

Owner / Developer
THE SURNOW COMPANY

Tel. (248) 865-3000 x 102

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46777 Woodward Ave.
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CONTACT: Brad W. Brickel, P.E.

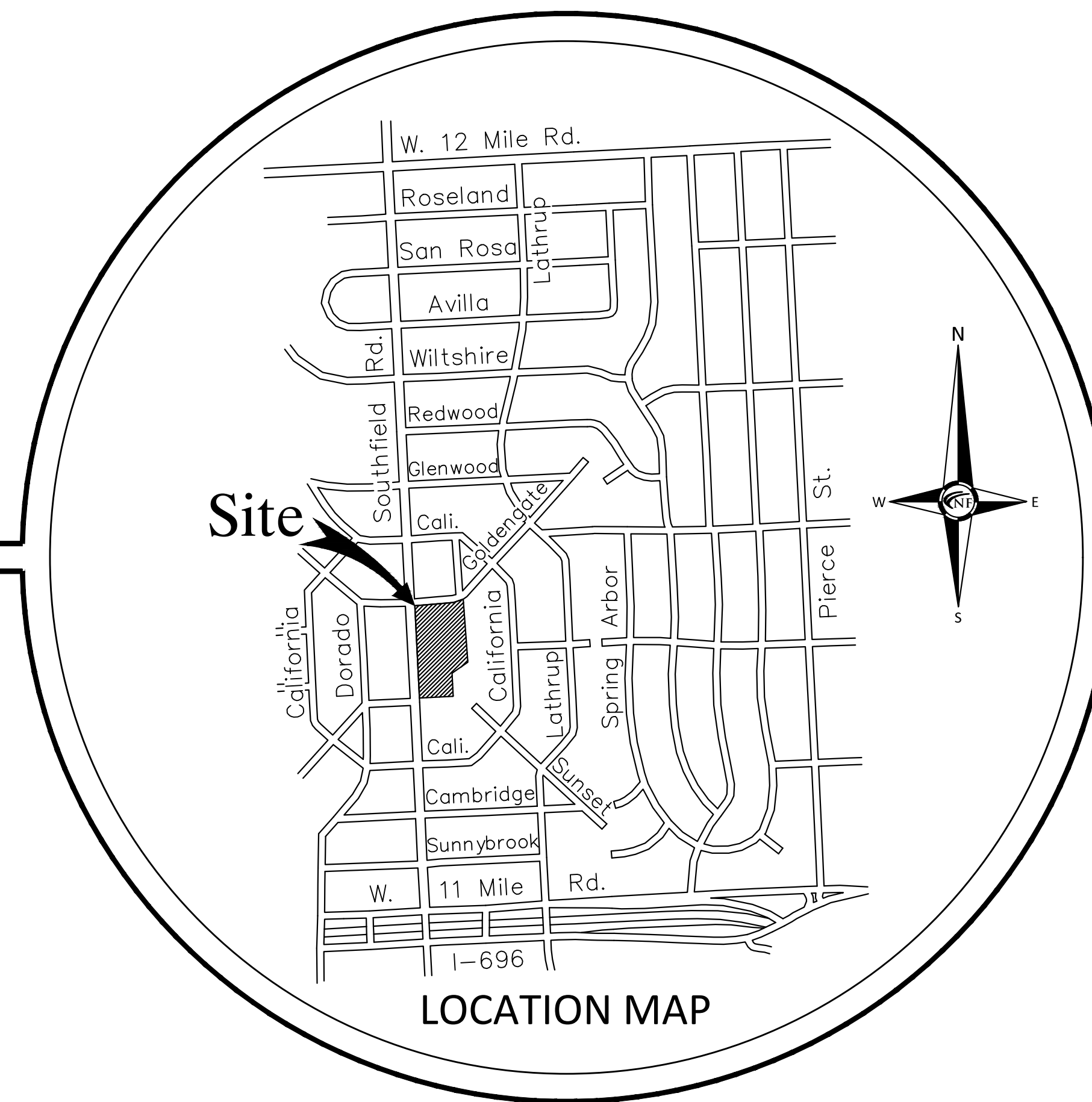
Landscape Architect
NOWAK & FRAUS ENGINEERS
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CONTACT: George Ostrowski, LLS, LEED AP

City of Lathrup, Oakland County, Michigan SITE PLAN DOCUMENTS Prepared For The Surnow Company

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LEGAL DESCRIPTION - PER TITLE COMMITMENT

LAND SITUATED IN THE CITY OF LATHRUP VILLAGE, COUNTY OF OAKLAND, STATE OF MICHIGAN, DESCRIBED AS FOLLOWS:

LOT 1677 AND VACATED SOUTHFIELD SQUARE, FORMERLY KNOWN AS MONTEREY STREET LYING EASTERLY OF LOT 1677 AND WESTERLY OF LOTS 1665 TO 1689, EXCEPT THAT PART OF VACATED SOUTHFIELD SQUARE LYING SOUTH OF A LINE DRAWN BETWEEN THE NORTHWEST CORNER OF LOT 1680 AND A POINT 150 FEET FROM THE SOUTHEAST CORNER OF LOT 1677, ALONG THE EASTERLY BOUNDARY OF SAID LOT 1677, LOUISE LATHRUP'S CALIFORNIA BUNGALOW SUBDIVISION NO. 3, AS RECORDED IN LIBER 32 OF PLATS, PAGE 26, OAKLAND COUNTY RECORDS.

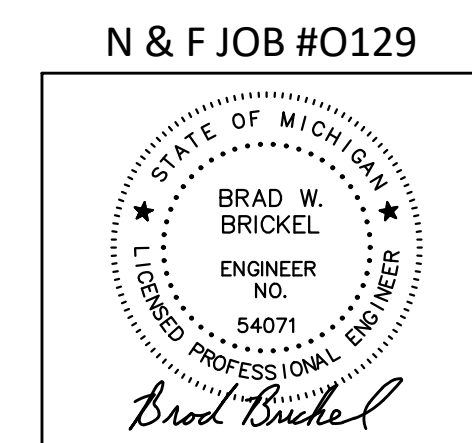
TAX ID NUMBER: 24-13-303-021

ADDRESS: 27700 SOUTHFIELD ROAD, LATHRUP VILLAGE, MI 48076

REVISIONS:
10-17-24 ISSUED FOR SITE PLAN REVIEW

Project Name

27700 Southfield Road

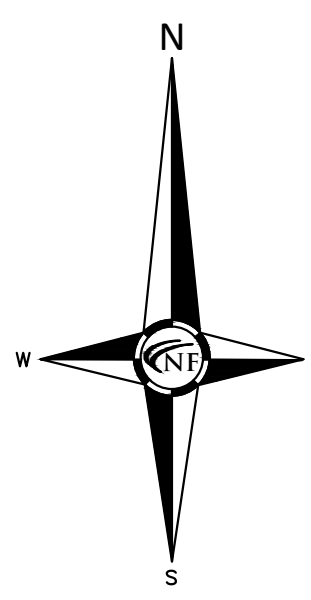
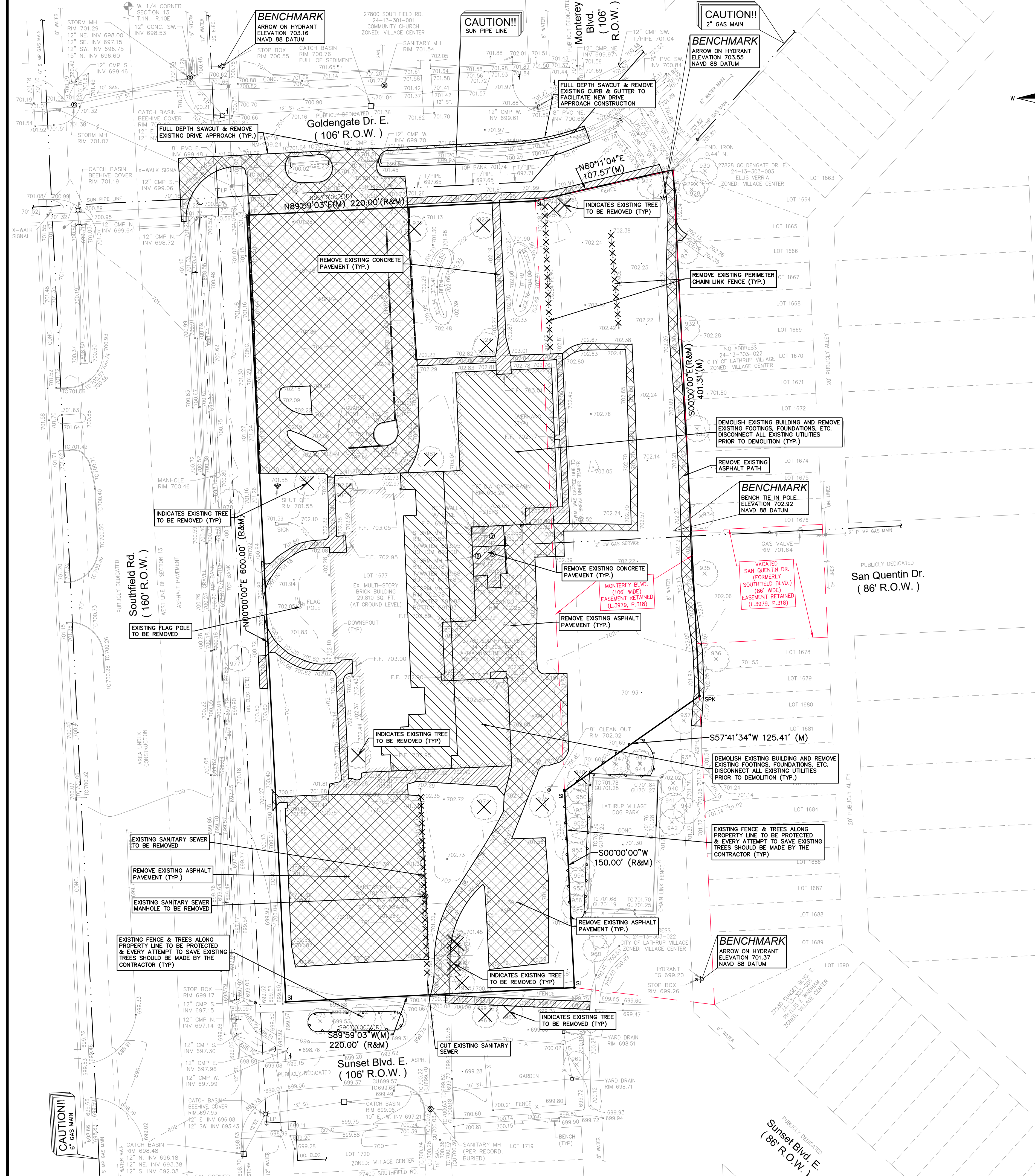


CIVIL ENGINEERS
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N & F JOB #0129

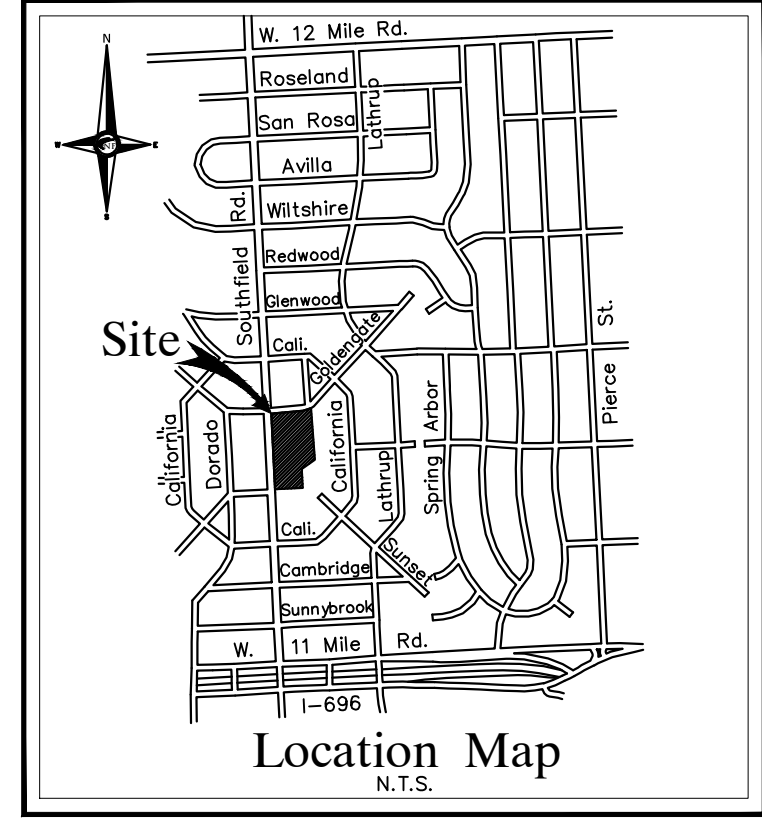
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DEMOLITION NOTES

DEMOLITION OF SITE IMPROVEMENTS SHALL BE ALLOWED ONLY AFTER AN APPROVED PERMIT HAS BEEN SECURED FROM THE PUBLIC AGENCY HAVING JURISDICTION OVER SAID DEMOLITION. FOR ANY DEMOLITION WITHIN PUBLIC RIGHT-OF-WAY, THE CONTRACTOR SHALL PAY FOR, AND SECURE, ALL NECESSARY PERMITS AND LICENSES FOR ALL SITE INSPECTIONS. SITE DEMOLITION INCLUDES THE COMPLETE REMOVAL OF SITE IMPROVEMENTS AND OFF-SITE DISPOSAL OF DEBRIS SHALL BE TRANSPORTED TO AN APPROPRIATE DISPOSAL FACILITY THAT IS LICENSED FOR THAT TYPE OF DEBRIS. THE CONTRACTOR SHALL COORDINATE TRUCK ROUTES WITH THE MUNICIPALITY PRIOR TO COMMENCEMENT OF SITE DEMOLITION. ALL TRUCKS SHALL BE TARPED OR PROPERLY SECURED TO CONTAIN DEMOLITION DEBRIS PRIOR TO LEAVING SITE. EXISTING ON-SITE UNDERGROUND UTILITIES AND BUILDING SERVICES HAVE BEEN INDICATED BASED UPON THE BEST AVAILABLE UTILITY RECORDS AND/OR ON-SITE INSPECTION. NO GUARANTEE IS MADE BY THE DESIGN ENGINEER, AS TO THE COMPLETENESS OR ACCURACY OF UTILITY DATA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF UTILITY INFORMATION (THE DESIGN ENGINEER MAKES NO GUARANTEE NOR ASSUMES ANY LIABILITY AS TO THE COMPLETENESS AND/OR ACCURACY OF UTILITY DATA). PRIOR TO THE REMOVAL OR ABANDONMENT OF ANY EXISTING UNDERGROUND UTILITY OR BUILDING SERVICES CALLED FOR IN THE PLANS OR DISCOVERED DURING EXCAVATION, THE CONTRACTOR MUST DETERMINE IF THE UTILITY LINE OR BUILDING SERVICE IS STILL IN USE. IF THE UTILITY LINE OR BUILDING SERVICE IS STILL IN USE, THE CONTRACTOR MUST TAKE ALL THE NECESSARY STEPS TO GUARANTEE THAT THE UTILITY LINE OR BUILDING SERVICE IS RECONNECTED WITHOUT AN INTERRUPTION IN SERVICE. THE RECONNECTION OF THE UTILITY LINE OR BUILDING SERVICE MUST BE IN ACCORDANCE WITH THE STANDARDS AND REQUIREMENTS OF THE APPROPRIATE GOVERNMENTAL AGENCY OR PRIVATE UTILITY COMPANY. SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED BY THE CONTRACTOR PRIOR TO SITE DEMOLITION. * THE CONTRACTOR SHALL NOTIFY MISS DIG (1-800-482-7171) A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO THE START OF THE SITE DEMOLITION. THE CONTRACTOR SHALL COORDINATE THE REMOVAL AND/OR RELOCATION OF EXISTING UTILITY POLES AND BUILDING SERVICES WITH UTILITY COMPANY. REMOVAL OF THE UTILITY COMPANY'S ELECTRICAL SERVICES SHALL BE IN ACCORDANCE WITH THE STANDARDS AND REQUIREMENTS OF THE UTILITY COMPANY. THE CONTRACTOR SHALL COORDINATE THE REMOVAL AND/OR RELOCATION OF EXISTING UTILITY POLES AND BUILDING SERVICES WITH THE UTILITY COMPANY. REMOVAL OF THE UTILITY COMPANY'S COMMUNICATION SERVICES SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND REQUIREMENTS OF THE UTILITY COMPANY. THE CONTRACTOR SHALL COORDINATE THE REMOVAL AND/OR RELOCATION OF EXISTING UTILITY POLES AND BUILDING SERVICES WITH THE APPROPRIATE CABLE MEDIA COMPANY. REMOVAL OF CABLE SERVICES SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND REQUIREMENTS OF THE CABLE COMPANY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF PRIVATE UTILITY COMPANIES AND COORDINATE UTILITY SERVICE SHUT OFF/DISCONNECT, PRIOR TO DEMOLITION OF EXISTING STRUCTURES OR PROPERTIES. ALL UTILITY METERS SHALL BE REMOVED BY THE APPROPRIATE UTILITY COMPANY. ANY ON-SITE STORM SEWER FACILITIES LOCATED DURING DEMOLITION SHALL BE REMOVED AND BULK HEADED AT THE PROPERTY LINE IF INDICATED FOR REMOVAL ON THE PLANS. PRIOR TO BUILDING DEMOLITION, ALL HAZARDOUS MATERIAL SHALL BE REMOVED BY OTHERS. THE DEMOLITION CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER SHOULD ANY SUSPICIOUS MATERIAL BE FOUND. WATER SERVICES AND/OR STOP-BOX SHALL BE PRESERVED AND BULK HEADED AT THE PROPERTY LINE OR AS DIRECTED BY THE OWNER'S REPRESENTATION. WHERE EXISTING BUILDINGS PLANNED FOR DEMOLITION FALL WITHIN PROPOSED BUILDING FOOTPRINTS, BASEMENT FLOOR SLABS, FOUNDATION WALLS AND FOOTINGS SHALL BE COMPLETELY REMOVED AND BACK FILLED WITH MDOT CLASS II GRANULAR MATERIAL AND BE MACHINE COMPACTED TO A MINIMUM OF 98% OF MATERIALS MAXIMUM DENSITY.

GENERAL TREE PROTECTION NOTES
1. APPROVED TREE PROTECTION SHALL BE ERRECTED 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. WHERE GROUPINGS OF TREES ARE TO REMAIN, TREE FENCING SHALL BE PLACED AT THE LIMITS OF GRADING LINE.
4. DURING CONSTRUCTION, NO PERSON SHALL ATTACH ANY DEVICE OR WIRE TO ANY TREE, SCHEDULED TO REMAIN.
5. 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.
6. SWALES SHALL BE ROUTED TO AVOID THE AREA WITHIN THE DRIP LINES OF PROTECTED TREES.
7. TREES LOCATED ON ADJACENT PROPERTIES THAT MAY BE AFFECTED BY CONSTRUCTION ACTIVITIES MUST BE PROTECTED.
8. ROOT ZONES OF PROTECTED TREES SHOULD BE SURROUNDED WITH RIGIDLY STAKED FENCING.
9. THE PARKING OF IDLE AND RUNNING EQUIPMENT SHALL BE PROHIBITED UNDER THE DRIP LINE OF PROTECTED TREES.
10. THE STRIPPING OF TOPSOIL FROM AROUND PROTECTED TREES SHALL BE PROHIBITED.
11. ALL TREES TO BE REMOVED SHALL BE CUT AWAY FROM TREES TO REMAIN.
12. 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.
13. THE CONTRACTOR IS RESPONSIBLE FOR THE REPLACEMENT PER ORDINANCE GUIDELINES, FOR THE DAMAGE OR REMOVAL OF ANY TREE DESIGNATED TO REMAIN.
14. 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 OWNER'S REPRESENTATIVE.



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 BRAD W. BRICKEL ENGINEER NO. 54071 ESS (STATE OF MICHIGAN) L. CERTIFIED PROFESSIONAL

PROJECT 27700 Southfield Road Lathrup Village, MI 48076

CLIENT The Surnow Company

Contact: Sam Surnow Phone: 248.865.3000 x 102 Email: sam@surnow.com

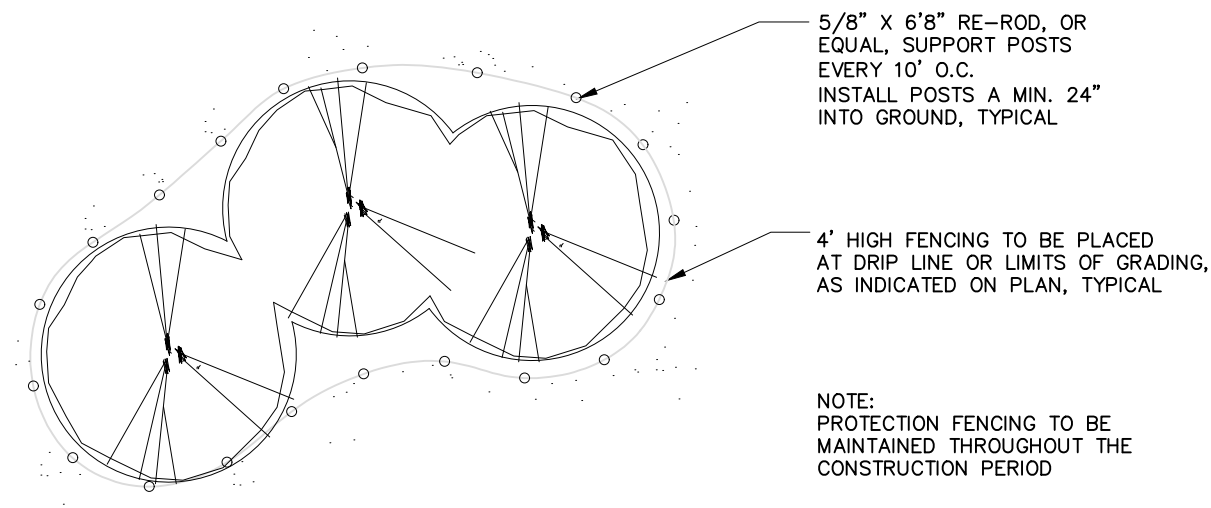
PROJECT LOCATION Part of the SW 1/4 of Section 13 T.1N., R.10E., City of Lathrup Village, Oakland County, Michigan

SHEET Demolition Plan

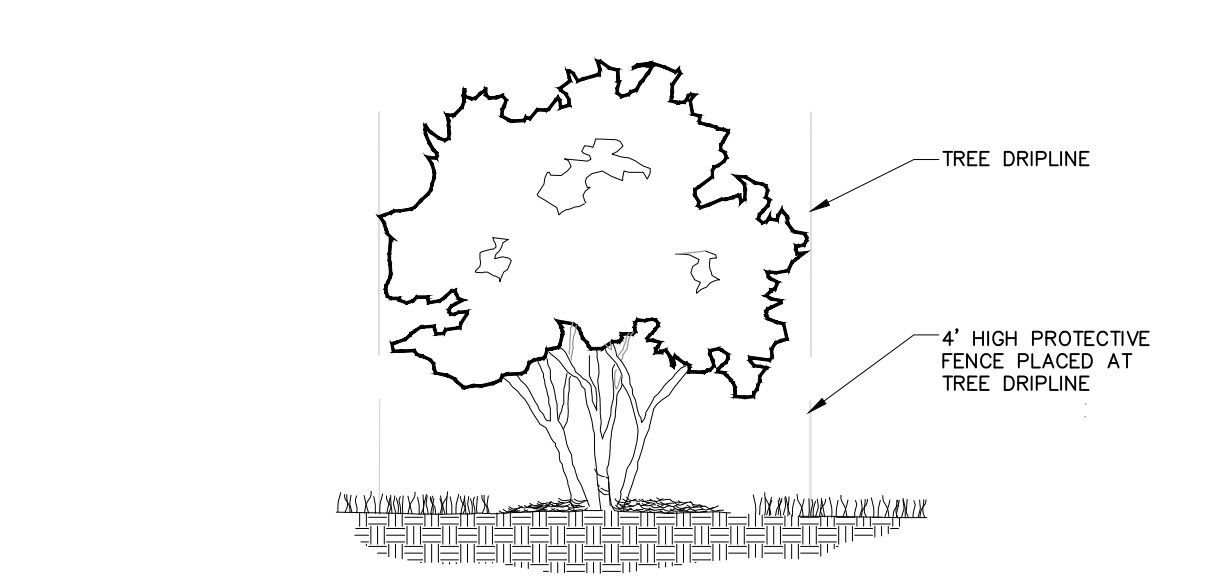
811 Know what's below Call before you dig.

Table with columns DATE and ISSUED/REVISED. Row 1: 10-17-24 ISSUED FOR SITE PLAN REVIEW

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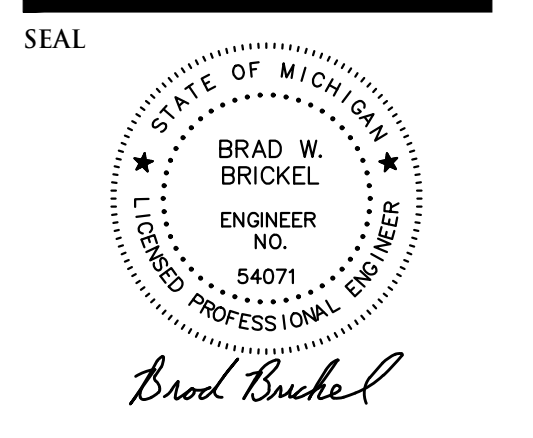
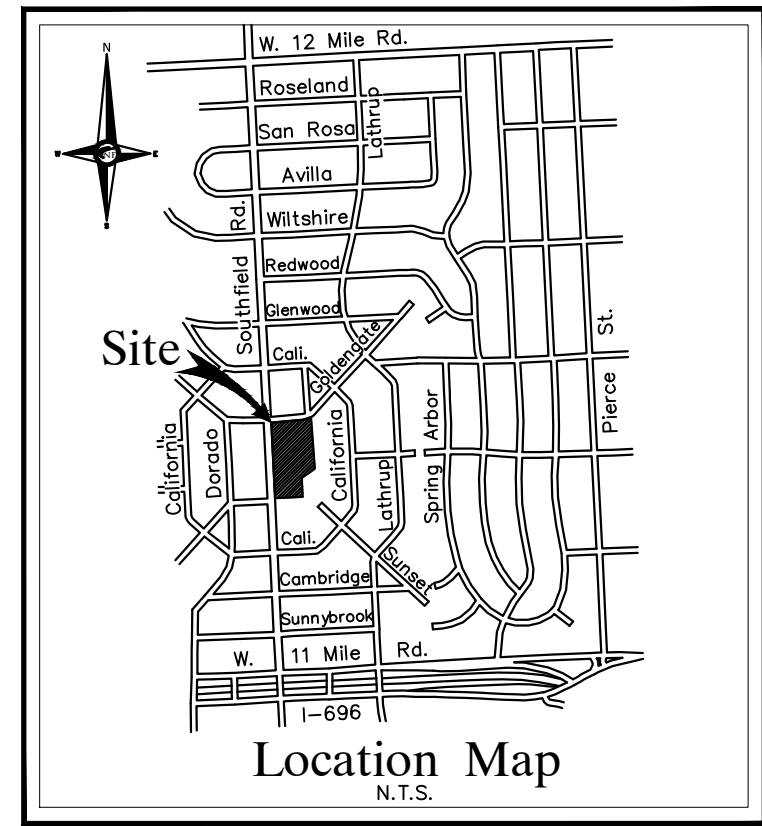
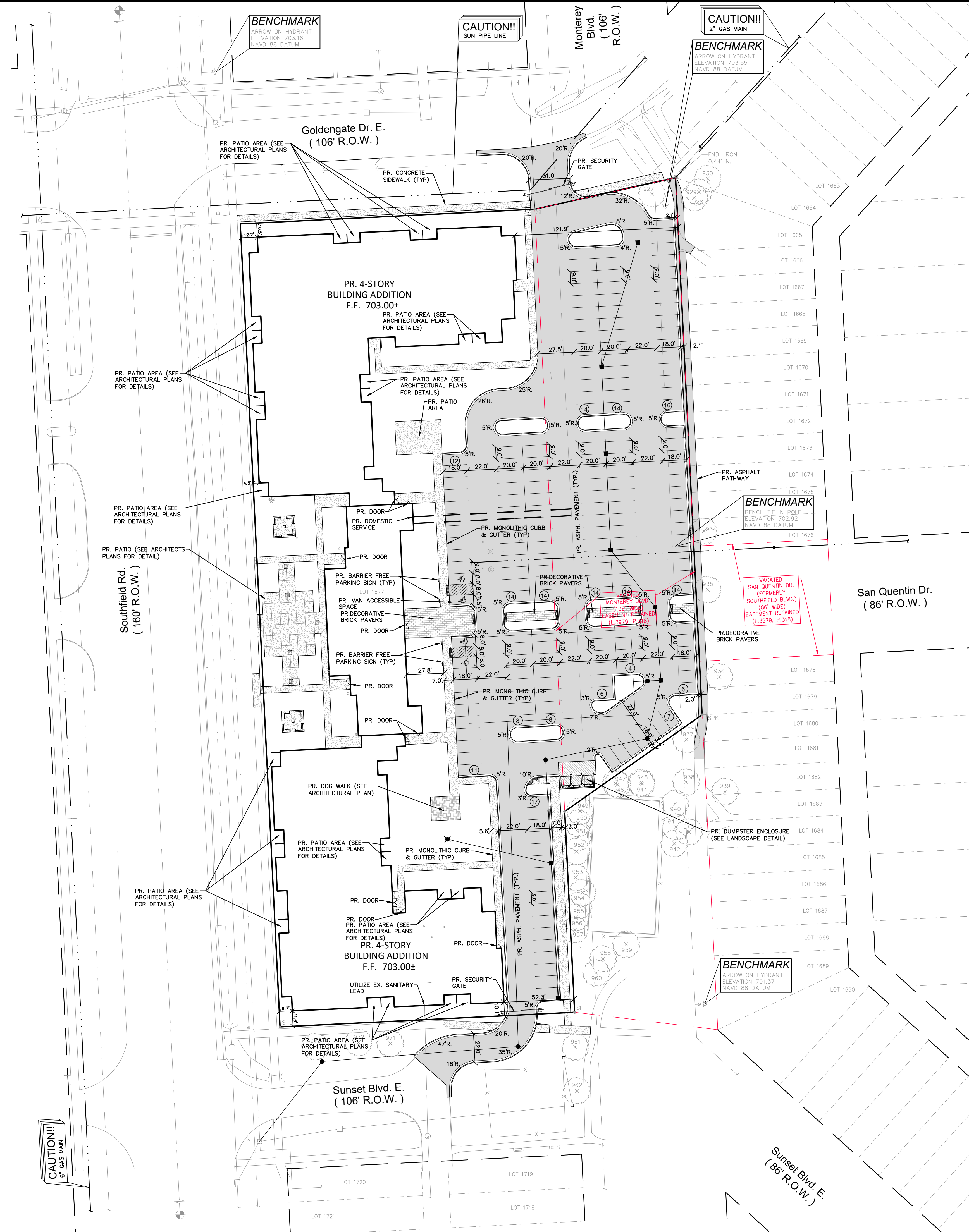


TREE PROTECTION DETAIL-PLAN



TREE PROTECTION DETAIL-SECTION

REMOVAL LEGEND and LEGEND tables defining symbols for building removal, asphalt removal, concrete removal, manholes, hydrants, catch basins, utility poles, gas mains, and trees to be removed.



