AUBURN HILLS

AUBURN HILLS MEETING SCHEDULE

248-370-9402 | WWW.AUBURNHILLS.ORG

APRIL 2026

DAY	TITLE	TIME	LOCATION
6	City Council Workshop	5:30 PM	Administrative Conference Room 1827 N. Squirrel Road
6	City Council Meeting	7:00 PM	Council Chamber 1827 N. Squirrel Road
8	Planning Commission	6:00 PM	Council Chamber 1827 N. Squirrel Road
~~9~~	~~Zoning Board of Appeals~~	~~6:30 PM~~	**CANCELLED**
13	Library Board	7:00 PM	Auburn Hills Public Library 3400 Seyburn Drive
~~14~~	~~Tax Increment Finance Authority~~	~~5:30 PM~~	**CANCELLED** Lack of quorum
20	City Council Meeting	7:00 PM	Council Chamber 1827 N. Squirrel Road
21	Brownfield Redevelopment Authority	6:00 PM	Administrative Conference Room 1827 N. Squirrel Road
21	Tax Increment Finance Authority	5:30 PM	Council Conference Room 1827 N. Squirrel Road

NOTE: Anyone planning to attend the meeting who has need of special assistance under the Americans with Disabilities Act (ADA) is asked to contact the City Clerk's Office at 248.370.9402 48 hours prior to the meeting. Staff will be pleased to make the necessary arrangements. PLEASE BE ADVISED, DUE TO A LACK OF AGENDA ITEMS, SOME MEETINGS MAY BE CANCELED.

AUBURN HILLS

AUBURN HILLS MEETING SCHEDULE

248-370-9402 | WWW.AUBURNHILLS.ORG

MAY 2026

DAY	TITLE	TIME	LOCATION
1-3	Early Voting	8:30 AM – 4:30 PM	Public Safety Building 1899 N. Squirrel Road
4	City Council Workshop	5:30 PM	Administrative Conference Room 1827 N. Squirrel Road
4	City Council Meeting	7:00 PM	Council Chamber 1827 N. Squirrel Road
5	Election Day	7:00 AM – 8:00 PM	Precincts 5, 6, 7 (Avondale School District Voters Only)
6	Planning Commission	6:00 PM	Council Chamber 1827 N. Squirrel Road
11	Downtown Development Authority	5:30 PM	Administrative Conference Room 1827 N. Squirrel Road
11	Library Board	7:00 PM	Auburn Hills Public Library 3400 Seyburn Drive
12	Tax Increment Finance Authority	5:30 PM	Administrative Conference Room 1827 N. Squirrel Road
14	Zoning Board of Appeals	6:30 PM	Council Chamber 1827 N. Squirrel Road
18	City Council Meeting	7:00 PM	Council Chamber 1827 N. Squirrel Road
19	Brownfield Redevelopment Authority	6:00 PM	Administrative Conference Room 1827 N. Squirrel Road
26	Public Safety Advisory Committee	5:00 PM	Public Safety Building 1899 N. Squirrel Road

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CITY OF AUBURN HILLS
MONDAY, APRIL 20, 2026
Regular City Council Meeting ♦ 7:00 PM

Council Chamber, 1827 N. Squirrel Road, Auburn Hills MI

248-370-9402 ♦ www.auburnhills.org

1. MEETING CALLED TO ORDER

2. PLEDGE OF ALLEGIANCE

3. ROLL CALL OF COUNCIL

4. APPROVAL OF MINUTES

4a. City Council Workshop Minutes, April 6, 2026

4b. City Council Regular Meeting Minutes, April 6, 2026

5. APPOINTMENTS AND PRESENTATIONS

6. PUBLIC COMMENT

7. CONSENT AGENDA

All items listed are considered to be routine by the City Council and will be enacted by one motion. There will be no separate discussion of these items unless a Council Member so requests, in which event the item will be removed from the Consent Agenda and considered in its normal sequence on the agenda.

7a. Board and Commission Minutes

7a1. Planning Commission, April 8, 2026

7b. Motion – To approve the Large Format Temporary Wall Mural Agreement between the City of Auburn Hills and FCA US, LLC.

7c. Motion – To award the purchase of 24 Lynx Smart Satellite Stations and Components at Fieldstone Golf Club to Spartan Turf Products.

7d. Motion – To award the 2026 Installation of the Lynx Smart Satellite Upgrade at Fieldstone Golf Club to Fuse It Piping, LLC.

7e. Motion – To award the Fieldstone Golf Club Pump Replacement.

8. UNFINISHED BUSINESS

9. NEW BUSINESS

9a. Motion – To approve Rezoning from R-4, One-Family Residential District to D, Downtown District / 3077 Auburn Road.

9b. Motion – To approve combined PUD Step One – Qualification / Step Two – Site Plan / River Bend Townhomes.

9c. Motion – To approve Special Land Use Permit, Site Plan, and Tree Removal Permit / OCC CREST Center Building Addition and Renovations.

9d. Motion – To approve Site Plan and Tree Removal Permit / FANUC Service First Academy - Parking Lot Expansion.

9e. Motion – To approve combined PUD Step One – Qualification / Step Two – Site Plan and Tree Removal Permit / Lear Corporation.

9f. Motion - To Approve the Resolution of Support for Transportation Economic Development Fund (TEDF) Category-A Funding for Giddings/Taylor Road Improvements, along with the associated Reimbursement Agreement with Lear Corporation.

9g. Motion – To approve the Scope of Engineering Services for the design of the Giddings/Taylor Intersection Improvements.

City Council meeting minutes are on file in the City Clerk's Office. NOTE: Anyone planning to attend the meeting who has need of special assistance under the Americans with Disabilities Act (ADA) is asked to contact the City Clerk's Office at 248.370.9402 or the City Manager's Office at 248.370.9440 48 hours prior to the meeting. Staff will be pleased to make the necessary arrangements.

9h. Motion – To approve combined PUD Step One – Qualification / Step Two – Site Plan and Tree Removal Permit / Sheetz Auburn Hills.

9i. Motion – To award the Auburn Hills Riverwalk Pathway Construction to Artisan Contracting of Michigan, LLC, Construction Engineering Services to OHM Advisors and Material Testing to G2 Consulting.

10. COMMENTS AND MOTIONS FROM COUNCIL

11. CITY ATTORNEY REPORT

12. CITY MANAGER REPORT

13. ADJOURNMENT

City Council meeting minutes are on file in the City Clerk's Office. NOTE: Anyone planning to attend the meeting who has need of special assistance under the Americans with Disabilities Act (ADA) is asked to contact the City Clerk's Office at 248.370.9402 or the City Manager's Office at 248.370.9440 48 hours prior to the meeting. Staff will be pleased to make the necessary arrangements.

CITY OF AUBURN HILLS

CITY COUNCIL WORKSHOP

DRAFT MINUTES

MARCH 2, 2026

CALL TO ORDER & PLEDGE OF ALLEGIANCE: Mayor Hawkins at 5:30 PM

LOCATION: Admin Conference Room, City Hall, 1827 N. Squirrel Rd, Auburn Hills, MI 48326

Present: Council Members Ferguson, Fletcher, Hawkins, Knight, Marzolf, Moniz, and Verbeke

Absent: None

Also Present: City Manager Tanghe, Asst City Manager Skopek, City Attorney Kelly, City Clerk Pierce, Chief of Police Gagnon, Fire Chief Robinson, Director of Community Development, Economic Development Mgr Carroll, Mgr of Fleet & Roads Hefner, Asst to the Manager Hagge

0 Guests

Workshop Topic: Business Improvement District (BID) and Future of DDA Funding

Mr. Tanghe introduced the topic, noting that the discussion will focus on the methods to maintain and promote the downtown as the Downtown Development Authority (DDA) and Tax Increment Finance Authority (TIFA) funding sources approach expiration.

Mr. Skopek explained that the DDA will sunset on December 31, 2029 and TIFA will sunset on December 31, 2031. There will be no dedicated funding source for the downtown once those expire and the City must continue to invest in the downtown. He explained that the DDA is the marketing and promotions arm of the downtown. He reviewed the budget and the capital improvement projects coming out of the DDA budget, relieving the general fund of having to fund those projects.

Mr. Skopek explained that establishing a BID would promote economic development within a defined area by allowing for the collection of revenues through a special assessment and bonds, which would be used for the maintenance, security and operation of the district. He noted that a BID would be established City Council resolution and governed by a Board of Directors. He reviewed the proposed boundary map.

Mr. Skopek explained the estimated revenue from a special assessment would be $190,000 annually based on $0.20/square foot for commercial properties, with a $20,000 annual cap for large commercial

buildings and $0.05/square foot for single-family residential properties. A BID is required to be reviewed every five years, but could be reviewed more frequently such as every three years. Concern was expressed with the impact on the property owners with a new assessment.

Mr. Skopek noted that there are two potential funding options: 1) to approach Oakland County about the DDA renewal; 2) to implement a DDA millage in the future, up to two mills may be levied, which is approved by Council. He noted that a millage is not recommended at this time.

Mr. Skopek noted the importance of ongoing public investment. Even with a special assessment revenue and DDA renewal, it would not cover capital expenses and there would be some impact on the general fund.

Mr. Skopek recommended that staff finalize details for the creation of a Business Improvement District which include finalizing the boundary, finalizing the square footage calculations for special assessment, creating a Business Improvement District Board, having the Board adopt a Business Improvement District Development Plan and approaching Oakland County about a DDA renewal.

Discussion ensued regarding capital improvement projects and the BID boundaries. It was noted that the entire financial burden will not be taken on fully by the property owners. The City would still be subsidizing. It was also noted that the BID special assessment would be separate from the DDA renewal.

It was the consensus of Council to move forward with the recommendation as presented.

The meeting adjourned at 6:53 PM.

Eugene Hawkins III, Mayor

Laura M. Pierce, City Clerk

CITY OF AUBURN HILLS
CITY COUNCIL AGENDA

MEETING DATE: APRIL 20, 2026 **AGENDA ITEM NO 4B**

CITY COUNCIL

CITY OF AUBURN HILLS

REGULAR CITY COUNCIL MEETING

DRAFT MEETING

APRIL 6, 2026

CALL TO ORDER & PLEDGE OF ALLEGIANCE: Mayor Hawkins at 7:00 PM.

LOCATION: Council Chamber, 1827 N. Squirrel Road, Auburn Hills MI

ROLL CALL: Present: Council Members Ferguson, Fletcher, Hawkins, Knight, Marzolf, Moniz, and Verbeke

Absent: None

Also Present: City Manager Tanghe, Asst City Manager Skopek, City Attorney Kelly, City Clerk Pierce, Chief of Police Gagnon, Deputy Chief of Police McGraw, Fire Chief Robinson, Mgr of Fleet & Roads Hefner, Finance Director/Treasurer Schulz, Asst to the City Manager Hagge, Engineer Driesenga

33 Guests

A workshop session was held prior to the regular City Council meeting at 5:30 PM. Workshop Topic: Business Improvement District (BID) and Future of DDA Funding.

4. APPROVAL OF MINUTES

4a. City Council Regular Meeting Minutes, March 16, 2026

Moved by Knight, Seconded by Moniz.

RESOLVED: To approve the City Council Regular Meeting Minutes of March 16, 2026.

VOTE: Yes: Ferguson, Fletcher, Hawkins, Knight, Marzolf, Moniz, Verbeke

No: None

Resolution No. 26.04.052 **Motion Carried (7 - 0)**

5. APPOINTMENTS AND PRESENTATIONS

5a. Promotion of Brad Brasil to Lieutenant

5b. Promotion of Cameron McDonnell to Sergeant

Chief Gagnon recognized the promotion of Lieutenant Brad Brasil and Sergeant Cameron McDonnell. The City Clerk administered the Oath.

6. PUBLIC COMMENT

Mr. Mike Green of Auburn Hills American Legion Post #143, shared information on the upcoming Memorial Day Parade.

Mr. Larry Marcinkowski of Auburn Hills shared his concerns regarding the potential millage increase.

7. CONSENT AGENDA

7a. Board and Commission Minutes

7a1. Tax Increment Finance Authority, February 10, 2026
7a2. Tax Increment Finance Authority, March 10, 2026
7a3. Election Commission, March 10, 2026
7a4. Brownfield Redevelopment Authority, March 17, 2026
7a5. Downtown Development Authority, March 23, 2026
7a6. Election Commission, March 31, 2026

RESOLVED: To receive and file the Board and Commission Minutes.

7b. Motion – To receive and file the encumbrance 2026 budget amendment increasing the 2026 budget for encumbered goods or service not yet received as of 12/31/2025.

RESOLVED: To receive and file the encumbrance 2026 budget amendment increasing the 2026 budget for encumbered goods or services not yet received as of 12/31/2025 as shown attached. (Attachment A)

7c. Motion – To correct and approve MDOT Public Act 51 Updates.

RESOLVED: To approve the corrected resolution 26-01 through resolution 26-02 to reflect changes to Amberwood and Churchill to the MDOT ACT 51 Map. (Attachment B & C)

7d. Motion – To approve the purchase of two Stellantis Vehicle Replacements.

RESOLVED: To approve the purchase of the two (2) vehicles listed above for $93,812.00 from LaFontaine Chrysler Dodge Jeep Ram FIAT of Lansing, MI under the MiDEAL contract. (Attachment D)

7e. Motion – To approve the 2026 Summer Maintenance Agreement with the Road Commission for Oakland County (Street Sweeping).

RESOLVED: To authorize the City Manager, as Street Administrator, to accept on behalf of the City of Auburn Hills, the 2026 RCOC Summer Maintenance Agreement to provide street sweeping services on Walton Boulevard, Baldwin Road, Joslyn Road, and parts of Brown Road for an annual compensation of $8,367.98 payable by RCOC to the City of Auburn Hills.

Moved by Verbeke, Seconded by Fletcher.

RESOLVED: To approve the Consent Agenda.

VOTE: Yes: Ferguson, Fletcher, Hawkins, Knight, Marzolf, Moniz, Verbeke
No: None

Resolution No. 26.04.053 **Motion Carried (7 - 0)**

8. UNFINISHED BUSINESS

9. NEW BUSINESS

10. COMMENTS AND MOTIONS FROM COUNCIL

Mr. Knight complimented DPW for their concern that is shown to residents with regards to water bills.

Dr. Fletcher thanked Attorney Kelly for the recent training on Parliamentary Procedures. She also thanked those that made the Bunny Bash event successful.

Mr. Ferguson is thankful for the improved efforts on the University Drive repairs. He also commented that he is thankful for the Clinton River Watershed Council and the forthcoming upgrades within Auburn Hills.

Mr. Marzolf congratulated the two officers on being promoted. He also thanked Mr. Skopek for the informative workshop.

Mr. Hawkins also congratulated those that were promoted this evening and their service to the community.

11. CITY ATTORNEY REPORT

12. CITY MANAGER REPORT

13. ADJOURNMENT

Moved by Marzolf, Seconded by Verbeke.

RESOLVED: To adjourn the meeting.

VOTE: Yes: Ferguson, Fletcher, Hawkins, Knight, Marzolf, Moniz, Verbeke

No: None

Resolution No. 26.04.054 **Motion Carried (7 - 0)**

The meeting adjourned at 7:32 PM.

Eugene Hawkins III, Mayor

Laura M. Pierce, City Clerk

ATTACHMENT A

PURCHASE ORDERS CARRYFORWARD FROM FISCAL YEAR 2025 TO FISCAL YEAR 2026 WITH BUDGET AMENDMENT

(Funds budgeted and available in 2025 not used due to timing of project or receipt of goods)

GL Number	GL Description	DR Amount	CR Amount	BSA System Description	PO/Vendor
FLEET FUND					
661-594-981.000	VEHICLES		$ 165,015.00	Upfit of 2026 Freightliner SD108PLU	PO: 248337, TRUCK & TRAILER SPECIALTIES
661-594-981.000	VEHICLES		66,330.00	2025 Jeep Wagoneer SSV	PO: 259010, LAFONTAINE CHRYSLER DODGE JEEP
661-594-981.000	VEHICLES		72,360.00	2 Truck Upfits	PO: 259049, TRUCK & TRAILER SPECIALTIES
661-594-981.000	VEHICLES		382,760.00	2026 Wheeled Coach Ambulance	PO: 259101, EMERGENCY VEHICLES PLUS
661-594-981.000	VEHICLES		3,375.00	Graphics for 2026 Wheeled Coach Amb	PO: 259102, MAJIK GRAPHICS, INC
661-594-787.000	PARTS/SUPPLIES		2,027.37	weekly parts 12/19/2025	PO: 269603, AUTO VALUE ROCHESTER
661-594-934.000	SOFTWARE & EQUIPMT. MAINTENANC		1,477.29	Dec 2025 GPS Trackers	PO: 269624, VERIZON CONNECT FLEET USA
661-000-390.000	FUND BALANCE/NET POSITION	$ 693,344.66			
	TOTAL AMENDMENT	***$ 693,344.66***	***$ 693,344.66***		
MAJOR ROADS FUND					
202-452-973.000-TIENKENROADX	ROAD & TRAFFIC IMPROVEMENTS		$ 154,954.06	Tienken Road Asphalt Program	PO: 259121, ASPHALT SPECIALISTS, INC
202-452-973.000-TIENKENROADX	ROAD & TRAFFIC IMPROVEMENTS		21,924.50	Tienken Road Asphalt Program	PO: 259122, ORCHARD, HILTZ, & MCCLIMENT,
202-452-973.005-TIENKENROADX	NON MOTORIZED PATHWAYS		4,795.00	Tienken Road Pathways	PO: 259122, ORCHARD, HILTZ, & MCCLIMENT,
202-452-973.005-BRWNROADPATH	NON MOTORIZED PATHWAYS		67,298.40	2025 Brown Road Pathway Connections	PO: 269659, ORION TOWNSHIP
202-452-973.020	TRAFFIC SIGNAL		7,500.00	Squirrel/Shimmons Traffic Signal	PO: 259476, G2 CONSULTING GROUP, LLC
202-452-973.020	TRAFFIC SIGNAL		45,115.75	Squirrel/Shimmons Traffic Signal	PO: 259477, ORCHARD, HILTZ, & MCCLIMENT,
202-452-973.020	TRAFFIC SIGNAL		326,878.32	Squirrel/Shimmons Traffic Signal	PO: 259515, RAUHORN ELECTRIC INC.
202-000-390.000	FUND BALANCE	$ 628,466.03			
	TOTAL AMENDMENT	***$ 628,466.03***	***$ 628,466.03***		
LOCAL ROADS FUND					
203-453-937.003	SIDEWALK MAINTENANCE		$ 591,632.14	2025 Concrete Maintenance Program	PO: 259124, OCG COMPANIES LLC
203-453-937.003	SIDEWALK MAINTENANCE		43,746.75	2026 Concrete Maintenance Program	PO: 259125, ORCHARD, HILTZ, & MCCLIMENT,
203-453-937.003	SIDEWALK MAINTENANCE		12,700.00	2027 Concrete Maintenance Program	PO: 259126, G2 CONSULTING GROUP, LLC
203-453-935.000	ROAD MAINTENANCE		11,138.91	2026 Concrete Maintenance Program	PO: 259124, OCG COMPANIES LLC
203-453-935.000	ROAD MAINTENANCE		2,800.00	2027 Concrete Maintenance Program	PO: 259125, ORCHARD, HILTZ, & MCCLIMENT,
203-453-935.000	ROAD MAINTENANCE		490.00	2028 Concrete Maintenance Program	PO: 259126, G2 CONSULTING GROUP, LLC
203-453-973.000-EXECUTIVESAD	ROAD & TRAFFIC IMPROVEMENTS		714,574.79	Executive Road	PO: 258895, FEDERAL PAVING INC.
203-453-973.000-EXECUTIVESAD	ROAD & TRAFFIC IMPROVEMENTS		65,316.00	Executive Road	PO: 258896, ORCHARD, HILTZ, & MCCLIMENT,
203-453-973.000-EXECUTIVESAD	ROAD & TRAFFIC IMPROVEMENTS		21,310.87	Executive Road	PO: 258897, G2 CONSULTING GROUP, LLC
203-453-973.000-BUTLERROADXX	ROAD & TRAFFIC IMPROVEMENTS		17,325.12	Butler Road	PO: 259020, G2 CONSULTING GROUP, LLC
203-453-973.000-BUTLERROADXX	ROAD & TRAFFIC IMPROVEMENTS		12,093.00	Butler Road	PO: 259021, ORCHARD, HILTZ, & MCCLIMENT,
203-453-973.000-BUTLERROADXX	ROAD & TRAFFIC IMPROVEMENTS		105,132.59	Butler Road	PO: 259022, MAIN STREET CONTRACTING INC
203-453-973.000-SHIMMONSCIRC	ROAD & TRAFFIC IMPROVEMENTS		183,777.87	Shimmons Circle Asphalt Program	PO: 259121, ASPHALT SPECIALISTS, INC
203-453-973.000-SHIMMONSCIRC	ROAD & TRAFFIC IMPROVEMENTS		17,175.75	Shimmons Circle Asphalt Program	PO: 259122, ORCHARD, HILTZ, & MCCLIMENT,
203-453-973.000-SHIMMONSCIRC	ROAD & TRAFFIC IMPROVEMENTS		11,377.62	Shimmons Circle Asphalt Program	PO: 259123, G2 CONSULTING GROUP, LLC
203-453-973.002-EXECUTIVESAD	PARKING LOT IMPROVEMENTS		109,669.81	Executive Road Parking Lot Improvements	PO: 258895, FEDERAL PAVING INC.
203-453-973.002-EXECUTIVESAD	PARKING LOT IMPROVEMENTS		33,471.75	Executive Road Parking Lot Improvements	PO: 258896, ORCHARD, HILTZ, & MCCLIMENT,
203-453-973.002-EXECUTIVESAD	PARKING LOT IMPROVEMENTS		5,833.37	Executive Road Parking Lot Improvements	PO: 258897, G2 CONSULTING GROUP, LLC
203-000-390.000	FUND BALANCE	$ 1,959,566.34			
	TOTAL AMENDMENT	***$ 1,959,566.34***	***$ 1,959,566.34***		

PURCHASE ORDERS CARRYFORWARD FROM FISCAL YEAR 2025 TO FISCAL YEAR 2026 WITH BUDGET AMENDMENT

(Funds budgeted and available in 2025 not used due to timing of project or receipt of goods)

GL Number	GL Description	DR Amount	CR Amount	BSA System Description	PO/Vendor
WATER/SEWER FUND					
592-536-971.002-SOUTHBLVDWM	WATER/SEWER SYSTEM IMP & EXT		$ 150,000.00	South BLVD WM Replacement	PO: 269823, DVM UTILITIES INC.
592-536-971.002-SOUTHBLVDWM	WATER/SEWER SYSTEM IMP & EXT		6,144.98	South BLVD WM Construction Services	PO: 248440, ORCHARD, HILTZ, & MCCLIMENT,
592-535-971.000-BIRCHFIELDPH	W&S-SEWER REPAIR & REPLACEMENT		71,658.00	Birchfield-Patrick Henry Project Wa	PO: 259472, ORCHARD, HILTZ, & MCCLIMENT,
592-536-971.002-BIRCHFIELDPH	WATER/SEWER SYSTEM IMP & EXT		81,241.00	Birchfield-Patrick Henry Project Wa	PO: 259472, ORCHARD, HILTZ, & MCCLIMENT,
592-535-971.000-BIRCHFIELDPH	W&S-SEWER REPAIR & REPLACEMENT		882,480.00	Birchfield-Patrick Henry Water and	PO: 259474, PAMAR ENTERPRISES INC
592-536-971.002-BIRCHFIELDPH	WATER/SEWER SYSTEM IMP & EXT		1,024,365.00	Birchfield-Patrick Henry Water and	PO: 259474, PAMAR ENTERPRISES INC
592-535-971.000-BIRCHFIELDPH	W&S-SEWER REPAIR & REPLACEMENT		16,000.00	Birchfield - Patrick Henry Project	PO: 259473, G2 CONSULTING GROUP, LLC
592-536-971.002-BIRCHFIELDPH	WATER/SEWER SYSTEM IMP & EXT		18,000.00	Birchfield - Patrick Henry Project	PO: 259473, G2 CONSULTING GROUP, LLC
592-535-971.000	W&S-SEWER REPAIR & REPLACEMENT		156,803.40	2 Lift Station Generator Installati	PO: 259411, DES ELECTRIC LLC
592-000-390.000	NET POSITION	$ 2,406,692.38			
	TOTAL AMENDMENT	***$ 2,406,692.38***	***$ 2,406,692.38***		
FIELDSTONE GOLF FUND					
584-753-972.000	LAND AND IMPROVEMENTS		$ 9,835.00	Sod Repairs - Asphalt Pathways	PO: 259514, WORRY FREE LAWN CARE & SNOW
584-000-390.000	NET POSITION	$ 9,835.00			
	TOTAL AMENDMENT	***$ 9,835.00***	***$ 9,835.00***		
GENERAL FUND BY DEPARTMENT					
FIRE ADMINISTRATION					
101-336-975.000-FIRE2_1899__	BLDG. ADDITIONS & IMPROVEMENTS		$ 928,868.18	Station 2 Modernization	PO: 258592, SHAW CONSTRUCTION & MANAGEME
101-336-975.000-FIREST3_3253	BLDG. ADDITIONS & IMPROVEMENTS		537,885.35	Station 3 Modernization	PO: 258593, SHAW CONSTRUCTION & MANAGEME
101-336-975.000-FIREST1_3483	BLDG. ADDITIONS & IMPROVEMENTS		268,675.30	Stations 1 Modernization	PO: 258594, SHAW CONSTRUCTION & MANAGEME
101-336-975.000-FIREST3_3253	BLDG. ADDITIONS & IMPROVEMENTS		4,746.50	Fire 3 - Renovation Access Controls	PO: 259238, DETECTION SYSTEMS AND ENGINE
101-336-975.000-FIREST1_3483	BLDG. ADDITIONS & IMPROVEMENTS		3,344.00	Fire 1 - Renovation Access Control	PO: 259239, DETECTION SYSTEMS AND ENGINE
	TOTAL FIRE ADMINISTRATION AMENDMENT		**$ 1,743,519.33**		
FACILITIES					
101-265-931.100	STREET LIGHTING REPAIR		$ 8,780.22	Accident - Baldwin Road Pole Replac	PO: 258746, GREAT LAKES ELECTRIC SUPPLY
101-265-931.100	STREET LIGHTING REPAIR		1,100.16	Street Lighting	PO: 259322, GREAT LAKES ELECTRIC SUPPLY
101-265-931.100	STREET LIGHTING REPAIR		6,511.75	Street Light Repairs City Wide	PO: 259374, GREAT LAKES ELECTRIC SUPPLY
101-265-931.100	STREET LIGHTING REPAIR		7,412.85	Street Light Replacements	PO: 259375, GREAT LAKES ELECTRIC SUPPLY
101-265-931.000-ADMBLDG_1827	BLDG. MAINTENANCE		5,120.00	Community Devel. Door/Window Replac	PO: 259507, MGSE SECURITY LLC
101-265-933.000	EQUIPMENT MAINTENANCE		1,864.04	Generator Maintenance - City Wide	PO: 259513, PREVENTIVE MAINTENANCE TECHN
101-265-931.000-DPWBLDG_1500	BLDG. MAINTENANCE		9,000.50	DPW Wash Bay Pressure Washer replac	PO: 259523, PREVENTIVE MAINTENANCE TECHN
101-265-931.100	STREET LIGHTING REPAIR		1,964.91	Street Light Replacements - High Me	PO: 259567, GREAT LAKES ELECTRIC SUPPLY
101-265-931.100	STREET LIGHTING REPAIR		6,254.95	Baldwin Road - Light Pole Galvanize	PO: 259569, GREAT LAKES ELECTRIC SUPPLY
	TOTAL FACILITIES AMENDMENT		**$ 48,009.38**		
PARKS					
101-770-973.005-RIVERWALKPRJ	NON MOTORIZED PATHWAYS		**$ 8,020.00**	Riverwalk - Engineering Services	PO: 258782, ORCHARD, HILTZ, & MCCLIMENT,
	PARKS AMENDMENT		**$ 8,020.00**		
101-000-390.000	GENERAL FUND-FUND BALANCE	$ 1,799,548.71			
	TOTAL GENERAL FUND BY DEPARTMENT	**$ 1,799,548.71**	**$ 1,799,548.71**		

PURCHASE ORDERS CARRYFORWARD FROM FISCAL YEAR 2025 TO FISCAL YEAR 2026 WITH BUDGET AMENDMENT

(Funds budgeted and available in 2025 not used due to timing of project or receipt of goods)

GL Number	GL Description	DR Amount	CR Amount	BSA System Description	PO/Vendor
TIFA A FUND					
251-735-967.100	SITE IMPROVEMENT GRANTS		100,000.00	TIFA BUSINESS RECRUITMENT GRANT - 3	PO: 259023, TALMERS AUBURN LLC
251-000-390.000	NET POSITION	$ 100,000.00			
	TOTAL TIFA A FUND	**$ 100,000.00**	**$ 100,000.00**		
TIFA B FUND					
252-736-967.100	SITE IMPROVEMENT GRANTS		246,500.00	TIFA DEVELOPMENT INCENTIVE GRANT -	PO: 258730, GREYSTONE PICKLEBALL CLUB
252-736-972.000-EXECUTIVESAD	LAND AND IMPROVEMENTS		154,019.22	2025-26 TIFA B Road Improvements	PO: 258895, FEDERAL PAVING INC.
252-000-390.000	NET POSITION	$ 400,519.22			
	TOTAL TIFA B FUND	**400,519.22**	**$ 400,519.22**		
TIFA D FUND					
253-737-972.000	LAND AND IMPROVEMENTS		80,111.35	Library Pond Dredging	PO: 259261, M.L. CHARTIER EXCAVATING, IN
253-737-972.000	LAND AND IMPROVEMENTS		8,504.75	Library Pond Dredging Cons Srvcs	PO: 259262, ORCHARD, HILTZ, & MCCLIMENT,
253-000-390.000	NET POSITION	$ 88,616.10			
	TOTAL TIFA D FUND	**88,616.10**	**$ 88,616.10**		
DDA FUND					
248-728-802.000-WINTERMAINT	CONTRACTED SERVICES		$ 47,088.75	Downtown Winter Maintenance	PO: 259522, INDEPENDENCE PROPERTIES SPEC
248-000-390.000	NET POSITION	$ 47,088.75			
	TOTAL DDA FUND	**47,088.75**	**47,088.75**		
	TOTAL AMENDMENT	$ 8,133,677.19	$ 8,133,677.19		

ATTACHMENT B

RESOLUTION NO. 26-01
VACATION OF AMBERWOOD FROM WEST TERM. TO END

At a regular meeting of the City Council of the City of Auburn Hills, Michigan, held at the City Hall on April 6, 2026, the following resolution was offered by Councilmember Verbeke and seconded by Councilmember Fletcher.

Whereas the City of Auburn Hills does wish to vacate a portion of Amberwood. This vacation of Amberwood is located between the west terminus and the end for a total vacation length of 423 feet.

Resolution duly adopted.

_____ _____
(City Clerk) (Date)

Certified to be a true copy.

_____ _____
(City Clerk) (Date)

ATTACHMENT C

RESOLUTION NO. 26-02
VACATION OF CHURCHILL FROM WEST TERM. TO END

At a regular meeting of the City Council of the City of Auburn Hills, Michigan, held at the City Hall on April 6, 2026, the following resolution was offered by Councilmember Verbeke and seconded by Councilmember Fletcher.

Whereas the City of Auburn Hills does wish to vacate a portion of Churchill. This vacation of Churchill is located between the west terminus and the end for a total vacation length of 690 feet.

Resolution duly adopted.

_____ _____
(City Clerk) (Date)

Certified to be a true copy.

_____ _____
(City Clerk) (Date)

ATTACHMENT D

Current Vehicle						New Vehicle				Price
Asset ID	Year	Make	Model	Mileage		Year	Make	Model		
AP2166	2021	Dodge	Durango PPV	81,936		2026	Dodge	Durango PPV		$ 44,830
D1612	2016	Jeep	Cherokee	88,843		2026	Jeep	Grand Cherokee		$ 48,982
									Total:	$ 93,812

CITY OF AUBURN HILLS
PLANNING COMMISSION
MINUTES
NOT YET APPROVED

April 8, 2026

CALL TO ORDER: Chairperson Beidoun called the meeting to order at 6:00 p.m.

ROLL CALL: Present: **Carolyn Shearer, Michelle Case, Darlene MacMillan, Jack Ferguson, Dominick Tringali, Cynthia Pavlich, Dominic Patrus, Sam Beidoun**
Absent: Raymond Saelens
Also Present: Director of Community Development Steve Cohen, Assistant Director of Community Development Devin Lang, City Engineer Tim Juidici (OHM), City Attorney Dan Kelly (The Kelly Firm)
Guests: 23

LOCATION: Council Chambers, 1827 N. Squirrel Road, Auburn Hills, MI 48326

Chairperson Beidoun welcomed new member of the Planning Commission, Michelle Case.

3. PERSONS WISHING TO BE HEARD

4. APPROVAL OF MINUTES – March 4, 2026

Moved by Pavlich to approve the minutes of March 4, 2026.
Second by Shearer.
VOTE: Yes: Shearer, MacMillan, Case, Ferguson, Pavlich, Tringali, Patrus, Beidoun
No: None **Motion Carried (8-0)**

5. PETITIONERS

Chairperson Beidoun shared the public hearing procedure and the steps the Commission will follow.

5a. City-Initiated Rezoning of 3077 Auburn Road. (6:03 p.m.)
Public Hearing/Motion – Recommendation to City Council for approval of the Rezoning of 3077 Auburn Road from R-4, One-Family Residential District to D, Downtown District, or any other appropriate zoning district.

Mr. Beidoun opened the public hearing at 6:03 p.m.

Mr. Cohen confirmed that the hearing documents are in order and that no written communications have been received regarding this petition.

Mr. Cohen stated that this is a City-initiated proposal to rezone 0.15 acres (Sidewell No. 14-25-351-023) from R-4, One-Family Residential District to D, Downtown District. The property is located at 3077 Auburn Road. The adopted City of Auburn Hills Master Land Use Plan shows this parcel as “Downtown Mixed Use.”

In March 2026, the Auburn Hills City Council approved plans for a 91-space municipal parking lot on a portion of the former Farm Boy property along Auburn Road. This parking lot is intended to serve the Downtown area and Riverside Park. During the public review of that project, the owners of 3077 Auburn Road contacted the City to express interest in selling their property. The City Council and the property owners reached an agreement, and the City has entered into a purchase agreement to acquire the land.

If the proposed rezoning is approved, the City intends to extend the municipal parking lot onto this property, adding 20 net parking spaces. This would increase the lot's total size from 91 to an estimated 111 spaces.

Staff recommends approval of the rezoning request.

Mr. Cohen, Director of Community Development, City of Auburn Hills, was available to answer any questions from the Commission.

The Commission asked whether this lot would be for public use or designated parking for specific buildings.

Mr. Cohen explained that the parking lot is intended to serve general Downtown parking needs, consistent with the City's broader approach to municipal parking facilities. He noted that the City is evaluating the potential implementation of a paid residential permit program across select municipal parking lots, pending a better understanding of overall usage patterns. If warranted, a portion of the spaces within these lots could be designated or licensed for future use by Downtown residential occupants.

There being no public comments, Mr. Beidoun closed the public hearing at 6:06 p.m.

Moved by Pavlich to recommend to City Council the approval of the rezoning of 3077 Auburn Road from R-4, One-Family Residential District to D, Downtown District.
Second by Shearer.

VOTE:
Yes: MacMillan, Pavlich, Case, Tringali, Shearer, Patrus, Ferguson, Beidoun
No: None **Motion Carried (8-0)**

5b. <u>River Bend Townhomes – 3180-3200 Auburn Road. (6:07 p.m.)</u>
Public Hearing/Motion – Recommendation to City Council for combined PUD Step One – Qualification/Step Two – Site Plan approval to facilitate the redevelopment of the property to allow the construction of a residential development with 32 townhomes.

Mr. Beidoun opened the public hearing at 6:07 p.m.

Mr. Cohen confirmed that the hearing documents are in order and that no written communications have been received regarding this petition.

Mr. Cohen stated that this is a request from Vesta Homes, Inc. for Planned Unit Development Option (PUD) approval to allow for the construction of a residential condominium development consisting of 32 townhomes on a 2.08-acre parcel located south of Auburn Road and west of the Clinton River. The property is zoned I-1, Light Industrial District.

In 2019, the City's Brownfield Redevelopment Authority (BRA) initiated environmental remediation efforts at 3180 Auburn Road. After acquiring the land, an investigation of the site identified leaking underground storage tanks that had released petroleum contaminants into the surrounding soil. After several years of investigation, remediation, and regulatory coordination, the BRA achieved site clean-up closure in May 2025, meaning that EGLE has reviewed and approved the remediation efforts and determined that the property meets applicable long-term environmental compliance standards.

The proposed $10 million development will consist of five townhouse-style buildings containing a total of 32 condominium units, all owner-occupied. The development provides 88 parking spaces, exceeding the 2.5 spaces per unit zoning requirement. The parking supply is expected to accommodate residents and their guests while minimizing potential impacts on the City's public parking system.

Mr. Cohen explained that the proposed project meets the PUD qualification criteria by advancing the goals of the Auburn Hills Downtown Economic Enhancement Strategy and the West Auburn Road Neighborhood Master Plan. The development introduces additional housing opportunities near Downtown, supporting the City's long-standing objective of creating a walkable, mixed-use environment anchored by a stronger residential base.

The proposed redevelopment provides a net community benefit by transforming an underutilized, once-contaminated industrial property into a productive residential neighborhood that supports the continued growth and vitality of the Downtown. The project also extends the Downtown streetscape west of the Clinton River.

Staff recommends approval of the request.

Mike Mattera, Vesta Homes, 31400 Kendall, Suite A, Fraser, MI 48026, was available to answer any questions from the Commission.

The Commission asked about the following:

1. The selling price for each unit; and
2. Handicap access.

Mr. Mattera stated that the units will probably sell in the high $300,000 range. He further explained that handicapped/accessible parking will be available on site, but the units themselves have several flights of stairs to access the living areas from the ground floor and thus do not accommodate accessible or universal design living.

There being no public comments, Mr. Beidoun closed the public hearing at 6:14 p.m.

Moved by MacMillan to recommend to City Council approval of the combined PUD Step One – Concept Plan and PUD Step Two – Site Plan for River Bend Townhomes subject to the conditions of the City's Administrative Review Team.
Second by Patrus.

VOTE:
Yes: Pavlich, MacMillan, Tringali, Shearer, Case, Patrus, Ferguson, Beidoun
No: None **Motion Carried (8-0)**

5c. <u>OCC CREST Center Building Addition and Renovations – 2900 Featherstone Road. (6:15 p.m.)</u>
Public Hearing/Motion – Recommendation to City Council for Special Land Use Permit, Site Plan, and Tree Removal Permit approval to allow for the expansion and renovation of the CREST Center, new maintenance building, and parking lot improvements.

Mr. Beidoun opened the public hearing at 6:16 p.m.

Mr. Cohen confirmed that the hearing documents are in order and that no written communications have been received regarding this petition.

Mr. Cohen stated that this is a request from Oakland Community College (OCC) to expand and renovate the Combined Regional Emergency Services Training (CREST) Center located on a 31-acre parcel zoned I-1, Light Industrial District. The site is located at 2900 Featherstone Road and consists of approximately 79,000 square feet.

The CREST facility is a training "city" that simulates emergency situations faced by law enforcement, fire/EMS departments, and civilian first responders in controlled, live-scenario environments.

The proposed project will involve renovating and expanding the existing building to create a modern indoor training facility. The project will provide additional administrative and instructional space while enhancing overall operational efficiency. The indoor facility is designed to coordinate with the existing outdoor simulated "city" training environment, which includes residential structures, a motel, a bank, and a five-story training tower. The expansion will provide realistic one- and two-story structures, such as a school, office, restaurant, and convenience store, enabling repeated hands-on training exercises. The facility also includes a 15-lane indoor firearms training range, with five lanes designed for rifle training distances.

The project requires 174 replacement trees. The landscape plan provides for the on-site planting of 49 trees located around the building expansion and new parking areas. Due to limited space in the immediate vicinity of the CREST facility, staff worked with OCC to develop a plan to plant the remaining 125 replacement trees at appropriate locations throughout the campus.

Staff recommends approval of the request.

Bob Kelly, Executive Director of OCC Facility Operations, 2900 Featherstone Rd, Auburn Hills, MI 48326 and **Juli Sala, Anderson, Eckstein and Westrick, Inc., 51301 Schoenherr Rd, Shelby Township, MI 48315** were available to answer any questions from the Commission.

Mr. Sala advised the Commission that the project, which has taken three years to formulate, would take 18 months to complete.

There being no public comments, Mr. Beidoun closed the public hearing at 6:22 p.m.

Moved by Shearer to recommend to City Council approval of the Special Land Use Permit, Site Plan and Tree Removal Permit for OCC CREST Center Building Addition and Renovations subject to the conditions of the City's Administrative Review Team.
Second by MacMillan.

VOTE:
Yes: Ferguson, Pavlich, Tringali, Case, MacMillan, Shearer, Patrus, Beidoun
No: None **Motion Carried (8-0)**

5d. <u>FANUC Service First Academy – Parking Lot Expansion – 2630 Featherstone Road. (6:23 p.m.)</u>
Public Hearing/Motion – Recommendation to City Council for Site Plan and Tree Removal Permit approval to implement the construction of previously approved land banked parking spaces.

Mr. Beidoun opened the public hearing at 6:24 p.m.

Mr. Cohen confirmed that the hearing documents are in order and that no written communications have been received regarding this petition.

Mr. Cohen stated that this is a proposal from FANUC America Corporation for approval of a Site Plan and Tree Removal Permit to construct a 205-space parking lot expansion on a portion of a 67-acre parcel zoned T&R, Technology and Research District. The site is located at 2630 Featherstone Road.

The proposed project would increase total parking on FANUC's West Campus to 1,000 spaces. Parking is shared between the two buildings on the property. This parking area was previously landbanked as part of the West Campus approval in 2022 and is now being developed and utilized to support current operational needs. The additional parking will accommodate FANUC's reuse of the former Western Michigan University Cooley Law School building as the FANUC Service First Academy, which is currently undergoing renovations.

The project requires 130 replacement trees. The landscape plan provides for the on-site planting of 73 replacement trees surrounding the new parking lot. The property is heavily wooded, making it difficult to accommodate the full

number of required trees. FANUC proposed to contribute to the City's Tree Fund in lieu of planting the remaining 57 trees. A payment of $21,660 (57 trees at $380 per tree) will be made prior to the mass grading of the site. FANUC and its consultant, Nowak & Fraus, coordinated with the City's Woodland consultant to shift the parking lot design to the west to preserve a 51-inch diameter white oak tree.

Staff recommends approval of the request.

Representatives of Nowak & Fraus Engineers, 46777 Woodward Ave., Pontiac MI 48342 and **Matthew DelPup, FANUC America Corporation, 2600 Featherstone, Auburn Hills, MI 48326**, were available to answer any questions from the Commission.

The Commission commended FANUC and its team for their willingness to shift the parking lot to preserve the large white oak tree.

There being no public comments, Mr. Beidoun closed the public hearing at 6:26 p.m.

Moved by Pavlich to recommend to City Council approval of the Site Plan and Tree Removal Permit for FANUC Service First Academy – Parking Lot Expansion subject to the conditions of the City's Administrative Review Team.
Second by Patrus.

VOTE:
Yes: Patrus, Shearer, MacMillan, Pavlich, Case, Tringali, Ferguson, Beidoun
No: None **Motion Carried (8-0)**

5e. <u>Lear Corporation – 3600 Giddings Road. (6:27 p.m.)</u>
Public Hearing/Motion – Recommendation to City Council for combined PUD Step One – Qualification/Step Two – Site Plan and Tree Removal Permit approval to allow the redevelopment of the existing facility and operate an automotive seating assembly facility with associated outside storage of trailers.

Mr. Beidoun opened the public hearing at 6:28 p.m.

Mr. Cohen confirmed that the hearing documents are in order and that no written communications have been received regarding this petition.

Mr. Cohen stated that this is a request from Lear Corporation for approval of a Planned Unit Development Option (PUD) and a Tree Removal Permit to renovate and utilize approximately 77% of an existing 431,051-square-foot industrial building on a 27.8-acre site located at 3600 Giddings. The proposal also includes modifications to the associated parking areas and loading/unloading facilities. The property is zoned T&R, Technology and Research District.

Lear Corporation is a Tier 1 supplier that provides vehicle seats, seat components, electrical systems, and electronics to automakers worldwide. The seats assembled at this location will support production for GM's Lake Orion Assembly Plant in Orion Township.

The development is expected to generate approximately 14 semi-trailer truck trips per day to deliver materials to the site via M-24 and Taylor Road, and approximately 10 semi-trailer truck trips per day to transport finished products to the GM Orion Assembly plant via Giddings Road. Due to heavy truck traffic, roadway and site access improvements are being undertaken to mitigate potential impacts on the surrounding transportation network. The City is planning to construct a roundabout at the intersection of Giddings Road and Taylor Road, along with related traffic improvements to improve circulation in the area.

Lear is also requesting to store up to 37 semi-trailers outside the facility due to its just-in-time (JIT) nature. This JIT management strategy aligns the Lear seat assembly and delivery timing directly with the GM Orion Assembly

Plant's production schedule. This storage area will be on the site's south side. The design of the masonry walls and additional vegetation will serve to screen the property from public view.

Mr. Cohen explained that the proposed Lear facility is a more intensive industrial land use than typically permitted in the T&R District. As a path forward, staff suggested the PUD Option would be the best mechanism to implement the project. For the development to become eligible, it must provide a recognizable net public benefit to the health, safety, and welfare of the City's residents. Staff finds the project would offer numerous net public benefits and meet several of the criteria for PUD qualification, such as:

1. Provision of financial contribution to assist with creating and maintaining off-site improvements;
2. Mitigation to offset impacts on public facilities such as road and utility improvements; and
3. High-quality landscaping.

Mr. Cohen explained that the proposed project provides a net community benefit as Lear has agreed, at the City's request, to contribute up to $2 million to help cover the cost of the intersection improvements. Funding assistance is also being sought through the Michigan Department of Transportation (TEDF grant).

The PUD's conditions also ensure the property can transition back to a high-tech, clean industrial use following Lear's departure. Accordingly, within 180 days after Lear or any successor or assign, no longer leases or owns any portion of the property, all site and building improvements made as a part of this project will be removed, and the affected areas will be restored to a condition generally consistent with the property's current state, with the exceptions shown on the restoration plan included with the site plan. Additionally, the full required parking supply of 517 spaces, as determined by the building's size, will be constructed on the site following Lear's departure.

Staff recommends approval of the request.

Sam Ashley, Cunningham Limp, 28970 Cabot Drive, Suite 100, Novi, MI 48377 and **Doug Daugherty, Lear Corporation, 2930 W. Auburn Road, Rochester Hills, MI 48309,** were available to answer any questions from the Commission.

Mr. Ashley emphasized Lear's commitment to mitigating and improving truck access to the property.

The Commission asked about the following:

1. Whether there will be tractors will be utilized on site;
2. Storage of hazardous materials; and
3. Restoration of the detention basin.

Mr. Ashley stated that there will be no over-the-road cabs left on site overnight, unattached to trailers, nor will the trucks be hauling hazardous materials. A yard mule moving trailer will be used to move trailers between the storage area and the loading docks. The trucks will only carry seating components. He also stated that the detention basin's capacity will need to be increased and will be addressed in engineering.

Ron Moniz, 3003 Garden Court, Auburn Hills, MI 48326, asked about whether the trucks will use Taylor Road. Mr. Ashley explained that the trucks will be GPS-equipped and will be prohibited from using Taylor Road. Any violation will be addressed. Mr. Moniz also asked if the property would be closed after 11:30 p.m. Mr. Ashley said that there will be 24-hour on-site security.

Mr. Moniz expressed concern about the additional traffic from other JIT operations on Brown Road and Giddings Road. Mr. Cohen explained that the GM facility is restricted under its Development Agreement to using only M-24 and Brown Road.

Mr. Moniz asked about the days of operation. Mr. Ashely explained that the facility will operate with two shifts, Monday through Friday, and will be staffed with security 24/7. He also stated that the trucks are all third-party-owned and will be GPS-monitored. The traffic routes will be specified in the Development Agreement.
There being no further public comments, Mr. Beidoun closed the public hearing at 6:46 p.m.

Moved by MacMillan to recommend to City Council approval of the combined Step One – Concept Plan and PUD Step Two – Site Plan and Tree Removal Permit for Lear Corporation subject to the conditions of the City's Administrative Review Team.
Second by Ferguson.

VOTE:
Yes: Tringali, Pavlich, MacMillan, Case, Shearer, Ferguson, Patrus, Beidoun
No: None **Motion Carried (8-0)**

5f. Sheetz Auburn Hills – 3880 Lapeer Road. (6:47 p.m.)
Public Hearing/Motion – Recommendation to City Council for combined PUD Step One – Qualification/Step Two – Site Plan and Tree Removal Permit approval.

Mr. Beidoun opened the public hearing at 6:48 p.m.

Mr. Cohen confirmed that the hearing documents are in order and that no written communications have been received regarding this petition.

Mr. Cohen stated that this is a request from Skilken Gold, a developer representing Sheetz, Inc., for Planned Unit Development Option (PUD) and Tree Removal Permit approval to redevelop the site and construct a Sheetz store on a 3.18-acre parcel, zoned I-2, General Industrial District. The site is located at 3880 Lapeer Road.

This proposal consists of a passenger vehicle fueling area with 14 fueling positions and a 6,139-square-foot convenience store with a restaurant. A small outdoor seating area is provided on the west side of the building.

The City staff recommended to Sheetz the PUD option as the best mechanism for implementing the proposed project. The primary deviation requested via the PUD Option is to allow the gasoline service station to be developed in the I-2, General Industrial District. The project will generally follow B-2, General Business District standards, as the previous restaurant proposal did via Special Land Use Permit approval in 1991.

Mr. Cohen stated that he finds the proposed development satisfies multiple criteria for PUD qualification and provides several net public benefits to the community. He noted that the subject property has experienced frequent tenant turnover over the past thirty years and has remained vacant in recent years, reflecting a pattern of underutilization. The proposed Sheetz development presents a meaningful opportunity to reinvest in the site by introducing a high-quality fueling and retail establishment that will serve residents, visitors, and motorists traveling through Auburn Hills.

Mr. Cohen further explained that the redevelopment advances the economic vitality of the Lapeer Road corridor and the City as a whole by:

1. Eliminating a long-vacant structure and addressing site blight through reinvestment in an underutilized property;
2. Promoting the efficient use and enhancement of existing infrastructure;
3. Significantly improving the site's appearance and overall condition;
4. Introducing a modern, well-designed commercial use that enhances the character of the corridor;
5. Providing needed services and creating employment opportunities for Auburn Hills residents; and
6. Supporting nearby commercial and industrial uses, as well as visitors and motorists traveling along the State highway with vehicle 24/7 fueling, retail, and food services.

Mr. Cohen also noted that this project, in conjunction with the redevelopment of the former Palace of Auburn Hills site, represents continued reinvestment along the Lapeer Road corridor. These projects are expected to contribute to the ongoing evolution and revitalization of the area and may serve as a catalyst for additional private investment and modernization of surrounding properties, consistent with the City Council's goals and objectives.

Mr. Cohen stated that the applicant provides additional tangible net community benefits by proposing to use a high-quality building prototype featuring a brick-and-stone façade with earth-tone materials, which exceeds the City's

Architectural Design Policy and by committing to donate $100,000 to the Auburn Hills Community Foundation for public purposes.

Staff recommends approval of the request.

Alex Siwicki, Sheetz Corporation, Altoona, PA, and **John Gaber, Williams, Williams, Rattner & Plunkett, PC, 380 N. Old Woodward, Suite 300, Birmingham, MI 48009,** were available to answer any questions from the Commission.

The Commission asked about the following:

1. The number of EV charging stations and whether they will be quick charge stations;
2. Protection for the outdoor eating space;
3. Sheetz's level of community involvement;
4. Hours of operation;
5. The number of anticipated employees;
6. The potential of big trucks on the property;
7. Where the fuel will be hauled from;
8. Whether diesel fuel will be offered; and
9. Sheetz's business philosophy regarding competition.

Mr. Siwicki explained that the site will be prepped for six charging stations. A third party will be contracted to provide the actual service, and they will determine what type of stations will be installed. The outdoor eating area will be protected by bumpers and stone planters.

Mr. Siwicki stated that Sheetz has several departments dedicated to community involvement and various charities. This location will be open 24/7 and will employ approximately 30-35 full-time employees. Mr. Siwicki confirmed that this will not be a truck stop and will not have fueling areas for large trucks. At this time, the fuel will likely be brought in from Romulus. Each pump will offer diesel and other grades of gasoline.

Mr. Siwicki explained that Sheetz is not attempting to damage anyone else's business but looks forward to contributing to the community.

Tarek Gayar, 1960 S. Hammond Lake Drive, Bloomfield Hills, MI 48302, and owner of the Marathon Gas Station located at 4000 Lapeer Road, Auburn Hills, MI 48326, expressed concern with the additional traffic issues caused by this development. He also expressed his opposition to this development as it will severely harm his business, which has been in place for twenty-six years. He feels that while competition is good for consumers, existing businesses should be given consideration.

Mike Hustzti, HLI Land Brokers, LLC, Milford, MI 48381, representing the interests of Mr. Gayar and Mr. Hanna, expressed concerns regarding the proposed project and distributed a letter outlining his position that the development does not meet the City's zoning ordinance requirements for PUD qualification. He also questioned the proposed $100,000 donation, noting that it would set a precedent for developers to influence the approval process. In addition, he suggested that the City Assessor conduct a property tax analysis, stating that it would confirm the proposed Sheetz gas station would result in market cannibalization and potential closures of the nearby existing gas stations. He also expressed concerns about traffic impacts with the Sheetz proposal. Based on these concerns, he requested that the Planning Commission either deny the application or table it to allow additional time to review and analyze the project's traffic study.

As requested by Mr. Beidoun, Dan Kelly, City Attorney, explained that the City does not make land use decisions based on market demand or to protect existing businesses from competition. He explained that competition can benefit consumers by increasing choice and encouraging reinvestment in nearby properties. He also noted that it is common and legally appropriate for a developer to make a financial contribution for public purposes or provide a similar public benefit as part of meeting the requirements for PUD approval.

Izzat Hanna, 1651 Hamlet Drive, Troy, MI 48084, and owner of the BP Station located at 3640 Lapeer Road,

Auburn Hills, MI 48326, thanked the Planning Commission for their service. He spoke against the application due to traffic concerns and the poor planning of having two gas stations side by side.

Tim Juidici, the City's consulting engineer, indicated the traffic engineers at his firm are satisfied with the findings of the traffic study conducted by Sheetz and support the project as designed. He indicated that Lapeer Road is a State highway under the Michigan Department of Transportation's driveway permitting jurisdiction.

John Gaber stated that he agrees with Mr. Kelly and the City's administrative review team's findings. He stated that Sheetz believes the proposal meets the requirements for a PUD and that the Sheetz store will be well-run, secure, and provide benefits to residents of Auburn Hills and to travelers.

As requested by Mr. Beidoun, Mr. Kelly reviewed the Planning Commission's role in the PUD review process. He explained that, while concerns had been raised about the potential economic impact on nearby gas stations from the new Sheetz development, such considerations do not constitute a valid basis for denial under zoning and land use law. He emphasized that the Commission's review is limited to determining whether the proposed use is appropriate for the site and complies with applicable ordinance standards.

Mr. Kelly stated that Mr. Cohen had provided a thorough explanation in his written report and presentation tonight, demonstrating several qualifying factors and supporting findings of fact for PUD approval. Based on the facts presented and the community benefits offered by the project, Mr. Kelly indicated that City staff have appropriately demonstrated and determined that the proposal meets the City's PUD ordinance requirements for qualification and approval.

There being no further public comments, Mr. Beidoun closed the public hearing at 7:49 p.m.

Moved by Patrus to recommend to City Council the approval of the combined PUD Step One-Concept Plan and PUD Step Two-Site Plan and Tree Removal Permit for Sheetz Auburn Hills, subject to the conditions of the City's Administrative Review Team as set forth in the Staff Recommendation Report, and further conditioned upon Sheetz obtaining approval from the Michigan Department of Transportation for a commercial driveway permit.
Second by Tringali.

VOTE:
Yes: Pavlich, MacMillan, Case, Tringali, Patrus, Shearer, Ferguson, Beidoun
No: None **Motion Carried (8-0)**

6. UNFINISHED BUSINESS – None.

7. NEW BUSINESS – None.

8. COMMUNICATIONS

9. NEXT SCHEDULED MEETING
The next scheduled meeting is on Wednesday, May 6, 2026 at 6:00 p.m. in the Auburn Hills Council Chambers.

10. ADJOURNMENT
There being no further business, Chairperson Beidoun adjourned the meeting at 7:59 p.m.

Submitted by:
Susan McCullough, MiPMC III, CMC
Recording Secretary

CITY OF AUBURN HILLS
CITY COUNCIL AGENDA

MEETING DATE: APRIL 20, 2026 | **AGENDA ITEM NO 7B**

COMMUNITY DEVELOPMENT

To: **Mayor and City Council**

From: **Thomas A. Tanghe, City Manager; Steven J. Cohen, AICP, Director of Community Development**

Submitted: **April 15, 2026**

Subject: **Motion - To approve the Large Format Temporary Wall Mural Agreement between the City of Auburn Hills and FCA US LLC**

INTRODUCTION AND HISTORY

Attached for the City Council's review and consideration is the proposed Large Format Temporary Wall Mural Agreement (Agreement) between the City of Auburn Hills and FCA US LLC (Stellantis).

By way of background, the Agreement is intended to address ongoing compliance issues regarding the duration of large format temporary wall murals at 1000 Chrysler Drive and to establish clear expectations and enforcement mechanisms moving forward. The Council may be aware that the City has adopted an ordinance regulating such murals, which limits the display of any single mural to a maximum of 240 days

In recent years, Stellantis has displayed murals beyond the permitted 240-day period, despite City staff notifications regarding permit expirations. To address this recurring issue, City Administration has worked cooperatively with Stellantis to develop a written agreement that: (a) confirms acknowledgment of the ordinance requirements; (b) establishes a clear and enforceable removal date for the current mural; and (c) creates a structured process for enforcement and potential suspension in the event of future noncompliance.



Large Format Wall Mural

Key terms of the Agreement include:

- An acknowledgment by Stellantis of the City's ordinance and its applicability to all current and future murals;
- A requirement that the existing mural be removed on or before September 15, 2026;
- Incorporation of the Agreement as a condition of any mural permit issued to Stellantis;
- Establishment of a formal enforcement and cure process, including a defined suspension remedy for noncompliance; and
- Confirmation that the City retains all other enforcement remedies available under its ordinances and applicable law.

The proposed Agreement is intended to provide clarity, ensure consistent compliance, and prevent recurring enforcement issues, while preserving the City's authority and discretion.

STAFF RECOMMENDATION

Staff recommends approval of the proposed Agreement as it represents an appropriate and reasonable regulatory approach to address ongoing compliance issues.

MOTION

Move to approve the Large Format Temporary Wall Mural Agreement between the City of Auburn Hills and FCA US LLC and authorize the Mayor to execute the document.

I CONCUR: Thomas A. Tanghe

THOMAS A. TANGHE, CITY MANAGER

CITY OF AUBURN HILLS
LARGE FORMAT TEMPORARY WALL MURAL AGREEMENT

This Large Format Temporary Wall Mural Agreement (the "Agreement") is made as of _____, 2026, by and between the CITY OF AUBURN HILLS, a Michigan municipal corporation (the "City"), whose address is 1827 Squirrel Rd., Auburn Hills, MI 48326 and FCA US LLC, a Delaware limited liability company, whose address is 1000 Chrysler Drive, Auburn Hills, Michigan 48326 (the "Company"). The City and the Company are each a "Party" and together the "Parties."

RECITALS

A. The City has adopted ordinances governing large format temporary wall murals (the "Ordinance"), including a limit on permitted display time and other requirements.

B. The Parties desire that the terms of the Ordinance be acknowledged by the Company and that certain enforcement and remedy procedures be memorialized and available to the City as to any current or future large format temporary wall murals installed, maintained, or sought by the Company within the corporate limits of the City on the exterior wall facing Interstate 75 located at 1000 Chrysler Drive, Auburn Hills, Michigan 48326.

NOW, THEREFORE, in consideration of the mutual promises contained herein and other good and valuable consideration, the receipt and sufficiency of which are acknowledged, the Parties agree as follows:

1. Acknowledgment of Ordinance; Applicability to Future Murals

   a. The Company expressly acknowledges receipt of, and its understanding of, the Ordinance and the limitations set forth therein, including the 240-day limitation on covered murals and any other limitations, exceptions, or requirements therein.

   b. Unless otherwise agreed to by the Parties in writing, this Agreement applies to and binds the Company with respect to any and all current and future Murals that the Company installs, displays, maintains, or for which it applies for a Permit within the City. This Agreement shall be incorporated by reference into, and made a condition of, every Permit issued for a Mural or comparable wall sign to the Company; for any such Permit the removal date required by this Agreement shall be printed on the face of the Permit.

2. Removal; Permit Conditions

   a. The Company agrees to comply with all removal obligations and other conditions of the Ordinance for each Mural. Company agrees that it shall reasonably plan for ordinary or seasonal weather appropriately to ensure compliance with the removal obligations.

   b. This Agreement is applicable to an existing Mural. The Company represents that the existing Mural will be removed on or before September 15, 2026. This Agreement shall be attached to, and made a recorded condition of, the Permit for the existing Mural and of any future Permit issued to the Company for a Mural or comparable wall sign.

3. Notice of Alleged Breach; City Council Discretionary Suspension Remedy

a. Upon a good-faith and reasonable determination by the City Administration that a Breach has occurred and noting the date of breach, the City Administration shall provide written notice to the Company (the "Notice"). The Notice shall be delivered to the Company's address set forth above. Company shall have twenty (20) days from its receipt of the Notice to address or cure any such alleged breach ("Cure Period") or otherwise seek available remedies at law or in equity. Following the Cure Period or the conclusion of any disputes at law or in equity related to the Notice or alleged Breach, the City Administration may, within its sole discretion, enact a Suspension on the issuance of Permits to the Company for Murals and comparable wall sign permits, which shall automatically be imposed for a period of nine (9) months from the effective date of breach (the "Suspension"). The automatic nine (9) month Suspension shall be stayed only as provided in subsection (b) below.

b. Following the Cure Period and provided that Company has not cured or is not otherwise seeking remedies at law or in equity, the Company may, within fourteen (14) days after service of the City Administration's written determination imposing the Suspension, submit a written request for reconsideration and present evidence that the Breach resulted from circumstances outside of the Company's reasonable control for review by City Council. If the City Council, by majority vote after reconsideration, finds that the Breach arose from circumstances outside of the Company's reasonable control and that the Company took reasonable steps to avoid the noncompliance or to cure the noncompliance promptly, the City Council may, in its reasonable discretion, rescind or reduce the Suspension.

For the avoidance of doubt, as noted in Section 2a. above, Company shall reasonably plan for ordinary or seasonal winter weather (including, without limitation, snow, ice, freezing temperatures, wind, sleet, frost, and routine freeze-thaw conditions)and failure to plan for known seasonal weather risks, including but not limited to scheduling removal during periods of known winter conditions, shall not constitute circumstances outside the Company's reasonable control. Provided, however, the parties acknowledge and agree that Company is unable to plan for all weather events, including without limitation, snowstorms, ice storms, and freezing temperatures that may impact the safety of employees or contractors.

c. The City Council's decision to impose, rescind, reduce, or otherwise modify a Suspension after reconsideration shall be final and conclusive for purposes of this Agreement, subject only to any remedies available under applicable law or in equity.

4. Other Remedies; Cumulative Remedies

a. In addition to the Suspension authorized in Section 3, the City retains all other remedies available under the Ordinance or applicable law and, similarly, nothing in this Agreement shall waive Company's rights under applicable law.

b. The City's election to impose or not to impose the Suspension in any instance shall not preclude the City from exercising other remedies concurrently or subsequently for the same or related breaches.

5. Representations and Warranty

a. The Company represents and warrants that the person signing this Agreement on behalf of the Company is duly authorized to bind the Company to the terms and conditions of this Agreement.

6. Miscellaneous

a. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Michigan.

b. Severability. If any provision of this Agreement is held invalid or unenforceable by a court of competent jurisdiction, such holding shall not affect the validity of the remaining provisions, which shall remain in full force and effect.

c. Amendment. This Agreement may be amended only by a written instrument executed by both Parties.

d. Waiver. The failure of either Party to enforce any term of this Agreement shall not be deemed a waiver of that Party's right to enforce such term in the future.

e. Notices. Any notice required or permitted hereunder shall be in writing and shall be deemed given when delivered personally, sent by certified mail (return receipt requested), or sent by a nationally recognized overnight courier to the addresses set forth above (or as otherwise provided in writing).

f. Entire Agreement. This Agreement constitutes the entire agreement between the Parties with respect to its subject matter and supersedes all prior agreements and understandings, whether written or oral, relating thereto.

g. Attachment to Permits; Public Recordation. This Agreement shall be attached to and made a condition of any Permit issued to the Company for a Mural or comparable wall sign. Any Permit issued shall conspicuously state the removal date required by this Agreement.

6. Execution

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the date first written above.

CITY OF AUBURN HILLS

By: _____
Name: _____
Title: _____
Date: _____

FCA US, LLC

By: _____
Name: _____
Title: _____

CITY OF AUBURN HILLS
CITY COUNCIL AGENDA

MEETING DATE: APRIL 20, 2026 | **AGENDA ITEM NO 7C**

FIELDSTONE GOLF CLUB

To: **Mayor and City Council**

From: **Thomas A. Tanghe, City Manager; Chip Hierlihy, PGA General Manager at Fieldstone Golf Club**

Submitted: **April 13, 2026**

Subject: **Motion – To award the Purchase of 24 Lynx Smart Satellite Stations and Components at Fieldstone Golf Club to Spartan Turf Products.**

INTRODUCTION AND HISTORY

The Fieldstone Staff are upgrading the current TORO satellites and software (Sitepro) due to parts no longer being available and the vendor no longer supporting the Sitepro software, to the new Lynx Smart Satellite Stations which interface and operate the TORO irrigation system currently in use at Fieldstone Golf Club.

Spartan Turf Products is the only authorized vendor of TORO products in Michigan. The City requested pricing using the Toro Golf Wholegood Unit Pricing from their Sourcewell Contract; a cooperative purchasing agreement that allows the City to purchase vetted goods and services at pre-negotiated and discounted prices, streamlining the need for the competitive bidding process.

Following a thorough review and discussion with the anticipated vendor, City staff recommend the purchase of 24 Lynx Smart Satellite Stations and Components at Fieldstone Golf Club from Spartan Turf Products.

STAFF RECOMMENDATION

Staff recommend the purchase of 24 Lynx Smart Satellite Stations and Components at Fieldstone Golf from Spartan Turf Products in an amount not to exceed **$155,202.62**. Funding for this project is budgeted in the 2026 Fieldstone Golf Club operating budget in account number **584-753-977.000**.

MOTION

Move to award the purchase of 24 Lynx Smart Satellite Stations and Components at Fieldstone Golf Club to Spartan Turf Products in an amount not to exceed $155,202.62 and furthermore, authorize the City Manager to convey acceptance by purchase order.

I CONCUR: Thomas A. Tanghe

THOMAS A. TANGHE, CITY MANAGER

Spartan Turf Products

Spartan Turf Products
13400 Watertown Plank Road
Elm Grove, WI 53122

MIAH

QUOTE

QUOTE DATE	ORDER NO.
03/18/26	7559151-00
P.O. NO.	PAGE #
Lynx-Satellite upgrade	1

CUST #: 451638

SHIP TO: CITY OF AUBURN HILLS
FIELDSTONE GOLF COURSE
2234 TAYLOR ROAD
AUBURN HILLS, MI 48326

CORRESPONDENCE TO: Spartan Turf Products, LLC
Dept 9538
PO Box 30516
Lansing, MI 48909-8016

BILL TO: CITY OF AUBURN HILLS - GOLF
2234 TAYLOR ROAD
AUBURN HILLS, MI 48326

INSTRUCTIONS	TERMS	
	NET 10TH PRX	
SHIP POINT	SHIP VIA	REQ SHIP DATE
Spartan Turf Products	R TRUCK	03/24/26

Quote Expires: 04/30/26

LINE NO.	PRODUCT AND DESCRIPTION	QTY. ORDERED	QTY. B.O.	QTY. SHIPPED	QTY. U/M	UNIT PRICE	DISCOUNT	AMOUNT (NET)
	********** TORO GOLF WHOLEGOOD UNIT PRICING FROM SOURCEWELL CONTRACT #112624-TTC. **********							
1	LYNX-BOUNTY LYNX CE CENTRAL UPGRADE	1.00	0.00	1.00	each	5,600.000		5,600.00
2	NSN-ESSENT-2N1-L 2 YEAR ESSENTIALS PLAN	1.00	0.00	1.00	EACH	5,170.000		5,170.00
3	300-016P6M4A LYNX SMART SATELLITE 16 STATION 2 WAY WIRE	2.00	0.00	2.00	EACH	5,117.700		10,235.40
4	300-016P6M4A LYNX SMART SATELLITE 16 STATION 2 WAY WIRE ********** NO CHARGE- TORO GUY 2 GET 1 FREE **********	1.00	0.00	1.00	EACH	0.000		0.00
5	300-032P6M4A LYNX SMART SATELLITE 32 STATION 2 WAY WIRE	2.00	0.00	2.00	EACH	6,817.650		13,635.30
6	300-032P6M4A LYNX SMART SATELLITE 32 STATION 2 WAY WIRE ********** NO CHARGE-TORO BUY 2 GET 1 FREE **********	1.00	0.00	1.00	EACH	0.000		0.00
7	300-048P6M4A LYNX SMART SATELLITE 48 STATION 2 WAY WIRE	10.00	0.00	10.00	EACH	8,605.500		86,055.00
8	300-048P6M4A LYNX SMART SATELLITE 48 STATION 2 WAY WIRE ********** NO CHARGE-TORO BUY 2 GET 1 FREE **********	5.00	0.00	5.00	EACH	0.000		0.00
9	300-064P6M4A LYNX SMART SATELLITE 64 STATION 2 WAY WIRE	2.00	0.00	2.00	EACH	10,428.000		20,856.00
10	300-064P6M4A LYNX SMART SATELLITE 64 STATION 2 WAY WIRE	1.00	0.00	1.00	EACH	0.000		0.00

Taken By: au08 Sales Rep: Matt Kraemer Order Type: QU

Continued

Spartan Turf Products

Spartan Turf Products
13400 Watertown Plank Road
Elm Grove, WI 53122

MIAH

QUOTE

QUOTE DATE	ORDER NO.
03/18/26	7559151-00
P.O. NO.	PAGE #
Lynx-Satellite upgrade	2

CUST #: 451638

SHIP TO: CITY OF AUBURN HILLS
FIELDSTONE GOLF COURSE
2234 TAYLOR ROAD
AUBURN HILLS, MI 48326

CORRESPONDENCE TO: Spartan Turf Products, LLC
Dept 9538
PO Box 30516
Lansing, MI 48909-8016

BILL TO: CITY OF AUBURN HILLS - GOLF
2234 TAYLOR ROAD
AUBURN HILLS, MI 48326

INSTRUCTIONS	TERMS	
	NET 10TH PRX	
SHIP POINT	SHIP VIA	REQ SHIP DATE
Spartan Turf Products	R TRUCK	03/24/26

Quote Expires: Quote Expires: 04/30/26

LINE NO.	PRODUCT AND DESCRIPTION	QTY. ORDERED	QTY. B.O.	QTY. SHIPPED	QTY. U/M	UNIT PRICE	DISCOUNT	AMOUNT (NET)
	********** NO CHARGE-TORO BUY 2 GET 1 FREE **********							
11	LSFI-SK NON+-STOCK TORO LSFI SK 1 WIRELINE+HH RADIO	1.00	0.00	1.00	each	13,650.920		13,650.92
11	Lines Total	Qty Shipped Total		27.00			Subtotal	155,202.62
							Taxes	0.00
							Total	155,202.62

Taken By: au08 Sales Rep: Matt Kraemer Order Type: QU

Last Page

CITY OF AUBURN HILLS
CITY COUNCIL AGENDA

MEETING DATE: APRIL 20, 2026 | **AGENDA ITEM NO 7D**

FIELDSTONE GOLF CLUB

To: **Mayor and City Council**

From: **Thomas A. Tanghe, City Manager; Chip Hierlihy, PGA General Manager at Fieldstone Golf Club**

Submitted: **April 13, 2026**

Subject: **Motion – To award the 2026 Installation of the Lynx Smart Satellite Upgrade at Fieldstone Golf Club to Fuse It Piping, LLC.**

INTRODUCTION AND HISTORY

City staff published a request for proposals for the Installation of 24 Lynx Smart Satellite Stations to operate the irrigation system at Fieldstone Golf Club on the Michigan Intergovernmental Trade Network (MITN) on February 16, 2026, seeking proposals from qualified contractors. Following voluntary site visits, the City received three sealed proposals that were formally opened and announced at the Office of the City Clerk on March 17, 2026, at 10:00 AM.

Company Name	Address	TOTAL
Marc Dutton Irrigation Inc.	4720 Hatchery Rd. Waterford, MI 48329	$51,000.00
Fuse It Piping, LLC	1001 N. Saginaw St. Ste. B, Durand, MI 48429	$36,000.00
The Davey Tree Expert Co.	925 N. Lapeer Rd., Suite 1295, Oxford, MI 48371	$46,400.00

Following a thorough review and discussions with the anticipated vendor over the past several weeks, City staff recommend awarding the 2026 Installation of the Lynx Smart Satellite Upgrade at Fieldstone Golf Club to Fuse It Piping, LLC.

STAFF RECOMMENDATION

Staff recommend the bid award for the 2026 Installation of the Lynx Smart Satellite Upgrade at Fieldstone Golf be awarded to Fuse It Piping, LLC in an amount not to exceed **$36,000.00**. Funding for this project is budgeted in the 2026 Fieldstone Golf Club operating budget in account number **584-753-977.000**.

MOTION

Move to award the 2026 Installation of the Lynx Smart Satellite Upgrade at Fieldstone Golf Club to Fuse It Piping, LLC in an amount not to exceed $36,000.00 and furthermore, authorize the City Manager to convey acceptance by purchase order.

I CONCUR: Thomas A. Tanghe

THOMAS A. TANGHE, CITY MANAGER

BID ITEM: Fieldstone Golf Club 2026 Lynx Smart Satellite Installation
BID OPENING DATE: March 17, 2026
BID OPENING TIME: 10:00 AM
ELECTRONIC BIDS ACCEPTED? Hard Copy Only
ATTENDED BY: Chip Hierlihy, Isabel Lopez

COMPANY NAME	ADDRESS		TOTAL
Marc Dutton Irrigation Inc.	4720 Hatchery Rd., Waterford, 48329		$51,000.00
Fuse It Piping, LLC	1001 N. Saginaw St., Ste. B, Durand, 48429		$36,000.00
The Davey Tree Expert Company	925 N. Lapeer Rd., Suite 195, Oxford, 48371		$46,400.00

☒ Mailboxes have been checked for bids that may have been mailed in

N/A Were electronic bids allowed. If so, was BidNet checked for received bids

also send results to: Brandon Skopek

FIELDSTONE GOLF CLUB OF AUBURN HILLS

REQUEST FOR PROPOSAL (RFP) – 2026 Lynx Smart Satellite Installation

PROPOSAL NUMBER:	**RFP-002-16-2026-001**
PROPOSAL ITEM:	**Fieldstone Golf Club 2026 Lynx Smart Satellite Installation**
PROPOSAL DEADLINE:	**March 17, 2026, 10:00 AM**

The City of Auburn Hills is seeking responses from qualified vendors to upgrade the existing irrigation control system at Fieldstone Golf Club by replacing all current satellite controllers with advanced Lynx Smart Satellite Controllers. The following document outlines the nature and scope of work requested and provides a summary of the City of Auburn Hills and Fieldstone Golf Club. Sealed proposals will be received at the City Clerk's Office, located at 1827 N. Squirrel Road, Auburn Hills, MI 48326 until 10:00 a.m. EST, March 17, 2026

BACKGROUND

The City of Auburn Hills is a distinguished municipal leader in southeast Michigan. Home to approximately 25,000 residents, with a workday population of approximately 60,000. Auburn Hills is a thriving global business address with over 70 international corporations, including World and North American headquarters for many outstanding businesses. Auburn Hills' residents enjoy the amenities of city and suburban living with parks, a revitalized downtown district, and a welcoming city complex with a library and community center. Additionally, the city has four colleges and universities, and Great Lakes Crossing Outlets (one of the state's largest destination shopping centers)

Fieldstone Golf Club (FGC) is an exceptional 18-hole public golf course located in Auburn Hills, Michigan. Situated in an easily assessable Detroit suburb, Auburn Hills is a distinguished location for automotive and high-tech businesses whose employees' frequent FGC. Fieldstone Golf Club has consistently averaged over 40,000 starts for the past 10+ years. The course offers an exceptional variety of hole designs by the renowned architect, Arthur Hills, that combines diverse landscape and wetlands with gently rolling fairways through majestic hardwoods.

SCOPE OF WORK & SPECIFICATIONS

Objectives

- Modernize the irrigation control infrastructure with Lynx Smart Satellite technology.
- Ensure reliable connectivity and optimal performance across all stations.

- Improve durability and aesthetics by replacing unsatisfactory concrete pads.

Scope of Work

1. **Removal of Existing Equipment**
    - Safely remove all existing satellite controllers from the site.
2. **Installation of New Controllers**
    - Install 24 Lynx Smart Satellite Controllers, configured for station capacities ranging from 16-station 2-way wire to 64-station 2-way wire.
3. **Wiring and Integration**
    - Connect all irrigation stations to the new controllers using appropriate wiring standards.
    - Verify system functionality and connectivity.
4. **Concrete Pad Replacement**
    - Inspect existing concrete pads supporting controllers.
    - Replace any pads that do not meet structural or aesthetic standards.

Deliverables

- Fully installed and operational Lynx Smart Satellite Controllers.
- Updated wiring and integration for all stations.
- Replacement of substandard concrete pads.
- Final inspection and system performance verification.

Assumptions & Exclusions

- All Materials will be purchased by the City of Auburn Hills.
- All work will be completed with the oversight of the Golf Course Superintendent.
- All work will comply with manufacturer specifications and local regulations.
- Excludes any unrelated landscaping or irrigation redesign beyond controller replacement.

Please provide all additional requirements that Fieldstone Golf Club will need to provide to have units operable during contract tenure i.e. water hook-up, electric hook-up, etc. Also interested in costs and timing of customization options.

PROPOSAL INSTRUCTIONS

Proposals to receive consideration shall be received prior to the specified time of opening as designated on the bid form. NO LATE PROPOSALS WILL BE ACCEPTED. Proposals are considered received when received and date stamped by the office of the City Clerk. Envelopes are to be clearly marked **PROPOSAL NUMBER AND BID NAME.** Sealed proposals may be submitted to the office of the City Clerk at 1827 N. Squirrel Road, Auburn Hills, Michigan 48326.

1) PREPARATION OF PROPOSAL

A) Proposers are expected to examine specifications and all instructions. Failure to do so will be at the proposer's risk.

B) Each Proposer shall furnish all information required on the proposal form. Erasures or other changes must be initialed by the person signing the proposal form.

C) All Proposers shall carefully examine the RFP documents. Any ambiguities or inconsistencies shall be brought to the attention of the City in writing before the due date; failure to do so, on the part of the Proposer, will constitute acceptance by the Proposer of any subsequent decision. Any questions concerning the intent, meaning and interpretations of the RFP documents, shall be requested in writing and received by the City no later than **March 9, 2026**. The City will not be responsible for any oral instructions made by any employee(s) of the City regarding this RFP. Oral statements given before the proposal due date will not be binding.

2) SUBMISSION OF PROPOSAL

A) All proposals shall be submitted in sealed envelopes and shall include the following information on the face of the envelope:

Proposer's Name
Proposer's Address
Proposal Number
Proposal Item (Name of Proposal)

Failure to do so may result in a premature opening or failure to open such proposal. All proposals must be hand delivered for mailed to:

Auburn Hills City Clerk's Office
1827 N. Squirrel Road
Auburn Hills, MI 48326

B) Proposers are responsible for submitting proposals before stated closing time. Delays in the mail will not be considered. Any proposal received after the stated deadline will be rejected.

C) Any proposal may be withdrawn by giving written notice to the Clerk's Office before stated closing time. After stated closing time, no bid may be withdrawn or canceled for a period of Ninety (90) days after said closing time.

D) The proposer shall specify a unit price for each item listed and total of all items listed. Unit price will prevail on all items.

3) CONSIDERATION OF PROPOSALS

A) Proposals submitted on bid form are understood to be according to specified data. Proposers are responsible for any and all costs associated with the preparation and submittal of their bid.

In cases where an item is requested by a manufacturer's name, trade name, catalog number, or reference, it is understood that the bidder proposes to furnish the item so identified or an item of equal quality and value.

Reference to any of the above is intended to be descriptive but not restrictive and only indicates articles that will not be satisfactory. Bids of "equal" will be considered, provided that the bidder states in his/her proposal exactly what he/she proposes to furnish, including illustration or other descriptive matter which will clearly indicate the character of the article covered by such proposal.

B) The City of Auburn Hills hereby reserves the right to approve as an equal, or reject as not being an equal, any article proposed which contains major or minor variations from substantially therewith. The City may waive irregularities in the bid process as it deems appropriate.

C) The City of Auburn Hills reserves the right, when it is deemed to be in the best interest of the City, to award the proposal in its entirety, in part, or not at all.

D) All Proposers, sub-Proposers and their employees must comply with all Federal, State, and Local laws.

4) TERMS

A) All bids to be tax exempt, State of Michigan #38-6029813.
B) All bid quotations will be based on F.O.B. Destination.

Please direct your questions by email to Myles Sprague, Golf Course Superintendent- Myles.Sprague@davey.com by March 9, 2026. Any questions received after this date will not be considered. All questions will be answered by March 10, 2026.

Insurance Requirements & Other Conditions

Pricing shall be stated in units of quantity specified in the Proposal Document. In case of a discrepancy in computing the amount of the proposal, the unit price proposal will govern.

The proposal evaluation criteria should be viewed as standards, which measure how well a vendor's approach meets the desired requirements and needs of the City.

All proposals shall be opened publicly at the date and time specified. Each shall be recorded with the name of the proposer. All proposals shall be in accordance with the Purchasing Ordinance and the requirements of this notice in order to be deemed "responsive."

No proposal will be accepted from any person, firm or corporation who is in arrears upon any

obligation to the City or who otherwise may be deemed irresponsible or unreliable by the City.

No proposal will be allowed to be withdrawn after it has been deposited with the City of Auburn Hills, except as provided by law. All proposers are held to prices proposed for 180 days or award, whichever comes first, except the successful proposer whose prices shall remain firm through contract expiration.

Any deviation from the scope of work must be noted in the proposal.

The Request for Proposal document together with its addenda, amendments, attachments and modifications, when executed, becomes the contract or part of the contract between the parties.

Any proposal submitted which requires a down payment or prepayment of any kind prior to work completion and full acceptance as being in conformance with specifications will not be considered for award.

All costs incurred in the preparation and presentation of this proposal, in any way whatsoever, shall be wholly absorbed by the prospective firm. All supporting documentation shall become the property of the City of Auburn Hills unless requested otherwise at the time of submission. The confidentiality or disclosure of any information submitted is governed by the Michigan FOIA. The City cannot promise, warrant or guarantee confidentiality nor will the information presented be exempt from disclosure under the FOIA. The City may honor requests for confidentiality only to the extent that FOIA permits.

The City reserves the right to waive any informality in the proposal received, and to accept any proposal or part thereof, which it shall deem to be most favorable to the interests of the City of Auburn Hills.

Any deviation from the Auburn Hills specifications must be noted in the proposal.

Insurance requirements for work on or within city property/facilities

1. Liability Insurance

An ACORD certificate of insurance, or its equivalent, shall be furnished to the City of Auburn Hills at 1827 North Squirrel Road, Auburn Hills, Michigan 48326 evidencing insurance in force for the duration of and applicable to this contract and/or temporary events/special event with an insurance company acceptable to the City of Auburn Hills with a minimum A.M. BEST rating of "A-", and the following minimum requirements:

a. General Liability (affording coverage not less than ISO Commercial General Liability coverage form):

    a) Check mark indicating occurrence as opposed to claims made form
    b) Limits of Liability:
        $1,000,000 each occurrence
        $2,000,000 general and products-completed operations aggregates
    c) Personal Injury

$2,000,000 aggregate

b. Automobile Liability:

a) Check mark indicating coverage as to any automobile.
b) Certificate must reflect Michigan "No Fault" PIP and PPI statutory coverages are also afforded.
c) Limits of Liability: $1,000,000 combined single limit

c. Commercial Umbrella (Excess) of at least $4,000,000.

d. The Proposer shall insure the Proposer's equipment and property and the City and those persons and entities described in section 1(e) herein shall not be liable and/or responsible for any damage to said equipment and/ or property.

e. Description section of ACORD form is to read: It is understood and agreed that the following shall be additional insured: *The City of Auburn Hills, including all elected and appointed officials, all employees and volunteers, all boards, commissions, and/or authorities, including but not limited to the Tax Increment Finance Authority, Brownfield Redevelopment Authority and the Downtown Development Authority, and their officers, employees, representatives and volunteers. The coverage shall be primary to the additional insured and not contributing with any other insurance or similar protection available to the additional insured. This shall not apply to the Proposers' required worker's compensation/employer's liability.*

f. The Description of Operation section of the Certificate shall also name or describe the project and/or event for which coverage is provided.

2. Owner's and Proposer's Protective Liability is required by City

If applicable, the Proposers shall procure and maintain during the life of the contract Owner's and Proposer's Protective Liability Insurance in the name of the City of Auburn Hills, in an amount not less than $2,000,000 per occurrence, and $4,000,000 aggregate for injuries, including death, to persons and property damage including loss of use thereof. This insurance shall be from an insurance company acceptable to the City of Auburn Hills.

3. Workers Compensation

The Proposers shall procure and maintain during the life of the contract, statutory Michigan Workers Compensation and Employers Liability Insurance for all employees employed at or in the vicinity of the Proposers' property, or any property used in connection with the Proposers' operation or in carrying out any work related to this contract.

Michigan Workers Compensation and Employers Liability Insurance shall be procured and maintained with the following limits of liability:

- $500,000 E.L. each accident
- $500,000 E.L. each disease – each employee

- $500,000 E.L. Disease – Policy Limit

This insurance shall comply with all applicable rules and regulations of the State of Michigan and shall be from an insurance company acceptable to the City of Auburn Hills.

4. The proposers shall procure and maintain during the life of the Contract

a) Employee dishonesty coverage with limits of at least $1,000,000 including third party endorsement.

5. Certificate of insurance

The Proposers agrees that he/she will file all required Certificates of Insurance satisfactory to the City of Auburn Hills with the City of Auburn Hills simultaneously with or prior to the execution of this contract indicating that the insurance required herein has been issued and is in full force and effect.

Further, the Proposers will provide updated certificates annually prior to the policies expiration dates, to indicate that the policies and conditions required hereunder are in full force and effect during the life of this contract.

It is understood and agreed that thirty (30) days advance written notice of cancellation, non-renewal, reduction and/or material change in coverage shall be mailed to:

City Clerk's Office
City of Auburn Hills
1827 N. Squirrel Road
Auburn Hills, MI 48326

6. Sub-Proposers Insurance Requirements

If approval is granted by the City of Auburn Hills for Proposers to subcontract any or all of this contract to others, then prior to commencing the subcontract, the Proposers shall furnish certificates evidencing the same insurance for the City of Auburn Hills as required in Sections 1 through 4 of the requirements. Such approval to sub-contract is at the sole discretion of the City of Auburn Hills.

7. Requirement as Part of Contract

These insurance requirements shall be expressly contained in and/or incorporated by reference into the contract executed between the Proposers and the City.

8. Hold Harmless Agreement

To the fullest extent permitted by law, proposer agrees to release, indemnify, defend, and hold harmless The City of Auburn Hills, including all elected and appointed officials, all employees, representatives, and volunteers, all boards, commissions, and/or authorities, including but not limited to the Tax Increment Finance Authority, Brownfield Redevelopment Authority and the Downtown Development Authority, and their officers, employees, representatives and volunteers from any injuries, liability, damages, expenses, attorney's fees, causes of action, suits, claims or judgments, costs, incurred and/or arising from the Contractor's performing its work, jobs, duties and/or any other actions and/or omissions of the Contractor and/or its employees, representatives and/or agents pertaining to and/or in connection with this process.

9. Experience/Qualifications

Provide general background information on the proposer as well as specialized experience and capabilities. Items to be included are:

- General Experience and Qualifications of the Proposer and all sub-Proposers(s)
    - Provide the proposer's and each of the sub-Proposers(s)'s, if any, general business experience, history, financial stability, types of projects, and overall qualifications. Include an organizational chart identifying key staff and sub-Proposers, if any expected to provide services on behalf of the proposer.\

- Qualifications, Experience in Required Areas and Availability of Key Personnel
    - Provide detailed information on experience in running a similar golf course operation. In addition, resumes should be included for each of the individuals and sub-Proposers(s)s referenced. Make known the availability of key personnel's time to accomplish requirements under this contract.

10. References

Proposers should attach a list of professional references. Reference should be able to describe such matters as the Proposer's financial and operational capability. Include the name of the reference, a description of the nature of the listed reference's experience with the Proposer and the name, title, address, telephone number, and email address of a contact person at the reference entity.

PROPOSAL SUBMISSION

The undersigned does hereby submit a proposal to the City of Auburn Hills for the above stated project. The following costs shall include all labor, materials, and equipment needed to accomplish this work.

TOTAL PROPOSAL AMOUNT: $_____.

Company: _____

Address: _____

Telephone: _____ Fax: _____

Email: _____

_____ _____

Authorized Signature Title

_____ _____

Printed Name Date

Approval of Contract

_____ _____

City Representative Title

CITY OF AUBURN HILLS
CITY COUNCIL AGENDA

MEETING DATE: APRIL 20, 2026 **AGENDA ITEM NO 7E**

DEPARTMENT OF PUBLIC WORKS

To: **Mayor and City Council**

From: **Thomas A. Tanghe, City Manager; Chip Hierlihy, General Manager; Tim Wisser, Manager of Municipal Properties**

Submitted: **April 15, 2026**

Subject: **Motion – To Award The Fieldstone Golf Club Pump Replacement**

INTRODUCTION AND HISTORY

Fieldstone Golf Club is an 18-hole municipal golf course with five submersible pump lift stations that dewater the low-lying areas of the course. Excess stormwater is gravity fed to the lift stations and pumped into the Galloway Drain. Pump Station #5, located at Hole 16, is the southernmost station and drains the fairway area including the retention area south of the fairway.

In December 2025, staff identified a fault in the existing 10.1 HP ABS submersible pump, leaving the station unable to operate at designed capacity. With the primary pump offline, the station is currently dependent on a 2-inch backup pump that was not intended for continuous operation. Recent heavy rain events have already produced temporary flooding on the course, and continued reliance on the undersized backup unit risks a secondary failure that would leave Pump Station #5 completely inoperable during peak stormwater events. The replacement pump carries an approximate four-week lead time. Award is necessary to restore full drainage capacity ahead of the summer rain season. Because this failure was identified after adoption of the 2026 budget, a budget amendment is required.

The Department of Public Works solicited bids by publishing a Request for Proposals on the Michigan Inter-governmental Trade Network for the submersible pump replacement at Pump Station #5. The bid opening was held on March 20, 2026 at the City Clerk's Office, with three bids received as follows:

COMPANY NAME	TOTAL
CSM Mechanical, LLC	$28,150.00
Kennedy Industries	$28,472.00
K&S Ventures, Inc.	$58,515.00

CSM Mechanical, LLC of Milford, Michigan submitted the lowest bid at $28,150.00, proposing a Sulzer ABS XFP 151E as an approved equivalent to the existing 6” pump. CSM Mechanical brings over 30 years of municipal pump station experience, holds current Michigan Mechanical Contractor and Boiler Installer licenses, and submitted a complete bid package with references including Oakland County Water Resources Commission, the City of Oak Park, and the City of Dearborn. The firm has previously performed work at Fieldstone Golf Club, including pump replacements in 2019 and 2017.

STAFF RECOMMENDATION

Staff recommend award of the contract for Fieldstone Golf Club’s Stormwater Pump Station #5 Replacement to CSM Mechanical, LLC of Milford, Michigan in the not-to-exceed amount of $28,150.00. Staff further recommend approval of a corresponding budget amendment for the same amount (GL# 584-753-933.000).

MOTION

Move to award the Fieldstone Golf Club Stormwater Pump Station #5 Replacement to CSM Mechanical, LLC in the not-to-exceed amount of $28,150.00. Furthermore, authorize a budget amendment to increase appropriations by $28,150.00 in account 584-753-933.000

I CONCUR: Thomas A. Tanghe

THOMAS A. TANGHE, CITY MANAGER

BID ITEM: Fieldstone Golf Club - Storm Water Pump Replacement
BID OPENING DATE: March 20, 2026
BID OPENING TIME: 9am
ELECTRONIC BIDS ACCEPTED? Hard Copy Only
ATTENDED BY: Wisser, Klassen

COMPANY NAME	ADDRESS			TOTAL Lump Sum Price
CSM Mechanical	1235 Holden Ave., Milford, 48381			$ 28,150.00
K&S Ventures, Inc.	2925 Waterview Dr., Rochester Hills, 48309			$ 58,515.00
Kennedy Industries				$ 28,472.00

☒ Mailboxes have been checked for bids that may have been mailed in

N/A Were electronic bids allowed. If so, was BidNet checked for received bids

also send results to:

AUBURN HILLS
COST BID FORM

Fieldstone Golf Club – Pump #5 Replacement, Hole 16

ITB-CAH-03-20-2026-001

The undersigned does hereby submit a bid to the City of Auburn Hills for the services described in the scope of work and certifies that they have read the entire ITB packet.

PUMP #5 REPLACEMENT – HOLE 16

Lump sum price to remove the existing pump from Pump Station #5 at Hole 16; supply and install a new 10.1 HP ABS pump or approved equivalent; reconnect all mechanical, electrical, and control components; and perform full operational testing with written documentation provided to the City. Price must include all equipment, materials, labor, and documentation. Fieldstone Golf Club staff will perform all site and turf restoration.

Description	Total Lump Sum Price
Storm Water Pump Replacement – Remove existing pump; supply and install new 10.1 HP ABS pump or approved equivalent	$ 28,150.00

Exceptions / Notes:
ABS Sulzer Submersible Pump Model: XFP 151E CB1.4 PE 75/4

The undersigned does hereby submit a bid to the City of Auburn Hills for the above stated services.

Company: CSM MECHANICAL, LLC.
Address: 1235 HOLDEN AVE. MILFORD, MI 48381
Telephone: 248-302-2078
Email: NBARDEN@CSMMECHANICAL.COM

Authorized Signature CRAIG S. MORTZ Title MEMBER

Printed Name CRAIG S. MORTZ Date 3-19-2026

Approval

City Representative _____ Title

AUBURN HILLS
CITY OF AUBURN HILLS

HOLD HARMLESS AGREEMENT

As required for approval of the
FIELDSTONE GOLF CLUB - PUMP #5 REPLACEMENT HOLE 16
(Activity)

CSM MECHANICAL, LLC. herein after referred to as CSM MECHANICAL
Name of Company — Abbreviated Name Form

agrees to release, indemnify, defend, and hold harmless The City of Auburn Hills, including all elected and appointed officials, all employees, representatives, and volunteers, all boards, commissions, and/or authorities, including but not limited to the Tax Increment Finance Authority, Brownfield Redevelopment Authority and the Downtown Development Authority, and their officers, employees, representatives and volunteers from any injuries, liability, damages, expenses, attorney's fees, causes of action, suits, claims or judgments, costs, incurred and/or arising from the Contractor's performing its work, jobs, duties and/or any other actions and/or omissions of the Contractor and/or its employees, representatives and/or agents pertaining to and/or in connection with the Activity.

In addition, CSM MECHANICAL agrees to furnish an ACORD certificate of insurance
(Abbreviated Name Form)

as required by the City of Auburn Hills with the description of the ACORD form to read as follows: *It is understood and agreed that the following shall be additional insured: The City of Auburn Hills, including all elected and appointed officials, all employees, representatives and volunteers, all boards, commissions, and/or authorities, including but not limited to the Tax Increment Finance Authority, Brownfield Redevelopment Authority and the Downtown Development Authority, and their officers, employees, representatives and volunteers. The coverage shall be primary to the additional insured and not contributing with any other insurance or similar protection available to the additional insured. This shall not apply to the contractor's required worker's compensation/employer's liability.*

Name of Company — Witnesses

CSM MECHANICAL, LLC

By CRAIG S. MORTZ

Dated 3-19-2026



"Relentlessly Helping Our Customers Achieve Success by Being an Integral, Caring and Innovative Mechanical Solutions Provider."

