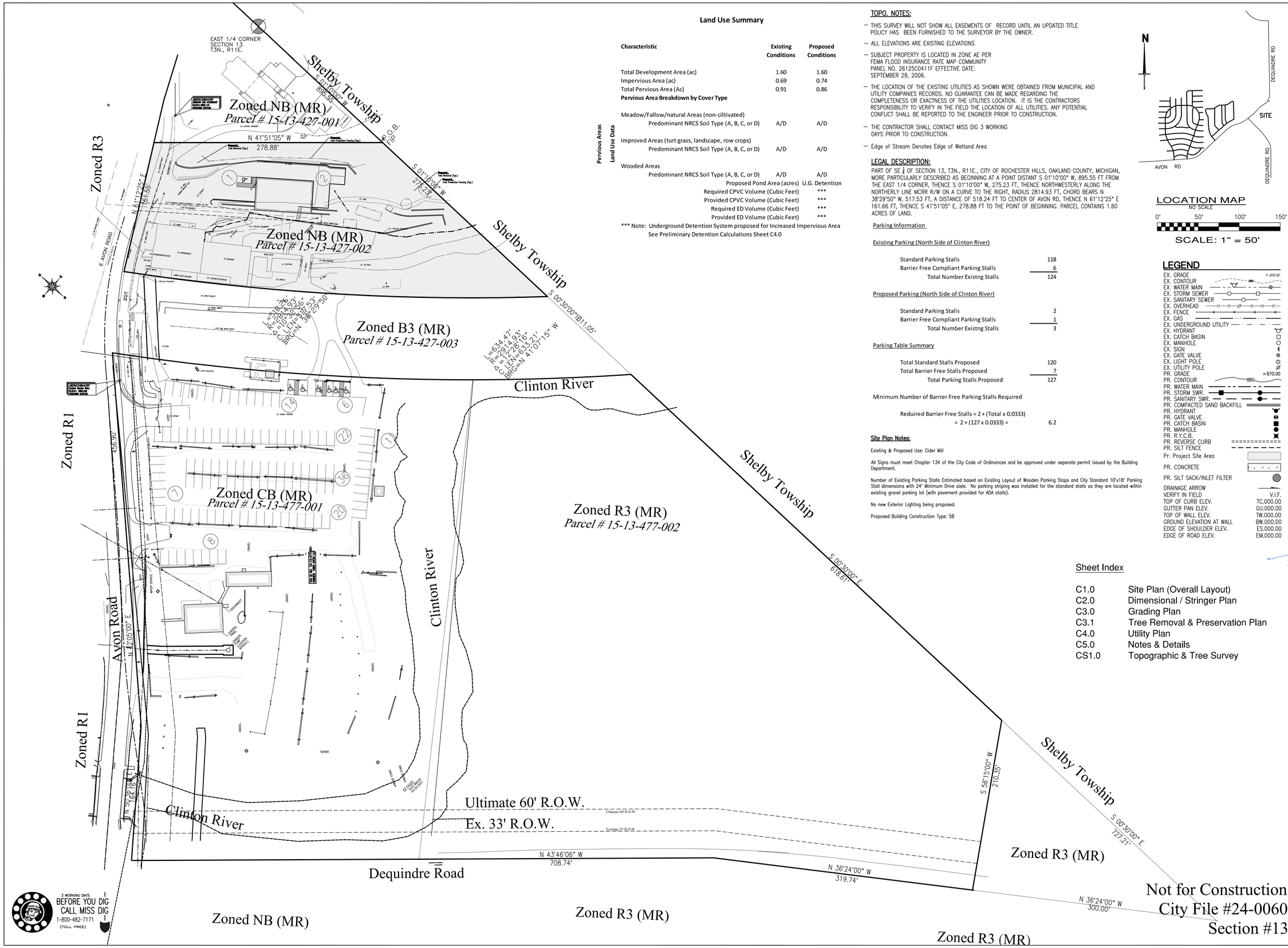

Land Use Summary

Characteristic	Existing Conditions	Proposed Conditions
Total Development Area (ac)	1.60	1.60
Impervious Area (ac)	0.69	0.74
Total Pervious Area (Ac)	0.91	0.86
Pervious Areas Land Use Data		
Pervious Area Breakdown by Cover Type		
Meadow/Fallow/natural Areas (non-cltivated)		
Predominant NRCS Soil Type (A, B, C, or D)	A/D	A/D
Improved Areas (turt grass, landscape, row crops)		
Predominant NRCS Soil Type (A, B, C, or D)	A/D	A/D
Wooded Areas		
Predominant NRCS Soil Type (A, B, C, or D)	A/D	A/D
Proposed Pond Area (acres)		U.G. Detention
Required CPVC Volume (Cubic Feet)		***
Provided CPVC Volume (Cubic Feet)		***
Required ED Volume (Cubic Feet)		***
Provided ED Volume (Cubic Feet)		***

*** Note: Underground Detention System proposed for Increased Impervious Area
See Preliminary Detention Calculations Sheet C4.0

TOPO. NOTES:

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- SUBJECT PROPERTY IS LOCATED IN ZONE AE PER FEMA FLOOD INSURANCE RATE MAP COMMUNITY PANEL NO. 26125C0411F EFFECTIVE DATE: SEPTEMBER 29, 2006.
- THE LOCATION OF THE EXISTING UTILITIES AS SHOWN WERE OBTAINED FROM MUNICIPAL AND UTILITY COMPANIES RECORDS. NO GUARANTEE CAN BE MADE REGARDING THE COMPLETENESS OR EXACTNESS OF THE UTILITIES LOCATION. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY IN THE FIELD THE LOCATION OF ALL UTILITIES. ANY POTENTIAL CONFLICT SHALL BE REPORTED TO THE ENGINEER PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL CONTACT MISS DIG 3 WORKING DAYS PRIOR TO CONSTRUCTION.
- Edge of Stream Denotes Edge of Wetland Area

LEGAL DESCRIPTION:

PART OF SE ¼ OF SECTION 13, T3N., R11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN, MORE PARTICULARLY DESCRIBED AS BEGINNING AT A POINT DISTANT S 01°10'00" W, 895.55 FT FROM THE EAST 1/4 CORNER, THENCE S 01°10'00" W, 275.23 FT, THENCE NORTHWESTERLY ALONG THE NORTHERLY LINE MCRR R/W ON A CURVE TO THE RIGHT, RADIUS 2814.93 FT, CHORD BEARS N 38°29'50" W, 517.53 FT, A DISTANCE OF 518.24 FT TO CENTER OF AVON RD, THENCE N 61°12'25" E 161.66 FT, THENCE S 41°51'05" E, 278.88 FT TO THE POINT OF BEGINNING. PARCEL CONTAINS 1.60 ACRES OF LAND.

Parking Information

Existing Parking (North Side of Clinton River)

Standard Parking Stalls	118
Barrier Free Compliant Parking Stalls	6
Total Number Existng Stalls	124

Proposed Parking (North Side of Clinton River)

Standard Parking Stalls	2
Barrier Free Compliant Parking Stalls	1
Total Number Existng Stalls	3

Parking Table Summary

Total Standard Stalls Proposed	120
Total Barrier Free Stalls Proposed	7
Total Parking Stalls Proposed	127

Minimum Number of Barrier Free Parking Stalls Required

Reduired Barrier Free Stalls = 2 + (Total x 0.0333)
= 2 + (127 x 0.0333) = 6.2

Site Plan Notes:

Existing & Proposed Use: Cider Mill

All Signs must meet Chapter 134 of the City Code of Ordinances and be approved under separate permit issued by the Building Department.

Number of Existing Parking Stalls Estimated based on Existing Layout of Wooden Parking Stops and City Standard 10'x18' Parking Stall dimensions with 24' Minimum Drive aisle. No parking striping was installed for the standard stalls as they are located within existing gravel parking lot (with pavement provided for ADA stalls).

No new Exterior Lighting being proposed.

Proposed Building Construction Type: 5B

LOCATION MAP

NO SCALE

0' 50' 100' 150'

SCALE: 1" = 50'

LEGEND

EX. GRADE	×870.00
EX. CONTOUR	880
EX. WATER MAIN	
EX. STORM SEWER	
EX. SANITARY SEWER	
EX. OVERHEAD	
EX. FENCE	
EX. GAS	
EX. UNDERGROUND UTILITY	
EX. HYDRANT	
EX. CATCH BASIN	
EX. MANHOLE	
EX. SIGN	
EX. GATE VALVE	
EX. LIGHT POLE	
EX. UTILITY POLE	
PR. GRADE	×870.00
PR. CONTOUR	880
PR. WATER MAIN	
PR. STORM SWR.	
PR. SANITARY SWR.	
PR. COMPACTED SAND BACKFILL	
PR. HYDRANT	
PR. GATE VALVE	
PR. CATCH BASIN	
PR. MANHOLE	
PR. R.Y.C.B.	
PR. REVERSE CURB	
PR. SILT FENCE	
Pr. Project Site Area	
PR. CONCRETE	
PR. SILT SACK/INLET FILTER	
DRAINAGE ARROW	
VERIFY IN FIELD	V.I.F.
TOP OF CURB ELEV.	TC.000.00
GUTTER PAN ELEV.	GU.000.00
TOP OF WALL ELEV.	TW.000.00
GROUND ELEVATION AT WALL	BW.000.00
EDGE OF SHOULDER ELEV.	ES.000.00
EDGE OF ROAD ELEV.	EM.000.00

Sheet Index

REV.	DESCRIPTION	BY	DATE
1	Per City Review	TCS	5/03/2025

Sujak Engineering PLC
CIVIL ENGINEERING S PLANNING S DESIGN
4031 Coolidge Highway
Troy, MI 48098
Phone: (248) 885-8431
Fax: (248) 885-8432
Email: SujakEngineering@Comcast.net

Seal

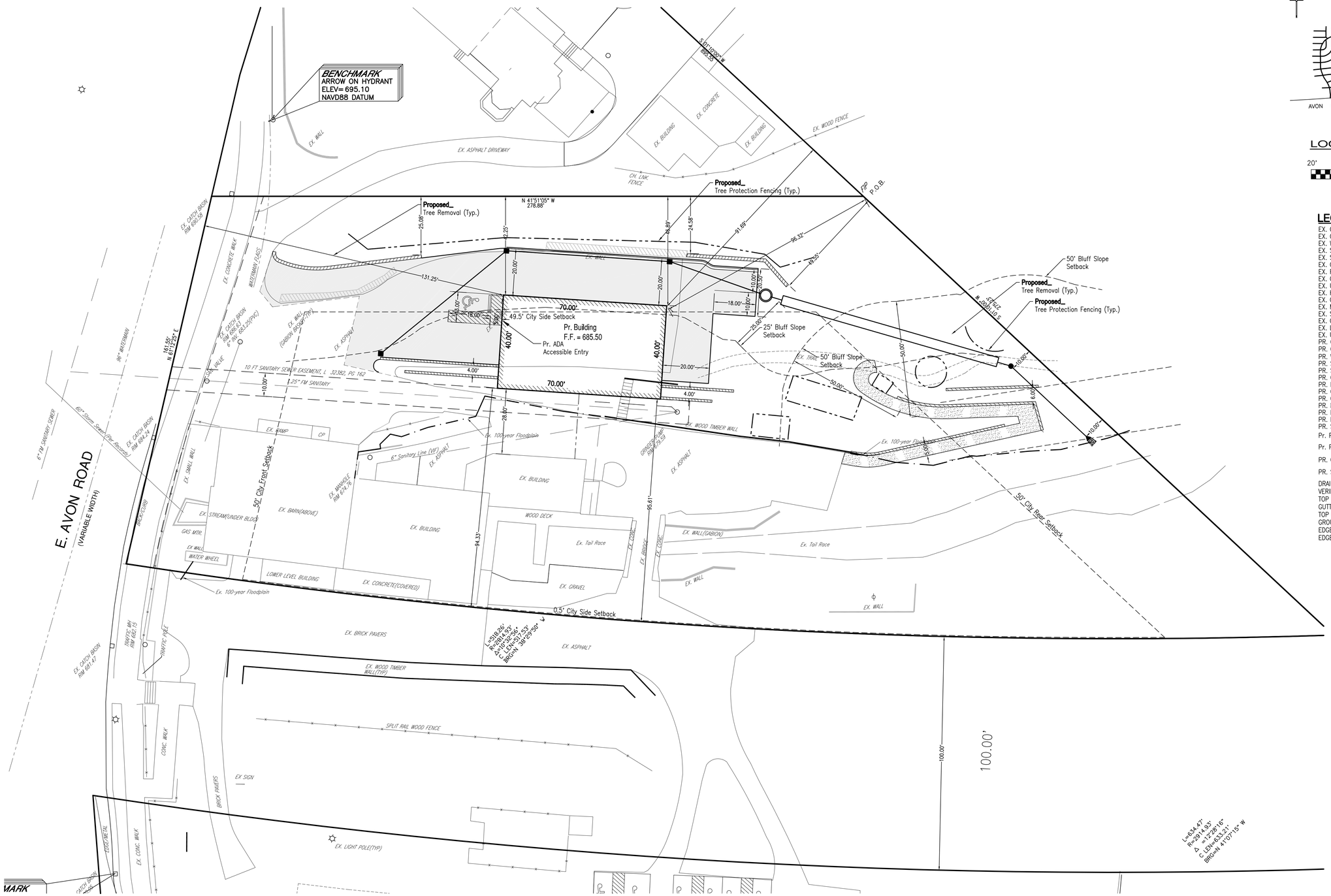
STATE OF MICHIGAN
TEON C SUJAK
License No. 6201046896
LICENSED PROFESSIONAL ENGINEER

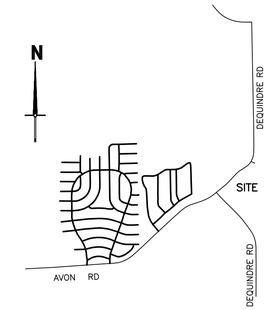
Teon C. Sujak, P.E. No. 046896

1950 E. Avon Rd
Rochester Hills, MI 48307
Parcel # 15-13-427-002

Site Plan
(Overall Site Layout)

Scale:	1"=50'
Drawn:	TCS
Checked:	TCS
Approved:	TCS
Date:	2/08/2025
Job. no.	23-062
Sheet No.	C1.0





LOCATION MAP

NO SCALE

20' 0' 20' 40'

SCALE: 1" = 20'

LEGEND

EX. GRADE	×870.00
EX. CONTOUR	880
EX. WATER MAIN	
EX. STORM SEWER	
EX. SANITARY SEWER	
EX. OVERHEAD	
EX. FENCE	
EX. GAS	
EX. UNDERGROUND UTILITY	
EX. HYDRANT	
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DRAINAGE ARROW	
VERIFY IN FIELD	V.I.F.
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GROUND ELEVATION AT WALL	BW.000.00
EDGE OF SHOULDER ELEV.	ES.000.00
EDGE OF ROAD ELEV.	EM.000.00

3 WORKING DAYS
BEFORE YOU DIG
CALL MISS DIG
1-800-482-7171
(TOLL FREE)

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Seal

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TEON C SUJAK
License No. 6201046896
LICENSED PROFESSIONAL ENGINEER

Teon C. Sujak, P.E. No. 046896

1950 E. Avon Rd

Rochester Hills, MI 48307

Parcel # 15-13-427-002

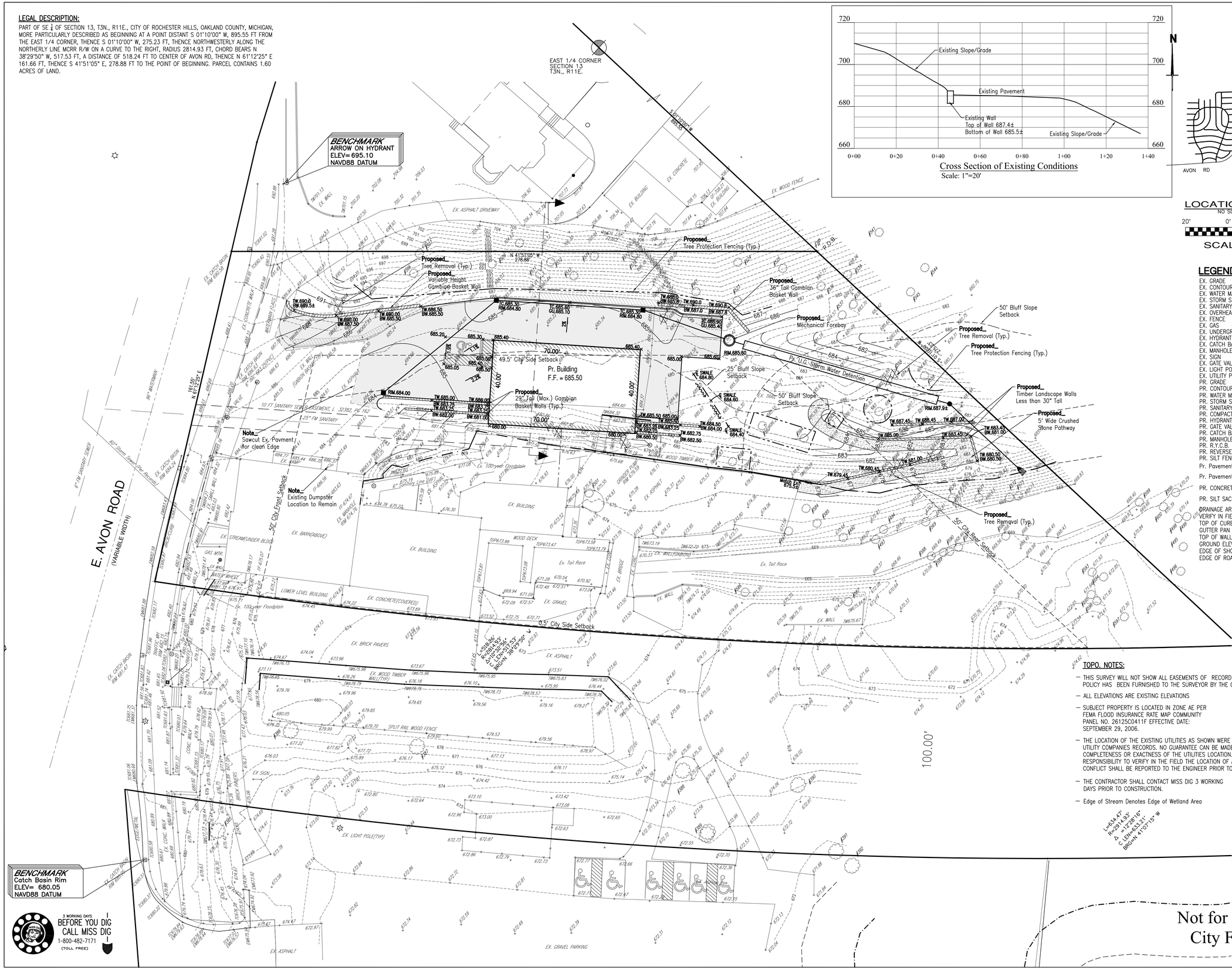
Dimensional / Stringer Plan (Site Plan)

Scale:	1"=20'
Drawn:	TCS
Checked:	TCS
Approved:	TCS
Date:	2/08/2025
Job. no.	23-062
Sheet No.	C2.0

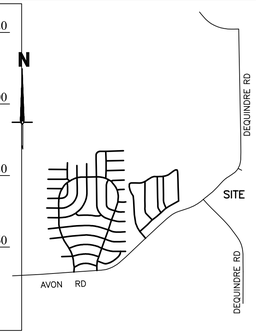
Not for Construction
City File #24-0060
Section #13

LEGAL DESCRIPTION:

PART OF SE ¼ OF SECTION 13, T3N., R11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN, MORE PARTICULARLY DESCRIBED AS BEGINNING AT A POINT DISTANT S 01°10'00" W, 895.55 FT FROM THE EAST 1/4 CORNER, THENCE S 01°10'00" W, 275.23 FT, THENCE NORTHWESTERLY ALONG THE NORTHERLY LINE MCRR R/W ON A CURVE TO THE RIGHT, RADIUS 2814.93 FT, CHORD BEARS N 38°29'50" W, 517.53 FT, A DISTANCE OF 518.24 FT TO CENTER OF AVON RD, THENCE N 61°12'25" E 161.66 FT, THENCE S 41°51'05" E, 278.88 FT TO THE POINT OF BEGINNING. PARCEL CONTAINS 1.60 ACRES OF LAND.