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 Lathrup Village, MI 48076

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 Email: sam@surnow.com

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 of Section 13
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SHEET
 Site Plan



DATE ISSUED/REVISED
 10-17-24 ISSUED FOR SITE PLAN REVIEW

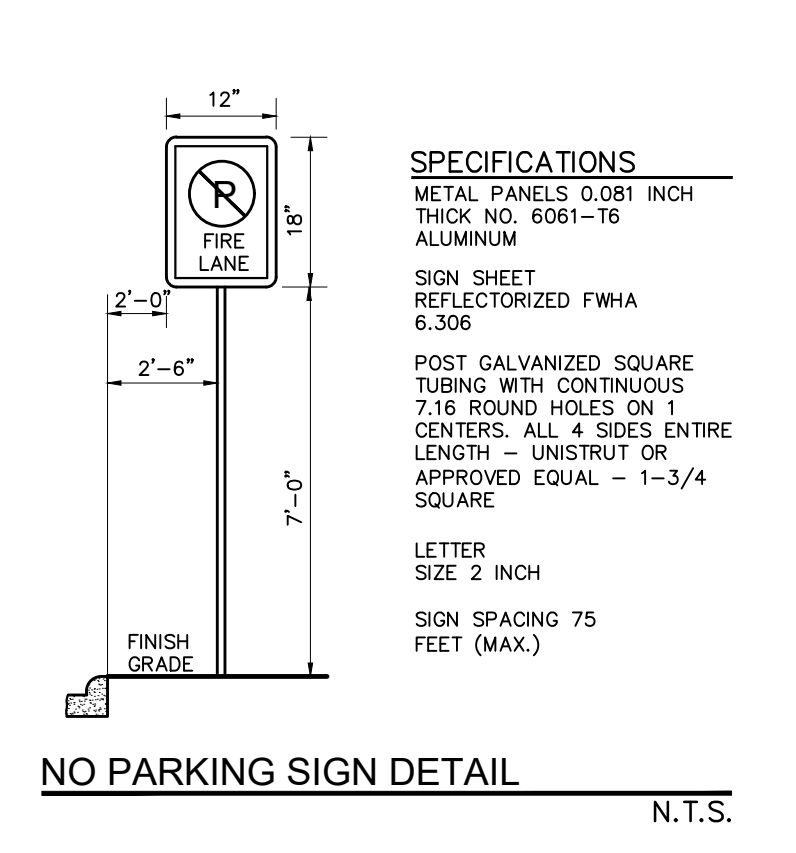
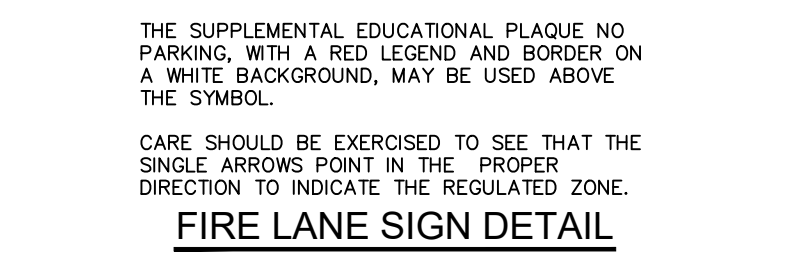
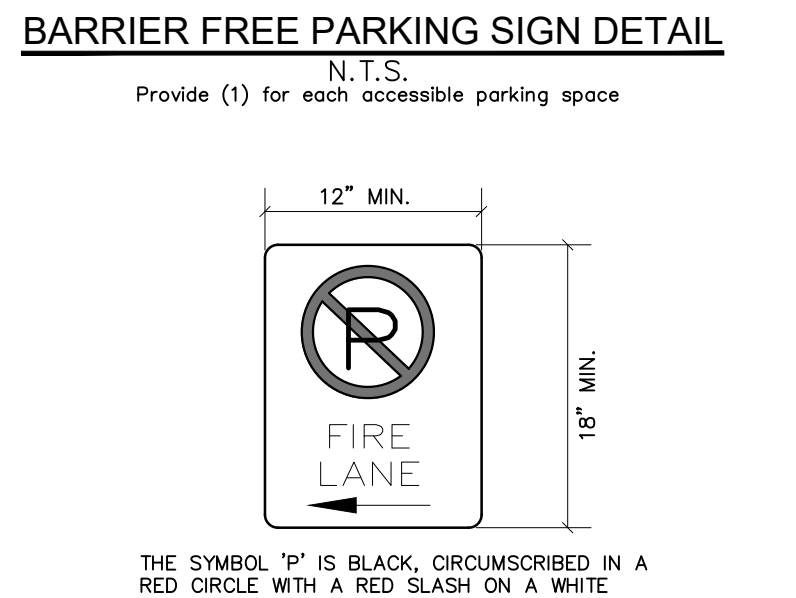
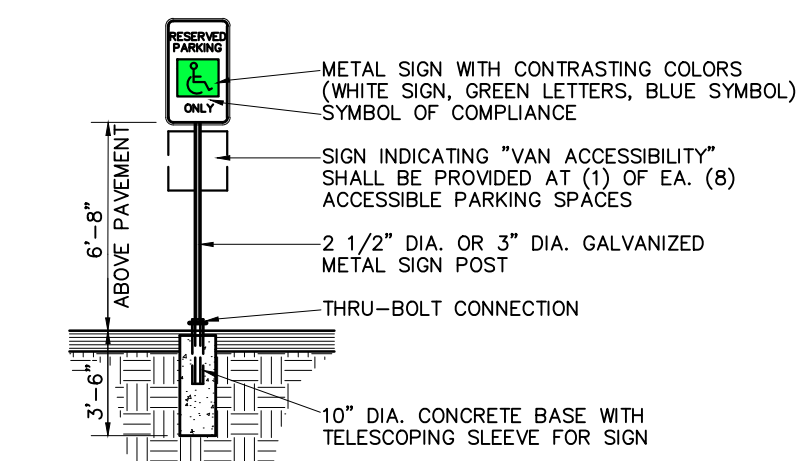
DRAWN BY:
 J. Lawrey
 DESIGNED BY:
 A. Eizember
 APPROVED BY:
 B. Brickel
 DATE:
 October 17, 2024
 SCALE: 1" = 40'
 NFE JOB NO. SHEET NO.
 O129 SP03

NOTES
 REFER TO SHEETS SP05-SP05.1 FOR PAVING & GRADING PLANS
 REFER TO SHEETS SP07 FOR PRELIMINARY UTILITY PLANS
 REFER TO SHEETS SP08 FOR ADDITIONAL PROJECT NOTES AND DETAILS (TYP.)

NOTE
 AN EGE PERMIT IS REQUIRED FOR WETLAND & FLOOD PLAIN IMPACTS.

UTILITY NOTE
 CONTRACTOR TO EXPOSE FIBER/ ELECTRIC/ TELEPHONE CONDUIT PRIOR TO COMMENCING CONSTRUCTION. UTILITY OWNER TO BE PRESENT. CONTRACTOR SHALL NOTIFY CIVIL ENGINEER OR RECORD FOLLOWING EXPOSURE TO COORDINATE.

DETENTION NOTE
 ON-SITE STORMWATER MANAGEMENT WILL BE PROVIDED TO MEET THE REQUIREMENT OF THE CITY OF LATHRUP VILLAGE ENGINEERING STANDARDS AND OAKLAND COUNTY WATER RESOURCES COMMISSIONER.



SITE DATA

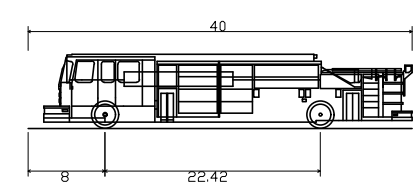
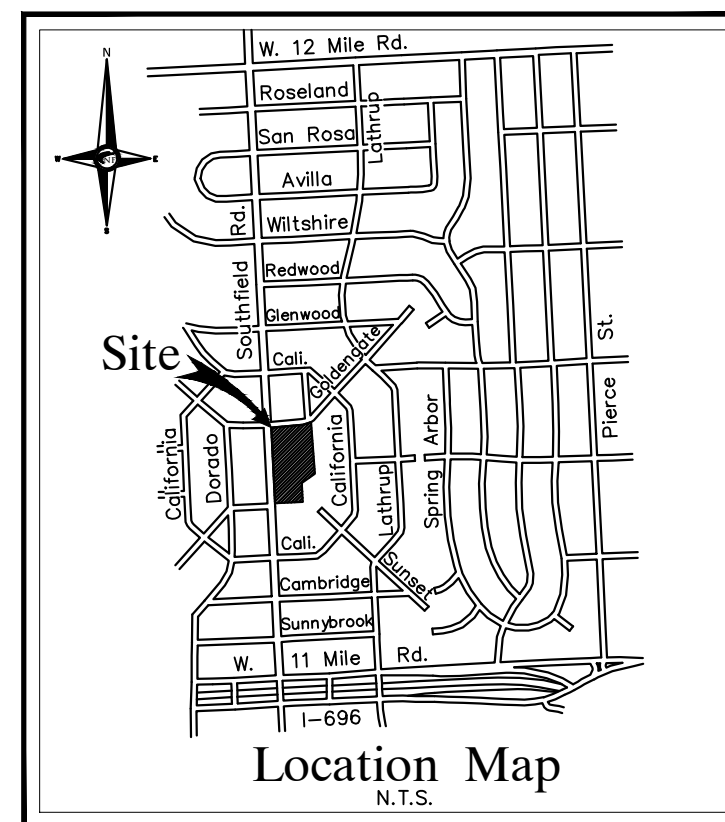
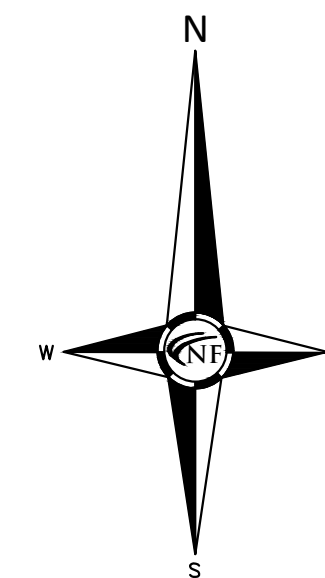
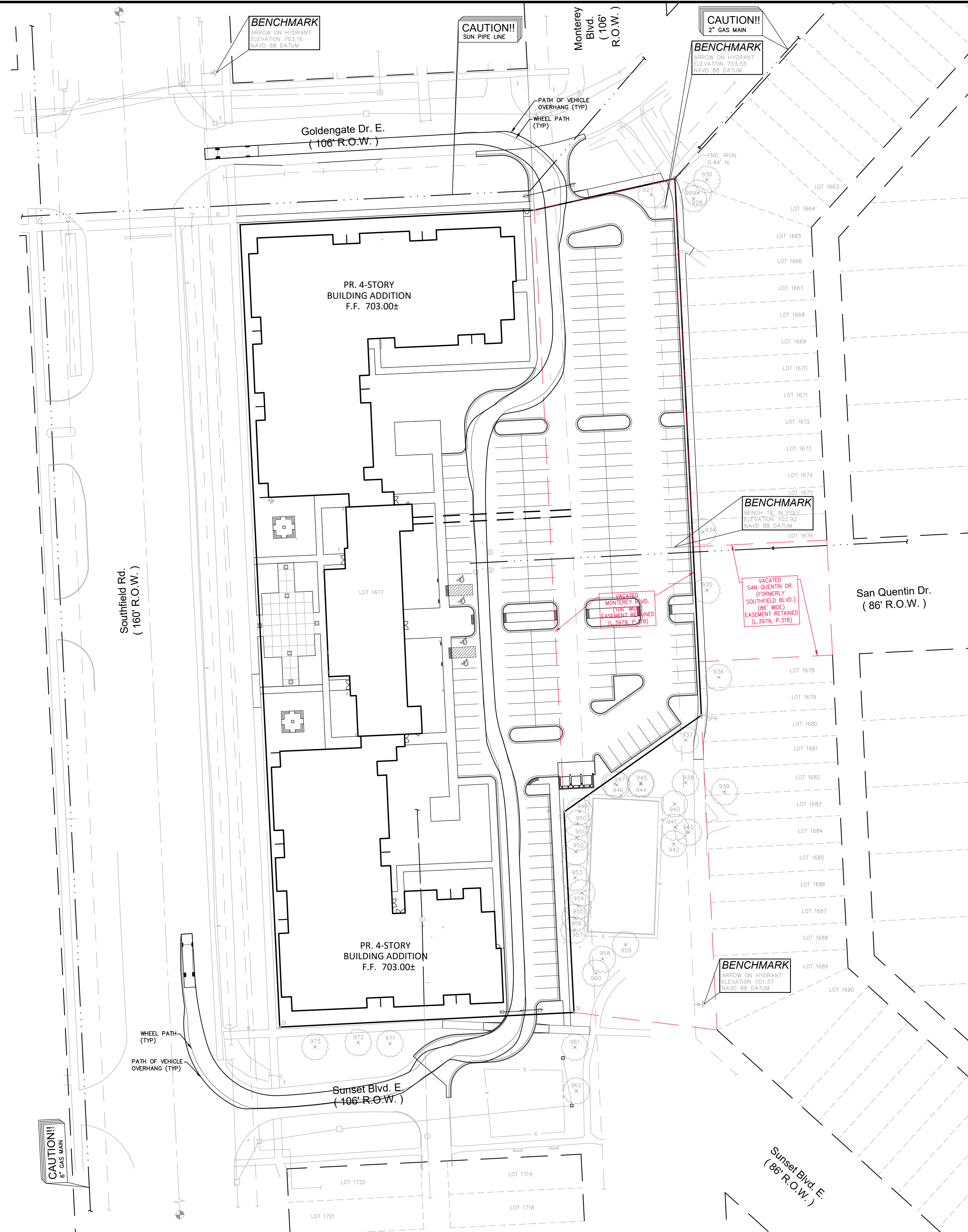
SITE AREA	177,119 SFT. OR 4.066 ACRES	
ZONING	EXISTING: VILLAGE CENTER DISTRICT	
PARKING REQUIRED:	1 SPACE/ UNIT 128 x 1.5 =	192 SPACES
PROVIDED:	1.5 SPACES/ 128 UNIT ON SITE SPACES:	192 SPACES 193 SPACES
SITE AREA	177,119.00 SFT.	100.0%
BUILDING FOOTPRINT	56,074.26 SFT.	31.7%
PARKING & DRIVES	81,025.53 SFT.	45.7%
OPEN SPACE	40,019.21 SFT.	22.6%
SETBACK REQUIREMENTS	REQUIRED	PROVIDED
FRONT:	0'(WEST)	45'(WEST)
REAR:	0'(NORTH)	10.5'(NORTH)
	5'(EAST)	52.3'(EAST)

PAVING LEGEND

	PROPOSED CONCRETE PAVEMENT
	PROPOSED ASPHALT PAVEMENT

LEGEND

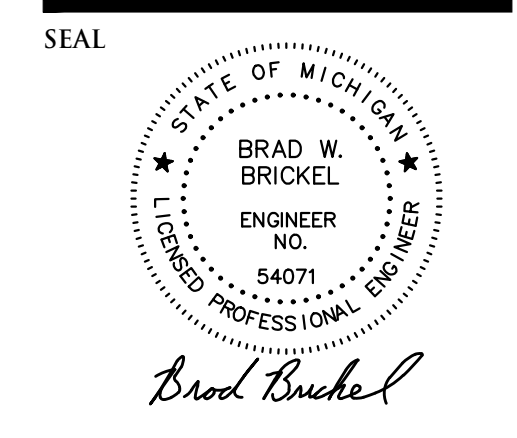
	EXISTING SANITARY SEWER		EXISTING SANITARY SEWER
	SAN. CLEAN OUT		GATE VALVE
	EXISTING WATERMAIN		EXISTING STORM SEWER
	EX. R. Y. CATCH BASIN		EXISTING BURIED CABLES
	EXISTING OVERHEAD LINES		LIGHT POLE
	SIGN		SIGN
	EXISTING GAS MAIN		PR. SANITARY SEWER
	PR. WATER MAIN		PR. WATER MAIN
	PR. STORM SEWER		PR. STORM SEWER
	PR. R. Y. CATCH BASIN		PROPOSED LIGHT POLE



Pumper Fire Truck - Lyone Fire
 Overall Length 40.00ft
 Overall Width 8.167ft
 Overall Body Height 7.745ft
 Min Body Ground Clearance 0.656ft
 Track Width 8.167ft
 Lock-to-lock time 5.00s
 Curb to curb Turning Radius 41.580ft

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SHEET
 Fire Truck Turning Plan



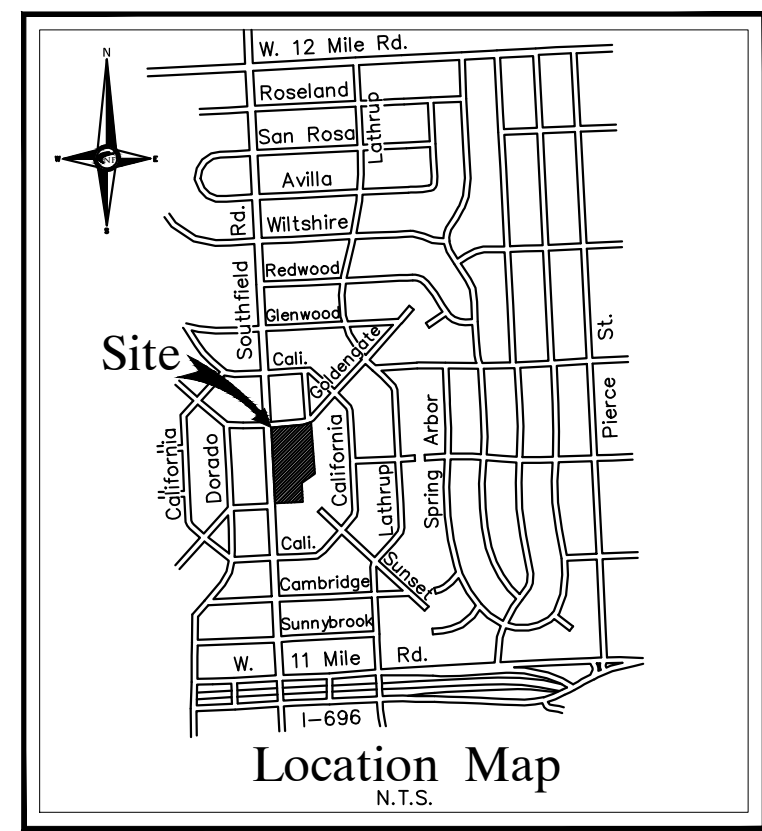
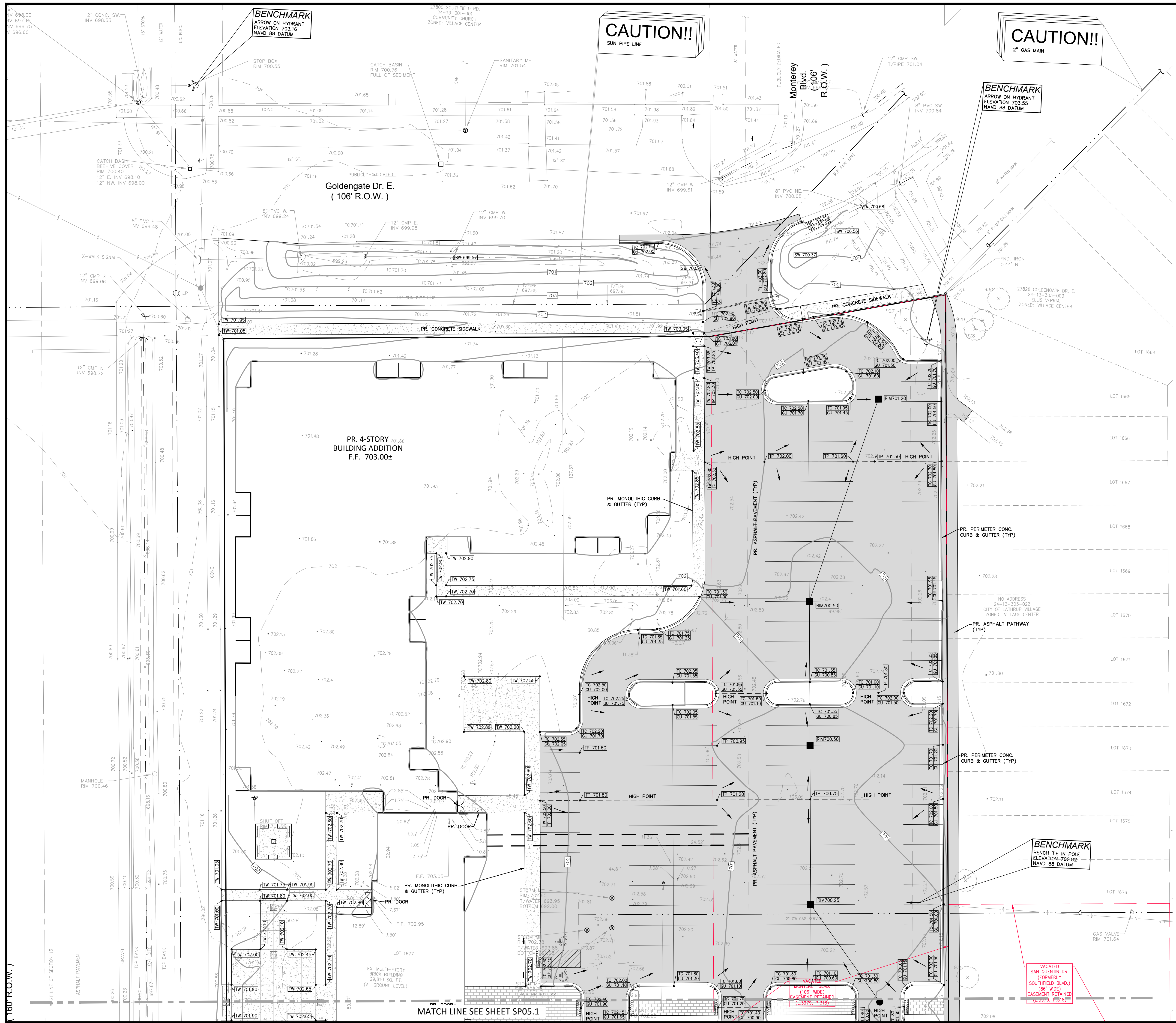
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NOTES
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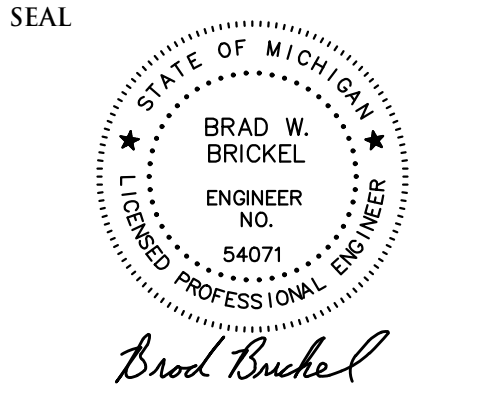
LEGEND	
	EXISTING SANITARY SEWER
	SAN. CLEAN OUT
	EXISTING WATERMAIN
	EXISTING STORM SEWER
	EX. R. Y. CATCH BASIN
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	EXISTING GAS MAIN
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	PR. WATER MAIN
	PR. STORM SEWER
	PR. R. Y. CATCH BASIN
	PROPOSED LIGHT POLE

DRAWN BY:
 J. Lawrey
 DESIGNED BY:
 A. Eizember
 APPROVED BY:
 B. Brickel
 DATE:
 October 17, 2024
 SCALE: 1" = 40'
 NFE JOB NO. 0129 SHEET NO. SP04



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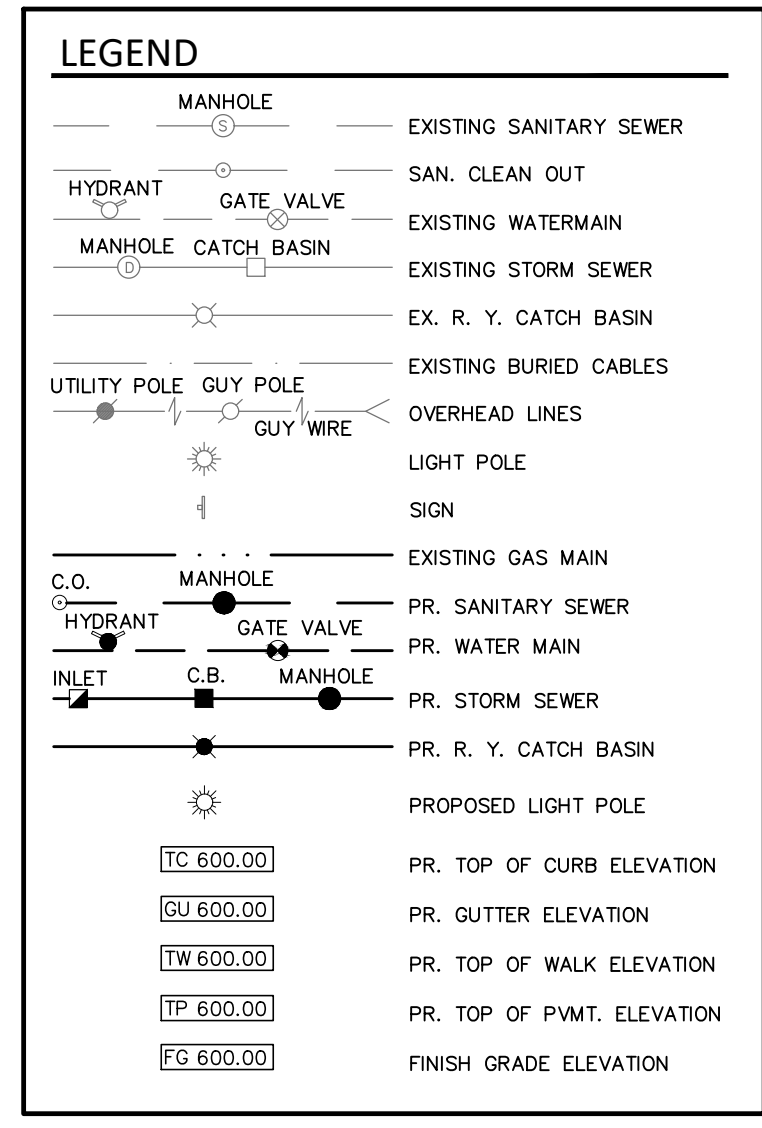
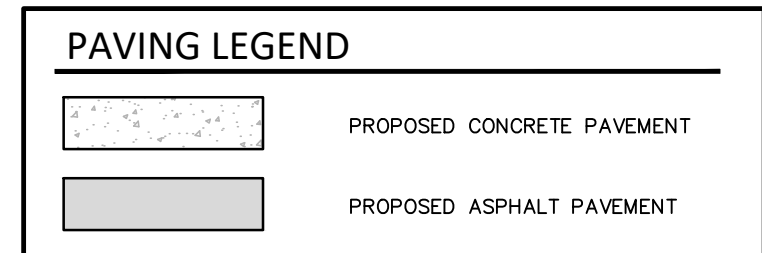
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SHEET
 Paving and Grading Plan