March 19, 2026

SUBJECT: Introduction to CSM Mechanical – Your Trusted Mechanical Services Partner

I appreciate the opportunity to introduce CSM Mechanical, LLC to your organization. At CSM Mechanical, we take pride in delivering innovative, high-quality mechanical solutions that ensure efficiency, reliability, and long-term cost savings for our clients. With our recent expansion into Florida, we are eager to bring our expertise and commitment to excellence to cities and municipalities like yours. As the owner of CSM Mechanical, I have been a dedicated mechanical services contractor since 1998. Our team brings over 30 years of industry experience in technical service, support, design, consultation, and installation, serving industrial, commercial, and institutional clients. We have built a strong reputation in Southeastern Michigan by consistently providing timely, cost-effective, and high-quality mechanical solutions that help facility managers and building owners optimize their operations.

At CSM Mechanical, we are redefining the way mechanical systems are managed. Our approach integrates cutting-edge technology, single-source responsibility, and a commitment to sustainability to ensure peak performance and energy efficiency. By entrusting your mechanical service needs to CSM Mechanical, you gain a strategic partner focused on delivering dependable solutions, allowing you to dedicate more time to your core operations and maximize profitability.

We stand by our commitment to excellence, responsiveness, and 24/7 service availability, ensuring that your mechanical systems operate smoothly under any conditions. Enclosed, you will find a list of references from satisfied clients who can attest to the quality and reliability of our services.

I would welcome the opportunity to discuss how CSM Mechanical can support your mechanical service needs. Please feel free to contact our office at your convenience to schedule a consultation or request more information. I look forward to the possibility of working together and contributing to the success of your facilities.

Let's connect—give us a call today!
Respectfully,

Richard Buckley - Estimator
CSM Mechanical, LLC



"Relentlessly Helping Our Customers Achieve Success by Being an Integral, Caring and Innovative Mechanical Solutions Provider."

REFERENCES

Oakland County Water Resources Commission – Bldg 95 West, 1 Public Works Dr. Waterford, Michigan 48328
Prime Mechanical Contractor
Att: Mr. M. Drew Sandahl Phone:248.858.1570

Marion, Howell, Oceola, Genoa Sewer and Water Authority – 900 Chilson Rd. Howell, MI 48843
Prime Mechanical Contractor
Att: Mr. Greg Tatara Phone:810.224.5837

J.R. Heineman – 1224 N. Niagara St. Saginaw, Michigan 48602
Hampton Township | Saginaw McCarty Road WWTP Pump Station Improvements
Att: Mr. Dale Johnson Phone: 989.753.8483

LM Clarke Construction – 50850 Bemis Rd. Belleville, Michigan 48111
City of Rochester Hills Pump Station Improvements AND Garden City WWTP Pump Station Improvements | City of Linden Pump Station Improvements
Att: Ms. Lynn Harmala Phone: 734.481.1565

RCL Construction – 777 W. Maynard Road Sanford, Michigan 48657
City of Wixom WWTP Grit Removal System | Scio Township Pump Station Improvements | Commerce Township Water Storage Project | Canton Township Water Storage | Scio Township Pump Station Improvements | Flint Beecher Pump Station Improvements | Lyon Township WWTP Improvements
Att: Mr. Rod Bauer Phone: 989.687.7319

City of Oak Park – 13600 Oak Park Boulevard Oak Park, Michigan 48237
Water Reservoir Pumping Station Improvements with OHM
Att: Mr. Scott Lemarbe Phone: 248.867.2827

City of Dearborn – 2951 Greenfield Rd. Dearborn, MI 48120
Department Of Public Works
Att: Mr. Anthony Belzak Phone: 313.943.2088

Livingston County Drain Commission – 2300 E Grand River Ave. #105 Howell, MI 48843
Prime Mechanical Contractor
Att: Mr. Scott Brown Phone: 517.404.2573

"Relentlessly Helping Our Customers Achieve Success by Being an Integral, Caring and Innovative Mechanical Solutions Provider."

GENERAL LIABILITY INSURANCE
Auto-Owners Insurance Company
Policy No. 141969971
FEDERAL TAX ID NO.: 26-2916648

WORKMEN'S COMPENSATION INSURANCE
Auto-Owners Insurance Company
Policy No. A106653194
MESC EMPLOYER NO.: 1604077

Michigan Department of Licensing and Regulatory Affairs
Bureau of Construction Codes
Boiler Installer License

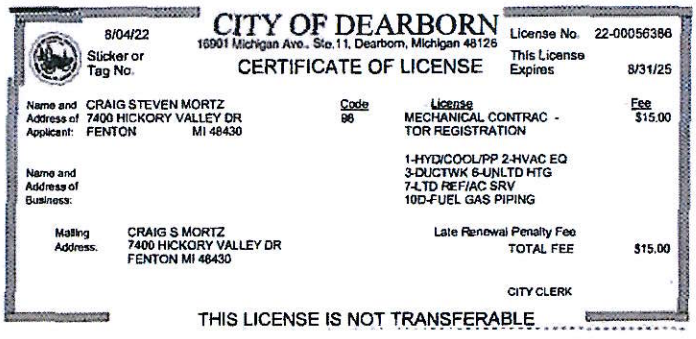
CRAIG S MORTZ
1235 Holden Avenue
Milford, mi 48381

License No: 314965 2B
Expiration Date: 12/31/2026

Michigan Department of Licensing and Regulatory Affairs
Bureau of Construction Codes
Mechanical Contractor License

CRAIG S MORTZ
7400 HICKORY VALLEY DRIVE
FENTON, MI 48430

Classifications: 1 , 10D , 2 , 3 , 6 , 7
License No: 7111815
Expiration Date: 08/31/2028



CITY OF DEARBORN
16901 Michigan Ave., Ste.11, Dearborn, Michigan 48126
CERTIFICATE OF LICENSE

8/04/22 Sticker or Tag No.

License No. 22-00056386
This License Expires 8/31/25

Name and Address of Applicant: CRAIG STEVEN MORTZ, 7400 HICKORY VALLEY DR, FENTON MI 48430

Code 96 — License: MECHANICAL CONTRACTOR REGISTRATION — Fee $15.00

1-HYD/COOL/PP 2-HVAC EQ
3-DUCTWK 6-UNLTD HTG
7-LTD REF/AC SRV
10D-FUEL GAS PIPING

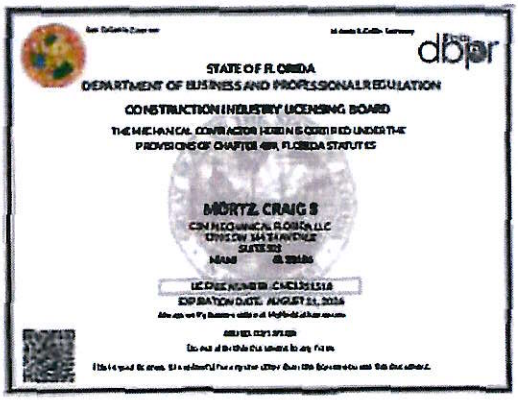
Name and Address of Business:

Mailing Address: CRAIG S MORTZ, 7400 HICKORY VALLEY DR, FENTON MI 48430

Late Renewal Penalty Fee
TOTAL FEE $15.00

CITY CLERK

THIS LICENSE IS NOT TRANSFERABLE



dbpr

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CONSTRUCTION INDUSTRY LICENSING BOARD

THE MECHANICAL CONTRACTOR HEREIN IS CERTIFIED UNDER THE PROVISIONS OF CHAPTER 489, FLORIDA STATUTES

MORTZ, CRAIG S

EXPIRATION DATE: AUGUST 31, 2026

Michigan Office: 1235 Holden Avenue, Milford, MI 48381 – Office: (248) 302-2078
Florida Office: 13995 SW 144th Avenue, Suite 201, Miami, FL 33186 – Office: (786) 803-6285

AUBURN HILLS

INVITATION TO BID

ITB ID:	**ITB-CAH-03-20-2026-001**
ITB NAME:	**FIELDSTONE GOLF CLUB – STORM WATER PUMP REPLACEMENT**
ITEM:	**Pump Replacement –10.1 HP ABS Pump or Approved Equivalent**
DUE DATE:	**March 20, 2026, 9:00 AM EST**

The City of Auburn Hills is seeking bids from qualified contractors for the replacement of the existing pump at Storm Water Pump Station #5, Hole 16, at Fieldstone Golf Club. The selected contractor will be responsible for removal of the existing pump, supply and installation of a new 10.1 HP ABS pump or approved equivalent, reconnection of all mechanical and electrical components, and full operational testing. Fieldstone Golf Club staff will be responsible for all site and turf restoration.

Bids will be accepted by the City Clerk until March 20, 2026, 9:00 AM EST. Bids will be opened at that time in the front lobby of the City Clerk at 1827 N. Squirrel Road, Auburn Hills, MI 48326.

Bids to receive consideration shall be received prior to the specified time of opening as designated above. **NO LATE BIDS WILL BE ACCEPTED**. Bids are considered received when received and date stamped by the office of the City Clerk.

Any questions regarding this ITB should be directed via email to:
Tim Wisser, Manager of Municipal Properties at twisser@auburnhills.org
Chip Hierlihy, Manager-Fieldstone at chierlihy@auburnhills.org

Submission Instructions:

1. **Sealed envelope clearly marked: Fieldstone Golf Club – Storm Water Pump Replacement Sealed Bid, along with ITB ID on the sealed envelope.**
2. **Must be received by City Clerk's Office, 1827 N. Squirrel Rd., Auburn Hills, MI 48326 no later than March 20, 2026, 9:00 AM EST.**
3. **Include a completed copy of the Cost Bid Form (final page of this document).**

1. PREPARATION OF BID

- Each bidder shall furnish all information required on the Cost Bid Form. Erasures or other changes must be initialed by the person signing the form.
- If there is any doubt as to the meaning of any part of the specifications or other conditions within this ITB, contact Tim Wisser, Manager of Municipal Properties at twisser@auburnhills.org or Chip Hierlihy, Manager-Fieldstone at chierlihy@auburnhills.org.

2. SUBMISSION OF BIDS

- All bids shall be submitted in sealed envelopes and shall include the following information on the face of the envelope:

Bidder's Name and Address
ITB Number: ITB-CAH-03-20-2026-001
ITB Item: Fieldstone Golf Club – Storm Water Pump Replacement

All bids must be hand delivered or mailed to: Auburn Hills City Clerk's Office, 1827 N. Squirrel Road, Auburn Hills, MI 48326.

- Bidders are responsible for submitting bids before the stated closing time. Delays in the mail will not be considered. Any bid received after the stated deadline will be rejected.
- Any bid may be withdrawn by giving written notice to the Clerk's Office before the stated closing time.

3. GENERAL INFORMATION

- The bid evaluation criteria should be viewed as standards which measure how well a bidder's approach meets the desired requirements and needs of the City.
- All bids shall be opened publicly at the date and time specified. Each shall be recorded with the name of the bidder. All bids shall be in accordance with the Purchasing Ordinance and the requirements of this notice in order to be deemed responsive.
- No bid will be accepted from any person, firm, or corporation who is in arrears upon any obligation to the City or who otherwise may be deemed irresponsible or unreliable by the City.
- No bid will be allowed to be withdrawn after it has been deposited with the City of Auburn Hills, except as provided by law. All bidders are held to prices proposed for 180 days or award, whichever comes first.
- Any deviation from the scope of work must be noted in the bid.
- The ITB document together with its addenda, amendments, attachments, and modifications, when executed, becomes the contract or part of the contract between the parties.
- Any bid submitted which requires a down payment or prepayment of any kind prior to work completion and full acceptance will not be considered for award.
- All costs incurred in the preparation and presentation of this bid shall be wholly absorbed by the bidder. All supporting documentation shall become the property of the City of Auburn Hills unless requested otherwise at the time of submission. The confidentiality or disclosure of any information submitted is governed by the Michigan FOIA.
- The City reserves the right to waive any informality in the bid received and to accept any bid or part thereof which it shall deem to be most favorable to the interests of the City of Auburn Hills.

4. PROJECT BACKGROUND

Fieldstone Golf Club is an 18-hole municipal golf course operated by the City of Auburn Hills. The course includes five stormwater lift pump stations that manage drainage throughout the property. Pump Station #5 is located at Hole 16 and has experienced ongoing operational issues. The existing pump requires replacement.

The pump to be replaced is a 10.1 HP ABS Pump (rebuilt 2017). The City is seeking a replacement with a new unit of equivalent or approved sizing. Fieldstone Golf Club staff will handle all site and turf restoration following completion of contractor work.

5. SCOPE OF WORK

- Remove the existing pump from Pump Station #5 at Hole 16 and dispose of properly.
- Supply and install a new 10.1 HP ABS pump or approved equivalent appropriately sized for site conditions.
- Reconnect all mechanical, electrical, and control components including float switches and control panel.
- Perform full operational testing of the installed pump prior to project closeout and provide written test results to the City.
- Minimize disturbance to surrounding turf and site areas during work. All site and turf restoration is the responsibility of Fieldstone Golf Club staff.
- Equipment data sheet: pump model, specifications, installation date, and manufacturer contact information.
- Minimum 1-year warranty on all equipment and workmanship. Extended warranties are preferred.

6. MINIMUM QUALIFICATIONS

Bidders will be rejected and deemed non-responsive if they do not meet ALL of the following minimum qualifications:

- The bidder shall have been in business with a minimum of five (5) years of experience in pump or lift station work at the time of bid submission.
- The bidder shall maintain a commercial office with staff available during normal business hours, Monday through Friday.
- The bidder must provide three (3) business references where similar contracted work has been completed in the past three (3) years.
- The bidder must demonstrate capability to meet the City's insurance requirements as specified.

7. BID REQUIREMENTS

Bids must include the following. Incomplete bids may be deemed non-responsive.

- **Completed Cost Bid Form –** Bidders must provide a fully completed Cost Bid Form with lump sum pricing.
- **Company Qualifications –** Company history and relevant pump/lift station experience.

- **Three (3) Professional References –** Company name, contact person, phone number, email, project description, and dates of service. Similar work within the past three (3) years preferred.
- **Certificate of Insurance –** Current certificate demonstrating ability to meet City insurance requirements. Full compliance certificates required prior to contract execution.

8. CONTRACT AWARD

- The City of Auburn Hills reserves the right to accept or reject any or all bids and to waive any informalities or irregularities in any bid or the ITB process.
- The competency and responsibility of all bidders shall be taken into consideration in the award of the contract. The City reserves the right to award the contract to the bidder offering the best value, but not necessarily the one submitting the lowest price.
- The City of Auburn Hills reserves the right to terminate the contract for any reason or no reason with thirty (30) days written notice.
- Nothing in this ITB shall be interpreted as conveying exclusivity to the contractor. The City reserves the right to make any physical repairs or modifications to the pump station as it deems in the best interest of the City.
- Subcontracting of any portion of this work requires prior written approval from the City of Auburn Hills. The contractor remains fully responsible for the work and performance of any approved subcontractors.

INSURANCE REQUIREMENTS FOR WORK ON OR WITHIN CITY PROPERTY/FACILITIES

Liability Insurance

An ACORD certificate of insurance, or its equivalent, shall be furnished to the City of Auburn Hills evidencing insurance in force for the duration of and applicable to this contract with an insurance company acceptable to the City of Auburn Hills with a minimum A.M. BEST rating of "A", and the following minimum requirements:

a. General Liability (affording coverage not less than ISO Commercial General Liability coverage form):

   I. Check mark indicating occurrence as opposed to claims made form
   II. Limits of Liability:
   $2,000,000 each occurrence
   $4,000,000 general and products-completed operations aggregates
   III. Personal Injury
   $2,000,000 aggregate

b. Automobile Liability:

   I. Check mark indicating coverage as to any automobile
   II. Certificate must reflect Michigan "No Fault" PIP and PPI statutory

coverages are also afforded

III. Limits of Liability: $2,000,000 combined single limit

c. Acceptable alternate limits are combinations of primary and excess or umbrella limits to equal not less than those shown in (a) and (b) above.

d. Description section of ACORD form is to read: *It is understood and agreed that the following shall be additional insured: The City of Auburn Hills, including all elected and appointed officials, all employees and volunteers, all boards, commissions, and/or authorities, including but not limited to the Tax Increment Finance Authority, Brownfield Redevelopment Authority and the Building Authority, and their employees, representatives and volunteers. The coverage shall be primary to the additional insured and not contributing with any other insurance or similar protection available to the additional insured. This shall not apply to the contractor's required worker's compensation/employer's liability*.

e. The Description of Operation section of the Certificate shall also name or describe the project and/or event for which coverage is provided.

Owner's and Contractor's Protective Liability

The contractor shall procure and maintain during the life of the contract Owner's and Contractor's Protective Liability and Insurance in the name of the City of Auburn Hills, in an amount not less than $2,000,000 per occurrence, and $4,000,000 aggregate for injuries, including death, to persons and property damage including loss of use thereof. This insurance shall be in an insurance company acceptable to the City of Auburn Hills.

Workers Compensation

The contractor shall procure and maintain during the life of the contract, statutory Michigan Workers Compensation and Employers Liability Insurance for all employees employed at or in the vicinity of the contractor's property, or any property used in connection with the contractor's operation or in carrying out any work related to this contract.

Michigan Workers Compensation and Employers Liability Insurance shall be procured and maintained with the following limits of liability:

- $100,000 E.L. each accident
- $100,000 E.L. each disease – each employee
- $500,000 E.L. Disease – Policy Limit

This insurance shall comply with all applicable rules and regulations of the State of Michigan, and shall be in an insurance company acceptable to the City of Auburn Hills.

Certificate of Insurance

The contractor agrees that they will file all required Certificates of Insurance satisfactory to the City of Auburn Hills with the City of Auburn Hills simultaneously with or prior to the execution of this agreement indicating that the insurance required herein has been issued and is in full force and effect.

Further, the contractor will provide updated certificates prior to the policies expiration dates, to indicate that the policies and conditions required hereunder are in full force and effect during the life of this agreement.

AUBURN HILLS

CITY OF AUBURN HILLS

HOLD HARMLESS AGREEMENT

As required for approval of the

_____

(Activity)

_____ herein after referred to as _____

Name of Company Abbreviated Name Form

agrees to release, indemnify, defend, and hold harmless The City of Auburn Hills, including all elected and appointed officials, all employees, representatives, and volunteers, all boards, commissions, and/or authorities, including but not limited to the Tax Increment Finance Authority, Brownfield Redevelopment Authority and the Downtown Development Authority, and their officers, employees, representatives and volunteers from any injuries, liability, damages, expenses, attorney's fees, causes of action, suits, claims or judgments, costs, incurred and/or arising from the Contractor's performing its work, jobs, duties and/or any other actions and/or omissions of the Contractor and/or its employees, representatives and/or agents pertaining to and/or in connection with the Activity.

In addition, _____ agrees to furnish an ACORD certificate of insurance

(Abbreviated Name Form)

as required by the City of Auburn Hills with the description of the ACORD form to read as follows: *It is understood and agreed that the following shall be additional insured: The City of Auburn Hills, including all elected and appointed officials, all employees, representatives and volunteers, all boards, commissions, and/or authorities, including but not limited to the Tax Increment Finance Authority, Brownfield Redevelopment Authority and the Downtown Development Authority, and their officers, employees, representatives and volunteers. The coverage shall be primary to the additional insured and not contributing with any other insurance or similar protection available to the additional insured. This shall not apply to the contractor's required worker's compensation/employer's liability*.

Name of Company Witnesses

_____ _____

By _____ _____

Dated _____

AUBURN HILLS

COST BID FORM

Fieldstone Golf Club – Pump #5 Replacement, Hole 16

ITB-CAH-03-20-2026-001

The undersigned does hereby submit a bid to the City of Auburn Hills for the services described in the scope of work and certifies that they have read the entire ITB packet.

PUMP #5 REPLACEMENT – HOLE 16

Lump sum price to remove the existing pump from Pump Station #5 at Hole 16; supply and install a new 10.1 HP ABS pump or approved equivalent; reconnect all mechanical, electrical, and control components; and perform full operational testing with written documentation provided to the City. Price must include all equipment, materials, labor, and documentation. Fieldstone Golf Club staff will perform all site and turf restoration.

Description	**Total Lump Sum Price**
Storm Water Pump Replacement – Remove existing pump; supply and install new 10.1 HP ABS pump or approved equivalent	$_____

Exceptions / Notes:

_____

_____

_____

The undersigned does hereby submit a bid to the City of Auburn Hills for the above stated services.

Company: _____

Address: _____

Telephone: _____

Email: _____

Authorized Signature _____ Title

Printed Name _____ Date

Approval

City Representative _____ Title

SULZER

Water and wastewater solutions

Submersible sewage pumps **type ABS XFP**





Main industries and applications

Submersible sewage pump type ABS XFP is designed for municipal and industrial wastewater equipped with Premium Efficiency (IE3 level) motor for:

- Hazardous locations
  - Approval for ATEX (Ex II 2G Ex h db IIB T4 Gb), FM and CSA as standard (PE1 to PE3) *
  - Approval for ATEX (Ex II 2G Ex h db IIB T4 Gb), FM and CSA as option (PE4 to PE7) *
- Clean water and wastewater
- Sewage containing solids and fibrous material
- Sewage with sludge and high contain of rags
- Industrial raw water and wastewater
- Various types of industrial effluents
- Municipal combined sewage and storm water systems

* see motor power table on page 10







Savings with Premium Efficiency

The XFP pumps benefit from high efficiency in both motor and hydraulics, resulting in substantial savings:

- Lower energy consumption
- Reduced operating costs
- Fewer maintenance costs
- Less downtime caused by breakdowns and blockages

Great savings means a healthier environment, reducing your carbon footprint and the risk of harmful overflows.
XFP pumps make your operation more competitive while contributing to a greener future.



Features and benefits of hydraulics

1 Vast choice of impellers
- Highly reliable and efficient impeller design with single and multi-vane models to ensure exceptional blockage resistance, solid passage min. 75 mm / 3 in and greater
- Optimum balance of impeller vane numbers and solids handling, based on extensive Computational Fluid Dynamics (CFD) research and testing
- Market leading efficiency, without compromising on solid size and rag handling

2 Adjustable bottom plate with intercepted slotting
- Significant energy savings throughout lifetime
- Blockage free operation
- Adjustment of the bottom plate restores pump efficiency
- Maintains efficient rag handling throughout its lifetime

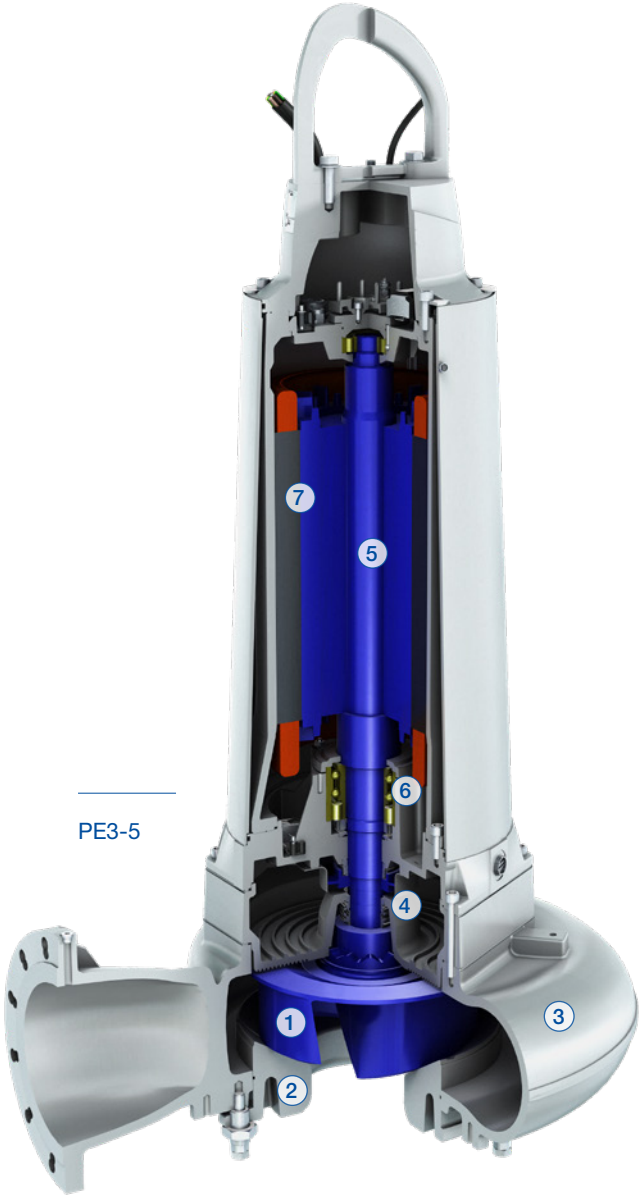
3 Double volute casing from DN 400
- Reduces radial forces and shaft deflection
- Maximizes the life of bearings and shaft seals, thereby reducing lifecycle costs

4 Double mechanical seals
- Silicon carbide/silicon carbide (SiC/SiC) provides maximum resistance from abrasives
- Seal blockage prevention reduces operational costs
- SiC/SiC is chemically resistant in wastewater and most other industrial applications

5 Heavy-duty stainless steel shaft
- Minimizes deflection at mechanical seal to <0.05 mm / 0.002 in.
- Increased safety against fatigue fractures

6 Heavy-duty bearings
- Minimum life 50’000 h for motors up to 9 kW / 12 hp and minimum 100’000 h for motors larger than 11 kW / 17 hp
- Electrically, insulated upper bearing as standard for PE6 and PE7, optional for PE5, which protects against stray electrical currents and avoids micro-cratering in the raceway of the inner and outer rings

7 Premium Efficiency IE3 motor in accordance with IEC 60034-30



PE3-5

Cutting-edge innovations shape every design

ContraBlock Plus / ContraBlock Evo

This technology has been specially engineered to handle tough requirements, such as higher rag and solids content caused by the need to reduce water consumption.





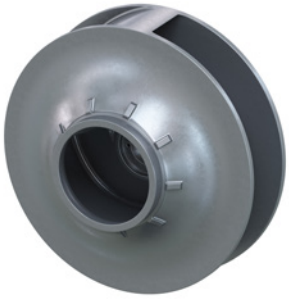
Vortex

Vortex impellers are ideal for handling liquids containing gas or sand as well as low flow/high head applications. The impellers have a relatively high solid passage and they are often used for handling sewage in rural areas in small pumping stations.



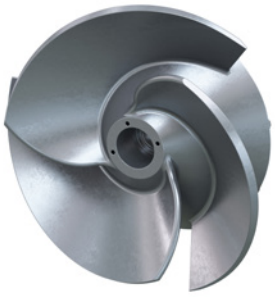
Channel

Channel impellers are ideal for handling liquids without fibrous materials. For wastewater containing fibrous materials, the suitability depends on the pump size and is shown in ABSEL, Sulzer's wastewater pump selection program.



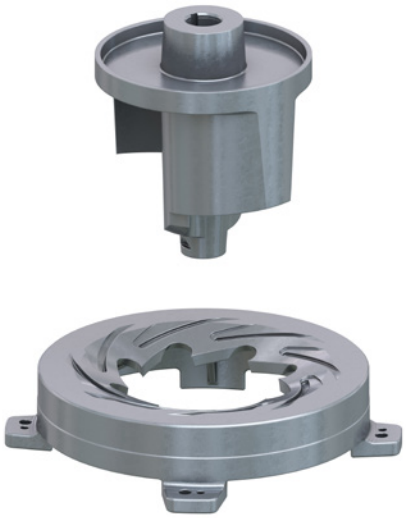
Skew

Skew impellers have a semi-open, mixed flow design and combine features of both axial flow and centrifugal flow impellers. They have a large solids passage that makes them ideal for handling sewage in large terminal, inlet, and effluent pumping stations.



Chopper

In certain applications, waste materials can be long or bulky and effective handling must be accomplished by cutting them into smaller pieces. To meet this need, chopper impellers are used.



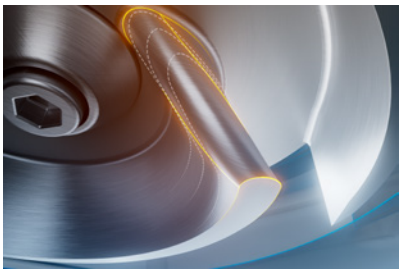
ContraBlock Evo – an evolution of the ultimate solids handling system

Unique vane geometry

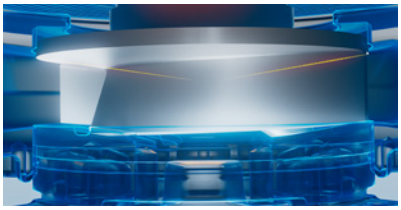
The variable slope leading edge forces solids towards the high velocity regions to prevent solids accumulation.

The trailing edge is optimized for the exit angle to reduce pulsations and reduce vane load.

The hub cone geometry ensures solids cannot accumulate in the low velocity zone.



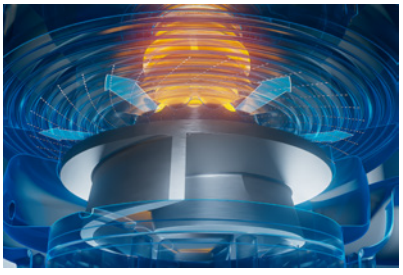


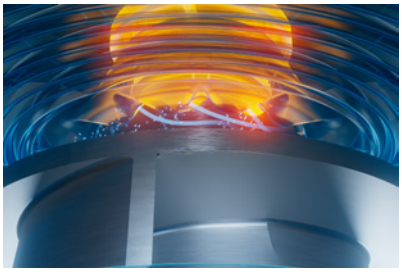


Integrated seal protection system

The spiral flow diffuser creates an outward pumping force to eject solids from behind the impeller.

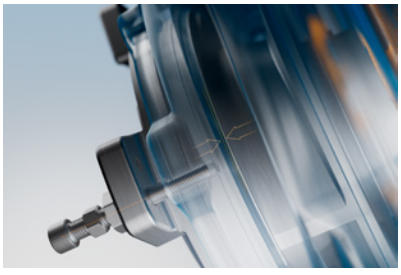
The high torque cutter ring shears any long or stringy materials into fine particles to protect the seal.





Field adjustable wear plate

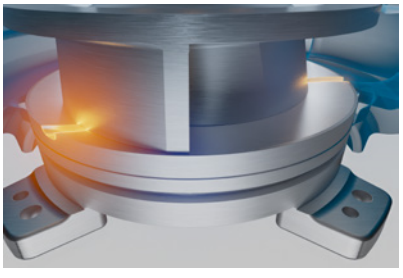
Simple adjustments with basic tools will maintain optimal solids handling and efficiency. The optimal gap can be set in a few basic steps using fine-tuned adjustment screws from the outside of the pump.

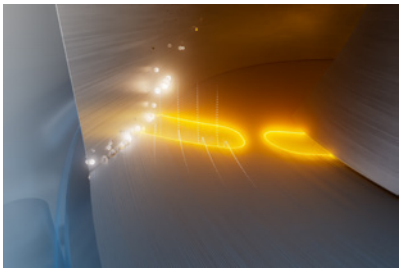


Pulse-out slot technology

The arced slots in the wear plate dislodge any material from collecting between the impeller and wear plate.

The asymmetric slot design creates micro-shearing and pulses to prevent solids from traveling along the impeller vane.





Premium Efficiency submersible motors (IE3)

Sulzer was the first company in the world to offer Premium Efficiency IE3 submersible motors, in order to achieve the perfect balance of reliability and energy consumption. Using Premium Efficiency IE3 motors and non-clogging impellers, the submersible sewage pump type ABS XFP is the most efficient wastewater pump on the market.

Main design features, in accordance with IEC 60034-30, for low lifecycle costs by energy saving, significant carbon footprint reduction and increased lifetime by low winding temperature rise. Designed for Variable Frequency Drive (VFD) operation. ATEX, FM and CSA certified motors.

Motor power, PE1 - PE7

No of poles		Power P2 (kW)						
		PE1	**PE2**	**PE3**	**PE4**	**PE5**	**PE6**	**PE7**
2	50 Hz	3 - 4	5.5 - 11	15 - 25	35 - 42	-	-	-
	60 Hz	4.5	8 - 12.5	18.5 - 30	43 - 54	-	-	-
4	50 Hz	1.5 - 2.9	4 - 9	11 - 30	22 - 45	55 - 110	132 - 250	-
	60 Hz	2.2 - 3.5	4.5 - 10.5	13 - 35	25 - 52	63 - 125	150 - 335	-
6	50 Hz	1.3	3	9 - 22	18.5 - 37	45 - 90	110 - 200	250 - 550
	60 Hz	2	3.5	9 - 25	21 - 43	52 - 104	125 - 220	290 - 620
8	50 Hz			-	15 - 30	37 - 75	90 - 132	160 - 450
	60 Hz			12	17 - 35	43 - 86	104 - 150	185 - 500
10	50 Hz					30 - 55	75 - 132	160 - 350
	60 Hz					35 - 63	86 - 150	185 - 415
12	50 Hz						-	160 - 300
	60 Hz						86 - 150	185 - 350

Features and benefits of motors (IE3)

1 Insulation
- Class H (140°C / 284°F) insulation, temperature rise according to NEMA Class A up to 110 kW/168 hp and Class B above
- Extremely long lifetime of motor
- Unprecedented motor reliability due to Class H winding components
- Insulation systems are suitable for VFD operation according IEC/TS 60034-25A

2 Service factor up to 1.3
- Allows short-time operation at lower voltage, higher frequency (generator sets) and temporary higher medium temperature

3 Versatile cable types
- European, FM or CSA approved country-specific cables for use in sewage water

4 Optional shielded cable (EMC)
- Operation for frequency controlled AC drives
- Installation according to EMC directives

5 Moisture DI probe in seal chamber as standard
- Early mechanical seal failure indication

PE4 to PE7: Additional moisture DI probe, separate for cable connection chamber and motor compartment as option, standard for PE6 and PE7
- Early moisture ingress indication

6 Thermal protection switch in stator as standard
- Power supply failure motor protection (low voltage, single phase)

PE4 to PE7: Additional separate thermal protection switch in upper and lower bearing as option and standard for PE6 and PE7. Sensor options:
- Bimetallic Switch, PTC or PT100
- Early warning at beginning of bearing malfunction

PE4 to PE7: Optional vibration sensor
- Early indication of vibration

7 Cooling system
PE1 and PE2: Oil cooled motor as option in 60Hz, standard in 50Hz
- Continuous operation in dry installation

PE3 to PE6: Closed loop water cooling system with integrated heat exchanger as option, standard for PE6
- Continuous operation in wet well installation with un-submerged motor
- Continuous operation in dry installation

PE7: Open loop cooling system
- Continuous operation in wet well installation with un-submerged motor
- Continuous operation in dry installation



PE1-2

The right installation to fit any need

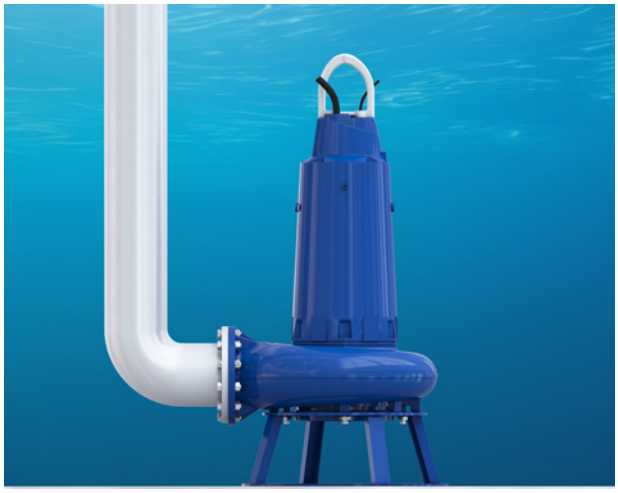
Wet well installation with pedestal

Wet well installations are the most common design for small and medium-sized pumping stations. Using submersed pumps allows for the smallest footprint and saves on building and installation costs.



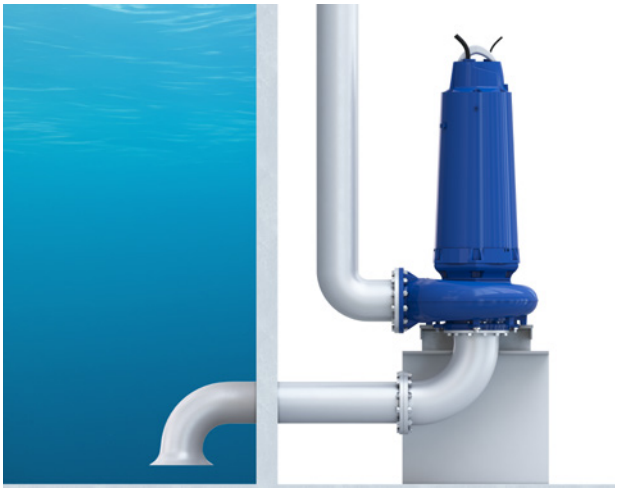
Wet well transportable installation

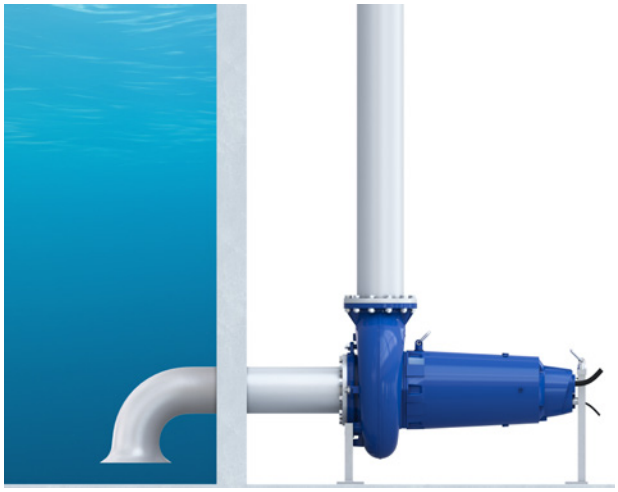
A transportable installation is used for temporary structures, bypassing sewers or pumping stations under construction.



Dry well installations

Dry well installations are more often used for medium and large pumping stations. Building costs are higher since a second dry chamber is required. However, it allows for easier and safer access for inspection, repair and maintenance of pumps. Dry well stations are either designed for vertical or horizontal pump installations.





Easy switch with Sulzer adapter brackets

Time for change

Over the years, the equipment in your pumping station gets older and the risk of breakdowns and disruptions increases. When it is time to replace your old pump with a new, more efficient one, we can offer both the pump and an easy way to install it. Our submersible sewage pumps type ABS XFP can be fitted with an adapter bracket to match your existing pedestal and guiderail. Choosing the XFP also means lower energy consumption, reduced maintenance costs and blockages.

Simple switch for better efficiency

Any previously installed product may easily be replaced without the need to replace the pedestal and guiderail, simply by using the Sulzer adapter bracket. This way you can save both time and money, during the switch to a more efficient pump.

Retrofitting is easy if the discharge size is the same as the pump it is replacing. All that is required is to fit the bracket with the bolts to your new energy efficient XFP pump and re-install it in the pump station using the existing guiderail. Quick and easy!

Creating solutions that provide ease of use and field adjustability are important considerations. Our adapter brackets bring these concepts to life.



Specifications

Material options

Pieces	Material
Volute	EN-GJL-250, 1.4470* or 1.4469*
Impeller / bottom plate	EN-GJL-250, EN-GJL-250 flame hardened, 1.4470 or 1.4469*, high chrome (A-532 III A)**
Motor shaft	1.4021 or 1.4462
Motor housing / connection chamber	EN-GJL-250
Cooling jacket	PE3: EN-GJL-250 PE4-7: 1.0036, AISI 316*
Pedestal	EN-GJL-250, 1.4470* or 1.4469*

* available for PE4-7 and PE1 on request

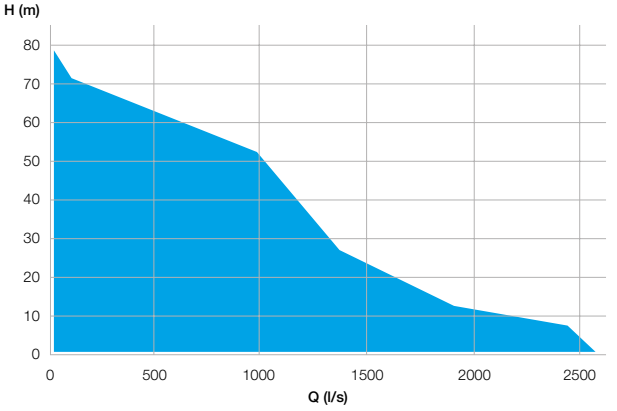
** available for PE2-5

Operating data

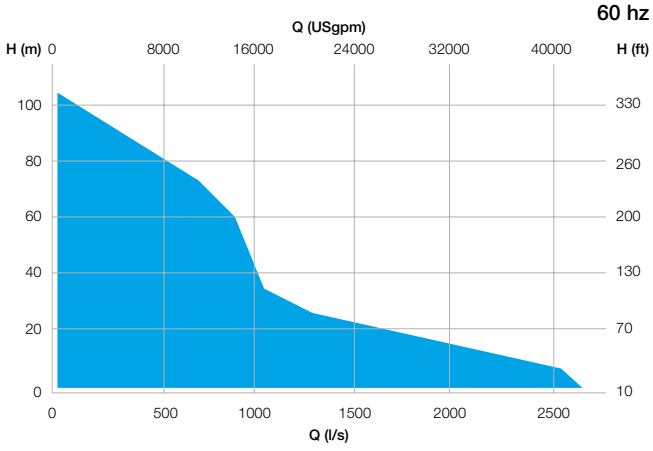
	50 Hz	60 Hz
Pump sizes	80 to 800 mm	80 to 800 mm / 3.2 to 32 in.
Capacities	up to 2'400 l/s	up to 2'500 l/s / 39'600 USgpm
Heads	up to 80 m	up to 95 m / 310 ft.
Motor powers	1.3 to 550 kW	2 to 620 kW / 2.7 to 830 hp

Performance range

50 hz



60 hz



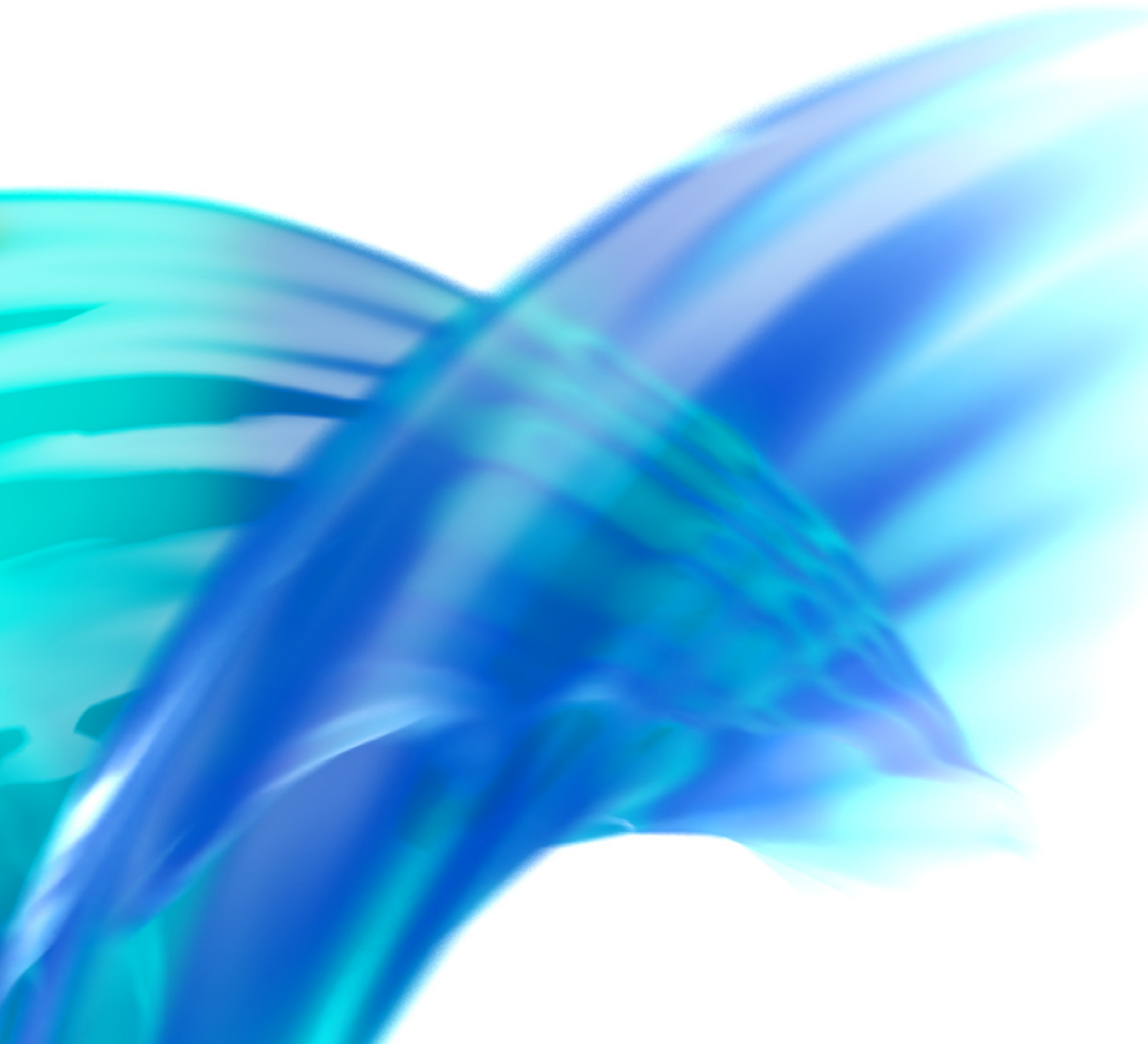
sulzer.com

Making water go around. Water and wastewater solutions by Sulzer.

Sulzer offers a broad range of pumps and related equipment for water production and transportation as well as wastewater collection and treatment for municipalities and industries. Our expertise also includes separation technologies, and services on rotating equipment.

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CITY OF AUBURN HILLS
CITY COUNCIL AGENDA

MEETING DATE: APRIL 20, 2026 | **AGENDA ITEM NO 9A**

COMMUNITY DEVELOPMENT

To: Mayor and City Council

From: Thomas A. Tanghe, City Manager; Steven J. Cohen, AICP, Director of Community Development

Submitted: April 15, 2026

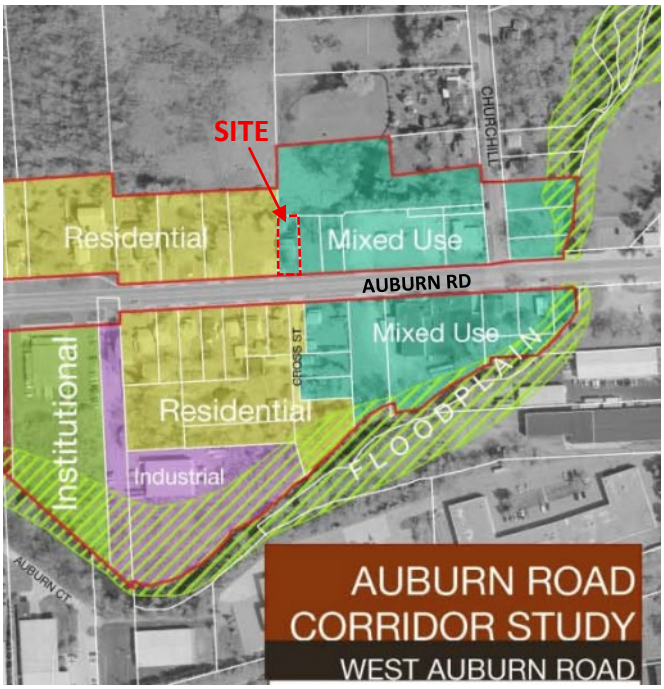
Subject: City-Initiated Rezoning – 3077 Auburn Road

Motion – To approve the Rezoning of 3077 Auburn Road from R-4, One-Family Residential District to D, Downtown District.

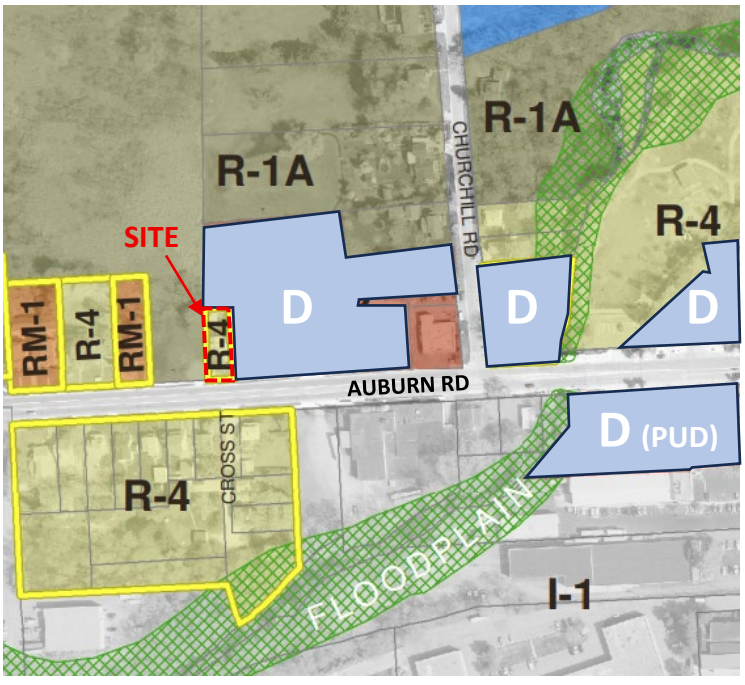
INTRODUCTION AND HISTORY

This is a request from the City of Auburn Hills to rezone 0.15 acres (Sidwell No. 14-25-351-023) from R-4, One-Family Residential District to D, Downtown District. The property is located at 3077 Auburn Road.

	Existing Land Uses	Master Plan Designation	Existing Zoning
North	Vacant	Non-Residential	D
West	Vacant	Residential	R-1A
East	Vacant (future municipal parking lot)	Non-Residential	D
South	Single-Family Homes	Residential	R-4



Master Plan



Zoning

STAFF RECOMMENDATION

The Adopted City of Auburn Hills Master Land Use Plan depicts the subject parcel as "Downtown Mixed Use." Therefore, based on the Adopted Plan, we recommend Approval of the rezoning from R-4, One-Family Residential District, to D, Downtown District.

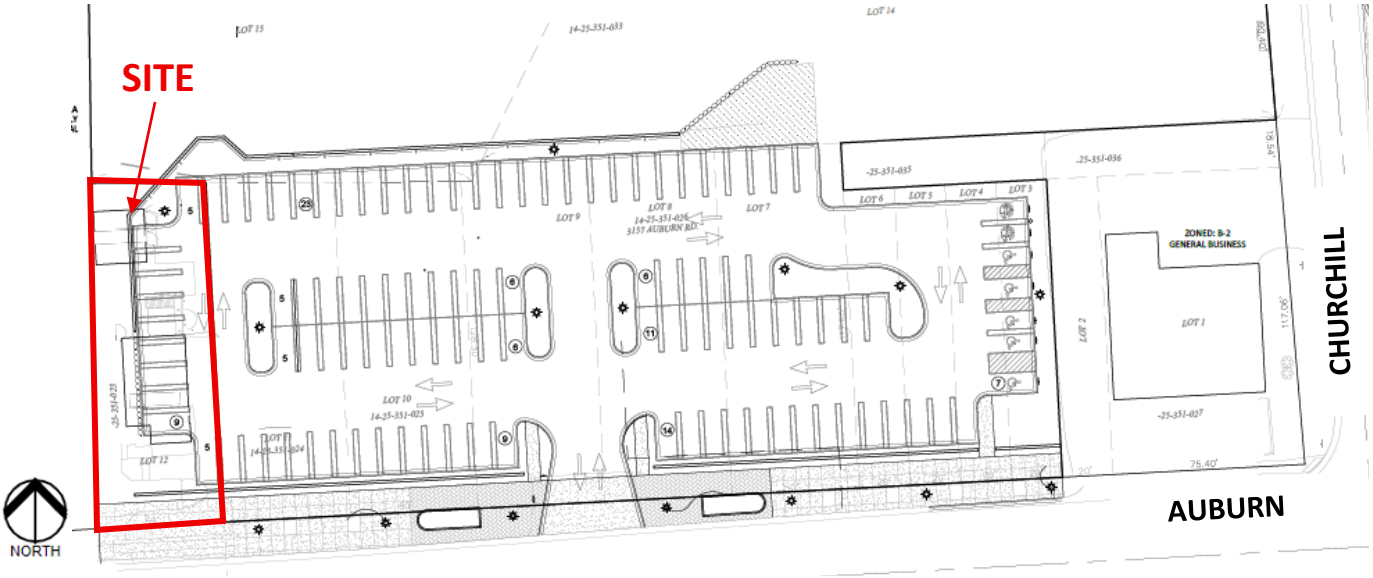
BACKGROUND

On March 16, 2026, the Auburn Hills City Council approved plans for a 91-space municipal parking lot on a portion of the former Farm Boy property along Auburn Road. This parking lot is intended to serve the Downtown area and Riverside Park. During the public review of that project, the owners of 3077 Auburn Road contacted the City to express interest in selling their property. The City Council and the property owners reached an agreement, and the City has entered into a purchase agreement to acquire the land.



Aerial photo of the property

If the proposed rezoning is approved, the City intends to extend the municipal parking lot onto this property, adding a net 20 additional parking spaces. This would increase the lot's total size from 91 to an estimated 111 spaces. The revision of the approved site plan to include this property will be reviewed administratively.



Initial concept showing the proposed parking lot extension utilizing the 3077 Auburn Road property

PLANNING COMMISSION RECOMMENDATION

Recommended Approval of the Rezoning (8-0 vote) on April 8, 2026.

MOTION

Move to accept the Planning Commission's recommendation and approve the Rezoning of 3077 Auburn Road from R-4, One-Family Residential District to D, Downtown District. The Rezoning shall be referenced as Ordinance No. 26-949.

I CONCUR: Thomas A. Tanghe

THOMAS A. TANGHE, CITY MANAGER

CITY OF AUBURN HILLS
PLANNING COMMISSION
MINUTES
NOT YET APPROVED - EXCERPT

April 8, 2026

CALL TO ORDER: Chairperson Beidoun called the meeting to order at 6:00 p.m.

ROLL CALL: Present: **Carolyn Shearer, Michelle Case, Darlene MacMillan, Jack Ferguson, Dominick Tringali, Cynthia Pavlich, Dominic Patrus, Sam Beidoun**
Absent: Raymond Saelens
Also Present: Director of Community Development Steve Cohen, Assistant Director of Community Development Devin Lang, City Engineer Tim Juidici (OHM), City Attorney Dan Kelly (The Kelly Firm)
Guests: 23

LOCATION: Council Chambers, 1827 N. Squirrel Road, Auburn Hills, MI 48326

5. PETITIONERS

5a. <u>City-Initiated Rezoning of 3077 Auburn Road. (6:03 p.m.)</u>
Public Hearing/Motion – Recommendation to City Council for approval of the Rezoning of 3077 Auburn Road from R-4, One-Family Residential District to D, Downtown District, or any other appropriate zoning district.

Mr. Beidoun opened the public hearing at 6:03 p.m.

Mr. Cohen confirmed that the hearing documents are in order and that no written communications have been received regarding this petition.

Mr. Cohen stated that this is a City-initiated proposal to rezone 0.15 acres (Sidewell No. 14-25-351-023) from R-4, One-Family Residential District to D, Downtown District. The property is located at 3077 Auburn Road. The adopted City of Auburn Hills Master Land Use Plan shows this parcel as “Downtown Mixed Use.”

In March 2026, the Auburn Hills City Council approved plans for a 91-space municipal parking lot on a portion of the former Farm Boy property along Auburn Road. This parking lot is intended to serve the Downtown area and Riverside Park. During the public review of that project, the owners of 3077 Auburn Road contacted the City to express interest in selling their property. The City Council and the property owners reached an agreement, and the City has entered into a purchase agreement to acquire the land.

If the proposed rezoning is approved, the City intends to extend the municipal parking lot onto this property, adding 20 net parking spaces. This would increase the lot's total size from 91 to an estimated 111 spaces.

Staff recommends approval of the rezoning request.

Mr. Cohen, Director of Community Development, City of Auburn Hills, was available to answer any questions from the Commission.

The Commission asked whether this lot would be for public use or designated parking for specific buildings.

Mr. Cohen explained that the parking lot is intended to serve general Downtown parking needs, consistent with the City’s broader approach to municipal parking facilities. He noted that the City is evaluating the potential implementation of a paid residential permit program across select municipal parking lots, pending a better understanding of overall usage patterns. If warranted, a portion of the spaces within these lots could be designated or licensed for future use by Downtown residential occupants.

There being no public comments, Mr. Beidoun closed the public hearing at 6:06 p.m.

Moved by Pavlich to recommend to City Council the approval of the rezoning of 3077 Auburn Road from R-4, One-Family Residential District to D, Downtown District.
Second by Shearer.

VOTE:
Yes: MacMillan, Pavlich, Case, Tringali, Shearer, Patrus, Ferguson, Beidoun
No: None **Motion Carried (8-0)**

AUBURN HILLS

AUBURN HILLS
MAR 17 2026
COMMUNITY DEVELOPMENT

DEVELOPMENT APPLICATION

PLEASE CHECK YOUR REQUESTED REVIEW:

- ☐ SITE PLAN
- ☐ TREE REMOVAL PERMIT
- ☐ SPECIAL LAND USE PERMIT(S)
- ☐ LAND DIVISION ☐ LAND EXCHANGE
- ☐ SUBDIVISION
- ☐ PLAN UNIT DEVELOPMENT (STEP 1/STEP 2/ COMBINED)
- ☑ REZONING R-4 TO D
- ☐ ZBA VARIANCE OR INTERPRETATION
- ☐ OTHER: _____

CITY USE ONLY

ADDRESS: 3077 AUBURN RD
DATE RECEIVED: 03/17/2026
FEES PAID: 0
SP #: _____
PUD#: _____
SLU #: _____
LD/LE/SUB#: _____
RZ#: 260002
ZBA #: _____
PTR#: _____

PROJECT NAME	City-Initiated Rezoning of 3077 Auburn Road		
GENERAL PROJECT LOCATION	3077 Auburn Road		
PARCEL SIZE	0.146 A	**ZONING** R-4	**BUILDING SIZE (SQ FT)** 2,500
PROJECT DESCRIPTION	Rezoning of property from R-4 to D		
SIDWELL NUMBER(S)	14-25-351-023		

APPLICANT INFORMATION

NAME: Stephen Baldante		SIGNATURE: Stephen Baldante	
BUSINESS NAME: City of Auburn Hills		ADDRESS: 1500 Brown Road	
CITY: Auburn Hills	STATE: MI	ZIP: 48326	PHONE #: (248) 391-3777
EMAIL ADDRESS: sbaldante@auburnhills.org			

PROPERTY OWNER(S)

NAME: Tom Tanghe - City Manager		SIGNATURE: Thomas A. Tanghe	
BUSINESS NAME: City of Auburn Hills		ADDRESS: 1827 N. Squirrel Road	
CITY: Auburn Hills	STATE: MI	ZIP: 48326	PHONE #: (248) 370-9440
EMAIL ADDRESS: ttanghe@auburnhills.com			

CITY OF AUBURN HILLS

COUNTY OF OAKLAND

STATE OF MICHIGAN

ORDINANCE NO. 26-949

AN ORDINANCE TO AMEND ZONING ORDINANCE NO. 372

THE CITY OF AUBURN HILLS ORDAINS:

That Ordinance No. 372, being the City of Auburn Hills Zoning Ordinance, be amended as follows:

The City of Auburn Hills Ordinance No. 372, designated “City of Auburn Hills Zoning Ordinance,” adopted December 16, 1985, and effective December 19, 1985, and the zoning district map attached thereto and made part thereof, are hereby amended by rezoning the following described property in the City of Auburn Hills, Oakland County, Michigan, from R-4, One-Family Residential District to D, Downtown District, as requested by the City of Auburn Hills:

Sidwell No.14-25-351-023
3077 Auburn Road
Auburn Hills, Michigan 48326



LOCATION MAP

SECTION II

The penalty for violation of this Ordinance shall be same as those penalties set forth in Article XX of the City of Auburn Hills Zoning Ordinance No. 372.

SECTION III

This Ordinance shall be published in a newspaper circulated within the City of Auburn Hills within fifteen (15) days following the adoption thereof. This Ordinance shall become effective immediately upon publication. All Ordinances in conflict herewith are hereby repealed.

AYES:
NAYS:
ABSENT:
ABSTENTIONS:

ORDINANCE 26-_____ _____ (Vote)

STATE OF MICHIGAN)

)SS

COUNTY OF OAKLAND)

I, the undersigned, the duly qualified and appointed City Clerk of the City of Auburn Hills, Oakland County, Michigan, do hereby certify that the foregoing is a true and complete copy of Ordinance No. 26-949 adopted at a regular meeting of the City Council held on the 20th day of April 2026.

_____ _____

Eugene Hawkins, III, Mayor Laura Pierce, City Clerk

Adopted
June 26, 2012

City of Auburn Hills

West Auburn Road - Neighborhood Master Plan

Quick Summary

This study is the result of an informal request from folks who own property along both sides of Auburn Road, between I-75 and the Clinton River Bridge. In a nutshell, they told us that their zoning was "messed up" and they needed our help.

When we met with the neighborhood, we found that property owners felt like an "afterthought, in the shadow of the Downtown, and disconnected." They told us they wanted to be transformed into a walkable neighborhood that complimented Downtown Auburn Hills.

Simply, the neighborhood has had the wrong zoning for 60+ years. The old vision for the land was flawed and out-of-date. The old plan envisioned this neighborhood going away and becoming an industrial park or a strip mall; but over the years redevelopment bypassed the area and occurred elsewhere.

During the planning process, we found that good quality homes (mostly built between 1930-1945) were located on properties classified as commercial or industrial on the Zoning Map. Since redevelopment never occurred as planned, property owners were left with non-conforming homes that they could not improve. Some homes were falling into disrepair because people did not want to invest in a neighborhood that was supposed to go away.

So, after a year of study, numerous meetings, and a lot of hard work – a new vision has been cast for the neighborhood. With unanimous support, the City Council authorized the Planning Commission to proceed with amending the master plan for the area.

The new vision has two primary goals:

1. Reclassify most of the parcels with homes on them from non-residential to residential use on the master plan. This would allow the zoning to be changed making these homes conforming with the Zoning Ordinance and allow property owners to reinvest and/or refinance.

2. Draft a "mixed use, Downtown-style" concept designed to provide a vision and spur redevelopment of the properties located at the east end of the study area near the Clinton River Bridge. This concept visually shows how the Downtown could expand into the neighborhood, as requested by those who participated in the planning process. *Note: This type of redevelopment would only occur when the existing property owners are ready and willing to sell their property.*



Entry feature designed as gateway into the Downtown area proposed near the US Post Office site.

Concept came out of the visioning meeting where the residents stated they wanted to be a part of the Downtown community and not an afterthought.

City of Auburn Hills
West Auburn Road - Neighborhood Master Plan
Exhibits



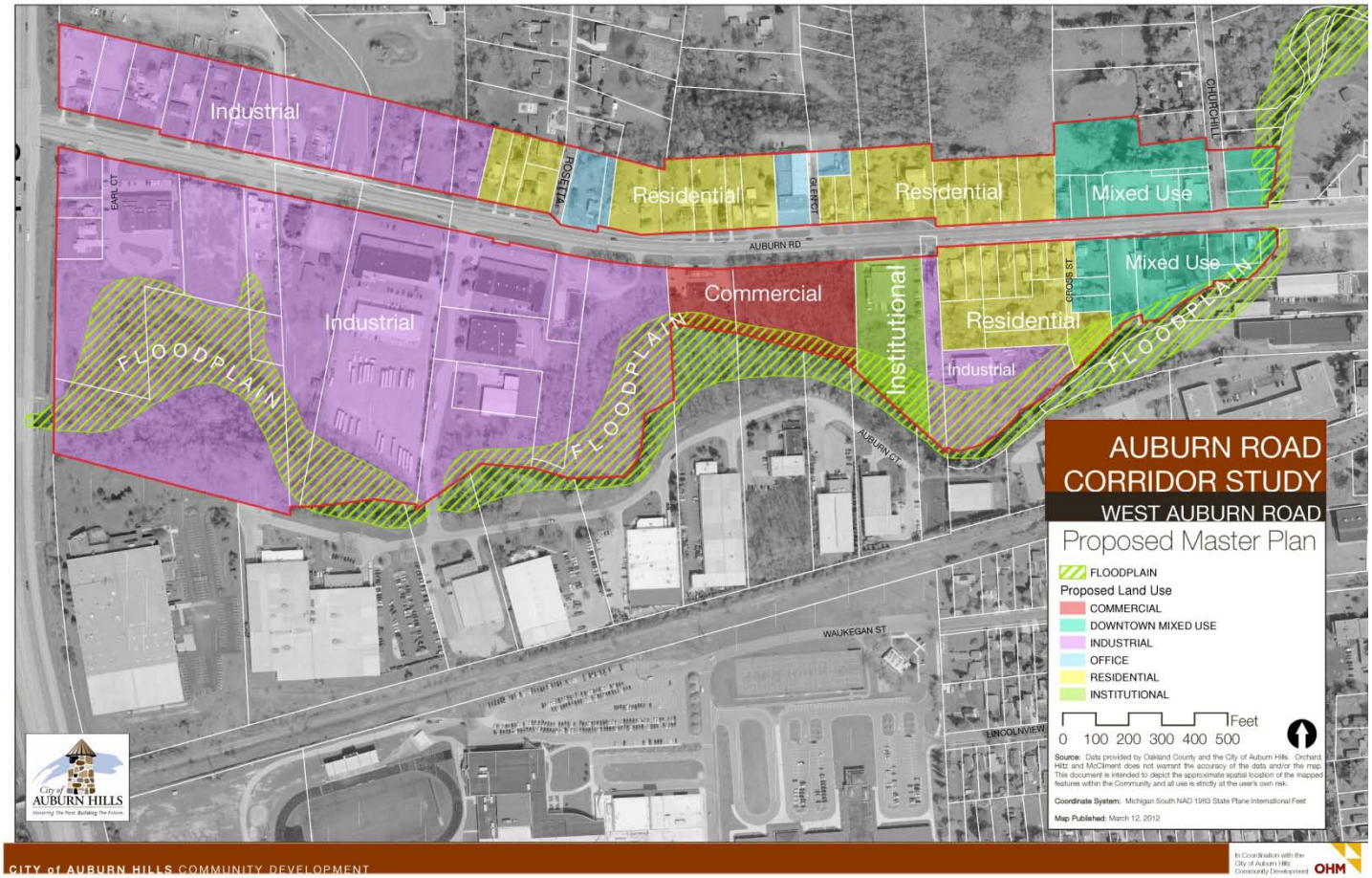
North Side of Auburn Road



South Side of Auburn Road



Mixed Use Concept



Draft Master Land Use Plan Amendment

CHECKLIST

PROJECT NAME

3077 Auburn Road - Rezoning

(Check all that apply)

- SITE PLAN
- SPECIAL LAND USE
- TREE REMOVAL PERMIT
- ✓ REZONING
- PUD

The following items have not been included in your packet of information since they are either common, non-controversial items or the recommendations have been noted in the project's cover letter.

Public Notice
Citizen's Participation Letter and Report

However, if you wish to see a copy of the above documents, they are on file in the Community Development Department.

CITY OF AUBURN HILLS
CITY COUNCIL AGENDA

MEETING DATE: APRIL 20, 2026 | **AGENDA ITEM NO 9B**

COMMUNITY DEVELOPMENT

To: Mayor and City Council

From: Thomas A. Tanghe, City Manager; Steven J. Cohen, AICP, Director of Community Development

Submitted: April 15, 2026

Subject: River Bend Townhomes - 3180-3200 Auburn Road

Motion – To approve the combined PUD Step One – Qualification / Step Two – Site Plan

INTRODUCTION AND HISTORY

This is a request from Vesta Homes, Inc. for Planned Unit Development Option (PUD) approval to allow for the construction of a residential condominium development on a 2.08-acre parcel located south of Auburn Road and west of the Clinton River. The property is zoned I-1, Light Industrial District.

The proposed $10 million development will consist of five townhouse-style buildings containing a total of 32 condominium units, all of which will be owner-occupied. Each unit will be approximately 1,594 square feet and will include a one-car garage, along with a 20-foot-deep driveway apron providing an additional parking space. The site plan also includes 24 off-street parking spaces designated for visitors. In total, the development provides 88 parking spaces, exceeding the 2.5 spaces per unit zoning requirement. This parking supply is expected to adequately accommodate residents and their guests while minimizing potential impacts on the City's public parking system. In addition, the development includes open-space amenities, including a gazebo and an internal sidewalk network, to serve future residents.

In February 2025, the City Council entered into a purchase agreement with Vesta Homes for the sale of 3180 Auburn Road (1.13 acres) to facilitate the development of high-quality, owner-occupied housing. Vesta Homes also owns the adjacent properties on both sides of the City-owned parcel, as well as a portion of the Clinton River, enabling a coordinated and comprehensive redevelopment of the overall site.



Aerial photo of the site location

PUD QUALIFICATION

1. **Implementing the City's Vision**. The proposed project satisfies the qualification criteria for a Planned Unit Development (PUD) by advancing the goals of the Auburn Hills Downtown Economic Enhancement Strategy (2009) and the West Auburn Road Neighborhood Master Plan (2012). The development introduces additional housing opportunities near Downtown, supporting the City's long-standing objective of creating a walkable, mixed-use environment anchored by a strong residential base.



West Auburn Road - Neighborhood Master Plan – Adopted June 26, 2012
(Residential vision for the redevelopment of this property)



Illustrated site plan for the proposed River Bend PUD

PUD QUALIFICATION (cont.)

2. **Creation of quality, owner-occupied housing to support the Downtown**. Consistent with the City's master plans, the City has prioritized the development of quality housing in and near Downtown as a foundational economic strategy, recognizing that existing traffic volumes alone are insufficient to attract significant commercial investment. Instead, creating a critical mass of residents is intended to support local businesses, enhance overall activity, and foster a greater sense of place. While this approach has required a long-term commitment, the City's consistent implementation is beginning to yield measurable results, as evidenced by the addition of new restaurants and retail. This project, with its inclusion of owner-occupied housing, represents a further step toward achieving these objectives.





Artist renderings of the proposed buildings viewed internal to the site

PUD QUALIFICATION (cont.)



Artist rendering of the proposed buildings as viewed from Auburn Road

3. **Removal of older industrial property**. The proposed redevelopment provides a significant net community benefit by transforming an underutilized, once-contaminated industrial property into a productive residential neighborhood that supports the continued growth and vitality of the Downtown. The removal of outdated industrial buildings and reinvestment in the site will enhance the area's visual character and improve compatibility with surrounding properties.



Aerial photo of the property looking southwest (Google Maps)

4. **Extension of the Downtown streetscape**. The project extends the Downtown streetscape west of the Clinton River across the subject property, helping to create a more cohesive and connected urban fabric. This extension strengthens pedestrian connectivity, encourages reinvestment in adjacent properties, and supports the long-term vision of expanding the Downtown area in accordance with the adopted plans.

KEY POINTS OF INTEREST

1. **Environmental clean-up of 3180 Auburn Road by the City**. In 2019, the City's Brownfield Redevelopment Authority (BRA) initiated environmental remediation efforts at 3180 Auburn Road, which is considered one of the more complex and critical projects undertaken in the community. After acquiring the land, an investigation of the site identified leaking underground storage tanks that had released petroleum contaminants into the surrounding soil.

   The BRA worked closely with environmental consultants and the Michigan Department of Environment, Great Lakes, and Energy (EGLE) to ensure the site was remediated in compliance with applicable environmental regulations. Grant funding was secured from EGLE in the amount of $1 million, covering the bulk of the approximately $1.2 million clean-up effort. Given the site's proximity to the Clinton River, the project was identified as a high priority to protect environmental quality and public health.

   Following numerous years of investigation, remediation, and regulatory coordination, the BRA achieved site clean-up closure in May 2025. This designation indicates that EGLE has reviewed and approved the remediation efforts and determined that the property meets applicable long-term environmental compliance standards.



Photo of 3180 Auburn Road taken during the clean-up

2. **Plug-in electric vehicle-ready development**. Vesta Homes has committed to prep all the condominium garages with conduit and wiring for electric vehicle charging stations, along with upgraded electric panels in each unit (32 garages).

3. **Consideration of the adjacent neighborhood.** The site directly abuts two existing single-family homes to the west. Due to the presence of a large storm sewer and its associated easement along the shared property line, planting vegetation in this area is limited. To address screening, Vesta Homes will install an eight-foot-tall vinyl fence generally in the location of the existing green slatted fence. In addition, Vesta Homes has agreed to work with City staff to identify feasible locations for additional trees and shrubs within the 18-foot greenbelt near the fence at the time of detailed engineering review, provided such planting does not interfere with the storm sewer or its maintenance.

KEY POINTS OF INTEREST (cont.)

As shown in the photo below, numerous existing trees on the adjacent single-family property will also help buffer the two properties.



Photo showing the western property line of the development

STAFF RECOMMENDATION

This project has been reviewed by the City's Administrative Site Plan Review Team and has received a recommendation for approval. The applicant has met all applicable requirements to seek concurrent approvals for PUD Step One and Step Two.

We recommend Approval of the PUD Step One – Concept Plan and offer the following discretionary findings of fact:

1. The project is eligible for the PUD option because it provides a recognizable net public benefit to the health, safety, and welfare of the residents of the City of Auburn Hills and accomplishes one or more of the following:
   a. Permits flexibility in the regulation of land development.
   b. Encourages innovation in land use and variety in design, layout, and type of structures constructed.
   c. Achieves economy and efficiency in the use of land, natural resources, energy, and the provision of public services and utilities.
   d. Encourages useful open space.
   e. Provides better housing opportunities suited to the needs of the residents of the City of Auburn Hills.
2. The concept plan contains sufficient basic information required for a recommendation.
3. The PUD Concept Plan promotes the land use goals and objectives of the City of Auburn Hills.
4. There are adequate means of disposing of sanitary sewage and of supplying the development with water.
5. The road system and stormwater drainage system are adequate.

STAFF RECOMMENDATION (cont.)

We recommend Conditional Approval of the PUD Step Two - Site Plan and offer the following discretionary findings of fact:

1. The Site Plan contains sufficient basic information required by the Zoning Ordinance for a recommendation.
2. The requirements of Section 1815, Items 7A-7E of the Zoning Ordinance can be met as follows:
   A. All requirements and standards of the Zoning Ordinance, and other City Ordinances, can be met.
   B. Safe, convenient vehicular and pedestrian ingress/egress has been depicted; primary access will be to Auburn Road.
   C. Traffic circulation features within the site avoid common traffic problems and can promote safety.
   D. A satisfactory and harmonious relationship will exist between the proposed development and surrounding area.
   E. The proposed use will not have an unreasonable, detrimental or injurious effect upon the natural characteristics of the subject parcel, or the adjacent area.
3. One-car garages are provided for each unit, along with a single space behind each garage. 24 visitor parking spaces are provided. All driveways for the units shall be concrete.
4. Building and parking setback requirements will be consistent with Downtown standards.
5. Greenbelts will be provided.
6. Landscape requirements will be met, and calculations have been submitted.
7. No light poles are proposed, except along the Auburn Road streetscape. Details for the streetscape poles and building lights shall be provided on detailed engineering and building construction plans and shall meet City standards and zoning requirements.
8. A note indicates that parking spaces shall be double striped.
9. A note indicates that signs shall meet the requirements of the Zoning Ordinance. No development identification sign has been proposed at this time.
10. Ground-mounted transformers and roof-mounted mechanical equipment will be screened.
11. Complete Streets considerations were made as part of the site design, with the development's sidewalk network connecting to existing sidewalks on Auburn Road.
12. An Administrative Tree Removal Permit is required – Five replacement trees are required, and 55 trees are proposed.

Conditions

1. Development Agreement. Vesta Homes shall enter into a Development Agreement with the City that outlines the conditions for Planned Unit Development (PUD) approval.
2. Screen Fence and Additional Vegetation. Vesta Homes has agreed to install a new eight-foot-tall vinyl fence along the western property line of the development. In addition, Vesta Homes will coordinate with City staff and consultants to identify potential locations for planting additional shrubs and trees within the storm sewer easement between the western property line and parking areas at the time of project implementation, where feasible.
3. Plug-in Electric Vehicle Garage Infrastructure. Vesta Homes has committed to prep all housing unit garages for future electric vehicle charging stations.
4. Extension of the Downtown Streetscape. Vesta Homes will extend the Downtown streetscape along its Auburn Road frontage. All streetscape shall meet City requirements and be consistent with existing materials throughout the Downtown, including street tree types, mulch area sizes, and contrasting pavement types. Fencing in front of each unit shall be black powder-coated aluminum consistent with the existing fence throughout the Downtown. Stone columns shall be incorporated into the fence utilizing the same/similar stone as the existing street planters throughout the Downtown.
5. Condominium Documents. Vesta Homes shall be responsible for drafting the Condominium By-Laws / Master Deed for review and final approval by the City Attorney.
6. Performance Guarantees. Vesta Homes shall comply with the requirements of Section 2007. Performance Guarantees of the Zoning Ordinance.

STAFF RECOMMENDATION (cont.)

7. Conformance with Approved Plans and Representations. Approval of the project is based on the representations made by Vesta Homes, as documented in this staff report, submitted materials, and the public meeting minutes. The development shall remain in conformance with these representations.
8. Project Completion Timeline. Vesta Homes has committed to start construction within one year of City Council approval, with a completion deadline of two years after commencement.

PLANNING COMMISSION RECOMMENDATION

Recommended Approval on April 8, 2026 (8-0 vote).

MOTION

Move to accept the Planning Commission's recommendation and approve the combined PUD Step One – Concept Plan and PUD Step Two – Site Plan for River Bend Townhomes subject to the conditions of the City's Administrative Review Team. The approvals contained herein are subject to the successful real estate closing and transfer of ownership of the parcel of property owned by the City of Auburn Hills to Vesta Homes, Inc., on or before June 5, 2026, which is necessary to complete the development.

I CONCUR: Thomas A. Tanghe

THOMAS A. TANGHE, CITY MANAGER

CITY OF AUBURN HILLS
PLANNING COMMISSION
MINUTES
NOT YET APPROVED- EXCERPT

April 8, 2026

CALL TO ORDER: Chairperson Beidoun called the meeting to order at 6:00 p.m.

ROLL CALL: Present: **Carolyn Shearer, Michelle Case, Darlene MacMillan, Jack Ferguson, Dominick Tringali, Cynthia Pavlich, Dominic Patrus, Sam Beidoun**
Absent: Raymond Saelens
Also Present: Director of Community Development Steve Cohen, Assistant Director of Community Development Devin Lang, City Engineer Tim Juidici (OHM), City Attorney Dan Kelly (The Kelly Firm)
Guests: 23

LOCATION: Council Chambers, 1827 N. Squirrel Road, Auburn Hills, MI 48326

5. PETITIONERS

5b. River Bend Townhomes – 3180-3200 Auburn Road. (6:07 p.m.)
Public Hearing/Motion – Recommendation to City Council for combined PUD Step One – Qualification/Step Two – Site Plan approval to facilitate the redevelopment of the property to allow the construction of a residential development with 32 townhomes.

Mr. Beidoun opened the public hearing at 6:07 p.m.

Mr. Cohen confirmed that the hearing documents are in order and that no written communications have been received regarding this petition.

Mr. Cohen stated that this is a request from Vesta Homes, Inc. for Planned Unit Development Option (PUD) approval to allow for the construction of a residential condominium development consisting of 32 townhomes on a 2.08-acre parcel located south of Auburn Road and west of the Clinton River. The property is zoned I-1, Light Industrial District.

In 2019, the City's Brownfield Redevelopment Authority (BRA) initiated environmental remediation efforts at 3180 Auburn Road. After acquiring the land, an investigation of the site identified leaking underground storage tanks that had released petroleum contaminants into the surrounding soil. After several years of investigation, remediation, and regulatory coordination, the BRA achieved site clean-up closure in May 2025, meaning that EGLE has reviewed and approved the remediation efforts and determined that the property meets applicable long-term environmental compliance standards.

The proposed $10 million development will consist of five townhouse-style buildings containing a total of 32 condominium units, all owner-occupied. The development provides 88 parking spaces, exceeding the 2.5 spaces per unit zoning requirement. The parking supply is expected to accommodate residents and their guests while minimizing potential impacts on the City's public parking system.

Mr. Cohen explained that the proposed project meets the PUD qualification criteria by advancing the goals of the Auburn Hills Downtown Economic Enhancement Strategy and the West Auburn Road Neighborhood Master Plan. The development introduces additional housing opportunities near Downtown, supporting the City's long-standing objective of creating a walkable, mixed-use environment anchored by a stronger residential base.

The proposed redevelopment provides a net community benefit by transforming an underutilized, once-contaminated industrial property into a productive residential neighborhood that supports the continued growth and vitality of the Downtown. The project also extends the Downtown streetscape west of the Clinton River.

Staff recommends approval of the request.

Mike Mattera, Vesta Homes, 31400 Kendall, Suite A, Fraser, MI 48026, was available to answer any questions from the Commission.

The Commission asked about the following:

1. The selling price for each unit; and
2. Handicap access.

Mr. Mattera stated that the units will probably sell in the high $300,000 range. He further explained that handicapped/accessible parking will be available on site, but the units themselves have several flights of stairs to access the living areas from the ground floor and thus do not accommodate accessible or universal design living.

There being no public comments, Mr. Beidoun closed the public hearing at 6:14 p.m.

Moved by MacMillan to recommend to City Council approval of the combined PUD Step One – Concept Plan and PUD Step Two – Site Plan for River Bend Townhomes subject to the conditions of the City's Administrative Review Team.
Second by Patrus.

VOTE:
Yes: Pavlich, MacMillan, Tringali, Shearer, Case, Patrus, Ferguson, Beidoun
No: None **Motion Carried (8-0)**

Development Application

AUBURN HILLS

AUBURN HILLS
SEP 23 2025
COMMUNITY DEVELOPMENT

City Use Only

Address: 3180 Auburn Rd

Date Received: 9/23/25

Fees Paid: $7,130.00

SP #:

SLU #(s):

LD/LE/SUB #:

RZ #:

PUD #: 250003

ZBA #:

Project Name: River Bend Condominiums

General Project Location: Auburn Rd

nearest cross street- S Squirrel Rd

Parcel Size: 90,443 sq ft **Zoning:** I-1 currently

Sidwell Number(s): 02-14-36-102-005, 006, 007, 008, 010

Project Description: 5 buildings totaling

32 condominuim untis

Building Size (sq. ft.): 17,408 total

Check requested review(s)

- ☐ Site Plan
- ☒ Tree Removal Permit
- ☐ Special Land Use Permit(s) _____
- ☐ Land Division
- ☐ Land Exchange
- ☐ Subdivision
- ■ Planned Unit Development - Step 1/Step 2/Combined
- ☐ Rezoning _____ to _____
- ☐ ZBA Variance or Interpretation (see supplemental application)
- ☐ Other _____

Applicant

Name: Michele (Mike) Mattera Signature:

Business Name and Address: Vesta Companies Inc - 31400 Kendall, Ste A

City: Fraser State: MI Zip Code: 48026 Phone Number: 586-899-8130

Fax Number: 586-279-3885 Alt. Phone Number(s): 586-899-8131

Property Owner(s)

Name: Michele (Mike) Mattera Signature:

Business Name and Address: Hampton South LLC 31400 Kendall, SteA

City: Fraser State: MI Zip Code: 48026 Phone Number: 586-899-8130

(Provide additional sheet if necessary for multiple property owners)

Please contact the City of Auburn Hills Community Development Department,
1827 N. Squirrel Road, Auburn Hills, MI 48326 / Phone: 248-364-6900 Fax: 248-364-6939
www.auburnhills.org

ARCHITECTS. ENGINEERS. PLANNERS.

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April 1, 2026

Mr. Steven Cohen, AICP
Director of Community Development
CITY OF AUBURN HILLS
1827 North Squirrel Road
Auburn Hills, Michigan 48326

RE: River Bend Townhomes
Site Plan Review

Dear Mr. Cohen:

We have completed the site plan review for the above referenced project with respect to grading, paving, storm drainage/detention, and availability of municipal utilities to serve the site. The site plan, received by this office on March 30, 2026, was prepared by Community Civil Engineering and Surveying. The review comments are noted below.

PERMITS/EASEMENTS:
Various permits will be required for this site, including but not limited to the following:

- Soil erosion permit form O.C.W.R.C.
- Water main extension permit from E.G.L.E.
- Sanitary sewer extension permit from E.G.L.E.
- Joint permit from E.G.L.E. for fill/work within the floodplain
- Floodplain Letter of Map Change from F.E.M.A.

GENERAL:
The site is located on the south side of Auburn Road and west of South Squirrel Road in Section 26 of the City of Auburn Hills. The applicant is proposing to construct five (5) buildings composed of a total of 32 attached townhomes that are approximately 1,600 sq. ft. with two (2) bedrooms and an attached single-car garage. The applicant is also proposing a private park including barbecues and benches for residents on the southeast side of the site. The site is currently in the Light Industrial (I-1) zoning district; however, the applicant is proposing to rezone the site as Multiple Family (Low Rise) (RM-2). Properties to the west are zoned One Family Residential (R-4). It has been noted on the plans that a parcel combination will be required. A complete legal description of the existing parcels is shown on the plans; however, a complete legal description of the proposed parcel has not been included on the plans. Note that additional right-of-way (ROW) for Auburn Road will be dedicated to the City as part of this project, resulting in 43-feet ½-width ROW. Survey and conveyance documents will need to be prepared by the applicant and accepted by the City for this dedication. The City of Auburn Hills Standard Notes and Fire Department Notes are included on the plans. A landscape plan was included in the plan set. If feasible, trees shall be located outside the influence of utilities and any public easements. Additional shrubs/plants should be installed in the greenbelt along the west side of the property, and the landscape plan updated accordingly. The City of Auburn Hills Standard Details were not included in the plan set and will need to be included in the engineering review submittal.

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Furthermore, a soil erosion and sedimentation control plan and a demolition plan is needed for the engineering review.

MUNICIPAL UTILITIES:

There is existing 16-inch water main that extends along the north side of Auburn Road to the southwest corner of Churchill Road, then south across Auburn Road onto the site continuing east along the north side of the site. An existing 8-inch water main stub was installed from the Auburn Road main across the road to provide service to this site. The applicant is proposing to extend 8-inch water main from the existing 16-inch water main south and through the site to create a looped connection. The proposed water main shall be connected to the existing 8-inch stub instead of crossing Auburn Road, which can be updated for the engineering review. The connection to the existing 16-inch main near Churchill shall also be updated during the engineering review. Additional gate valve and wells may be required to meet City standards. A 2-inch HDPE domestic water service lead has been provided for each building. No fire suppression lines are provided on the plan. Three (3) fire hydrants are proposed on the plan, which may need to be adjusted to provide adequate coverage per Fire Department requirements. The hydrant proposed in the northeast corner of the site should be relocated along the south side of River Bends Drive. A profile for the 8-inch water main shall be provided at engineering review. The material type shall be labeled for engineering review. A 12-foot-wide easement is shown for the proposed public water main.

There is existing 10-inch water main that extends along the north side of Auburn Road and along the east side of Churchill Road. There is an existing 6-inch sanitary sewer that extends south from the southwest corner of Auburn Road and Churchill Road across Auburn Road to an existing building on the site. The applicant is proposing to remove the existing 6-inch sanitary sewer lead and install 10-inch sanitary sewer south across Auburn Road and onto the site. A 6-inch PVC SDR 23.5 lead with a minimum slope of 1% has been provided for Building 1, 2, 3, and 5. The sanitary lead for Building 4 will need to be indicated on the plan. A profile for the 10-inch sanitary sewer shall be provided at engineering review. The material type, length, and slope shall be labeled for engineering review. A 20-foot-wide easement shall be shown centered on the 10-inch sanitary sewer.

STORM SEWER AND DETENTION:

Stormwater runoff for the site will be collected via a series of catch basins and routed to an underground detention system located underneath the drive aisles throughout the site. The underground detention system will then outlet to existing 30-inch storm sewer on the west side of the site before ultimately discharging to the Clinton River. The existing City storm system includes a storm water treatment unit prior to discharge to the Clinton River. Since the proposed site connection is upstream of this unit, additional storm water treatment on the site will not be required, however the applicant should consider pre-treatment prior to the underground detention for ongoing maintenance. Preliminary underground detention calculations were provided on the plan. The underground detention system is currently sized for Oakland County's 100-year volume utilizing a maximum discharge rate of 0.150 cfs/acre. Per OCWRC standards, any development under 5 acres shall use an initial time of concentration of 10 minutes. Additional detention may be required based on the updated time of concentration and will be verified at engineering review. A note has been provided on the plans indicating that onsite drainage will be restricted and detained, the resulting discharge will be approximately 0.40 cfs. Additional information on the proposed storm sewer and underground detention system (i.e., material, slope, profile, calculations, outlet control details, etc.) will be required for the engineering review. In addition, locations of roof drains shall be indicated on the plan and piped to the storm sewer system. This can be addressed during the engineering review.

PAVING:

There are currently two (2) existing drive approaches and multiple curb cuts located off Auburn Road; however, the applicant is proposing to remove those approaches and construct two (2) new drive approaches. Parking is provided to residents by driveways with additional parking for visitors east of Building 4 and along the west side of the site. The plans indicate concrete curb and gutter with 3-inch asphalt pavement proposed for the proposed private drives, River Bends Drive and West Drive. A pavement cross-section has been provided on the plan. Per City standards,

One Family Residential zoned sites shall have a minimum asphalt pavement of 4-inch asphalt on 8-inch aggregate base. The plans should be updated to clearly indicate the proposed unit driveways are to be concrete pavement. In addition, the drive approaches from Auburn Road within the ROW shall be 9-inch concrete pavement. Cross section details shall be included on the plan for these concrete driveways in future submittals.

The applicant is proposing 32 garage parking spaces, 32 driveway parking spaces, and 24 off street parking spaces for a total of 88 parking spaces including two (2) barrier free accessible parking spaces. A 5-foot-wide concrete sidewalk has been provided around River Bends Drive with connections to the proposed streetscape along Auburn Road matching Downtown. The applicant is also proposing a mail kiosk along River Bends Drive at the southeast corner of the site.

The plans indicate proposed streetscape improvements along Auburn Road as part of the project. These improvements are to be consistent with the existing streetscape within the Downtown area. Streetscape shall include concrete sidewalk from the back of road curb, brick paver areas and curbed planter beds adjacent to driveways, street trees, street lighting, and irrigation. The street tree areas shall be revised to be 6-feet by 6-feet mulch area consistent with those along Auburn Road. Details shall be included in the plan for all of the proposed streetscape, including details and cross-sections for sidewalk, brick pavers w/concrete base course, lighting details, etc. Additional details on streetscape construction, including electrical and irrigation, will be required for the engineering review.

GRADING:

Existing grades are shown with contours and spot elevations while proposed grades are shown with spot elevations. The site is sloped towards the south side of the site. Perimeter site slopes shall match into existing contours prior to all abutting property lines. Pavement slopes are mostly consistent with City standards and are to remain between 1% and 6% for drive areas and between 1% and 4% for parking areas. Grades for the proposed concrete sidewalk and streetscape shall meet ADA requirements.

A timber retaining wall is proposed along the south and east side of the site adjacent to the Clinton River. A retaining wall is also proposed at the southwest corner of the site. A generic timber retaining wall detail has been included on the plan. The proposed retaining walls shall be constructed of stone, block, concrete or other durable material. The wall details shall be updated accordingly on future submittals. Design details and computations (sealed by a licensed engineer) will need to be submitted and approved during the engineering review for walls greater than one (1) foot in height. Wall calculations will need to account for global stability of the bank slope as well as interaction from adjacent building foundation. Any retaining walls over 2.5 feet in height are required to be fenced. The retaining wall detail shall include a fence at engineering review.

RECOMMENDATIONS:

The site plan is in substantial compliance with City of Auburn Hills requirements and has been stamped "Approved as Noted" by our office. We ask that the site plan approval acknowledge the following:

1. Proposed retaining walls shall be constructed of stone, block, concrete, or other durable materials and fencing shall be provided.
2. Proposed asphalt pavement section shall be updated to a minimum of 4 inches of HMA per City requirements. Driveways shall be clearly indicated as concrete and concrete pavement cross-section details provided on the plan.
3. Details shall be included in the plan for all of the proposed streetscape, including cross-sections for sidewalk, brick pavers w/concrete base course, lighting details, etc. All streetscape improvements shall meet City requirements and be consistent with existing materials throughout the Downtown.
4. The site improvement plan, designed in accordance with Ordinance No. 806, shall be submitted to the City for review and approval prior to construction. A detailed cost estimate for the improvements shall be submitted with the plans signed and sealed by the design engineer.

5. The developer must post a performance guarantee, in accordance with the City's requirements as set forth in the City of Auburn Hills Ordinance No. 372, Section 2007, Performance Guarantees. The estimate of the guarantee shall be submitted with the site improvement plan and must reflect all costs for site improvements, including but not limited to mass grading, roadways, lighting, utilities, pathways, sidewalks, screening, landscaping, driveways, retaining walls, parking lots, drainage, stormwater retention basins, and other similar features.

If you have any questions or are in need of any further information, please feel free to contact our office.

Sincerely,
OHM Advisors

MaryKate Kirksey for Hannah Driesenga, P.E.

Transmitted via e-mail to Steven Cohen: April 1, 2026
cc: File

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PLANNED UNIT DEVELOPMENT AGREEMENT FOR RIVER BEND

Entered into between:

Auburn Hills, a Michigan municipal corporation

and

Hampton South, LLC, a Michigan limited liability company

Dated: _____, 2026

PLANNED UNIT DEVELOPMENT AGREEMENT FOR RIVER BEND

THIS AGREEMENT ("Agreement") is made and entered into this _____ day of _____, 2026 ("Effective Date"), by and between The City of Auburn Hills ("City") a Michigan municipal corporation, with offices located at 1827 N. Squirrel Road, Auburn Hills, Michigan 48326, and Hampton South, LLC ("Developer"), a Michigan Limited Liability Company, with offices located at 31400 Kendall, Fraser, MI 48026.

Project Developer: Hampton South, LLC
Attn: Mr. Michele Mattera
31400 Kendall
Fraser, MI 48026

Project Engineer: _____
_____
_____
_____

RECITALS

The purpose and intent of this Agreement is to establish a community theme and regulate the placement of units within the property described in **Exhibit A** attached ("Property"), which is owned by Developer.

The Developer intends to develop the Property into a residential project consisting of thirty-two (32) townhouse units. The units ("Units") shall be known as River Bend (the "Project").

The Project will be a benefit to the community. Some of the benefits of the Project include the following as further described in this Agreement and the PUD Plan (as defined below).

NOW, THEREFORE, it is hereby agreed as follows:

1. **SUMMARY DESCRIPTION OF THE PROJECT**

The Project covers an area comprising approximately 2.076 acres. The site is located on Auburn Road in Auburn Hills, Michigan. Developer is proposing to develop the Project which is generally consistent with the character of the surrounding area and the City's Master Plan. The proposed use is as follows:

A. The Project will contain thirty-two (32) residential condominium townhouse-style units in five (5) buildings. As used herein, the term "owner occupied" shall mean that the residential condominium units shall not be rented by anyone, including the owners of condominium units, and shall not be occupied except by the owners of such units, subject to the following agreements:

i. The Developer nor any future owner shall offer any units for Lease. No Unit within the Project shall be leased, rented, or otherwise occupied by any person other than the owner of record of the Unit, except as expressly permitted in this Section. The offering of any Unit for lease, rental, or similar occupancy arrangement is prohibited.

ii. The restriction on leasing and rental set forth in this Section shall be incorporated into the Master Deed and Bylaws of the condominium established for the Project pursuant to the Michigan Condominium Act, Act 59 of 1978, as amended. Such restriction shall: (a) run with the land; (b) bind all present and future Unit owners, tenants, occupants, mortgagees, successors, and assigns; and be enforceable by the Association and the City. The Developer shall ensure that the Master Deed and Bylaws recorded for the Project contain provisions substantially consistent with this Section.

iii. The Developer and any future condominium association created for the Project (the "Association") shall be responsible for the monitoring and enforcement of the owner-occupancy restriction set forth in this Agreement and the Condominium Documents.

iv. The Developer will not market Units as investments. Each Purchase agreement will contain the following statement:

Purchaser warrants and represents that he/she is acquiring the Unit with the intention of occupying the Unit and understands that the renting of the unit is severely restricted under the terms of the Development Agreement as amended, between Developer and the City of Auburn Hills.

v. To the extent authorized under law, a Unit shall be deemed owner occupied where the Unit is occupied by the owner together with members of the owner's immediate family or guests, or where the Unit is occupied without the payment of rent by the owner's parent, child, spouse, or the owner's boyfriend, girlfriend, or significant other. A Unit shall also be deemed owner occupied where the Unit has been transferred to a family member or heir for estate planning purposes, provided that the original owner retains the right to occupy the Unit during the original owner's lifetime. Notwithstanding the foregoing limited circumstances, no Unit shall be leased, rented, or otherwise occupied by any third party in exchange for consideration.

vi. A Unit occupied by the owner of the Unit together with owner family members and guests shall be deemed to be owner occupied. A Unit occupied without rent payments by the mother, father, son or daughter of the owner shall be deemed to be owner occupied.

vii. A violation of the owner-occupancy restriction shall constitute a violation of this Agreement. In addition, a violation of the restriction against renting in the Agreement may be enforced by injunction or by a cease-and-desist order.

viii. The owner-occupancy restriction established by this Section is a material condition of approval of the PUD and shall remain in effect in perpetuity unless amended by the City through a formal amendment to this Agreement approved by the City Council and recorded with the Oakland County Register of Deeds.

ix. The owner-occupancy restrictions contained in this PUD shall not apply to a lender in possession of a Unit following default of a first mortgage, foreclosure or deed or other arrangement in lieu of foreclosure.