Cross Section of Existing Conditions
Scale: 1"=20'



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L=634.47'
R=2814.93'
Δ =12°28'16"
C LN=633.31'
BRG=N 41°07'15" W

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City File #24-0060
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Paving & Grading Plan (Site Plan)

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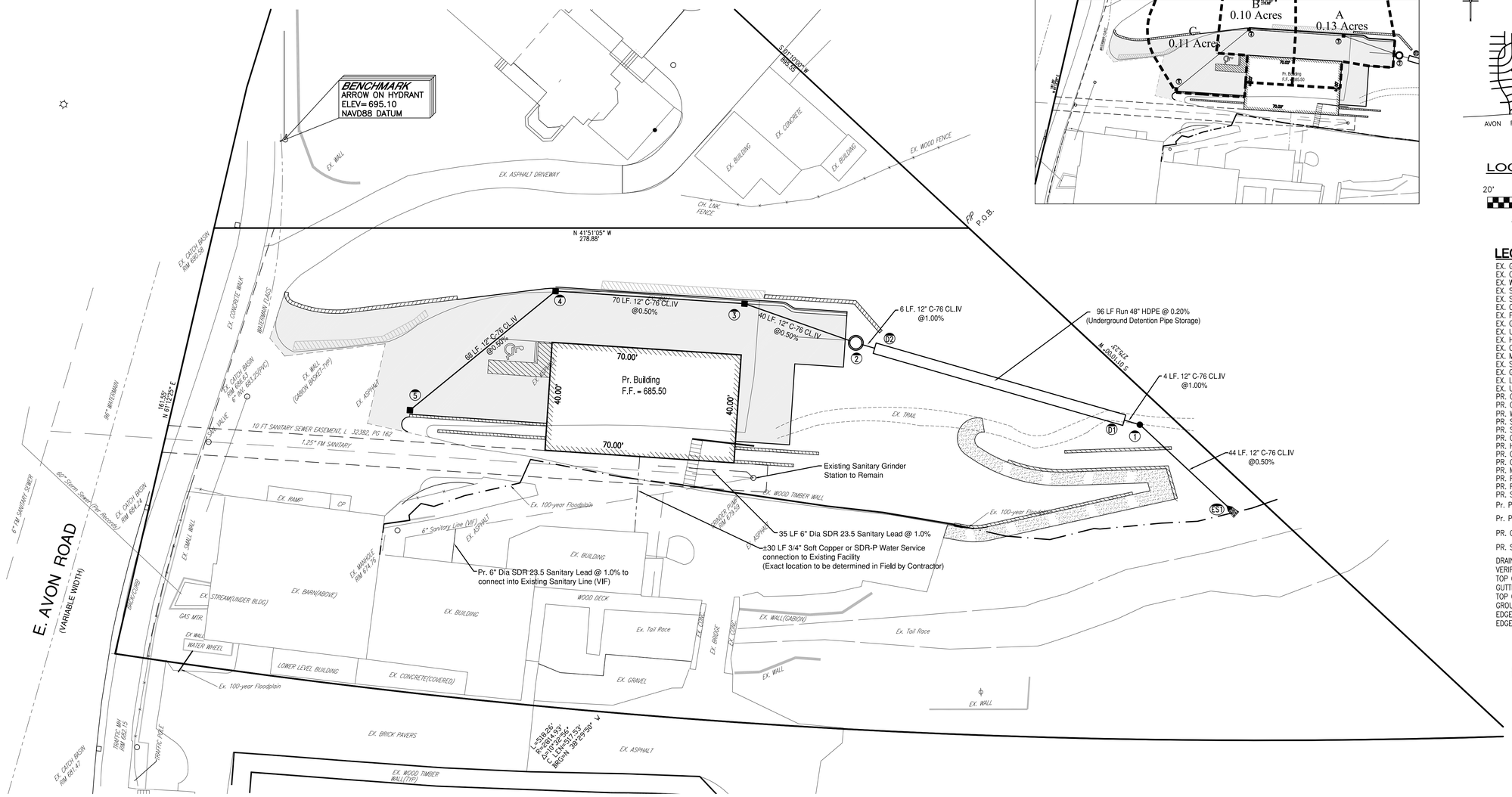
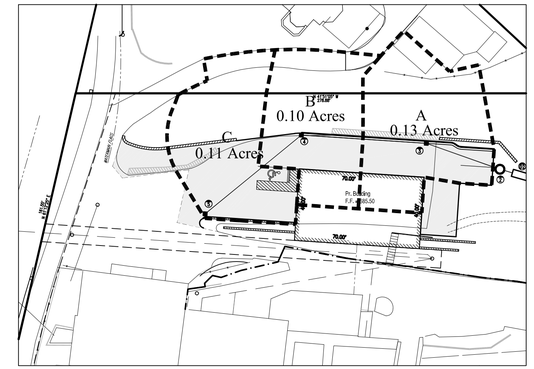
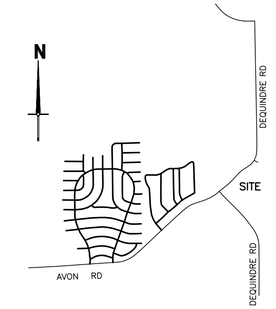
Sheet No.	C3.0







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20' 0' 20' 40'

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ENIGINEER:_ Teon C Sujak PE

DATE:_____

PROJECT:_____

JOB No.__23-062

Design for Storm Sewer Systems

LOCATION	STRUCTURE FROM MH	STRUCTURE TO MH	AREA ACRES A	C	EQUIV. AREA ACRES CA	TOTAL EQUIV. AREA CA	TIME MIN. T.	INTENSITY TIME MIN. I.	FLOW C.F.S. Q	DIA. PIPE INCH.	HGL SLOPE %	LENGTH OF PIPE FT.	VELOCITY FLOW FULL FT/SEC	TIME OF FLOW MIN.	CAPACITY OF SEWER C.F.S.	H.G. ELEV UPPER END	GROUND ELEV. UPPER END	GROUND ELEV. LOWER END	INVERTS ELEV. UPPER END	INVERTS ELEV. LOWER END	Cover on Pipe UPPER END	Cover on Pipe LOWER END	Rim to HGL	Rim to Storage
C	5	4	0.11	0.80	0.088	0.09	15.0	4.375	0.39	12	0.50	68	3.21	0.35	2.52	682.12	684.00	685.00	679.80	679.46	3.20	4.54	1.88	1.50
B	4	3	0.10	0.80	0.08	0.17	15.4	4.337	0.73	12	0.50	70	3.21	0.36	2.52	681.78	684.80	684.80	679.36	679.01	4.44	4.79	3.02	2.30
A	3	2	0.13	0.80	0.104	0.27	15.7	4.298	1.17	12	0.50	40	3.21	0.21	2.52	681.43	684.80	685.60	678.91	678.71	4.89	5.89	3.37	2.30
	2	Deteniion	-	-	-	0.27	15.9	4.276	1.17	12	1.00	6	4.54	0.02	3.56	681.23	685.60	685.00	678.56	678.50	6.04	5.50	4.37	3.10
	Detention	Detention	-	-	-	0.27	15.9	4.274	1.17	48	0.20	96	5.11	0.31	64.24	681.17	685.00	685.00	678.50	678.31	2.50	2.69	3.83	2.50
	Detention	1	-	-	-	0.27	16.3	4.241	1.17	12	1.00	4	4.54	0.01	3.56	681.17	685.00	687.90	678.31	678.27	5.69	8.63	3.83	2.50
	1	ES1	-	-	-	0.27	16.3	4.240	1.17	12	0.50	44	3.21	0.23	2.52	678.97	687.90	677.86	678.17	677.95	8.73	0.00	8.93	-
							16.5																	

Note: HGL Started at 681.17, which is 2/3 the Storage Elevation (682.5)

Preliminary Detention Calculations

Pr Pavement Area		6,160 SF
Pr Building Area		2,800 SF
Total		8,960 SF
Existing Pavement in Project Area		6,520 SF
Increase in Impervious Area		2,440 SF
100 Year Rain Event Depth		5.23"
Volume of Rain over increase Impervious Area		
V = 5.23" x (1 ft / 12") x Increased Area =		1,063 SF
100 Year	5.23"	1,063 Cu.Ft
Volume of Detention Proposed		
Proposed Lengths of 48" Dia Pipe		
1 Run of 48" Pipe	96	
Total Length	96	1,206 Cu.Ft
		113.4%

Summary: Proposed Vol. (1,206 Cu.Ft.) > Required Vol. (1,063 Cu.Ft.)

Storm Sewer Structure Schedule

Structure #

ES 12" End Section
W/ Barcreen & Rip-Rap
12" Inv 677.95

1 Outlet Manhole
Rim 687.90
12" Inv 678.27 NW
12" Inv 678.17 SE
w/ Restrictor

2 Mechanical Forebay
Rim 685.60
12" Inv 678.71 NW
12" Inv 678.56 SE

Structure #

3 4' Dia. Catch Basin w/ 2' Sump
Rim 684.80
12" Inv 679.01 W
12" Inv 678.91 SE

4 4' Dia. Catch Basin w/ 2' sump
Rim 684.80
12" Inv 679.46 SW
12" Inv. 679.36 E

5 2' Dia. Inlet
Rim 684.00
12" Inv 679.80 NE

Casting Schedule

Casting	Structures
E.J.I.W 5105 w/ M1 Grate	5
E.J.I.W 7045 M1 w/ T1 Back	3, 4
E.J.I.W 1040 w/ Type A Solid Cover	1
See Manufacturer	2 - Mech Forebay
See Manufacturer	Detention System

Not for Construction
City File #24-0060
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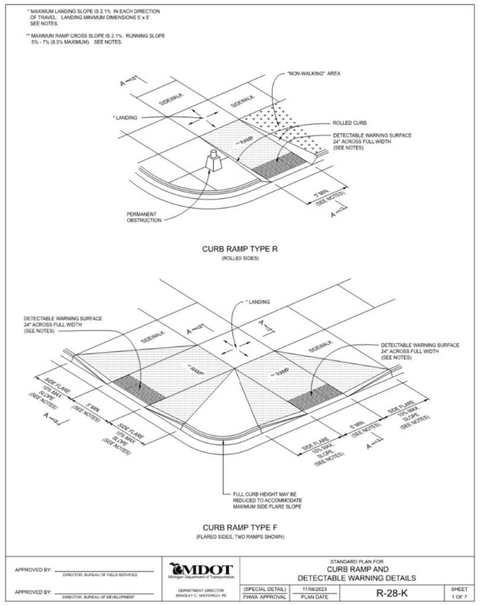
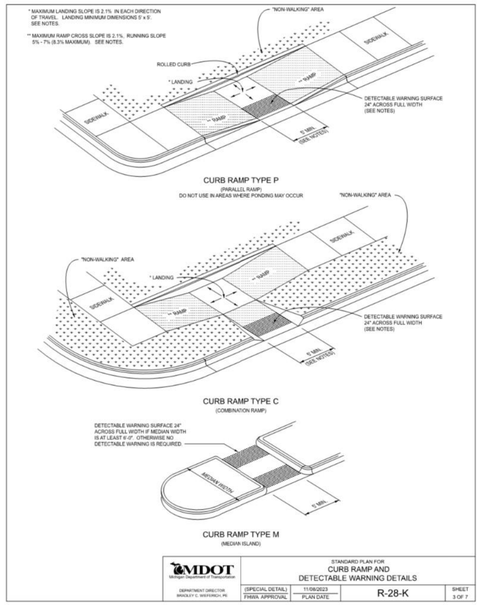
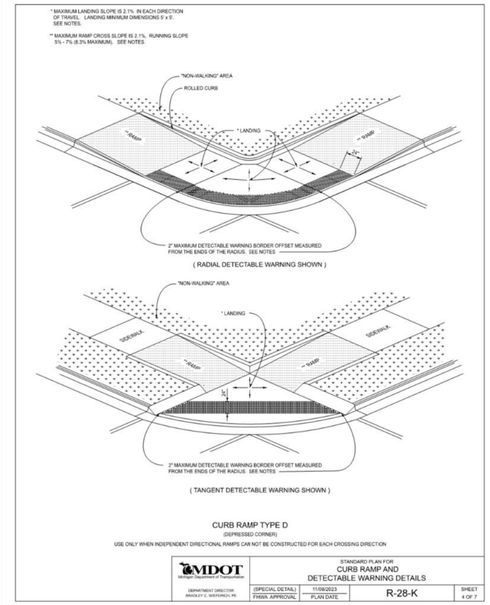
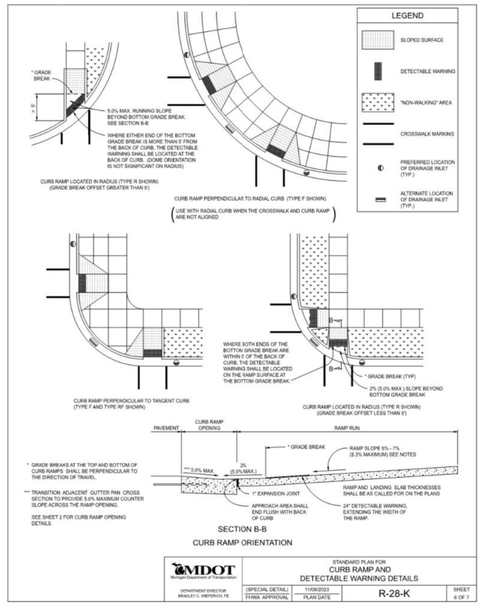
Utility Plan
(Site Plan)

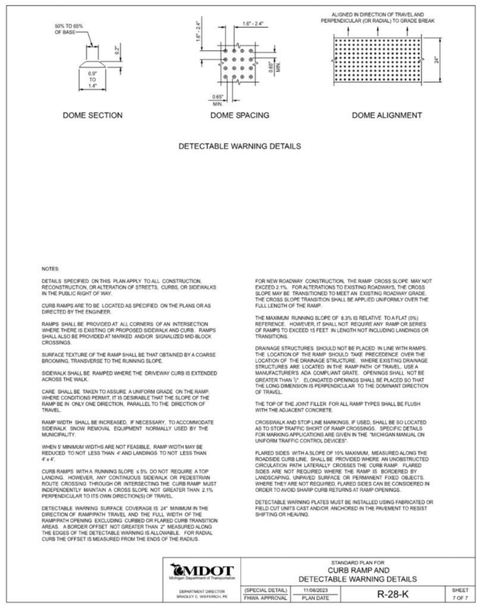
Scale:	1"=20'
Drawn:	TCS
Checked:	TCS
Approved:	TCS
Date:	2/08/2025
Job. no.	23-062
Sheet No.	C4.0

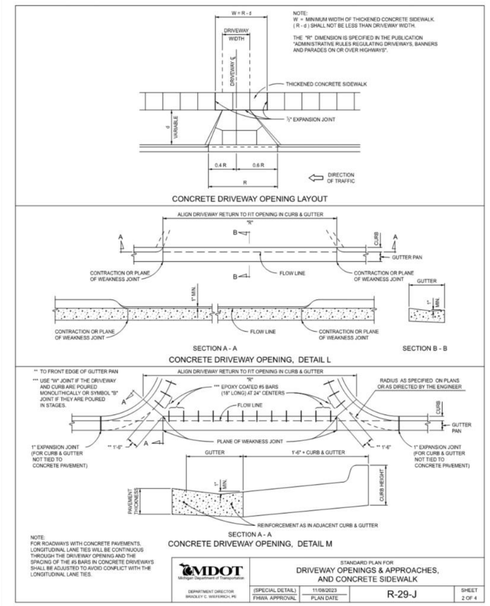


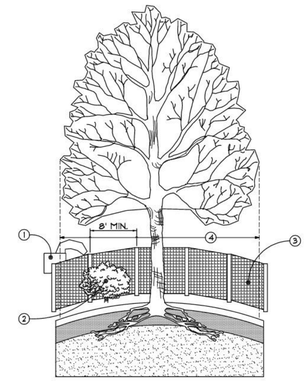












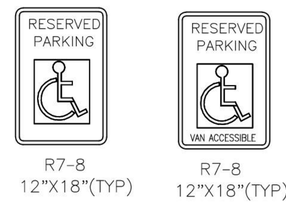
TREE PROTECTION NOTES:

1. APPROVED TREE PROTECTION SHALL BE ERECTED PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, & SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETED. THE CITY OFFICIAL SHALL BE NOTIFIED AFTER THE PROTECTION IS IN PLACE PRIOR TO CONSTRUCTION ACTIVITIES, INCLUDING DELIVERY OF MATERIALS.
2. NO PERSON SHALL CONDUCT ACTIVITIES INSIDE THE DRIP LINES OF ANY TREE DESIGNATED TO REMAIN, INCLUDING, BUT NOT LIMITED TO, PLACING SOLVENTS, BUILDING MATERIALS, CONSTRUCTION EQUIPMENT OR SOIL DEPOSITS WITHIN THE DRIP LINES OF SAID TREES.
3. GRADE CHANGES MAY NOT OCCUR WITHIN THE DRIP LINES OF ANY PROTECTED TREE.
4. DURING CONSTRUCTION, NO PERSON SHALL ATTACH ANY DEVICE OR WIRE OF ANY KIND TO ANY REMAINING TREES.
5. ALL UTILITY SERVICE REQUESTED MUST INCLUDE NOTIFICATION TO THE INSTALLER THAT PROTECTED TREES MUST BE AVOIDED. ALL TRENCHING SHALL OCCUR OUTSIDE THE PROTECTIVE FENCING.
6. SWALES SHALL BE ROUTED TO AVOID THE AREA WITHIN THE DRIP LINES OF PROTECTED TREES WHERE POSSIBLE.
7. IF THE PROTECTION CAN NOT BE MAINTAINED FOR A TREE THROUGHOUT THE CONSTRUCTION PERIOD, REPLACEMENT OF THAT TREE MAY BE REQUIRED PRIOR TO THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.
8. REGULATED TREES LOCATED ON ADJACENT PROPERTIES THAT MAY BE AFFECTED BY ACTIVITIES MUST BE PROTECTED.

(1) CONSTRUCTION DEBRIS.
(2) UNDER STORY PLANTS.
(3) 4' HIGH, BLACK OR GREEN PLASTIC MESH PROTECTIVE CONSTRUCTION FENCE.
(4) DRIP LINE.

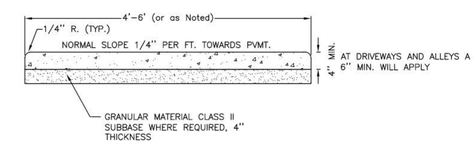
TREE PROTECTION FENCE DETAIL

NOT TO SCALE



A.D.A. SIGN DETAILS

NO SCALE



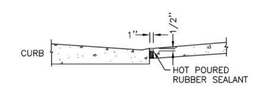
CONCRETE SIDEWALK

NOT TO SCALE

ONE-HALF INCH TRANSVERSE EXPANSION JOINTS SHALL BE PLACED THROUGH THE SIDEWALK AT UNIFORM INTERVALS OF NOT MORE THAN 50'. ONE-HALF INCH EXPANSION JOINTS SHALL ALSO BE PLACED BETWEEN THE SIDEWALK AND BACK OF ABUTTING PARALLEL CURB, BETWEEN THE SIDEWALK AND BUILDING OR OTHER OTHER RIGID STRUCTURES, BETWEEN SIDEWALKS AND DRIVEWAY APPROACHES. ONE INCH EXPANSION JOINTS SHALL BE PLACED BETWEEN SIDEWALK APPROACHES AND BACK OF CURBS AND DRIVEWAYS.

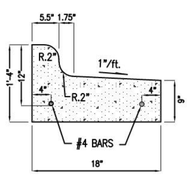
THE SIDEWALK SHALL BE DIVIDED INTO UNIT AREAS OF NOT MORE THAN 36 SQUARE FEET AND, INSOFAR AS FEASIBLE, THE UNIT AREAS SHALL BE SQUARE AND, OR NOT LESS THAN 16 SQUARE FEET. THE UNIT AREAS SHALL BE PRODUCED BY USE OF SLAB DIVISION FORMS EXTENDING TO THE FULL DEPTH OF THE CONCRETE OR BY CUTTING JOINTS IN THE CONCRETE, AFTER FLOATING, TO A DEPTH OF NOT LESS THAN ONE-FOURTH THE THICKNESS OF THE SIDEWALK. THE CUT JOINTS SHALL BE NOT LESS THAN 1/4" NOR MORE THEN 1/2" IN WIDTH AND SHALL BE FINISHED SMOOTH AND TRUE TO LINE.

SEAL BETWEEN SIDEWALK AND BACK OF CURB WITH HOT POURED RUBBER ASPHALT.