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NOTE
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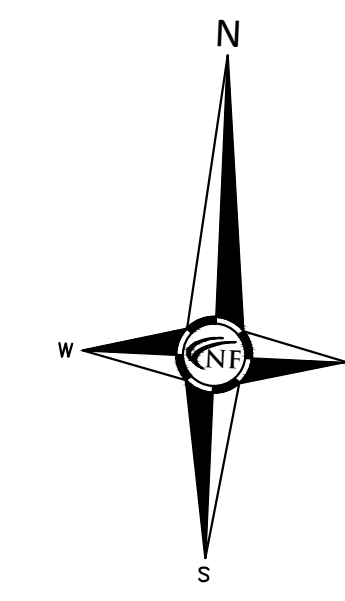
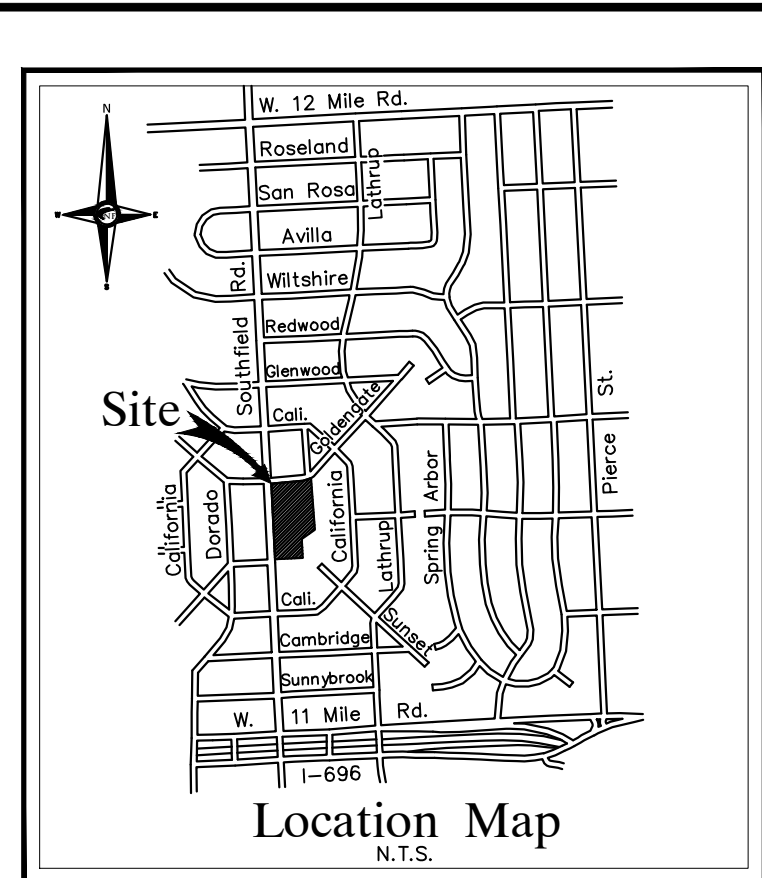
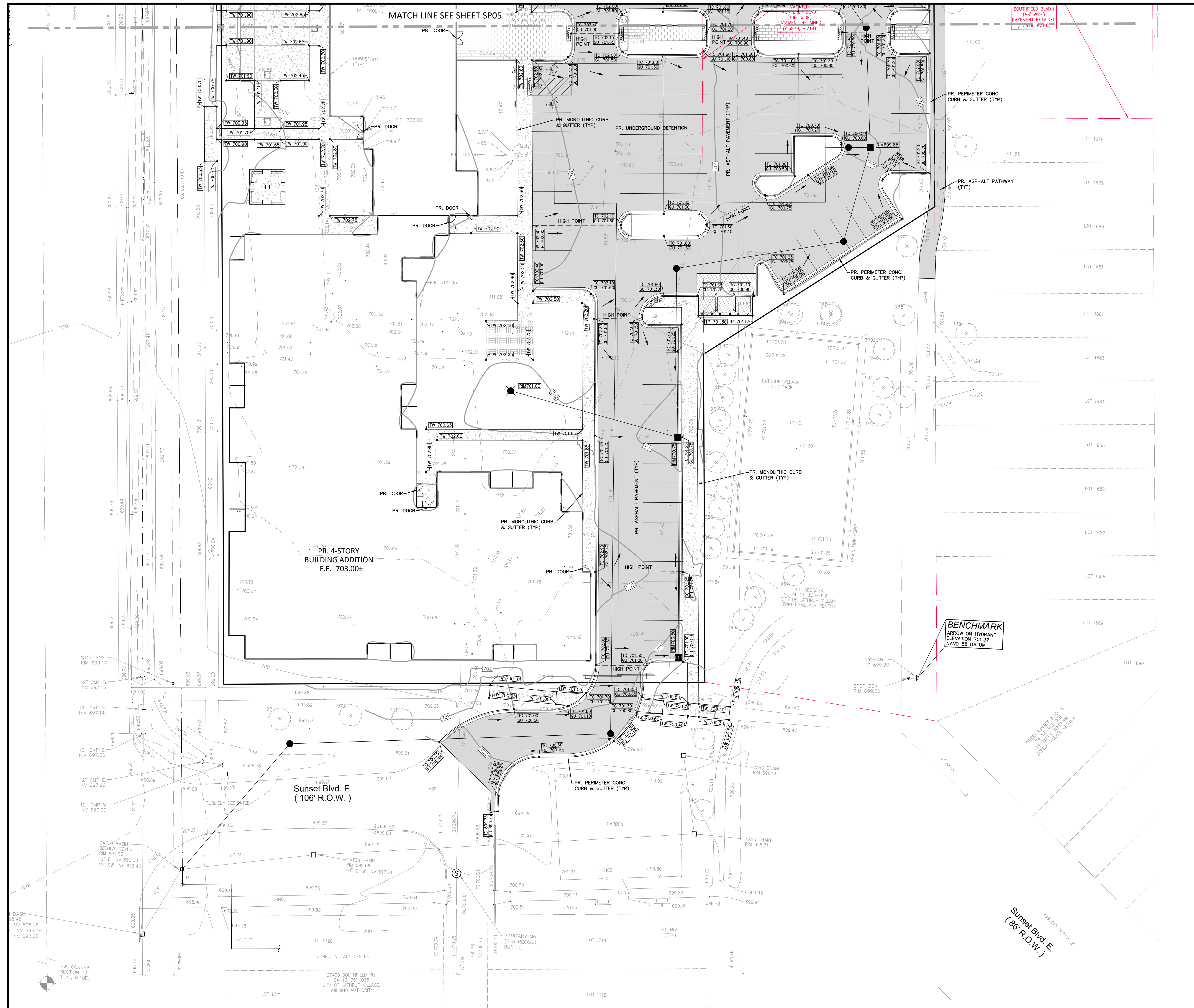
APPROVED BY:
 B. Brickel

DATE:
 October 17, 2024

SCALE: 1" = 20'

NFE JOB NO. SHEET NO.
 O129 SP05

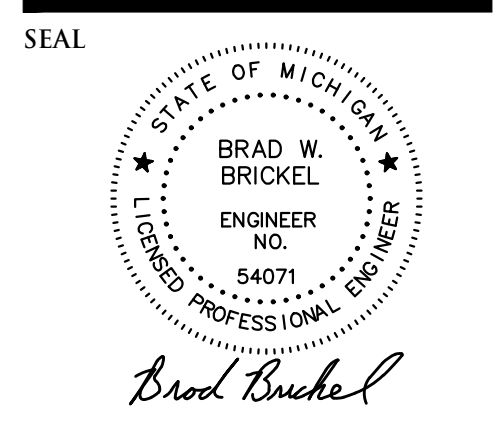
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SHEET
Paving and Grading Plan

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NOTE
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PAVING LEGEND	
	PROPOSED CONCRETE PAVEMENT
	PROPOSED ASPHALT PAVEMENT

LEGEND	
	MANHOLE
	HYDRANT
	MANHOLE CATCH BASIN
	UTILITY POLE
	SIGN
	C.O. MANHOLE
	HYDRANT GATE VALVE
	INLET C.B. MANHOLE
	PR. R. Y. CATCH BASIN
	PROPOSED LIGHT POLE
	TC 600.00
	GU 600.00
	TW 600.00
	TP 600.00
	FG 600.00
	EXISTING SANITARY SEWER
	SAN. CLEAN OUT
	EXISTING WATERMAIN
	EXISTING STORM SEWER
	EX. R. Y. CATCH BASIN
	EXISTING BURIED CABLES
	OVERHEAD LINES
	LIGHT POLE
	SIGN
	EXISTING GAS MAIN
	PR. SANITARY SEWER
	PR. WATER MAIN
	PR. STORM SEWER
	PR. R. Y. CATCH BASIN
	PROPOSED LIGHT POLE
	PR. TOP OF CURB ELEVATION
	PR. GUTTER ELEVATION
	PR. TOP OF WALK ELEVATION
	PR. TOP OF PMWT. ELEVATION
	FINISH GRADE ELEVATION



DATE ISSUED/REVISED
10-17-24 ISSUED FOR SITE PLAN REVIEW

DRAWN BY:
J. Lawrey

DESIGNED BY:
A. Eizember

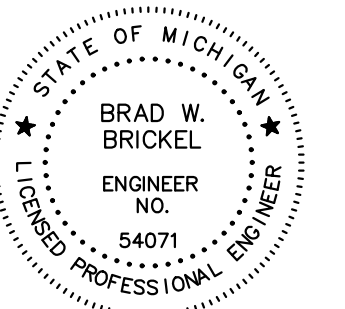
APPROVED BY:
B. Brickel

DATE:
October 17, 2024

SCALE: 1" = 20'

NFE JOB NO. SHEET NO.
O129 SP05.1

SEAL



Brad Brickel

PROJECT
27700 Southfield Road
Lathrup Village, MI 48076

CLIENT
The Surnow Company

Contact: Sam Surnow
Phone: 248.865.3000 x 102
Email: sam@surnow.com

PROJECT LOCATION
Part of the SW 1/4
of Section 13
T.1N., R.10E.,
City of Lathrup Village,
Oakland County, Michigan

SHEET
Notes and Details



Know what's below
Call before you dig.

DATE ISSUED/REVISED
10-17-24 ISSUED FOR SITE PLAN REVIEW

DRAWN BY:
J. Lawrey

DESIGNED BY:
A. Eizember

APPROVED BY:
B. Brickel

DATE:
October 17, 2024

SCALE: N.T.S.

NFE JOB NO. SHEET NO.
0129 **SP06**

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 MIXTURE HMA, 4E ML; SURFACE COURSE - MDOT BITUMINOUS MIXTURE HMA, 5E ML; BOND COAT - MDOT SS-1H EMULSION AT 0.10 GALLON PER SQUARE YARD;

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-5184.

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.

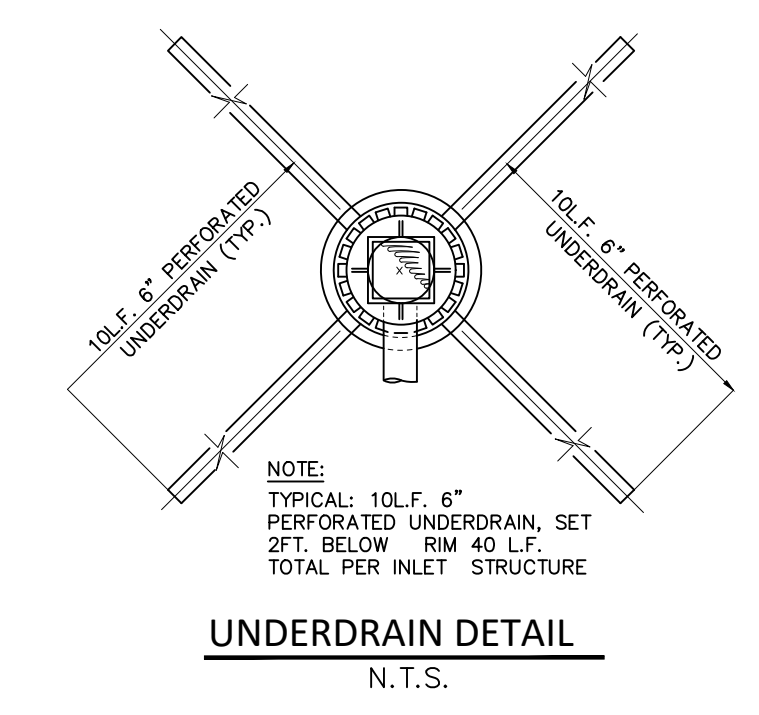
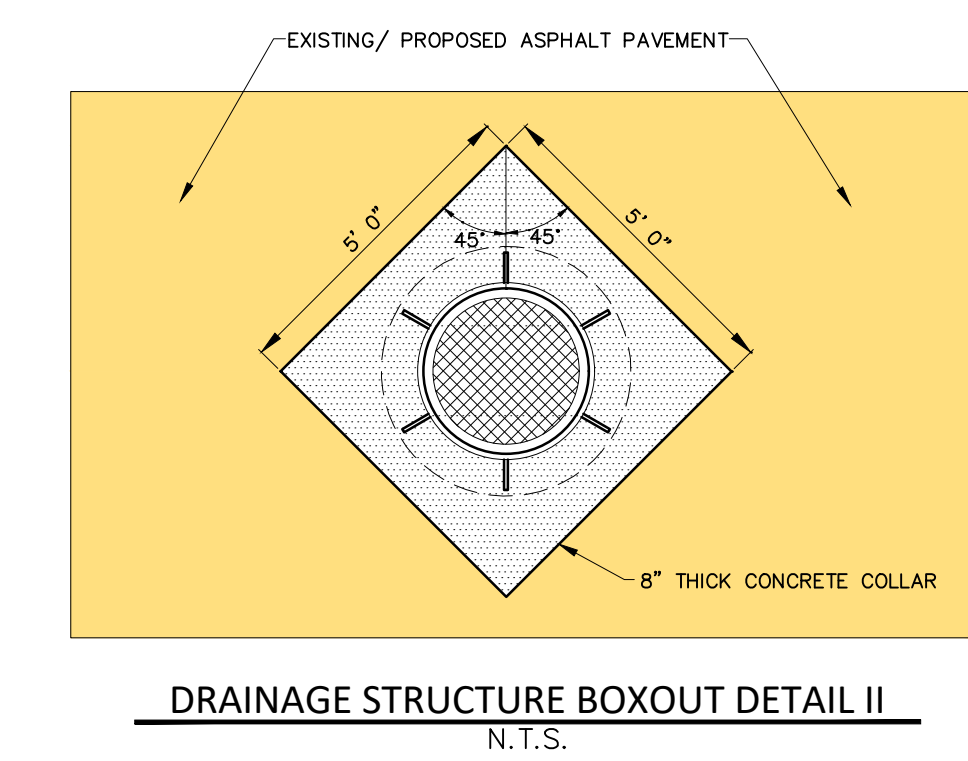
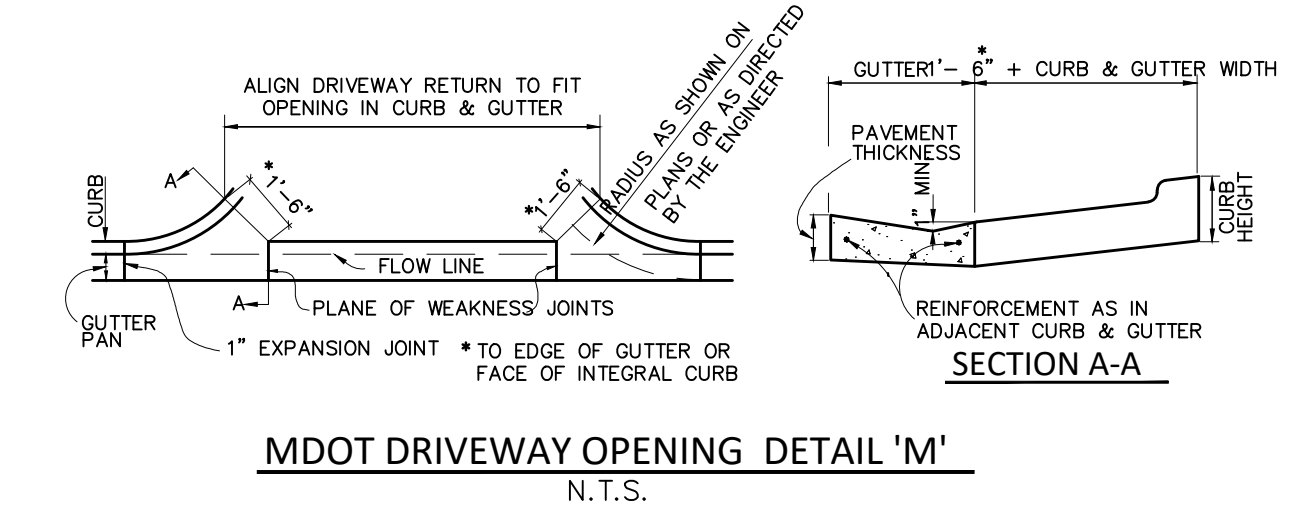
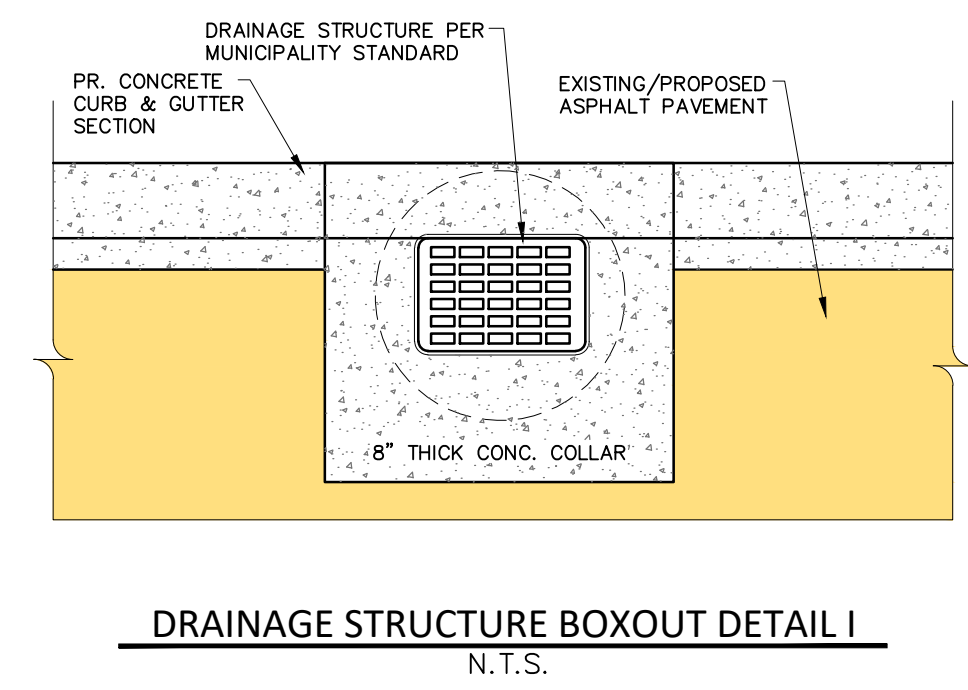
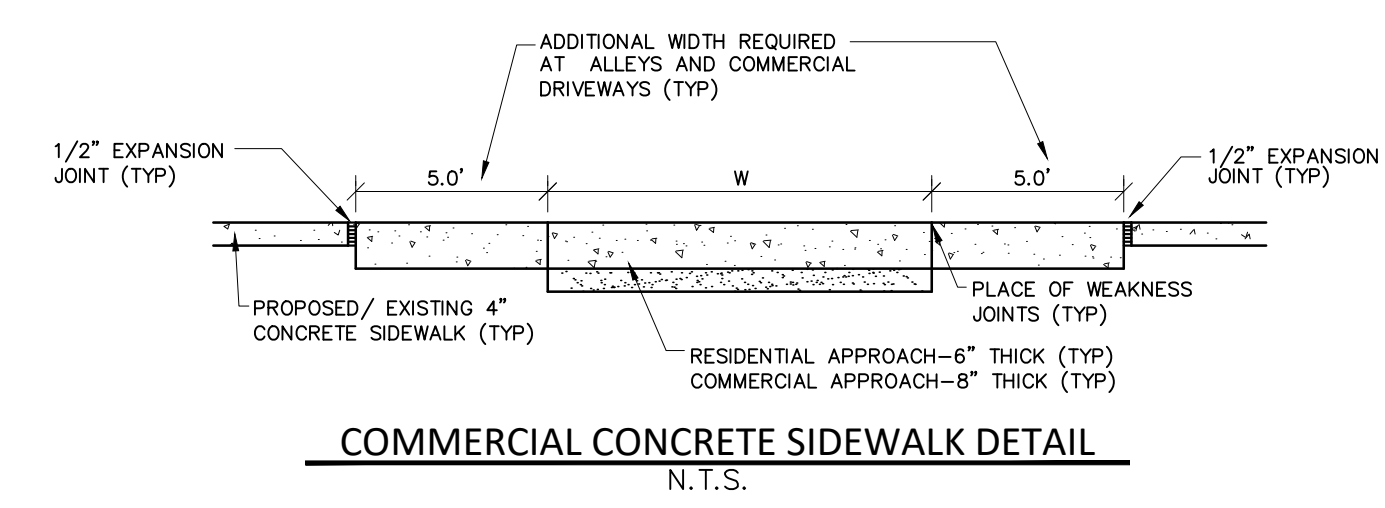
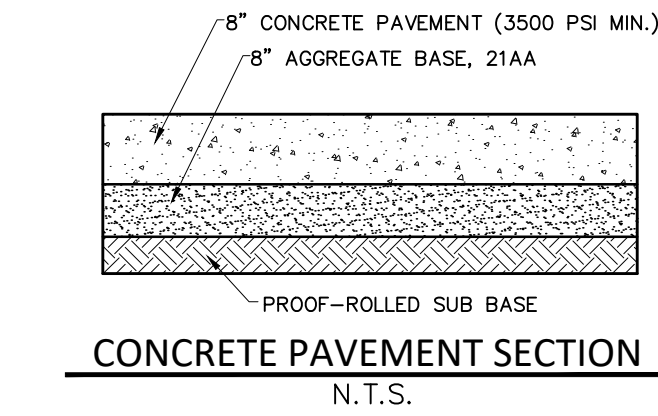
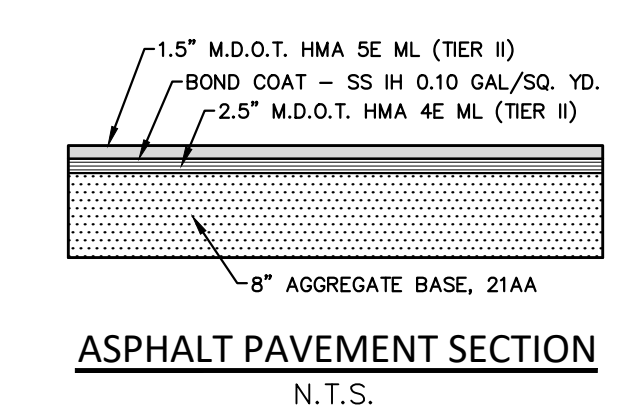
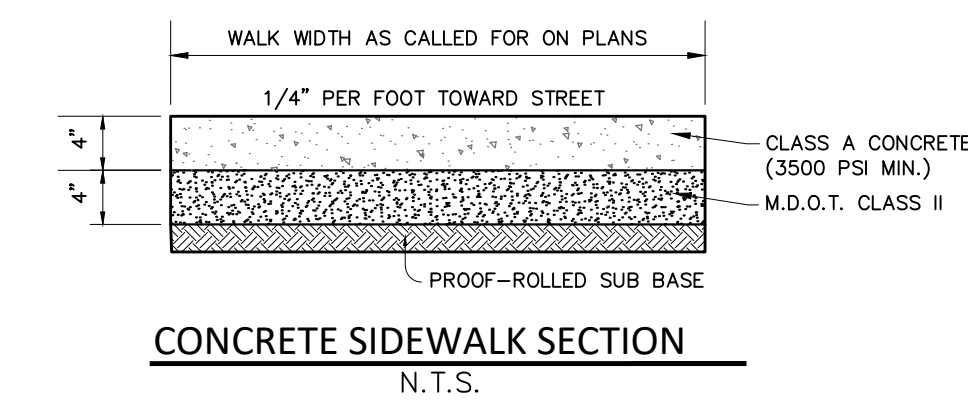
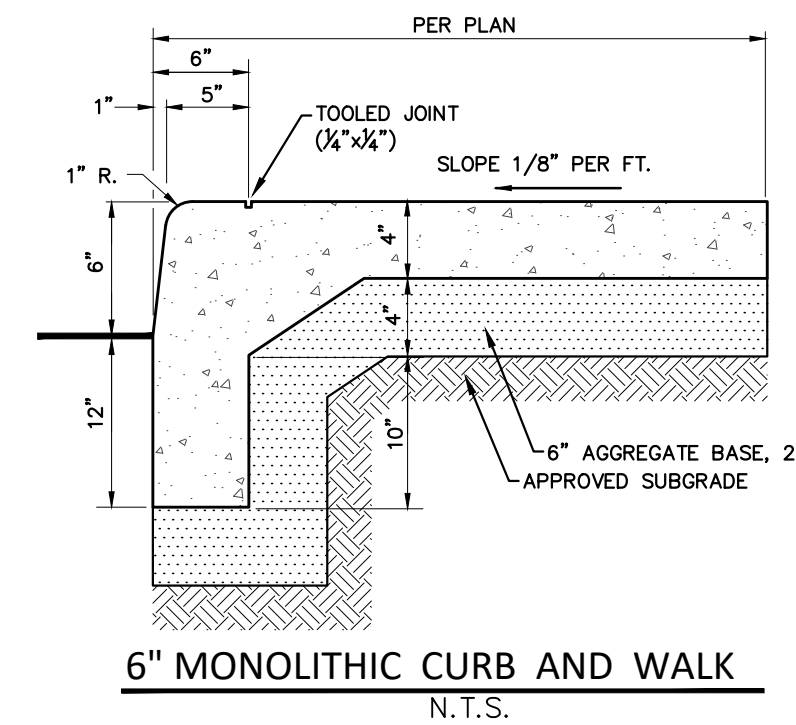
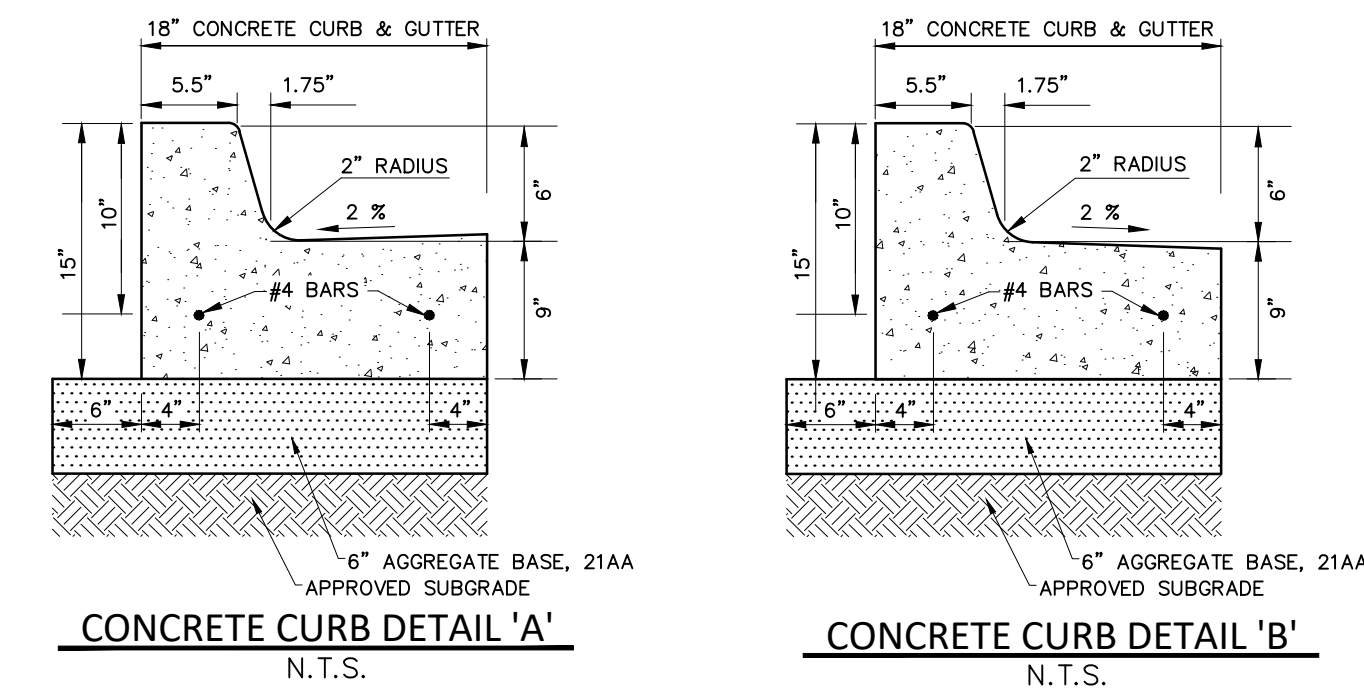
EXISTING TOPSOIL, VEGETATION AND ORGANIC MATERIALS SHALL BE STRIPPED AND REMOVED FROM PROPOSED PAVEMENT AREA PRIOR TO PLACEMENT OF BASE MATERIALS.

