTTER AND CONCRETE SHALL BE TIED TOGETHER SIMILAR TO A LONGITUDINAL LANE TIE JOINT (MDOT B1 JOINT) 6.3. IN BETWEEN POURS OF PROPOSED CONCRETE CURBING (CONSTRUCTION JOINT):
- 6.3.1. CARRY THE REBAR CONTINUOUSLY BETWEEN POURS 6.3.2. IF THE REBAR IS NOT LONG ENOUGH TO CARRY CONTINUOUSLY, THEN TIE TWO PIECES OF REBAR PER THE LATEST MDOT **SPECIFICATIONS**
- CONCRETE SIDEWALK JOINTING UNLESS SHOWN OTHERWISE IN THE PLANS OR REQUIRED BY THE AUTHORITY HAVING JURISDICTION 7.1. PLACE TRANSVERSE CONTRACTION JOINTS EQUAL TO THE WIDTH OF THE WALK WHEN WIDTH IS LESS THAN 8'
- 7.2. PLACE TRANSVERSE AND LONGITUDINAL CONTRACTION JOINTS EQUAL TO 1/2 THE WIDTH OF THE WALK WHEN WIDTH IS EQUAL TO
- OR GREATER THAN 8'
- 7.3. PLACE 1" EXPANSION JOINT WHERE ABUTTING SIDEWALK RAMP AND/OR RADIUS IN INTERSECTION 7.4. PLACE TRANSVERSE 1/2" EXPANSION JOINT AT MAXIMUM OF 100' SPACING
- 7.5. PLACE 1/2" EXPANSIÓN JOINT WHEN ABUTTING A FIXED STRUCTURE. OTHER PAVEMENT (CONCRETE PAVEMENT AND DRIVE APPROACHES), UTILITY STRUCTURES, LIGHT POLE BASES AND COLUMNS

GENERAL GRADING AND EARTHWORK NOTES:

THESE NOTES APPLY TO ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT

- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING TREES AND BRUSH AND REMOVE ALL THAT ARE NECESSARY TO GRADE SITE.
- 2. ALL GRADES ARE TO TOP OF PAVEMENT UNLESS OTHERWISE NOTED.

MINIMUM OF 3" OF TOPSOIL IN THESE AREAS UNLESS OTHERWISE NOTED.

- THE STAGING OF CONSTRUCTION ACTIVITIES SHALL OCCUR ONLY WITHIN THE SITE BOUNDARIES. ANY CONSTRUCTION ACTIVITIES OUTSIDE OF THE SITE BOUNDARIES SHALL BE AT THE SOLE RESPONSIBILITY AND RISK OF THE CONTRACTOR.
- ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL MEET THE REQUIREMENTS OF THE AUTHORIZED PUBLIC AGENCY OF JURISDICTION. AN EROSION CONTROL PERMIT MUST BE SECURED FROM THE CITY PRIOR TO CONSTRUCTION.
- . ALL EARTHWORK AND GRADING OPERATIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE SOILS INVESTIGATION AND REPORT.
- REFER TO SOIL EROSION CONTROL PLAN FOR ADDITIONAL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AND NOTES.
- THE DETENTION BASIN SIDE SLOPES AND ALL SLOPE EXCEEDING 1:4 MUST BE STABILIZED BY SODDING OR BY PLACING A MULCH
- BLANKET PEGGED IN PLACE OVER SEED. 8. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED OR SODDED IN ACCORDANCE WITH THE LANDSCAPE PLANS. PROVIDE A
- THE CONTRACTOR SHALL NOTE EXISTING UNDERGROUND UTILITIES WITHIN AND ADJACENT TO THE SITE. BACKFILL FOR EXISTING UTILITY TRENCHES SHALL BE EXAMINED CRITICALLY. ANY TRENCHES FOUND TO HAVE SOFT, UNSTABLE OR UNSUITABLE BACKFILL MATERIAL, IN THE OPINION OF THE THIRD PARTY TESTING COMPANY, THAT ARE TO BE WITHIN THE ZONE OF INFLUENCE OF PROPOSED BUILDINGS OR PAVEMENT SHALL BE COMPLETELY EXCAVATED AND BACKFILLED WITH SUITABLE MATERIAL.
- 10. ON-SITE FILL CAN BE USED IF THE SPECIFIED COMPACTION REQUIREMENTS CAN BE ACHIEVED. IF ON-SITE SOIL IS USED, IT SHOULD BE CLEAN AND FREE OF FROZEN SOIL, ORGANICS, OR OTHER DELETERIOUS MATERIALS.
- 1. THE FINAL SUBGRADE/EXISTING AGGREGATE BASE SHOULD BE THOROUGHLY PROOFROLLED USING A FULLY LOADED TANDEM AXLE TRUCK OR FRONT END LOADER UNDER THE OBSERVATION OF A GEOTECHNICAL/PAVEMENT ENGINEER. LOOSE OR YIELDING AREAS THAT CANNOT BE MECHANICALLY STABILIZED SHOULD BE REINFORCED USING GEOGRIDS OR REMOVED AND REPLACED WITH ENGINEERED FILL OR AS DICTATED BY FIELD CONDITIONS.
- 2. SUBGRADE UNDERCUTTING, INCLUDING BACKFILLING SHALL BE PERFORMED TO REPLACE MATERIALS SUSCEPTIBLE TO FROST HEAVING AND UNSTABLE SOIL CONDITIONS. ANY EXCAVATIONS THAT MAY BE REQUIRED BELOW THE TOPSOIL IN FILL AREAS OR BELOW PROPOSED SUBGRADE IN CUT AREAS WILL BE CLASSIFIED AS SUBGRADE UNDERCUTTING.
- I3. SUBGRADE UNDERCUTTING SHALL BE PERFORMED WHERE NECESSARY AND THE EXCAVATED MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR. ANY SUBGRADE UNDERCUTTING SHALL BE BACKFILLED AS RECOMMENDED IN THE GEOTECHNICAL ENGINEERING
- 14. ANY SUBGRADE WATERING REQUIRED TO ACHIEVE REQUIRED DENSITY SHALL BE CONSIDERED INCIDENTAL TO THE JOB.

GENERAL UTILITY NOTES:

- ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE CITY
- ALL TRENCHES UNDER OR WITHIN THREE (3) FEET OR THE FORTY-FIVE (45) DEGREE ZONE OF INFLUENCE LINE OF EXISTING AND/OR PROPOSED PAVEMENT, BUILDING PAD OR DRIVE APPROACH SHALL BE BACKFILLED WITH SAND COMPACTED TO AT LEAST NINETY-FIVE (95) PERCENT OF MAXIMUM UNIT WEIGHT (ASTM D-1557). ALL OTHER TRENCHES TO BE COMPACTED TO 90% OR
- WHERE EXISTING MANHOLES OR SEWER PIPE ARE TO BE TAPPED, DRILL HOLES 4" CENTER TO CENTER, AROUND PERIPHERY OF OPENING TO CREATE A PLANE OF WEAKNESS JOINT BEFORE BREAKING SECTION OUT.
- THE LOCATIONS AND DIMENSIONS SHOWN ON THE PLANS FOR EXISTING UTILITIES ARE IN ACCORDANCE WITH AVAILABLE INFORMATION WITHOUT UNCOVERING AND MEASURING. THE DESIGN ENGINEER DOES NOT GUARANTEE THE ACCURACY OF THIS INFORMATION OR THAT ALL EXISTING UNDERGROUND FACILITIES ARE SHOWN. CONTRACTOR SHALL FIELD VERIFY UTILITIES.
- THE CONTRACTOR SHALL COORDINATE TO ENSURE ALL REQUIRED PIPES, CONDUITS, CABLES AND SLEEVES ARE PROPERLY PLACED FOR THE INSTALLATION OF GAS, ELECTRIC, PHONE, CABLE, IRRIGATION, ETC. IN SUCH A MANNER THAT WILL FACILITATE THEIR PROPER INSTALLATION PRIOR TO THE PLACEMENT OF THE PROPOSED PAVEMENT AND LANDSCAPING.
- PIPE LENGTHS INDICATED ARE FROM CENTER OF STRUCTURE AND TO END OF FLARED END SECTION UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL INSPECT ALL EXISTING PUBLIC STORM SEWER, SANITARY SEWER AND WATER MAIN STRUCTURES WITHIN THE LIMITS OF CONSTRUCTION AND WITH THE GOVERNING AGENCY INSPECTOR PRIOR TO ESTABLISHING FINAL GRADE. NOTIFY THE ENGINEER, OWNER/DEVELOPER, AND GOVERNING AGENCY IF STRUCTURE IS DEEMED TO BE STRUCTURALLY UNSOUND AND/OR IN NEED OF REPAIR.

STORM SEWER NOTES:

- ALL STORM SEWER 12" DIAMETER OR LARGER SHALL BE REINFORCED CONCRETE PIPE (RCP C-76) CLASS IV WITH MODIFIED TONGUE AND GROOVE JOINT WITH RUBBER GASKETS UNLESS SPECIFIED OTHERWISE (ASTM C-443).
- 2. ALL STORM SEWER LEADS SHALL BE CONSTRUCTED AT 1.00% MINIMUM SLOPE.
- 3. ALL STORM SEWER 10" OR LESS AND/OR LEADS SHALL BE SDR 26.
- . JOINTS FOR P.V.C. PIPE SHALL BE ELASTOMERIC (RUBBER GASKET) AS SPECIFIED IN A.S.T.M. DESIGNATION D-3212.

<u>WATER MAIN NOTES:</u>

- ALL WATER MAIN SHALL BE INSTALLED WITH A MINIMUM COVER OF X.X' BELOW FINISH GRADE. WHEN WATER MAINS MUST DIP TO PASS UNDER A STORM SEWER OR SANITARY SEWER, THE SECTIONS WHICH ARE DEEPER THAN NORMAL SHALL BE KEPT TO A MINIMUM LENGTH BY THE USE OF VERTICAL TWENTY TWO AND A HALF (22.5°) DEGREE BENDS, PROPERLY ANCHORED.
- ALL TEES, BENDS, CONNECTIONS, ETC. ARE CONSIDERED INCIDENTAL TO THE JOB.
- PHYSICAL CONNECTIONS SHALL NOT BE MADE BETWEEN EXISTING AND NEW WATER MAINS UNTIL REQUIRED TESTING IS SATISFACTORILY COMPLETED.
- MAINTAIN 10' HORIZONTAL CLEARANCE BETWEEN OUTER EDGE OF WATERMAIN AND ANY SANITARY/STORM SEWER OR STRUCTURE. NO PHYSICAL CONNECTION TO THE EXISTING WATER MAIN CAN BE MADE UNTIL ALL NEW WATER MAIN PASSES PRESSURE AND BACTERIOLOGICAL TESTS TO THE SATISFACTION OF THE CITY.
- . ALL WATER MAIN AND FITTINGS (3" DIAMETER AND LARGER) SHALL BE DUCTILE IRON, CLASS 54.
- WATER MAIN SERVICE LEADS SHALL BE TYPE 'K' ANNEALED SEAMLESS COPPER WITH FLARED FITTINGS, UNLESS OTHERWISE
- 8. ALL FIRE HYDRANTS SHALL BE EJIW #5BR MODEL #250 PER XXXX STANDARDS.
- 9. ALL HYDRANTS TO BE A MINIMUM OF 5' FROM BACK OF CURB, TYP.
- 10. ALL NECESSARY FITTINGS, THRUST BLOCKS, RESTRAINING GLANDS, BLOW OFFS, ETC. FOR WATER MAIN ARE CONSIDERED INCIDENTAL TO THIS PROJECT. THE CONTRACTOR SHALL INSTALL THESE ITEMS AS NECESSARY AND AS REQUIRED BY THE CITY.
- 1. THE WATER MAIN CONTRACTOR SHALL NOTIFY THE INSPECTION SECTION AT LEAST THREE WORKING DAYS IN ADVANCE OF STARTING CONSTRUCTION.