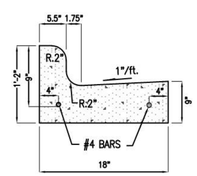
SEALANT DETAIL

NOT TO SCALE



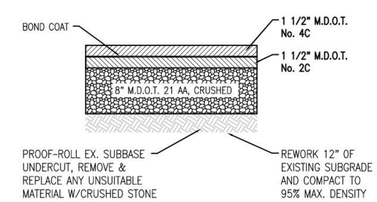
6" CONCRETE CURB AND GUTTER

(REVERSE GUTTER) ON-SITE



CONCRETE CURB AND GUTTER

(REGULAR GUTTER) ON-SITE



ASPHALT PAVEMENT SECTION

(SECTION TO BE SPECIFIED BY SOIL'S ENGINEER)

3 WORKING DAYS BEFORE YOU DIG CALL MISS DIG 1-800-482-7171 (TOLL FREE)

Not for Construction
City File #24-0060
Section #13

REV.	DESCRIPTION	BY	DATE
1	Per City Review	TCS	5/03/2025

Sujak Engineering PLC
CIVIL ENGINEERING S PLANNING S DESIGN
4031 Coolidge Highway
Troy, MI 48098
Phone: (248) 885-8431
Fax: (248) 885-8432
Email: SujakEngineering@Comcast.net

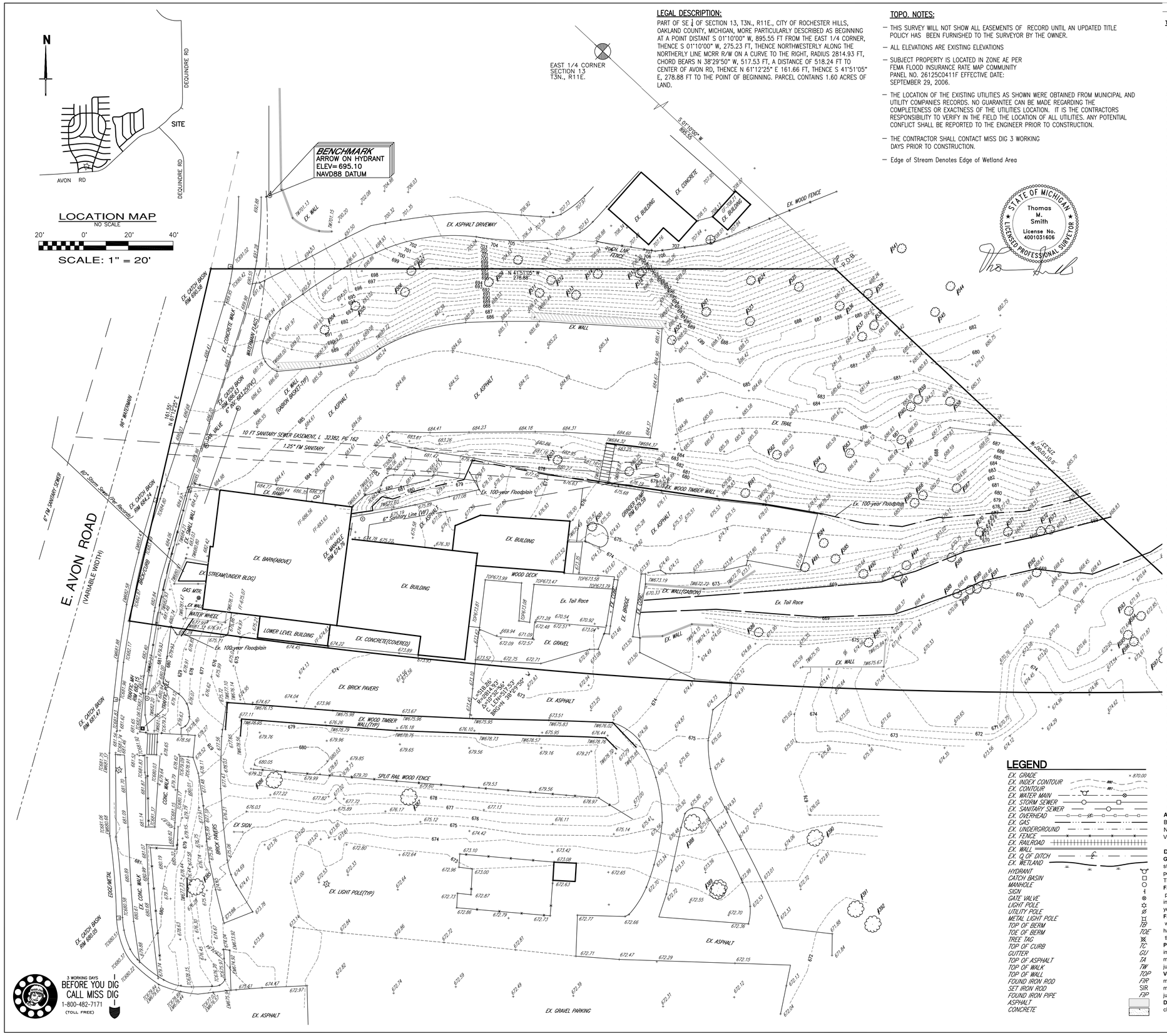
Seal: STATE OF MICHIGAN TEON C SUJAK License No. 6201046896 LICENSED PROFESSIONAL ENGINEER

Teon C. Sujak, P.E. No. 046896

1950 E. Avon Rd
Rochester Hills, MI 48307
Parcel # 15-13-427-002

Notes & Details (Site Plan)

Scale:	1"=50'
Drawn:	TCS
Checked:	TCS
Approved:	TCS
Date:	2/08/2025
Job. no.	23-062
Sheet No.	C5.0



LEGAL DESCRIPTION:

PART OF SE ¼ OF SECTION 13, T3N., R11E., CITY OF ROCHESTER HILLS, OAKLAND COUNTY, MICHIGAN, MORE PARTICULARLY DESCRIBED AS BEGINNING AT A POINT DISTANT S 01°10'00" W, 895.55 FT FROM THE EAST 1/4 CORNER, THENCE S 01°10'00" W, 275.23 FT, THENCE NORTHWESTERLY ALONG THE NORTHERLY LINE MCRR R/W ON A CURVE TO THE RIGHT, RADIUS 2814.93 FT, CHORD BEARS N 38°29'50" W, 517.53 FT, A DISTANCE OF 518.24 FT TO CENTER OF AVON RD, THENCE N 61°12'25" E 161.66 FT, THENCE S 41°51'05" E, 278.88 FT TO THE POINT OF BEGINNING. PARCEL CONTAINS 1.60 ACRES OF LAND.

TOPO. NOTES:

- THIS SURVEY WILL NOT SHOW ALL EASEMENTS OF RECORD UNTIL AN UPDATED TITLE POLICY HAS BEEN FURNISHED TO THE SURVEYOR BY THE OWNER.
- ALL ELEVATIONS ARE EXISTING ELEVATIONS
- SUBJECT PROPERTY IS LOCATED IN ZONE AE PER FEMA FLOOD INSURANCE RATE MAP COMMUNITY PANEL NO. 26125C0411F EFFECTIVE DATE: SEPTEMBER 29, 2006.
- THE LOCATION OF THE EXISTING UTILITIES AS SHOWN WERE OBTAINED FROM MUNICIPAL AND UTILITY COMPANIES RECORDS. NO GUARANTEE CAN BE MADE REGARDING THE COMPLETENESS OR EXACTNESS OF THE UTILITIES LOCATION. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY IN THE FIELD THE LOCATION OF ALL UTILITIES. ANY POTENTIAL CONFLICT SHALL BE REPORTED TO THE ENGINEER PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL CONTACT MISS DIG 3 WORKING DAYS PRIOR TO CONSTRUCTION.
- Edge of Stream Denotes Edge of Wetland Area

STATE OF MICHIGAN
Thomas M. Smith
License No. 4001031606
LICENSED PROFESSIONAL SURVEYOR

LEGEND

EX. GRADE ×870.00
EX. INDEX CONTOUR
EX. CONTOUR
EX. WATER MAIN
EX. STORM SEWER
EX. SANITARY SEWER
EX. OVERHEAD
EX. GAS
EX. UNDERGROUND
EX. FENCE
EX. RAILROAD
EX. WALL
EX. Q OF DITCH
EX. WETLAND
HYDRANT
CATCH BASIN
MANHOLE
SIGN
GATE VALVE
LIGHT POLE
UTILITY POLE
METAL LIGHT POLE
TOP OF BERM TB
TOE OF BERM TOE
TREE TAG
TOP OF CURB TC
GUTTER GU
TOP OF ASPHALT TA
TOP OF WALK TW
TOP OF WALL TOP
FOUND IRON ROD FIR
SET IRON ROD SIR
FOUND IRON PIPE FIP
ASPHALT
CONCRETE

YATES CIDER MILL TREE INVENTORY

TAG#	SIZE	BOTANICAL NAME	COMMON NAME	CONDITION	COMMENTS
491	6"	*Juglans nigra*	Black Walnut	Fair/Poor	Some vines - Woodbine
492	7"	*Ulmus sp.*	Elm	Fair	
493	16"	*Populus deltoides*	Cottonwood	Poor	Many dead limbs, Slight L
494	7"	*Acer rubrum*	Red Maple	Fair	
495	29"	*Ulmus americana*	American Elm	Fair	
496	22"	*Populus deltoides*	Cottonwood	Fair	
497	6"	*Ulmus sp.*	Elm	Poor	NC, Vines - Woodbine
498	21"	*Populus deltoides*	Cottonwood	Fair	
499	29"	*Populus deltoides*	Cottonwood	Fair	
500	33"	*Populus deltoides*	Cottonwood	Fair	
501	44"	*Platanus occidentalis*	Sycamore	Fair	
502	23"	*Ulmus americana*	American Elm	Fair	
503	22"	*Juglans nigra*	Black Walnut	Fair	
504	22"	*Acer saccharinum*	Silver Maple	Fair	
505	10'	*Juniperus virginiana*	Redcedar	Poor	BD, NC
506	22",22"	*Tilia americana*	Basswood	Fair	
507	3",6"	*Acer negundo*	Box Elder	Poor	DL, M
508	5",7"	*Acer negundo*	Box Elder	Poor	BR, DL, L
509	48"		Deciduous Tree	Dead	Stem only
510	4",4",5",5",6"	*Acer negundo*	Box Elder	Poor	Major BR, DL
511	32"	*Salix sp.*	Willow	Very Poor	Topped, One (1) live branch
512	27"	*Ulmus americana*	American Elm	Fair/Poor	L
513	6"	*Acer negundo*	Box Elder	Poor	Sev. L, DL
514	6"	*Acer negundo*	Box Elder	Poor	Sev. L, DL
515	4",5",8",9"	*Acer negundo*	Box Elder	Poor	BR, DL
516	8",10"	*Acer negundo*	Box Elder	Poor	Sev. L
517	3",5",7",8",10"	*Acer negundo*	Box Elder	Very Poor	Sev. L, BR, DL
518	22"	*Acer negundo*	Box Elder	Very Poor	Maj. limb topped, L
519	24"	*Acer negundo*	Box Elder	Poor	Sev. M, DL
520	18",19"	*Acer negundo*	Box Elder	Fair	
521	6",10"	*Acer negundo*	Box Elder	Very Poor	Sev. L, DL
522	25"	*Ulmus americana*	American Elm	Fair	
523	13"	*Acer negundo*	Box Elder	Poor	Maj. BR, DL, L
524	17"	*Ulmus americana*	American Elm	Fair	
525	33"	*Morus rubra*	Mulberry	Poor	Maj. SS in upper branches, L
526	15"	*Morus rubra*	Mulberry	Very Poor	Maj. BD, many DL
527	10"	*Acer negundo*	Box Elder	Poor	DL, M
528	19"	*Prunus serotina*	Black Cherry	Poor	DL, M
529	8"	*Acer negundo*	Box Elder	Poor	DL, Vines - Woodbine
530	7",9"	*Acer negundo*	Box Elder	Poor	DL, M, L
531	10"	*Ulmus sp.*	Elm	Fair	
532	10"	*Ulmus sp.*	Elm	Fair	
533	16"	*Morus rubra*	Mulberry	Poor	Many DL
534	13",15"	*Acer negundo*	Box Elder	Very Poor	Sev. L, DL
535	16"	*Ulmus americana*	American Elm	Fair/Poor	L
536	9"	*Acer negundo*	Box Elder	Dead	
537	12"	*Acer negundo*	Box Elder	Poor	Sev. L, DL
538	9"	*Acer negundo*	Box Elder	Poor	OS, NC, TD
539	13"	*Ulmus americana*	American Elm	Fair	
540	10"	*Acer negundo*	Box Elder	Poor	Sev. L, M, OS
541	11"	*Acer negundo*	Box Elder	Dead	Stem only
542	18"	*Platanus occidentalis*	Sycamore	Fair/Poor	Some DL
543	22"	*Juglans nigra*	Black Walnut	Fair	
544	6",9"	*Ulmus americana*	American Elm	Fair/Poor	OS
545	16"	*Juglans nigra*	Black Walnut	Fair	
546	44"	*Quercus alba*	White Oak	Fair	
547	29"	*Juglans nigra*	Black Walnut	Fair	
548	6",7"	*Ulmus sp.*	Elm	Fair/Poor	Some BR
549	8"	*Juglans nigra*	Black Walnut	Fair	
550	11"	*Ulmus sp.*	Elm	Fair	
551	6",13"	*Tilia americana*	Basswood	Fair	
552	11"	*Ulmus sp.*	Elm	Dead	
553	24"	*Juglans nigra*	Black Walnut	Fair	
554	31"	*Juglans nigra*	Black Walnut	Fair	
555	3",5",7"	*Tilia americana*	Basswood	Fair	
556	12",15"	*Tilia americana*	Basswood	Fair/Poor	Some BR
557	13"	*Ulmus americana*	American Elm	Fair	
558	13"	*Ulmus americana*	American Elm	Fair	
559	11"	*Ulmus sp.*	Elm	Fair	
560	15"	*Morus rubra*	Mulberry	Poor	Many DL
561	13"	*Acer negundo*	Box Elder	Poor	Sev. L
562	20"	*Morus rubra*	Mulberry	Fair	
563	10"	*Acer negundo*	Box Elder	Poor	L, Vines - Woodbine
564	40"	*Salix sp.*	Willow	Fair	
565	8",9",11",16"	*Tilia americana*	Basswood	Fair	
566	14",19"	*Tilia americana*	Basswood	Fair	
567	19"	*Ulmus sp.*	Elm	Dead	
568	6"	*Ulmus sp.*	Elm	Fair	
569	10"	*Ulmus sp.*	Elm	Fair	
570	15"	*Populus deltoides*	Cottonwood	Fair	
571	30"	*Populus deltoides*	Cottonwood	Fair	
572	16"	*Populus deltoides*	Cottonwood	Fair	
573	8"	*Platanus occidentalis*	Sycamore	Fair	
574	7"	*Platanus occidentalis*	Sycamore	Fair	
575	12"	*Ulmus sp.*	Elm	Fair	
576	16"	*Ulmus sp.*	Elm	Fair	
577	17"	*Ulmus sp.*	Elm	Fair/Poor	L
578	7"	*Ulmus sp.*	Elm	Fair/Poor	NC
579	6"	*Ulmus sp.*	Elm	Poor	NC, Vines - Woodbine
580	8"	*Ulmus sp.*	Elm	Poor	NC, VC - Poison Ivy
581	15"	*Acer negundo*	Box Elder	Very Poor	Maj. BD, DL, M
582	16"	*Ulmus sp.*	Elm	Fair	
583	15"	*Ulmus americana*	American Elm	Fair/Poor	Some DL
584	17"	*Ulmus sp.*	Elm	Fair	
585	15"	*Ulmus sp.*	Elm	Fair	
586	6",8",11"	*Ulmus sp.*	Elm	Fair	
587	35"	*Ulmus americana*	American Elm	Fair	
588	13"	*Acer saccharinum*	Silver Maple	Fair	
589	14"	*Acer saccharinum*	Silver Maple	Fair	
590	8",13"	*Acer saccharinum*	Silver Maple	Fair/Poor	Elm growing through stems
591	10"	*Acer saccharinum*	Silver Maple	Fair	
592	16"	*Ulmus americana*	American Elm	Fair	
593	33"	*Populus deltoides*	Cottonwood	Fair	
594	24"	*Populus deltoides*	Cottonwood	Fair	
595	17"	*Populus deltoides*	Cottonwood	Fair	
596	13"	Acer negundo	Box Elder	Very Poor	Maj. TD, DL
597	20"	*Populus deltoides*	Cottonwood	Fair	
598	4",11"	Acer negundo	Box Elder	Very Poor	Sev. L, DL
599	6"	Acer negundo	Box Elder	Poor	Exposed roots, DL, Slight L
600	32"	*Populus deltoides*	Cottonwood	Fair	

ABBREVIATIONS:
BD - Bark damage; BR - Base rot; DL - Dead limbs; L - Leaning; M - Misshapened; Maj. - Major NC - Narrow crown; Sev. - Severely; Sl. - Slightly; SS - Stem split; TD. - Trunk damage; V.C. - Vine covered.

DEFINITIONS OF RATINGS:
Good: The tree appears to be in a healthy and satisfactory condition with an overall sound stem structure and with a full and balanced crown; the growth habit appears normal; there is no indication of pests or diseases present; and the life expectancy is judged to be greater than twenty-five (25) years. The rating based on the health / condition chart ranges from 30 to 24.
Fair: The tree appears to be in a healthy and satisfactory condition with a minimum of structural problems and with minor crown imbalance or thin crown; the growth habit appears normal; there is no indication of pests or diseases present; and the life expectancy is judged to be greater than twenty (20) years. The rating based on the health / condition chart ranges from 23 to 17.
Fair/Poor: The tree appears to be in a satisfactory condition but exhibits a minor structural problem with crown imbalance, dead or dying limbs, or growth only in the top quarter of the tree; or the growth habit is misshapen and askew; or there is evidence of pests or diseases present. The rating based on the health / condition chart is 16 to 11.
Poor: The tree appears to be in an unhealthy condition with structural problems and with major crown imbalance, dead or dying limbs, or growth only in the top quarter of the tree; the growth habit is misshapen and askew; there is evidence of pests or diseases present; and the life expectancy is judged to be less than ten (10) years. The rating based on the health / condition chart is 10 to 6.
Very Poor: The tree appears to be in an unhealthy condition with major structural problems and with major crown imbalance and several dead limbs and/or peeling bark; the growth habit is severely misshapen and askew; there is evidence of pests or diseases present; and the life expectancy is judged to be less than five (5) years. The rating based on the health/condition chart ranges from 5 to 1.
Dead: The tree has no live branches, is topped, or fallen. The rating based on the health / condition chart is 0.

REV.	DESCRIPTION	BY	DATE
1	Text Update	TCS	3/27/2024
2	Add Survey Information	TMS	12/19/2024
3	Easement	TCS	5/03/2025

Sujak Engineering PLC
CIVIL ENGINEERING S PLANNING S DESIGN
4031 Coolidge Highway
Troy, MI 48098
Phone: (248) 885-8431
Fax: (248) 885-8432
Email: SujakEngineering@Comcast.net

Seal

ORIGINAL SIGNATURE IN BLUE

Tean C. Sujak P.E. No. 046896

1950 E. Avon Rd
Rochester Hills, MI 48307
Parcel # 15-13-427-002

Topographic & Tree Survey

Scale:	1"=20'
Drawn:	TMS
Checked:	TCS
Approved:	TMS
Date:	10/31/2023
Job. no.	23-062
Sheet No.	CS1.0

19" SHORT WAREHOUSE SHADE

DAMP / WET LOCATION

CLASSIC SHAPES

PROJECT:

QUANTITY: TYPE:

SW1910GV
AN - Anodic Natural

SW1910GV
BZ - Bronze

SW1910GV
PT - Platinum Silver

SW1910GV
MB - Matte Black

SERIES	LUMENS[1]		CCT		DRIVER / DIMMING[2]	
SW1910GV	15L	1500 Lm	80 CRI		EX[3]	Electronic Driver, 120V/277V
	27L	2700 Lm	27K	2700K	DO10X	1%, 0-10V, 120V/277V
	37L	3700 Lm	30K	3000K	DS2W1[4]	ELV/MLV, 120V
	55L	5500 Lm	35K	3500K	DLTE1[5]	Lutron® 2-Wire Forward Phase (MLV), 120V
			40K	4000K	DL3EX[5]	1%, Lutron® EcoSystem®, Fades to Black, 120V/277V
			90 CRI			
			27HK	2700K		
			30HK	3000K		
			35HK	3500K		
			40HK	4000K		

ACCESSORIES[6]	
ENCLOSURES	
TF2[7]	4" Frosted Dome
TG2	4" Dome Wire Guard
MF2	4" Frosted Mini
MG2	4" Short Wire Guard
FJ2	4" Frosted Tall
FG2	4" Tall Wire Guard

MOUNTING[8]	
WALL MOUNT	
CP104	Small Driver Canopy
CP104KO	Small Driver Canopy w/ Knockouts
CP106	Large Driver Canopy
CP6/RMD	Remote Mount Driver
SP90_[9]	Straight Arm
PA_[9]	Mounting Arm Style
CEILING MOUNT	
RDC5	Small Driver Canopy
CP13	Large Driver Canopy
HM_[10]	Hang Straight
AT[10]	Hang Straight All Thread
PM_[10]	Rigid Pendant Mount
CD_[10]	Cord / Cable Mount
CM_[10]	Cord Mount
EMCR[11]	10W Large Driver Canopy EM
EMRM	7W Remote EM
EMEN	7W Remote with Enclosure

INTERIOR[12]		FINISH[12]	
MWI[13]	Matte White	MW[13]	Matte White
CCI	Custom Color	MB[13]	Matte Black
FCI	Fixture Color Interior	PT[13]	Platinum Silver
		CC	Custom Color
See Page 5 for Full Range of Color Options (83-90082)		See Page 5 for Full Range of Color Options (83-90082)	

WET KIT	
WLKA	Wet Location Kit

EXAMPLE: SW1910GV37L35KEXTF2/RDC5HM36MWIMB

NOTES:
1 Nominal Source Lumens at 35K **2** Contact Factory for Additional Options **3** 37L Max with CP104 **4** 37L Max with CP104/RDC5, 55L Max with CP106/CP13
5 Available with CP106/CP13 Only **6** Enclosure, Wire Guard Required - Choose One Option **7** Standard Enclosure **8** See Mounting Page for Details on Components and Finishes
9 See Mounting Page for Available Arm Options **10** Specify Length in Inches: See Mounting Page for Available Lengths **11** EMCR Replaces RDC5 or CP13
12 See Color Page for More Options/Consult Factory for Special Finishes **13** Standard Finishes

Spectrum Lighting

19" SHORT WAREHOUSE SHADE

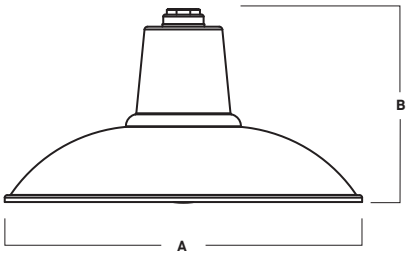
DAMP / WET LOCATION

CLASSIC SHAPES

LUMENS / WATTAGE DATA				
PART NUMBER	SOURCE LUMENS[1]	DELIVERED LUMENS[2]	SYSTEM WATTS	LPW
SW1910GV15L	1500	1202	10	120
SW1910GV27L	2700	2100	18	117
SW1910GV37L	3700	3080	26	118
SW1910GV55L	5500	4536	39	116

1 Nominal Source Lumens at 35K **2** Nominal Delivered Lumens at 35K

HOUSING DIMENSIONS



A	B
18.5 470.0 mm	10.0 254.0 mm

APPLICATION
The Short Warehouse Shade is a shallow version of our most popular Warehouse Shades.

FEATURES
Spectrum Lighting's RLM Classics are inspired by vintage lighting fixtures redesigned with modern LED light sources and materials. The wide range of options for illumination, mounting, enclosures, guards and finishes allows for creative fixture specification and design. LED module and driver are serviceable for future replacement.

FINISH
Multi-stage polyester powder-coat process applied on our dedicated paint lines. Variety of standard and custom finishes are available. Interior is Matte White unless specified. Custom Color interior finishes available.