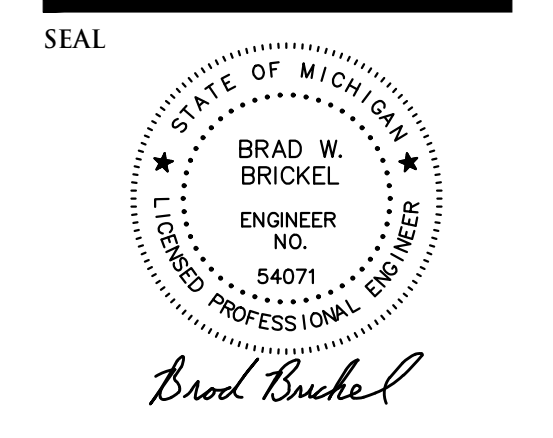
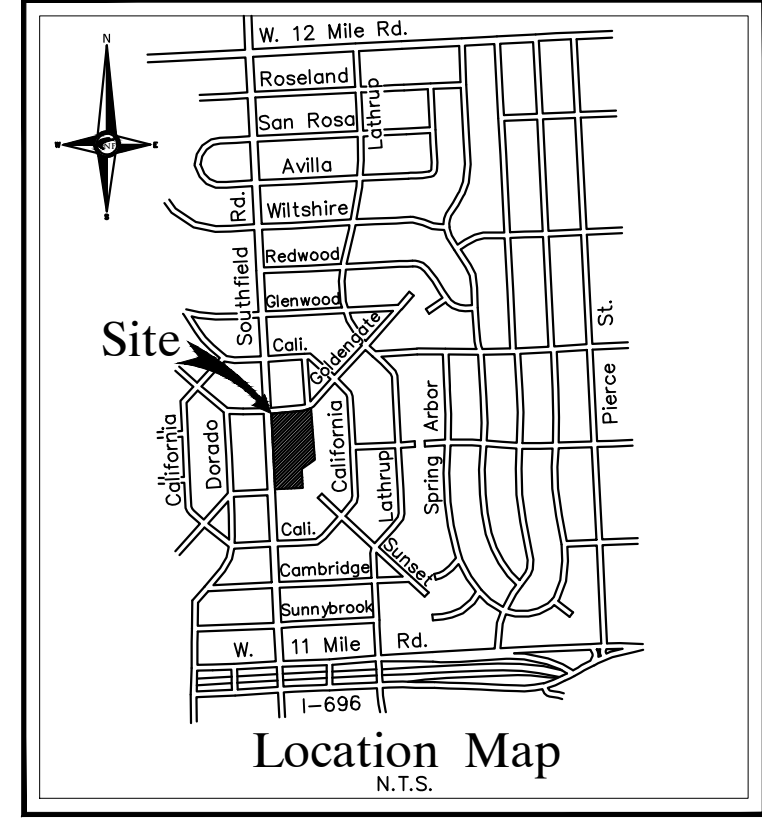
EXPANSION JOINTS SHOULD BE INSTALLED AT THE END OF ALL INTERSECTION RADII.

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 98% OF THE MAXIMUM DENSITY (MODIFIED PROCTOR) PRIOR TO PLACEMENT OF PROPOSED PAVEMENT.





PROJECT
 27700 Southfield Road
 Lathrup Village, MI 48076

CLIENT
 The Surnow Company

Contact: Sam Surnow
 Phone: 248.865.3000 x 102
 Email: sam@surnow.com

PROJECT LOCATION
 Part of the SW 1/4
 of Section 13
 T.1N., R.10E.,
 City of Lathrup Village,
 Oakland County, Michigan

SHEET
 Utility Plan



DATE ISSUED/REVISED
 10-17-24 ISSUED FOR SITE PLAN REVIEW

DRAWN BY:
 J. Lawrey

DESIGNED BY:
 A. Eizember

APPROVED BY:
 B. Brickel

DATE:
 October 17, 2024

SCALE: 1" = 40'

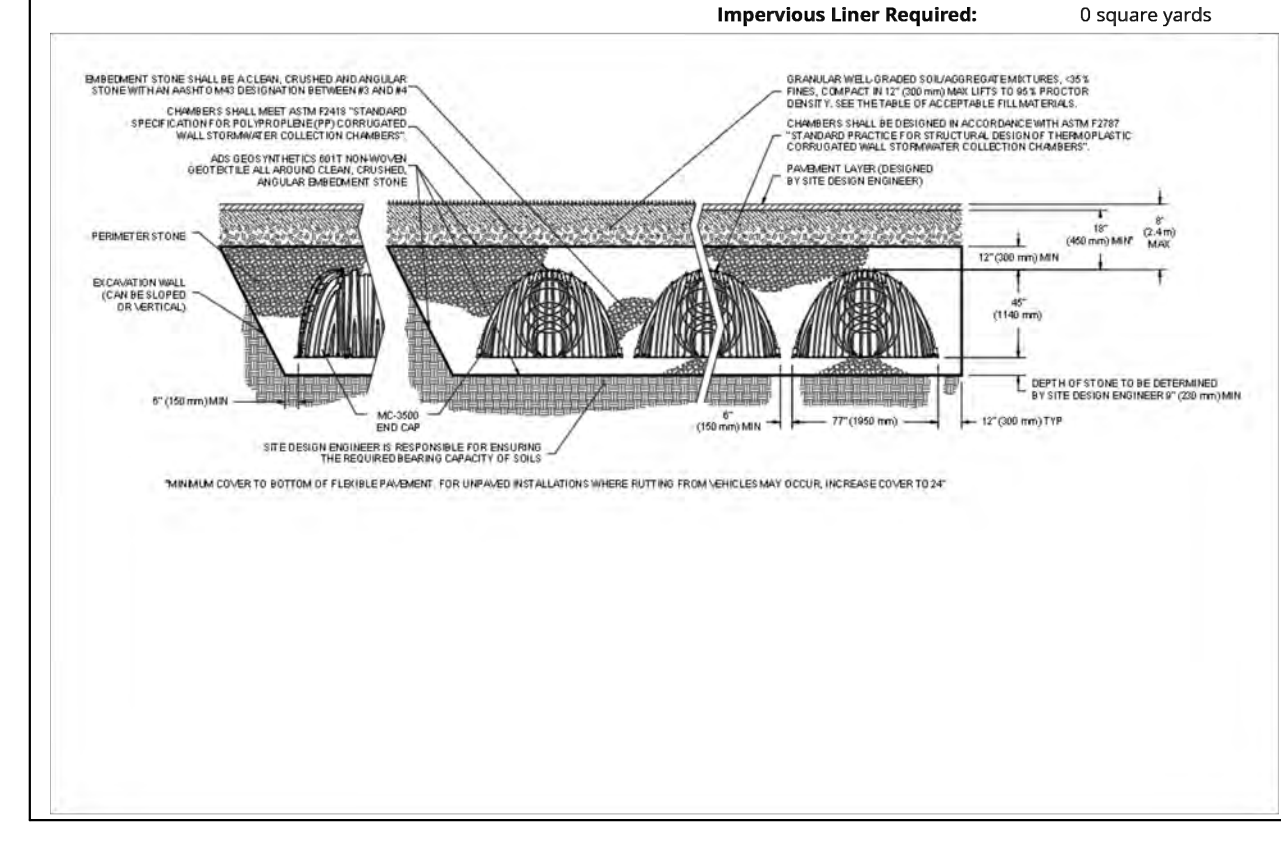
NFE JOB NO. SHEET NO.
 O129 SP07

LEGEND	
	MANHOLE
	HYDRANT
	MANHOLE CATCH BASIN
	UTILITY POLE
	C.O. MANHOLE
	HYDRANT
	INLET
	GATE VALVE
	C.B. MANHOLE
	EXISTING SANITARY SEWER
	SAN. CLEAN OUT
	EXISTING WATER MAIN
	EXISTING STORM SEWER
	EX. R. Y. CATCH BASIN
	EXISTING BURIED CABLES
	OVERHEAD LINES
	LIGHT POLE
	SIGN
	EXISTING GAS MAIN
	PR. SANITARY SEWER
	PR. WATER MAIN
	PR. STORM SEWER
	PR. R. Y. CATCH BASIN
	SAND BACKFILL (95% DENSITY)
	PROPOSED LIGHT POLE

PROVIDED DETENTION VOLUME CALCULATIONS	
Circular Underground Detention System	
PIPE STORAGE VOLUME	
Total Linear Feet of Proposed U.G. Detention Pipe	1,225 ft
Proposed Pipe Diameter	48 in
Proposed Pipe Cross-Sectional Area	12.57 sq ft
Total Storage Provided in Pipe	15,394 cft
STONE TRENCH STORAGE VOLUME	
Proposed Porous Stone Trench Width	0.00 ft
Proposed Porous Stone Trench Height (Above Pipe Invert)	0.00 ft
Cross-Sectional Area of Trench	0.00 sq ft
Subtract Pipe Cross-Sectional Area	-12.57 sq ft
Net Cross-Sectional Porous Stone Trench Area	-12.57 sq ft
Minimum Stone Trench Backfill Porosity (%)	0%
Effective Storage Provided in Trench Backfill Cross-Section	0.00 sq ft
Total Storage Provided in Porous Stone Trench	0 cft
TOTAL U.G. DETENTION VOLUME PROVIDED	15,394 cft

REQUIRED DETENTION VOLUME CALCULATIONS	
100 Year Post-Development Detention Volume	
Name of Project:	9999-00
Location of Project:	
NFE Project No.:	
Contributing Acreage "A":	4.07 ac
Weighted Runoff Coefficient "C":	0.80
Time of Concentration "Tc":	10.00 min
1. Calculate Required Water Quality Volume (Wvq) (1" Rainfall Event)	
Wvq = 3630C(A)	11,819 cft
2. Calculate Required Water Quality Rate (Qwq)	
Qwq = [C(A)30.20/(Tc+9.17)^0.81]	8.99 cfs
3. Calculate Required Channel Protection Volume (Vcp-r) (1.3" Rainfall Event)	
Vcp-r = 4719C(A)	15,365 cft
4. Calculate Required Extended Detention Volume (Ved) (1.9" Rainfall Event)	
Ved = 6897C(A)	22,457 cft
5. Calculate Extended Detention Outlet Rate (Qed) (48 hour discharge)	
Qed = Ved / [(48 hr)/60 min]/60 sec = Ved/(172800)	0.13 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)	24.80 cfs
8. Determine the Variable Release Rate (Qvr)	
Qvr = 1.1055(0.206^LN(A))	0.82 cfs/ac
9. Calculate Allowable 100-year Storm Outlet Rate (Q100P)	
Q100P = (Qvr)(A)	3.32 cfs
10. Calculate Storage Curve Factor (R)	
R = 0.206(0.15)LN(Q100P/Q100-in)	0.508
11. Calculate Required 100-year Storm Volume in (V100R)	
V100R = 18.585C(A)	61,815 cft
12. Calculate 100-year Storm Detention Storage Volume (V100D)	
V100D = (V100R)(R)	31,371 cft
Vsp(LoadIn)	0 cft
TOTAL DETENTION VOLUME REQUIRED:	31,371 cft

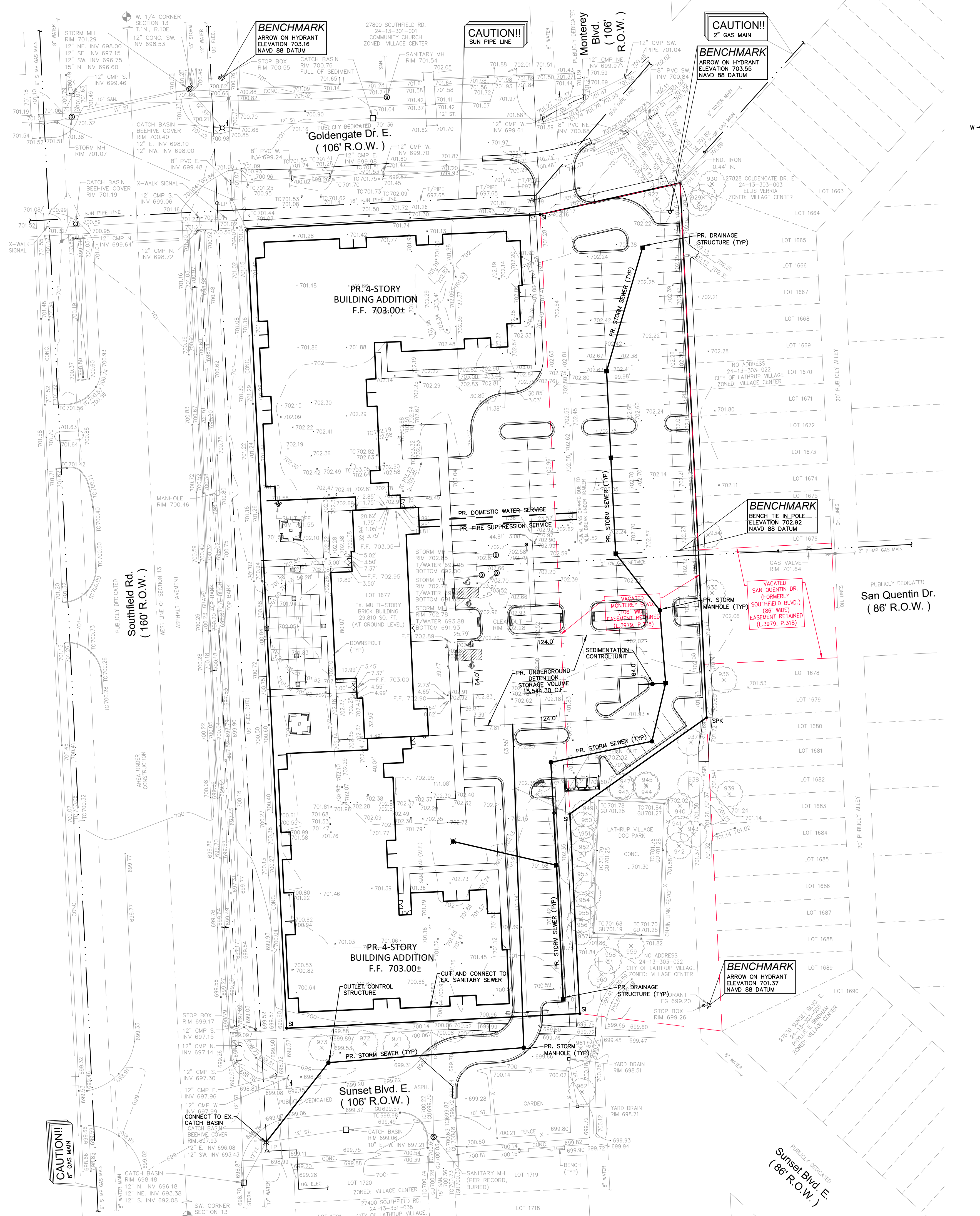
User Inputs	Results
Chamber Model:	MC-3500
Outlet Control Structure:	Yes
Project Name:	
Engineer:	N/A
Project Location:	
Measurement Type:	Imperial
Required Storage Volume:	15500 cubic ft.
Stone Porosity:	0%
Stone Foundation Depth:	9 in.
Stone Above Chambers:	12 in.
Design Constraint Dimensions:	(70 ft. x 130 ft.)
System Volume and Bed Size	
Installed Storage Volume:	15544.30 cubic ft.
Storage Volume Per Chamber:	109.90 cubic ft.
Number of Chambers Required:	139
Number of End Caps Required:	18
Chamber Rows:	9
Maximum Length:	124.55 ft.
Maximum Width:	64.35 ft.
Approx. Bed Size Required:	7776.08 square ft.
Average Cover Over Chambers:	N/A
System Components	
Amount of Stone Required:	1009 cubic yards
Volume of Excavation (Not Including 1585 cubic yards Fill):	
Total Non-woven Geotextile Required:	2357 square yards
Woven Geotextile Required (excluding 17 square yards Isolator Row):	
Woven Geotextile Required (Isolator Row):	139 square yards
Total Woven Geotextile Required:	255 square yards
Impervious Liner Required:	0 square yards

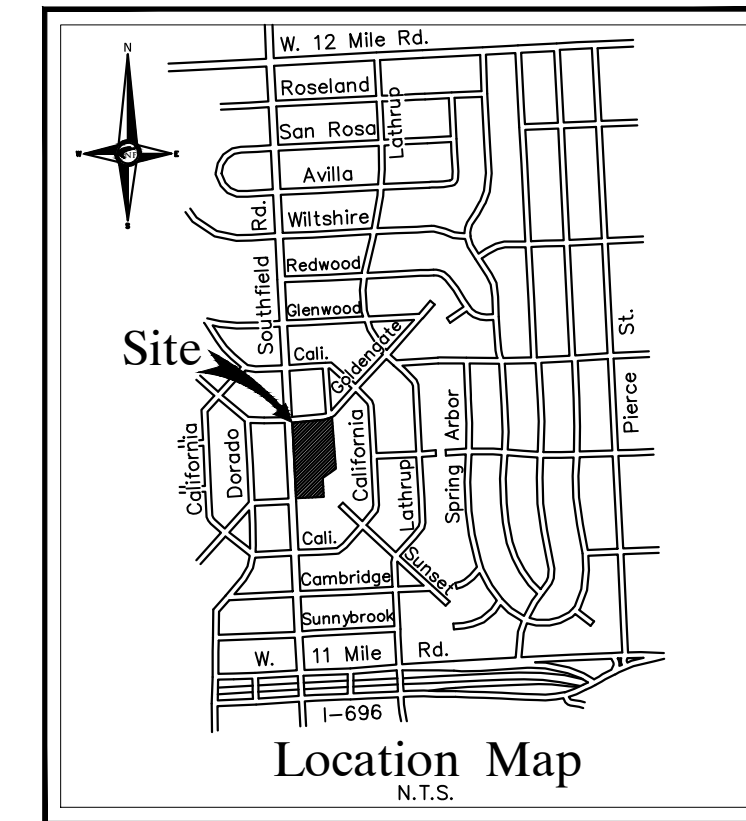


NOTES
 REFER TO SHEETS SP05-SP05.1 FOR PAVING & GRADING PLANS
 REFER TO SHEETS SP07 FOR PRELIMINARY UTILITY PLANS
 REFER TO SHEETS SP06 FOR ADDITIONAL PROJECT NOTES AND DETAILS (TYP)

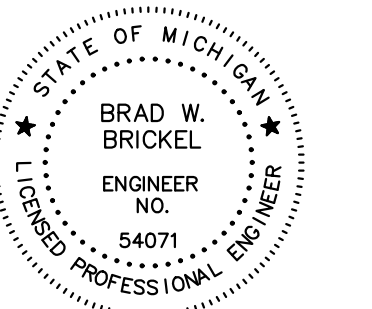
UTILITY NOTE
 CONTRACTOR TO EXPOSE FIBER, ELECTRIC/ TELEPHONE CONDUIT PRIOR TO COMMENCING CONSTRUCTION. UTILITY OWNER TO BE PRESENT. CONTRACTOR SHALL NOTIFY CIVIL ENGINEER OF RECORD FOLLOWING EXPOSURE TO COORDINATE.

UTILITY CROSSING NOTE
 AT LOCATION WHERE THERE ARE CROSSING WITH EXISTING UTILITIES AND THEIR DEPTHS ARE UNKNOWN, 18" VERTICAL SEPARATION WILL BE MAINTAINED WHENEVER POSSIBLE. IF THE 18" SEPARATION IS NOT OBTAINABLE, A CONCRETE ENCASEMENT WILL BE INSTALLED AT THE CROSSING.
 CONTRACTOR SHALL MAINTAIN A MINIMUM OF 18" VERTICAL CLEARANCE AND A MINIMUM OF 10' HORIZONTAL SEPARATION BETWEEN UTILITIES. WHERE 10' SEPARATION CANNOT BE MAINTAINED, 18" VERTICAL CLEARANCE SHALL BE PROVIDED AND UTILITIES SHALL BE CONSTRUCTED IN SEPARATE TRENCHES.
 CONTRACTOR SHALL FIELD VERIFY EXACT DEPTH OF EXISTING PIPE WHERE EXISTING CROSSES PROPOSED. CONTACT ENGINEER IF CONFLICT OCCURS.
 AT LOCATION WHERE WATER MAIN CROSSES STORM, SANITARY, OR OTHER UTILITIES, CONTRACTOR SHALL PLACE A FULL 20' SEGMENT OF WATER MAIN PIPE CENTERED AT THE CROSSING. CLEARANCE BETWEEN PIPE SHALL NOT BE LESS THAN 18".





SEAL



Brad Brickel

PROJECT
27700 Southfield Road
Lathrup Village, MI 48076

CLIENT
The Surnow Company

Contact: Sam Surnow
Phone: 248.865.3000 x 102
Email: sam@surnow.com

PROJECT LOCATION
Part of the SW 1/4
of Section 13
T.1N., R.10E.,
City of Lathrup Village,
Oakland County, Michigan

SHEET
Soil Erosion Plan



DATE ISSUED/REVISED
10-17-24 ISSUED FOR SITE PLAN REVIEW

DRAWN BY:
J. Lawrey
DESIGNED BY:
A. Eizember
APPROVED BY:
B. Brickel

DATE:
October 17, 2024

SCALE: 1" = 40'

40 20 0 20 40 60

NFE JOB NO. SHEET NO.
O129 SP08

SOIL EROSION CONTROL - SEQUENCE OF OPERATION (NEW CONSTRUCTION)

- INSTALL CRUSHED CONCRETE ACCESS DRIVE AND TEMPORARY CULVERTS AT THE SITE ENTRANCE 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. 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 WHEREVER 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 CONTROL

- 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; OR ROADWAYS ON OR NEAR THE SITE.
- SEDIMENT RESULTING FROM ACCELERATED SOIL EROSION SHALL BE REMOVED 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 FIFTEEN (15) 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.

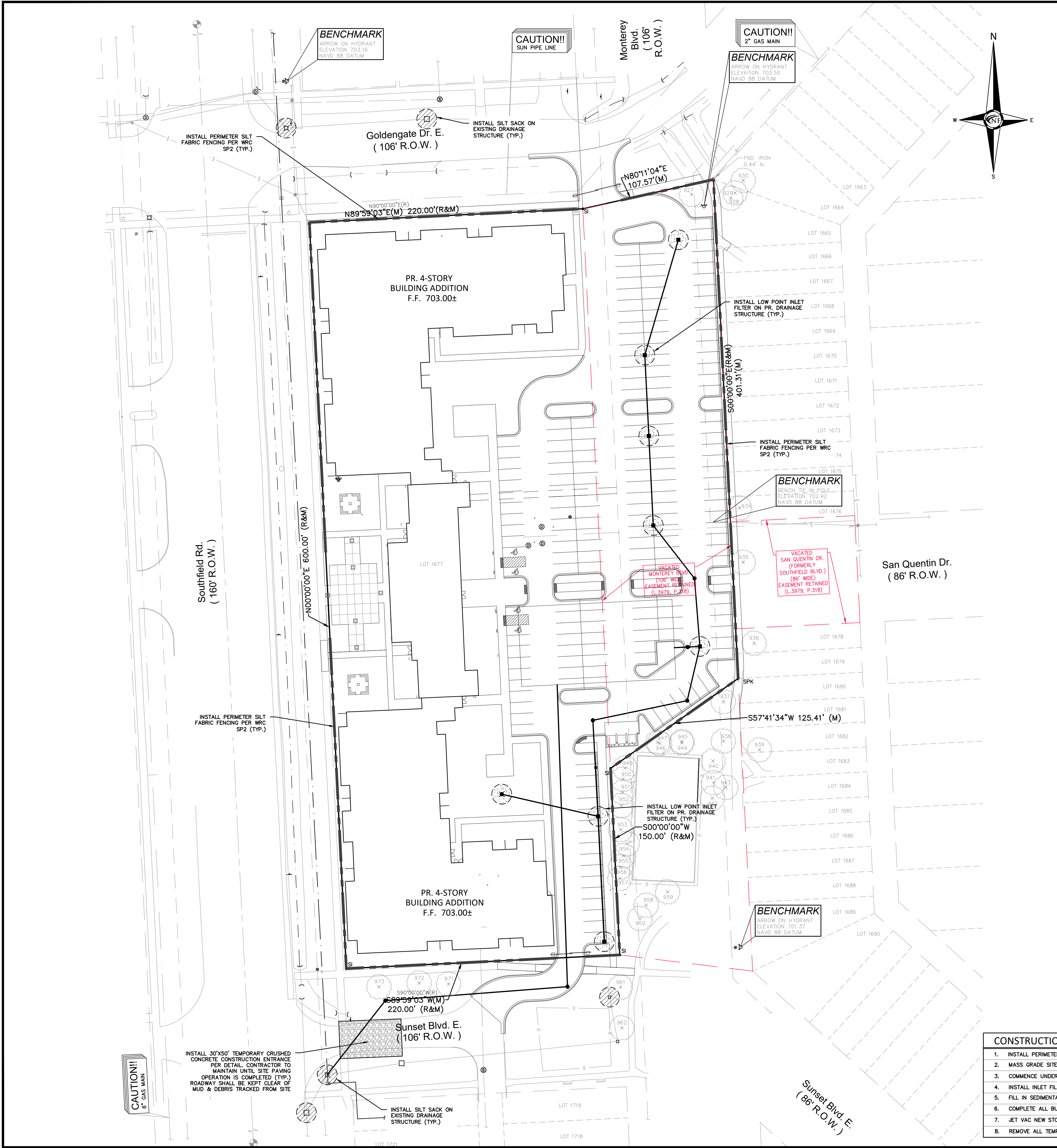
CONSTRUCTION SEQUENCE / TIMING SCHEDULE

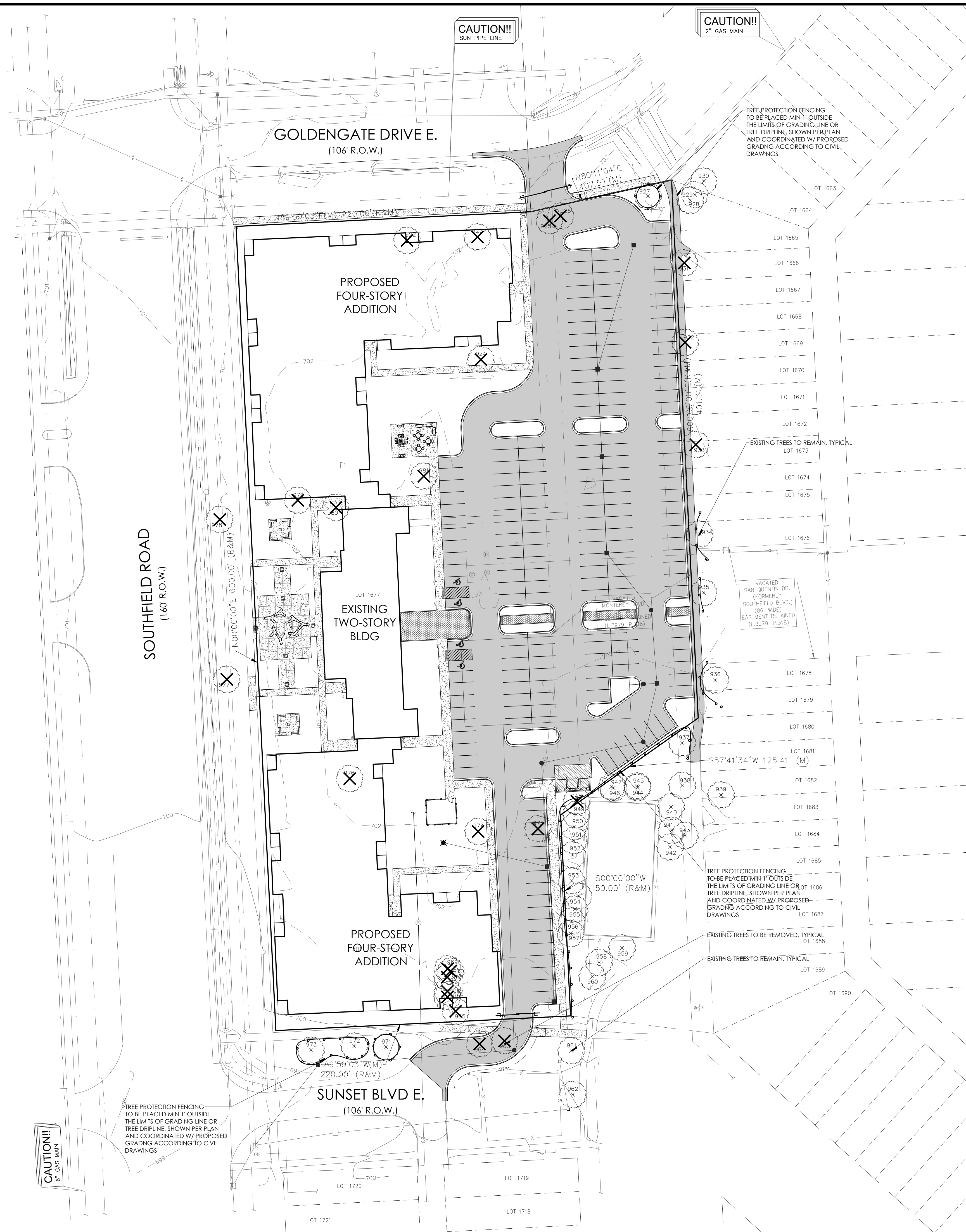
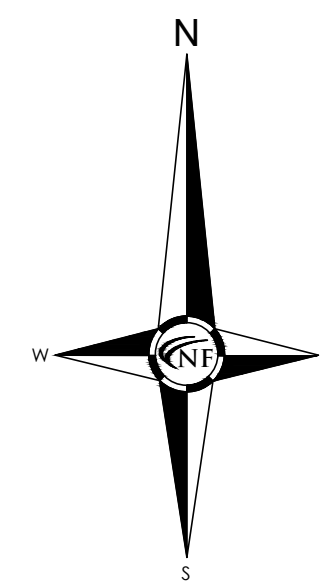
NO.	DESCRIPTION	DATE
1.	INSTALL PERIMETER FILTER FABRIC FENCING AND STONE FILTER WHERE REQUIRED.	MARCH 2025
2.	MASS GRADE SITE.	MARCH 2025
3.	COMMENCE UNDERGROUND UTILITY WORK.	MAY 2025
4.	INSTALL INLET FILTERS ON PROPOSED DRAINAGE STRUCTURES.	MAY 2025
5.	FILL IN SEDIMENTATION TRAPS AND PAVE SITE.	JULY 2025
6.	COMPLETE ALL BUILDINGS AND LANDSCAPE ACTIVITY.	JULY 2025
7.	JET VAC NEW STORM SEWER SYSTEM AS REQUIRED.	NOVEMBER 2025
8.	REMOVE ALL TEMPORARY SOIL EROSION MEASURES.	NOVEMBER 2025

LEGEND

- - - INDICATES LIMITS OF SILT FABRIC FENCE
- INDICATES LIMITS OF DRAINAGE DISTRICT AREA
- INDICATES LIMITS OF SOIL DISRUPTION
- INDICATES LOW POINT INLET FILTER OR PROPOSED DRAINAGE STRUCTURE
- INDICATES SILT SACK OR EQUAL ON EXISTING DRAINAGE STRUCTURE
- INDICATES DRAINAGE DISTRICT AREA