<u>SANITARY SEWER NOTES:</u>

- DOWNSPOUTS, WEEP TILE, FOOTING DRAINS OR ANY CONDUIT THAT CARRIES STORM OR GROUND WATER SHALL NOT BE ALLOWED TO DISCHARGE INTO A SANITARY SEWER.
- 2. ALL SANITARY LEADS SHALL BE CONSTRUCTED AT 1.00% MINIMUM SLOPE.
- ALL SANITARY SEWER 8" OR LARGER SHALL BE P.V.C. TRUSS PIPE (ASTM D2680) AND FITTINGS, WITH ELASTOMERIC GASKET JOINTS PER ASTM D3212 UNLESS OTHERWISE NOTED.
- ALL SANITARY SEWER LEADS SHALL BE POLYVINYL CHLORIDE (PVC) SDR 23.5 PIPE AND FITTINGS. ALL JOINTS TO BE ELASTOMERIC GASKET JOINTS PER ASTM D3212 UNLESS OTHERWISÉ NOTED.
- SANITARY LEADS SHALL BE PROVIDED WITH CLEANOUTS EVERY 100 FEET AND AT EVERY BEND AS SHOWN. ALL CLEANOUTS TO BE PROVIDED WITH E.J.I.W. #1565 BOX OR EQUAL.

CONSTRUCTION MATERIAL SUBMITTALS

UNLESS REQUIRED OTHERWISE IN THE PROJECT SPECIFICATIONS, THE CONTRACTOR SHALL ONLY SUBMIT THE FOLLOWING CONSTRUCTION MATERIAL SUBMITTALS, AS APPLICABLE TO THE PLANS, FOR REVIEW BY THE ENGINEER. UNLESS APPROVED IN ADVANCE AND IN WRITING BY THE ENGINEER, ANY MATERIAL SUBMITTALS PROVIDED TO THE ENGINEER FOR REVIEW IN ADDITION TO THIS LIST SHALL BE RETURNED TO THE CONTRACTOR WITHOUT A REVIEW BEING PERFORMED.

- SOIL EROSION AND SEDIMENTATION CONTROL MEASURES
- 2. UTILITY TRENCH BACKFILL MATERIAL WITH ALL MATERIAL DATA INCLUDED IN THE SUBMITTAL BEING DATED WITHIN 60 DAYS OF THE SUBMITTAL UNLESS APPROVED OTHERWISE BY THE ENGINEER
- RIP RAP MATERIAL WITH ALL MATERIAL DATA INCLUDED IN THE SUBMITTAL BEING DATED WITHIN 60 DAYS OF THE SUBMITTAL UNLESS APPROVED OTHERWISE BY THE ENGINEER
- STORM AND SANITARY SEWER PIPING INCLUDING JOINTS
- 5. STORM AND SANITARY SEWER STRUCTURES
- . STORM AND SANITARY SEWER STRUCTURE FRAME AND COVERS INCLUDING CLEAN OUTS
- WATER DISTRIBUTION SYSTEM PIPING INCLUDING JOINTS
- . WATER DISTRIBUTION SYSTEM STRUCTURES
- 9. WATER DISTRIBUTION SYSTEM STRUCTURE FRAME AND COVERS
- 10. WATER DISTRIBUTION SYSTEM SHUT OFF BOXES
- 11. WATER DISTRIBUTION SYSTEM FIRE HYDRANTS

12. WATER DISTRIBUTION SYSTEM GATE VALVES

- 13. STORM WATER MANAGEMENT OUTLET CONTROL STRUCTURES INCLUDING COVERS OR GRATES
- 14. STORM WATER MANAGEMENT OUTLET SEDIMENTATION BASIN RISERS INCLUDING GRATES
- 15. STORM WATER MANAGEMENT MECHANICAL PRE-TREATMENT UNITS INCLUDING COVERS
- 16. STORM WATER MANAGEMENT OIL/GREASE SEPARATORS 7. STORM WATER MANAGEMENT UNDERGROUND DETENTION SYSTEM MATERIAL AND SHOP DRAWINGS DEPICTING THE LAYOUT OF THE
- I8. PAVEMENT AGGREGATE BASE MATERIAL WITH ALL MATERIAL DATA INCLUDED IN THE SUBMITTAL BEING DATED WITHIN 60 DAYS OF
- 19. PAVEMENT UNDERDRAIN MATERIAL AND BACKFILL WITH ALL BACKFILL MATERIAL DATA INCLUDED IN THE SUBMITTAL BEING DATED WITHIN 60 DAYS OF THE SUBMITTAL UNLESS APPROVED OTHERWISE BY THE ENGINEER
- 20. PAVEMENT MIX DESIGNS SUBMITTED FOR REVIEW BY THE ENGINEER MUST FOLLOW THE CURRENT MDOT REVIEW CHECKLISTS AS SUMMARIZED BELOW AND ALL MATERIAL DATA INCLUDED IN THE SUBMITTAL BEING DATED WITHIN 60 DAYS OF THE SUBMITTAL UNLESS APPROVED OTHERWISE BY THE ENGINEER:
- •8.1. CONCRETE MIX DESIGN REVIEW CHECKLIST (FORM 2000) •8.2. SUPERPAVE MIX DESIGN CHECKLIST (FORM 1862)

THE SUBMITTAL UNLESS APPROVED OTHERWISE BY THE ENGINEER

- •8.3. MARSHALL MIX DESIGN CHECKLIST (FORM 1849)
- 21. SITE FENCING AND GATES INCLUDING FOOTINGS 22. SITE RAILINGS INCLUDING FOOTING OR EMBEDMENTS
- 23. ANY ITEMS SHOWN IN THE PLANS OR DETAIL SHEETS THAT SPECIFICALLY STATE FOR THE CONTRACTOR TO SUBMIT A SHOP DRAWING TO THE ENGINEER FOR REVIEW. THESE ITEMS INCLUDE, BUT ARE NOT LIMITED TO:
- RETAINING WALL MATERIAL AND STRUCTURAL CALCULATIONS
- TRENCH DRAIN MATERIAL AND SHOP DRAWING DEPICTING THE LAYOUT OF THE SYSTEM
- ANY SPECIALITY ITEMS SHOWN IN THE PLANS OR DETAIL SHEETS THAT SPECIFICALLY DO NOT STATE FOR THE CONTRACTOR SHALL SUBMIT A SHOP DRAWING TO THE ENGINEER FOR REVIEW BUT THE CONTRACTOR REQUESTS TO BE REVIEWED. THE CONTRACTOR'S REQUEST FOR REVIEW MUST BE IN WRITING AND APPROVED BY THE ENGINEER PRIOR TO SUBMITTING THE









CAUTION!! THE LOCATIONS AND ELE JTILITIES AS SHOWN ON THIS DRAWING ARE ONLY IMPLIED AS TO THE COMPLETENESS OR ACCURACY THERE HE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR DETERMINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

CLIENT

YAMASAKI, INC. 3011 WEST GRAND BOULEVARD CITY OF TROY, OAKLAND COUNTY, MICHIGAN

PROJECT TITLE

NEW TOWER TROY 755 W BIG BEAVER ROAD CITY OF TROY, OAKLAND COUNTY, MI

ORIGINAL ISSUE DATE:

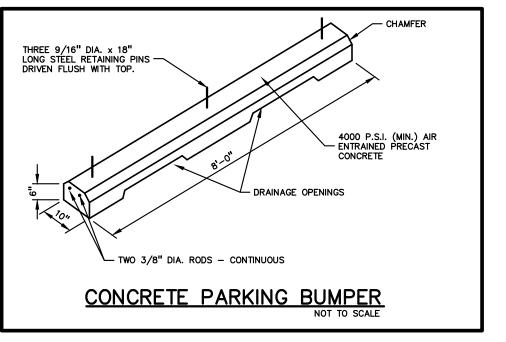
APRIL 28, 2023

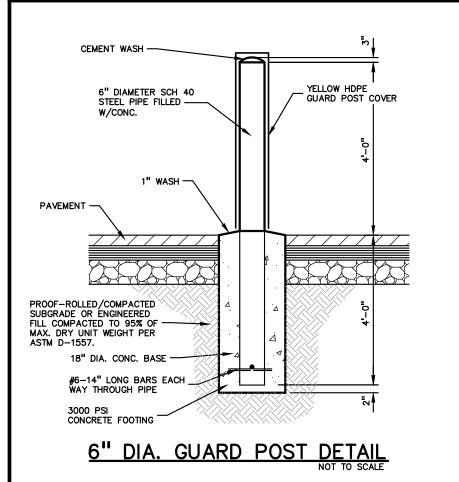
DRAWING TITLE

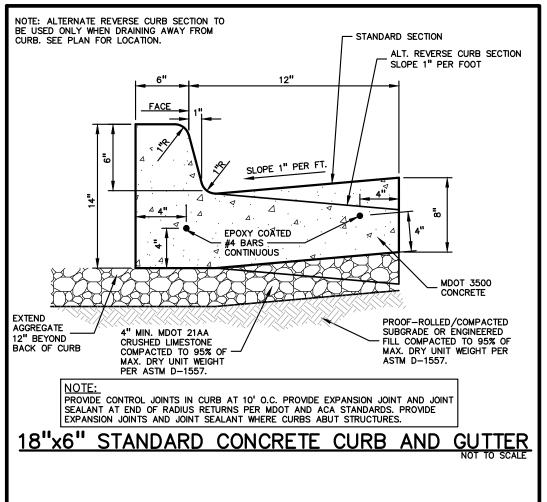
NOTES AND DETAILS

PEA JOB NO. 2022-1053 SWS SWS DES.

DRAWING NUMBER:



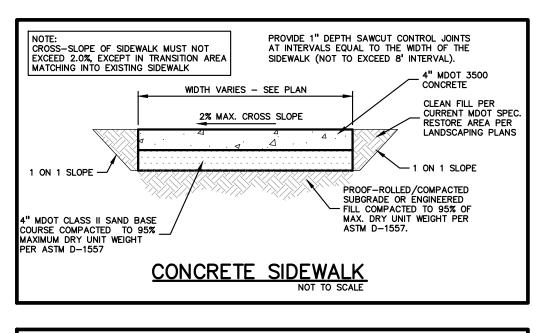




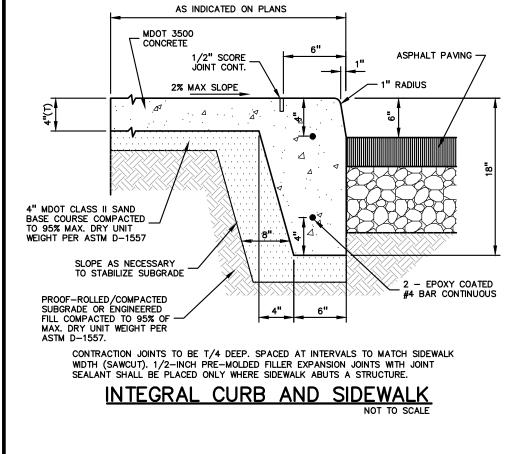
ALIGN CROSSWALKS WITH
ADJACENT SIDEWALK RAMPS
AS SHOWN ON THE PLANS.
CROSSWALKS TO BE 5' WIDE.

