# SIGMA ZETA HOUSING, LLC.
# SITE PLAN & SPECIAL EXCEPTION USE PETITION FOR PLANNING COMMISSION APPROVAL
# SEU25-0001
# 805 OXFORD RD

## A PART OF THE NORTHEAST 1/4 SECTION 33
## CITY OF ANN ARBOR, T2S, R6E,
## WASHTENAW COUNTY, MICHIGAN


SIGMA ZETA HOUSING, LLC
3205 PLAYERS LN
MEMPHIS, TN 38125
PH: (901) 746-3662


## TRAFFIC IMPACT STATEMENT

FOR THE PROPOSED USE OF THE 805 OXFORD ROAD, TRIP GENERATION WAS ESTIMATED USING STANDARD RATES PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS IN THE TRIP GENERATION MANUAL, 12TH EDITION.

THE SITE IS BEING CONVERTED FROM EXISTING RESIDENTIAL HOME TO A SORORITY HOUSE.

LAND USE 225–OFF CAMPUS STUDENT APARTMENT (LOW RISE) OVER ½ MILE FROM CAMPUS
AM PEAK HOUR OF ADJACENT STREET TRAFFIC, ONE HOUR BETWEEN 7AM AND 9AM
AM PEAK VEHICLE OCCUPANCY INBOUND 1.19, OUTBOUND 1.19
PM PEAK VEHICLE OCCUPANCY INBOUND 1.23, OUTBOUND 1.23

AS INDICATED IN THE ABOVE ITE ESTIMATED TRIP GENERATION, THE PROPOSED SITE USE AS A SORORITY HOUSE WILL RESULT IN RELATIVELY FEW TRIPS DURING THE WEEKDAY AM AND PM PEAK HOUR.

## GENERAL NOTES

THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO THE CITY OF ANN ARBOR PUBLIC SERVICES DEPARTMENT STANDARD SPECIFICATIONS, WHICH ARE INCLUDED BY REFERENCE. THE OMISSION OF ANY CURRENT STANDARD DETAILS DOES NOT RELIEVE THE CONTRACTOR OF THIS REQUIREMENT. THE WORK SHALL BE PERFORMED IN COMPLETE CONFORMANCE WITH THE CURRENT PUBLIC SERVICE DEPARTMENT STANDARD SPECIFICATIONS AND DETAILS.

LINE STOPS SHALL BE INSTALLED WHERE EXISTING WATER MAINS CANNOT BE SUFFICIENTLY ISOLATED TO COMPLETE THE WORK. THE COST OF ANY LINE STOP INSTALLATION IS THE RESPONSIBILITY OF THE DEVELOPER AND/OR CONTRACTOR.

PAVEMENT MARKINGS DISTURBED AS A RESULT OF PAVEMENT CUTS OR CONSTRUCTION ACTIVITIES SHALL BE REPLACED AS DIRECTED BY PROJECT MANAGEMENT OR THE MICHIGAN DEPARTMENT OF TRANSPORTATION. REPLACEMENT DURING CONSTRUCTION OF THE PROJECT MAY BE CONSIDERED TEMPORARY, WITH FINAL PAVEMENT MARKING RESTORATION TO OCCUR AT THE END OF THE PROJECT.

THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING PUBLIC ROAD PAVEMENT. DAMAGE TO THE PUBLIC ROAD PAVEMENT DURING THE COURSE OF CONSTRUCTION MAY NECESSITATE RESURFACING OF THE DAMAGED AREAS PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.

ALL PROJECT STAGING WILL OCCUR FOR CONSTRUCTION ON SITE OR BE DELIVERED AS ON TIME DELIVERY FOR THE PROJECT. A CRANE WILL BE USED FOR CONSTRUCTION PURPOSES AND IT WILL NOT BE LOCATED IN THE THE PUBLIC RIGHT–OF–WAY. THIS WILL BE A MOBILE CRANE AND NOT A PERMANENT CRANE.

## GENERAL INFORMATION AND DEVELOPMENT PROGRAM

THE SIGMA ZETA CHAPTER OF KAPPA DELTA SORORITY WAS RE–ESTABLISHED ON OCTOBER 27, 2018, AND IS ONE OF SIX CHAPTERS MANAGED BY THE NATIONAL KAPPA DELTA ORGANIZATION. SINCE RE–ESTABLISHMENT, THE CHAPTER HAS NOT ONLY EXCEEDED MEMBERSHIP EXPECTATIONS BUT HAS FLOURISHED OPERATIONALLY.

OUR MEMBERS HAVE FOUND THAT KAPPA DELTA PROVIDES A SUPPORTIVE ENVIRONMENT THAT HELPS THEM SUCCESSFULLY BALANCE ACADEMICS, ATHLETICS, AND OTHER CAMPUS COMMITMENTS. MORE THAN JUST A SORORITY, KAPPA DELTA OFFERS A TRUE SENSE OF BELONGING; A PLACE TO CALL HOME, BOTH EMOTIONALLY THROUGH SISTERHOOD AND PHYSICALLY THROUGH OUR CHAPTER FACILITY.

SORORITY MUST HAVE A AFFILIATION WITH THE UNIVERSITY OF MICHIGAN, OR A POSTSECONDARY COLLEGE OR UNIVERSITY THAT OPERATES CAMPUS IN THE CITY OF ANN ARBOR. THIS CHAPTER OF SIGMA ZETA IS AFFILIATED WITH THE UNIVERSITY OF MICHIGAN.

SINCE RETURNING TO CAMPUS, ONE OF OUR PRIMARY GOALS HAS BEEN TO SECURE A LONG–TERM HOUSING SOLUTION FOR OUR MEMBERS. CURRENTLY, THE CHAPTER LEASES THE SIGMA PHI EPSILON FACILITY THROUGH JUNE 30, 2027. WE ARE NOW ACTIVELY WORKING TOWARD OUR NEXT MILESTONE: REBUILDING OUR PERMANENT HOME AT 805 OXFORD ROAD.

THE SIGMA ZETA CHAPTER IS PROUD TO BE PART OF THE ANN ARBOR COMMUNITY AND REMAINS COMMITTED TO GIVING BACK THROUGH SERVICE AND PHILANTHROPIC EFFORTS. THE CHAPTER CURRENTLY CONSISTS OF APPROXIMATELY 200 MEMBERS, WITH 45 EXPECTED TO RESIDE IN THE FUTURE CHAPTER HOUSE.

## COMMUNITY ANALYSIS

1. THE IMPACT OF THE PROPOSED DEVELOPMENT ON PUBLIC SCHOOLS
   - 805 OXFORD ROAD IS A PROPOSED SORORITY HOUSE DEVELOPMENT PROJECT WITH 23–BEDROOM UNITS WITH A TOTAL OF 47 BEDS AND 16 PARKING SPACES. THE DEVELOPMENT IS NOT EXPECTED TO IMPACT ANY CHILDREN ATTENDING PUBLIC SCHOOLS AS THE PROJECT HOUSES COLLEGE AGED STUDENTS.
2. THE RELATIONSHIP OF INTENDED USE TO NEIGHBORING USES
   - THE PROPOSED DEVELOPMENT IS SITUATED ALONG OXFORD ROAD WITH RESIDENTIAL HOMES ON THE EAST AND SOUTH. WESTERLY ACROSS OXFORD ROAD AND NORTHERLY OF THE PROPERTY THERE ARE ALSO OTHER FRATERNITIES AND COOPERATIVE HOUSING FACILITIES IN THE IMMEDIATE AREA.
3. IMPACT OF ADJACENT USES ON THE PROPOSED DEVELOPMENT AND SPECIAL EXCEPTION USE
   - THE DESIGN OF 805 OXFORD ROAD WILL ENHANCE THE PEDESTRIAN EXPERIENCE ALONG OXFORD ROAD. THE DEVELOPMENT IS COMPACT AND WILL FIT WITH THE NEIGHBORING USES.
4. IMPACT OF THE PROPOSED DEVELOPMENT ON THE AIR AND WATER QUALITY, AND ON EXISTING NATURAL FEATURES OF THE SITE AND NEIGHBORING SITES.
   - THE LOCATION OF THE SORORITY COMMUNITY IS CONDUCIVE TO WALKING AND BIKING TO DOWNTOWN, THE ATHLETIC CAMPUS, AND CENTRAL CAMPUS. TO ENCOURAGE THIS, THE PLAN INCLUDES AREAS FOR BICYCLE STORAGE, MAINTENANCE, AND PARKING. THE SORORITY HOUSE IS ALSO LOCATED ON BUS LINES AND IS CLOSE TO BUS STOPS. ALL THESE ALTERNATIVE TRANSPORTATION MODES WILL HAVE A POSITIVE IMPACT ON AIR QUALITY.
   - THERE ARE NO WETLANDS ON THE PROPERTY, ONLY 31 LANDMARK TREES AND 159.93 SQFT OF WOODLAND BASAL AREA THAT MAKE UP THE SITE'S NATURAL FEATURES.
   - THE PROPOSED DEVELOPMENT WILL TAKE STORM WATER FROM THE SITE AND PRE–TREAT IT VIA A PRETREATMENT STRUCTURE THEN IT IS DIRECTED INTO AN UNDERGROUND DETENTION SYSTEM LOCATED ON THE PROPERTY. THE STORM WATER WILL BE RELEASED TO CITY STORM SEWER AS REQUIRED AT A CONTROLLED RATE.
5. IMPACT OF THE PROPOSED USE ON HISTORIC SITES OR STRUCTURES WHICH ARE LOCATED WITHIN A HISTORIC DISTRICT OR LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES.
   - THERE ARE NO SITES OR BUILDINGS OF HISTORICAL SIGNIFICANCE ON THE SITE.
   - THE ARCHITECTURE AND SCALE ARE CONSISTENT WITH NEIGHBORING HOMES AND ZONING.
6. TRANSPORTATION IMPACT STATEMENT
   - BASED ON THE TRAFFIC TRIP GENERATION ANALYSIS COMPLETED BY FLEIS & VANDENBRINK DATED SEPTEMBER 12, 2025, THE EXPECTED SITE GENERATED VEHICLE TRIPS FROM THE PROPOSED DEVELOPMENT ARE BELOW THE CITY OF ANN ARBOR THRESHOLD FOR A MULTI–MODAL TRAFFIC IMPACT ANALYSIS. THESE VOLUMES WILL NOT HAVE AN IMPACT ON THE SURROUNDING TRAFFIC PATTERNS.
7. PUBLIC SIDEWALK MAINTENANCE STATEMENT
   - ALL SIDEWALKS ARE TO BE KEPT AND MAINTAINED IN GOOD REPAIR BY THE OWNER OF THE LAND ADJACENT TO AND ABUTTING THE SAME. PRIOR TO THE ISSUANCE OF THE FINAL CERTIFICATE OF OCCUPANCY FOR THIS SITE, ALL EXISTING SIDEWALKS IN NEED OF REPAIR MUST BE REPAIRED IN ACCORDANCE WITH CITY STANDARDS.
8. STATEMENT OF INTEREST IN LAND
   - THE PETITIONER IS THE PURCHASER OF THE PROPERTY UNDER A PURCHASE AGREEMENT DATED APRIL 2, 2025, AS AMENDED BETWEEN PETITIONER AND THE CURRENT OWNER, DIANA JO JOHNSTON, TRUSTEE OF THE DIANA JO JOHNSTON TRUST AGREEMENT DATED DECEMBER 26, 2001, AS AMENDED. IF SITE PLAN AND SEU APPLICATION ARE APPROVED, PETITIONER WILL CONSUMMATE THE PURCHASE AND SEEK TO DEVELOP THE LAND AS A THREE–STORY SORORITY HOUSING BUILDING AND ASSOCIATED PARKING.

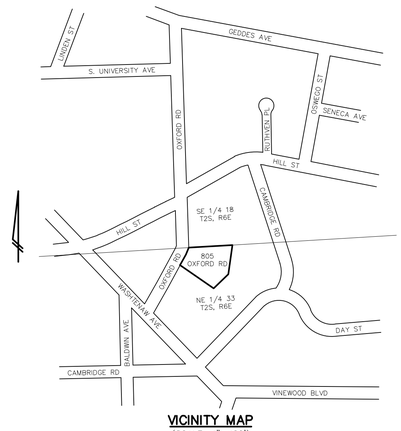
## PARKS AND RECREATION

THE PETITIONER IS PROPOSING THE FOLLOWING PARKS CONTRIBUTION:

THE PROJECT PROPOSES 47BEDS / 4 (AS THE MAXIMUM NUMBER OF PERSONS PLUS THEIR OFFSPRING LIVING IN A SINGLE HOUSEKEEPING UNIT IN ALL DISTRICTS) = 11.75. THEREFORE, THIS PROPOSED GROUP HOUSING PROJECT EQUATES TO APPROXIMATELY 12 DWELLING UNITS IN THE R2B DISTRICT.

12 DWELLING UNITS X .0125 ACRES (THE AMOUNT DESIRED TO KEEP PACE WITH EXISTING PARKLAND DENSITY) X $50,000/AC (THE AVERAGE COST FOR PARKLAND/ACRE) = $7,500.

THE PROJECT WILL PLAN TO MAKE A PARKS AND RECREATION DONATION OF $7,500.




VICINITY MAP
(SCALE: 1"=400')

## SITE DATA

| | EXISTING 3775 | REQUIRED | PROPOSED LOT |
|---|---|---|---|
| ZONING | R2B | R2B | R2B |
| GROSS LOT SIZE – SF | 48,258 SF | 48,258 SF | 48,258 SF |
| GROSS LOT SIZE – ACRE | 1.108 AC | 1.108 AC | 1.108 AC |
| NET LOT SIZE – SF | 48,258 SF | 8,500 SF | 48,258 SF |
| NET LOT SIZE – ACRE | 1.108 AC | 0.195 AC | 1.108 AC |
| GROUND FLOOR AREA | 4,464 SF | N/A | 7,767 SF |
| SECOND FLOOR AREA | 1,500 SF | N/A | 7,585 SF |
| THIRD FLOOR AREA | 0 SF | N/A | 8,039 SF |
| TOTAL FLOOR AREA | 5,964 SF | 5,000 SF PER SECTION 5.16.1E | 23,391 SF |
| GROUND FLOOR COVERAGE | 9.25% | N/A | 16.09% |
| FLOOR AREA RATIO | 9.25% | NO FAR IN R2B | 7,767SF, 16.09% |
| LOT AREA PER DU | 48,258/DU | MIN 350/DU | 1,026.7/DU |
| MIN. SETBACKS | | | |
| FRONT | 98.14 FT | 25 FT | 111.5 FT |
| REAR | 86.8 FT | 20 FT | 28 FT |
| SIDE | 18.08FT (NORTH)<br>42.25FT (SOUTH) | 5 FT | 74.7 FT (NORTH)<br>21.4 FT (SOUTH) |
| NUMBER OF BUILDINGS | 1 | N/A | 1 |
| MIN. WIDTH | 116.43 FT | 60 FT | 116.43 FT |
| MAX HEIGHT | 28' | 30' | 29'–11 1/2" |
| VEHICULAR PARKING | 4 TOTAL<br>4 REGULAR<br>0 BARRIER FREE | SORORITIES<br>= NONE<br><br>MAXIMUM PARKING SPACES<br>= NONE | 16 TOTAL<br>15 REGULAR<br>1 BARRIER FREE |
| ELECTRIC VEHICLE PARKING | 0 ELECTRIC | 16 TOTAL SPACES PROVIDED<br>10% EV–I = 2<br>90% EV–C = 14 | <br>2 EV–I<br>14 EV–C |
| BICYCLE PARKING | NONE | SORORITIES<br>1 PER 2 BEDS<br>47 BEDS / 2 = 23.5 OR 24 | 12 TOTAL (CLASS A)<br>12 TOTAL (CLASS B) |

## DESCRIPTION (BY OTHERS)

PARCEL 1:
Lot(s) 10 of ASSESSORS PLAT NO 15 according to the plat thereof recorded in Liber 8 of Plats, page 54 of Washtenaw County Records, Michigan, excepting that portion thereof described as follows: Beginning at the Southwesterly corner of Lot 10 thence North 30 degrees 27 minutes East 134 feet along the Southeasterly line of Oxford Road; thence South 54 degrees 47 minutes East 234.60 feet; thence South 44 degrees 50 minutes West 178.24 feet along the Southeasterly line of said Lot 10; thence North 42 degrees 30 minutes West 198.16 feet along the Southerly line of said Lot 10 to the Place of Beginning.

PARCEL 2:
Non–Exclusive Easement for driveway, as created, limited, and defined in that certain Easement Agreement, recorded in Liber 3877, page 129, Washtenaw County Records


| SHEET TITLE | SHEET NO. |
|---|---|
| COVER SHEET | CO |
| ALTA/NSPS LAND TITLE SURVEY | ALTA–1.0 |
| BOUNDARY & TOPOGRAPHICAL SURVEY | C1.0–C1.1 |
| REMOVAL PLAN | C2.0 |
| OXFORD RD REMOVAL PLAN | C2.1 |
| SITE DIMENSIONAL LAYOUT PLAN | C3.0 |
| OXFORD RD DIMENSIONAL LAYOUT PLAN | C3.1 |
| NATURAL FEATURES PLAN | C4.0 |
| NATURAL FEATURES OVERLAY | C4.1 |
| ALTERNATIVE ANALYSIS 1 | C4.2 |
| ALTERNATIVE ANALYSIS 2 | C4.3 |
| LANDSCAPE PLAN – TREES | C5.0 |
| LANDSCAPE PLAN – SHRUBS | C5.1 |
| SEEDING PLAN | C5.2 |
| IRRIGATION PLAN | C5.3 |
| DETAILS | C5.4 |
| OVERALL UTILITY PLAN | C6.0 |
| SITE UTILITY PLAN | C7.0 |
| OXFORD RD UTILITY PLAN | C7.1 |
| GRADING AND SOIL EROSION CONTROL PLAN | C8.0 |
| GRADING DETAILS | C8.1,C8.2 |
| GRADING DETAILS FOR BUILDING ELEVATION | C8.3 |
| STORM WATER MANAGEMENT DRAINAGE AREA PLAN | C9.0 |
| STORM WATER MANAGEMENT CALCULATIONS "BASIN A" | C9.1 |
| FIRE PROTECTION PLAN | C10.0 |
| SOLID WASTE PLAN & DETAILS | C10.1 |
| DELIVERY TRUCK PLAN | C10.2 |
| DETAILS | C11.0 |
| **ARCHITECTURAL PLANS** | |
| AXONOMETRIC VIEWS | G–102 |
| BIKE STORAGE FLOOR PLAN AND DETAILS | A–100 |
| 1ST FLOOR PLAN | A–101 |
| 2ND FLOOR PLAN | A–102 |
| 3RD FLOOR PLAN | A–103 |
| ROOF PLAN | A–121 |
| EXTERIOR ELEVATIONS | A–201, A–202 |
| BUILDING SECTIONS | A–301, A–302 |
| PHOTOMETRIC PLAN | P1–P2 |


SIGMA ZETA HOUSING, LLC. - 805 OXFORD RD

Know what's below. Call before you dig.

FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 53, THE CONTRACTOR SHALL DIAL 1–800–482–7171 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

PROPERTY OWNER:
DIANA JO JOHNSTON TRUST
805 OXFORD RD
ANN ARBOR, MI 48104
ATTN: DIANA JO JOHNSTON, TRUSTEE OF THE DIANA JO JOHNSTON TRUST AGREEMENT DATED DECEMBER 26, 2001, AS AMENDED

PETITIONER:
SIGMA ZETA HOUSING, LLC
3205 PLAYERS LN
MEMPHIS, TN 38125
TEL: (901) 746–3662

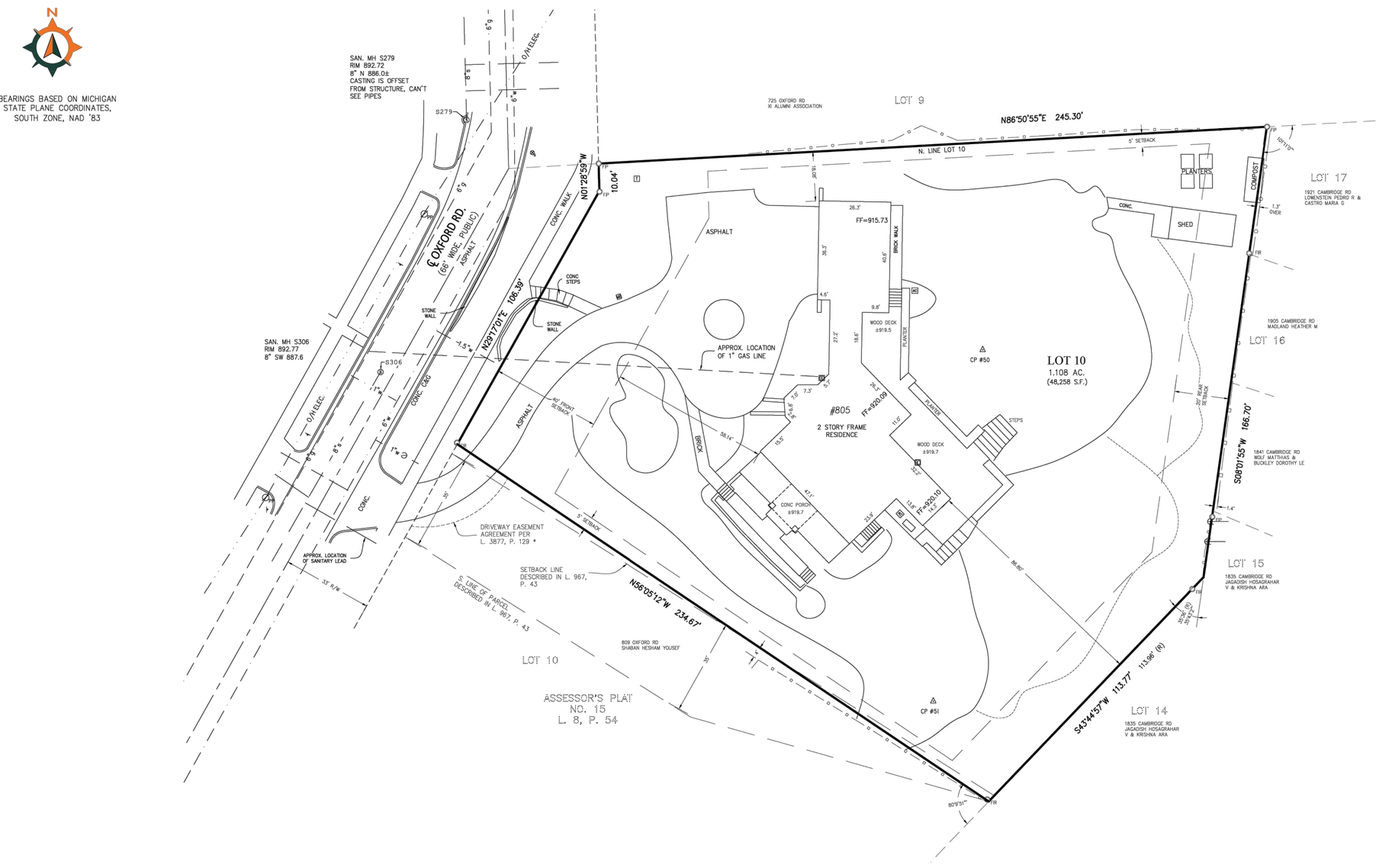
CIVIL ENGINEER:
WASHTENAW ENGINEERING
CIVIL ENGINEERS • PLANNERS
SURVEYORS • LANDSCAPE ARCHITECTS
P.O. BOX 1128
3526 WEST LIBERTY RD, SUITE 400, ANN ARBOR, MICHIGAN 48106
TEL. 734–761–8800
E–MAIL: weco@wengco.com

PREPARED BY
JOSEPH K. MAYNARD P.E., MICH No. 52559

STATE OF MICHIGAN · JOSEPH K. MAYNARD · ENGINEER · No. 52559 · LICENSED PROFESSIONAL ENGINEER

| | |
|---|---|
| REVISED SITE PLAN: | 03–11–2026 |
| REVISED SITE PLAN: | 03–04–2026 |
| REVISED SITE PLAN: | 02–26–2026 |
| REVISED SITE PLAN: | 02–04–2026 |
| REVISED SITE PLAN: | 01–19–2026 |
| REVISED SITE PLAN: | 12–05–2025 |
| JOB NO. 33191 ORIGINAL: | 10–16–2025 |

H:\JOBS\engr\33191\dwg\195-cov.dwg, CO, 3/11/2026 10:37:18 AM, 11




## TITLE COMMITMENT:

COMMITMENT FOR TITLE INSURANCE BY FIRST AMERICAN TITLE, FILE 1028664, DATED 4/1/2025
SURVEY RELATED EXCEPTIONS:

4) ENCROACHMENTS SHOWN ON THIS SURVEY
7) TERMS CONTAINED IN AGREEMENT, L. 967, P. 43
8) EASEMENT AGREEMENT, L. 3877, P. 129 *
* EASEMENT TERMINATES IF 805 OXFORD IS USED FOR ANY PURPOSE OTHER THAN THAT PERMITTED IN A SINGLE FAMILY DWELLING....

## LEGAL DESCRIPTION:

PER TITLE COMMITMENT ABOVE
PARCEL 1:
Lot(s) 10 of ASSESSORS PLAT NO 15 according to the plat thereof recorded in Liber 8 of Plats, page 54 of Washtenaw County Records, Michigan, excepting that portion thereof described as follows: Beginning at the Southwesterly corner of Lot 10 thence North 30 degrees 27 minutes East 134 feet along the Southeasterly line of Oxford Road; thence South 54 degrees 47 minutes East 234.60 feet; thence South 44 degrees 50 minutes West 178.24 feet along the Southeasterly line of said Lot 10; thence North 42 degrees 30 minutes West 198.16 feet along the Southerly line of said Lot 10 to the Place of Beginning.

PARCEL 2:
Non-Exclusive Easement for driveway, as created, limited, and defined in that certain Easement Agreement, recorded in Liber 3877, page 129, Washtenaw County Records

## SURVEYOR'S NOTES:

CITY OF ANN ARBOR SETBACK REQUIREMENTS ARE OPEN TO INTERPRETATION IN SOME INSTANCES. VERIFY REGULATIONS WITH CITY OFFICIALS.

LOCATION OF WATER AND SANITARY SEWER LEADS COULD NOT BE DETERMINED

## CERTIFICATE:

TO SIGMA ZETA HOUSING, LLC, KAPPA DELTA, AND FIRST AMERICAN TITLE INSURANCE COMPANY:

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2021 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items 1-7A, 8, 11A, and 13 of Table A thereof. The fieldwork was completed on August 5, 2025

DATE OF PLAT OR MAP: AUGUST 6, 2025

KEVIN GINGRAS, P.S., NO. 49278

STATE OF MICHIGAN
KEVIN J. GINGRAS
License No. 4001049278
LICENSED PROFESSIONAL SURVEYOR

## SITE INFORMATION:

OWNER: JOHNSTON DIANNA JO TRUST

SITE ADDRESS: 805 OXFORD RD.
ANN ARBOR, MI 48104

PARCEL ID: 09-09-33-108-001

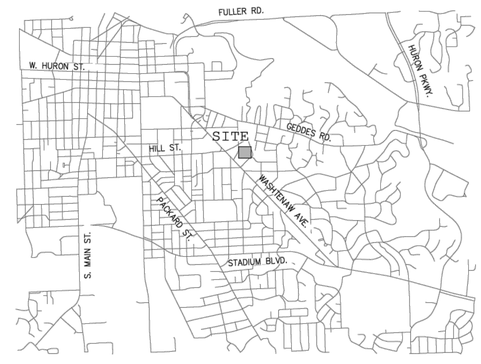
ZONING: R2B – TWO-FAMILY DWELLING & STUDENT HOUSING

SETBACKS:
FRONT: 25' OR AVERAGE UP TO 40' OR ESTABLISHED SETBACK ON THE DATE OF ADOPTION OF THE ORDINANCE
SIDE: 5'
REAR: 20'

## FLOODPLAIN NOTE:

ACCORDING TO FLOOD INSURANCE RATE MAP: MAP NUMBER 26161C026E, DATED 4/3/2012, PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY. THE SUBJECT PARCEL LIES WITHIN OTHER AREA (ZONE X): AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.

## VICINITY MAP:




## STRUCTURE LEGEND:

- STORM MARKING
- YARD DRAIN
- BEEHIVE CATCH BASIN
- ROUND CATCH BASIN
- SQUARE CATCH BASIN
- STORM MANHOLE
- CULVERT/END SECTION
- DOWN SPOUT
- STORM CLEAN-OUT
- OUTLET CONTROL STRUCTURE
- SANITARY MANHOLE
- SANITARY CLEAN-OUT
- SANITARY MARK
- WATER MANHOLE
- FIRE HYDRANT
- GATE VALVE & BOX
- WATER SHUT OFF VALVE
- WELL
- POST INDICATOR VALVE
- SPIGOT / HOSE BIB
- SPRINKLER HEAD
- WATER MARKER
- MONITORING WELL
- TUNNEL MARKER
- GAS MANHOLE
- GAS RISER
- GAS METER
- GAS VALVE
- GAS BLOW OFF
- GAS STOP BOX
- GAS MARKING
- TELEPHONE POLE
- COMMUNICATION MARKING
- COMMUNICATION HAND HOLE
- COMMUNICATION MANHOLE
- TELEPHONE POLE
- TELEPHONE RISER
- POLICE/EMERGENCY CALL
- BOLLARD
- ANTENNA
- STATUE / SCULPTURE
- AC UNIT
- PARKING METER
- SIGN
- MAILBOX
- FLAG POLE
- ROCK/BOULDER
- BASKETBALL POST
- BIKE HOOP
- BENCH
- ELECTRIC METER
- ELECTRIC MANHOLE
- GROUND LIGHT
- LIGHT POLE
- GUY POLE
- POWER POLE
- UTILITY POLE
- GUY POLE
- GUY ANCHOR
- ELECTRIC RISER
- TRANSFORMER
- ELECTRIC HAND HOLE
- ELECTRIC MARKING
- TRAFFIC SIGNAL POST

ARBOR LAND CONSULTANTS
Professional Land Surveyors
6653 Schneider Rd. • Manchester, MI • 48158
(734) 669-2960 • arborlandinc.com

DATE: 4-25-2025
REVISION: 8-6-2025

CLIENT: KAPPA DELTA

ALTA/NSPS LAND TITLE SURVEY
#805 OXFORD
IN THE NE 1/4 OF SECTION 33
T2S, R6E, CITY OF ANN ARBOR
WASHTENAW COUNTY, MICHIGAN

JOB No. 09625 | SHEET 1 OF 1
SCALE 1 INCH = 20 FEET

O/H ELEC. — ELECTRIC LINE
— 8"G — GAS MAIN
— 8"W — WATER MAIN
— 18" STORM — STORM LINE
— 6"S — SANITARY LINE
O/H CATV — CABLE TV LINE
U/G COMM — PHONE LINE
— CHAIN LINK FENCE
— WOOD FENCE
— BARBED WIRE FENCE

WATER MANHOLE
FIRE HYDRANT
GATE VALVE
BEEHIVE CATCH BASIN
CURB CATCH BASIN
STORM MANHOLE
CULVERT/END SECTION
SANITARY MANHOLE
LIGHT POLE
UTILITY POLE
TELEPHONE RISER
GAS MAIN RISER

SECTION CORNER
FIP FOUND IRON PIPE
FIR FOUND IRON ROD
SIP SET IRON PIPE
SMN SET MAG NAIL
FMN FOUND MAG NAIL
SET WOOD LATH
CONTROL POINT
(M) MEASURED DIMENSION
(R) RECORDED DIMENSION
SURFACE FLOW

THE UNDERGROUND UTILITIES SHOWN HEREON WERE LOCATED UTILIZING SURVEY INFORMATION AND EXISTING RECORDS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED, ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES OTHER THAN AS SHOWN HEREON. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT ALL UTILITIES INVOLVED FOR EXACT FIELD LOCATIONS PRIOR TO CONSTRUCTION.

UTILITY NOTE:
811 Know what's below. Call before you dig.