AREA A
0.00 ACRES
C=0.95





CAUTION!!
2" GAS MAIN

CAUTION!!
2" GAS MAIN

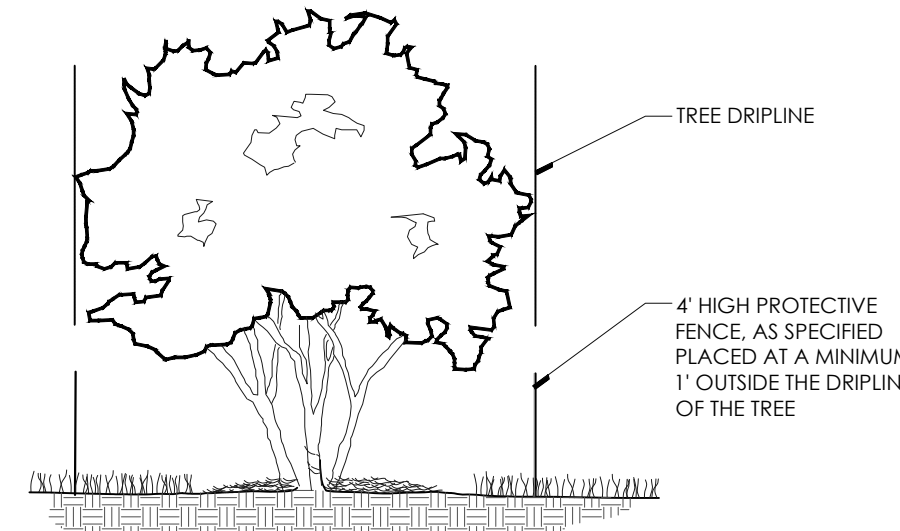
CAUTION!!
2" GAS MAIN

TREE PROTECTION FENCING TO BE PLACED MIN 1' OUTSIDE THE LIMITS OF GRADING LINE OR TREE DRIPLINE, SHOWN PER PLAN AND COORDINATED W/ PROPOSED GRADING ACCORDING TO CIVIL DRAWINGS

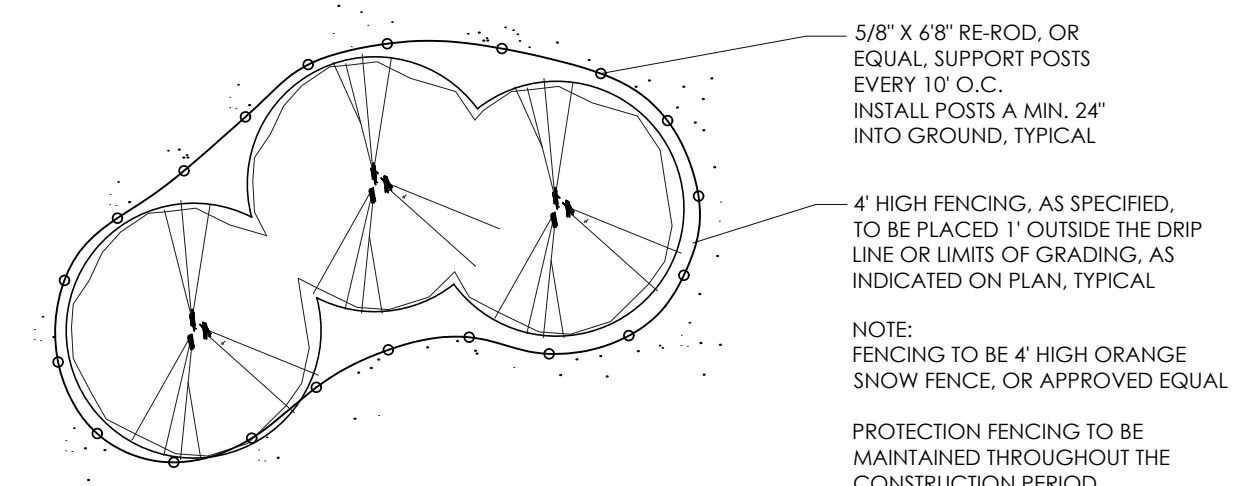
TREE PROTECTION FENCING TO BE PLACED MIN 1' OUTSIDE THE LIMITS OF GRADING LINE OR TREE DRIPLINE, SHOWN PER PLAN AND COORDINATED W/ PROPOSED GRADING ACCORDING TO CIVIL DRAWINGS

LEGEND:

- X TREES TO BE REMOVED
- 950 TREES TO REMAIN
- TREE PROTECTION FENCING



TREE PROTECTION DETAIL-SECTION



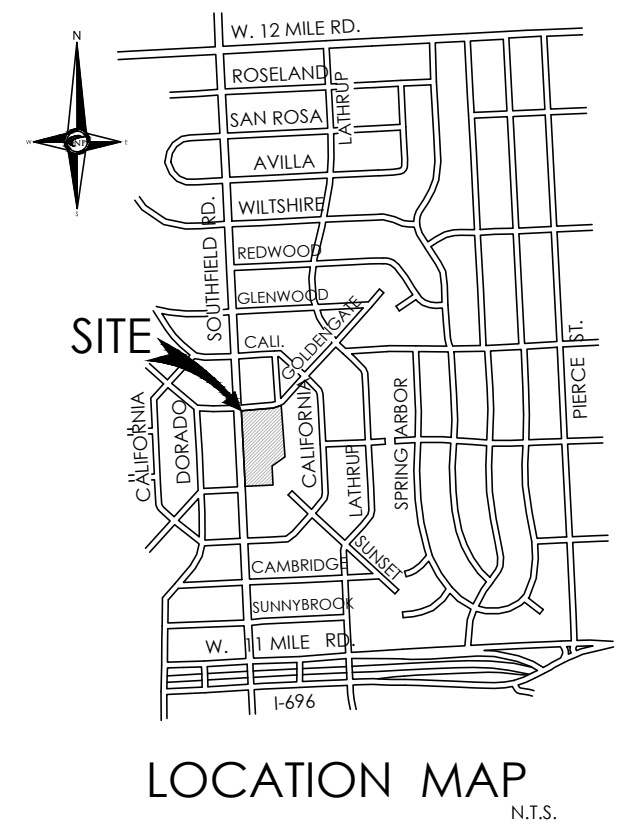
TREE PROTECTION DETAIL-PAN

GENERAL TREE PROTECTION NOTES

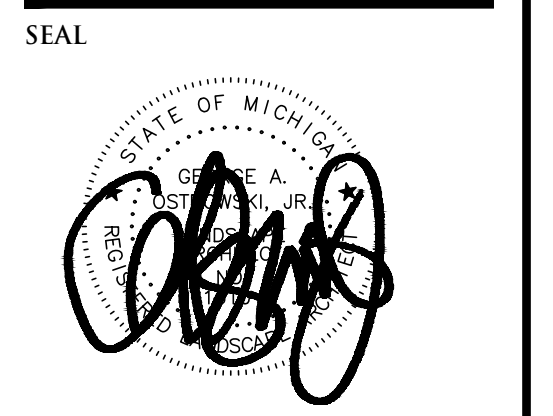
- APPROVED TREE PROTECTION SHALL BE ERRECTED PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, AND SHALL REMAIN IN PLACE UNTIL THE IN PLACE UNTIL CONSTRUCTION IS COMPLETE.
- ALL UNDERSTORY VEGETATION WITHIN THE LIMITS OF PROTECTIVE FENCING SHALL BE PRESERVED.
- NO PERSON MAY CONDUCT ANY ACTIVITY WITHIN THE DRIPLINE OF ANY TREE DESIGNATED TO REMAIN, INCLUDING BUT NOT LIMITED TO, PLACING SOLVENTS, BUILDING MATERIALS, CONSTRUCTION EQUIPMENT, OR SOIL DEPOSITS WITHIN THE DRIPLINE.
- WHERE GROUPINGS OF TREES ARE TO REMAIN, TREE FENCING SHALL BE PLACED AT THE LIMITS OF GRADING LINE.
- DURING CONSTRUCTION, NO PERSON SHALL ATTACH ANY DEVICE OR WIRE TO ANY TREE SCHEDULED TO REMAIN.
- 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.
- SWALES SHALL BE ROUTED TO AVOID THE AREA WITHIN THE DRIPLINES OF PROTECTED TREES.
- TREES LOCATED ON ADJACENT PROPERTIES THAT MAY BE AFFECTED BY CONSTRUCTION ACTIVITIES MUST BE PROTECTED.
- ROOT ZONES OF PROTECTED TREES SHOULD BE SURROUNDED WITH RIGIDLY STAKED FENCING.
- THE PARKING OF IDLE AND RUNNING EQUIPMENT SHALL BE PROHIBITED UNDER THE DRIPLINE OF PROTECTED TREES.
- THE STRIPPING OF TOPSOIL FROM AROUND PROTECTED TREES SHALL BE PROHIBITED.
- ALL TREES TO BE REMOVED SHALL BE CUT AWAY FROM TREES TO REMAIN.
- THE GRUBBING OF UNDERSTORY VEGETATION WITHIN CONSTRUCTION AREAS SHOULD BE CLEARED BY CUTTING VEGETATION AT THE GROUND WITH A CHAIN SAW OR MANUALLY WITH A HYDRA-JACK.
- THE CONTRACTOR IS RESPONSIBLE FOR THE REPLACEMENT PER ORDINANCE GUIDELINES, FOR THE DAMAGE OR REMOVAL OF ANY TREE DESIGNATED TO REMAIN.
- 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.

TREE PRESERVATION SUMMARY:

TOTAL NUMBER OF TREES SURVEYED:	60
TOTAL TREES TO BE REMOVED:	25 (41%)
TOTAL NUMBER OF TREES TO REMAIN:	35 (59%)



NOWAK & FRAUS ENGINEERS
46777 WOODWARD AVE.
PONTIAC, MI 48342-5032
TEL. (248) 332-7931
FAX. (248) 332-8257



PROJECT
27700 Southfield Road
Lathrup Village, MI 48076

CLIENT
The Surnow Company

Contact: Sam Surnow
Phone: 248.865.3000 x 102
Email: sam@surnow.com

PROJECT LOCATION
Part of the SW 1/4
of Section 13
T.1N., R.10E.,
City of Lathrup Village,
Oakland County, Michigan

SHEET
Tree Preservation Plan

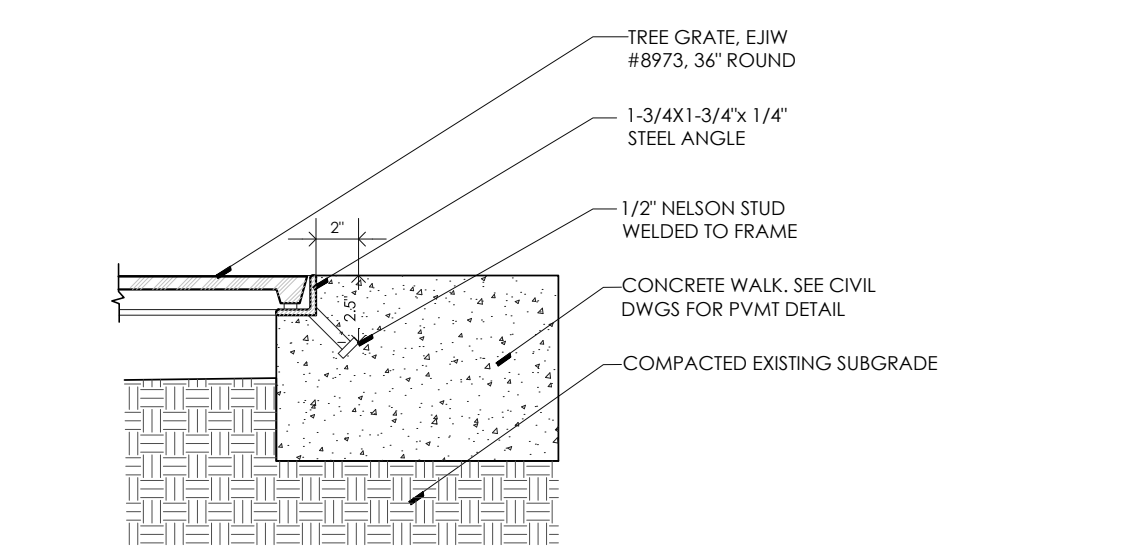
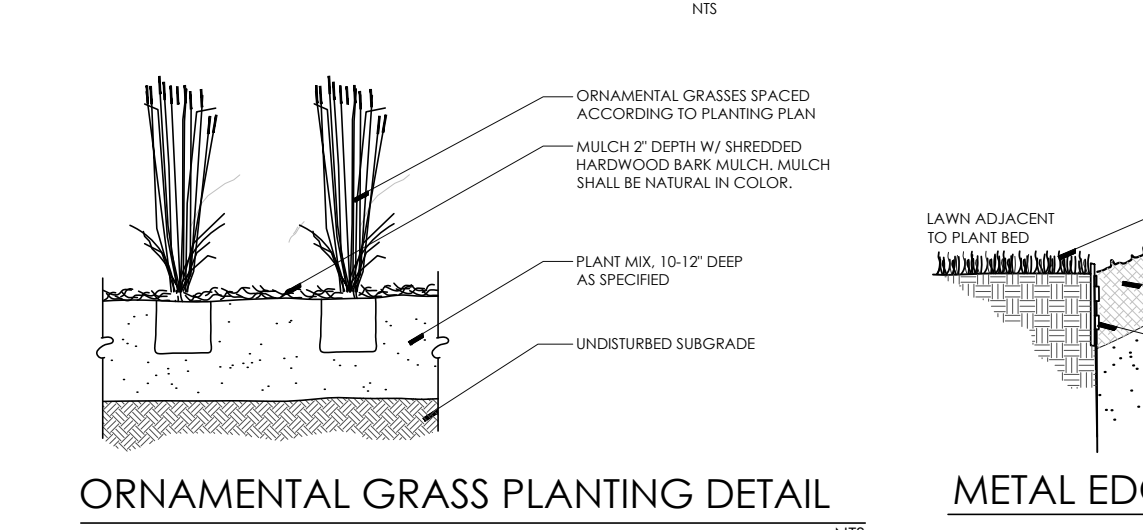
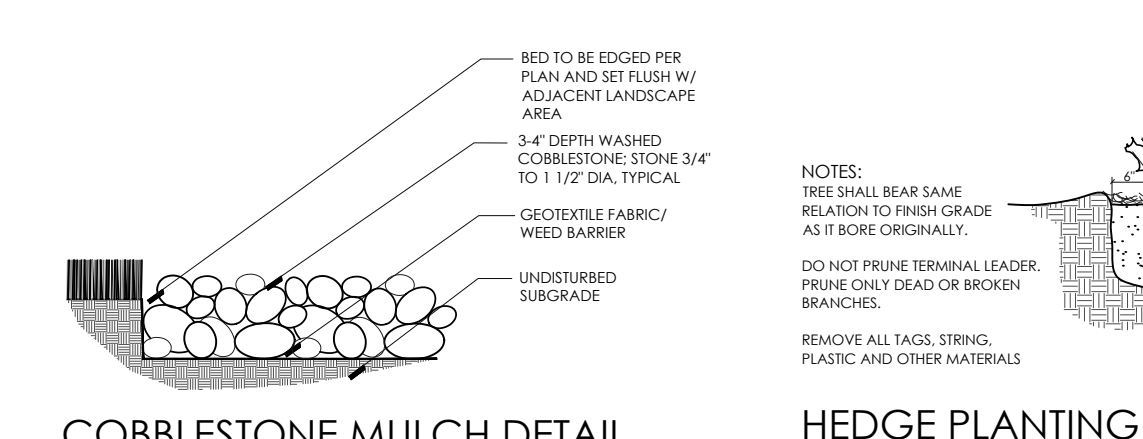
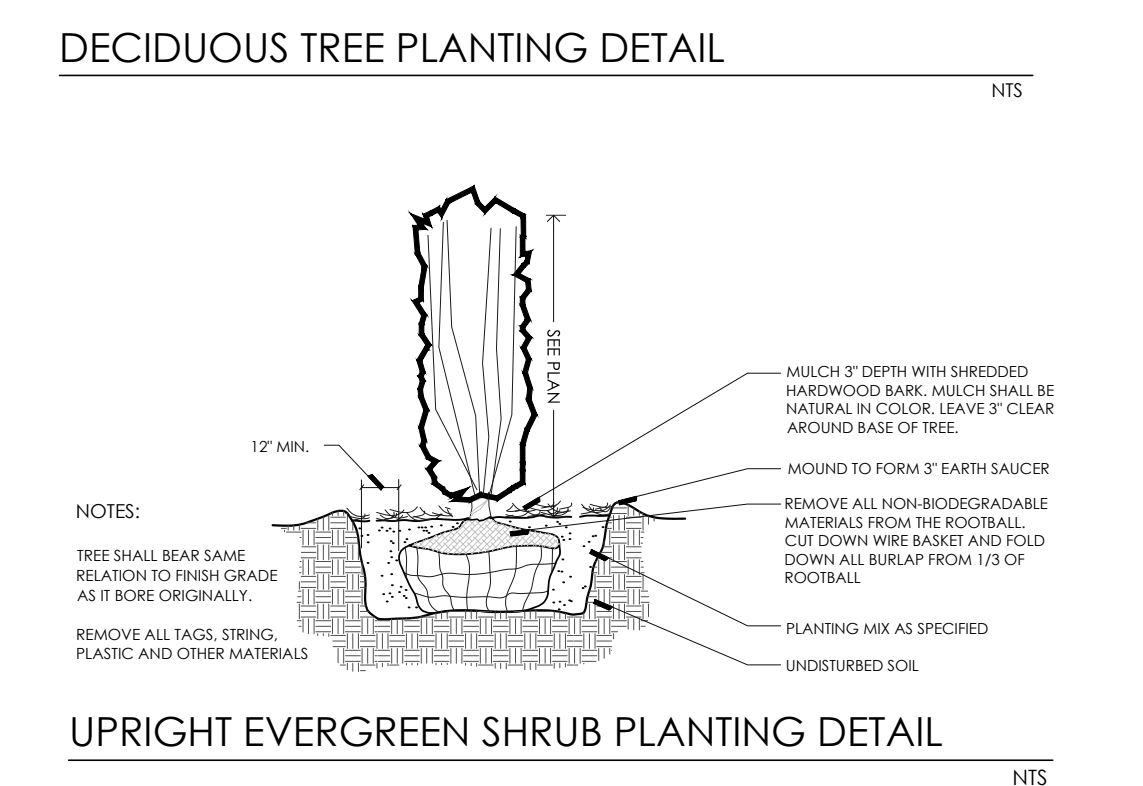
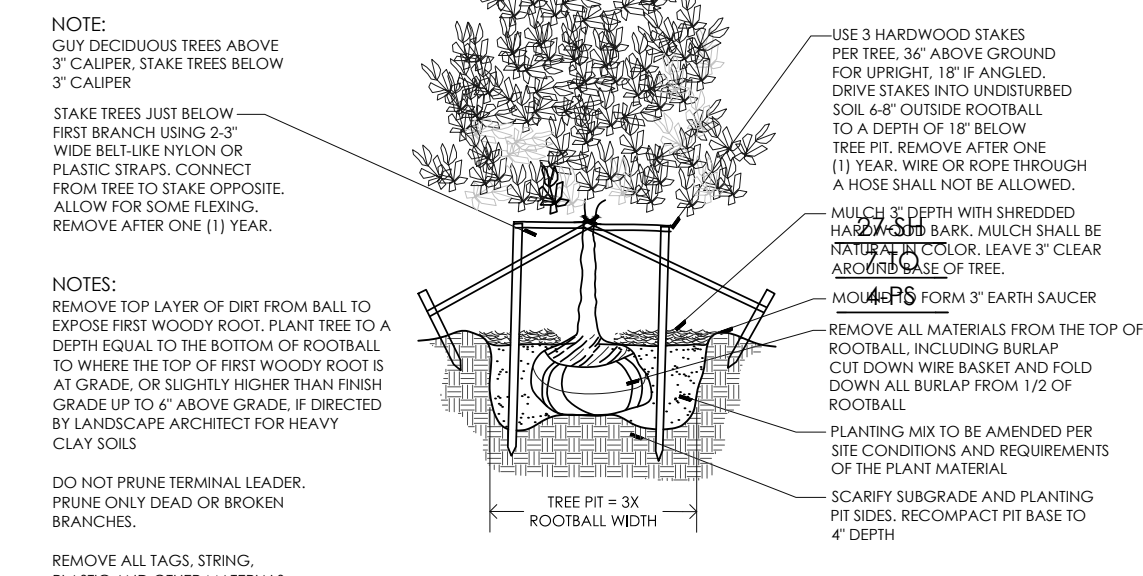
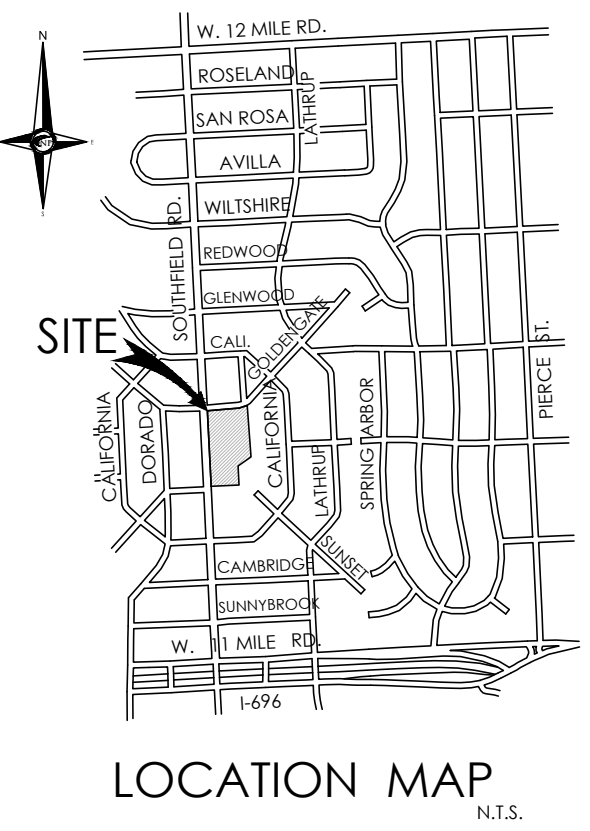


REVISIONS
10/17/2024 ISSUED FOR SITE PLAN REVIEW

DRAWN BY:
G. Ostrowski
DESIGNED BY:
G. Ostrowski
APPROVED BY:
G. Ostrowski
DATE:
May 22, 2024

SCALE: 1" = 30'
NFE JOB NO. 0129 SHEET NO. L1

W:\CS00-2000\Rev\00004183\0129\Office\lancscape\0129_15.dwg, 10/17/2024 4:28:14 PM



- KEY LEGEND
- 1 TYPICAL SEED LAWN AREAS, SOWN ON 3" TOPSOIL
 - 2 4" WIDE SPADE CUT EDGE W/ 3" SHREDDED BARK MULCH
 - 3 3" DEPTH DOUBLE SHREDDED HARDWOOD BARK MULCH
 - 4 3/4" - 1 1/2" STONE MULCH, 3-4" DEPTH ON WEED BARRIER
 - 5 PROPOSED DECORATIVE PAVING
 - 6 PROPOSED 4" HT DECORATIVE METAL FENCE
 - 7 PROPOSED NO FIBRE TALE, WITH SEATING
 - 8 OUTDOOR DINING AREA WITH TABLES AND GRILLS
 - 9 OUTDOOR COMMUNITY SCULPTURE PARK
 - 10 PROPOSED 3' SQUARE TREE GRATE (6 TOTAL)
 - 11 PROPOSED SECURITY GATE
 - 12 PROPOSED TWIG BENCH BY LANDSCAPE FORMS (7 TOTAL)



PROJECT
 27700 Southfield Road
 Lathrup Village, MI 48076

CLIENT
 The Surnow Company

Contact: Sam Surnow
 Phone: 248.865.3000 x 102
 Email: sam@surnow.com

PROJECT LOCATION
 Part of the SW 1/4
 of Section 13
 T.1N., R.10E.,
 City of Lathrup Village,
 Oakland County, Michigan

SHEET
 Landscape Plan



REVISIONS
 10/17/2024 ISSUED FOR SITE PLAN REVIEW

DRAWN BY:
 G. Ostrowski

DESIGNED BY:
 G. Ostrowski

APPROVED BY:
 G. Ostrowski

DATE:
 May 22, 2024

SCALE: 1" = 40'

NFE JOB NO. SHEET NO.
 0129 L2

GENERAL LANDSCAPE NOTES

1. LANDSCAPE CONTRACTOR SHALL VERIFY SITE, INSPECT EXISTING CONDITIONS AND REVIEW PROPOSED PLANNING AND RELATED WORK. IN CASE OF DISCREPANCY, BETWEEN PLAN AND PLANT LIST, THE PLAN SHALL GOVERN OVER QUANTITIES. CONTACT THE LANDSCAPE ARCHITECT WITH ANY CONCERNS.
2. THE CONTRACTOR SHALL VERIFY LOCATION OF ALL ON-SITE UTILITIES PRIOR TO BEGINNING CONSTRUCTION OR OTHER PHASE OF WORK. ANY DAMAGE OR INTERRUPTION OF SERVICE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. THE CONTRACTOR SHALL COORDINATE ALL RELATED ACTIVITIES WITH OTHER TRADES, AND SHALL REPORT ANY UNACCEPTABLE CONDITIONS TO THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT.
4. PLANTS SHALL BE FULLY BRANCHED, AND IN HEALTHY VIGOROUS GROWING CONDITION.
5. PLANTS SHALL BE WATERED BEFORE AND AFTER PLANTING IS COMPLETE. ALL TREES MUST BE STAKED, FERTILIZED AND MULCHED AND SHALL BE GUARANTEED TO EXHIBIT A NORMAL GROWTH CYCLE FOR AT LEAST ONE (1) YEAR FOLLOWING PLANTING.
6. ALL MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED IN THE MOST RECENT EDITION OF THE "AMERICAN STANDARDS FOR NURSERY STOCK".
7. CONTRACTOR WILL SUPPLY FRESH GRASS AND SOIL AS NECESSARY TO SURPLY PLANT MIX DEPTH IN ALL PLANTING BEDS AS INDICATED IN PLANT DETAILS AND A DEPTH OF 3" IN ALL LAWN AREAS.
8. PROVIDE CLEAN BACKFILL SOIL, USING MATERIAL STOCKED ON-SITE. SOIL SHALL BE SCREENED AND FREE OF DEBRIS, FOREIGN MATERIAL, AND STONE. SLOW RELEASE FERTILIZER SHALL BE ADDED TO THE PLANT MIX BEFORE BEING BACKFILLED. APPLICATION SHALL BE AT THE MANUFACTURER'S RECOMMENDED RATES.
9. AMENDED PLANT MIX (PREPARED TOPSOIL) SHALL CONSIST OF 1/3 SCREENED TOPSOIL, 1/3 SAND, AND 1/3 TURF TYPICAL COMPOST, MIXED WELL AND SPREAD TO A DEPTH AS INDICATED IN PLANTING DETAILS.
10. ALL PLANTINGS SHALL BE MULCHED WITH SHREDDED HARDWOOD BARK. SPREAD TO A DEPTH OF 3" FOR TREES AND SHRUBS, AND 2" ON ANNUALS, PERENNIALS, AND GROUND COVER PLANTINGS. MULCH SHALL BE FREE FROM DEBRIS AND FOREIGN MATERIAL, AND APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.
11. NO SUBSTITUTIONS OR CHANGE OF LOCATION OF PLANT TYPES SHALL BE MADE WITHOUT THE APPROVAL OF THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE. THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS.
12. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL PLANT MATERIAL IN A VIGOROUS CONDITION THROUGHOUT THE GUARANTEED PERIOD. THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE SHALL HAVE THE RIGHT TO BECT ANY WORK OR MATERIAL THAT DOES NOT MEET THE REQUIREMENTS OF THE PLANS AND/OR SPECIFICATIONS.
13. THE LANDSCAPE CONTRACTOR SHALL SEED AND MULCH (AS INDICATED ON PLANS) ALL AREAS DESIGNATED AS SUCH ON THE PLANS, THROUGHOUT THE CONTRACT LIMITS. FURTHER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING AREAS DISTURBED DURING CONSTRUCTION, NOT IN THE CONTRACT LIMITS, TO EQUAL OR GREATER CONDITION.
14. ALL LANDSCAPE AREAS SHALL HAVE PROPER DRAINAGE THAT PREVENTS EXCESSIVE WATER FROM FORMING ON LAWN AREAS OR AROUND TREES AND SHRUBS.
15. ALL LANDSCAPE AREAS SHALL BE IRRIGATED WITH AN AUTOMATIC UNDERGROUND SYSTEM.

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 MOST EFFICIENT MANNER NECESSARY TO FULLY IRRIGATE ALL PLANTING AREAS.

GENERAL SEED NOTE:

ALL LAWN AREAS DESIGNATED TO BE SEED, SHALL BE HYDRO-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 TO JUNE FALL: AUGUST 15 TO OCTOBER 15

TYPICAL SEEDED LAWN MIX:

ALL LAWN AREAS DESIGNATED TO BE SEED, SHALL BE HYDRO-SEEDED WITH TYPICAL DROUGHT TOLERANT, DURABLE BLENDED SEED MIX, AT A RATE OF 220 LBS PER ACRE. MIX IS COMPRISED OF:
 30% NITE HAWK PERENNIAL RYE
 30% KENTUCKY BLUEGRASS
 20% CREEPING RED FESCUE
 10% VERT KENTUCKY BLUEGRASS
 10% NEWPORT KENTUCKY BLUEGRASS

LANDSCAPE REQUIREMENTS

EXISTING SITE EOWING: VILAGE CENTER DISTRICT
 EXISTING SITE AREA: 177,138.57 S.F. OR 4.047 ACRES

STREET TREES
 1 TREE PER 50 L.F. OF FRONTAGE
 SOUTHFIELD ROAD: 400 L.F.
 800 L.F. / 50 L.F. = 12 TREES REQUIRED
 PROVIDED: 12 TREES
 GOLDENGATE DRIVE: 220 L.F.
 220 L.F. / 50 L.F. = 4.4 OR 4 TREES REQUIRED
 PROVIDED: 5 TREES
 SUNSET BLVD.: 220 L.F.
 220 L.F. / 50 L.F. = 4.4 OR 4 TREES REQUIRED
 PROVIDED: 4 TREES

PARKING LOT LANDSCAPE REQUIREMENTS
 15 S.F. OF BIODEGRADABLE MULCH FOR EACH SPACE
 193 PKG SPACES x 15 = 2,895 S.F. REQUIRED
 2,895 S.F. / 400 S.F. = 7.24 OR 7 TREES REQUIRED
 PROVIDED: 4,101 S.F. AND 22 TREES

GENERAL SITE LANDSCAPE
 5% OF THE TOTAL SITE AREA SHALL BE PROVIDED AS LANDSCAPE AREA
 177,138.54 S.F. x 5% = 8,856.93 S.F. REQUIRED
 PROVIDED:
 40,406.03 S.F.