ELECTRONICS
GV LED system features high brightness white Samsung LED's. 3-step MacAdam Ellipse binning. Standard CRI: 80+. Higher CRI, R9 and custom LED configurations are available; consult factory. Choice of electronic 120V/277V and dimming drivers.

CONSTRUCTION
Fixture shades are spun in our factory from 0.063 high purity aluminum. Wall mount canopies are die-cast aluminum with stainless steel hardware. Wall arms are formed 3/4 NPT aluminum pipe and may be field cut.

CODE COMPLIANCE
BAA compliant. ETL certified to meet US and Canadian standards. Suitable for dry or damp locations. Wet Location Option. Manufactured and tested to UL standards No. 1598/8750.

ENCLOSURES

TG2
4" FROSTED DOME
WIRE GUARD - FITS TF2

MG2
4" FROSTED MINI
WIRE GUARD - FITS MF2

FG2
4" FROSTED TALL
WIRE GUARD - FITS FJ2

WALL MOUNT

(SEE MOUNTING PAGES FOR MORE OPTIONS & DIMENSIONS.)

PA_
MOUNTING ARM STYLE

SW1910GV SHOWN WITH CP104PA23

CEILING MOUNT

(SEE MOUNTING PAGES FOR MORE OPTIONS & CANOPY DIMENSIONS.)

HM / AT / PM
HANG STRAIGHT / ALL THREAD / PENDANT

SW1910GV SHOWN WITH RDC5PM

CD
CORD / CABLE MOUNT

SW1910GV SHOWN WITH RDC5CD

CM
CORD MOUNT

SW1910GV SHOWN WITH RDC5CM

Spectrum Lighting

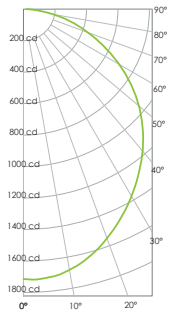
19" SHORT WAREHOUSE SHADE

DAMP / WET LOCATION

CLASSIC SHAPES / PHOTOMETRIC DATA

SW1910GV-55L-35K-EX-TF2-MWI

CANDLEPOWER CURVE



INTENSITY

	0.00°
0.00°	1,715
5.00°	1,713
10.00°	1,682
15.00°	1,625
20.00°	1,549
30.00°	1,372
40.00°	1,177
50.00°	957
60.00°	701
70.00°	435
80.00°	190
90.00°	17

ZONAL LUMENS

0° - 10°	163	4%
0° - 20°	612	13%
0° - 30°	1,267	28%
0° - 40°	2,042	45%
0° - 60°	3,572	79%
0° - 80°	4,432	98%
0° - 90°	4,523	100%
Total	4,534	100%

SINGLE UNIT: PERFORMANCE

INITIAL FOOTCANDLES
BASED ON IES BEAM ANGLE

Mounting Height AFF	FC at Center on Floor	Beam Diameter	FC at Beam Edge
8.0 '	27 fc	21.7 '	9 fc
10.0 '	17 fc	27.1 '	6 fc
12.0 '	12 fc	32.5 '	4 fc
14.0 '	9 fc	37.9 '	3 fc
16.0 '	7 fc	43.3 '	2 fc
20.0 '	4 fc	54.1 '	1 fc
24.0 '	3 fc	65.0 '	1 fc
28.0 '	2 fc	75.8 '	1 fc

MULTIPLE UNITS: PERFORMANCE

80/50/20% REFLECTANCES
INITIAL FOOTCANDLES AND WATTS PER SQUARE FOOT

Ceiling Height	Fixture Spacing	RCR 1		RCR 3	
		FC +	W/Sq. Ft.	FC +	W/Sq. Ft.
17'	16' *	17	0.14	10	0.11
21'	18' **	15	0.13	12	0.13
25'	20' ***	12	0.10	8	0.08
Delivered Illuminance Rating: (DIR)		117 FC per W/Sq. Ft.		90 FC per W/Sq. Ft.	

3' Suspension Length
Square rooms used for multiple units:
- RCR 1: Length & Width = Ceiling Ht. - 5.5' x 10.00
- RCR 3: Length & Width = Ceiling Ht. - 5.5' x 3.33

\+ Average Footcandles at 2.5' Above Floor
* Exceeds spacing criteria by 17%
** Exceeds spacing criteria by -2%
*** Exceeds spacing criteria by -14%

Delivered Lumens: 4,534
Luminaire Watts: 39
LER: 116.26

CP at 0deg (Nadir): 1,715
CRI: 85+

Beam Angle: 106.45
Spacing Ratio: 1.19

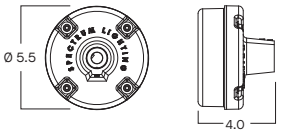
Lamp Multiplier: 15L x 0.265, 27L x 0.463, 37L x 0.679
CCT Multiplier: 27K x 0.971, 30K x 0.985, 40K x 1.03

MOUNTING & ACCESSORIES

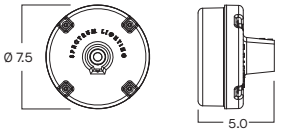
SOME OPTIONS NOT AVAILABLE ON ALL FIXTURES, CONSULT SPECIFICATION SHEETS. SEE INDIVIDUAL SPECIFICATION SHEETS OR CONSULT FACTORY FOR ADDITIONAL INFORMATION. NOTE: THIS IS TYPICAL OF RLM SPECIFICATION FOR MOUNTING. INDIVIDUAL FIXTURES OR PROJECTS MAY HAVE SPECIALIZED REQUIREMENTS.

WALL MOUNTING

CP104 - SMALL DRIVER CANOPY (STANDARD)
MAY BE USED AS SPLICE BOX FOR DIRECT FEED
NOT AVAILABLE W/ PA16 & PA16F

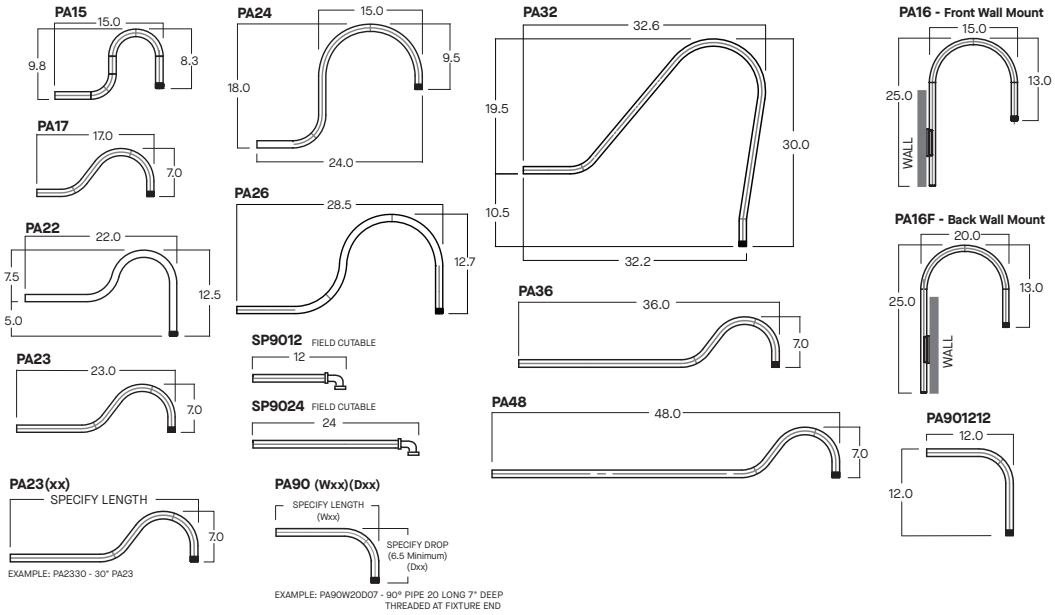


CP106 - LARGE DRIVER CANOPY
MAY BE USED AS SPLICE BOX FOR DIRECT FEED



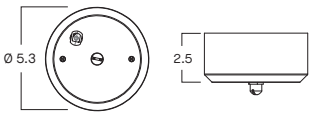
CP6/RMD - REMOTE MOUNT DRIVER
MOUNTS DIRECTLY TO WALL OR OCTAGON STYLE J-BOX

CUSTOM AND OTHER WALL ARMS AVAILABLE - CONTACT FACTORY. ARMS MAY BE FIELD CUT ON WALL SIDE - FIXTURE SIDE THREADED 3/4" NPT REQUIRES SEALANT FOR WET LOCATION.

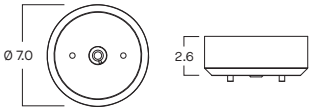


CEILING MOUNTING

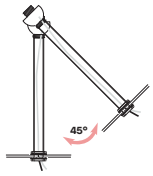
RDC5 - SMALL DRIVER CANOPY (STANDARD)
MOUNTS TO 4" OCTO J-BOX



CP13 - LARGE DRIVER CANOPY

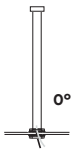


HM*
HANG STRAIGHT
45° SWIVEL 5/8" OD STEM - 3/8" IP



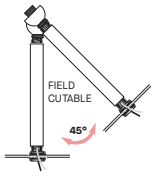
ORDER: HM (Length)
SPECIFY LENGTH:
HM3 - 3" HM24 - 24"
HM6 - 6" HM36 - 36"
HM12 - 12" HM48 - 48"
HM18 - 18" HM72 - 72"
HMLC(XX)
Custom Length
(Specify in Inches)

PM*
RIDGID PENDANT MOUNT
RIGID 5/8" OD STEM - 3/8" IP



ORDER: PM (Length)
SPECIFY LENGTH:
PM3 - 3" PM24 - 24"
PM6 - 6" PM36 - 36"
PM12 - 12" PM48 - 48"
PM18 - 18" PM72 - 72"
PMLC(XX)
Custom Length
(Specify in Inches)

AT**
HANG STRAIGHT ALL THREAD
45° SWIVEL 5/8" OD STEM - 1/4" IP



ORDER: AT (Length)
SPECIFY LENGTH:
AT12 - 12"
AT24 - 24"
AT36 - 36"
AT48 - 48"
AT60 - 60"
AT72 - 72"

CD
CORD / CABLE MOUNT
SJ CORD WITH 1/16 SS CABLE

ORDER: CD (Length)
SPECIFY LENGTH:
CD36 - 36"
CD72 - 72"
CD144 - 144"
CDLC(XX)
Custom Length
(Specify in Inches)

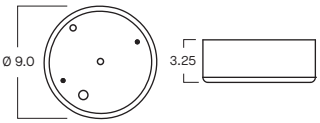
CM
CORD MOUNT
SJ CORD WITH STRAIN RELIEF

ORDER: CM (Length)
SPECIFY LENGTH:
CM36 - 36"
CM72 - 72"
CM144 - 144"
CMLC(XX)
Custom Length
(Specify in Inches)

*MAXIMUM ONE PIECE STEM LENGTH IS 72". **MAXIMUM ONE PIECE STEM LENGTH IS 36". LONGER LENGTHS ARE POSSIBLE USING MULTIPLE STEMS AND COUPLERS.
**ORDER IN 12" INCREMENTS, ODD SIZES MAY BE FIELD CUT

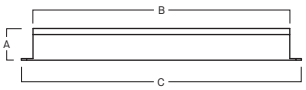
EMERGENCY BATTERY OPTIONS

EMCR - LARGE DRIVER CANOPY FOR 10W EMERGENCY BATTERY



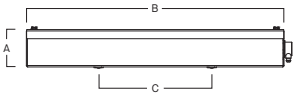
REMOTE EMERGENCY BATTERY OPTIONS

EMRM* - 7W REMOTE EMERGENCY BATTERY (50' MAX)



A	B	C
1.3	12.6	13.0

EMEN* - 7W REMOTE EMERGENCY BATTERY WITH ENCLOSURE (50' MAX)



A	B	C
2.0	17.0	6.2

*OTHER EM BATTERY SIZES AVAILABLE, CONTACT FACTORY.

Spectrum Lighting

COLOR OPTIONS - POWDER COAT PAINT FINISHES

NOTE: NO PRINTED IMAGE CAN EQUAL THE EXACT COLOR OF FINISH ON METAL.
SEE INDIVIDUAL SPECIFICATION SHEETS OR CONSULT FACTORY FOR ADDITIONAL INFORMATION.

SPECTRUM
POWDER COAT COLORS

STANDARD CORD / STEM / CANOPY FINISHES

FIXTURE COLOR	STANDARD CORD COLOR	STANDARD CANOPY / STEM COLOR
Matte White, Textured White	Matte White	Matte White
Gloss White	Matte White	Gloss White
Matte Black, Gloss Black, Textured Black	Matte Black	Matte Black
All Others	Matte Black	Same Color as Fixture
Custom Color	Contact Factory	Contact Factory

PAINT TIMES

TIER	COST	AVERAGE PAINT TIME*
Tier 1 - Standard Finishes	$	🕒
Tier 2 - Typical Finishes	$$	🕒🕒
Tier 3 - Special Metal Finishes	$$$	🕒🕒🕒
Custom Color	Contact Factory	Contact Factory

*CONTACT FACTORY FOR SPECIFIC PRODUCT LEAD TIMES

TIER 1 - STANDARD FINISHES

MW Matte White
GW Gloss White
PT Platinum Silver
MB Matte Black
GB Gloss Black
BZ Bronze

TIER 2 - TYPICAL FINISHES

TW Textured White
TB Textured Black
MT* Textured Silver
OB* Oil Rubbed Bronze
SN Sun Gold
CO Copper Metallic
BR Brecchia
GH Graphite
CH Charcoal
AL Almond
VE Verde Green

BL Blue Streak
RD Red Baron
OR Orange
CM Camel
PL Purple
PG Pub Green
TQ Turquoise
SF Sea Foam
PK Pink
AY Aero Yellow
EG Evergreen

LG Lime Green
LB Light Blue
BY Burgundy
AK Anodic Black
AM Anodic Malachite
AZ Anodic Bronze
AS Anodic Sapphire
AN Anodic Natural
AC Anodic Champagne

TIER 3 - SPECIAL METAL FINISHES

NOT AVAILABLE ON ALL FIXTURES. PLEASE CONSULT
SPECIFICATION SHEETS OR FACTORY FOR AVAILABILITY.

GA* Galvanized
BA*/** Brushed Aluminum
GF* Gold Flake

CUSTOM COLOR FINISHES

CONTACT FACTORY

CC
Custom Color

CC

*UNAVAILABLE FOR WET LOCATION
** UNAVAILABLE FOR INTERIOR

Spectrum Lighting

15" SHORT WAREHOUSE SHADE

DAMP / WET LOCATION

CLASSIC SHAPES

PROJECT:

QUANTITY: TYPE:

SW1509GV
BZ - Bronze

SW1509GV
MW - Matte White

SW1509GV
MB - Matte Black

SW1509GV
PT - Platinum Silver

SERIES	LUMENS[1]		CCT		DRIVER / DIMMING[2]	
SW1509GV	15L	1500 Lm	80 CRI		EX	Electronic Driver, 120V/277V
	27L	2700 Lm	27K	2700K	DO10X	1%, 0-10V, 120V/277V
			30K	3000K	DS2W1	ELV/MLV, 120V
			35K	3500K	DLTE1[3]	Lutron® 2-Wire Forward Phase (MLV), 120V
			40K	4000K	DL3EX[3]	1%, Lutron® EcoSystem®, Fades to Black, 120V/277V
			90 CRI			
			27HK	2700K		
			30HK	3000K		
			35HK	3500K		
			40HK	4000K		

ACCESSORIES[4]	
ENCLOSURES	
TF1[5]	3" Frosted Dome
TG1	3" Dome Wire Guard
MF1	3" Frosted Mini
MG1	3" Short Wire Guard
FJ1	3" Frosted Tall
FG1	3" Tall Wire Guard

MOUNTING[6]	
WALL MOUNT	
CP104	Small Driver Canopy
CP104KO	Small Driver Canopy w/ Knockouts
CP106	Large Driver Canopy
CP6/RMD	Remote Mount Driver
SP90_[7]	Straight Arm
PA_[7]	Mounting Arm Style
CEILING MOUNT	
RDC5	Small Driver Canopy
CP13	Large Driver Canopy
HM_[8]	Hang Straight
AT_[8]	Hang Straight All Thread
PM_[8]	Rigid Pendant Mount
CD_[8]	Cord / Cable Mount
CM_[8]	Cord Mount
EMCR[9]	10W Large Driver Canopy EM
EMRM	7W Remote EM
EMEN	7W Remote with Enclosure

INTERIOR[10]		FINISH[10]	
MWI[11]	Matte White	MW[11]	Matte White
CCI	Custom Color	MB[11]	Matte Black
FCI	Fixture Color Interior	PT[11]	Platinum Silver
		CC	Custom Color
See Page 5 for Full Range of Color Options (83-90082)		See Page 5 for Full Range of Color Options (83-90082)	

WET KIT	
WLKA	Wet Location Kit

EXAMPLE: SW1509GV27L35KEXTF1/RDC5HM36MWIMB

NOTES:
1 Nominal Source Lumens at 35K **2** Contact Factory for Additional Options **3** Available with CP106/CP13 Only **4** Enclosure, Wire Guard Required - Choose One Option **5** Standard Enclosure **6** See Mounting Page for Details on Components and Finishes **7** See Mounting Page for Available Arm Options **8** Specify Length in Inches: See Mounting Page for Available Lengths **9** EMCR Replaces RDC5 or CP13 **10** See Color Page for More Options/Consult Factory for Special Finishes **11** Standard Finishes

Spectrum Lighting

15" SHORT WAREHOUSE SHADE

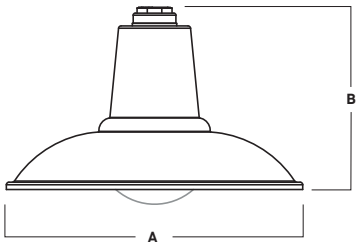
DAMP / WET LOCATION

CLASSIC SHAPES

LUMENS / WATTAGE DATA				
PART NUMBER	SOURCE LUMENS[1]	DELIVERED LUMENS[2]	SYSTEM WATTS	LPW
SW1509GV15L	1500	1150	10	115
SW1509GV27L	2700	2008	18	112

1 Nominal Source Lumens at 35K **2** Nominal Delivered Lumens at 35K

HOUSING DIMENSIONS



A	B
14.5 368.3 mm	9.0 228.6 mm

APPLICATION
The Short Warehouse Shade is a shallow version of our most popular Warehouse Shades.

FEATURES
Spectrum Lighting's RLM Classics are inspired by vintage lighting fixtures redesigned with modern LED light sources and materials. The wide range of options for illumination, mounting, enclosures, guards and finishes allows for creative fixture specification and design. LED module and driver are serviceable for future replacement.

FINISH
Multi-stage polyester powder-coat process applied on our dedicated paint lines. Variety of standard and custom finishes are available. Interior is Matte White unless specified. Custom Color interior finishes available.

ELECTRONICS
GV LED system features high brightness white Samsung LED's. 3-step MacAdam Ellipse binning. Standard CRI: 80+. Higher CRI, R9 and custom LED configurations are available; consult factory. Choice of electronic 120V/277V and dimming drivers.

CONSTRUCTION
Fixture shades are spun in our factory from 0.063 high purity aluminum. Wall mount canopies are die-cast aluminum with stainless steel hardware. Wall arms are formed 3/4 NPT aluminum pipe and may be field cut.

CODE COMPLIANCE
BAA compliant. ETL certified to meet US and Canadian standards. Suitable for dry or damp locations. Wet Location Option. Manufactured and tested to UL standards No. 1598/8750.

ENCLOSURES

TF1
3" FROSTED DOME

MF1
3" FROSTED MINI

FJ1
3" FROSTED TALL

TG1
3" FROSTED DOME
WIRE GUARD - FITS TF1

MG1
3" FROSTED MINI
WIRE GUARD - FITS MF1

FG1
3" FROSTED TALL
WIRE GUARD - FITS FJ1

WALL MOUNT

(SEE MOUNTING PAGES FOR MORE OPTIONS & DIMENSIONS.)

PA_
MOUNTING ARM STYLE

SW1509GV SHOWN WITH CP104PA23

CEILING MOUNT

(SEE MOUNTING PAGES FOR MORE OPTIONS & CANOPY DIMENSIONS.)

HM / AT / PM
HANG STRAIGHT / ALL THREAD / PENDANT

SW1509GV SHOWN WITH RDC5PM

CD
CORD / CABLE MOUNT

SW1509GV SHOWN WITH RDC5CD

CM
CORD MOUNT

SW1509GV SHOWN WITH RDC5CM

Spectrum Lighting

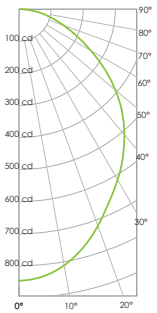
15" SHORT WAREHOUSE SHADE

DAMP / WET LOCATION

CLASSIC SHAPES / PHOTOMETRIC DATA

SW1509GV-27L-35K-EX-TF1-MWI

CANDLEPOWER CURVE



INTENSITY

	0.00°
0.00°	847
5.00°	837
10.00°	811
15.00°	770
20.00°	719
30.00°	615
40.00°	511
50.00°	392
60.00°	260
70.00°	148
80.00°	69
90.00°	4

ZONAL LUMENS

0° - 10°	80	4%
0° - 20°	299	15%
0° - 30°	612	30%
0° - 40°	973	48%
0° - 60°	1,639	82%
0° - 80°	1,972	98%
0° - 90°	2,007	100%
Total	2,007	100%

SINGLE UNIT: PERFORMANCE

INITIAL FOOTCANDLES
BASED ON IES BEAM ANGLE

Mounting Height AFF	FC at Center on Floor	Beam Diameter	FC at Beam Edge
5.50 '	28 fc	12.5 '	12 fc
6.50 '	20 fc	14.8 '	8 fc
7.50 '	15 fc	17.1 '	6 fc
8.50 '	12 fc	19.3 '	5 fc
10.00 '	8 fc	22.7 '	4 fc
12.00 '	6 fc	27.3 '	2 fc
14.00 '	4 fc	31.8 '	2 fc
16.00 '	3 fc	36.4 '	1 fc

MULTIPLE UNITS: PERFORMANCE

80/50/20% REFLECTANCES
INITIAL FOOTCANDLES AND WATTS PER SQUARE FOOT

Ceiling Height	Fixture Spacing	RCR 2		RCR 4	
		FC +	W/Sq. Ft.	FC +	W/Sq. Ft.
8'	8' *	24	0.24	19	0.24
12'	10' **	21	0.20	16	0.20
16'	12' ***	14	0.14	7	0.09
Delivered Illuminance Rating: (DIR)		101 FC per W/Sq. Ft.		79 FC per W/Sq. Ft.	