ALTA-1.0

H:\SIGS\Dwgs\33191\dwg\191-topo sheet.dwg, ALTA 1.0, 3/31/2026 10:37:24 AM, ll

## TREE TABLE

| TREE # | ELEV. | SIZE (IN.) | SPECIES |
|---|---|---|---|
| 212 | 922.5 | 16 | LOCUST |
| 235 | 913.3 | 10 | MAPLE |
| 329 | 892.4 | 2 | CHERRY |
| 339 | 893.3 | 2 | CHERRY |
| 364 | 894.9 | 2 | CHERRY |
| 368 | 897.5 | 13 | AMER. BASSWOOD |
| 374 | 899.2 | 16 | OAK |
| 480 | 908.6 | 8 | EASTERNREDBUD |
| 484 | 909.0 | 11 | CHERRY |
| 485 | 907.6 | 8 | ELM |
| 491 | 909.6 | 8 | PINE |
| 492 | 908.8 | 11 | PINE |
| 498 | 904.1 | 16 | PINE |
| 502 | 900.0 | 9 | ELM |
| 503 | 901.2 | 9 | ELM |
| 504 | 902.1 | 12 | LOCUST |
| 505 | 903.7 | 14 | LOCUST |
| 506 | 903.5 | 6 | MAPLE |
| 507 | 904.6 | 6 | MAPLE |
| 508 | 905.0 | 17 | MAPLE |
| 509 | 905.5 | 33 | MAPLE |
| 511 | 908.1 | 11 | LOCUST |
| 512 | 908.9 | 24 | LOCUST |
| 513 | 908.7 | 9 | MAPLE |
| 536 | 899.2 | 23 | MAPLE |
| 537 | 899.5 | 12 | MAPLE |
| 541 | 902.5 | 8 | EASTERN REDBUD |
| 542 | 901.5 | 26 | PINE |
| 543 | 904.7 | 15 | PINE |
| 544 | 902.8 | 15 | PINE |
| 545 | 905.8 | 18 | PINE |
| 546 | 905.5 | 20 | PINE |
| 547 | 907.5 | 17 | PINE |
| 548 | 905.7 | 16 | PINE |
| 549 | 906.8 | 18 | PINE |
| 550 | 909.4 | 20 | PINE |
| 551 | 908.3 | 20 | PINE |
| 562 | 911.1 | 9 | PINE |
| 563 | 912.7 | 12 | PINE |
| 564 | 911.5 | 8 | PINE |
| 565 | 913.3 | 12 | PINE |
| 566 | 910.9 | 6 | PINE |
| 1004 | 930.7 | 25 | LOCUST |
| 1005 | 930.5 | 23 | LOCUST |
| 1006 | 931.1 | 26 | PINE |
| 1011 | 930.2 | 12 | MAPLE |
| 1016 | 929.6 | 29 | WALNUT |
| 1017 | 929.1 | 13 | LOCUST |
| 1027 | 911.9 | 13 | MAPLE |
| 1028 | 911.3 | 22 | MAPLE |
| 1030 | 912.3 | 16 | LOCUST |
| 1059 | 914.1 | 9 | MAPLE |
| 1060 | 914.5 | 17 | LOCUST |
| 1061 | 914.0 | 47 | WALNUT |
| 1062 | 916.6 | 9 | LOCUT |
| 1063 | 916.8 | 9 | LOCUT |
| 1064 | 917.6 | 9 | MAPLE |
| 1065 | 917.6 | 5 | LOCUST |
| 1066 | 918.0 | 10 | LOCUST |
| 1067 | 922.7 | 14 | PINE |
| 1068 | 925.2 | 16 | PINE |
| 1069 | 922.5 | 17 | PINE |
| 1071 | 926.4 | 25 | WALNUT |
| 1143 | 928.5 | 25 | SASSAFRASS |
| 1160 | 920.7 | 11 | ELM |
| 1161 | 921.7 | 23 | LOCUST |
| 1162 | 924.1 | 10 | SASSAFRASS |
| 1163 | 924.0 | 12 | PINE |
| 1164 | 925.2 | 28 | PINE |
| 1165 | 924.8 | 12 | ELM |
| 1166 | 926.7 | 13 | ELM |
| 1167 | 927.2 | 18 | PINE |
| 1168 | 928.1 | 13 | ELM |
| 1169 | 928.2 | 13 | ELM |
| 1170 | 928.5 | 11 | LOCUST |
| 1171 | 929.5 | 24 | LOCUST |
| 1172 | 929.7 | 17 | LOCUST |
| 1174 | 922.1 | 12 | LOCUST |
| 1175 | 922.9 | 17 | CHERRY |
| 1177 | 923.7 | 28 | MAPLE |
| 1178 | 919.6 | 16 | OAK |
| 1179 | 919.9 | 15 | HACKBERRY |
| 1180 | 919.6 | 16 | SASSAFRASS |
| 1181 | 918.5 | 16 | LOCUST |
| 1182 | 918.7 | 8 | LOCUST |
| 1183 | 917.5 | 14 | LOCUST |
| 1184 | 919.6 | 15 | LOCUST |
| 1238 | 910.7 | 26 | MAPLE |
| 1239 | 912.5 | 11 | MAPLE |
| 1250 | 917.5 | 19 | BOXELDER |
| 1251 | 916.9 | 8 | MAPLE |
| 1253 | 914.1 | 21 | LOCUST |

BEARINGS BASED ON MICHIGAN STATE PLANE COORDINATES, SOUTH ZONE, NAD '83

## TREE TABLE

| TREE # | ELEV. | SIZE (IN.) | SPECIES |
|---|---|---|---|
| 2019 | 893.0 | 26 | WALNUT |
| 2037 | 893.1 | 3 | CRABAPPLE |
| 2075 | 882.3 | 22 | ELM |
| 2076 | 881.1 | 6 | ELM |
| 2083 | 885.5 | 2 | SMOKETREE |
| 2084 | 886.1 | 4 | TWINSMOKETREE |
| 2085 | 887.1 | 2 | SMOKETREE |
| 2093 | 888.8 | 10 | SMOKETREE |
| 2094 | 889.5 | 5 | SMOKETREE |
| 2095 | 890.1 | 3 | MULTI SMOKETREE |
| 2139 | 879.2 | 8 | TAMARACK |
| 2151 | 878.1 | 25 | ALANTHS |
| 2196 | 878.6 | 30 | COTTONWOOD |
| 2229 | 889.7 | 3 | CRABAPPLE |
| 2238 | 883.4 | 28 | BASSWOOD |
| 2242 | 880.0 | 12 | ELM |
| 2302 | 888.5 | 19 | CATALPA |
| 2307 | 890.0 | 35 | MAPLE |
| 2310 | 890.7 | 29 | MAPLE |
| 2327 | 892.6 | 18 | BOXELDER |
| 2447 | 892.4 | 20 | LOCUST |

STREET TREES

## STRUCTURE LEGEND:

- STORM MARKING
- YARD DRAIN
- BEEHIVE CATCH BASIN
- ROUND CATCH BASIN
- SQUARE CATCH BASIN
- STORM MANHOLE
- CULVERT/END SECTION
- DOWN SPOUT
- STORM CLEAN-OUT
- OUTLET CONTROL STRUCTURE
- SANITARY MANHOLE
- SANITARY CLEAN-OUT
- SANITARY MARK
- WATER MANHOLE
- FIRE HYDRANT
- GATE VALVE & BOX
- WATER SHUT OFF VALVE
- WELL
- POST INDICATOR VALVE
- SPIGOT / HOSE BIB
- SPRINKLER HEAD
- WATER MARKER
- MONITORING WELL
- TUNNEL MARKER
- GAS MANHOLE
- GAS RISER
- GAS METER
- GAS VALVE
- GAS BLOW OFF
- GAS STOP BOX
- GAS MARKING
- TELEPHONE POLE
- COMMUNICATION MARKING
- COMMUNICATION HAND HOLE
- COMMUNICATION MANHOLE
- TELEPHONE POLE
- TELEPHONE RISER
- POLICE/EMERGENCY CALL
- BOLLARD
- ANTENNA
- STATUE / SCULPTURE
- AC UNIT
- PARKING METER
- SIGN
- MAILBOX
- FLAG POLE
- ROCK/BOULDER
- BASKETBALL POST
- BIKE HOOP
- BENCH
- ELECTRIC METER
- ELECTRIC MANHOLE
- GROUND LIGHT
- LIGHT POLE
- GUY POLE
- POWER POLE
- UTILITY POLE
- GUY POLE
- GUY ANCHOR
- ELECTRIC RISER
- TRANSFORMER
- ELECTRIC HAND HOLE
- ELECTRIC MARKING
- TRAFFIC SIGNAL POST

## CONTROL POINT TABLE

| CP# | NORTHING (Y) | EASTING (X) | ELEV. | DESCRIPTION |
|---|---|---|---|---|
| 50 | 282081.337 | 13296922.040 | 925.30 | SET SPIKE |
| 51 | 281952.547 | 13296903.930 | 911.41 | SET SPIKE |
| 75 | 282041.558 | 13296705.210 | 893.50 | SET SPIKE |
| 76 | 282376.181 | 13296758.880 | 890.06 | SET SPIKE |
| 77 | 281833.988 | 13296550.770 | 878.08 | SET SPIKE |

## BENCHMARKS:

**BM #2000**
SET SPIKE IN S.E. FACE OF UTILITY POLE ON NW SIDE OF OXFORD, SOUTH OF DRIVE TO #810 OXFORD
ELEV. = 891.46 NAVD88

**BM #2001**
SET SPIKE IN E. FACE OF UTILITY POLE ON NW SIDE OF OXFORD, SOUTH OF DRIVE TO #800 OXFORD
ELEV. = 894.70 NAVD88
ELEW.

## SITE INFORMATION:

OWNER: JOHNSTON DIANNA JO TRUST

SITE ADDRESS: 805 OXFORD RD.
ANN ARBOR, MI 48104

PARCEL ID: 09-09-33-108-001

ZONING: R2B – TWO-FAMILY DWELLING & STUDENT HOUSING

SETBACKS:
FRONT: 25' OR AVERAGE UP TO 40' OR ESTABLISHED SETBACK ON THE DATE OF ADOPTION OF THE ORDINANCE
SIDE: 5'
REAR: 20'

## FLOODPLAIN NOTE:

ACCORDING TO FLOOD INSURANCE RATE MAP: MAP NUMBER 26161C026E, DATED 4/3/2012, PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY. THE SUBJECT PARCEL LIES WITHIN OTHER AREA (ZONE X): AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.

## LEGAL DESCRIPTION:

PER TITLE COMMITMENT ABOVE
PARCEL 1:
Lot(s) 10 of ASSESSORS PLAT NO 15 according to the plat thereof recorded in Liber 8 of Plats, page 54 of Washtenaw County Records, Michigan, excepting that portion thereof described as follows: Beginning at the Southwesterly corner of Lot 10 thence North 30 degrees 27 minutes East 134 feet along the Southeasterly line of Oxford Road; thence South 54 degrees 47 minutes East 234.60 feet; thence South 44 degrees 50 minutes West 178.24 feet along the Southeasterly line of said Lot 10; thence North 42 degrees 30 minutes West 198.16 feet along the Southerly line of said Lot 10 to the Place of Beginning.

PARCEL 2:
Non-Exclusive Easement for driveway, as created, limited, and defined in that certain Easement Agreement, recorded in Liber 3877, page 129, Washtenaw County Records

## SURVEYOR'S NOTES:

CITY OF ANN ARBOR SETBACK REQUIREMENTS ARE OPEN TO INTERPRETATION IN SOME INSTANCES. VERIFY REGULATIONS WITH CITY OFFICIALS.

LOCATION OF WATER AND SANITARY SEWER LEADS COULD NOT BE DETERMINED

## UTILITY NOTE:

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR DOES NOT GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH IT DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UTILITIES UNLESS OTHERWISE NOTED. STRUCTURE INVERT DATA SHOWN IS [illegible]

Know what's below. Call before you dig.

C1.0


ARBOR LAND CONSULTANTS
Professional Land Surveyors
6653 Schneider Rd. • Manchester, MI • 48158
(734) 669-2960 • arborlandinc.com


KEVIN J. GINGRAS
License No. 4001049278
LICENSED PROFESSIONAL SURVEYOR
STATE OF MICHIGAN

DATE: 4-25-2025
REVISION: 1-19-2026

CLIENT: KAPPA DELTA

**BOUNDARY & TOPOGRAPHIC SURVEY**
#805 OXFORD
IN THE NE 1/4 OF SECTION 33
T2S, R6E, CITY OF ANN ARBOR
WASHTENAW COUNTY, MICHIGAN

JOB No. 09625
SHEET 1 OF 2
SCALE 1 INCH = 20 FEET

SHEET 2
SHEET 1

O/H ELEC. — ELECTRIC LINE
8"G — GAS MAIN
8"W — WATER MAIN
18" / 6"S — STORM LINE / SANITARY LINE
O/H CATV — CABLE TV LINE
U/G COMM — PHONE LINE
CHAIN LINK FENCE
WOOD FENCE
BARBED WIRE FENCE

WATER MANHOLE
FIRE HYDRANT
GATE VALVE
BEEHIVE CATCH BASIN
CURB CATCH BASIN
STORM MANHOLE
CULVERT/END SECTION
SANITARY MANHOLE
LIGHT POLE
UTILITY POLE
TELEPHONE RISER
GAS MAIN RISER

SECTION CORNER
FOUND IRON PIPE
FOUND IRON ROD
SET IRON PIPE
SET MAG NAIL
FOUND MAG NAIL
SET WOOD LATH
CONTROL POINT
MEASURED DIMENSION
RECORDED DIMENSION
SURFACE FLOW

H:\SURV\2019\191\dwg\191-topo sheet1.dwg, C1.0, 3/11/2020 10:37:27 AM, 1:1

BEARINGS BASED ON MICHIGAN STATE PLANE COORDINATES, SOUTH ZONE, NAD '83

## TREE TABLE

| TREE # | ELEV. | SIZE (IN.) | SPECIES |
|---|---|---|---|
| 212 | 922.5 | 16 | LOCUST |
| 235 | 913.3 | 10 | MAPLE |
| 329 | 892.4 | 2 | CHERRY |
| 339 | 893.3 | 2 | CHERRY |
| 364 | 894.9 | 2 | CHERRY |
| 368 | 897.5 | 13 | QUAD ELM |
| 374 | 899.2 | 16 | OAK |
| 480 | 908.6 | 8 | EASTERNREDBUD |
| 484 | 909.0 | 11 | CHERRY |
| 485 | 907.8 | 8 | ELM |
| 491 | 909.6 | 8 | PINE |
| 492 | 908.8 | 11 | PINE |
| 498 | 904.1 | 16 | PINE |
| 502 | 900.0 | 9 | ELM |
| 503 | 901.2 | 9 | ELM |
| 504 | 902.1 | 12 | LOCUST |
| 505 | 903.7 | 14 | LOCUST |
| 506 | 903.5 | 6 | MAPLE |
| 507 | 904.6 | 6 | MAPLE |
| 508 | 905.0 | 17 | MAPLE |
| 509 | 905.5 | 33 | MAPLE |
| 511 | 908.1 | 11 | LOCUST |
| 512 | 908.9 | 24 | LOCUST |
| 513 | 908.7 | 9 | MAPLE |
| 536 | 899.2 | 23 | MAPLE |
| 537 | 899.5 | 12 | MAPLE |
| 541 | 902.5 | 8 | EASTERN REDBUD |
| 542 | 901.5 | 26 | PINE |
| 543 | 904.7 | 15 | PINE |
| 544 | 902.8 | 15 | PINE |
| 545 | 905.8 | 18 | PINE |
| 546 | 905.5 | 20 | PINE |
| 547 | 907.5 | 17 | PINE |
| 548 | 905.7 | 16 | PINE |
| 549 | 909.8 | 18 | PINE |
| 550 | 909.4 | 20 | PINE |
| 551 | 908.3 | 20 | PINE |
| 562 | 911.1 | 9 | PINE |
| 563 | 912.7 | 12 | PINE |
| 564 | 911.5 | 8 | PINE |
| 565 | 913.3 | 12 | PINE |
| 566 | 910.9 | 6 | PINE |
| 1004 | 930.7 | 25 | LOCUST |
| 1005 | 930.5 | 23 | LOCUST |
| 1006 | 931.1 | 26 | PINE |
| 1011 | 930.2 | 12 | MAPLE |
| 1016 | 929.6 | 29 | WALNUT |
| 1017 | 929.1 | 13 | LOCUST |
| 1027 | 911.9 | 13 | MAPLE |
| 1028 | 911.3 | 22 | MAPLE |
| 1030 | 912.3 | 16 | LOCUST |
| 1059 | 914.1 | 9 | MAPLE |
| 1060 | 914.5 | 17 | LOCUST |
| 1061 | 914.0 | 47 | WALNUT |
| 1062 | 916.6 | 9 | LOCUT |
| 1063 | 916.8 | 9 | LOCUT |
| 1064 | 917.6 | 9 | MAPLE |
| 1065 | 917.6 | 5 | LOCUST |
| 1066 | 918.0 | 10 | LOCUST |
| 1067 | 922.7 | 14 | PINE |
| 1068 | 925.2 | 16 | PINE |
| 1069 | 922.5 | 17 | PINE |
| 1071 | 926.4 | 25 | WALNUT |
| 1143 | 929.5 | 25 | SASSAFRASS |
| 1160 | 920.7 | 11 | ELM |
| 1161 | 921.7 | 23 | LOCUST |
| 1162 | 924.1 | 10 | SASSAFRASS |
| 1163 | 924.0 | 12 | PINE |
| 1164 | 925.2 | 28 | PINE |
| 1165 | 924.8 | 12 | ELM |
| 1166 | 926.7 | 13 | ELM |
| 1167 | 927.2 | 18 | PINE |
| 1168 | 928.1 | 13 | ELM |
| 1169 | 928.2 | 13 | ELM |
| 1170 | 928.5 | 11 | LOCUST |
| 1171 | 929.5 | 24 | LOCUST |
| 1172 | 929.7 | 17 | LOCUST |
| 1174 | 922.1 | 12 | LOCUST |
| 1175 | 922.9 | 17 | CHERRY |
| 1177 | 923.7 | 28 | MAPLE |
| 1178 | 919.6 | 16 | OAK |
| 1179 | 919.9 | 15 | HACKBERRY |
| 1180 | 919.6 | 16 | SASSAFRASS |
| 1181 | 918.5 | 16 | LOCUST |
| 1182 | 918.7 | 8 | LOCUST |
| 1183 | 917.5 | 14 | LOCUST |
| 1184 | 919.6 | 15 | LOCUST |
| 1238 | 910.7 | 26 | MAPLE |
| 1239 | 912.5 | 11 | MAPLE |
| 1250 | 917.5 | 19 | BOXELDER |
| 1251 | 916.9 | 8 | MAPLE |
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| 2084 | 886.1 | 4 | TWIN SMOKETREE |
| 2085 | 887.1 | 2 | SMOKETREE |
| 2093 | 888.8 | 10 | SMOKETREE |
| 2094 | 889.5 | 5 | SMOKETREE |
| 2095 | 890.1 | 3 | MULTI SMOKETREE |
| 2139 | 879.2 | 8 | TAMARACK |
| 2151 | 878.1 | 25 | ALANTHIS |
| 2196 | 878.6 | 30 | COTTONWOOD |
| 2229 | 889.7 | 3 | CRABAPPLE |
| 2238 | 883.4 | 28 | BASSWOOD |
| 2242 | 880.0 | 12 | ELM |
| 2302 | 888.5 | 19 | CATALPA |
| 2307 | 890.0 | 35 | MAPLE |
| 2310 | 890.7 | 29 | MAPLE |
| 2327 | 892.6 | 18 | BOXELDER |
| 2447 | 892.4 | 20 | LOCUST |

STREET TREES

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| CP# | NORTHING (Y) | EASTING (X) | ELEV. | DESCRIPTION |
|---|---|---|---|---|
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ELEV. = 891.46 NAVD88

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SET SPIKE IN E. FACE OF UTILITY POLE ON NW SIDE OF OXFORD, SOUTH OF DRIVE TO #800 OXFORD
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ELEW.

## SITE INFORMATION:

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SITE ADDRESS: 805 OXFORD RD.
ANN ARBOR, MI 48104

PARCEL ID: 09-09-33-108-001

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SIDE: 5'
REAR: 20'

## FLOODPLAIN NOTE:

ACCORDING TO FLOOD INSURANCE RATE MAP: MAP NUMBER 26161C026E, DATED 4/3/2012, PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY. THE SUBJECT PARCEL LIES WITHIN OTHER AREA (ZONE X); AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.

## STRUCTURE LEGEND:

STORM MARKING
YARD DRAIN
BEEHIVE CATCH BASIN
ROUND CATCH BASIN
SQUARE CATCH BASIN
STORM MANHOLE
CULVERT/END SECTION
DOWN SPOUT
STORM CLEAN-OUT
OUTLET CONTROL STRUCTURE
SANITARY MANHOLE
SANITARY CLEAN-OUT
SANITARY MARK

WATER MANHOLE
FIRE HYDRANT
GATE VALVE & BOX
WATER SHUT OFF VALVE
WELL
POST INDICATOR VALVE
SPIGOT / HOSE BIB
SPRINKLER HEAD
WATER MARKER
MONITORING WELL
TUNNEL MARKER

GAS MANHOLE
GAS RISER
GAS METER
GAS VALVE
GAS BLOW OFF
GAS STOP BOX
GAS MARKING
TELEPHONE POLE
COMMUNICATION MARKING
COMMUNICATION HAND HOLE
COMMUNICATION MANHOLE
TELEPHONE POLE
TELEPHONE RISER
POLICE/EMERGENCY CALL

BOLLARD
ANTENNA
STATUE / SCULPTURE
AC UNIT
PARKING METER
SIGN
MAILBOX
FLAG POLE
ROCK/BOULDER
BASKETBALL POST
BIKE HOOP
BENCH

ELECTRIC METER
ELECTRIC MANHOLE
GROUND LIGHT
LIGHT POLE
GUY POLE
POWER POLE
UTILITY POLE
GUY POLE
GUY ANCHOR
ELECTRIC RISER
TRANSFORMER
ELECTRIC HAND HOLE
ELECTRIC MARKING
TRAFFIC SIGNAL POST

SECTION CORNER
FOUND IRON PIPE
FOUND IRON ROD
SET IRON PIPE
SET MAG NAIL
FOUND MAG NAIL
SET WOOD LATH
CONTROL POINT
MEASURED DIMENSION
RECORDED DIMENSION
SURFACE FLOW

ELECTRIC LINE
GAS MAIN
WATER MAIN
STORM LINE
SANITARY LINE
CABLE TV LINE
PHONE LINE
CHAIN LINK FENCE
WOOD FENCE
BARBED WIRE FENCE

UTILITY NOTE:
THE UNDERGROUND UTILITIES SHOWN HEREON WERE LOCATED FROM SURVEY INFORMATION AND EXISTING RECORDS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES OTHER THAN AS SHOWN HEREON. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE APPROPRIATE UTILITY COMPANIES AT LEAST THREE WORKING DAYS BEFORE ANY EXCAVATION TO VERIFY THE EXACT LOCATION OF UNDERGROUND UTILITIES.

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Professional Land Surveyors
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(734) 669-2980 • arborlandinc.com

STATE OF MICHIGAN • KEVIN J. GINGRAS • License No. 4001049278 • LICENSED PROFESSIONAL SURVEYOR

DATE: 4-25-2025
REVISION: 1-19-2026

CLIENT: KAPPA DELTA

BOUNDARY & TOPOGRAPHIC SURVEY
#805 OXFORD
IN THE NE 1/4 OF SECTION 33
T2S, R6E, CITY OF ANN ARBOR
WASHTENAW COUNTY, MICHIGAN

JOB No. 09625 | SHEET 2 OF 2
SCALE 1 INCH = 20 FEET

H:\SD3\proj\33591\dwg\33591dwg\01-topo.dwg, C1.1, 3/11/2026 10:37:37 AM, 1:1

## TREE IDENTIFICATION

TREE TABLE

| TREE # | DBH | COMMON NAME | BOTANICAL NAME | LANDMARK | INVASIVE | WOODLAND | CONDITION | PROPOSED REMOVAL |
|---|---|---|---|---|---|---|---|---|
| 212 | 16 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 235 | 10 | Kentucky Yellowwood | Cladastris kentuckea | | | | Good | X |
| 329 | 2 | Black Cherry | Prunus serotina | | | X | Good | |
| 339 | 2 | Black Cherry | Prunus serotina | | | X | Good | |
| 364 | 2 | Black Cherry | Prunus serotina | | | X | Good | X |
| 368 | 36 | Basswood | Tilia americana | X | | X | Good | X |
| 374 | 16 | Black Oak | Quercus velutinia | X | | X | Good | X |
| 480 | 8 | Eastern Redbud | Cercis canadensis | X | | X | Poor | X |
| 484 | 11 | Eastern Redbud | Cercis canadensis | X | | X | Good | X |
| 485 | 8 | Boxelder | Acer negundo | | | X | Good | X |
| 491 | 8 | Douglas Fir | Pseudotsuga menziesii | | | X | Good | X |
| 492 | 11 | Douglas Fir | Pseudotsuga menziesii | | | X | Good | X |
| 498 | 16 | White Pine | Pinus strobus | | | X | Good | X |
| 502 | 9 | Basswood | Tilia americana | | | X | Good | X |
| 503 | 9 | Basswood | Tilia americana | | | X | Poor | X |
| 504 | 12 | Black Locust | Robinia pseudoacacia | | X | X | Good | X |
| 505 | 14 | Black Locust | Robinia pseudoacacia | | X | X | Good | X |
| 506 | 6 | Norway Maple | Acer platanoides | | X | X | Good | X |
| 507 | 6 | Norway Maple | Acer platanoides | | X | X | Good | |
| 508 | 17 | Basswood | Tilia americana | | | X | Good | |
| 509 | 33 | White Oak | Quercus alba | X | | X | Good | |
| 511 | 11 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 512 | 24 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 513 | 9 | Norway Maple | Acer platanoides | | X | X | Good | |
| 536 | 23 | Boxelder | Acer negundo | | | X | Good | X |
| 537 | 12 | Norway Maple | Acer platanoides | | X | X | Good | X |
| 541 | 8 | Eastern Redbud | Cercis canadensis | X | | X | Fair | X |
| 542 | 26 | White Pine | Pinus strobus | X | | X | Good | |
| 543 | 19 | White Pine | Pinus strobus | X | | X | Good | |
| 544 | 15 | White Fir | Abies concolor | | | X | Good | |
| 545 | 18 | White Fir | Abies concolor | X | | X | Good | |
| 546 | 20 | White Pine | Pinus strobus | X | | X | Good | |
| 547 | 19 | White Pine | Pinus strobus | X | | X | Good | |
| 548 | 16 | White Pine | Pinus strobus | | | X | Fair | |
| 549 | 18 | White Fir | Abies concolor | X | | X | Good | |
| 550 | 20 | White Fir | Abies concolor | X | | X | Fair | |
| 551 | 20 | White Pine | Pinus strobus | X | | X | Good | |
| 562 | 9 | White Pine | Pinus strobus | | | | Good | X |
| 563 | 12 | Douglas Fir | Pseudotsuga menziesii | | | | Good | X |
| 564 | 8 | White Pine | Pinus strobus | | | | Good | X |
| 565 | 12 | Douglas Fir | Pseudotsuga menziesii | | | | Good | X |
| 566 | 6 | White Pine | Pinus strobus | | | | Good | X |
| 1004 | 25 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1005 | 23 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1006 | 26 | Norway Spruce | Picea abies | X | | X | Good | |
| 1011 | 12 | Pignut Hickory | Carya glabra | | | X | Poor | X |
| 1016 | 29 | Black Walnut | Juglans nigra | X | | X | Good | X |
| 1017 | 13 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1027 | 13 | Norway Maple | Acer platanoides | | X | X | Good | |
| 1028 | 22 | Norway Maple | Acer platanoides | | X | X | Good | |
| 1030 | 16 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1059 | 9 | Norway Maple | Acer platanoides | | X | X | Good | |
| 1060 | 17 | Honeylocust | Gleditsia triacanthos | X | | X | Good | X |
| 1061 | 53 | Black Walnut | Juglans nigra | X | | X | Good | |
| 1062 | 9 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1063 | 9 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1064 | 9 | Norway Maple | Acer platanoides | | X | X | Good | |
| 1065 | 5 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1066 | 10 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1067 | 14 | Tamarack | Larix laricina | X | | X | Fair | X |
| 1068 | 17 | Tamarack | Larix laricina | X | | X | Good | X |
| 1069 | 17 | Eastern Hemlock | Tsuga canadensis | X | | X | Good | X |
| 1071 | 25 | Pignut Hickory | Carya glabra | X | | X | Fair | X |
| 1143 | 25 | White Mulberry | Morus alba | | X | X | Good | X |
| 1160 | 11 | American Elm | Ulmus americana | | | X | Good | |
| 1161 | 23 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1162 | 10 | White Mulberry | Morus alba | | X | X | Fair | X |
| 1163 | 12 | White Pine | Pinus strobus | | | X | Poor | X |
| 1164 | 28 | Norway Spruce | Picea abies | X | | X | Good | X |
| 1165 | 12 | American Elm | Ulmus americana | | | X | Good | |
| 1166 | 13 | Norway Maple | Acer platanoides | | X | X | Good | |
| 1167 | 18 | Norway Spruce | Picea abies | X | | X | Fair | X |
| 1168 | 13 | White Mulberry | Morus alba | | X | X | Good | |
| 1169 | 13 | American Elm | Ulmus americana | | | X | Fair | |
| 1170 | 11 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1171 | 24 | Honeylocust | Gleditsia triacanthos | X | | X | Good | |
| 1172 | 17 | Honeylocust | Gleditsia triacanthos | X | | X | Good | X |
| 1174 | 12 | Big-toothed Aspen | Populus grandidentata | X | | X | Good | X |
| 1175 | 17 | Black Cherry | Prunus serotina | | | X | Good | X |
| 1177 | 28 | Norway Maple | Acer platanoides | | X | X | Good | X |
| 1178 | 16 | Black Walnut | Juglans nigra | | | X | Good | X |
| 1179 | 15 | Hackberry | Celtis occidentalis | X | | X | Good | X |
| 1180 | 16 | White Mulberry | Morus alba | | X | X | Good | X |
| 1181 | 16 | Black Locust | Robinia pseudoacacia | | X | X | Good | X |
| 1182 | 8 | Black Locust | Robinia pseudoacacia | | X | X | Good | X |
| 1183 | 14 | White Mulberry | Morus alba | | X | X | Good | X |
| 1184 | 15 | Black Locust | Robinia pseudoacacia | | X | X | Good | X |
| 1238 | 26 | Boxelder | Acer negundo | X | | X | Good | |
| 1239 | 11 | Boxelder | Acer negundo | | | X | Good | |
| 1250 | 19 | Big-toothed Aspen | Populus grandidentata | X | | X | Fair | X |
| 1251 | 8 | Norway Maple | Acer platanoides | | X | X | Good | X |
| 1253 | 21 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| | 47 | Tulip Tree | Liriodendron tulipifera | X | | X | Good | |

Total Woodland Basal Area (Sq Ft): 159.93
Total Woodland Trees Removed: 42
Total DBH of Removed Protected Trees (In): 407.00

R1C = SINGLE-FAMILY DWELLING
R2A & R2B = TWO-FAMILY DWELLING

## REMOVAL LEGEND

= LANDMARK TREE CRITICAL ROOT ZONE
= LANDMARK TREE CRITICAL ROOT ZONE IMPACT AREA %
(R) = TREE TO BE REMOVED
= TREE PROTECTION FENCING
= REMOVE CONCRETE CURB & GUTTER
= SAWCUT LINE
= REMOVE ASPHALT SURFACE
= REMOVE CONCRETE SURFACE
X X X X X = REMOVE PIPE / LINE ITEM
A A A A A = ABANDON PIPE

## REMOVAL PLAN : 805 OXFORD RD

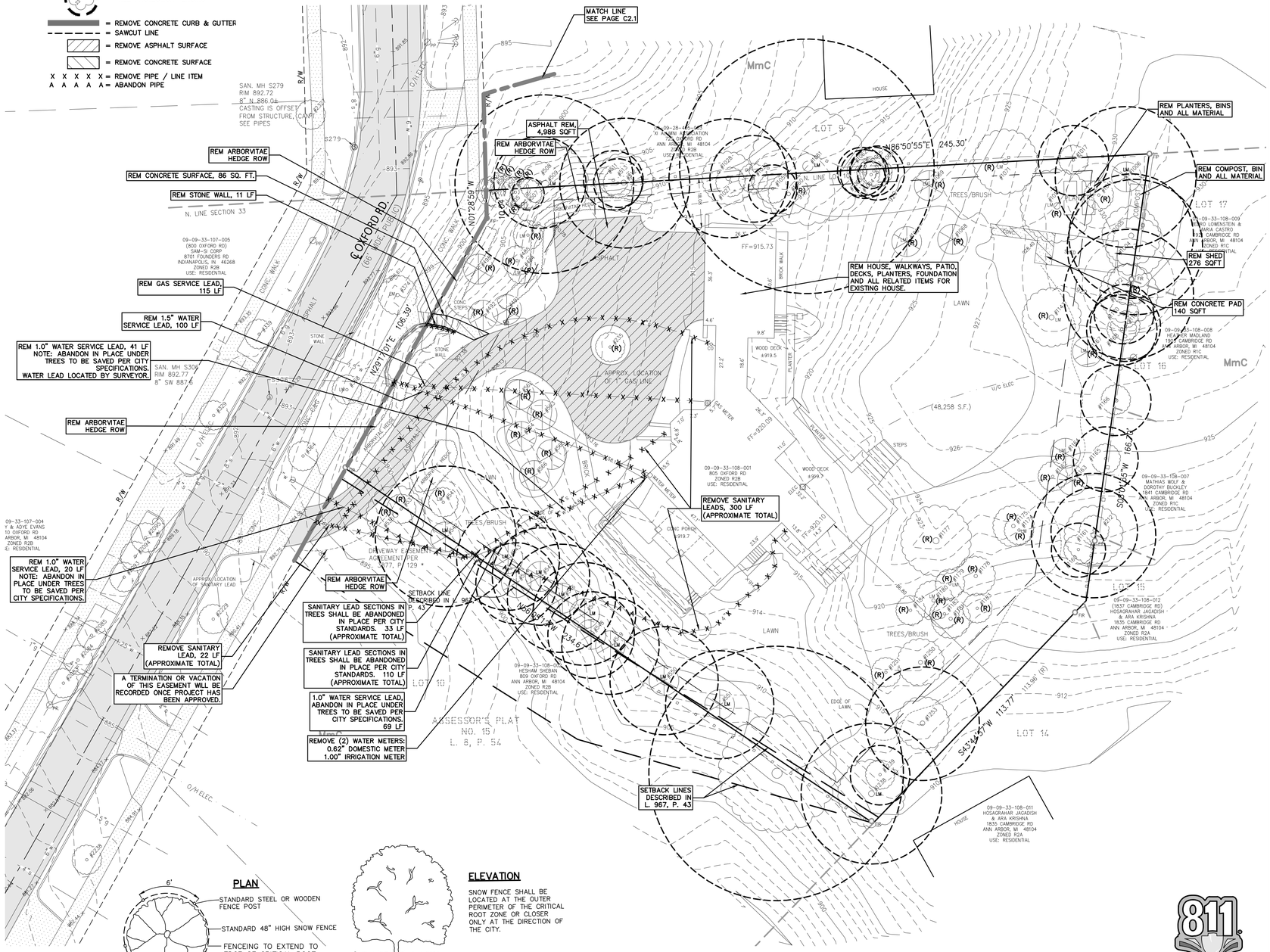
Tree removals noted here are for site construction of utilities and buildings or the removal of dead or dying trees that need to be removed to ensure survival of the native trees that are still in good health.