2. **ADHERENCE TO REQUIREMENTS FOR DEVELOPMENT**

The Property shall be developed and improved in full compliance with the following ("Development Documents"):

All Ordinances and Codes of the City of Auburn Hills, including the Fire Code, as may be amended, subject to any deviation or waiver in respect thereof set forth in this Agreement or any other provision hereof ("City Code and Ordinances"). For each phase of the Development, the applicable Ordinances and Codes of the City of Auburn Hills shall vest as of the date a Building Permit is pulled for that Phase. Notwithstanding the foregoing, any amendments to health and safety codes including fire codes, building codes, and other public safety regulations implemented to address threats to health and safety shall apply to the Development regardless of the vesting date for that Phase.

a. The Plans for River Bend, prepared by Community E.S., Inc. (the "PUD Plan").

b. Conditions imposed on the Project by the motion recommending approval to the City Council.

c. This Agreement and any conditions imposed herein.

d. Any and all conditions of the PUD Plan as approved by the Auburn Hills City Council pertaining to the Project and reflected in the official minutes of said meetings ("PUD Plan"). Once the PUD Plan is approved, the PUD Plan on file with the Community Development Department and minutes of the Planning Commission and City Council meetings on file with the Community Development Department shall be attached.

e. The City of Auburn Hills Engineering Design Standards and any other reasonable conditions which might be required by the City's Engineer.

Furthermore, all development and improvement of the Property by Developer and all use of the Property shall be subject to and in accordance with all applicable City Code and Ordinances, and shall also be subject to and in accordance with all other approvals and permits required under applicable City Code and Ordinances, the PUD Plan, and state laws for the respective components of the Project. To the extent that there are conflicts or discrepancies between respective provisions of the PUD Plan, or between provisions of this Agreement and City Code and Ordinances, the terms and conditions of Agreement shall apply. In the event this Agreement is silent on any matters otherwise covered by the PUD Plan, or City Code and Ordinances, the PUD Plan shall apply. To the extent this Agreement is silent on any issue, the PUD Plan shall control.

This Agreement shall run with the Property and all future owner(s) of the Property shall be bound by the terms of this Agreement and the Developer's authority and responsibilities stated herein. Heirs, successors, assigns and transferees shall take interest in the Property subject to this Agreement and all references to "Developer" in this Agreement shall include the heirs, successors, and assigns of the Developer. The City shall require that all other developers, present or future, of any portion of this Agreement or any amendment thereto, as the same may be expanded by the City and their respective successors in title comply with the City Code and Ordinances and regulations. Except in relation to the assignment of this Agreement to the Association established to operate and manage the Condominium as set forth in Section 3 below, any assignment of this Agreement by the Developer or any other party shall be subject to the City's prior written approval, which such approval shall not be unreasonably withheld or delayed.

3. INTENT OF PROJECT

The Project will consist of 32 residential condominium townhouse-style units in five (5) buildings, landscaping, internal sidewalks, a gazebo, and a private drive as depicted on the site plan. Until such time that formal control over Project passes to the association created to operate and manage the affairs of the condominium ("Association") in accordance with the Michigan Condominium Act, Act 59 of 1978 (the "Act"), Developer shall be responsible for the general common elements as described in the master deed and bylaws ("Condominium Documents") for the condominium, including, but not limited to any open space areas as described in the PUD Plan. Once formal control passes to the Association, the Association shall be responsible for the maintenance of the general common elements and additional areas as identified in the Condominium Documents.

4. ADHERENCE TO ORDINANCES

Developer shall comply with the City Code and Ordinances, except where modified by this Agreement. Developer acknowledges that certain provisions of this Agreement may exceed the requirements of the City Code and Ordinances, and the City acknowledges that items shown in the Plan may be less than the requirements of the City Code and Ordinances. Developer shall fully comply with all engineering and other local, state and federal codes and regulations in effect at the time of development of the Project, unless superseded or otherwise covered in this Agreement and PUD Plan. Permitted uses shall be limited to residential and all accessory uses thereof as regulated by the City Code and Ordinances.

Building elevation materials and colors will consist of high-quality materials as shown on the PUD Plan.

Development standards shall conform to the PUD Plan. The Project shall meet the requirements under the City Code and Ordinances.

5. PERMITS AND AUTHORIZATIONS

A. The City shall grant to Developer and its contractors and subcontractors all City permits and authorizations necessary to modify the existing utilities including electric, telephone, gas, cable television, water, storm and sanitary sewer to the Property and to otherwise develop and improve the Property in accordance with the PUD Plan, provided the Developer has first made all requisite applications for permits, complied with the requirements for said permits, and paid all required fees. Any applications for permits from the City will be processed in the customary manner. The City will cooperate with Developer in connection with Developer's applications for any necessary county, state, federal or utility company approvals, permits or authorizations to the extent that such applications and/or discussions are consistent with the PUD Plan and this Agreement.

6. PHASING/TIMING REQUIREMENTS

Time is of the essence to this Agreement. The PUD Plan anticipates all construction to be completed in one (1) phase. The Developer shall commence construction no later than one (1) year after the issuance of all permits required to begin construction (the "Commencement Deadline"). The date on which physical construction actually begins shall be the "Commencement Date." All construction shall be fully completed within twenty-four (24) months of the Commencement Date (the "Completion Date"). The Developer may request extensions of the Commencement Deadline or the Completion Date for good cause; each requested extension may be for a period not to exceed two (2) additional years and must be approved by the Auburn Hills City Council, such approval not to be unreasonably withheld. This Agreement and the approvals granted hereunder shall be rendered null and void upon the expiration of the Completion Date, unless otherwise determined by the City Council in accordance with this Section.

7. WATER AND SANITARY SEWER SYSTEMS

Developer shall, at its sole expense, construct and install all connections tying into the municipal water and sanitary sewer systems to serve the Project and that are identified as "must be built" utilities in the Condominium Documents under the Act.

8. ROADS, DRIVES AND PARKING LOTS

Developer shall, at its sole expense, construct and install all the internal roads to serve the Project.

9. LANDSCAPING, LIGHTING, AND ARCHITECTURAL STANDARDS

Developer shall cause the completion of remaining construction of the Project which are identified as "must be built" in the Condominium Documents and under the Act, in full compliance with the PUD Plan.

Developer shall install underground irrigation sufficient for survivability of all planted materials located within the general common elements and within the Condominium Units as identified in the Condominium Documents (Master Deed and Bylaws) and provide that the Association shall be responsible for future maintenance of the irrigation and landscaping within the Project following the transitional control date.

10. OPEN SPACE AND NATURAL FEATURES

The open spaces shall be designed and landscaped to create natural areas that add to the overall open space system and aesthetics of the Project. For the purpose of insuring long-term preservation of open space and natural features within the Project, all open space shall be perpetually preserved as unimproved areas (other than improvements installed in accordance with the Development) by way of provisions contained in the Condominium Documents. The Condominium Documents shall also provide for the continued maintenance of general common elements as described in the Condominium Documents, including any underground drainage and retention facilities installed in relation to Property.

11. CONDOMINIUM DOCUMENTS

Developer shall record a Master Deed, Bylaws and Condominium Subdivision Plans for the Project and provide to the City those documents that establish the condominium in accordance with the PUD Plan for the Project.

12. ACCESS TO PROPERTY

In all instances in which the City, pursuant to this Agreement, utilizes the proceeds of a financial assurance given to secure completion or maintenance of improvements, and at any time throughout the period of development and construction of any part of the Project, the City, its contractors, representatives, consultants and agents, shall be permitted, and are hereby granted authority, to enter upon all or any portion of the Property 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 Plan and this Agreement.

13. RECOGNIZABLE BENEFITS

In connection with its development of the Project, the City has requested and the Developer has agreed to provide the following, which constitute recognizable net public benefits of the Project as defined in Sec. 1830 of the City's Zoning Ordinance: the provision of new residential housing in the downtown area, thereby supporting increased density and economic vitality; the redevelopment and productive reuse of an underutilized and irregularly shaped site through efficient site design and consolidation; the inclusion of public-facing amenities, including a gazebo

and pedestrian walking paths, to enhance community accessibility and open space; the construction of streetscape improvements along Auburn Road to improve pedestrian connectivity and access to the downtown; and the advancement and implementation of the City's adopted Downtown Master Plan vision; the addition of an eight foot tall vinyl fence along the western property to provide a buffer between the neighboring single-family homes and the development providing improved compatibility and harmony between the housing densities; and the preparation of all the 32 condominium garages with conduit and wiring for electric vehicle charging stations, along with upgraded electric panels in each unit to support the future charging stations so as to support the City's goal to expedite the establishment of a convenient, cost-effective electric vehicle infrastructure network in the community.

14. MISCELLANEOUS

a. Binding Effect

This Agreement shall be binding upon and inure to the benefit of the parties and their heirs, successors and assigns. The rights and obligations contained in this Agreement shall run with the Property.

b. Authority

This Agreement has been duly authorized by all necessary action of Developer and the City. By the execution of this Agreement, the parties each warrant that they have the authority to execute this Development Agreement and bind the Property in its respective entities to its terms and conditions.

c. PUD Plan Approval and Minor Changes

There may be a need in the future to make minor changes to any approved PUD Plan for the Property, and Developer may request such changes. For purposes of expediency, minor changes to such site plans shall be reviewed by City Staff, and City Consultants at Developer's cost, and approved by the City's Director of Community Development, provided that the height, density and location of buildings and uses as permitted under the PUD Plan shall not be modified by City except as otherwise provided herein. It is within the City Director of Community Development sole discretion to determine whether a change is minor and appropriate to be approved by the City Director of Community Development or is a minor or major modification that is appropriate to be approved by the City Planning Commission and/or City Council. However, any proposed change that is not in conformance with the City Zoning Ordinance shall be considered a major modification requiring Planning Commission and City Council approval. Minor changes may include the following: (a) a reduction in the size of any building; (b) an increase in the size of any building, provided that the size of other building(s) is decreased so that all buildings within the Project do not exceed the density limitation set forth in this Agreement; (c) landscaping materials identified in the attached plan may be replaced by similar types of landscaping materials of better or like quality; (d) changes in floor plans which do not alter the character of the use; (e) internal rearrangement of parking lots that do not reduce the total number of approved parking spaces; (f) correcting non material errors; and (g) changes requested by the

City, County, or State for safety reasons. Any minor or major modifications sought that exceeds the authority granted to City Staff and Director of Community Development in this Section, in the judgment of City Staff and Director of Community Development, shall be submitted to the Planning Commission for review and approval, with Developer having the right to appeal the Planning Commission's determination to City Council. Any changes which are not minor, as defined above, will be considered either a minor or a major modification requiring amendment to the PUD. The determination that a change is not a minor change is completely within the discretion of the City and a decision that the change is major is not appealable.

d. **Other Governmental Approvals**

It is understood that construction of some of the improvements included in the Project will require the approval of other governmental agencies. Developer shall construct improvements in accordance with the approval of such agencies.

e. **Amendment**

This Agreement may only be amended pursuant to an instrument executed by the City and the Developer after mutual consent of the parties. Any amendment shall be recorded in the Oakland County Records. Developer shall have the right to delegate its rights and obligations under this Agreement to its successors and assigns with written permission from the City. Until the rights and responsibilities under this Agreement are transferred to Developer's Successor and Assign, Developer and the City shall be entitled to amend, modify, replace, or terminate this Agreement, without requiring the consent of any person or entity whatsoever, regardless of whether such person has any interest in the Property, including unit owners, mortgagees, and others. Notwithstanding anything contained herein to the contrary, City expressly agrees to the assignment of this Agreement to the Association as of the Transitional Control Date (as defined in the Act) without any further consent on the part of the City, or written assignment of this Agreement executed by the Developer and Association.

f. Notice.

Unless later information is provided, notices under this Agreement will be provided to:

To Developer:

Hampton South, LLC
Attn: Mr. Michele Mattera
31400 Kendall
Fraser, MI 48026

With a Required Copy to:

To City of Auburn Hills:

City of Auburn Hills
Attn: Clerk
1827 N. Squirrel Road
Auburn Hills, Michigan 48326

g. **Integration/Amendments**

This Agreement and its Exhibits (which are made a part of and incorporated herein in their entirety), set forth the entire agreement between the parties relative to the subject matter hereof. No prior or contemporaneous oral or written representations, statements, promises, agreements or undertakings made by either party or agent of either party that are not contained in this Agreement shall be valid or binding. This Agreement may not be amended except in writing signed by the parties and recorded in the same manner as this Agreement. Actual final building plans and elevations will be provided to the City at the time building permit applications are submitted for the various phases.

h. **Severability**

It is understood and agreed by the parties that if any part, term or provision of this Agreement is held by the courts to be illegal or in conflict with any statute, ordinance, rule, regulation or other applicable law, the validity of the remaining portions or provisions of this Agreement shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if this Agreement did not contain the particular part, term or provisions held to be invalid. In the event any changes in applicable federal, state, or local laws or regulations enacted after the date of this Agreement operate to prevent compliance with parts of this Agreement, or render compliance impractical or unreasonably difficult, the inconsistent provisions of this Agreement shall be modified, deleted or suspended as necessary to conform to such changes in federal or state law.

i. **Governing Law**

This Agreement shall be governed by the laws of the State of Michigan, both as to interpretation and performance. This Agreement shall be governed, interpreted and enforced by the laws of the State of Michigan, excluding Michigan's conflict of laws principles. Any action brought to enforce, interpret or decide any provision of this Agreement or any claim arising under this Agreement shall be brought in the Sixth Judicial Circuit Court of the State of Michigan, the 50th District Court of the State of Michigan, or the United States District Court for the Eastern District of Michigan, Southern Division, as dictated by the applicable jurisdiction of the Court. Except as otherwise required by law, venue is proper in the Courts set forth above.

j. **Waiver**

No waiver of any breach of this Agreement shall be held to be a waiver of any other or subsequent breach.

k. **Default.**

In the event there is a failure to timely perform any obligation or undertaking required under or in accordance with the Site Plan or this Agreement, the City may serve written notice upon Developer setting forth such deficiencies and a demand that the deficiencies be cured within a stated reasonable time period, but in no event less than thirty (30) days, and if not cured, the date, time, and place for a hearing before the City Council, or such other board, body, or official delegated by the City Council, for the purpose of allowing the Developer to be heard as to why the City should not proceed with the correction of the deficiency or obligation which has not been undertaken or properly fulfilled. At any such hearing, the time for curing and the hearing itself may be extended and/or continued to a date certain at the discretion of the City Council. If, following the hearing described above, the City Council, or such other board, body, or official designated to conduct the hearing, shall determine that the obligation has not been fulfilled or failure corrected within the time specified in the notice, the City shall thereupon have the power and authority to take one or more of the following actions:

i. If the default relates Developer's failure to timely complete the improvements as shown in the Site Plan, the City may draw the funds from the Developer's posted Performance Guarantee and enter upon the Property through its officials, employees, agents, and/or contractors and either complete the improvements as shown on the Site Plan or restore and secure the Property to a safe condition. In such event, all reasonable costs and expenses incurred, shall be paid from the proceeds of the funds drawn on the Performance Guarantee, including an administrative fee equal to twenty-five percent (25%) of the total costs incurred to cover the City's overhead, coordination, and administrative expenses. Any amounts of unused proceeds of the Performance Guarantee shall be returned to Developer, or otherwise be credited, as the case may be. Developer shall be obligated to act and work in cooperation with the City to bring about completion of the site improvements or restore and secure the Property to a safe condition. To the extent the City enters the Property to perform work as set forth in this Section, the City shall defend, hold harmless and indemnify Developer in relation to any claims which arise as a result of the City's, or its employees, agents and consultants entering the Property and performing work as set forth herein.

ii. The City may issue a stop work order as to any or all aspects of the Project, deny the issuance of any requested building permit or Certificate of Occupancy, and suspend further inspections of any or all aspects of the Project until such time as Developer has remedied such default.

iii. In the event of breach of this Agreement, the City may also cite the Developer for any applicable violation of the City's Zoning Ordinance or other local ordinances, which shall be enforceable through the City's standard municipal civil infraction procedures.

iv. Notwithstanding the foregoing, in the event of an uncured default, the City Council may consider termination of the Planned Unit Development (PUD) approvals; provided, however, that prior to any such termination, the City Council shall conduct a public hearing upon not less than fourteen (14) days' written notice to Developer, which notice shall state the time, place, and purpose of the hearing. At such public hearing, Developer shall be afforded an opportunity to be heard and present evidence. Following the close of the public hearing, the City Council may, in its discretion, adopt a resolution terminating the PUD approvals.

v. In addition to the foregoing remedies, the City shall be entitled to pursue any other rights or remedies available to it at law or in equity, including, but not limited to, actions for specific performance, injunctive relief, or damages. The remedies set forth herein are cumulative and not exclusive.

No party shall be deemed in default of this Agreement for any delay or failure to fulfill any obligation so long as and to the extent to which any delay or failure in the fulfillment of such obligation is prevented or delayed as a consequence of circumstances of force majeure (i.e. any event outside of the reasonable control of the party delayed). In the event of any such delay, the time for performance of such shall be extended for a period equal to the time lost by reason of the delay. A party claiming the benefit of this provision shall, as soon as reasonably practicable after the occurrence of any such event, (a) provide written notice to the other party of the nature and extent of any such force majeure condition; and (b) use commercially reasonable efforts to remove any such causes and resume performance under this Agreement as soon as reasonably practicable.

l. **Inconsistency**

Notwithstanding anything herein to the contrary, the City Ordinances applicable to any respective phase shall be those in effect on the date a permit is pulled for that phase. To the extent that this Agreement, PUD Plan or its Exhibits conflict with City Ordinances or Zoning Ordinance requirements, the terms of this Agreement, the PUD Plan and its Exhibits will control. Any clerical errors or mistakes in this Agreement or its Exhibits may be corrected by any of the parties, and all parties agree to cooperate in making such corrections in order to effectuate the intent of the parties in entering into this Agreement. Remedial amendments to correct errors and omissions may be approved and executed by the City Manager so long as they are consistent with the spirit and intent of this Agreement, in the Director of Community Development's reasonable judgment. In all events any reference to the City Ordinances, Zoning Ordinances, Sign Ordinances, Codes and PUD Ordinance, shall mean the existing Ordinances and Codes of the City as of the date of this Agreement.

m. **Limitation of City's Liability**

This Project is a private undertaking, and the parties understand and agree that: (a) this Project is a private development; (b) the City has no interest or responsibilities for or duty to third parties concerning any improvements on the Property except and only until such time that the City accepts any public improvements pursuant to this Agreement and the PUD Plan; (c) the Developer shall have full and exclusive control of the Property subject to the limitations and obligations of the Developer under this Agreement; and (d) the contractual relationship between the City and the Developer is such that Developer is not an agent, partner or joint venture of or with the City.

15. **BINDING EFFECT**

This Agreement shall become effective upon execution by all parties. The Agreement shall be recorded in the office of the Oakland County Register of Deeds by the Developer and a certified copy of the recorded Agreement shall be delivered to the City. This Agreement shall run with the Property and bind the parties, their heirs, successors, and assigns. It is also understood that the members of the City Council, Planning Commission, Zoning Board of Appeals, or the City departments may change, but the City shall nonetheless remain bound by this Agreement.

[remainder of page intentionally left blank]

IN WITNESS WHEREOF, the parties have caused this Development Agreement to be executed on the day and year recited above.

CITY OF AUBURN HILLS,
a Michigan municipal corporation

By:_____

Its:

ACKNOWLEDGEMENT

STATE OF MICHIGAN)
) ss
COUNTY OF OAKLAND)

The foregoing Agreement was acknowledged before me by _____, the _____ of the City of Auburn Hills, on the _____ day of _____, 2026, on behalf of the City.

_____
_____, Notary Public
Oakland County, Michigan
My Commission Expires:_____
Acting in Oakland County

(Signatures continued on next page)

HAMPTON SOUTH, LLC
a Michigan limited liability company

By: _____
Michele Mattera
Its: Managing Member

ACKNOWLEDGEMENT

STATE OF MICHIGAN)
) ss
COUNTY OF MACOMB)

The foregoing Agreement was acknowledged before me by Michele Mattera, Managing Member of Hampton South, LLC, a Michigan limited liability company, on the 1ST day of APRIL, 2026, on behalf of the company.

_____, Notary Public
MACOMB County, Michigan
My Commission expires: 1/19/2030
Acting in MACOMB County

Drafted by:
Brittney K. Ellis, Esq.
The Kelly Firm PLC
512 E. Eleven Mile Road
Royal Oak, MI 48067

When Recorded Return to:
City of Auburn Hills
Attn: Clerk
1827 N. Squirrel Road
Auburn Hills, Michigan 48326

Table of Exhibits

Exhibit A: Property Legal Description

Exhibit B: PUD Plan

Exhibit A

Property Legal Description

Land situated in the City of Auburn Hills, County of Oakland, State of Michigan, described as follows:

LEGAL DESCRIPTION: PARCEL 02-14-36-102-005
PART OF THE NORTHWEST 1/4 OF SECTION 36, T.3N., R.10E., CITY OF AUBURN HILLS. BEING MORE PARTICULARLY DESCRIBED AS LOT 11 OF SUPERVISOR'S PLAN NO. 9, ALSO THAT PART OF LOT 9 OF SUPERVISOR'S PLAN NO. 9 LYING EASTERLY OF LOT 11 EXTENDED SOUTHERLY ACROSS LOT 9.

LEGAL DESCRIPTION: PARCEL 02-14-36-102-006
(PER TITLE COMMITMENT ISSUED BY SEAVER TITLE AGENCY, COMMITMENT #63-15435043, DATED SEPTEMBER 21, 2018)
A PARCEL OF LAND SITUATED IN THE NORTH 1/2 OF TEH NW 1/4 OF SECTION 36, TOWN 3N., RANGE 10 EAST, CITY OF AUBURN HILLS, OAKLAND COUNTY MICHIGAN, MORE PARTICULARLY DESCRIBED AS FOLLOWS:
LOTS 12, 13, 14, ALSO PART OF LOT 16 LYING BETWEEN THE WEST LINE OF LOT 12 AND TEH EAST LINE OF LOT 14 AS EXTENDED TO RIVER, "SUPERVISOR;S PLAT NO. 8", AS RECORDED IN LIBER 52 OF PLATS, PAGE 34, OAKLAND COUNTY RECORDS. SUBJECT TO ALL EASEMENTS AND RESTRICTIONS, IF ANY.

LEGAL DESCRIPTION: PARCEL 02-14-36-102-007
PART OF THE NORTHWEST 1/4 OF SECTION 36, T.3N., R.10E., CITY OF AUBURN HILLS. BEING MORE PARTICULARLY DESCRIBED AS LOT 15, ALSO PART OF LOT 16 OF SUPERVISOR'S PLAN NO. 9, BEGINNING AT THE NORTHEAST CORNER OF LOT 15, THENCE EAST 27.30', THENCE SOUTH 100', THENCE WEST TO THE WEST LINE OF LOT 15 OF SUPERVISOR'S PLAN NO. 9, EXTENDED SOUTHERLY TO THE SOUTHWEST CORNER OF LOT 15, THENCE NORTHERLY ALONG LOT LINE TO THE POINT OF BEGINNING.

LEGAL DESCRIPTION: PARCEL 02-14-36-102-008
PART OF THE NORTHWEST 1/4 OF SECTION 36, T.3N., R.10E., CITY OF AUBURN HILLS. BEING MORE PARTICULARLY DESCRIBED AS BEING PART OF LOT 16 OF SUPERVISOR'S PLAN NO. 9, BEGINNING AT A POINT DISTANT EAST 27.30' FROM THE NORTHEAST CORNER OF LOT 15, THENCE EAST 80', THENCE SOUTH 100', THENCE WEST 80', THENCE NORTH 100' TO THE POINT OF BEGINNING, EXCEPT THAT PART RETAINED IN M-59 HIGHWAY.

LEGAL DESCRIPTION: PARCEL 02-14-36-102-010
PART OF THE NORTHWEST 1/4 OF SECTION 36, T.3N., R.10E., CITY OF AUBURN HILLS. BEING MORE PARTICULARLY DESCRIBED AS LOT 16 OF THE SUPERVISOR'S PLAN NO. 9,
EXCEPT BEGINNING AT THE NORTHEAST CORNER OF LOT 15, THENCE EAST 107.30', THENSE SOUTH 100', THENCE WEST TO THE EAST PROPERTY LINE OF LOT 15, THENCE NORTHEASTERLY ALONG THE LOT LINE TO THE POINT OF BEGINNING.
ALSO EXCEPT BEGINNING AT THE SOUTHEAST CORNER OF LOT 17, THENCE SOUTHERLY ALONG THE LOT LINE TO THE SOUTHWEST CORNER OF LOT 17, THENCE N89°58'09"W 312' TO THE EASTERLY LINE OF THE CLINTON RIVER, THENCE ALONG THE EASTERLY LINE OF THE CLINTON RIVER N56°54'52"E 130.43' AND N00°08'42"W 75', THENCE S89°58'09"E ALONG THE NORTH LINE OF LOT 16 TO THE NORTHWEST CORNER OF LOT 17, THENCE SOUTHERLY ALONG THE LOT LINE TO THE SOUTHWEST CORNER OF LOT 17,
ALSO EXCEPT BEGINNING AT THE SOUTHWEST CORNER OF LOT 20, THENCE WEST ALONG THE SOUTH LINE OF LOT 20 TO THE EASTERLY BANK OF THE CLINTON RIVER, THENCE NORTHEASTERLY ALONG SAID EASTERLY BANK TO THE EXTENSION OF THE NORTH LINE OF TEH SOUTH 50' OF LOT 19, THENCE EASTERLY ALONG SAID NORTH LINE TO THE WEST LINE OF LOT 19, THENCE SOUTHERLY ALONG THE WESTERLY LINE OF LOTS 19 AND 20 TO THE POINT OF BEGINNING,
ASLO EXCEPT THAT PART OF LOT 16 IN PARCEL BEGINNNG AT THE NORTHEAST CORNER OF LOT 19, THENCE S06°24'00"E 121.06', THENCE WESTERLY 680' MORE OR LESS TO THE EDGE OF THE CLINTON RIVER, THENCE NORTHEASTERLY 275' TO THE ESTERLY EXTENSION OF THE NORTH LINE OF LOT 19, THENCE EASTERLY 295.66', THENCE NORTHERLY 4', THENCE EASTERLY 136.35' TO TEH BEGINNING.
ALSO EXCEPT BEGINNNG AT A POINT DISTANT S89°49'00"W 548.67' FROM THE NORTHEAST CORNER OF LOT 21, THENCE S78°32'00"W 154.82', THENCE S89°48'20"W 173.07', THENCE S69°01'10"W 195.93' TO A POINT S38°40'05"E 31' FROM TEH CENTER LINE OF THE CLINTON RIVER, THENCE N38°40'05"W 31', THENCE ALONG THREAD OF SAID RIVER NORTHEASTERLY 180', THEN CE N89°48'00"E 32', THENCE N89°49'00"E 346.23' TO THE POINT OF BEGINNING.

Exhibit B

PUD Plan dated _____ is on File with the City of Auburn Hills Community Development Department







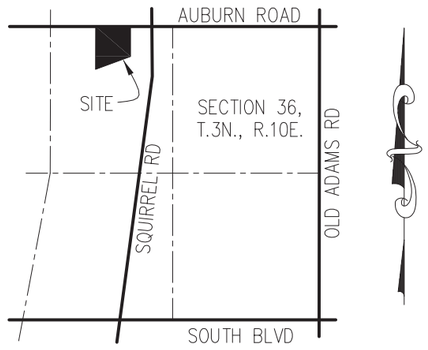




"RIVER BEND"

PART OF THE NORTHWEST 1/4 OF SECTION 36, T.3N., R.10E.,
AUBURN HILLS, OAKLAND COUNTY, MICHIGAN.

PROPOSED: 32 TOWNHOUSE UNITS



LOCATION MAP

4" = 1 MILE

DRAWING INDEX

CIVIL PLANS	
1	COVER SHEET
2	TOPOGRAPHIC SURVEY & TREE INVENTORY
2A	TREE LIST
3	DIMENSIONAL SITE PLAN
4	ENGINEERING PLAN
5	LANDSCAPE PLAN

ARCHITECTURAL PLANS	
1	PROJECT NO. 250916, 3/5/2026
2	PROJECT NO. 250916, 3/5/2026

NOT FOR CONSTRUCTION

ARCHITECT:
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ANDY CHUDZIK
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ARCDESIGN7@SBCGLOBAL.NET

PROPRIETOR:
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STATE OF MICHIGAN
RICHARD S. HODSDON
ENGINEER
No. 48078
LICENSED PROFESSIONAL ENGINEER

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3 WORKING DAYS
BEFORE YOU DIG
CALL MISS DIG
1-800-482-7171

REV. 3/30/2026 LS PLAN
REV. 3/27/2026 LS DETAILS
REV. 3/8/2026
REV. 9/23/2025 LANSCAPE

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RIVER BEND
PART OF THE NORTHWEST 1/4 OF SECTION 36, T.3N., R.10E.,
AUBURN HILLS,
OAKLAND COUNTY, MICHIGAN.

DATE Sept. 18, 2025	SCALE 1" = 20'
DRAWN BY R.S.H.	SHEET 1 OF 5
CHECKED BY R.S.H.	DRAWING Z-25-178

COVER SHEET

EXISTING BUILDING

CHURCHILL ROAD (50' R.O.W.)

AUBURN ROAD
ASPHALT PAVEMENT & CONCRETE CURB AND GUTTER – 66' WIDE – PUBLIC

N86°53'14"E 600.01' (CENTERLINE OF ROAD)

N86°53'14"E 220.00'

EX. 33' R.O.W.

S02°49'14"E 155.00'

N02°49'14"W 245.00'

S61°55'07"E 97.07'

S66°34'43"W 146.27'

PM #2

REMOVE EX. DRIVE

REMOVE EXISTING LIGHT POLES

REMOVE ROW OF PINE TREES

REMOVE EXISTING FENCE

REMOVE OVERHEAD WIRES

REMOVE EX. BLDG

REMOVE EX. DRIVE

REMOVE EX. FENCE

REMOVE EX. 50" COTTONWOOD

REMOVE UTILITY POLE & OVERHEAD WIRES

LOT 10 #3106 AUBURN ROAD 14-36-101-001

LOT 11

LOT 12

LOT 13

LOT 14

LOT 15 EX. BLDG

LOT 16

LOT 9

PARCEL 02-14-102-005
AUBURN ROAD

PARCEL 02-14-102-006
3180 AUBURN ROAD

PARCEL 02-14-102-007
3198 AUBURN ROAD

PARCEL 02-14-102-008
3200 AUBURN ROAD

PARCEL 02-14-102-010

EXISTING HOUSE

EXISTING GARAGE

EX. HOUSE

EXISTING HOUSE

#3N CROSS ST. 14-36-101-002

#4S CROSS ST. 14-36-101-003

14-36-101-009

OHM BENCHMARK ON UTILITY POLE EL: 854.96

100-YEAR FLOODPLAIN (BASED ON TOPOGRAPHIC SURVEY)

100-YEAR FLOODWAY (BASED ON FEMA MAP)

100-YEAR FLOODPLAIN (BASED ON TOPO ELEVATIONS)

100-YEAR FLOODPLAIN (BASED ON FEMA MAP)

CLINTON RIVER

BOTTOM OF BANK

TOP OF BANK

ORDINARY HIGH WATER MARK

NATURAL FEATURES SETBACK

EX. 15" STM

EX. 12" STM

EX. 8" SAN

EX. WM

EX. SAN

EX. WALK

BACK OF CURB

OVERHEAD WIRES

EX. FENCE

EX. WOOD GUARDRAIL

EX. BELL MH

EX. GATE

12" BLOCK WALL

CENTERLINE OF SWALE

EX. STMH1 RIM 856.24 INV. 846.04 N INV. 845.84 SW INV. 845.74 S

EX. STMH1 RIM 856.34 INV. 847.03 NE INV. 846.99 W

EX. STMH1 RIM 858.95 INV. 846.01 E INV. 845.89 W

EX. STMH1 RIM 856.91 INV. 846.10 N INV. 845.81 S

EX. STMH1 RIM 856.24 INV. 846.24 N INV. 846.14 S INV. 845.84 E

EX. STMH1 RIM 856.40

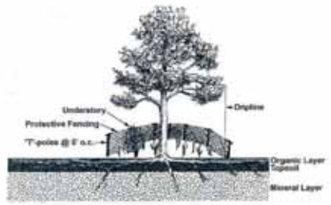
EX. STMH1 RIM 856.58 INV. 850.23 N INV. 850.03 SE

EX. STMH1 RIM 858.58 INV. 852.23 N INV. 852

TAG #	SIZE AND COMMON NAME	GENUS	SPECIES	CONDITION	COMMENTS	REGULATED	LANDMARK
100	15" SCOTS PINE	PINUS	SYLVESTRIS	FAIR	REMOVE FOR DEVELOPMENT PURPOSES	YES	
99	15" SCOTS PINE	PINUS	SYLVESTRIS	FAIR	REMOVE FOR DEVELOPMENT PURPOSES	YES	
98	16" SCOTS PINE	PINUS	SYLVESTRIS	FAIR	REMOVE FOR DEVELOPMENT PURPOSES	YES	
97	18" SCOTS PINE	PINUS	SYLVESTRIS	FAIR	REMOVE FOR DEVELOPMENT PURPOSES	YES	
96	8"X4 SIBERIAN ELM	ULMUS	PUMILA	FAIR	REMOVE FOR DEVELOPMENT PURPOSES	NO	
95	16" BLACK PINE	PINUS	NIGRA	FAIR	REMOVE FOR DEVELOPMENT PURPOSES	YES	
94	19" SCOTS PINE	PINUS	SYLVESTRIS	FAIR	OFFSITE	YES	
91	11" RED MAPLE	ACER	RUBRUM	FAIR	OFFSITE	YES	
92	20" RED MAPLE	ACER	RUBRUM	FAIR	OFFSITE	YES	
93	7" SIBERIAN ELM	ULMUS	NIGRA	FAIR	OFFSITE	NO	
90	9" SIBERIAN ELM	ULMUS	NIGRA	FAIR	OFFSITE	NO	
1998	9" SIBERIAN ELM	ULMUS	NIGRA	FAIR	OFFSITE	NO	
101	12" COTTONWOOD	POPULUS	DELTOIDES	FAIR	OFFSITE	YES	
89	9" SIBERIAN ELM	ULMUS	NIGRA	POOR	GROWING IN FENCE – REMOVE	NO	
88	6" SIBERIAN ELM	ULMUS	NIGRA	POOR	GROWING IN FENCE – REMOVE	NO	
87	8" SIBERIAN ELM	ULMUS	NIGRA	FAIR	GROWING IN FENCE – REMOVE	NO	
84	15" SPRUCE	PICEA	GLAUCA	GOOD	OFFSITE – TO BE SAVED	YES	
83	12" SLIPPERY ELM	ULMUS	RUBRA	GOOD		YES	
	23" RED ELM	ULMUS	RUBRA	FAIR		YES	
82	7" SLIPPERY ELM	ULMUS	RUBRA	GOOD		YES	
	25" RED ELM	ULMUS	RUBRA	FAIR		YES	
1997	35" COTTONWOOD	POPULUS	DELTOIDES	GOOD	OFFSITE	YES	
81	32" COTTONWOOD	POPULUS	DELTOIDES	GOOD	RIVERBANK	YES	
80	16" COTTONWOOD	POPULUS	DELTOIDES	POOR	RIVERBANK	YES	
79	18" RED ELM	ULMUS	RUBRA	FAIR	RIVERBANK	YES	
77	18" RED ELM	ULMUS	RUBRA	FAIR	RIVERBANK	YES	
67	24" RED ELM	ULMUS	RUBRA	GOOD	RIVERBANK	YES	
78	12" RED ELM	ULMUS	RUBRA	FAIR	RIVERBANK	YES	
76	6" BUCKTHORN	RHAMNUS	CATHARTICA	POOR	REMOVE – INVASIVE	NO	
68	37" COTTONWOOD	POPULUS	DELTOIDES	GOOD	RIVERBANK	YES	
69	32" COTTONWOOD	POPULUS	DELTOIDES	FAIR	RIVERBANK	YES	
70	8" RED ELM	ULMUS	RUBRA	FAIR	RIVERBANK	YES	
71	7" RED ELM	ULMUS	RUBRA	FAIR	RIVERBANK	YES	
72	8" MULBERRY	MORUS	ALBA	FAIR	RIVERBANK	YES	
	7" SIBERIAN ELM	ULMUS	PUMILA	FAIR	RIVERBANK	NO	
73	12" RED ELM	ULMUS	RUBRA	FAIR	RIVERBANK	YES	
74	35" COTTONWOOD	POPULUS	DELTOIDES	POOR	RIVERBANK	YES	
75	10" MULBERRY	MORUS	ALBA	FAIR	RIVERBANK	YES	
	6" BUCKTHORN	RHAMNUS	CATHARTICA	POOR	REMOVE – INVASIVE	NO	
66	8" SIBERIAN ELM	ULMUS	PUMILA	FAIR	RIVERBANK	NO	
65	12" SIBERIAN ELM	ULMUS	PUMILA	POOR	RIVERBANK	NO	
64	7"X2 BOX ELDER	ACER	NEGUNDO	POOR	RIVERBANK	NO	
63	10" MULBERRY	MORUS	ALBA	FAIR	RIVERBANK	NO	
62	10" SIBERIAN ELM	ULMUS	PUMILA	FAIR	RIVERBANK	NO	
	8" SIBERIAN ELM	ULMUS	PUMILA	FAIR	RIVERBANK	NO	
61	6" SIBERIAN ELM	ULMUS	PUMILA	FAIR	RIVERBANK	NO	
60	9" SIBERIAN ELM	ULMUS	PUMILA	FAIR	RIVERBANK	NO	
59	11" BOX ELDER	ACER	NEGUNDO	POOR	RIVERBANK	NO	
57	20" MULBERRY	MORUS	ALBA	FAIR	RIVERBANK	YES	
58	21" RED ELM	ULMUS	PUMILA	FAIR	RIVERBANK	YES	
56	6" BOX ELDER	ACER	NEGUNDO	POOR	RIVERBANK	NO	
55	11" MULBERRY	MORUS	ALBA	POOR	RIVERBANK	YES	
50	24" MULBERRY	MORUS	ALBA	FAIR	RIVERBANK	YES	
51	7" MULBERRY	MORUS	ALBA	FAIR	RIVERBANK	YES	
52	8" RED ELM	ULMUS	RUBRA	FAIR	RIVERBANK	YES	
53	10" RED ELM	ULMUS	RUBRA	FAIR	RIVERBANK	YES	
54	10" BOX ELDER	ACER	NEGUNDO	POOR	RIVERBANK	NO	
49	48" COTTONWOOD	POPULUS	DELTOIDES	GOOD	REMOVE FOR DEVELOPMENT PURPOSES	YES	
48	22" MULBERRY	MORUS	ALBA	FAIR	RIVERBANK	YES	
47	11" TREE OF HEAVEN	AILANTHUS	ALTISSIMA	FAIR	REMOVE – INVASIVE	NO	
46	7" TREE OF HEAVEN	AILANTHUS	ALTISSIMA	FAIR	REMOVE – INVASIVE	NO	
44	6" TREE OF HEAVEN	AILANTHUS	ALTISSIMA	FAIR	REMOVE – INVASIVE	NO	
45	6" TREE OF HEAVEN	AILANTHUS	ALTISSIMA	FAIR	REMOVE – INVASIVE	NO	
41	20" BOX ELDER	ACER	NEGUNDO	FAIR	RIVERBANK – TO BE SAVED	NO	
43	10" TREE OF HEAVEN	AILANTHUS	ALTISSIMA	FAIR	REMOVE – INVASIVE	NO	
42	8" TREE OF HEAVEN	AILANTHUS	ALTISSIMA	FAIR	REMOVE – INVASIVE	NO	
40	8" TREE OF HEAVEN	AILANTHUS	ALTISSIMA	FAIR	REMOVE – INVASIVE	NO	
39	8" BOX ELDER	ACER	NEGUNDO	POOR	RIVERBANK – TO BE SAVED	NO	
36	30" SIBERIAN ELM	ULMUS	PUMILA	POOR	RIVERBANK – TO BE SAVED	NO	
37	7" MULBERRY	MORUS	ALBA	FAIR	RIVERBANK – TO BE SAVED	YES	
38	18"X3 MULBERRY	MORUS	ALBA	FAIR	RIVERBANK – TO BE SAVED	YES	
35	27"X2 TREE OF HEAVEN	AILANTHUS	ALTISSIMA	FAIR	REMOVE – INVASIVE	NO	
34	8" BOX ELDER	ACER	NEGUNDO	FAIR	RIVERBANK – TO BE SAVED	NO	
33	10" TREE OF HEAVEN	AILANTHUS	ALTISSIMA	FAIR	REMOVE – INVASIVE	NO	
32	28" BOX ELDER	ACER	NEGUNDO	POOR	RIVERBANK – TO BE SAVED	NO	
31	11" SIBERIAN ELM	ULMUS	PUMILA	FAIR	RIVERBANK – TO BE SAVED	NO	
30	7" ASH	FRAXINUS	PENSIVANICA	POOR	RIVERBANK – TO BE SAVED	NO	
28	8" BOX ELDER	ACER	NEGUNDO	DEAD	REMOVE	NO	
29	12" BOX ELDER	ACER	NEGUNDO	POOR	RIVERBANK – TO BE SAVED	NO	
27	8" BLACK LOCUST	ROBINIA	PSEUDOACACIA	FAIR	RIVERBANK – TO BE SAVED	NO	
1995	12" SIBERIAN ELM	ULMUS	NEGUNDO	FAIR	RIVERBANK – TO BE SAVED	NO	

Place Verbatim on Engineering Tree Protection Plan

TREE PROTECTION DETAIL



TREE PROTECTION NOTES

- Identify on site all trees or areas of trees which are being proposed to be preserved with fluorescent orange spray paint (chalk base) or by red flagging tape.
- Erect barriers of four (4) foot high fencing staked with metal "T-posts" five (5) feet on center or all such trees or groups of trees proposed to remain
- Protective barriers are to be erected prior to any clearing or grubbing on the site, and barriers are to remain in tact until approved by the City to be removed, or when a Certificate of Occupancy is issued.
- Keep clear all debris or fill, equipment, and material from within the required protective barrier.
- During construction, the owner, developer, or agent shall not cause or permit any activity within the fence line of any protected tree or group of trees, including, but not limited to, the storage of equipment, dumpsters, boulders, dirt, and excavated material, building or waste material, or any other material harmful to the life of a tree.
- No damaging attachment, wires (other than cable wires for trees), sign, or permits may be fastened to any tree protected by this Ordinance.

Place Verbatim on Landscape Plan

LANDSCAPE/TREE REPLACEMENT NOTES

- All installed trees are to have a straight trunk.
- All installed trees are to be northern grown.
- All installed trees are to be State Department of Agriculture Nursery Grade No. 1 or better.
- All replacement trees are considered protected regardless of size.
- All trees shall be guaranteed for a minimum of two years.
- All landscaped areas shall be irrigated with an underground sprinkler system.

15

NOT FOR CONSTRUCTION

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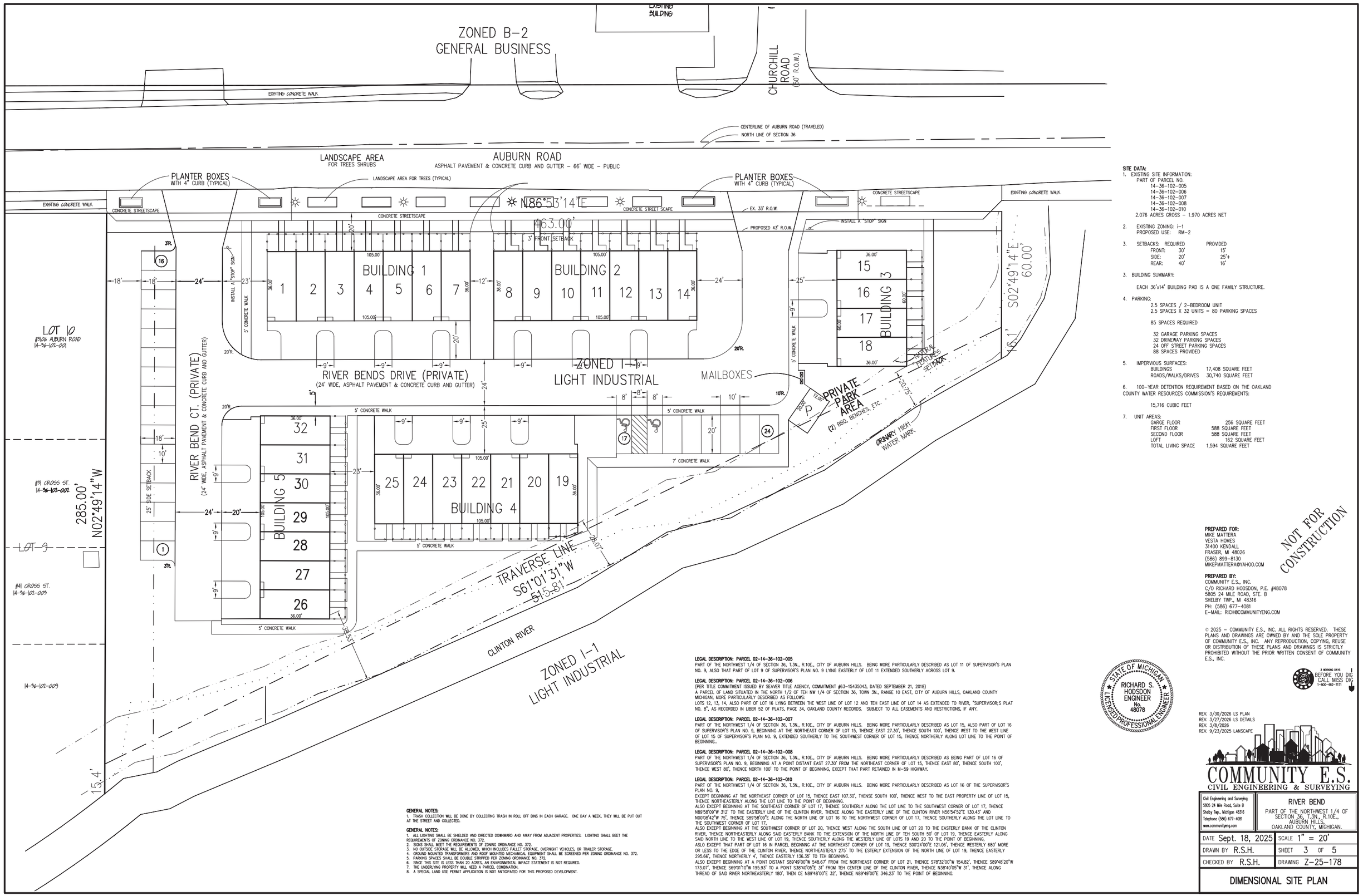
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RIVER BEND
PART OF THE NORTHWEST 1/4 OF SECTION 36, T.3N., R.10E., AUBURN HILLS, OAKLAND COUNTY, MICHIGAN.

DATE Sept. 18, 2025	SCALE 1"=50'
DRAWN BY R.S.H.	SHEET 2A OF 5
CHECKED BY R.S.H.	DRAWING Z-25-178

TREE LIST



SITE DATA:

1. EXISTING SITE INFORMATION:
   PART OF PARCEL NO.
   14-36-102-005
   14-36-102-006
   14-36-102-007
   14-36-102-008
   14-36-102-010
   2.076 ACRES GROSS - 1.970 ACRES NET
2. EXISTING ZONING: I-1
   PROPOSED USE: RM-2
3. SETBACKS: REQUIRED / PROVIDED
   FRONT: 30' / 15'
   SIDE: 20' / 25'+
   REAR: 40' / 16'
3. BUILDING SUMMARY:
   EACH 36'x14' BUILDING PAD IS A ONE FAMILY STRUCTURE.
4. PARKING:
   2.5 SPACES / 2-BEDROOM UNIT
   2.5 SPACES X 32 UNITS = 80 PARKING SPACES
   85 SPACES REQUIRED
   32 GARAGE PARKING SPACES
   32 DRIVEWAY PARKING SPACES
   24 OFF STREET PARKING SPACES
   88 SPACES PROVIDED
5. IMPERVIOUS SURFACES:
   BUILDINGS 17,408 SQUARE FEET
   ROADS/WALKS/DRIVES 30,740 SQUARE FEET
6. 100-YEAR DETENTION REQUIREMENT BASED ON THE OAKLAND COUNTY WATER RESOURCES COMMISSION'S REQUIREMENTS:
   15,716 CUBIC FEET
7. UNIT AREAS:
   GARGE FLOOR 256 SQUARE FEET
   FIRST FLOOR 588 SQUARE FEET
   SECOND FLOOR 588 SQUARE FEET
   LOFT 162 SQUARE FEET
   TOTAL LIVING SPACE 1,594 SQUARE FEET

GENERAL NOTES:
1. TRASH COLLECTION WILL BE DONE BY COLLECTING TRASH IN ROLL OFF BINS IN EACH GARAGE. ONE DAY A WEEK, THEY WILL BE PUT OUT AT THE STREET AND COLLECTED.

GENERAL NOTES:
1. ALL LIGHTING SHALL BE SHIELDED AND DIRECTED DOWNWARD AND AWAY FROM ADJACENT PROPERTIES. LIGHTING SHALL BEET THE REQUIREMENTS OF ZONING ORDINANCE NO. 372.
2. SIGNS SHALL MEET THE REQUIREMENTS OF ZONING ORDINANCE NO. 372.
3. NO OUTSIDE STORAGE WILL BE ALLOWED, WHICH INCLUDES PALLET STORAGE, OVERNIGHT VEHICLES, OR TRAILER STORAGE.
4. GROUND MOUNTED TRANSFORMERS AND ROOF MOUNTED MECHANICAL EQUIPMENT SHALL BE SCREENED PER ZONING ORDINANCE NO. 372.
5. PARKING SPACES SHALL BE DOUBLE STRIPPED PER ZONING ORDINANCE NO. 372.
6. SINCE THIS SITE IS LESS THAN 20 ACRES, AN ENVIRONMENTAL IMPACT STATEMENT IS NOT REQUIRED.
7. THE UNDERLYING PROPERTY WILL NEED A PARCEL COMBINATION.
8. A SPECIAL LAND USE PERMIT APPLICATION IS NOT ANTICIPATED FOR THIS PROPOSED DEVELOPMENT.

LEGAL DESCRIPTION: PARCEL 02-14-36-102-005
PART OF THE NORTHWEST 1/4 OF SECTION 36, T.3N., R.10E., CITY OF AUBURN HILLS. BEING MORE PARTICULARLY DESCRIBED AS LOT 11 OF SUPERVISOR'S PLAN NO. 9, ALSO THAT PART OF LOT 9 OF SUPERVISOR'S PLAN NO. 9 LYING EASTERLY OF LOT 11 EXTENDED SOUTHERLY ACROSS LOT 9.

LEGAL DESCRIPTION: PARCEL 02-14-36-102-006
(PER TITLE COMMITMENT ISSUED BY SEAVER TITLE AGENCY, COMMITMENT #63-15435043, DATED SEPTEMBER 21, 2018)
A PARCEL OF LAND SITUATED IN THE NORTH 1/2 OF TEH NW 1/4 OF SECTION 36, TOWN 3N., RANGE 10 EAST, CITY OF AUBURN HILLS, OAKLAND COUNTY MICHIGAN, MORE PARTICULARLY DESCRIBED AS FOLLOWS:
LOTS 12, 13, 14, ALSO PART OF LOT 16 LYING BETWEEN THE WEST LINE OF LOT 12 AND TEH EAST LINE OF LOT 14 AS EXTENDED TO RIVER, "SUPERVISOR;S PLAT NO. 8", AS RECORDED IN LIBER 52 OF PLATS, PAGE 34, OAKLAND COUNTY RECORDS. SUBJECT TO ALL EASEMENTS AND RESTRICTIONS, IF ANY.

LEGAL DESCRIPTION: PARCEL 02-14-36-102-007
PART OF THE NORTHWEST 1/4 OF SECTION 36, T.3N., R.10E., CITY OF AUBURN HILLS. BEING MORE PARTICULARLY DESCRIBED AS LOT 15, ALSO PART OF LOT 16 OF SUPERVISOR'S PLAN NO. 9, BEGINNING AT THE NORTHEAST CORNER OF LOT 15, THENCE EAST 27.30', THENCE SOUTH 100', THENCE WEST TO THE WEST LINE OF LOT 15 OF SUPERVISOR'S PLAN NO. 9, EXTENDED SOUTHERLY TO THE SOUTHWEST CORNER OF LOT 15, THENCE NORTHERLY ALONG LOT LINE TO THE POINT OF BEGINNING..

LEGAL DESCRIPTION: PARCEL 02-14-36-102-008
PART OF THE NORTHWEST 1/4 OF SECTION 36, T.3N., R.10E., CITY OF AUBURN HILLS. BEING MORE PARTICULARLY DESCRIBED AS BEING PART OF LOT 16 OF SUPERVISOR'S PLAN NO. 9, BEGINNING AT A POINT DISTANT EAST 27.30' FROM THE NORTHEAST CORNER OF LOT 15, THENCE EAST 80', THENCE SOUTH 100', THENCE WEST 80', THENCE NORTH 100' TO THE POINT OF BEGINNING, EXCEPT THAT PART RETAINED IN M-59 HIGHWAY.

LEGAL DESCRIPTION: PARCEL 02-14-36-102-010
PART OF THE NORTHWEST 1/4 OF SECTION 36, T.3N., R.10E., CITY OF AUBURN HILLS. BEING MORE PARTICULARLY DESCRIBED AS LOT 16 OF THE SUPERVISOR'S PLAN NO. 9,
EXCEPT BEGINNING AT THE NORTHEAST CORNER OF LOT 15, THENCE EAST 107.30', THENSE SOUTH 100', THENCE WEST TO THE EAST PROPERTY LINE OF LOT 15, THENCE NORTHEASTERLY ALONG THE LOT LINE TO THE POINT OF BEGINNING.
ALSO EXCEPT BEGINNING AT THE SOUTHEAST CORNER OF LOT 17, THENCE SOUTHERLY ALONG THE LOT LINE TO THE SOUTHWEST CORNER OF LOT 17, THENCE N89°58'09"W 312' TO THE EASTERLY LINE OF THE CLINTON RIVER, THENCE ALONG THE EASTERLY LINE OF THE CLINTON RIVER N56°54'52"E 130.43' AND N00°08'42"W 75', THENCE S89°58'09"E ALONG THE NORTH LINE OF LOT 16 TO THE NORTHWEST CORNER OF LOT 17, THENCE SOUTHERLY ALONG THE LOT LINE TO THE SOUTHWEST CORNER OF LOT 17,
ALSO EXCEPT BEGINNING AT THE SOUTHWEST CORNER OF LOT 20, THENCE WEST ALONG THE SOUTH LINE OF LOT 20 TO THE EASTERLY BANK OF THE CLINTON RIVER, THENCE NORTHEASTERLY ALONG SAID EASTERLY BANK TO THE EXTENSION OF THE NORTH LINE OF TEH SOUTH 50' OF LOT 19, THENCE EASTERLY ALONG SAID NORTH LINE TO THE WEST LINE OF LOT 19, THENCE SOUTHERLY ALONG THE WESTERLY LINE OF LOTS 19 AND 20 TO THE POINT OF BEGINNING,
ASLO EXCEPT THAT PART OF LOT 16 IN PARCEL BEGINNING AT THE NORTHEAST CORNER OF LOT 19, THENCE S00°24'00"E 121.06', THENCE WESTERLY 680' MORE OR LESS TO THE EDGE OF THE CLINTON RIVER, THENCE NORTHEASTERLY 275' TO THE ESTERLY EXTENSION OF THE NORTH LINE OF LOT 19, THENCE EASTERLY 295.66', THENCE NORTHERLY 4', THENCE EASTERLY 136.35' TO TEH BEGINNING.
ALSO EXCEPT BEGINNING AT A POINT DISTANT S89°49'00"W 548.67' FROM THE NORTHEAST CORNER OF LOT 21, THENCE S78°32'00"W 154.82', THENCE S89°48'20"W 173.07', THENCE S59°01'10"W 195.93' TO A POINT S38°40'05"E 31' FROM TEH CENTER LINE OF THE CLINTON RIVER, THENCE N38°40'05"W 31', THENCE ALONG THREAD OF SAID RIVER NORTHEASTERLY 180', THEN CE N89°48'00"E 32', THENCE N89°49'00"E 346.23' TO THE POINT OF BEGINNING.

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STATE OF MICHIGAN
RICHARD S. HODSDON
ENGINEER
No. 48078
LICENSED PROFESSIONAL ENGINEER

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REV. 3/30/2026 LS PLAN
REV. 3/27/2026 LS DETAILS
REV. 3/8/2026
REV. 9/23/2025 LANSCAPE

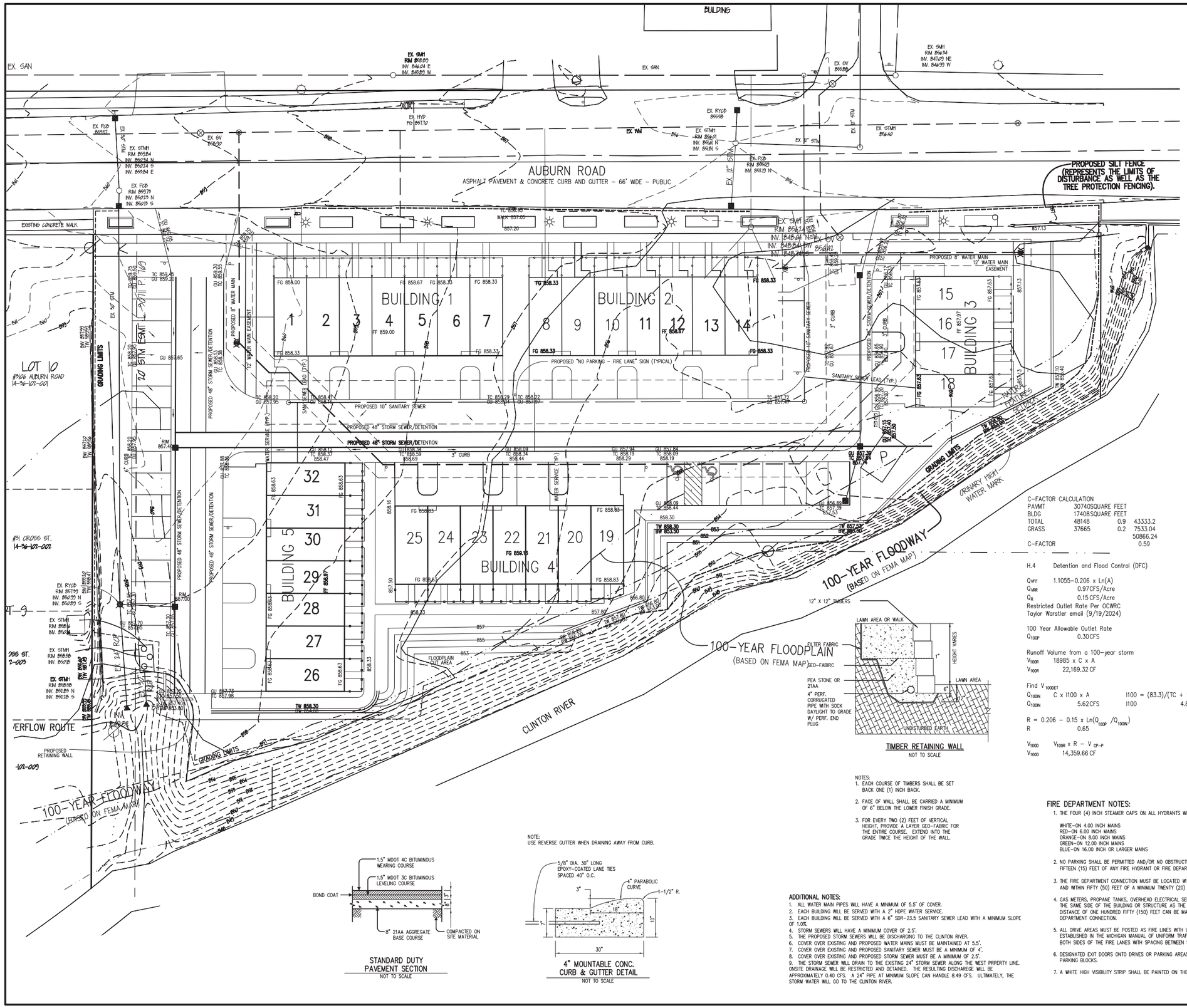
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CIVIL ENGINEERING & SURVEYING

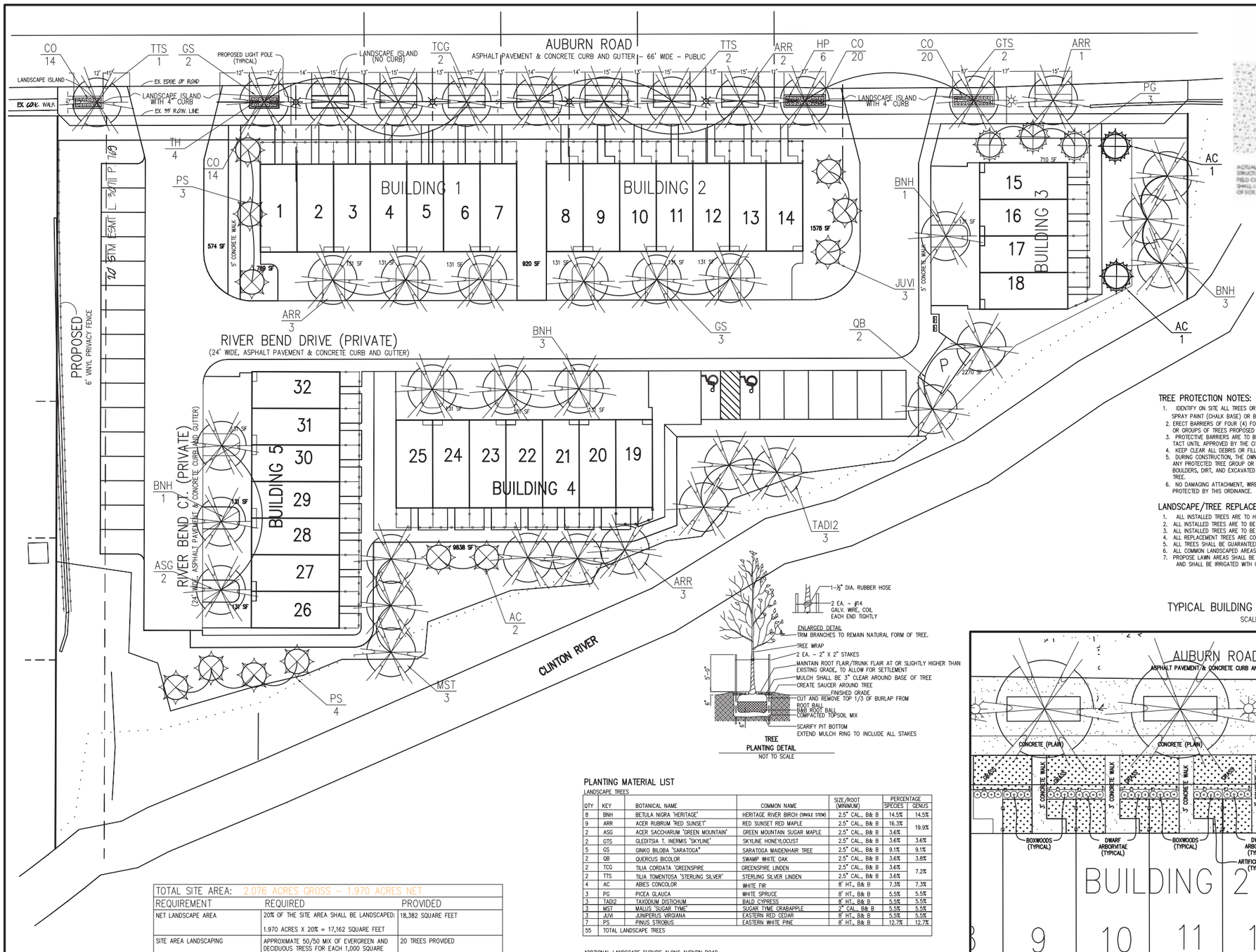
Civil Engineering and Surveying
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Shelby Twp., Michigan 48316
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RIVER BEND
PART OF THE NORTHWEST 1/4 OF SECTION 36, T.3N., R.10E., AUBURN HILLS, OAKLAND COUNTY, MICHIGAN.

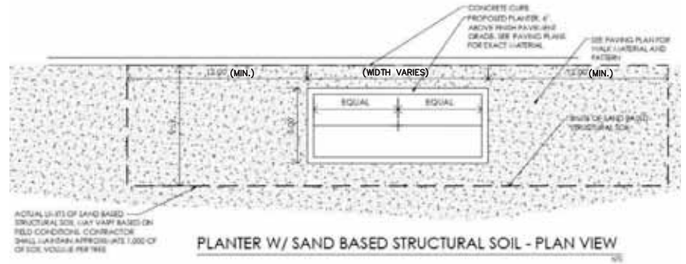
DATE Sept. 18, 2025	SCALE 1" = 20'
DRAWN BY R.S.H.	SHEET 3 OF 5
CHECKED BY R.S.H.	DRAWING Z-25-178

DIMENSIONAL SITE PLAN

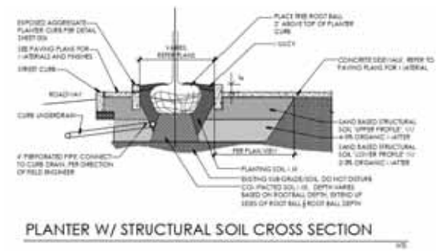

BUILDING
EX. SAN
EX. SMH
RIM 868.85
INV. 846.24 E
INV. 846.89 W
EX. GV
EX. HYD
FG 857.70
EX. RYCB
EX. STMH
RIM 856.61
INV. 846.41 N
INV. 845.81 S
EX. 12" STM
EX. 18" STM
EX. STMH
RIM 856.40
EX. PCB
RIM 856.53
INV. 851.19 N
EX. SMH
RIM 856.54
INV. 847.03 NE
INV. 846.93 W
AUBURN ROAD
ASPHALT PAVEMENT & CONCRETE CURB AND GUTTER – 66' WIDE – PUBLIC
EX. PCB
RIM 856.51
INV. 850.91 E
EX. STMH1
RIM 856.84
INV. 850.34 N
INV. 850.14 S
INV. 850.84 E
EX. PCB
RIM 856.79
INV. 850.13 N
INV. 850.13 S
EXISTING CONCRETE WALK
PROPOSED SILT FENCE (REPRESENTS THE LIMITS OF DISTURBANCE AS WELL AS THE TREE PROTECTION FENCING).
EX. SMH
RIM 854.24
INV. 848.84 NW
INV. 848.54 SW
INV. 848.74 S
EX. STMH
RIM 854.41
INV. 848.01 NW
INV. 848.21 SW
INV. 848.41 S
EX. 24" RCP
EX. 36" STM
EX. 12" WM
PROPOSED 8" WATER MAIN
12' WATER MAIN EASEMENT
PROPOSED 8" WATER MAIN
PROPOSED 48" STORM SEWER/DETENTION
PROPOSED 10" SANITARY SEWER
PROPOSED 10" STORM SEWER/DETENTION
PROPOSED 8" SANITARY SEWER
BUILDING 1
BUILDING 2
BUILDING 3
BUILDING 4
BUILDING 5
PROPOSED "NO PARKING – FIRE LANE" SIGN (TYPICAL)
SANITARY SEWER LEAD (TYP.)
WATER SERVICE (TYP.)
3" CURB
5" CURB
6" CURB
LOT 10
#906 AUBURN ROAD
14-36-101-001
10' STM EASEMENT
GRADING LIMITS
SILT FENCE
#91 CROSS ST.
14-36-101-002
#956 ST.
2-003
EX. RYCB
RIM 857.79
INV. 850.33 N
INV. 850.03 S
EX. STMH
RIM 856.16
INV. 850.26 N
INV. 850.06 S
EX. STMH
RIM 856.58
INV. 850.18
EX. STMH
RIM 856.58
INV. 850.18 N
INV. 850.28 S
RIM 857.00
RIM 857.40
RIM 857.70
RIM 857.75
RIM 857.90
RIM 858.40
RIM 858.70
RIM 858.90
RIM 859.20
RIM 859.30
RIM 859.50
RIM 859.75
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RIM 860.70
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RIM 861.10
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RIM 861.60
RIM 861.90
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RIM 865.10
RIM 865.40
RIM 865.60
RIM



TREE PLANTING DETAIL
NOT TO SCALE



PLANTER W/ SAND BASED STRUCTURAL SOIL - PLAN VIEW



PLANTER W/ STRUCTURAL SOIL CROSS SECTION

TREE PROTECTION NOTES:

1. IDENTIFY ON SITE ALL TREES OR AREAS OF TREES WHICH ARE BEING PROPOSED TO BE PRESERVED WITH FLORESCENT ORANGE SPRAY PAINT (CHALK BASE) OR BY RED FLAGGING TAPE.
2. ERECT BARRIERS OF FOUR (4) FOOT HIGH FENCING STAKED WITH METAL "T-POSTS" FIVE (5) FEET ON CENTER FOR ALL SUCH TREES OR GROUPS OF TREES PROPOSED TO REMAIN.
3. PROTECTIVE BARRIERS ARE TO BE ERECTED PRIOR TO ANY CLEARING OR GRUBBING ON THE SITE, AND BARRIERS ARE TO REMAIN IN TACT UNTIL APPROVED BY THE CITY TO BE REMOVED, OR WHEN A CERTIFICATE OF OCCUPANCY IS ISSUED.
4. KEEP CLEAR ALL DEBRIS OR FILL, EQUIPMENT, AND MATERIAL FROM WITHIN THE REQUIRED PROTECTIVE BARRIER.
5. DURING CONSTRUCTION, THE OWNER, DEVELOPER, OR AGENT SHALL NOT CAUSE OR PERMIT ANY ACTIVITY WITHIN THE FENCE LINE OF ANY PROTECTED TREE GROUP OR GROUP OF TREES INCLUDING, BUT NOT LIMITED TO, THE STORAGE OF EQUIPMENT, DUMPSTERS, BOULDERS, DIRT, AND EXCAVATED MATERIAL, BUILDING OR WASTE MATERIAL, OR ANY OTHER MATERIAL HARMFUL TO THE LIFE OF A TREE.
6. NO DAMAGING ATTACHMENT, WIRES (OTHER THAN CABLE WIRES FOR TREES), SIGNS, OR PERMITS MAY BE FASTENED TO ANY TREE PROTECTED BY THIS ORDINANCE.

LANDSCAPE/TREE REPLACEMENT NOTES:

1. ALL INSTALLED TREES ARE TO HAVE A STRAIGHT TRUNK.
2. ALL INSTALLED TREES ARE TO BE NORTHERN GROWN.
3. ALL INSTALLED TREES ARE TO BE STATE DEPARTMENT OF AGRICULTURE NURSERY GRADE NO. 1 OR BETTER.
4. ALL REPLACEMENT TREES ARE CONSIDERED PROTECTED TREES REGARDLESS OF SIZE.
5. ALL TREES SHALL BE GUARANTEED FOR A MINIMUM OF TWO YEARS.
6. ALL COMMON LANDSCAPED AREAS SHALL BE IRRIGATED WITH UNDERGROUND SPRINKLER SYSTEM.
7. PROPOSE LAWN AREAS SHALL BE SEEDED OR SODDED WITH A GRASS VARIETY NORMALLY FOUND GROWING IN OAKLAND COUNTY. AND SHALL BE IRRIGATED WITH UNDERGROUND SPRINKLER SYSTEM.

PLANTING LEGEND

GRAPHIC SYMBOL	ITEM/DESCRIPTION
	CANOPY TREE
	EVERGREEN TREE
	EVERGREEN TREE
	EVERGREEN SHRUB
	FLOWERING SHRUB
	LOW EVERGREEN SHRUB
	PERENNIAL FLOWERING PLANTING AREA

TOTAL SITE AREA: 2.076 ACRES GROSS – 1.970 ACRES NET		
REQUIREMENT	REQUIRED	PROVIDED
NET LANDSCAPE AREA	20% OF THE SITE AREA SHALL BE LANDSCAPED: 1.970 ACRES X 20% = 17,162 SQUARE FEET	18,382 SQUARE FEET
SITE AREA LANDSCAPING	APPROXIMATE 50/50 MIX OF EVERGREEN AND DECIDUOUS TRESS FOR EACH 1,000 SQUARE FEET OF REQUIRED LANDSCAPE AREA: 17,162 SQUARE FEET / 1,000 = 17 TREES	20 TREES PROVIDED
FRONTAGE LANDSCAPING	1 TREE FOR EVERY 30 LINEAL FEET OF GREENBELT LENGTH ALONG PUBLIC OR PRIVATE ROADS: 463 LINEAL FEET / 30 FEET = 16 TREES	16 TREES PROVIDED
PARKING INTERIOR LANDSCAPING	1 TREE FOR EVERY 20 SPACES IN A ROW. THE LONGEST ROW OF PARKING SPACES IS 18, THIS RULE DOES NOT APPLY.	13 TREES PROVIDED
TOTAL LANDSCAPE TREES:	33 TREES REQUIRED	55 TREES PROVIDED
TOTAL REPLACEMENT TREES:	15 NON-REGULATED TREES REMOVED 0 LANDMARK TREES REMOVED 5 REGULATED TREES REMOVED	0 REPLACEMENT TREES 0 REPLACEMENT TREES 5 REPLACEMENT TREES

PLANTING MATERIAL LIST

LANDSCAPE TREES

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE/ROOT (MINIMUM)	PERCENTAGE SPECIES	PERCENTAGE GENUS
8	BNH	BETULA NIGRA 'HERITAGE'	HERITAGE RIVER BIRCH (SINGLE STEM)	2.5" CAL., B& B	14.5%	14.5%
9	ARR	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2.5" CAL., B& B	16.3%	19.9%
2	ASG	ACER SACCHARUM 'GREEN MOUNTAIN'	GREEN MOUNTAIN SUGAR MAPLE	2.5" CAL., B& B	3.6%	
2	GTS	GLEDITSIA T. INERMIS 'SKYLINE'	SKYLINE HONEYLOCUST	2.5" CAL., B& B	3.6%	3.6%
5	GS	GINKO BILOBA 'SARATOGA'	SARATOGA MAIDENHAIR TREE	2.5" CAL., B& B	9.1%	9.1%
2	QB	QUERCUS BICOLOR	SWAMP WHITE OAK	2.5" CAL., B& B	3.6%	3.8%
2	TCG	TILIA CORDATA 'GREENSPIRE	GREENSPIRE LINDEN	2.5" CAL., B& B	3.6%	7.2%
2	TTS	TILIA TOMENTOSA 'STERLING SILVER'	STERLING SILVER LINDEN	2.5" CAL., B& B	3.6%	
4	AC	ABIES CONCOLOR	WHITE FIR	8' HT., B& B	7.3%	7.3%
3	PG	PICEA GLAUCA	WHITE SPRUCE	8' HT., B& B	5.5%	5.5%
3	TADI2	TAXODIUM DISTICHUM	BALD CYPRESS	8' HT., B& B	5.5%	5.5%
3	MST	MALUS 'SUGAR TYME'	SUGAR TYME CRABAPPLE	2" CAL., B& B	5.5%	5.5%
3	JUVI	JUNIPERUS VIRGIANA	EASTERN RED CEDAR	8' HT., B& B	5.5%	5.5%
7	PS	PINUS STROBUS	EASTERN WHITE PINE	8' HT., B& B	12.7%	12.7%
55	TOTAL LANDSCAPE TREES					

ADDITIONAL LANDSCAPE SHRUBS ALONG AUBURN ROAD

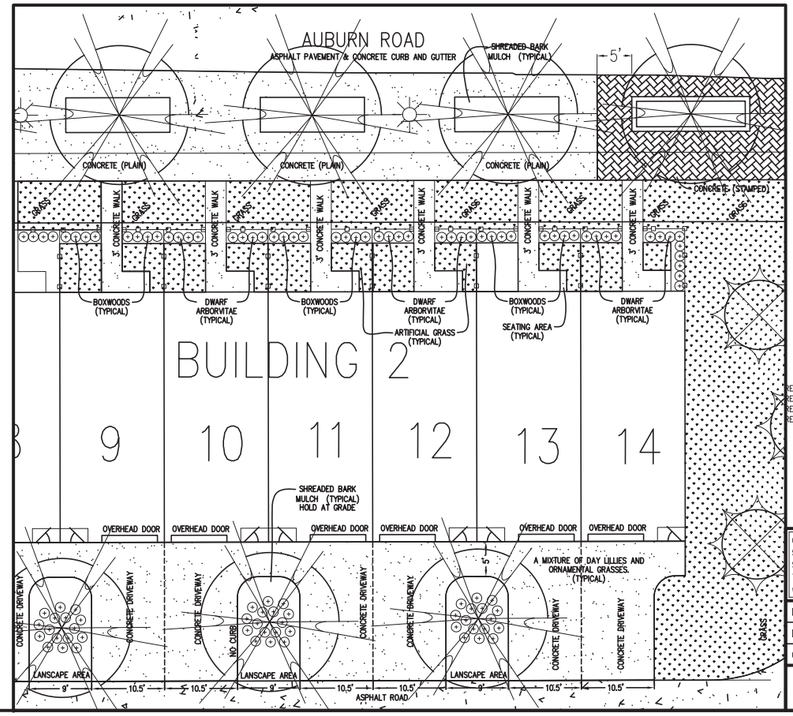
10	EA	EUONYMOUS ALATUS 'COMPACTUS'	COMPACT BURNINGBUSH	24" HGT., CONTAINER
4	TH	TAXUS MEDIA 'HICKSII'	HICKS YEW	24" HGT., CONTAINER
6	HP	HYDRANGEA PANICULATA	LITTLE LIME HYDRANGEA	NO. 3 CONTAINER
68	CO	COREOPSIS	LIL BANG "ENCHANTED EVE"	1 GAL. CONT. 18" ON CENTER
78	TOTAL LANDSCAPE SHRUBS			

NOTE:
-DEPENDING ON AVAILABILITY, PLANT MATERIALS MAY BE SUBSTITUTED WITH ANY TREES THAT ARE LISTED UNDER THE SELECTED TREE LIST FOR LANDSCAPE AND REPLACEMENT TREES. ALL SUBSTITUTIONS MUST BE APPROVED BY THE CITY OF AUBURN HILLS.
-ERADICATE ALL TRACES OF JAPANESE KNOTWOOD IN THE SW CORNER OF THE SITE. SEE OAKLAND COUNTY CISMA OR JAPANESE KNOTWOOD BEST CONTROL PRACTICES FOR HERBICIDE RECOMMENDATIONS OR TIPS ON WHAT NOT TO DO THAT ENCOURAGES SPREAD/GROWTH.

STATE OF MICHIGAN
RICHARD S. HODSDON
ENGINEER
No. 48078
LICENSED PROFESSIONAL ENGINEER

TYPICAL BUILDING LANDSCAPING DETAIL

SCALE: 1" = 10'



PREPARED FOR:
MIKE MATTERA
VESTA HOMES
31400 KENDALL
FRASER, MI 48026
(586) 899-8130
MIKEPMATTERA@YAHOO.COM

PREPARED BY:
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C/O RICHARD HODSDON, P.E. #48078
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REV. 3/27/2026 LS DETAILS
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REV. 9/23/2025 LANSCAPE

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CIVIL ENGINEERING & SURVEYING

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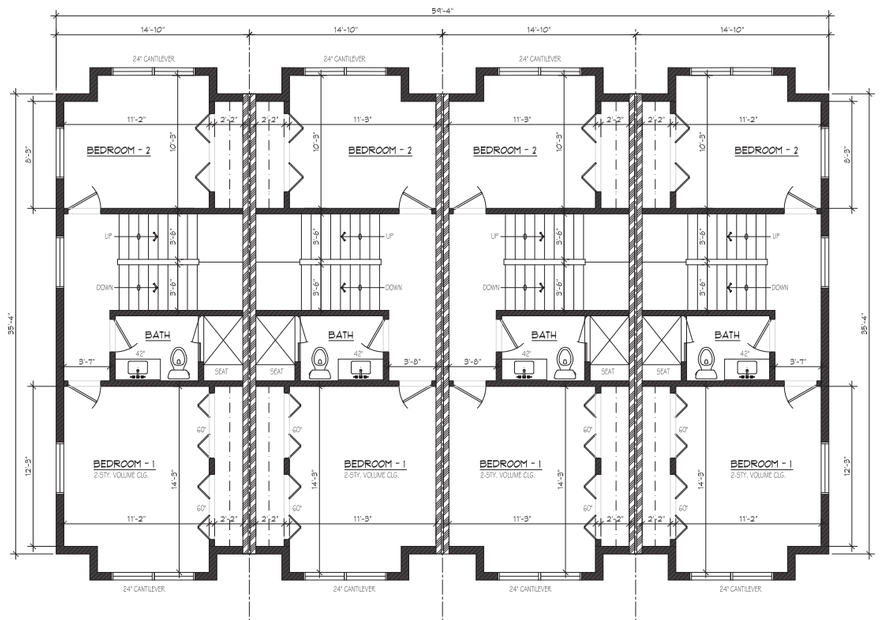
RIVER BEND
PART OF THE NORTHWEST 1/4 OF SECTION 36, T.3N., R.10E., AUBURN HILLS, OAKLAND COUNTY, MIGHIGAN.

DATE Sept. 18, 2025	SCALE 1" = 20'
DRAWN BY R.S.H.	SHEET 5 OF 5
CHECKED BY R.S.H.	DRAWING Z-25-178

LANDSCAPE PLAN

4-PLEX

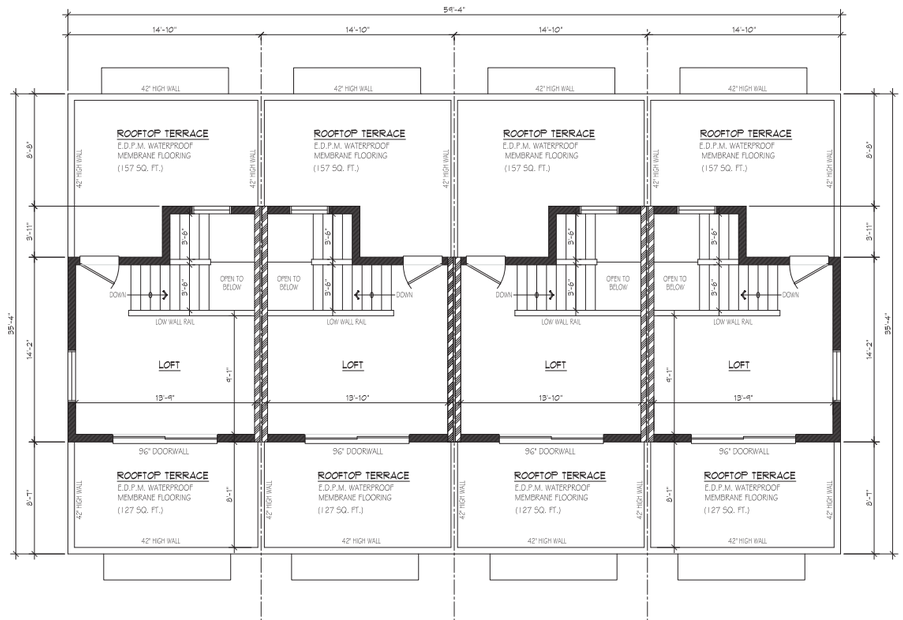
ARC
DESIGN SERVICES, INC.
20836 Hall Road - Suite 234
Clinton Township, MI 48038
586.457.6186
arcdesignservicesinc@gmail.com



THIRD FLOOR

SC: 3/16"= 1'-0"

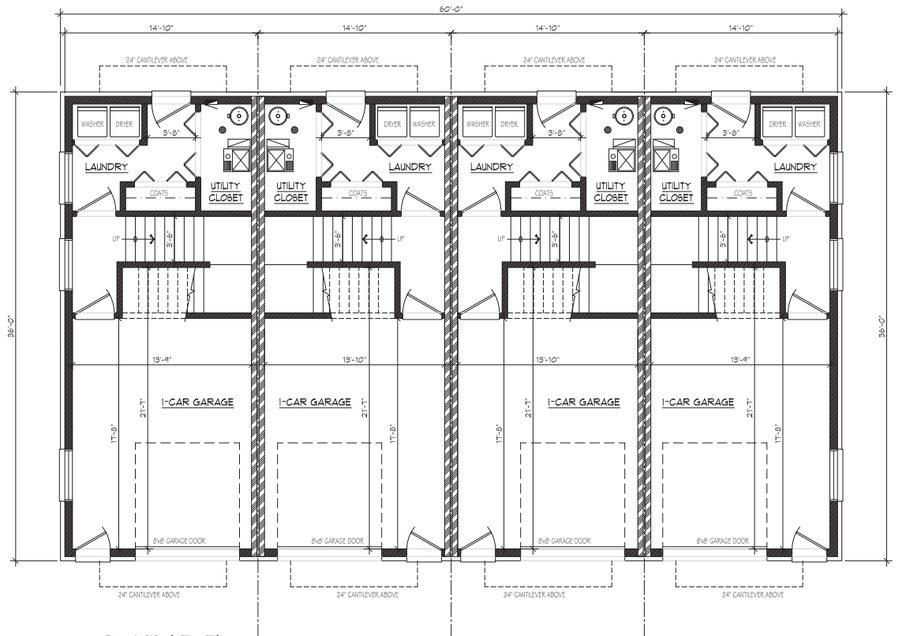
APPROX.: 563 SQ. FT.



FOURTH FLOOR/ TERRACE

SC: 3/16"= 1'-0"

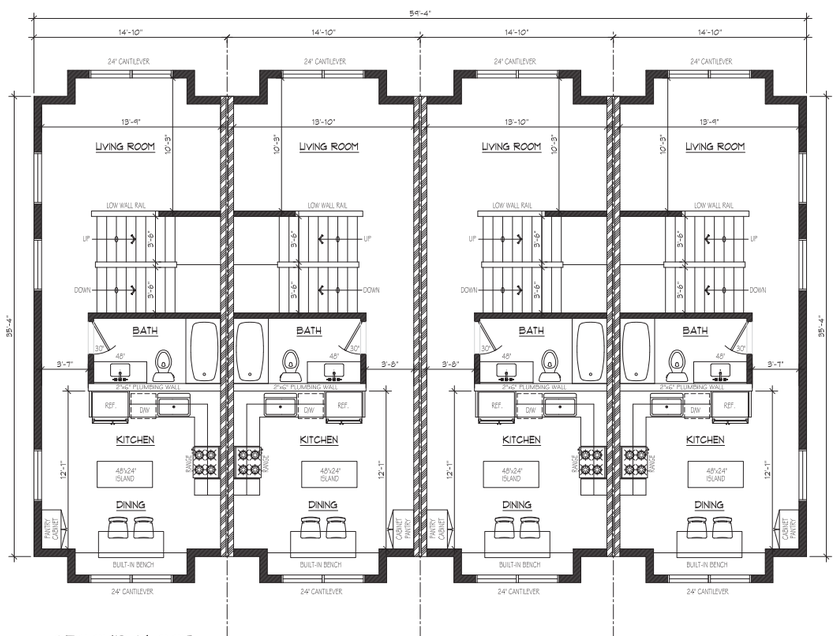
LOFT: 160 SQ. FT.
TERRACES: 284 SQ. FT.



GROUND LEVEL

SC: 3/16"= 1'-0"

APPROX.: 264 SQ. FT.



SECOND FLOOR

SC: 3/16"= 1'-0"

APPROX.: 563 SQ. FT.

project:

PROPOSED
RIVER BEND TOWNHOUSES
AUBURN HILLS, MICH.

general contractor:

VESTA BUILDING COMPANY
P.O. BOX 26048
FRASER, MI 48026

project coordinator:

MIKE MATTERA
586.899.8130
MIKEPMATTERA@YAHOO.COM

Note:
While every attempt is made to achieve accuracy in the preparation of these plans, we cannot eliminate human error, therefore, no guarantee or warranty is made unless FULL SUPERVISION by the designer is retained during construction.

all contractors shall verify and coordinate all dimensions on drawings, as well as review and coordinate plans with exterior building elevations, sections and details before commencing with the work. If dimensional errors or conflicts occur between plans, building elevations, sections and details, it shall be brought to the attention of the architect before proceeding with the work. contractors who fail to verify, review and coordinate the work and contractors who scale drawings to determine placement of parts(s) of the work shall take full responsibility should that portion of the work be improperly located or constructed.

DO NOT SCALE - USE FIGURED DIMENSIONS

lot no.

do not scale - use figured dimensions

- [x] preliminary
- [ ] bids & permit
- [ ] construction
- [ ] record

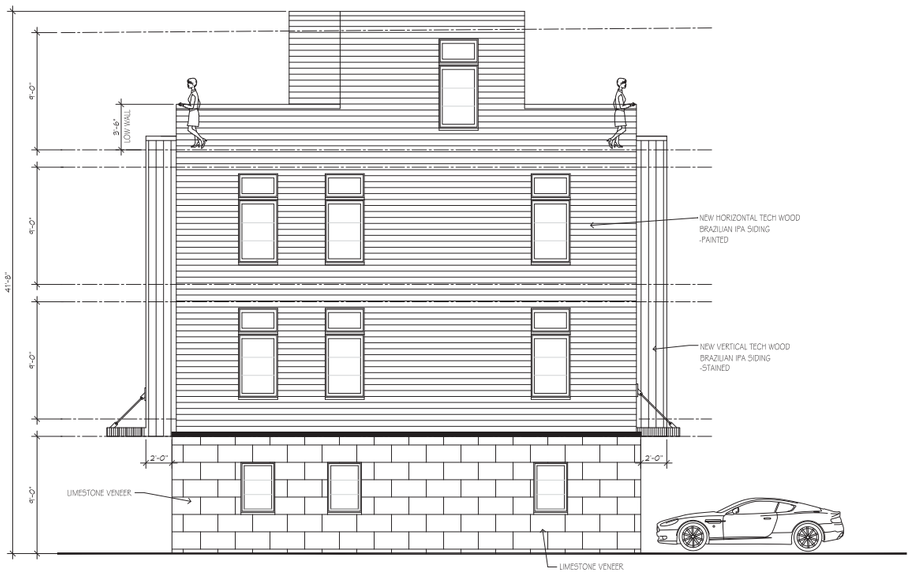
date:	issue:
9/16/25	preliminary
9/22/25	revised
10/6/25	revised
2/24/26	revised
3/5/26	revised

project no. 250916

sheet no. A-1

4-PLEX

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Clinton Township, MI 48038
586.457.6186
arcdesignservicesinc@gmail.com



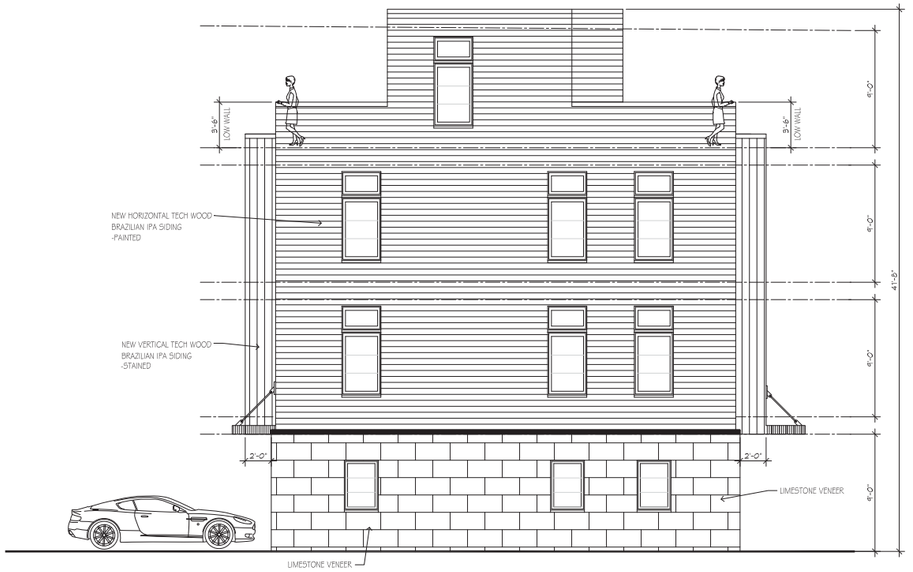
SIDE ELEVATION
SC: 3/16"= 1'-0"



FRONT ELEVATION
SC: 3/16"= 1'-0"



REAR ELEVATION
SC: 3/16"= 1'-0"



SIDE ELEVATION
SC: 3/16"= 1'-0"

project:
PROPOSED
RIVER BEND TOWNHOUSES
AUBURN HILLS, MICH.

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- ☐ record

date:	issue:
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9/22/25	revised
10/6/25	revised
2/20/26	revised
3/5/26	revised

project no. 250916

sheet no. A-2

CHECKLIST

PROJECT NAME

River Bend Townhomes

(Check all that apply)

SITE PLAN

SPECIAL LAND USE

TREE REMOVAL PERMIT

REZONING

✓ PUD

The following items have not been included in your packet of information since they are either common, non-controversial items or the recommendations have been noted in the project's cover letter.

Public Notice
Police Department Approval Letter
Fire Department Approval Letter
Woodlands Consultant Approval Letter
Citizen's Participation Letter and Report

However, if you wish to see a copy of the above documents, they are on file in the Community Development Department.

CITY OF AUBURN HILLS
CITY COUNCIL AGENDA

MEETING DATE: APRIL 20, 2026 | **AGENDA ITEM NO 9C**

COMMUNITY DEVELOPMENT

To: Mayor and City Council

From: Thomas A. Tanghe, City Manager; Steven J. Cohen, AICP, Director of Community Development

Submitted: April 15, 2026

Subject: CREST Center Building Addition and Renovations - 2900 Featherstone Road

Motion – To approve the Special Land Use Permit, Site Plan, and Tree Removal Permit

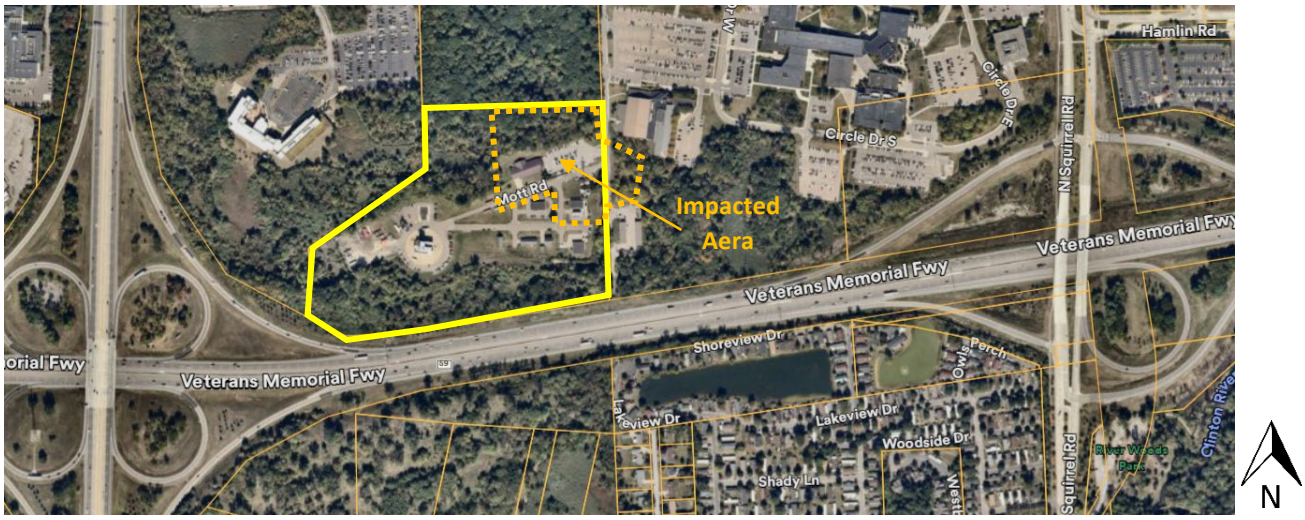
INTRODUCTION AND HISTORY

This is a request from Oakland Community College (OCC) for Special Land Use Permit, Site Plan, and Tree Removal Permit approval to expand and renovate the Combined Regional Emergency Services Training Center (CREST) located on a 31-acre parcel zoned I-1, Light Industrial District. The site is located at 2900 Featherstone Road.