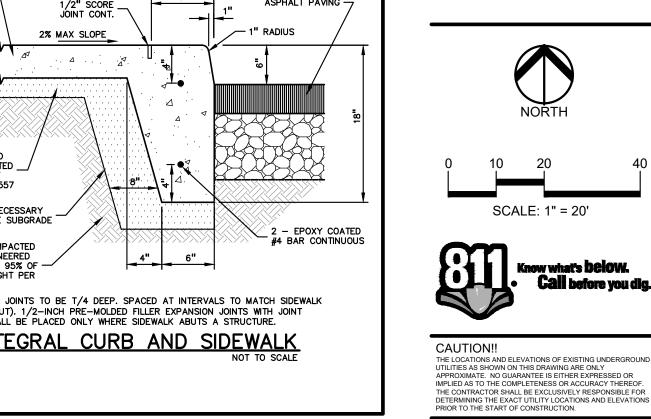
MEET EXISTING PAVEMENT -

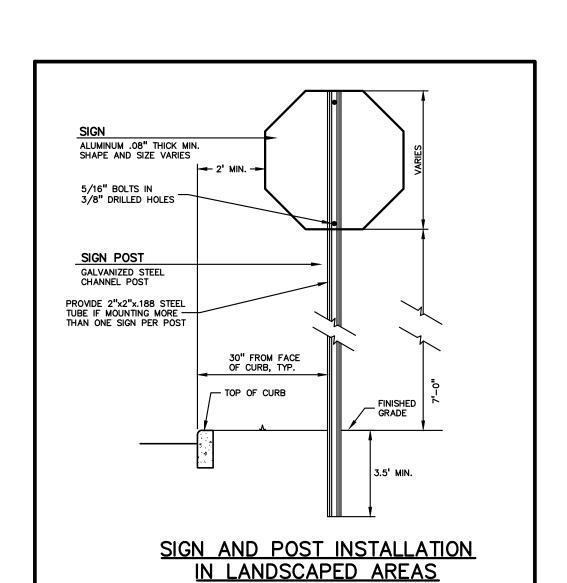
STRIPED CROSSWALK DETAIL

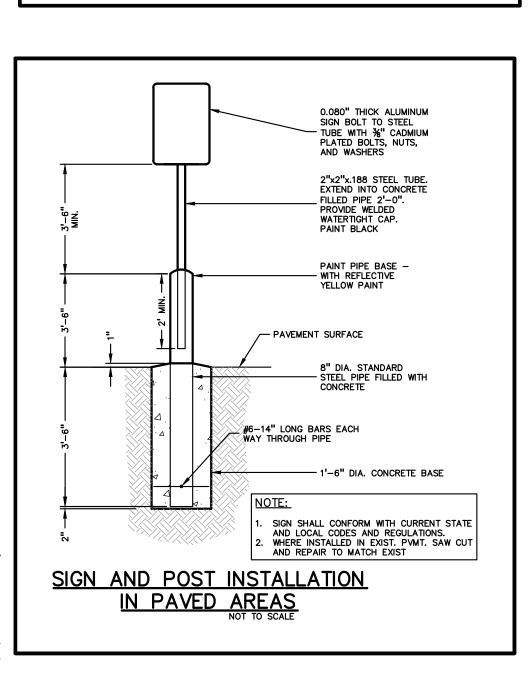


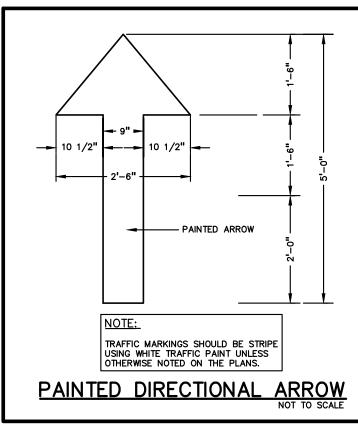








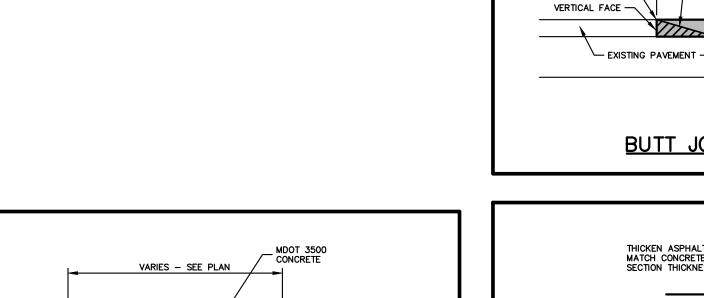






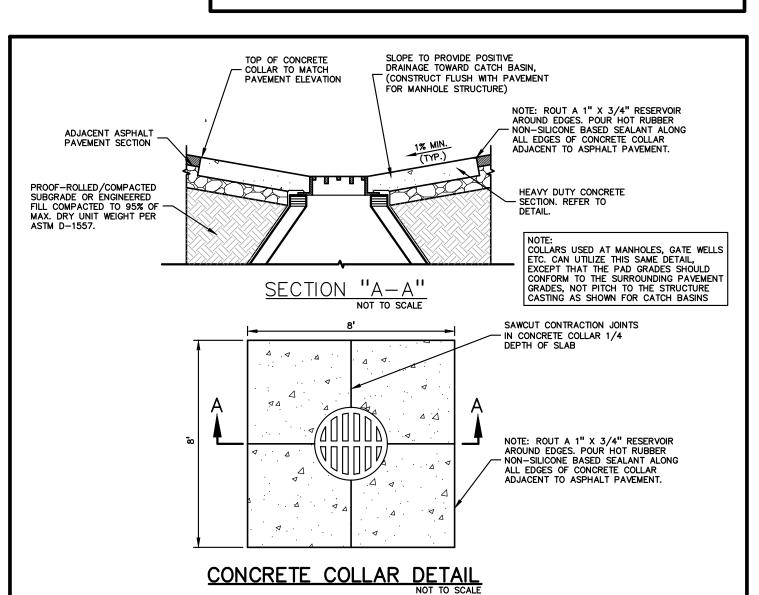






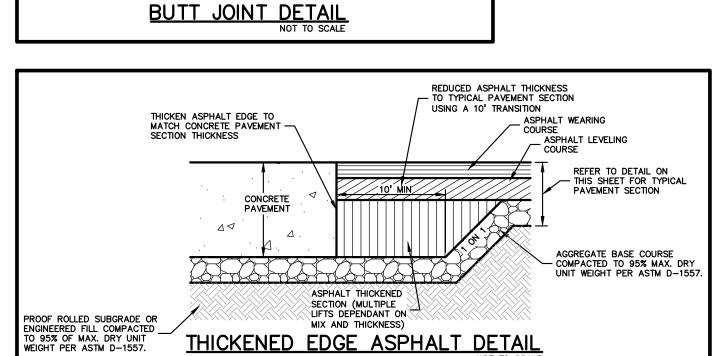
PROOF-ROLLED/COMPACTED SUBGRADE OR ENGINEERED — FILL COMPACTED TO 95% OF MAX. DRY UNIT WEIGHT PER ASTM D-1557.

18" WIDE WHITE CROSSWALK STRIPING, 48" O.C., TYPICAL.



HEAVY DUTY CONCRETE DETAIL

6" MDOT #21AA CRUSHED LIMESTONE BASE COURSE COMPACTED TO 95% MAX. DRY UNIT WEIGHT PER ASTM D-1557



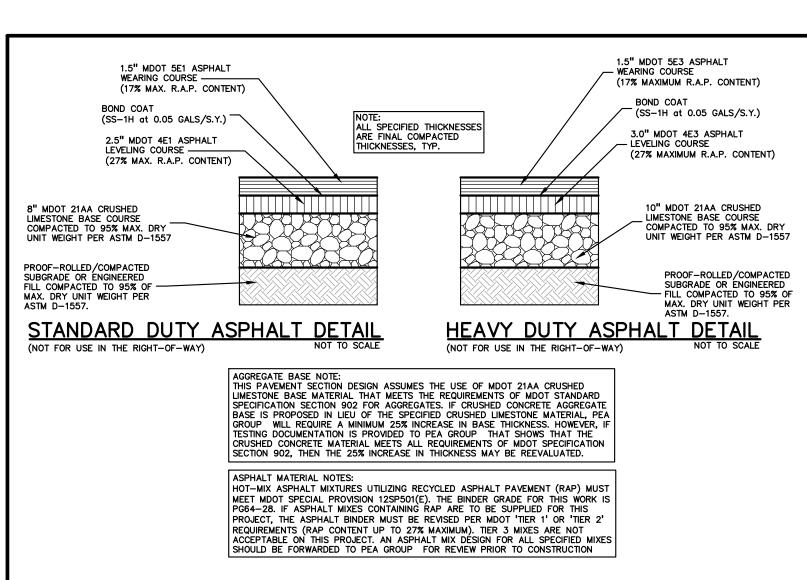
THICKENED EDGE ASPHALT DETAIL

COLD-MILL EXISTING SURFACE.
DEPTH TO MATCH NEW PAVEMENT
WEARING COURSE THICKNESS.

ASPHALT OVERLAY. MATCH
THICKNESS OF WEARING
COURSE OF ADJACENT NEW
PAVEMENT, TYP.

SECTION. REFER TO DETAIL.

WEDGE WITH TEMPORARY
ASPHALT MIX AFTER MILLING.
REMOVE WEDGE BEFORE
OVERLAY OCCURS.





YAMASAKI, INC.

3011 WEST GRAND BOULEVARD

CITY OF TROY, OAKLAND COUNTY, MICHIGAN



CITY OF TROY, OAKLAND COUNTY, MI

CLIENT

	REVISIONS
1	
	ORIGINAL ISSUE DATE:
	APRIL 28, 2023
	DRAWING TITLE
	DETAILS

PEA JOB NO.	2022-1053
P.M.	LA
DN.	sws
DES.	sws
DRAWING NUMBER:	

C-9.1

ANY DEVICE OR WIRE TO ANY REMAINING TREE

TREE PROTECTION DETAIL

SCALE: 1'' = 3'-0''

TREE PROTECTION WILL BE ERECTED PRIOR TO START OF CONSTRUCTION ACTIVITIES AND SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE NO PERSON MAY CONDUCT ANY ACTIVITY WITHIN THE DRIP LINE OF ANY TREE DESIGNATED TO REMAIN; INCLUDING, BUT NOT LIMITED TO PLACING SOLVENTS, BUILDING MATERIAL, CONSTRUCTION EQUIPMENT OR SOIL DEPOSITS WITHIN DRIP LINES

GRADE CHANGES MAY NOT OCCUR WITHIN THE DRIP

LINE OF PROTECTED TREES DURING CONSTRUCTION, NO PERSON SHALL ATTACH

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

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

TREES TO BE PRESERVED SHALL BE IDENTIFIED WITH FLAGGING PRIOR TO THE TREE CLEARING OPERATIONS PROVIDE FENCE AROUND CRITICAL ROOT ZONE OF

FENCE SHALL BE PLACED IN A CIRCLE WITH A MINIMUM RADIUS OF 1' PER 1" DIAMETER OF THE

TREE MEASURED AT 4.5' ABOVE GROUND 4'HIGH PROTECTIVE FENCING WITH STEEL POSTS - 10' O.C.

- EXISTING SOIL



CAUTION!! THE LOCATIONS!

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.

GROUP

t: 844.813.2949

www.peagroup.com

SEE PLAN - FACE OF BUILDING 2"-3" DIA. RIVER ROCK AT 5" DEPTH GRAY FILTER FABRIC TO - BE COMPLETELY CONCEALED WITH STONE _ HEAVY DUTY ALUMINUM EDGE - BLACK SUBGRADE, COMPACT TO - 95% MAX. DRY UNIT DENSITY (PER ASTM 0-1557)

RIVER ROCK EDGE DETAIL SCALE: $1 \frac{1}{2}$ " = 1'-0"

PLANT SO THAT TOP OF ROOT BALL IS FLUSH TO GRADE OR 1-2" HIGHER IF IN POORLY DRAINED SOILS DO NOT COVER TOP OF ROOTBALL WITH SOIL FORM SAUCER WITH 4" HIGH CONTINUOUS RIM SHREDDED HARDWOOD BARK MULCH 3" DEEP AND LEAVE 3" CIRCLE OF BARE SOIL AROUND TRUNK, DO NOT PLACE MULCH IN CONTACT WITH TRUNK - FINISH GRADE SPECIFIED PLANTING MIX. WATER AND TAMP TO REMOVE AIR POCKETS REMOVE ALL BURLAP FROM TOP 1 OF -ROOTBALL. DISCARD ALL NON-BIODEGRADABLE MATERIAL OFF SITE VARIES ON CONTAINER OR BALL SIZE PLACE ROOTBALL ON UNEXCAVATED OR

PROJECT TITLE **NEW TOWER TROY** 755 W BIG BEAVER ROAD

REVISIONS

CITY OF TROY, OAKLAND COUNTY, MI

CLIENT

YAMASAKI, INC.