PROPOSED BUILDING ADDITION FOR:

27700 SOUTHFIELD ROAD, LATHRUP VILLAGE

BIDDISON

ARCHITECTURE

320 MARTIN ST. LL 10 BIRMINGHAM MI 48009
248.554.9500

CONDITIONS OF WORK

CONSTRUCTION COORDINATION:

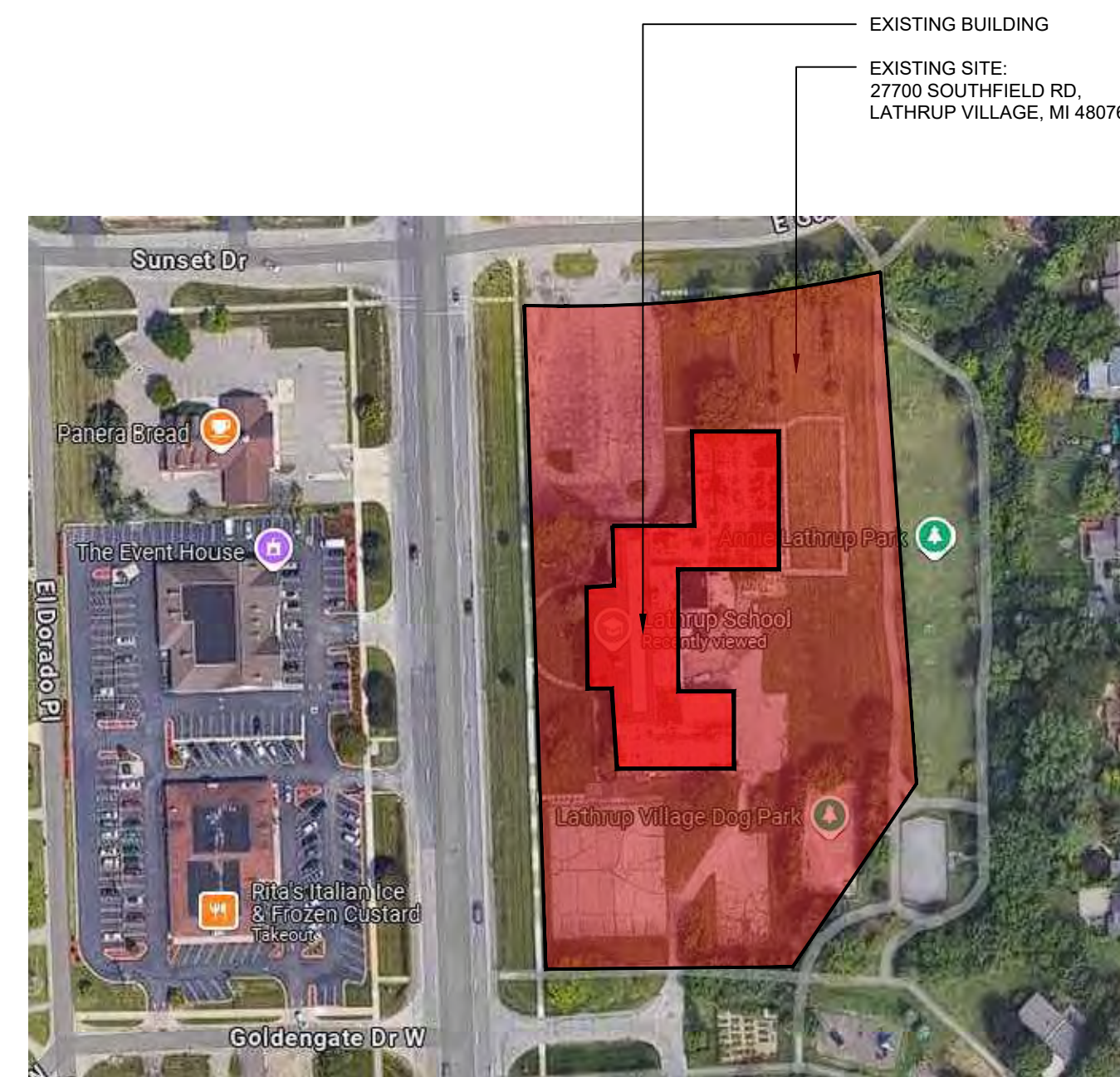
- ALL CONTRACTORS SHALL REVIEW ALL DRAWINGS & ARE RESPONSIBLE FOR A COMPLETE REVIEW & SITE VISIT. ITEMS AFFECTING ALL TRADES ARE PLACED THROUGHOUT SET & NO "EXTRAS" FOR MISSED ITEMS IN OTHER SECTIONS WILL BE PERMITTED. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY ARCHITECT OF ANY AMBIGUITY, INCONSISTENCY OR ERRORS WHICH THEY DISCOVER UPON EXAMINATION OF DOCUMENTS, THE SITE OR LOCAL CONDITIONS.
- ANY CONTRACTOR OR SUBCONTRACTOR BY SUBMITTING A BID WARRANTS THAT HE HAS VISITED THE SITE AND IS AWARE OF ANY AND ALL SITE CONDITIONS AFFECTING HIS BID.
- THE CONTRACTOR BY COMMENCING WORK ACCEPTS THE CONDITIONS OF THE SITE & THE COMPLETENESS OF CONTRACT DOCUMENTS.
- FIELD VERIFY ALL DIMENSIONS AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ARCHITECT. DO NOT SCALE DRAWINGS USE FIGURED DIMENSIONS ONLY.
- ANY MATERIAL OR LABOR NEITHER SHOWN ON THE DRAWINGS NOR SPECIFIED, BUT WHICH IS OBVIOUSLY NECESSARY TO COMPLETE THE WORK IN A WORKMANLIKE MANNER SHALL BE FURNISHED WITHOUT COST TO THE OWNER.
- ALL MATERIALS FURNISHED AND INSTALLED BY THE GENERAL CONTRACTOR SHALL BE FREE FROM DEFECTS. ALL WORK SHALL BE GUARANTEED FOR A PERIOD OF (1) YEAR FROM DATE OF ACCEPTANCE OF WORK. DURING THIS PERIOD THE GENERAL CONTRACTOR SHALL CORRECT ANY PROBLEMS DUE TO DEFECTIVE MATERIALS OR FAULTY WORKMANSHIP AT NO COST TO THE OWNER. ANY PROBLEM THAT OCCURS DURING CONSTRUCTION SHALL IMMEDIATELY BE CORRECTED TO THE SATISFACTION OF THE OWNER.
- NO SUBSTITUTIONS OF SPECIFIED MATERIAL OR EQUIPMENT WILL BE ACCEPTED UNLESS WRITTEN REQUEST FOR APPROVAL HAS BEEN RECEIVED BY THE ARCHITECT AND CONTRACTOR HAS RECEIVED WRITTEN APPROVAL FROM ARCHITECT.
- DURING AND AT THE COMPLETION OF THE CONTRACTOR'S DAILY WORK, CONTRACTOR IS RESPONSIBLE FOR THE CLEANING UP AND REMOVAL OF ALL RUBBISH AND DEBRIS BEFORE LEAVING THE PROJECT JOB SITE.

PERMITS & SAFETY:

- GENERAL CONTRACTOR SHALL APPLY & SUBMIT FOR BUILDING PERMIT.
- GENERAL CONTRACTOR SHALL OBTAIN "ALL RISK" INSURANCE AND ALL CUSTOMARY STATUTORY INSURANCE FOR COMPREHENSIVE GENERAL LIABILITY, ETC. AS REQUIRED BY OWNER/LANDLORD.
- GENERAL CONTRACTOR SHALL PROVIDE ADEQUATE PROTECTION OF WORK, MATERIALS, FIXTURES, ETC. IN LEASED SPACE FROM LOSS OR DAMAGE FROM FIRE, THEFT OR VANDALISM.
- ALL WORK SHALL BE DONE IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA). THE FOLLOWING ARE STRICTLY PROHIBITED WORK PRACTICES.
 - ANY COMBUSTIBLE MATERIALS ABOVE FINISHED CEILING OR IN ANY NON-SPRINKLED LOCATIONS.
 - IMPOSING ANY STRUCTURAL LOAD, TEMPORARY OR PERMANENT ON ANY PART OF THE LANDLORD'S WORK OR STRUCTURE WITHOUT PRIOR WRITTEN APPROVAL.
 - CUTTING ANY HOLES IN LANDLORD'S EXISTING FLOOR SLABS, WALLS OR ROOF WITHOUT PROPER APPROVAL'S PROPER APPROVALS FROM LANDLORD. BEFORE STARTING ANY UNDERSLAB WORK CONTRACTORS MUST CHECK WITH THE LANDLORD OR SUPERINTENDENT OF THE LANDLORD'S GENERAL CONTRACTOR TO DETERMINE IF ANY COMMON UTILITY OR OTHER TENANT UTILITY LINES EXIST WITHIN THE SPACE.

CODE COMPLIANCE:

- WORK INDICATED IS TO BE EXECUTED IN ACCORDANCE WITH THE LATEST EDITIONS OF ALL APPLICABLE CODES.
- FIRE EXTINGUISHERS SHALL BE PROVIDED BY G.C. AND INSTALLED PER THE FIRE MARSHALL'S INSTRUCTIONS.
- ALL WALL FINISHES TO MEET CLASS III FLAME SPREAD RATINGS IN ACCORDANCE WITH MBC-2015 CHAPTER 8.
- INTERIOR FINISHES IN EXIT ACCESS CORRIDORS, OTHER EXIT WAYS, ROOMS, AND ENCLOSED SPACES IN USE GROUPS "B" AND "S" IN SPRINKLED BUILDINGS ARE REQUIRED TO HAVE AT LEAST A CLASS C FLAME SPREAD 76-200; SMOKE DEVELOPED 0-450; RATING AS LISTED IN THE 2015 MICHIGAN BUILDING CODE.
- SAFETY GLAZING MUST HAVE PERMANENT IDENTIFICATION IN ACCORDANCE WITH THE 2015 MICHIGAN BUILDING CODE.
- ALL REQUIREMENTS OF THE MICHIGAN BARRIER FREE ACT & THE AMERICAN'S WITH DISABILITIES ACT SHALL BE MAINTAINED TO COMPLY WITH ICC/A117.1-2009.
- ALL OFFICE FURNITURE & EQUIPMENT TO BE PROVIDED BY TENANT. SHOWN FOR LAYOUT PURPOSES ONLY. TO COMPLY WITH ADA-ICCA117.1-2009 (TYP.) REQUIREMENTS, A MINIMUM OF 5%, BUT NOT LESS THAN (1) OF THE LUNCHROOM TABLES AND EMPLOYEE WORKSTATIONS (CUBICLES) SHALL BE ACCESSIBLE. ACCESSIBLE TABLE AND WORKSTATION TOPS SHALL BE 28" MIN. TO 34" MAX. A.F.F. KNEE AND TOE CLEARANCES AS FOLLOWS SHALL ALSO APPLY- TOE: 4" MIN. HIGH, 17" MIN. TO 25" MAX. DEPTH, AND 30" MIN. WIDE. KNEE: 27" MIN. HIGH, 11" DEEP @ 9" HIGH TO 8" DEEP @ 27" HIGH, AND 30" MIN. WIDE.
- ALL ENTRANCE AND EXIT DOORS SHALL HAVE BARRIER FREE ACCESSIBILITY TO COMPLY WITH ICC/A117.1-2009.
- TO COMPLY WITH ADA - ICC/A117.1-2009 (TYP.) REQUIREMENTS, CHANGES IN LEVEL GREATER THAN 1/2" SHALL BE RAMPED AND CHANGES IN LEVEL BETWEEN 1/4" AND 1/2" SHALL BE BEVELED A MAXIMUM OF 1:2.
- ALL LUNCHROOM APPLIANCES TO BE PROVIDED BY TENANT. TO COMPLY WITH ADA-ICCA117.1-2009 (TYP.) REQUIREMENTS, DISHWASHERS MUST FIT UNDER A 34" HIGH (32 1/4" CLEAR UNDER) COUNTERTOP. THE REFRIGERATOR MUST BE A SIDE-BY-SIDE OR BOTTOM FREEZER UNIT, AND ALL MICROWAVE CONTROLS TO BE NO HIGHER THAN 46" A.F.F. TO MEET OBSTRUCTED HIGH SIDE REACH REQUIREMENTS.
- SIGNAGE INDICATING ACCESSIBILITY PROVISIONS SHALL BE PROVIDED AT EACH DOOR TO AN EXIT DISCHARGE. A TACTILE SIGN STATING EXIT AND COMPLYING WITH ICC/ANSI A117.1-2009 SHALL BE PLACED ADJACENT TO THE DOOR. PLEASE REFER TO SHEET A. 601 FOR ADDITIONAL INFORMATION AND LOCATION.



EXISTING BUILDING
EXISTING SITE:
27700 SOUTHFIELD RD,
LATHRUP VILLAGE, MI 48076

PROJECT ADDRESS

27700 Southfield Road
Lathrup Village, Michigan 48076

Zoned: VC Village Center

APPLICANT INFORMATION

Akiva Investments LLC
320 Martin St, Suite 100
Birmingham, MI 48009
e. Sam@Surnow.com
p. 248.877.4000

SHEET INDEX

T.101	TITLE SHEET
A.101	FIRST AND SECOND FLOOR PLANS
A.102	THIRD AND FOURTH FLOOR PLANS
A.103	ENLARGED COMMON AREA FLOOR PLANS
A.201	EXTERIOR ELEVATIONS
A.202	EXTERIOR ELEVATIONS
A.203	EXTERIOR ELEVATIONS
A.301	EXTERIOR RENDERINGS
A.302	EXTERIOR RENDERINGS
A.303	EXTERIOR RENDERINGS
A.304	INTERIOR RENDERINGS
A.305	INTERIOR RENDERINGS
L.201	SITE PHOTOMETRIC STUDY

Consultants

Project data

GOVERNING CODES: 2015 MICHIGAN BUILDING CODE
2021 MICHIGAN PLUMBING CODE
2021 MICHIGAN MECHANICAL CODE
2015 MICHIGAN REHABILITATION CODE
2015 INTERNATIONAL FUEL GAS CODE
MICHIGAN ELECTRICAL CODE, 2017 N.E.C.
W/ PART 8 STATE AMENDMENTS
ICC/ANSI A117.1-2015 AND MICHIGAN
BARRIER FREE DESIGN LAW OF PUBLIC
ACT 1 OF 1966 AS AMENDED.
MICHIGAN UNIFORM ENERGY CODE RULES
PART 10 WITH ANSI/ASHRAE/IESNA
STANDARD 90.1-2015
2015 INTERNATIONAL FIRE CODE
NFPA 13 - 2010
NFPA 72 - 2010

BUILDING USE GROUP(S): RESIDENTIAL

Issued for

SITE PLAN REVIEW

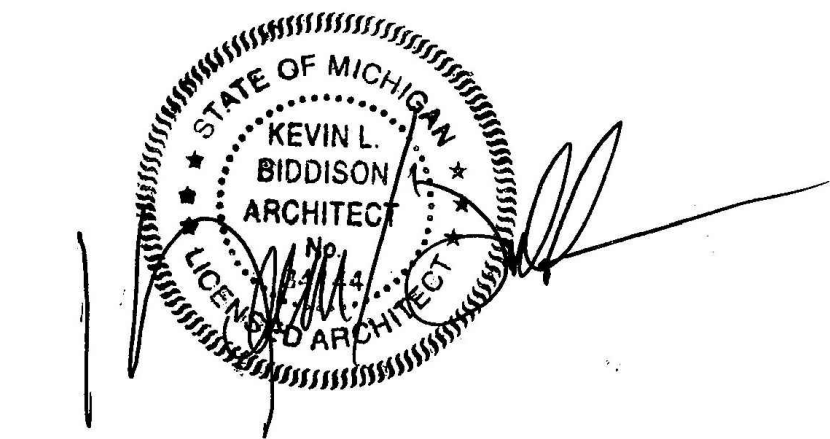
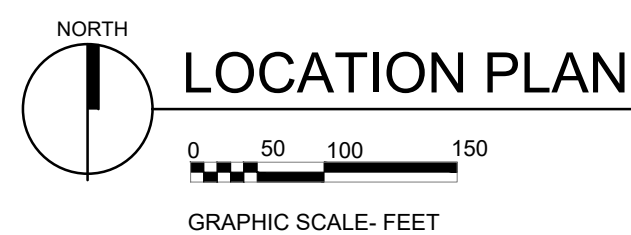
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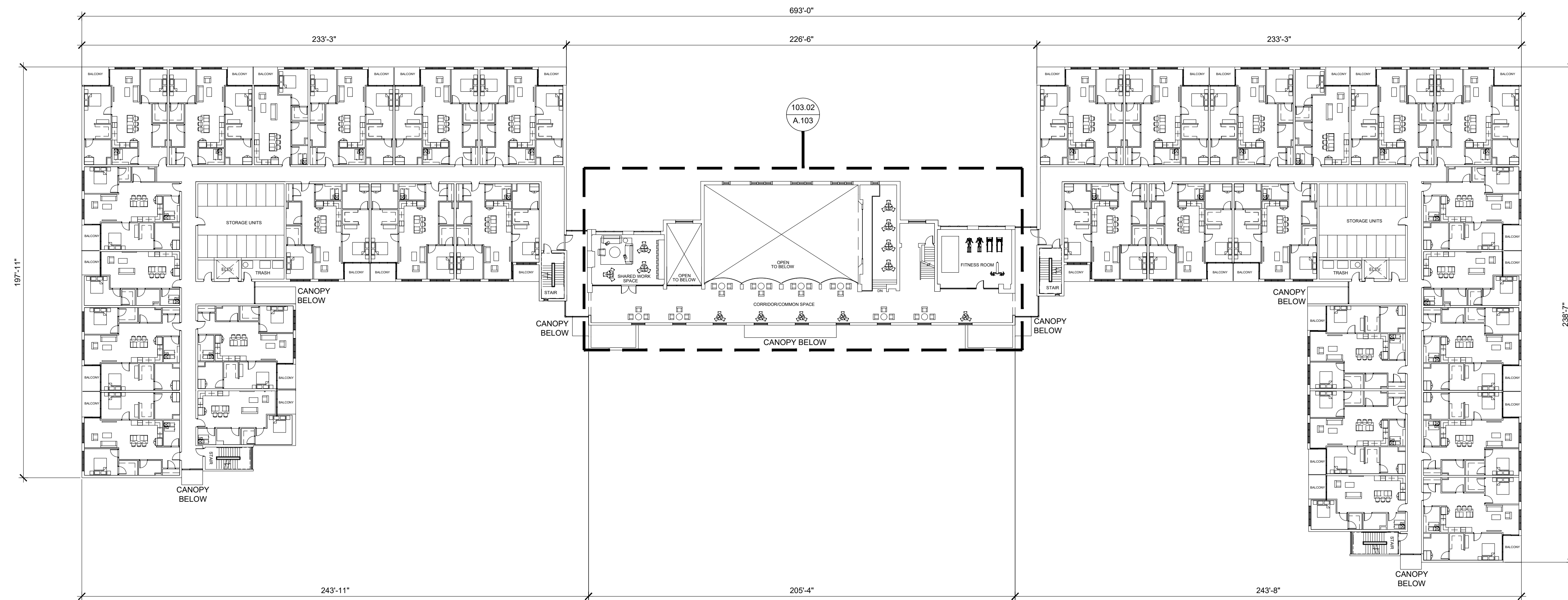
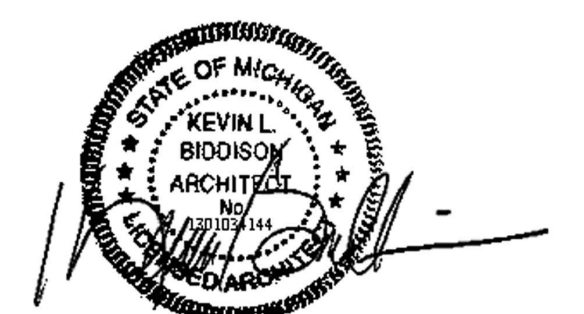
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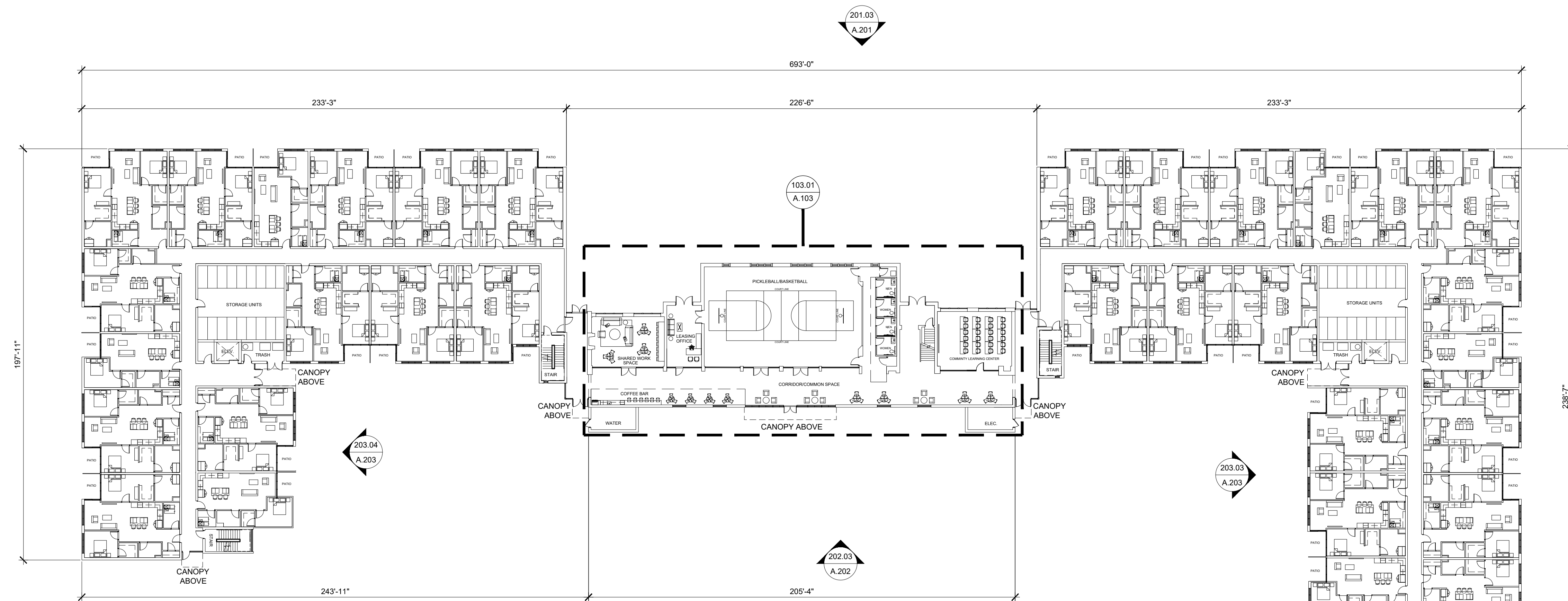
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T.101





SECOND FLOOR PLAN
SCALE: 1/32"=1'-0"



FIRST FLOOR PLAN
SCALE: 1/32"=1'-0"

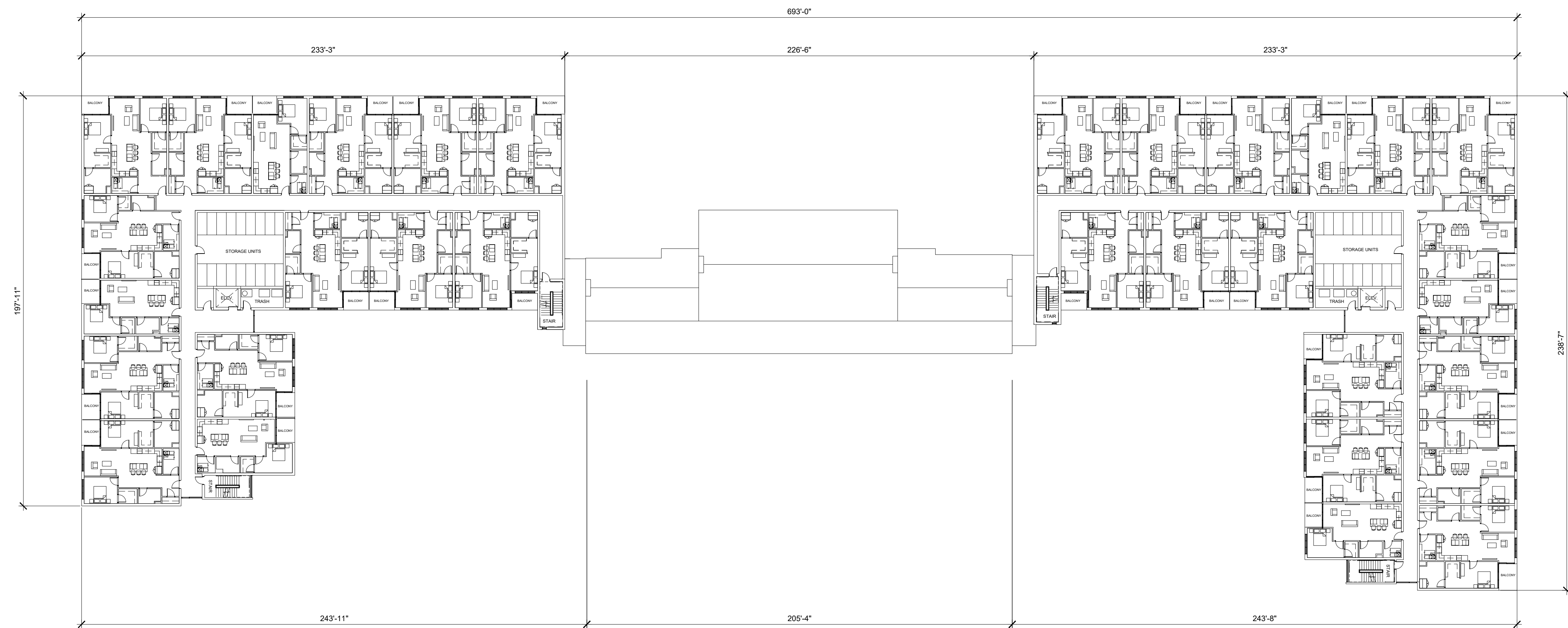
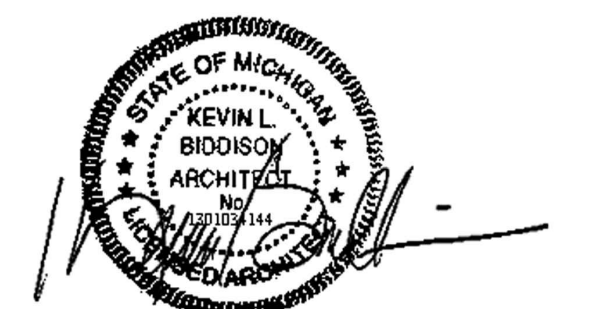
BUILDING AREAS PER FLOOR	
FIRST FLOOR AREA	55,958 s.f. TOTAL
SECOND FLOOR AREA	52,013 s.f. TOTAL
THIRD FLOOR AREA	47,306 s.f. TOTAL
FOURTH FLOOR AREA	47,306 s.f. TOTAL
TOTAL BUILDING AREA	202,583 s.f. TOTAL

UNIT COUNT PER FLOOR					
UNIT TYPE	FLOOR 1	FLOOR 2	FLOOR 3	FLOOR 4	TOTAL
1 BEDROOM	6	6	6	6	24
2 BEDROOM	26	26	26	26	104
COMMON AREA	8242	4707	2800	2800	18,549
				TOTAL	128