Rendering of the expanded CREST Center training building

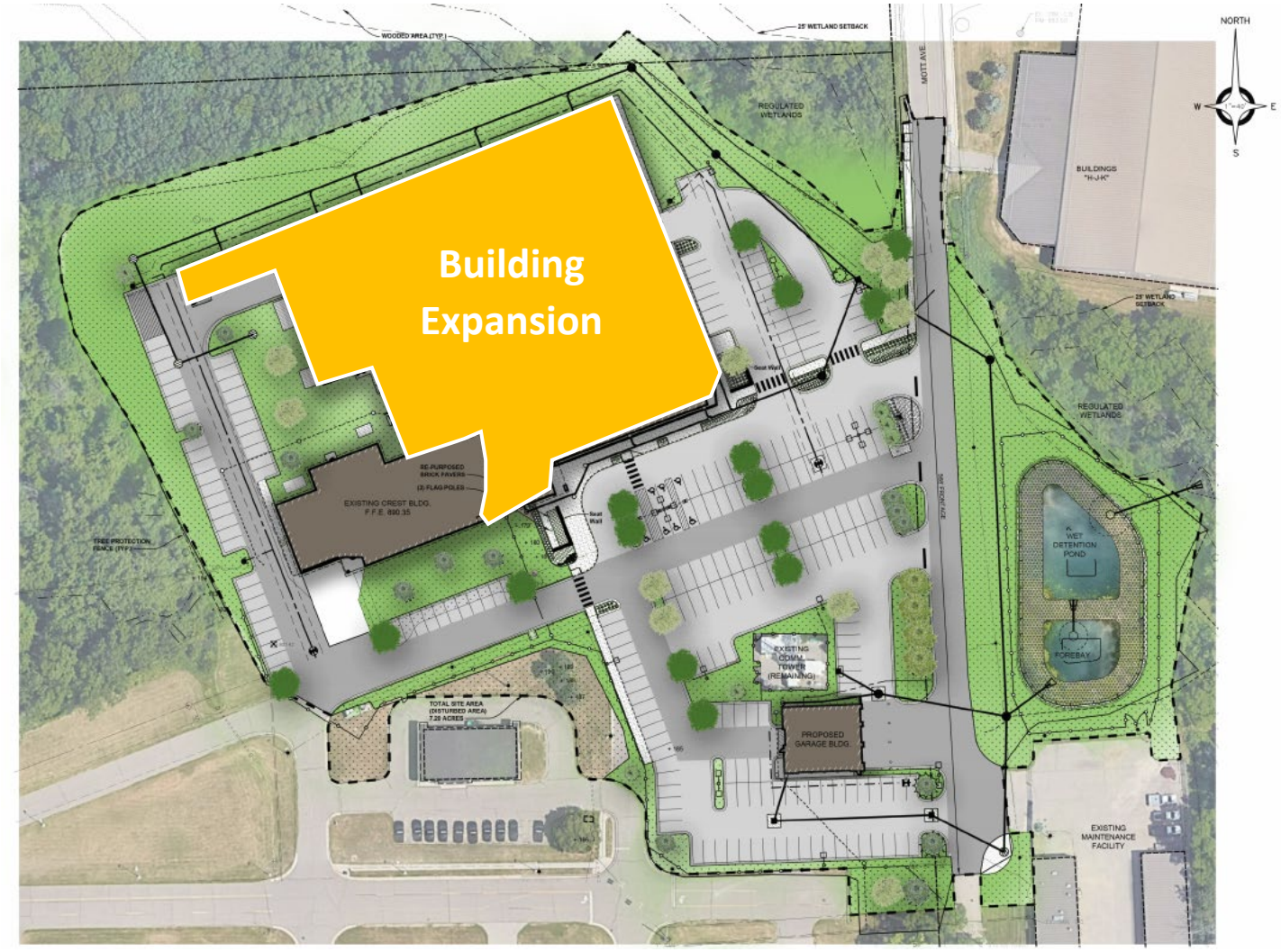
OCC has provided emergency services training for over 50 years, serving police, fire, EMS, and emergency dispatch personnel. The CREST facility is a training "city" that simulates emergency situations faced by law enforcement, fire/EMS departments, and civilian first responders in controlled, live-scenario environments. This training facility first opened in 2004 as a national model for emergency services and anti-terrorism preparedness.



Aerial photo of the site location

INTRODUCTION AND HISTORY (cont.)

The proposed $51.3 million project consists of renovating and expanding the existing building to 78,784 square feet, creating a modern indoor training facility. The project will provide additional administrative and instructional space while enhancing overall operational efficiency. The indoor facility is designed to coordinate with the existing outdoor simulated "city" training environment, which includes residential structures, a motel, a bank, and a five-story fire training tower. Collectively, these indoor and outdoor components provide a comprehensive, scenario-based training environment.

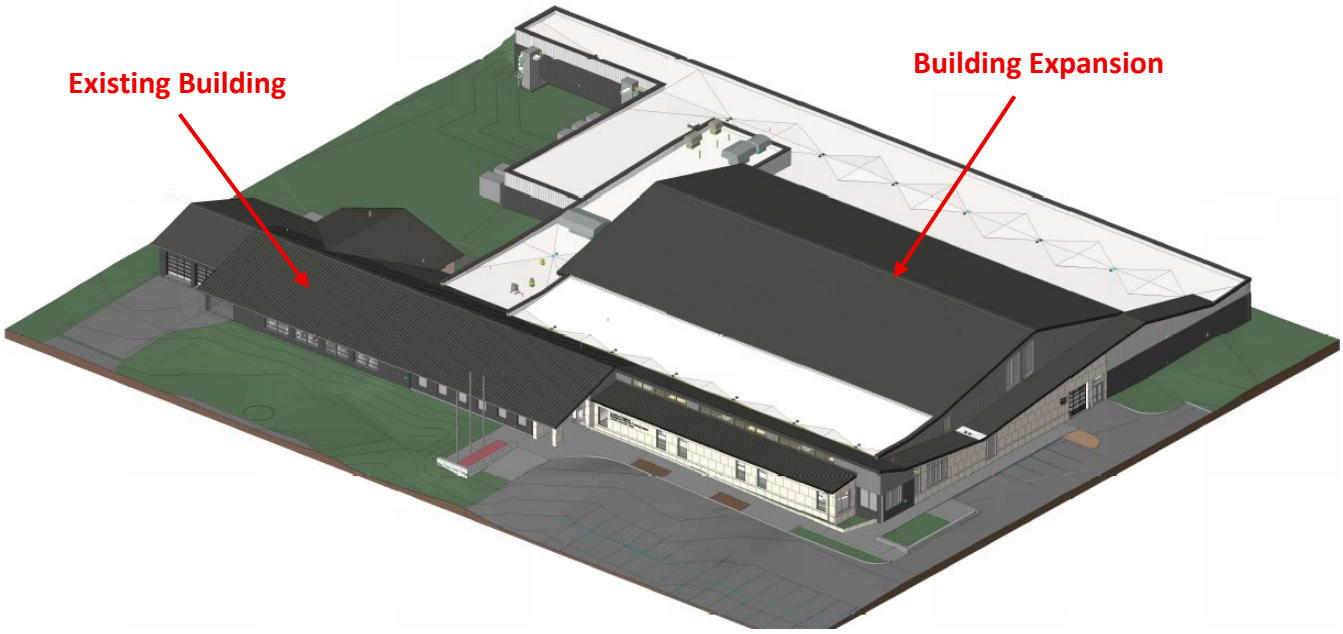


Illustrated site plan

The building expansion will include a new indoor training facility designed to simulate real-world emergency situations. The space will feature realistic one- and two-story structures, such as a school, office, restaurant, and convenience store, allowing for repeated hands-on training exercises like forced entry and emergency response. The project also includes a 15-lane indoor firearms training range, including five lanes designed to accommodate rifle training distances. Overall, the facility is intended to bridge the gap between classroom instruction and real-world application, giving emergency personnel the opportunity to immediately apply what they've learned in a live, hands-on training environment.

The project is anticipated to begin construction this summer, with an estimated construction duration of approximately two years.

INTRODUCTION AND HISTORY (cont.)



3-D view of the expanded CREST Center training building



Renderings of the large group instructional classroom (top) and restaurant tactical training area (bottom)

INTRODUCTION AND HISTORY (cont.)

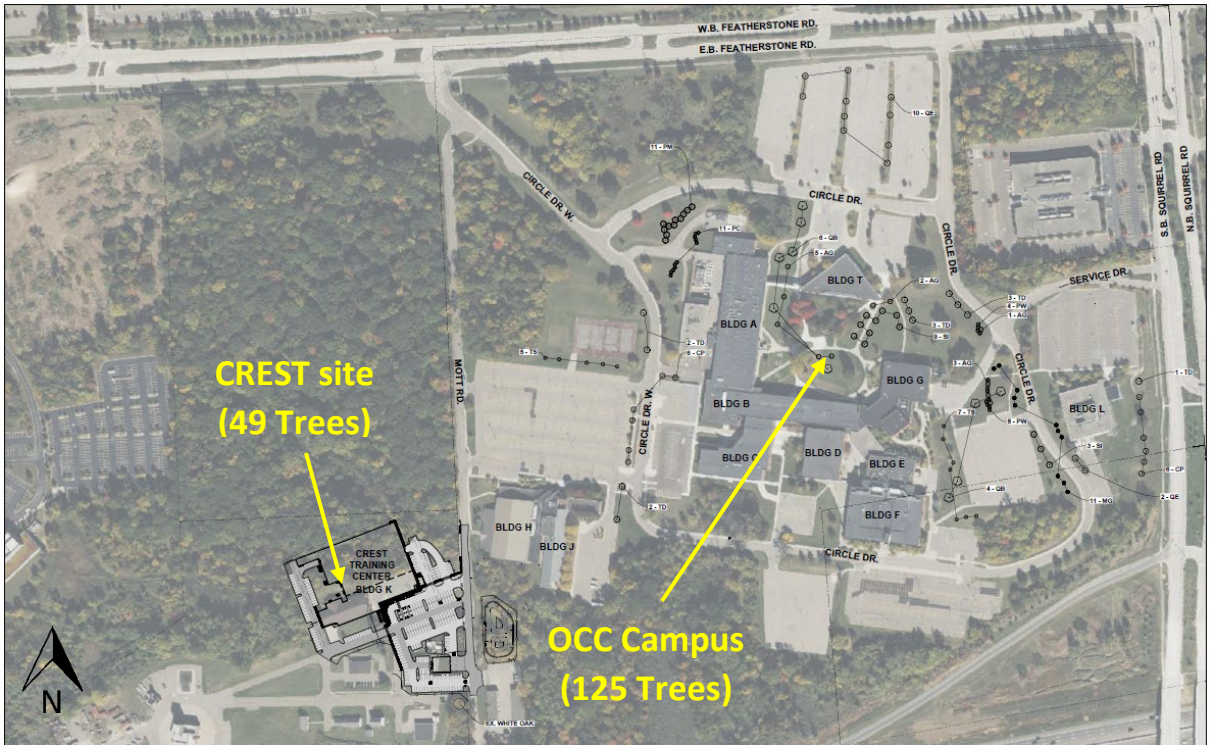
A mezzanine is provided in the new building expansion to allow instructors to observe the training of the emergency response personnel in tactical exercise areas, such as a school, restaurant, office building, and retail store.



Renderings of a school classroom tactical training area

KEY ISSUE

1. **Replacement Trees**. The project requires a total of 174 replacement trees. The landscape plan provides for the on-site planting of 49 trees located around the building expansion and new parking areas. Due to limited space in the immediate vicinity of the CREST facility, staff worked with OCC to develop a plan to plant the remaining 125 replacement trees at appropriate locations throughout the campus.



Master plan for the planting of the 125 trees throughout OCC's campus (black circles)

STAFF RECOMMENDATION

Please be advised that the City's Administrative Site Plan Review Team has reviewed this project and recommends approval.

We recommend Approval of the Special Land Use Permit request to allow for the expansion of the existing training facility use and offer the following discretionary findings of fact:

1. The location of the use will not negatively impact adjacent areas, which include non-residential zoned property.
2. The land will be used in accordance with its immediate character, which is planned and zoned for non-residential development.
3. The requirements of Section 1818 in the City's Zoning Ordinance will be met.
4. The use will promote the purpose and intent of the City's Zoning Ordinance.
5. The use will be consistent with the health, safety, and general welfare of the City of Auburn Hills and the purpose and intent of the City's Zoning Ordinance.
6. The requirements of Section 1301, Item 22, will be met.

We recommend Conditional Approval of the Site Plan and Tree Removal Permit and offer the following discretionary findings of fact:

1. The Site Plan contains sufficient basic information required by the Zoning Ordinance for a recommendation.
2. The requirements of Section 1815, Items 7A-7E of the Zoning Ordinance can be met as follows:
   a) All requirements and standards of the Zoning Ordinance and other City Ordinances can be met.
   b) Safe, convenient vehicular and pedestrian ingress/egress has been depicted; primary access will be to Mott Road, which outlets to Featherstone Road.
   c) Traffic circulation features within the site and the location of parking areas avoid common traffic problems and can promote safety.
   d) A satisfactory and harmonious relationship will exist between the proposed development and the surrounding area.
   e) The proposed use will not have an unreasonable, detrimental or injurious effect upon the natural characteristics of the subject parcel, or the adjacent area.
3. Based on the project's total square footage, 233 parking spaces are required, and 233 parking spaces are depicted.
4. The proposed parking layout meets minimum requirements and includes eight barrier-free parking spaces, exceeding the required seven. Of these, two spaces are designated as van accessible.
5. Building and parking setback requirements will be met.
6. Greenbelts will be provided.
7. Landscape requirements will be met, and calculations have been submitted.
8. A note indicates that exterior lighting shall meet the requirements of the Zoning Ordinance. Pole and wall-mounted lighting shall be shielded and directed downward. Lamp bulbs and lenses shall not extend below the light fixture shields. Light poles are designed to be 27.5 feet in height from the finished grade.
9. A note indicates that signs shall meet the requirements of the Zoning Ordinance.
10. A note indicates that parking spaces shall be double-striped.
11. Ground-mounted transformers and roof-mounted mechanical equipment will be screened.
12. A note indicates that outside storage, including pallet storage, overnight vehicles, and trailer storage, will not be permitted.
13. A Tree Removal Permit is required. 174 replacement trees are required, and 174 replacement trees are provided. 49 trees will be planted on-site and 125 trees will be planted in designated locations on OCC's campus.

STAFF RECOMMENDATION (cont.)

14. Two electric vehicle charging station spaces will be provided. OCC will install a dual Level 2 charging station to serve the two spaces.
15. The project includes the construction of an accessory garage building, which meets all applicable ordinance standards.

Conditions:

1. Performance Guarantees. OCC shall comply with the requirements of Section 2007. Performance Guarantees of the Zoning Ordinance.
2. Conformance with Approved Plans and Representations. Approval of the project is based on the representations made by OCC, as documented in this staff report, submitted materials, and the public meeting minutes. The development shall remain in conformance with these representations.

PLANNING COMMISSION RECOMMENDATION

Recommended Approval on April 8, 2026 (8-0 vote).

MOTION

Move to accept the Planning Commission's recommendation and approve the Special Land Use Permit, Site Plan, and Tree Removal Permit for OCC CREST Center Building Addition and Renovations subject to the conditions of the City's Administrative Review Team.

I CONCUR: Thomas A. Tanghe

THOMAS A. TANGHE, CITY MANAGER

CITY OF AUBURN HILLS
PLANNING COMMISSION
MINUTES
NOT YET APPROVED - EXCERPT

April 8, 2026

CALL TO ORDER: Chairperson Beidoun called the meeting to order at 6:00 p.m.

ROLL CALL: Present: **Carolyn Shearer, Michelle Case, Darlene MacMillan, Jack Ferguson, Dominick Tringali, Cynthia Pavlich, Dominic Patrus, Sam Beidoun**
Absent: Raymond Saelens
Also Present: Director of Community Development Steve Cohen, Assistant Director of Community Development Devin Lang, City Engineer Tim Juidici (OHM), City Attorney Dan Kelly (The Kelly Firm)
Guests: 23

LOCATION: Council Chambers, 1827 N. Squirrel Road, Auburn Hills, MI 48326

5. PETITIONERS

5c. <u>OCC CREST Center Building Addition and Renovations – 2900 Featherstone Road. (6:15 p.m.)</u>
Public Hearing/Motion – Recommendation to City Council for Special Land Use Permit, Site Plan, and Tree Removal Permit approval to allow for the expansion and renovation of the CREST Center, new maintenance building, and parking lot improvements.

Mr. Beidoun opened the public hearing at 6:16 p.m.

Mr. Cohen confirmed that the hearing documents are in order and that no written communications have been received regarding this petition.

Mr. Cohen stated that this is a request from Oakland Community College (OCC) to expand and renovate the Combined Regional Emergency Services Training (CREST) Center located on a 31-acre parcel zoned I-1, Light Industrial District. The site is located at 2900 Featherstone Road and consists of approximately 79,000 square feet.

The CREST facility is a training “city” that simulates emergency situations faced by law enforcement, fire/EMS departments, and civilian first responders in controlled, live-scenario environments.

The proposed project will involve renovating and expanding the existing building to create a modern indoor training facility. The project will provide additional administrative and instructional space while enhancing overall operational efficiency. The indoor facility is designed to coordinate with the existing outdoor simulated “city” training environment, which includes residential structures, a motel, a bank, and a five-story training tower. The expansion will provide realistic one- and two-story structures, such as a school, office, restaurant, and convenience store, enabling repeated hands-on training exercises. The facility also includes a 15-lane indoor firearms training range, with five lanes designed for rifle training distances.

The project requires 174 replacement trees. The landscape plan provides for the on-site planting of 49 trees located around the building expansion and new parking areas. Due to limited space in the immediate vicinity of the CREST facility, staff worked with OCC to develop a plan to plant the remaining 125 replacement trees at appropriate locations throughout the campus.

Staff recommends approval of the request.

Bob Kelly, Executive Director of OCC Facility Operations, 2900 Featherstone Rd, Auburn Hills, MI 48326 and **Juli Sala, Anderson, Eckstein and Westrick, Inc., 51301 Schoenherr Rd, Shelby Township, MI 48315** were available to answer any questions from the Commission.

Mr. Sala advised the Commission that the project, which has taken three years to formulate, would take 18 months to complete.

There being no public comments, Mr. Beidoun closed the public hearing at 6:22 p.m.

Moved by Shearer to recommend to City Council approval of the Special Land Use Permit, Site Plan and Tree Removal Permit for OCC CREST Center Building Addition and Renovations subject to the conditions of the City's Administrative Review Team.
Second by MacMillan.

VOTE:
Yes: Ferguson, Pavlich, Tringali, Case, MacMillan, Shearer, Patrus, Beidoun
No: None **Motion Carried (8-0)**

AUBURN HILLS

AUBURN HILLS MAR 06 2026 COMMUNITY DEVELOPMENT

Development Application

Project Name: CREST Center Addition and Renovations

General Project Location: OCC Campus

Parcel Size: 31.22 acres **Zoning:** I-1

Sidwell Number(s): 14-26-226-007

Project Description: Building addition and renovations for CREST Center, new maintenance building and parking lot

Building Size (sq. ft.): CREST Center: 78,784 sf; Maintenance Garage: 2,999 sf

City Use Only

Address: 2900 Featherstone Rd

Date Received: 3/6/26

Fees Paid: $7,362

SP #: 250023

SLU #(s): 250006

LD/LE/SUB #:

RZ #:

PUD #:

ZBA #:

PTR #: 250007

Check requested review(s)

- ☒ Site Plan
- ☒ Tree Removal Permit
- n/a ☒ Special Land Use Permit(s)
- n/a ☐ Land Division
- n/a ☐ Land Exchange
- n/a ☐ Subdivision
- n/a ☐ Planned Unit Development - Step 1/Step 2/Combined
- n/a ☐ Rezoning _____ to _____
- ☐ ZBA Variance or Interpretation (see supplemental application)
- ☐ Other

Applicant

Name: Juli Sala Signature: Juli Sala

Business Name and Address: Anderson, Eckstein and Westrick, Inc

City: Shelby Twp. State: MI Zip Code: 48315 Phone Number: 248-434-7572

Fax Number: Alt. Phone Number(s): jsala@aewinc.com

Property Owner(s)

Name: Bob Kelly Signature: Juli Sala Owner's Authorized Agent

Business Name and Address: Oakland Community College - 2900 Featherstone Dr.

City: Auburn Hills State: MI Zip Code: 48326 Phone Number: 586-610-4881

(Provide additional sheet if necessary for multiple property owners)

Please contact the City of Auburn Hills Community Development Department,
1827 N. Squirrel Road, Auburn Hills, MI 48326 / Phone: 248-364-6900 Fax: 248-364-6939
www.auburnhills.org

March 20, 2026

Mr. Steven Cohen, AICP
Director of Community Development
CITY OF AUBURN HILLS
1827 North Squirrel Road
Auburn Hills, Michigan 48326

RE: OCC Crest Center Addition
Site Plan 1st Review

Dear Mr. Cohen:

We have completed the site plan review for the above referenced project with respect to grading, paving, storm drainage/detention, and availability of municipal utilities to serve the site. The site plan, received by this office on March 12, 2026, was prepared by Anderson, Eckstein & Westrick, Inc. The review comments are noted below.

PERMITS:
Various permits will be required for this site, including but not limited to the following:

- Soil erosion permit from O.C.W.R.C.
- N.P.D.E.S. permit from E.G.L.E.
- Water main extension permit from E.G.L.E.
- Wetland construction permit from E.G.L.E.

GENERAL:
The site is located on the west side of Mott Avenue, south of Featherstone Road and west of North Squirrel Road, at the Oakland Community College (O.C.C.) Auburn Hills Campus in Section 26 of the City of Auburn Hills. The applicant is proposing to construct an addition to the existing Crest Training Center for a total building size of 78,784 sq. ft. The addition consists of a tactical village, range, classroom, and office space. The applicant is also proposing to construct 2,999 sq. ft. maintenance garage building to the southeast adjacent to the existing wireless phone tower. The proposed parcel along with the adjacent property to the west is zoned Technology & Research (T&R). A complete legal description of the parcel is shown on the plan. The City of Auburn Hills Standard Notes and Fire Department Notes are included on the plans. A landscape plan has been included in the plan set. If feasible, trees and plantings shall be located outside the influence of utilities and any public easements. The City of Auburn Hills Standard Details were not included in the plan set and will need to be in the engineering review submittal. Furthermore, a demolition plan and a soil erosion and sedimentation control plan are needed for the engineering review.

MUNICIPAL UTILITIES:
It should be noted that this development is served by private water system operated by O.C.C. and not the City of Auburn Hills. An existing 8-inch private water main extends north-south along the east side of the site, and an existing 8-inch private water main extends west from this main and continues along the north side of the existing private drive. The applicant is proposing to tap the existing 8-inch private water main along the private drive and extend new 8-inch water main along the building addition to create a looped connection. Existing and proposed fire

suppression line and domestic water service for the Crest Training Center are not shown on the plan. A 2-inch domestic water service lead for the proposed garage building has been provided on the plan. Three (3) fire hydrants are proposed to provide adequate coverage. A profile for the proposed 8-inch water main shall be provided at engineering review. The size and material type of the proposed water main shall be labeled for engineering review.

There is existing 10-inch sanitary sewer that extends east-west along the south side of the site. An existing 12-inch sanitary sewer extends north from the 10-inch sanitary sewer and continues along the west side of the site. An existing sanitary sewer lead extends northwest from the 12-inch sanitary to the existing Crest Training Center. The applicant is proposing to tap the existing sanitary sewer lead and extend new 6-inch PVC SDR 23.5 north and east to the building addition. The applicant is also proposing to tap the existing 10-inch sanitary sewer and extend a new 6-inch sanitary sewer lead north to the proposed garage building.

STORM SEWER AND DETENTION:

The site has a maximum allowable discharge rate of 0.20 cfs/acre. Storm water runoff for the site will be collected via a series of catch basins and routed to a new detention basin located on the east side of the site. The detention basin outlets to existing wetlands on site which ultimately outlet to the Clinton River via the M-59 right-of-way. Preliminary detention calculations were provided on the plan and the 100-year storm calculations shall be updated for the maximum discharge rate for the site. Additional detention may be required due to the updated calculations. A forebay is proposed for the pre-treatment of storm water prior to entering the detention pond. Additional information on the proposed storm sewer and detention basin (i.e., material, slope, profile, calculations, etc.) will be required for the engineering review.

PAVING/TRAFFIC:

Access to the site is provided through one (1) existing approach off Mott Avenue and existing approaches off the private drive south of the existing Crest Training Center. The applicant is proposing to reconstruct a portion of the private drive and utilize it as a drive aisle in the expanded parking lot between the Crest Training Center and proposed garage building. The plans indicate concrete curb and gutter with standard duty asphalt for the parking areas and heavy-duty asphalt for the drive aisles and loading/unloading area. Per City standards, loading/unloading areas shall be a minimum of 8-inch concrete on an approved base. Pavement cross-sections for the site have been provided on the plans. Per City standards, Technology & Research zoned sites shall have a minimum heavy-duty asphalt pavement of 6-inch asphalt on 8-inch aggregate base.

The applicant is proposing 233 parking spaces including 8 barrier free parking spaces. The parking spaces on the west and southwest side of the Crest Training Center are accessible via motorized sliding gates with a keypad entry and Knox Box. A trash enclosure has not been shown on the plans. A 1,892 sq. ft loading/unloading area is proposed at the southwest corner of the existing building and a 1,087 sq. ft loading/unloading area is proposed at the northwest corner of the building addition. A loading area is not proposed for the proposed garage building. A concrete walk has been provided along the west side of Mott Avenue connecting to the east and south sides of the building addition.

GRADING:

Existing grades are shown with contours while proposed grades are shown with spot elevations. The site slopes towards the south side of the parcel. Perimeter site slopes shall meet the requirement of 1:4 max and match into existing contours prior to all abutting property lines. A fence has been provided around the detention pond due to slopes exceeding 1:6. Pavement slopes are mostly consistent with City standards and are to remain between 1% and 6% for drive areas and between 1% and 4% for parking areas. Sidewalk and pathway grades shall meet ADA requirements. No retaining walls are currently proposed on the site.

RECOMMENDATIONS:

The site plan is in substantial compliance with City of Auburn Hills requirements and has been stamped "Approved as Noted" by our office. We ask that the site plan approval acknowledge the following:

1. The site improvement plan, designed in accordance with Ordinance No. 806, shall be submitted to the City for review and approval prior to construction. A detailed cost estimate for the improvements shall be submitted with the plans signed and sealed by the design engineer.
2. The developer must post a performance guarantee, in accordance with the City's requirements as set forth in the City of Auburn Hills Ordinance No. 372, Section 2007, Performance Guarantees. The estimate of the guarantee shall be submitted with the site improvement plan and must reflect all costs for site improvements, including but not limited to mass grading, roadways, lighting, utilities, pathways, sidewalks, screening, landscaping, driveways, retaining walls, parking lots, drainage, stormwater retention basins, and other similar features.
3. Recorded sanitary sewer easements for existing sanitary sewer on the Oakland Community College properties will be required prior to issuance of final occupancy.

If you have any questions or are in need of any further information, please feel free to contact our office.

Sincerely,
OHM Advisors

MaryKate Kirksey for Hannah Driesenga, P.E.

Transmitted via e-mail to Steve Cohen: March 20, 2026
cc: File

P:\0101_0125\SITE_AUBURNHILLSCITY\2026\0120261040_OCC CREST CENTER ADDITION\OCC CREST CENTER ADDITION_SITE REV#1_APPAN.DOCX

AUBURN HILLS CAMPUS
CREST CENTER ADDITION AND RENOVATIONS

OAKLAND COMMUNITY COLLEGE

IDS PROJECT NUMBER: 23118-1000

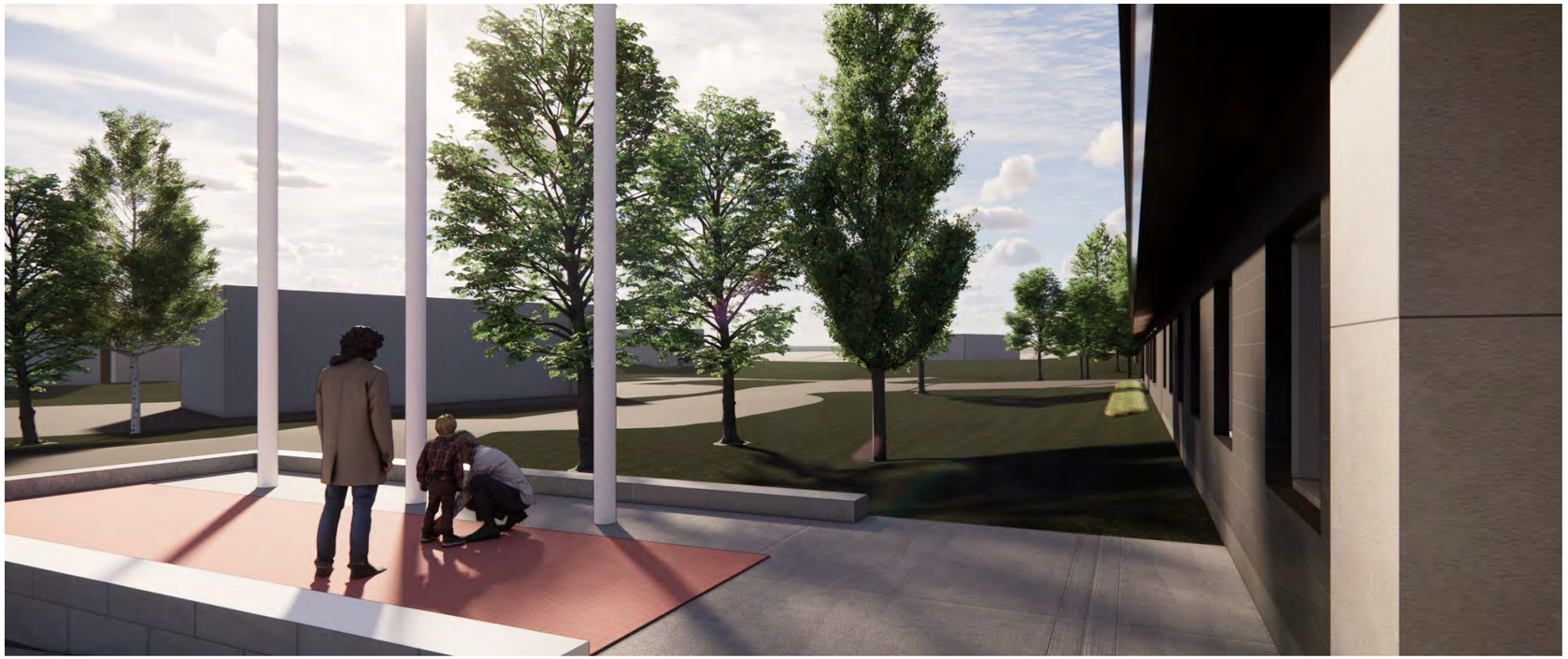
EXTERIOR





APPROACH WELCOMED WITH SAFE DROP OFF, OUTDOOR GATHERING & MEMORIAL PLAZA

WELCOMING SOCIAL ZONES SEEN FILLED WITH ACTIVITY







SOUTH MEMORIAL PLAZA & GATEWAY TO OUTDOOR TACTICAL TRAINING







SERVICE YARD AND NORTH WOODLANDS





DIRECT & DISCREET INDOOR TACTICAL ENTRY



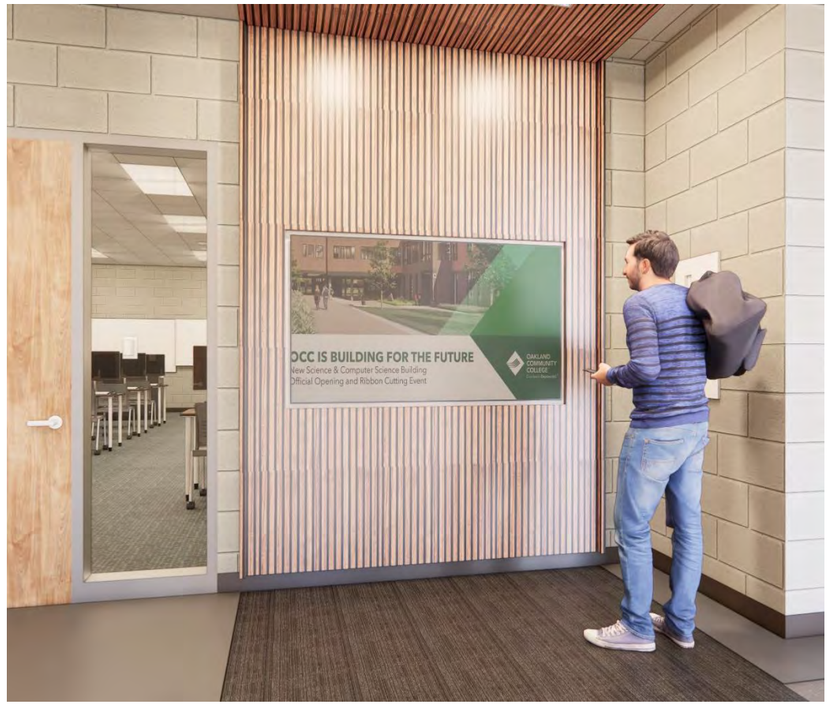
FORMAL IDENTIFICATION AT MAIN ENTRY

INTERIOR COMMON SPACES



ENTRY VESTIBULE WITH DISPLAY CASE AND WAYFINDING







MAIN RECEPTION WITH SECURITY OVERSIGHT



CLASSROOM PREFUNCTION AND PERSONAL LOCKER STORAGE

FLEXIBLE LARGE CLASSROOM ASSEMBLY

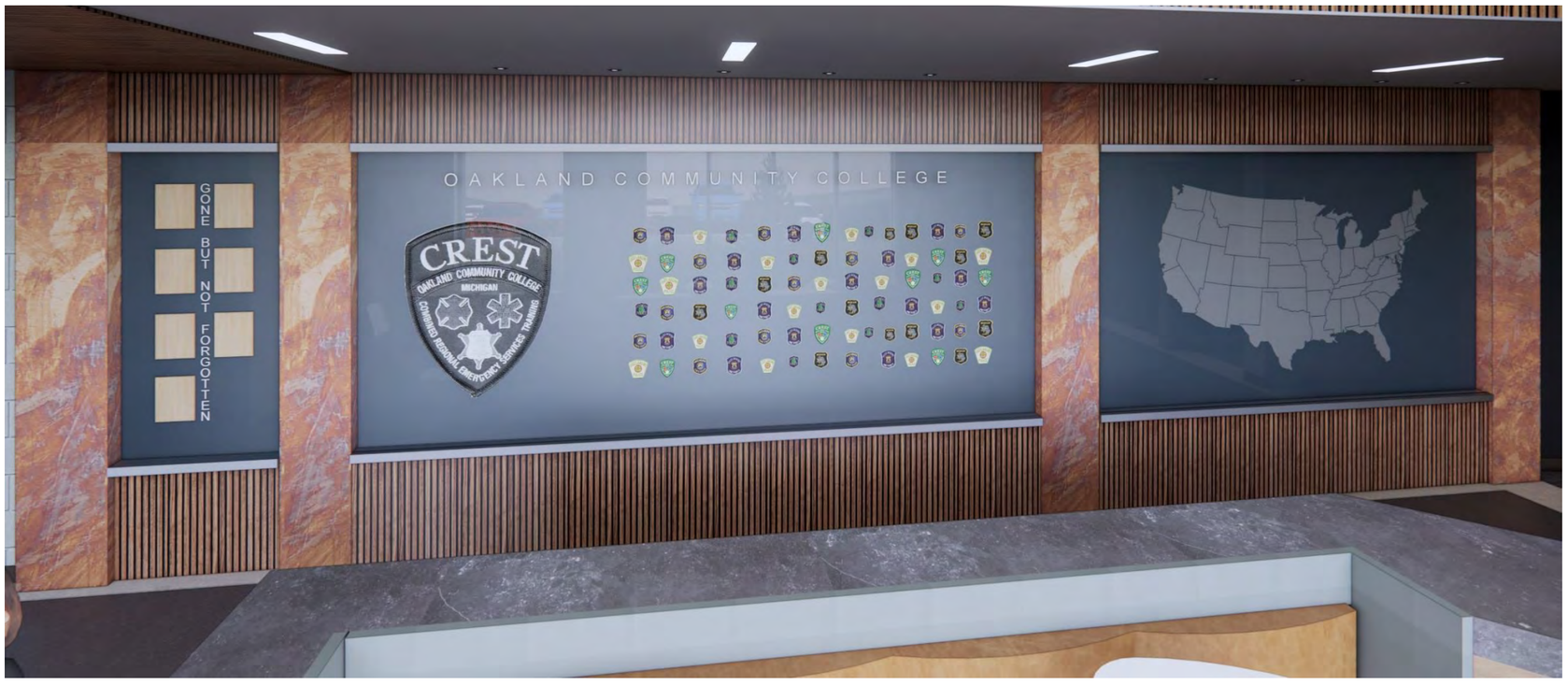






GROUP INSTRUCTION AND TESTING LAB





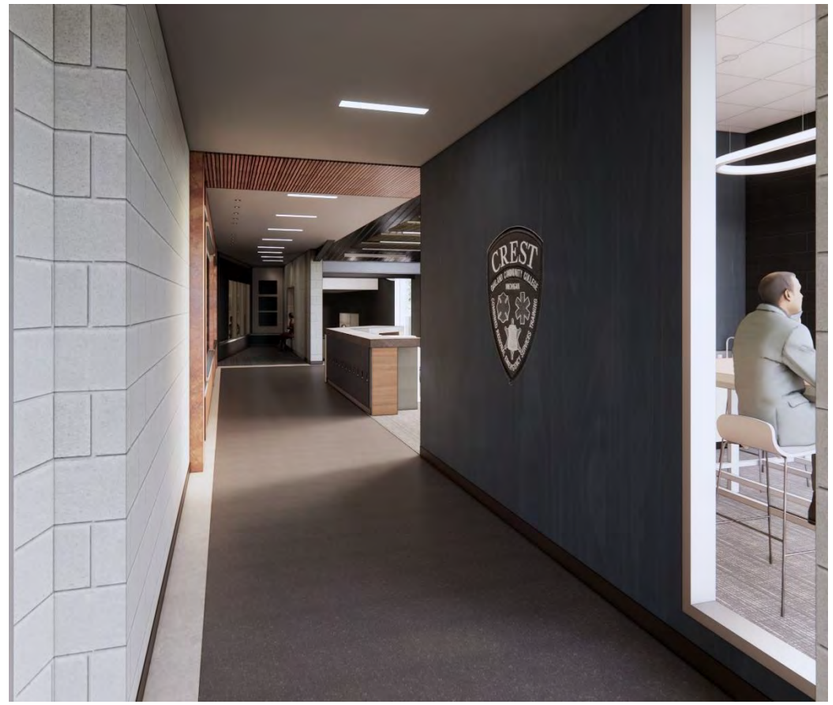


MULTIFUNCTION FLEX LOUNGE



MULTIFUNCTION FLEX LOUNGE & DISPLAYS







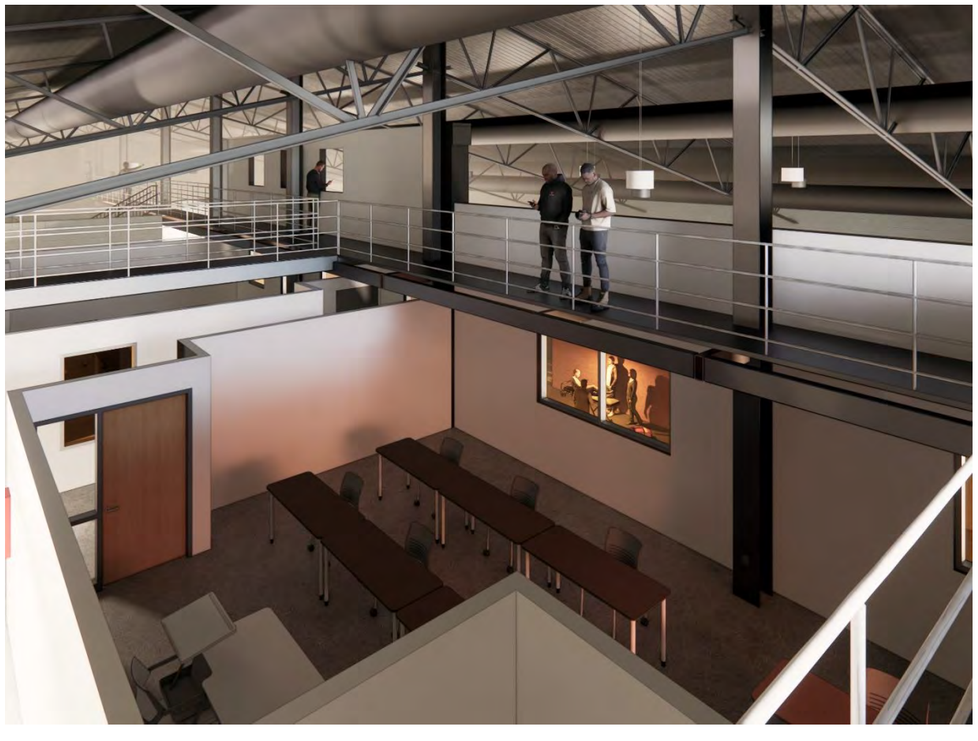
FLEX STUDY & CONFERENCE ROOM

TACTICAL VILLAGE



OBSERVATION CATWALK





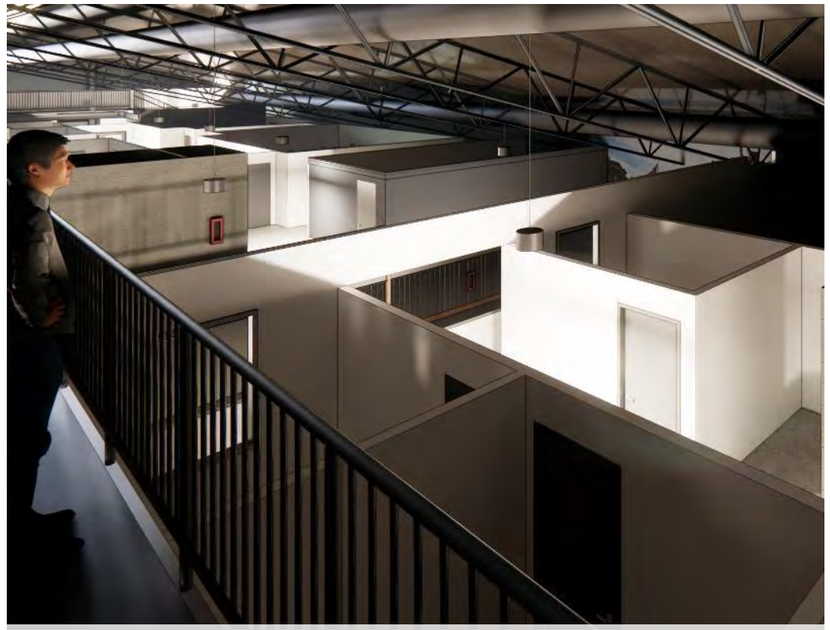
TACTICAL CLASSROOM





TACTICAL SCHOOL

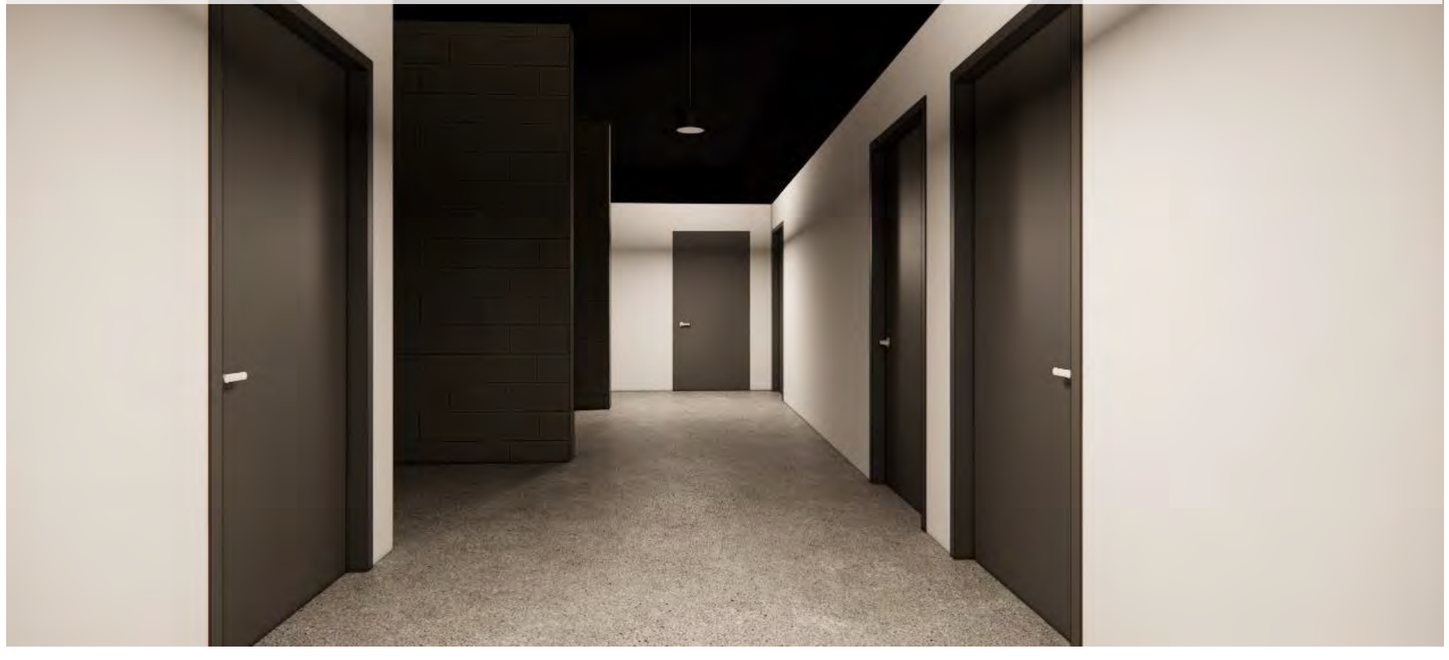




OBSERVATION CATWALK



TACTICAL OFFICE CORRIDOR



TACTICAL OFFICE







TACTICAL RESTAURANT



STORE INTERIOR







TACTICAL STORE

SHOOTING RANGE







SHOOTING RANGE CONCEPTUAL VIEWS

MAINTENANCE GARAGE





MAINTENANCE GARAGE EXTERIOR VIEWS

Oakland Community College

Auburn Hills Campus

CITY OF AUBURN HILLS, MICHIGAN

Site Plan Approval 03-31-2026

INTEGRATED design SOLUTIONS
architecture engineering interiors & technology

1441 West Long Lake, Suite 200
Troy, Michigan 48098

5211 Cascade Road SE, Suite 300
Grand Rapids, Michigan 49546
248.823.2100
www.ids-michigan.com

CONSTRUCTION MANAGER
BARTON MALOW
26500 American Drive
Southfield, Michigan 48034
248.436.5000
www.bartonmalow.com

STRUCTURAL ENGINEER
STRUCTURAL DESIGN INCORPORATED
275 East Liberty Street
Ann Arbor, Michigan 48104
734.213.6091
www.sdistructures.com

CIVIL ENGINEER
ANDERSON, ECKSTEIN & WESTRICK, INC
51301 Schienherr Rd.,
Shelby Township, Michigan 48315
586.726.1234
www.aewinc.com

RANGE DESIGN CONSULTANT
ACTION TARGET
3411 Mountain Vista Pkwy
Provo, UT 84606
801.396.1226
www.actiontarget.com

INCL.	REV.	NUM.	TITLE
X	03-31-2026	C0.00	Cover Sheet
X	03-13-2026	C0.10	Existing Conditions
X	03-31-2026	C0.11	Tree Survey List
X	03-13-2026	C0.20	Dimensional Site Plan
X	03-13-2026	C0.30	Engineering Site Plan - Utilities
X	03-13-2026	C0.31	Engineering Site Plan - Grading
X	03-31-2026	C0.32	Engineering Site Plan - Tree Protection
X	03-13-2026	C0.40	Landscape Plan
X	03-13-2026	C0.41	Landscape Details
X	03-13-2026	C0.50	Campus Landscape Plan for Replacement Trees
			ARCHITECTURAL PLANS
X	03-13-2026	LS.0	Life Safety & Building and Code Information
X	03-13-2026	LS0.4	Maintenance Garage Life Safety Plan
X	03-13-2026	A0.1	First Floor Composite Plan
X	03-13-2026	A0.2	Mezzanine Composite Plan
X	03-13-2026	A0.3	Observation Level Composite Plan
X	03-13-2026	A2.10	Maintenance Garage Floor Plan
X	03-13-2026	A4.0	Colored Elevations
X	03-13-2026	A4.1	3D Views
X	03-13-2026	A4.2	Exterior Elevations
X	03-13-2026	A4.3	Exterior Elevations
X	03-13-2026	A4.4	Exterior Elevations
X	03-13-2026	A4.10	Maintenance Garage Elevations & Sections

Project Title

OAKLAND COMMUNITY COLLEGE
Oakland Community College

CREST Center
Addition and Renovations
Project Address:
2900 Featherstone Rd.
Auburn Hills, MI 48326

Key Plan



LOCATION MAP
NOT TO SCALE

"I HEREBY CERTIFY THAT I HAVE READ THE TOWNSHIP'S LAND DEVELOPMENT ORDINANCE (AND ITS RELATED ENGINEERING AND CONSTRUCTION STANDARDS), AND I HAVE PREPARED THESE PLANS IN CONFORMITY WITH THE REQUIREMENTS OF SAID ORDINANCE.

STATE OF MICHIGAN
JULI SALA LICENSE No. 6201062165
LICENSED PROFESSIONAL ENGINEER

03-31-2026

JULI SALA, P.E., LEED AP BD+C
MICHIGAN REGISTRATION #62010-62165

CIVIL ENGINEERING ONLY

UTILITY INFORMATION, AS SHOWN, INDICATES APPROXIMATE LOCATIONS AND TYPES OF EXISTING FACILITIES ONLY, AS DISCLOSED BY RECORDS PROVIDED TO THIS FIRM FROM THE VARIOUS UTILITY COMPANIES. NO GUARANTEE IS GIVEN OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF.

PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING OVERHEAD AND UNDERGROUND UTILITIES (IN CONFLICT WITH THE CONSTRUCTION OF THESE PROPOSED IMPROVEMENTS) SHALL BE VERIFIED IN THE FIELD. DURING THE CONSTRUCTION, THE CONTRACTOR SHALL PROTECT AND SUPPORT ALL UTILITIES THAT ARE ENCOUNTERED. (ALL COSTS FOR UTILITY LOCATION VERIFICATION, SUPPORT AND PROTECTION SHALL BE INCLUDED IN THE PROPOSED PAY ITEM CONFLICTING WITH THAT UTILITY).

DURING CONSTRUCTION, THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING NEAR ANY AND ALL OVERHEAD AND / OR BURIED UTILITIES.

3 WORKING DAYS BEFORE YOU DIG
CALL MISS DIG 811 TOLL FREE

M:\2026\0369-0085\TDWG\CIVIL\320X42-IDS-TBLK.DWG LAYOUT: Model 10/18/2023 3:25:50 PM

PROJECT DESCRIPTION

THE COMBINED REGIONAL EMERGENCY SERVICES TRAINING (CREST) CENTER IS BASED ON CONCEPTS DEVELOPED FROM INPUT BY LOCAL POLICE, FIRE, AND EMS AGENCIES IN COLLABORATION WITH OAKLAND COMMUNITY COLLEGE (OCC). THE EXISTING FACILITY INCLUDES CLASSROOMS, LOCKER ROOMS, SERVICE SPACES, AND AN ADMINISTRATION SUITE.

THE PLANNED EXPANSION ADDS ENCLOSED ONE- AND TWO-STORY INDOOR TRAINING ENVIRONMENTS THAT INCLUDE A SCHOOL, OFFICE, RESTAURANT, AND CONVENIENCE STORE. THE SITE ALSO CONTAINS AN OUTDOOR SIMULATED CITY WITH RESIDENTIAL STRUCTURES, A MOTEL, A BANK, AND A FIVE-STORY FIRE TRAINING TOWER.

THE COMBINED INDOOR AND OUTDOOR COMPONENTS ARE INTENDED TO PROVIDE A RANGE OF SCENARIO-BASED ENVIRONMENTS USED FOR EMERGENCY-SERVICES TRAINING BY OCC PROGRAMS AND EXTERNAL AGENCIES.

Project Administrator: V. Grant
Project Designer: J. Sala
Project Architect / Engineer: J. Sala
Drawn By: J. King
Q.M. Review: N/A
Approved: J. Sala
Drawing Scale: N/A

Issued for	Issue Date
Planning Commission Review	03-13-2026

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AEW Drawing Title

Cover Sheet

AEW PROJECT NUMBER
0369-0085

IDS Project Number
23118-1000

OCC PROJECT NUMBER
AH-23-013

Drawing Number
C0.00

NORTH

W 1"=40' E

S

BENCH MARKS (NAVD88 DATUM)

BENCH MARK NO.36
CHISELED "□"IN WEST OF LIGHT POLE BASE AT SOUTHWEST CORNER OF PHYSICAL ED. PARKING LOT CORNER.
ELEVATION: 892.22

BENCH MARK NO. 37
TOP OF HYDRANT AT SOUTHEAST CORNER OF PARKING LOT FOR CREST BUILDING.
ELEVATION: 885.60

BENCH MARK NO.39
CHISELED SQUARE AT NORTHWEST CORNER OF CONCRETE PAD FOR CREST BUILDING.
ELEVATION: 890.64

BENCH MARK NO.40
CHISELED SQUARE ON THE NORTH FACE OF LIGHT POLE AT NORTHEAST CORNER OF RICHARD THOMPSON AVE. AND CONSUMERS ENERGY FOUNDATION.
ELEVATION: 884.82

BENCH MARK NO.41
TOP OF HYDRANT AT NORTH SIDE OF AUCH RD. AND RICHARD THOMPSON AVE.
ELEVATION: 888.68

BENCH MARK NO. 42
CHISELED SQUARE ON NORTH FACE OF LIGHT POLE ON NORTH SIDE OF CONSUMERS ENERGY FOUNDATION AND AT WEST EDGE BUILDING EXTENDED.
ELEVATION: 887.54

BENCH MARK NO. 43
TOP OF HYDRANT ON WEST SIDE OF MOTT RD. DUE WEST OF NORTHWEST CORNER OF MAINTENANCE BUILDING.
ELEVATION: 883.48

BENCH MARK NO. 44
MAG NAIL IN NORTH FACE OF UTILITY POLE ON EAST SIDE OF MOTT RD. 40' SOUTHWEST CORNER OF MAINTENANCE BUILDING.
ELEVATION: 880.74

BENCH MARK. NO. 45
CHISELED SQUARE IN SOUTH OF LIGHT POLE BASE AT NORTHEAST CORNER OF MAINTENANCE FENCE AREA.
ELEVATION: 883.11

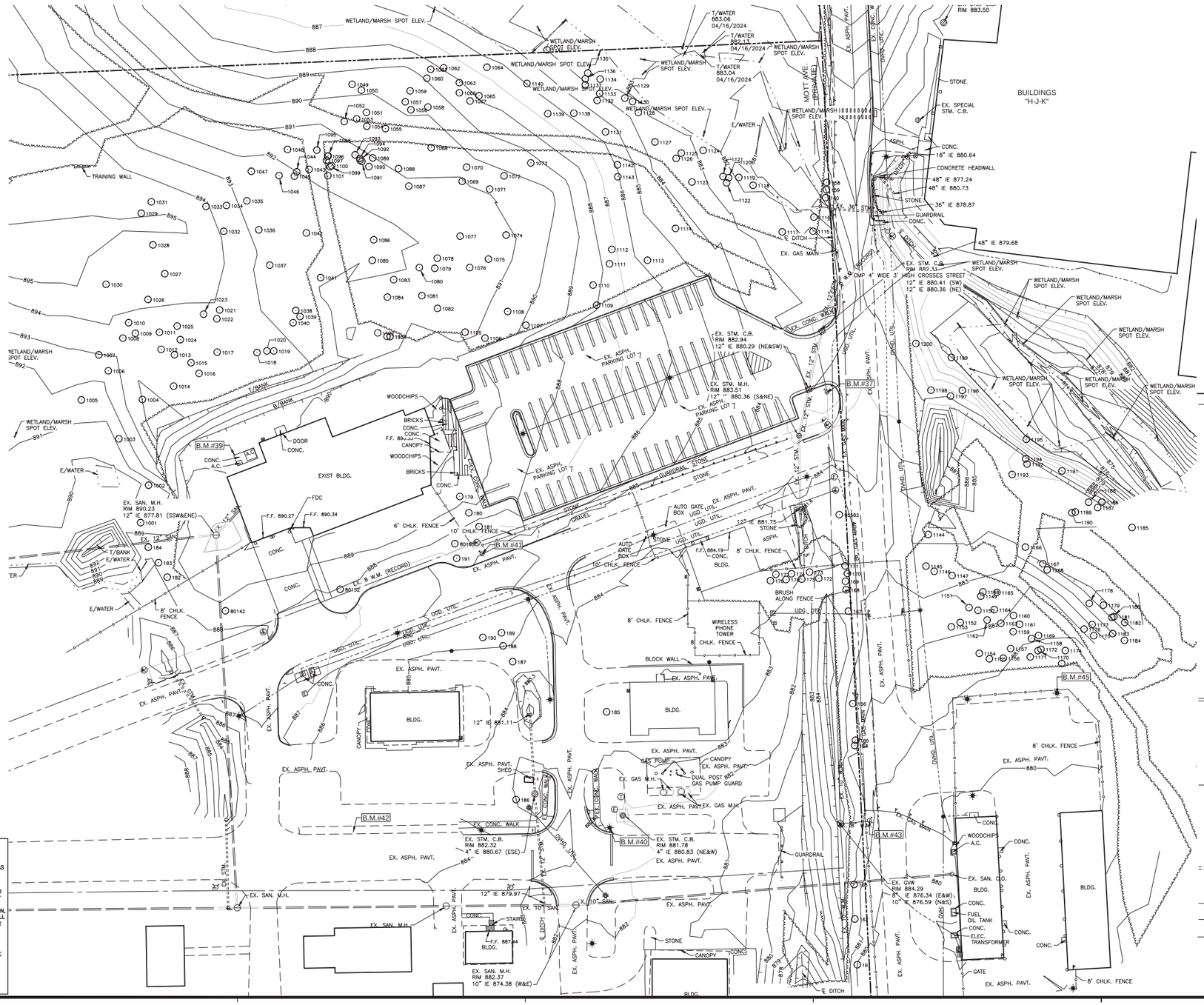
UTILITY INFORMATION, AS SHOWN, INDICATES APPROXIMATE LOCATIONS AND TYPES OF EXISTING FACILITIES ONLY, AS DISCLOSED BY RECORDS PROVIDED TO THIS FIRM FROM THE VARIOUS UTILITY COMPANIES. NO GUARANTEE IS GIVEN OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF.

PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING OVERHEAD AND UNDERGROUND UTILITIES (IN CONFLICT WITH THE CONSTRUCTION OF THESE PROPOSED IMPROVEMENTS) SHALL BE VERIFIED IN THE FIELD. DURING THE CONSTRUCTION, THE CONTRACTOR SHALL PROTECT AND SUPPORT ALL UTILITIES THAT ARE ENCOUNTERED. (ALL COSTS FOR UTILITY LOCATION VERIFICATION, SUPPORT AND PROTECTION SHALL BE INCLUDED IN THE PROPOSED PAY ITEM CONFLICTING WITH THAT UTILITY).

DURING CONSTRUCTION, THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING NEAR ANY AND ALL OVERHEAD AND / OR BURIED UTILITIES.

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LOCATION MAP
NOT TO SCALE

NOTES

FLOODPLAIN
SITE IS WITHIN ZONE X - OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN - PER FEMA FIRM PANEL 26125C0388F EFFECTIVE 09-29-2006

WETLANDS
WETLANDS ARE PRESENT ON-SITE AND ARE INDICATED AS SHOWN PER WETLAND DELINEATIONS BY ASTI ENVIRONMENTAL REPORTS DATED 05-15-2023 AND 01-09-2024

LEGEND

- CENTERLINE DITCH/SWALE
- +000.0 SPOT ELEVATION ("+" INDICATES ELEVATION LOCATION UNLESS OTHERWISE INDICATED)
- SIGN
- DOUBLE SIGN
- BOLLARDS
- TRAFFIC LIGHT
- PHONE MANHOLE
- PHONE PEDESTAL
- LIGHT POLE
- POWER POLE
- ELECTRICAL OUTLET
- ELECTRICAL MANHOLE
- ELECTRICAL CONTROL PANEL
- ELECTRICAL PEDESTAL
- SANITARY CLEAN OUT
- SANITARY MANHOLE
- SANITARY SEWER
- HYDRANT
- GATE VALVE & WELL
- FIRE HOSE CONNECTION
- VALVE BOX
- WATER MAIN
- STORM END SECTION
- STORM CATCH BASIN (PAVT.)
- STORM CATCH BASIN (FIELD)
- STORM MANHOLE
- STORM SEWER
- GAS METER
- GAS MAIN
- UDG. UTIL.
- OVHD. UTIL.
- UTILITY MARKER

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Provo, UT 84606
801.396.1226
www.actiontarget.com

Project Title

OAKLAND COMMUNITY COLLEGE
Oakland Community College

CREST Center
Addition and Renovations
Project Address:
2900 Featherstone Rd.
Auburn Hills, MI 48326

Key Plan

Project Administrator	V. Grant
Project Designer	J. Sala
Project Architect / Engineer	J. Sala
Drawn By	J. King
Q.M. Review	---
Approved	J. Sala
Drawing Scale	1" = 40'

Issued for	Issue Date
Planning Commission Review	03-13-2026

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AEW Drawing Title

Tree Survey / Existing Conditions

AEW PROJECT NUMBER
0369-0085

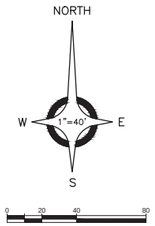
iDS Project Number
23118-1000

OCC PROJECT NUMBER
AH-23-013

Drawing Number
C0.10

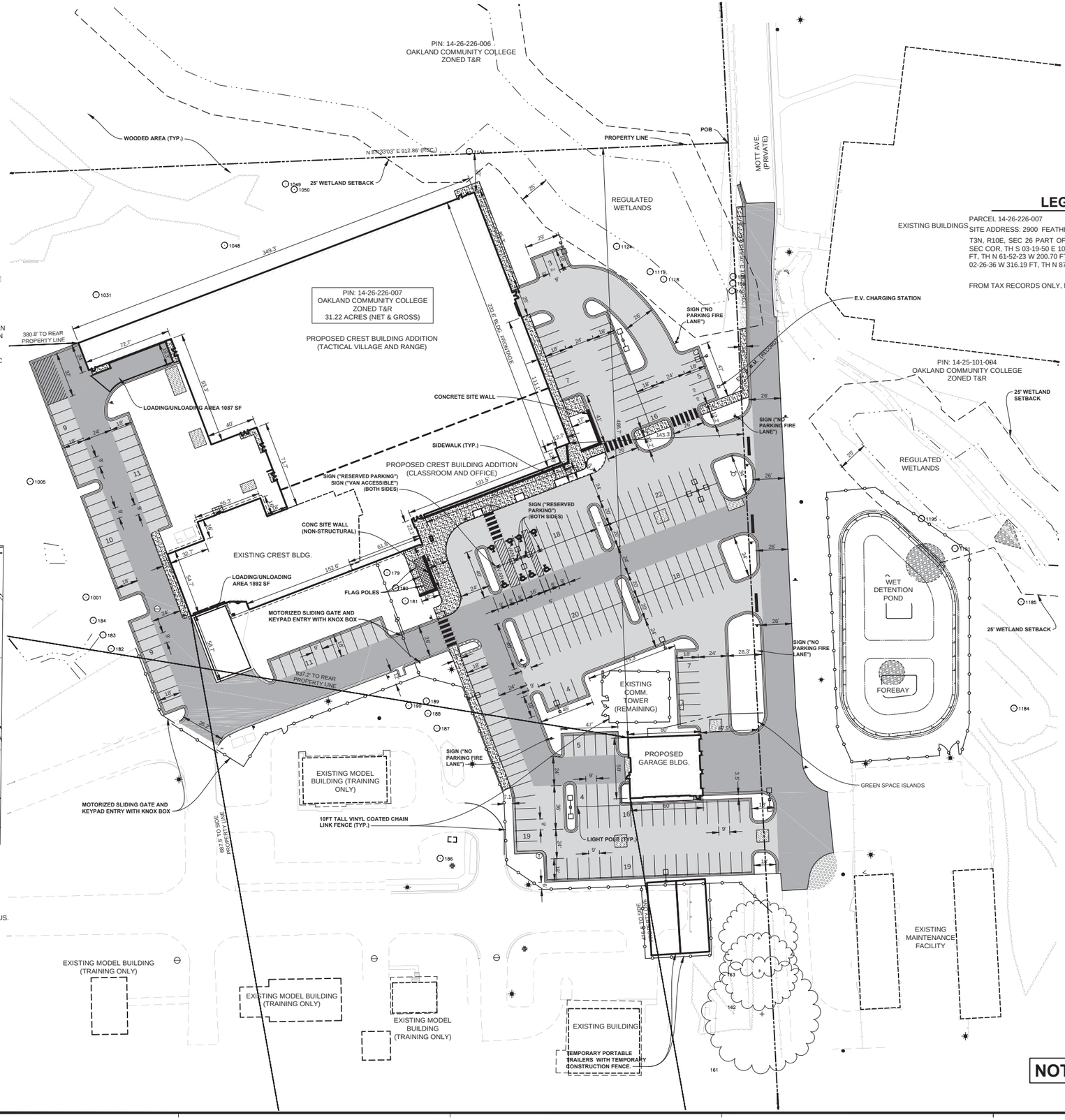
Table 1: Oakland Community College, Crest Center, 2900 Featherstone Road, Auburn Hills, Oakland Co. (ASTI # A25-1586.00)

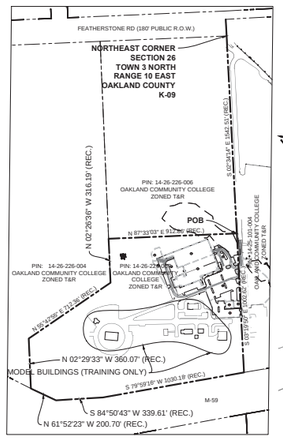
Tree Tag #	Common Name	Scientific Name	DBH1 (inches)	DBH2 (inches)	DBH3 (inches)	Condition	Bat Tree	Landmark	Non-Protected	Comments	Save (S)/ Remove (x)	Max PDOP	Vert Prec (feet)	Horz Prec (feet)	Northing (international feet)	Easting (international feet)
1001	White Willow	*Salix alba*	35.0	0.0	0.0	Good	No		NP		S	5.9	5.3	3.8	419103.57	13428823.72
1002	Black Walnut	*Juglans nigra*	8.1	0.0	0.0	Good	No				x	2.8	5.8	4.2	419132.666	13428929.92
1003	Black Walnut	*Juglans nigra*	14.5	0.0	0.0	Fair	No			Overgrown with vines.	x	4.2	4.8	3.3	419168.744	13428906.8
1004	Black Walnut	*Juglans nigra*	10.3	9.1	0.0	Good	No				x	2.8	2.1	1.4	419199.316	13428925.1
										Overgrown with vines. Bore						
1005	Green Ash	*Fraxinus pennsylvanica*	8.0	0.0	0.0	Fair	No		NP	Damage.	S	3.7	3.5	2.8	419198.997	13428877.66
1006	Bur Oak	*Quercus macrocarpa*	7.6	0.0	0.0	Good	No				x	3.7	2.5	1.9	419222.193	13428898.61
1007	Green Ash	*Fraxinus pennsylvanica*	6.0	0.0	0.0	Fair	No		NP	Bore damage.	x	3.7	4.3	3.2	419234.012	13428891.21
1008	Green Ash	*Fraxinus pennsylvanica*	7.5	0.0	0.0	Poor	No		NP	Significant bore damage.	x	2.8	2.2	1.9	419247.024	13428909.9
1009	Black Walnut	*Juglans nigra*	9.5	0.0	0.0	Good	No				x	3.1	2.3	2.1	419250.769	13428919.64
1010	Black Walnut	*Juglans nigra*	7.0	0.0	0.0	Good	No				x	3	2.1	1.7	419259.012	13428914.43
1011	Green Ash	*Fraxinus pennsylvanica*	6.7	0.0	0.0	Poor	No		NP	Significant bore damage.	x	5.8	3.4	2.6	419251.613	13428938.37
1012	Green Ash	*Fraxinus pennsylvanica*	6.6	0.0	0.0	Poor	No		NP	Significant bore damage.	x	4.4	2.3	1.9	419239.298	13428939.69
1013	Green Ash	*Fraxinus pennsylvanica*	7.2	0.0	0.0	Good	No		NP		x	3	3.4	2.8	419234.119	13428950.04
1014	American Elm	*Ulmus americana*	6.5	0.0	0.0	Good	No				x	3	1.8	1.5	419209.7	13428949.42
1015	Pin Oak	*Quercus palustris*	11.5	0.0	0.0	Good	No				x	3.3	1.9	1.4	419227.892	13428952.93
1016	Green Ash	*Fraxinus pennsylvanica*	7.5	7.0	0.0	Poor	No		NP	Significant bore damage.	x	3	2.1	1.7	419219.611	13428969.17
1017	Box-elder	*Acer negundo*	15.7	7.0	0.0	Fair	No		NP	Excessive leaning.	x	3	2	1.7	419236.111	13428983.29
1018	Black Walnut	*Juglans nigra*	7.3	0.0	0.0	Good	No				x	3.8	3.2	2.5	419235.815	13429014.24
1019	Black Walnut	*Juglans nigra*	9.6	0.0	0.0	Good	No				x	2.7	1.6	1.4	419237.038	13429027.28
1020	Apple	*Malus pumila*	6.1	0.0	0.0	Good	No				x	3.1	2.4	1.8	419237.055	13429021.94
1021	Hawthorn	*Crataegus spp.*	7.7	0.0	0.0	Good	No				x	2.8	2.6	2.9	419268.918	13429385.19
1022	Red Maple	*Acer rubrum*	14.8	8.5	0.0	Good	No				x	3.4	7.9	5.6	419282.092	13428983.02
1023	Black Cherry	*Prunus serotina*	12.3	0.0	0.0	Good	No				x	2.7	4.5	3.1	419285.602	13428872.69
1024	American Elm	*Ulmus americana*	10.5	0.0	0.0	Good	No				x	2.7	2.7	2.4	419245.823	13428954.59
1025	American Elm	*Ulmus americana*	12.5	0.0	0.0	Fair	No			Deadwood in limbs.	x	3.3	2.6	3	419256.369	13428952.14
1026	Green Ash	*Fraxinus pennsylvanica*	10.0	0.0	0.0	Good	No		NP		x	3.8	2.7	2.4	419277.057	13428929.46
1027	Green Ash	*Fraxinus pennsylvanica*	11.9	0.0	0.0	Good	No		NP		x	2.9	3.9	3.3	419297.091	13428942.52
1028	Red Oak	*Quercus rubra*	6.4	0.0	0.0	Good	No				x	2.8	1.8	1.6	419319.51	13428933.31
1029	Red Maple	*Acer rubrum*	10.6	0.0	0.0	Good	No				x	2.9	2.1	2.3	419324.058	13428924.23
1030	Shagbark Hickory	*Carya ovata*	10.2	0.0	0.0	Good	No				x	3	1.6	1.4	419288.846	13428896.84
1031	Bur Oak	*Quercus macrocarpa*	7.6	0.0	0.0	Good	No				S	2.9	3.8	3.6	419353.021	13428932.03
1032	Black Walnut	*Juglans nigra*	15.5	0.0	0.0	Good	No				x	2.7	2.8	2.6	419330.128	13428988.38
1033	Red Oak	*Quercus rubra*	14.7	0.0	0.0	Good	No				x	4.8	6.1	5.5	419349.463	13428974.59
1034	Black Cherry	*Prunus serotina*	7.7	0.0	0.0	Fair	No			Excessive leaning.	x	2.2	2.1	2.1	419350.184	13428900.5
1035	Bur Oak	*Quercus macrocarpa*	7.0	0.0	0.0	Good	No				x	2.8	2.8	2.4	419353.758	13429024.2
1036	Bur Oak	*Quercus macrocarpa*	6.1	0.0	0.0	Good	No				x	3	1.8	1.7	419331.213	13425015.66
1037	American Elm	*Ulmus americana*	9.5	0.0	0.0	Good	No				x	5.7	4.8	4.9	419303.781	13429024.2
1038	American Elm	*Ulmus americana*	8.5	0.0	0.0	Good	No				x	2.8	2.3	1.9	419268.531	13429044.4
1039	Red Oak	*Quercus rubra*	33.0	0.0	0.0	Good	No	L			x	3	3.5	3.4	419283.8	13429047.73
1040	Black Cherry	*Prunus serotina*	12.3	0.0	0.0	Good	No				x	2.8	2.1	1.9	419268.967	13429042.34
1041	Red Maple	*Acer rubrum*	16.7	9.8	7.0	Good	No				x	6.2	3.7	3	419284.077	13429063.72
1042	Red Oak	*Quercus rubra*	16.3	0.0	0.0	Good	No				x	2.9	1.9	2	419328.8	13429052.61
1043	Shagbark Hickory	*Carya ovata*	7.6	0.0	0.0	Good	No				x	2.7	5.1	4.9	419376.232	13429054.74
1044	Shagbark Hickory	*Carya ovata*	8.0	0.0	0.0	Good	No				x	2.9	2.4	2.5	419376.274	13429045.15
1045	Red Oak	*Quercus rubra*	18.7	0.0	0.0	Good	No				x	3.5	2.5	2.8	419372.992	13429043.3
1046	Shagbark Hickory	*Carya ovata*	6.3	0.0	0.0	Good	No				x	2.9	2	1.8	419373.408	13429031.38
1047	Red Oak	*Quercus rubra*	16.5	15.2	0.0	Good	No				x	2.9	1.8	1.8	419376.752	13429009.83
1048	Red Oak	*Quercus rubra*	12.8	0.0	0.0	Good	No				S	2.6	2.6	2.1	419363.776	13429037.98
1049	Red Oak	*Quercus rubra*	15.5	0.0	0.0	Good	No				S	2.4	3.3	3.2	419444.368	13429088.2
1050	Black Cherry	*Prunus serotina*	7.6	0.0	0.0	Good	No				S	2.7	1.5	1.5	419439.872	13429005.44
1051	Shagbark Hickory	*Carya ovata*	7.0	0.0	0.0	Good	No				x	3	5	4.2	419422.669	13429089.34
1052	Bur Oak	*Quercus macrocarpa*	9.4	0.0	0.0	Good	No				x	10.8	2.6	2.5	419415.433	13429082.11
1053	Black Oak	*Quercus velutina*	10.3	0.0	0.0	Good	No				x	3.1	2.3	2.2	419417.476	13429091.74
1054	American Elm	*Ulmus americana*	6.0	0.0	0.0	Good	No				x	2.9	2.3	2	419411.78	13429099.66
1055	Black Oak	*Quercus velutina*	16.3	0.0	0.0	Good	No				x	3.2	6.2	5.1	419409.96	13429114.16
1056	Black Cherry	*Prunus serotina*	9.0	0.0	0.0	Fair	No			Deadwood in trunk.	x	4.1	3.4	3	419424.585	13429133.93
1057	American Elm	*Ulmus americana*	6.2	0.0	0.0	Good	No				x	3.5	2.9	2.6	419430.798	13429129.56
1058	Red Oak	*Quercus rubra*	12.3	0.0	0.0	Good	No				x	3	2.8	2.7	419426.689	13429147.15
1059	Red Oak	*Quercus rubra*	22.0	0.0	0.0	Good	No				x	3	4.2	3.5	419439.288	13429133.31
1060	American Elm	*Ulmus americana*	9.0	0.0	0.0	Good	No				x	2.8	1.8	1.9	419449.124	13429146.34
1061	Basswood	*Tilia americana*	7.6	0.0	0.0	Good	No				x	2.9	2.3	1.9	419456.045	13429149.36
1062	Black Cherry	*Prunus serotina*	12.2	0.0	0.0	Good	No				x	3.6	2	2	419457.12	13429159.42
1063	Basswood	*Tilia americana*	17.5	7.0	0.0	Good	No				x	5.7	3.1	3.2	419465.675	13429171.64
1064	Basswood	*Tilia americana*	19.7	14.5	0.0	Good	No				x	3.8	2.8	2.3	419457.671	13429193.11
1065	Red Oak	*Quercus rubra*	21.7	0.0	0.0	Good	No				x	2.9	1.8	1.7	419435.419	13429186.9
1066	Ironwood	*Ostrya virginiana*	6.2	0.0	0.0	Good	No				x	2.5	2	1.7	419437.803	13429171.65
1067	Red Oak	*Quercus rubra*	17.0	0.0	0.0	Good	No				x	3.2	2.2	1.7	419431.423	13429179.93
1068	American Elm	*Ulmus americana*	10.1	0.0	0.0	Good	No				x	7.8	2	1.8	419395.077	13429149.73
1069	Black Cherry	*Prunus serotina*	12.5	0.0	0.0	Good	No				x	4.1	1.9	1.4	419398.95	13429173.79
										Overgrown with vines.						
1070	Black Cherry	*Prunus serotina*	10.0	0.0	0.0	Fair	No			Excessive leaning.	x	2.6	2	1.8	419379.925	13429177.31
1071	American Elm	*Ulmus americana*	11.0	0.0	0.0	Good	No				x	3	2.6	1.9	419362.894	13429195.2
1072	Black Cherry	*Prunus serotina*	20.1	0.0	0.0	Good	No				x	2.7	6	4.5	419373.191	13429206.41
1073	Silver Maple	*Acer saccharinum*	16.0	0.0	0.0	Good	No		NP		x	2.9	3.8	3.2	419383.251	13429227.25
1074	Common Buckthorn	*Rhamnus cathartica*	7.8	7.0	0.0	Good	No		NP		x	3	1.7	1.3	419327.182	13429208.01
1075	Green Ash	*Fraxinus pennsylvanica*	7.7	0.0	0.0	Good	No		NP		x	2.3	1.9	1.6	419306.467	13429194.25
1076	Green Ash	*Fraxinus pennsylvanica*	7.4	0.0	0.0	Fair	No		NP	Bore damage.	x	3	3.1	2.3	419301.89	13429179.67
1077	Black Cherry	*Prunus serotina*	8.5	0.0	0.0	Good	No				x	3	2.2	2.3	419326.297	13429172.21
1078	Black Cherry	*Prunus serotina*	15.0	14.7	0.0	Good	No				x	2.3	2.2	1.5	419309.2	13429154.49
1079	Black Cherry	*Prunus serotina*	12.5	0.0	0.0	Good	No				x	2.3	1.8	1.5	419301.307	13429152.48
1080	American Elm	*Ulmus americana*	10.5	0.0	0.0	Good	No				x	5.4	7	4.4	419301.894	13429140.49
1081	Black Walnut	*Juglans nigra*	7.2	0.0	0.0	Good	No				x	3	2.2	1.5	419280.071	13429142.5
1082	Red Maple	*Acer rubrum*	15.0	0.0	0.0	Good	No				x	3.2	2.3	1.6	419270.181	13429154.63
1083	Autumn Olive	*Elaeagnus umbellata*	6.3	0.0	0.0	Good	No		NP		x	2.5	6.7	6	419292.459	13429120.57
1084	Green Ash	*Fraxinus pennsylvanica*	6.0	0.0	0.0	Poor	No		NP	Significant bore damage.	x	4	3.1	2.3	419278.928	13429115.64
1085	Red Oak	*Quercus rubra*	14.3	0.0	0.0	Good	No				x	3	2.2	1.5	419307.528	13429103.91
1086	American Elm	*Ulmus americana*	17.0	0.0	0.0	Good	No				x	3	2.3	1.7	419323.486	13429105.03
1087	American Elm	*Ulmus americana*	7.5	0.0	0.0	Good	No				x	2.8	2.8	2.1	419365.235	13429132.29
1088	Red Maple	*Acer rubrum*	12.5	0.0	0.0	Good	No				x	3.2	2.4	1.6	419378.851	13429124.32
1089	Bitternut Hickory	*Carya cordiformis*	12.5	0.0	0.0	Good	No				x	3.8	5.4	3.6	419387.149	13429104.29
1090	Bitternut Hickory	*Carya cordiformis*	8.8	0.0	0.0	Good	No				x	3.6	4	2.8	419380.427	13429101.26
1091	Shagbark Hickory	*Carya ovata*	9.2	0.0	0.0	Good	No				x	7.7	2.4	1.6	419384.357	13429095.8
1092	Basswood	*Tilia americana*	11.4	11.0	0.0	Good	No				x	3	1.8	1.8	419385.395	13429094.41
1093	Bitternut Hickory	*Carya cordiformis*	6.8	0.0	0.0	Good	No				x	2.7	3.8	2.6	419389.535	13429090.55
1094	Shagbark Hickory	*Carya ovata*	7.3	0.0	0.0	Good	No				x	9.1	4.8	3.5	419386.736	13429094.19
1095	Shagbark Hickory	*Carya ovata*	6.3	0.0	0.0	Good	No				x	2.6	3.3	2.5	419393.185	13429080.78
1096	Shagbark Hickory	*Carya ovata*	8.1	0.0	0.0	Good	No				x	2.5	3.3	2.4	419386.504	13429089.19
1097	Black Oak	*Quercus velutina*	12.0	0.0	0.0	Good	No				x	2.9	3.2	2.4	419385.3	13429088.26
1098	Bitternut Hickory	*Carya cordiformis*	6.0	0.0	0.0	Good	No				x	3	2.5	1.9	419388.625	13429099.63
1099	Shagbark Hickory	*Carya ovata*	6.1	0.0	0.0	Good	No				x	3	5.3	3.8	419380.318	13429071.11
1100	Shagbark Hickory	*Carya ovata*	10.6	0.0	0.0	Good	No				x	7.5	4.5	3	419381.071	13429072.29
1101	American Elm	*Ulmus americana*	10.7	0.0	0.0	Good	No				x	3.7	4.4	4.7	419373.365	13429099.34
1102	American Elm	*Ulmus americana*	18.0	0.0	0.0	Good	No				x	8.8	2.7	1.9	419251.114	13429108.19
1103	Red Oak	*Quercus rubra*	10.5	0.0	0.0	Good	No				x	2.9	2.7	1.9	419248.344	13429115.4
1104	Callery Pear	*Pyrus calleryana*	6.3	0.0	0.0	Good	No				x	2.5	3.7	3	419248.249	13429117.79
1105	American Elm	*Ulmus americana*	18.3	0.0	0.0	Good	No				x	3	2	1.6	419251.666	13429176.13
1106	Hawthorn	*Crataegus spp.*	6.5	0.0	0.0	Good	No				x	2.8	1.8	1.3	419247.07	13429191.55
										Phytophthora canker						
1107	Black Cherry	*Prunus serotina*	13.0	0.0	0.0	Fair	No			disease.	x	3	1.8	1.2	419257.051	13429223.44
1108	Black Cherry	*Prunus serotina*	14.0	0.0	0.0	Good	No				x	8.5	2.1	1.6	419267.744	13429239.22
1109	American Elm	*Ulmus americana*	14.5	0.0	0.0	Good	No				x	2.4	1.8	1.2	419272.684	13429278.39
1110	Black Cherry	*Prunus serotina*	14.5	0.0	0.0	Good	No				x	2.3	1.5	1.2	419288.27	13429275.66
1111	Black Cherry	*Prunus serotina*	11.6	0.0	0.0	Good	No				x	2.9	2.8	1.9	419304.796	13429288.44
1112	Black Cherry	*Prunus serotina*	7.0	0.0	0.0	Good	No				x	3	2	1.3	419316.019	13429290.17
1113	Red Maple	*Acer rubrum*	14.5	10.5	10.0	Good	No				x	2.5	2.4	1.8	419307.593	13429317.99
1114	Red Oak	*Quercus rubra*	15.3	0.0	0.0	Good	No				x	2.6	1.9	1.4	419332.293	13429339.75
1115	Shagbark Hickory	*Carya ovata*	8.6	0.0	0.0	Good	No				x	2.2	2.8	2	419330.167	13429446.76
1116	Shagbark Hickory	*Carya ovata*	12.0	0.0	0.0	Fair	No			Overgrown with vines.	x	2.5	2.2	1.4	419341.132	13429447.4
1117	American Elm	*Ulmus americana*	6.5	0.0	0.0	Good	No				x	2.7	1.8	1.2	419329.614	13429422.75
1118	Black Walnut	*Juglans nigra*	26.5	0.0	0.0	Good	No	L			S	3	2.1	1.7	419365.89	13429400.07
1119	Shagbark Hickory	*Carya ovata*	11.2	0.0	0.0	Good	No				S	3	1.9	1.3	419371.989	13429398.95
1120	Bitternut Hickory	*Carya cordiformis*	13.2	0.0	0.0	Good	No				x	2.8	2	1.4	419371.709	13425081.06
1121	Black Walnut	*Juglans nigra*	10.0	0.0	0.0	Good	No				x	2.3	2.6	1.7	419372.732	13425076.71
1122	Red Oak	*Quercus rubra*	12.1	0.0	0.0	Good	No				x	3.2	2.2	1.5	419367.738	13425079.5
1123	Green Ash	*Fraxinus pennsylvanica*	7.8	0.0	0.0	Good	No		NP		x	2.9	1.8	1.6	419368.402	13429352.55
1124	Black Walnut	*Juglans nigra*	15.3	0.0	0.0	Good	No				S	3.4	2.7	2.7	419392.956	13429361.25
1125	American Elm	*Ulmus americana*	7.5	0.0	0.0	Good	No				x	3	2.3	2	419360.911	13429344.27
1126	Black Oak	*Quercus velutina*	9.6	0.0	0.0	Good	No				x	3	3.1	2.2	419386.768	13429340.25
1127	Black Walnut	*Juglans nigra*	15.4	0.0	0.0	Good	No				x	4.2	1.8	1.4	419399.517	13429323.75
1128	Red Oak	*Quercus rubra*	15.5	0.0	0.0	Good	No				x	2.9	2.3	1.7	419422.504	13429310.89
1129	Shagbark Hickory	*Carya ovata*	6.5	0.0	0.0	Good	No				x	3	4.5	4	419433.722	13429300.34
1130	Red Oak	*Quercus rubra*	17.0	0.0	0.0	Good	No				x	2.9	2.1	1.6	419430.945	13429306.34
1131	American Elm	*Ulmus americana*	6.8	0.0	0.0	Good	No				x	2.8	2.2	1.6	419407.372	13429285.33
1132	American Elm	*Ulmus americana*	7.3	0.0	0.0	Good	No				x	2.7	1.8	1.5	419431.825	13429278.77
1133	American Elm	*Ulmus americana*	8.0	0.0	0.0	Good	No				x	2.8	1.8	1.2	419437.248	13429280.75
1134	Red Oak	*Quercus rubra*	8.0	0.0	0.0	Good	No				x	2.6	2	1.3	419448.381	13429281.14
1135	Bitternut Hickory	*Carya cordiformis*	13.7	0.0	0.0	Good	No				x	2.9	2.6	2	419453.173	13429271.55
1136	Red Oak	*Quercus rubra*	10.3	0.0	0.0	Good	No				x	2.9	2	1.5	419448.605	13429269.57
1137	American Elm	*Ulmus americana*	17.5	0.0	0.0	Good	No				x	3.7	1.6	1.4	419443.953	13429269.57
1138	American Elm	*Ulmus americana*	7.5	0.0	0.0	Good	No				x	3.8	2.8	2	419421.892	13429260.66
1139	Black Cherry	*Prunus serotina*	13.0	0.0	0.0	Good	No				x	2.9	2.2	1.4	419421.514	13429240.39
1140	Red Oak	*Quercus rubra*	7.5	0.0	0.0	Good	No				x	3	2.8	1.9	419445.068	13429224.23
1141	Black Walnut	*Juglans nigra*	7.9	0.0	0.0	Good	No				S	6.5	3.4	2.2	419471.129	13429239.81
															Overgrown with vines.	
1142	Black Cherry	*Prunus serotina*	11.5	0.0	0.0	Fair	No				x	2.4	1.6	1.1	419381.745	13429294.57
1143	American Elm	*Ulmus americana*	7.5	0.0	0.0	Good	No				x	2.5	1.9	1.3	419372.467	13429294.86
1144	Box-elder	*Acer negundo*	14.3	0.0	0.0	Good	No				x	4.1	2.2	1.9	419094.349	13429536.32
1145	American Elm	*Ulmus americana*	6.8	0.0	0.0	Good	No				x	3.2	2.8	2.5	419099.753	13429534.58
1146	Black Walnut	*Juglans nigra*	10.0	0.0	0.0	Good	No				x	2.2	1.6	1.4	419065.696	13429540.99
1147	Catalpa	*Catalpa speciosa*	6.8	0.0	0.0	Good	No				x	2.9	2.4	1.4	419062.376	13429554.86
1148	Black Walnut	*Juglans nigra*	12.7	0.0	0.0	Good	No				x	2.6	2.6	1.6	419049.693	13429578.84
1149	Black Walnut	*Juglans nigra*	8.6	0.0	0.0	Good	No				x	2.3	2.4	1.5	419046.387	13429577.2
1150	Black Walnut	*Juglans nigra*	6.7	0.0	0.0	Good	No				x	2.9	2.6	1.5	419026.316	13429574.98
1151	Black Walnut	*Juglans nigra*	8.5	0.0	0.0	Good	No				x	2.9	2.4	1.4	419037.447	13429568.05
1152	Green Ash	*Fraxinus pennsylvanica*	6.5	0.0	0.0	Poor	No		NP	Significant bore damage.	x	2.9	2.2	1.5	419025.933	13429561.2
1153	Black Walnut	*Juglans nigra*	8.4	0.0	0.0	Good	No				x	2.9	2.1	1.2	419022.538	13429554.23
1154	Black Walnut	*Juglans nigra*	17.8	0.0	0.0	Good	No				x	2.9	2.2	1.4	419001.883	13429576.04
1155	Green Ash	*Fraxinus pennsylvanica*	6.0	0.0	0.0	Poor	No		NP	Significant bore damage.	x	2.7	2.1	1.2	418997.692	13429563.91
1156	Black Walnut	*Juglans nigra*	7.5	0.0	0.0	Good	No				x	2.9	2.5	1.6	418996.199	13429594.71
1157	Black Walnut	*Juglans nigra*	6.8	0.0	0.0	Good	No				x	5.2	3.7	2.5	419005.628	13429600.41
1158	Black Walnut	*Juglans nigra*	11.0	0.0	0.0	Good	No				x	3	3.3	2.1	419013.393	13429616.61
1159	Black Walnut	*Juglans nigra*	6.3	0.0	0.0	Good	No				x	3.5	2.1	1.7	419018.76	13429602.42
1160	Black Walnut	*Juglans nigra*	6.6	0.0	0.0	Good	No				x	2.3	2	1.2	419031.301	13429602.66
1161	Hawthorn	*Crataegus spp.*	6.8	0.0	0.0	Good	No				x	2.6	1.8	1.2	419024.511	13429607.35
1162	Black Walnut	*Juglans nigra*	6.5	0.0	0.0	Good	No				x	2.6	2.2	1.3	419027.792	13429592.12
1163	Black Walnut	*Juglans nigra*	7.8	0.0	0.0	Good	No				x	141.3	2.9	2.2	419025.313	13429592.84
1164	Black Walnut	*Juglans nigra*	11.2	0.0	0.0	Good	No				x	4.6	3.5	2.1	419035.902	13429587.72
1165	Black Walnut	*Juglans nigra*	9.4	0.0	0.0	Good	No				x	2.7	1.9	1.4	419049.243	13429589.76
1166	Green Ash	*Fraxinus pennsylvanica*	6.2	0.0	0.0	Good	No		NP		x	4.1	2.6	1.6	419064.55	13429611.9
1167	Green Ash	*Fraxinus pennsylvanica*	6.6	0.0	0.0	Good	No		NP		x	2.7	2.3	1.4	419071.577	13429625.49
1168	Black Walnut	*Juglans nigra*	35.0	0.0	0.0	Good	Yes	L		Cavities.	x	4.3	7.5	6.3	419066.792	13429628.8
1169	American Elm	*Ulmus americana*	8.6	0.0	0.0	Good	No				x	4.2	2.3	1.5	419015.752	13429622.1
1170	Black Walnut	*Juglans nigra*	10.6	0.0	0.0	Good	No				x	5	2.2	1.7	419003.987	13429621.72
1171	Black Walnut	*Juglans nigra*	11.8	0.0	0.0	Good	No				x	2.9	2.1	1.4	418999.111	13429615.66
1172	Black Walnut	*Juglans nigra*	12.5	0.0	0.0	Good	No				x	4.3	4.3	3	419005.085	13429624
1173	Green Ash	*Fraxinus pennsylvanica*	6.3	0.0	0.0	Good	No		NP		x	2.6	3.3	2.6	5.1	419063.987	13429640.15
1174	Black Walnut	*Juglans nigra*	12.7	0.0	0.0	Good	No				x	4.2	5.9	3.5	419004.085	13429642.96
1175	Green Ash	*Fraxinus pennsylvanica*	6.0	0.0	0.0	Good	No		NP		x	2	2.4	1.5	419015.648	13429665.05
1176	Cottonwood	*Populus deltoides*	8.2	0.0	0.0	Good	No		NP		x	3.1	2.4	1.6	419020.771	13429657.51
1177	American Elm	*Ulmus americana*	6.0	0.0	0.0	Good	No				x	4.7	2.3	1.4	419024.297	13429663.81
1178	Cottonwood	*Populus deltoides*	13.1	0.0	0.0	Good	No		NP		x	2.9	6.9	4.4	419040.773	13429661.57
1179	Cottonwood	*Populus deltoides*	19.6	0.0	0.0	Good	No		NP		x	3.2	4.1	3	419039.411	13429672.53
1180	Cottonwood	*Populus deltoides*	13.0	0.0	0.0	Good	No		NP		x	2.8	4.9	3.4	419029.884	13429679.13
1181	Cottonwood	*Populus deltoides*	10.8	0.0	0.0	Good	No		NP		x	2.9	2.2	1.5	419030.42	13429680.7
1182	Cottonwood	*Populus deltoides*	15.7	0.0	0.0	Good	No		NP		x	3	2.6	1.8	419025.903	13429689.14
1183	Black Walnut



GENERAL NOTES

1. ALL LIGHTING SHALL BE SHIELDED AND DIRECTED DOWNWARD AND AWAY FROM ADJACENT PROPERTIES. LIGHTING SHALL MEET THE REQUIREMENTS OF ZONING ORDINANCE NO. 372.
2. SIGNS SHALL MEET THE REQUIREMENTS OF ZONING ORDINANCE NO. 372.
3. NO OUTSIDE STORAGE WILL BE ALLOWED, WHICH INCLUDES PALLET STORAGE, OVERNIGHT VEHICLES, OR TRAILER STORAGE.
4. GROUND-MOUNTED TRANSFORMERS AND ROOF-MOUNTED MECHANICAL EQUIPMENT SHALL BE SCREENED PER ZONING ORDINANCE NO. 372.
5. PARKING SPACES SHALL BE DOUBLE-STRIPED PER ZONING ORDINANCE NO. 372.
6. NO ALTERATIONS, AMENDMENTS, MODIFICATIONS, OR REVISIONS SHALL BE MADE TO THE APPROVED SITE PLAN DURING ENGINEERING AND BUILDING PLAN SUBMITTAL AND REVIEW OR DURING CONSTRUCTION WITHOUT PRIOR APPROVAL FROM COMMUNITY DEVELOPMENT.
7. THE DEVELOPER HAS AGREED TO INSTALL ELECTRIC VEHICLE CHARGING STATIONS AND RUN CONDUIT FROM THE POWER SOURCE TO THE STATIONS. THE SPACES ARE DESIGNATED WITH EV ON THE PLAN AND WILL BE POSTED WHEN CHARGING STATIONS ARE INSTALLED.
8. MAXIMUM LIGHT POLE HEIGHT SHALL BE 27.5 FEET.