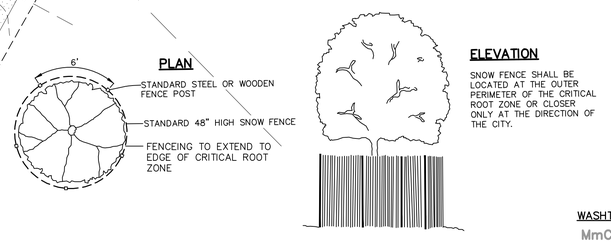
See Landscape Plan for tree mitigation, calculations and listings.
Existing sanitary sewer and water service leads shall be abandoned at their respective utility main per the public services standard specification.
Remove existing entrances, buildings, fencing and other noted items.

Protect trees indicated on the removal plan with tree fence, all trees indicated on this plan to be saved.

DO NOT PARK EQUIPMENT OR VEHICLES WITHIN CRITICAL ROOT ZONES
Critical Root zone of Landmark trees to be protected with fencing as indicated on the plan.

If any tree identified to be saved has Structural damage the contractor shall contact the project Landscape Architect for direction.




TREE PROTECTION FENCING
NOT TO SCALE

WASHTENAW COUNTY SOIL SURVEY CLASSIFICATION

MmC - MIAMI LOAM, 6 TO 12 PERCENT SLOPES

SOILS ARE BASED ON USDA SOIL SURVEY OF WASHTENAW COUNTY.

NOTES:
1. ALL REMOVAL LIMITS MUST BE SAW CUT AT FULL DEPTH.
2. UTILITY LEADS NOT PROPOSED FOR RE-USE WITH THE NEW DEVELOPMENT SHALL BE PERMANENTLY DISCONNECTED AT THEIR RESPECTIVE MAINS.
3. FINAL PAVEMENT REMOVALS WILL BE DETERMINED BY THE CITY DURING CONSTRUCTION, BUT WILL GENERALLY INCLUDE TO LANE LINES.

BOUNDARY & TOPOGRAPHICAL SURVEY PERFORMED BY: ARBOR LAND CONSULTANTS, DATED: 4-25-25, JOB NO. 09625.

Know what's below. Call before you dig.

LEGEND

☆ = LIGHT POLE
⊙ = UTILITY POLE
▽ = GUY ANCHOR
◇ = HYDRANT
SPOT ELEV. 893.33
SP = POST
⊗ = GATE VALVE
—o— = SIGN
TC = TOP OF CURB
TW = TOP OF WALL
○ = MANHOLE
□ = CATCHBASIN
◡ = END SECTION
= GRAVEL
= FENCE
= CONCRETE
= ASPHALT
= EXISTING STORM
= EXISTING SANITARY
= EXISTING WATER
= EXISTING GAS
= EXISTING ELECTRIC
= EXISTING TELEPHONE

BENCHMARK BM2000=SET SPIKE IN SE FACE OF UTILITY POLE ON NW SIDE OF OXFORD, SOUTH OF DRIVE TO 810 OXFORD RD, ELEV=891.46 (NAVD 88).
BM2001=SET SPIKE IN E FACE OF UTILITY POLE ON NW SIDE OF OXFORD, SOUTH OF DRIVE TO 800 OXFORD RD, ELEV=894.70 (NAVD 88).
BM2002=TOP NUT ON HYDRANT, EASTERLY OF DRIVE TO 1705 HILL ST AND NORTHERLY OF HILL ST, ELEV=890.27 (NAVD 88).

REVISIONS 12-05-2025 REVISED SITE PLAN, 1-19-2026 REVISED SITE PLAN
2-4-2026 REVISED SITE PLAN, 2-26-2026 REVISED SITE PLAN
3-4-2026 REVISED SITE PLAN, 3-11-2026 REVISED SITE PLAN

SCALE 0 10 20 40
SCALE: 1"=20'

PREPARED BY JOSEPH R. MAYNARD P.E., MICH No. 52559

JOSEPH R. MAYNARD ENGINEER No. 52559 REGISTERED PROFESSIONAL ENGINEER STATE OF MICHIGAN


CIVIL ENGINEERS
PLANNERS + SURVEYORS
LANDSCAPE ARCHITECTS
3526 W. LIBERTY RD
SUITE 400
ANN ARBOR, MI 48103
TEL: 734-761-8500


WASHTENAW ENGINEERING

CLIENT
SIGMA ZETA HOUSING, LLC
3205 PLAYERS LN
MEMPHIS, TN 38125

PROJECT
805 OXFORD ROAD

SHEET
REMOVAL PLAN

SECTION 33 TOWN 2 SOUTH RANGE 6 EAST
CITY OF ANN ARBOR
WASHTENAW COUNTY • MICHIGAN
DATE 10-16-2025 JOB NO. 33191
DWG NO. 191-rem
FIELD BOOK –
FILE NO. 10943
SHEET C2.0


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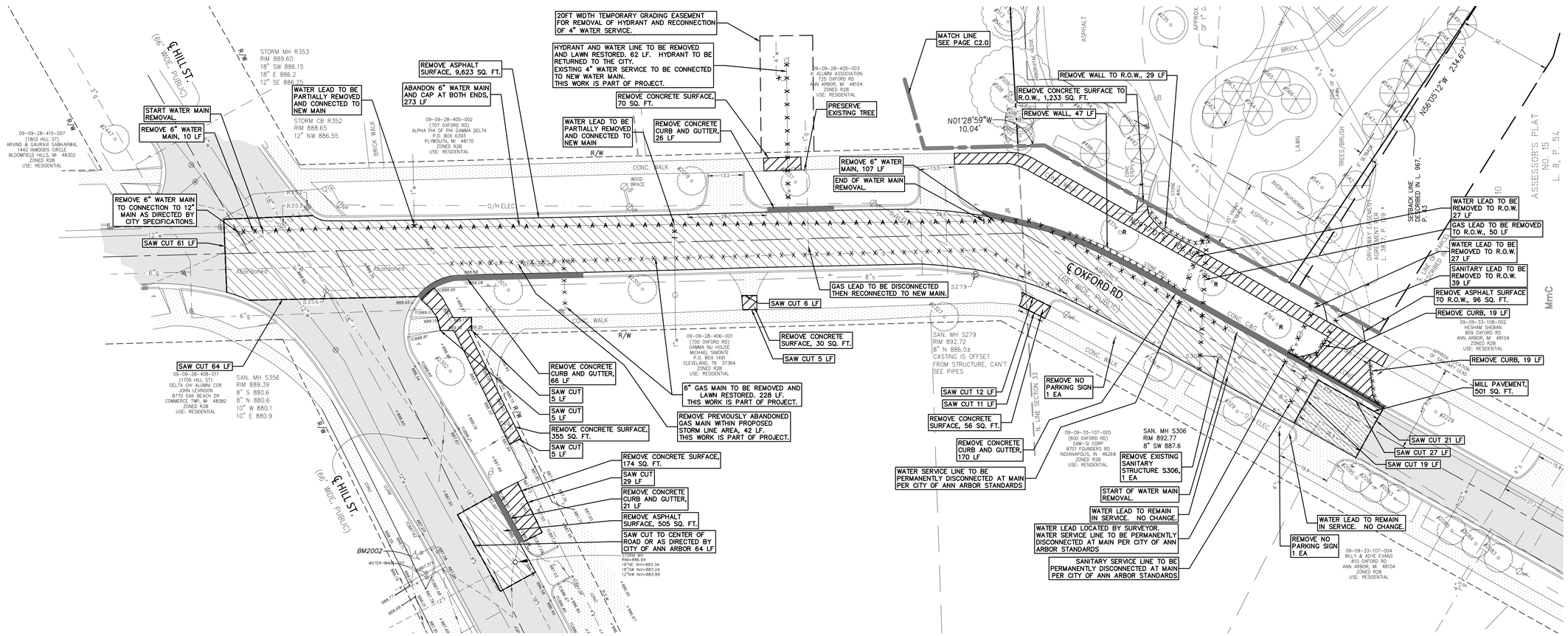
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THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING RECORDS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER AB-SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE SURVEYOR DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

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ALL RIGHTS RESERVED. THIS DRAWING IS AN INSTRUMENT OF SERVICE PREPARED BY WASHTENAW ENGINEERING COMPANY, INC. AND SHALL NOT BE REPRODUCED OR USED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN CONSENT OF WASHTENAW ENGINEERING COMPANY, INC.

THE OWNER SHALL NOT USE OR AUTHORIZE ANY OTHER PERSON TO USE THE DRAWINGS, SPECIFICATIONS, ELECTRONIC DATA AND OTHER INSTRUMENTS OF SERVICE ON THESE PROJECTS, FOR ADDITIONS TO THIS PROJECT OR FOR COMPLETION OF THE PROJECT BY OTHERS (EXCEPT AS WASHTENAW ENGINEERING COMPANY (WECO) IS NOT ADJUDGED TO BE IN DEFAULT UNDER THIS AGREEMENT, PROVIDED HOWEVER THAT THE OWNER SHALL HAVE A LIMITED, NON-EXCLUSIVE LICENSE TO USE THE DRAWINGS, SPECIFICATIONS, ELECTRONIC DATA AND OTHER INSTRUMENTS OF SERVICE PREPARED BY WECO, SUBJECT TO THE FOLLOWING LIMITATIONS: (1) THE OWNER SHALL INDEMNIFY AND HOLD HARMLESS WECO, WECO'S CONSULTANTS AND AGENTS AND EMPLOYEES OF ANY OF THEM FROM AND AGAINST CLAIMS, DAMAGES, LOSSES AND EXPENSES, INCLUDING BUT NOT LIMITED TO ATTORNEY'S FEES, ARISING OUT OF OR RESULTING THEREFROM (SUBJECT TO ANY LIMITATIONS PROVIDED BY LAW) AND (2) SUCH LICENSE SHALL TERMINATE AND BECOME VOID AND OF NO EFFECT UPON THE OWNER'S BREACH OF THIS AGREEMENT. THE OWNER SHALL NOT PASS ANY DRAWINGS, SPECIFICATIONS, ELECTRONIC DATA OR OTHER INSTRUMENTS OF SERVICE PREPARED BY WECO TO ANY OTHER PARTY WITHOUT THE PRIOR WRITTEN CONSENT OF WECO.




## REMOVAL LEGEND

- = LANDMARK TREE CRITICAL ROOT ZONE
- = LANDMARK TREE CRITICAL ROOT ZONE IMPACT AREA %
- = TREE TO BE REMOVED
- = TREE PROTECTION FENCING
- = REMOVE CONCRETE CURB & GUTTER
- = SAWCUT LINE
- = REMOVE ASPHALT SURFACE
- = MILL PAVEMENT
- = REMOVE CONCRETE SURFACE
- X X X X X = REMOVE PIPE / LINE ITEM
- A A A A A = ABANDON PIPE

## WASHTENAW COUNTY SOIL SURVEY CLASSIFICATION

MmC – MIAMI LOAM, 6 TO 12 PERCENT SLOPES

SOILS ARE BASED ON USDA SOIL SURVEY OF WASHTENAW COUNTY.

R1C = SINGLE-FAMILY DWELLING
R2A & R2B = TWO-FAMILY DWELLING

## LEGEND

- = LIGHT POLE
- = UTILITY POLE
- = GUY ANCHOR
- = HYDRANT
- = SPOT ELEV.
- = POST
- = GATE VALVE
- = SIGN
- TC = TOP OF CURB
- TW = TOP OF WALL
- = MANHOLE
- = CATCHBASIN
- = END SECTION
- = GRAVEL
- = FENCE
- = CONCRETE
- = ASPHALT
- = EXISTING STORM
- = EXISTING SANITARY
- = EXISTING WATER
- = EXISTING GAS
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- = EXISTING TELEPHONE

**BENCHMARK** *BM2000=SET SPIKE IN SE FACE OF UTILITY POLE ON NW SIDE OF OXFORD, SOUTH OF DRIVE TO 810 OXFORD RD, ELEV=891.46 (NAVD 88).*
*BM2001=SET SPIKE IN E FACE OF UTILITY POLE ON NW SIDE OF OXFORD, SOUTH OF DRIVE TO 800 OXFORD RD, ELEV=894.70 (NAVD 88).*
*BM2002=TOP NUT ON HYDRANT, EASTERLY OF DRIVE TO 1705 HILL ST AND NORTHERLY OF HILL ST, ELEV=890.27 (NAVD 88).*

**REVISIONS** *12-05-2025 REVISED SITE PLAN, 1-19-2026 REVISED SITE PLAN*
*2-4-2026 REVISED SITE PLAN, 2-26-2026 REVISED SITE PLAN*
*3-4-2026 REVISED SITE PLAN, 3-11-2026 REVISED SITE PLAN*

**SCALE** 40
0 10 20
SCALE: 1"=20'

PREPARED BY
JOSEPH K. MAYNARD P.E., MICH No. 52559

JOSEPH K. MAYNARD ENGINEER No. 52559 STATE OF MICHIGAN REGISTERED PROFESSIONAL ENGINEER

Know what's below. Call before you dig.

BOUNDARY & TOPOGRAPHICAL SURVEY PERFORMED BY: ARBOR LAND CONSULTANTS, DATED: 4-25-25, JOB NO. 09625.

CIVIL ENGINEERS
PLANNERS • SURVEYORS
LANDSCAPE ARCHITECTS
3526 W. LIBERTY RD
SUITE 400
ANN ARBOR, MI 48103
TEL: 734-761-8500

WASHTENAW ENGINEERING

CLIENT
SIGMA ZETA HOUSING, LLC
3205 PLAYERS LN
MEMPHIS, TN 38125

MmC

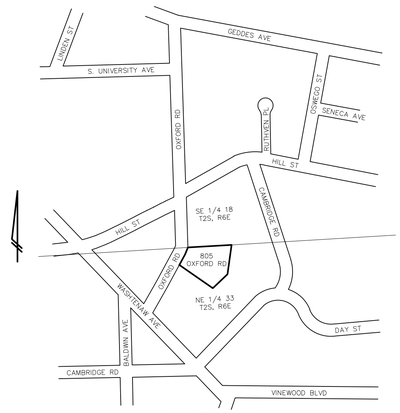
SHEET
# OXFORD RD REMOVAL PLAN

PROJECT
SIGMA ZETA HOUSING, LLC.
## 805 OXFORD ROAD

SECTION 33 TOWN 2 SOUTH RANGE 6 EAST
CITY OF ANN ARBOR
WASHTENAW COUNTY • MICHIGAN
DATE 10-16-2025 | JOB NO. 33191 | DWG NO. 191-oxford rem | FIELD BOOK – | FILE NO. 10943
SHEET C2.1

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THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING RECORDS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE SURVEYOR DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.



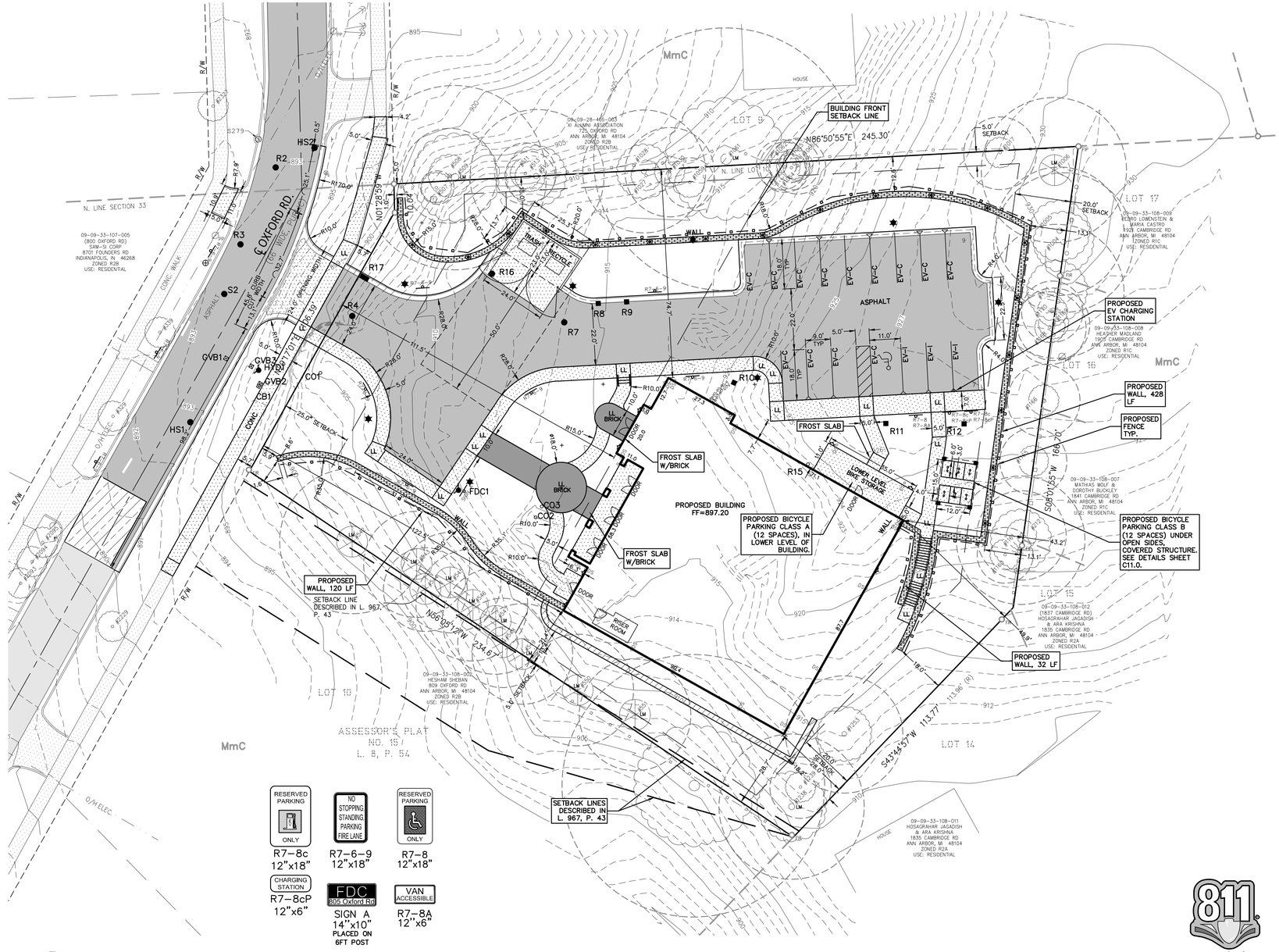

## VICINITY MAP
(SCALE: 1"=400')

**VEHICULAR PARKING**
TOTAL PARKING 16 SPACES (1) BARRIER FREE
(14) EV-C
(2) EV-I

**BIKE PARKING**
12 SPACES (CLASS A)
12 SPACES (CLASS B)

**CONSTRUCTION NOTES**

1. THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO THE CITY OF ANN ARBOR PUBLIC SERVICES DEPARTMENT STANDARD SPECIFICATIONS, WHICH ARE INCLUDED BY REFERENCE. THE OMISSION OF ANY CURRENT STANDARD DETAILS DOES NOT RELIEVE THE CONTRACTOR OF THIS REQUIREMENT. THE WORK SHALL BE PERFORMED IN COMPLETE CONFORMANCE THE THE CURRENT PUBLIC SERVICE DEPARTMENT STANDARD SPECIFICATIONS AND DETAILS.
2. THE OMISSION OF ANY STANDARD DETAILS DOES NOT RELIEVE THE CONTRACTORS OF THEIR OBLIGATION TO CONSTRUCT ITEMS IN COMPLETE ACCORDANCE WITH THE PUBLIC SERVICES STANDARD SPECIFICATIONS.
3. PAVEMENT MARKINGS DISTURBED AS A RESULT OF PAVEMENT CUTS OR CONSTRUCTION ACTIVITIES SHALL BE REPLACED AS DIRECTED BY PROJECT MANAGEMENT. REPLACEMENT DURING CONSTRUCTION OF THE PROJECT MAY BE CONSIDERED TEMPORARY, WITH FINAL PAVEMENT MARKING RESTORATION TO OCCUR AT THE END OF THE PROJECT.
4. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING PUBLIC ROAD PAVEMENT. DAMAGE TO THE PUBLIC ROAD PAVEMENT DURING THE COURSE OF CONSTRUCTION MAY NECESSITATE MILLING AND RESURFACING OF THE DAMAGED AREAS PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.
5. ALL CONSTRUCTION SIGNING SHALL BE IN COMPLIANCE WITH THE CURRENT MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
6. THE CONTRACTOR IS RESPONSIBLE TO ACQUIRE ALL REQUIRED PERMITS FOR THE PROJECT.
7. EXCESS MATERIAL IS TO BE REMOVED PROMPTLY FROM THE SITE AND PROPERLY DISPOSED OF.
8. NO PART OF THE RETAINING WALLS OR IRRIGATION SYSTEM WILL BE LOCATED IN THE PUBLIC RIGHT-OF-WAY. THE EXISTING STAIRS THAT ARE CURRENTLY LOCATED IN THE RIGHT-OF-WAY, WILL NEED TO BE REMOVED.
9. NO PART OF THE EARTH RETENTION SYSTEM SHALL BE LOCATED WITHIN THE PUBLIC RIGHT OF WAY.
10. EARTH RETENTION SYSTEM IS NEEDED FOR THIS PROJECT.
11. TITLE IV, CHAPTER 47, SECTION 4:13 OF THE CITY CODE PROHIBITS EXCAVATIONS "IN OR UNDER A PAVED STREET WITHIN A PERIOD OF 3 YEARS AFTER THE COMPLETION OF ANY PAVING OR RESURFACING THEREOF." IN ADDITION, ARTICLE 1, SECTION XIX, STREET CUTS, TABLE A OF THE 2025 PUBLIC SERVICES STANDARD SPECIFICATIONS EXTENDS THE MORATORIUM SUCH AS OXFORD ROAD, TO 3 YEARS. AS THIS PORTION OF OXFORD ROAD WAS RECENTLY TREATED, THE STREET CUT MORATORIUM IS STILL IN EFFECT UNTIL 2027. PROPOSED STREET CUTS INTO A MORATORIUM STREET MAY INVOLVE SPECIAL RESTORATION METHODS.
12. ALL SIDEWALKS ARE TO BE KEPT AND MAINTAINED IN GOOD REPAIR BY THE OWNER OF THE LAND ADJACENT TO AND ABUTTING THE SAME." PRIOR TO THE ISSUANCE OF THE FINAL CERTIFICATE OF OCCUPANCY FOR THIS SITE, ALL EXISTING SIDEWALKS IN NEED OF REPAIR MUST BE REPAIRED IN ACCORDANCE WITH CITY STANDARDS.
13. SIDEWALKS SHALL CONTINUE THROUGH PROPOSED DRIVE APPROACHES WITHOUT SIDEWALK RAMPS.
14. SITE CONTAINS NO EXISTING PUBLIC UTILITY EASEMENT, NONE ARE PROPOSED.
15. SIDEWALKS CONSTRUCTED IN THE PUBLIC RIGHT-OF-WAY AND/OR PUBLIC PATHS SHALL MEET ALL REQUIREMENTS AND GUIDELINES AS SET FORTH IN THE ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT-OF-WAY PUBLISHED AUGUST 8TH, 2023. INTERSECTION RAMPS, INCLUDING RECEIVING RAMPS MUST BE COMPLIANT AT THE TIME OF CONSTRUCTION. IF RAMPS ARE FOUND TO BE OUT OF COMPLIANCE, THEY WILL NEED TO BE RECONSTRUCTED. ADDITIONALLY, TURNING SPACES ARE REQUIRED ON PUBLIC SIDEWALK AT THE INTERFACE OF SITE SIDEWALK WITH PUBLIC SIDEWALK.




## PROPOSED LEGEND

- = CONCRETE SURFACE
- = ASPHALT SURFACE
- = MILL AND FILL SURFACE
- = CONCRETE BARRIER CURB & GUTTER
- = SPILL OUT CONCRETE CURB & GUTTER
- = SIGN
- = LIGHTPOLE
- = WALL MOUNTED LIGHT
- = ROOF MOUNTED LIGHT
- = BRICK SURFACE
- = ELECTRIC VEHICLE CHARGING STATION
- = ELECTRIC VEHICLE CHARGING STATION CAPABLE
- EV-I = ELECTRIC VEHICLE – INSTALLED
- EV-C = ELECTRIC VEHICLE – CAPABLE
- NON-EV = ELECTRIC VEHICLE – NON-CAPABLE
- = WALL
- = BOULDER WALL

## PROPOSED UTILITY LEGEND

- = CATCH BASIN
- = MANHOLE
- = END SECTION
- COO = CLEANOUT
- = OIL/GREASE SEPARATOR
- = GATE VALVE IN BOX
- = GATE VALVE IN WELL
- = HYDRANT
- = CURB BOX
- = REDUCER
- YD = YARD DRAIN
- = FDC BUILDING CONNECTION
- = GAS GATE VALVE
- DSO = DOWNSPOUT

## WASHTENAW COUNTY SOIL SURVEY CLASSIFICATION

MmC – MIAMI LOAM, 6 TO 12 PERCENT SLOPES

SOILS ARE BASED ON USDA SOIL SURVEY OF WASHTENAW COUNTY.

R1C = SINGLE-FAMILY DWELLING
R2A & R2B = TWO-FAMILY DWELLING

RESERVED PARKING ONLY R7-8c 12"x18"
NO STOPPING STANDING PARKING FIRE LANE R7-6-9 12"x18"
RESERVED PARKING ONLY R7-8 12"x18"
CHARGING STATION R7-8cP 12"x6"
FDC 805 Oxford Rd SIGN A 14"x10" PLACED ON 6FT POST
VAN ACCESSIBLE R7-8A 12"x6"

= EXISTING CRITICAL ROOT ZONE

**NOTES**

1. DRIVEWAY EASEMENT AGREEMENT PER L3877 P129 BECOMES AUTOMATICALLY TERMINATED AND BE OF NO FURTHER FORCE AND EFFECT IF THE 805 OXFORD ROAD PARCEL IS USED FOR ANY PURPOSE OTHER THAN SINGLE FAMILY DWELLING.
2. THE SETBACK LINE DESCRIBED IN L967 P43 IS NO LONGER IN EFFECT AS CONDITIONS SET FORTH IN AGREEMENT HAVE EXPIRED.

BOTH ITEMS APPEAR ON PLANS AS THEY ARE CONTAINED IN THE PROPERTY ALTA DRAWING.

Know what's below. Call before you dig.

BOUNDARY & TOPOGRAPHICAL SURVEY PERFORMED BY: ARBOR LAND CONSULTANTS, DATED: 4-25-25, JOB NO. 09625.