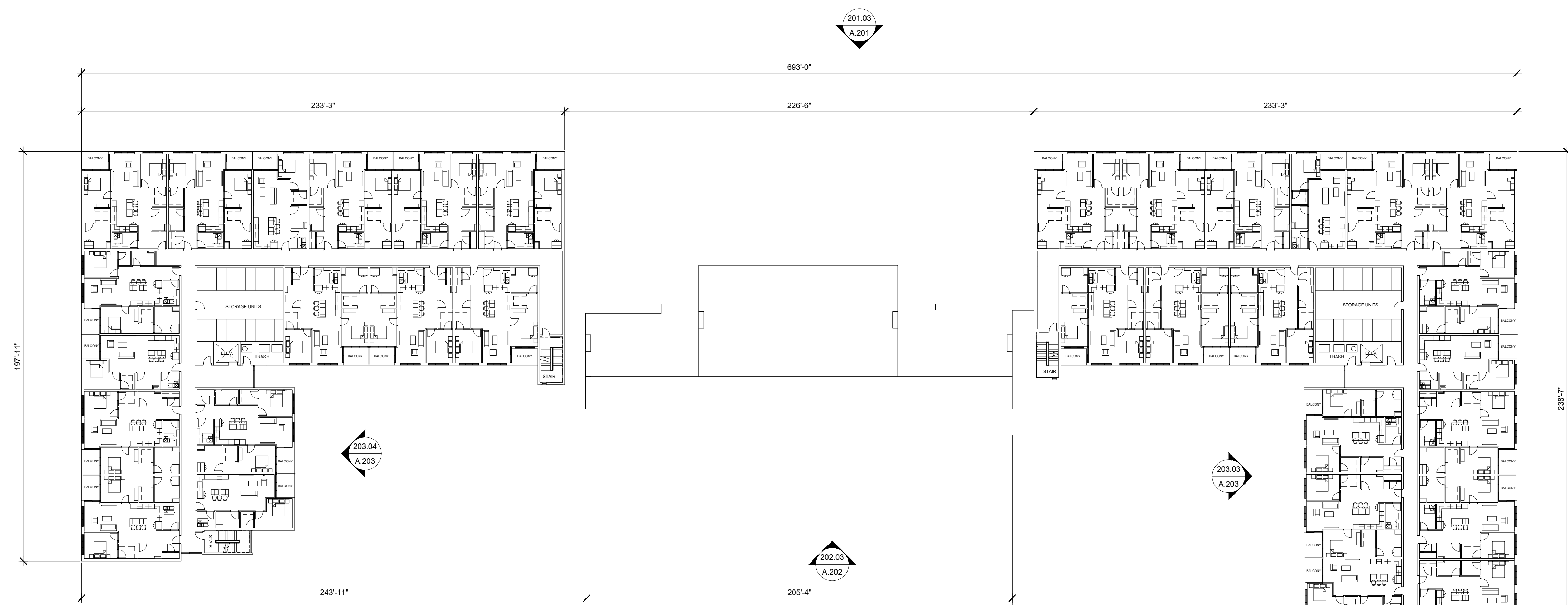
FIRST FLOOR UNIT QUANTITIES & AREAS			
UNIT TYPE	QUANTITY	AREA	TOTAL
1 BEDROOM OPT. A	6	780	4680
2 BEDROOM OPT. A	26	1098	28,548
COMMON AREA		12,949	
TOTAL	32		33,228

FIRST FLOOR/SITE PLAN

PARKING ON SITE: 193 SPACES
TOTAL PARKING TO MEET CITY REQMTS.: 1.5 PER UNIT= 192 SPACES



FOURTH FLOOR PLAN
SCALE: 1/32"=1'-0"



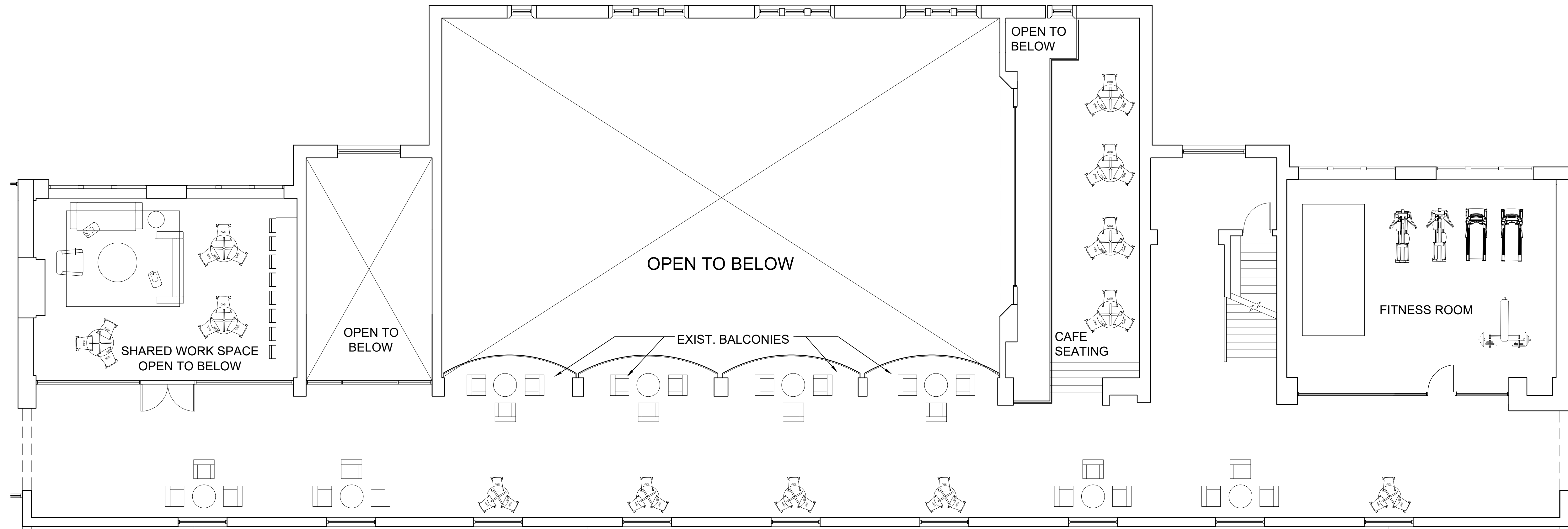
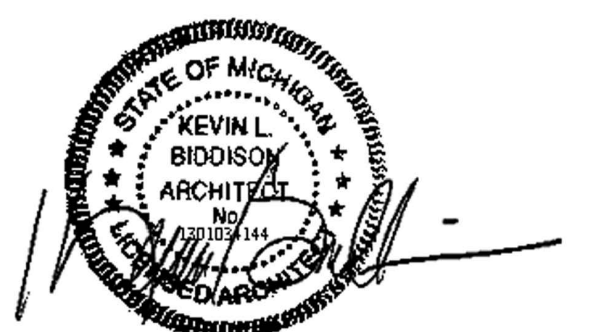
THIRD FLOOR PLAN
SCALE: 1/32"=1'-0"

BUILDING AREAS PER FLOOR	
FIRST FLOOR AREA	55,958 s.f. TOTAL
SECOND FLOOR AREA	52,013 s.f. TOTAL
THIRD FLOOR AREA	47,306 s.f. TOTAL
FOURTH FLOOR AREA	47,306 s.f. TOTAL
TOTAL BUILDING AREA	202,583 s.f. TOTAL

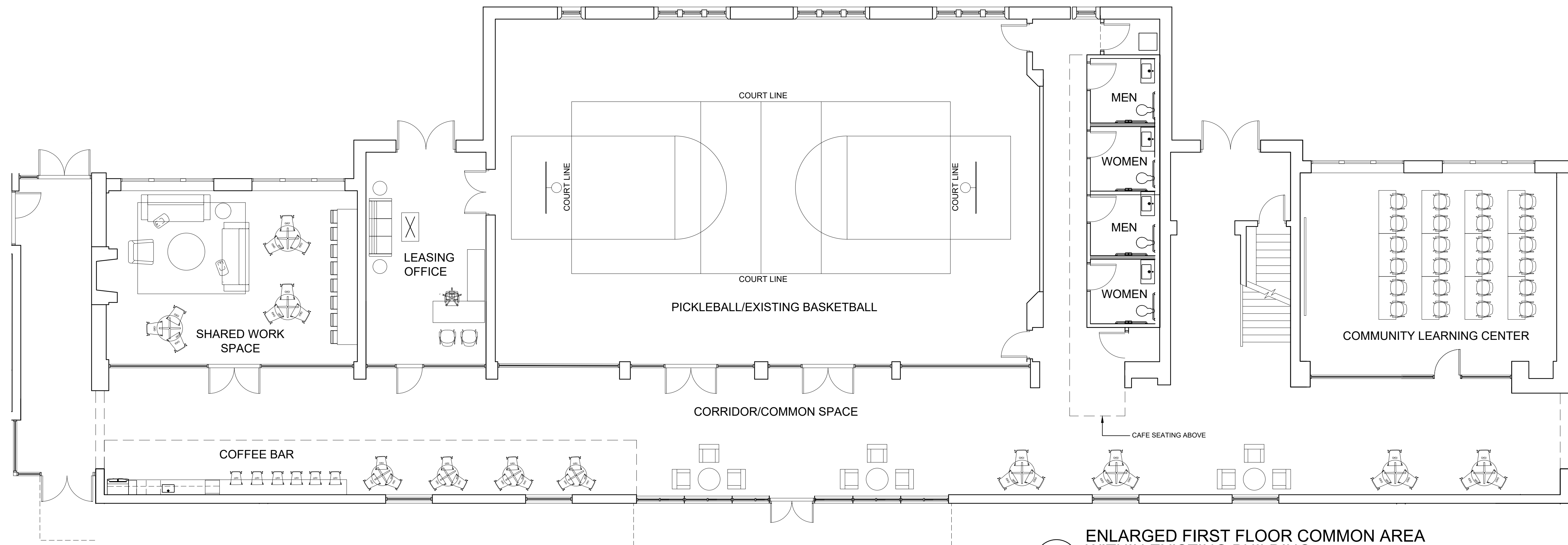
UNIT COUNT PER FLOOR					
UNIT TYPE	FLOOR 1	FLOOR 2	FLOOR 3	FLOOR 4	TOTAL
1 BEDROOM	6	6	6	6	24
2 BEDROOM	26	26	26	26	104
COMMON AREA	8242	4707	2800	2800	18,549
				TOTAL	128

FIRST FLOOR UNIT QUANTITIES & AREAS			
UNIT TYPE	QUANTITY	AREA	TOTAL
1 BEDROOM OPT. A	6	780	4680
2 BEDROOM OPT. A	26	1098	28,548
COMMON AREA		12,949	
TOTAL	32		33,228

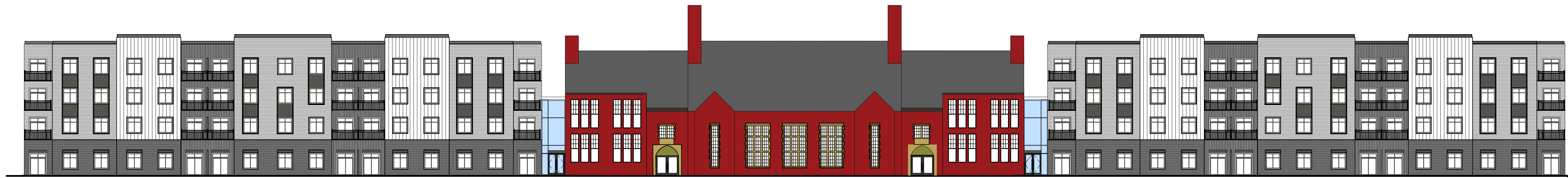
FIRST FLOOR/SITE PLAN
PARKING ON SITE: 193 SPACES
TOTAL PARKING TO MEET CITY REQMTS.: 1.5 PER UNIT= 192 SPACES



**ENLARGED SECOND FLOOR COMMON AREA
WITHIN EXISTING BUILDING**
103.02
A.103 SCALE: 1/8"=1'-0"



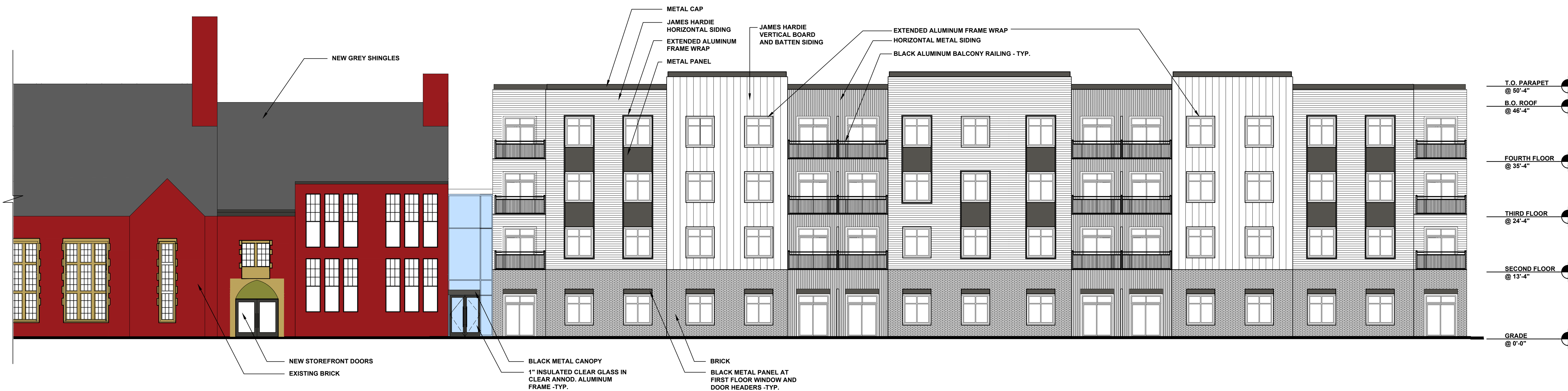
**ENLARGED FIRST FLOOR COMMON AREA
WITHIN EXISTING BUILDING**
103.01
A.103 SCALE: 1/8"=1'-0"



201.03 WEST ELEVATION
A.201 NOT TO SCALE



201.02 ENLARGED WEST ELEVATION
A.201 SCALE: 3/32"=1'-0"



201.01 ENLARGED WEST ELEVATION
A.201 SCALE: 3/32"=1'-0"

Project title

PROPOSED BUILDING ADDITION FOR:
**27700 Southfield Rd,
Lathrup Village**

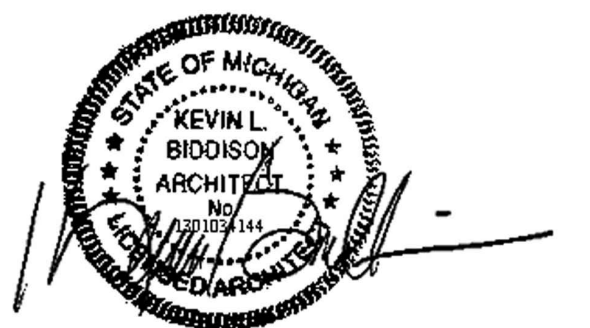
27700 Southfield Road
Lathrup Village, MI 48076

Issued dr/ch

SITE PLAN REVIEW 10.18.24

Sheet title

**EXTERIOR
ELEVATIONS**

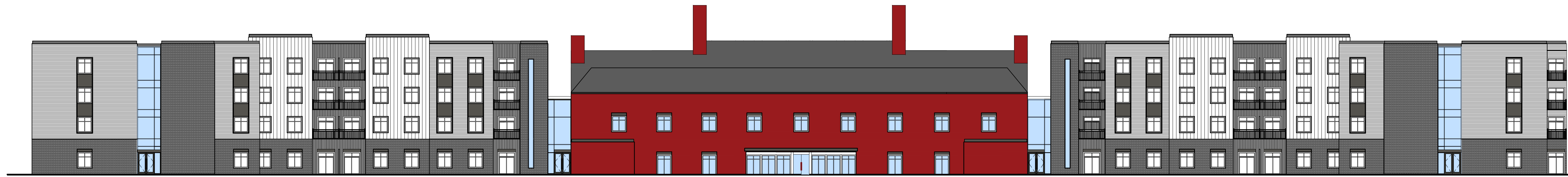


Project no.

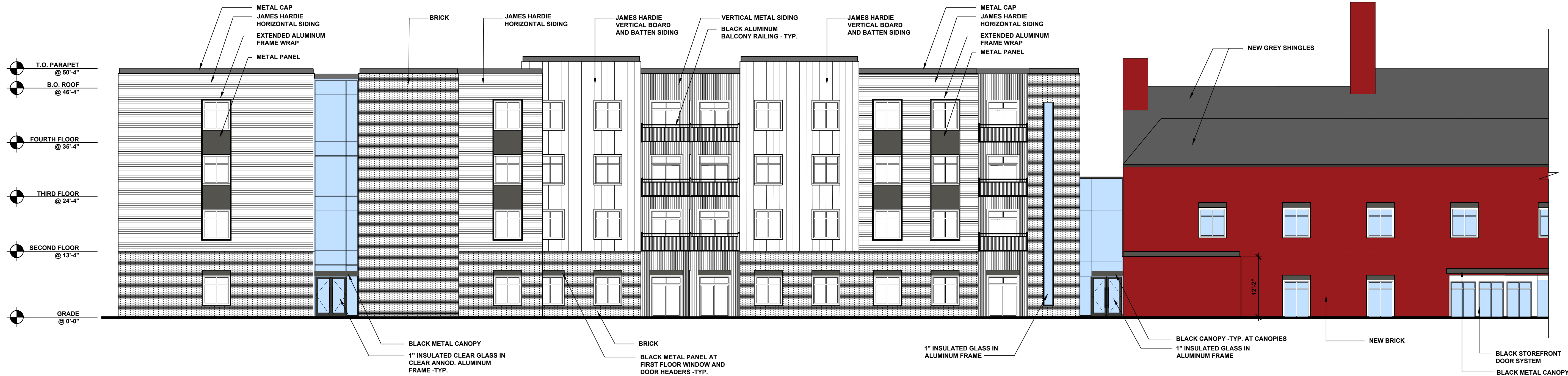
2118-24

Sheet no.

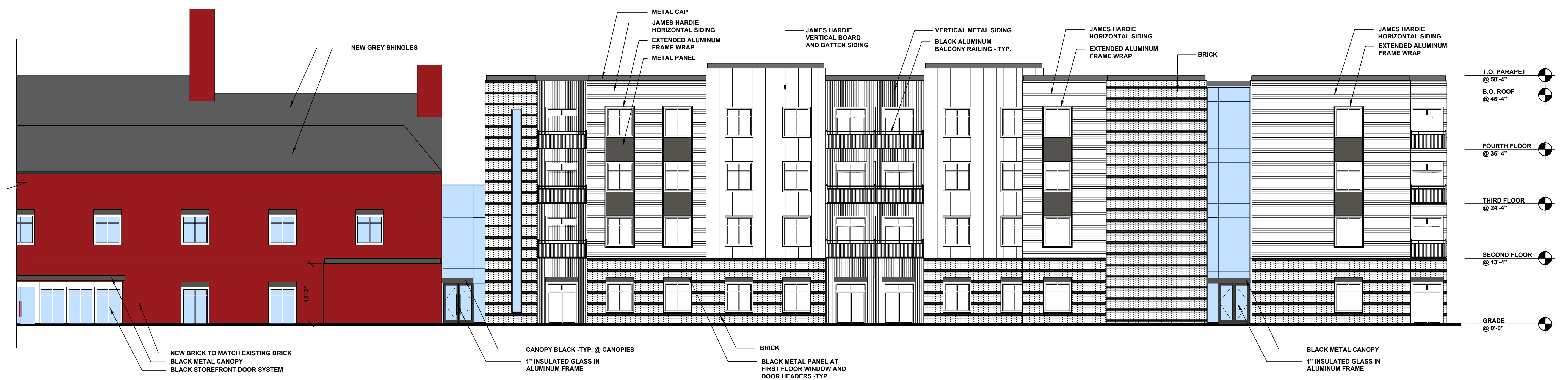
A.201



202.03 EAST ELEVATION
A.202 NOT TO SCALE



202.02 ENLARGED EAST ELEVATION
A.202 SCALE: 3/32"=1'-0"



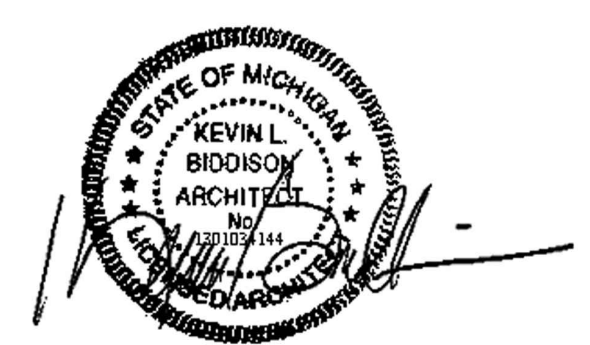
202.01 ENLARGED EAST ELEVATION
A.202 SCALE: 3/32"=1'-0"

Project title
PROPOSED BUILDING ADDITION FOR:
**27700 Southfield Rd,
Lathrup Village**

27700 Southfield Road
Lathrup Village, MI 48076

Issued dr/ch
SITE PLAN REVIEW 10.18.24

Sheet title
**EXTERIOR
ELEVATIONS**



Project no.
2118-24

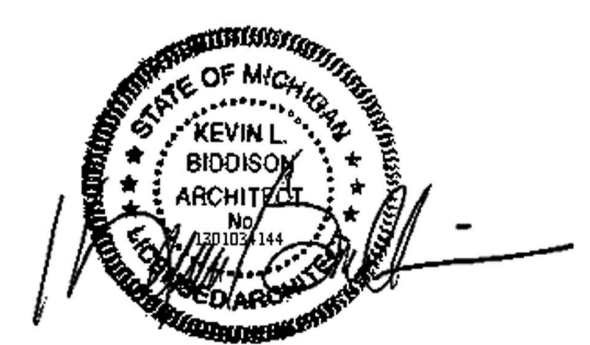
Sheet no.
A.202

PROPOSED BUILDING ADDITION FOR:
**27700 Southfield Rd,
Lathrup Village**

27700 Southfield Road
Lathrup Village, MI 48076

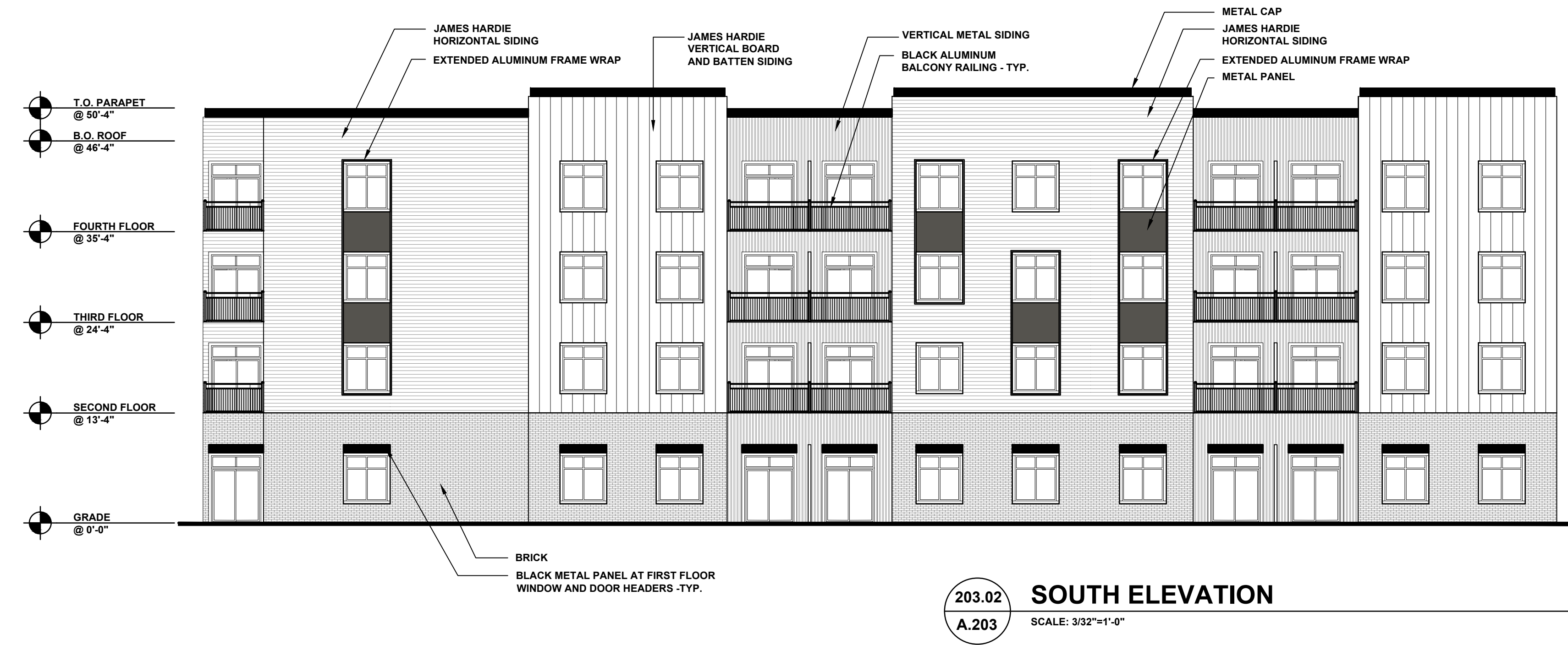
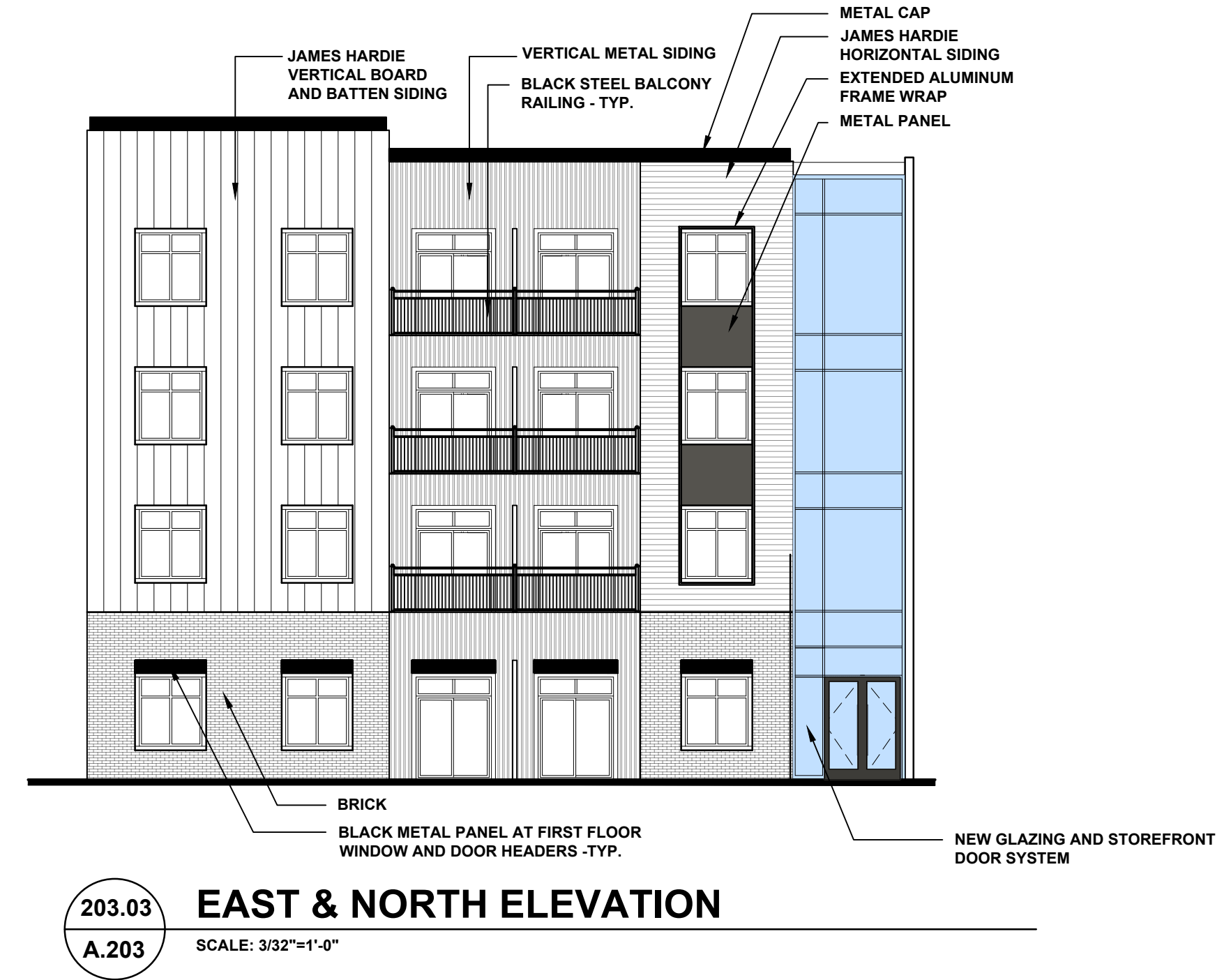
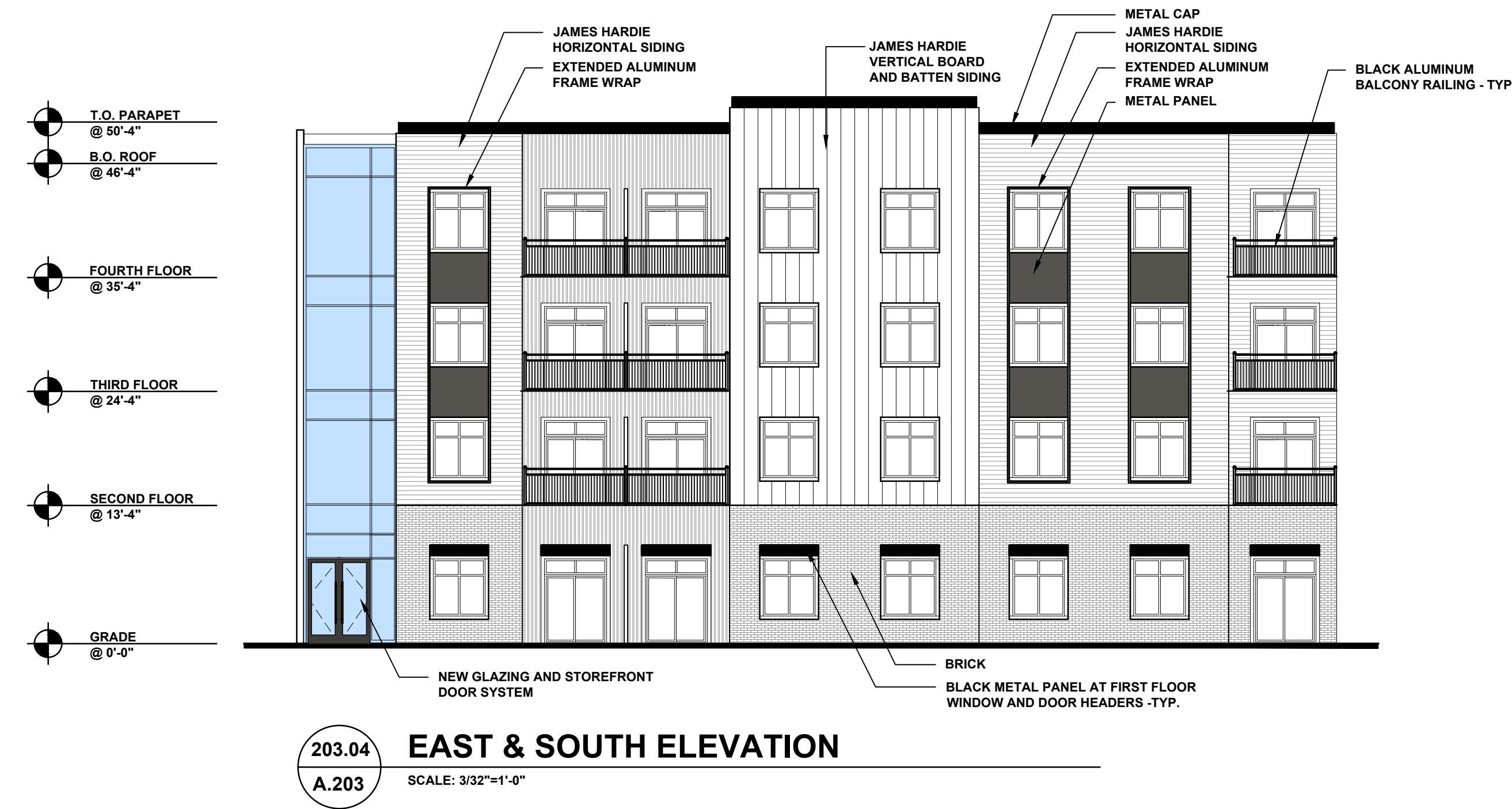
SITE PLAN REVIEW 10.18.24