SURROUNDING PARCELS

SCALE: 1" = 500'

SITE NOTES

1. ALL TRASH IS COLLECTED FOR EACH INDIVIDUAL BUILDING AND IS TRANSPORTED TO A CENTRAL TRASH COLLECTION FACILITY ON THE OCC CAMPUS. NO TRASH RECEPTACLE PROPOSED.

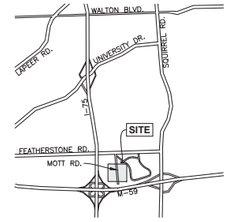
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PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING OVERHEAD AND UNDERGROUND UTILITIES (IN CONFLICT WITH THE CONSTRUCTION OF THESE PROPOSED IMPROVEMENTS) SHALL BE VERIFIED IN THE FIELD. DURING THE CONSTRUCTION, THE CONTRACTOR SHALL PROTECT AND SUPPORT ALL UTILITIES THAT ARE ENCOUNTERED. (ALL COSTS FOR UTILITY LOCATION VERIFICATION, SUPPORT AND PROTECTION SHALL BE INCLUDED IN THE PROPOSED PAY ITEM CONFLICTING WITH THAT UTILITY).

DURING CONSTRUCTION, THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING NEAR ANY AND ALL OVERHEAD AND / OR BURIED UTILITIES.

3 WORKING DAYS BEFORE YOU DIG
CALL MISS DIG 811 TOLL FREE

UTILITY INFORMATION, AS SHOWN, INDICATES APPROXIMATE LOCATIONS AND TYPES OF EXISTING FACILITIES ONLY, AS DISCLOSED BY RECORDS PROVIDED TO THIS FIRM FROM THE VARIOUS UTILITY COMPANIES. NO GUARANTEE IS GIVEN OR IMPLIED AS



LOCATION MAP

NOT TO SCALE

LEGAL DESCRIPTION

EXISTING BUILDINGS

PARCEL 14-26-226-007
SITE ADDRESS: 2900 FEATHERSTONE , AUBRUN HILLS, MI 48326

T3N, R10E, SEC 26 PART OF NE 1/4 BEG AT PT DIST S 02-34-14 E 1542.51 FT FROM NE SEC COR, TH S 03-19-50 E 1002.62 FT, TH S 79-59-16 W 1030.18 FT, TH S 84-50-43 W 339.61 FT, TH N 61-52-23 W 200.70 FT, TH N 02-29-33 W 360.07 FT, TH N 55-42-55 E 712.36 FT, TH N 02-26-36 W 316.19 FT, TH N 87-33-03 E 912.86 FT TO BEG 31.22 A 7-16-18 FR 005

FROM TAX RECORDS ONLY, NO FIELD SURVEY PERFORMED.

PARKING SUMMARY

CREST BUILDING	
MAX. OCCUPANCY	679
1 SPACE / 3 PERSONS x MAX. OCCUPANCY (1804.12.2.L)	227
MAINTENANCE GARAGE	
2 SPACES / BAY + 1 SPACE/GAS PUMP (1804.12.3.H)	6
TOTAL PARKING REQUIRED	233
PAVED PARKING PROVIDED	233
ADA PARKING REQUIRED	7
ADA PARKING PROVIDED	8

BUILDING AREA SUMMARY

	TOTAL FLOOR AREA (SF)	USABLE FLOOR AREA (SF)
CREST BUILDING	78,784	69,474
MAINT. GARAGE	2,999	2,897

LOADING AREA SUMMARY

BUILDING FRONTAGE (LF)	233.6
LOADING AREA REQUIRED (10 SF PER BLDG. FRONTAGE LF)	2336
LOADING AREA PROVIDED (SF)	6230
LOADING LENGTH REQUIRED (LF)	50
LOADING LENGTH PROVIDED (LF)	275.2

BUILDING SETBACK SUMMARY

FRONT (TO R.O.W.)	50
SIDE (LEAST ONE SIDE)	20
SIDE (TOTAL)	40
REAR	15

IMPERVIOUS AREA SUMMARY

TOTAL DISTURBED AREA (AC)	7.12
IMPERVIOUS AREA REMOVED (AC)	1.67
IMPERVIOUS AREA PROPOSED (AC)	4.42
NET IMPERVIOUS AREA INCREASE (AC)	2.75

PROPOSED LEGEND

- STANDARD DUTY BIT. PAVT.
- HEAVY DUTY BIT. PAVT.
- CONC. PAVT.
- CONCRETE SIDEWALK W / CURB FACED WALK
- GRAVEL SURFACE
- CONC. CURB & GUTTER
- STORM SEWER
- SANITARY SERVICE LEAD
- WATER SERVICE LEAD
- WATER MAIN
- VINYL COATED, CHAIN LINK FENCE
- LIGHT POLE
- HYDRANT

NOT FOR CONSTRUCTION

PIN: 14-26-226-007

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Provo, UT 84606
801.396.1226
www.actiontarget.com

Project Title

OAKLAND COMMUNITY COLLEGE
Oakland Community College

CREST Center Addition and Renovations
Project Address:
2900 Featherstone Rd.
Auburn Hills, MI 48326

Key Plan

Project Administrator	V. Grant
Project Designer	J. Sala
Project Architect / Engineer	J. Sala
Drawn By	J. King
Q.M. Review	N/A
Approved	J. Sala
Drawing Scale	1" = 40'

Issued for	Issue Date
Planning Commission Review	03-13-2026

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AEW Drawing Title

Dimensional Site Plan

AEW PROJECT NUMBER
0369-0085
IDS Project Number
23118-1000
OCC PROJECT NUMBER
AH-23-013

Drawing Number
C0.20

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NORTH

W 1"=40' E

S

CITY OF AUBURN HILLS STANDARD NOTES

CONSTRUCTION SHALL CONFORM TO CURRENT CITY OF AUBURN HILLS' STANDARDS.

NO WORK SHALL BE PERFORMED WITHOUT INSPECTION.

A PERMIT FROM THE DPW IS REQUIRED FOR ALL CONSTRUCTION WITHIN CITY ROW. NO EQUIPMENT OR MATERIAL STORAGE WILL BE PERMITTED IN THE ROW.

ALL CITY STREETS MUST BE MAINTAINED DURING CONSTRUCTION. STREETS SHALL BE KEPT FREE OF MUD, DIRT, CONSTRUCTION DEBRIS, DUST AND THE LIKE. IF CLEAN-UP IS NOT PERFORMED WITHIN 24 HOURS OF NOTIFICATION, THE CITY RESERVES THE RIGHT TO PERFORM THE WORK AND CHARGE THE DEVELOPER ACCORDINGLY.

WORKING HOURS (INCLUDING RUNNING OF ANY MACHINERY) SHALL BE RESTRICTED TO MONDAY THROUGH SATURDAY, 7:00 AM TO 7:00 PM; SUNUP TO SUNDOWN; WHICHEVER IS LESS. CONSTRUCTION OPERATIONS BEYOND THE PERIODS MENTIONED ABOVE SHALL BE PERMITTED ONLY AFTER WRITTEN APPROVAL OF THE CITY MANAGER OR HIS DESIGNEE.

ALL MATERIALS AND MANUFACTURERS SHALL CONFORM TO THE STANDARD DETAILS.

UTILITY STRUCTURES SHALL NOT BE LOCATED IN DRIVEWAYS, AND WHERE POSSIBLE, SHALL NOT BE LOCATED IN PAVED AREAS.

THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES IN ACCORDANCE WITH ACT 53 OF P.A. OF 1974 AND ALSO CONTACT OAKLAND COUNTY UTILITY AND PROTECTION SERVICE (MISS DIG 1-800-482-7171) THREE (3) WORKING DAYS BEFORE THE START OF ANY CONSTRUCTION.

THE CONTRACTOR SHALL PROVIDE NECESSARY SIGNS, BARRICADES AND LIGHTS TO PROTECT TRAFFIC AND THE WORK AS DIRECTED BY THE ENGINEER. SUCH DEVICES SHALL BE PLACED PRIOR TO STARTING WORK IN AFFECTED AREAS.

ALL SOIL EROSION AND SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE OAKLAND COUNTY STANDARDS AND DETAILS. THE CONTRACTOR SHALL FOLLOW LOCAL RULES AND REGULATIONS FOR SOIL EROSION AND SEDIMENTATION CONTROL FOR ALL MATERIALS THAT ARE DISPOSED OF OFF OF THE PROJECT SITE.

ALL SOIL EROSION MEASURES MUST BE PROPERLY PLACED PRIOR TO GRADING OR OTHER CONSTRUCTION ACTIVITIES.

FIELD CHANGES TO THE APPROVED PLAN SHALL BE BROUGHT TO THE ATTENTION OF THE INSPECTOR ON SITE, WHO WILL DETERMINE WHETHER THE CHANGE IS CONSIDERED "SIGNIFICANT". "SIGNIFICANT" FIELD CHANGES SHALL BE SUBMITTED TO THE CITY BY THE DESIGN ENGINEER. THE CITY SHALL NOT BE HELD RESPONSIBLE FOR DELAYS IN APPROVAL OF CHANGES TO THE APPROVED SITE IMPROVEMENT (ENGINEERING) PLAN.

WHERE POSSIBLE, PUBLIC UTILITIES SHALL NOT BE PLACED UNDER PAVEMENT. THE CITY OF AUBURN HILLS SHALL NOT BE RESPONSIBLE FOR PAVEMENT, CURB, OR OTHER RESTORATION OF PERMANENT FACILITIES LOCATED WITHIN THE MUNICIPAL EASEMENT.

3 WORKING DAYS PRIOR TO STARTING CONSTRUCTION, CONTACT THE CONSTRUCTION DEPARTMENT OF ORCHARD, HILTZ & McCLIMENT, INC. AT (734) 466-4539 TO SCHEDULE INSPECTION. OHM SHALL INSPECT ALL SITE IMPROVEMENTS INCLUDING UNDERGROUND UTILITY INSTALLATION, EARTHWORK OPERATIONS, RETAINING WALLS, PAVEMENT IN CITY R.O.W., ALL SIDEWALKS OR SAFETY PATHS IN ANY PUBLIC R.O.W., AND ANY ADDITIONAL ITEMS NOTED DURING REVIEW OR AT THE PRE-CONSTRUCTION MEETING. FINAL OCCUPANCY MAY BE AFFECTED IF PROCEDURES ARE NOT FOLLOWED FOR PROPER INSPECTION.

PERMANENT STRUCTURES OF ANY TYPE, INCLUDING BUT NOT LIMITED TO, TREES, LIGHT POLES, DRAINAGE STRUCTURES, SANITARY STRUCTURES, BENCHES, TRASH RECEPTACLES, ETC., WILL NOT BE ALLOWED WITHIN THE INFLUENCE OF THE PUBLIC WATER MAIN OR SANITARY SEWER EASEMENTS.

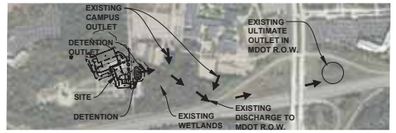
NOTES

COVER OVER EXISTING AND PROPOSED WATER MAIN MUST BE MAINTAINED AT 5.5'

COVER OVER EXISTING AND PROPOSED SANITARY SEWER MUST BE A MINIMUM OF 4'

COVER OVER EXISTING AND PROPOSED STORM SEWER MUST BE A MINIMUM OF 2.5'

THE ULTIMATE STORM SEWER OUTLET IS AN ON-SITE WATERCOURSE

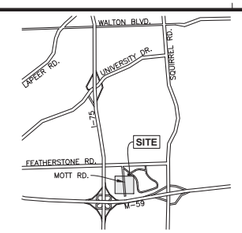


ULTIMATE DETENTION OUTLET

SCALE: 1" = 1000'

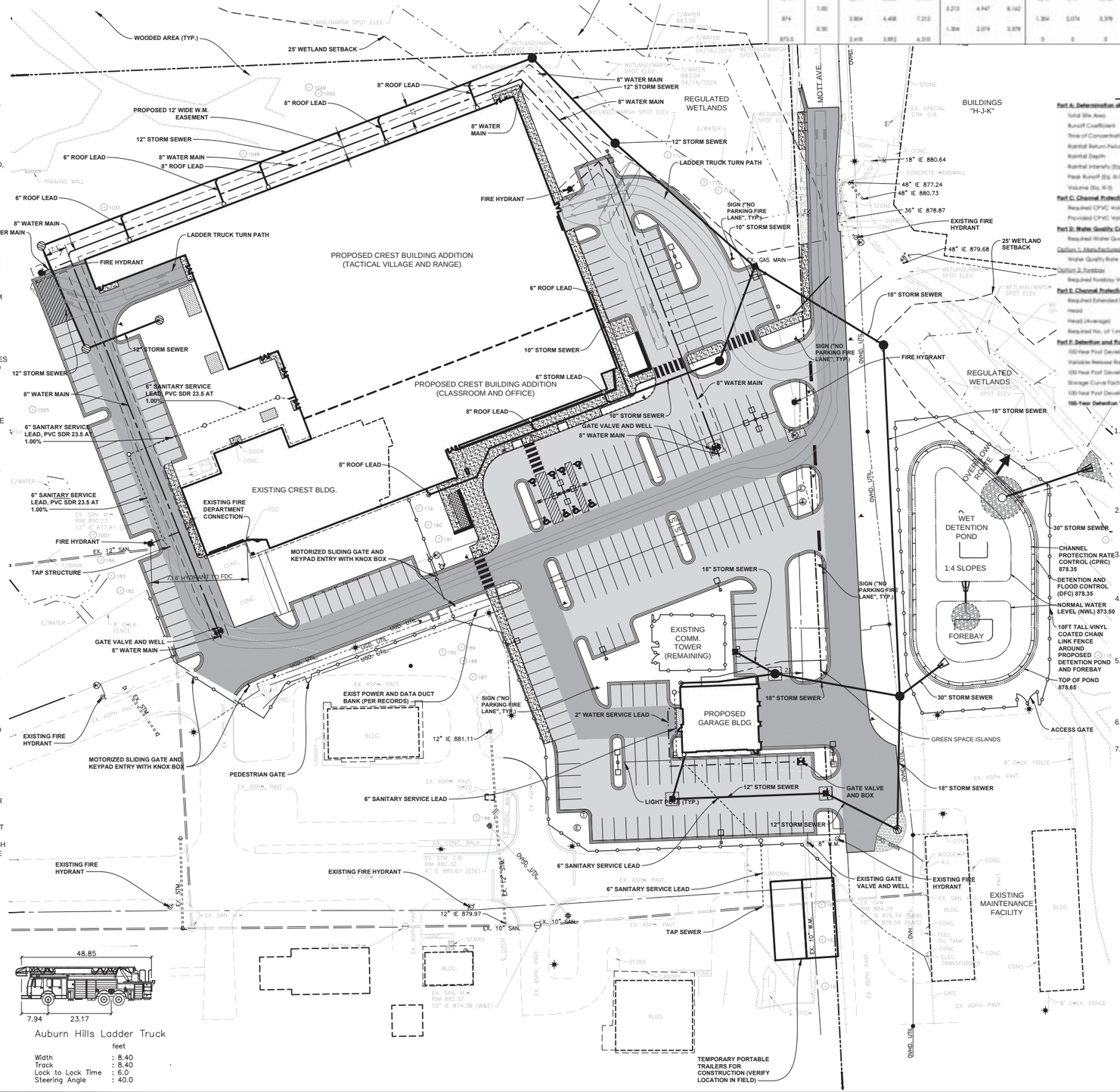
DETENTION POND

Elevation	Depth (ft)	Area (sf) Forebay	Area (sf) Basin	Area (sf) Total	Volume (cf) Forebay	Volume (cf) Basin	Volume (cf) Total	± Volume (cf) Forebay	± Volume (cf) Basin	± Volume (cf) Total
875.65		0	13,565	13,565		9,749	9,749		48,389	53,772
876	0.48	0	14,495	14,495				4,430	38,640	44,084
877	1.00	0	12,800	13,000	0	13,762	13,762	4,430	23,006	30,241
878	1.00	0	11,104	11,304	0	11,967	11,967	4,430	13,091	18,274
879	1.00	3,444	5,304	8,180	1,215	8,144	10,113	5,215	4,947	8,142
880	1.00	3,804	4,458	7,213	3,215	4,947	8,162	1,354	2,074	3,379
873.5	0.50	2,416	3,862	6,310	1,354	2,074	3,379	0	0	0



LOCATION MAP

NOT TO SCALE



Auburn Hills Ladder Truck

feet

Width	: 8.40
Track	: 8.40
Lock to Lock Time	: 6.0
Steering Angle	: 40.0

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DETENTION CALCULATIONS

Part A: Determination of Surface Runoff

Total Site Area	A =	4.26	ac
Runoff Coefficient	C =	0.84	
Time of Concentration	T_c =	15.00	min
Rainfall Return Period	p =	100	years
Rainfall Depth	d_{100} =	5.40	inch
Rainfall Intensity (Eq. R-1)	I =	4.30	in/hr
Peak Runoff (Eq. R-1)	Q_p =	33.37	cfs
Volume (Eq. R-2)	V =	101,390	cf

Part C: Channel Protection Volume Control

Required CPVC Volume (Eq. R-4)	V_{CPV} =	24,382	cf
Provided CPVC Volume	V_{CPV} =		cf

Part D: Water Quality Control

Required Water Quality Volume (Eq. R-17)	V_{WQ} =	18,778	cf
Option 1: Infiltration/Underground Treatment System (UTS)			
Water Quality Rate (Eq. R-18)	Q_{WQ} =	11.82	cfs
Option 2: Forebay			
Required Forebay Volume (Eq. R-19)	V_F =	2,816	cf

Part E: Channel Protection Rate Control: Extended Detention

Required Extended Detention Volume (Eq. R-21)	V_{ED} =	88,436	cf
Head	h_{ED} =	3.39	ft
Head (Average)	h_{AVG} =	1.70	ft
Required No. of 1 inch Holes (Eq. R-22)	N_{ED} =	4	

Part F: Detention and Flood Control Facilities

100-Year Post Development Flow Rate (Eq. R-23)	Q_{DFC} =	32.37	cfs
Available Release Rate (Eq. R-33)	Q_{AR} =	0.730	cfs/ac
100-Year Post Development Peak Discharge	Q_{PDC} =	4.32	cfs
Storage Curve Factor (Eq. R-24)	K =	0.30	
100-Year Post Development Runoff Volume (Eq. R-27)	V_{100} =	99,092	cf
100-Year Detention Volume (Eq. R-28)	V_{DET} =	87,338	cf

FIRE DEPARTMENT NOTES

1. THE FOUR (4) INCH STEAMER CAPS ON ALL HYDRANTS WILL BE PAINTED ACCORDING TO THE FOLLOWING:

   WHITE-ON 4.00 INCH MAINS
   RED-ON 6.00 INCH MAINS
   ORANGE-ON 8.00 INCH MAINS
   GREEN-ON 12.00 INCH MAINS
   BLUE-ON 16.00 INCH OR LARGER MAINS

2. NO PARKING SHALL BE PERMITTED AND/OR NO OBSTRUCTIONS SHALL BE PLACED OR CONSTRUCTED WITHIN FIFTEEN (15) FEET OF ANY FIRE HYDRANT OR FIRE DEPARTMENT CONNECTION, PUBLIC OR PRIVATE.

3. THE FIRE DEPARTMENT CONNECTION MUST BE LOCATED WITHIN ONE HUNDRED (100) FEET OF A FIRE HYDRANT AND WITHIN FIFTY (50) FEET OF A MINIMUM TWENTY (20) FOOT WIDE PAVED DRIVEWAY OR STREET.

4. GAS METERS, PROPANE TANKS, OVERHEAD ELECTRICAL SERVICE, AND TRANSFORMERS MUST NOT BE LOCATED ON THE SAME SIDE OF THE BUILDING OR STRUCTURE AS THE FIRE DEPARTMENT CONNECTION UNLESS A CLEAR DISTANCE OF ONE HUNDRED FIFTY (150) FEET CAN BE MAINTAINED BETWEEN UTILITIES AND THE FIRE DEPARTMENT CONNECTION.

5. ALL DRIVE AREAS MUST BE POSTED AS FIRE LANES WITH UNIFORM SIGNS IN KEEPING WITH THE STANDARD ESTABLISHED IN THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. SIGNS MUST BE ERECTED ON BOTH SIDES OF THE FIRE LANES WITH SPACING BETWEEN SIGNS NOT TO EXCEED ONE HUNDRED (100) FEET.

6. DESIGNATED EXIT DOORS ONTO DRIVES OR PARKING AREAS MUST BE PROTECTED WITH GUARD POSTS OR PARKING BLOCKS.

7. A WHITE HIGH VISIBILITY STRIP SHALL BE PAINTED ON THE UPPER FLANGE OF ALL FIRE HYDRANTS.

PROPOSED LEGEND

- STANDARD DUTY BIT. PAVT.
- HEAVY DUTY BIT. PAVT.
- CONC. PAVT.
- CONCRETE SIDEWALK W / CURB FACED WALK
- GRAVEL SURFACE
- CONC. CURB & GUTTER
- STORM SEWER
- SANITARY SERVICE LEAD
- WATER SERVICE LEAD
- WATER MAIN
- VINYL COATED, CHAIN LINK FENCE
- CATCH BASIN
- STORM MANHOLE
- LIGHT POLE
- HYDRANT
- GATE VALVE IN BOX (SERVICE LINE SHUTOFF)

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Key Plan

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Project Designer	J. Sala
Project Architect / Engineer	J. Sala
Drawn By	J. King
Q.M. Review	---
Approved	J. Sala
Drawing Scale	1" = 40'

Issued for	Issue Date
Planning Commission Review	03-13-2026

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AEW Drawing Title

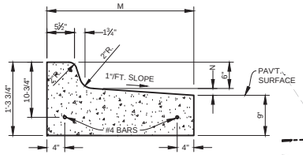
Engineering Site Plan - Utilities

AEW PROJECT NUMBER
0369-0085

Project Number	Drawing Number
23118-1000	C0.30

OCC PROJECT NUMBER
AH-23-013

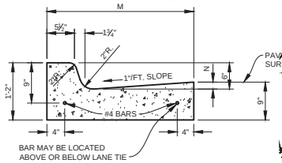
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DIMENSIONS		LANE	CONCRETE
M	N	TIES	CU.YD./LIN.FT.
2'-0"	1½"	OMITTED	0.0610

CONCRETE CURB DETAIL "F4" (MODIFIED)

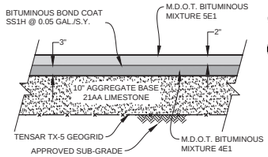
NOT TO SCALE



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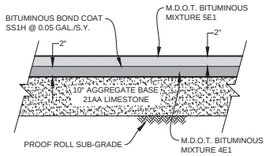
CONCRETE CURB DETAIL "F4"

NOT TO SCALE



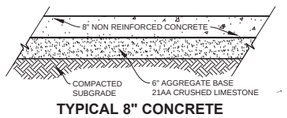
BITUMINOUS PAVEMENT SECTION

NOT TO SCALE (HEAVY DUTY W/TX-5)



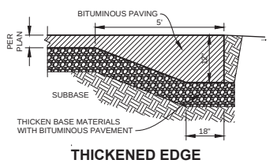
BITUMINOUS PAVEMENT SECTION

NOT TO SCALE (STANDARD DUTY)



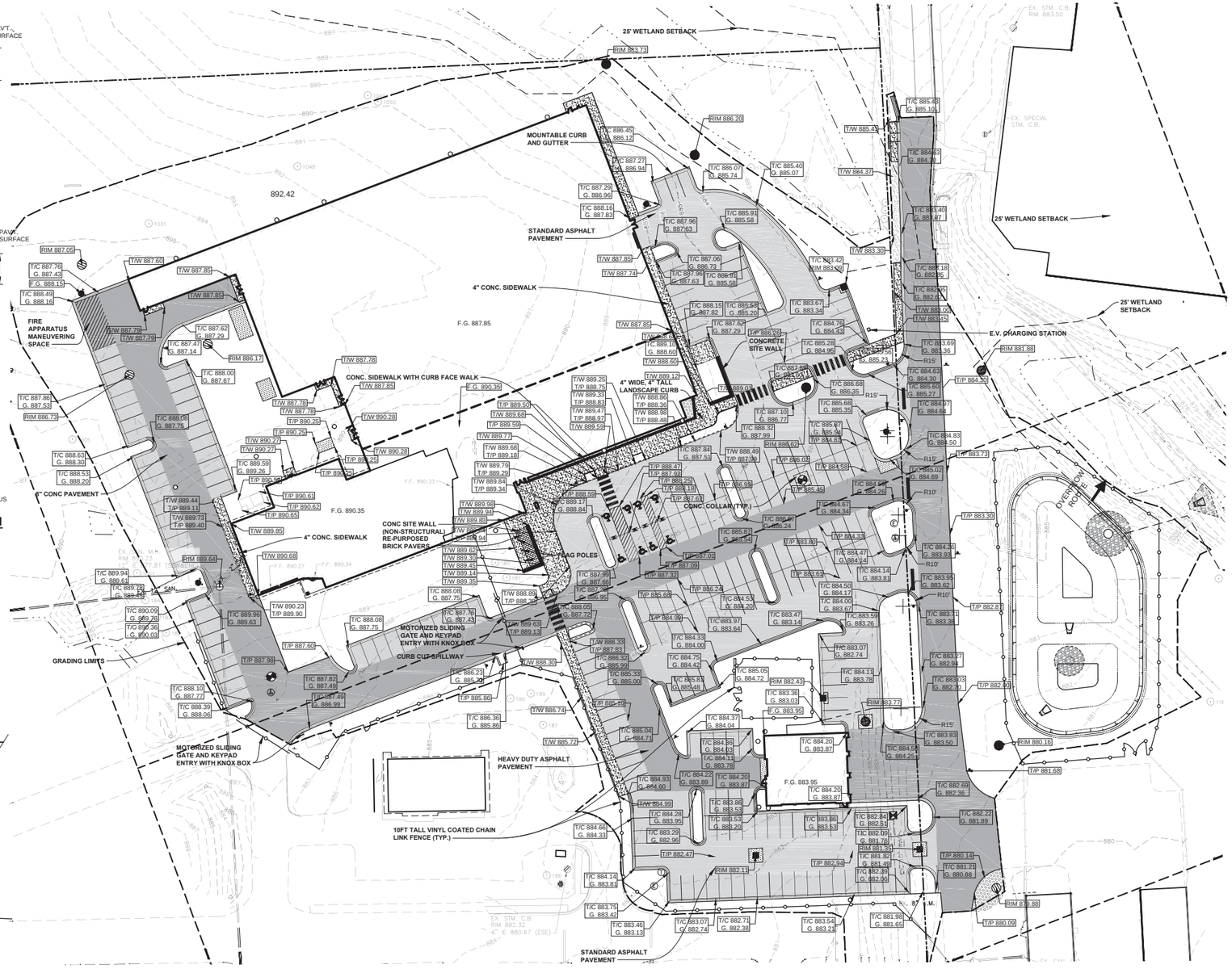
TYPICAL 8" CONCRETE PAVEMENT SECTION

NOT TO SCALE



THICKENED EDGE HMA PAV'T

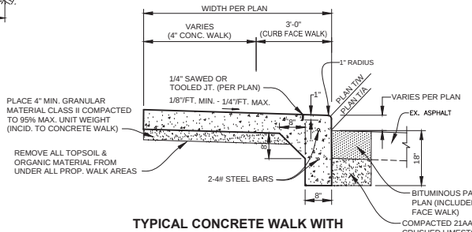
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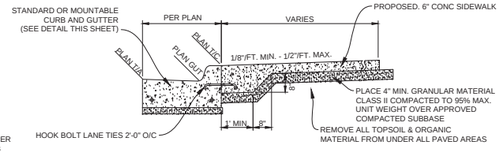
LOCATION MAP

NOT TO SCALE



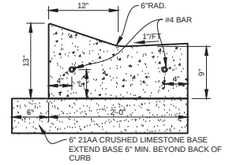
TYPICAL CONCRETE WALK WITH STANDARD CONCRETE CURB FACE

NOT TO SCALE



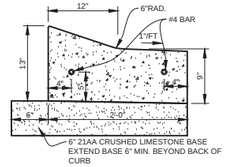
PINNED SIDEWALK / CURB & GUTTER

NOT TO SCALE



4" MOUNTABLE CURB

NOT TO SCALE



4" MOUNTABLE CURB (MODIFIED)

NOT TO SCALE

NORTH

W 1"=30' E

S

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PAVING LEGEND

- HEAVY DUTY BITUMINOUS PAVT.
- STANDARD DUTY BITUMINOUS PAVT.
- CONCRETE SIDEWALK
- CONC. PAVT.
- CONCRETE SIDEWALK W / CURB FACED WALK
- MOUNTABLE CONC. CURB & GUTTER
- GRASS AREA
- EXISTING CONTOUR
- 800 PROPOSED CONTOUR
- PROPOSED DITCH
- T/W 861.00 PROPOSED GRADE
- 900.00 EXIST. GRADE
- T/C TOP CONC. CURB
- T/W TOP CONC. WALK
- G. TOP CONC. GUTTER
- T/P TOP PAVEMENT

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Project Designer	J. Sala
Project Architect / Engineer	J. Sala
Drawn By	J. King
Q.M. Review	---
Approved	J. Sala
Drawing Scale	

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Planning Commission Review	03-13-2026

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Engineering Site Plan - Grading

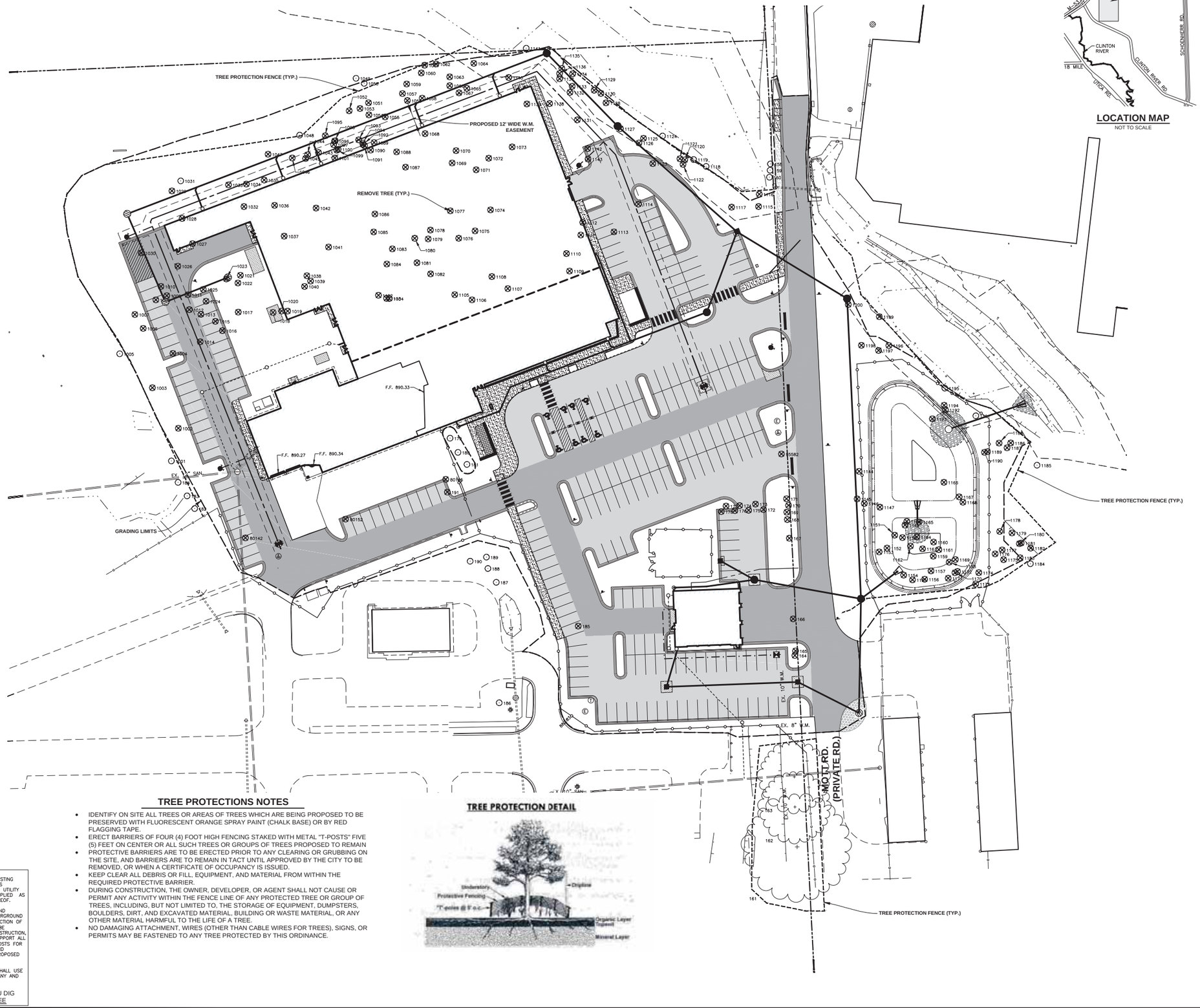
AEW PROJECT NUMBER
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IDS Project Number
23118-1000

OCC PROJECT NUMBER
AH-23-013

Drawing Number
C0.31







LOCATION MAP
NOT TO SCALE

TREE PROTECTIONS NOTES

- IDENTIFY ON SITE ALL TREES OR AREAS OF TREES WHICH ARE BEING PROPOSED TO BE PRESERVED WITH FLUORESCENT ORANGE SPRAY PAINT (CHALK BASE) OR BY RED FLAGGING TAPE.
- ERECT BARRIERS OF FOUR (4) FOOT HIGH FENCING STAKED WITH METAL "T-POSTS" FIVE (5) FEET ON CENTER OR ALL SUCH TREES OR GROUPS OF TREES PROPOSED TO REMAIN
- PROTECTIVE BARRIERS ARE TO BE ERECTED PRIOR TO ANY CLEARING OR GRUBBING ON THE SITE, AND BARRIERS ARE TO REMAIN IN TACT UNTIL APPROVED BY THE CITY TO BE REMOVED, OR WHEN A CERTIFICATE OF OCCUPANCY IS ISSUED.
- KEEP CLEAR ALL DEBRIS OR FILL, EQUIPMENT, AND MATERIAL FROM WITHIN THE REQUIRED PROTECTIVE BARRIER.
- DURING CONSTRUCTION, THE OWNER, DEVELOPER, OR AGENT SHALL NOT CAUSE OR PERMIT ANY ACTIVITY WITHIN THE FENCE LINE OF ANY PROTECTED TREE OR GROUP OF TREES, INCLUDING, BUT NOT LIMITED TO, THE STORAGE OF EQUIPMENT, DUMPSTERS, BOULDERS, DIRT, AND EXCAVATED MATERIAL, BUILDING OR WASTE MATERIAL, OR ANY OTHER MATERIAL HARMFUL TO THE LIFE OF A TREE.
- NO DAMAGING ATTACHMENT, WIRES (OTHER THAN CABLE WIRES FOR TREES), SIGNS, OR PERMITS MAY BE FASTENED TO ANY TREE PROTECTED BY THIS ORDINANCE.

TREE PROTECTION DETAIL

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Q.M. Review	---
Approved	J. Sala
Drawing Scale	

Issued for	Issue Date
Planning Commission Review	03-13-2026
Planning Commission Review	03-31-2026

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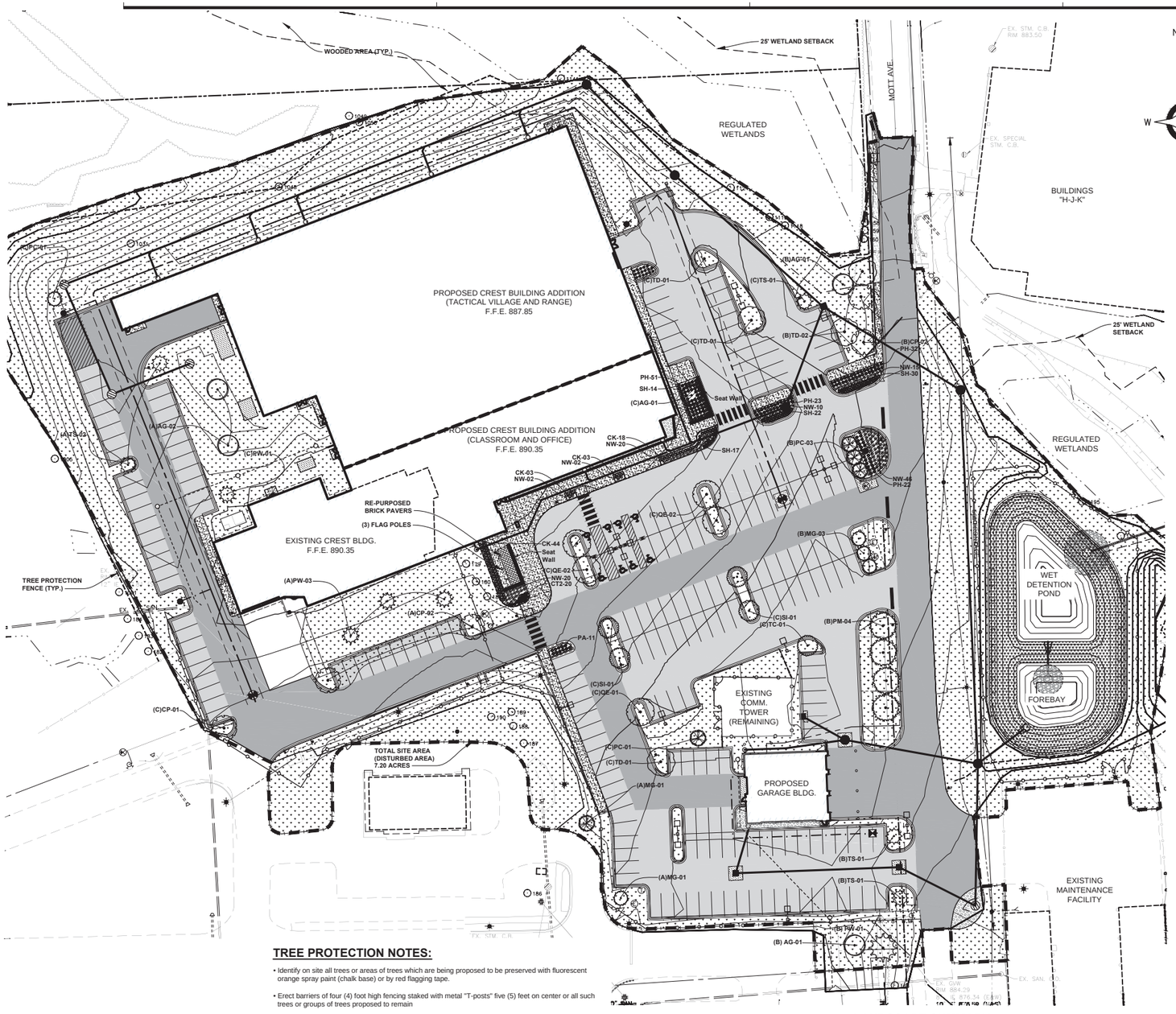
Engineering Site Plan - Tree Protection

AEW PROJECT NUMBER
0369-0085

IDS Project Number
23118-1000

OCC PROJECT NUMBER
AH-23-013

Drawing Number
C0.32



NORTH

W 1"=40' E

S



LOCATION MAP
NOT TO SCALE

NOTES:

1. ALL EVERGREEN TREES WILL BE PLANTED TOGETHER IN MULCH BEDS.
2. TREES WILL HAVE TREE DIAPERS.

PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
TREES						
	AG	5	Amelanchier x grandiflora	Autumn Brilliance	2.5" Cal.	Multi-Stemed
	CP	5	Celtis occidentalis	Hackberry	2.5" Cal.	B&B
	SI	5	gymnocladus dioicus	Kentucky Coffeetree	2.5" Cal.	B&B
	MG	5	Metasequoia glyptostroboides	Dawn Redwood	8` Ht.	B&B
	PC	5	Picea abies	Norway Spruce	8` Ht.	B&B
	PW	5	Pinus strobus	White Pine	8` Ht.	B&B
	QE	5	Quercus x 'Crimschmidt'	Crimson Spire™ Oak	2.5" Cal.	B&B
	TS	5	Taxodium distichum	Bald Cypress	8` Ht.	B&B
	PM	4	Thuja x 'Green Giant'	Green Giant Arborvitae	8` Ht.	B&B
	TD	5	Tilia americana	American Linden	2.5" Cal.	B&B
SHRUBS						
	CK	68	Calamagrostis x acutiflora 'Karl Foerster'	Karl Foerster Feather Reed Grass	1 gal.	POT
	CT2	20	Coreopsis verticillata 'Grandiflora'	Threadleaf Tickseed	1 gal.	POT
	NW	115	Nepeta x faassenii 'Walker's Low'	Walker's Low Catmint	1 gal.	POT
	PH	140	Pennisetum alopecuroides 'Hameln'	Hameln Fountain Grass	1 gal.	POT
	SH	84	Sporobolus heterolepis	Prairie Dropseed	1 gal.	POT

TEMPORARY COVER CROP SEED MIX
15 pounds per acre — Michigan Wildflower Farm

Scientific Name	Common Name	Oz./Acre
Anova sativa	Seed Oats	
Lolium multiflorum	Annual Rye	

DETENTION BASIN SEED MIX
6 pounds per acre — Michigan Wildflower Farm

Scientific Name	Common Name	Oz./Acre
FORBS		38
Anemone canadensis	Canada Anemone	
Angelica atropurpurea	Angelica	
Asclepias incarnata	Swamp Milkweed	
Eupatorium maculatum	Joe-Pye Weed	
Eupatorium perfoliatum	Boneset	
Helenium autumnale	Sneezeweed	
Hibiscus moscheutose	Swamp Rose Mallow	
Iris virginica	Southern Blue Flag	
Liatris spicata	Marsh Blazing Star	
Lobelia siphilitica	Great Blue Lobelia	
Rudbeckia fulgida	Sweet Black-eyed Susan	
Solidago graminifolia	Grass-leaved Goldenrod	
Symphyotrichum puniceum	Swamp Aster	
Verbena hastata	Blue Vervain	
Vernonia missurica	Ironweed	
GRASSES		58
Carex spp.	Carex species	
Elymus virginicus	Virginia Wild Rye	
Scirpus spp.	Scirpus species	
Sparganium eurycarpum	Common Bur Reed	

PROPOSED LEGEND

- STANDARD DUTY BIT. PAVT.
- HEAVY DUTY BIT. PAVT.
- CONC. PAVT.
- CONCRETE SIDEWALK W / CURB FACED WALK
- COBBLESTONES, 4"-8"
- SEEDED LAWN, TOPSOIL
- DETENTION BASIN SEED MIX, COVER CROP, TOPSOIL
- DOUBLE SHREDDED HARDWOOD MULCH, PLANT MIX
- CONC. CURB & GUTTER
- STORM SEWER
- SANITARY SERVICE LEAD
- WATER SERVICE LEAD
- WATER MAIN
- VINYL COATED, CHAIN LINK FENCE
- CATCH BASIN
- STORM MANHOLE
- LIGHT POLE
- HYDRANT
- GATE VALVE IN BOX (SERVICE LINE SHUTOFF)
- ALUMINUM EDGING

LAWN SEED MIX NOTE:

- Rhino MDOT Highway Class A Grass Seed mix (per pound)
- 40% CREEPING RED FESCUE
- 30% PERENNIAL RYEGRASS
- 30% KENTUCKY BLUEGRASS
- Mixes 5-7 lbs. per 1,000 sq. ft.
- Premier grass seed for along roadways 6-7 lbs./1000 sq. ft. If overseeding, 2-3 lbs./1000 sq. ft

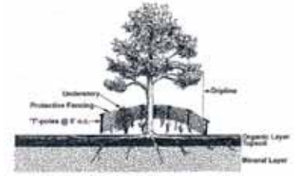
LANDSCAPE/TREE REPLACEMENT NOTES:

- All installed trees are to have a straight trunk.
- All installed trees are to be northern grown.
- All installed trees are to be State Department of Agriculture Nursery Grade No. 1 or better.
- All replacement trees are considered protected regardless of size.
- All trees shall be guaranteed for a minimum of two years.
- All landscaped areas shall be irrigated with an underground sprinkler system

TREE PROTECTION NOTES:

- Identify on site all trees or areas of trees which are being proposed to be preserved with fluorescent orange spray paint (chalk base) or by red flagging tape.
- Erect barriers of four (4) foot high fencing staked with metal "T-posts" five (5) feet on center or all such trees or groups of trees proposed to remain
- Protective barriers are to be erected prior to any clearing or grubbing on the site, and barriers are to remain in tact until approved by the City to be removed, or when a Certificate of Occupancy is issued.
- Keep clear all debris or fill, equipment, and material from within the required protective barrier.
- During construction, the owner, developer, or agent shall not cause or permit any activity within the fence line of any protected tree or group of trees, including, but not limited to, the storage of equipment, dumpsters, boulders, dirt, and excavated material, building or waste material, or any other material harmful to the life of a tree.
- No damaging attachment, wires (other than cable wires for trees), signs, or permits may be fastened to any tree protected by this Ordinance.

TREE PROTECTION DETAIL:



LANDSCAPE SUMMARY

Total Site Area (Disturbed Area) — 7.20 acres

REQUIREMENT	REQUIRED	PROVIDED
Net Landscape Area	20% of Net Area, including 50% wetland area credit toward landscaping calculation: 7.20 acres x 0.2 = 1.44 acres	2.34 acres
Site Area Landscaping	1 tree (mix) / 1,000 s.f. required Landscape Area: 62,726 s.f. / 1,000 = 63 trees	2 trees (A)
Frontage Landscaping	1 tree (mix) / 30 l.f. of required Greenbelt length: 568 feet / 30 = 19 trees	19 trees (B)
Parking Interior Landscaping	1 tree (deciduous) / 20 spaces in a row: 233 spaces in a row = 12 trees	12 trees (C)
Total Landscape Trees Provided	49 trees	49 trees
Total Replacement Trees	174 trees Required total	125 trees needed
Trees Provided Campus Plan		125 trees provided

TREE REPLACEMENT SUMMARY

DESCRIPTION	SURVEYED TREES	REPLACEMENT TREES
Non-Regulated (Protected) Trees	42	0
Removed - Landmark Trees (93.5")	3	9
Removed - Regulated Trees	165	165
Saved Trees (Regulated)	28	0
Total	238	174

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Project Title

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CREST Center Addition and Renovations
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Key Plan



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Project Designer	J. Sala
Project Architect / Engineer	J. Sala
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AEW Drawing Title

Overall Landscape Plan

AEW PROJECT NUMBER
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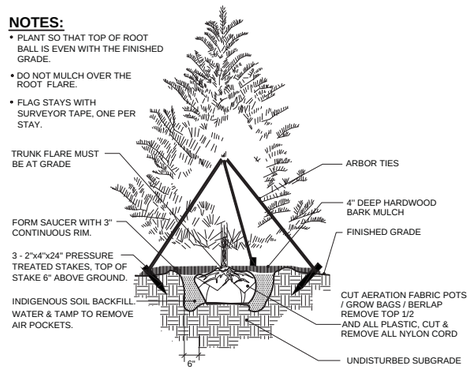
IDS Project Number
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OCC PROJECT NUMBER
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Drawing Number
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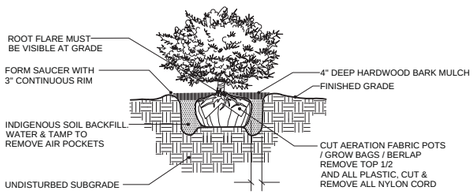
NOTES:

- PLANT SO THAT TOP OF ROOT BALL IS EVEN WITH THE FINISHED GRADE.
- DO NOT MULCH OVER THE ROOT FLARE.
- FLAG STAYS WITH SURVEYOR TAPE, ONE PER STAY.



EVERGREEN TREE PLANT DETAIL

NO SCALE

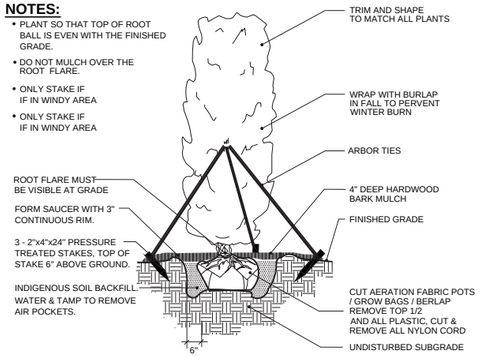


SHRUBS PLANTING DETAIL

NO SCALE

NOTES:

- PLANT SO THAT TOP OF ROOT BALL IS EVEN WITH THE FINISHED GRADE.
- DO NOT MULCH OVER THE ROOT FLARE.
- ONLY STAKE IF IF IN WINDY AREA
- ONLY STAKE IF IF IN WINDY AREA



EVERGREEN HEDGE PLANTING DETAIL

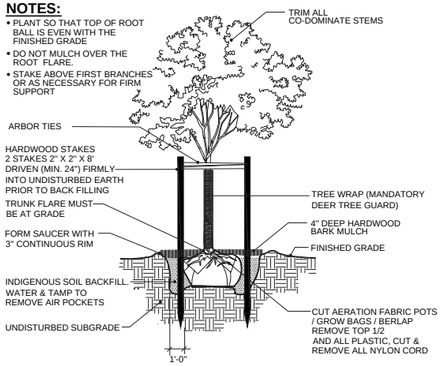
NO SCALE

ANTI-DESICCANT SPRAY GUIDE:

1. SPRAY IN LATE NOVEMBER OR EARLY DECEMBER AFTER EVERGREENS HAVE GONE DORMANT.
2. MONITOR THE FORECAST FOR RAIN. YOU DON'T WANT TO SPRAY ANTI-DESICCANTS BEFORE IT RAINS.
3. SPRAY ON A CLEAR DAY WITH TEMPERATURES ABOVE FREEZING, AROUND THE 40S OR 50S.
4. COVER LEAVES THOROUGHLY WITH THE ANTI-DESICCANT SPRAY.

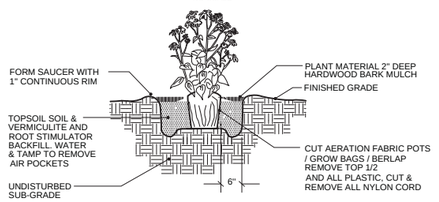
NOTES:

- PLANT SO THAT TOP OF ROOT BALL IS EVEN WITH THE FINISHED GRADE
- DO NOT MULCH OVER THE ROOT FLARE.
- STAKE ABOVE FIRST BRANCHES OR AS NECESSARY FOR FIRM SUPPORT



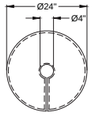
DECIDUOUS TREE PLANT DETAIL

NO SCALE

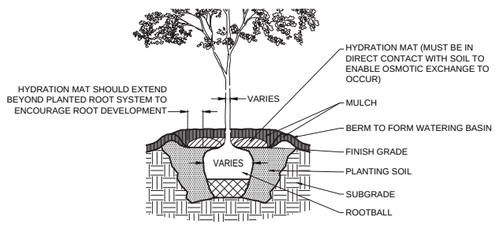


PERENNIAL PLANTING DETAIL

NO SCALE



PLAN VIEW



SECTION VIEW

TYPICAL INSTALL

NOTES:

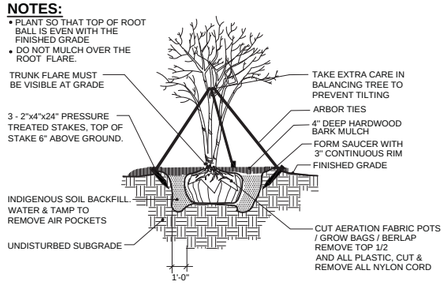
1. ALWAYS PLACE THE MAT WITH THE DARKER BLACK WOVEN SIDE FACING UP.
2. DO NOT PLACE ANY SOIL, DIRT, FINE SAND, COMPOST, IRON-BASED STAKES, OR TOMATO CAGES ON TOP OF TREEDIAPER® PRODUCT.
3. DIRECT CONTACT OF SOME TYPES OF FERTILIZERS WITH THE MATERIAL IN USE OR IN STORAGE MAY ALSO TEMPORARILY OR PERMANENTLY AFFECT THE PERFORMANCE OF THE PRODUCT.
4. DO NOT POKE TREEDIAPER PRODUCTS WITH STICKS.
5. TREEDIAPER IS DESIGNED TO HAVE LIGHT TO MEDIUM MULCH TO COVER UNIT AFTER INSTALLATION OF TREE.
6. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

TREE DIAPER DETAIL

NO SCALE

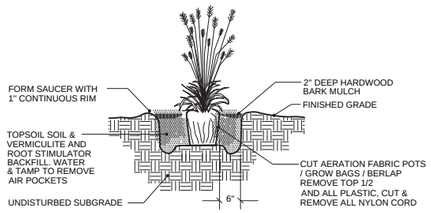
NOTES:

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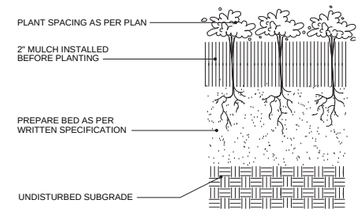
MULTI-STEM TREE PLANT DETAIL

NO SCALE



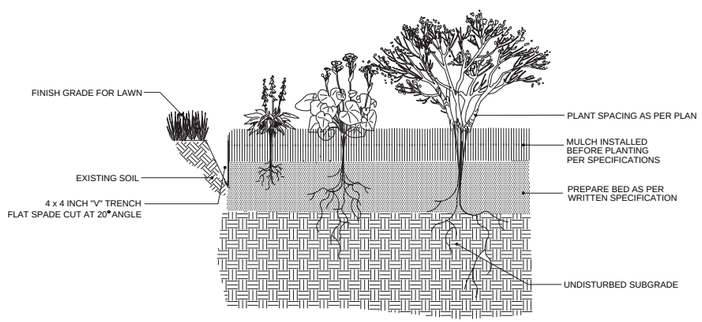
ORNAMENTAL GRASS PLANTING DETAIL

NO SCALE



GROUNDCOVER PLANTING DETAIL

NO SCALE



LANDSCAPE BED TYP. EDGING DETAIL

NO SCALE

GENERAL LANDSCAPE NOTES:

1. CONTRACTOR SHALL SUBMIT PLANT AND SEED MIX MATERIALS LIST TO OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO INSTALLATION. ANY SUBSTITUTIONS OF PLANT MATERIAL OR ALTERATION IN PLANT SIZES OR SPECIFICATION TO BE APPROVED BY THE OWNER'S REPRESENTATIVE.
2. CONTRACTOR SHALL SUBMIT STONE AND MULCH MATERIAL SAMPLES TO OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO INSTALLATION.
3. ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF LOCAL ORDINANCES.
4. INSTALLATION OF PLANT MATERIAL SHALL BE IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK.
5. ALL CONSTRUCTION AND PLANT MATERIAL LOCATION SHALL BE ADJUSTED ON SITE IF NECESSARY AS APPROVED BY THE OWNER'S REPRESENTATIVE.
6. ALL PLANTING AREAS SHALL BE FREE OF WEEDS, PREPARED WITH APPROPRIATE SOIL MIXTURES, AND FERTILIZED PRIOR TO PLANT INSTALLATION.
7. PROVIDE CLEAN BACKFILL SOIL, USING MATERIAL STOCKPILED ON SITE. SOIL SHALL BE SCREENED AND FREE OF ANY DEBRIS, FOREIGN MATERIAL, AND STONE.
8. PLANTS SHALL BE FULL, WELL-BRANCHED, AND IN HEALTHY VIGOROUS GROWING CONDITION FREE OF DISEASE AND INSECTS OR THEIR EGGS.
9. REMOVE ALL TWINE, WIRE, AND BURLAP FROM TREE AND SHRUB EARTH BALLS, AND FROM TREE TRUNKS.
10. DIG SHRUB PITS 1' LARGER THAN SHRUB ROOT BALLS AND TREE PITS 2' LARGER THAN ROOT BALL. BACK FILL WITH ONE PART TOP SOIL AND ONE PART SOIL FROM EXCAVATED PLANTING HOLE.
11. TRUNK FLARE OF ALL WOODY MATERIAL SHALL BE EXPOSED.
12. PLANT MATERIAL, ESPECIALLY EVERGREENS, SHALL BE PLANTED HIGHER THAN NORMAL WHEN HEAVY SOIL CONDITIONS (CLAY, ETC.) PREVAIL.
13. PLANTS SHALL BE WATERED BEFORE AND AFTER PLANTING IS COMPLETE.
14. ALL LARGE TREES AND EVERGREENS SHALL BE STAKED, GUYED, AND WRAPPED PER DETAILS SHOWN ON PLAN.
15. NO TREES OR EVERGREENS SHALL BE INSTALLED OVER ANY PROPOSED OR EXISTING UTILITY LINES AS SHOWN ON THE OVERALL LANDSCAPE PLAN. SEE UTILITY PLAN FOR EXACT LOCATION AND DETAILS.
16. ALL PLANT BEDS SHALL BE DRESSED WITH MINIMUM 4" DEPTH ORGANIC DOUBLE SHREDDED HARDWOOD MULCH.
17. DETENTION BASIN SEED MIX AREA SHALL INCLUDE TEMPORARY COVER CROP SEED MIX.

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Project Title

OAKLAND COMMUNITY COLLEGE
Oakland Community College

CREST Center
Addition and Renovations
Project Address:
2900 Featherstone Rd.
Auburn Hills, MI 48326

Key Plan



Project Administrator	V. Grant
Project Designer	J. Sala
Project Architect / Engineer	J. Sala
Drawn By	J. King
Q.M. Review	---
Approved	J. Sala
Drawing Scale	1" = 40'

Issued for	Issue Date
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AEW Drawing Title

Overall Landscape Details

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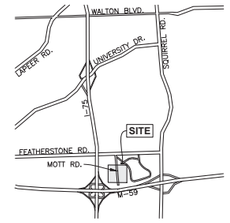
DTE Project Number
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OCC PROJECT NUMBER
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Drawing Number
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Project Designer	J. Sala
Project Architect / Engineer	J. Sala
Drawn By	J. King
Q.M. Review	---
Approved	J. Sala
Drawing Scale	1" = 150'

Issued for	Issue Date
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AEW Drawing Title

Campus Landscape Plan for Replacement Trees

AEW PROJECT NUMBER
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IDS Project Number
23118-1000

OCC PROJECT NUMBER
AH-23-013

Drawing Number
C0.50

UTILITY INFORMATION, AS SHOWN, INDICATES APPROXIMATE LOCATIONS AND TYPES OF EXISTING FACILITIES ONLY, AS DISCLOSED BY RECORDS PROVIDED TO THIS FIRM FROM THE VARIOUS UTILITY COMPANIES. NO GUARANTEE IS GIVEN OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF.

PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING OVERHEAD AND UNDERGROUND UTILITIES (IN CONFLICT WITH THE CONSTRUCTION OF THESE PROPOSED IMPROVEMENTS) SHALL BE VERIFIED IN THE FIELD. DURING THE CONSTRUCTION, THE CONTRACTOR SHALL PROTECT AND SUPPORT ALL UTILITIES THAT ARE ENCOUNTERED. (ALL COSTS FOR UTILITY LOCATION VERIFICATION, SUPPORT AND PROTECTION SHALL BE INCLUDED IN THE PROPOSED PAY ITEM CONFLICTING WITH THAT UTILITY).

DURING CONSTRUCTION, THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN OPERATING NEAR ANY AND ALL OVERHEAD AND / OR BURIED UTILITIES.

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LANDSCAPE SUMMARY

Total Site Area (Disturbed Area)		7.20 acres
REQUIREMENT	REQUIRED	PROVIDED
Net Landscape Area	20% of Net Area, including 50% wetland area credit toward landscaping calculation: 7.20 acres x 0.2 = 1.44 acres	2.34 acres
Site Area Landscaping	1 tree (mix) / 1,000 s.f. required Landscape Area: 62,726 s.f. / 1,000 = 63 trees	2 trees (A)
Frontage Landscaping	1 tree (mix) / 30 l.f. of required Greenbelt length: 568 feet / 30 = 19 trees	19 trees (B)
Parking Interior Landscaping	1 tree (deciduous) / 20 spaces in a row: 233 spaces in a row = 12 trees	12 trees (C)
Total Landscape Trees Provided	49 trees	49 trees
Total Replacement Trees	174 trees Required total	125 trees needed
Trees Provided Campus Plan		125 trees provided

TREE REPLACEMENT SUMMARY

DESCRIPTION	SURVEYED TREES	REPLACEMENT TREES
Non-Regulated (Protected) Trees	35	0
Removed - Landmark Trees (93.5")	3	9
Removed - Regulated Trees	165	165
Saved Trees (Regulated)	11	0
Total	206	174

NOTES:

1. ALL EVERGREEN TREES WILL BE PLANTED TOGETHER IN MULCH BEDS.
2. TREES WILL HAVE TREE DIAPERS.

PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
TREES						
	AG	11	Amelanchier x grandiflora	Autumn Brilliance	2.5" Cal.	Multi-Stemed
	CP	12	Celtis occidentalis	Hackberry	2.5" Cal.	B&B
	SI	12	gymnocladus dioicus	Kentucky Coffeetree	2.5" Cal.	B&B
	MG	11	Metasequoia glyptostroboides	Dawn Redwood	8` Ht.	B&B
	PC	11	Picea abies	Norway Spruce	8` Ht.	B&B
	PW	12	Pinus strobus	White Pine	8` Ht.	B&B
	QB	10	Quercus bicolor	Swamp White Oak	2.5" Cal.	B&B
	QE	12	Quercus x 'Crimschmidt'	Crimson Spire™ Oak	2.5" Cal.	B&B
	TS	12	Taxodium distichum	Bald Cypress	8` Ht.	B&B
	PM	11	Thuja x 'Green Giant'	Green Giant Arborvitae	8` Ht.	B&B
	TD	11	Tilia americana	American Linden	2.5" Cal.	B&B

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BUILDING INFORMATION - CREST

MIXED USE AND OCCUPANCY, NONSEPARATED

		MBC	NFPA
Type of Construction		IIB	IIIB(NS)
Occupancy Group	Most Restrictive	A-3	-
	Other	B	-
		B-1	-
Total Allowable Area - Unlimited Area Building (507.5)		UNLIMITED SF/story	

Project Floor Area

	Existing	Proposed	Level 3 Alteration		Total
First Floor	10,731 SF	60,103 SF	4,197 SF	39%	70,831 SF
Mezzanine	4 SF	7,213 SF	0 SF		7,313 SF
Observation Level	0 SF	840 SF	0 SF		840 SF
Sub-total	10,731 SF	68,053 SF	4,197 SF	39%	79,784 SF

	MBC	
Tabular Allowable Building Height (MBC Table 504.3)	75	Feet
Tabular Story Limitations (MBC Table 504.4)	1	Stories above grade plane
Project Building Height	27'-0"	**Feet**
Project Number of Stories above grade plane	1	**Stories above grade plane**

LIFE SAFETY SYSTEMS

High-Rise Buildings:		
Applicability		Yes / No
Refer to definition for height criteria. MBC Section 403.1		
Lowest Level of Fire Department Vehicle Access	elevation	0.00 feet
Highest Occupiable Floor	elevation	0.00 feet
		0.00 feet
Fire Protection System Requirements:		
Automatic Sprinkler Systems (MBC Section 903 / NFPA - See Occupancy Chapters & 9.7.1 / NFPA 13)		Full / Partial / None
Standpipe Systems (MBC Section 905 / NFPA - See Occupancy Chapters / NFPA 14)		Required / Not Requird
Fire Pumps		Required / Not Requird
Fire Hazard Occupancy		Light (Low) / Ordinary (Moderate) / Extra (High)
Portable Fire Extinguishers (MBC Section 906 / IFC Section 906 / NFPA See Occupancy Chapters & 9.7.4)		Required / Not Requird / Special Hazard Areas Only
Fire Alarm and Detection System... Manual Fire Alarm System (MBC Section 907 / NFPA See Occupancy Chapters & 9.6)		Required / Not Requird
Emergency Voice/Alarm Communication System (MBC Section 907.2.1.1 / MBC Section 907.5.2.2)		Required / Not Requird

FIRE RATINGS AND SEPARATIONS

		MBC	NFPA
Primary Structural Frame		0 hr Table 601	0 hr NFPA 220/NFPA 5000 7.2.1.1
Bearing Walls			
Exterior		0 hr Table 601	0 hr NFPA 220
Interior		0 hr Table 601	0 hr NFPA 220
Nonbearing Walls and Partitions			
Exterior	10' Fire Separation Distance	0 hr Table 705.5	0 hr NFPA 220
Interior		0 hr Table 705.5	0 hr NFPA 220
Floor Construction and Associated Secondary Members		0 hr Table 601	0 hr NFPA 220
Roof Construction and Associated Secondary Members		0 hr Table 601	0 hr NFPA 220
Separation of Occupancies		N/A hr Table 508.4	N/A hr See Occupancy Chapters
Allowable Area Separations (Fire Walls)		2 hr Table 706.4	N/A hr Section 8.2.1.3
Fire Area Separations (Fire Barriers)		2 hr Table 707.3.10	N/A hr Section 8.3
Corridors (Fire Partitions)	N/A Smoke Tight Sprinklered	0 hr Section 102	0 hr See Occupancy Chapters
Smoke Compartments (Smoke Barriers)		1 hr Section 7.03	1 hr Section 8.4

Incidental Use Areas		MBC Section 509	NFPA See Occupancy Chapters
Furnace Room	Sprinklered or	1 hr	1 hr
Boiler Room	Sprinklered or	1 hr	1 hr
Refrigerant Machinery Room	Sprinklered or	1 hr	
Hydrogen Cutoff Room		2 hr	
Incinerator Room	Sprinklered AND	2 hr	
Paint Shops	Sprinkled 1 hr or	2 hr	
Laboratories and Vocational Shops	Sprinklered or	1 hr	N/A hr
Laundry Room >100sf	Sprinklered or	1 hr	N/A hr
Waste and Linen Collection Room	Sprinklered or	1 hr	
Stationary storage battery systems		2 hr	

INTERIOR FINISH REQUIREMENTS

	MBC	NFPA
Interior Wall and Ceiling Finish Requirements	Table 803.13	101 - 12.3.3
Interior exit stairways, ramps and passageways	B	A
Corridors and exit access stairways and ramps	B	B
Rooms and Enclosed Spaces	C	C

	MBC	NFPA
Interior Floor Finish Requirements	Section 804.4	See Occupancy Chapters
	Class II	ASTM D 2859

MEANS OF EGRESS

	MBC	NFPA	MRCEB
Assembly Occupancy (Sprinklered)			
Exit Access Travel Distance	250 ft Table 1017.2	250 ft Section 12.2.5.2	
Common Path of Egress Travel	75 ft Table 1006.2.1	75 ft Section 12.2.5.3.3	
Dead End Corridors	20 ft Section 1020.4	20 ft Section 12.2.5.3.5	N/A ft Section 804.7
Business Occupancy (Sprinklered)	MBC	NFPA	
Exit Access Travel Distance	300 ft Table 1017.2	300 ft Section 38.2.6.1	
Common Path of Egress Travel	100 ft Table 1006.2.1	100 ft Section 38.2.5.3	
Dead End Corridors	50 ft Section 1020.5	50 ft Section 38.2.5.5	N/A ft Section 804.7
Storage Occupancy	MBC	NFPA	
Exit Access Travel Distance	200 ft Table 1017.2	200 ft Table 42.2.6	
Common Path of Egress Travel	100 ft Table 1006.2.1	50 ft Table 42.2.5	
Dead End Corridors	20 ft Section 1020.5	50 ft Table 42.2.5	N/A ft Section 804.7
Egress width per occupant	MBC	NFPA	
Stairways	0.3 in Section 1005.3.1	0.3 in Table 7.3.3.7	
Other Egress Components	0.2 in Section 1005.3.2	0.2 in Table 7.3.3.7	

Maximum Floor Area Allowances Per Occupant	MBC	NFPA
Accessory storage areas mechanical equipment...	300 sf Gross	300 sf Net
Bowling Center (Range Areas)	7 sf Net	sf Net/Gross
Business areas	100 sf Gross	100 sf Gross
Locker Rooms	50 sf Gross	50 sf Net
Exercise Rooms	50 sf Gross	50 sf Gross
Parking Garages	200 sf Gross	N/A sf Net/Gross
Assembly (Unconcentrated)	15 sf Net	15 sf Net

allow 5 persons for each lane including 15 feet of runway, and for additional areas

Tabular Occupant Loads

First Floor	679
Total	679

Exit Egress Capacity	Quantity	Width	MBC Capacity	NFPA Capacity
First Floor				
Doors	4 @	36 in	1,080	1,080
Stairs	0 @	0 in	0	0
Total			**1,080**	**1,080**

PLUMBING FIXTURE REQUIREMENTS

First Floor		Water Closets Male	Water Closets Female	Lavatories Male	Lavatories Female	Drinking Fountains
A-3 Occupancy (Wholly owned Transportation Facility)	679 occupants	1 per 125	1 per 65	1 per 200	1 per 200	1 per 500
		2.02	4.84	1.57	1.57	1.26
Business Occupancy	50 occupants	1 per 25 for first 50 then 1 per 50		1 per 40 for first 80 then 1 per 80		1 per 100
		1.00	1.00	0.63	0.63	0.50
		0.00	0.00	0.00	0.00	
Total Occupancy	**679 occupants**					
Total Required Fixtures:		**3.02**	**5.84**	**2.20**	**2.20**	**1.76**
Total Building Occupancy and fixture counts:	**679 occupants**	**6**	**6**	**3**	**3**	**2**
Proposed Fixtures: First Floor	Single Occupant	0	7	4	5	4

CODE INFORMATION

APPLICABLE CONSTRUCTION CODES AND STANDARDS

Jurisdictional Authority:
- Michigan Bureau of Construction Codes (BCC)
- Michigan Bureau of Fire Services (BFS)
- Local: Auburn Hills
- Other:

Zoning Ordinance:
- Municipality: Auburn Hills
- Classification: Technology & Research

Building Codes:	Year:	Enforcing Agency:
Michigan Building Code (MBC)	2021	AH
Michigan Rehabilitation Code for Existing Buildings (MRCEB)		
Fire Safety Rules for Schools, Colleges and Universities	2016	BFS
NFPA 101 2012 Edition		
Barrier Free:		
Michigan Barrier Free Code (A117.1)	2017	AH
Uniform Federal Accessibility Standards		
Americans with Disabilities Act		
Structural: Michigan Building Code	2021	AH
Mechanical: Michigan Mechanical Code	2021	AH
Plumbing: Michigan Plumbing Code	2021	AH
Fire Protection: NFPA 13, Sprinkler Systems	2019	BFS
Electrical: Michigan Electrical Code	2023	AH
Fire Alarm: NFPA 72, National fire Alarm Code	2019	BFS

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Project Title

OAKLAND COMMUNITY COLLEGE®

Oakland Community College

CREST Center Renovation and Addition

2900 Featherstone Road,
Auburn Hills, MI 48326

Key Plan

Project Administrator	V Grant
Project Designer	K. Aaderink
Project Architect / Engineer	K. Reynolds
Drawn By	K. Reynolds
QM Review	N. LaForest/C. Allick
Approved	B. Susdberg
Drawig Scale	AsNoted

Issued for	Issue Date
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Quality Management Review	04-1-2025
Bids	10-2-2025
Planning Commission Review	03-1-2026

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Life Safety & Building and Code Information

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BUILDING INFORMATION - GARAGE

SINGLE USE AND OCCUPANCY

		MBC	NFPA
Type of Construction		1B	NONE
Occupancy Group		S-1	--
Tabular Building Area (MBC Table 506.2) (Ab)	NS S-1 or M:	17,500 SF/story 0 SF/story	
Frontage Increase (MBC Table 506.3.3)		0.25	
Allowable Area (Aa)	**Non-sprinklered** **Fully Sprinklered**	**17,500 SF/story** **0 SF/story**	

Project Floor Area	Existing	Proposed	Level 2 Alteration	Total
First Floor	0 SF	2,906 SF	0 SF	2,906 SF
Sub-total	0 SF	2,906 SF	0 SF	2,906 SF

	MBC
Tabular Allowable Building Height (MBC Table 504.3)	55 Feet
Tabular Story Limitations (MBC Table 504.4)	2 Stories above grade plane
Project Building Height	**37 Feet**
Project Number of Stories above grade plane	**1 Stories above grade plane**

LEGEND

LIFE SAFETY
NOTE: NOT ALL SYMBOLS MAY BE USED

EXIT
000/000 — EXIT CAPACITY / TABULAR OCCUPANT LOAD

1-HR FIRE-RATED PARTITION

2-HR FIRE-RATED PARTITION

3-HR FIRE-RATED PARTITION

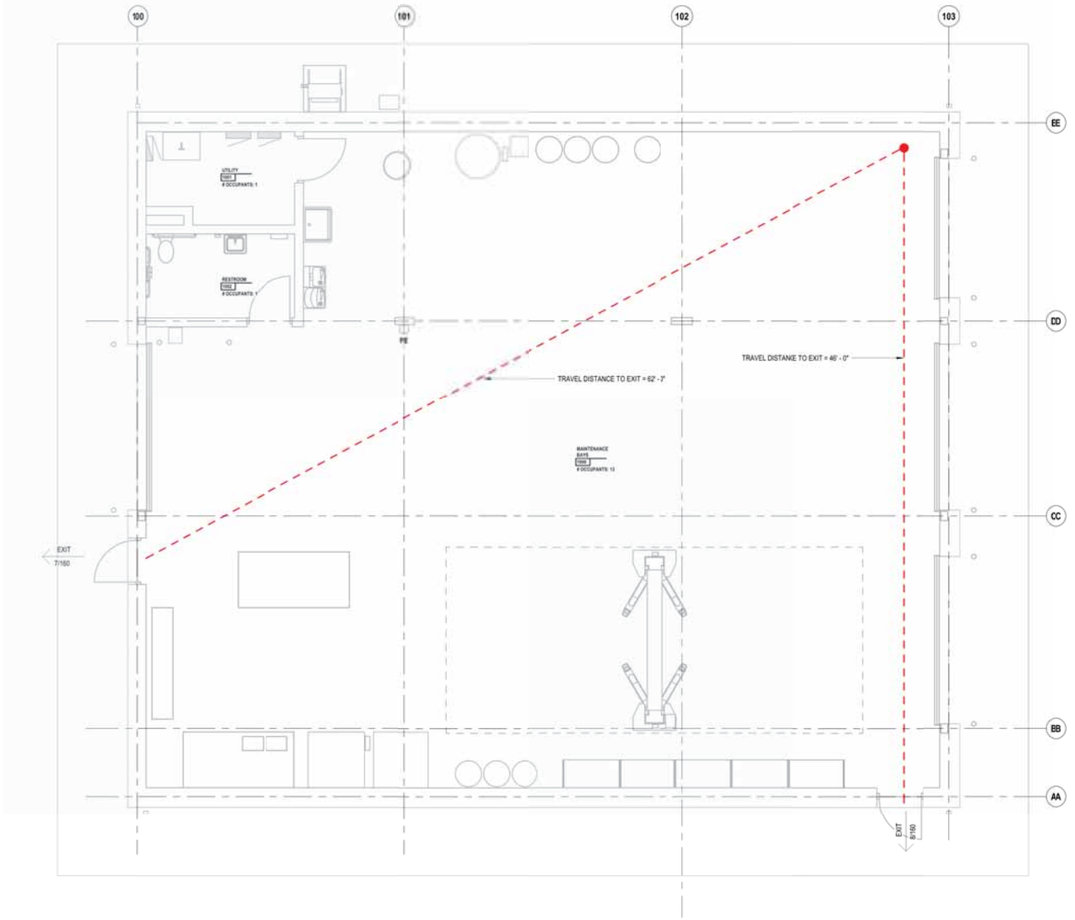
SMOKE TIGHT PARTITION

1 HR FIRE RATED CEILING CONSTRUCTION

TACTICAL VILLAGE EXTENTS - TOTAL OCCUPANTS INCLUDED IN ROOM 200

FEC — FIRE EXTINGUISHER CABINET

FE — BRACKET-MOUNTED FIRE EXTINGUISHER



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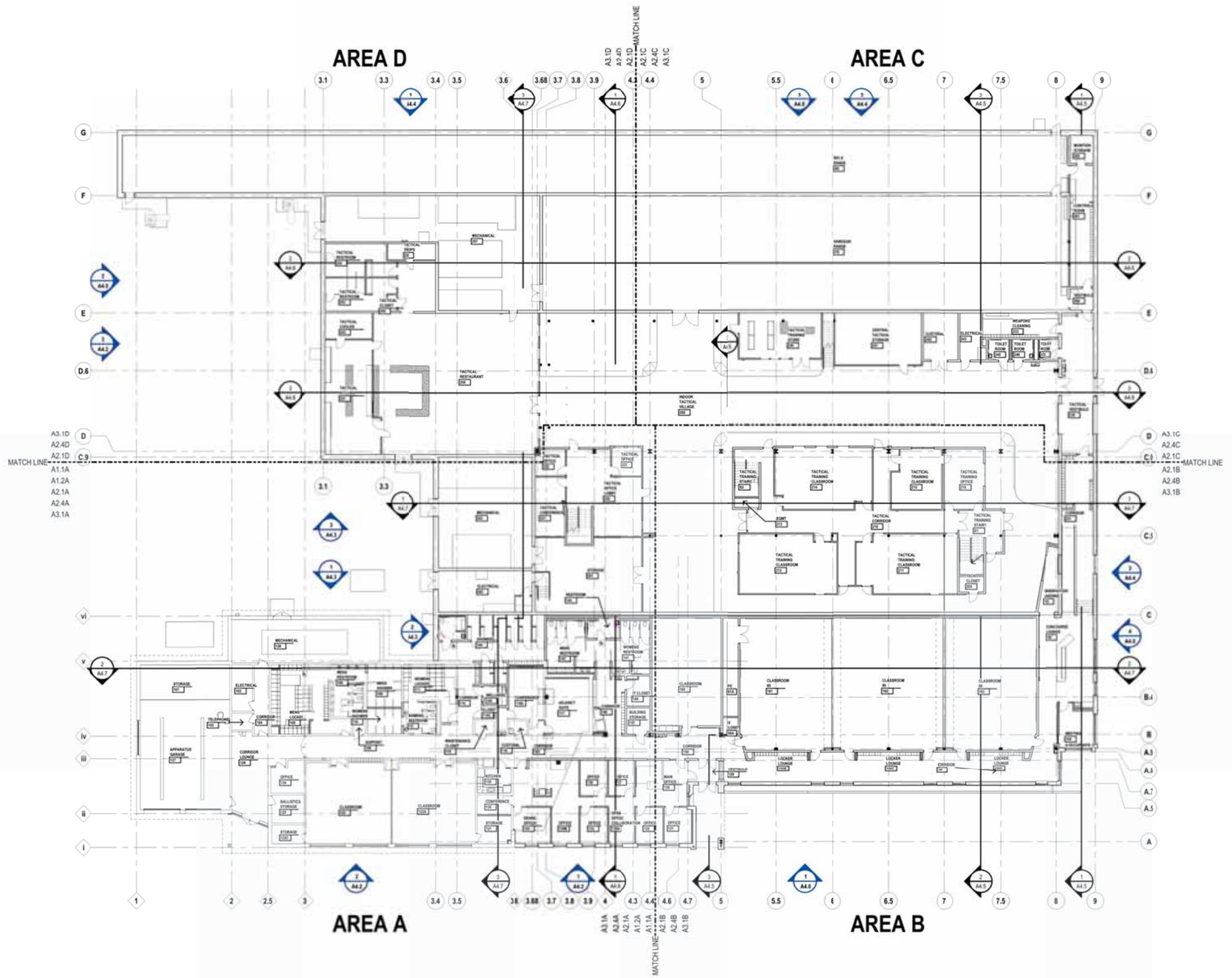
Maintenance Garage Life Safety Plan

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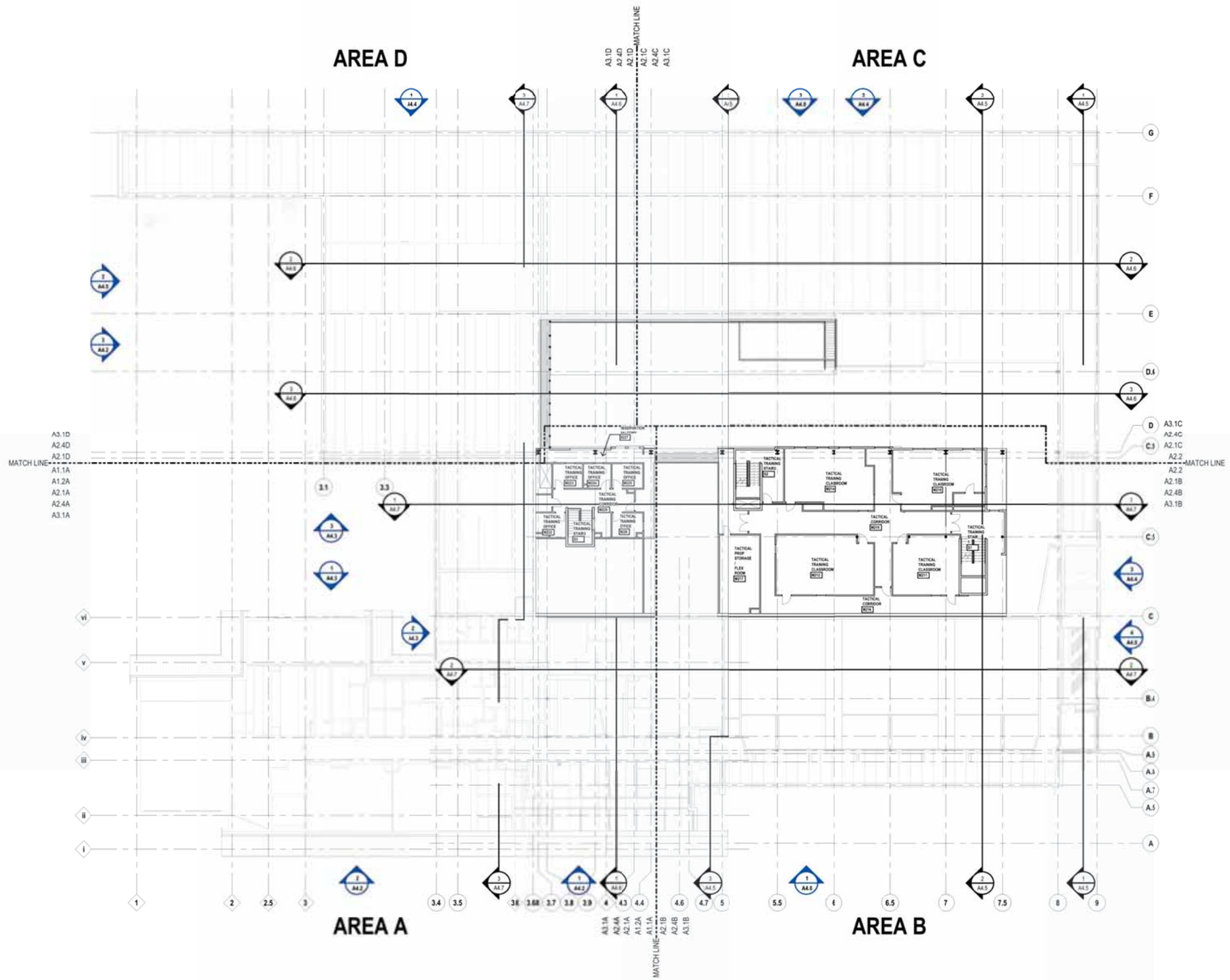
First Floor Composite Plan

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Drawing Number
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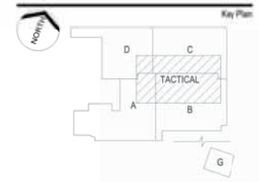
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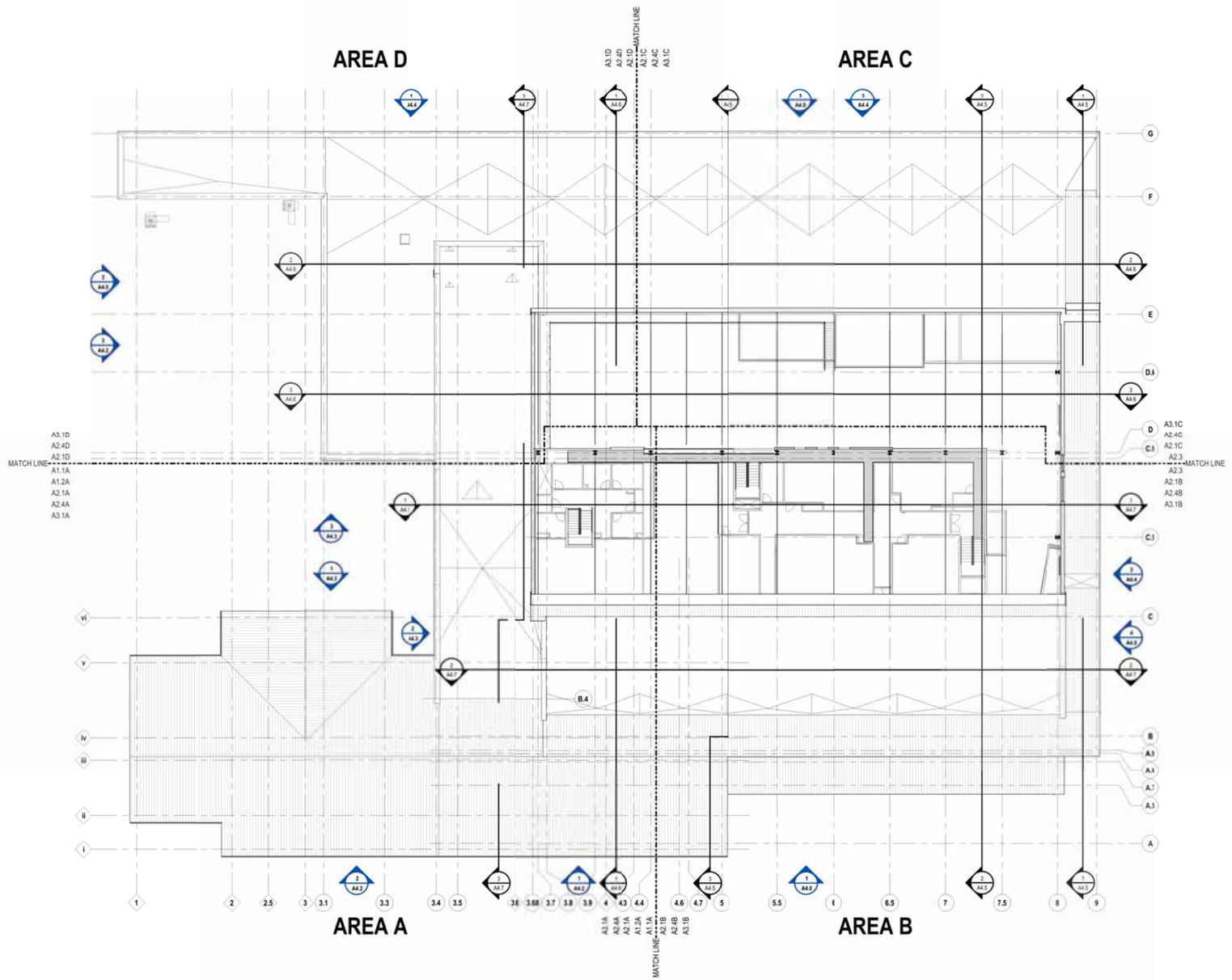
IDS Drawing Title

Mezzanine Composite Plan

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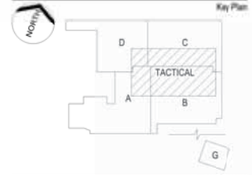
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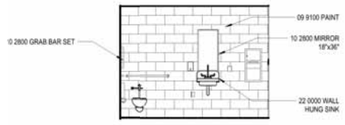
Observation Level Composite Plan

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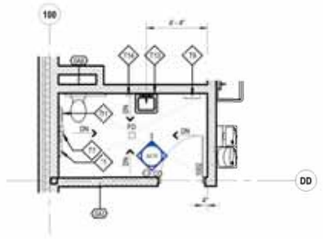
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Drawing Number
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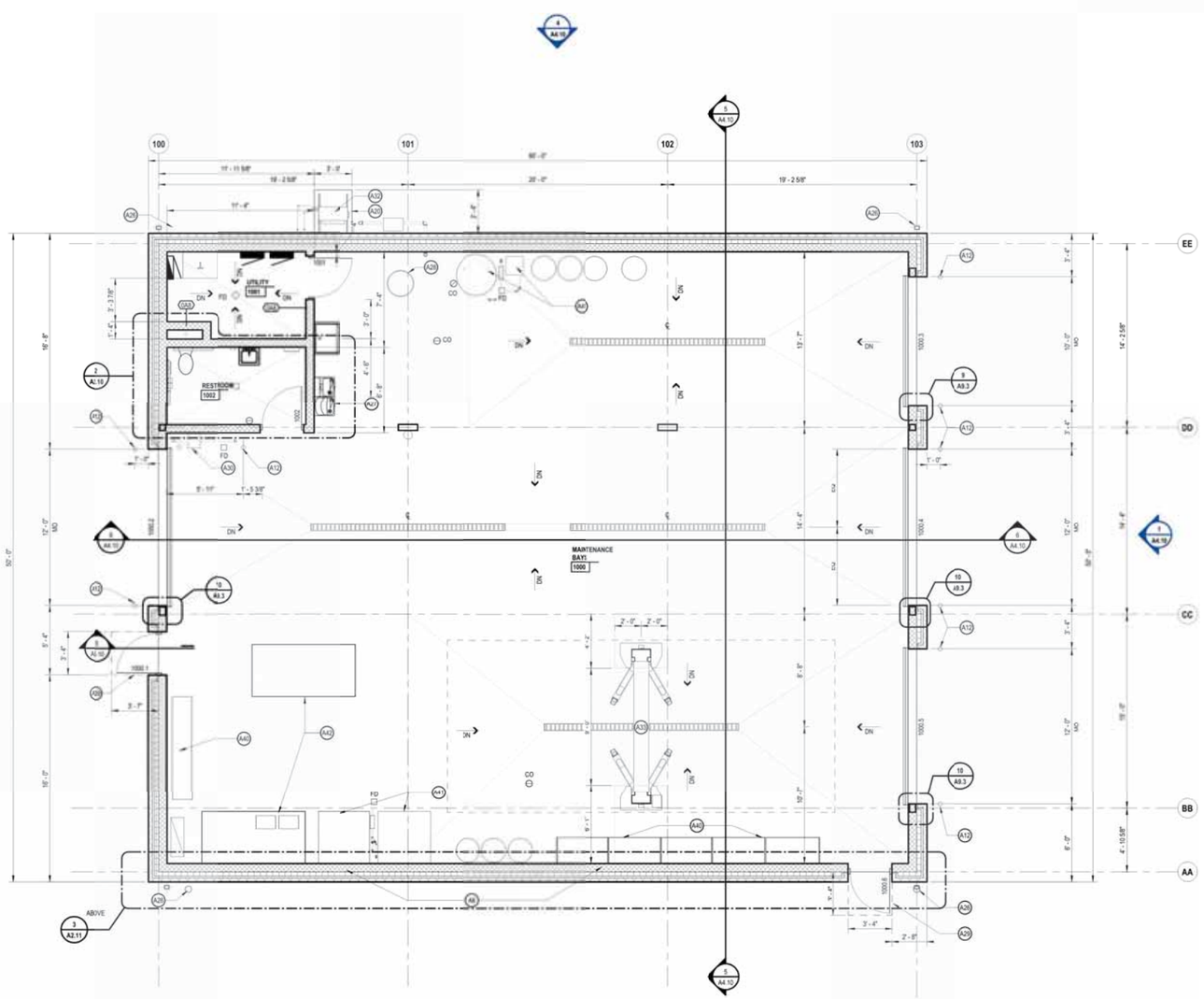
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3 A2.10 RESTROOM
1/4" = 1'-0"



2 A2.10 GARAGE RESTROOM CALLOUT
1/4" = 1'-0"



1 A4.10 MAINTENANCE GARAGE FLOOR PLAN
1/4" = 1'-0"

LEGEND

TOILET ACCESSORIES
SHADED ITEMS HAVE BEEN REVISED FROM PREVIOUS
NOTE: NOT ALL KEYNOTES MAY BE USED

REFER TO SPECIFICATION SECTION 10 2800 FOR ADDITIONAL INFORMATION ALL TOILET ACCESSORIES ARE CONTRACTOR FURNISHED AND INSTALLED UON
(OFCI): OWNER FURNISHED/OWNER INSTALLED
(OFCI): OWNER FURNISHED/CONTRACTOR INSTALLED
REFER TO DRAWING A8.0 FOR TYPICAL MOUNTING HEIGHTS

◇ LEGEND SYMBOL INDICATOR

- T1 GRAB BAR SET 1 (1) GRAB BAR TYPE 1, (1) GRAB BAR TYPE 2, (1) GRAB BAR TYPE 3
- T7 TOILET PAPER DISPENSER, OFCI
- T9 PAPER TOWEL DISPENSER AND WASTE RECEPTACLE, OFCI
- T10 PAPER TOWEL DISPENSER AND WASTE RECEPTACLE, OFCI
- T11 SANITARY NAPKIN DISPOSAL
- T12 ELECTRIC HAND DRYER
- T13 MIRROR
- T14 SOAP DISPENSER, WC
- T20 SHOWER CURTAIN AND ROD
- T21 TOWEL HOOK
- T23 DIAPER CHANGING STATION

GENERAL NOTES

NEW WORK PLAN

A. REFER TO SHEET A52 FOR DOOR SCHEDULE AND COLORS.

B. REFER TO SHEET A51 FOR FINISH SCHEDULE AND COLORS.

C. REFER TO LIFE SAFETY PLANS FOR PARTITION RATINGS.

D. PARTIAL WALL POCKEING IS SHOWN THROUGHOUT THIS PLAN AND THE TERMINATION OF SAME SHALL NOT BE CONSTRUED TO REPRESENT A CHANGE IN WALL MATERIAL. VERIFY WALL MATERIALS WITH PARTITION TYPES AND SCHEDULES.

E. PATCH AND/OR REPAIR ALL EXISTING FLOOR, WALL AND OR CEILING FINISHES AS REQUIRED TO MATCH EXISTING OR TO ACCEPT NEW FINISHES AS SCHEDULED AT ALL AREAS AFFECTED BY THE DEMOLITION WORK. REFER TO MECHANICAL AND ELECTRICAL SHEETS FOR ADDITIONAL SCOPE OF WORK.

F. INFILL ALL OPENINGS IN EXISTING WALLS ABOVE CEILINGS THAT ARE THE RESULT OF MECHANICAL OR ELECTRICAL DEMOLITION. OPENINGS IN MASONRY WALLS SHALL BE FILLED WITH MASONRY OF SIMILAR TYPES AND THICKNESS AS EXISTING. OPENINGS IN OTHER TYPES OF WALL CONSTRUCTION SHALL MATCH EXISTING MATERIALS, FINISHES AND WALL THICKNESS. REFER TO MECHANICAL AND ELECTRICAL SHEETS FOR SCOPE OF WORK.

G. PROVIDE POSITIVE SLOPE TO ALL FLOOR DRAINS WHILE KEEPING FLOOR LEVEL AT WALL BASE.

H. COORDINATE SIZE AND LOCATION OF ALL ACCESS DOORS WITH TRADES REQUIRING SAME. QUANTITIES SHOWN DO NOT NECESSARILY REPRISENT ALL ACCESS DOORS REQUIRED FOR ACCESSIBILITY.