CITY OF TROY, OAKLAND COUNTY, MICHIGAN

3011 WEST GRAND BOULEVARD

PLANT SO THAT TOP OF ROOT BALL IS FLUSH TO GRADE OR 1-2" HIGHER IF IN POORLY DRAINED SOILS SECURE TREE WRAP WITH BIODEGRADABLE MATERIAL AT TOP & BOTTOM, REMOVE AFTER FIRST WINTER DO NOT PRUNE TERMINAL LEADER PRUNE ONLY DEAD, BROKEN BRANCHES AS DIRECTED BY LANDSCAPE ARCHITECT STAKE JUST BELOW BRANCHES WITH 2"-3" WIDE NYLON OR PLASTIC STRAPS. CONNECT FLEXIBILITY. REMOVE AFTER (1) ONE YEAR. (DO NOT USE WIRE & HOSE) (3) THREE 2"X2" HARDWOOD STAKES DRIVEN A MIN. OF 18" DEEP FIRMLY INTO SUBGRADE PRIOR TO BACKFILLING SHREDDED HARDWOOD BARK MULCH TO DRIPLINE. 3" DEEP AND LEAVE 3" CIRCLE OF BARE SOIL AROUND TREE TRUNK. DO NOT PLACE MULCH IN CONTACT WITH TREE TRUNK. FORM SAUCER WITH 4" HIGH CONTINUOUS RIM SPECIFIED PLANTING MIX, WATER & TAMP TO - REMOVE AIR POCKETS, AMEND SOIL PER SITE CONDITIONS & TREE REQUIREMENTS -FINISH GRADE EXPOSE ROOT FLARE OF TREE. CONTRACTOR MAY HAVE TO REMOVE EXCESS SOIL FROM

— TOP OF ROOTBALL. REMOVE ALL BURLAP

FROM TOP 3 OF ROOTBALL. DISCARD ALL

NON-BIODEGRADABLE MATERIAL OFF SITE

_ PLACE ROOTBALL ON UNEXCAVATED OR TAMPED SOIL

ORIGINAL ISSUE DATE: APRIL 28, 2023 DRAWING TITLE **LANDSCAPE DETAILS**

PEA JOB NO. 2022-1053 P.M. DN. BGG DES. JLE DRAWING NUMBER:

PERMALOC ALUMINUM EDGING OR APPROVED EQUAL WITH BLACK FINISH -BED MEDIA - COMPACTED SUBGRADE SPECIFICATIONS FOR LANDSCAPE BED EDGING: LANDSCAPE BED EDGING SHALL BE ALUMINUM AS MANUFACTURED BY PERMALOC 1.800.356.9660 8' OR 16' SECTIONS SHALL BE USED WITH ONE STAKE PER 38" OF EDGING SHALL BE $\frac{3}{16}$ " THICK X 4" DEPTH WHEN ADJ. TO MULCH AND THICK X 5 1 DEPTH WHEN ADJ. TO ROCK, FINISH: BLACK DURAFLEX MEETING AAMA 2603 STAKE SHALL SECURELY ENGAGE EDGING AND SHALL BE ENTIRELY BELOW TOP SURFACE OF EDGING EDGING SHALL HAVE A MINIMUM OF 2" OF INTERLOCKING OVERLAP BETWEEN SECTIONS INSTALL AS PER MANUFACTURER'S SPECIFICATIONS WITH TOP OF EDGING $\frac{1}{4}$ " ABOVE COMPACTED FINISH GRADE. FINISH GRADE TO BE COMPACTED ON BOTH SIDES OF EDGING TO MAINTAIN STABILITY

120° STAKING/GUYING LOCATION

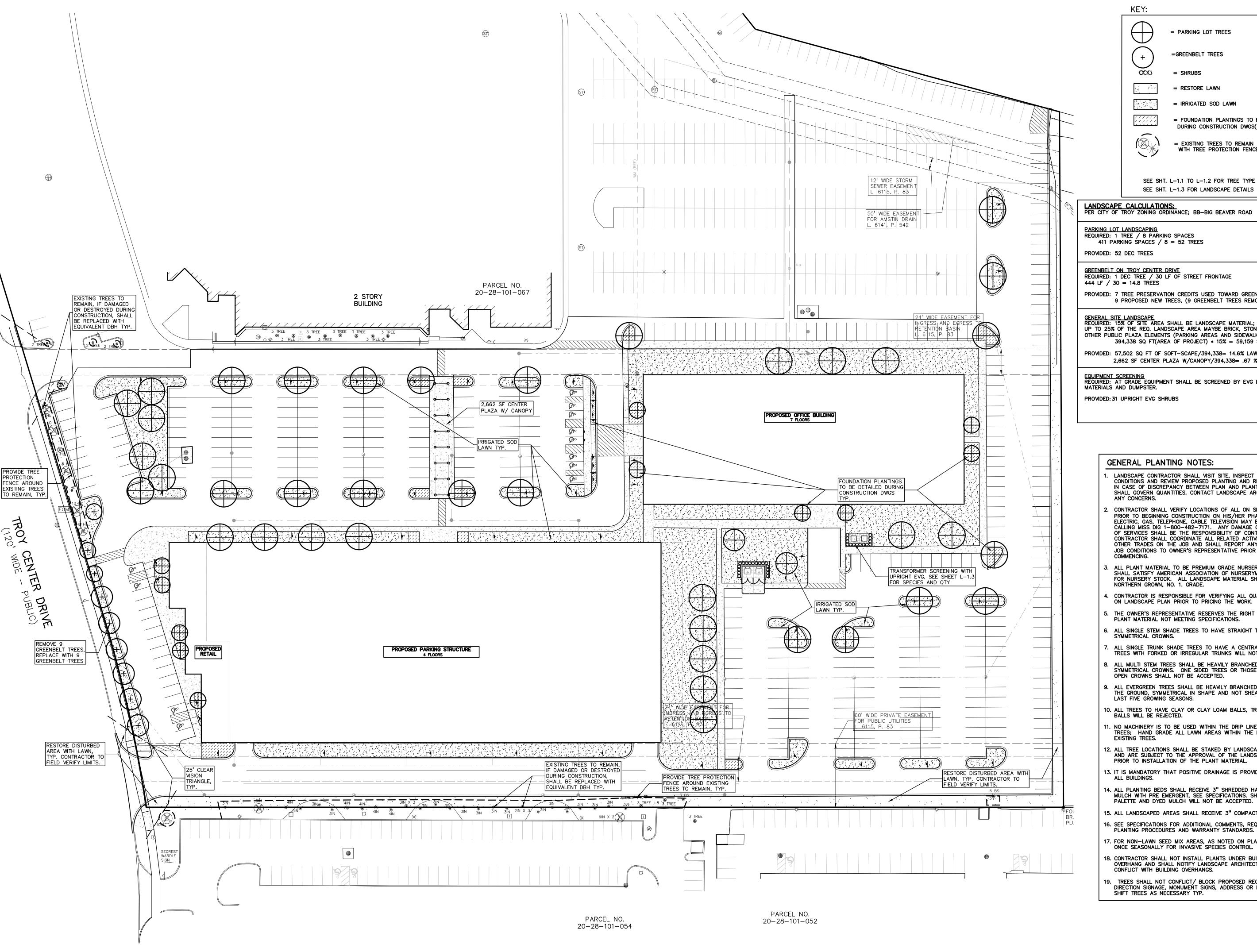
SCALE: 1'' = 3'-0''

DECIDUOUS TREE PLANTING DETAIL

SHRUB PLANTING DETAIL

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

ALUMINUM EDGE DETAIL SCALE: 1/2'' = 1'-0''



GROUP

t: 844.813.2949 www.peagroup.com



SEE SHT. L-1.1 TO L-1.2 FOR TREE TYPE & QTY. SEE SHT. L-1.3 FOR LANDSCAPE DETAILS

= PARKING LOT TREES

=GREENBELT TREES

= RESTORE LAWN

= IRRIGATED SOD LAWN

= EXISTING TREES TO REMAIN WITH TREE PROTECTION FENCE

= FOUNDATION PLANTINGS TO BE DETAILED DURING CONSTRUCTION DWGS(TO BE IRRIGATED)

LANDSCAPE CALCULATIONS: PER CITY OF TROY ZONING ORDINANCE; BB-BIG BEAVER ROAD

PARKING LOT LANDSCAPING

REQUIRED: 1 TREE / 8 PARKING SPACES 411 PARKING SPACES / 8 = 52 TREES

PROVIDED: 52 DEC TREES

GREENBELT ON TROY CENTER DRIVE REQUIRED: 1 DEC TREE / 30 LF OF STREET FRONTAGE

PROVIDED: 7 TREE PRESERVATION CREDITS USED TOWARD GREENBELT REQUIREMENT, 9 PROPOSED NEW TREES, (9 GREENBELT TREES REMOVED)

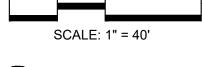
GENERAL SITE LANDSCAPE REQUIRED: 15% OF SITE AREA SHALL BE LANDSCAPE MATERIAL;

UP TO 25% OF THE REQ. LANDSCAPE AREA MAYBE BRICK, STONE, PAVERS OR OTHER PUBLIC PLAZA ELEMENTS (PARKING AREAS AND SIDEWALKS NIC). 394,338 SQ FT(AREA OF PROJECT) * 15% = 59,159 SQ FT

PROVIDED: 57,502 SQ FT OF SOFT-SCAPE/394,338= 14.6% LAWN & PLANT BEDS 2,662 SF CENTER PLAZA W/CANOPY/394,338= .67 % PLAZA SPACE

EQUIPMENT SCREENING
REQUIRED: AT GRADE EQUIPMENT SHALL BE SCREENED BY EVG LANDSCAPE MATERIALS AND DUMPSTER.

PROVIDED: 31 UPRIGHT EVG SHRUBS





CAUTION!! THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUN 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.