2' Suspension Length
Square rooms used for multiple units:
- RCR 2: Length & Width = Ceiling Ht. -4.5' x 5.00
- RCR 4: Length & Width = Ceiling Ht. - 4.5' x 2.50

\+ Average Footcandles at 2.5' Above Floor
* Exceeds spacing criteria by 110%
** Exceeds spacing criteria by 22%
*** Exceeds spacing criteria by -4%

Delivered Lumens: 2,007
Luminaire Watts: 18
LER: 111.50

CP at 0deg (Nadir): 847
CRI: 85+

Beam Angle: 97.93
Spacing Ratio: 1.09

Lamp Multiplier: 15L x 0.5728
CCT Multiplier: 27K x 0.971, 30K x 0.985, 40K x 1.03

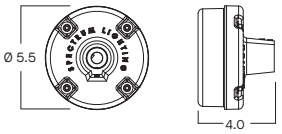
Spectrum Lighting

MOUNTING & ACCESSORIES

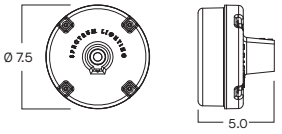
SOME OPTIONS NOT AVAILABLE ON ALL FIXTURES, CONSULT SPECIFICATION SHEETS. SEE INDIVIDUAL SPECIFICATION SHEETS OR CONSULT FACTORY FOR ADDITIONAL INFORMATION. NOTE: THIS IS TYPICAL OF RLM SPECIFICATION FOR MOUNTING. INDIVIDUAL FIXTURES OR PROJECTS MAY HAVE SPECIALIZED REQUIREMENTS.

WALL MOUNTING

CP104 - SMALL DRIVER CANOPY (STANDARD)
MAY BE USED AS SPLICE BOX FOR DIRECT FEED
NOT AVAILABLE W/ PA16 & PA16F

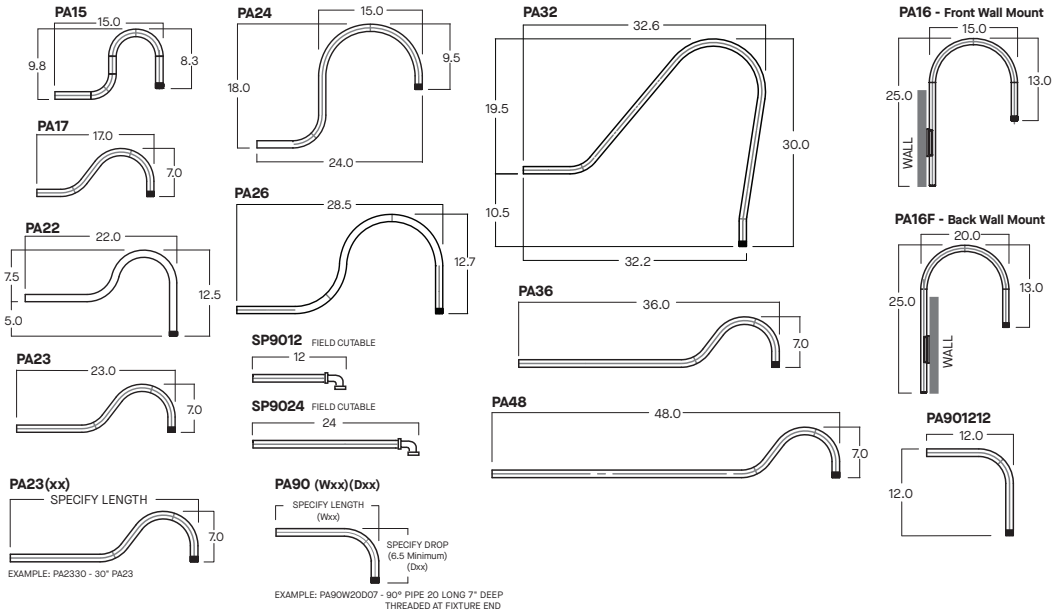


CP106 - LARGE DRIVER CANOPY
MAY BE USED AS SPLICE BOX FOR DIRECT FEED



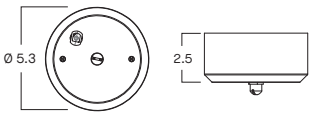
CP6/RMD - REMOTE MOUNT DRIVER
MOUNTS DIRECTLY TO WALL OR OCTAGON STYLE J-BOX

CUSTOM AND OTHER WALL ARMS AVAILABLE - CONTACT FACTORY. ARMS MAY BE FIELD CUT ON WALL SIDE - FIXTURE SIDE THREADED 3/4" NPT REQUIRES SEALANT FOR WET LOCATION.

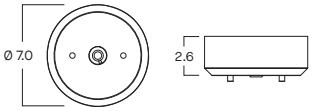


CEILING MOUNTING

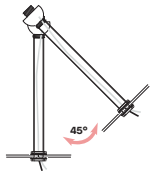
RDC5 - SMALL DRIVER CANOPY (STANDARD)
MOUNTS TO 4" OCTO J-BOX



CP13 - LARGE DRIVER CANOPY

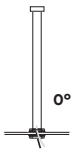


HM*
HANG STRAIGHT
45° SWIVEL 5/8" OD STEM - 3/8" IP



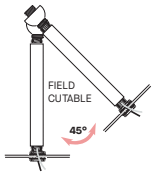
ORDER: HM (Length)
SPECIFY LENGTH:
HM3 - 3" HM24 - 24"
HM6 - 6" HM36 - 36"
HM12 - 12" HM48 - 48"
HM18 - 18" HM72 - 72"
HMLC(XX)
Custom Length
(Specify in Inches)

PM*
RIDGID PENDANT MOUNT
RIGID 5/8" OD STEM - 3/8" IP



ORDER: PM (Length)
SPECIFY LENGTH:
PM3 - 3" PM24 - 24"
PM6 - 6" PM36 - 36"
PM12 - 12" PM48 - 48"
PM18 - 18" PM72 - 72"
PMLC(XX)
Custom Length
(Specify in Inches)

AT**
HANG STRAIGHT ALL THREAD
45° SWIVEL 5/8" OD STEM - 1/4" IP



ORDER: AT (Length)
SPECIFY LENGTH:
AT12 - 12"
AT24 - 24"
AT36 - 36"
AT48 - 48"
AT60 - 60"
AT72 - 72"

CD
CORD / CABLE MOUNT
SJ CORD WITH 1/16 SS CABLE

ORDER: CD (Length)
SPECIFY LENGTH:
CD36 - 36"
CD72 - 72"
CD144 - 144"
CDLC(XX)
Custom Length
(Specify in Inches)

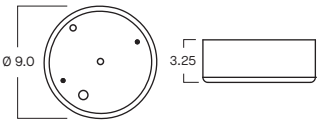
CM
CORD MOUNT
SJ CORD WITH STRAIN RELIEF

ORDER: CM (Length)
SPECIFY LENGTH:
CM36 - 36"
CM72 - 72"
CM144 - 144"
CMLC(XX)
Custom Length
(Specify in Inches)

*MAXIMUM ONE PIECE STEM LENGTH IS 72". **MAXIMUM ONE PIECE STEM LENGTH IS 36". LONGER LENGTHS ARE POSSIBLE USING MULTIPLE STEMS AND COUPLERS.
**ORDER IN 12" INCREMENTS, ODD SIZES MAY BE FIELD CUT

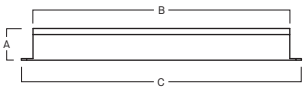
EMERGENCY BATTERY OPTIONS

EMCR - LARGE DRIVER CANOPY FOR 10W EMERGENCY BATTERY



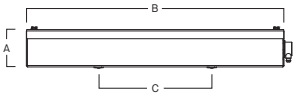
REMOTE EMERGENCY BATTERY OPTIONS

EMRM* - 7W REMOTE EMERGENCY BATTERY (50' MAX)



A	B	C
1.3	12.6	13.0

EMEN* - 7W REMOTE EMERGENCY BATTERY WITH ENCLOSURE (50' MAX)



A	B	C
2.0	17.0	6.2

*OTHER EM BATTERY SIZES AVAILABLE, CONTACT FACTORY.

Spectrum Lighting

COLOR OPTIONS - POWDER COAT PAINT FINISHES

NOTE: NO PRINTED IMAGE CAN EQUAL THE EXACT COLOR OF FINISH ON METAL.
SEE INDIVIDUAL SPECIFICATION SHEETS OR CONSULT FACTORY FOR ADDITIONAL INFORMATION.

SPECTRUM
POWDER COAT COLORS

STANDARD CORD / STEM / CANOPY FINISHES

FIXTURE COLOR	STANDARD CORD COLOR	STANDARD CANOPY / STEM COLOR
Matte White, Textured White	Matte White	Matte White
Gloss White	Matte White	Gloss White
Matte Black, Gloss Black, Textured Black	Matte Black	Matte Black
All Others	Matte Black	Same Color as Fixture
Custom Color	Contact Factory	Contact Factory

PAINT TIMES

TIER	COST	AVERAGE PAINT TIME*
Tier 1 - Standard Finishes	$	🕒
Tier 2 - Typical Finishes	$$	🕒🕒
Tier 3 - Special Metal Finishes	$$$	🕒🕒🕒
Custom Color	Contact Factory	Contact Factory

*CONTACT FACTORY FOR SPECIFIC PRODUCT LEAD TIMES

TIER 1 - STANDARD FINISHES

MW Matte White
GW Gloss White
PT Platinum Silver
MB Matte Black
GB Gloss Black
BZ Bronze

TIER 2 - TYPICAL FINISHES

TW Textured White
TB Textured Black
MT* Textured Silver
OB* Oil Rubbed Bronze
SN Sun Gold
CO Copper Metallic
BR Brecchia
GH Graphite
CH Charcoal
AL Almond
VE Verde Green

BL Blue Streak
RD Red Baron
OR Orange
CM Camel
PL Purple
PG Pub Green
TQ Turquoise
SF Sea Foam
PK Pink
AY Aero Yellow
EG Evergreen

LG Lime Green
LB Light Blue
BY Burgundy
AK Anodic Black
AM Anodic Malachite
AZ Anodic Bronze
AS Anodic Sapphire
AN Anodic Natural
AC Anodic Champagne

TIER 3 - SPECIAL METAL FINISHES

NOT AVAILABLE ON ALL FIXTURES. PLEASE CONSULT
SPECIFICATION SHEETS OR FACTORY FOR AVAILABILITY.

GA* Galvanized
BA*/** Brushed Aluminum
GF* Gold Flake

CUSTOM COLOR FINISHES

CONTACT FACTORY

CC
Custom Color

CC

*UNAVAILABLE FOR WET LOCATION
** UNAVAILABLE FOR INTERIOR

Spectrum Lighting

CONCEPTUAL SITE PLAN

SCALE: 1" = 10'-0"

0 5' 10' 20'

CBI DESIGN PROFESSIONALS

Conceptual Site Plan for
Yates Cider Mill
1950 E Avon Rd., Rochester Hills, MI 48307

JOB NO.
23019

DRAWN BY
LIP

CKD BY
RGC

RELEASE DATE

HDC Submission - 02.12.2025
SPR Resubmission - 05.08.2025

REVISION NO.

ARCHITECTS SEAL

SHEET NO.
CS1

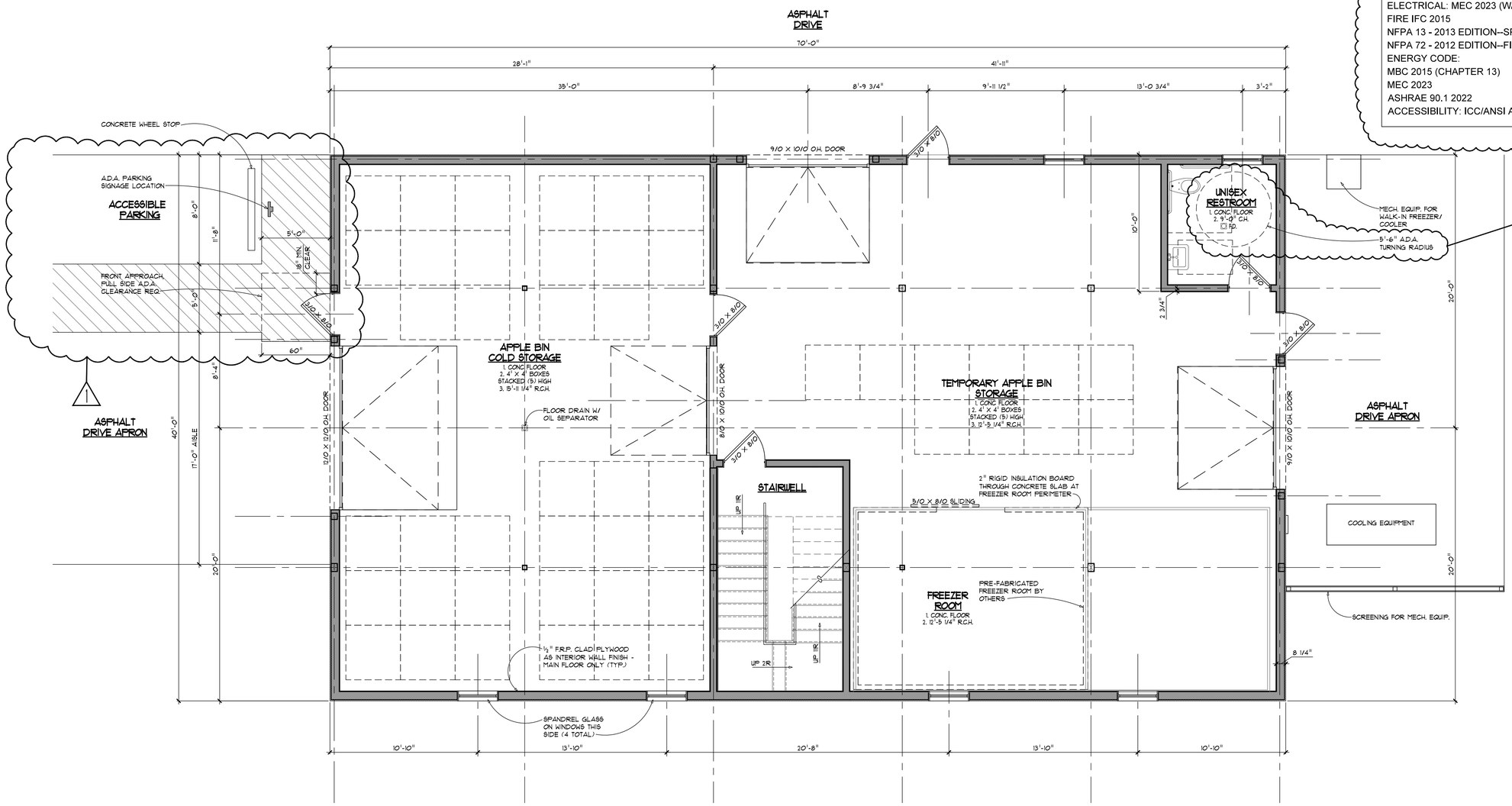
CBI Design Professionals
838 W. Long Lake, Suite 110
Bloomfield Hills, MI 48302
P: 248.645.2605
F: 248.647.7307
www.cbidesign.net

Conceptual Site Plan

REGULATORY DATA

BUILDING OCCUPANCY TYPE:	S2 - LOW HAZARD STORAGE
CONSTRUCTION TYPE:	V B (UN-SPRINKLERED)
BUILDING HEIGHT:	2 STORIES / 34.5 FT (40' MAX)
BUILDING AREA:	2,800 SQ FT (13,500 ALLOWABLE) NOT TAKING ANY BLDG. INCREASES
OCCUPANCY LOAD:	6 PPL (2,800 / 500) (WAREHOUSE)

CODE COMPLIANCE:
BUILDING: MBC 2021
PLUMBING: MPC 2021
MECHANICAL: MMC 2021
ELECTRICAL: MEC 2023 (W/ PART 8 RULES)
FIRE IFC 2015
NFPA 13 - 2013 EDITION--SPRINKLERS (N/A)
NFPA 72 - 2012 EDITION--FIRE ALARM
ENERGY CODE:
MBC 2015 (CHAPTER 13)
MEC 2023
ASHRAE 90.1 2022
ACCESSIBILITY: ICC/ANSI A117.1 - 2017



PROPOSED MAIN LEVEL PLAN

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

0 1' 2' 4' 8' 16'

FIRST FLOOR AREA = 2,800 S.F.
ATTIC LEVEL AREA = 2,015 S.F.
TOTAL AREA = 4,815 S.F.

CBI DESIGN PROFESSIONALS

Proposed Refrigerated Storage Building for Yates Cider Mill
1950 E Avon Rd., Rochester Hills, MI 48307

JOB NO. 23019
DRAWN BY LMF
CKD BY RGC
RELEASE DATE
HDC Submission - 02.12.2025
SPR Resubmission - 05.08.2025
REVISION NO.
ARCHITECTS SEAL
SHEET NO. DD1

CBI Design Professionals
838 W. Long Lake, Suite 110
Bloomfield Hills, MI 48302
P: 248.645.2605
F: 248.647.7307
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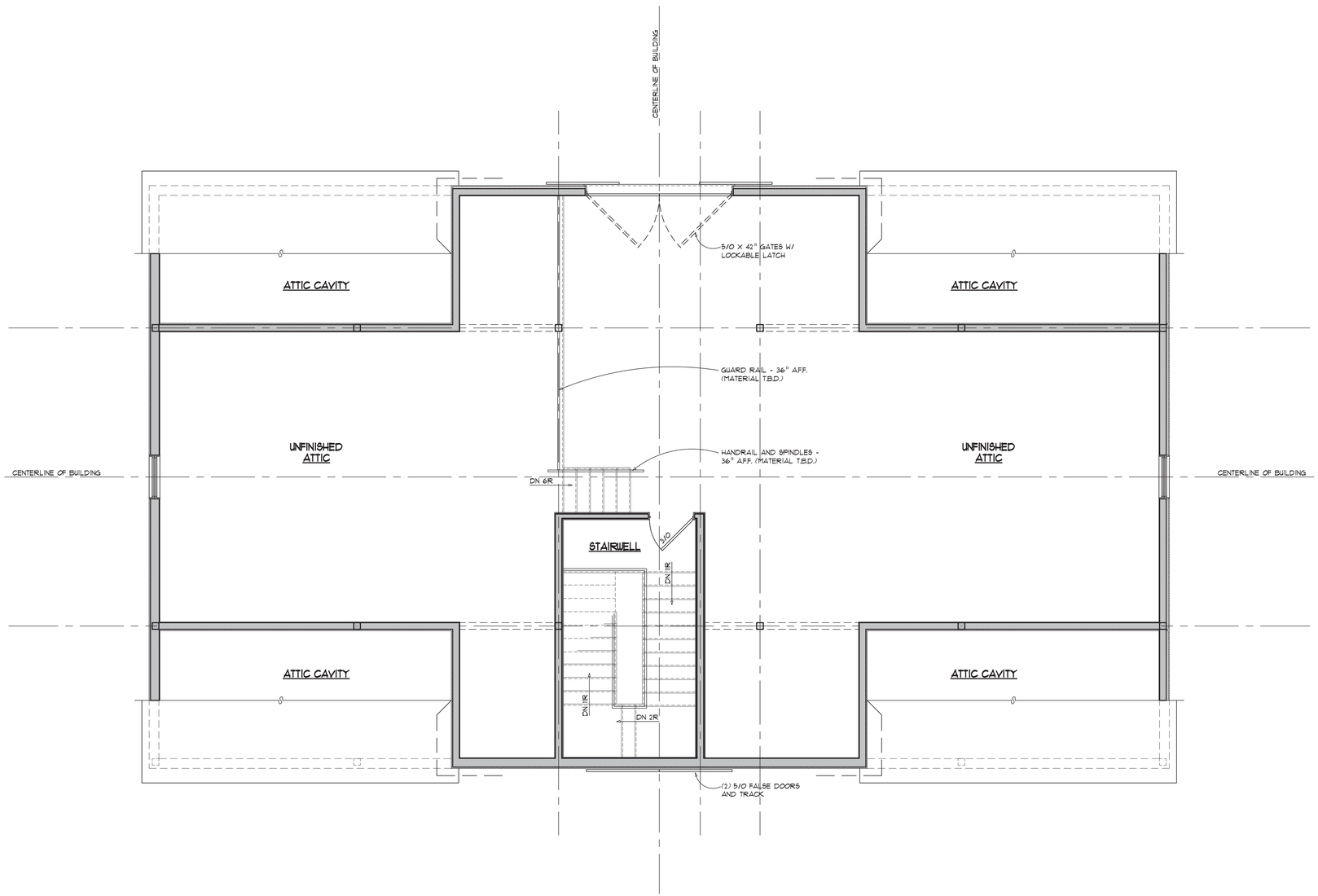
DD Floor Plans



PROPOSED ATTIC FLOOR PLAN

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

ATTIC LEVEL AREA = 2,015 S.F.