LEGEND

NEW WORK PLAN
NOTE: NOT ALL SYMBOLI MAY BE USED

- EXISTING CONSTRUCTION
- NEW CONSTRUCTION
- XXX PARTITION TYPE - REFER TO PARTITION DETAILS SHEET A6.#
- SHALL COMPLY WITH BARRIER FREE REQUIREMENTS
- XXXX CASEWORK/ MILLWORK TAG
- XXXX SIGN NUMBER - NOT USED
- XXXX 10 1100 VISUAL DISPLAY SURFACE MK= MARKERBOARD, TK=TACKBOARD XXXX INDICATES BOARD SIZE
- XXXX NOT USED
- W1.1 12 2413 ROLLER WINDOW SHADE
- CORNER GUARD

KEYNOTES

NEW WORK FLOOR PLAN
SHADED ITEMS HAVE BEEN REVISED FROM PREVIOUS
NOTE: NOT ALL KEYNOTES MAY BE USED

(#) LEGEND SYMBOL INDICATOR

- A4 APPROXIMATE LOCATION OF EXISTING SLAB EDGE - VIF
- A5 CLERESTORY WINDOWS ABOVE - SILL HEIGHT 7'-4" AFF
- A6 CLERESTORY WINDOWS ABOVE - SILL HEIGHT 10'-0" AFF
- A7 05 5313 METAL CATWALK - COORDINATE EXTENTS WITH STRUCTURAL
- A9 05 5000 ROOF LADDER
- A10 10 4413 RECESSED FIRE EXTINGUISHER CABINET
- A11 10 4413 WALL-MOUNTED FIRE EXTINGUISHER CABINET
- A12 05 5000 STEEL PIPE BOLLARD
- A13 10 5113 METAL LOCKERS
- A20 EXTERIOR HOUSEKEEPING PAD, COORDINATE WITH CIVIL DOCUMENTS, FINAL EQUIPMENT SIZE
- A21 26 0533 PROVIDE GROMMETS FOR WIRING
- A22 TACTICAL PROP CASEWORK - FOR REFERENCE ONLY - NOT IN CONTRACT
- A23 22 0000 TACTICAL PROP TOILET - BOLTED TO FLOOR - BOLT SHUF - DO NOT PLUMB
- A24 03 3000 HOUSEKEEPING PAD
- A25 EXISTING FLOOR DRAIN - REFER TO MECHANICAL
- A26 07 7100 DOWNSPOUT - REFER TO MECHANICAL FOR BOOT
- A27 22 0000 DRINKING FOUNTAIN - PROVIDE ADA APRON - REFER TOMECH
- A28 22 0000 OIL INTERCEPTOR COVER - REFER TO MECH
- A29 03 3000 FROST BLOOK - REFER TO STRUCTURAL
- A30 22 0000 WATER METER - REFER TO MECHANICAL
- A31 11 6723 CLEARING TRAP - REFEER TO RANGE DESIGN DRAWINGS
- A32 23 0000 CONDENSER - REFER TO MECHANICAL
- A33 14 4513 VEHICLE SERVICE LIFT - COORDINATE CONCRETE FLOOR SLOPE WITH MOUNTING REQUIREMENTS
- A34 08 3455 BALLISTIC SLIDING DOOR - DEFAULT CLOSED POSITION
- A35 STRUCTURE (OVERHEAD)
- A36 FULLY GROUTED CMU WALL - REFER TO STRUCTURAL DRAWINGS
- A37 08 5660 BREACHING WINDOW
- A38 11 6723 DUST COLLECTION UNIT
- A39 AREAS REQUIRING CROSS BRACING TO CEILING - REFER TO STRUCTURAL
- A40 STORAGE SHELVING - N.I.C.
- A41 GARAGE EQUIPMENT, REFER TO MECH & ELEC FOR INFRSTRUCTURE
- A42 WORK BENCH, N.I.C.
- A43 EXISTING HOUSEKEEPING PAD, VERIFY DIMENSIONS IN FIELD

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Project Title

OAKLAND COMMUNITY COLLEGE®
Oakland Community College

CREST Center Renovation and Addition
2900 Featherstone Road,
Auburn Hills, MI 48326

Key Plan



Project Administrator	V Grant
Project Designer	K. Aaderink
Project Architect / Engineer	K. Reynolds
Dawn By	K. Reynolds
QM Review	N. LaForest/C. Allick
Approved	B. Susdberg
Drawig Scale	AsNoted

Issued for	Issue Date
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Quality Management Review	04-1-2025
Bids	10-2-.2025
Planning Commission Review	03-1-2026

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IDS Drawirg Title

Maintenance Garage Floor Plan

IDS Project Number
23118-1000
OCC Project Number
AH23-013

Drawing Number
A2.10

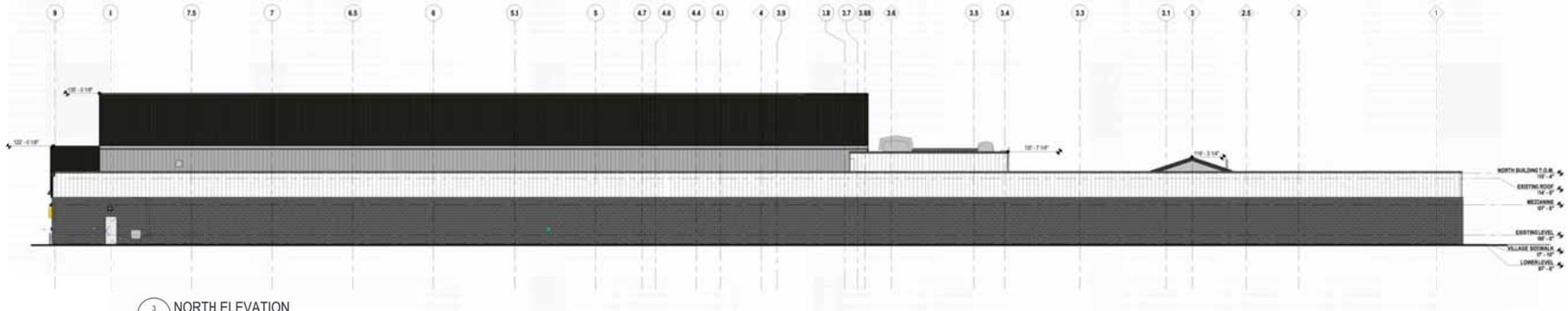
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EXTERIOR MATERIAL KEY

- ST 4213 FORMED METAL WALL PANEL
- ST 4213 FORMED METAL WALL PANEL
- 04 2000 DARK ACCENT CONCRETE MASONRY FACADE
- ST 4244 NATURAL STONE COMPOSITE WALL PANEL SYSTEM
- ST 4113 STANDING SEAM METAL ROOF
- 08 8000 COLORED GLAZING, GL-2A AND GL-2B



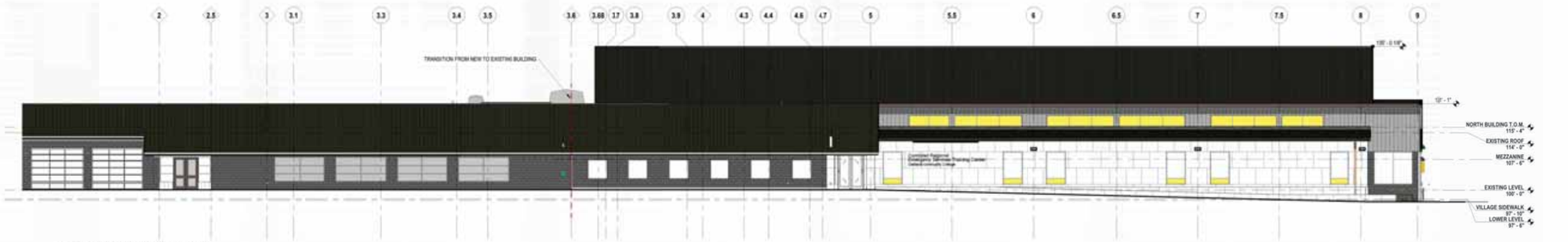
4 A0.1 EAST ELEVATION 3/32" = 1'-0"



3 A0.1 NORTH ELEVATION 3/32" = 1'-0"



2 A0.1 WEST ELEVATION 3/32" = 1'-0"



1 A0.1 SOUTH ELEVATION 3/32" = 1'-0"

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Drawig Scale	AsNoted

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Planning Commission Review	03-1-2026

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Colored Elevaions

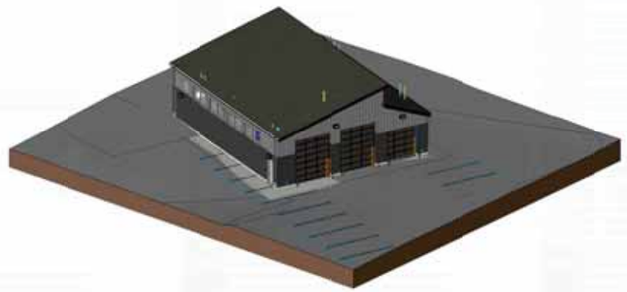
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OCC Project Number
AH23-013

Drawing Number
A4.0

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1 3D OVERALL VIEW



2 3D VIEW - MAINTENANCE GARAGE

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07 4213 FORMED METAL WALL PANEL

07 4213 FORMED METAL WALL PANEL

04 2000 DARK ACCENT CONCRETE MASONRY FACADE

07 4244 NATURAL STONE COMPOSITE WALL PANEL SYSTEM

07 4113 STANDING SEAM METAL ROOF

08 8000 COLORED GLAZING, GL-2A AND GL-2B

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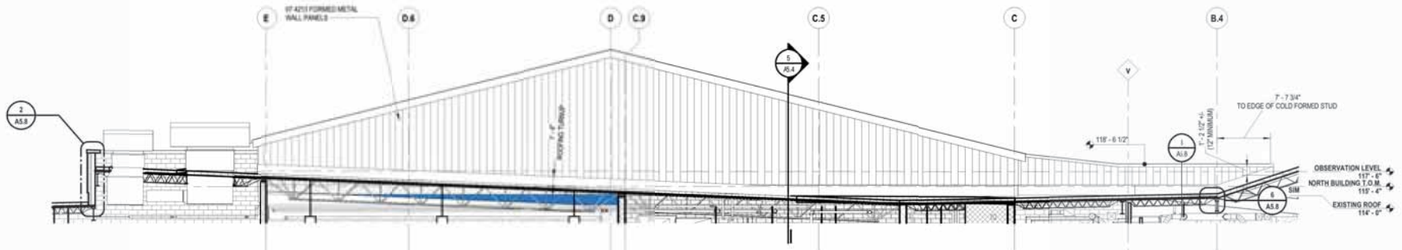
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3D Views

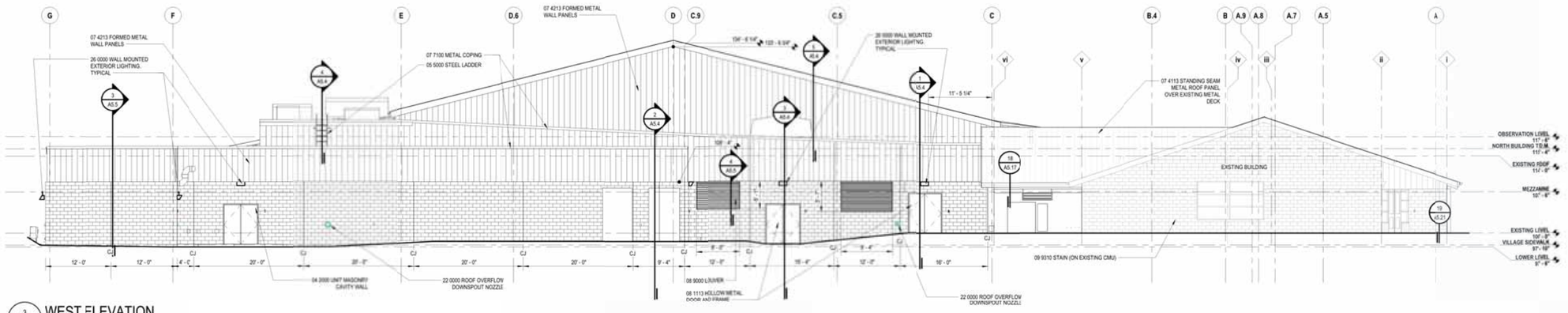
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OCC Project Number
AH23-013

Drawing Number
A4.1

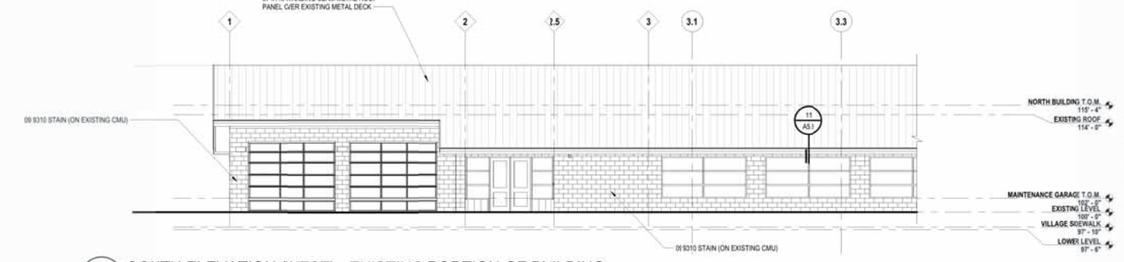
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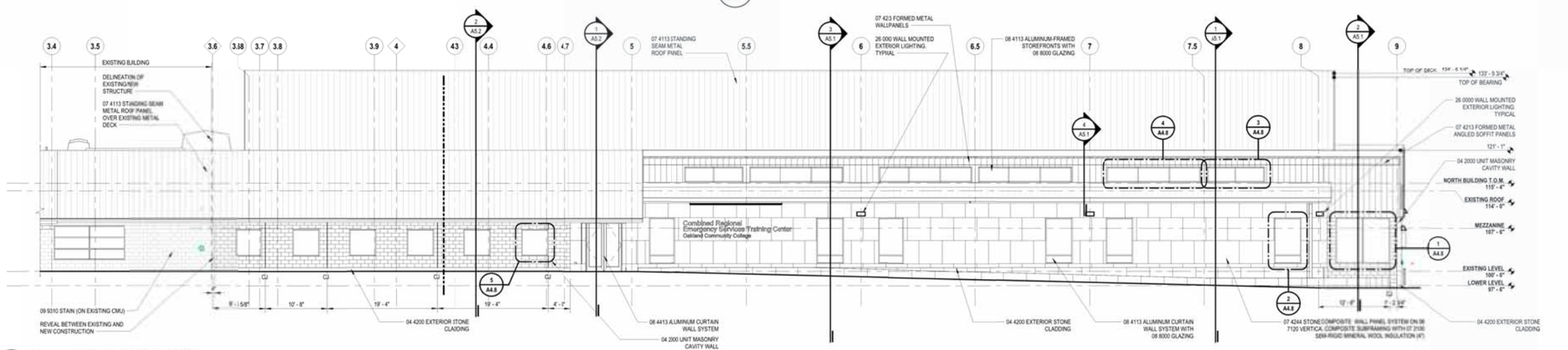
4 A0.4 **WEST ELEVATION - UPPER ROOF**
1/8" = 1'-0"



3 A0.1 **WEST ELEVATION**
1/8" = 1'-0"



2 A0.1 **SOUTH ELEVATION (WEST) - EXISTING PORTION OF BUILDING**
1/8" = 1'-0"



1 A0.1 **SOUTH ELEVATION (EAST)**
1/8" = 1'-0"

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Exterior Elevaions

IDS Project Number
23118-1000
OCC Project Number
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Drawing Number
A4.2

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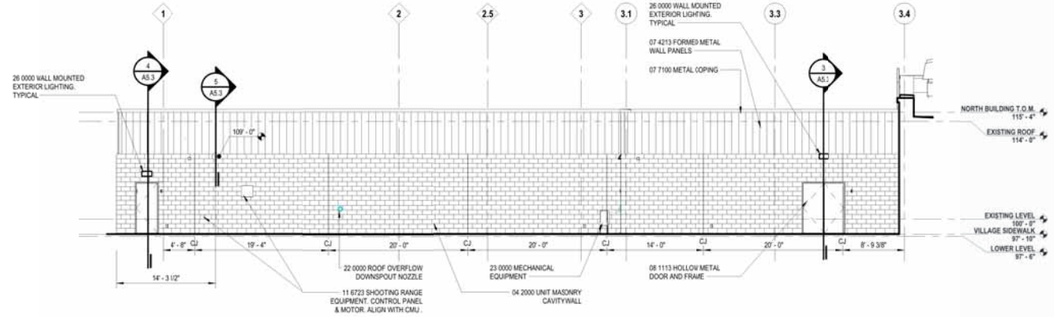
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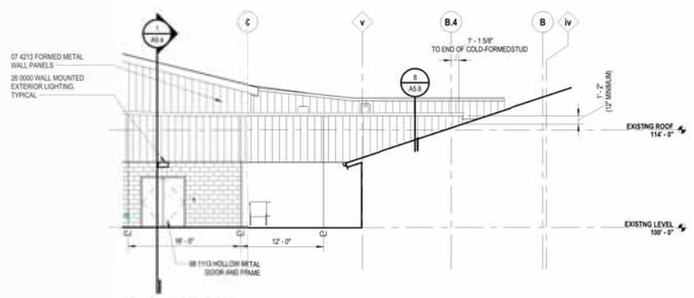
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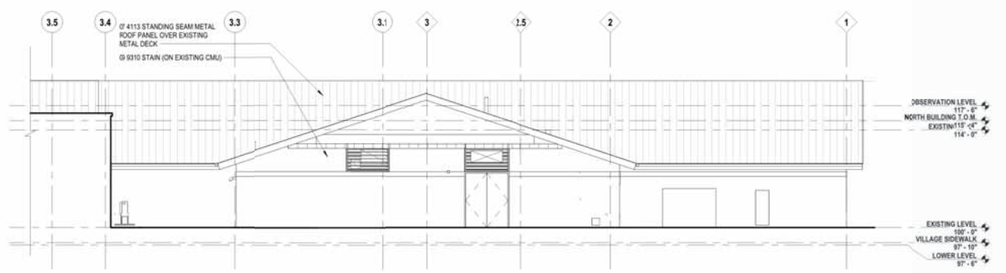
Exterior Elevations



3 A0.1 SOUTH ELEVATION @ WEST YARD
1/8" = 1'-0"



2 A0.1 WEST ELEVATION @ WEST YARD
1/8" = 1'-0"

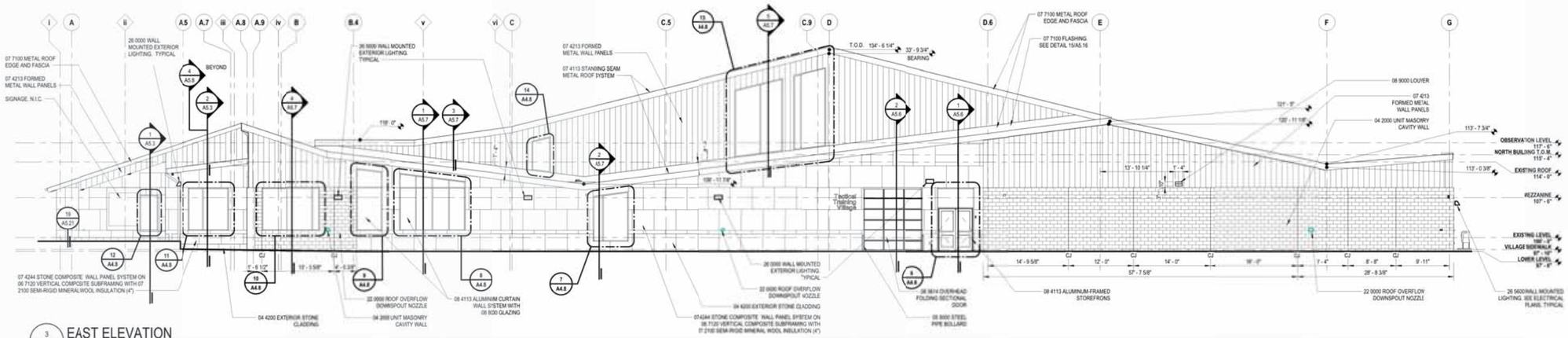


1 A0.1 NORTH ELEVATION (WEST) - EXISTING PORTION OF BUILDING
1/8" = 1'-0"

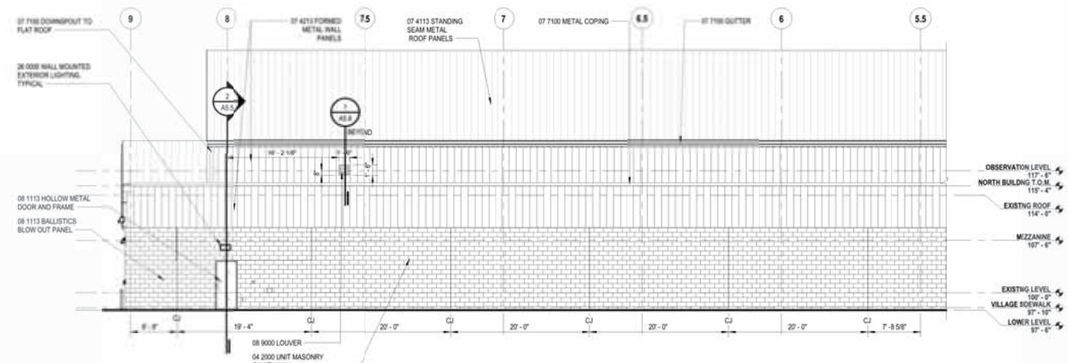
IDS Project Number
23118-1000
OCC Project Number
AH23-013

Drawing Number
A4.3

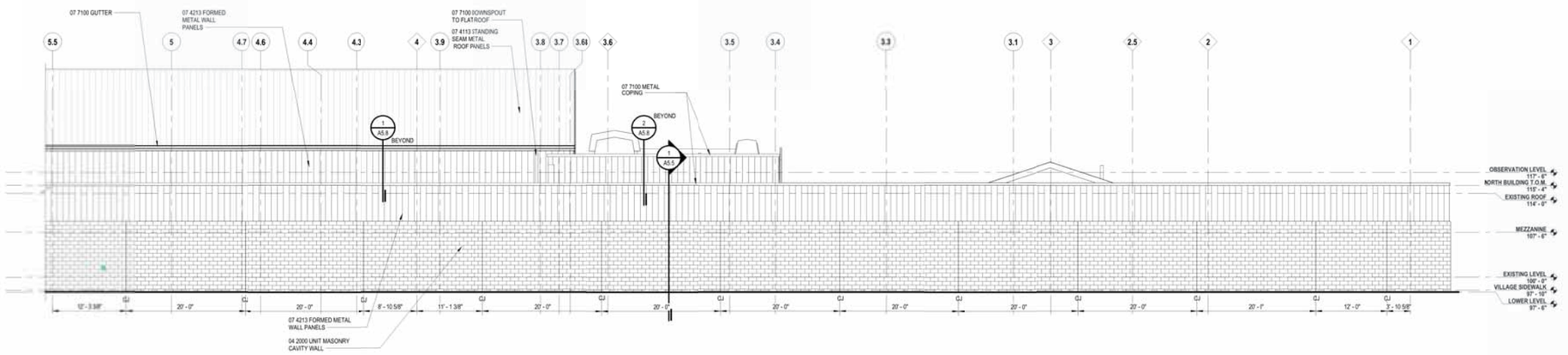
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3 A0.1 EAST ELEVATION
1/8" = 1'-0"



2 A0.1 NORTH ELEVATION (EAST)
1/8" = 1'-0"



1 A0.1 NORTH ELEVATION (WEST)
1/8" = 1'-0"

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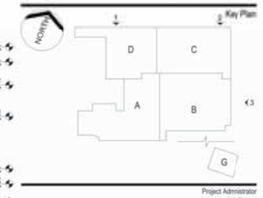
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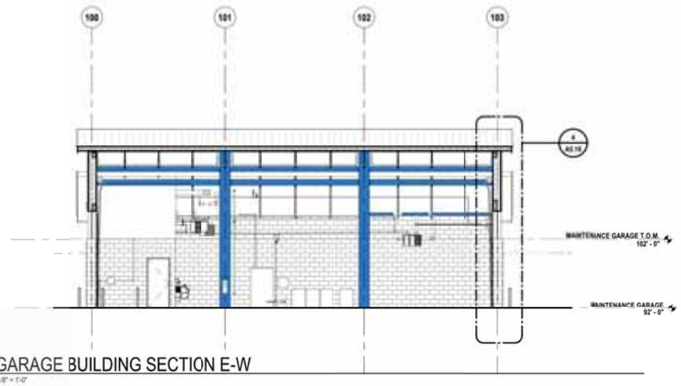
IDS Drawing Title

Exterior Elevaions

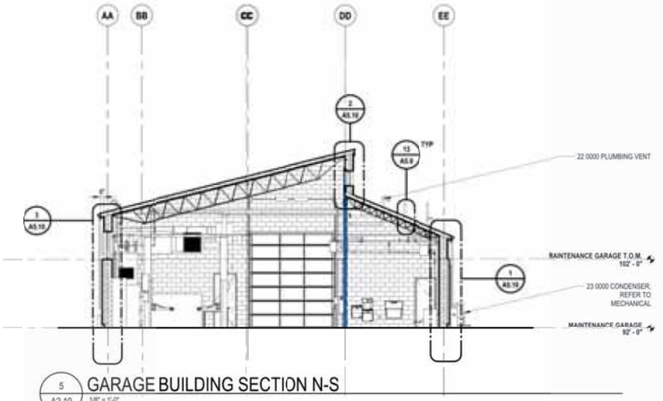
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23118-1000
OCC Project Number
AH23-013

Drawing Number
A4.4

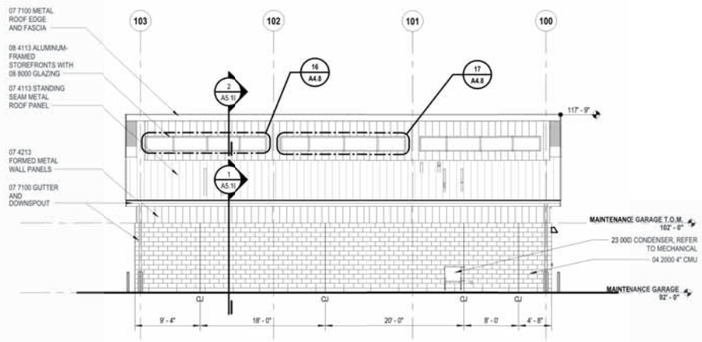
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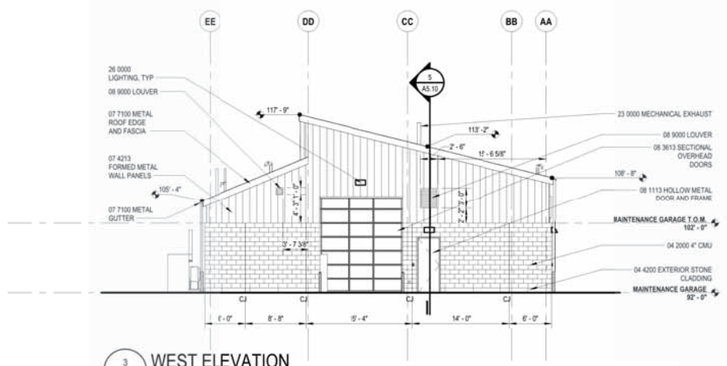
6 A2.10 GARAGE BUILDING SECTION E-W
1/8" = 1'-0"



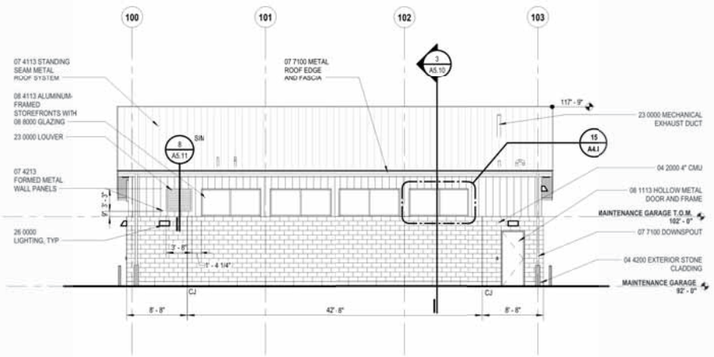
5 A2.10 GARAGE BUILDING SECTION N-S
1/8" = 1'-0"



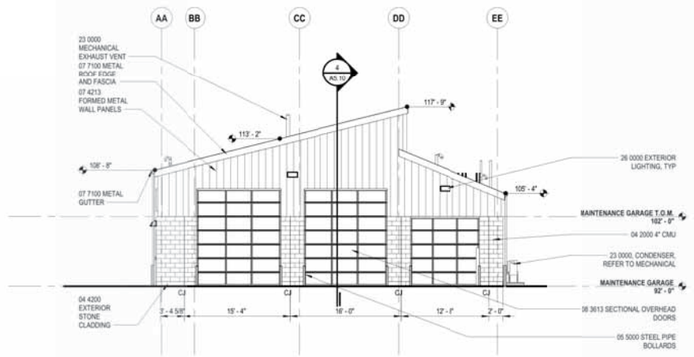
4 A2.10 NORTH ELEVATION
1/8" = 1'-0"



3 A2.10 WEST ELEVATION
1/8" = 1'-0"



2 A2.10 SOUTH ELEVATION
1/8" = 1'-0"



1 A2.10 EAST ELEVATION
1/8" = 1'-0"

iDS
INTEGRATED design SOLUTIONS
architecure engineering interiors & techology
1441 west long lake, suie 200
troy, michigan 48098
5211 cascade road SE, sule 300
grand rapids, michigan 49546
248.821.2100
www.ids-michigan.com

CONSTRUCTION MANAGER
BARTON MALOW
26500 American Drive
Southfield, MI 48034
248.436.5000
www.bartonmalow.com

STRUCTURAL ENGINEER
STRUCTURAL DESIGN INCORPORATED
375 E LIBERTY ST
ANN ARBOR, MICHIGAN 48104
734.23 .6091
www.sdistructures.com

CIVIL ENGINEER
ANDERSON, ECKSTEIN & WESTRICK, INC.
51301 Schoenherr Road
Shelby Township, MI 48315-2733
586.726.1234
www.aewrc.com

RANGE DESIGN CONSULTANT
ACTION TARGET
3411 Mountain Vista Pkwy,
Provo, UT 84606
801.396.1226
www.actiontarget.com

Project Title

OAKLAND COMMUNITY COLLEGE

Oakland Community College

CREST Center Renovation and Addition

2900 Featherstone Road,
Auburn Hills, MI 48326

Key Plan

Project Administrator	V Grant
Project Designer	K. Aaltenink
Project Architect / Engineer	K. Reynolds
Drawn By	K. Reynolds
QM Review	N. LaForest/C Allick
Approved	B. Susdberg
Drawig Scale	AsNoted

Issued for	Issue Date
Design Development	12-1-2024
Quality Management Review	04-1-2025
Bids	10-2-2025
Planning Commission Review	03-1-2026

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IDS Drawing Title

Maintenance Garage Elevations & Secions

IDS Project Number
23118-1000
OCC Project Number
AH23-013

Drawing Number
A4.10

3/12/2025 10:40:59 AM Autodesk Docs://Oakland Community College (2023)/OCC AH CREST-A23.rvt

CHECKLIST

PROJECT NAME

OCC CREST CENTER EXPANSION

(Check all that apply)

- [ ] REZONING
- [x] SITE PLAN
- [x] SPECIAL LAND USE
- [x] TREE REMOVAL PERMIT
- [ ] REZONING
- [ ] PUD

The following items have <u>not</u> been included in your packet of information since they are either common, non-controversial items or the recommendations have been noted in the project's cover letter.

Public Notice
Police Department Approval Letter
Fire Department Approval Letter
Woodlands Consultant Approval Letter
Citizen's Participation Letter and Report

However, if you wish to see a copy of the above documents, they are on file in the Community Development Department.

CITY OF AUBURN HILLS
CITY COUNCIL AGENDA

MEETING DATE: APRIL 20, 2026 | **AGENDA ITEM NO 9D**

COMMUNITY DEVELOPMENT

To: Mayor and City Council

From: Thomas A. Tanghe, City Manager; Steven J. Cohen, AICP, Director of Community Development

Submitted: April 15, 2026

Subject: FANUC Service First Academy - Parking Lot Expansion - 2630 Featherstone Road

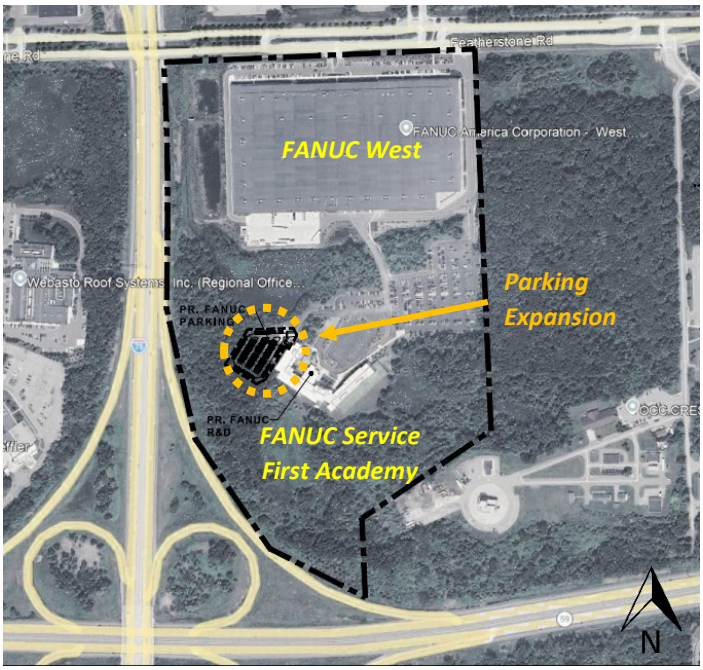
Motion – To approve the Site Plan and Tree Removal Permit

INTRODUCTION AND HISTORY

This is a request from FANUC America Corporation for Site Plan and Tree Removal Permit approval to construct a 205-space parking lot expansion on a portion of a 67-acre parcel zoned T&R, Technology and Research District. The site is located at 2630 Featherstone Road.

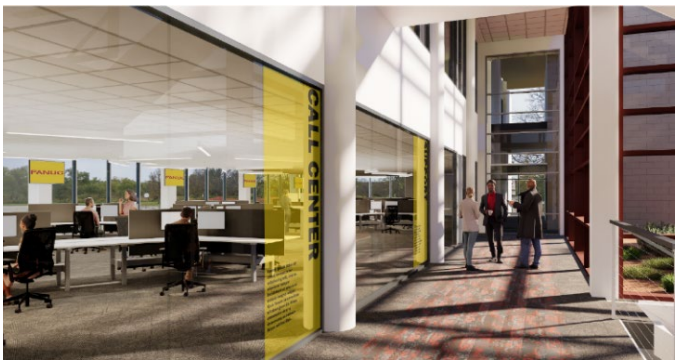
The proposed project would increase total parking on FANUC's West Campus to 1,000 spaces. Parking is shared between the two buildings on the property. This parking area was previously landbanked as part of the West Campus approval in 2022 and is now being developed/implemented to support current operational needs.

Specifically, the additional parking is intended to accommodate FANUC's reuse of the former Western Michigan University Cooley Law School building as the FANUC Service First Academy, which is currently undergoing renovations.



Location Map





Concept renderings of the interior renovations currently underway to create the $18 million FANUC Service First Academy

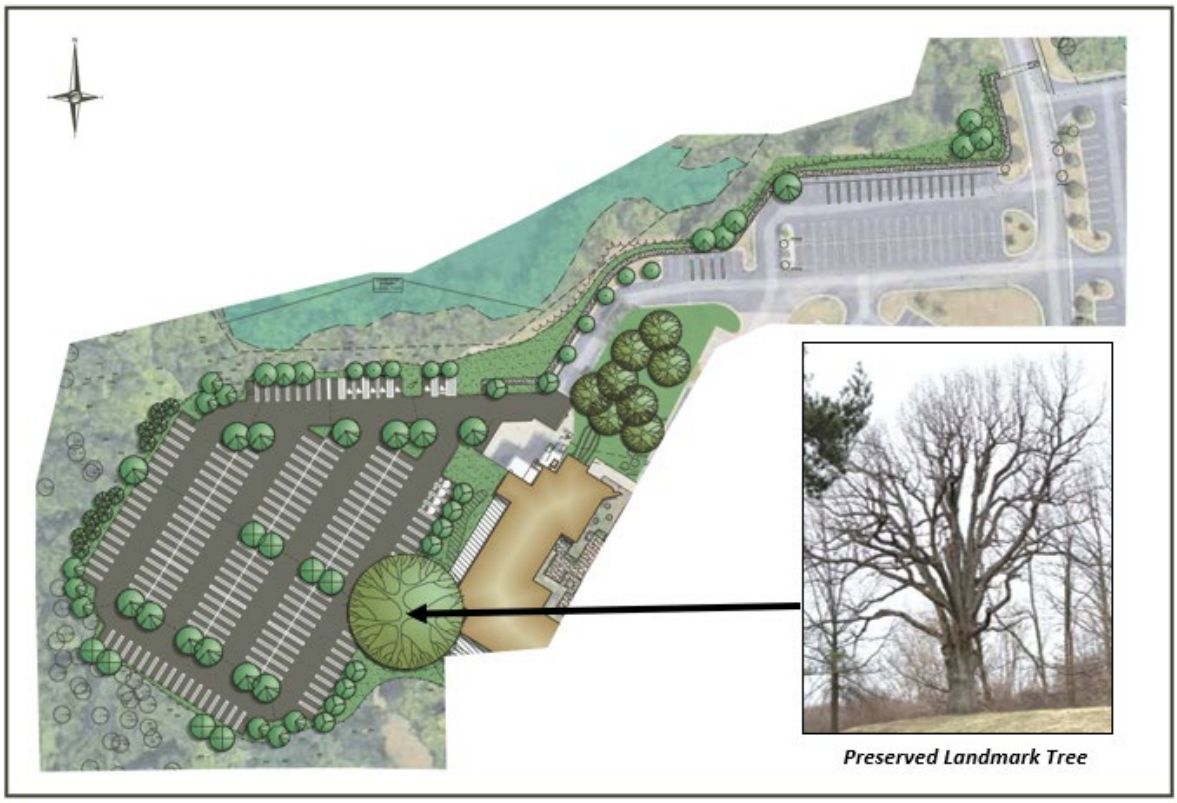
The FANUC Service First Academy is planned to support up to 344 students and will serve as the home of the company's Service First business segment, which includes both its call center and training operations.

KEY ISSUE

1. **Replacement Trees**. The project requires 130 replacement trees. The landscape plan provides for the on-site planting of 73 replacement trees surrounding the new parking lot. The inability to accommodate the full number of required replacement trees on-site is primarily due to the heavily wooded nature of the property. The proposed landscape plan has been designed to ensure appropriate spacing and soil conditions, supporting a healthy growing environment and improving the long-term survival of the trees to be planted.

   To address the remaining tree replacement requirement, FANUC proposes to contribute to the City's Tree Fund in lieu of planting the remaining 57 trees. A payment of $21,660 (57 trees at $380 per tree) will be made prior to the mass grading of the site.

   Staff commends FANUC and its consultant, Nowak & Fraus, for coordinating with the City's Woodland consultant to shift the parking lot design to the west to preserve a 51-inch diameter White Oak tree by maintaining grading activities outside of the tree's critical root zone.



Illustrated Site Plan

STAFF RECOMMENDATION

We recommend Conditional Approval of the Site Plan and Tree Removal Permit and offer the following discretionary findings of fact:

1. The Site Plan contains sufficient basic information required by the Zoning Ordinance for a recommendation.
2. The requirements of Section 1815, Items 7A-7E of the Zoning Ordinance can be met as follows:
   a) All requirements and standards of the Zoning Ordinance and other City Ordinances can be met.
   b) Safe, convenient vehicular and pedestrian ingress/egress has been depicted; primary access will be to Featherstone Road.
   c) Traffic circulation features within the site and the location of parking areas avoid common traffic problems and can promote safety.

STAFF RECOMMENDATION (cont.)

d) A satisfactory and harmonious relationship will exist between the proposed development and the surrounding area.

e) The proposed use will not have an unreasonable, detrimental or injurious effect upon the natural characteristics of the subject parcel, or the adjacent area.

3. 205 parking spaces are depicted within the expanded parking area.
4. The parking layout for the expanded area meets minimum requirements, and barrier-free parking spaces are provided (seven are required, and seven are provided). One space is van accessible.
5. Building and parking setback requirements will be met.
6. Greenbelts will be provided.
7. Landscape requirements will be met, and calculations have been submitted.
8. A note indicates that exterior lighting shall meet the requirements of the Zoning Ordinance. Pole and wall-mounted lighting shall be shielded and directed downward. Lamp bulbs and lenses shall not extend below the light fixture shields. Light poles will be installed to match the height and style of the existing light poles on the property.
9. A note indicates that signs shall meet the requirements of the Zoning Ordinance.
10. A note indicates that parking spaces shall be double-striped.
11. Ground-mounted and roof-mounted mechanical equipment will be screened.
12. A note indicates that outside storage, including pallet storage, overnight vehicles, and trailer storage, will not be permitted.
13. A Tree Removal Permit is required. 130 replacement trees are required, and 73 replacement trees are provided. The equivalent of 57 replacement trees will be paid in the City's Tree Fund.
14. FANUC has agreed to prep the parking lot for four electric vehicle charging stations. They will install electrical stubs at planned station locations and run a conduit from the power source to the stubs during construction to support the future installation of the charging stations when needed.

Conditions:

1. Payment to City's Tree Fund. FANUC shall make a payment of $21,660 (57 trees at $380 per tree) to the City's Tree Fund prior to the start of construction.
2. Performance Guarantees. FANUC shall comply with the requirements of Section 2007. Performance Guarantees of the Zoning Ordinance.
3. Conformance with Approved Plans and Representations. Approval of the project is based on the representations made by FANUC, as documented in this staff report, submitted materials, and the public meeting minutes. The development shall remain in conformance with these representations.

PLANNING COMMISSION RECOMMENDATION

Recommended Approval on April 8, 2026 (8-0 vote).

MOTION

Move to accept the Planning Commission's recommendation and approve the Site Plan and Tree Removal Permit for FANUC Service First Academy - Parking Lot Expansion subject to the conditions of the City's Administrative Review Team.

I CONCUR: Thomas A. Tanghe

THOMAS A. TANGHE, CITY MANAGER

CITY OF AUBURN HILLS
PLANNING COMMISSION
MINUTES
NOT YET APPROVED - EXCERPT

April 8, 2026

CALL TO ORDER: Chairperson Beidoun called the meeting to order at 6:00 p.m.

ROLL CALL: Present: **Carolyn Shearer, Michelle Case, Darlene MacMillan, Jack Ferguson, Dominick Tringali, Cynthia Pavlich, Dominic Patrus, Sam Beidoun**
Absent: Raymond Saelens
Also Present: Director of Community Development Steve Cohen, Assistant Director of Community Development Devin Lang, City Engineer Tim Juidici (OHM), City Attorney Dan Kelly (The Kelly Firm)
Guests: 23

LOCATION: Council Chambers, 1827 N. Squirrel Road, Auburn Hills, MI 48326

5. PETITIONERS

5d. FANUC Service First Academy – Parking Lot Expansion – 2630 Featherstone Road. (6:23 p.m.)
Public Hearing/Motion – Recommendation to City Council for Site Plan and Tree Removal Permit approval to implement the construction of previously approved land banked parking spaces.

Mr. Beidoun opened the public hearing at 6:24 p.m.

Mr. Cohen confirmed that the hearing documents are in order and that no written communications have been received regarding this petition.

Mr. Cohen stated that this is a proposal from FANUC America Corporation for approval of a Site Plan and Tree Removal Permit to construct a 205-space parking lot expansion on a portion of a 67-acre parcel zoned T&R, Technology and Research District. The site is located at 2630 Featherstone Road.

The proposed project would increase total parking on FANUC's West Campus to 1,000 spaces. Parking is shared between the two buildings on the property. This parking area was previously landbanked as part of the West Campus approval in 2022 and is now being developed and utilized to support current operational needs. The additional parking will accommodate FANUC's reuse of the former Western Michigan University Cooley Law School building as the FANUC Service First Academy, which is currently undergoing renovations.

The project requires 130 replacement trees. The landscape plan provides for the on-site planting of 73 replacement trees surrounding the new parking lot. The property is heavily wooded, making it difficult to accommodate the full number of required trees. FANUC proposed to contribute to the City's Tree Fund in lieu of planting the remaining 57 trees. A payment of $21,660 (57 trees at $380 per tree) will be made prior to the mass grading of the site. FANUC and its consultant, Nowak & Fraus, coordinated with the City's Woodland consultant to shift the parking lot design to the west to preserve a 51-inch diameter white oak tree.

Staff recommends approval of the request.

Representatives of Nowak & Fraus Engineers, 46777 Woodward Ave., Pontiac MI 48342 and **Matthew DelPup, FANUC America Corporation, 2600 Featherstone, Auburn Hills, MI 48326**, were available to answer any questions from the Commission.

The Commission commended FANUC and its team for their willingness to shift the parking lot to preserve the large white oak tree.

There being no public comments, Mr. Beidoun closed the public hearing at 6:26 p.m.

Moved by Pavlich to recommend to City Council approval of the Site Plan and Tree Removal Permit for FANUC Service First Academy – Parking Lot Expansion subject to the conditions of the City's Administrative Review Team.
Second by Patrus.

VOTE:
Yes: Patrus, Shearer, MacMillan, Pavlich, Case, Tringali, Ferguson, Beidoun
No: None **Motion Carried (8-0)**

AUBURN HILLS

AUBURN HILLS
FEB 13 2026
COMMUNITY DEVELOPMENT

DEVELOPMENT APPLICATION

PLEASE CHECK YOUR REQUESTED REVIEW:

- [x] SITE PLAN
- [x] TREE REMOVAL PERMIT
- [ ] SPECIAL LAND USE PERMIT(S)
- [ ] LAND DIVISION [ ] LAND EXCHANGE
- [ ] SUBDIVISION
- [ ] PLAN UNIT DEVELOPMENT (STEP 1/STEP 2/ COMBINED)
- [ ] REZONING _____ TO _____
- [ ] ZBA VARIANCE OR INTERPRETATION
- [ ] OTHER: _____

CITY USE ONLY

ADDRESS: 2630 Featherstone
DATE RECEIVED: 2/13/26
FEES PAID: $5,661
SP #: 260002
PUD#: _____
SLU #: _____
LD/LE/SUB#: _____
RZ#: _____
ZBA #: _____
PTR#: 260001

PROJECT NAME FANUC Landbank Parking Lot Development

GENERAL PROJECT LOCATION Southeast corner of Featherstone Rd. ad I-75

PARCEL SIZE	ZONING	BUILDING SIZE (SQ FT)
1.56 Ac. Disturbed	T & R	N/A

PROJECT DESCRIPTION
Construct 207 parking spaces, detention and install fire hydrant

SIDWELL NUMBER(S) #14-26-226-004

APPLICANT INFORMATION

NAME	SIGNATURE		
Patrick Williams			
BUSINESS NAME		ADDRESS	
Nowak & Fraus Engineers		46777 Woodward Ave.	
CITY	STATE	ZIP	PHONE #
Pontiac	MI	48342	248.332-7931
EMAIL ADDRESS			
pwilliams@nfe-engr.com			

PROPERTY OWNER(S)

NAME	SIGNATURE		
Brad Nowacki			
BUSINESS NAME		ADDRESS	
FANUC America Corporation		2600 Featherstone Road	
CITY	STATE	ZIP	PHONE #
Auburn Hills	MI	48326	
EMAIL ADDRESS			
brad.nowacki@fanucamerica.com			

FANUC America Corporation
3900 W. Hamlin Road
Rochester Hills, MI 48309-3253

Telephone: (248) 377-7000
Facsimile: (248) 377-7066

Brad Nowacki
3900 West Hamlin Road
Rochester Hills, MI

2/27/2026

City of Auburn Hills
1827 N. Squirrel Road
Auburn Hills, MI 48326

Community Development Staff,

In 2024 FANUC completed construction on our 650,000 square foot facility in Auburn Hills. As part of that land acquisition, FANUC also acquired the former Cooley Law School. Working in phases, FANUC is now in the process of renovating that building into a new home for our training and service teams which operate under the name Service First. We are doing this construction in phases with our Training Academy wing first which will be completed in July of 2026. This wing will have capacity for 344 students amongst a variety of classrooms hands on laboratories. Along with that 40 training instructors and administration will be in this location. The second phase involves a cafeteria, kitchen, restroom addition, and some auxiliary rooms used as conference spaces and storage. This project is currently in review with Auburn Hills, but with hopes to complete by 9/1 or sooner. The third phase will be relocating our call center and service support staff. At this time, this project is not budgeted for but could possibly start in 2027. With all 3 of these phases and our operation at 2600 Featherstone, FANUC has identified a parking capacity concern. This was concern was known in the civil work of our 650,000 square foot facility in which we added some land bank parking to the drawings which we would like to seek approval to proceed on. To summarize the parking concern, I pulled together the following to illustrate the need.

Max Students Capacity	344
Service First Employees	96
2600 Featherstone Visitors	30
2600 Featherstone Employees	442
Total Potential Vehicles	912
Total Campus Parking	795
Expansion	205
Total Parking	1000

FANUC America thanks you for your continued support of our expansion within Auburn Hills and consideration of this project.

Sincerely,

Brad Nowacki
Director of Facilities

March 20, 2026

Mr. Steven Cohen, AICP
Director of Community Development
CITY OF AUBURN HILLS
1827 North Squirrel Road
Auburn Hills, Michigan 48326

RE: FANUC America Parking Addition
Site Plan 1st Review

Dear Mr. Cohen:

We have completed the site plan review for the above referenced project with respect to grading, paving, storm drainage/detention, and availability of municipal utilities to serve the site. The site plan, received by this office on March 18, 2026, was prepared by Nowak and Fraus Engineers. The review comments are noted below.

PERMITS/EASEMENTS:
Various permits will be required for this site, including but not limited to the following:

- Soil erosion permit form O.C.W.R.C.
- Water main extension permit from E.G.L.E.
- Storm water maintenance agreement for the underground detention system

GENERAL:
The site is located on the south side of Featherstone Road, east of I-75 and west of Mott Road, in Section 26 of the City of Auburn Hills. The applicant is proposing to expand the parking to accommodate the redevelopment of the former Cooley Law School building into the FANUC America facility by adding a parking lot on the west side of the site. The site, along with the adjacent parcel to the east, is zoned Technology & Research (T&R) while the parcel to the southeast is zoned Light Industrial (I-1). A complete legal description of the parcel is shown on the plans. The Fire Department Notes are included in the plan. A landscape plan was included in the plan set. If feasible, trees and plantings shall be located outside the influence of utilities. The City of Auburn Hills Standard Notes were not included in the plan and will need to be included at engineering review. The City of Auburn Hills Standard Details were included in the plan set and shall remain for the engineering plan.

MUNICIPAL UTILITIES:
There is existing 8-inch water main that extends along the east side of Cooley Drive. An existing 8-inch water main extends west from the 8-inch water main and then southwest towards the west side of the FANUC America facility to an existing fire hydrant. There is also an existing 8-inch water main that extends south from the east-west water main towards the FANUC America facility. The applicant is proposing to relocate the existing fire hydrant and extend the 8-inch water main southwest. One (1) additional fire hydrant will be installed to provide adequate coverage for the parking lot. A twelve-foot-wide public water main easement has been centered on the new water main. Additional details including the material type, size, and profile shall be provided at engineering review.

There is existing 10-inch sanitary sewer that extends west from the OCC Crest Center, east of the site, before transitioning to 8-inch sanitary sewer then 6-inch servicing the FANUC America facility. At this time, the applicant is not proposing any changes to the existing sanitary sewer as part of this project.

STORM SEWER AND DETENTION:

Storm water runoff for the FANUC America facility is currently collected via a series of catch basins and routed to existing wetlands on the southeast side of the site. As part of the parking lot addition, the applicant is proposing an underground detention system near the north side of the parking lot addition. Preliminary detention volume calculations have been provided on the plan and appear to meet City and OCWRC standards. The applicant is utilizing a discharge rate of 0.150 cfs/acre which is more restrictive than the maximum allowable discharge of 0.20 cfs/acre for the site. A mechanical pretreatment unit has been provided for the runoff prior to entering the underground detention system. Conveyance calculations have been provided on the plan and will need to be verified at engineering review. Additional details of the stormwater management system will be needed for the engineering review including profiles and hydraulic grade lines. The size, material, and slope of the storm sewer shall be labeled for engineering review. Calculations showing that the existing detention area has enough capacity for the proposed development shall be provided on the plans for engineering review. Additional details shall be provided for engineering review.

PAVING/TRAFFIC:

There are currently two (2) existing drive approaches located off Featherstone Road. The applicant is not proposing any changes to the existing drive approaches. Access to the parking lot addition will be through Cooley Drive and the existing northern parking lot for FANUC America. Parking is currently located on the north side of the building with an additional parking lot available on the east side of Cooley Drive. The plans indicate concrete curb and gutter along the new parking lot expansion with 6-inch asphalt pavement. Pavement cross-sections have been provided on the plans and appears to meet City standards.

The applicant is proposing to install 205 parking spaces including seven (7) barrier free accessible parking spaces and four (4) electric vehicle spaces. With the proposed improvements, the entire site will have a total of 1,000 parking spaces including 26 barrier free accessible parking spaces and 10 electric vehicle spaces. The applicant is proposing a 5-foot-wide concrete sidewalk connection from the parking lot addition to the existing parking lot on the east side of Cooley Drive.

GRADING:

Existing grades are shown with contours and spot elevations while proposed grades are shown with spot elevations. The site is sloped towards the north and perimeter site slopes shall match into existing contours prior to all abutting property lines. If site slopes exceed 1:4, protective guardrail and/or fencing will be required. Pavement slopes are mostly consistent with City standards and are to remain between 1% and 6% for drive areas and between 1% and 4% for parking areas. Grades for the proposed sidewalk shall meet ADA standards.

There is an existing boulder retaining wall on the west side of the building. The applicant is proposing to extend the boulder retaining wall along the east side of the parking lot addition. Design details and computations (sealed by a licensed engineer) will need to be submitted and approved during the engineering review for walls greater than one (1) foot in height. Any retaining walls over 2.5 feet in height are required to be fenced. A generic dry-laid boulder wall detail has been included on the plan. The boulder wall detail shall include a fence if necessary at engineering review.

RECOMMENDATIONS:

The site plan is in substantial compliance with City of Auburn Hills requirements and has been stamped "Approved" by our office. We ask that the site plan approval acknowledge the following:

1. The site improvement plan, designed in accordance with Ordinance No. 806, shall be submitted to the City for review and approval prior to construction. A detailed cost estimate for the improvements shall be submitted with the plans signed and sealed by the design engineer.
2. The developer must post a performance guarantee, in accordance with the City's requirements as set forth in the City of Auburn Hills Ordinance No. 372, Section 2007, Performance Guarantees. The estimate of the guarantee shall be submitted with the site improvement plan and must reflect all costs for site improvements, including but not limited to mass grading, roadways, lighting, utilities, pathways, sidewalks, screening, landscaping, driveways, retaining walls, parking lots, drainage, stormwater retention basins, and other similar features.

If you have any questions or are in need of any further information, please feel free to contact our office.

Sincerely,
OHM Advisors

MaryKate Kirksey for Hannah Driesenga, P.E.

Transmitted via e-mail to Steven Cohen: March 20, 2026
cc: File

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N

W E

S

CONSERVATION EASEMENT (L.60082, P.417)

6"TREE

VAN

Owner / Developer

FANUC America Corporation
2600 Featherstone Road
Auburn Hills, MI 48326

Contact: Brad Nowacki
Phone: 248.377.7239
Email: brad.nowacki@fanucamerica.com

Architect

HED
123 West 5th Street
Royal Oak, MI 48067

Contact: Scott Robach
Phone: 248.233.0202
Email: srobach@hed.com

Civil Engineer

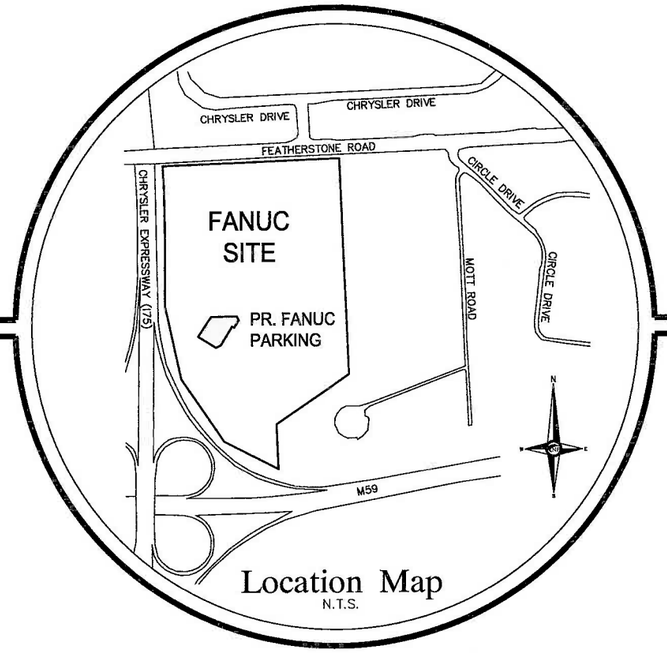
NOWAK & FRAUS ENGINEERS
46777 Woodward Ave.
Pontiac, MI 48342-5032
Tel. (248) 332-7931
Fax. (248) 332-8257

Contact: Andrew Wiseman
awiseman@nfe-engr.com

Tel. (248) 332-7931
Fax. (248) 332-8257

City of Auburn Hills, Oakland County, Michigan
LANDBANKED PARKING DEVELOPMENT
For: FANUC America

Part of the NE 1/4 of Section 26
T.3N , R.10E,
City of Auburn Hills,
Oakland County, Michigan



Location Map
N.T.S.

LEGAL DESCRIPTION

SIDWELL NUMBER: 14-26-226-004
LAND IN THE CITY OF AUBURN HILLS, OAKLAND COUNTY, MI, DESCRIBED AS FOLLOWS: PART OF THE NORTHEAST 1/4 OF SECTION 26, TOWN 3 NORTH, RANGE 10 EAST, CITY OF AUBURN HILLS, OAKLAND COUNTY, MICHIGAN, MORE PARTICULARLY DESCRIBED AS: COMMENCING AT THE NORTHEAST CORNER OF SECTION 26; THENCE SOUTH 88 DEGREES 19 MINUTES 17 SECONDS WEST, 909.78 FEET ALONG THE NORTH LINE OF SECTION 26; THENCE SOUTH 01 DEGREES 40 MINUTES 43 SECONDS EAST, 120.00 FEET TO THE POINT OF BEGINNING; THENCE SOUTH 01 DEGREES 40 MINUTES 43 SECONDS EAST, 1,738.76 FEET; THENCE SOUTH 56 DEGREES 29 MINUTES 04 SECONDS WEST, 712.57 FEET; THENCE SOUTH 01 DEGREES 40 MINUTES 43 SECONDS EAST, 360.00 FEET; THENCE NORTH 62 DEGREES 11 MINUTES 33 SECONDS WEST, 488.66 FEET; THENCE NORTH 33 DEGREES 24 MINUTES 30 SECONDS WEST, 605.16 FEET; THENCE NORTH 11 DEGREES 37 MINUTES 22 SECONDS WEST, 606.35 FEET; THENCE NORTH 01 DEGREES 21 MINUTES 38 SECONDS EAST, 367.08 FEET; THENCE ALONG A CURVE TO THE LEFT, 755.90 FEET, SAID CURVE HAVING A RADIUS OF 11,568.16 FEET, CENTRAL ANGLE OF 03 DEGREES 44 MINUTES 38 SECONDS AND CHORD BEARING OF NORTH 00 DEGREES 30 MINUTES 41 SECONDS WEST, 755.77 FEET; THENCE NORTH 88 DEGREES 19 MINUTES 17 SECONDS EAST, 1,418.84 FEET TO THE POINT OF BEGINNING.

SHEET INDEX

SP-00 Cover Sheet
SP-01 Boundary / Topographic / Tree Survey
SP-02 Surveyed Tree List
SP-03 Overall Image
SP-04 Dimensional Site Plan
SP-05 Engineering Site Plan
SP-06 ADS underground Detention Chamber Details
SP-07 Soil Erosion & Sedimentation Control Plan

L-1 Tree Preservation Plan
L-2 Landscape Plan

City of Auburn Hills Standard Details
OCWRC Soil Erosion Control Details

Project Name

FANUC America

NOT FOR CONSTRUCTION DRAWINGS
SIDWELL # 14-26-226-004

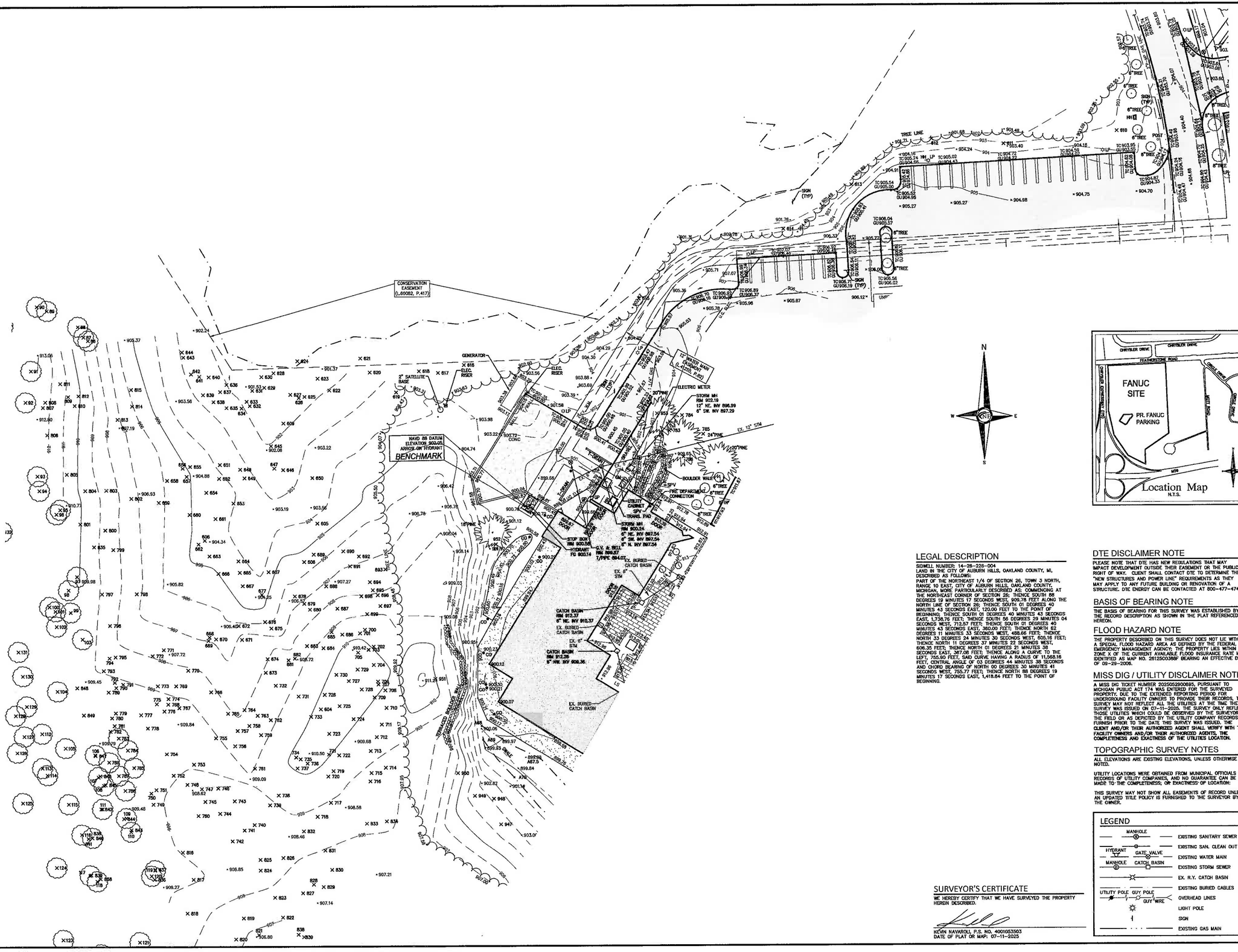
811 Know what's below Call before you dig.

N & F JOB #B096-02

STATE OF MICHIGAN
PATRICK J. WILLIAMS
ENGINEER NO. 44331
LICENSED PROFESSIONAL ENGINEER

NF ENGINEERS
CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257
WWW.NOWAKFRAUS.COM


CONSERVATION EASEMENT (L.60052, P.417)
GENERATOR
2" SATELLITE BASE
ELEC. RISER
12" WATER MAIN EASEMENT (L.42555, P.923)
ELECTRIC METER
STORM MH RIM 902.19 12" NE. INV 896.99 6" SW. INV 897.29
EX. 12" STM
24"PINE
20"PINE
16"PINE
NAVD 88 DATUM ELEVATION 903.05 ARROW ON HYDRANT
BENCHMARK
BOULDER WALL
6"TREE
8"TREE
SPV
FIRE DEPARTMENT CONNECTION
UTILITY CABINET
SPV
TRANS. PAD
STORM MH RIM 900.24 6" NE. INV 897.54 6" SW. INV 897.54 6" N. INV 897.54
STOP SIGN RIM 900.56
HYDRANT FS 900.16
G.V. & BOX RIM 899.87
T/PIPE 894.07
EX. BURIED CATCH BASIN
EX. 6" STM
CATCH BASIN RIM 912.37 6" NE. INV 910.37
CATCH BASIN RIM 912.25 6" NO. INV 909.35
EX. BURIED CATCH BASIN
EX. 6" STM
EX. BURIED CATCH BASIN
TREE LINE
SIGN (TYP)
POST
HH
CHIMNEY
GUARDRAIL
UNR
UNR"
CONC
CLP
TC 905.54 GU 905.00
TC 906.04 GU 905.57
TC 906.92 GU 906.48
TC 906.89 GU 906.37
TC 906.71 GU 906.19 (TYP)
TC 906.56 GU 906.03
TC 905.74 GU 904.56
TC 905.02 GU 904.53
TC 904.72 GU 904.22
TC 904.59 GU 904.07
TC 903.95 GU 903.50
TC 904.87 GU 904.33
TC 904.43 GU 903.98
TC 904.40 GU 903.95
TC 904.18 GU 903.73
TC 903.80 GU 903.35
TC 903.60 GU 903.15
TC 903.40 GU 902.95
TC 903.00 GU 902.55
TC 902.80 GU 902.35
TC 902.60 GU 902.15
TC 902.40 GU 901.95
TC 902.20 GU 901.75
TC 902.00 GU 901.55
TC 901.80 GU 901.35
TC 901.60 GU 901.15
TC 901.40 GU 900.95
TC 901.20 GU 900.75
TC

Tag#	Comment	Landmark	Unregulated	Scientific Name	Common Name	DBH (inches)	Add'l DBH	Cond.	Comments
604	remove			Quercus alba	White oak	6.0		Good	
605	remove			Ulmus americana	American elm	6.2		Fair	Asymmetric crown; bent trunks; heavy vine
606	remove			Juglans nigra	Black walnut	6.0		Fair	Asymmetric crown
607	remove			Ulmus americana	American elm	6.0		Fair	Asymmetric crown
608	remove			Quercus rubrum	Red oak	6.0		Fair	Asymmetric crown; crowded
609	remove			Juglans nigra	Black walnut	7.0		Good	
610	save			Pinus strobus	White pine	6.2		Fair	Trunk wound; landscaped
611	remove			Ulmus americana	American elm	11.8		Good	
612	save			Quercus macrocarpa	Bur oak	14.3		Good	Slight asymmetric crown; forest edge
613	save			Ulmus americana	American elm	12.6		Good	Slight asymmetric crown; forest edge
614	save			Ulmus americana	American elm	11.5		Fair	Asymmetric crown; forest edge; heavy vine
615	save			Ulmus americana	American elm	13.3		Good	Vine present
616	save		yes	Populus deltoides	Eastern cottonwood	13.5		Good	Vine present
617	save			Ulmus americana	American elm	13.1		Fair	Several broken or dead branches; heavy vine
618	save		yes	Fraxinus pennsylvanica	Green ash	12.1	11.2	Poor	Main trunk dead; other crown partially dead
619	remove		yes	Populus deltoides	Eastern cottonwood	20.0		Good	
620	save		yes	Fraxinus pennsylvanica	Green ash	7.2		Fair	Several broken or dead branches; heavy vine
621	save			Juglans nigra	Black walnut	18.2	14.0	Fair	Co-dominant trunks
622	save			Juglans nigra	Black walnut	13.0		Good	Vine present
623	save			Ulmus americana	American elm	11.4		Fair	Twisted or bent trunk; heavy vine
624	save			Juglans nigra	Black walnut	22.5		Good	Several broken or dead branches
625	remove			Juglans nigra	Black walnut	10.3		Good	Vine present
626	remove			Juglans nigra	Black walnut	10.5		Fair	Twisted or bent trunk; heavy vine
627	remove			Juglans nigra	Black walnut	7.9		Good	
628	save			Juglans nigra	Black walnut	18.6		Good	Vine present
629	save			Juglans nigra	Black walnut	8.2		Fair	Asymmetric crown
630	save			Juglans nigra	Black walnut	6.5		Fair	Asymmetric crown; significant lean; heavy vine
631	save			Juglans nigra	Black walnut	12.2		Good	
632	remove		yes	Fraxinus pennsylvanica	Green ash	6.5		Fair	Asymmetric crown; twisted or bent trunk; crowded
633	remove			Juglans nigra	Black walnut	6.1		Fair	Asymmetric crown; crowded
634	remove			Ulmus americana	American elm	8.1		Fair	Asymmetric crown; crowded
635	save			Juglans nigra	Black walnut	18.9		Good	
636	save			Juglans nigra	Black walnut	11.5		Good	
637	save			Juglans nigra	Black walnut	10.2		Good	Asymmetric crown
638	save		yes	Fraxinus pennsylvanica	Green ash	7.4		Poor	Significant bark peel; crown partially dead; suckers
639	save			Juglans nigra	Black walnut	7.3		Fair	Asymmetric crown; significant lean
640	save			Ulmus americana	American elm	7.7		Fair	Asymmetric crown; twisted or bent trunk; significant lean
641	save			Juglans nigra	Black walnut	9.0		Good	
642	save			Juglans nigra	Black walnut	12.8		Fair	Asymmetric crown
643	save			Ulmus americana	American elm	15.6		Good	
644	save			Juglans nigra	Black walnut	6.9		Fair	Asymmetric crown; crowded; heavy vine
645	remove		yes	Fraxinus pennsylvanica	Green ash	8.3		Good	
646	remove		yes	Acer saccharum	Silver maple	8.5	7.1	Poor	Co-dominant; main trunk dead
647	remove		yes	Fraxinus pennsylvanica	Green ash	7.8		Good	Vine present
648	remove			Quercus macrocarpa	Bur oak	11.9		Good	
649	remove		yes	Fraxinus pennsylvanica	Green ash	8.3		Good	
650	remove		yes	Populus deltoides	Eastern cottonwood	11.5		Good	Vine present
651	remove		yes	Fraxinus pennsylvanica	Green ash	7.3		Good	
652	remove			Quercus macrocarpa	Bur oak	8.8		Good	
653	remove			Ulmus americana	American elm	9.5		Good	Vine present
654	remove		yes	Fraxinus pennsylvanica	Green ash	7.4		Good	Suckers
655	remove			Prunus serotina	Black cherry	10.2		Good	Twisted or bent trunk
656	remove		yes	Fraxinus pennsylvanica	Green ash	7.2		Good	
657	remove		yes	Fraxinus pennsylvanica	Green ash	7.2		Good	
658	remove		yes	Fraxinus pennsylvanica	Green ash	7.7		Good	
659	remove			Pinus sylvestris	Scots pine	16.3		Good	
660	remove			Quercus macrocarpa	Bur oak	10.8		Good	
661	remove			Quercus rubrum	Red oak	7.3		Good	Vine present
662	remove		yes	Fraxinus pennsylvanica	Green ash	6.3		Fair	Asymmetric crown; crowded; heavy vine
663	remove		yes	Fraxinus pennsylvanica	Green ash	9.7		Good	Vine present
664	remove			Juglans nigra	Black walnut	9.7		Fair	Asymmetric crown; twisted or bent trunk
665	remove			Juglans nigra	Black walnut	18.6		Good	
666	remove			Ulmus americana	American elm	8.4		Fair	Asymmetric crown; twisted or bent trunk; heavy vine
667	remove			Juglans nigra	Black walnut	13.9		Fair	Asymmetric crown; crowded; heavy vine
668	remove		yes	Fraxinus pennsylvanica	Green ash	9.3		Good	
669	remove		yes	Fraxinus pennsylvanica	Green ash	6.9		Fair	Twisted or bent trunk
670	remove			Quercus velutina	Black oak	8.8		Poor	Entire crown broke off
671	remove			Juglans nigra	Black walnut	17.7		Good	
672	remove			Juglans nigra	Black walnut	6.4		Fair	Asymmetric crown; crowded; significant lean
673	remove			Quercus rubrum	Red oak	12.4		Good	
674	remove			Quercus alba	White oak	10.3		Good	
675	remove			Quercus velutina	Black oak	12.0		Good	Vine present
676	remove			Juglans nigra	Black walnut	8.7		Good	
677	remove			Ulmus americana	American elm	6.5		Fair	Twisted or bent trunk; heavy vine
678	remove			Juglans nigra	Black walnut	15.7		Good	
679	remove			Quercus alba	White oak	7.5		Good	
680	remove			Juglans nigra	Black walnut	20.4		Good	
681	remove			Quercus velutina	Black oak	13.2		Good	
682	remove			Juglans nigra	Black walnut	9.3		Good	
683	remove			Quercus alba	White oak	12.5		Good	
684	remove			Quercus alba	White oak	6.5		Good	
685	remove			Quercus alba	White oak	10.7	7.3	Fair	Co-dominant trunks
686	remove			Quercus alba	White oak	8.9		Good	
687	remove			Quercus alba	White oak	13.6		Fair	Asymmetric crown
688	remove			Ulmus americana	American elm	6.6		Fair	Asymmetric crown; twisted or bent trunk
689	remove			Juglans nigra	Black walnut	22.6	17.1	Fair	Co-dominant trunks; weak union
690	remove			Juglans nigra	Black walnut	11.8		Good	
691	remove			Ulmus americana	American elm	12.2		Fair	Twisted or bent trunk
692	remove		yes	Fraxinus pennsylvanica	Green ash	6.7		Good	
693	remove			Ulmus americana	American elm	10.9		Fair	Asymmetric crown
694	remove			Quercus alba	White oak	19.8		Good	
695	remove			Quercus alba	White oak	10.9	8.5	Fair	Co-dominant trunks
696	remove			Quercus rubrum	Red oak	6.5		Fair	Asymmetric crown; forest edge
697	remove			Quercus alba	White oak	9.8		Good	
698	remove			Quercus alba	White oak	7.2		Good	
699	remove			Quercus alba	White oak	6.4		Good	
700	remove			Quercus alba	White oak	15.1		Fair	Asymmetric crown; twisted or bent trunk
701	remove			Quercus velutina	Black oak	13.5		Fair	Asymmetric crown; significant lean
702	remove			Quercus alba	White oak	8.6		Fair	Asymmetric crown; significant lean; crowded
703	remove			Juglans nigra	Black walnut	17.5		Good	
704	remove			Quercus alba	White oak	9.6		Good	
705	remove			Quercus alba	White oak	11.4		Good	
706	remove			Carya ovata	Shagbark hickory	11.2		Good	
707	remove			Prunus serotina	Black cherry	17.5		Fair	Twisted / bent trunk; several broken / dead branches; trunk wound
708	remove			Quercus alba	White oak	6.2		Good	
709	remove			Quercus alba	White oak	6.8		Good	
710	remove			Quercus alba	White oak	15.0		Good	
711	remove			Quercus alba	White oak	17.4	12.2	Fair	Co-dominant trunks
712	remove			Quercus alba	White oak	6.3		Good	
713	remove			Quercus alba	White oak	7.2		Fair	Asymmetric crown
714	remove		yes	Robinia pseudoacacia	Black locust	16.9		Good	Asymmetric crown; forest edge
715	remove		yes	Robinia pseudoacacia	Black locust	14.5	13.4	Fair	Co-dominant trunks
716	remove			Quercus alba	White oak	6.1		Good	
717	remove			Quercus alba	White oak	14.5		Good	
718	remove		yes	Robinia pseudoacacia	Black locust	16.9		Good	
719	remove			Quercus velutina	Black oak	13.2		Fair	Crown broke off
720	remove			Prunus serotina	Black cherry	6.9		Fair	Asymmetric crown; significant lean
721	remove			Quercus alba	White oak	6.4		Good	
722	remove			Ulmus americana	American elm	11.3		Good	
723	remove			Juglans nigra	Black walnut	8.6		Fair	Twisted or bent trunk; windfall leaning on trunk
724	remove			Quercus velutina	Black oak	17.2		Good	
725	remove			Quercus alba	White oak	8.5	4.0	Poor	Main trunk dead; heavy vine
726	remove	yes		Juglans nigra	Black walnut	26.0		Fair	Several broken or dead branches; trunk wound
727	remove			Quercus velutina	Black oak	21.3	14.9	Fair	Co-dominant trunks; several broken or dead branches
728	remove			Carya ovata	Shagbark hickory	14.6		Fair	Twisted or bent trunk
729	remove			Quercus velutina	Black oak	7.9		Poor	Crown partially dead; several broken or dead branches
730	remove			Quercus alba	White oak	8.3		Good	
731	remove		yes	Fraxinus americana	White ash	6.0		Good	
732	remove			Juglans nigra	Black walnut	15.7		Good	
733	remove			Quercus velutina	Black oak	20.5		Good	
734	remove			Quercus velutina	Black oak	12.0		Good	
735	remove			Quercus velutina	Black oak	8.7		Good	
736	remove			Quercus alba	White oak	8.5		Good	
737	remove			Quercus velutina	Black oak	13.7		Good	
738	remove		yes	Fraxinus americana	White ash	6.4	6.2	Fair	Co-dominant trunks
739	remove		yes	Fraxinus americana	White ash	7.0		Good	
740	remove		yes	Fraxinus americana	White ash	6.5		Good	
741	remove		yes	Fraxinus americana	White ash	7.0		Good	Vine present
742	remove		yes	Fraxinus americana	White ash	6.4		Poor	Crown partially dead; several broken / dead branches; heavy vine
743	remove		yes	Fraxinus americana	White ash	6.3		Good	
744	remove		yes	Fraxinus americana	White ash	6.7		Good	
745	remove		yes	Fraxinus americana	White ash	6.4		Good	
746	remove		yes	Fraxinus americana	White ash	6.6		Good	
747	remove		yes	Fraxinus americana	White ash	6.6		Good	
748	remove		yes	Fraxinus americana	White ash	10.9		Good	
749	save			Juglans nigra	Black walnut	14.1		Good	
750	save			Juglans nigra	Black walnut	6.5		Fair	Asymmetric crown; crowded; heavy vine
751	save			Juglans nigra	Black walnut	18.4		Good	
752	remove			Juglans nigra	Black walnut	16.1		Good	
753	remove		yes	Fraxinus americana	White ash	7.7		Good	
754	remove			Juglans nigra	Black walnut	12.2	12.1	Fair	Co-dominant trunks; asymmetric crowns; heavy vine
755	remove			Quercus velutina	Black oak	16.8		Good	
756	remove			Quercus velutina	Black oak	14.0		Good	
757	remove			Carya ovata	Shagbark hickory	9.0		Good	
758	remove			Quercus velutina	Black oak	12.3		Fair	Asymmetric crown; twisted or bent trunk
759	remove			Quercus alba	White oak	8.2		Good	
760	remove		yes	Fraxinus americana	White ash	6.3	6.1	Fair	Co-dominant trunks; heavy vine
761	remove			Quercus velutina	Black oak	7.4		Fair	Asymmetric crown; significant lean; crowded
762	remove			Quercus velutina	Black oak	12.7		Fair	Asymmetric crown; significant lean; crowded
763	remove			Quercus velutina	Black oak	6.4		Good	
764	remove			Carya ovata	Shagbark hickory	8.5		Fair	Asymmetric crown; crowded
765	remove	yes		Quercus velutina	Black oak	30.4	24.2	Fair	Co-dominant trunks; several broken or dead branches
766	remove			Juglans nigra	Black walnut	17.5	12.7	Fair	Co-dominant trunks; asymmetric crowns; crowded
767	remove		yes	Fraxinus americana	White ash	7.7	6.3	Good	Two of same species, same condition, in close proximity
768	remove			Juglans nigra	Black walnut	11.2		Good	
769	remove			Carya ovata	Shagbark hickory	6.2		Good	
770	remove			Quercus alba	White oak	12.8		Good	
771	remove			Quercus alba	White oak	16.1		Good	
772	remove			Juglans nigra	Black walnut	10.6		Good	
773	remove		yes	Fraxinus americana	White ash	6.2		Fair	Twisted or bent trunk; several broken or dead branches
774	remove			Juglans nigra	Black walnut	11.8		Good	
775	remove			Juglans nigra	Black walnut	8.7		Good	
776	remove			Juglans nigra	Black walnut	13.6		Good	
777	remove			Juglans nigra	Black walnut	11.4		Good	
778	remove			Juglans nigra	Black walnut	14.2		Good	
779	remove			Juglans nigra	Black walnut	10.1		Good	
780	remove			Juglans nigra	Black walnut	6.1		Good	
781	remove			Juglans nigra	Black walnut	13.3		Good	
782	remove		yes	Fraxinus americana	White ash	6.5		Fair	Asymmetric crown; crowded
783	remove		yes	Fraxinus americana	White ash	6.3		Fair	Asymmetric crown; crowded
784	remove		yes	Fraxinus americana	White ash	12.7		Good	
785	remove		yes	Fraxinus americana	White ash	6.8		Good	
786	save		yes	Fraxinus americana	White ash	7.4		Good	
787	save		yes	Fraxinus americana	White ash	8.2		Good	
788	save		yes	Fraxinus americana	White ash	7.8		Good	
789	remove			Juglans nigra	Black walnut	8.5		Good	Crowded
790	remove		yes	Fraxinus americana	White ash	6.3		Fair	Asymmetric crown; crowded
791	remove			Juglans nigra	Black walnut	6.5		Fair	Asymmetric crown; crowded
792	remove			Juglans nigra	Black walnut	10.5		Good	
793	remove		yes	Fraxinus americana	White ash	6.6		Good	
794	remove			Juglans nigra	Black walnut	15.3	13.5	Good	Co-dominant trunks
795	remove			Juglans nigra	Black walnut	7.8		Fair	Asymmetric crown; twisted or bent trunk; crowded; vine
796	remove		yes	Fraxinus americana	White ash	6.5		Fair	Vine choking trunk; heavy vine
797	remove		yes	Fraxinus americana	White ash	8.0		Good	
798	remove		yes	Fraxinus americana	White ash	7.2		Good	Heavy vine
799	remove			Prunus serotina	Black cherry	17.5		Good	
800	remove		yes	Fraxinus americana	White ash	8.5		Good	
801	save			Juglans nigra	Black walnut	16.3		Good	
802	remove		yes	Fraxinus americana	White ash	6.1		Good	
803	save		yes	Fraxinus americana	White ash	8.5		Good	
804	save		yes	Fraxinus americana	White ash	9.7		Good	
805	save		yes	Fraxinus americana	White ash	8.0		Fair	Bark peel; heavy vine
806	save			Ulmus americana	American elm	12.7		Good	
807	save			Ulmus americana	American elm	9.8		Good	
808	save		yes	Fraxinus americana	White ash	7.4		Fair	Bark peel; several broken or dead branches
809	save			Juglans nigra	Black walnut	10.8		Good	
810	save			Prunus serotina	Black cherry	9.4	9.2	Poor	Co-dominant; 1 crown partially dead; twisted / bent trunks; trunk rot
811	save			Prunus serotina	Black cherry	11.3		Good	Vine present
812	save			Acer platanoides	Norway maple	15.1		Good	
813	save		yes	Fraxinus americana	White ash	7.6		Good	
814	save			Ulmus americana	American elm	6.2		Good	Vine present
815	save		yes	Fraxinus americana	White ash	6.6		Fair	Bark peel
816	save		yes	Fraxinus americana	White ash	12.2		Good	Vine present
817	save		yes	Fraxinus americana	White ash	6.5		Good	Vine present
818	save		yes	Fraxinus americana	White ash	9.0		Good	
819	save			Juglans nigra	Black walnut	17.6		Good	Vine present
820	save			Ulmus americana	American elm	8.2		Good	Vine present
821	save		yes	Fraxinus americana	White ash	10.1		Good	
822	save			Ulmus americana	American elm	10.5		Good	
823	save			Carya ovata	Shagbark hickory	9.5		Good	
824	save		yes	Fraxinus americana	White ash	8.0		Fair	Bark peel; trunk wound
825	save		yes	Fraxinus americana	White ash	8.3		Fair	Bark peel; trunk wound; heavy vine
826	save		yes	Fraxinus americana	White ash	6.0		Good	
827	save		yes	Fraxinus americana	White ash	6.4		Good	
828	save			Malus sp.	Crabapple	9.5	9.1, 8.5, 8.1	Good	Multiple trunks
829	save		yes	Fraxinus americana	White ash	7.5		Good	
830	save		yes	Fraxinus americana	White ash	6.4		Good	
831	save		yes	Robinia pseudoacacia	Black locust	20.0		Good	
832	save		yes	Robinia pseudoacacia	Black locust	15.2		Good	Same near
833	save		yes	Rhamnus cathartica	Common buckthorn	7.0	6.9	Good	Co-dominant trunks
834	save		yes	Robinia pseudoacacia	Black locust	30.3		Fair	Several broken or dead branches; significant lean; sheer crack
835	remove		yes	Fraxinus americana	White ash	6.0		Fair	Crown partially dead; several broken or dead branches
836	save			Ulmus americana	American elm	6.0		Fair	Asymmetric crown; crowded
837	save		yes	Fraxinus americana	White ash	5.0		Good	
838	save		yes	Fraxinus americana	White ash	8.2		Good	
839	save		yes	Fraxinus americana	White ash	6.3		Fair	Twisted or bent trunk; significant lean; crowded
848	remove		yes	Fraxinus americana	White ash	5.8		Good	
849	remove		yes	Fraxinus americana	White ash	5.0		Good	
947	save			Quercus palustris	Northern Pin Oak	16.0		Good	
948	save			Quercus palustris	Northern Pin Oak	12.0		Good	
949	save			Quercus palustris	Northern Pin Oak	18.8		Good	
950	save			Quercus palustris	Northern Pin Oak	19.5		Good	
951	save	yes		Quercus alba	White Oak	51.0		Good	
952	remove			Pinus sylvestris	Scots Pine	16.1		Good	
86	save			Prunus serotina	Black cherry	11.4		Good	
87	save			Ulmus americana	American elm	6.6		Fair	Asymmetric crown; heavy vine
88	save			Prunus serotina	Black cherry	11.5	11.3	Good	Co-dominant trunks;
89	save			Prunus serotina	Black cherry	9.4		Good	
90	save			Quercus velutina	Black oak	21		Good	
91	save			Prunus serotina	Black cherry	9.2		Good	Heavy vine
92	save			Prunus serotina	Black cherry	7.6		Good	
93	save			Ulmus americana	American elm	8.7		Good	
94	save			Prunus serotina	Black cherry	15.4		Fair	Several dead branches; heavy vine
95	save		yes	Fraxinus americana	White ash	11.1		Good	
96	save		yes	Fraxinus americana	White ash	10.6		Good	
97	remove		yes	Fraxinus americana	White ash	6.2		Good	
98	remove		yes	Fraxinus americana	White ash	9.5		Good	
99	remove		yes	Fraxinus americana	White ash	6.8		Good	
100	remove			Juglans nigra	Black walnut	14.1		Good	
101	remove			Juglans nigra	Black walnut	14.5		Good	
102	remove			Juglans nigra	Black walnut	11.7		Good	
103	remove			Juglans nigra	Black walnut	13.3		Good	Heavy vine
104	save			Juglans nigra	Black walnut	12.2		Good	
105	save			Juglans nigra	Black walnut	10.5		Good	
106	save			Ulmus americana	American elm	6.8		Poor	Dead crown
107	save		yes	Fraxinus americana	White ash	7.9		Poor	Bark peel; several dead branches
108	save		yes	Fraxinus americana	White ash	8.9		Good	
109	save		yes	Fraxinus americana	White ash	6.3		Fair	Several dead branches; heavy vine
110	save		yes	Fraxinus americana	White ash	8.4		Good	Heavy vine
111	save		yes	Fraxinus americana	White ash	8.9		Good	
112	save			Ulmus americana	American elm	7.8		Fair	Several dead branches; heavy vine
113	save			Juglans nigra	Black walnut	11.3		Good	
114	save			Juglans nigra	Black walnut	13.8		Good	
115	save		yes	Fraxinus americana	White ash	8.3		Fair	Bark peel; twisted or bent trunk; dead branches
116	save			Juglans nigra	Black walnut	21.2		Good	
117	save		yes	Fraxinus americana	White ash	6.9		Good	
118	save		yes	Fraxinus americana	White ash	6.8		Good	
119	save			Juglans nigra	Black walnut	16.4	13.2	Good	Co-dominant trunks; heavy vine; crowded
120	save			Juglans nigra	Black walnut	19.6		Good	Crowded
121	save		yes	Fraxinus americana	White ash	9.9		Good	
122	save			Ulmus americana	American elm	11.9		Good	
123	save			Ulmus americana	American elm	7.3		Good	
124	save		yes	Fraxinus americana	White ash	9.1		Good	
125	save		yes	Fraxinus americana	White ash	6.8		Good	
126	save			Juglans nigra	Black walnut	14.7		Good	
127	save			Ulmus americana	American elm	6.5		Good	
128	save			Juglans nigra	Black walnut	8.5		Good	
129	save			Juglans nigra	Black walnut	13.9		Good	
130	save			Quercus alba	White oak	11.8		Good	
131	save			Juglans nigra	Black walnut	9.7		Good	
132	save		yes	Fraxinus americana	White ash	5.8		Good	
133	save		yes	Fraxinus americana	White ash	6.9		Good	Heavy vine
134	save		yes	Fraxinus americana	White ash	7.8		Poor	Bark peel; several dead branches; heavy vine
135	save			Prunus serotina	Black cherry	14.3		Good	Heavy vine
136	save			Prunus serotina	Black cherry	13.9	12.5	Good	Co-dominant trunks; heavy vine
137	save			Ulmus americana	American elm	10		Good	
138	save			Ulmus americana	American elm	7.8		Good	Collected by main parking lot
139	save			Thuja occidentalis	Arborvitae	10.2		Good	Collected by main parking lot

NF ENGINEERS

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257
WWW.NOWAKFRAUS.COM

SEAL

PROJECT
Fanuc America -
Proposed Parking Lot

CLIENT
Fanuc America
3900 W. Hamlin Road
Rochester Hills, MI 48309

Contact: Brad Nowacki
Phone: 248.377-7239
Email: brad.nowacki@
fanucamerica.com

PROJECT LOCATION
Part of the NE 1/4
of Section 26
T.3N , R.10E,
City of Auburn Hills,
Oakland County, Michigan
Sidwell No: 14-26-226-004

SHEET
Surveyed Trees List

811
Know what's below
Call before you dig.

DATE ISSUED/REVISED
03-26-26 Rev. per City Review

DRAWN BY:
D. McConkey

DESIGNED BY:

APPROVED BY:
P. Williams

DATE:
12-23-2025

SCALE: 1" = 30'
30 15 0 15 30 45

NFE JOB NO. B096-02

SHEET NO. SP-02



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SEAL.

STATE OF MICHIGAN
PATRICK J. WILLIAMS
ENGINEER
NO. 44081
LICENSED PROFESSIONAL ENGINEER

PROJECT
Fanuc America -
Proposed Parking Lot

CLIENT
Fanuc America
3900 W. Hamlin Road
Rochester Hills, MI 48309

Contact: Brad Nowacki
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PROJECT LOCATION
Part of the NE 1/4
of Section 26
T.3N , R.10E,
City of Auburn Hills,
Oakland County, Michigan
Sidwell No: 14-26-226-004

SHEET
Overall Image

811
Know what's below
Call before you dig.

DATE	ISSUED/REVISED
03-26-26	Rev. per City Review

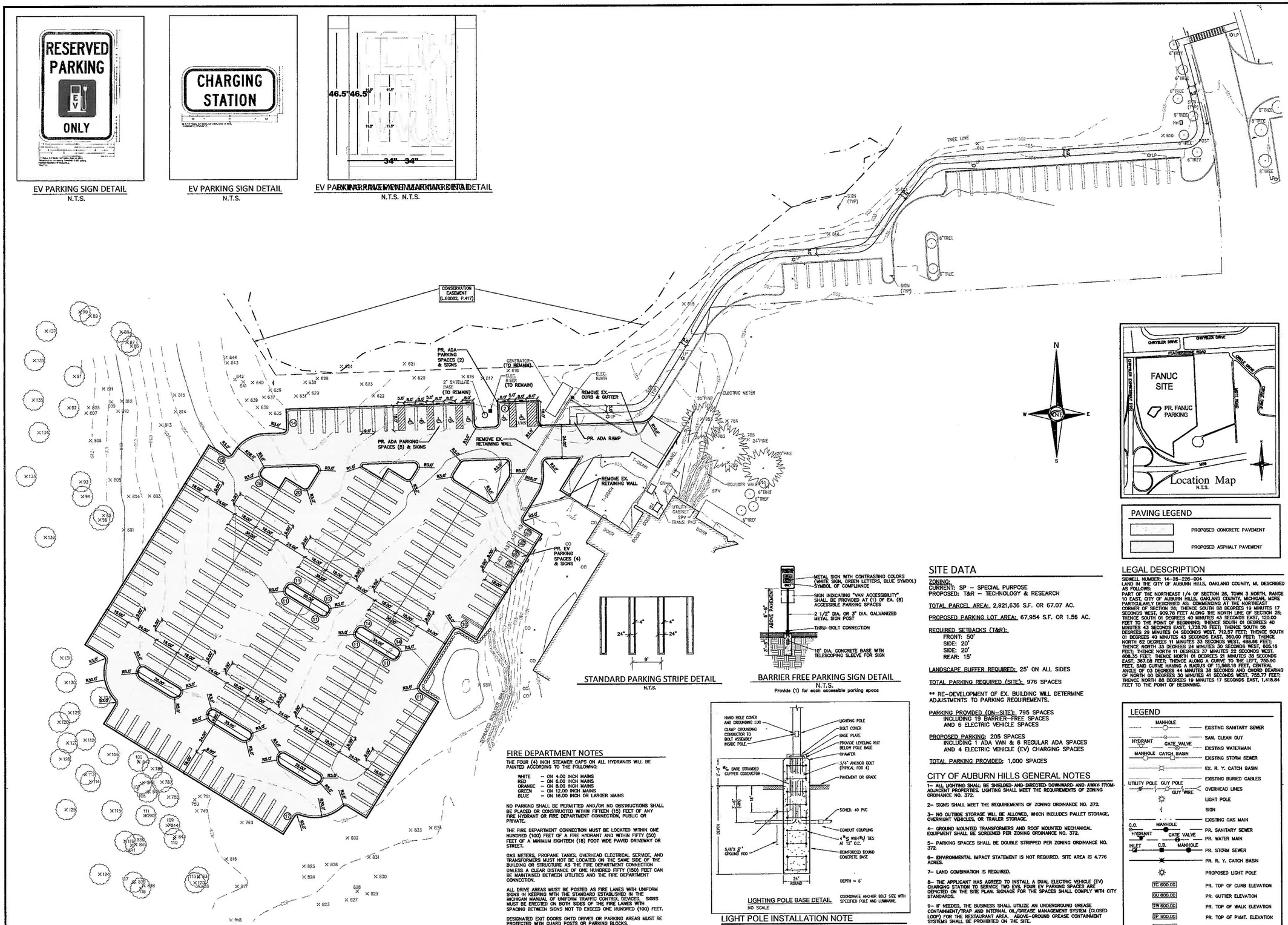
DRAWN BY:
A. Wiseman
DESIGNED BY:
A. Wiseman
APPROVED BY:
P. Williams
DATE:
02-10-2026
SCALE: 1" = 30'
30 15 0 15 30 45

NFE JOB NO. B096-02
SHEET NO. SP-03

EV PARKING SIGN DETAIL
N.T.S.

EV PARKING SIGN DETAIL
N.T.S.

EV PARKING PAVEMENT MARKING DETAIL
N.T.S. N.T.S.



STANDARD PARKING STRIPE DETAIL
N.T.S.

BARRIER FREE PARKING SIGN DETAIL
N.T.S.
Provide (1) for each accessible parking space

LIGHTING POLE BASE DETAIL
NO SCALE

LIGHT POLE INSTALLATION NOTE

ALL LIGHT POLES INSTALLED ON SITE SHALL BE OF UNIFORM HEIGHT AND MATCH EXISTING POLES INSTALLED THROUGHOUT THE FANUC CAMPUS.

FIRE DEPARTMENT NOTES

THE FOUR (4) INCH STEAMER CAPS ON ALL HYDRANTS WILL BE PAINTED ACCORDING TO THE FOLLOWING:

WHITE	– ON 4.00 INCH MAINS
RED	– ON 6.00 INCH MAINS
ORANGE	– ON 8.00 INCH MAINS
GREEN	– ON 12.00 INCH MAINS
BLUE	– ON 16.00 INCH OR LARGER MAINS

NO PARKING SHALL BE PERMITTED AND/OR NO OBSTRUCTIONS SHALL BE PLACED OR CONSTRUCTED WITHIN FIFTEEN (15) FEET OF ANY FIRE HYDRANT OR FIRE DEPARTMENT CONNECTION, PUBLIC OR PRIVATE.