GENERAL PLANTING NOTES:

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

CLIENT

YAMASAKI, INC. 3011 WEST GRAND BOULEVARD CITY OF TROY, OAKLAND COUNTY, MICHIGAN

PROJECT TITLE

NEW TOWER TROY 755 W BIG BEAVER ROAD

CITY OF TROY, OAKLAND COUNTY, MI

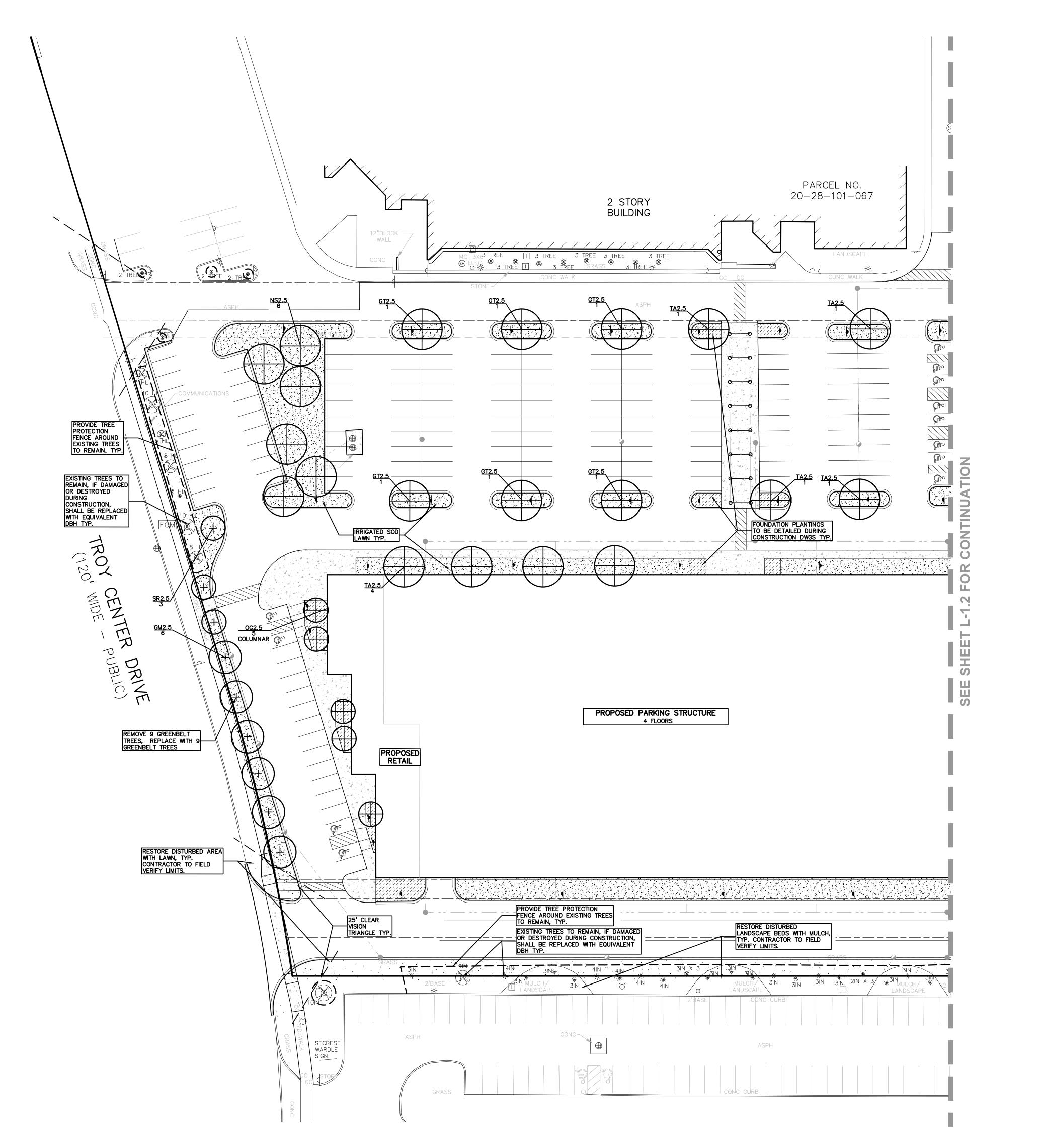
VISIONS		
		-
	·	
•		

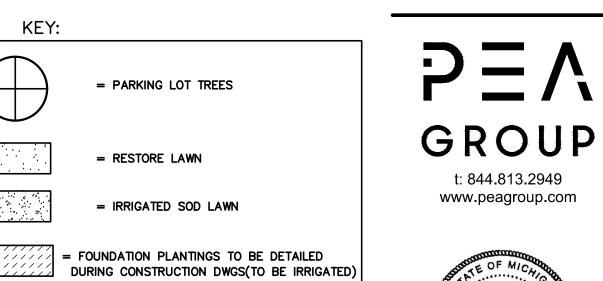
ORIGINAL ISSUE DATE: APRIL 28, 2023

DRAWING TITLE

OVERALL LANDSCAPE **PLAN**

PEA JOB NO. 2022-1053 DN. BGG DES. JLE DRAWING NUMBER:





= EXISTING TREES TO REMAIN WITH TREE PROTECTION FENCE



PLANT LI	ST FOR L-1.1				
TREE PLA	ANT LIST:				
QUANTITY	KEY SYMBOL	COMMON NAME	SCIENTIFIC NAME	SIZE	SPEC
6	GM2.5	Magyar Ginkgo	Ginkgo biloba 'Magyar'	2.5" Cal.	B&B
6	GT2.5	Skyline Honeylocust	Gleditsia triacanthos f. inermis 'Skycole'	2.5" Cal.	B&B
6	NS2.5	Black Gum	Nyssa sylvatica	2.5" Cal.	B&B
5	QG2.5	Skinny Genes Oak-columnar	Quercus alba 'JFS-KW2QX' P.A.F. (col./fastigiate)	2.5" Cal.	B&B
3	SR2.5	Japanese Tree Lilac	Syringa reticulata "Ivory Silk"	2.5" Cal.	B&B
8	TA2.5	American Sentry Linden	Tilia americana 'American Sentry'	2.5" Cal.	B&B
34	TOTAL DECID	UOUS TREES			

NORTH

0 15 30 SCALE: 1" = 30'



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.

CLIENT

YAMASAKI, INC. 3011 WEST GRAND BOULEVARD CITY OF TROY, OAKLAND COUNTY, MICHIGAN

PROJECT TITLE

NEW TOWER TROY 755 W BIG BEAVER ROAD CITY OF TROY, OAKLAND COUNTY, MI

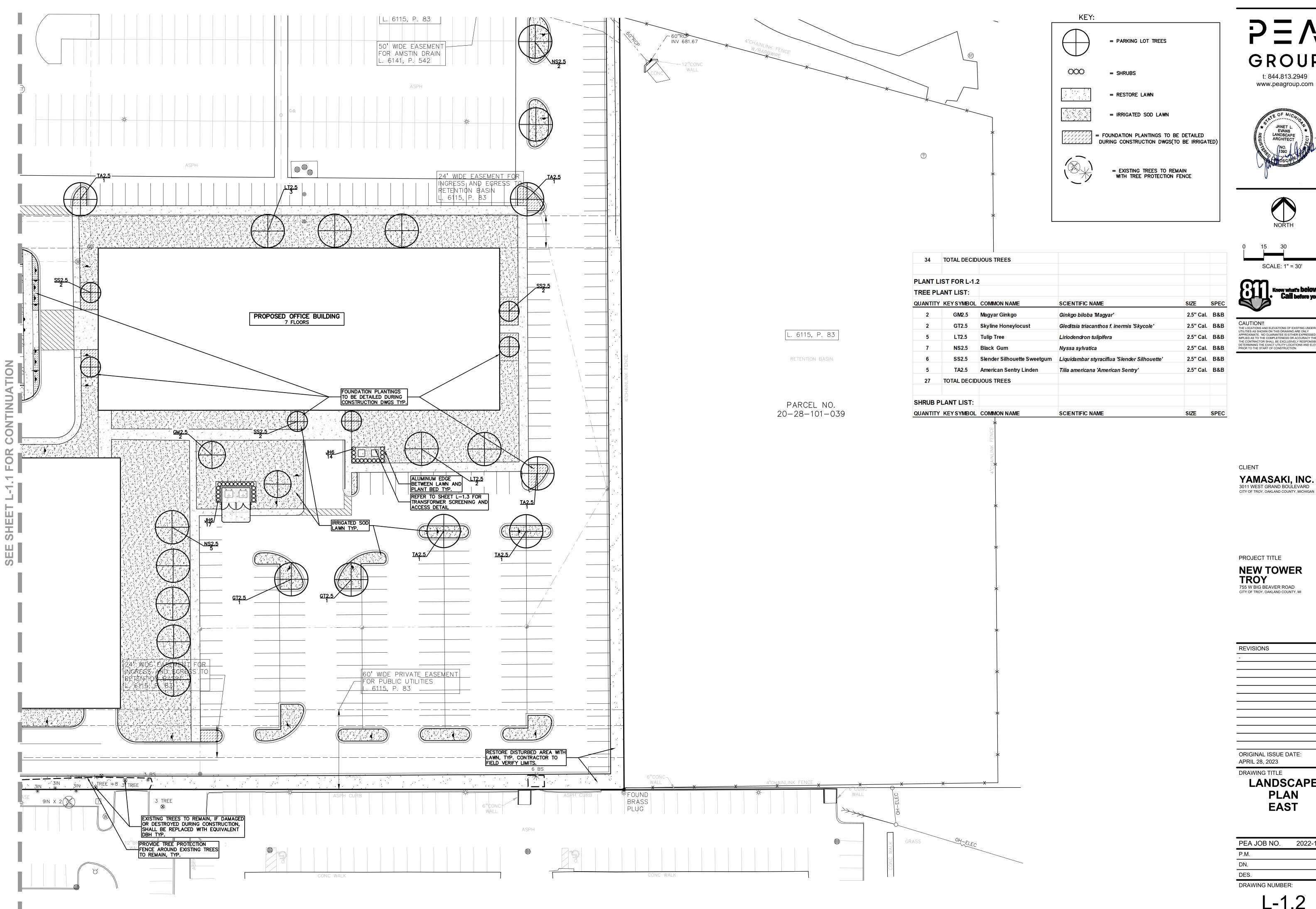
REVISIONS
-

ORIGINAL ISSUE DATE: APRIL 28, 2023 DRAWING TITLE

LANDSCAPE PLAN WEST

PEA JOB NO.	2022-1053
P.M.	LA
DN.	BGG
DES.	JLE
DRAWING NUMBER	₹:

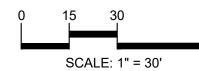
L-1₋1



GROUP t: 844.813.2949









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.

CLIENT

YAMASAKI, INC. 3011 WEST GRAND BOULEVARD CITY OF TROY, OAKLAND COUNTY, MICHIGAN

PROJECT TITLE **NEW TOWER**

TROY
755 W BIG BEAVER ROAD
CITY OF TROY, OAKLAND COUNTY, MI

ORIGINAL ISSUE DATE: APRIL 28, 2023 DRAWING TITLE

LANDSCAPE **PLAN EAST**

PEA JOB NO. 2022-1053 BGG DRAWING NUMBER:









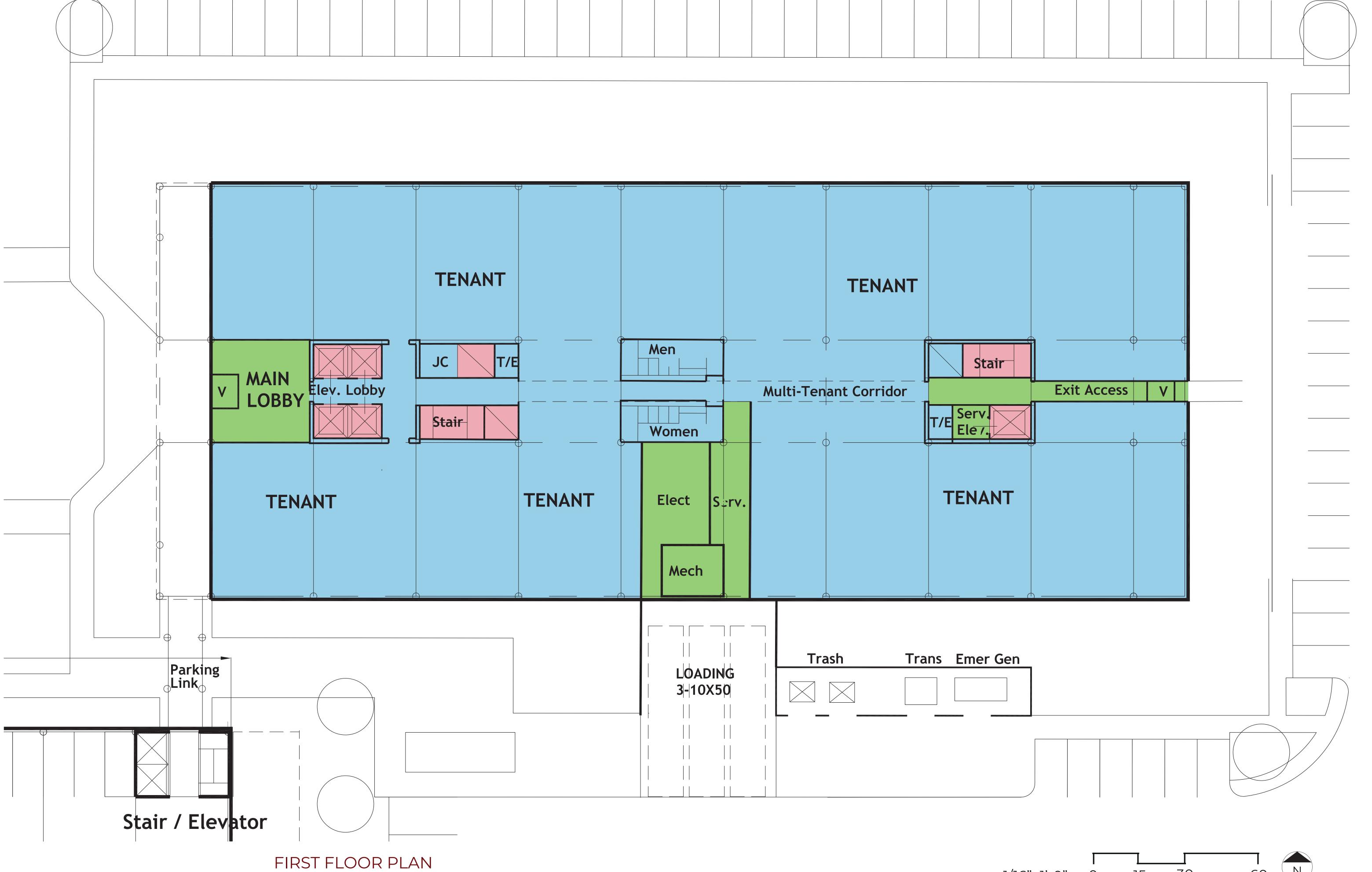


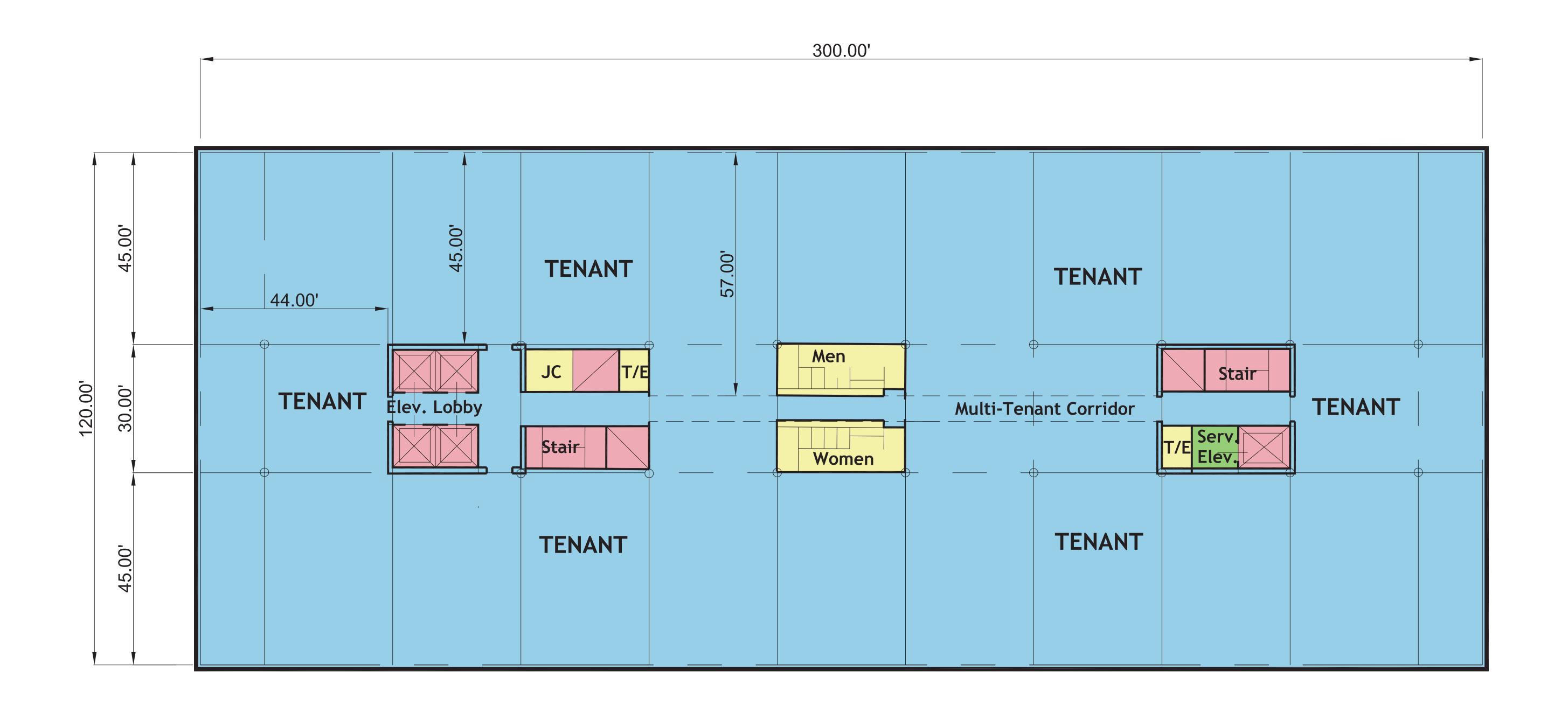




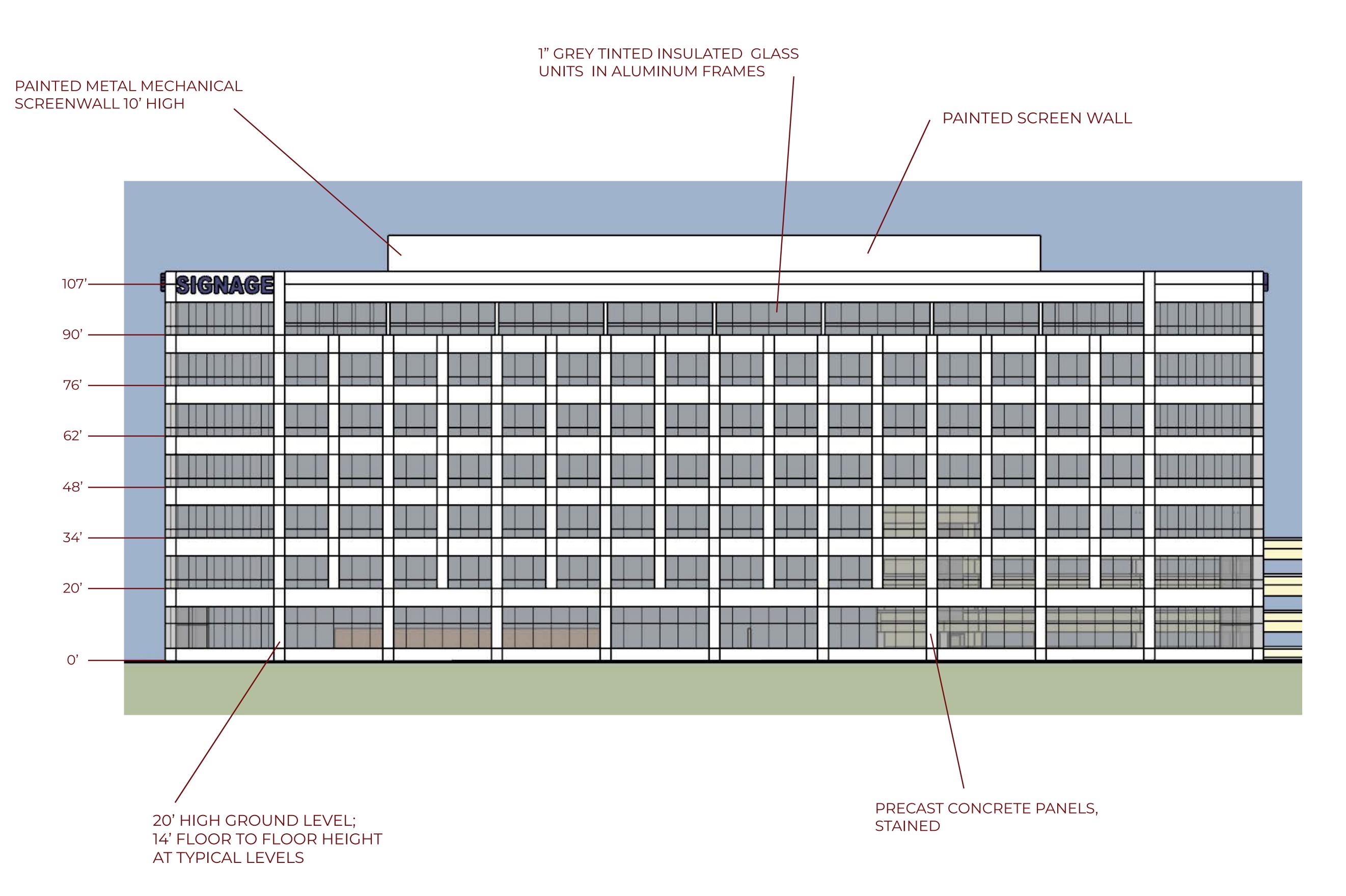
PROPOSED OFFICE BUILDING & PARKING STRUCTURE - LOOKING EAST

4









NORTH / SOUTH ELEVATION

TRANSPARENCY CALCULATION

ENTIRE FAÇADE:

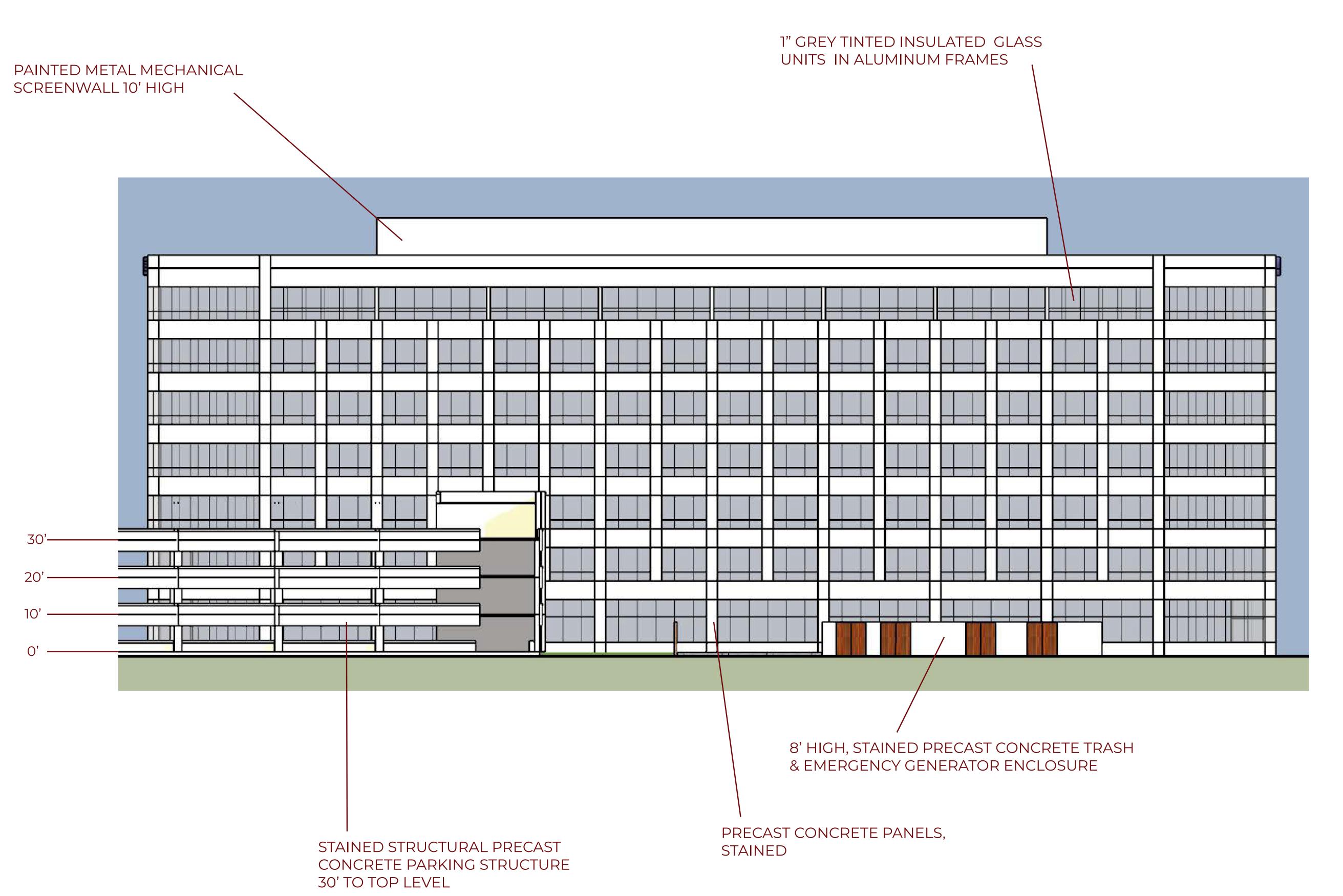
FAÇADE AREA: 32,090 SF
PRECAST CONCRETE: 14,394 SF (44.9%)
SPANDREL GLASS: 5,772 SF (18.0%)
VISION GLASS: 11,924 SF (37.7%)