JOSEPH K. MAYNARD ENGINEER No. 52559 STATE OF MICHIGAN REGISTERED PROFESSIONAL ENGINEER

## LEGEND

- = LIGHT POLE
- = UTILITY POLE
- = GUY ANCHOR
- = HYDRANT
- SPOT ELEV. 897.23
- = POST
- = GATE VALVE
- = SIGN
- TC = TOP OF CURB
- TW = TOP OF WALL
- = MANHOLE
- = CATCHBASIN
- = END SECTION
- = GRAVEL
- = FENCE
- = CONCRETE
- = ASPHALT
- = EXISTING STORM
- = EXISTING SANITARY
- = EXISTING WATER
- = EXISTING GAS
- = EXISTING ELECTRIC
- = EXISTING TELEPHONE

**BENCHMARK** *BM2000=SET SPIKE IN SE FACE OF UTILITY POLE ON NW SIDE OF OXFORD, SOUTH OF DRIVE TO 810 OXFORD RD, ELEV=891.46 (NAVD 88).*
*BM2001=SET SPIKE IN E FACE OF UTILITY POLE ON NW SIDE OF OXFORD, SOUTH OF DRIVE TO 800 OXFORD RD, ELEV=894.70 (NAVD 88).*
*BM2002=TOP NUT ON HYDRANT, EASTERLY OF DRIVE TO 1705 HILL ST AND NORTHERLY OF HILL ST, ELEV=890.27 (NAVD 88).*

**REVISIONS** *12-05-2025 REVISED SITE PLAN, 1-19-2026 REVISED SITE PLAN*
*2-4-2026 REVISED SITE PLAN, 2-26-2026 REVISED SITE PLAN*
*3-4-2026 REVISED SITE PLAN, 3-11-2026 REVISED SITE PLAN*

SCALE 0 10 20 40
SCALE: 1"=20'

PREPARED BY JOSEPH K. MAYNARD P.E., MICH No. 52559

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TEL: 734-761-8500

WASHTENAW ENGINEERING

CLIENT
SIGMA ZETA HOUSING, LLC
3205 PLAYERS LN
MEMPHIS, TN 38125

# SITE DIMENSIONAL LAYOUT PLAN

SHEET

PROJECT
SIGMA ZETA HOUSING, LLC.
805 OXFORD ROAD

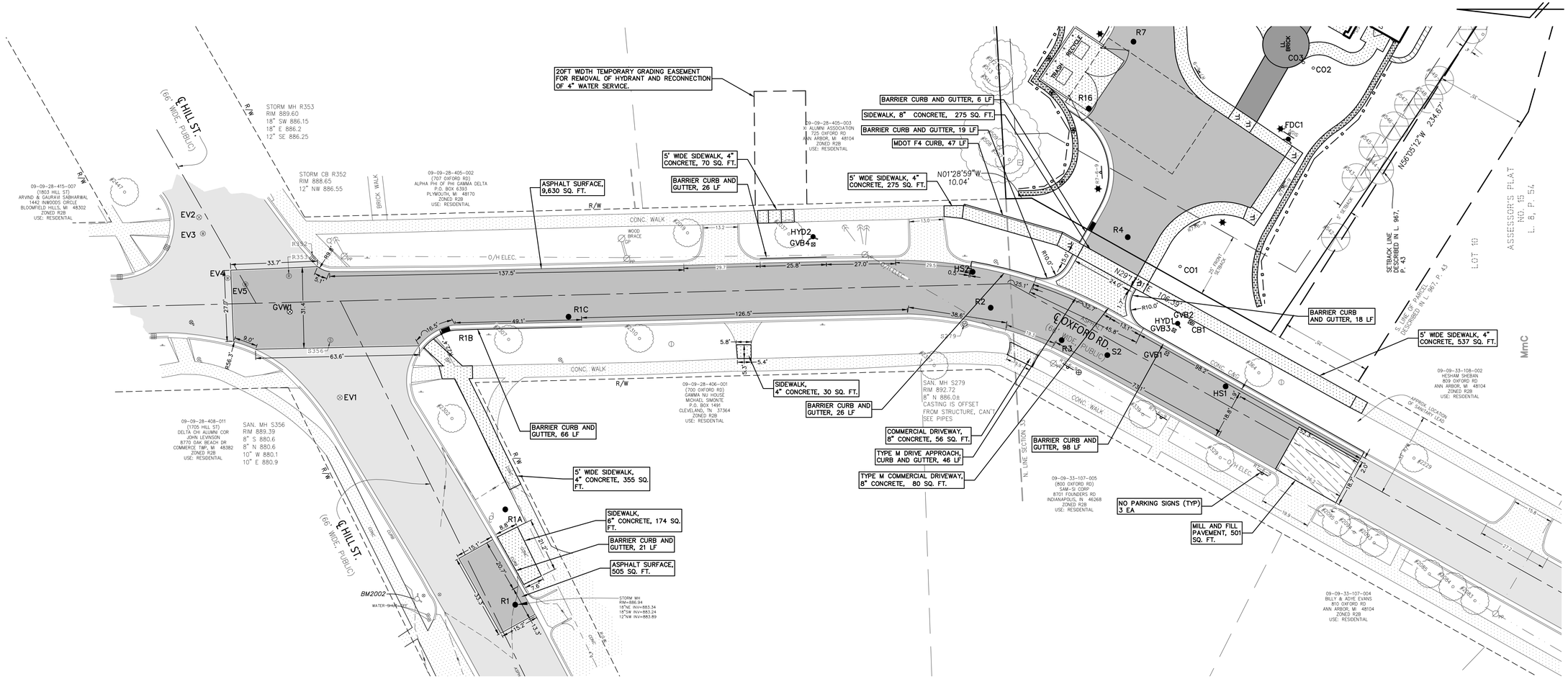
SECTION 33 TOWN 2 SOUTH RANGE 6 EAST
CITY OF ANN ARBOR
WASHTENAW COUNTY • MICHIGAN
DATE 10-16-25
JOB NO. 33191
DWG NO. 191-site
FIELD BOOK –
FILE NO. 10943
SHEET C3.0

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THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING RECORDS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE SURVEYOR DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.




OXFORD RD. SITE PLAN
SCALE 1" = 20'

## PROPOSED LEGEND

- = CONCRETE SURFACE
- = ASPHALT SURFACE
- = MILL AND FILL SURFACE
- = CONCRETE BARRIER CURB & GUTTER
- = SPILL OUT CONCRETE CURB & GUTTER
- = SIGN
- = LIGHTPOLE
- = WALL MOUNTED LIGHT
- = ROOF MOUNTED LIGHT
- = BRICK SURFACE
- = ELECTRIC VEHICLE CHARGING STATION
- = ELECTRIC VEHICLE CHARGING STATION CAPABLE
- EV-I = ELECTRIC VEHICLE – INSTALLED
- EV-C = ELECTRIC VEHICLE – CAPABLE
- NON-EV = ELECTRIC VEHICLE – NON-CAPABLE
- = WALL
- = BOULDER WALL

## PROPOSED UTILITY LEGEND

- = CATCH BASIN
- = MANHOLE
- = END SECTION
- CO = CLEANOUT
- = OIL/GREASE SEPARATOR
- = GATE VALVE IN BOX
- = GATE VALVE IN WELL
- = HYDRANT
- = CURB BOX
- = REDUCER
- YD = YARD DRAIN
- = FDC BUILDING CONNECTION
- = GAS GATE VALVE
- DS = DOWNSPOUT

## WASHTENAW COUNTY SOIL SURVEY CLASSIFICATION

MmC – MIAMI LOAM, 6 TO 12 PERCENT SLOPES

SOILS ARE BASED ON USDA SOIL SURVEY OF WASHTENAW COUNTY.

R1C = SINGLE-FAMILY DWELLING
R2A & R2B = TWO-FAMILY DWELLING

## CONSTRUCTION NOTES

1. THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO THE CITY OF ANN ARBOR PUBLIC SERVICES DEPARTMENT STANDARD SPECIFICATIONS, WHICH ARE INCLUDED BY REFERENCE. THE OMISSION OF ANY CURRENT STANDARD DETAILS DOES NOT RELIEVE THE CONTRACTOR OF THIS REQUIREMENT. THE WORK SHALL BE PERFORMED IN COMPLETE CONFORMANCE THE THE CURRENT PUBLIC SERVICE DEPARTMENT STANDARD SPECIFICATIONS AND DETAILS.
2. THE OMISSION OF ANY STANDARD DETAILS DOES NOT RELIEVE THE CONTRACTORS OF THEIR OBLIGATION TO CONSTRUCT ITEMS IN COMPLETE ACCORDANCE WITH THE PUBLIC SERVICES STANDARD SPECIFICATIONS.
3. PAVEMENT MARKINGS DISTURBED AS A RESULT OF PAVEMENT CUTS OR CONSTRUCTION ACTIVITIES SHALL BE REPLACED AS DIRECTED BY PROJECT MANAGEMENT. REPLACEMENT DURING CONSTRUCTION OF THE PROJECT MAY BE CONSIDERED TEMPORARY, WITH FINAL PAVEMENT MARKING RESTORATION TO OCCUR AT THE END OF THE PROJECT.
4. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING PUBLIC ROAD PAVEMENT. DAMAGE TO THE PUBLIC ROAD PAVEMENT DURING THE COURSE OF CONSTRUCTION MAY NECESSITATE MILLING AND RESURFACING OF THE DAMAGED AREAS PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.
5. ALL CONSTRUCTION SIGNING SHALL BE IN COMPLIANCE WITH THE CURRENT MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
6. THE CONTRACTOR IS RESPONSIBLE TO ACQUIRE ALL REQUIRED PERMITS FOR THE PROJECT.
7. EXCESS MATERIAL IS TO BE REMOVED PROMPTLY FROM THE SITE AND PROPERLY DISPOSED OF.
8. NO PART OF THE RETAINING WALLS OR IRRIGATION SYSTEM WILL BE LOCATED IN THE PUBLIC RIGHT-OF-WAY. THE EXISTING STAIRS THAT ARE CURRENTLY LOCATED IN THE RIGHT-OF-WAY, WILL NEED TO BE REMOVED.
9. NO PART OF THE EARTH RETENTION SYSTEM SHALL BE LOCATED WITHIN THE PUBLIC RIGHT OF WAY.
10. EARTH RETENTION SYSTEM IS NEEDED FOR THIS PROJECT.
11. TITLE IV, CHAPTER 47, SECTION 4:13 OF THE CITY CODE PROHIBITS EXCAVATIONS "IN OR UNDER A PAVED STREET WITHIN A PERIOD OF 3 YEARS AFTER THE COMPLETION OF ANY PAVING OR RESURFACING THEREOF." IN ADDITION, ARTICLE 1, SECTION XIX, STREET CUTS, TABLE A OF THE 2025 PUBLIC SERVICES STANDARD SPECIFICATIONS EXTENDS THE MORATORIUM SUCH AS OXFORD ROAD, TO 3 YEARS. AS THIS PORTION OF OXFORD ROAD WAS RECENTLY TREATED, THE STREET CUT MORATORIUM IS STILL IN EFFECT UNTIL 2027. PROPOSED STREET CUTS INTO A MORATORIUM STREET MAY INVOLVE SPECIAL RESTORATION METHODS.
12. ALL SIDEWALKS ARE TO BE KEPT AND MAINTAINED IN GOOD REPAIR BY THE OWNER OF THE LAND ADJACENT TO AND ABUTTING THE SAME.' PRIOR TO THE ISSUANCE OF THE FINAL CERTIFICATE OF OCCUPANCY FOR THIS SITE, ALL EXISTING SIDEWALKS IN NEED OF REPAIR MUST BE REPAIRED IN ACCORDANCE WITH CITY STANDARDS.
13. SIDEWALKS SHALL CONTINUE THROUGH PROPOSED DRIVE APPROACHES WITHOUT SIDEWALK RAMPS.
14. SITE CONTAINS NO EXISTING PUBLIC UTILITY EASEMENT, NONE ARE PROPOSED.
15. SIDEWALKS CONSTRUCTED IN THE PUBLIC RIGHT-OF-WAY AND/OR PUBLIC PATHS SHALL MEET ALL REQUIREMENTS AND GUIDELINES AS SET FORTH IN THE ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT-OF-WAY PUBLISHED AUGUST 8TH, 2023. INTERSECTION RAMPS, INCLUDING RECEIVING RAMPS MUST BE COMPLIANT AT THE TIME OF CONSTRUCTION. IF RAMPS ARE FOUND TO BE OUT OF COMPLIANCE, THEY WILL NEED TO BE RECONSTRUCTED. ADDITIONALLY, TURNING SPACES ARE REQUIRED ON PUBLIC SIDEWALK AT THE INTERFACE OF SITE SIDEWALK WITH PUBLIC SIDEWALK.

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

BOUNDARY & TOPOGRAPHICAL SURVEY PERFORMED BY: ARBOR LAND CONSULTANTS, DATED: 4-25-25, JOB NO. 09625.

## LEGEND

- = LIGHT POLE
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**REVISIONS** *12-05-2025 REVISED SITE PLAN, 1-19-2026 REVISED SITE PLAN*
*2-4-2026 REVISED SITE PLAN, 2-26-2026 REVISED SITE PLAN*
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SCALE 0 10 20 40
SCALE: 1"=20'

PREPARED BY JOSEPH R. MAYNARD P.E., MICH No. 52559

STATE OF MICHIGAN JOSEPH R. MAYNARD ENGINEER No. 52559 REGISTERED PROFESSIONAL ENGINEER

CIVIL ENGINEERS
PLANNERS + SURVEYORS
LANDSCAPE ARCHITECTS
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TEL: 734-761-8500

WASHTENAW ENGINEERING

CLIENT
SIGMA ZETA HOUSING, LLC
3205 PLAYERS LN
MEMPHIS, TN 38125

# OXFORD RD DIMENSIONAL LAYOUT PLAN

PROJECT
SIGMA ZETA HOUSING, LLC.
805 OXFORD ROAD

SECTION 33 TOWN 2 SOUTH RANGE 6 EAST
CITY OF ANN ARBOR
WASHTENAW COUNTY • MICHIGAN
DATE 10-16-2025 JOB NO. 33191
DWG NO. 191-oxford site
FIELD BOOK –
FILE NO. 10943

SHEET C3.1

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**TREE TABLE**

| TREE # | DBH | COMMON NAME | BOTANICAL NAME | LANDMARK | INVASIVE | WOODLAND | CONDITION | PROPOSED REMOVAL |
|---|---|---|---|---|---|---|---|---|
| 212 | 16 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 235 | 10 | Kentucky Yellowwood | Cladastris kentuckea | | | | Good | X |
| 329 | 2 | Black Cherry | Prunus serotina | | | X | Good | |
| 339 | 2 | Black Cherry | Prunus serotina | | | X | Good | |
| 364 | 2 | Black Cherry | Prunus serotina | | | X | Good | X |
| 368 | 36 | Basswood | Tilia americana | X | | X | Good | X |
| 374 | 16 | Black Oak | Quercus veluntina | X | | X | Good | X |
| 480 | 8 | Eastern Redbud | Cercis canadensis | X | | X | Poor | X |
| 484 | 11 | Eastern Redbud | Cercis canadensis | X | | X | Good | X |
| 485 | 8 | Boxelder | Acer negundo | | | X | Good | X |
| 491 | 8 | Douglas Fir | Pseudotsuga menziesii | | | X | Good | X |
| 492 | 11 | Douglas Fir | Pseudotsuga menziesii | | | X | Good | X |
| 498 | 16 | White Pine | Pinus strobus | | | X | Good | X |
| 502 | 9 | Basswood | Tilia americana | | | X | Good | X |
| 503 | 9 | Basswood | Tilia americana | | | X | Poor | X |
| 504 | 12 | Black Locust | Robinia pseudoacacia | | X | X | Good | X |
| 505 | 14 | Black Locust | Robinia pseudoacacia | | X | X | Good | X |
| 506 | 6 | Norway Maple | Acer platanoides | | X | X | Good | X |
| 507 | 6 | Norway Maple | Acer platanoides | | X | X | Good | |
| 508 | 17 | Basswood | Tilia americana | | | X | Good | |
| 509 | 33 | White Oak | Quercus alba | X | | X | Good | |
| 511 | 11 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 512 | 24 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 513 | 9 | Norway Maple | Acer platanoides | | X | X | Good | |
| 536 | 23 | Boxelder | Acer negundo | | | X | Good | X |
| 537 | 12 | Norway Maple | Acer platanoides | | X | X | Good | X |
| 541 | 8 | Eastern Redbud | Cercis canadensis | X | | X | Fair | X |
| 542 | 26 | White Pine | Pinus strobus | X | | X | Good | |
| 543 | 19 | White Pine | Pinus strobus | X | | X | Good | |
| 544 | 15 | White Fir | Abies concolor | | | X | Good | |
| 545 | 18 | White Fir | Abies concolor | X | | X | Good | |
| 546 | 20 | White Pine | Pinus strobus | X | | X | Good | |
| 547 | 19 | White Pine | Pinus strobus | X | | X | Good | |
| 548 | 16 | White Pine | Pinus strobus | | | X | Fair | |
| 549 | 18 | White Fir | Abies concolor | X | | X | Good | |
| 550 | 20 | White Fir | Abies concolor | X | | X | Fair | |
| 551 | 20 | White Pine | Pinus strobus | X | | X | Good | |
| 562 | 9 | White Pine | Pinus strobus | | | | Good | X |
| 563 | 12 | Douglas Fir | Pseudotsuga menziesii | | | | Good | X |
| 564 | 8 | White Pine | Pinus strobus | | | | Good | X |
| 565 | 12 | Douglas Fir | Pseudotsuga menziesii | | | | Good | X |
| 566 | 6 | White Pine | Pinus strobus | | | | Good | X |
| 1004 | 25 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1005 | 23 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1006 | 26 | Norway Spruce | Picea abies | X | | X | Good | |
| 1011 | 12 | Pignut Hickory | Carya glabra | | | X | Poor | X |
| 1016 | 29 | Black Walnut | Juglans nigra | X | | X | Good | X |
| 1017 | 13 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1027 | 13 | Norway Maple | Acer platanoides | | X | X | Good | |
| 1028 | 22 | Norway Maple | Acer platanoides | | X | X | Good | |
| 1030 | 16 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1059 | 9 | Norway Maple | Acer platanoides | | X | X | Good | |
| 1060 | 17 | Honeylocust | Gleditsia triacanthos | X | | X | Good | X |
| 1061 | 53 | Black Walnut | Juglans nigra | X | | X | Good | |
| 1062 | 9 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1063 | 9 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1064 | 9 | Norway Maple | Acer platanoides | | X | X | Good | |
| 1065 | 5 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1066 | 10 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1067 | 14 | Tamarack | Larix laricina | X | | X | Fair | X |
| 1068 | 17 | Tamarack | Larix laricina | X | | X | Good | X |
| 1069 | 17 | Eastern Hemlock | Tsuga canadensis | X | | X | Good | X |
| 1071 | 25 | Pignut Hickory | Carya glabra | X | | X | Fair | X |
| 1143 | 25 | White Mulberry | Morus alba | | X | X | Good | X |
| 1160 | 11 | American Elm | Ulmus americana | | | X | Good | |
| 1161 | 23 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1162 | 10 | White Mulberry | Morus alba | | X | X | Fair | X |
| 1163 | 12 | White Pine | Pinus strobus | | | X | Poor | X |
| 1164 | 28 | Norway Spruce | Picea abies | X | | X | Good | X |
| 1165 | 12 | American Elm | Ulmus americana | | | X | Good | |
| 1166 | 13 | Norway Maple | Acer platanoides | | X | X | Good | |
| 1167 | 18 | Norway Spruce | Picea abies | X | | X | Fair | X |
| 1168 | 13 | White Mulberry | Morus alba | | X | X | Good | |
| 1169 | 13 | American Elm | Ulmus americana | | | X | Fair | |
| 1170 | 11 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1171 | 24 | Honeylocust | Gleditsia triacanthos | X | | X | Good | |
| 1172 | 17 | Honeylocust | Gleditsia triacanthos | X | | X | Good | X |
| 1174 | 12 | Big-toothed Aspen | Populus grandidentata | X | | X | Good | X |
| 1175 | 17 | Black Cherry | Prunus serotina | | | X | Good | X |
| 1177 | 28 | Norway Maple | Acer platanoides | | X | X | Good | X |
| 1178 | 16 | Black Walnut | Juglans nigra | | | X | Good | X |
| 1179 | 15 | Hackberry | Celtis occidentalis | X | | X | Good | X |
| 1180 | 16 | White Mulberry | Morus alba | | X | X | Good | X |
| 1181 | 16 | Black Locust | Robinia pseudoacacia | | X | X | Good | X |
| 1182 | 8 | Black Locust | Robinia pseudoacacia | | X | X | Good | X |
| 1183 | 14 | White Mulberry | Morus alba | | X | X | Good | X |
| 1184 | 15 | Black Locust | Robinia pseudoacacia | | X | X | Good | X |
| 1238 | 26 | Boxelder | Acer negundo | X | | X | Good | |
| 1239 | 11 | Boxelder | Acer negundo | | | X | Good | |
| 1250 | 19 | Big-toothed Aspen | Populus grandidentata | X | | X | Fair | X |
| 1251 | 8 | Norway Maple | Acer platanoides | | X | X | Good | X |
| 1253 | 21 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| | 47 | Tulip Tree | Liriodendron tulipifera | X | | X | Good | |

Total Woodland Basal Area (Sq Ft): 159.93
Total Woodland Trees Removed: 42
Total DBH of Removed Protected Trees (In) 407.00

**DESCRIPTION OF WOODLAND CALCULATIONS**

THE PARCEL FEATURES A WOODLAND WITH A BASAL AREA OF 159.93 SQ FT AND 31 LANDMARK TREES. TO OUR KNOWLEDGE, THERE ARE NO ENDANGERED SPECIES HABITATS, FLOODPLAINS, WETLANDS, WATERCOURSES OR STEEP SLOPES. THIS PROJECT PROPOSES TO REMOVE 407 DBH INCHES OF PROTECTED TREES.

PER 5.37.2 OF ANN ARBOR'S UNIFIED DEVELOPMENT CODE, A WOODLAND IS DEFINED AS:

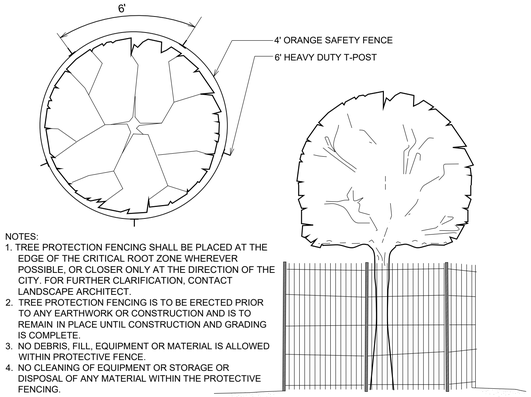
> A FORESTED AREA OF 1/2 ACRE OR MORE WITH A GROSS BASAL AREA OF 30 SQUARE FEET PER 1/2 ACRE, CONTAINING 20 TREES PER 1/2 ACRE GREATER THAN 6 INCHES IN DIAMETER AT BREAST HEIGHT (DBH), OR A PLANTATION OF 1/2 ACRE OR MORE WITH A MINIMUM AVERAGE DBH OF 10 INCHES. THE CRITICAL ROOT ZONE OF ALL TREES IN THE PERIMETER OF THE FORESTED AREA OR PLANTATION DEFINES THE AREA OF A WOODLAND.

ACCORDINGLY, THE CONTIGUOUS CRITICAL ROOT ZONES OF ALL TREES WAS USED TO DEFINE THE EXTENTS OF THE WOODLAND. USING THAT PARAMETER, THE WOODLAND IS 1.12 ACRES IN SIZE. TO CALCULATE BASAL AREA, THE DBH OF EACH WOODLAND TREE WAS USED IN THE FOLLOWING CALCULATION:

BASAL AREA (SQ FT) = .005454 X DBH²

WITHIN THE BOUNDARIES OF THE WOODLAND, THERE ARE MORE THAN 20 TREES PER $\frac{1}{2}$ ACRE GREATER THAN 6" DBH.

THIS PROJECT PROPOSES TO REMOVE 42 WOODLAND TREES, OF WHICH 17 ALSO MEET LANDMARK TREE CRITERIA. PER 5.23.5.D.1, A REPLACEMENT TREE OR A COMBINATION OF TREES OF A SPECIES NATIVE TO MICHIGAN SHALL BE PROVIDED TO EQUAL A MINIMUM OF 50% OF THE ORIGINAL DBH FOR EACH WOODLAND TREE GREATER THAN 8" DBH THAT IS REMOVED. THIS PROJECT THEREFORE REQUIRES 204 DBH INCHES OF MITIGATION.

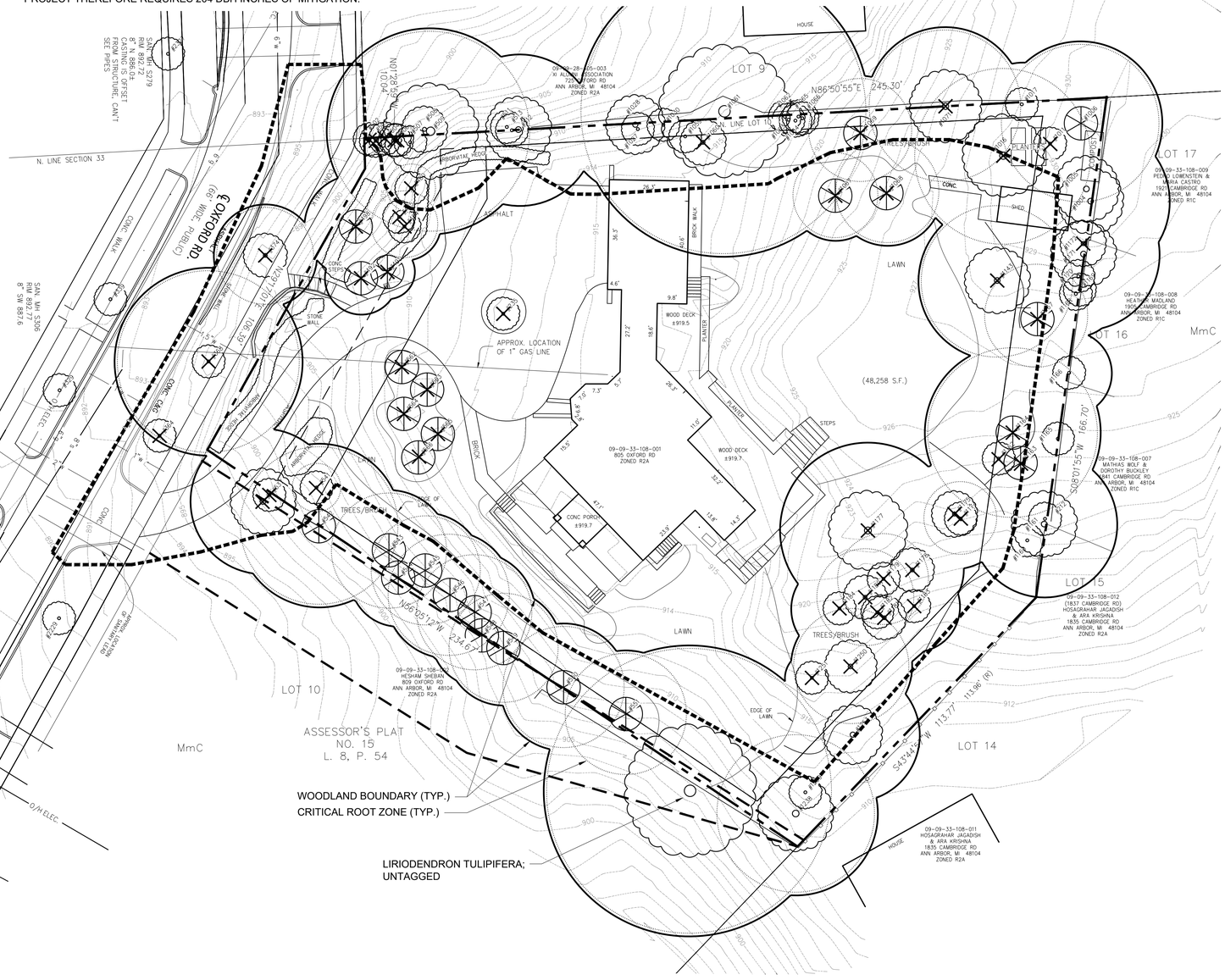



NOTES:
1. TREE PROTECTION FENCING SHALL BE PLACED AT THE EDGE OF THE CRITICAL ROOT ZONE WHEREVER POSSIBLE, OR CLOSER ONLY AT THE DIRECTION OF THE CITY. FOR FURTHER CLARIFICATION, CONTACT LANDSCAPE ARCHITECT.
2. TREE PROTECTION FENCING IS TO BE ERECTED PRIOR TO ANY EARTHWORK OR CONSTRUCTION AND IS TO REMAIN IN PLACE UNTIL CONSTRUCTION AND GRADING IS COMPLETE.
3. NO DEBRIS, FILL, EQUIPMENT OR MATERIAL IS ALLOWED WITHIN PROTECTIVE FENCE.
4. NO CLEANING OF EQUIPMENT OR STORAGE OR DISPOSAL OF ANY MATERIAL WITHIN THE PROTECTIVE FENCING.

1 TREE PROTECTION
SCALE: NTS

**LEGEND**

- EXISTING BROADLEAF TREES
- EXISTING CONIFEROUS TREES
- LANDMARK TREE CRITICAL ROOT ZONE
- PROPERTY BOUNDARY
- WOODLAND BOUNDARY
- TREES TO BE REMOVED
- LIMIT OF SOIL DISTURBANCE





JOHNSON HILL LAND ETHICS STUDIO
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734.622.7256 - www.johnsonhill.com


SIGMA ZETA HOUSING LLC
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ANN ARBOR, MICHIGAN

NORTH
0 10 20 40
SCALE 1"=20'-0"

| DATE: | ISSUED FOR: |
|---|---|
| | SITE PLAN REVIEW PRELIMINARY SUBMITTAL |
| 2025-09-25 | SITE PLAN REVIEW |
| 2025-10-16 | REVISED SITE PLAN |
| 2025-12-05 | REVISED SITE PLAN |
| 2026-01-19 | REVISED SITE PLAN |
| 2026-02-26 | REVISED SITE PLAN |
| 2026-03-11 | REVISED SITE PLAN |

DRAWN SES
CHECKED TRS

JOB NO.
25KAP01

TITLE
NATURAL FEATURES PLAN

SEAL
STATE OF MICHIGAN
TYLER SPRAGUE
LANDSCAPE ARCHITECT
License No. 3901001808
03/31/26
LICENSED LANDSCAPE ARCHITECT

SHEET
C4.0

**TREE TABLE**

| TREE # | DBH | COMMON NAME | BOTANICAL NAME | LANDMARK | INVASIVE | WOODLAND | CONDITION | PROPOSED REMOVAL |
|---|---|---|---|---|---|---|---|---|
| 212 | 16 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 235 | 10 | Kentucky Yellowwood | Cladastris kentuckea | | | | Good | X |
| 329 | 2 | Black Cherry | Prunus serotina | | | X | Good | |
| 339 | 2 | Black Cherry | Prunus serotina | | | X | Good | |
| 364 | 2 | Black Cherry | Prunus serotina | | | X | Good | X |
| 368 | 36 | Basswood | Tilia americana | X | | X | Good | X |
| 374 | 16 | Black Oak | Quercus veluntina | X | | X | Good | X |
| 480 | 8 | Eastern Redbud | Cercis canadensis | X | | X | Poor | X |
| 484 | 11 | Eastern Redbud | Cercis canadensis | X | | X | Good | X |
| 485 | 8 | Boxelder | Acer negundo | | | X | Good | X |
| 491 | 8 | Douglas Fir | Pseudotsuga menziesii | | | X | Good | X |
| 492 | 11 | Douglas Fir | Pseudotsuga menziesii | | | X | Good | X |
| 498 | 16 | White Pine | Pinus strobus | | | X | Good | X |
| 502 | 9 | Basswood | Tilia americana | | | X | Good | X |
| 503 | 9 | Basswood | Tilia americana | | | X | Poor | X |
| 504 | 12 | Black Locust | Robinia pseudoacacia | | X | X | Good | X |
| 505 | 14 | Black Locust | Robinia pseudoacacia | | X | X | Good | X |
| 506 | 6 | Norway Maple | Acer platanoides | | X | X | Good | X |
| 507 | 6 | Norway Maple | Acer platanoides | | X | X | Good | |
| 508 | 17 | Basswood | Tilia americana | | | X | Good | |
| 509 | 33 | White Oak | Quercus alba | X | | X | Good | |
| 511 | 11 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 512 | 24 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 513 | 9 | Norway Maple | Acer platanoides | | X | X | Good | |
| 536 | 23 | Boxelder | Acer negundo | | | X | Good | X |
| 537 | 12 | Norway Maple | Acer platanoides | | X | X | Good | X |
| 541 | 8 | Eastern Redbud | Cercis canadensis | X | | X | Fair | X |
| 542 | 26 | White Pine | Pinus strobus | X | | X | Good | |
| 543 | 19 | White Pine | Pinus strobus | X | | X | Good | |
| 544 | 15 | White Fir | Abies concolor | | | X | Good | |
| 545 | 18 | White Fir | Abies concolor | X | | X | Good | |
| 546 | 20 | White Pine | Pinus strobus | X | | X | Good | |
| 547 | 19 | White Pine | Pinus strobus | X | | X | Good | |
| 548 | 16 | White Pine | Pinus strobus | | | X | Fair | |
| 549 | 18 | White Fir | Abies concolor | X | | X | Good | |
| 550 | 20 | White Fir | Abies concolor | X | | X | Fair | |
| 551 | 20 | White Pine | Pinus strobus | X | | X | Good | |
| 562 | 9 | White Pine | Pinus strobus | | | | Good | X |
| 563 | 12 | Douglas Fir | Pseudotsuga menziesii | | | | Good | X |
| 564 | 8 | White Pine | Pinus strobus | | | | Good | X |
| 565 | 12 | Douglas Fir | Pseudotsuga menziesii | | | | Good | X |
| 566 | 6 | White Pine | Pinus strobus | | | | Good | X |
| 1004 | 25 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1005 | 23 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1006 | 26 | Norway Spruce | Picea abies | X | | X | Good | |
| 1011 | 12 | Pignut Hickory | Carya glabra | | | X | Poor | X |
| 1016 | 29 | Black Walnut | Juglans nigra | X | | X | Good | X |
| 1017 | 13 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1027 | 13 | Norway Maple | Acer platanoides | | X | X | Good | |
| 1028 | 22 | Norway Maple | Acer platanoides | | X | X | Good | |
| 1030 | 16 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1059 | 9 | Norway Maple | Acer platanoides | | X | X | Good | |
| 1060 | 17 | Honeylocust | Gleditsia triacanthos | X | | X | Good | X |
| 1061 | 53 | Black Walnut | Juglans nigra | X | | X | Good | |
| 1062 | 9 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1063 | 9 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1064 | 9 | Norway Maple | Acer platanoides | | X | X | Good | |
| 1065 | 5 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1066 | 10 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1067 | 14 | Tamarack | Larix laricina | X | | X | Fair | X |
| 1068 | 17 | Tamarack | Larix laricina | X | | X | Good | X |
| 1069 | 17 | Eastern Hemlock | Tsuga canadensis | X | | X | Good | X |
| 1071 | 25 | Pignut Hickory | Carya glabra | X | | X | Fair | X |
| 1143 | 25 | White Mulberry | Morus alba | | X | X | Good | X |
| 1160 | 11 | American Elm | Ulmus americana | | | X | Good | |
| 1161 | 23 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1162 | 10 | White Mulberry | Morus alba | | X | X | Fair | X |
| 1163 | 12 | White Pine | Pinus strobus | | | X | Poor | X |
| 1164 | 28 | Norway Spruce | Picea abies | X | | X | Good | X |
| 1165 | 12 | American Elm | Ulmus americana | | | X | Good | |
| 1166 | 13 | Norway Maple | Acer platanoides | | X | X | Good | |
| 1167 | 18 | Norway Spruce | Picea abies | X | | X | Fair | X |
| 1168 | 13 | White Mulberry | Morus alba | | X | X | Good | |
| 1169 | 13 | American Elm | Ulmus americana | | | X | Fair | |
| 1170 | 11 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1171 | 24 | Honeylocust | Gleditsia triacanthos | X | | X | Good | |
| 1172 | 17 | Honeylocust | Gleditsia triacanthos | X | | X | Good | X |
| 1174 | 12 | Big-toothed Aspen | Populus grandidentata | X | | X | Good | X |
| 1175 | 17 | Black Cherry | Prunus serotina | | | X | Good | X |
| 1177 | 28 | Norway Maple | Acer platanoides | | X | X | Good | X |
| 1178 | 16 | Black Walnut | Juglans nigra | | | X | Good | X |
| 1179 | 15 | Hackberry | Celtis occidentalis | X | | X | Good | X |
| 1180 | 16 | White Mulberry | Morus alba | | X | X | Good | X |
| 1181 | 16 | Black Locust | Robinia pseudoacacia | | X | X | Good | X |
| 1182 | 8 | Black Locust | Robinia pseudoacacia | | X | X | Good | X |
| 1183 | 14 | White Mulberry | Morus alba | | X | X | Good | X |
| 1184 | 15 | Black Locust | Robinia pseudoacacia | | X | X | Good | X |
| 1238 | 26 | Boxelder | Acer negundo | X | | X | Good | |
| 1239 | 11 | Boxelder | Acer negundo | | | X | Good | |
| 1250 | 19 | Big-toothed Aspen | Populus grandidentata | X | | X | Fair | X |
| 1251 | 8 | Norway Maple | Acer platanoides | | X | X | Good | X |
| 1253 | 21 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| | 47 | Tulip Tree | Liriodendron tulipifera | X | | X | Good | |