THE FIRE DEPARTMENT CONNECTION MUST BE LOCATED WITHIN ONE HUNDRED (100) FEET OF A FIRE HYDRANT AND WITHIN FIFTY (50) FEET OF A MINIMUM EIGHTEEN (18) FOOT WIDE PAVED DRIVEWAY OR STREET.

GAS METERS, PROPANE TANKS, OVERHEAD ELECTRICAL SERVICE, AND TRANSFORMERS MUST NOT BE LOCATED ON THE SAME SIDE OF THE BUILDING OR STRUCTURE AS THE FIRE DEPARTMENT CONNECTION UNLESS A CLEAR DISTANCE OF ONE HUNDRED FIFTY (150) FEET CAN BE MAINTAINED BETWEEN UTILITIES AND THE FIRE DEPARTMENT CONNECTION.

ALL DRIVE AREAS MUST BE POSTED AS FIRE LANES WITH UNIFORM SIGNS IN KEEPING WITH THE STANDARD ESTABLISHED IN THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. SIGNS MUST BE ERECTED ON BOTH SIDES OF THE FIRE LANES WITH SPACING BETWEEN SIGNS NOT TO EXCEED ONE HUNDRED (100) FEET.

DESIGNATED EXIT DOORS ONTO DRIVES OR PARKING AREAS MUST BE PROTECTED WITH GUARD POSTS OR PARKING BLOCKS.

A WHITE HIGH VISIBILITY STRIP SHALL BE PAINTED ON THE UPPER FLANGE OF ALL FIRE HYDRANTS.

SITE DATA

ZONING:
CURRENT: SP – SPECIAL PURPOSE
PROPOSED: T&R – TECHNOLOGY & RESEARCH

TOTAL PARCEL AREA: 2,921,636 S.F. OR 67.07 AC.

PROPOSED PARKING LOT AREA: 67,954 S.F. OR 1.56 AC.

REQUIRED SETBACKS (T&R):
FRONT: 50'
SIDE: 20'
SIDE: 20'
REAR: 15'

LANDSCAPE BUFFER REQUIRED: 25' ON ALL SIDES

TOTAL PARKING REQUIRED (SITE): 976 SPACES

** RE-DEVELOPMENT OF EX. BUILDING WILL DETERMINE ADJUSTMENTS TO PARKING REQUIREMENTS.

PARKING PROVIDED (ON-SITE): 795 SPACES
INCLUDING 19 BARRIER-FREE SPACES
AND 6 ELECTRIC VEHICLE SPACES

PROPOSED PARKING: 205 SPACES
INCLUDING 1 ADA VAN & 6 REGULAR ADA SPACES
AND 4 ELECTRIC VEHICLE (EV) CHARGING SPACES

TOTAL PARKING PROVIDED: 1,000 SPACES

CITY OF AUBURN HILLS GENERAL NOTES

1– ALL LIGHTING SHALL BE SHIELDED AND DIRECTED DOWNWARD AND AWAY FROM ADJACENT PROPERTIES. LIGHTING SHALL MEET THE REQUIREMENTS OF ZONING ORDINANCE NO. 372.

2– SIGNS SHALL MEET THE REQUIREMENTS OF ZONING ORDINANCE NO. 372.

3– NO OUTSIDE STORAGE WILL BE ALLOWED, WHICH INCLUDES PALLET STORAGE, OVERNIGHT VEHICLES, OR TRAILER STORAGE.

4– GROUND MOUNTED TRANSFORMERS AND ROOF MOUNTED MECHANICAL EQUIPMENT SHALL BE SCREENED PER ZONING ORDINANCE NO. 372.

5– PARKING SPACES SHALL BE DOUBLE STRIPPED PER ZONING ORDINANCE NO. 372.

6– ENVIRONMENTAL IMPACT STATEMENT IS NOT REQUIRED. SITE AREA IS 4.776 ACRES.

7– LAND COMBINATION IS REQUIRED.

8– THE APPLICANT HAS AGREED TO INSTALL A DUAL ELECTRIC VEHICLE (EV) CHARGING STATION TO SERVICE TWO EVS. FOUR EV PARKING SPACES ARE DEPICTED ON THE SITE PLAN. SIGNAGE FOR THE SPACES SHALL COMPLY WITH CITY STANDARDS.

9– IF NEEDED, THE BUSINESS SHALL UTILIZE AN UNDERGROUND GREASE CONTAINMENT/TRAP AND INTERNAL OIL/GREASE MANAGEMENT SYSTEM (CLOSED LOOP) FOR THE RESTAURANT AREA. ABOVE-GROUND GREASE CONTAINMENT SYSTEMS SHALL BE PROHIBITED ON THE SITE.

Location Map
N.T.S.

PAVING LEGEND

PROPOSED CONCRETE PAVEMENT

PROPOSED ASPHALT PAVEMENT

LEGAL DESCRIPTION

SIDWELL NUMBER: 14-26-226-004
LAND IN THE CITY OF AUBURN HILLS, OAKLAND COUNTY, MI, DESCRIBED AS FOLLOWS:
PART OF THE NORTHEAST 1/4 OF SECTION 26, TOWN 3 NORTH, RANGE 10 EAST, CITY OF AUBURN HILLS, OAKLAND COUNTY, MICHIGAN, MORE PARTICULARLY DESCRIBED AS: COMMENCING AT THE NORTHEAST CORNER OF SECTION 26; THENCE SOUTH 88 DEGREES 19 MINUTES 17 SECONDS WEST, 909.78 FEET ALONG THE NORTH LINE OF SECTION 26; THENCE SOUTH 01 DEGREES 40 MINUTES 43 SECONDS EAST, 120.00 FEET TO THE POINT OF BEGINNING; THENCE SOUTH 01 DEGREES 40 MINUTES 43 SECONDS EAST, 1,738.78 FEET; THENCE SOUTH 58 DEGREES 29 MINUTES 04 SECONDS WEST, 712.57 FEET; THENCE SOUTH 01 DEGREES 40 MINUTES 43 SECONDS EAST, 360.00 FEET; THENCE NORTH 62 DEGREES 11 MINUTES 33 SECONDS WEST, 488.66 FEET; THENCE NORTH 33 DEGREES 24 MINUTES 30 SECONDS WEST, 605.16 FEET; THENCE NORTH 11 DEGREES 37 MINUTES 22 SECONDS WEST, 608.35 FEET; THENCE NORTH 01 DEGREES 21 MINUTES 38 SECONDS EAST, 367.08 FEET; THENCE ALONG A CURVE TO THE LEFT, 755.90 FEET, SAID CURVE HAVING A RADIUS OF 11,568.16 FEET, CENTRAL ANGLE OF 03 DEGREES 44 MINUTES 38 SECONDS AND CHORD BEARING OF NORTH 00 DEGREES 30 MINUTES 41 SECONDS WEST, 755.77 FEET; THENCE NORTH 88 DEGREES 19 MINUTES 17 SECONDS EAST, 1,418.84 FEET TO THE POINT OF BEGINNING.

LEGEND

MANHOLE	EXISTING SANITARY SEWER
HYDRANT / GATE VALVE	SAN. CLEAN OUT
MANHOLE / CATCH BASIN	EXISTING WATERMAIN
	EXISTING STORM SEWER
	EX. R. Y. CATCH BASIN
UTILITY POLE / GUY POLE / GUY WIRE	EXISTING BURIED CABLES
	OVERHEAD LINES
	LIGHT POLE
	SIGN
	EXISTING GAS MAIN
C.O. MANHOLE / HYDRANT / GATE VALVE	PR. SANITARY SEWER
	PR. WATER MAIN
INLET / C.B. / MANHOLE	PR. STORM SEWER
	PR. R. Y. CATCH BASIN
	PROPOSED LIGHT POLE
TC 600.00	PR. TOP OF CURB ELEVATION
GU 600.00	PR. GUTTER ELEVATION
TW 600.00	PR. TOP OF WALK ELEVATION
TP 600.00	PR. TOP OF PVMT. ELEVATION
FG 600.00	FINISH GRADE ELEVATION

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LAND SURVEYORS
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TEL. (248) 332-7931
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WWW.NOWAKFRAUS.COM

SEAL

STATE OF MICHIGAN
PATRICK J. WILLIAMS
ENGINEER
NO. 44351
LICENSED PROFESSIONAL ENGINEER

PROJECT
Fanuc America -
Proposed Parking Lot

CLIENT
Fanuc America
3900 W. Hamlin Road
Rochester Hills, MI 48309

Contact: Brad Nowacki
Phone: 248.377-7239
Email: brad.nowacki@fanucamerica.com

PROJECT LOCATION
Part of the NE 1/4
of Section 26
T.3N , R.10E,
City of Auburn Hills,
Oakland County, Michigan
Sidwell No: 14-26-226-004

SHEET
Dimensional Site Plan

811
Know what's below
Call before you dig.

DATE	ISSUED/REVISED
03-26-26	Rev. per City Review

DRAWN BY:
A. Wiseman

DESIGNED BY:
A. Wiseman

APPROVED BY:
P. Williams

DATE:
02-10-2026

SCALE: 1" = 30'
30 15 0 15 30 45

NFE JOB NO.
B096-02

SHEET NO.
SP-04

REQUIRED DETENTION VOLUME CALCULATIONS

100 Year Post-Development Detention Volume

Name of Project:	FANUC-Parking
Location of Project:	Auburn Hills
NFE Project No.:	8096-02
Contributing Acreage "A":	1.587 ac
Weighted Runoff Coefficient "C":	0.92
Time of Concentration "Tc":	10.00 min
1. Calculate Required Water Quality Volume (Vwq) (1" Rainfall Event)	
Vwq = 3630(C)(A)	5,300 cft
2. Calculate Required Water Quality Rate (Qwq)	
Qwq = (C)(A)30.20/(Tc+9.17)^.81	4.03 cfs
3. Calculate Required Channel Protection Volume (Vcp-r) (1.3" Rainfall Event)	
Vcp-r = 4719(C)(A)	6,890 cft
4. Calculate Required Extended Detention Volume (Ved) (1.9" Rainfall Event)	
Ved = 6837(C)(A)	10,070 cft
5. Calculate Extended Detention Outlet Rate (Qed) (48 hour discharge)	
Qed = Ved / [(48 hr)(60 min)(60 sec)] = Ved/172800	0.06 cfs
6. Calculate 100-year Rainfall Intensity (I100)	
I100 = 83.3/(Tc+9.17^0.81))	7.62 in/hr
7. Calculate 100-year Storm Inlet Rate (Q100-in)	
Q100-in = (C)(I100)(A)	11.12 cfs
8. Determine the Variable Release Rate (Qvrr)	
Qvrr =	1.00 cfs/ac
Restricted Outlet rate per local municipality	0.150 cfs/ac
9. Calculate Allowable 100-year Storm Outlet Rate (Q100P)	
Q100p = (Qvrr)(A)	0.24 cfs
10. Calculate Storage Curve Factor (R)	
R = 0.205-(0.15)LN(Q100P/Q100-in))	0.783
11. Calculate Required 100-year Storm Volume in (V100R)	
V100R = 18,985(C)(A)	27,719 cft
12. Calculate 100-year Storm Detention Storage Volume (V100D)	
V100D = (V100R)(R)	21,693 cft
Vep(credit)	0 cft
TOTAL DETENTION VOLUME REQUIRED:	**21,693 cft**

Tc = 15 Minutes — Time of Concentration
I = 30.20p^0.22 / (Tc+9.17)^0.81 — 10 Year Storm Event Intensity
n (Conc.) 0.013 — Manning's Roughness Coefficient
n (Pvc) 0.013 — Manning's Roughness Coefficient

City of Auburn Hills, Oakland County, Michigan
Storm Sewer Calculations

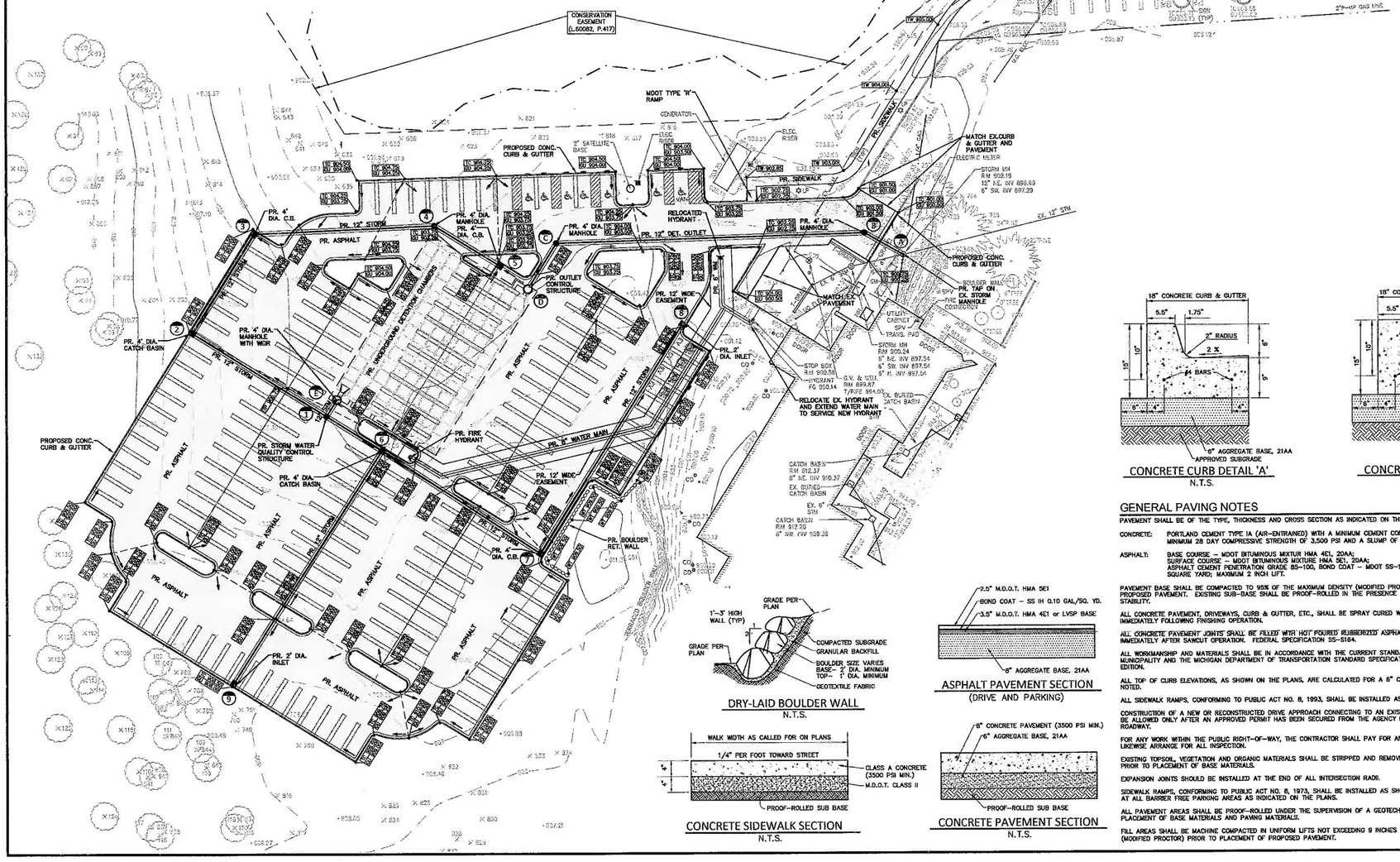
Project No: 8096-02
Project Name: Fanuc America
Location: Featherstone Rd.
Dated: February 16, 2026
Revised: 03/26/26

Drainage Area	From Struc. No.	To Struc. No.	Drainage Area (Acres)	Runoff Coefficient (C)	Equivalent Area (C * A)	Total Area (Sum C * A)	Time of Concentration (Minutes)	Rainfall Intensity (Inches/Hr.)	Actual Discharge (CFS)	Pipe Size (inches)	Pipe Slope (% Slope)	Pipe Length (Feet)	Flow Full Velocity (Ft / Sec)	Time of Flow (Minutes)	Full Pipe Capacity (CFS)	H. G. Elev. Upper End (Feet)	H. G. Elev. Lower End (Feet)	H. G. Slope (% Slope)	Theoretical Velocity (Ft / Sec)	Ground Elevation (Upper) (Feet)	Change in Elevation (Feet)	Invert Elev. Upper End (Feet)	Invert Elev. Lower End (Feet)	Upper Rim to HGL (Feet)
C	9	6	0.177	0.91	0.161	0.161	15.00	3.798	0.612	12	0.32	147	2.566	0.95	2.015	904.37	904.33	0.029	0.78	908.00	0.47	904.00	903.53	3.63
A	8	7	0.245	0.92	0.225	0.225	15.00	3.798	0.856	12	0.32	144	2.566	0.94	2.015	900.17	900.09	0.056	1.09	902.75	0.46	899.75	899.29	2.58
D	7	6	0.155	0.92	0.143	0.368	15.94	3.683	1.355	12	0.32	100	2.566	0.65	2.015	899.81	899.67	0.145	1.73	906.50	0.32	899.19	898.87	6.69
B	5	4	0.438	0.91	0.399	0.560	15.00	3.798	2.126	12	0.36	41	2.722	0.25	2.138	900.05	900.40	0.366	2.71	902.75	0.15	899.75	899.60	2.20
B	4	3	0.000	0.92	0.000	0.560	15.25	3.766	2.108	12	0.35	96	2.722	0.59	2.138	900.38	900.04	0.350	2.68	903.50	0.35	899.59	899.24	3.12
G	3	2	0.126	0.92	0.116	0.676	15.84	3.694	2.496	12	0.50	62	3.208	0.32	2.519	899.94	899.63	0.491	3.18	903.00	0.31	899.14	898.83	3.06
F	2	1	0.153	0.94	0.144	0.819	16.16	3.656	2.996	15	0.24	84	2.579	0.54	3.165	899.71	899.53	0.215	2.44	905.75	0.20	898.73	898.53	6.04
E	6	1	0.293	0.92	0.270	0.799	16.58	3.608	2.881	15	0.24	35	2.579	0.22	3.165	899.75	899.69	0.199	2.35	905.50	0.08	898.77	898.69	5.75
E	1	E	0.000	0.92	0.000	1.618	16.81	3.582	5.796	18	0.32	23	3.363	0.11	5.942	899.68	899.61	0.304	3.28	906.15	0.07	898.49	898.41	6.47
Detention Outlet Pipe																								
-	E	D	0.000	0.91	0.000	0.000	19.00	3.798	0.200	45	0.10	98	3.462	0.47	38.242	901.27	901.27	0.000	0.02	903.50	0.10	898.37	898.27	2.23
-	D	C	0.000	0.91	0.000	0.000	15.00	3.798	0.200	12	0.32	27	2.566	0.18	2.015	898.89	898.89	0.003	0.25	903.50	0.09	898.17	898.09	4.61
-	C	B	0.000	0.92	0.000	0.000	15.18	3.776	0.200	12	0.32	164	2.566	1.07	2.015	898.27	898.26	0.003	0.25	903.25	0.52	897.99	897.46	4.98
-	B	A	0.000	0.92	0.000	0.000	16.24	3.647	0.200	12	0.32	24	2.566	0.15	2.015	898.09	898.08	0.003	0.25	901.00	0.08	897.36	897.28	2.91

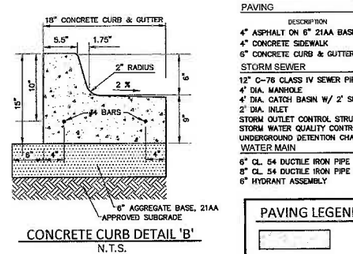
Land Use Summary

Characteristic	Existing Conditions	Proposed Conditions
Total Development Area (ac):	1.56	1.56
Impervious Area (ac):	0.025	1.47
Pervious Area (ac):	1.535	0.09
Pervious Area Breakdown Cover Type		
Meadow/fallow/natural areas (non-cultivated)	1.560	0.000
Predominant NRCS Soil Type (A, B, C, or D)	C	C
Improved areas (turf grass, landscape, row crops) (ac):	0.000	0.090
Predominant NRCS Soil Type (A, B, C, or D)	C	C
Wooded Areas	1.316	0.000
Predominant NRCS Soil Type (A, B, C, or D)	C	C
Calculated CPVC Volume (C.F.)		6,775
CPVC Volume Provided (C.F.)		0
CPRC Volume Provided (C.F.)		9,899

NOTE: UDSA website states soil type 258 are present on site, actual Infiltration testing has not been preformed but the well drained, sandy loam soils, will provide CPVC infiltration.



CONCRETE CURB DETAIL 'A'
N.T.S.



CONCRETE CURB DETAIL 'B'
N.T.S.

DRY-LAID BOULDER WALL
N.T.S.

ASPHALT PAVEMENT SECTION
(DRIVE AND PARKING)

CONCRETE SIDEWALK SECTION
N.T.S.

CONCRETE PAVEMENT SECTION
N.T.S.

GENERAL PAVING NOTES

PAVEMENT SHALL BE OF THE TYPE, THICKNESS AND CROSS SECTION AS INDICATED ON THE PLANS AND AS FOLLOWS:

CONCRETE: PORTLAND CEMENT TYPE IA (AIR-ENTRAINED) WITH A MINIMUM CEMENT CONTENT OF SIX SACKS PER CUBIC YARD, MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3,500 PSI AND A SLUMP OF 1 1/2 TO 3 INCHES.

ASPHALT: BASE COURSE – MDOT BITUMINOUS MIXTUR HMA 4E1, 20AA;
SURFACE COURSE – MDOT BITUMINOUS MIXTURE HMA 5E1, 20AA;
ASPHALT CEMENT PENETRATION GRADE 85-100, BOND COAT – MDOT SS-1H EMULSION AT 0.10 GALLON PER SQUARE YARD; MAXIMUM 2 INCH LIFT.

PAVEMENT BASE SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY (MODIFIED PROCTOR) PRIOR TO PLACEMENT OF PROPOSED PAVEMENT. EXISTING SUB-BASE SHALL BE PROOF-ROLLED IN THE PRESENCE OF THE ENGINEER TO DETERMINE STABILITY.

ALL CONCRETE PAVEMENT, DRIVEWAYS, CURB & GUTTER, ETC., SHALL BE SPRAY CURED WITH WHITE MEMBRANE CURING COMPOUND IMMEDIATELY FOLLOWING FINISHING OPERATION.

ALL CONCRETE PAVEMENT JOINTS SHALL BE FILLED WITH HOT POURED RUBBERIZED ASPHALT JOINT SEALING COMPOUND IMMEDIATELY AFTER SAWCUT OPERATION. FEDERAL SPECIFICATION SS-S164.

ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE MUNICIPALITY AND THE MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, CURRENT EDITION.

ALL TOP OF CURB ELEVATIONS, AS SHOWN ON THE PLANS, ARE CALCULATED FOR A 6" CONCRETE CURB UNLESS OTHERWISE NOTED.

ALL SIDEWALK RAMPS, CONFORMING TO PUBLIC ACT NO. 8, 1993, SHALL BE INSTALLED AS INDICATED ON THE PLANS.

CONSTRUCTION OF A NEW OR RECONSTRUCTED DRIVE APPROACH CONNECTING TO AN EXISTING STATE OR COUNTY ROADWAY SHALL BE ALLOWED ONLY AFTER AN APPROVED PERMIT HAS BEEN SECURED FROM THE AGENCY HAVING JURISDICTION OVER SAID ROADWAY.

FOR ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY, THE CONTRACTOR SHALL PAY FOR AND SECURE ALL NECESSARY PERMITS AND LIKEWISE ARRANGE FOR ALL INSPECTION.

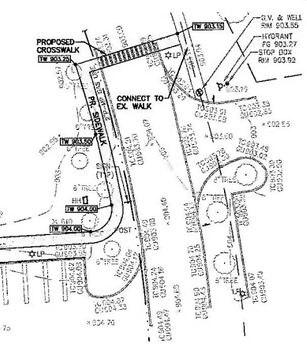
EXISTING TOPSOIL, VEGETATION AND ORGANIC MATERIALS SHALL BE STRIPPED AND REMOVED FROM PROPOSED PAVEMENT AREA PRIOR TO PLACEMENT OF BASE MATERIALS.

EXPANSION JOINTS SHOULD BE INSTALLED AT THE END OF ALL INTERSECTION RADII.

SIDEWALK RAMPS, CONFORMING TO PUBLIC ACT NO. 8, 1973, SHALL BE INSTALLED AS SHOWN AT ALL STREET INTERSECTIONS AND AT ALL BARRIER FREE PARKING AREAS AS INDICATED ON THE PLANS.

ALL PAVEMENT AREAS SHALL BE PROOF-ROLLED UNDER THE SUPERVISION OF A GEOTECHNICAL ENGINEER PRIOR TO THE PLACEMENT OF BASE MATERIALS AND PAVING MATERIALS.

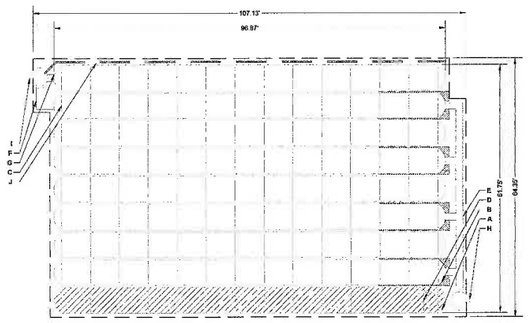
FILL AREAS SHALL BE MACHINE COMPACTED IN UNIFORM LIFTS NOT EXCEEDING 9 INCHES THICK TO 95% OF THE MAXIMUM DENSITY (MODIFIED PROCTOR) PRIOR TO PLACEMENT OF PROPOSED PAVEMENT.


PROPOSED CROSSWALK
CONNECT TO EX. WALK
PR. SIDEWALK
TREE LINE
PR. SIDEWALK
G.V. & WELL RIM 903.55
HYDRANT FG 903.27
STOP BOX RIM 903.92
TW 903.00
TW 904.00
TW 903.50
TW 904.50
TW 903.00
TW 904.00
TW 903.00
TW 904.00
TW 903.00
TW 904.00

PROPOSED LAYOUT		PROPOSED ELEVATIONS	
117	STORMTECH MC-3500 CHAMBERS	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)	910.00
18	STORMTECH MC-3500 END CAPS	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)	904.00
12	STONE ABOVE (in)	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)	903.50
9	STONE BELOW (in)	MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT)	903.50
40	STONE VOID	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)	903.00
22491	INSTALLED SYSTEM VOLUME (CF) (PERIMETER STONE INCLUDED) (COVER STONE INCLUDED) (BASE STONE INCLUDED)	TOP OF STONE	903.00
		TOP OF MC-3500 CHAMBER	902.50
		18" x 18" TOP MANIFOLD INVERT	899.83
		24" ISOLATOR ROW PLUS INVERT	899.27
6641	SYSTEM AREA (SF)	18" x 18" BOTTOM MANIFOLD INVERT	898.40
3633	SYSTEM PERIMETER (ft)	18" BOTTOM CONNECTION INVERT	898.40
		BOTTOM OF MC-3500 CHAMBER	898.25
		UNDERDRAIN INVERT	897.59
		BOTTOM OF STONE	897.50

*INVERT ABOVE BASE OF CHAMBER

PART TYPE	ITEM ON LAYOUT	DESCRIPTION	INVERT*	MAX FLOW
PREFABRICATED END CAP	A	24" BOTTOM PRE-CORED END CAP, PART#: MC3500IEPP24BC / TYP OF ALL 24" BOTTOM CONNECTIONS AND ISOLATOR PLUS ROWS		
PREFABRICATED END CAP	B	18" TOP PRE-CORED END CAP, PART#: MC3500IEPP18TC / TYP OF ALL 18" TOP CONNECTIONS		
PREFABRICATED END CAP	C	18" BOTTOM PRE-CORED END CAP, PART#: MC3500IEPP18BC / TYP OF ALL 18" BOTTOM CONNECTIONS		
FLAMP	D	INSTALL FLAMP ON 24" ACCESS PIPE / PART#: MCFLAMP		
MANIFOLD	E	18" x 18" TOP MANIFOLD, ADS N-12	20.03"	
MANIFOLD	F	18" x 18" BOTTOM MANIFOLD, ADS N-12	1.77"	
PIPE CONNECTION	G	18" BOTTOM CONNECTION	1.77"	
CONCRETE STRUCTURE	H	(DESIGN BY ENGINEER / PROVIDED BY OTHERS)		19.2 CFS IN
CONCRETE STRUCTURE	I	(DESIGN BY ENGINEER / PROVIDED BY OTHERS)		8.9 CFS OUT
UNDERDRAIN	J	6" ADS N-12 DUAL WALL PERFORATED HDPE UNDERDRAIN		



ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 17.59' OF ADSPLUS125 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS

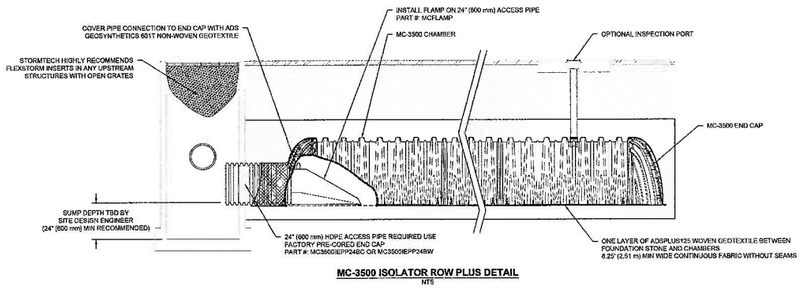
NOTES
- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.
- NOT FOR CONSTRUCTION: THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.

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MC-3500 ISOLATOR ROW PLUS DETAIL
NTS

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

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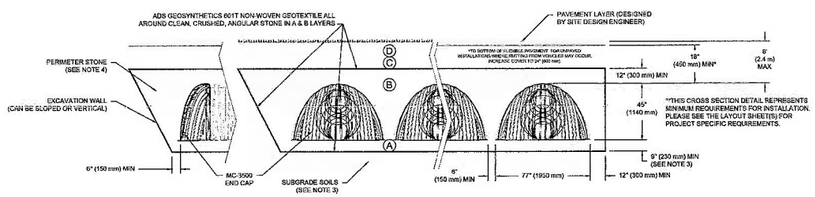
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SHEET 4 OF 5

ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' START'S FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE (A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[3]	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[3]	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.
5. WHERE RECYCLED CONCRETE AGGREGATE IS USED IN LAYERS 'A' OR 'B' THE MATERIAL SHOULD ALSO MEET THE ACCEPTABILITY CRITERIA OUTLINED IN TECHNICAL NOTE 6.20 "RECYCLED CONCRETE STRUCTURAL BACKFILL".



NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
2. MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS. REFERENCE STORMTECH DESIGN MANUAL FOR BEARING CAPACITY GUIDANCE.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL. FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 650 LBS/FT/% . THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

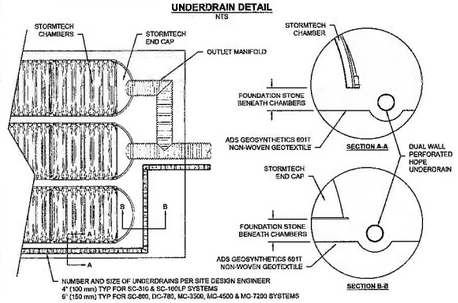
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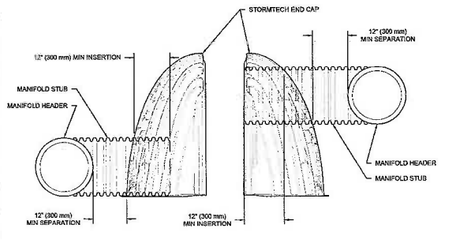
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SHEET 3 OF 5

UNDERDRAIN DETAIL
NTS

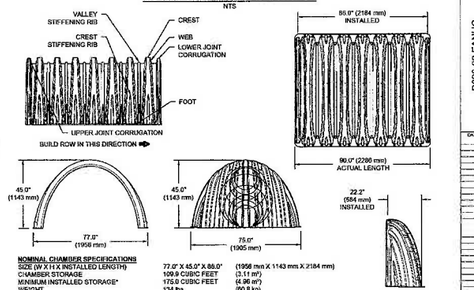


MC-SERIES END CAP INSERTION DETAIL
NTS



NOTE: MANIFOLD STUB MUST BE LAID HORIZONTAL FOR A PROPER FIT IN END CAP OPENING.

MC-3500 TECHNICAL SPECIFICATION
NTS



NOMINAL CHAMBER SPECIFICATIONS		
SIZE (W X H X INSTALLED LENGTH)	77.0" X 45.0" X 86.0"	(1956 mm X 1143 mm X 2184 mm)
CHAMBER STORAGE	109.9 CUBIC FEET	(3.11 m³)
MINIMUM INSTALLED STORAGE*	175.0 CUBIC FEET	(4.96 m³)
WEIGHT	134 lbs.	(60.8 kg)
NOMINAL END CAP SPECIFICATIONS		
SIZE (W X H X INSTALLED LENGTH)	75.0" X 45.0" X 22.2"	(1905 mm X 1143 mm X 564 mm)
END CAP STORAGE	14.8 CUBIC FEET	(0.42 m³)
MINIMUM INSTALLED STORAGE*	45.1 CUBIC FEET	(1.28 m³)
WEIGHT	49 lbs.	(22.2 kg)

*ASSUMES 12" (305 mm) STONE ABOVE, 9" (225 mm) STONE FOUNDATION, 6" SPACING BETWEEN CHAMBERS, 6" (152 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY

STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
END CAPS WITH A WELDED GROWN PLATE END WITH "C"
END CAPS WITH A PREFABRICATED WELDED STUB END WITH "W"

PART #	STUB	B	C
MC3500IEPP06T	6" (150 mm)	33.21" (844 mm)	—
MC3500IEPP06B		—	0.66" (17 mm)
MC3500IEPP08T	8" (200 mm)	31.16" (791 mm)	—
MC3500IEPP08B		—	0.81" (21 mm)
MC3500IEPP10T	10" (250 mm)	29.04" (738 mm)	—
MC3500IEPP10B		—	0.93" (24 mm)
MC3500IEPP12T	12" (300 mm)	26.36" (670 mm)	—
MC3500IEPP12B		—	1.35" (34 mm)
MC3500IEPP15T	15" (375 mm)	23.36" (594 mm)	—
MC3500IEPP15B		—	1.50" (38 mm)
MC3500IEPP18TC	18" (450 mm)	20.03" (509 mm)	—
MC3500IEPP18TW			1.77" (45 mm)
MC3500IEPP18BC		—	
MC3500IEPP18BW			
MC3500IEPP24TC	24" (600 mm)	14.48" (368 mm)	—
MC3500IEPP24TW			
MC3500IEPP24BC		—	2.06" (52 mm)
MC3500IEPP24BW			
MC3500IEP30BC	30" (750 mm)	—	2.75" (70 mm)

NOTE: ALL DIMENSIONS ARE NOMINAL

CUSTOM PRECORED INVERTS ARE AVAILABLE UPON REQUEST. INVENTORIED MANIFOLDS INCLUDE 12-24" (300-600 mm) SIZE ON SIZE, AND 15-48" (375-1200 mm) ECCENTRIC MANIFOLDS. CUSTOM INVERT LOCATIONS ON THE MC-3500 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 12" (250 mm). THE INVERT LOCATION IN COLUMN "B" ARE THE HIGHEST POSSIBLE FOR THE PIPE SIZE.

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SHEET 5 OF 5

NF ENGINEERS
CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257
WWW.NOWAKFRAUS.COM

SEAL

STATE OF MICHIGAN — PATRICK J. WILLIAMS — ENGINEER NO. 64351 — PROFESSIONAL ENGINEER

PROJECT
Fanuc America - Proposed Parking Lot

CLIENT
Fanuc America
3900 W. Hamlin Road
Rochester Hills, MI 48309

Contact: Brad Nowacki
Phone: 248.377-7239
Email: brad.nowacki@fanucamerica.com

PROJECT LOCATION
Part of the NE 1/4 of Section 26 T.3N , R.10E, City of Auburn Hills, Oakland County, Michigan Sidwell No: 14-26-226-004

SHEET
ADS Underground Detention Chamber Details

811 Know what's below Call before you dig.

DATE	ISSUED/REVISED
03-26-26	Rev. per City Review

DRAWN BY: A. Wiseman
DESIGNED BY: A. Wiseman
APPROVED BY: P. Williams
DATE: 02-10-2026
SCALE: N.T.S.

NFE JOB NO. B096-02
SHEET NO. SP-06

GENERAL SOIL EROSION CONTROL NOTES

CUTTING, FILLING AND GRADING SHALL BE MINIMIZED AND THE NATURAL TOPOGRAPHY OF THE SITE SHALL BE PRESERVED TO THE MAXIMUM POSSIBLE EXTENT, EXCEPT WHERE SPECIFIC FINDINGS DEMONSTRATE THAT MAJOR ALTERATIONS WILL STILL MEET THE PURPOSES AND REQUIREMENTS OF THIS ORDINANCE.

DEVELOPMENT SHALL BE STAGED TO KEEP THE EXPOSED AREAS OF SOIL AS SMALL AS PRACTICABLE.

SOIL EROSION CONTROL MEASURES SHALL BE INSTALLED BETWEEN THE DISTURBED AREA AND ANY WATERCOURSES, INCLUDING RIVERS, STREAMS, CREEKS, LAKES, PONDS AND OTHER WATERCOURSES; WETLANDS; OR ROADWAYS ON OR NEAR THE SITE.

SEDIMENT RESULTING FROM ACCELERATED SOIL EROSION SHALL BE REMOVES FROM RUNOFF WATER BEFORE THAT WATER LEAVES THE SITE.

TEMPORARY AND PERMANENT SOIL EROSION CONTROL MEASURES DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF WATER AROUND, THROUGH, OR AWAY FROM THE SITE SHALL BE DESIGNED TO LIMIT THE WATER FLOW TO A NON-EROSIVE VELOCITY.

TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE REMOVED AFTER PERMANENT SOIL EROSION CONTROL MEASURES HAVE BEEN IMPLEMENTED. ALL SITES SHALL BE STABILIZED WITH PERMANENT SOIL EROSION CONTROL MEASURES.

IF LAKES, PONDS, CREEKS, STREAMS, OR WETLANDS ARE LOCATED ON OR NEAR THE SITE, EROSION CONTROL MEASURES WHICH DIVERT RUNOFF AND TRAP SEDIMENT MUST BE PROVIDED AT STRATEGIC LOCATIONS. STRAW BALE BERMS MAY BE USED AS TEMPORARY STORMWATER DIVERSION STRUCTURES, BUT WILL NOT BE CONSIDERED SUFFICIENT FOR TRAPPING SEDIMENT. THE USE OF SEDIMENT BASINS, FILTER FABRIC, VEGETATED BUFFER STRIPS, AND ROCK FILTERS IN LIEU OF STRAW BALE BERMS SHALL BE STRONGLY ENCOURAGED. OTHER MEASURES MAY BE REQUIRED IF REASONABLY DETERMINED TO BE NECESSARY TO PROTECT A WATERCOURSE OR WETLAND.

WHEN IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA AFTER AN EARTH CHANGE HAS BEEN COMPLETED OR WHEN SIGNIFICANT EARTH CHANGE ACTIVITY CEASES, TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE INSTALLED.

PERMANENT EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 15 (FIFTEEN) CALENDAR DAYS AFTER FINAL GRADING OR THE FINAL EARTH CHANGE HAS BEEN COMPLETED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED.

VEGETATED BUFFER STRIPS SHALL BE CREATED OR RETAINED ALONG THE EDGES OF ALL LAKES, PONDS, CREEKS, STREAMS, OTHER WATERCOURSES, OR WETLANDS.

EROSION AND SEDIMENTATION CONTROL MEASURES SHALL RECEIVE REGULAR MAINTENANCE TO ASSURE PROPER FUNCTIONING.

ALL GRADING PLANS AND SPECIFICATIONS, INCLUDING EXTENSIONS OF PREVIOUSLY APPROVED PLANS, SHALL INCLUDE PROVISIONS FOR EROSION AND SEDIMENT CONTROL IN ACCORDANCE WITH, BUT NOT LIMITED TO, THE STANDARDS CONTAINED IN THE "STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", PUBLISHED BY THE OAKLAND SOIL CONSERVATION DISTRICT.

SOIL EROSION SEQUENCE OF CONSTRUCTION

INSTALL CRUSHED CONCRETE ACCESS DRIVE AND TEMPORARY CULVERTS AT THE SITE ENTRANCE (IF REQUIRED) AS INDICATED ON THE PLANS.

INSTALL SILT FENCE OR SIMILAR APPROVED SILT BARRIER ALONG PROPERTY LINES AND AROUND SENSITIVE NATURAL FEATURES AS INDICATED ON THE PLANS.

EXCAVATE A SHALLOW SWALE/DITCH AROUND PERIMETER OF SITE IF WARRANTIED, THEN GRADE THE TEMPORARY SWALE TO AN EXISTING DRAINAGE FACILITY. PLACE OUTLET FILTER IN EXISTING UPSTREAM STORM SEWER FACILITIES.

IF INDICATED ON CONSTRUCTION PLANS, SEDIMENTATION BASINS, DETENTION POND, ETC., SHALL BE CONSTRUCTED PRIOR TO THE INSTALLATION OF ANY OTHER WORK.

STRIP EXISTING TOPSOIL, VEGETATION AND ORGANIC MATTER FROM BUILDING PAD AND PARKING AREAS. COMMENCE LAND BALANCE AND MASS GRADING OPERATIONS.
MAINTAIN A MINIMUM BUFFER OF 15' OF EXISTING VEGETATION WHENEVER POSSIBLE AROUND SITE PERIMETER. STOCK PILES SHOULD BE LOCATED AWAY FROM EXISTING DRAINAGE FACILITIES.

EXCAVATE AND INSTALL UNDERGROUND UTILITIES. INSTALL PEASTONE INLET FILTERS AROUND ALL NEW STORM SEWER FACILITIES AS INDICATED ON THE PLANS. EXISTING AND PROPOSED STORM SEWER FACILITIES SHALL BE PROTECTED FROM EROSION AND SEDIMENT INFILTRATION AT ALL TIMES.

COMMENCE FINAL GRADING AND TRIMMING OPERATIONS. PREPARE SUBGRADE FOR INSTALLATION OF PROPOSED PAVEMENT.

SEED AND MULCH ALL DISTURBED SITE AREAS AND INSTALLED SITE LANDSCAPING.

REMOVE CONSTRUCTION DEBRIS AND JET VAC NEWLY INSTALLED STORM SEWER SYSTEM AS REQUIRED BY THE MUNICIPALITY.

REMOVE ALL REMAINING TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES ONCE PERMANENT MEASURES ARE ESTABLISHED.

WHENEVER POSSIBLE, THE SITE SHALL BE GRADED TO WITHIN SIX INCHES (6") OF THE PROPOSED FINISH GRADE PRIOR TO INSTALLATION OF UNDERGROUND FACILITIES.

STAGING OF PROPOSED WORK SHALL BE COMPLETED BY THE CONTRACTOR AS REQUIRED TO ENSURE PROGRESSIVE STABILIZATION OF DISTURBED AREAS.

SOIL EROSION MAINTENANCE

ALL SOIL EROSION SHALL BE CONTAINED ON SITE.

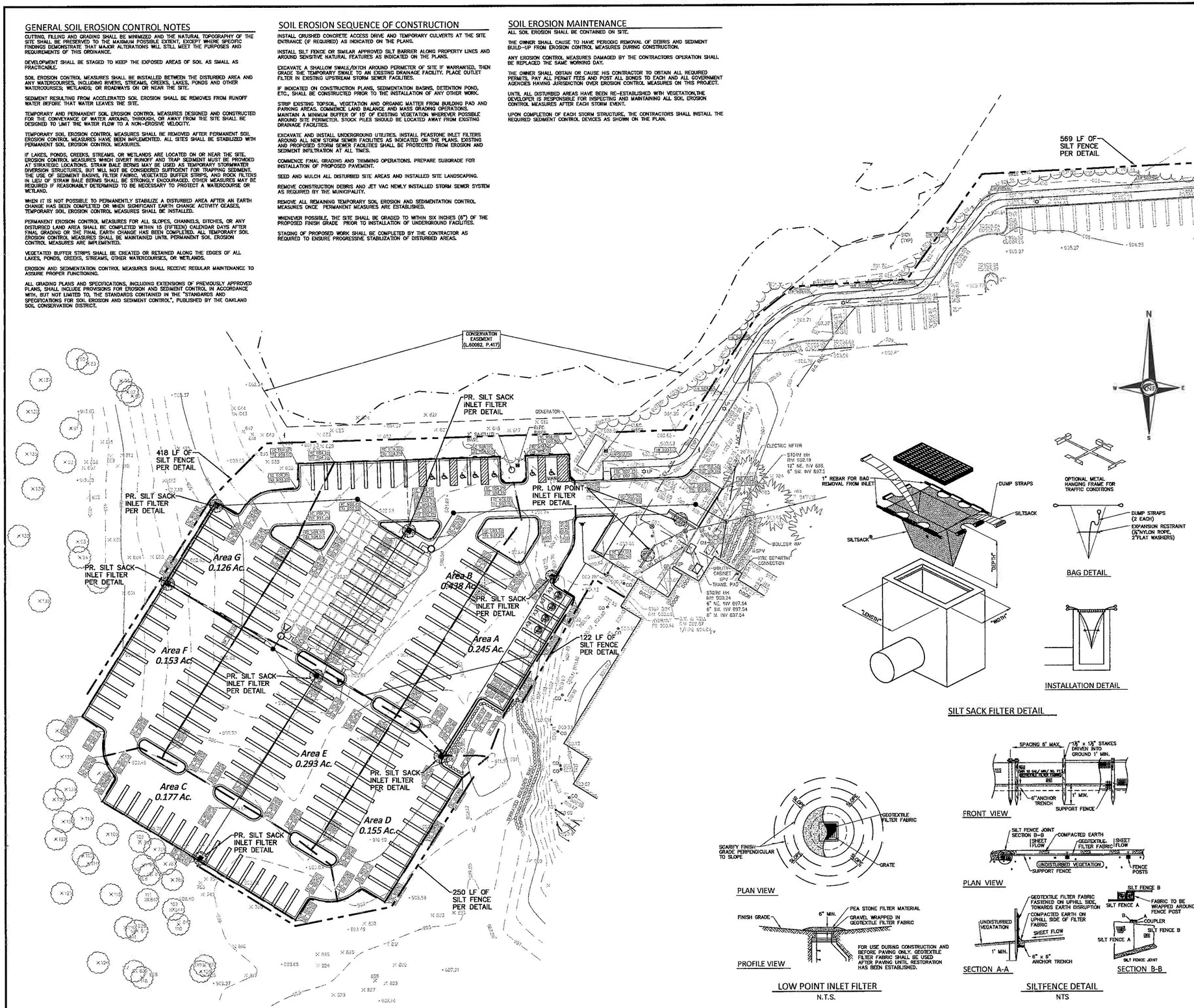
THE OWNER SHALL CAUSE TO HAVE PERIODIC REMOVAL OF DEBRIS AND SEDIMENT BUILD-UP FROM EROSION CONTROL MEASURES DURING CONSTRUCTION.

ANY EROSION CONTROL MEASURES DAMAGED BY THE CONTRACTORS OPERATION SHALL BE REPLACED THE SAME WORKING DAY.

THE OWNER SHALL OBTAIN OR CAUSE HIS CONTRACTOR TO OBTAIN ALL REQUIRED PERMITS, PAY ALL PERMIT FEES AND POST ALL BONDS TO EACH AND ALL GOVERNMENT AGENCIES HAVING JURISDICTION OVER EROSION CONTROL MEASURES ON THIS PROJECT.

UNTIL ALL DISTURBED AREAS HAVE BEEN RE-ESTABLISHED WITH VEGETATION,THE DEVELOPER IS RESPONSIBLE FOR INSPECTING AND MAINTAINING ALL SOIL EROSION CONTROL MEASURES AFTER EACH STORM EVENT.

UPON COMPLETION OF EACH STORM STRUCTURE, THE CONTRACTORS SHALL INSTALL THE REQUIRED SEDIMENT CONTROL DEVICES AS SHOWN ON THE PLAN.



SILT SACK FILTER DETAIL

BAG DETAIL

INSTALLATION DETAIL

PLAN VIEW

PROFILE VIEW

FOR USE DURING CONSTRUCTION AND BEFORE PAVING ONLY. GEOTEXTILE FILTER FABRIC SHALL BE USED AFTER PAVING UNTIL RESTORATION HAS BEEN ESTABLISHED.

LOW POINT INLET FILTER
N.T.S.

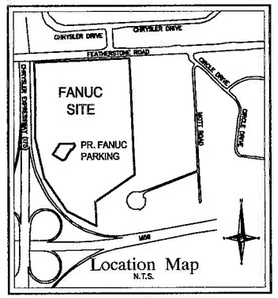
FRONT VIEW

PLAN VIEW

SECTION A-A

SECTION B-B

SILTFENCE DETAIL
NTS



Location Map
N.T.S.

ESTIMATED QUANTITIES

SOIL EROSION CONTROL

DESCRIPTION	QUANTITY	UNITS
SILT FABRIC FENCING	1,359	L.F.
LOW POINT INLET FILTER	2	EA.
SILT SACK INLET FILTER	7	EA.

LEGEND

- INDICATES LIMITS OF SILT FABRIC FENCE AND LIMITS OF DISTURBANCE.
- INDICATES LOW POINT INLET FILTER ON REAR YARD DRAINAGE STRUCTURES
- INDICATES SILT SACK OR EQUAL ON CURB & GUTTER DRAINAGE STRUCTURE

PAVING LEGEND

- PROPOSED CONCRETE PAVEMENT
- PROPOSED ASPHALT PAVEMENT

LEGEND

- MANHOLE — EXISTING SANITARY SEWER
- SAN. CLEAN OUT
- HYDRANT, GATE VALVE — EXISTING WATERMAIN
- MANHOLE, CATCH BASIN — EXISTING STORM SEWER
- EX. R. Y. CATCH BASIN
- UTILITY POLE, GUY POLE — EXISTING BURIED CABLES
- GUY WIRE — OVERHEAD LINES
- LIGHT POLE
- SIGN
- EXISTING GAS MAIN
- C.O., MANHOLE — PR. SANITARY SEWER
- HYDRANT, GATE VALVE — PR. WATER MAIN
- INLET, C.B., MANHOLE — PR. STORM SEWER
- PR. R. Y. CATCH BASIN
- PROPOSED LIGHT POLE
- TC 600.00 — PR. TOP OF CURB ELEVATION
- GU 600.00 — PR. GUTTER ELEVATION
- TW 600.00 — PR. TOP OF WALK ELEVATION
- TP 600.00 — PR. TOP OF PVMT. ELEVATION
- FG 600.00 — FINISH GRADE ELEVATION

NF ENGINEERS
CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257
WWW.NOWAKFRAUS.COM

SEAL

STATE OF MICHIGAN
PATRICK J. WILLIAMS
ENGINEER
NO. 44351
LICENSED PROFESSIONAL ENGINEER

PROJECT
Fanuc America -
Proposed Parking Lot

CLIENT
Fanuc America
3900 W. Hamlin Road
Rochester Hills, MI 48309

Contact: Brad Nowacki
Phone: 248.377-7239
Email: brad.nowacki@fanucamerica.com

PROJECT LOCATION
Part of the NE 1/4
of Section 26
T.3N , R.10E,
City of Auburn Hills,
Oakland County, Michigan
Sidwell No: 14-26-226-004

SHEET
Soil Erosion &
Sedimentation Control Plan

811
Know what's below
Call before you dig.

DATE	ISSUED/REVISED
03-26-26	Rev. per City Review

DRAWN BY:
A. Wiseman

DESIGNED BY:
A. Wiseman

APPROVED BY:
P. Williams

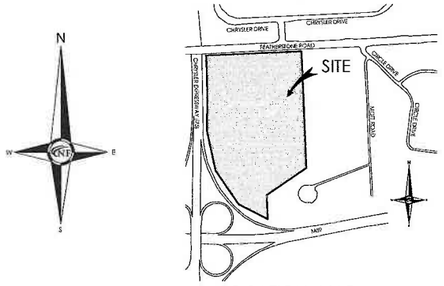
DATE:
02-10-2026

SCALE: 1" = 30'

30 15 0 15 30 45

NFE JOB NO. B096-02

SHEET NO. SP-07



LOCATION MAP
N.T.S.

REPLACEMENT TREE NOTES

ALL REPLACEMENT TREES SHALL HAVE A STRAIGHT TRUNK

ALL REPLACEMENT TREES ARE TO BE NORTHERN GROWN

ALL REPLACEMENT TREES ARE TO BE STATE DEPARTMENT OF AGRICULTURE GRADE NO 1 OR BETTER

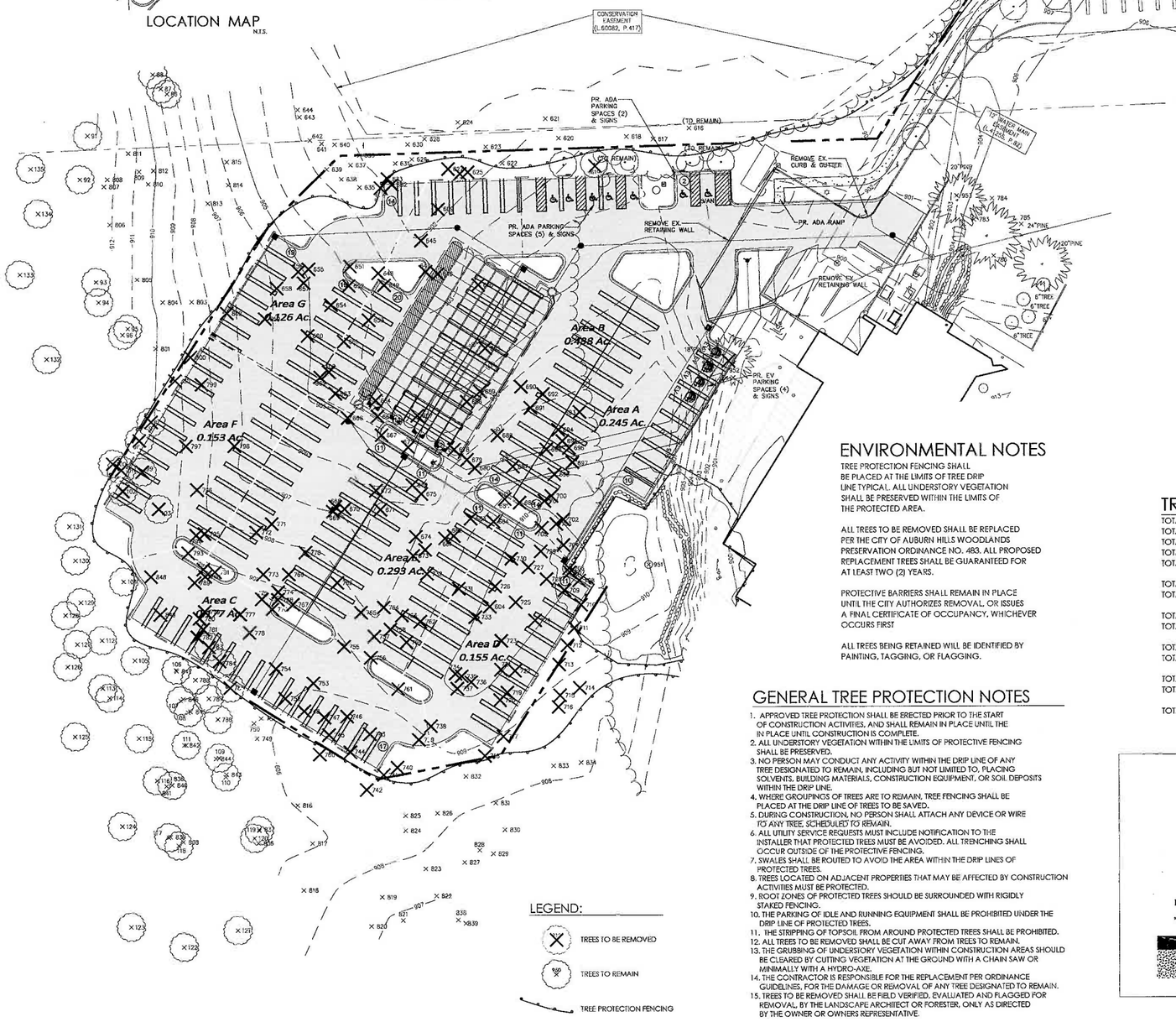
ALL REPLACEMENT TREES ARE CONSIDERED PROTECTED REGARDLESS OF SIZE

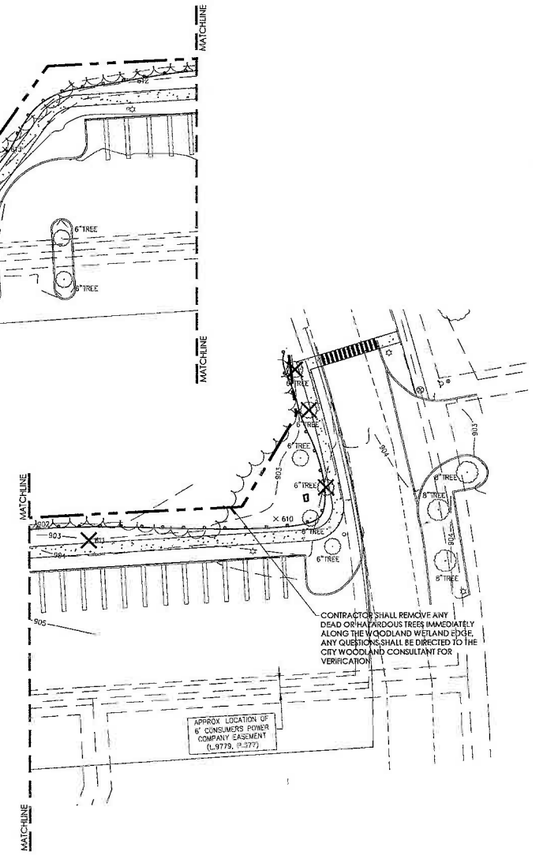
ALL TREE SHALL BE GUARANTEED FOR A MINIMUM OF TWO YEARS

ALL LANDSCAPED AREAS SHALL BE IRRIGATED WITH AN UNDERGROUND SPRINKLER SYSTEM

CITY TREE PROTECTION NOTES

1. IDENTIFY ON SITE ALL TREES OR AREAS WHICH ARE BEING PROPOSED TO BE PRESERVED WITH FLUORESCENT ORANGE SPRAY PAINT (CHALK BASE) OR BY RED FLAGGING TAPE.
2. ERECT BARRIERS OF FOUR (4) FEET HIGH FENCING STAKED WITH METAL 'T-POSTS' FIVE (5) FEET ON CENTER OR ALL SUCH TREES OR GROUPS OF TREES PROPOSED TO REMAIN.
3. PROTECTIVE BARRIERS ARE TO BE ERECTED PRIOR TO CLEARING OR GRUBBING ON THE SITE, AND BARRIERS ARE TO REMAIN IN TACT UNTIL APPROVED BY THE CITY TO BE REMOVED, OR WHEN A CERTIFICATE OF OCCUPANCY IS ISSUED.
4. KEEP CLEAR ALL DEBRIS OR FILL, EQUIPMENT, AND MATERIAL FROM WITHIN THE REQUIRED PROTECTIVE BARRIER.
5. DURING CONSTRUCTION, THE OWNER, DEVELOPER, OR AGENT SHALL NOT CAUSE OR PERMIT ANY ACTIVITY WITHIN THE DRIP LINE OF ANY PROTECTED TREE OR GROUP OF TREES INCLUDING, BUT NOT LIMITED TO, THE STORAGE OF EQUIPMENT, DUMPSTERS, DIRT, AND EXCAVATED MATERIAL, BUILDING WASTE OR MATERIAL, OR ANY OTHER MATERIAL HARMFUL TO THE LIFE OF A TREE.
6. NO DAMAGING ATTACHMENT, WIRES (OTHER THAN CABLES FOR TREES), SIGNS OR PERMITS MAY BE FASTENED TO ANY TREE PROTECTED BY THIS ORDINANCE.





ENVIRONMENTAL NOTES

TREE PROTECTION FENCING SHALL BE PLACED AT THE LIMITS OF TREE DRIP LINE TYPICAL. ALL UNDERSTORY VEGETATION SHALL BE PRESERVED WITHIN THE LIMITS OF THE PROTECTED AREA.

ALL TREES TO BE REMOVED SHALL BE REPLACED PER THE CITY OF AUBURN HILLS WOODLANDS PRESERVATION ORDINANCE NO. 483. ALL PROPOSED REPLACEMENT TREES SHALL BE GUARANTEED FOR AT LEAST TWO (2) YEARS.

PROTECTIVE BARRIERS SHALL REMAIN IN PLACE UNTIL THE CITY AUTHORIZES REMOVAL, OR ISSUES A FINAL CERTIFICATE OF OCCUPANCY, WHICHEVER OCCURS FIRST

ALL TREES BEING RETAINED WILL BE IDENTIFIED BY PAINTING, TAGGING, OR FLAGGING.

GENERAL TREE PROTECTION NOTES

1. APPROVED TREE PROTECTION SHALL BE ERECTED PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, AND SHALL REMAIN IN PLACE UNTIL THE IN PLACE UNTIL CONSTRUCTION IS COMPLETE.
2. ALL UNDERSTORY VEGETATION WITHIN THE LIMITS OF PROTECTIVE FENCING SHALL BE PRESERVED.
3. NO PERSON MAY CONDUCT ANY ACTIVITY WITHIN THE DRIP LINE OF ANY TREE DESIGNATED TO REMAIN, INCLUDING BUT NOT LIMITED TO, PLACING SOLVENTS, BUILDING MATERIALS, CONSTRUCTION EQUIPMENT, OR SOIL DEPOSITS WITHIN THE DRIP LINE.
4. WHERE GROUPINGS OF TREES ARE TO REMAIN, TREE FENCING SHALL BE PLACED AT THE DRIP LINE OF TREES TO BE SAVED.
5. DURING CONSTRUCTION, NO PERSON SHALL ATTACH ANY DEVICE OR WIRE TO ANY TREE, SCHEDULED TO REMAIN.
6. 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.
7. SWALES SHALL BE ROUTED TO AVOID THE AREA WITHIN THE DRIP LINES OF PROTECTED TREES.
8. TREES LOCATED ON ADJACENT PROPERTIES THAT MAY BE AFFECTED BY CONSTRUCTION ACTIVITIES MUST BE PROTECTED.
9. ROOT ZONES OF PROTECTED TREES SHOULD BE SURROUNDED WITH RIGIDLY STAKED FENCING.
10. THE PARKING OF IDLE AND RUNNING EQUIPMENT SHALL BE PROHIBITED UNDER THE DRIP LINE OF PROTECTED TREES.
11. THE STRIPPING OF TOPSOIL FROM AROUND PROTECTED TREES SHALL BE PROHIBITED.
12. ALL TREES TO BE REMOVED SHALL BE CUT AWAY FROM TREES TO REMAIN.
13. THE GRUBBING OF UNDERSTORY VEGETATION WITHIN CONSTRUCTION AREAS SHOULD BE CLEARED BY CUTTING VEGETATION AT THE GROUND WITH A CHAIN SAW OR MINIMALLY WITH A HYDRO-AXE.
14. THE CONTRACTOR IS RESPONSIBLE FOR THE REPLACEMENT PER ORDINANCE GUIDELINES, FOR THE DAMAGE OR REMOVAL OF ANY TREE DESIGNATED TO REMAIN.
15. TREES TO BE REMOVED SHALL BE FIELD VERIFIED, EVALUATED AND FLAGGED FOR REMOVAL, BY THE LANDSCAPE ARCHITECT OR FORESTER, ONLY AS DIRECTED BY THE OWNER OR OWNERS REPRESENTATIVE.

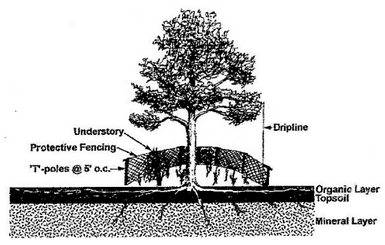
LEGEND:

- TREES TO BE REMOVED
- TREES TO REMAIN
- TREE PROTECTION FENCING

TREE PRESERVATION SUMMARY:

TOTAL NUMBER OF UNREGULATED TREES:	99
TOTAL DEAD TREES:	0
TOTAL LANDMARK TREES:	3 (109.4")
TOTAL REGULATED TREES:	199
TOTAL TREES SURVEYED:	301
TOTAL REGULATED TREES TO BE REMOVED:	124
TOTAL REGULATED TREES TO REMAIN:	75
TOTAL UNREGULATED TREES TO BE REMOVED:	53
TOTAL UNREGULATED TREES TO REMAIN:	46
TOTAL LANDMARK TREES TO BE REMOVED:	2 (58.4")
TOTAL LANDMARK TREES TO REMAIN:	1
TOTAL REGULATED TREES TO BE REPLACED:	124
TOTAL LANDMARK TREES TO BE REPLACED:	58.4"x 25%/2.5 = 5.8 OR 6 TREES
TOTAL REPLACEMENT TREES REQUIRED:	130 TREES

TREE PROTECTION DETAIL



NF ENGINEERS
CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257

SEAL

PROJECT
Fanuc America -
Proposed Parking Lot

CLIENT
Fanuc America
3900 W. Hamlin Road
Rochester Hills, MI 48309

Contact: Brad Nowacki
Phone: 248.377-7239
Email: brad.nowacki@
fanucamerica.com

PROJECT LOCATION
Part of the NE 1/4
of Section 26
T.3N , R.10E,
City of Auburn Hills,
Oakland County, Michigan
Sidwell No: 14-26-226-004

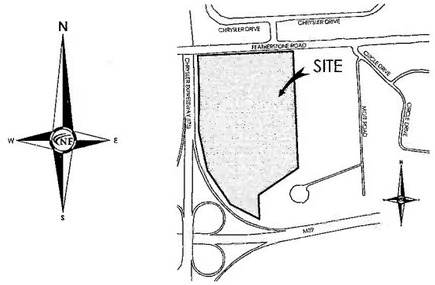
SHEET
Tree Preservation Plan

811
Know what's below
Call before you dig.

REVISIONS
2026-03-26 REVISED PER CITY REVIEW

DRAWN BY:
G. Ostrowski
DESIGNED BY:
G. Ostrowski
APPROVED BY:
G. Ostrowski
DATE:
01/20/2026
SCALE: 1" = 30'
30 15 0 15 30 45

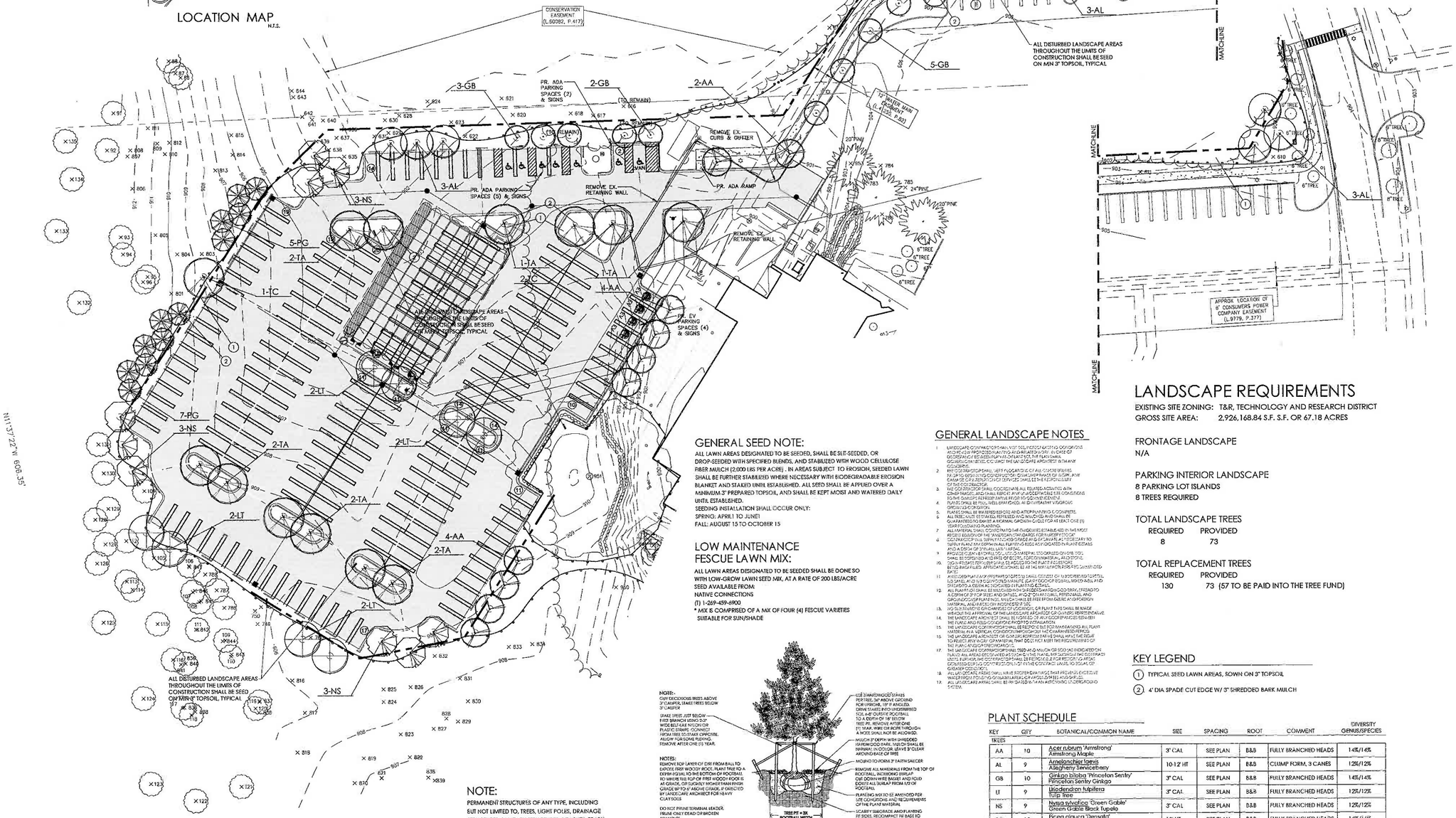
NFE JOB NO. B096-02
SHEET NO. L1



LOCATION MAP
N.T.S.

IRRIGATION NOTE:

ALL LANDSCAPE AREAS, INCLUDING THOSE WITHIN THE R.O.W. SHALL BE IRRIGATED WITH AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM. THE SYSTEM SHALL OPERATE IN COMPLIANCE WITH LOCAL STANDARDS AND SEASONAL RESTRICTIONS. SEPARATE ZONES SHALL BE PROVIDED FOR LAWN AREAS AND PLANTING BEDS. IRRIGATION SHALL BE DESIGNED IN THE THE MOST EFFICIENT MANNER NECESSARY TO FULLY IRRIGATE ALL PLANTING AREAS.



GENERAL SEED NOTE:

ALL LAWN AREAS DESIGNATED TO BE SEEDED, SHALL BE SLIT-SEEDED, OR DROP-SEEDED WITH SPECIFIED BLENDS, AND STABILIZED WITH WOOD CELLULOSE FIBER MULCH (2,000 LBS PER ACRE) . IN AREAS SUBJECT TO EROSION, SEEDED LAWN SHALL BE FURTHER STABILIZED WHERE NECESSARY WITH BIODEGRADABLE EROSION BLANKET AND STAKED UNTIL ESTABLISHED. ALL SEED SHALL BE APPLIED OVER A MINIMUM 3" PREPARED TOPSOIL, AND SHALL BE KEPT MOIST AND WATERED DAILY UNTIL ESTABLISHED.
SEEDING INSTALLATION SHALL OCCUR ONLY:
SPRING: APRIL 1 TO JUNE1
FALL: AUGUST 15 TO OCTOBER 15

LOW MAINTENANCE FESCUE LAWN MIX:

ALL LAWN AREAS DESIGNATED TO BE SEEDED SHALL BE DONE SO WITH LOW-GROW LAWN SEED MIX, AT A RATE OF 200 LBS/ACRE
SEED AVAILABLE FROM:
NATIVE CONNECTIONS
(T) 1-269-459-6900
* MIX IS COMPRISED OF A MIX OF FOUR (4) FESCUE VARIETIES SUITABLE FOR SUN/SHADE

NOTE:

PERMANENT STRUCTURES OF ANY TYPE, INCLUDING BUT NOT LIMITED TO, TREES, LIGHT POLES, DRAINAGE STRUCTURES, SANITARY STRUCTURES, BENCHES, TRASH RECEPTACLES, ETC., WILL NOT BE ALLOWED WITHIN THE INFLUENCE OF THE PUBLIC WATER MAIN OR SANITARY SEWER EASEMENTS.

DECIDUOUS TREE PLANTING DETAIL
NTS

GENERAL LANDSCAPE NOTES

1. LANDSCAPE CONTRACTOR SHALL VISIT SITE, INSPECT EXISTING CONDITIONS AND REVIEW PROPOSED PLANTING AND IRRIGATION WORK. IN CASE OF DISCREPANCY BETWEEN PLANT MATERIALS QUANTITIES SHOWN ON PLANS AND QUANTITIES CONTAINED ON LISTS, THE LANDSCAPE ARCHITECT IS THE FINAL DECISION.
2. PRIOR TO BIDDING, CONTRACTOR SHALL VISIT THE SITE AND EXAMINE EXISTING CONDITIONS AND SHALL INCLUDE IN HIS BID THE COST OF ALL WORK NECESSARY FOR THE COMPLETION OF THE WORK DESCRIBED.
3. THE CONTRACTOR SHALL COORDINATE ALL RELATED ACTIVITIES WITH OTHER TRADES, AND SHALL REPORT ANY UNACCEPTABLE SITE CONDITIONS TO THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT.
4. PLANTS SHALL BE FULL, WELL ESTABLISHED, AND EITHER HEALTHY VIGOROUS GROWING CONDITION.
5. PLANTS SHALL BE WATERED BEFORE AND AFTER PLANTING IS COMPLETE.
6. ALL TREES MUST BE STAKED AS REQUIRED AND GUYED AND SHALL BE GUARANTEED TO EXHIBIT A NORMAL GROWTH CYCLE FOR AT LEAST ONE (1) YEAR FOLLOWING PLANTING.
7. ALL MATERIAL SHALL CONFORM TO THE PLANTING LIST AS SHOWN AND IN THE MOST CURRENT EDITION OF AMERICAN STANDARD FOR NURSERY STOCK.
8. CONTRACTOR SHALL ESTIMATE AND INCLUDE IN HIS BID ALL MATERIALS NECESSARY TO SUPPLY PLANT MIX DEPTH IN ALL PLANTING BEDS AS INDICATED IN PLANT DETAILS AND A DEPTH OF 3" IN ALL LAWN AREAS.
9. PROVIDE CLEAN, FERTILE, LOOSE, UNIFORM PLANTING SOIL FOR ON-SITE TOPSOIL SHALL BE STOCKPILED AT TIME OF EXCAVATION FOR FUTURE PLANTING AND GRADING.
10. NO HERBICIDES, FERTILIZERS OR PESTICIDES SHALL BE APPLIED TO THE PLANT PLACEMENT BETWEEN INSTALLATION AND FINAL ACCEPTANCE BY THE OWNER'S REPRESENTATIVE, UNLESS DIRECTED BY THE LANDSCAPE ARCHITECT.
11. ANY DISEASED PLANT MATERIAL SHALL BE REMOVED AND REPLACED BY A SIMILAR SIZE AND SPECIES PLANT MATERIAL AS APPROVED BY THE OWNER'S REPRESENTATIVE.
12. ALL PLANTING SHALL BE MULCHED WITH SHREDDED HARDWOOD BARK MULCH TO A DEPTH OF 3" AS SPECIFIED. MULCH SHALL BE FREE FROM DELETERIOUS MATERIAL AND INSECTS OR INSECT EGGS.
13. NO SUBSTITUTIONS OR CHANGES OF LOCATION OR PLANT TYPES SHALL BE MADE WITHOUT THE APPROVAL OF THE LANDSCAPE ARCHITECT OR OWNERS REPRESENTATIVE. THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS PRIOR TO INSTALLATION.
14. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL PLANT MATERIAL IN A VERTICAL CONDITION THROUGHOUT THE GUARANTEED PERIOD.
15. THE LANDSCAPE ARCHITECT OR OWNERS REPRESENTATIVE SHALL HAVE THE RIGHT TO REJECT ANY WORK OR MATERIAL THAT DOES NOT MEET THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS.
16. THE LANDSCAPE CONTRACTOR SHALL TIED IN ALL MULCH OR SOD AS INDICATED ON PLANS. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE SEEDED OR SODDED AS INDICATED ON THE PLANS AND SPECIFICATIONS. ALL DISTURBED AREAS SHALL BE PROTECTED FROM EROSION AT ALL TIMES. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY AND ALL EROSION DAMAGE TO ADJACENT AREAS.
17. ALL LANDSCAPE AREAS SHALL HAVE POSITIVE DRAINAGE THAT PREVENTS EXCESSIVE WATER PONDING. ALL LAWN AREAS ADJACENT TO PAVED SURFACES AND SHALL BE FLUSH.
18. ALL LANDSCAPE AREAS SHALL BE IRRIGATED WITH AN AUTOMATIC UNDERGROUND SYSTEM.

LANDSCAPE REQUIREMENTS

EXISTING SITE ZONING: T&R, TECHNOLOGY AND RESEARCH DISTRICT
GROSS SITE AREA: 2,926,168.84 S.F. S.F. OR 67.18 ACRES

FRONTAGE LANDSCAPE
N/A

PARKING INTERIOR LANDSCAPE
8 PARKING LOT ISLANDS
8 TREES REQUIRED

TOTAL LANDSCAPE TREES

REQUIRED	PROVIDED
8	73

TOTAL REPLACEMENT TREES

REQUIRED	PROVIDED
130	73 (57 TO BE PAID INTO THE TREE FUND)

KEY LEGEND

1. TYPICAL SEED LAWN AREAS, SOWN ON 3" TOPSOIL
2. 4" DIA SPADE CUT EDGE W/ 3" SHREDDED BARK MULCH

PLANT SCHEDULE

KEY	QTY	BOTANICAL/COMMON NAME	SIZE	SPACING	ROOT	COMMENT	DIVERSITY GENUS/SPECIES
TREES							
AA	10	Acer rubrum 'Armstrong' Armstrong Maple	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS	14%/14%
AL	9	Amelanchier laevis Allegheny Serviceberry	10-12' HT	SEE PLAN	B&B	CLUMP FORM, 3 CANES	12%/12%
GB	10	Ginkgo biloba 'Princeton Sentry' Princeton Sentry Ginkgo	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS	14%/14%
LT	9	Liriodendron tulipifera Tulip Tree	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS	12%/12%
NS	9	Nyssa sylvatica 'Green Gable' Green Gable Black Tupelo	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS	12%/12%
PG	12	Picea glauca 'Densata' Black Hills Spruce	10' HT	SEE PLAN	B&B	FULLY BRANCHED HEADS	16%/16%
TA	10	Tilia americana 'Boulevard' Boulevard Linden	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS	14%/14%
TC	4	Tilia cordata 'Baileyii' Shamrock Linden	3" CAL	SEE PLAN	B&B	FULLY BRANCHED HEADS	5%/5%
TOTAL	73						

NF ENGINEERS
CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257

SEAL

PROJECT
Fanuc America -
Proposed Parking Lot

CLIENT
Fanuc America
3900 W. Hamlin Road
Rochester Hills, MI 48309

Contact: Brad Nowacki
Phone: 248.377-7239
Email: brad.nowacki@fanucamerica.com

PROJECT LOCATION
Part of the NE 1/4
of Section 26
T.3N , R.10E,
City of Auburn Hills,
Oakland County, Michigan
Sidwell No: 14-26-226-004

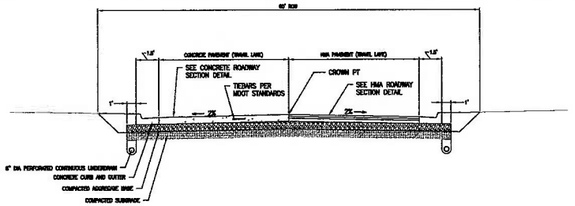
SHEET
Landscape Plan

811 Know what's below Call before you dig.

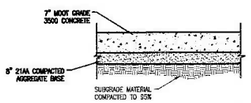
REVISIONS
2026-03-26 REVISED PER CITY REVIEW

DRAWN BY:
G. Ostrowski
DESIGNED BY:
G. Ostrowski
APPROVED BY:
G. Ostrowski
DATE:
01/20/2026
SCALE: 1" = 30'
30 15 0 15 30 45

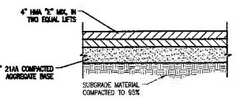
NEE JOB NO.
B096-02
SHEET NO.
L2



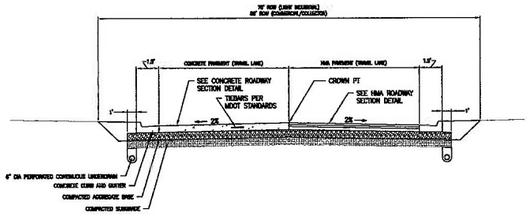
TYPICAL CROSS SECTION
RESIDENTIAL ROAD PAVEMENT
NOT TO SCALE



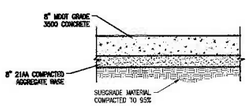
TYPICAL CONCRETE ROADWAY
SECTION FOR RESIDENTIAL ROAD
NOT TO SCALE



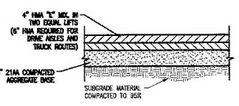
TYPICAL HMA ROADWAY SECTION FOR
RESIDENTIAL ROAD
NOT TO SCALE



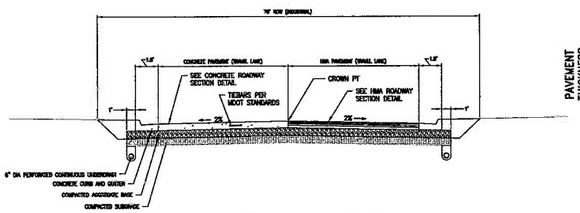
TYPICAL CROSS SECTION
COMMERCIAL/LIGHT INDUSTRIAL ROAD PAVEMENT
NOT TO SCALE



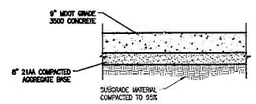
TYPICAL CONCRETE ROADWAY SECTION FOR
COMMERCIAL/LIGHT INDUSTRIAL ROAD
NOT TO SCALE



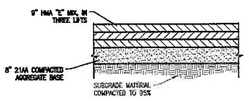
TYPICAL HMA ROADWAY SECTION FOR
COMMERCIAL/LIGHT INDUSTRIAL ROAD
NOT TO SCALE



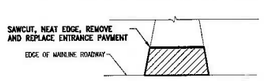
TYPICAL CROSS SECTION
INDUSTRIAL ROAD PAVEMENT
NOT TO SCALE



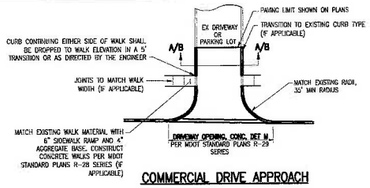
TYPICAL CONCRETE ROADWAY
SECTION FOR INDUSTRIAL ROAD
NOT TO SCALE



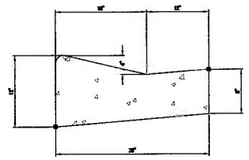
TYPICAL HMA ROADWAY SECTION FOR
INDUSTRIAL ROAD
NOT TO SCALE



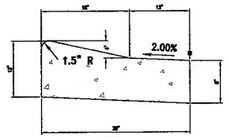
RESIDENTIAL DRIVEWAY APPROACH
NOT TO SCALE



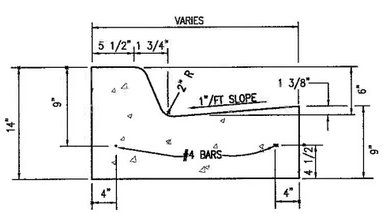
COMMERCIAL DRIVE APPROACH



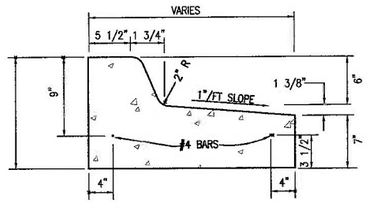
4" MOUNTABLE CURB
NOT TO SCALE



4" REVERSE CURB & GUTTER
NOT TO SCALE



6" CONCRETE CURB AND GUTTER DETAIL
NOT TO SCALE
NOTE: DIMENSIONS VARY. FOLLOW MDOT STANAARD DETAIL SERIES R-30



6" REVERSE CONCRETE CURB AND GUTTER DETAIL
NOT TO SCALE
NOTE: DIMENSIONS VARY. FOLLOW MDOT STANARD DETAIL SERIES R-30

GENERAL PAVING NOTES

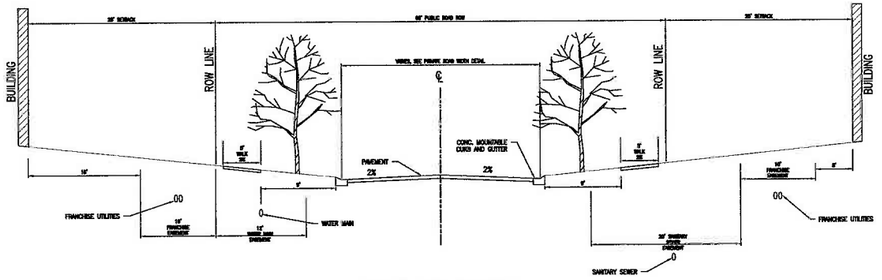
1. All construction shall conform to the current standards and specifications of the City of Auburn Hills and the Road Commission for Oakland County (R.C.O.C.) where applicable. All public pavement construction shall have full-time inspection directed by a professional engineer provided by, or caused to be provided by, the City of Auburn Hills.
2. Three (3) working days prior to construction, the Contractor shall telephone MISS DIG (1-800-482-7171) for underground facilities locations.
3. Existing topsoil, vegetation and organic materials shall be stripped and removed from proposed pavement area prior to placement of base materials. Tree roots shall be completely removed.
4. Prior to placement of base material or pavements, the contractor shall proofroll the subgrade in the presence of a geotechnical engineer and remove any unsuitable material observed. The pavement subgrade shall be compacted to 95% of the maximum dry density prior to placement of the proposed pavement. The final subgrade shall be proofrolled in the presence of a geotechnical engineer.
5. Concrete and asphalt testing is required for all projects. A copy of the test results shall be provided to the City.
6. If the inspector/engineer determine that field conditions warrant additional testing, the contractor/developer shall arrange for and pay for all required additional testing.
7. For any work within the public right-of-way, the contractor shall secure all necessary permits and arrange for all required inspection.
8. Fill areas shall be machine compacted in uniform lifts to 95% of the maximum dry density prior to placement of the proposed pavement.
9. All aggregate base material shall be compacted to 95% of the maximum dry density prior to placement of the proposed pavement. Aggregate base shall extend a minimum of 2 feet beyond the back of curb or the paved edge.
10. 6" underdrain shall be installed on both sides of all roadways in geotextile wrapped trench.
11. Prior to street acceptance, the full cross section must be installed per the approved plans and any repairs to the pavement and curb must be completed at the direction of the City Engineer. The full pavement cross section shall be paved in a continuous process without delay between separate courses.

CONCRETE PAVEMENT NOTES

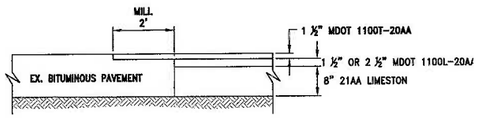
1. Concrete shall be MDOT Grade 3500 (3500 psi) with a slump of 1-1/2" to 3".
2. All concrete pavement, drive openings, curb and gutter, etc. shall be spray cured with white membrane curing compound immediately following finishing operation.
3. No concrete paving shall be allowed prior to May 1, or after November 1 (unless approved by the City).
4. Do not place concrete when precipitation is imminent or when moisture on existing surface will prevent satisfactory curing. Unless otherwise approved by the City Engineer in writing, temperature and seasonal requirements for placing concrete will be according to the current MDOT Standard Specifications. Paving will not be allowed below these minimum temperatures, nor when frost is on or in the grade or on the existing surface.
5. All mix designs require review and approval by the geotechnical engineer.

ASPHALT PAVEMENT NOTES

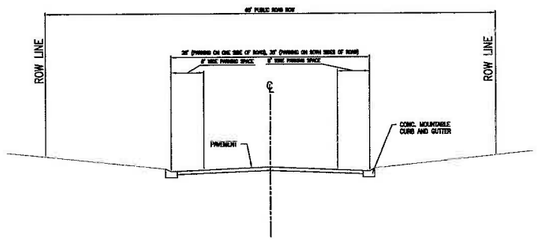
1. Asphalt shall be of the mix specified on the standard details herein and shall conform to all MDOT Standard Specifications.
2. All bituminous material shall be compacted to a density of 95% of the field control density as determined by the theoretical maximum density.
3. A bond coat of SS-1H emulsion is required between all courses of asphalt immediately prior to placement of each course of pavement. The bond coat shall be applied in a uniform manner over the surface at a rate of 0.10 gallon/sq. yd. between leveling courses & 0.05 gallon/sq. yd. between wearing and leveling course.
4. Do not place HMA or apply bond coat when precipitation is imminent or when moisture on existing surface will prevent satisfactory curing. Unless otherwise approved by the City Engineer in writing, temperature and seasonal requirements for placing concrete will be according to the current MDOT Standard Specifications. Paving will not be allowed below these minimum temperatures, nor when frost is on or in the grade or on the existing surface.
5. All mix designs require review and approval by the geotechnical engineer.



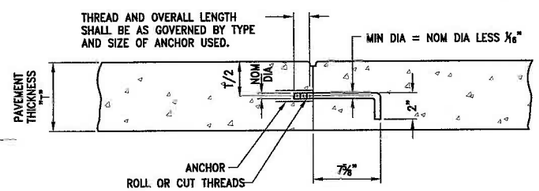
TYPICAL ROAD CORRIDOR
(SINGLE FAMILY RESIDENTIAL)
NOT TO SCALE



2" BITUMINOUS BUTT JOINT DETAIL
NOT TO SCALE



TYPICAL ROAD WIDTHS WITH PARKING
(PRIVATE ROAD)
NOT TO SCALE

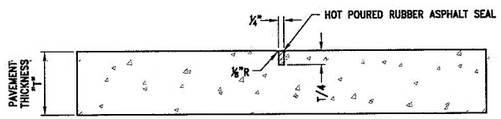


THIS JOINT SHALL BE CONSTRUCTED ACCORDING TO STANDARD FOR LONGITUDINAL BULKHEAD CONSTRUCTION JOINT EXCEPT THAT THE "FIRST POUR" IS AN EXISTING PAVEMENT.

SPACING CENTER TO CENTER SHALL BE AS SHOWN IN THE FOLLOWING TABLE:

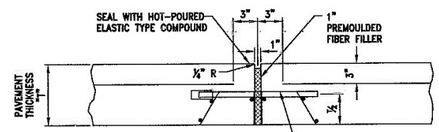
DIAMETER	5/8"	3/4"	7/8"
SELF-DRILLING FLUSH TYPE	24"	32"	48"
TORQUE - TYPE	40"	40"	---

LONGITUDINAL BULKHEAD JOINT
NOT TO SCALE



TRANSVERSE WEAKNESS PLANE JOINTS SHALL BE CONSTRUCTED IMMEDIATELY AFTER THE FINISHING OPERATION HAS BEEN COMPLETED. A GROOVE SHALL BE FORMED IN THE CONCRETE WITH METAL FORMING STRIP TO THE DEPTH SHOWN. THE PRE MOLDED FILLER STRIP SHALL BE PLACED IN GROOVE FORMED BY THE METAL STRIP, FROM A BRIDGE OPERATING ON THE PAVEMENT FORMS. THE CONCRETE SHALL BE HAND FLOATED AGAINST THE SIDES OF THE FILLER AND THE JOINT EDGE TO THE RADIUS SHOWN. THESE JOINTS SHALL BE PLACED AT APPROXIMATE 20' INTERVALS BETWEEN TRANSVERSE EXPANSION JOINTS.

TRANSVERSE WEAKENED PLANE JOINT
NOT TO SCALE



WITH LOAD TRANSFER - SYMBOL (E)
WITHOUT LOAD TRANSFER - SYMBOL (E_1)

TRANSVERSE EXPANSION JOINT "E"
SEAL WITH COLD
NOT TO SCALE

OHM
ARCHITECTS ENGINEERS PLANNERS
34000 PLYMOUTH RD
LIVONIA, MI 48150
P: (734) 522-6711
OHM-ADVISORS.COM

REVISIONS:

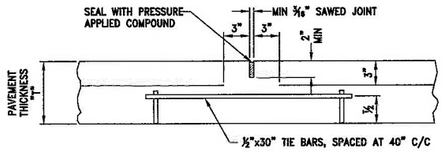
DATE: 6/2/2021
PROJ NUMBER: 0125012020033D
DESIGNED: ENG
DRAWN: AHS
CHECKED: PROJ MGR
APPD: APC
CADD:
COUNTY: OAKLAND
CITY/VILLAGE/TOWNSHIP: AUBURN HILLS
SCALE: H: NTS V: NTS
HORIZ DATUM:
VERT DATUM:

CITY OF AUBURN HILLS
PAVING STANDARD DETAILS

SHEET 1 OF 2

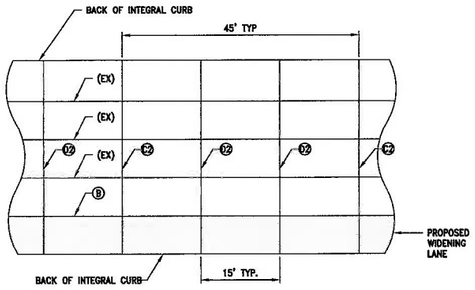
COPYRIGHT 2017 OHM ALL DRAWINGS AND WRITTEN MATERIALS APPEARING HEREIN CONSTITUTE THE ORIGINAL AND UNPUBLISHED WORK OF OHM AND THE SAME MAY NOT BE DUPLICATED, DISTRIBUTED, OR DISCLOSED WITHOUT PRIOR WRITTEN CONSENT OF OHM

DRAWING PATH: P:\0101_0125012020033D_Auburn_Hills_Standards_Update\Drawings\Civil\Details\AH-ROAD DET.dwg Jul 13, 2022 - 3:21pm



LONGITUDINAL LANE TIE JOINT "D"

NOT TO SCALE

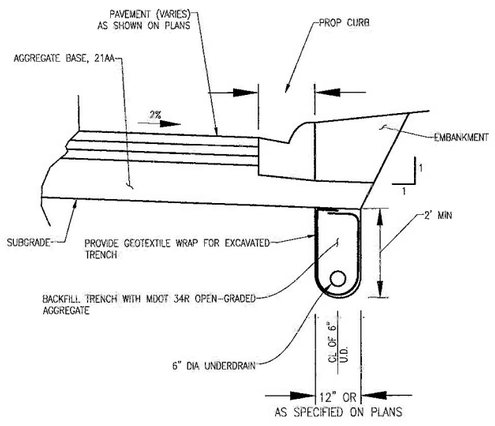


JOINTS	JOINTS TO BE PAID FOR SEPARATELY
C2 (MOD.)	TRANSVERSE CONTRACTION JOINT
E2	EXPANSION JOINT
D2 (MOD.)	PLANE OF WEAKNESS JOINT

JOINTS PAVEMENT	JOINTS INCLUDED IN THE COST OF CONCRETE
B (MOD.)	LONGITUDINAL BULKHEAD JOINT
D (MOD.)	LONGITUDINAL LANE TIE JOINT
(EX)	EXISTING

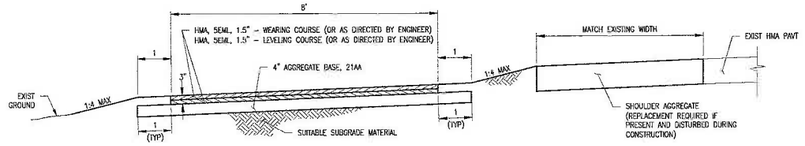
TYPICAL JOINT LAYOUT

NOT TO SCALE



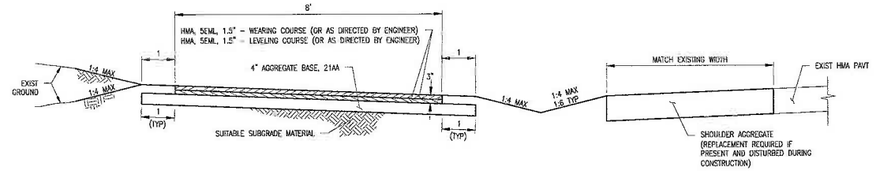
TYPICAL UNDERDRAIN ALONG ROADWAY CURB AND GUTTER SECTION

NOT TO SCALE



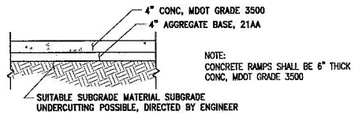
TYPICAL PATHWAY CROSS SECTION

NOT TO SCALE
REVERSE DETAIL FOR GRADE RIGHT



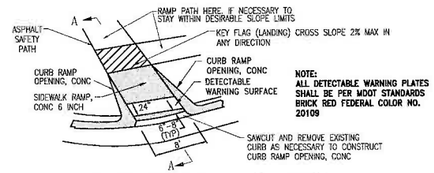
TYPICAL PATHWAY CROSS SECTION

NOT TO SCALE
REVERSE DETAIL FOR GRADE LEFT



TYPICAL CONCRETE SIDEWALK CROSS-SECTION

NOT TO SCALE

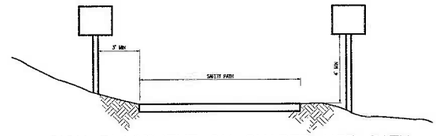


SAFETY PATH RAMP WITH CURB

NOT TO SCALE

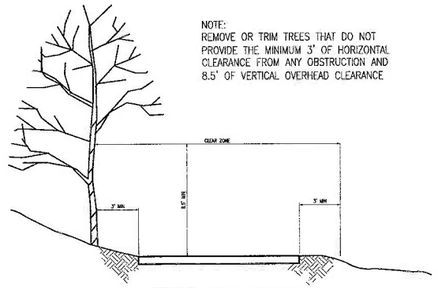
NON-MOTORIZED PATHWAY AND SIDEWALK NOTES

1. All pathway shall be constructed per the current version of MDOT standard plan R-28 series and shall follow all current ADA guidelines.
2. All pathway shall be constructed to the City of Auburn Hills Standard Details.
3. Maximum pathway cross slope is 2%. Design cross slope shall be 1.25% to 1.5%.
4. ADA ramps shall be provided at all intersections and street crossings. Detectable warning surfaces shall be provide for all ADA ramps and shall extend the full width of the curb ramp.
5. A clean saw cut joint shall be provided wherever new pavement matches existing pavement.
6. Utility structures in the pathway pavement shall be adjusted to proposed plan grade. Where possible, utility structures shall be outside of the pathway alignment.
7. Pathway and sidewalk shall be free of standing water prior to final acceptance.