GROUND LEVEL ONLY (20' FLR TO FLR)

FAÇADE AREA: 600 SF (FOR EACH TYP. BAY)

PRECAST CONCTRETE: 282 SF (47%) VISION GLASS: 318 SF (53%)





NORTH / SOUTH ELEVATION

TRANSPARENCY CALCULATION

ENTIRE FAÇADE:

 FAÇADE AREA:
 32,090 SF

 PRECAST CONCRETE:
 14,394 SF (44.9%)

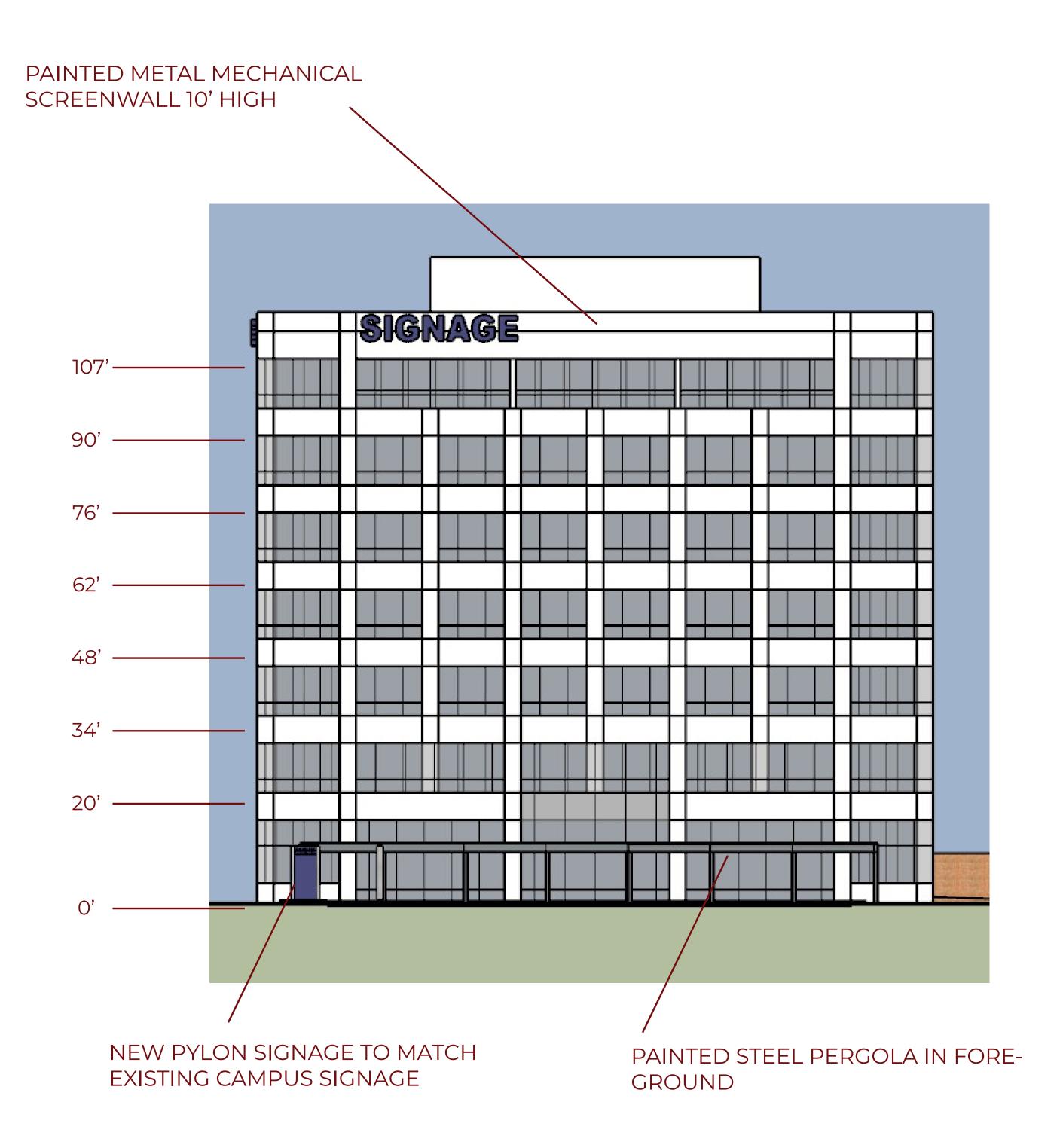
 SPANDREL GLASS:
 5,772 SF (18.0%)

 VISION GLASS:
 11,924 SF (37.7%)

GROUND LEVEL ONLY (20' FLR TO FLR)

FAÇADE AREA: 600 SF (FOR EACH TYP. BAY)
PRECAST CONCTRETE: 282 SF (47%)

PRECAST CONCTRETE: 282 SF (47%) VISION GLASS: 318 SF (53%)



EAST / WEST ELEVATION

TRANSPARENCY CALCULATION

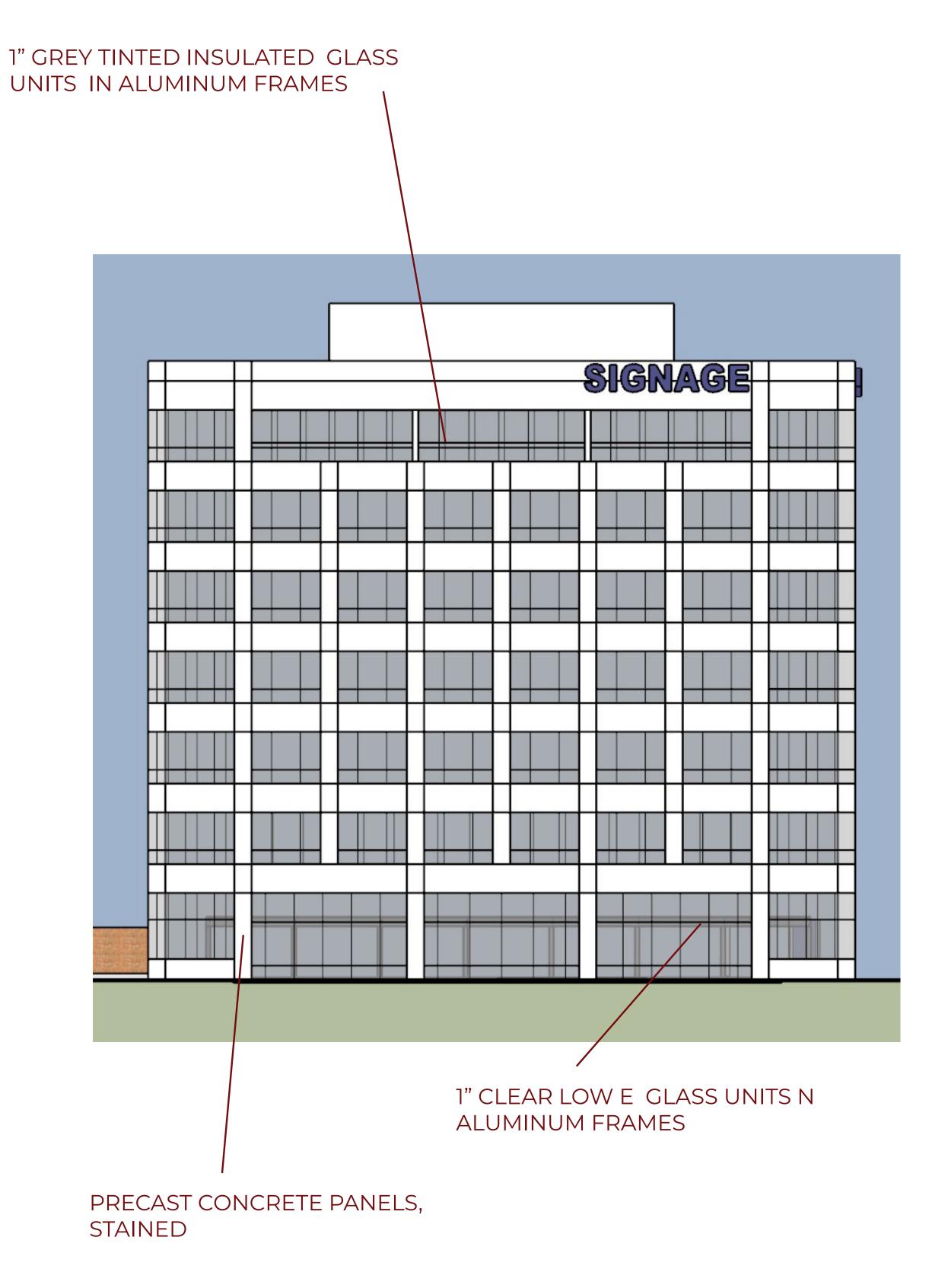
ENTIRE FAÇADE:

FAÇADE AREA: 16,045 SF
PRECAST CONCRETE: 6,868 SF (43.4%)
SPANDREL GLASS: 2,844 SF (17.7%)
VISION GLASS: 6,233 SF (38.9%)