Total Woodland Basal Area (Sq Ft): 159.93
Total Woodland Trees Removed: 42
Total DBH of Removed Protected Trees (In) 407.00

**EXISTING TREE NOTES:**

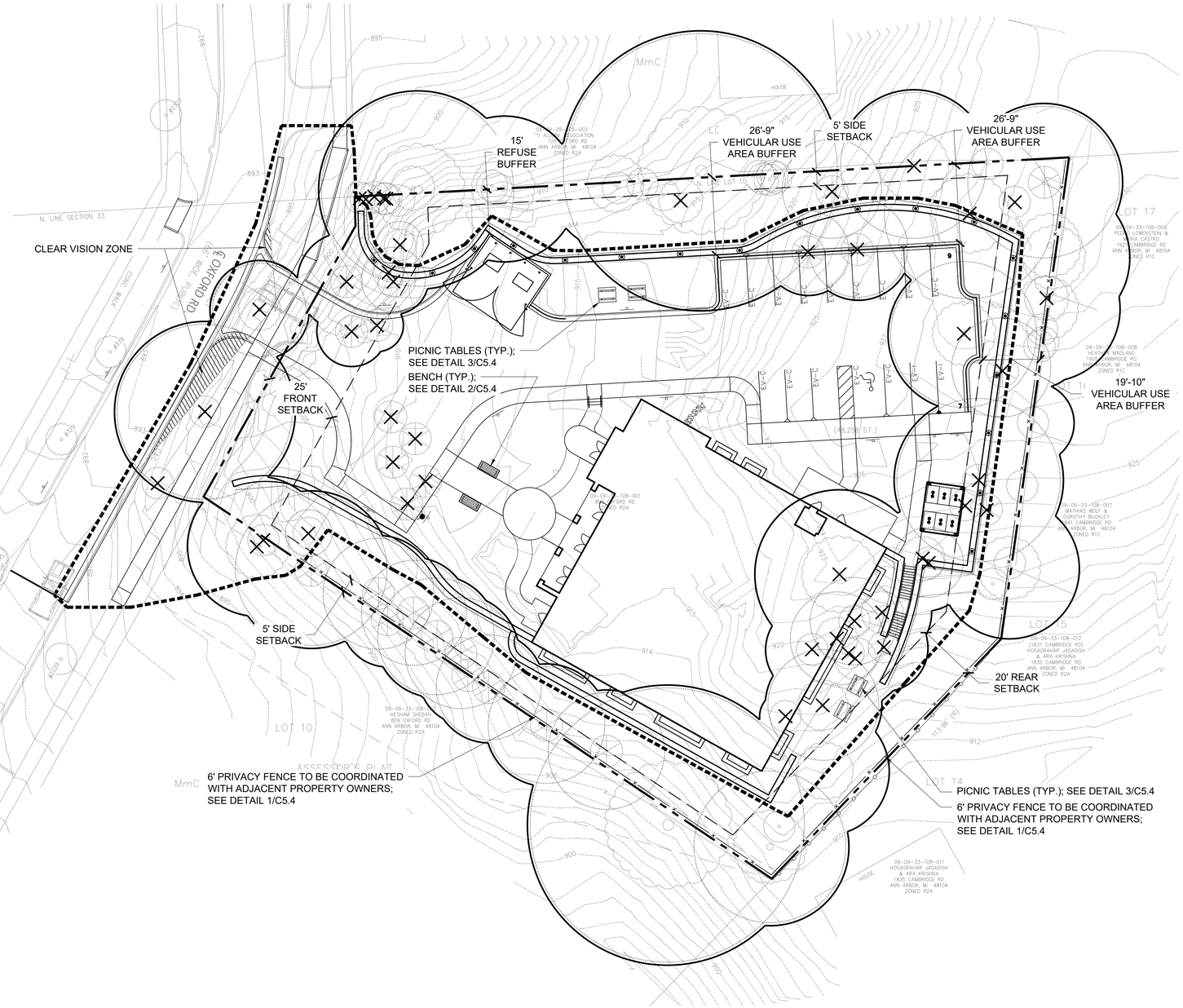
1. THE CONTRACTOR SHALL ENGAGE THE ARBORIST TO MONITOR THE HEALTH OF THE EXISTING TREES THROUGHOUT THE CONSTRUCTION PERIOD.
2. THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION CONFERENCE WITH THE LANDSCAPE ARCHITECT AND ARBORIST TO DISCUSS THE HANDLING OF TREES TO REMAIN DURING THE CONSTRUCTION PERIOD, SPECIFICALLY METHODS AND TECHNIQUES TO ENSURE THE EXISTING TREES HEALTH AND PRESERVATION.
3. THE SELECTIVE TRIMMING OF EXISTING TREES MAY BE REQUIRED TO FACILITATE CONSTRUCTION. THE CONTRACTOR SHALL CONSULT WITH THE ARBORIST PRIOR TO THE TRIMMING OF ANY TREES TO MINIMIZE HEALTH IMPACTS AND ENSURE BEST PRACTICES ARE UTILIZED.
4. CONSTRUCTION EQUIPMENT SHALL REMAIN OUTSIDE OF THE EXISTING TREES CRITICAL ROOT ZONE. SEE TREE PROTECTION DETAIL ON SHEET C4.0. IF, AFTER EXPLORING ALL ALTERNATIVES, EQUIPMENT MUST ENTER THE CRITICAL ROOT ZONE, A 4" LAYER OF WOOD CHIPS SHALL BE PLACED ON-GRADE TO REDUCE COMPACTION.
5. IF, THROUGH THE ARBORIST'S MONITORING DURING THE CONSTRUCTION PERIOD, A TREE IS IDENTIFIED AS SHOWING SIGNS OF STRESS, OR AS PREEMPTIVE MEASURE, THE ARBORIST MAY RECOMMEND THE USE OF MYCORRHIZAL INJECTIONS OR OTHER TREATMENTS.

**ARBORIST CONTACT INFORMATION:**
CONTACT INFORMATION FOR THE ARBORIST IS AS FOLLOWS:

JEREMY HERTZ, CERTIFIED MASTER ARBORIST
FAMILY TREE DOCTOR
10070 BYRON ROAD
HOWELL, MI 48855
(586)-839-5444
famtreedoc@gmail.com

**LEGEND**

- EXISTING BROADLEAF TREES
- EXISTING CONIFEROUS TREES
- LANDMARK TREE CRITICAL ROOT ZONE
- PROPERTY BOUNDARY
- WOODLAND BOUNDARY
- TREES TO BE REMOVED
- LIMIT OF SOIL DISTURBANCE




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| 2025-10-16 | SITE PLAN REVIEW |
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| 2026-01-19 | REVISED SITE PLAN |
| 2026-02-26 | REVISED SITE PLAN |
| 2026-03-11 | REVISED SITE PLAN |

DRAWN: SES
CHECKED: TRS

JOB NO.
25KAP01

TITLE
NATURAL FEATURES OVERLAY

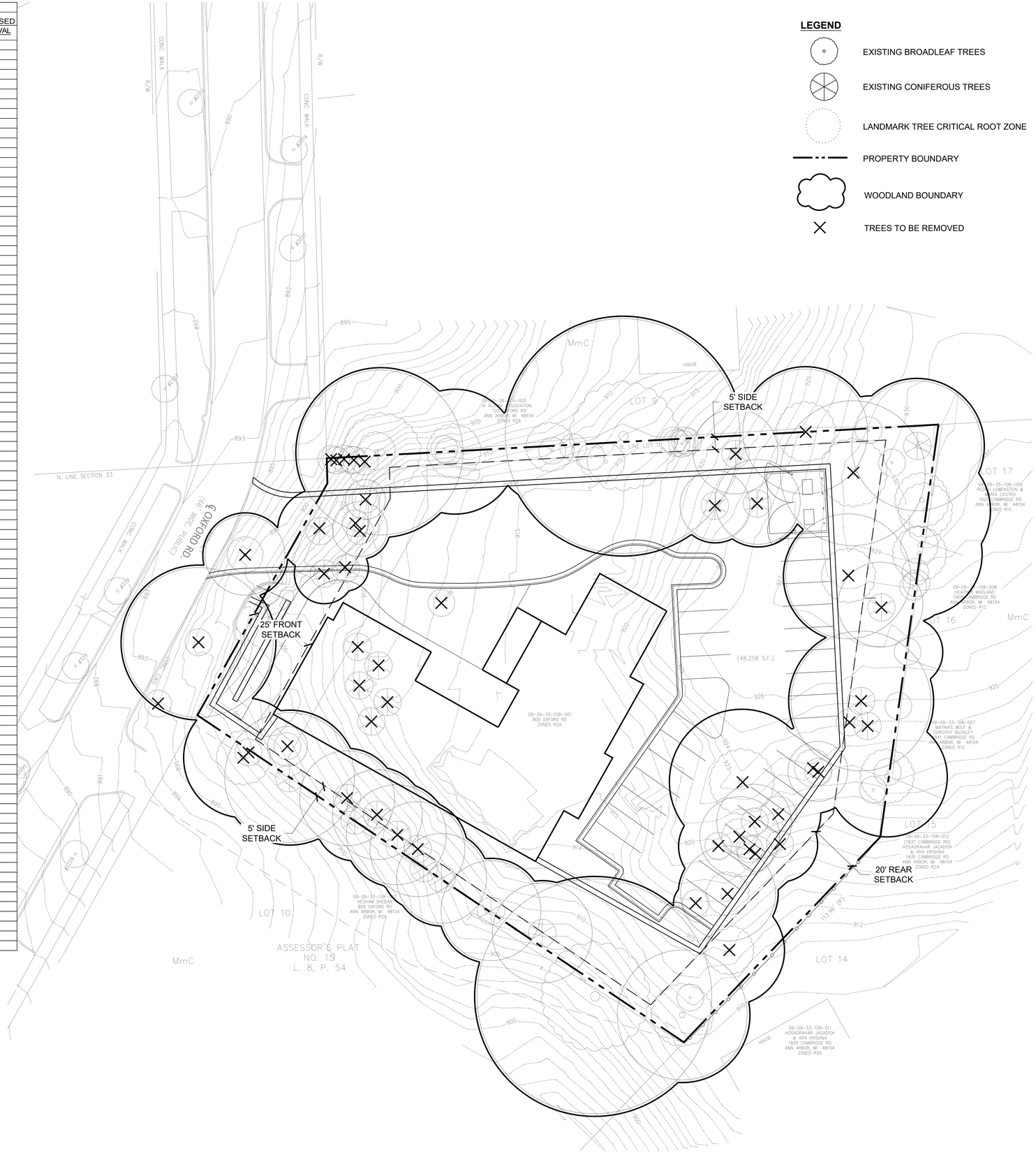
SEAL
STATE OF MICHIGAN
TYLER STRANGE
LANDSCAPE ARCHITECT
License No. 3901001808
12/31/26
LICENSED LANDSCAPE ARCHITECT

SHEET
C4.1

**TREE TABLE - Alternative Analysis 1**

| TREE # | DBH | COMMON NAME | BOTANICAL NAME | LANDMARK | INVASIVE | WOODLAND | CONDITION | PROPOSED REMOVAL |
|---|---|---|---|---|---|---|---|---|
| 212 | 16 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 235 | 10 | Kentucky Yellowwood | Cladastris kentuckea | | | | Good | X |
| 329 | 2 | Black Cherry | Prunus serotina | | | X | Good | |
| 339 | 2 | Black Cherry | Prunus serotina | | | X | Good | |
| 364 | 2 | Black Cherry | Prunus serotina | | | X | Good | X |
| 368 | 36 | Basswood | Tilia americana | X | | X | Good | X |
| 374 | 16 | Black Oak | Quercus veluntina | X | | X | Good | X |
| 480 | 8 | Eastern Redbud | Cercis canadensis | X | | X | Poor | X |
| 484 | 11 | Eastern Redbud | Cercis canadensis | X | | X | Good | X |
| 485 | 8 | Boxelder | Acer negundo | | | X | Good | X |
| 491 | 8 | Douglas Fir | Pseudotsuga menziesii | | | X | Good | X |
| 492 | 11 | Douglas Fir | Pseudotsuga menziesii | | | X | Good | X |
| 498 | 16 | White Pine | Pinus strobus | | | X | Good | X |
| 502 | 9 | Basswood | Tilia americana | | | X | Good | X |
| 503 | 9 | Basswood | Tilia americana | | | X | Poor | X |
| 504 | 12 | Black Locust | Robinia pseudoacacia | | X | X | Good | X |
| 505 | 14 | Black Locust | Robinia pseudoacacia | | X | X | Good | X |
| 506 | 6 | Norway Maple | Acer platanoides | | X | X | Good | X |
| 507 | 6 | Norway Maple | Acer platanoides | | X | X | Good | X |
| 508 | 17 | Basswood | Tilia americana | | | X | Good | |
| 509 | 33 | White Oak | Quercus alba | X | | X | Good | |
| 511 | 11 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 512 | 24 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 513 | 9 | Norway Maple | Acer platanoides | | X | X | Good | |
| 536 | 23 | Boxelder | Acer negundo | | | X | Good | X |
| 537 | 12 | Norway Maple | Acer platanoides | | X | X | Good | X |
| 541 | 8 | Eastern Redbud | Cercis canadensis | X | | X | Fair | X |
| 542 | 26 | White Pine | Pinus strobus | X | | X | Good | |
| 543 | 19 | White Pine | Pinus strobus | X | | X | Good | X |
| 544 | 15 | White Fir | Abies concolor | | | X | Good | |
| 545 | 18 | White Fir | Abies concolor | X | | X | Good | X |
| 546 | 20 | White Pine | Pinus strobus | X | | X | Good | X |
| 547 | 19 | White Pine | Pinus strobus | X | | X | Good | X |
| 548 | 16 | White Pine | Pinus strobus | | | X | Fair | |
| 549 | 18 | White Fir | Abies concolor | X | | X | Good | |
| 550 | 20 | White Fir | Abies concolor | X | | X | Fair | |
| 551 | 20 | White Pine | Pinus strobus | X | | X | Good | |
| 562 | 9 | White Pine | Pinus strobus | | | | Good | X |
| 563 | 12 | Douglas Fir | Pseudotsuga menziesii | | | | Good | X |
| 564 | 8 | White Pine | Pinus strobus | | | | Good | X |
| 565 | 12 | Douglas Fir | Pseudotsuga menziesii | | | | Good | X |
| 566 | 6 | White Pine | Pinus strobus | | | | Good | X |
| 1004 | 25 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1005 | 23 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1006 | 26 | Norway Spruce | Picea abies | X | | X | Good | |
| 1011 | 12 | Pignut Hickory | Carya glabra | | | X | Poor | X |
| 1016 | 29 | Black Walnut | Juglans nigra | X | | X | Good | X |
| 1017 | 13 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1027 | 13 | Norway Maple | Acer platanoides | | X | X | Good | |
| 1028 | 22 | Norway Maple | Acer platanoides | | X | X | Good | |
| 1030 | 16 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1059 | 9 | Norway Maple | Acer platanoides | | X | X | Good | |
| 1060 | 17 | Honeylocust | Gleditsia triacanthos | X | | X | Good | X |
| 1061 | 53 | Black Walnut | Juglans nigra | X | | X | Good | |
| 1062 | 9 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1063 | 9 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1064 | 9 | Norway Maple | Acer platanoides | | X | X | Good | |
| 1065 | 5 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1066 | 10 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1067 | 14 | Tamarack | Larix laricina | X | | X | Fair | X |
| 1068 | 17 | Tamarack | Larix laricina | X | | X | Good | X |
| 1069 | 17 | Eastern Hemlock | Tsuga canadensis | X | | X | Good | X |
| 1071 | 25 | Pignut Hickory | Carya glabra | X | | X | Fair | X |
| 1143 | 25 | White Mulberry | Morus alba | | X | X | Good | X |
| 1160 | 11 | American Elm | Ulmus americana | | | X | Good | |
| 1161 | 23 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1162 | 10 | White Mulberry | Morus alba | | X | X | Fair | X |
| 1163 | 12 | White Pine | Pinus strobus | | | X | Poor | X |
| 1164 | 28 | Norway Spruce | Picea abies | X | | X | Good | X |
| 1165 | 12 | American Elm | Ulmus americana | | | X | Good | |
| 1166 | 13 | Norway Maple | Acer platanoides | | X | X | Good | |
| 1167 | 18 | Norway Spruce | Picea abies | X | | X | Fair | X |
| 1168 | 13 | White Mulberry | Morus alba | | X | X | Good | |
| 1169 | 13 | American Elm | Ulmus americana | | | X | Fair | |
| 1170 | 11 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1171 | 24 | Honeylocust | Gleditsia triacanthos | X | | X | Good | |
| 1172 | 17 | Honeylocust | Gleditsia triacanthos | X | | X | Good | X |
| 1174 | 12 | Big-toothed Aspen | Populus grandidentata | X | | X | Good | X |
| 1175 | 17 | Black Cherry | Prunus serotina | | | X | Good | X |
| 1177 | 28 | Norway Maple | Acer platanoides | | X | X | Good | X |
| 1178 | 16 | Black Walnut | Juglans nigra | | | X | Good | X |
| 1179 | 15 | Hackberry | Celtis occidentalis | X | | X | Good | X |
| 1180 | 16 | White Mulberry | Morus alba | | X | X | Good | X |
| 1181 | 16 | Black Locust | Robinia pseudoacacia | | X | X | Good | X |
| 1182 | 8 | Black Locust | Robinia pseudoacacia | | X | X | Good | X |
| 1183 | 14 | White Mulberry | Morus alba | | X | X | Good | X |
| 1184 | 15 | Black Locust | Robinia pseudoacacia | | X | X | Good | X |
| 1238 | 26 | Boxelder | Acer negundo | X | | X | Good | |
| 1239 | 11 | Boxelder | Acer negundo | | | X | Good | |
| 1250 | 19 | Big-toothed Aspen | Populus grandidentata | X | | X | Fair | X |
| 1251 | 8 | Norway Maple | Acer platanoides | | X | X | Good | X |
| 1253 | 21 | Black Locust | Robinia pseudoacacia | | X | X | Good | X |
| | 47 | Tulip Tree | Liriodendron tulipifera | X | | X | Good | |

Total Woodland Basal Area (Sq Ft): 159.93
Total Woodland Trees Removed: 54
Total DBH of Removed Protected Trees (In) 483.00




JOHNSON HILL LAND ETHICS STUDIO
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734.668.7386 - www.johnsonhillstudio.com

SIGMA ZETA HOUSING LLC
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NORTH

0 10 20 40

SCALE 1"=20'-0"

| DATE: | ISSUED FOR: |
|---|---|
| 2025-09-25 | SITE PLAN REVIEW PRELIMINARY SUBMITTAL |
| 2025-10-16 | SITE PLAN REVIEW |
| 2025-12-05 | REVISED SITE PLAN |
| 2026-01-19 | REVISED SITE PLAN |
| 2026-02-26 | REVISED SITE PLAN |
| 2026-03-11 | REVISED SITE PLAN |

DRAWN SES
CHECKED TRS

JOB NO.
25KAP01

TITLE
ALTERNATIVE ANALYSIS 1

SEAL

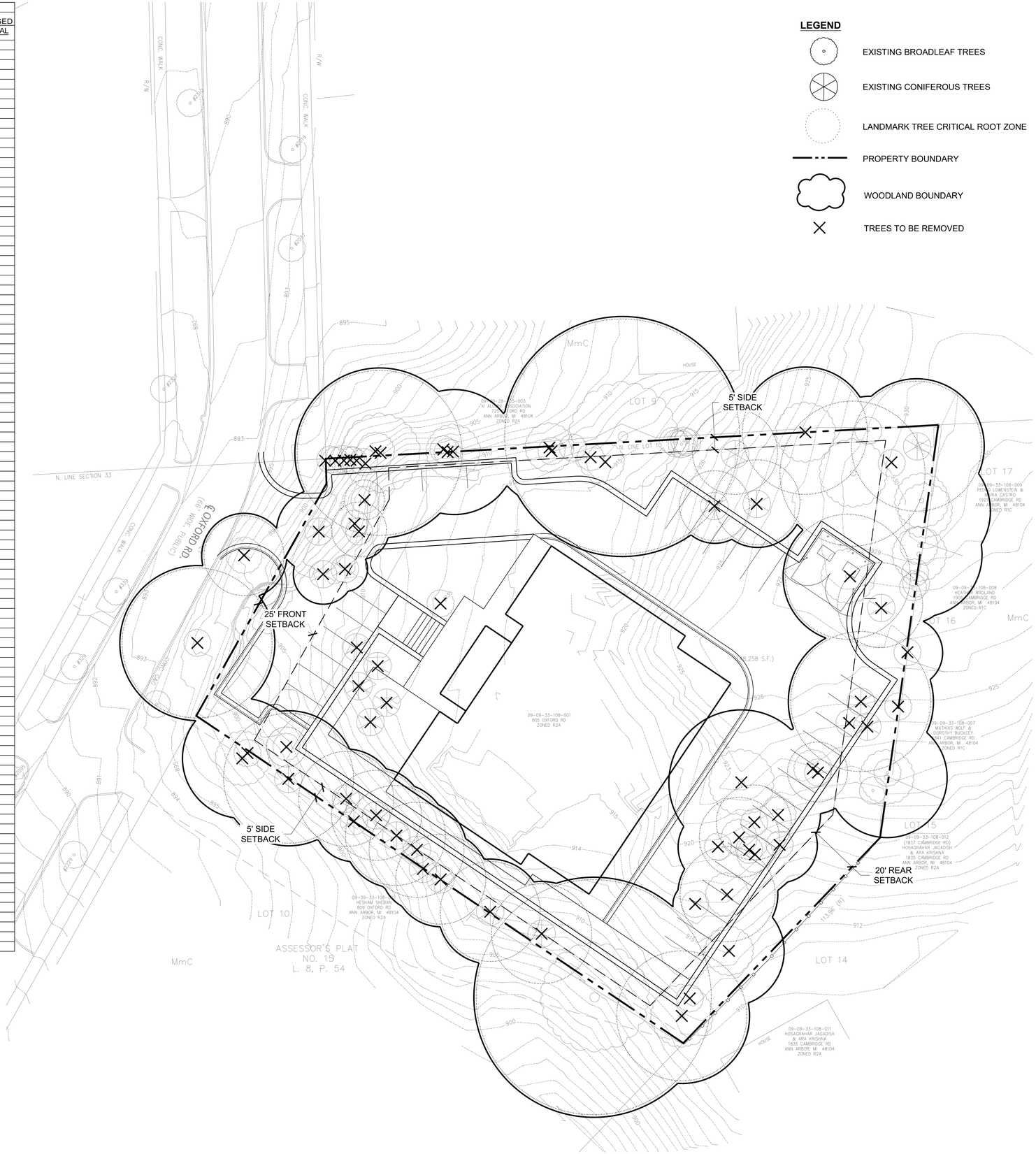



SHEET
C4.2

**TREE TABLE - Alternative Analysis 2**

| TREE # | DBH | COMMON NAME | BOTANICAL NAME | LANDMARK | INVASIVE | WOODLAND | CONDITION | PROPOSED REMOVAL |
|---|---|---|---|---|---|---|---|---|
| 212 | 16 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 235 | 10 | Kentucky Yellowwood | Cladastris kentuckea | | | | Good | X |
| 329 | 2 | Black Cherry | Prunus serotina | | | X | Good | X |
| 339 | 2 | Black Cherry | Prunus serotina | | | X | Good | X |
| 364 | 2 | Black Cherry | Prunus serotina | | | X | Good | X |
| 368 | 36 | Basswood | Tilia americana | X | | X | Good | X |
| 374 | 16 | Black Oak | Quercus veluntina | X | | X | Good | X |
| 480 | 8 | Eastern Redbud | Cercis canadensis | X | | X | Poor | X |
| 484 | 11 | Eastern Redbud | Cercis canadensis | X | | X | Good | X |
| 485 | 8 | Boxelder | Acer negundo | | | X | Good | X |
| 491 | 8 | Douglas Fir | Pseudotsuga menziesii | | | X | Good | X |
| 492 | 11 | Douglas Fir | Pseudotsuga menziesii | | | X | Good | X |
| 498 | 16 | White Pine | Pinus strobus | | | X | Good | X |
| 502 | 9 | Basswood | Tilia americana | | | X | Good | X |
| 503 | 9 | Basswood | Tilia americana | | | X | Poor | X |
| 504 | 12 | Black Locust | Robinia pseudoacacia | | X | X | Good | X |
| 505 | 14 | Black Locust | Robinia pseudoacacia | | X | X | Good | X |
| 506 | 6 | Norway Maple | Acer platanoides | | X | X | Good | X |
| 507 | 6 | Norway Maple | Acer platanoides | | X | X | Good | X |
| 508 | 17 | Basswood | Tilia americana | | | X | Good | X |
| 509 | 33 | White Oak | Quercus alba | X | | X | Good | X |
| 511 | 11 | Black Locust | Robinia pseudoacacia | | X | X | Good | X |
| 512 | 24 | Black Locust | Robinia pseudoacacia | | X | X | Good | X |
| 513 | 9 | Norway Maple | Acer platanoides | | X | X | Good | X |
| 536 | 23 | Boxelder | Acer negundo | | | X | Good | X |
| 537 | 12 | Norway Maple | Acer platanoides | | X | X | Good | X |
| 541 | 8 | Eastern Redbud | Cercis canadensis | X | | X | Fair | X |
| 542 | 26 | White Pine | Pinus strobus | X | | X | Good | X |
| 543 | 19 | White Pine | Pinus strobus | X | | X | Good | X |
| 544 | 15 | White Fir | Abies concolor | | | X | Good | X |
| 545 | 18 | White Fir | Abies concolor | X | | X | Good | X |
| 546 | 20 | White Pine | Pinus strobus | X | | X | Good | X |
| 547 | 19 | White Pine | Pinus strobus | X | | X | Good | X |
| 548 | 16 | White Pine | Pinus strobus | | | X | Fair | X |
| 549 | 18 | White Fir | Abies concolor | X | | X | Good | X |
| 550 | 20 | White Fir | Abies concolor | X | | X | Fair | X |
| 551 | 20 | White Pine | Pinus strobus | X | | X | Good | X |
| 562 | 9 | White Pine | Pinus strobus | | | | Good | X |
| 563 | 12 | Douglas Fir | Pseudotsuga menziesii | | | | Good | X |
| 564 | 8 | White Pine | Pinus strobus | | | | Good | X |
| 565 | 12 | Douglas Fir | Pseudotsuga menziesii | | | | Good | X |
| 566 | 6 | White Pine | Pinus strobus | | | | Good | X |
| 1004 | 25 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1005 | 23 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1006 | 26 | Norway Spruce | Picea abies | X | | X | Good | |
| 1011 | 12 | Pignut Hickory | Carya glabra | | | X | Poor | X |
| 1016 | 29 | Black Walnut | Juglans nigra | X | | X | Good | |
| 1017 | 13 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1027 | 13 | Norway Maple | Acer platanoides | | X | X | Good | X |
| 1028 | 22 | Norway Maple | Acer platanoides | | X | X | Good | X |
| 1030 | 16 | Black Locust | Robinia pseudoacacia | | X | X | Good | X |
| 1059 | 9 | Norway Maple | Acer platanoides | | X | X | Good | X |
| 1060 | 17 | Honeylocust | Gleditsia triacanthos | X | | X | Good | X |
| 1061 | 53 | Black Walnut | Juglans nigra | X | | X | Good | |
| 1062 | 9 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1063 | 9 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1064 | 9 | Norway Maple | Acer platanoides | | X | X | Good | |
| 1065 | 5 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1066 | 10 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1067 | 14 | Tamarack | Larix laricina | X | | X | Fair | X |
| 1068 | 17 | Tamarack | Larix laricina | X | | X | Good | X |
| 1069 | 17 | Eastern Hemlock | Tsuga canadensis | X | | X | Good | |
| 1071 | 25 | Pignut Hickory | Carya glabra | X | | X | Fair | X |
| 1143 | 25 | White Mulberry | Morus alba | | X | X | Good | |
| 1160 | 11 | American Elm | Ulmus americana | | | X | Good | |
| 1161 | 23 | Black Locust | Robinia pseudoacacia | | X | X | Good | X |
| 1162 | 10 | White Mulberry | Morus alba | | X | X | Fair | X |
| 1163 | 12 | White Pine | Pinus strobus | | | X | Poor | X |
| 1164 | 28 | Norway Spruce | Picea abies | X | | X | Good | X |
| 1165 | 12 | American Elm | Ulmus americana | | | X | Good | X |
| 1166 | 13 | Norway Maple | Acer platanoides | | X | X | Good | X |
| 1167 | 18 | Norway Spruce | Picea abies | X | | X | Fair | X |
| 1168 | 13 | White Mulberry | Morus alba | | X | X | Good | |
| 1169 | 13 | American Elm | Ulmus americana | | | X | Fair | |
| 1170 | 11 | Black Locust | Robinia pseudoacacia | | X | X | Good | |
| 1171 | 24 | Honeylocust | Gleditsia triacanthos | X | | X | Good | |
| 1172 | 17 | Honeylocust | Gleditsia triacanthos | X | | X | Good | X |
| 1174 | 12 | Big-toothed Aspen | Populus grandidentata | X | | X | Good | X |
| 1175 | 17 | Black Cherry | Prunus serotina | | | X | Good | X |
| 1177 | 28 | Norway Maple | Acer platanoides | | X | X | Good | X |
| 1178 | 16 | Black Walnut | Juglans nigra | | | X | Good | X |
| 1179 | 15 | Hackberry | Celtis occidentalis | X | | X | Good | X |
| 1180 | 16 | White Mulberry | Morus alba | | X | X | Good | X |
| 1181 | 16 | Black Locust | Robinia pseudoacacia | | X | X | Good | X |
| 1182 | 8 | Black Locust | Robinia pseudoacacia | | X | X | Good | X |
| 1183 | 14 | White Mulberry | Morus alba | | X | X | Good | X |
| 1184 | 15 | Black Locust | Robinia pseudoacacia | | X | X | Good | X |
| 1238 | 26 | Boxelder | Acer negundo | X | | X | Good | X |
| 1239 | 11 | Boxelder | Acer negundo | | | X | Good | X |
| 1250 | 19 | Big-toothed Aspen | Populus grandidentata | X | | X | Fair | X |
| 1251 | 8 | Norway Maple | Acer platanoides | | X | X | Good | X |
| 1253 | 21 | Black Locust | Robinia pseudoacacia | | X | X | Good | X |
| | 47 | Tulip Tree | Liriodendron tulipifera | X | | X | Good | |