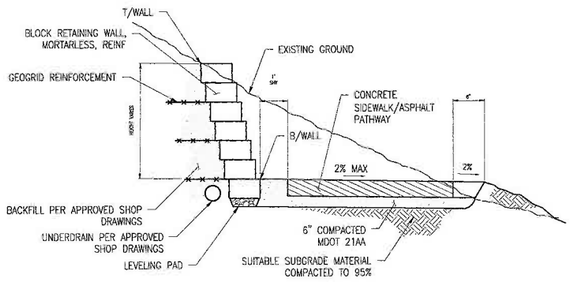
SIGN PLACEMENT ON SHARED USE PATH

NOT TO SCALE



TREE CLEARANCE

NOT TO SCALE



TYPICAL WALL SECTION

NTS

DETAIL FOR INFORMATION ONLY. WALL MANUFACTURER RESPONSIBLE FOR SITE SPECIFIC DETAILS.

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ARCHITECTS ENGINEERS PLANNERS
34000 PLYMOUTH RD
LIVONIA, MI 48150
P: (734) 522-6711
OHM-ADVISORS.COM

REVISIONS

DATE	PROJ NUMBER	END	PROJ MGR	CADD	COUNTY	CITY/VILLAGE/TOWNSHIP	SCALE	H:	NTS
9/2021		AAS	APC		OAKLAND	AUBURN HILLS		V:	NTS

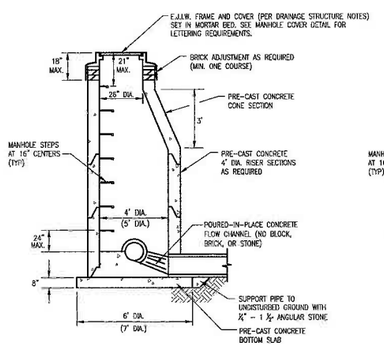
HORIZ DATUM
VERT DATUM

CITY OF AUBURN HILLS
PAVING STANDARD DETAILS

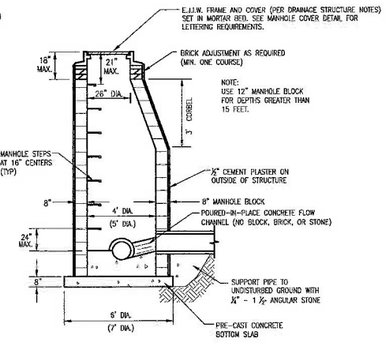
SHEET 2 OF 2

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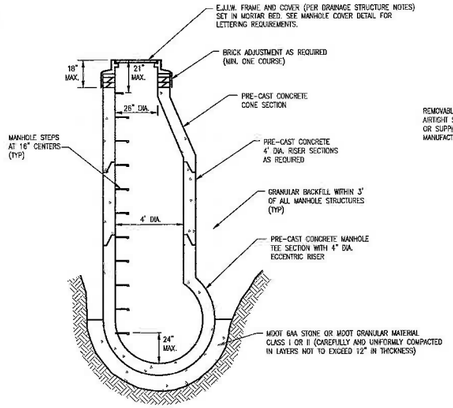


PRE-CAST MANHOLE

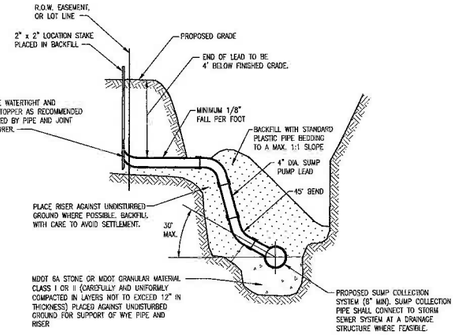


BLOCK MANHOLE

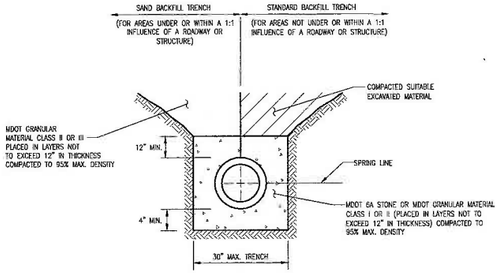
STANDARD MANHOLE DETAILS



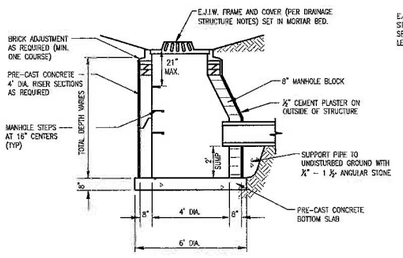
PRE-CAST TEE MANHOLE DETAIL



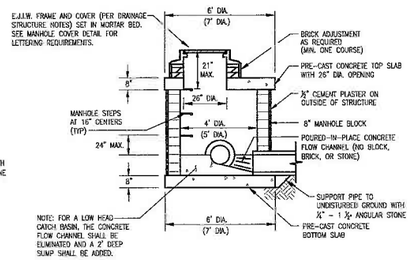
HOUSE LEAD DETAIL FOR 4" DIA. PLASTIC SUMP PUMP LEADS



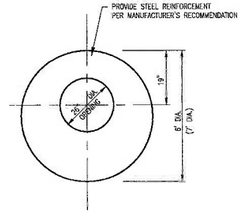
BEDDING AND TRENCH BACKFILL DETAIL FOR 18" DIAMETER AND SMALLER PIPE (PVC AND HDPE PIPE)



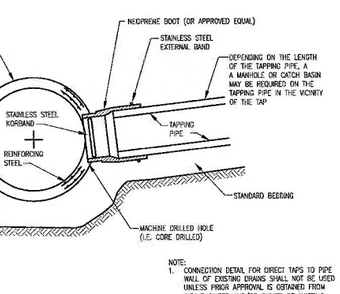
CATCH BASIN DETAIL



LOW HEAD MANHOLE AND CATCH BASIN DETAIL

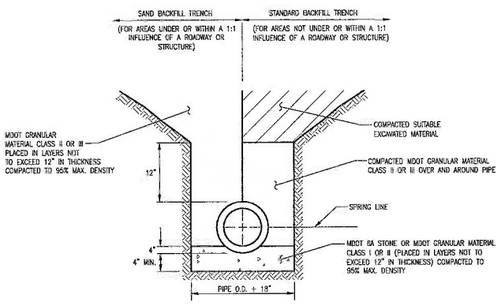


PRE-CAST CONCRETE TOP SLAB DETAIL, 8" THICK

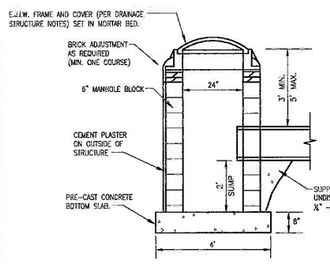


NOTE:
1. CONNECTION DETAIL FOR DIRECT TAPS TO PIPE WALL OF EXISTING DRAINS SHALL NOT BE USED UNLESS PRIOR APPROVAL IS OBTAINED FROM CITY ENGINEER AND/OR OWNER OF EXISTING STORM SYSTEM.
2. USE KOR-N-TEE FOR NON-CONCRETE TO CONCRETE TAPS. USE LINK-SEAL, A-LOCK OR APPROVED EQUAL FOR CONCRETE TO CONCRETE TAPS.

KOR-N-TEE TAP FOR CONCRETE PIPE



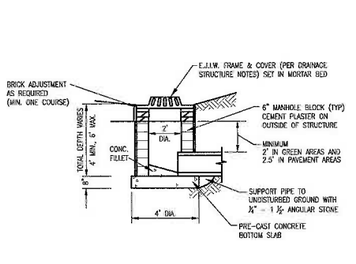
BEDDING AND TRENCH BACKFILL DETAIL FOR 24" DIAMETER AND SMALLER PIPE (CONCRETE AND METAL PIPE)



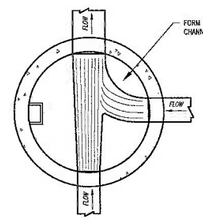
2' DIA. CATCH BASIN DETAIL

NOT TO SCALE

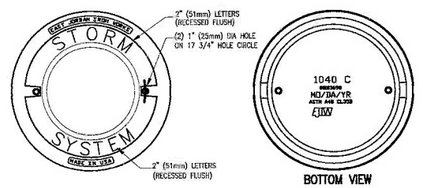
NOTE:
1. 2' DIA. CATCH BASIN SHALL NOT BE USED UNLESS PRIOR APPROVAL IS OBTAINED FROM CITY ENGINEER.

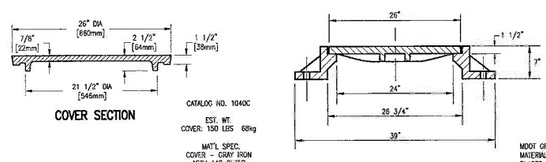


2' DIA. INLET DETAIL



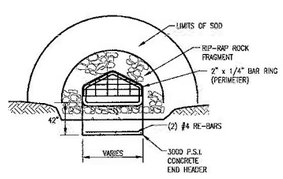
CHANNEL DETAIL



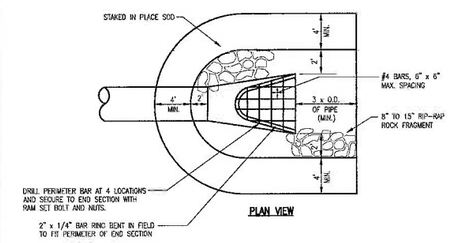


CAST IRON MANHOLE COVER E.J.I.W. 1040

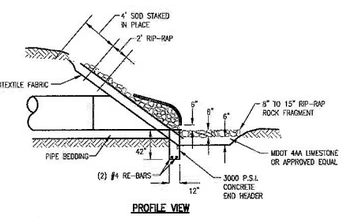
NOTE:
1. LETTERING SHALL BE USED ONLY FOR PUBLIC STORM SYSTEM. ALL OTHERS SHALL HAVE NO LETTERING.



END VIEW



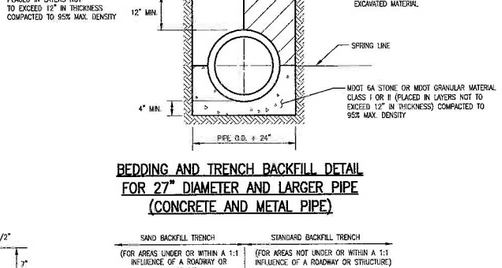
PLAN VIEW



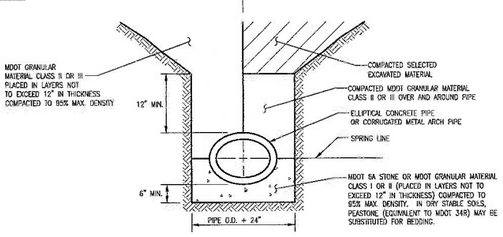
PROFILE VIEW

NOTE:
1. BAR SCREEN SHALL BE HOT-DIPPED GALVANIZED.

END SECTION AND BAR SCREEN DETAIL



BEDDING AND TRENCH BACKFILL DETAIL FOR 27" DIAMETER AND LARGER PIPE (CONCRETE AND METAL PIPE)



BEDDING AND TRENCH BACKFILL DETAIL FOR ELLIPTICAL CONCRETE PIPE OR CORRUGATED METAL ARCH PIPE

OHM
ARCHITECTS ENGINEERS PLANNERS
34000 PLYMOUTH RD
LIVONIA, MI 48150
P: (734) 522-6711
OHM-ADVISORS.COM

REVISIONS: REVISED STANDARDS UPDATE 6/22/2021

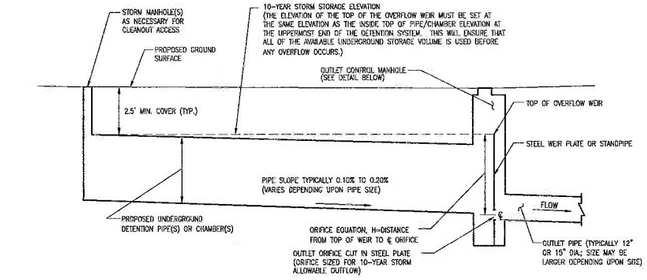
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DEC 2007		J.K.		OAKLAND	AUBURN HILLS	NTS	NTS		

CITY OF AUBURN HILLS
STORM SEWER STANDARD DETAILS

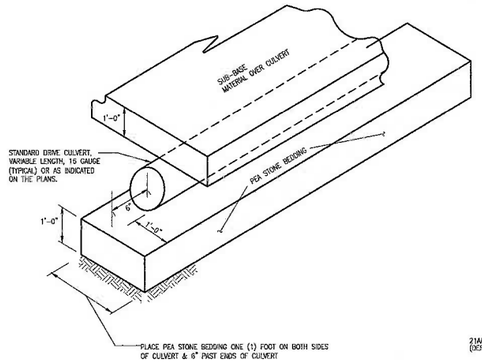
SHEET 1 OF 2

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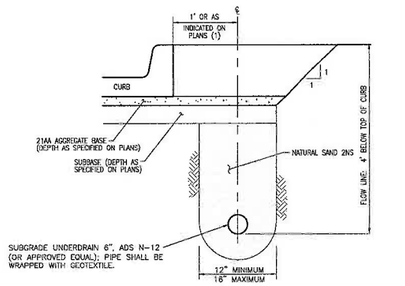
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DETENTION SYSTEM PROFILE

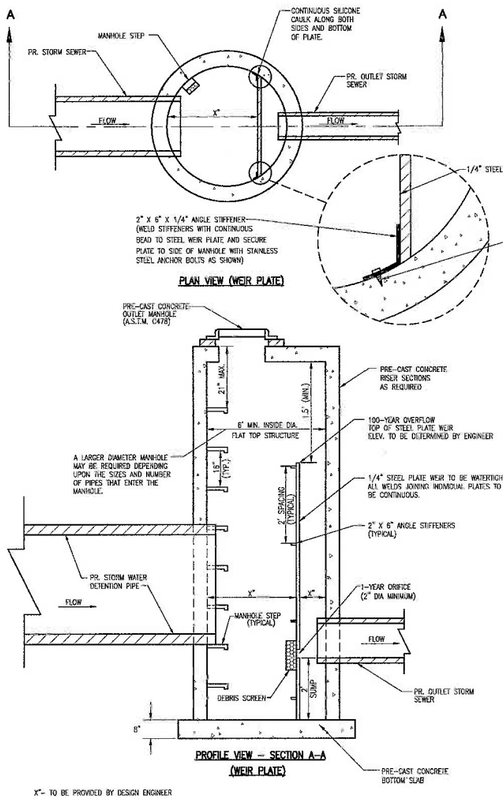


DRIVE CULVERT BEDDING DETAIL



NOTES:
1. LOCATION MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.
2. ALL UNDERDRAIN SHALL BE APPROVED PLASTIC PIPE PER MDOT SECTION 909.07. METAL PIPE SHALL NOT BE USED.
3. ALL UNDERDRAIN SHALL OUTLET TO DRAINAGE STRUCTURE.
4. UNDERDRAIN CONNECTIONS (AT LOW POINTS) SHALL BE MADE AS CLOSE TO THE STRUCTURE INVERT AS PRACTICAL, WITH A SPIRAL WRAP OF THE STRUCTURE USED TO MAKE THE TRANSITION FROM THE REQUIRED FLOW LINE DEPTH TO STRUCTURE INVERT.

SUBGRADE UNDERDRAIN, 6"

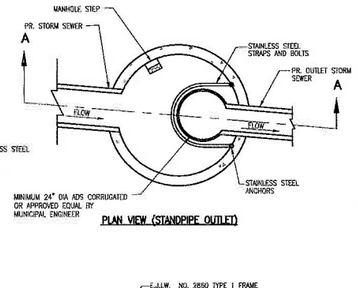


PLAN VIEW (WEIR PLATE)

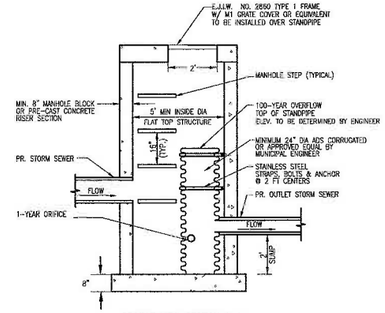
PROFILE VIEW – SECTION A-A (WEIR PLATE)

X"- TO BE PROVIDED BY DESIGN ENGINEER

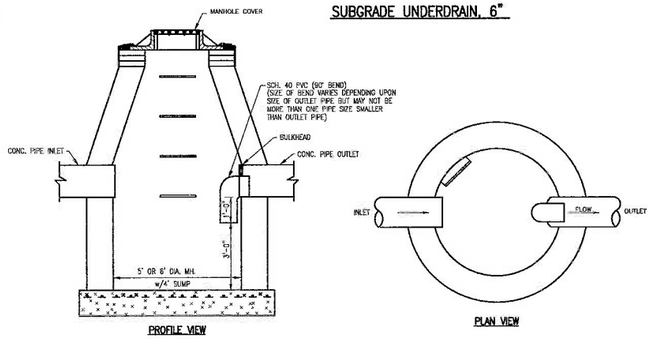
TYPICAL UNDERGROUND DETENTION AND OUTLET MANHOLE DETAILS



PLAN VIEW (STANDPIPE OUTLET)



PROFILE VIEW-SECTION A-A (STANDPIPE OUTLET)

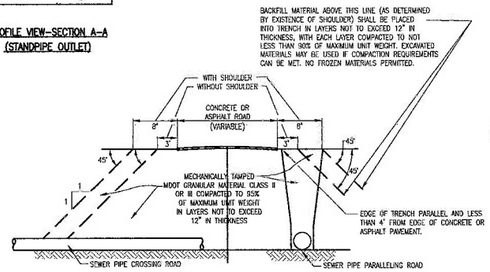


PROFILE VIEW

PLAN VIEW

OIL/GAS SEPARATOR PLACEMENT DETAIL FOR 18" DIAMETER AND SMALLER OUTLET PIPE

(FOR OUTLET PIPES LARGER THAN 18" IN DIAMETER AN ALTERNATE DESIGN MUST BE APPROVED BY THE CITY ENGINEER)



SAND OR GRAVEL BACKFILL DETAILS FOR SEWERS UNDER CONCRETE OR ASPHALT PAVEMENTS, SIDEWALKS, DRIVEWAYS AND PARKING AREAS

STORM SEWER CONSTRUCTION NOTES

GENERAL NOTES:

1. All materials and workmanship shall be in accordance with the standards and specifications of the City of Auburn Hills.
2. No storm sewer is to be installed without the City's inspector present.
3. Notify MISS DIG (1-800-482-7171) at least three working days prior to the start of construction.
4. Trenches that are to be left open overnight shall be enclosed with suitable fencing and lighted barricades, unless otherwise approved by the city.
5. All end sections 18" and larger shall be provided with a galvanized bar screen.
6. Hinged bar grates will be required for headwalls per O.C.W.R.C. or MDOT standards, whichever is stricter.
7. All vertical and horizontal bars shall be tack-welded to the angle frame.
8. The bar grate screen shall be hot-dipped galvanized after fabrication is complete.
9. The design engineer shall furnish The City of Auburn Hills with PDF "Record Drawings" of the water main plans as well as a GIS file or AutoCAD file, upon job completion. Plans shall locate all storm sewer and structures.
10. The materials specified below may be substituted with an approved equal as determined by the City. It is at the sole discretion of the City to determine if a material is acceptable and can be utilized. Written authorization must be obtained prior to ordering or installing the approved equal.
11. Tracing wire shall be provided for all storm sewer, regardless of pipe material. Wire shall be copper, 12-gage stranded, green insulated per City requirements. Wire shall be brought through each structure and connected to the top step. All wire exposed above ground surface shall be encased in ½" metal conduit. The conduit should extend 6" below the ground surface. Conductivity shall be tested by the City prior to acceptance of the sewer. All splices shall be made using a gel-cap product which provides a water proof seal, such as 3M's Direct Bury Splice Kit #DP54007/09964 or approved equal.

STORM SEWER NOTES:

1. Type and class of pipe shall be as specified on plans.
2. Concrete Pipe Requirements:
   - 2.1. The contractor shall provide reinforced concrete pipe as specified on the plans.
   - 2.2. All round reinforced concrete pipe shall meet the requirements of ASTM C76, Standard Specifications for Reinforced Concrete Culvert, Storm Drain and Sewer Pipe, with modified grooved tongue and rubber gasket meeting the requirements of ASTM C443, Standard Specifications for Joints for Circular Concrete Sewer and Culvert Pipe, Using Rubber Gaskets.
   - 2.3. All elliptical reinforced concrete pipe shall meet the requirements of ASTM C507, Standard Specifications for Reinforced Concrete Elliptical Culvert Storm Drain and Sewer Pipe, with tongue and grooved joints with bituminous (DeWitt #10) joint material meeting the requirements of C443. Elliptical concrete pipe joints shall also be wrapped per ASTM C877, Standard Specification for External Sealing Bands for Concrete Pipe, Manholes and Precast Box Sections. In addition, elliptical concrete pipe of 42" equivalent size and larger shall require inside concrete pointing.
   - 2.4. The inside joint of pipe over 27" diameter shall be pointed with mortar upon completion of backfilling operations.
3. Plastic Pipe Requirements:
   - 3.1. Per City standards, the maximum allowable pipe size for plastic storm sewer is 12" diameter. Larger diameter plastic storm sewer may be approved by the City, depending on site conditions.
   - 3.2. All plastic storm sewer pipe shall have a smooth interior.
   - 3.3. PVC pipe shall meet the requirements of ASTM F949, Standard Specification for Poly (Vinyl Chloride) (PVC) Corrugated Sewer Pipe With a Smooth Interior and Fittings, with push-on type joints meeting the requirements of ASTM D3212, Standard Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals, and F477, Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe.
   - 3.4. HDPE pipe shall meet the requirements of AASHTO M294 and ASTM D3350, Standard Specification for Polyethylene Plastics Pipe and Fittings Materials, with push-on type joints meeting the requirements of ASTM D3212 and F477.
4. Bedding Requirements:
   - 4.1. Bedding shall be used as called for on the details.
   - 4.2. Where unstable ground conditions are encountered, stone bedding shall be used as directed by the Engineer in order to provide a stable foundation for pipe and manholes.
   - 4.3. All pipes entering or leaving a manhole shall be adequately supported with ¾"-1½" angular stone fill from undisturbed earth to springline.
   - 4.4. Bedding shall extend a minimum of 4" below pipe, unless otherwise noted on construction plans. Bedding shall be uniform in grade. However, if the existing native soils meet the requirements for MDOT granular material class II (minimum 4" thick), then the storm sewer may be laid directly on the compacted native subgrade soils.
5. Backfill Requirements:
   - 5.1. Backfill as indicated on construction drawings. Trench backfill shall be of a suitable material and shall be free of any organic materials and rocks larger than 3" in size. Backfill shall be ramped into trench and compacted with a small dozer or other approved methods.
   - 5.2. Where trench is within a 1:1 influence of streets, alleys, sidewalks, driveways and parking areas, sand backfill shall be used which shall consist of MDOT granular material Class II or III compacted in layers not to exceed 12" in thickness to a density of 95%.
   - 5.3. All backfill placed within a 1:1 influence of structures shall be approved sand, placed in 12" layers and compacted.
   - 5.4. No frozen material shall be buried more than 4' below the final elevation of the ground.

DRAINAGE STRUCTURE REQUIREMENTS:

Contractor shall construct manholes with precast reinforced concrete in lieu of concrete, brick and block manholes in accordance with the following conditions:

1. Precast reinforced concrete section with modified groove tongue joint shall conform to ASTM C-478, Standard Specification for Precast Reinforced Concrete Manhole Sections, with rubber gasket.
2. No openings shall be made in precast units which would leave less than 12" of undisturbed precast structure wall between pipes (as measured between outside pipe walls) or would remove more than 40% of the circumference along any horizontal plane.
3. Precast riser placed on the concrete base shall be set in a full bed of mortar. All joints & liftholes shall be pointed up with mortar on the outside and inside.
4. Structures for sewers larger than 18", or those not meeting the opening requirements, may be built of block or brick up to a minimum of 8" above the top of sewer, with precast units being used above this point. Where precast units rest on the block or brick, the groove in the precast unit shall be filled with mortar.
5. Block used for standard catch basins and manholes shall be 8" (for 0'-15' deep) and 12" (for 15'-25' deep). Block used for 2' diameter inlets and catch basins shall be 6".
6. All vertical openings in concrete block structure walls shall be completely filled with mortar. All vertical wall joints shall be cement pointed.
7. Plaster all outside masonry surfaces with 1:2½ masonry cement (type II) 1/2" thick.
8. All manholes and catch basins shall be 4' or 5' in diameter unless otherwise indicated on construction drawings. Larger diameter drainage structures (6', 7', 8', 10', 12' diameter) may be needed for large storm sewer pipe or for situations where the angles between entering pipes require a larger diameter structure in order to maintain at least 1' of structure wall between the pipes. 2' diameter catch basins and inlets may be used where approved by the City Engineer.
9. Manhole steps shall be steel, encased with polypropylene plastic or approved equivalent to M.A. Industries, Inc., PS-1 for brick, or PS-1B for block, East Jordan Iron Works 8503 (or approved equal). Manhole steps shall be placed at 16" centers.
10. Catch basin steps shall be East Jordan Iron Works 8503 plastic coated (or approved equal).
11. Manhole frame and cover shall be East Jordan Iron Works 1040, type "C" solid cover or as per construction drawings.
12. Catch Basin and inlet frame and cover shall be:
    - 12.1. East Jordan Iron Works 5105, type "M1" cover (with trout logo) with straight face curb and gutter (or approved equal).
    - 12.2. East Jordan Iron Works 5105, type "M1" cover (with trout logo) with mountable curb and gutter and integral curb and gutter (or approved equal).
    - 12.3. East Jordan Iron Works 1040, type "O2" cover (beehive) to be used on open ditches and swales, rear yard catch basin (or approved equal). If within 8' of road, type "N" cover (low beehive) shall be used. East Jordan Iron Works 1040, type "A" cover to be used on all 2' cleanouts and structures not located at storm water collection points (or approved equal).
13. Frames shall be set in full bed of mortar and the side shall be overlapped to prevent leakage.
14. A minimum of one course of brick must be used and a maximum of 5 courses of brick can be used to adjust a structure. All bricks and blocks used for adjustment shall be concrete.
15. A proper channel shall be constructed within the existing manhole or other structure at which the connection is to be made to direct the flow to the existing outlet in a manner that will tend to create the least amount of turbulence. The channel shall be constructed to the same size as the inside diameter of the existing pipes, and shall be built to height of 1/3 the existing pipe diameter with a minimum of 2% slope on the benches.
16. Concrete base for manhole, catch basin, and inlet shall be MDOT grade 30P (Min.), 8" thick, 3000 psi.
17. When tapping into an existing structure a brick collar shall be placed 12" thick around the pipe and extended 12" beyond the opening. If pre-cast section is tapped, bend mesh and use as reinforcement with brick collar.

SUMP PUMP LEAD REQUIREMENTS:

1. All sump pump leads connected to a drain shall be pre-manufactured.
2. Sump pump leads shall be (1) SDR 35, non-perforated, solid wall PVC, (2) ARMCO Truss Pipe, or (3) approved equal, with premium joints.
3. Sump collection system pipes shall be connected at drainage structures. However, if approved by the engineer, taps to 12" storm sewer may be made with a Fernco EZ Tap or approved equal. Taps to other size storm sewer may be made with a Romac saddle, KOR-N-TEE lateral connector for concrete pipe, or approved equal.
4. Ends of all 4" sump pump leads shall be temporarily capped and their location staked, witnessed and recorded.
5. All sump pump leads are to be taken to the property line, easement line or as indicated on the plan.
6. Sump pump cleanouts shall be a minimum inside diameter of 24" and be constructed at changes of alignment ends of sump pump mains or as indicated on the plan.

RESTORATION REQUIREMENTS:

1. All disturbed areas within the right-of-way shall be restored as follows, unless otherwise noted on construction drawings: Finish Grade. Place 3" thickness of "quality" topsoil acceptable to the engineer. Apply sod or seed and fertilizer as follows:

	LOCATION	SODDING/ SEEDING REQUIREMENTS	FERTILIZER REQUIREMENT
SEED AND FERTILIZER	Slopes & ditch banks, etc.	MDOT "Roadside" mix (20% Perennial Rye, 10% Kentucky Blue, 40% Red Fescue, 30% Hard Fescue) applied at 220 lbs/acre	240 lbs/acre of chemical fertilizer nutrients in equal proportions of Nitrogen, Phosphoric Acid and Potash. (Must be a slow-release fertilizer)
	Other areas	MDOT "Class A" mix (20% Perennial Rye, 30% Kentucky Blue, 50% Red Fescue) applied at 220 lbs/acre	240 lbs/acre of chemical fertilizer nutrients in equal proportions of Nitrogen, Phosphoric Acid and Potash. (Must be a slow-release fertilizer)
SOD	Ditch bottoms, slopes exceeding 3:1, and at structures	3" Topsoil with Class A Sod	

2. Apply straw mulch at the rate of 2-3 bales/1000 square feet.
3. The contractor shall be responsible to insure the growth of all seeded areas, and shall re-seed as necessary to accomplish this.

OHM
ARCHITECTS ENGINEERS PLANNERS
34000 PLYMOUTH RD
LIVONIA, MI 48150
P: (734) 522-6711
OHM-ADVISORS.COM

REVISIONS: REVISED STANDARDS UPDATE 8/2/2021

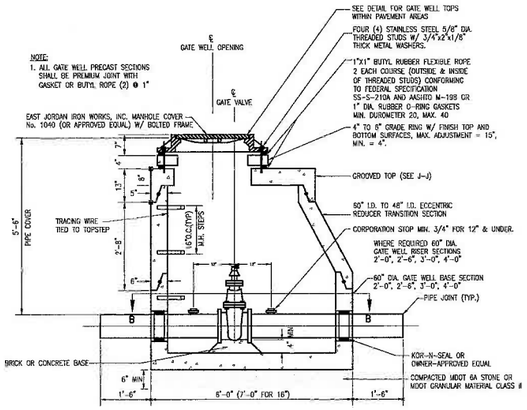
DATE: DEC 2017 | PROJ NUMBER: | BNG: JLK | PROJMGR: JLK | CADD: | COUNTY: OAKLAND | CITY/VILLAGE/TOWNSHIP: AUBURN HILLS | SCALE: N. NTS V: NTS | HORIZ DATUM: | VERT DATUM:

CITY OF AUBURN HILLS
STORM SEWER STANDARD DETAILS

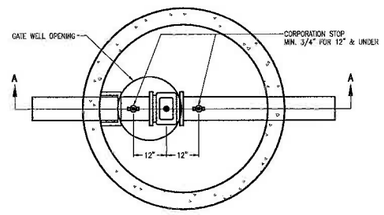
SHEET: 2 OF 2

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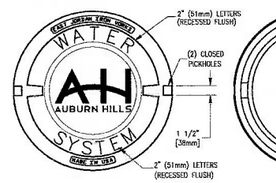
DRAWING PATH: P:\0101_01\25012020030\Auburn_Hills_Standards_Update\Drawings\Civil\Details\AH-STM DET.dwg Jul 13, 2022 - 3:22pm



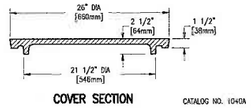
6", 8", 12" AND 16" GATE WELL
(A-A)



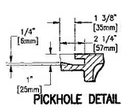
6", 8", 12" AND 16" GATE WELL TYPICAL
(PLAN VIEW, B-B)



BOTTOM VIEW

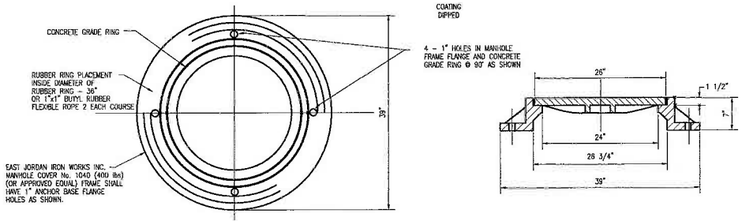


COVER SECTION



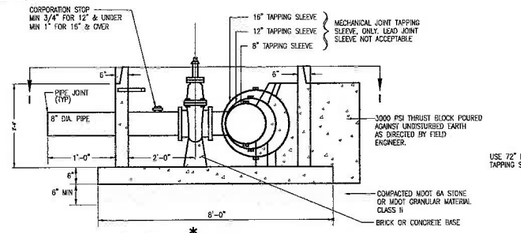
PICKHOLE DETAIL

CATALOG NO. 1040A
EST. WT. COVER: 189 LBS 86kg
MAT'L SPEC. COVER – GRAY IRON ASTM A48 CL35
LOAD RATING HEAVY DUTY
COATING DIPPED



CAST IRON GATE WELL COVER AND GRADE RING

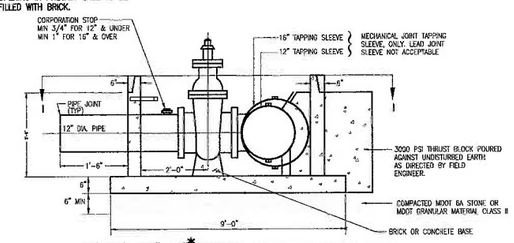
NOTE:
OPENING IN PRECAST BASE TO BE FILLED WITH BRICK.



16" x 8", 12" x 8", 8" x 8"* TAPPING SLEEVE, VALVE & WELL
(H-H)

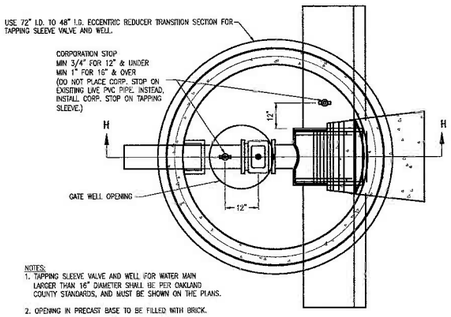
- USE OF 8" x 8" TAPPING SLEEVE VALVE & WELL MUST BE APPROVED BY AUBURN HILLS DPW.
- IF THRU MAIN IS DUCTILE IRON AND TAP IS NOT 8"x8", A STAINLESS STEEL TAPPING SLEEVE IS ALLOWABLE.

NOTE:
OPENING IN PRECAST BASE TO BE FILLED WITH BRICK.



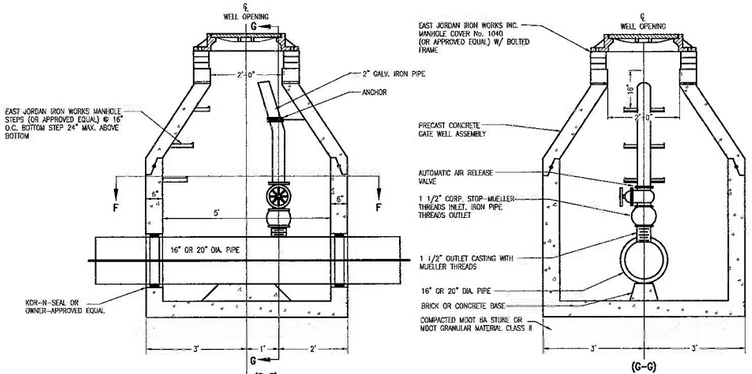
16"x12", 12"x12"* TAPPING SLEEVE, VALVE & WELL
(H-H)

- USE OF 12 x 12" TAPPING SLEEVE VALVE & WELL MUST BE APPROVED BY AUBURN HILLS DPW.
- IF THRU MAIN IS DUCTILE IRON AND TAP IS NOT 12"x12", A STAINLESS STEEL TAPPING SLEEVE IS ALLOWABLE.



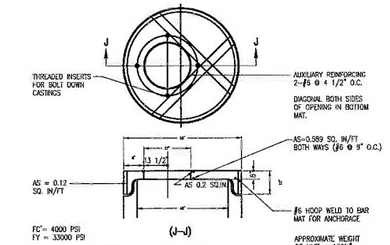
NOTES:
1. TAPPING SLEEVE VALVE AND WELL FOR WATER MAIN LARGER THAN 16" DIAMETER SHALL BE PER OAKLAND COUNTY STANDARDS, AND MUST BE SHOWN ON THE PLANS.
2. OPENING IN PRECAST BASE TO BE FILLED WITH BRICK.

TAPPING SLEEVE VALVE & WELL TYPICAL
(PLAN VIEW, I-I)



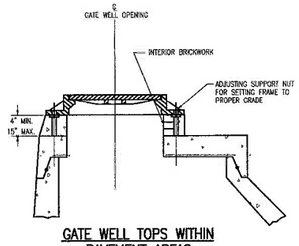
NOTES:
1. ALL AIR RELEASE WELLS SHALL BE PRECAST STRUCTURES.
2. ALL AIR RELEASE VALVES SHALL BE AUTOMATIC PER AUBURN HILLS DPW REQUIREMENTS.

STANDARD AIR RELEASE VALVE & WELL
FOR 16" & 20" WATER MAIN



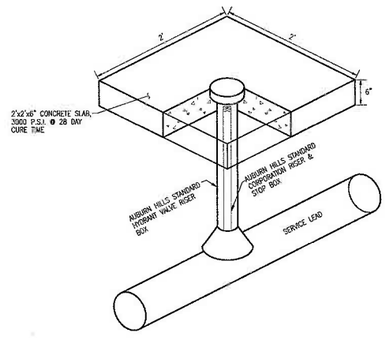
GROOVED FLAT TOP DETAIL
(SEE A-A)

NOTE:
1. AS DENOTES CROSS-SECTION AREA OF REINFORCING STEEL, IN SQUARE INCHES PER FOOT.



GATE WELL TOPS WITHIN PAVEMENT AREAS

NOTE:
1. RUBBER O-RINGS SHALL NOT BE USED IN PAVEMENT.



STOP BOX IN PAVEMENT DETAIL

NOTES:
1. TWO HOLE ARCH PATTERN (ERIE PATTERN) TYPE WITH 1" UPPER AND 5' EXTENDED LENGTH WITH 42" BOD (F/O/D) STOP BOX PART NO. EA1-50-40-42H OR APPROVED EQUAL); SMALL BOX REQUIRED FOR 3/4" AND 1" SERVICE; LARGE BOX REQUIRED FOR 1-1/2" AND 2" SERVICE; HYDRANT VALVE BOX REQUIRED FOR 3" AND 4" SERVICE; GATE WELL REQUIRED FOR 6" AND LARGER SERVICE.
2. WHERE WATER SERVICE CORPORATION BOX FALLS WITHIN A PAVED AREA (PARKING LOT, SERVICE DRIVE AREA, ETC.) THE STOP BOX SHALL BE PLACED IN A STANDARD HYDRANT VALVE BOX. THE VALVE BOX SHALL BE CENTERED IN A 2'x2'x6" CONCRETE SLAB.

GENERAL WATER MAIN NOTES

GENERAL NOTES:
1. All construction procedures and materials used on all water main projects shall conform to American Water Works Association (AWWA), Great Lakes Water Authority (GLWA) and The City of Auburn Hills current Standards and Specifications.
2. No water main is to be installed without the City's inspector present.
3. Notify MISS DIG (1-800-482-7171) at least three (3) working days prior to start of construction.
4. Where work is to be performed in the vicinity of a GLWA water main, contractor shall notify the GLWA Field Office (833-4682) 3 working days prior to the start of construction and request job site inspection where necessary.
5. All pipe and all pipe fittings shall be made in the U.S.A. and shall comply with AWWA C111 and/or AWWA C115.
6. Unless otherwise specified on plans, top of all water mains shall be 5.5 ft. below existing or proposed road centerline, or 5.5 ft below existing or proposed ground, whichever results in lower elevation.
7. An 18" minimum vertical clearance between storm or sanitary shall be maintained.
8. All required cross connection devices shall be installed as required by the local plumbing inspector and in accordance with the standards of the Michigan Department of Public Health.
9. Tracing wire shall be provided for all water main, regardless of pipe material. When PVC is installed for a service line, tracing wire shall be run from the meter setup to the curb box. Wire shall be copper, 12-gage stranded, blue insulated per City requirements. Connection is required at all service leads, hydrants, and gate wells. Wire shall be brought through each gate well and connected to the top step. All wire exposed above ground surface shall be encased in ¾" metal conduit. The conduit should extend 6" below the ground surface. Conductivity shall be tested by the City prior to acceptance of the main. All splices shall be made using a gel-cap product which provides a water proof seal, such as 3M's Direct Bury Splice kit #P054007/09864 or approved equal. In addition, underground marking tape shall be placed 1' above the top of PVC or HDPE water main. Underground marking tape shall be Magnatech 3" wide, foil-backed tape, #31-022 by Empire Level Manufacturing Corp., or approved equal.
10. Polywrap shall be placed as required by the City.
11. Connection to an existing water main shall be made only after pressure and bacteriological test have been successfully completed. The city engineer must be present for the test and review the results. Testing and disinfection procedures shall meet the requirements of AWWA-C600/C651.
12. When temporary water main jumpers are used during water main construction, a dual check valve backflow preventer (A.S.S.E. Std. # 1024) shall be placed on the jumper hose that is connected to the new water main. Contact the City of Auburn Hills (248-391-3777) before the water main jumper is installed for inspection.
13. Where water main is located under pavement, the City shall not be responsible for repairing pavement within the easement in the event that maintenance or repairs to the water main become necessary.
14. The design engineer shall furnish the City of Auburn Hills with PDF "Record Drawings" of the water main plans as well as a GIS file or AutoCAD file. Plans shall locate all water mains, hydrants, and gate valves and wells.
15. The materials specified below may be substituted with an approved equal as determined by the City. It is at the sole discretion of the City to determine if a material is acceptable and can be utilized. Written authorization must be obtained prior to ordering or installing the approved equal.

TESTING:
1. Pressue testing of water main including standard fire suppression leads and riser into the building will be conducted by OHM witnessing on behalf of the municipality. Water main testing shall be per AWWA. Notify OHM (site coordinator) of schedule (3 working days prior to test). Prior to any utility testing, the remaining escrow amount will be reviewed to verify that there is enough escrow to complete the project.
2. Pressure testing of remote FDC's and fire suppression lines extending between buildings will be conducted by Auburn Hills Fire Department. Water main testing shall be per NFPA 13 2016. Notify the Fire Department for the City of Auburn Hills at 248-370-9461 of schedule (3 working days prior to test).
3. Prior to chlorinating the water main, the main shall be filled with potable water to eliminate air pockets and flushed to remove particulates. The flushing velocity in the main shall not be less than 3.0 ft/sec per AWWA C600-17. The main shall be disinfected per AWWA C651-14 and then flushed following chlorination.
4. Bacteriological testing shall be conducted per AWWA C651-14. No bacterial tests will be performed until pressure tests have been passed. Two sets of bacteria samples (two consecutive days, at least 24 hours apart) will be obtained by a licensed testing agency, with the contractor and OHM inspector witnessing. Contractor shall contact Jerry Ashburn (734) 891-1450 for scheduling. Cost of the sampling/testing is the responsibility of the contractor/developer. Hard copy results must be on file at OHM prior to any tie-in. Contractor shall have the samples taken and analyzed at a Michigan Department of Environment, Great Lakes, and Energy (EGLE) approved lab. Two current local labs are:

AquaTest Laboratories
9165 Highland Road
White Lake, MI 48386
248-698-9500

Brighton Analytical, LLC
2105 Pless Drive
Brighton, MI 48114
248-229-7575

OHM
ARCHITECTS ENGINEERS PLANNERS
34000 PLYMOUTH RD
LIVONIA, MI 48150
P: (734) 522-6711
OHM-ADVISORS.COM

REVISIONS:
REVISED (CASTING LOGO UPDATED) 5/1/09
REVISED STANDARDS UPDATE 6/22/2021

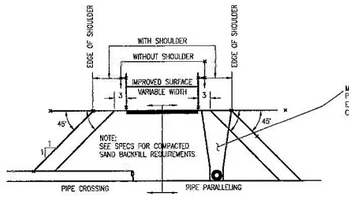
DATE 08/23/07 | DSGN ENG JLK | PROJ MNGR JLK | CADD | COUNTY OAKLAND | CITY/VILLAGE/TOWNSHIP AUBURN HILLS | SCALE H: NTS V: NTS | HORIZ DATUM | VERT DATUM

CITY OF AUBURN HILLS
WATER MAIN STANDARD DETAILS

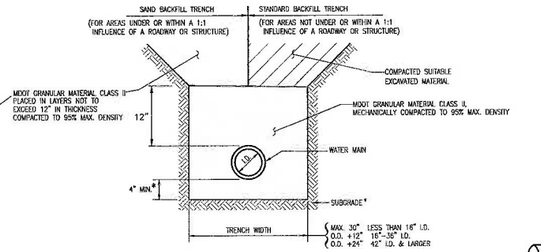
SHEET 1 OF 3

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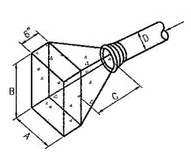


BACKFILL IN THE AREA OF STREETS, ALLEYS SIDEWALKS, DRIVES & PARKING LOTS



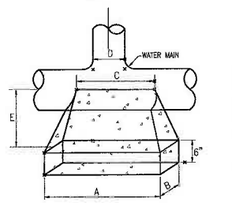
STANDARD BEDDING AND TRENCH BACKFILL DETAIL FOR WATER MAIN

* NOTE: IF THE EXISTING SUBGRADE SOILS MEET THE REQUIREMENTS FOR MDOT GRANULAR MATERIAL CLASS II (MINIMUM 4" THICK), THEN THE WATER MAIN MAY BE LAID DIRECTLY ON THE COMPACTED NATIVE SUBGRADE SOILS.



FOR PLUGS

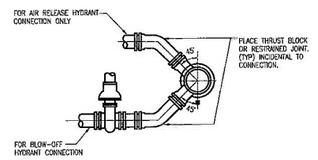
D	A	B	C MIN.
20"	3'	5'	2.5'
16"	4'-10"	4'-10"	2'
12"	4'-4"	3'	1'-9"
10"	3'	2'	1'-6"
8"	2'-10"	2'-6"	1'-6"
6"	1'-6"	1'-5"	3"



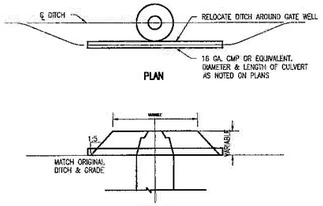
FOR TEES AND TAPPING SLEEVES

D	A	B	C	E MIN.
20"	8.5'	4.5'	3.5'	3'
16"	4'-8"	4'-8"	2.5'	2.75'
12"	4'	3'	2.5'	2.5'
10"	3'	2'	2'	2.25'
8"	2'-6"	2'	2'	2.25'
6"	2'	2'	2'	2.25'

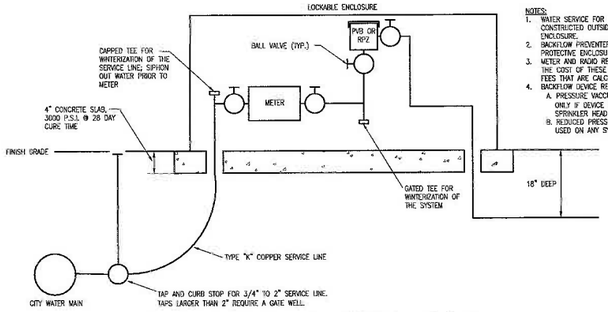
THRUST BLOCK DETAILS



HYDRANT AIR RELEASE AND BLOW-OFF CONNECTION

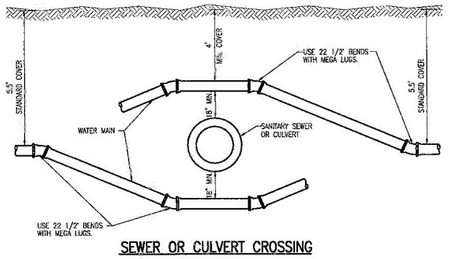


DITCH ENCLOSURE AT GATE WELL OR HYDRANT



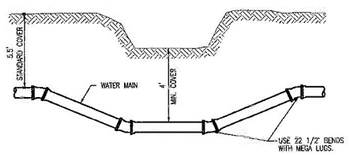
NOTES:
1. WATER SERVICE FOR LANDSCAPE IRRIGATION MUST BE CONSTRUCTED OUTSIDE OF BUILDING, INSIDE A PROTECTIVE ENCLOSURE.
2. BACKFLOW PREVENTER MAY BE PLACED OUTSIDE OF PROTECTIVE ENCLOSURE IF NECESSARY.
3. METER AND RADIO READ DEVICE ARE SUPPLIED BY CITY. THE COST OF THESE DEVICES IS INCLUDED IN THE TAP FEES THAT ARE CALCULATED BY THE DPW.
4. BACKFLOW DEVICE REQUIREMENTS:
   A. PRESSURE VACUUM BREAKER (PVB) CAN BE UTILIZED ONLY IF DEVICE IS 12" HIGHER THAN HIGHEST SPRINKLER HEAD
   B. REDUCED PRESSURE BACKFLOW PREVENTER CAN BE USED ON ANY SYSTEM

SEPARATE OUTDOOR IRRIGATION METER (NON-RESIDENTIAL)

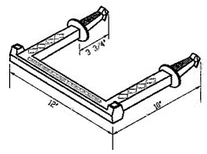


SEWER OR CULVERT CROSSING

NOTE:
BENDS CAN BE ELIMINATED FOR MINOR VERTICAL DEFLECTIONS IN DUCTILE IRON PIPE (1° OR LESS). IN THIS CASE, THE PIPE MAY BE DEFLECTED UP TO 4° PER JOINT.

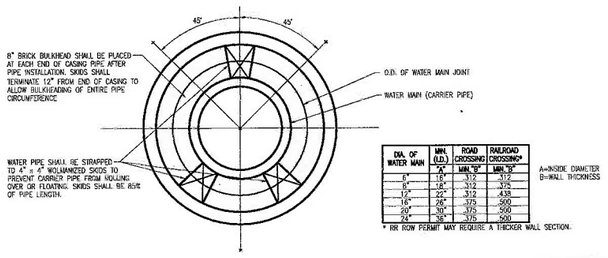


DITCH OR STREAM CROSSING



MANHOLE STEP

M.A. PSI-375



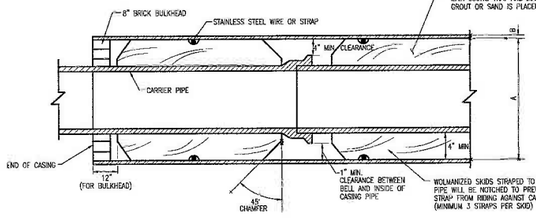
DIA. OF WATER MAIN	MIN. (I.D.)	ROAD CROSSING	RAILROAD CROSSING*
	"A"	MIN."B"	MIN."B"
6"	18"	.312	.312
8"	18"	.312	.375
12"	22"	.312	4.38
16"	26"	.375	.500
20"	30"	.375	.500
24"	36"	.375	.500

A=INSIDE DIAMETER
B=WALL THICKNESS

* RR ROW PERMIT MAY REQUIRE A THICKER WALL SECTION.

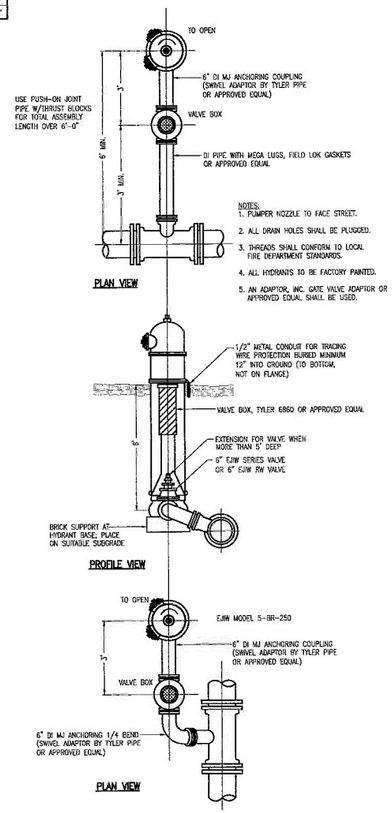
PIPE BARREL SUPPORT FOR WATER MAIN CONSTRUCTED IN CASING PIPE

PLACE WOLMANIZED SKID ALONG THE TOP OF THE CARRIER PIPE IN ORDER TO PREVENT THE CARRIER PIPE FROM ROLLING OVER OR FLOATING. IF THE CONTROLLING AGENCY PERMIT REQUIREMENTS INDICATE THAT SAND OR GROUT MUST BE PLACED BETWEEN THE CASING PIPE AND CARRIER PIPE, THEN THE SAND OR GROUT SHALL BE PLACED IN ACCORDANCE WITH THE PERMIT SPECIFICATIONS. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, RESTRAINED JOINTS SHALL BE REQUIRED FOR WATER MAIN JOINTS THAT ARE LOCATED INSIDE THE CASING PIPE IN THE EVENT THAT NO GROUT OR SAND IS PLACED BETWEEN THE CASING PIPE AND CARRIER PIPE.



NOTE:
1. CASING SHALL BE SPIRAL WELDED STEEL PIPE A.S.T.M. A-252, GR. 2.
2. 4" MINIMUM CLEARANCE BETWEEN MAX. O.D. AT A JOINT OF THE PIPE AND THE I.D. OF THE CASING PIPE FOR THE TOP 90° OF THE CASING
3. THE CONTRACTOR SHALL SUBMIT IN WRITING THE DETAILS OF THE APPROPRIATE PIPE CASING INSTALLATION FOR THE REVIEW AND APPROVAL BY THE ENGINEER BEFORE INSTALLATION OF ANY CASING STARTS
4. IF THE CONTROLLING AGENCY PERMIT REQUIREMENTS INDICATE THAT SAND OR GROUT MUST BE PLACED BETWEEN THE CASING PIPE AND CARRIER PIPE, THEN THE SAND OR GROUT SHALL BE PLACED IN ACCORDANCE WITH THE PERMIT SPECIFICATIONS.

STANDARD CASING SECTION



DETAIL OF HYDRANT SETTINGS

WATER MAIN NOTES

WATER MAIN NOTES:
1. All water main shall be ductile iron. Concrete, HDPE or PVC water main may be permitted upon city approval. Water main shall be per the following specification.
   1.a. Ductile iron pipe shall be ANSI 1-A21.51 (AWWA-C151) std. wall thickness, cement lined with bituminous seal coat Class 54 for sizes 3" through 16" and Class 55 for 20" through 24" pipe. All 6" pipe MUST be ductile iron.
   1.b. Pre-stressed Concrete Cylinder pipe (P.C.C.P.) shall be AWWA C-301 specification for sizes larger than 24".
   1.c. Polyvinyl Chloride (PVC) pipe shall meet the requirements of ANSI/AWWA C909-98 (including any appendices) as amended for the pressure class of 200 psi (SDR 14). PVC may only be used for 8" or 12" mains or 2" water services. All fittings for PVC shall be ductile iron, as specified in ANSI 1-A21.10 (AWWA-C110) as amended. PVC pipe shall only be used when approved by the City of Auburn Hills.
   1.d. High Density Polyethylene (HDPE) pipe shall meet the requirements of AWWA C906 (SDR 11) with blue shell or blue stripe.
2. Water services up to 2" shall be either Type K soft copper or PVC with tracing wire meeting the requirements of AWWA for a pressure class of 200 psi. If PVC is used, a tracing wire shall be run from the meter setup to the curb box (See General Notes, item #9 for tracing wire requirements). All water services greater than 2" shall follow the standards listed in Water Main Note #1.
3. The maximum allowable deflection at joints for ductile iron water main shall be per manufacturers standards (i.e. 4" – 36" water main – 5° per 20').
4. Polywrap may be required by the city and shall be placed around the water main.
5. Mega lugs shall be placed at all valves, bends, tees, plugs, hydrants and mechanical fittings. Surrounding joints shall be restrained using field lok gaskets or approved equal and shall be per the manufacturer's joint restraining schedule.
6. All bolts on all flanged and mechanical joint fittings shall be domestic origin high strength, low alloy COR-BLUE steel bolts or approved equal. These bolts shall meet the current provisions of American National Standard ANSI/AWWA C111/A21.11-90 for rubber gasket joints for ductile iron pressure pipes and fittings. Bolt manufacturer's certificate of compliance must accompany each shipment.
7. Backfill shall be compacted above pipe as indicated on construction drawings. Trench backfill shall be a suitable material and shall be free of any organic materials and rocks larger than 3" in size. Under road surfaces, pavement, sidewalks, curbs, driveways and areas where trench is within a 1:1 influence of the pavement, sand backfill shall be used which shall consist of MDOT granular material Class II or III and shall be compacted in layers not to exceed 12" in thickness to a density of 95% as determined by AASHTO T99. Where water main is to be placed on fill material, all fill material below the pipe must also be compacted to 95% maximum unit density. All backfill placed with a 1:1 influence of structures shall be approved sand, placed in 1' layers and compacted. Trenches that are to be left open overnight shall be enclosed with suitable fencing and lighted barricades, unless otherwise approved by the City.
8. PVC Installation Specifications:
   8.a. Where pipe must be cut, machine beveling shall be provided as specified by the manufacturer, unless the cut end will be butted against a fitting with an approved bolt-type joint. The factory beveled end of the spigot must be removed when the spigot will be butted against a fitting.
   8.b. All PVC pipe deflections shall be made using mechanical fittings. PVC pipe shall not be placed or connected by "breaking" or "opening" joints (0° deflection). Physically bending the pipe is not allowed either. Each individual length of PVC pipe shall be placed in a straight line.
   8.c. PVC water main shall not be exposed to sunlight for more than one (1) week. The contractor shall provide an opaque covering to shield all parts of pipe. Such pipe that is not adequately protected will be rejected.
   8.d. PVC water main shall not be installed when temperatures are below zero (0) degrees Fahrenheit.
   8.e. Pipe shall be joined per the manufacturer's recommendation. Push-on type joints shall not be installed past the "home" mark on the pipe, or otherwise disrupt the required elastomeric gasket.
   8.f. PVC water main shall not be used in areas where any petroleum products are found or suspected to exist in the soils or surrounding area.
   8.g. Extreme care must be used when attaching fittings. Mechanical joints to PVC pipe must distribute the loading evenly to avoid damage and potential breaks or weak points in the pipe.
   8.h. Extreme care must be used when bringing PVC pipe into and out of structures. A uniform annular space must be created to eliminate any potential point loading on the pipe. Point loading and pipe movement at the structure joint can cause the pipe to split.
   8.i. Rubber "boots" or "sleeves" are required for pipes entering structures (similar to sanitary sewer "boots").
   8.j. Taps shall not be made on PVC water main that is bent, or otherwise in tension.
   8.k. A Ford or McDonald double-banded brass tapping saddle shall be provided for all taps to PVC water main.
   8.l. All taps shall be made with a sharp bit and high speed tap, as recommended by the manufacturer.

VALVE & SLEEVE NOTES:
1. Gate Valves shall be ductile iron body, fully bronze mounted, E.J.I.W. resilient wedge, non-rising stem, opening counterclockwise conforming to AWWA or C515, E.J. Flow Master or approved equal.
2. All gate valves 6" or larger shall be placed in a well; curb stops and boxes are required for water main 2" or smaller. A valve shall be placed in a well for all water main larger than 2" and smaller than 6" when a tapping sleeve will be utilized; otherwise, a valve may be placed in a box for water main larger than 2" and smaller than 6".
3. All gate valves with operating nuts at a distance greater than 5' below ground surface shall be provided with an extension stem. The length of the extension shall be such that it will be within 5' of ground surface when an extension stem is used. It shall be held in place by two extension stem guide assemblies. Each assembly shall be comprised of a "J" bracket and "L" bracket supplied by E.J.I.W. The stem guides shall be located opposite from each other, and shall be suitably fastened to the wall of the gate well. In addition, a "stop" shall be welded to the extension stem in a location that will prevent the extension stem from slipping off the operating nut. Details of extension stem and method of installation shall be approved by the engineer prior to installation.
4. All pre cast concrete gate well sections shall be manufactured to conform with ASTM C478, standard specifications for precast reinforced concrete manhole sections, except wall thickness shall be as shown on these details. All joints for precast concrete gate well sections shall be "modified grooved tongue" with gasket manufactured to conform with ASTM C443, standard specification for joints for circular concrete sewer and culvert pipe using rubber gaskets.
5. All gate well covers shall be E.J.I.W. #1040A with bolted frame and have the Auburn Hills Logo imprinted on it (see detail on sheet 1), or approved equal. All cover bolts shall be stainless steel.
6. Tapping sleeves shall be mechanical joint with E.J. SERIES Mechanical Joint Tapping Gate Valve. Lead joint sleeves shall not be used. Like size tapping sleeves can only be used when the existing main is ductile iron and must be a mechanical tapping sleeve.
7. All tongue and groove joints on wells shall be cement tuck-pointed inside and out.

HYDRANT NOTES:
1. All hydrants shall be E.J.I.W. #5BR-250-Traffic Model and shall conform to AWWA Spec. C-502 as amended, and shall have a minimum 5 1/4" valve opening that closes with the water pressure. Hydrants shall be traffic style with breakable flange and coupling.
2. Hydrants shall have a swivel flange to allow bonnet to be turned 360 degrees without removing the bonnet, and barrel flanges shall be integrally cast with the barrel. Inlet shoe shall have a bronze valve seat, which can be removed without digging.
3. Inlet connection shall be 6" mechanical joint, ASA-A21-11. Stem threads shall be sealed with double "O" rings and shall be permanently lubricated with all weather grease.
4. Hose connections: Two (2) 4 1/2" pumper nozzles, one (1) with Harrington Integral Hydrant Storz nozzle (part# 946081/EIJW# 54036D) and one (1) with City of Detroit Fire Department (DFD) threads. The Storz nozzle shall have a brass metal face seal and hard anodized aluminum Storz ramps and lugs. The aluminum's finish shall be hardcoat anodized to MIL-A-8625f, Type 3 dark gray. The adapter shall be made of forged or extruded 6061-T6 aluminum. The blind cap shall have hard anodized aluminum Storz ramps and lugs, made of forged or extruded 6061-T6 aluminum. The center cap shall be equipped with a suction seal. The cap shall be connected to the adapter or the hydrant with a 0.125" vinyl coated aircraft cable.
5. Operating Nut: (1) 1 1/2" P-F pentagon, open left. 5.5' cover or specified on plans. A suitable nozzle lock shall be in place to prevent inadvertent nozzle removal. Wedge locks and/or ductile iron retainer rings to secure nozzles shall not be allowed.
6. Hydrants shall be painted red above the ground and black below, with a finish coat of Glamortex 501 enamel, color 314 vermilion, or approved equal. Top flange shall be painted with JDL Industries (305) 599-2022, Bright White Reflective paint, color No.1460 or toped with 3M Scotchlite High Intensity Reflective Tape #3870. Nozzle cap shall be painted per Auburn Hills Fire Dept. requirements: White – 4" mains, Red – 6" mains (Paint #4431-01), Orange – 8" mains (Paint #4431-24), Green – 12" mains (Paint #4431-10), Blue – 16" or larger mains (Paint #4431-12). Paint can be obtain at Tractor Supply Company using the associated Paint Numbers. DO NOT paint Storz nozzle.

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REVISIONS:
REVISED (WATER MAIN NOTE #6; CASING PIPE MINIMUMS)
REVISED (HYDRANT NOTE #6) 04/30/09
REVISED STANDARDS UPDATE 6/2/2021

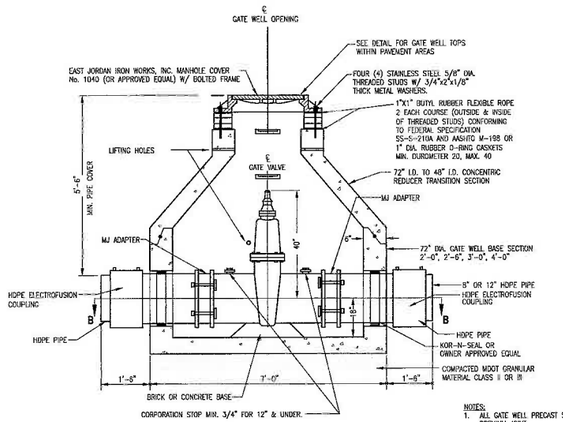
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SCALE: V: NTS H: NTS
CITY/VILLAGE/TOWNSHIP: AUBURN HILLS
COUNTY: OAKLAND
GRID:
PROJ MGR: JLK
ENG: JLK
PROJ NUMBER:
DATE: DEC 2007

CITY OF AUBURN HILLS
WATER MAIN STANDARD DETAILS

SHEET 2 OF 3

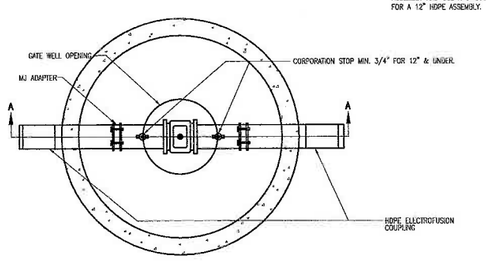
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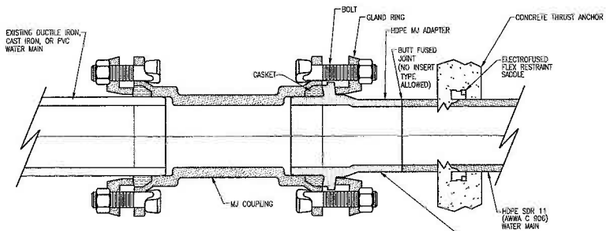


NOTES:
1. ALL GATE WELL PRECAST SECTIONS SHALL BE PREMIUM JOINT.
2. LIFT HOLES SHALL BE FILLED WITH CONCRETE.
3. FOR WATER MAIN LARGER THAN 16" DIAMETER, A 12" GATE VALVE SHALL BE USED. REDUCERS SHALL BE INSTALLED ON THE WATER MAIN OUTSIDE OF THE GATE WELL.
4. USE A 5' DIAMETER GATE WELL FOR 8" HDPE ASSEMBLY AND USE A 6' DIAMETER GATE WELL FOR A 12" HDPE ASSEMBLY.

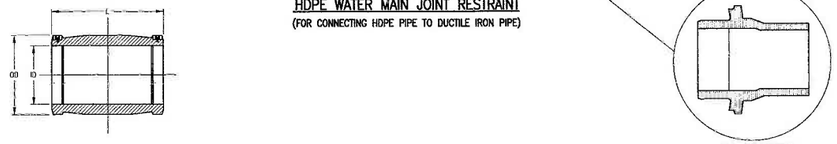
8" AND 12" GATE WELL FOR HDPE WATER MAIN
(A-A)



8" AND 12" GATE WELL TYPICAL FOR HDPE WATER MAIN
(PLAN VIEW, B-B)

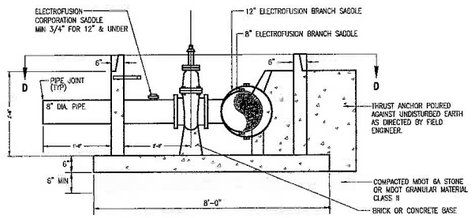


HDPE WATER MAIN JOINT RESTRAINT
(FOR CONNECTING HDPE PIPE TO DUCTILE IRON PIPE)

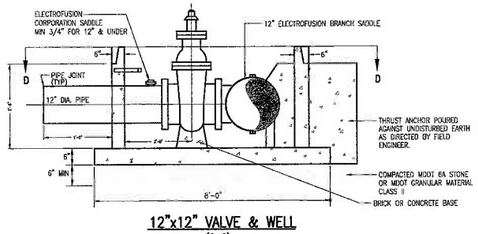


ELECTROFUSION DIPS COUPLINGS

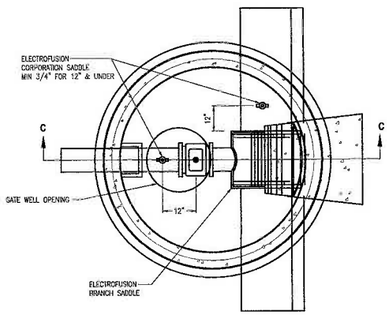
NOMINAL SIZE	INSIDE DIA (MAX) ID	INSIDE DIA (MIN) ID	OUTSIDE DIA (NOMINAL) OD	OVERALL LENGTH (NOMINAL) L
4"	4.84	4.819	6.06	6.93
6"	6.96	6.910	8.74	8.19
8"	9.13	9.060	11.14	9.53
10"	11.15	11.14	13.66	11.02
12"	13.29	13.25	16.22	13.97



12"x8", 8"x8" VALVE & WELL
(C-C)

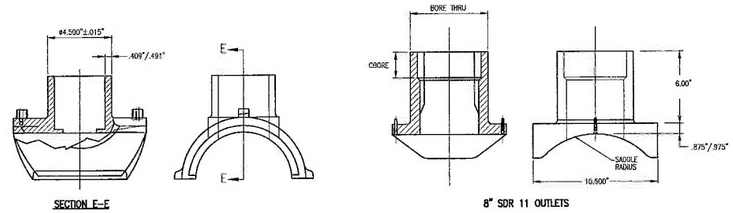


12"x12" VALVE & WELL
(C-C)

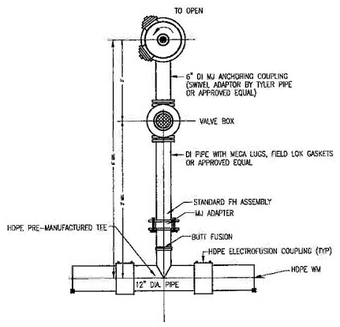


VALVE & WELL TYPICAL
(PLAN VIEW, D-D)

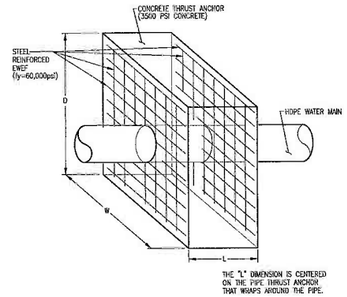
EQUIVALENT DUCTILE IRON PIPE SIZES (DIPS)		CLASS 150 SDR 11
NOMINAL PIPE SIZE (DIPS)	O.D. SIZE (INCHES)	MIN WALL THICKNESS (INCHES)
6"	6.90	0.627
8"	9.05	0.823
10"	11.10	1.009
12"	13.20	1.200
16"	17.40	1.582
20"	21.60	1.964
24"	25.80	2.345



ELECTROFUSION BRANCH SADDLE DETAILS



FIRE HYDRANT ASSEMBLY
WITH HDPE PRE-MANUFACTURED TEE



CONCRETE THRUST ANCHOR FOR HDPE PIPE

PIPE SIZE	THRUST BLOCK SIZE (W x D x L)	REINFORCEMENT
6"	2' x 2' x 12"	#5 @ 12" EWEF*
8"	2.5' x 2.5' x 12"	#5 @ 12" EWEF
12"	4' x 4' x 20"	#6 @ 12" EWEF
16"	5' x 5' x 26"	#6 @ 9" EWEF
20"	6.5' x 6.5' x 32"	#7 @ 12" EWEF
24"	8' x 8' x 36"	#8 @ 12" EWEF

* EWEF = EACH WAY, EACH FACE

NOTE:
VARIATIONS TO THE W AND D DIMENSIONS CAN BE MADE ON A CASE BY CASE BASIS DEPENDING ON THE DEPTH REQUIREMENTS FOR WATER MAIN FOR THAT PARTICULAR PROJECT. IF CHANGES ARE MADE TO THE SIZE, THE DESIGN ENGINEER WILL BE REQUIRED TO SUBMIT CALCULATIONS SUPPORTING THE REVISED SIZE, INCLUDING ANY CHANGES TO THE REINFORCING STEEL.

HIGH-DENSITY POLYETHYLENE (HDPE) WATER MAIN NOTES

1. HDPE pipe shall be manufactured from high density PE 3408 polyethylene resin and shall have a standard dimension ratio (SDR) of 11 or less and a minimum working pressure rating pipe of 160 psi. The SDR is the outside diameter of the pipe divided by the minimum wall thickness.
2. HDPE pipe, appurtenances, and installation methods shall conform to the most current edition of AWWA standard C906.
3. All HDPE materials must be listed and approved for use under ANSI/NSF Standard 14.
4. All pipes shall be made of virgin material as defined in ASTM D3350 with an established hydrostatic design basis of 160 psi. for water at 73.4°F. No rework except that obtained from the manufacturer's own production of the same formulation shall be used. The pipe shall be homogeneous throughout and shall be free of visible cracks, holes, foreign materials, blisters, or other deleterious faults.
5. A certificate of "Compliance with Specification" shall be furnished for all materials supplied.
6. The physical appearance of the pipe having deformities such as concentrated ridges, discoloration, excessive spot roughness, pitting, varying wall thickness, etc., shall constitute sufficient basis for rejection. Pipe with gashes, nicks, abrasions or any physical damage that occurred during storage and/or handling which are wider or deeper than 10% of the wall thickness, shall not be used and must be removed from the construction site. Any pipe that has been damaged or does not meet the City's approval shall be replaced at the Contractor's expense.
7. Mechanical fittings used with HDPE pipe shall be specifically designed for, or tested and found to be acceptable for use with HDPE by the fitting manufacturer. Mechanical fittings designed for other materials shall not be used.
8. Tracing wire shall be provided per the City's specifications and details for all water mains. Wire shall be copper, 12 gage stranded, blue insulated per City's requirements and shall be brought through each gate well and connected to the top step. In addition, an approved continuous tracing tape shall be placed one foot above the HDPE pipe. Underground marking tape shall be Magnatech, 3" wide, foil-backed tape, #31-022 by Empire Level Manufacturing Corp., or approved equal.
9. Pipe and fittings must be marked as prescribed by AWWA C906 and NSF. Pipe markings will include nominal size, OD base, dimension ratio, pressure class, working pressure rating, AWWA C906, manufacturer's name, manufacturer's production code including day, month, year extruded, and manufacturer's plant and extrusion line; and optional NSF logo. Permanent identification of piping service shall be provided by co-extruding longitudinal blue stripes into the outside of the pipe (stripes printed on the outside surface of the pipe shall not be acceptable) or the pipe material shall be black with a blue shell.
10. Personnel trained in the use of butt-fusion equipment shall perform the joining of polyethylene pipe by methods recommended for new pipe connections. Personnel directly involved with installing the new pipe shall receive training in the proper methods for handling and installing the HDPE pipe by a qualified representative.
11. The mechanical joint end must meet outside diameter requirements for connection to ANSI/AWWA C111/A21 and ANSI/AWWA C153/A21.53 mechanical joints. The adapter through-bore inside diameter is equal to SDR11 DIPS HDPE pipe. Butt-fusion ends must meet AWWA C906 DIPS requirements for butt fusion to SDR11.
12. Bolts, nuts, gaskets, and glands meeting ANSI/AWWA C111/A21.11 and ANSI/AWWA C153/A21.53 are recommended. Install mechanical joint components in accordance with manufacturer's recommendations.
13. Connections to HDPE pipe shall not be made immediately after the pipe has been installed. The fused pipe should be laid in the trench and be allowed to reach an equilibrium temperature overnight (24-hour period) in its surrounding environment.
14. The HDPE pipe must be properly aligned at all transitions to conventional or HDPE water main and appurtenances.
15. Under no circumstances shall HDPE pipe be pressure tested when the temperature of the pipe is above 80°F.
16. The polyethylene pipe shall be pressure tested after the line and all fittings and valves have been installed. Connections may be left exposed for visual leak inspection.
17. The newly installed polyethylene water main will be disinfected and samples checked for complete disinfection by the City of Auburn Hills DPW. The number of samples and sampling points will be determined by the city.
18. Water service saddles on HDPE water main shall be "VA" Eletrofusion Service Saddles by Friatec, Inc. or approved equal.

ADDITIONAL NOTES FOR WATER MAIN PIPE BURSTING PROJECTS

19. The method approved for rehabilitation of existing water mains by pipe bursting and installation of new HDPE pipe is T.T. Technologies GRUNDOCRACK SYSTEMS, 800-533-2078) or approved equal. All contractors must be licensed to use the particular technology proposed for this work.
20. The pipe-bursting tool shall be designed and manufactured to force its way through existing pipe materials by fragmenting the pipe and compressing the old pipe sections into the surrounding soil as it progresses. The bursting unit shall be pneumatic and shall generate enough force to burst and compact the existing pipeline.
21. The Manufacturer's specifications shall dictate what size tool should be used in what diameter pipe, as well as parameters of what size tool for percentage of upsize allowed.
22. Prior to construction, the Contractor shall develop a temporary water system to supply water services to area residents and businesses during pipe bursting operations. It is anticipated that the temporary system will be fed from existing fire hydrants. The temporary system and hydrants shall have passed bacteriological testing by the City of Auburn Hills DPW.
23. All service connections on the existing water main that is to be burst or will be taken out of service, shall be connected to the temporary water system prior to mainline bursting, disinfection, testing and service reconnection operations. Temporary service connections shall be made at the water service stop box by disconnecting the existing water service and connecting the temporary water line to the stop box.

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REVISIONS: REVISED STANDARDS UPDATE 6/22/2021

DATE DEC 2097 | PROJ NUMBER | DESIGNED BNG | DRAWN JLK | PROJ MGR | CADD | COUNTY OAKLAND | CITY/VILLAGE/TOWNSHIP AUBURN HILLS | SCALE H: NTS V: NTS | HORIZ DATUM | VERT DATUM

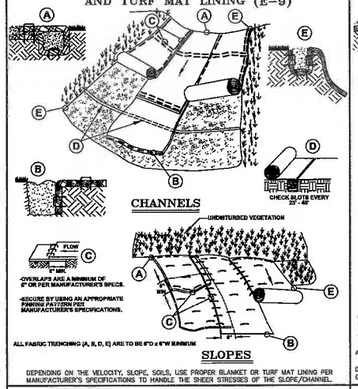
CITY OF AUBURN HILLS
WATER MAIN STANDARD DETAILS

SHEET 3 OF 3

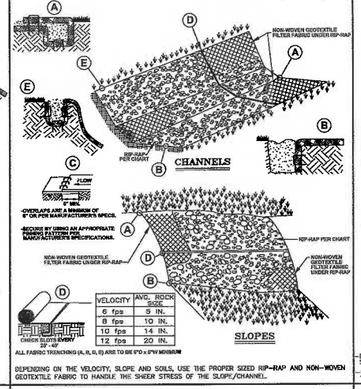
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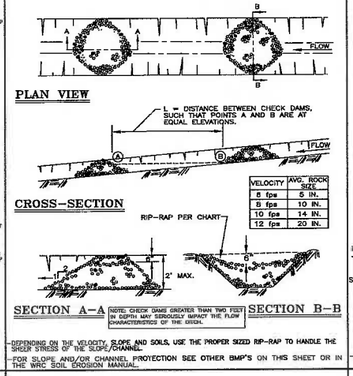
EROSION CONTROL BLANKETS AND TURF MAT LINING (E-9)



RIP-RAP: CHANNELS AND SLOPES (E-10)

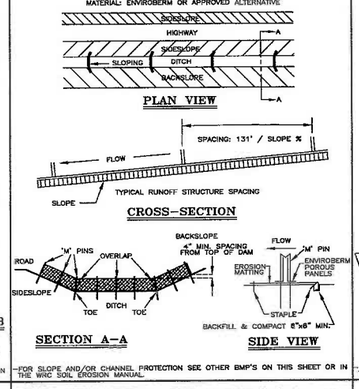


CHECK DAMS (E-3)



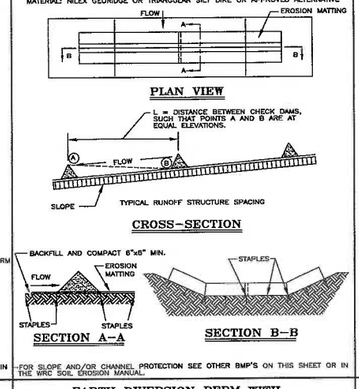
CHECK DAMS ALTERNATIVE "A" (E-3A)

MATERIAL: ENVIROBERM OR APPROVED ALTERNATIVE

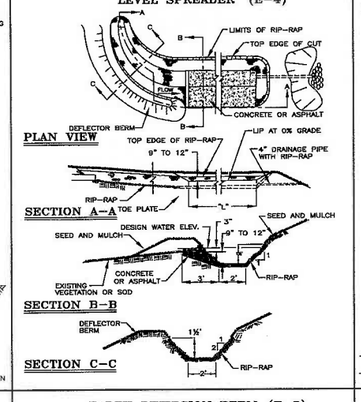


CHECK DAMS ALTERNATIVE "B" (E-3B)

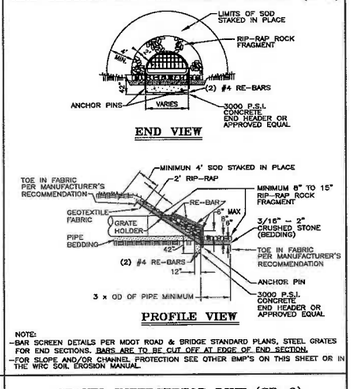
MATERIAL: NILEX GEORIDGE OR TRIANGULAR SILT DIKE OR APPROVED ALTERNATIVE



LEVEL SPREADER (E-4)



RIP-RAP, END SECTION AND BAR SCREEN DETAIL (E-7)



NOTE:
- BAR SCREEN DETAILS PER MDOT ROAD & BRIDGE STANDARD PLANS, STEEL GRATES FOR END SECTIONS. BARS ARE TO BE CUT OFF AT EDGE OF END SECTION.
- FOR SLOPE AND/OR CHANNEL PROTECTION SEE OTHER BMP'S ON THIS SHEET OR IN THE WRC SOIL EROSION MANUAL.

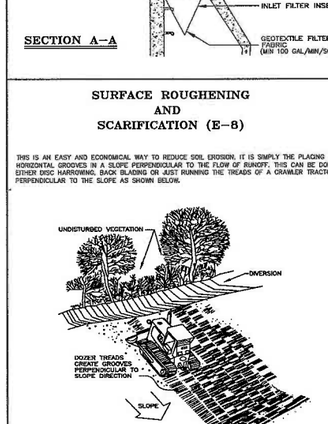
VEGETATIVE BUFFER ZONE (SP-1)

THE GRAPH SHOWN BELOW IS USED TO DETERMINE THE ADEQUACY OF AN EXISTING VEGETATIVE BUFFER ZONE FOR USE AS A SEDIMENT FILTER. THIS GRAPH IS ONLY APPLICABLE IF THE VEGETATION IS 90% DENSE AND AT LEAST 1' IN LENGTH OVER EVERY SQUARE FOOT OF DISTURBED SOIL. AN AREA COVERED WITH WEEDS, OR BUSHES AND TREES WITHOUT A GOOD GROUND COVER IS NOT ACCEPTABLE.

EXAMPLE

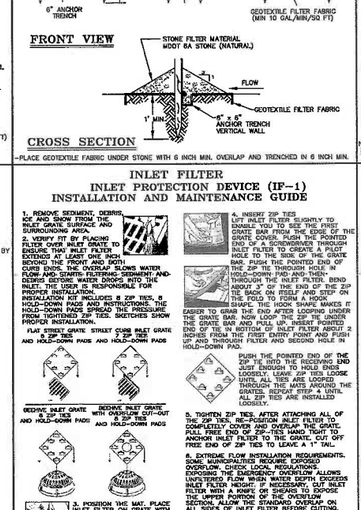
LENGTH OF BUFFER ZONE = ?
% OF SLOPE OF BUFFER ZONE = 5%
WHAT IS THE ACCEPTABLE LENGTH OF THE BUFFER ZONE?

PLOT IN GRAPH BELOW
BUFFER ZONE IS ACCEPTABLE AT 65'



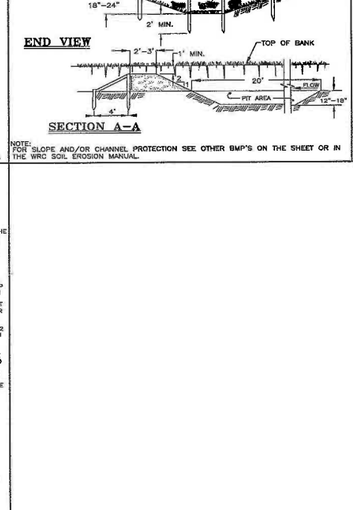
SILT FENCE (SP-2)

MATERIAL: AMOCO PRO PEX 2130 OR APPROVED EQUIVALENT)



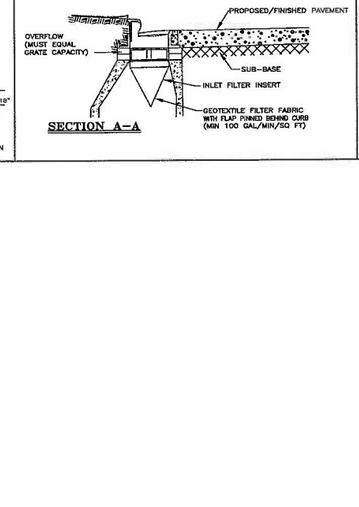
WINTER/FROZEN GROUND SILT FENCE (SP-2W)

MATERIAL: AMOCO PRO PEX 2130 OR APPROVED EQUIVALENT)

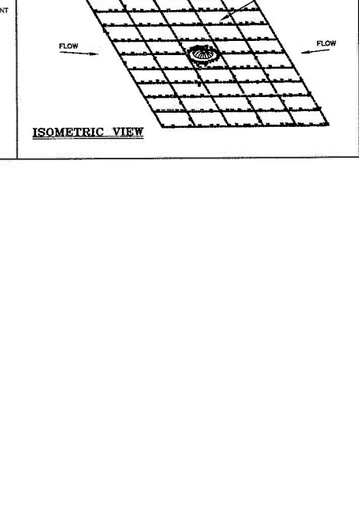


RYCB INLET FILTER ALTERNATIVE "B" (SI-3B)

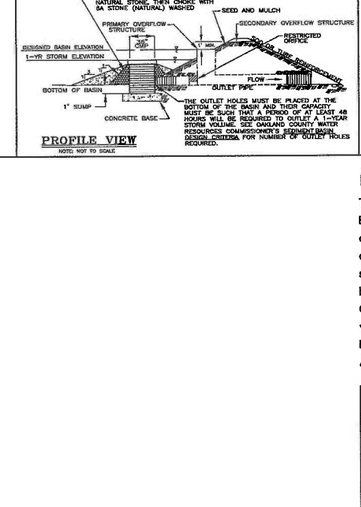
MATERIAL: SILT SAVER SedCage® OR APPROVED ALTERNATIVE



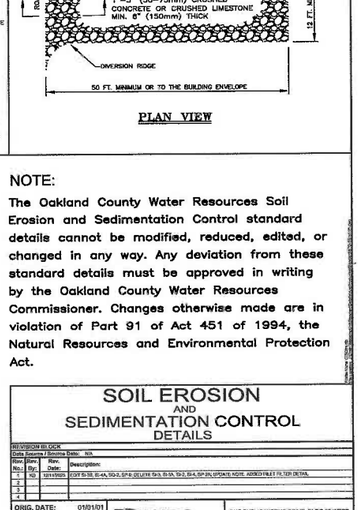
EARTH DIVERSION BERM WITH STONE OUTLET FILTER (SP-4)



EARTH DIVERSION BERM (E-2)



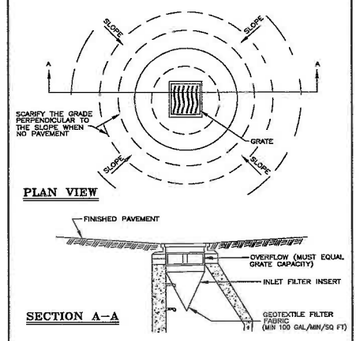
GRAVEL INTERCEPTOR DIKE (SP-6)



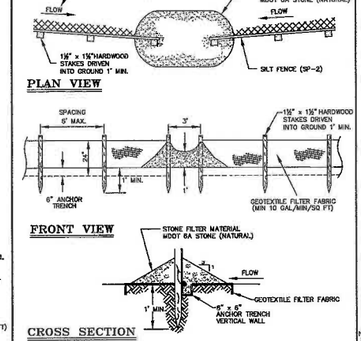
- PLACE GEOTEXTILE FABRIC UNDER STONE WITH 6 INCH MIN. OVERLAP AND TRENCHED IN 6 INCH MIN.
- FOR SLOPE AND/OR CHANNEL PROTECTION SEE OTHER BMP'S ON THIS SHEET OR IN THE WRC SOIL EROSION MANUAL.

LOW POINT INLET FILTER ALT. "A" (SI-2A)

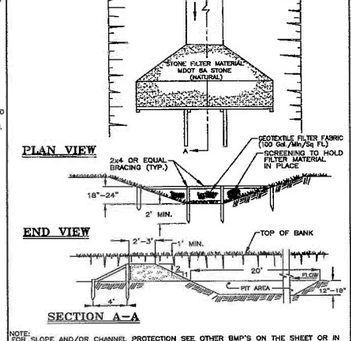
MATERIAL: CATCH-ALL, ULTRA-URBAN FILTERS, FLOGARD +PLUS OR APPROVED ALTERNATIVE



SILT FENCE GRAVEL FILTER (SP-3)



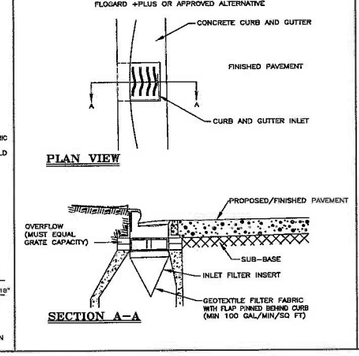
DITCH SEDIMENT TRAP (SO-4)



CURB AND GUTTER INLET FILTER ALTERNATIVE "A" (SI-4A)

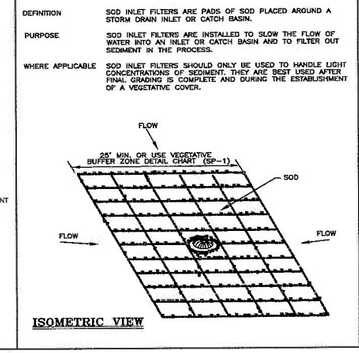
(BEFORE AND AFTER PAVING)

MATERIAL: FLEX STORM, ULTRA-URBAN FILTERS, FLOGARD +PLUS OR APPROVED ALTERNATIVE

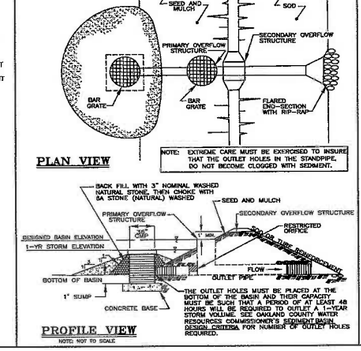


SOD INLET FILTER (SI-1)

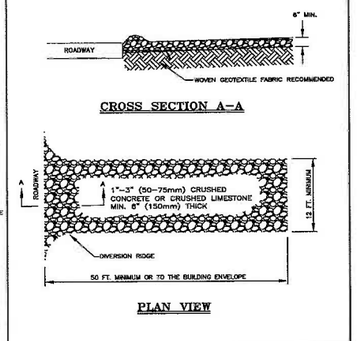
DEFINITION	SOD INLET FILTERS ARE PADS OF SOD PLACED AROUND A STORM DRAIN INLET OR CATCH BASIN.
PURPOSE	SOD INLET FILTERS ARE INSTALLED TO SLOW THE FLOW OF WATER INTO AN INLET OR CATCH BASIN AND TO FILTER OUT SEDIMENT IN THE PROCESS.
WHERE APPLICABLE	SOD INLET FILTERS SHOULD ONLY BE USED TO HANDLE LIGHT CONCENTRATIONS OF SEDIMENT. THEY ARE BEST USED AFTER FINAL GRADING IS COMPLETE AND DURING THE ESTABLISHMENT OF A VEGETATIVE COVER.



TEMPORARY DETENTION BASIN OUTLET STONE FILTER (SO-2)

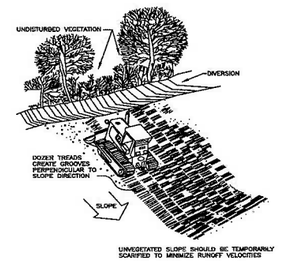


TEMPORARY STONE ACCESS DRIVE (SP-9)



SURFACE ROUGHENING AND SCARIFICATION (E-8)

THIS IS AN EASY AND ECONOMICAL WAY TO REDUCE SOIL EROSION. IT IS SIMPLY THE PLACING OF HORIZONTAL GROOVES IN A SLOPE PERPENDICULAR TO THE FLOW OF RUNOFF. THIS CAN BE DONE BY EITHER DISC HARROWING, BACK BLADING OR JUST RUNNING THE TREADS OF A CRAWLER TRACTOR PERPENDICULAR TO THE SLOPE AS SHOWN BELOW.



INLET FILTER
INLET PROTECTION DEVICE (IF-1)
INSTALLATION AND MAINTENANCE GUIDE

NOTE:

The Oakland County Water Resources Soil Erosion and Sedimentation Control standard details cannot be modified, reduced, edited, or changed in any way. Any deviation from these standard details must be approved in writing by the Oakland County Water Resources Commissioner. Changes otherwise made are in violation of Part 91 of Act 451 of 1994, the Natural Resources and Environmental Protection Act.

SOIL EROSION AND SEDIMENTATION CONTROL DETAILS

REVISION BLOCK			
Date Issued / Effective Date: N/A			
Rev. No.	By	Rev. Date	Description:
1	KB	12/01/2005	CORP SI-1SE, SI-4A, SO-2, SP-6 (DELETE SHT. SI-1A, SO-2, SI-4, SP-2R); UPDATE NOTE; ADD OLYMPIC FILTER DETAIL
2			
3			
4			

ORIG. DATE: 01/01/01
SCALE: NONE
DESIGNED BY: WRC
DRAWN BY: Mapping

WRC WATER RESOURCES COMMISSIONER
Jim Nash

ONE PUBLIC WORKS DRIVE, BLDG 95 WEST
WATERFORD, MICHIGAN
48328-1907

SHEET NO.: 1 of 1

CHECKLIST

PROJECT NAME

FANUC Service First Academy - Parking Lot Expansion

(Check all that apply)

- [ ] REZONING
- [x] SITE PLAN
- [ ] SPECIAL LAND USE
- [x] TREE REMOVAL PERMIT
- [ ] REZONING
- [ ] PUD

The following items have <u>not</u> been included in your packet of information since they are either common, non-controversial items or the recommendations have been noted in the project's cover letter.

Public Notice
Police Department Approval Letter
Fire Department Approval Letter
Woodlands Consultant Approval Letter

However, if you wish to see a copy of the above documents, they are on file in the Community Development Department.