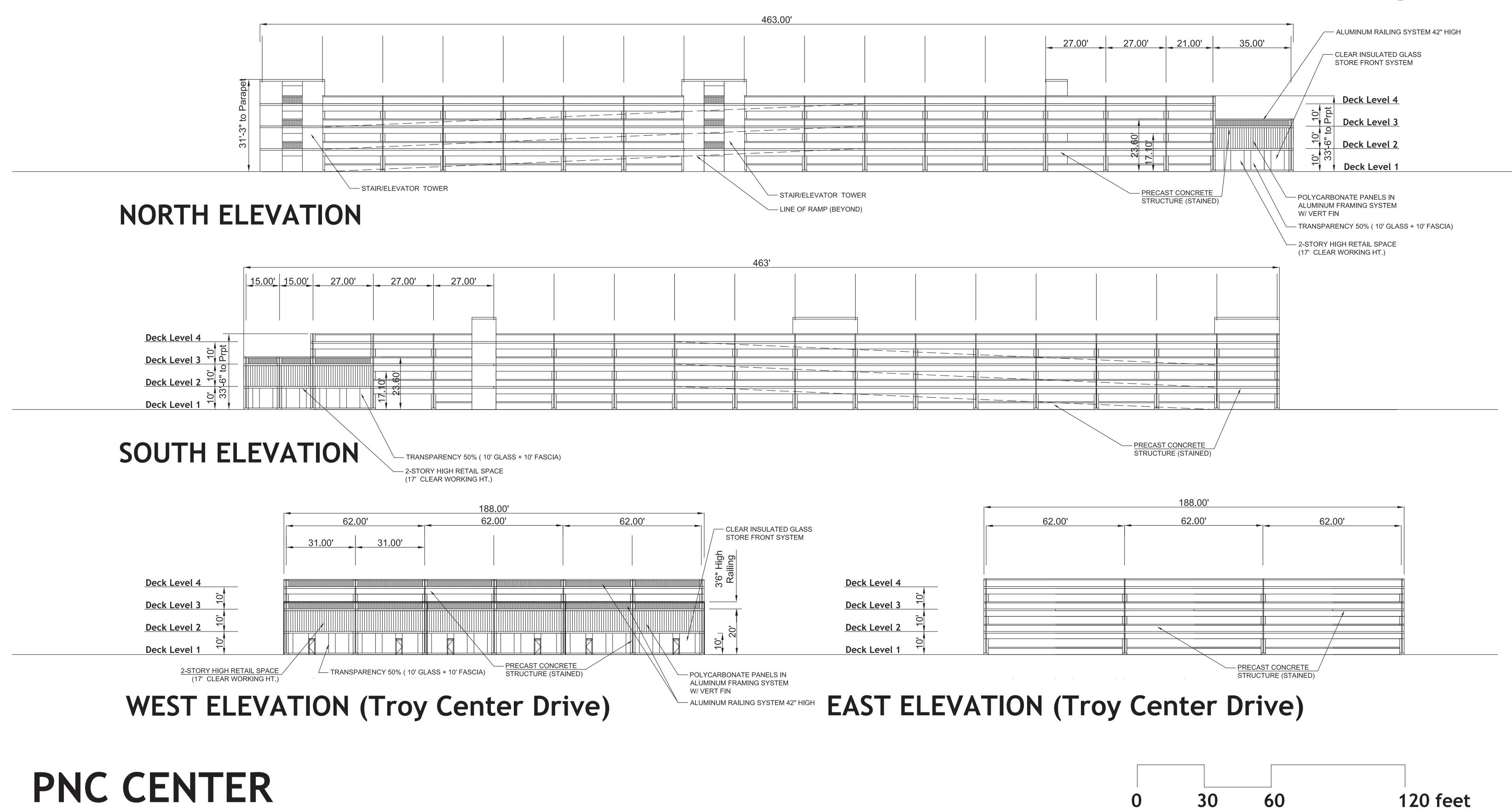
GROUND LEVEL ONLY (20' FLR TO FLR):

FAÇADE AREA: 600 SF (FOR EACH TYP. BAY)

PRECAST CONCTRETE: 282 SF (47%) VISION GLASS: 318 SF (53%)

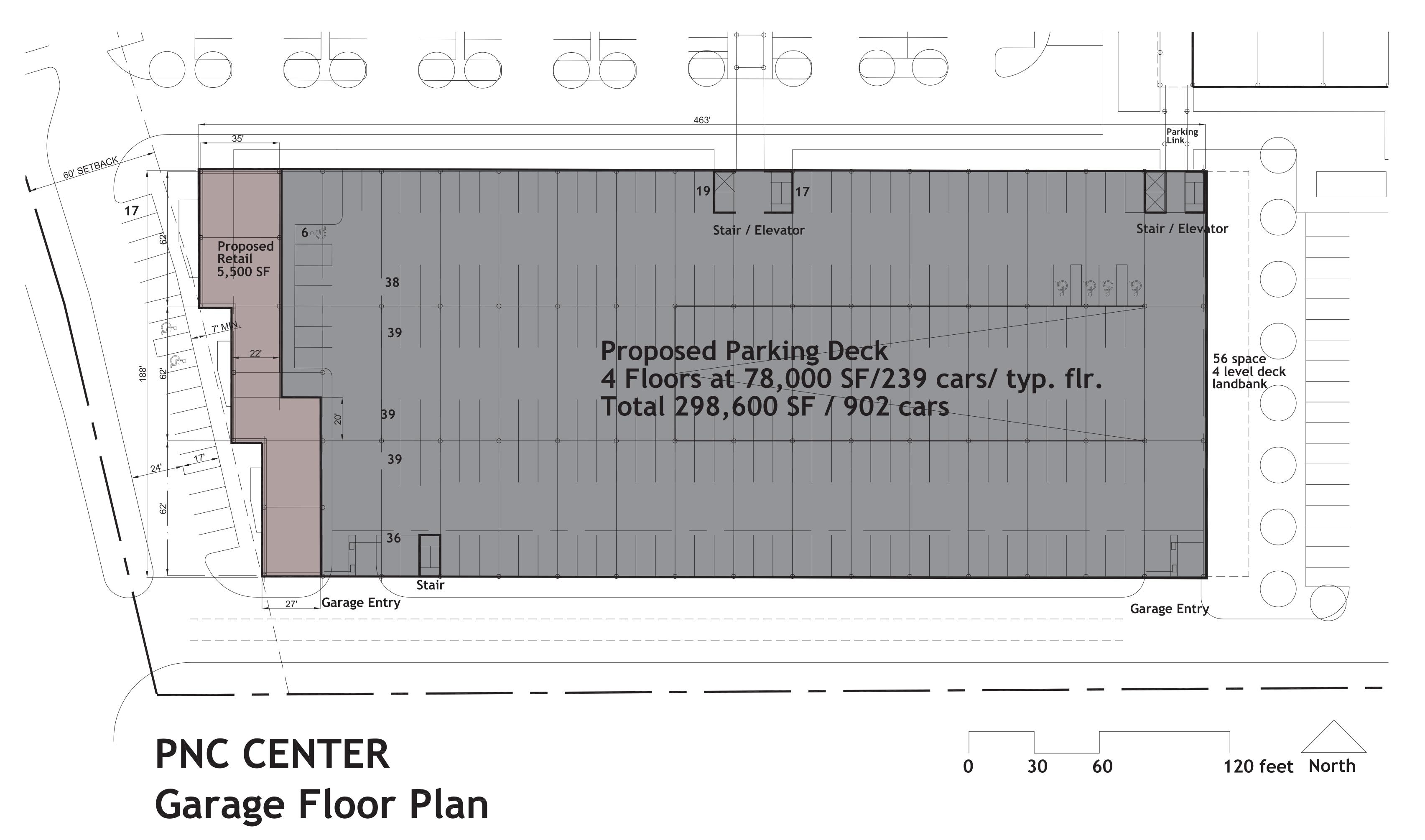






Proposed Parking Structure & Retail Elevations















MEMO

To: Robert Szantner yamasaki

From: Julie M. Kroll, PE, PTOE Fleis & VandenBrink

Date: January 31, 2023

Re: PNC Center Development Troy, Michigan Shared Parking Study

INTRODUCTION

This memorandum presents the results of a shared parking evaluation for the proposed development, located adjacent to the existing PNC Center at 755 W. Big Beaver Road in the City of Troy, Michigan. The proposed development includes construction of an office building and adjacent parking garage. A parking analysis was performed for this site to calculate the recommended parking supply to accommodate the projected parking demand with the addition of the proposed office building.

PARKING ANALYSIS

A shared parking analysis was performed for the PNC Center site in accordance with the requirements outlined in the City of Troy Zoning Ordinance Section 13.06 which states that shared parking can be considered where the applicant can demonstrate that the peak usage will occur at different periods of the day. In order to demonstrate shared parking compatibility, a shared parking analysis is required utilizing the methodologies of the Urban Land Institute Shared Parking Manual (3rd Edition), however the underlying parking space requirements for each use shall be based on the City of Troy parking requirements.

PARKING DEMAND

The first step in the parking analysis included calculating the parking requirements based upon the underlying City of Troy requirements for each of the land uses. The square footage used in the analyses is based upon those values recorded with the City of Troy assessment of the property and the projected Gross Floor Area of the proposed new office building.

Land Use	Size	Occupancy Notes
Proposed Office Building	204,000 SF GFA	100% Peak Occupancy
PNC Center-General Office	571,430 SF GFA	70% Peak Occupancy
PNC Center-Medical Office	30,075 SF GFA	70% Peak Occupancy
Drive-In Bank	3,786 SF GFA	100% Peak Occupancy
Retail	1,288 GFA	PNC Center Internal Use
Granite City Restaurant	296 Seats	100% Peak Occupancy
Friends Café	95 Seats	PNC Center Internal Use
Ruth's Chris Steak House	400 Seats	Open 4PM to 9PM Daily

The analysis was performed for this site considering three (3) scenarios:

- City Ordinance Requirements
- City Ordinance-Shared Parking 100% Occupancy for Office uses
- City Ordinance-Shared Parking Actual Occupancy for Office uses

The City Ordinance allows for the evaluation of shared parking wherein the parking demand is calculated according the ordinance rates and was distributed according to the Urban Land Institute (ULI) in Shared Parking, 3rd Edition distributions by month, day, and hour to determine the projected peak hour shared parking demand for the PNC Center. The shared parking methodology assumes that a single parking space may be utilized by two or more individual land uses without conflict based on the hourly, daily, and seasonal variations in parking demand. Shared parking as it applies to this site allows for the restaurant uses to utilize the parking spaces occupied by the PNC Center office uses during off-peak periods.

The parking demand calculations for this PUD are summarized in **Table 1** which show the Ordinance requirements and the shared parking reduction in parking demand.

TABLE 1: PARKING DEMAND SUMMARY

Land Uses	Size	City Ordinance Rates	City Ordinance Requirements	Shared Parking Peak Demand (11:00 AM)	Shared Parking w/Actual Occupancy
Proposed Office (General)	204,000 SF GFA	1 space per 300 SF GFA	680	646	680
PNC Office (General)	571,430 SF GFA	1 space per 300 SF GFA	1,905	1,819	1,334
PNC Office (Medical/Dental)	30,075 SF GFA	1 space per 200 SF GFA	150	149	104
Bank	3,786 SF GFA	1 space per 200 SF GFA	19	9	9
Retail	1,288 SF GFA	1 space per 250 SF GFA	5	0	0
Granite City Restaurant	296 Seats	1 space per 2 seats	148	11	11
Friends Café	95 Seats	1 space per 2 seats	48	0	0
Ruth's Chris Steak House	400 Seats	1 space per 2 seats	200	0	0
Total Parking (spaces)			3,155	2,845	2,138
Pro	2,185	2,185	2,185		
	-970	-569	47		

The results of the analysis show that based upon the actual occupancy of the PNC Tower at 70%, the projected peak hour (11:00AM) parking demand for this site can be accommodated within the proposed parking supply for this site. The hourly variations in the peak parking demand are shown in **Exhibit 1**.



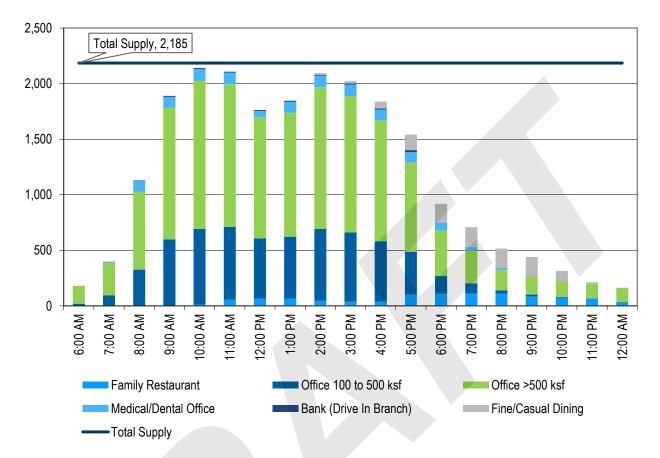


EXHIBIT 1: WEEKDAY PARKING DEMAND BY HOUR

CONCLUSIONS

 The results of the analysis show that the projected parking demand for this site can be accommodated with the parking as proposed.

Any questions related to this memorandum, study, analyses, and results should be addressed to Fleis & VandenBrink.

Attached: Shared Parking Analysis