Total Woodland Basal Area (Sq Ft): 159.93
Total Woodland Trees Removed: 73
Total DBH of Removed Protected Trees (In) 651.00





JOHNSON HILL LAND ETHICS STUDIO
432 Longshore Drive - Ann Arbor, Michigan 48105
734.668.7581 - www.johnsonhillstudio.com


SIGMA ZETA HOUSING LLC
805 OXFORD ROAD
ANN ARBOR, MICHIGAN

| DATE: | ISSUED FOR: |
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| 2026-03-11 | REVISED SITE PLAN |

DRAWN: SES
CHECKED: TRS

JOB NO.
25KAP01

TITLE
ALTERNATIVE ANALYSIS 2

SEAL




SHEET
C4.3

## City of Ann Arbor Ordinance Requirements

| Code | Requirements | Metric | | Required | | Provided | |
|---|---|---|---|---|---|---|---|
| **Vehicular Use Area ~ 9,600 sq. ft.** | | | | | | | |
| Interior Landscape Islands | 1:20 sq ft ratio | 9,600 | sq ft | 480 | sq ft | 541 | sq ft |
| | 1 deciduous tree per island | 4 | islands | 4 | trees | 4 | trees |
| Right-of-way Screening | 10' wide continuous screen; 1 tree per 30' | 70 | lf | 3 | trees | 3 | trees |
| Conflicting Land Use Buffer | 15' continuous screen; 1 tree per 15', 50% evergreens | 270 | lf | 18 | trees | 18 | trees |
| **Refuse Container Screening** | 6' high wall; 15' continuous screen; 1 tree per 15', 50% evergreens | 27 | lf | 2 | trees | 2 | trees |
| **Street Trees** | 1 tree per 45' | 70 | lf | 2 | trees | 2 | trees |
| **Natural Features Mitigation** | 50% DBH Mitigation | 407 | Removed DBH In. | 204 | DBH In. | 112 | DBH In. |
| | Proposed Alternative Mitigation - Canopy Loss Fee | | | 92 | DBH In. | $ | 23,000.00 |

## Plant List - 805 Oxford Rd.

| QTY | BOTANICAL NAME | COMMON NAME | CALIPER | HEIGHT | ROOT | SPACING | NOTES |
|---|---|---|---|---|---|---|---|
| **Trees** | | | | | | | |
| 5 | *Amelanchier x grandiflora* 'Autumn Brilliance' | Autumn Brilliance Serviceberry | 2" | | b&b | a.s. | 3 single stem, 2 multi-stem |
| 1 | *Betula nigra* 'Heritage' | Heritage River Birch | 2" | | b&b | a.s. | |
| 10 | *Carpinus caroliniana* 'Palisade' | Palisade American Hornbeam | 2" | | b&b | a.s. | |
| 6 | *Cercis canadensis* | Eastern Redbud | 2" | | b&b | a.s. | |
| 4 | *Cornus alternifolia* | Pagoda Dogwood | 2" | | b&b | a.s. | |
| 9 | *Liquidambar styraciflua* 'Slender Silhouette' | Slender Silhouette Sweetgum | 2" | | b&b | a.s. | |
| 4 | *Ostrya virginiana* | American Hop-Hornbeam | 2" | | b&b | a.s. | |
| 8 | *Picea glauca* 'Densata' | Black Hills White Spruce | | 8' | b&b | a.s. | |
| 3 | *Picea mariana* | Black Spruce | | 8' | b&b | a.s. | |
| 19 | *Pinus strobus* 'Fastigiata' | Upright Eastern White Pine | | 8' | b&b | a.s. | |
| 7 | *Pinus strobus* | Eastern White Pine | | 8' | b&b | a.s. | |
| 5 | *Quercus palustris* | Pin Oak | 2" | | b&b | a.s. | |
| 4 | *Thuja occidentalis* 'Techny' | Techny Arborvitae | | 8' | b&b | a.s. | |

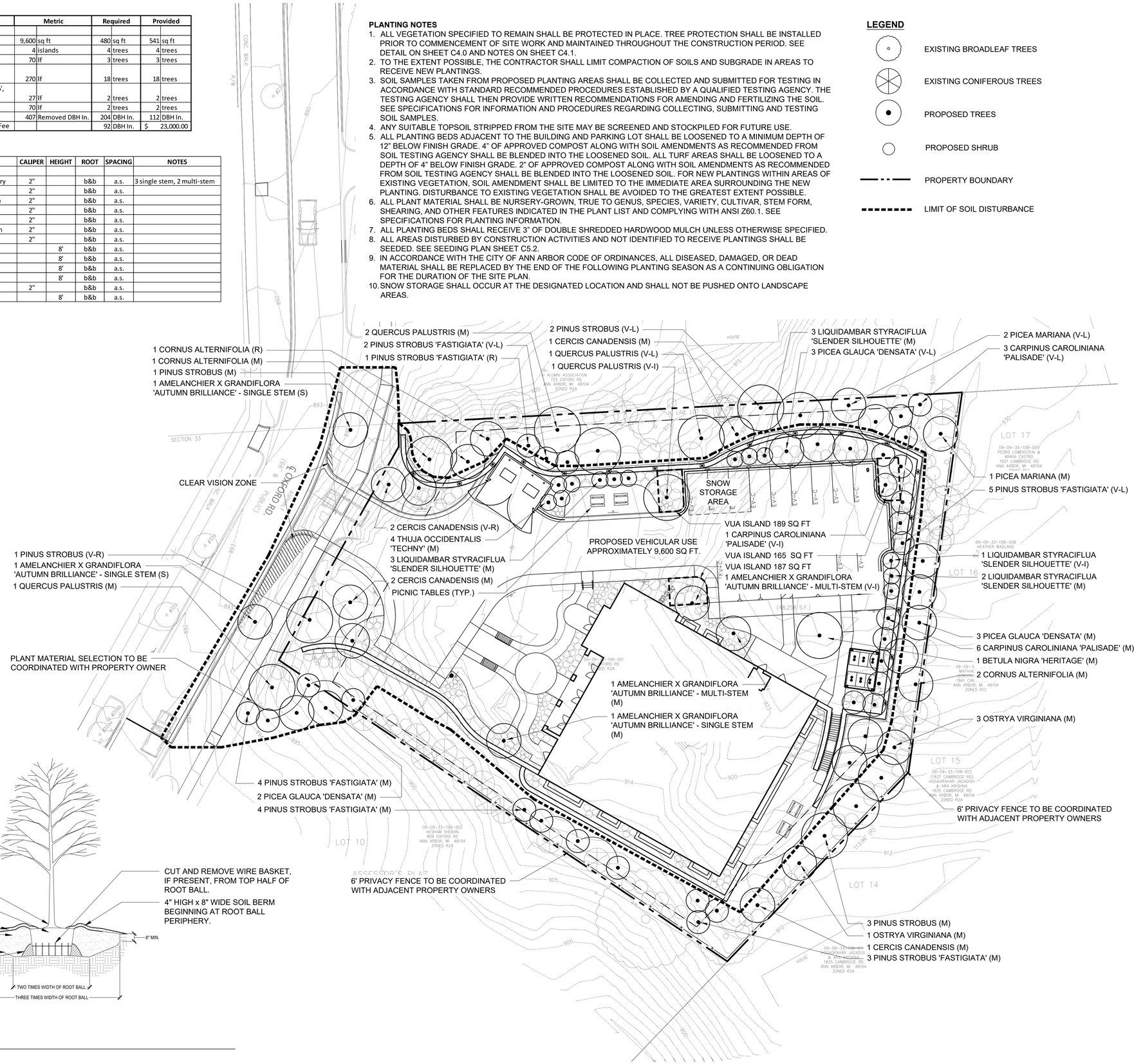
| Tree Key - Code Requirement | |
|---|---|
| **ID** | **Requirement** |
| M | Natural Features Mitigation |
| R | Refuse Container Buffer |
| S | Street Tree |
| V-I | Vehicular Use Area - Landscape Islands |
| V-L | Vehicular Use Area - Conflicting Land Use Buffer |
| V-R | Vehicular Use Area - Right-of-Way Buffer |

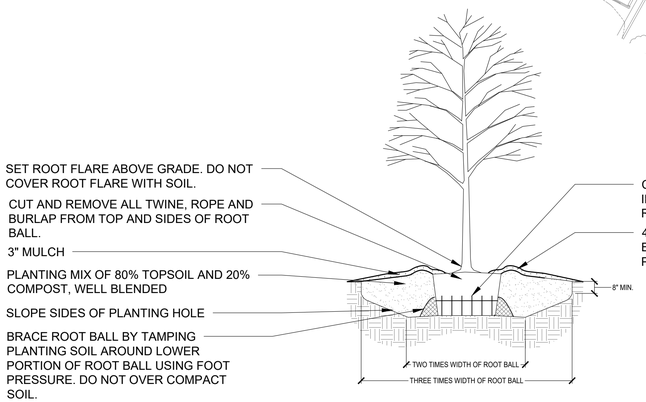
**PLANTING NOTES**

1. ALL VEGETATION SPECIFIED TO REMAIN SHALL BE PROTECTED IN PLACE. TREE PROTECTION SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF SITE WORK AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. SEE DETAIL ON SHEET C4.0 AND NOTES ON SHEET C4.1.
2. TO THE EXTENT POSSIBLE, THE CONTRACTOR SHALL LIMIT COMPACTION OF SOILS AND SUBGRADE IN AREAS TO RECEIVE NEW PLANTINGS.
3. SOIL SAMPLES TAKEN FROM PROPOSED PLANTING AREAS SHALL BE COLLECTED AND SUBMITTED FOR TESTING IN ACCORDANCE WITH STANDARD RECOMMENDED PROCEDURES ESTABLISHED BY A QUALIFIED TESTING AGENCY. THE TESTING AGENCY SHALL THEN PROVIDE WRITTEN RECOMMENDATIONS FOR AMENDING AND FERTILIZING THE SOIL. SEE SPECIFICATIONS FOR INFORMATION AND PROCEDURES REGARDING COLLECTING, SUBMITTING AND TESTING SOIL SAMPLES.
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10. SNOW STORAGE SHALL OCCUR AT THE DESIGNATED LOCATION AND SHALL NOT BE PUSHED ONTO LANDSCAPE AREAS.

**LEGEND**

- EXISTING BROADLEAF TREES
- EXISTING CONIFEROUS TREES
- PROPOSED TREES
- PROPOSED SHRUB
- PROPERTY BOUNDARY
- LIMIT OF SOIL DISTURBANCE




1 TREE PLANTING DETAIL
SCALE: NOT TO SCALE

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NORTH

0 10 20 40
SCALE 1"=20'-0"

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DRAWN: SES
CHECKED: TRS

JOB NO.
25KAP01

TITLE
LANDSCAPE PLAN - TREES

SEAL
STATE OF MICHIGAN
TYLER SPRAGUE
LANDSCAPE ARCHITECT
License No. 3901001808
LICENSED LANDSCAPE ARCHITECT

SHEET
C5.0

## City of Ann Arbor Ordinance Requirements

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|---|---|---|---|---|---|---|---|
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## Plant List - 805 Oxford Rd.

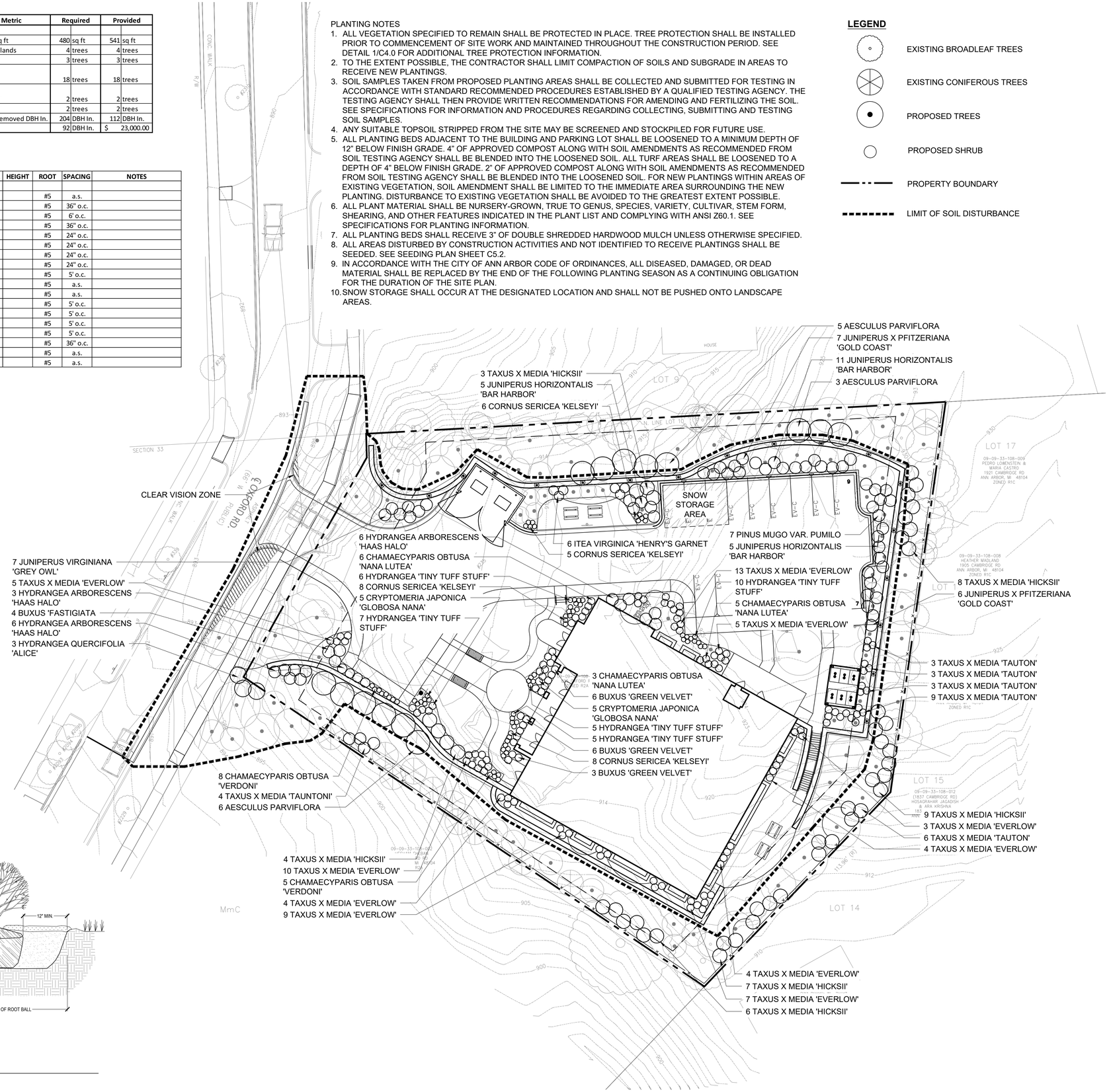
| QTY | BOTANICAL NAME | COMMON NAME | CALIPER | HEIGHT | ROOT | SPACING | NOTES |
|---|---|---|---|---|---|---|---|
| **Shrubs** | | | | | | | |
| 14 | *Aesculus parviflora* | Bottlebrush Buckeye | | | #5 | a.s. | |
| 15 | *Buxus* 'Green Velvet' | Green Velvet Boxwood | | | #5 | 36" o.c. | |
| 4 | *Buxus sempervirens* 'Fastigiata' | Upright Boxwood | | | #5 | 6' o.c. | |
| 14 | *Chamaecyparis obtusa* 'Nana Lutea' | Nana Lutea Hinoki Cypress | | | #5 | 36" o.c. | |
| 13 | *Chamaecyparis obtusa* 'Verdoni' | Verdoni Hinoki Cypress | | | #5 | 24" o.c. | |
| 27 | *Cornus sericea* 'Kelseyi' | Kelsey's Redtwig Dogwood | | | #5 | 24" o.c. | |
| 10 | *Cryptomeria japonca* 'Globosa Nana' | Globosa Nana Cryptomeria | | | #5 | 24" o.c. | |
| 33 | *Hydrangea* 'Tiny Tuff Stuff' | Tiny Tuff Stuff Hydrangea | | | #5 | 24" o.c. | |
| 15 | *Hydrangea arborescens* 'Haas Halo' | Haas Halo Hydrangea | | | #5 | 5' o.c. | |
| 3 | *Hydrangea quercifolia* 'Alice' | Alice Hydrangea | | | #5 | a.s. | |
| 6 | *Itea virginica* 'Henry's Garnet' | Henry's Garnet Sweetspire | | | #5 | a.s. | |
| 21 | *Juniperus horizontalis* 'Bar Harbor' | Bar Harbor Creeping Juniper | | | #5 | 5' o.c. | |
| 7 | *Juniperus virginiana* 'Grey Owl' | Grey Owl Juniper | | | #5 | 5' o.c. | |
| 14 | *Juniperus × pfitzeriana* 'Gold Coast' | Gold Coast Juniper | | | #5 | 5' o.c. | |
| 7 | *Pinus mugo* var. *pumilo* | Dwarf Mugo Pine | | | #5 | 5' o.c. | |
| 84 | *Taxus x media* 'Everlow' | Everlow Yew | | | #5 | 36" o.c. | |
| 37 | *Taxus x media* 'Hicksii' | Hicks Yew | | | #5 | a.s. | |
| 29 | *Taxus x media* 'Tauton' | Tauton Yew | | | #5 | a.s. | |

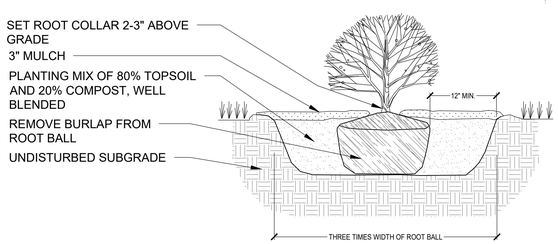
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**LEGEND**

- EXISTING BROADLEAF TREES
- EXISTING CONIFEROUS TREES
- PROPOSED TREES
- PROPOSED SHRUB
- PROPERTY BOUNDARY
- LIMIT OF SOIL DISTURBANCE




1 SHRUB PLANTING DETAIL
SCALE: NOT TO SCALE

JOHNSON HILL LAND ETHICS STUDIO
431 Longshore Drive · Ann Arbor, MI Michigan 48105
734.622.7201 · www.jhls-studio.com

SIGMA ZETA HOUSING LLC
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NORTH

0 10 20 40
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| 2026-03-11 | REVISED SITE PLAN |

DRAWN SES
CHECKED TRS

JOB NO.
25KAP01

TITLE
LANDSCAPE PLAN - SHRUBS

SEAL
STATE OF MICHIGAN TYLER STRAGUE LANDSCAPE ARCHITECT License No. 3901001808 12/5/25 LICENSED LANDSCAPE ARCHITECT

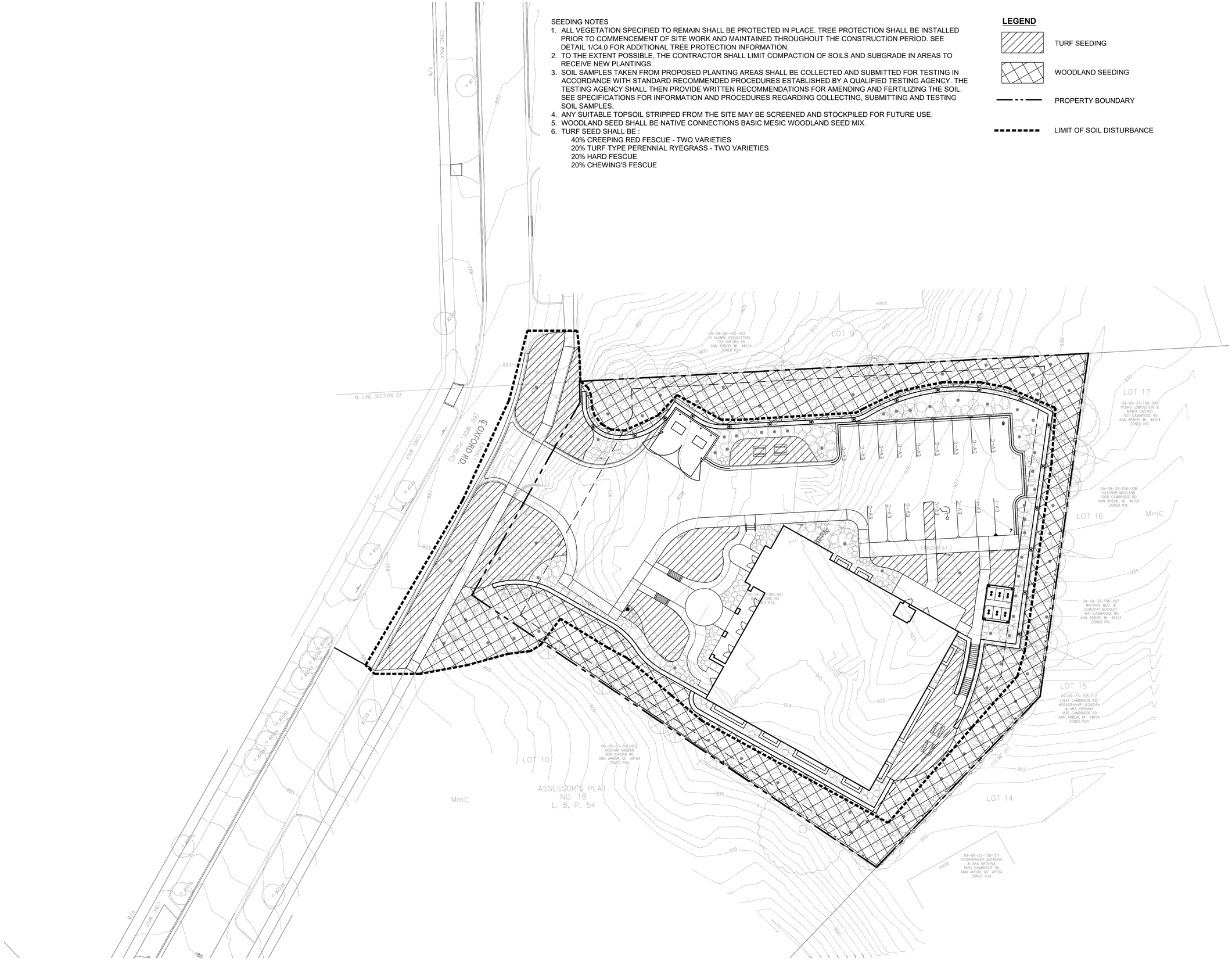
SHEET
C5.1

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4. ANY SUITABLE TOPSOIL STRIPPED FROM THE SITE MAY BE SCREENED AND STOCKPILED FOR FUTURE USE.
5. WOODLAND SEED SHALL BE NATIVE CONNECTIONS BASIC MESIC WOODLAND SEED MIX.
6. TURF SEED SHALL BE :
   - 40% CREEPING RED FESCUE - TWO VARIETIES
   - 20% TURF TYPE PERENNIAL RYEGRASS - TWO VARIETIES
   - 20% HARD FESCUE
   - 20% CHEWING'S FESCUE

**LEGEND**

- TURF SEEDING
- WOODLAND SEEDING
- PROPERTY BOUNDARY
- LIMIT OF SOIL DISTURBANCE





JOHNSON HILL LAND ETHICS STUDIO


# SIGMA ZETA HOUSING LLC

805 OXFORD ROAD
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TITLE
SEEDING PLAN

SEAL

STATE OF MICHIGAN
TYLER J. HAGUE
LANDSCAPE ARCHITECT
License No. 3901001808
03/13/26
LICENSED LANDSCAPE ARCHITECT

SHEET
C5.2

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING RECORDS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE SURVEYOR DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

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THE OWNER SHALL NOT USE OR AUTHORIZE ANY OTHER PERSON TO USE THE DRAWINGS, SPECIFICATIONS, ELECTRONIC DATA AND OTHER INSTRUMENTS OF SERVICE ON OTHER PROJECTS, FOR ADDITIONS TO THIS PROJECT OR FOR COMPLETION OF THE PROJECT BY OTHERS SO LONG AS WASHTENAW ENGINEERING COMPANY (WECO) IS NOT ADJUDGED TO BE IN DEFAULT UNDER THIS AGREEMENT. THE OWNER SHALL INDEMNIFY AND HOLD HARMLESS WECO, WECO'S CONSULTANTS AND AGENTS AND EMPLOYEES OF ANY OF THEM FROM AND AGAINST CLAIMS, DAMAGES, LOSSES AND EXPENSES, INCLUDING BUT NOT LIMITED TO, ATTORNEYS' FEES, ARISING OUT OF OR RESULTING FROM THE USE OF THE DRAWINGS, SPECIFICATIONS, ELECTRONIC DATA OR OTHER INSTRUMENTS OF SERVICE.

RAIN BIRD

Tech Spec

# 1800™ Series Spray Heads

## Industry's Leading Spray Heads

Trusted for over 30 years, 1800 Series Spray Heads have provided unmatched durability, reliability, and performance.

Superior components and features make the 1800 Series Spray Head the spray head of choice for a wide variety of applications.


















### Features

Co-molded, pressure-activated, multi-functional wiper seal assures positive seal without excess "flow-by" which enables more heads to be installed on the same valve.

- Designed for use with all Rain Bird plastic spray head nozzles – U-Series, HE-VAN, R-VAN, MPR, VAN, and XPCN Series.
- Precision controlled flush at pop-down cleans debris from unit, assuring positive stem retraction in all soil types.
- Strong stainless steel spring provides reliable stem retraction.
- Ratchet mechanism on all models allows easy nozzle pattern alignment without tools.
- Pre-installed 1800 Pop-Top™ flush plug blocks debris from entering after flushing. Allows for easy nozzle installation.
- Constructed of time-proven UV-resistant plastic and corrosion resistant stainless steel parts, assuring long product life.
- All sprinkler components are removable from the top without special tools, providing for quick and easy flushing and maintenance of the sprinkler.
- Side inlets featured on 1806, 1806PRS, 1806P45, 1812, 1812PRS, and 1812P45 models only.
- Five-year trade warranty.