0 1' 2' 4' 8' 16'

CBI DESIGN PROFESSIONALS

Proposed Refrigerated Storage Building for Yates Cider Mill
1950 E Avon Rd., Rochester Hills, MI 48307

JOB NO. 23019

DRAWN BY LMF

CKD BY RGC

RELEASE DATE

HDC Submission - 02.12.2025

REVISION NO.

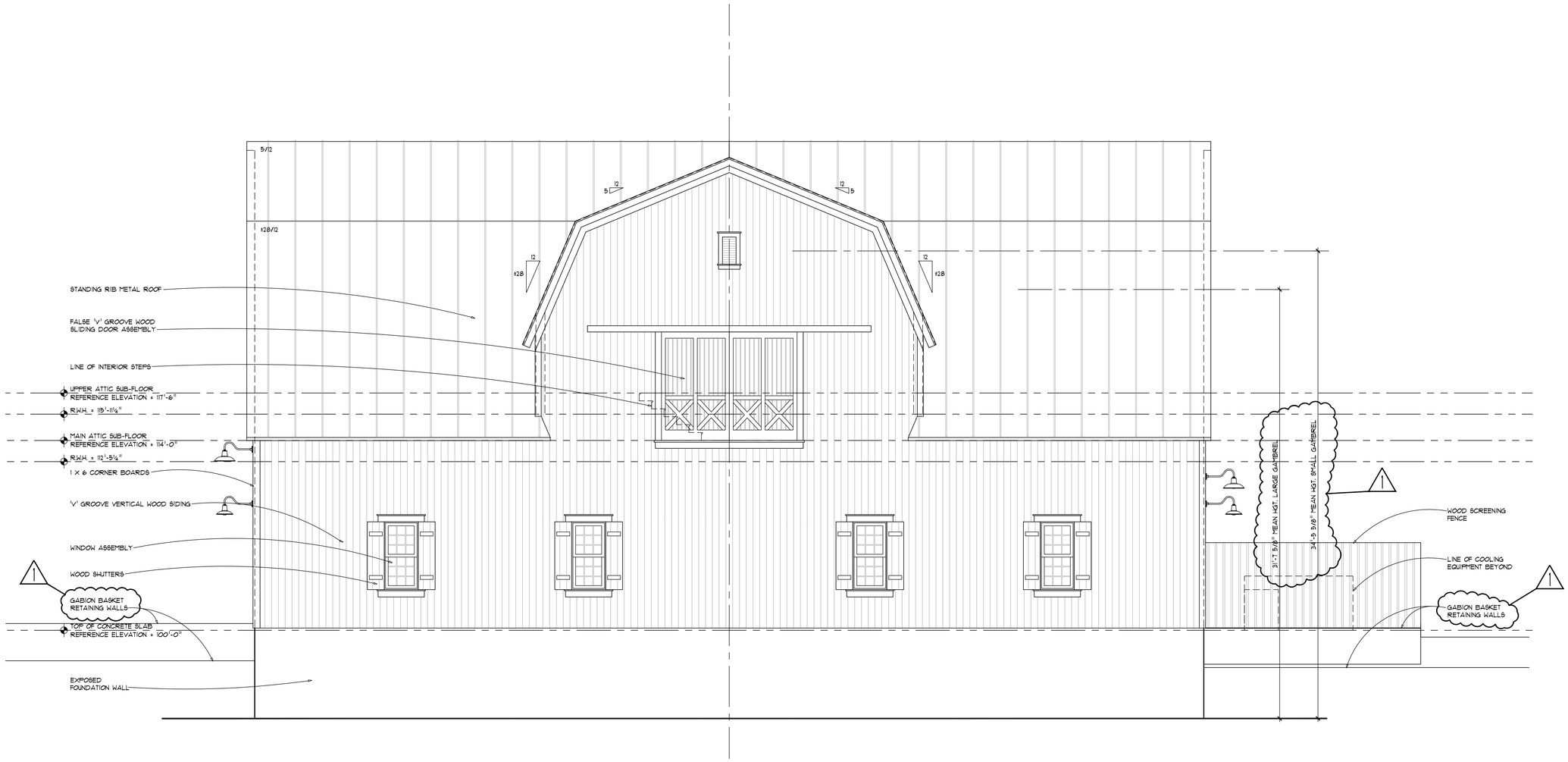
ARCHITECT'S SEAL

SHEET NO.

DD2

CBI Design Professionals
838 W. Long Lake, Suite 110
Bloomfield Hills, MI 48302
P: 248.645.2605
F: 248.647.7307
www.cbidesign.net

DD Floor Plans



FRONT (SOUTHWEST) ELEVATION

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

0 1' 2' 4' 8' 16'

CBI DESIGN PROFESSIONALS

Proposed Refrigerated Storage Building for
Yates Cider Mill
1950 E Avon Rd., Rochester Hills, MI 48307

JOB NO.
23019

DRAWN BY
LIP

CKD BY
RGC

RELEASE DATE

HDC Submission - 02.12.2025
SPR Resubmission - 05.08.2025

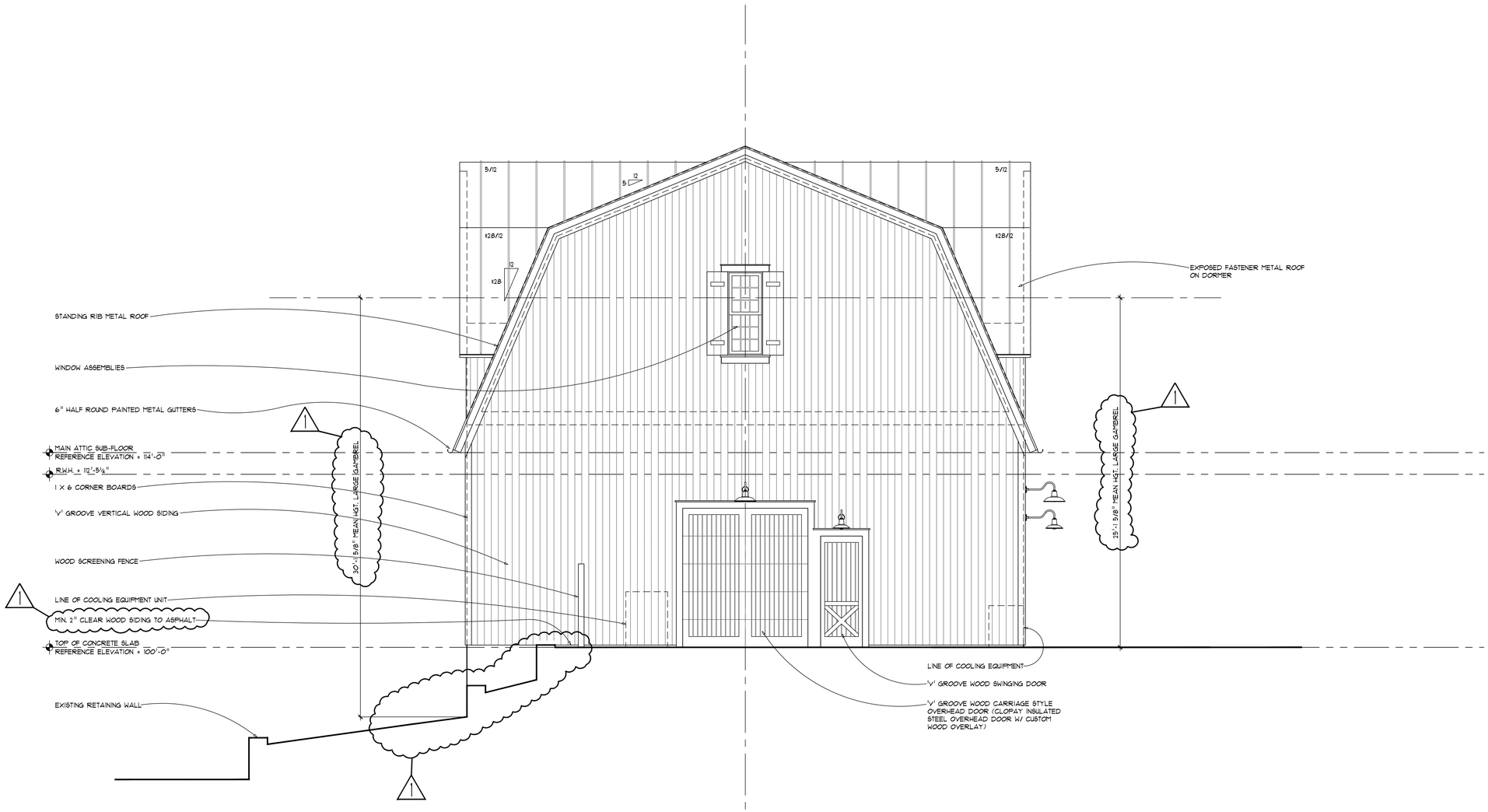
REVISION NO.

ARCHITECTS SEAL

SHEET NO.
DD3

CBI Design Professionals
838 W. Long Lake, Suite 110
Bloomfield Hills, MI 48302
P: 248.645.2605
F: 248.647.7307
www.cbidesign.net

Exterior Elevations



SIDE (SOUTHEAST) ELEVATION

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

0 1' 2' 4' 8' 16'

CBI DESIGN PROFESSIONALS

Proposed Refrigerated Storage Building for
Yates Cider Mill
1950 E Avon Rd., Rochester Hills, MI 48307

JOB NO.
23019

DRAWN BY
LIP

CKD BY
RGC

RELEASE DATE

HDC Submission - 02.12.2025
SPR Resubmission - 05.08.2025

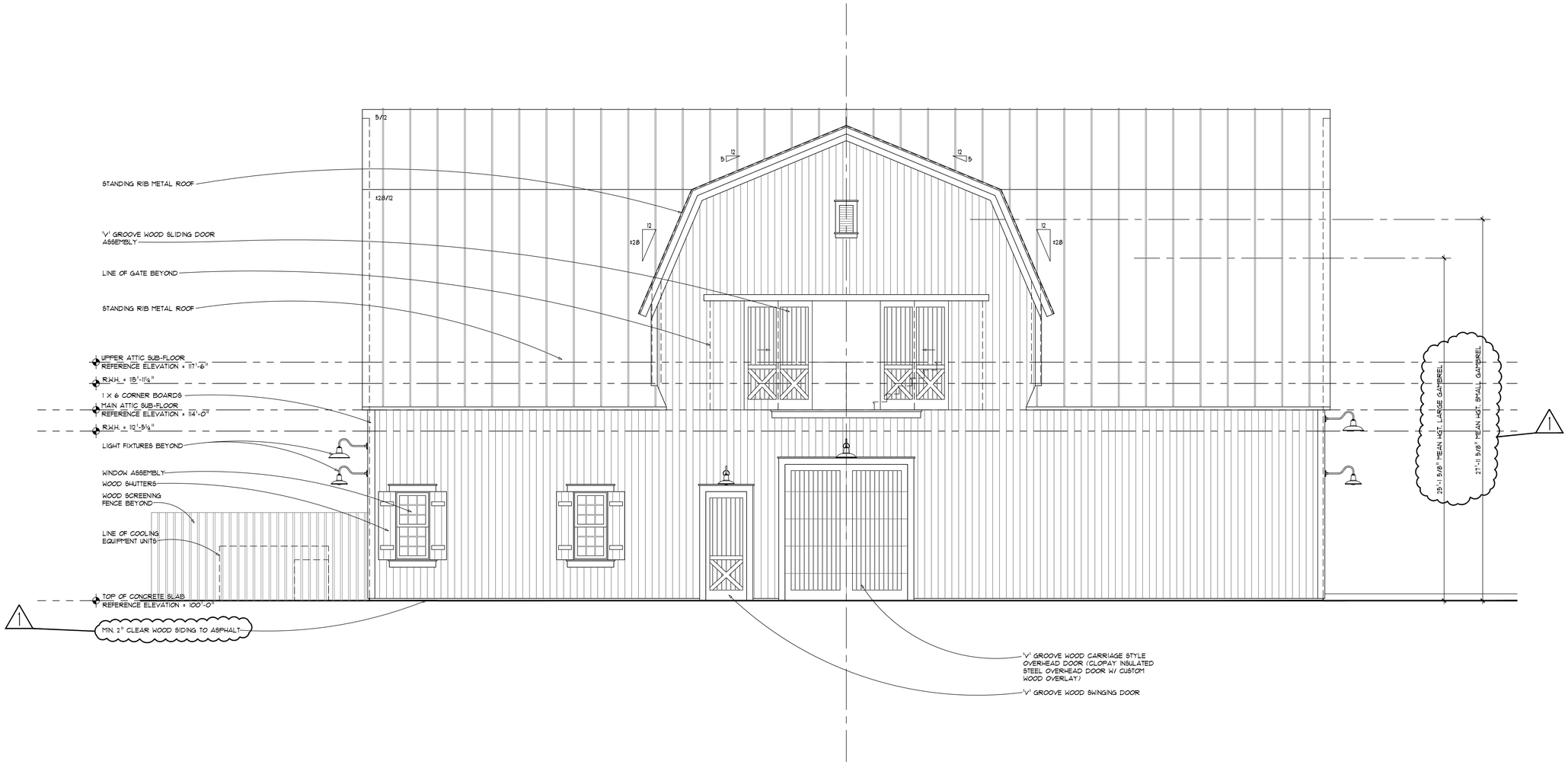
REVISION NO.

ARCHITECT'S SEAL

SHEET NO.
DD4

CBI Design Professionals
838 W. Long Lake, Suite 110
Bloomfield Hills, MI 48302
P: 248.645.2605
F: 248.647.7307
www.cbidesign.net

Exterior Elevations



REAR (NORTHEAST) ELEVATION

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

0 1' 2' 4' 8' 16'

CBI DESIGN PROFESSIONALS

Proposed Refrigerated Storage Building for
Yates Cider Mill
1950 E Avon Rd., Rochester Hills, MI 48307

JOB NO.
23019

DRAWN BY
LIP

CKD BY
RGC

RELEASE DATE

HDC Submission - 02.12.2025
SPR Resubmission - 05.08.2025

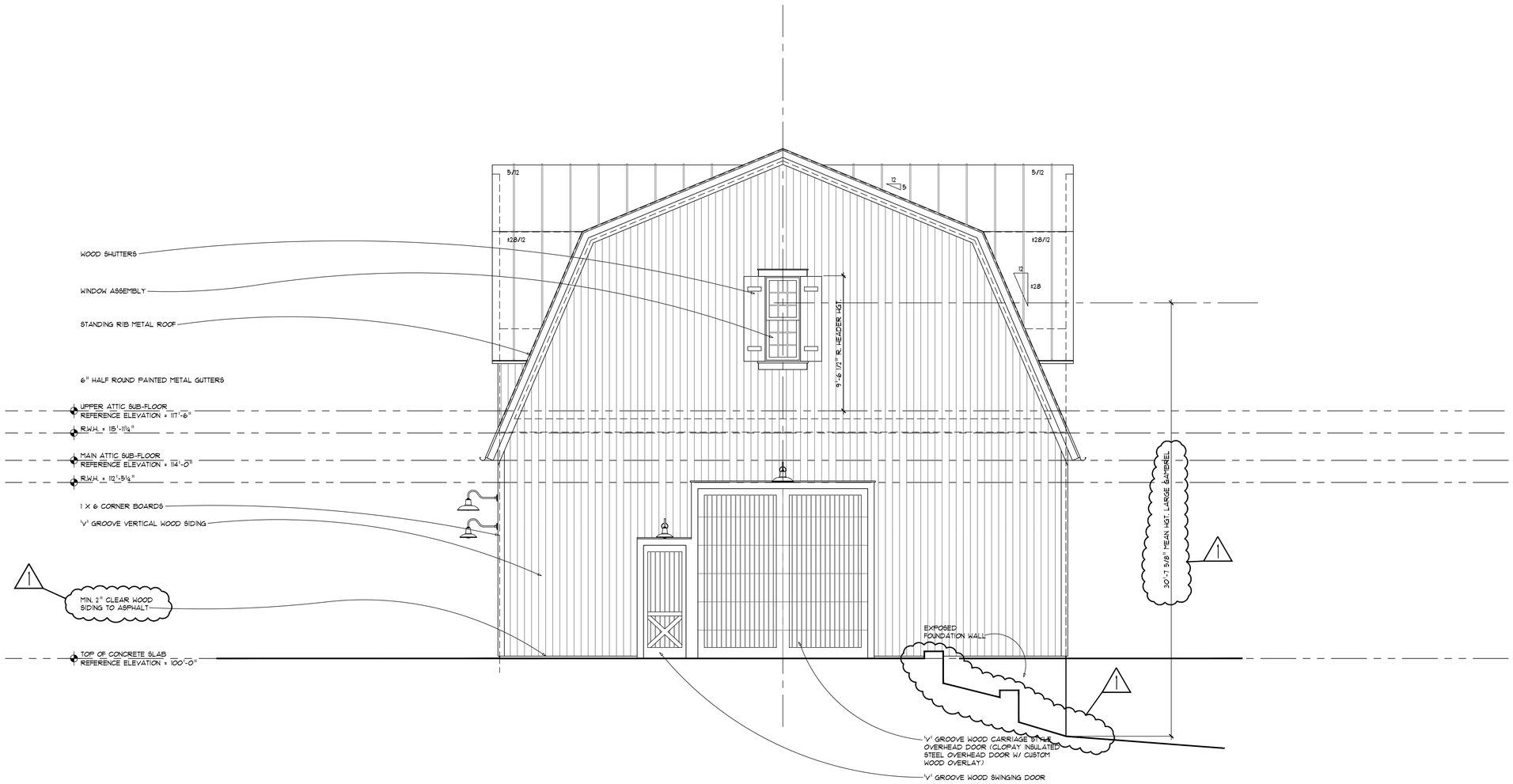
REVISION NO.

ARCHITECTS SEAL

SHEET NO.
DD5

CBI Design Professionals
838 W. Long Lake, Suite 110
Bloomfield Hills, MI 48302
P: 248.645.2605
F: 248.647.7307
www.cbidesign.net

Exterior Elevations



SIDE (NORTHWEST) ELEVATION

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

0 1' 2' 4' 8' 16'

CBI DESIGN PROFESSIONALS

Proposed Refrigerated Storage Building for
Yates Cider Mill
1950 E Avon Rd., Rochester Hills, MI 48307

JOB NO.
23019

DRAWN BY
LIP

CKD BY
RGC

RELEASE DATE

HDC Submission - 02.12.2025
SPR Resubmission - 05.08.2025

REVISION NO.

ARCHITECT'S SEAL

SHEET NO.
DD6

CBI Design Professionals
838 W. Long Lake, Suite 110
Bloomfield Hills, MI 48302
P: 248.645.2605
F: 248.647.7307
www.cbidesign.net

Exterior Elevations

VIEW FROM STREET (NORTHWEST)

NO SCALE

VIEW FROM EXISTING MILL BUILDING (NORTHWEST)

NO SCALE

SIDE VIEW (WEST)

NO SCALE

STREET VIEW (WEST)

NO SCALE

FRONT VIEW (SOUTHWEST)

NO SCALE

FRONT VIEW (SOUTHWEST)

NO SCALE

SIDE VIEW (SOUTHEAST)

NO SCALE

SIDE VIEW (EAST)

NO SCALE

REAR VIEW (NORTHEAST)

NO SCALE

CBI DESIGN PROFESSIONALS

Proposed Refrigerated Storage Building for
Yates Cider Mill
1950 E Avon Rd., Rochester Hills, MI 48307

JOB NO.
23019

DRAWN BY
LIP

CKD BY
RGC

RELEASE DATE
Preliminary Historic Review - 10.15.2024
HDC Review - 01.22.2025
Site Plan Review Resubmission - 05.07.2025

REVISION NO.

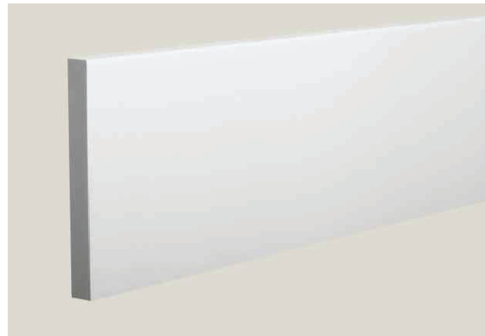
ARCHITECT'S SEAL

SHEET NO.
DD7

CBI Design Professionals
838 W. Long Lake, Suite 110
Bloomfield Hills, MI 48302
P: 248.645.2605
F: 248.647.7307
www.cbidesign.net

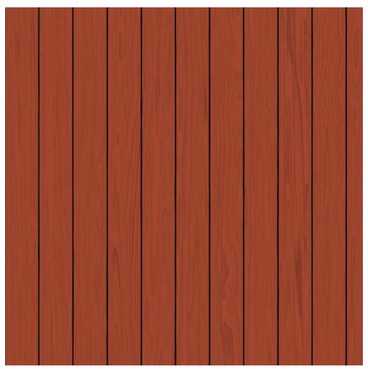
Rendered Views

STANDING RIB METAL ROOF -
ANODIZED ALUMINUM



TRIM BOARDS - PAINTED WOOD - SW 6168
(MODERNE WHITE)

6" HALF ROUND GUTTERS - PAINTED METAL



WOOD V-GROOVE VERTICAL SIDING - PAINTED -
BM 2171-10 (NAVAJO RED)

WINDOWS - ANDERSEN '400' SERIES - SDL -
DOUBLE HUNG - WHITE

WOOD PLANK SHUTTERS - PAINTED - BM 2171-10
(NAVAJO RED)

CBI DESIGN PROFESSIONALS

Proposed Refrigerated Storage Building for
Yates Cider Mill
1950 E Avon Rd., Rochester Hills, MI 48307

JOB NO.
23019

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LIP

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RGC

RELEASE DATE
Preliminary Historic Review - 10.15.2024
HDC Submission - 02.12.2025

REVISION NO.