**EXTERIOR
ELEVATIONS**



2118-24

A.203





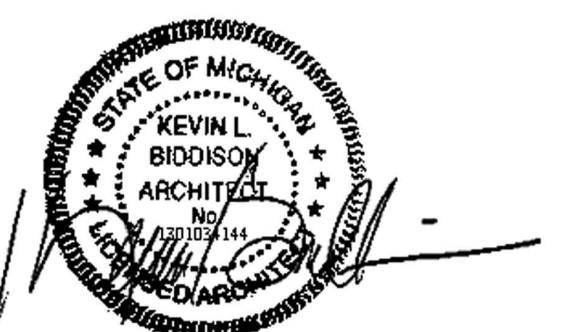
PROPOSED BUILDING ADDITION FOR:
**27700 Southfield Rd,
Lathrup Village**

27700 Southfield Road
Lathrup Village, MI 48076

SITE PLAN REVIEW 10.18.24



**EXTERIOR
RENDERINGS**



2118-24

A.301

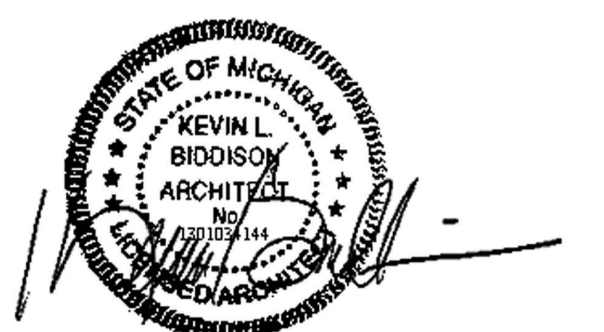


PROPOSED BUILDING ADDITION FOR:
**27700 Southfield Rd,
Lathrup Village**

27700 Southfield Road
Lathrup Village, MI 48076

SITE PLAN REVIEW 10.18.24

**EXTERIOR
RENDERINGS**



2118-24

A.302





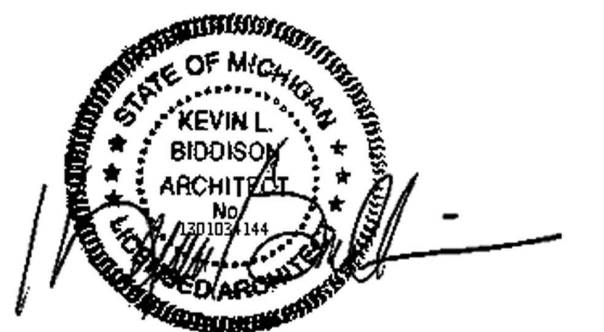
PROPOSED BUILDING ADDITION FOR:
**27700 Southfield Rd,
Lathrup Village**

27700 Southfield Road
Lathrup Village, MI 48076

SITE PLAN REVIEW 10.18.24

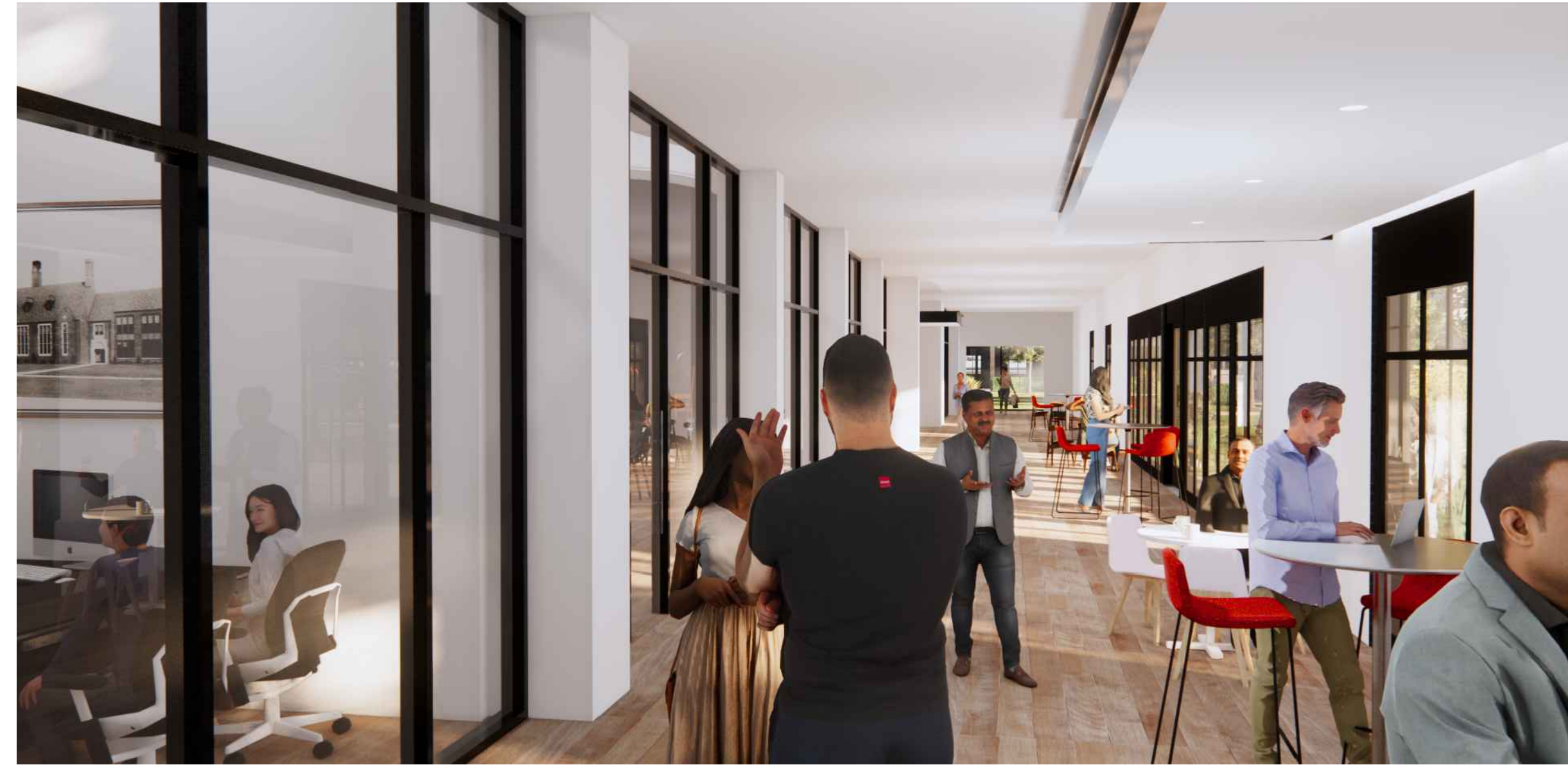
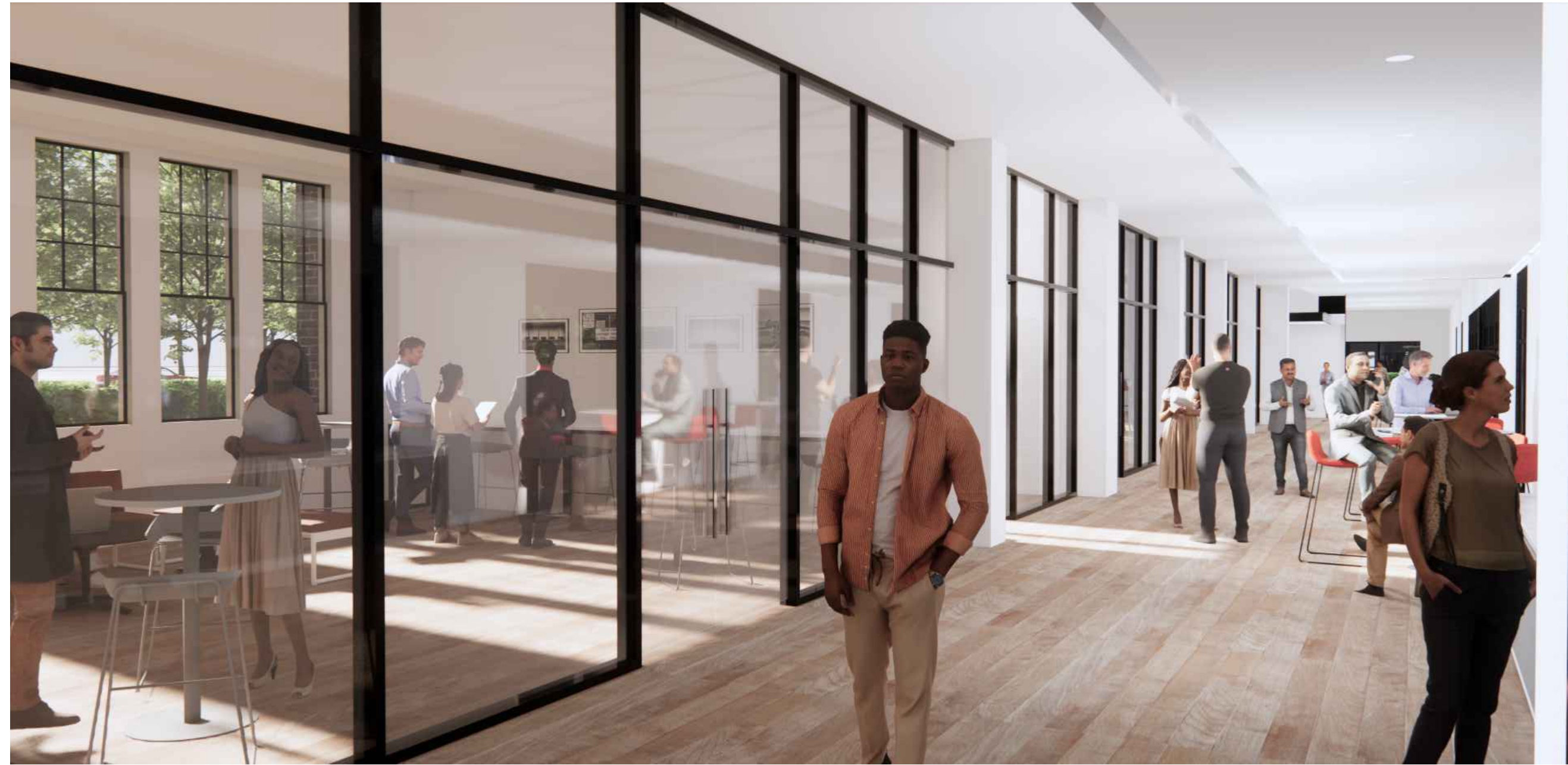


**EXTERIOR
RENDERINGS**



2118-24

A.303



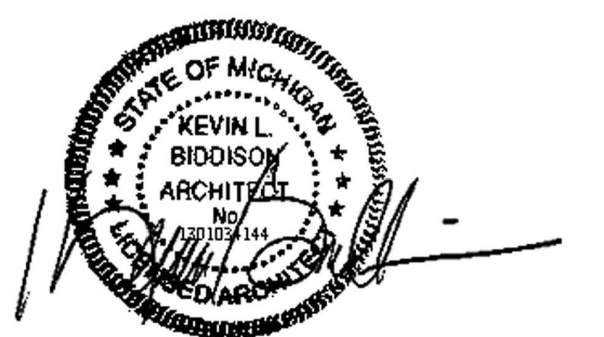
PROPOSED BUILDING ADDITION FOR:
**27700 Southfield Rd,
Lathrup Village**

27700 Southfield Road
Lathrup Village, MI 48076

SITE PLAN REVIEW 10.18.24



**INTERIOR
RENDERINGS**



2118-24

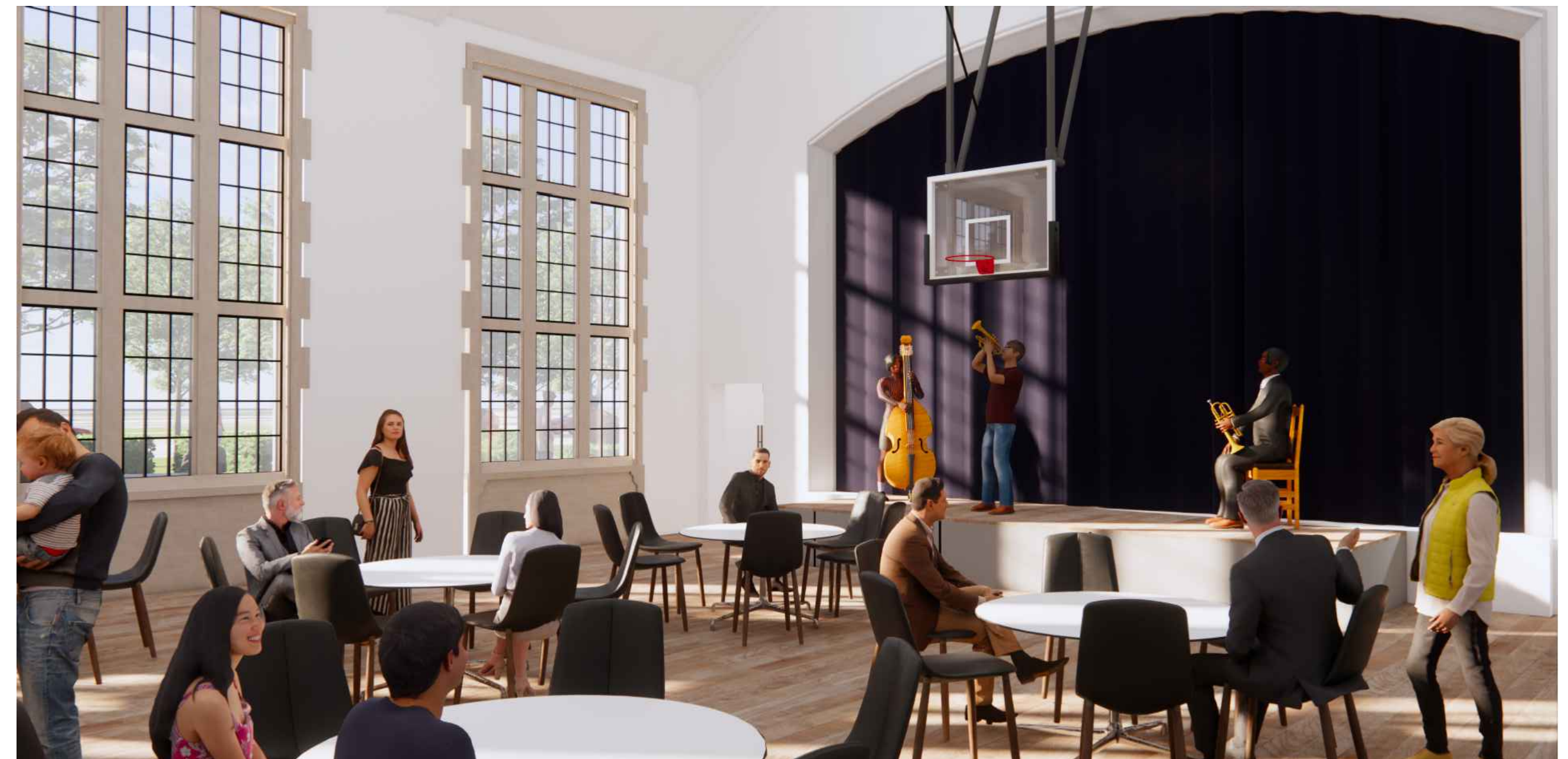
A.304



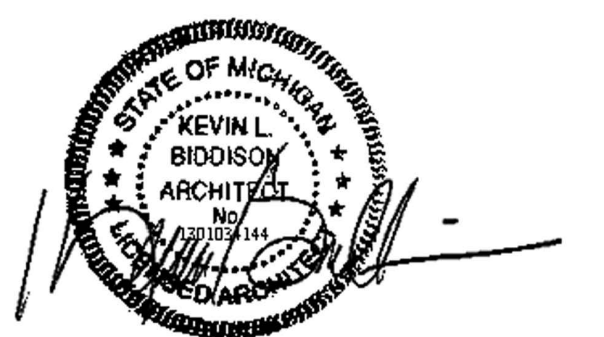
PROPOSED BUILDING ADDITION FOR:
**27700 Southfield Rd,
Lathrup Village**

27700 Southfield Road
Lathrup Village, MI 48076

SITE PLAN REVIEW 10.18.24

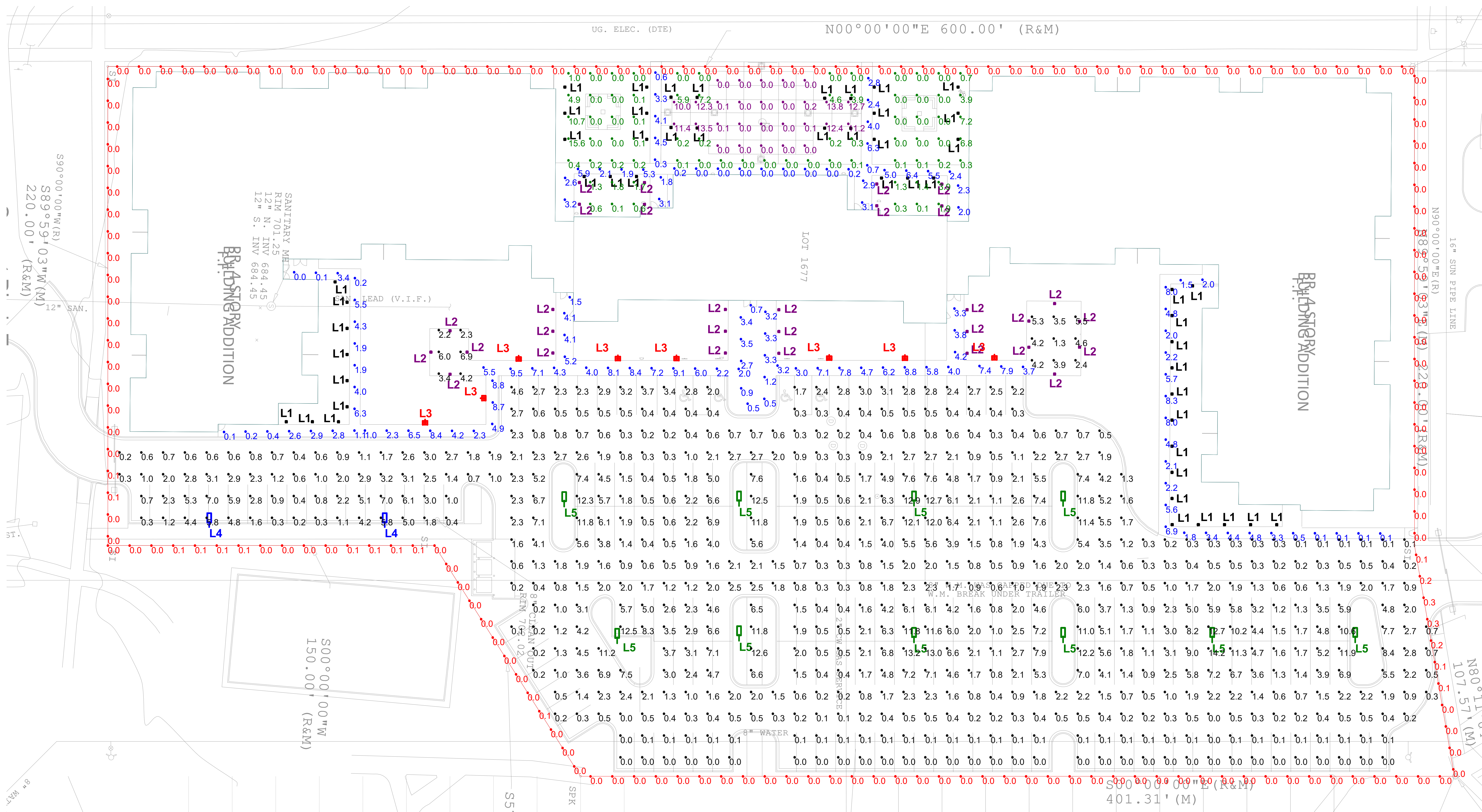


**INTERIOR
RENDERINGS**



2118-24

A.305

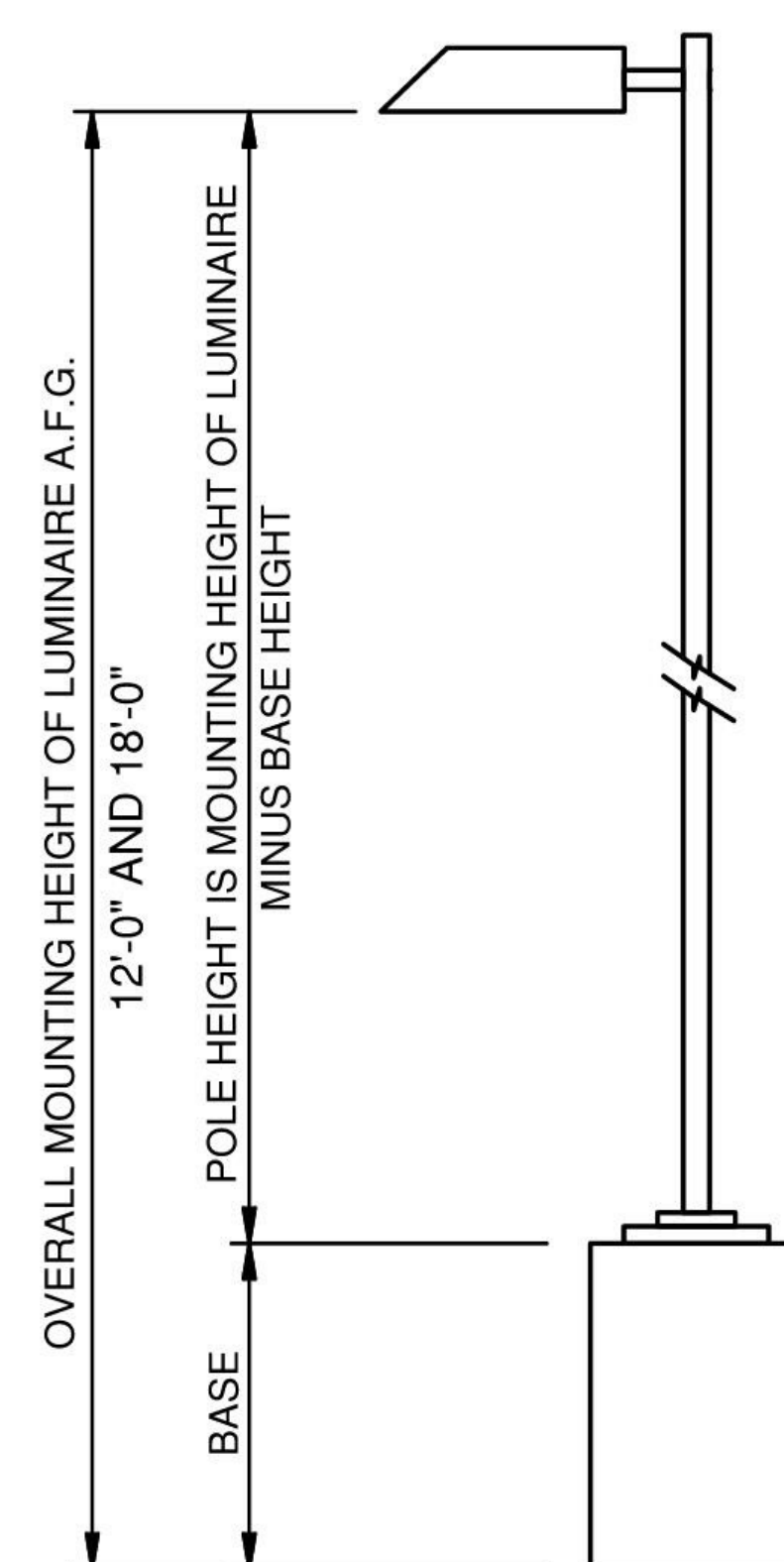


Scale: 1 inch= 20 Ft.

Luminaire Schedule							
Symbol	Qty	Label	LLF	Description	Lum. Watts	Lum. Lumens	Mounting Height
	50	L1	0.870	LIGMAN PRA-10001-T3-W30-X-X-F-DIM - FROSTED LENS, 0-10V DIM	7.6	576	3.25
	30	L2	0.870	LIGMAN PRA-10001-T4-W30-F-DIM - FROSTED LENS, 0-10V DIM	7.6	607	3.25
	8	L3	0.870	LIGMAN LI-21241-T3--X-X-X-DIM-F- FROSTED LENS, 0-10V DIM, COORDINATE POLE HEIGHT WITH CONCRETE BASE - VERIFY WITH ARCHITECT	54.9	4950	12
	2	L4	0.870	LIGMAN ULI-21172-T4-W30-X-X-X-DIM-F-HSS - FROSTED LENS, 0-10V DIM, COORDINATE POLE HEIGHT WITH CONCRETE BASE - VERIFY WITH ARCHITECT	105	7730	18
	10	L5	0.870	LIGMAN ULI-21291-T5-W30-X-X-X-DIM-F - FROSTED LENS, 0-10V DIM, COORDINATE POLE HEIGHT WITH CONCRETE BASE - VERIFY WITH ARCHITECT	155	18764	18

Calculation Summary						
Label	Units	Avg	Max	Min	Max/Min	Avg/Min
Barbeque Area	Fc	3.88	5.5	1.3	4.23	2.98
Dog Park	Fc	4.17	6.9	2.2	3.14	1.90
Main Walkways	Fc	3.91	9.5	0.0	N.A.	N.A.
Parking Lot	Fc	2.30	14.2	0.0	N.A.	N.A.
Plaza Area	Fc	3.49	13.8	0.0	N.A.	N.A.
Plaza Green Space Areas	Fc	1.24	15.6	0.0	N.A.	N.A.
Property Line	Fc	0.01	0.3	0.0	N.A.	N.A.
Walkways Adjacent Plaza Area	Fc	2.43	6.4	0.0	N.A.	N.A.

CALCULATIONS ARE TAKEN AT GRADE.



NOTES:
 THE ENGINEER AND/OR ARCHITECT MUST DETERMINE APPLICABILITY OF LAYOUT TO EXISTING/FUTURE FIELD CONDITIONS AND ALL MANDATORY BUILDING AND LIFE SAFETY CODES AND COMPLIANCE.
 LIGHTING LAYOUT REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS/LEDS AND OTHER VARIABLE FIELD CONDITIONS.
 MOUNTING HEIGHTS INDICATED ARE FROM GRADE TO BOTTOM OF LUMINAIRE LENS OR FROM FLOOR TO BOTTOM OF LUMINAIRE LENS, UNLESS OTHERWISE NOTED.
 CLARUS DOES NOT ACT AS THE ELECTRICAL, CIVIL OR STRUCTURAL ENGINEER AND DOES NOT DETERMINE BASE REQUIREMENTS AND APPLICABLE CODE COMPLIANCE. CLARUS IS NOT LIABLE FOR ANY CODE COMPLIANCE DISCREPANCY.
 LIGHTING CALCULATIONS ARE NOT A SUBSTITUTE FOR INDEPENDENT ENGINEERING ANALYSIS OF LIGHTING SYSTEM SUITABILITY AND SAFETY. THE ENGINEER AND/OR ARCHITECT OF RECORD IS RESPONSIBLE TO REVIEW FOR CODE COMPLIANCE, INCLUDING AND NOT LIMITED TO: NFPA 101 LIFE SAFETY CODE, MICHIGAN ENERGY CODE, MICHIGAN BUILDING CODE AND/OR IECC CODE, LIGHTING QUALITY COMPLIANCE AND LOCAL LIGHTING ORDINANCES.
 FOR SITE PLAN PHOTOMETRICS, THE USE OF ALTERNATES MUST BE RESUBMITTED TO THE CITY FOR APPROVAL.

PROJECT TITLE
**LATHRUP VILLAGE MULTI-FAMILY
 LATHRUP VILLAGE, MI**

SHEET TITLE
**PHOTOMETRIC CALCULATION
 SITE**

DATE
20-21-24
 PROJECT No.
CLC24-121915
 SHEET No.

L201

REVISION
 XX

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 Madison Heights, MI 48071
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 E: info@clarus-lighting.com



DATE