### Operating Range

- Spacing: 2.5 to 24 feet (0.8 to 7.3 m)
- Pressure: 15 to 70 psi (1.0 to 4.8 bar)

### Specifications

- Flow-by: 0 at 8 psi (0.6 bar) or greater; 0.1 gpm (0.02 m³/h; 0.006 l/s) otherwise

### Dimensions/Models

- ½"(15/21) NPT female threaded inlet
- Models and height:
  **1802:** 4" (10 cm) body height; 2" pop-up height (5 cm)
  **1804:** 6" (15 cm) body height; 4" pop-up height (10 cm)
  **1806:** 9 ¾" (24 cm) body height; 6" pop-up height (15 cm)
  **1812:** 16" (40 cm) body height; 12" pop-up height (30 cm)
- Exposed surface diameter: 2¼" (5.7 cm)

### How To Specify

**1804 - SAM - PRS**

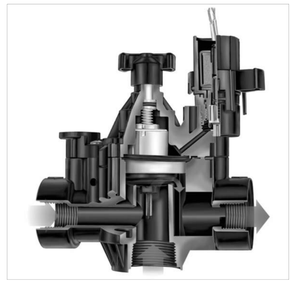
- Optional Feature: SAM: Seal-A-Matic™ check valve
- Optional Feature: PRS: 30psi (2.1 bar) in-stem pressure regulation; P45: 45psi (3.1 bar) in-stem pressure regulation
- Model: 1804: 4" (102 cm) pop-up height

### How To Specify

**1804 - SAM-P45 - R-VAN18-360**

- Optional Feature: SAM: Seal-A-Matic™ check valve; P45: 45psi (3.1 bar) in-stem pressure regulation
- Radius Range: R: 1-14' (2.4 to 4.6m); R-VAN14: 45°- 270°; R-VAN14-360: 360°; 13'- 18' (4.0 to 5.5m); R-VAN18: 45°- 270°; R-VAN18-360: 360°; 17'- 24' (5.2 to 7.3m); R-VAN24: 45°- 270°; R-VAN24-360: 360°
- Strip Nozzles: R-VAN-LCS: 5' x 15' (1.5 x 4.6m); R-VAN-RCS: 5' x 15' (1.5 x 4.6m); R-VAN-SST: 5' x 30' (1.5 x 9.1m)
- Model: 1804: 4" (102 cm) pop-up height

**Note:** Specify sprinkler bodies and nozzles separately.



## Pressure Loss

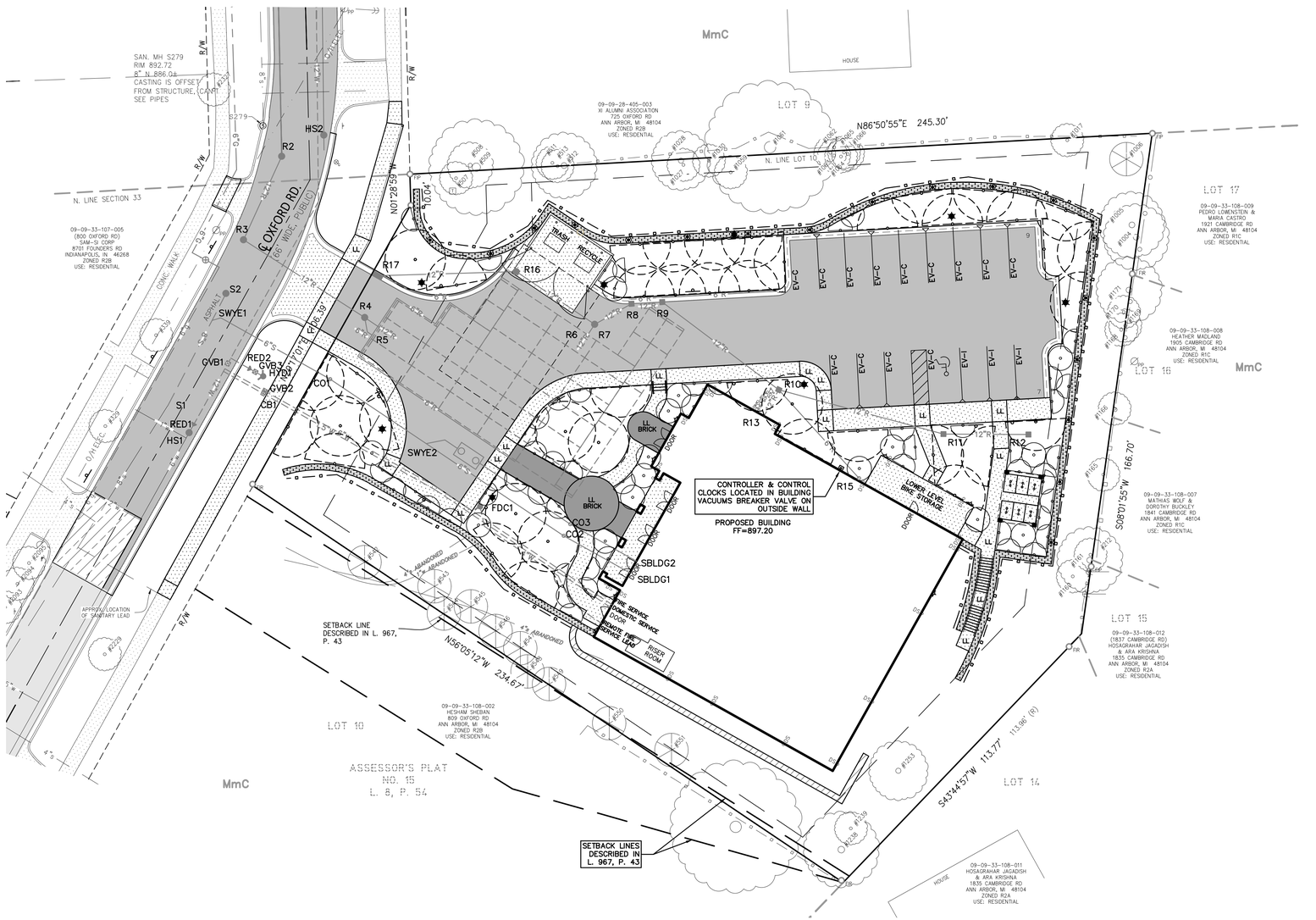
**Perda de pressão · Druk Verlies · Druckverluste · Pertes de charge · Tabella Predite di Carico · Pérdidas de Carga · Απώλεια Πίεσης · Basınç Kaybı**

**psi**

| Flow gpm | 100-PGA Globe 1" | 100-PGA Angle 1" | 150-PGA Globe 1½" | 150-PGA Angle 1½" | 200-PGA Globe 2" | 200-PGA Angle 2" |
|---|---|---|---|---|---|---|
| 2 | 5.1 | 4.3 | - | - | - | - |
| 5 | 5.5 | 5.0 | - | - | - | - |
| 10 | 5.9 | 5.5 | - | - | - | - |
| 20 | 6.0 | 5.6 | - | - | - | - |
| 30 | 6.4 | 5.5 | 1.9 | 1.3 | - | - |
| 40 | 7.0 | 7.5 | 3.2 | 2.0 | 1.2 | 1.0 |
| 50 | - | - | 4.8 | 3.0 | 1.5 | 0.9 |
| 75 | - | - | 11.1 | 6.5 | 3.0 | 1.7 |
| 100 | - | - | 19.2 | 11.7 | 5.5 | 3.0 |
| 125 | - | - | - | - | 8.6 | 4.8 |
| 150 | - | - | - | - | 12.0 | 6.5 |

**bar / METRIC**

| Flow m³/h | Flow l/m | 100-PGA Globe 2.5cm | 100-PGA Angle 2.5cm | 150-PGA Globe 3.8cm | 150-PGA Angle 3.8cm | 200-PGA Globe 5.1cm | 200-PGA Angle 5.1cm |
|---|---|---|---|---|---|---|---|
| 0.5 | 7.6 | 0.35 | 0.30 | - | - | - | - |
| 1.2 | 20 | 0.38 | 0.35 | - | - | - | - |
| 3 | 50 | 0.41 | 0.38 | - | - | - | - |
| 6 | 100 | 0.43 | 0.38 | 0.10 | 0.07 | - | - |
| 9 | 150 | 0.48 | 0.51 | 0.22 | 0.14 | 0.08 | 0.07 |
| 12 | 200 | - | - | 0.38 | 0.23 | 0.12 | 0.07 |
| 15 | 250 | - | - | 0.61 | 0.36 | 0.17 | 0.10 |
| 18 | 300 | - | - | 0.86 | 0.51 | 0.24 | 0.13 |
| 21 | 350 | - | - | 1.16 | 0.70 | 0.33 | 0.18 |
| 24 | 400 | - | - | - | - | 0.43 | 0.23 |
| 27 | 450 | - | - | - | - | 0.54 | 0.30 |
| 30 | 500 | - | - | - | - | 0.66 | 0.36 |
| 34 | 568 | - | - | - | - | 0.83 | 0.45 |




NOTE: IRRIGATION LINES AND/OR EQUIPMENT SHALL NOT BE LOCATED WITHIN THE PUBLIC RIGHTS-OF-WAY.

## HV & HVF SERIES VALVES





**SURE-POP SPRAY HEAD FULL CIRCLE PATTERN NOZZLE**
(360 DEGREE)



**MINI ROTOR SPRINKLERS**
SPRAY DISTANCE FROM 17 TO 24 FEET
ADJUSTABLE SPRAY 45° TO 270°




**INDOOR/OUTDOOR IRRIGATION TIMER**

## AUTOMATIC SPRINKLER IRRIGATION SYSTEM

1. AN AUTOMATIC SPRINKLER IRRIGATION SYSTEM WILL BE INSTALLED ON-SITE TO MAINTAIN LANDSCAPE AND DECORATIVE TURF AREAS LOCATED WITHIN THE INTERIOR SIDEWALK. THE LANDSCAPE SPRINKLING SYSTEM WILL BE SUPPLIED OFF THE DOMESTIC WATER SUPPLY FOR THE SITE.
2. ALL SPRINKLER HEADS TO BE ALIGNED WITH HEAD TO HEAD COVERAGE.
3. CONTRACTOR TO DETERMINE NUMBER OF ZONES

**LAWN AND BED SPRINKLER SYSTEM**

EQUIPMENT:
LAWN HEADS = 30' DIA
SHRUB HEADS = 8' DIA

NUMBER OF VALVES AS DETERMINED BY CONTRACTOR
CONTROL CLOCKS (1)

SPRINKLER SYSTEM:
AUTOMATIC SPRINKLER SYSTEM TO IRRIGATE AREA FROM BUILDING WALL TO INSIDE PERIMETER OF PARKING, DRIVES, RETAINING WALLS AND PEDESTRIAN WALKWAYS. ALL AREAS OF THE PROPERTY BEYOND THESE FEATURES ARE NOT IRRIGATED

## IRRIGATION LEGEND

- = SPRAY HEAD FULL
- = SPRAY HEAD HALF
- = LARGE ROTOR FULL
- = LARGE ROTOR HALF
- = CONTROLLER

## WASHTENAW COUNTY SOIL SURVEY CLASSIFICATION

MmC – MIAMI LOAM, 6 TO 12 PERCENT SLOPES

SOILS ARE BASED ON USDA SOIL SURVEY OF WASHTENAW COUNTY.

R1C = SINGLE-FAMILY DWELLING
R2A & R2B = TWO-FAMILY DWELLING

Know what's below. Call before you dig.

BOUNDARY & TOPOGRAPHICAL SURVEY PERFORMED BY: ARBOR LAND CONSULTANTS, DATED: 4-25-25, JOB NO. 09625.

**LEGEND**

- ☆ = LIGHT POLE
- ◇ = UTILITY POLE
- ▽ = GUY ANCHOR
- ⊙ = HYDRANT
- ⊸ = SPOT ELEV.
- ⊗ = GATE VALVE
- ⊸ = SIGN
- TC = TOP OF CURB
- TW = TOP OF WALL
- ○ = MANHOLE
- □ = CATCHBASIN
- ◡ = END SECTION
- = GRAVEL
- = FENCE
- = CONCRETE
- = ASPHALT
- = EXISTING STORM
- = EXISTING SANITARY
- = EXISTING WATER
- = EXISTING GAS
- = EXISTING ELECTRIC
- = EXISTING TELEPHONE

**BENCHMARK** *BM2000=SET SPIKE IN SE FACE OF UTILITY POLE ON NW SIDE OF OXFORD, SOUTH OF DRIVE TO 810 OXFORD RD, ELEV=891.46 (NAVD 88).*
*BM2001=SET SPIKE IN E FACE OF UTILITY POLE ON NW SIDE OF OXFORD, SOUTH OF DRIVE TO 800 OXFORD RD, ELEV=894.70 (NAVD 88).*
*BM2002=TOP NUT ON HYDRANT, EASTERLY OF DRIVE TO 1705 HILL ST AND NORTHERLY OF HILL ST, ELEV=890.27 (NAVD 88).*

**REVISIONS** *12-05-2025 REVISED SITE PLAN, 1-19-2026 REVISED SITE PLAN*
*2-4-2026 REVISED SITE PLAN, 2-26-2026 REVISED SITE PLAN*
*3-4-2026 REVISED SITE PLAN, 3-11-2026 REVISED SITE PLAN*

SCALE 40
0 10 20
SCALE: 1"=20'

PREPARED BY
JOSEPH K. MAYNARD P.E., MICH No. 52559

JOSEPH K. MAYNARD ENGINEER No. 52559 STATE OF MICHIGAN REGISTERED PROFESSIONAL ENGINEER

CIVIL ENGINEERS
PLANNERS • SURVEYORS
LANDSCAPE ARCHITECTS
3526 W. LIBERTY RD
SUITE 400
ANN ARBOR, MI 48103
TEL. 734-761-8500

WASHTENAW ENGINEERING

CLIENT
SIGMA ZETA HOUSING, LLC
3205 PLAYERS LN
MEMPHIS, TN 38125

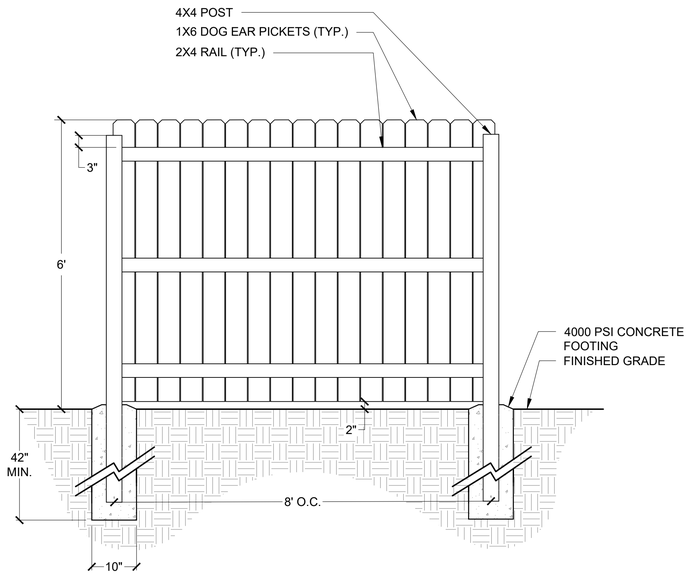
SHEET
IRRIGATION PLAN

PROJECT
805 OXFORD ROAD

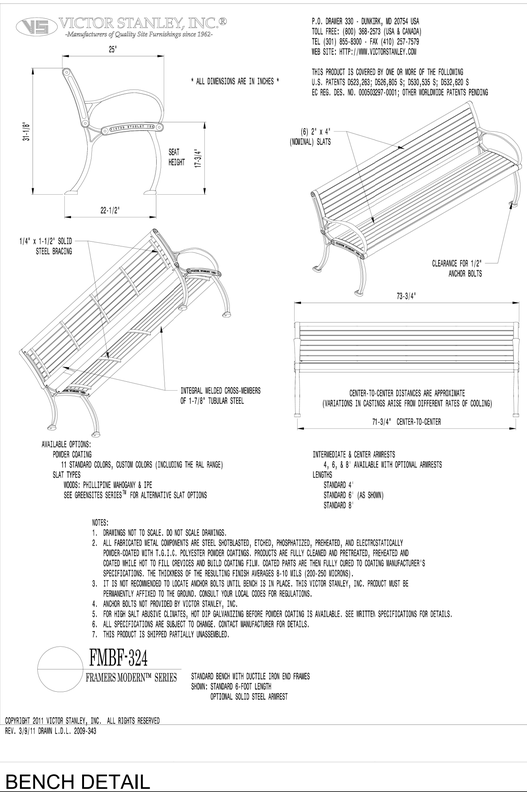
SECTION 33 TOWN 2 SOUTH RANGE 6 EAST
CITY OF ANN ARBOR
WASHTENAW COUNTY • MICHIGAN
DATE 10-16-2025
JOB NO. 33191
DWG NO. 191-irrigation
FIELD BOOK –
FILE NO. 10943

SHEET
C5.3

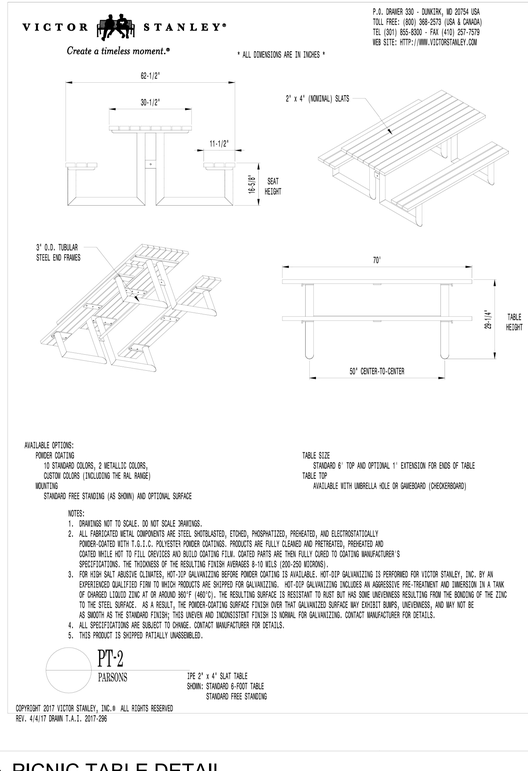
H:\Std\Dwg\33191\dwg\191-irrigation.dwg, C5.3, 3/11/2026 10:38:12 AM, 1:1




## 1 WOOD PRIVACY FENCE DETAIL
SCALE: 3/4" = 1'-0"




## 2 BENCH DETAIL
SCALE: NTS




## 3 PICNIC TABLE DETAIL
SCALE: NTS

JOHNSON HILL LAND ETHICS STUDIO
402 Longshore Drive • Ann Arbor, Michigan 48105
734.668.7416 • www.jhles.com

SIGMA ZETA HOUSING LLC
805 OXFORD ROAD
ANN ARBOR, MICHIGAN

NORTH

0 10 20 40
SCALE 1"=20'-0"

| DATE: | ISSUED FOR: |
|---|---|
| 2025-09-25 | SITE PLAN REVIEW PRELIMINARY SUBMITTAL |
| 2025-10-16 | SITE PLAN REVIEW |
| 2025-12-05 | REVISED SITE PLAN |
| 2026-01-19 | REVISED SITE PLAN |
| 2026-02-26 | REVISED SITE PLAN |
| 2026-03-11 | REVISED SITE PLAN |

DRAWN SES
CHECKED TRS

JOB NO.
25KAP01

TITLE
DETAILS

SEAL
STATE OF MICHIGAN
TYLER STANAGE
LANDSCAPE ARCHITECT
License No. 3901001808
LICENSED LANDSCAPE ARCHITECT

SHEET
C5.4

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING RECORDS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER AB-SENCE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE SURVEYOR DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

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CONSTRUCTION NOTE:

THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO THE CITY OF ANN ARBOR PUBLIC SERVICES DEPARTMENT STANDARD SPECIFICATIONS, WHICH ARE INCLUDED BY REFERENCE. THE OMISSION OF ANY CURRENT STANDARD DETAILS DOES NOT RELIEVE THE CONTRACTOR OF THIS REQUIREMENT. THE WORK SHALL BE PERFORMED IN COMPLETE CONFORMANCE WITH THE CURRENT PUBLIC SERVICE DEPARTMENT STANDARD SPECIFICATIONS AND DETAILS.

STORM SEWER NOTES:

1. STORM SEWER PIPE IS TO BE SMOOTH LINED CORRUGATED PLASTIC PIPE (SLCPP) FOR PRIVATE SEWER. SEWER IN THE PUBLIC R.O.W. SHALL BE C76 CLIV RCP.
2. SMOOTH LINED CORRUGATED PLASTIC PIPE (SLCPP) SHALL BE ADS N–12 WATER TIGHT OR EQUIVALENT. THE PIPE MATERIAL MUST CONFORM WITH THE REQUIREMENTS OF DIVISION III, SECTION 28 OF THE PUBLIC SERVICES STANDARD SPECIFICATIONS FOR CONSTRUCTION.
3. FOOTING DRAINS TO BE AIR GAPED AND CONNECT TO THE STORM SEWER SYSTEM.
4. ALL ROOF DRAINS TO BE TIED IN TO STORM SEWER SYSTEM.

SANITARY SEWER NOTES:

1. THE PLAN PROPOSES TO BUILD AS ONE (1) SINGLE INDEPENDENT BUILDING. ONLY ONE (1) SANITARY SEWER LEAD IS PROPOSED. THE BUILDING DOES NOT CONTAIN ANY FIRE WALLS.
2. THE PROPOSED SEWER LEAD TO CONNECT TO THE PROPOSED SANITARY SEWER IN OXFORD RD.

WATER SYSTEM NOTES:

- NO WATER BOOSTER PUMPS WILL BE USED FOR THE BUILDING WATER SERVICE LEADS.
- WATER SERVICE METERING SHALL OCCUR AT THE POINT THE SERVICE LEADS ENTER THE BUILDING. NOTE THAT EACH WATER SERVICE WILL HAVE ONE WATER METER. SUBMETERING AMONG DIFFERENT UNITS/TENANTS IS THE RESPONSIBILITY OF THE PROPERTY OWNER IF DESIRED.

## WATER MAIN CONSTRUCTION SEQUENCE

1. EXPOSE EXISTING WATER MAIN AT BOTH LOCATIONS FOR HYDRO STOP AND VALVES HS1 AND HS2 TO ISOLATE THE SECTION OF MAIN THAT WILL BE REMOVED AS PART OF THE PROJECT.
2. REMOVE EXISTING SECTION OF WATER MAIN ALONG PROPERTY FRONTAGE AS SHOWN ON PLANS.
3. INSTALL NEW 12" WATER MAIN AND COMPLETE REQUIRED TESTING.
4. SHUT DOWN EXISTING MAIN AT INTERSECTION OF OXFORD RD. AND HILL ST. BY CLOSING VALVES EV1, EV2, EV3 AND EV5 TO ISOLATE 12" WATER MAIN SO AS TO MAKE 12"X12"x12" TEE CONNECTION AND 12"X6" REDUCER TO EXISTING 6" MAIN.
5. OPEN NEW MAIN TO SERVICE AND TRANSFER WATER LEADS AND FIX HYDRANT TO NEW 12" WATER MAIN.
6. COMPLETE DISCONNECTION OF 6" WATER MAIN AND ABANDON THE REST OF THE MAIN IN PLACE PER CITY OF ANN ARBOR PUBLIC SERVICES STANDARD SPECIFICATIONS.

## PROPOSED UTILITY LEGEND

- ■ = CATCH BASIN
- ● = MANHOLE
- ◠ = END SECTION
- 18"R = STORM SEWER
- (UD) = UNDER DRAIN
- CO = CLEANOUT
- □ = OIL/GREASE SEPARATOR
- 8"S = SANITARY SEWER
- 6"S = SANITARY SERVICE
- 8"W = WATER MAIN
- 1"W = WATER SERVICE
- ⊠ = GATE VALVE IN BOX
- ⊗ = GATE VALVE IN WELL
- ◀ = HYDRANT
- ⊞ = CURB BOX
- ◀ = REDUCER
- YD = YARD DRAIN
- = FDC BUILDING CONNECTION
- G = GAS SERVICE
- ⊕ = GAS GATE VALVE
- UGE = UNDERGROUND ELECRIC SERVICE
- DS = DOWNSPOUT

## PROPOSED LEGEND

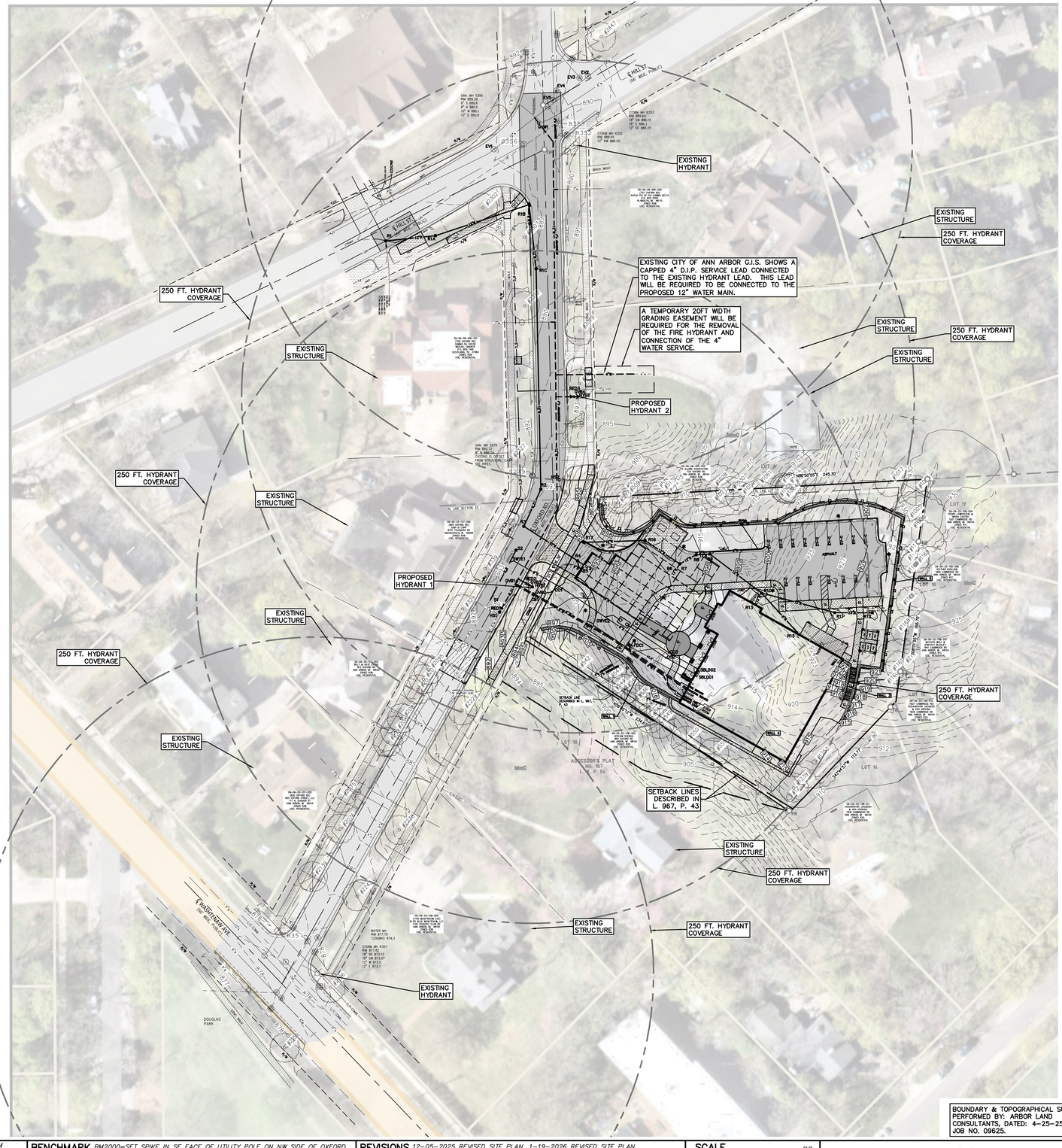
- = CONCRETE SURFACE
- = ASPHALT SURFACE
- = MILL AND FILL SURFACE
- = CONCRETE BARRIER CURB & GUTTER
- = SPILL OUT CONCRETE CURB & GUTTER
- = SIGN
- = LIGHTPOLE
- = WALL MOUNTED LIGHT
- = ROOF MOUNTED LIGHT
- = BRICK SURFACE
- = ELECTRIC VEHICLE CHARGING STATION
- = ELECTRIC VEHICLE CHARGING STATION CAPABLE
- EV–I = ELECTRIC VEHICLE – INSTALLED
- EV–C = ELECTRIC VEHICLE – CAPABLE
- NON–EV = ELECTRIC VEHICLE – NON–CAPABLE
- = WALL
- = BOULDER WALL

## WASHTENAW COUNTY SOIL SURVEY CLASSIFICATION

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- POST
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- SIGN
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- END SECTION
- GRAVEL
- FENCE
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**REVISIONS** *12–05–2025 REVISED SITE PLAN, 1–19–2026 REVISED SITE PLAN*
*2–4–2026 REVISED SITE PLAN, 2–26–2026 REVISED SITE PLAN*
*3–4–2026 REVISED SITE PLAN, 3–11–2026 REVISED SITE PLAN*

SCALE 0 20 40 80
SCALE: 1"=40'

PREPARED BY
JOSEPH K. MAYNARD P.E., MICH No. 52559

STATE OF MICHIGAN · JOSEPH K. MAYNARD · ENGINEER · No. 52559 · REGISTERED PROFESSIONAL ENGINEER

WASHTENAW ENGINEERING
CIVIL ENGINEERS
PLANNERS • SURVEYORS
LANDSCAPE ARCHITECTS
3526 W. LIBERTY RD
SUITE 400
ANN ARBOR, MI 48103
TEL: 734–761–8500

CLIENT
SIGMA ZETA HOUSING, LLC
3205 PLAYERS LN
MEMPHIS, TN 38125

PROJECT
805 OXFORD ROAD

SHEET
OVERALL UTILITY PLAN

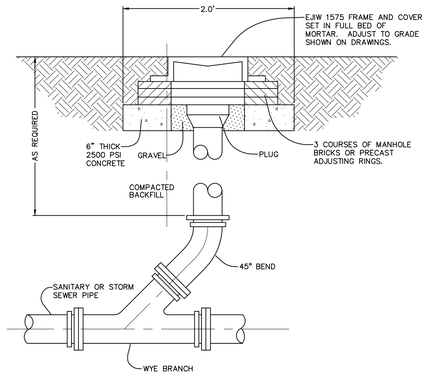
SECTION 33 TOWN 2 SOUTH RANGE 6 EAST
CITY OF ANN ARBOR
WASHTENAW COUNTY • MICHIGAN
DATE 12–03–2025
JOB NO. 33191
DWG NO. 191–ov util
FIELD BOOK –
FILE NO. 10943
SHEET C6.0

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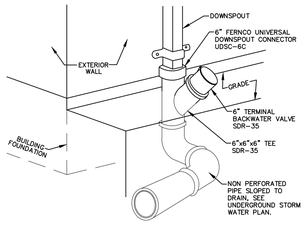
THE OWNER SHALL NOT USE OR ALTER/RE-USE ANY OTHER PERSON TO USE THE DRAWINGS, SPECIFICATIONS, ELECTRONIC DATA, AND OTHER INSTRUMENTS OF SERVICE ON OTHER PROJECTS, FOR ADDITIONS TO THIS PROJECT OR FOR COMPLETION OF THE PROJECT BY OTHERS SO LONG AS WASHTENAW ENGINEERING COMPANY (WECO) IS NOT ADJUDGED TO BE IN DEFAULT UNDER THIS AGREEMENT, THE OWNER SHALL INDEMNIFY AND HOLD HARMLESS WECO, WECO'S CONSULTANTS AND AGENTS AND EMPLOYEES OF ANY OF THEM FROM AND AGAINST CLAIMS, DAMAGES, LOSSES AND EXPENSES, INCLUDING BUT NOT LIMITED TO ATTORNEY'S FEES, ARISING OUT OF OR RESULTING THEREFROM, PROVIDED THAT ANY SUCH CLAIM, DAMAGE, LOSS OR EXPENSE IS CAUSED IN WHOLE OR IN PART BY THE USE, REUSE OR ALTERATION BY THE OWNER OR ANYONE FOR WHOM THE OWNER IS LEGALLY LIABLE.

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING RECORDS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER ABANDONED OR IN SERVICE, AND FURTHER, THE SURVEYOR DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. THE SURVEYOR DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.



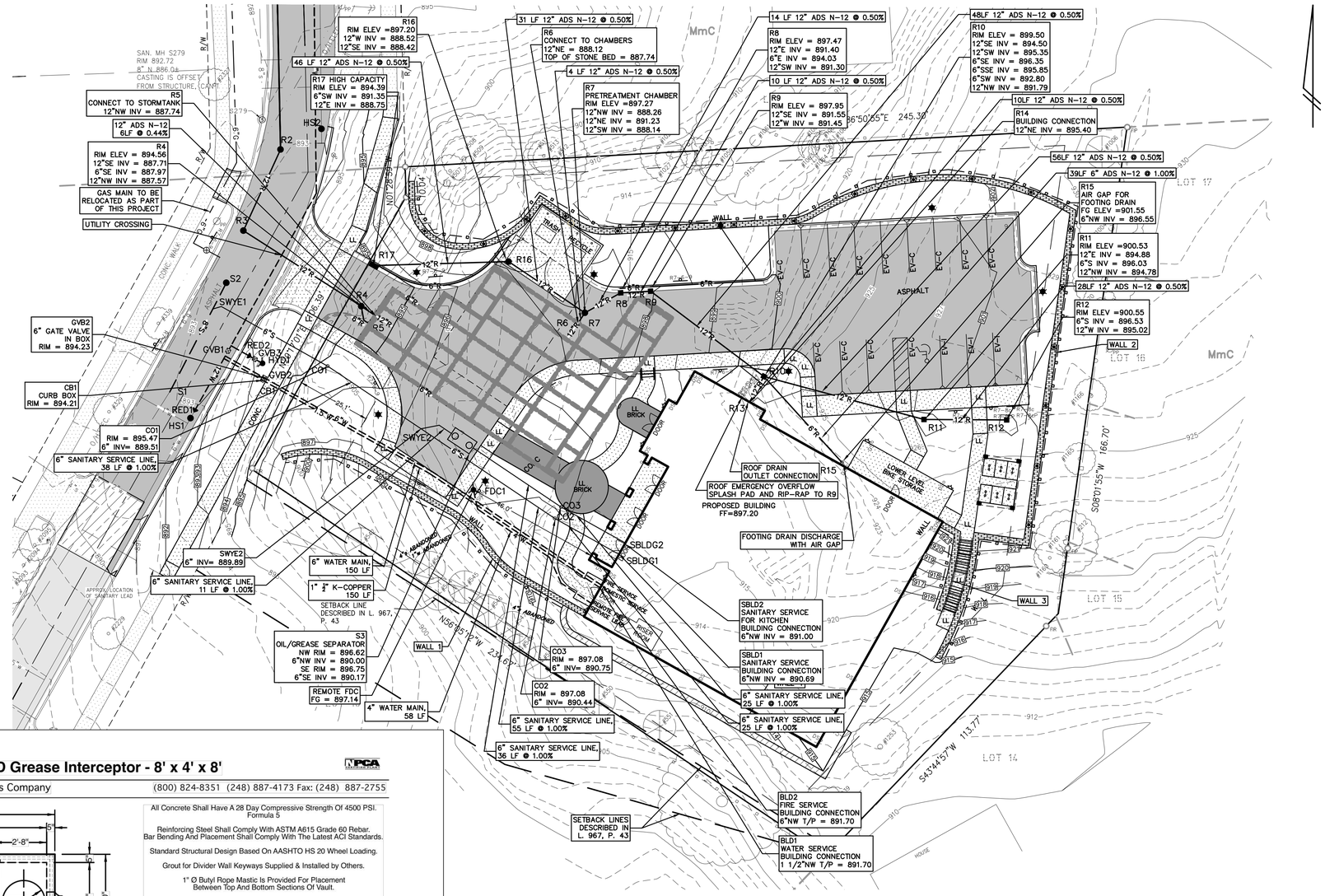

## SANITARY OR STORM SEWER CLEANOUT

NOT TO SCALE




## DOWNSPOUT CONNECTION DETAIL

NO SCALE




## PROPOSED UTILITY LEGEND

- ■ = CATCH BASIN
- ● = MANHOLE
- ◠ = END SECTION
- 18"R = STORM SEWER
- {UD} = UNDER DRAIN
- CO = CLEANOUT
- □ = OIL/GREASE SEPARATOR
- 8"S = SANITARY SEWER
- 6"S = SANITARY SERVICE
- 8"W = WATER MAIN
- 1"W = WATER SERVICE
- ⊠ = GATE VALVE IN BOX
- ⊗ = GATE VALVE IN WELL
- = HYDRANT
- ⊞ = CURB BOX
- ◂ = REDUCER
- YD = YARD DRAIN
- = FDC BUILDING CONNECTION
- G = GAS SERVICE
- ⊕ = GAS GATE VALVE
- UGE = UNDERGROUND ELECRIC SERVICE
- DS = DOWNSPOUT

## PROPOSED LEGEND

- = CONCRETE SURFACE
- = ASPHALT SURFACE
- = MILL AND FILL SURFACE
- = CONCRETE BARRIER CURB & GUTTER
- = SPILL OUT CONCRETE CURB & GUTTER
- = SIGN
- = LIGHTPOLE
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- NON-EV = ELECTRIC VEHICLE – NON-CAPABLE
- = WALL
- = BOULDER WALL

## WASHTENAW COUNTY SOIL SURVEY CLASSIFICATION

MmC – MIAMI LOAM, 6 TO 12 PERCENT SLOPES

SOILS ARE BASED ON USDA SOIL SURVEY OF WASHTENAW COUNTY.