ARCHITECTS SEAL

SHEET NO.
DD8

CBI Design Professionals
838 W. Long Lake, Suite 110
Bloomfield Hills, MI 48302
P: 248.645.2605
F: 248.647.7307
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Exterior Materials

EXISTING MILL REFERENCE IMAGES

NO SCALE

EXISTING MILL REFERENCE IMAGES (LOOKING AT PROPOSED NEW BUILDING LOCATION)

NO SCALE

C:\OneDrive\CBI Design Professionals\Arch - Documents\Projects\P23019 Yates Refrigerated Storage Building\1. PROJECT & DRAWING INFO\1H. Design Development\23019DD - Reference Mill Images.dwg, 2/11/2025 11:07:22 AM, LPaterson

CBI DESIGN PROFESSIONALS

Proposed Refrigerated Storage Building for
Yates Cider Mill
1950 E Avon Rd., Rochester Hills, MI 48307

JOB NO.
23019

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RELEASE DATE
Preliminary Historic Review - 10.15.2024
HDC Submission - 02.12.2025

REVISION NO.

ARCHITECT'S SEAL

SHEET NO.
DD9

CBI Design Professionals
838 W. Long Lake, Suite 110
Bloomfield Hills, MI 48302
P: 248.645.2605
F: 248.647.7307
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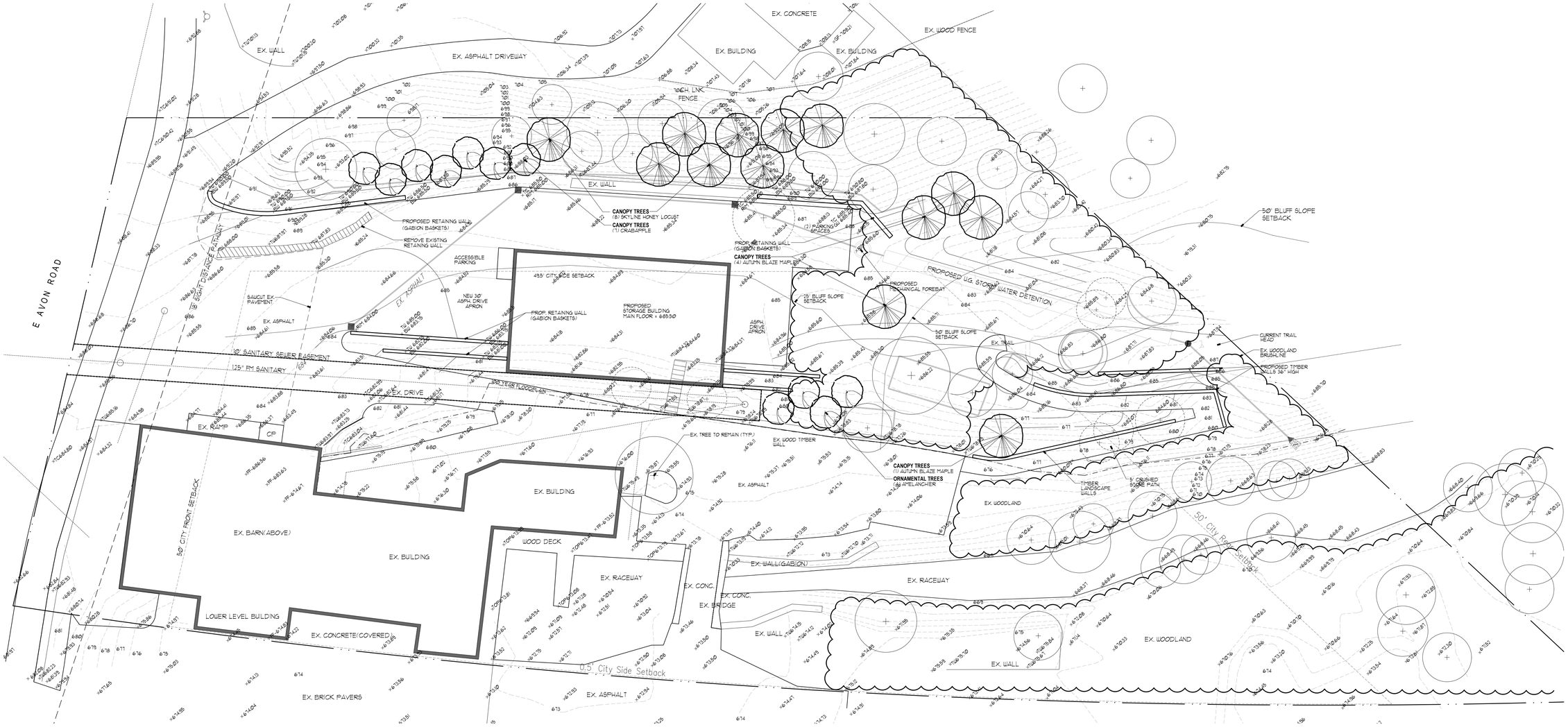
Existing Mill Reference Images



LANDSCAPE ARCHITECTURE

MICHAEL J. DUL
& ASSOCIATES, INC

212 DAINES STREET
BIRMINGHAM
MICHIGAN 48009

P 248 644 3410
www.mjdul.com

YATES CIDER MILL COLD STORAGE

1950 E Avon Road
Rochester Hills, MI 48307

PROJECT

Landscape Development

Planting Plan

SHEET TITLE

1/16"=1'-0"

NORTH

SCALE

PROJECT NUMBER:	24136
DRAWN:	M. Bayer
CHECKED:	T. Shoemaker
DATE:	December 18, 2024
REVISIONS:	February 12, 2025 May 8, 2025

L1

PERIMETER TREE CALCULATIONS

REQUIRED PERIMETER LANDSCAPING

PERIMETER LANDSCAPING: FIRST 100' FROM AVON ROAD, 1 DECIDUOUS TREE FOR EVERY 25 LINEAR FEET	8 CANOPY TREES REQUIRED
PERIMETER LANDSCAPING: FIRST 100' FROM AVON ROAD, 1 ORNAMENTAL TREE FOR EVERY 35 LINEAR FEET	6 ORNAMENTAL TREES REQUIRED

14 TOTAL REQUIRED TREES
14 TOTAL PROVIDED TREES

RIGHT OF WAY TREE CALCULATIONS

REQUIRED RIGHT OF WAY LANDSCAPING:

STREET TREES SHALL BE PLANTED AT A MIN. CONCENTRATION OF ONE (1) TREE PER 35 LINEAR FEET OF R.O.W.	161 L.F. 5 TREES REQUIRED
ORNAMENTAL TREES SHALL BE PLANTED AT A MIN. ONE (1) TREE FOR EVERY 35 LINEAR FEET OF R.O.W. FRONTAGE	161 L.F. 5 TREES REQUIRED

10 TOTAL REQUIRED TREES
10 TOTAL PROVIDED TREES

LANDSCAPE BUFFER TREES

ADJOINING ZONE BUFFER

NORTH & SOUTH ADJACENT LOTS ARE ZONED NB & CB	0 REQ. TREES
SOUTHWEST PARCEL ACROSS CLINTON RIVER & PARKING LOT ZONE R3 *SCREENING PROVIDED DUE TO EXISTING WOODLANDS*	"TYPE D" SCREENING REQ.

0 TOTAL PROVIDED TREES

TOTAL TREES

TOTAL REQUIRED TREES: RIGHT OF WAY + PERIMETER	13 CANOPY TREES & 11 ORNAMENTAL TREES
TOTAL PROVIDED TREES: RIGHT OF WAY + PERIMETER	13 CANOPY TREES & 11 ORNAMENTAL TREES

TREE NOTES:

(1) INTERIOR PARKING LOT TREE PLANTING OF 5% OF TOTAL VEHICULAR AREA IS NOT APPLICABLE IN REQ. CALCULATIONS DUE TO LESS THAN REQUIRED PARKING SPACES PROPOSED (20) - INTERIOR LANDSCAPE REQUIREMENTS NOT NEEDED

(2) DUE TO EXISTING SITE CONDITIONS, THE APPLICANT REQUESTS A MODIFICATION TO ORDINANCE REQUIRED RIGHT-OF-WAY AND PERIMETER TREE LOCATIONS. ALL REQUIRED TREES WILL BE ACCOUNTED FOR ELSEWHERE ON SITE, BUT CANNOT BE LOCATED WITHIN THE FIRST 100' OF THE PROPERTY DUE TO EXISTING BUILDINGS, DRIVEWAYS AND SITE DISTANCE PATHWAY REQUIREMENTS.

TREE CONSERVATION *REFER TO SHEET CS1.0 FOR EXISTING TREE LIST*

EXISTING TREES:

TOTAL EXISTING TREES 6" CALIPER OR GREATER:	103
TOTAL EXISTING TREES LESS THAN 6" CALIPER:	7
TOTAL EXISTING TREES:	110

REGULATED TREE PRESERVATION:

TOTAL EXISTING REGULATED TREES, 6-8" CALIPER:	20/103
TOTAL EXISTING REGULATED TREES, 9"+ CALIPER:	83/103
EXISTING REGULATED TREES TO BE REMOVED, 6-8" CALIPER:	0/20
EXISTING REGULATED TREES TO BE REMOVED, 9"+ CALIPER:	7/83
EXISTING REGULATED TREES TO REMAIN, 6-8" CALIPER:	20/20
EXISTING REGULATED TREES TO REMAIN, 9"+ CALIPER:	76/83
TREE PRESERVATION, 6-8" CALIPER:	100%
TREE PRESERVATION, 9"+ CALIPER:	91%
TREE PRESERVATION, OVERALL:	87%

REMOVAL & REPLACEMENT TREES

TOTAL OF (7) REGULATED TREES TO BE REMOVED (PER CS 1.0)
- #502, 539, 560 & 565 REGULATED TREE REQUIRING 1 TO 1 REPLACEMENT W/ 2" TREE
- #503, 522 & 566 SPECIMEN TREES REQUIRING 50% REPLACEMENT: (32" X 50%)=16" (OR (8) 2" TREES)
- TOTAL 2" CALIPER REPLACEMENT REQUIRED: (11) TREES
TOTAL SPECIMEN TREES ON SITE TO BE PRESERVED: (22) TREES
- SPECIMEN TREES WITH 24" OR GREATER DBH CREDITS (1) 2" TREE TOWARDS REPLACEMENTS

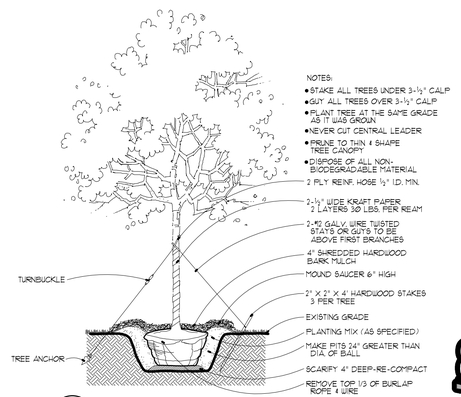
NO ADDITIONAL REPLACEMENT TREES REQUIRED
(12 REQUIRED-22 CREDITS=SURPLUS OF 10 TREES)

PLANT & MATERIAL SCHEDULE

Qty.	Botanical Name	Common Name	Size	Root	Comments
	Deciduous Trees				
8	Gleditsia triacanthos f. inermis	Skyline Honey Locust	2 1/2-3" cal.	B&B	Full uniform heads, single stem
5	Acer x freemanii	Autumn Blaze Maple	2 1/2-3" cal.	B&B	Full uniform heads, single stem
7	Malus 'Coralcole'	Coralburst Crabapple	2 1/2-3" cal.	B&B	Full uniform heads, single stem
4	Amelanchier canadensis	Shadblow Serviceberry	2 1/2-3" cal.	B&B	Full uniform heads, min. 3 canes

IRRIGATION NOTES

1.) INSTALL UNDERGROUND AUTOMATIC IRRIGATION SYSTEM FOR ALL PROPOSED TREES.
2.) USE SEPARATE ZONES FOR LAWN, DECIDUOUS SHRUBS, AND EVERGREEN SHRUBS.
3.) WATER SOURCED FROM CITY WATER/ BUILDING TAP
4.) OWNER TO DECIDE IRRIGATION CONTROLLER LOCATION.
5.) EACH TREE WILL BE WATERED BY INDIVIDUAL DRIP RINGS.



Deciduous Tree Planting
Section — No Scale

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

LANDSCAPE ARCHITECTURE

MICHAEL J. DUL
& ASSOCIATES, INC

212 DAINES STREET
BIRMINGHAM
MICHIGAN 48009

P 248 644 3410
www.mjdul.com

YATES CIDER MILL COLD STORAGE

1950 E Avon Road
Rochester Hills, MI 48307

PROJECT

Landscape Development

Planting Plan

SHEET TITLE

1/16"=1'-0"

NORTH

SCALE

PERIMETER TREE CALCULATIONS

REQUIRED PERIMETER LANDSCAPING

PERIMETER LANDSCAPING: FIRST 100' FROM AVON ROAD, 1 DECIDUOUS TREE FOR EVERY 25 LINEAR FEET	8 CANOPY TREES REQUIRED
PERIMETER LANDSCAPING: FIRST 100' FROM AVON ROAD, 1 ORNAMENTAL TREE FOR EVERY 35 LINEAR FEET	6 ORNAMENTAL TREES REQUIRED

14 TOTAL REQUIRED TREES
14 TOTAL PROVIDED TREES

LANDSCAPE BUFFER TREES

ADJOINING ZONE BUFFER

NORTH & SOUTH ADJACENT LOTS ARE ZONED NB & CB	0 REQ. TREES
SOUTHWEST PARCEL ACROSS CLINTON RIVER & PARKING LOT ZONE R3 *SCREENING PROVIDED DUE TO EXISTING WOODLANDS*	'TYPE D' SCREENING REQ.

0 TOTAL PROVIDED TREES

RIGHT OF WAY TREE CALCULATIONS

REQUIRED RIGHT OF WAY LANDSCAPING:

STREET TREES SHALL BE PLANTED AT A MIN. CONCENTRATION OF ONE (1) TREE PER 35 LINEAR FEET OF R.O.W.	161 L.F. 5 TREES REQUIRED
ORNAMENTAL TREES SHALL BE PLANTED AT A MIN. ONE (1) TREE FOR EVERY 35 LINEAR FEET OF R.O.W. FRONTAGE	161 L.F. 5 TREES REQUIRED

10 TOTAL REQUIRED TREES
10 TOTAL PROVIDED TREES

TOTAL TREES

TOTAL REQUIRED TREES: RIGHT OF WAY + PERIMETER	13 CANOPY TREES & 11 ORNAMENTAL TREES
TOTAL PROVIDED TREES: RIGHT OF WAY + PERIMETER	13 CANOPY TREES & 11 ORNAMENTAL TREES

TREE NOTES:

(1) INTERIOR PARKING LOT TREE PLANTING OF 5% OF TOTAL VEHICULAR AREA IS NOT APPLICABLE IN REQ. CALCULATIONS DUE TO LESS THAN REQUIRED PARKING SPACES PROPOSED (20) - INTERIOR LANDSCAPE REQUIREMENTS NOT NEEDED

(2) DUE TO EXISTING SITE CONDITIONS, THE APPLICANT REQUESTS A MODIFICATION TO ORDINANCE REQUIRED RIGHT-OF-WAY AND PERIMETER TREE LOCATIONS. ALL REQUIRED TREES WILL BE ACCOUNTED FOR ELSEWHERE ON SITE, BUT CANNOT BE LOCATED WITHIN THE FIRST 100' OF THE PROPERTY DUE TO EXISTING BUILDINGS, DRIVEWAYS AND SITE DISTANCE PATHWAY REQUIREMENTS.

TREE CONSERVATION *REFER TO SHEET CS10 FOR EXISTING TREE LIST*

EXISTING TREES:

TOTAL EXISTING TREES 6" CALIPER OR GREATER:	103
TOTAL EXISTING TREES LESS THAN 6" CALIPER:	7
TOTAL EXISTING TREES:	110

REGULATED TREE PRESERVATION:

TOTAL EXISTING REGULATED TREES, 6-8" CALIPER:	20/103
TOTAL EXISTING REGULATED TREES, 9"+ CALIPER:	83/103
EXISTING REGULATED TREES TO BE REMOVED, 6-8" CALIPER:	0/20
EXISTING REGULATED TREES TO BE REMOVED, 9"+ CALIPER:	7/83
EXISTING REGULATED TREES TO REMAIN, 6-8" CALIPER:	20/20
EXISTING REGULATED TREES TO REMAIN, 9"+ CALIPER:	76/83
TREE PRESERVATION, 6-8" CALIPER:	100%
TREE PRESERVATION, 9"+ CALIPER:	91%
TREE PRESERVATION, OVERALL:	87%

REMOVAL & REPLACEMENT TREES

TOTAL OF (7) REGULATED TREES TO BE REMOVED (PER CS 10)
- #502, 539, 560 & 565 REGULATED TREE REQUIRING 1 TO 1 REPLACEMENT W/ 2" TREE
- #503, 522 & 566 SPECIMEN TREES REQUIRING 50% REPLACEMENT: (32" X 50%)=16" (OR(8) 2" TREES)
- TOTAL 2" CALIPER REPLACEMENT REQUIRED: (11) TREES
TOTAL SPECIMEN TREES ON SITE TO BE PRESERVED: (22) TREES
- SPECIMEN TREES WITH 24" OR GREATER DBH CREDITS (1) 2" TREE TOWARDS REPLACEMENTS

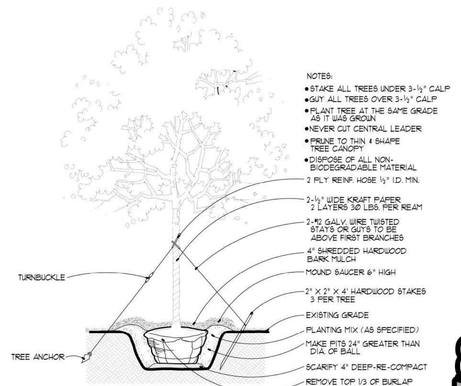
NO ADDITIONAL REPLACEMENT TREES REQUIRED
(12 REQUIRED-22 CREDITS=SURPLUS OF 10 TREES)

PLANT & MATERIAL SCHEDULE

Qty.	Botanical Name	Common Name	Size	Root	Comments
	Deciduous Trees				
8	Gleditsia triacanthos f. inermis	Skyline Honey Locust	2 1/2-3" cal.	B&B	Full uniform heads, single stem
5	Acer x freemanii	Autumn Blaze Maple	2 1/2-3" cal.	B&B	Full uniform heads, single stem
1	Malus 'Coralcole'	Coralburst Crabapple	2 1/2-3" cal.	B&B	Full uniform heads, single stem
4	Amelanchier canadensis	Shadblow Serviceberry	2 1/2-3" cal.	B&B	Full uniform heads, min. 3 canes

IRRIGATION NOTES

1.) INSTALL UNDERGROUND AUTOMATIC IRRIGATION SYSTEM FOR ALL PROPOSED TREES.
2.) USE SEPARATE ZONES FOR LAWN, DECIDUOUS SHRUBS, AND EVERGREEN SHRUBS.
3.) WATER SOURCED FROM CITY WATER/ BUILDING TAP
4.) OWNER TO DECIDE IRRIGATION CONTROLLER LOCATION.
5.) EACH TREE WILL BE WATERED BY INDIVIDUAL DRIP RINGS.

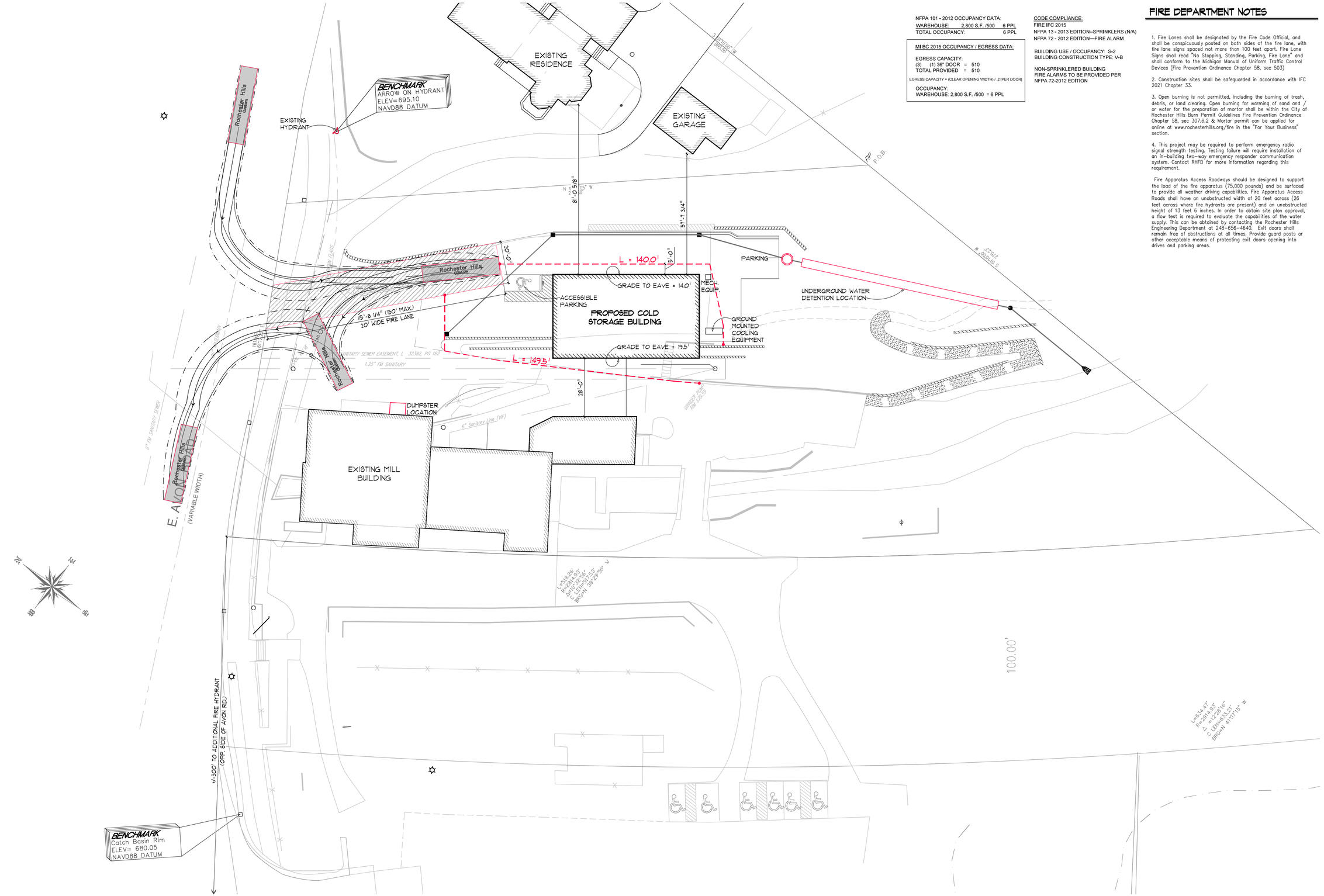


Deciduous Tree Planting
Section — No Scale

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

PROJECT NUMBER:	24136
DRAWN:	M. Bayer
CHECKED:	T. Shoemaker
DATE:	December 18, 2024
REVISIONS:	February 12, 2025 May 8, 2025

L1



NFPA 101 - 2012 OCCUPANCY DATA:

WAREHOUSE:	2,800 S.F. /500	6 PPL
TOTAL OCCUPANCY:		6 PPL

MI BC 2015 OCCUPANCY / EGRESS DATA:

EGRESS CAPACITY:
(3) (1) 36" DOOR = 510
TOTAL PROVIDED = 510

EGRESS CAPACITY = (CLEAR OPENING WIDTH) / .2 [PER DOOR]

OCCUPANCY:
WAREHOUSE: 2,800 S.F. /500 = 6 PPL

CODE COMPLIANCE:
FIRE IFC 2015
NFPA 13 - 2013 EDITION--SPRINKLERS (N/A)
NFPA 72 - 2012 EDITION---FIRE ALARM

BUILDING USE / OCCUPANCY: S-2
BUILDING CONSTRUCTION TYPE: V-B

NON-SPRINKLERED BUILDING
FIRE ALARMS TO BE PROVIDED PER
NFPA 72-2012 EDITION

FIRE DEPARTMENT NOTES

1. Fire Lanes shall be designated by the Fire Code Official, and shall be conspicuously posted on both sides of the fire lane, with fire lane signs spaced not more than 100 feet apart. Fire Lane Signs shall read "No Stopping, Standing, Parking, Fire Lane" and shall conform to the Michigan Manual of Uniform Traffic Control Devices (Fire Prevention Ordinance Chapter 58, sec 503)

2. Construction sites shall be safeguarded in accordance with IFC 2021 Chapter 33.

3. Open burning is not permitted, including the burning of trash, debris, or land clearing. Open burning for warming of sand and / or water for the preparation of mortar shall be within the City of Rochester Hills Burn Permit Guidelines Fire Prevention Ordinance Chapter 58, sec 307.6.2 & Mortar permit can be applied for online at www.rochesterhills.org/fire in the "For Your Business" section.

4. This project may be required to perform emergency radio signal strength testing. Testing failure will require installation of an in-building two-way emergency responder communication system. Contact RHFD for more information regarding this requirement.

Fire Apparatus Access Roadways should be designed to support the load of the fire apparatus (75,000 pounds) and be surfaced to provide all weather driving capabilities. Fire Apparatus Access Roads shall have an unobstructed width of 20 feet across (26 feet across where fire hydrants are present) and an unobstructed height of 13 feet 6 inches. In order to obtain site plan approval, a flow test is required to evaluate the capabilities of the water supply. This can be obtained by contacting the Rochester Hills Engineering Department at 248-656-4640. Exit doors shall remain free of obstructions at all times. Provide guard posts or other acceptable means of protecting exit doors opening into drives and parking areas.

FIRE PROTECTION PLAN

SCALE: 1" = 30'

CBI DESIGN PROFESSIONALS

Refrigerated Storage Building for
Yates Cider Mill
1950 E Avon Rd., Rochester Hills, MI 48307

JOB NO.
23019

DRAWN BY
LMF

CKD BY
RGC

RELEASE DATE

Fire Marshal Mtg - 04.03.2025
SPR Resubmission - 05.08.2025

REVISION NO.

ARCHITECTS SEAL

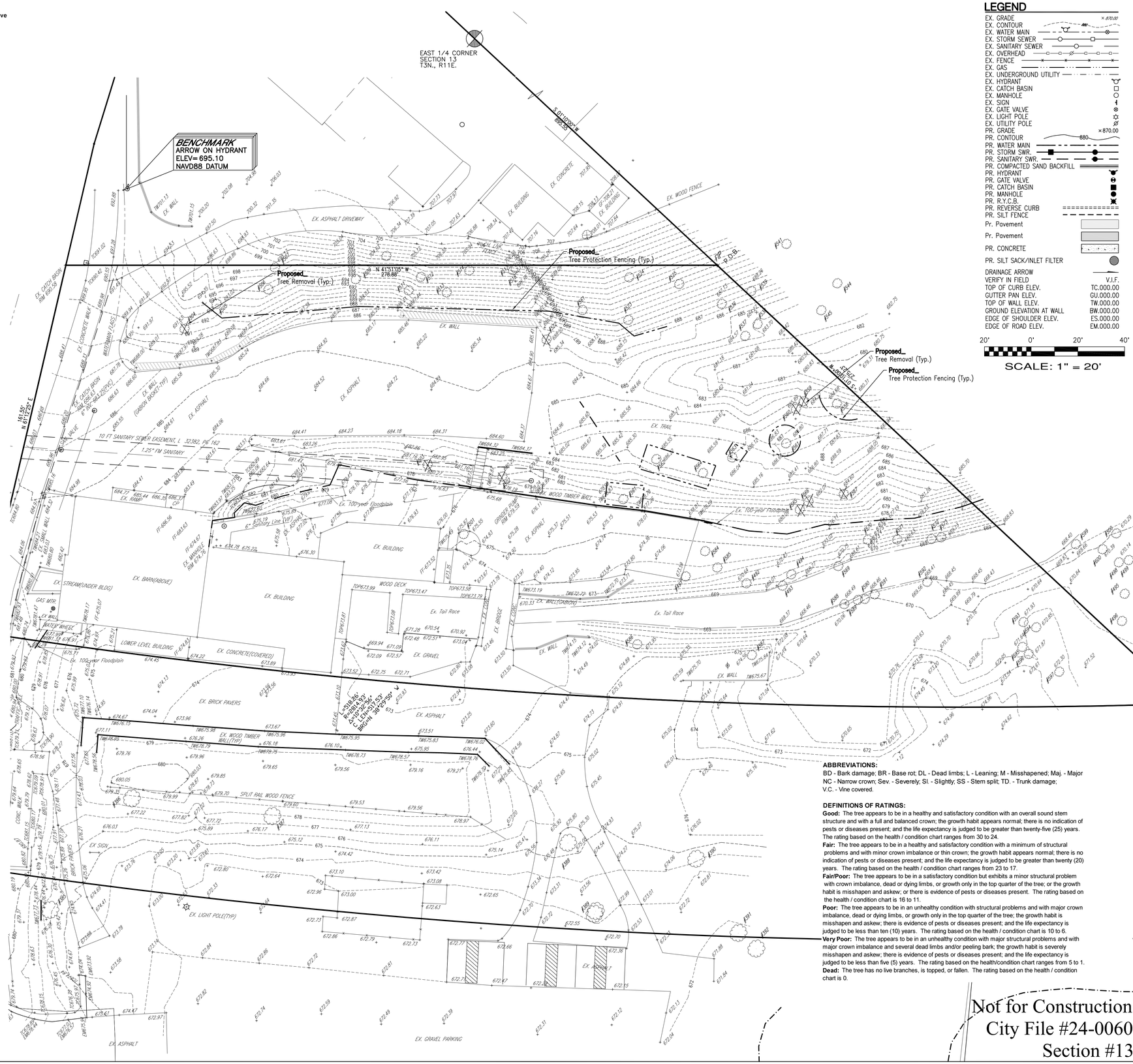
SHEET NO.
FPP-1

CBI Design Professionals
838 W. Long Lake, Suite 110
Bloomfield Hills, MI 48302
P: 248.645.2605
F: 248.647.7307
www.cbidesign.net

Fire Protection Plan

YATES CIDER MILL TREE INVENTORY

TAG#	SIZE	BOTANICAL NAME	COMMON NAME	CONDITION	COMMENTS	Preserve	Remove
491	6"	*Juglans nigra*	Black Walnut	Fair/Poor	Some vines - Woodbine	X	
492	7"	*Ulmus sp.*	Elm	Fair		X	
493	16"	*Populus deltoides*	Cottonwood	Poor	Many dead limbs, Slight L	X	
494	7"	*Acer rubrum*	Red Maple	Fair		X	
495	29"	*Ulmus americana*	American Elm	Fair		X	
496	22"	*Populus deltoides*	Cottonwood	Fair		X	
497	6"	*Ulmus sp.*	Elm	Poor	NC, Vines - Woodbine	X	
498	21"	*Populus deltoides*	Cottonwood	Fair		X	
499	29"	*Populus deltoides*	Cottonwood	Fair		X	
500	33"	*Populus deltoides*	Cottonwood	Fair		X	
501	44"	*Platanus occidentalis*	Sycamore	Fair		X	
502	23"	*Ulmus americana*	American Elm	Fair			X
503	22"	*Juglans nigra*	Black Walnut	Fair			X
504	22"	*Acer saccharinum*	Silver Maple	Fair			X
505	10'	*Juniperus virginiana*	Redcedar	Poor	BD, NC	X	
506	22",22"	*Tilia americana*	Basswood	Fair		X	
507	3",6"	*Acer negundo*	Box Elder	Poor	DL, M	X	
508	5",7"	*Acer negundo*	Box Elder	Poor	BR, DL, L	X	
509	48"		Deciduous Tree	Dead	Stem only	X	
510	4",4",5",5",6"	*Acer negundo*	Box Elder	Poor	Major BR, DL	X	
511	32"	*Salix sp.*	Willow	Very Poor	Topped, One (1) live branch	X	
512	27"	*Ulmus americana*	American Elm	Fair/Poor	L	X	
513	6"	*Acer negundo*	Box Elder	Poor	Sev. L, DL	X	
514	6"	*Acer negundo*	Box Elder	Poor	Sev. L, DL	X	
515	4",5",8",9"	*Acer negundo*	Box Elder	Poor	BR, DL	X	
516	8",10"	*Acer negundo*	Box Elder	Poor	Sev. L	X	
517	3",5"7",8",10"	*Acer negundo*	Box Elder	Very Poor	Sev. L, BR, DL	X	
518	22"	*Acer negundo*	Box Elder	Very Poor	Maj. limb topped, L	X	
519	24"	*Acer negundo*	Box Elder	Poor	Sev. M, DL	X	
520	18",19"	*Acer negundo*	Box Elder	Fair		X	
521	6',10'	*Acer negundo*	Box Elder	Very Poor	Sev. L, DL	X	
522	25"	*Ulmus americana*	American Elm	Fair			X
523	13"	*Acer negundo*	Box Elder	Poor	Maj. BR, DL, L	X	
524	17"	*Ulmus americana*	American Elm	Fair		X	
525	33"	*Morus rubra*	Mulberry	Poor	Maj. SS in upper branches, L	X	
526	15"	*Morus rubra*	Mulberry	Very Poor	Maj. BD, many DL	X	
527	10"	*Acer negundo*	Box Elder	Poor	DL, M	X	
528	19"	*Prunus serotina*	Black Cherry	Poor	DL, M	X	
529	8"	*Acer negundo*	Box Elder	Poor	DL, Vines - Woodbine	X	
530	7",9"	*Acer negundo*	Box Elder	Poor	DL, M, L	X	
531	10"	*Ulmus sp.*	Elm	Fair		X	
532	10"	*Ulmus sp.*	Elm	Fair		X	
533	16"	*Morus rubra*	Mulberry	Poor	Many DL	X	
534	13",15"	*Acer negundo*	Box Elder	Very Poor	Sev. L, DL	X	
535	16"	*Ulmus americana*	American Elm	Fair/Poor	L	X	
536	9"	*Acer negundo*	Box Elder	Dead		X	
537	12"	*Acer negundo*	Box Elder	Poor	Sev. L, DL	X	
538	9"	*Acer negundo*	Box Elder	Poor	OS, NC, TD	X	
539	13'	*Ulmus americana*	American Elm	Fair		X	
540	10"	*Acer negundo*	Box Elder	Poor	Sev. L, M, OS	X	
541	11"	*Acer negundo*	Box Elder	Dead	Stem only	X	
542	18"	*Platanus occidentalis*	Sycamore	Fair/Poor	Some DL	X	
543	22"	*Juglans nigra*	Black Walnut	Fair		X	
544	6",9"	*Ulmus americana*	American Elm	Fair/Poor	OS	X	
545	16"	*Juglans nigra*	Black Walnut	Fair		X	
546	44"	*Quercus alba*	White Oak	Fair		X	
547	29"	*Juglans nigra*	Black Walnut	Fair		X	
548	6"7"	*Ulmus sp.*	Elm	Fair/Poor	Some BR	X	
549	8"	*Juglans nigra*	Black Walnut	Fair		X	
550	11"	*Ulmus sp.*	Elm	Fair		X	
551	6",13"	*Tilia americana*	Basswood	Fair		X	
552	11"	*Ulmus sp.*	Elm	Dead		X	
553	24"	*Juglans nigra*	Black Walnut	Fair		X	
554	31"	*Juglans nigra*	Black Walnut	Fair		X	
555	3",5",7"	*Tilia americana*	Basswood	Fair		X	
556	12",15"	*Tilia americana*	Basswood	Fair/Poor	Some BR	X	
557	13"	*Ulmus americana*	American Elm	Fair		X	
558	13"	*Ulmus americana*	American Elm	Fair		X	
559	11"	*Ulmus sp.*	Elm	Fair			X
560	15"	*Morus rubra*	Mulberry	Poor	Many DL		X
561	13"	*Acer negundo*	Box Elder	Poor	Sev. L	X	
562	20"	*Morus rubra*	Mulberry	Fair		X	
563	10"	*Acer negundo*	Box Elder	Poor	L, Vines - Woodbine	X	
564	40"	*Salix sp.*	Willow	Fair		X	
565	8",9",11",16"	*Tilia americana*	Basswood	Fair			X
566	14",19"	*Tilia americana*	Basswood	Fair			X
567	19'	*Ulmus sp.*	Elm	Dead			X
568	6"	*Ulmus sp.*	Elm	Fair		X	
569	10"	*Ulmus sp.*	Elm	Fair		X	
570	15"	*Populus deltoides*	Cottonwood	Fair		X	
571	30"	*Populus deltoides*	Cottonwood	Fair		X	
572	16"	*Populus deltoides*	Cottonwood	Fair		X	
573	8"	*Platanus occidentalis*	Sycamore	Fair		X	
574	7"	*Platanus occidentalis*	Sycamore	Fair		X	
575	12"	*Ulmus sp.*	Elm	Fair		X	
576	16"	*Ulmus sp.*	Elm	Fair		X	
577	17"	*Ulmus sp.*	Elm	Fair/Poor	L	X	
578	7"	*Ulmus sp.*	Elm	Fair/Poor	NC	X	
579	6"	*Ulmus sp.*	Elm	Poor	NC, Vines - Woodbine	X	
580	8"	*Ulmus sp.*	Elm	Poor	NC, VC - Poison Ivy	X	
581	15"	*Acer negundo*	Box Elder	Very Poor	Maj. BD, DL, M	X	
582	16"	*Ulmus sp.*	Elm	Fair		X	
583	15"	*Ulmus americana*	American Elm	Fair/Poor	Some DL	X	
584	17"	*Ulmus sp.*	Elm	Fair		X	
585	15"	*Ulmus sp.*	Elm	Fair		X	
586	6",8",11"	*Ulmus sp.*	Elm	Fair		X	
587	35"	*Ulmus americana*	American Elm	Fair		X	
588	13"	*Acer saccharinum*	Silver Maple	Fair		X	
589	14"	*Acer saccharinum*	Silver Maple	Fair		X	
590	8",13"	*Acer saccharinum*	Silver Maple	Fair/Poor	Elm growing through stems	X	
591	10"	*Acer saccharinum*	Silver Maple	Fair		X	
592	16"	*Ulmus americana*	American Elm	Fair		X	
593	33"	*Populus deltoides*	Cottonwood	Fair		X	
594	24"	*Populus deltoides*	Cottonwood	Fair		X	
595	17"	*Populus deltoides*	Cottonwood	Fair		X	
596	13"	Acer negundo	Box Elder	Very Poor	Maj. TD, DL	X	
597	20"	*Populus deltoides*	Cottonwood	Fair		X	
598	4",11"	Acer negundo	Box Elder	Very Poor	Sev. L, DL	X	
599	6"	Acer negundo	Box Elder	Poor	Exposed roots, DL, Slight L	X	
600	32"	*Populus deltoides*	Cottonwood	Fair		X	



LEGEND

- EX. GRADE
- EX. CONTOUR
- EX. WATER MAIN
- EX. STORM SEWER
- EX. SANITARY SEWER
- EX. OVERHEAD
- EX. FENCE
- EX. GAS
- EX. UNDERGROUND UTILITY
- EX. HYDRANT
- EX. CATCH BASIN
- EX. MANHOLE
- EX. SIGN
- EX. GATE VALVE
- EX. LIGHT POLE
- EX. UTILITY POLE
- PR. GRADE
- PR. CONTOUR
- PR. WATER MAIN
- PR. STORM SWR.
- PR. SANITARY SWR.
- PR. COMPACTED SAND BACKFILL
- PR. HYDRANT
- PR. GATE VALVE
- PR. CATCH BASIN
- PR. MANHOLE
- PR. R.Y.C.B.
- PR. REVERSE CURB
- PR. SILT FENCE
- Pr. Pavement
- Pr. Pavement
- PR. CONCRETE
- PR. SILT SACK/INLET FILTER
- DRAINAGE ARROW
- VERIFY IN FIELD — V.I.F.
- TOP OF CURB ELEV. — TC.000.00
- GUTTER PAN ELEV. — GU.000.00
- TOP OF WALL ELEV. — TW.000.00
- GROUND ELEVATION AT WALL — EW.000.00
- EDGE OF SHOULDER ELEV. — ES.000.00
- EDGE OF ROAD ELEV. — EM.000.00

20' 0' 20' 40'

SCALE: 1" = 20'

ABBREVIATIONS:
BD - Bark damage; BR - Base rot; DL - Dead limbs; L - Leaning; M - Misshapened; Maj. - Major
NC - Narrow crown; Sev. - Severely; Sl. - Slightly; SS - Stem split; TD. - Trunk damage;
V.C. - Vine covered.

DEFINITIONS OF RATINGS:
Good: The tree appears to be in a healthy and satisfactory condition with an overall sound stem structure and with a full and balanced crown; the growth habit appears normal; there is no indication of pests or diseases present; and the life expectancy is judged to be greater than twenty-five (25) years. The rating based on the health / condition chart ranges from 30 to 24.
Fair: The tree appears to be in a healthy and satisfactory condition with a minimum of structural problems and with minor crown imbalance or thin crown; the growth habit appears normal; there is no indication of pests or diseases present; and the life expectancy is judged to be greater than twenty (20) years. The rating based on the health / condition chart ranges from 23 to 17.
Fair/Poor: The tree appears to be in a satisfactory condition but exhibits a minor structural problem with crown imbalance, dead or dying limbs, or growth only in the top quarter of the tree; or the growth habit is misshapen and askew; or there is evidence of pests or diseases present. The rating based on the health / condition chart is 16 to 11.
Poor: The tree appears to be in an unhealthy condition with structural problems and with major crown imbalance, dead or dying limbs, or growth only in the top quarter of the tree; the growth habit is misshapen and askew; there is evidence of pests or diseases present; and the life expectancy is judged to be less than ten (10) years. The rating based on the health / condition chart is 10 to 6.
Very Poor: The tree appears to be in an unhealthy condition with major structural problems and with major crown imbalance and several dead limbs and/or peeling bark; the growth habit is severely misshapen and askew; there is evidence of pests or diseases present; and the life expectancy is judged to be less than five (5) years. The rating based on the health/condition chart ranges from 5 to 1.
Dead: The tree has no live branches, is topped, or fallen. The rating based on the health / condition chart is 0.

Not for Construction
City File #24-0060
Section #13

REV.	DESCRIPTION	BY	DATE
1	Per City Review	TCS	5/03/2025

Sujak Engineering PLC
CIVIL ENGINEERING S PLANNING S DESIGN
4031 Coolidge Highway
Troy, MI 48098
Phone: (248) 885-8431
Fax: (248) 885-8432
Email: SujakEngineering@Comcast.net

Seal
STATE OF MICHIGAN
TEON C SUJAK
License No. 6201046896
LICENSED PROFESSIONAL ENGINEER
Teon C. Sujak, P.E. No. 046896

1950 E. Avon Rd
Rochester Hills, MI 48307
Parcel # 15-13-427-002

Tree Removal & Preservation Plan

Scale:	1"=20'
Drawn:	TCS
Checked:	TCS
Approved:	TCS
Date:	2/08/2025
Job. no.	23-062
Sheet No.	C3.1