R1C = SINGLE-FAMILY DWELLING
R2A & R2B = TWO-FAMILY DWELLING

## A 1500 Gallon DC HD Grease Interceptor - 8' x 4' x 8'

Advance Concrete Products Company (800) 824-8351 (248) 887-4173 Fax: (248) 887-2755

All Concrete Shall Have A 28 Day Compressive Strength Of 4500 PSI. Formula 5

Reinforcing Steel Shall Comply With ASTM A615 Grade 60 Rebar. Bar Bending And Placement Shall Comply With The Latest ACI Standards.

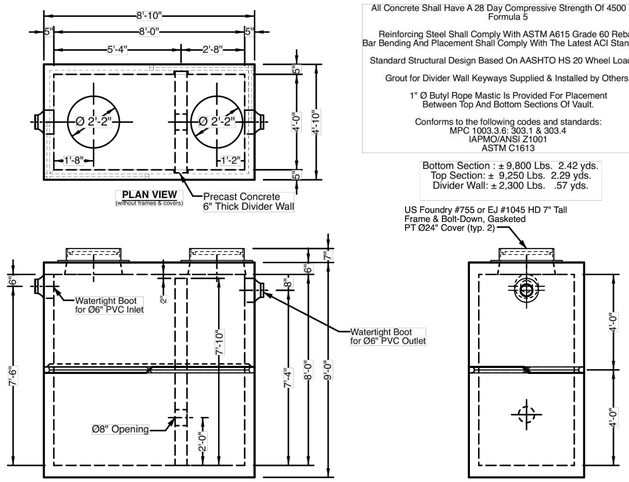
Standard Structural Design Based On AASHTO HS 20 Wheel Loading.

Grout for Divider Wall Keyways Supplied & Installed by Others.

1" Ø Butyl Rope Mastic Is Provided For Placement Between Top And Bottom Sections Of Vault.

Conforms to the following codes and standards:
MPC 1003.3.6 303.1 & 303.4
IAPMO/ANSI Z1001
ASTM C1613

Bottom Section : ± 9,800 Lbs. 2.42 yds.
Top Section: ± 9,250 Lbs. 2.29 yds.
Divider Wall: ± 2,300 Lbs. .57 yds.




### SANITARY SEWER FLOW MITIGATION CALCULATIONS:

| TYPE OF USE | RATE FROM TABLE A | | PROPOSED USE | | DESIGN FLOW GPD |
|---|---|---|---|---|---|
| EXISTING BUILDING TO BE REMOVED | | | | | |
| Single Family House | 300 | GPD | 1 House | | 300 |
| | | | TOTAL | = | 300 GPD |
| PROPOSED BUILDING | | | | | |
| University housing, rooming house, or apartment unit housing of more than 4 people | 75 | GPD/CAPITA | 47 RESIDENTS | | 3525 |
| CAFETERIA (Intrigral to an office, industrial building or school) | 2.5 | GPD/CAPITA | 200 RESIDENTS | | 500 |
| | | | TOTAL | = | 4,025 GPD |
| Adjusted for flow credit for existing building = | 4,025 | - 300 | = | 3,725 | gallons per day |
| Peak Flow = | 3,725 | x 4 x 1.1 = | 16,390 | gallons per day | = 11.4 GPM |
| or | 11 | Peak Flow to be Mitigated | | | |

SANITARY NOTES:

THE EXISTING SITE HAD A LARGE SINGLE FAMILY HOUSE. IT IS BEING DEMOLISHED AS PART OF THIS PROJECT. A NEW SORORITY WITH HOUSING FOR 47 RESIDENTS AND A CAFETERIA CAPABLE OF SERVING UP TO 200 PEOPLE A DAY IS PROPOSED.

BASED ON THE CITY OF ANN ARBOR SANITARY SEWER FLOW MITIGATION CALCULATIONS 11 GALLONS PER MINUTE WILL NEED TO BE MITIGATED.

CONSTRUCTION NOTE:

THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO THE CITY OF ANN ARBOR PUBLIC SERVICES DEPARTMENT STANDARD SPECIFICATIONS, WHICH ARE INCLUDED BY REFERENCE. THE OMISSION OF ANY CURRENT STANDARD DETAILS DOES NOT RELIEVE THE CONTRACTOR OF THIS REQUIREMENT. THE WORK SHALL BE PERFORMED IN COMPLETE CONFORMANCE WITH THE CURRENT PUBLIC SERVICE DEPARTMENT STANDARD SPECIFICATIONS AND DETAILS.

STORM SEWER NOTES:

1. STORM SEWER PIPE IS TO BE SMOOTH LINED CORRUGATED PLASTIC PIPE (SLCPP) FOR PRIVATE SEWER. SEWER IN THE PUBLIC R.O.W. SHALL BE C76 CLIV RCP.
2. SMOOTH LINED CORRUGATED PLASTIC PIPE (SLCPP) SHALL BE ADS N-12 WATER TIGHT OR EQUIVALENT. THE PIPE MATERIAL MUST CONFORM WITH THE REQUIREMENTS OF DIVISION III, SECTION 2B OF THE PUBLIC SERVICES STANDARD SPECIFICATIONS FOR CONSTRUCTION.
3. FOOTING DRAINS TO BE AIR GAPED AND CONNECT TO THE STORM SEWER SYSTEM.
4. ALL ROOF DRAINS TO BE TIED IN TO STORM SEWER SYSTEM.
5. ALL STORM STRUCTURES WILL REQUIRE A MINIMUM 2FT DEPTH SUMP.

SANITARY SEWER NOTES:

1. THE PLAN PROPOSES TO BUILD AS ONE (1) SINGLE INDEPENDENT BUILDING. ONLY ONE (1) SANITARY SEWER LEAD IS PROPOSED. THE BUILDING DOES NOT CONTAIN ANY FIRE WALLS.
2. THE PROPOSED SEWER LEAD TO CONNECT TO THE PROPOSED SANITARY SEWER IN OXFORD RD.

WATER SYSTEM NOTES:

- NO WATER BOOSTER PUMPS WILL BE USED FOR THE BUILDING WATER SERVICE LEADS.
- WATER SERVICE METERING SHALL OCCUR AT THE POINT THE SERVICE LEADS ENTER THE BUILDING. NOTE THAT EACH WATER SERVICE WILL HAVE ONE WATER METER. SUBMETERING AMONG DIFFERENT UNITS/TENANTS IS THE RESPONSIBILITY OF THE PROPERTY OWNER IF DESIRED.

Know what's below. Call before you dig.

BOUNDARY & TOPOGRAPHICAL SURVEY PERFORMED BY: ARBOR LAND CONSULTANTS, DATED: 4-25-25, JOB NO. 09625.

## LEGEND

- ☆ = LIGHT POLE
- ○ = UTILITY POLE
- ◁ = GUY ANCHOR
- ⊲ = HYDRANT
- SPOT ELEV. 892.23
- ⊙ = POST
- ⊗ = GATE VALVE
- ⊸ = SIGN
- TC = TOP OF CURB
- TW = TOP OF WALL
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- □ = CATCHBASIN
- ◡ = END SECTION
- = GRAVEL
- = FENCE
- = CONCRETE
- = ASPHALT
- r = EXISTING STORM
- s = EXISTING SANITARY
- w = EXISTING WATER
- g = EXISTING GAS
- e = EXISTING ELECTRIC
- t = EXISTING TELEPHONE

**BENCHMARK** *BM2000=SET SPIKE IN SE FACE OF UTILITY POLE ON NW SIDE OF OXFORD, SOUTH OF DRIVE TO 810 OXFORD RD, ELEV=891.46 (NAVD 88).*
*BM2001=SET SPIKE IN E FACE OF UTILITY POLE ON NW SIDE OF OXFORD, SOUTH OF DRIVE TO 800 OXFORD RD, ELEV=894.70 (NAVD 88).*
*BM2002=TOP NUT ON HYDRANT, EASTERLY OF DRIVE TO 1705 HILL ST AND NORTHERLY OF HILL ST, ELEV=890.27 (NAVD 88).*

**REVISIONS** *12-05-2025 REVISED SITE PLAN, 1-19-2026 REVISED SITE PLAN*
*2-4-2026 REVISED SITE PLAN, 2-26-2026 REVISED SITE PLAN*
*3-4-2026 REVISED SITE PLAN, 3-11-2026 REVISED SITE PLAN*

SCALE 40
0 10 20
SCALE: 1"=20'

PREPARED BY JOSEPH K. MAYNARD P.E., MICH No. 52559

JOSEPH K. MAYNARD ENGINEER No. 52559 STATE OF MICHIGAN REGISTERED PROFESSIONAL ENGINEER

CIVIL ENGINEERS
PLANNERS + SURVEYORS
LANDSCAPE ARCHITECTS
3526 W. LIBERTY RD
SUITE 400
ANN ARBOR, MI 48103
TEL. 734-761-8500

WASHTENAW ENGINEERING

CLIENT
SIGMA ZETA HOUSING, LLC
3205 PLAYERS LN
MEMPHIS, TN 38125

PROJECT
SIGMA ZETA HOUSING, LLC.
805 OXFORD ROAD

SHEET
SITE UTILITY PLAN

SECTION 33 TOWN 2 SOUTH RANGE 6 EAST
CITY OF ANN ARBOR
WASHTENAW COUNTY • MICHIGAN
JOB NO. 33191
DWG NO. 191-util
FIELD BOOK –
FILE NO. 10943
DATE 10-16-2025
SHEET C7.0

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COPYRIGHT © 2025 WASHTENAW ENGINEERING COMPANY, INC.
NO PART OF THESE PLANS SHALL BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC, MECHANICAL, PHOTOCOPYING, RECORDING OR OTHERWISE, WITHOUT THE PRIOR WRITTEN CONSENT OF WASHTENAW ENGINEERING COMPANY, INC.

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING RECORDS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE SURVEYOR DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

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## STORM SEWER NOTES

1. ANY STORM SEWER NOT MEETING MINIMUM COVER REQUIREMENTS SHALL BE BACKFILLED FULL DEPTH OF 21AA STONE. NO SAND BACKFILL.
2. STORM SEWER PIPE IS TO BE SMOOTH LINED CORRUGATED PLASTIC PIPE (SLCPP) FOR PRIVATE SEWER. SEWER IN THE PUBLIC R.O.W. SHALL BE C76 CLIV RCP.
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4. ALL NEW STORM SEWER STRUCTURES TO HAVE A MINIMUM OF 2FT DEPTH SUMPS.

## OXFORD RD. UTILITIES

SCALE 1" = 20'

## PROPOSED UTILITY LEGEND

- ■ = CATCH BASIN
- ● = MANHOLE
- ◠ = END SECTION
- 18"R = STORM SEWER
- (UD) = UNDER DRAIN
- CO○ = CLEANOUT
- ▭ = OIL/GREASE SEPARATOR
- -8"S- = SANITARY SEWER
- 6"S = SANITARY SERVICE
- -8"W- = WATER MAIN
- 1"W = WATER SERVICE
- ⊠ = GATE VALVE IN BOX
- ⊗ = GATE VALVE IN WELL
- = HYDRANT
- ⊞ = CURB BOX
- ◂ = REDUCER
- YD■ = YARD DRAIN
- = FDC BUILDING CONNECTION
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## PROPOSED LEGEND

- = CONCRETE SURFACE
- = ASPHALT SURFACE
- = MILL AND FILL SURFACE
- = CONCRETE BARRIER CURB & GUTTER
- = SPILL OUT CONCRETE CURB & GUTTER
- = SIGN
- = LIGHTPOLE
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- = BRICK SURFACE
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## WASHTENAW COUNTY SOIL SURVEY CLASSIFICATION

MmC – MIAMI LOAM, 6 TO 12 PERCENT SLOPES

SOILS ARE BASED ON USDA SOIL SURVEY OF WASHTENAW COUNTY.

R1C = SINGLE-FAMILY DWELLING
R2A & R2B = TWO-FAMILY DWELLING

## HYDRANT HYD2 ASSEMBLY IN OXFORD RD.

SCALE 1" = 20'

## WATER AND FIRE SERVICE CONNECTIONS IN OXFORD RD.

SCALE 1" = 20'

## HYDRANT HYD1 ASSEMBLY IN OXFORD RD.

SCALE 1" = 20'

## CLEAR VISION TRIANGLE DRIVEWAY AT OXFORD RD.

SCALE 1" = 30'

NOTES:
1. UNPOSTED SPEED 25 MPH
2. LOW VOLUME ROAD.
3. VIEW POINT OF DRIVER 15FT FROM EDGE OF TRAVELED WAY.
4. SIGHT DISTANCE LEG LENGTHS OF 115 FT.

Know what's below. Call before you dig.

BOUNDARY & TOPOGRAPHICAL SURVEY PERFORMED BY: ARBOR LAND CONSULTANTS, DATED: 4-25-25, JOB NO. 09625.

## LEGEND

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**REVISIONS** *12-05-2025 REVISED SITE PLAN, 1-19-2026 REVISED SITE PLAN, 2-4-2026 REVISED SITE PLAN, 2-26-2026 REVISED SITE PLAN, 3-4-2026 REVISED SITE PLAN, 3-11-2026 REVISED SITE PLAN*

SCALE 0 10 20 40
SCALE: 1"=20'

PREPARED BY JOSEPH K. MAYNARD P.E., MICH No. 52559

JOSEPH K. MAYNARD ENGINEER No. 52559 STATE OF MICHIGAN REGISTERED PROFESSIONAL ENGINEER

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OXFORD RD
UTILITY PLAN

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SECTION 33 TOWN 2 SOUTH RANGE 6 EAST
CITY OF ANN ARBOR
WASHTENAW COUNTY • MICHIGAN
DATE 10-16-2025
JOB NO. 33191
DWG NO. 191-oxford utl
FIELD BOOK –
FILE NO. 10943
SHEET C7.1

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## CONSTRUCTION NOTES

1. IT IS ESSENTIAL THAT THE CONTRACTOR FAMILIARIZE HIMSELF WITH THE SITE PRIOR TO SUBMITTING PROPOSAL.
2. THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO THE CITY OF ANN ARBOR PUBLIC SERVICES DEPARTMENT STANDARD SPECIFICATIONS WHICH ARE INCLUDED BY REFERENCE.
3. THE AREA WITHIN THE CONSTRUCTION LIMITS SHALL BE STRIPPED OF ORGANIC SOILS PRIOR TO COMMENCING GENERAL EXCAVATION. THIS MATERIAL SHALL BE STOCKPILED ON THE PROPERTY OR AS DIRECTED BY THE ENGINEER OR THE OWNER.
4. ALL FILL MATERIAL MUST BE PLACED IN LIFTS NOT EXCEEDING 9 INCHES AND COMPACTED TO 95% OF THE MAXIMUM UNIT WEIGHT.
5. THE FINISHED SUBGRADE MUST BE GRADED WITHIN A TOLERANCE OF +/– 0.1 FEET OF DESIGN GRADE COMPACTED TO NOT LESS THAN 95% OF THE MAXIMUM UNIT WEIGHT TO A DEPTH OF 9 INCHES AND APPROVED BY THE OWNER'S REPRESENTATIVE/ENGINEER PRIOR TO PLACEMENT OF THE AGGREGATE BASE. FINE GRADING PRIOR TO THE PLACEMENT OF THE BASE MATERIAL SHALL BE INCIDENTAL TO THE COST OF PREPARING THE SUBGRADE.
6. ALL DISTURBED AREAS, DITCH BOTTOMS AND SLOPES UNLESS NOTED OTHERWISE, SHALL BE SEEDED AND MULCHED PER THE LANDSCAPE PLAN.
7. THE CONTRACTOR MUST CONTACT MISS DIG PRIOR TO BEGINNING CONSTRUCTION.
8. ALL CONSTRUCTION ACTIVITIES SHALL BE SIGNED PER THE CURRENT MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THE CONTRACTOR SHALL MAINTAIN ACCESS FOR EMERGENCY VEHICLES AT ALL TIMES.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION, MAINTENANCE AND REMOVAL OF ALL TEMPORARY EROSION CONTROL MEASURES PER THIS APPROVED PLAN.
10. CONTRACTOR MUST OBTAIN A CITY OF ANN ARBOR SOIL EROSION AND SEDIMENTATION CONTROL PERMIT PRIOR TO BEGINNING EARTH MOVING. THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS PRIOR TO BEGINNING CONSTRUCTION.
11. ANY CONDITIONS EXISTING ON THE SITE THAT ARE NOT CONSISTENT WITH THE PLANS OR SOIL EROSION SEDIMENTATION PERMIT WILL RESULT IN A STOP WORK ORDER AND REVOCATION OF THE SOIL EROSION SEDIMENTATION CONTROL PERMIT.
12. CONTRACTOR WILL BE RESPONSIBLE FOR REPLACEMENT OF ANY AND ALL SOIL EROSION MEASURES DAMAGED AS A RESULT OF THEIR WORK. REPLACEMENT SHALL BE INCIDENTAL TO THE COST OF WORK PROVIDED.
13. DURING EARTH EXCAVATION PROCEDURES THE CONTRACTOR SHALL CONSTRUCT A TEMPORARY SEDIMENT BASIN TO COLLECT ALL STORM WATER FROM EXPOSED SOILS ONSITE AND FILTER WATER THROUGH A SEDIMENT TRAP.

## SOIL EROSION AND SEDIMENTATION CONTROL NOTES GENERAL

1. The contractor shall implement and maintain the soil erosion control measures as shown on the plans at all times during construction on this project. Any modifications or additions to the soil erosion control measures due to construction or changed conditions, shall be complied with as required or directed by the Owner, Project Engineer or the City of Ann Arbor.
2. All soil erosion and sedimentation control work shall conform to the permit requirements of the City of Ann Arbor and the laws of the State of Michigan.
3. A NPDES Construction Activity Permit is required for all sites with soil disturbance greater than 5 acres.
4. Daily Inspections shall be made by the Contractor. Periodic inspections may be made by the Owner/Project Engineer/City to determine the effectiveness of erosion and sedimentation control measures. Any necessary corrections shall be made without delay.
5. Erosion and sedimentation from work on the site shall be contained on the site and not be allowed to collect on any off–site areas or in waterways.
6. All mud/dirt tracked onto roads from the site due to construction, shall be promptly removed by the Contractor. External streets will be cleaned of any tracked mud immediately following each mud–tracking occurrence.
7. Restoration of all disturbed areas, including placement of topsoil, seed, fertilizer and mulch and/or sod shall be done within 5 days of the completion of final grade.
8. Construction operations shall be scheduled and performed so that preventive soil erosion control measures are in place prior to excavation in critical areas and temporary stabilization measures are in place immediately following backfilling operations.
9. Special precautions will be taken in the use of construction equipment to prevent situations that promote erosion.
10. Proper dust control shall be maintained during construction by use of water trucks and/or chloride as required.
11. The Contractor shall be responsible for maintaining all temporary soil erosion control measures and removal of some upon authorized completion of project. Completion of project will not be authorized until all site work, home building, road work and utility construction is complete and all soils are stabilized.
12. Contractor shall not wash out concrete truck in roadway, but use a dedicated location.
13. Existing impervious surface 12,158 sqft. Proposed impervious surface 29,092 sqft.
14. The site has 15,488 CYD of excavated material to be removed for this project.

## MICHIGAN DEPARTMENT OF MANAGEMENT AND BUDGET
## S–E–S–C KEYING SYSTEM

| KEY | BEST MANAGEMENT PRACTICES | SYMBOL | WHERE USED |
|---|---|---|---|
| E8 | PERMANENT SEEDING | | Stabilization method utilized on sites where earth change has been completed (final grading attained). |
| S51 | SILT FENCE | | Use adjacent to critical areas, to prevent sediment laden sheet flow from entering these areas. |
| S53 | STABILIZED CONSTRUCTION ACCESS | | Used at every point where construction traffic enters or leaves a construction site. |
| S56 | SEDIMENT TRAP | | In small drainage areas, along construction site perimeters, and above check dams or drain inlets. |
| S58 | INLET PROTECTION | | Use at stormwater inlets, especially at construction sites. |

- See detail page for S–E–S–C details

## PROPOSED GRADING LEGEND

924 = PROPOSED 1 FT. CONTOUR
928 = PROPOSED 5 FT. CONTOUR
1.1% = SLOPE
942.23ME × = MATCH EXISTING ELEVATION
942.23 × = PROPOSED FINISHED GRADE ELEVATION

## PROPOSED LEGEND

= CONCRETE SURFACE
= ASPHALT SURFACE
= MILL AND FILL SURFACE
= CONCRETE BARRIER CURB & GUTTER
= SPILL OUT CONCRETE CURB & GUTTER
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R2A & R2B = TWO–FAMILY DWELLING

CLIENT SIGMA ZETA HOUSING, LLC
LOCATION City of Ann Arbor
FOR 805 OXFORD RD.

ENGINEER'S OPINION OF PROBABLE COSTS
DATE: 10–13–2025
JOB # 33191
Prepared By: SETH GARNER

| ITEM No. | ITEM DESCRIPTION | ESTIMATED QUANTITIES | UNIT | UNIT PRICE | AMOUNT |
|---|---|---|---|---|---|
| | Soil Erosion Controls | | | | |
| 1 | Inlet Filters | 5 | EA | $50.00 | $250.00 |
| 2 | Silt Fence | 891 | LF | $1.35 | $1,202.85 |
| 3 | Rip–Rap | 2 | SY | $42.78 | $85.56 |
| 4 | Stabilized Construction Access | 1 | LS | $580.00 | $580.00 |
| 5 | Dust Emission Control (Sweeping) | 1 | LS | $2,000.00 | $2,000.00 |
| 6 | Portable concrete washout container | 1 | EA | $3,000.00 | $3,000.00 |
| | | | Total Cost | | $7,118.41 |

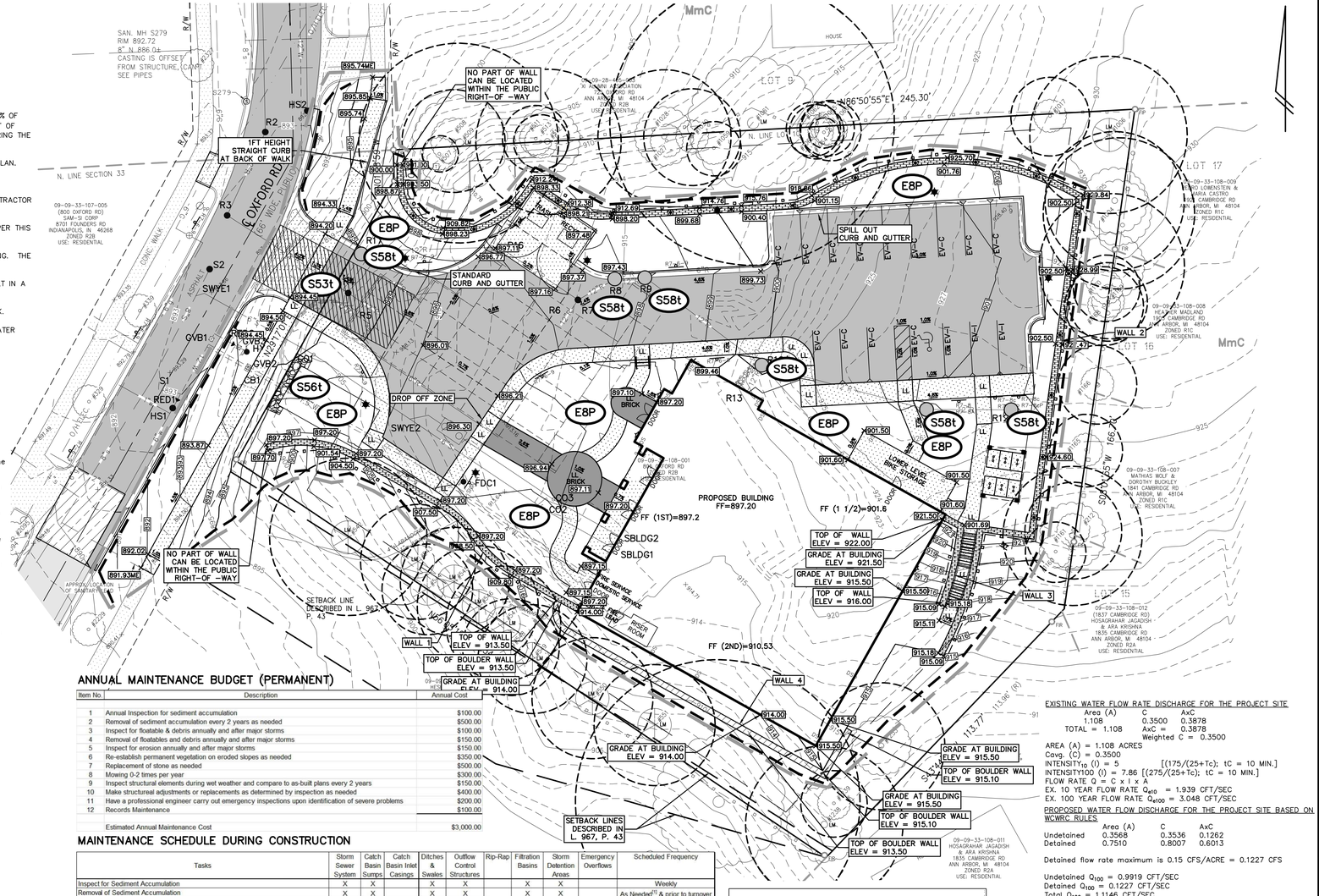
Protection of all exposed soil surfaces from erosion should work discontinue
1 Restoration – includes mulch & seed 1.108 ACRE $500 MIN $2000.00

EXCESS MATERIAL TO BE REMOVED PROMPTLY FROM THE SITE.

SEE LANDSCAPE PLAN FOR PERMANENT SEEDING MIX.

SEE REMOVAL PLAN FOR TREE PROTECTION FENCING.

CONSTRUCTION SEQUENCE – DATES TO BE DETERMINED
1. SOIL EROSION CONTROL PRE–GRADING MEETING.
2. INSTALL SILT FENCE, INLET FILTERS, TREE PROTECTION FENCING
3. PLACE STABILIZED CONSTRUCTION ACCESS
4. PERFORM REMOVALS
5. INSTALL UNDERGROUND DETENTION BASIN
6. GRADE SITE
7. INSTALL SEWER AND WATER MAIN AND LEADS.
8. PLACE INLET FILTERS ON NEW STORM SEWER INLETS
9. INSTALL ROAD, PLACE CURB AND PAVEMENT (FIRST COURSE)
10. START BUILDING CONSTRUCTION
11. INSTALL LANDSCAPING, SEED AND MULCH
12. REMOVE SEDIMENT FROM STORM WATER MANAGEMENT SYSTEM
13. COMPLETE CONSTRUCTION OF SITE
14. FINAL GRADING
15. PLACE FINAL COURSE OF PAVEMENT
16. REMOVE ALL TEMPORARY SOIL EROSION CONTROL MEASURES ONCE SITE IS STABILIZED.




## ANNUAL MAINTENANCE BUDGET (PERMANENT)

| Item No. | Description | Annual Cost |
|---|---|---|
| 1 | Annual Inspection for sediment accumulation | $100.00 |
| 2 | Removal of sediment accumulation every 2 years as needed | $500.00 |
| 3 | Inspect for floatable & debris annually and after major storms | $100.00 |
| 4 | Removal of floatables and debris annually and after major storms | $150.00 |
| 5 | Inspect for erosion annually and after major storms | $150.00 |
| 6 | Re–establish permanent vegetation on eroded slopes as needed | $350.00 |
| 7 | Replacement of stone as needed | $500.00 |
| 8 | Mowing 0-2 times per year | $300.00 |
| 9 | Inspect structural elements during wet weather and compare to as-built plans every 2 years | $150.00 |
| 10 | Make structureal adjustments or replacements as determined by inspection as needed | $400.00 |
| 11 | Have a professional engineer carry out emergency inspections upon identification of severe problems | $200.00 |
| 12 | Records Maintenance | $100.00 |
| | Estimated Annual Maintenance Cost | $3,000.00 |

## MAINTENANCE SCHEDULE DURING CONSTRUCTION

| Tasks | Storm Sewer System | Catch Basin Sumps | Catch Basin Inlet Casings | Ditches & Swales | Outflow Control Structures | Rip-Rap | Filtration Basins | Storm Detention Areas | Emergency Overflows | Scheduled Frequency |
|---|---|---|---|---|---|---|---|---|---|---|
| Inspect for Sediment Accumulation | X | X | | X | X | | X | X | | Weekly |
| Removal of Sediment Accumulation | X | X | | X | X | | X | X | | As Needed[1] & prior to turnover |
| Inspect for floatables and debris | | | X | X | X | | X | X | | Quarterly |
| Cleaning of floatables and debris | | | X | X | X | | X | X | | Quarterly & at turnover |
| Inspection for erosion | | | | X | X | | X | X | | Weekly |
| Inspect following storms of 1 inch or more | | | | | | | | | | As Needed |
| Re-establish permanent vegetation on eroded slopes | | | | X | | | X | X | | As Needed & at turnover |
| Replacement of stone | | | | | X | X | | | | As Needed & prior to turnover |
| Mowing | | | X | X | X | | X | X | | 0-2 Times per year |
| Inspect Stormwater system components during wet weather and compare to as-built plans by professional engineer | | | | X | X | | X | X | | Annually and at turnover |
| Make adjustments or replacements as determined by annual wet weather inspection | X | X | X | X | X | X | X | X | X | As Needed |

[1] As Needed for removal of sediment accumulation means when sediment has accumulated to a maximum of one foot.
During construction, it is the contractor's responsibility to perform the maintenance.
Immediately following construction, the contractor will have the storm water management system inspected by an engineer to verify grades of the detention and make recommendations for any necessary sediment removal.

## MAINTENANCE SCHEDULE AFTER CONSTRUCTION (PERMANENT)

| Tasks | Catch Basin Inlet Casings | Ditches and Swales | Outflow Control Structure | Rip-Rap | Filtration Basins | Storm Detention Areas | Emergency Overflow | Schedule |
|---|---|---|---|---|---|---|---|---|
| Inspect for Sediment Accumulation | | X | | | X | X | | Every 3-5 years as Needed[1] |
| Removal of Sediment Accumulation | | X | | | X | X | | As Needed[1][2] |
| Inspect for floatables and debris | X | X | | | X | X | | Annually |
| Cleaning of floatables and debris | X | X | | | X | X | | As Needed[2] |
| Inspection for erosion | | X | X | | X | X | | Annually |
| Re-establish permanent vegetation on eroded slopes | | X | | | X | X | | As Needed |
| Replacement of stone | | | X | X | | | | Every 3-5 years as Needed |
| Clean Streets | | | | | | | | Semi-Annually |
| Mowing | | X | | | X | X | | 0-2 Times per year[3] |
| Inspection stormwater system components durring wet weather and compairing to as-built plans by professional engineer | X | X | X | X | X | X | X | Annually |
| Inspections for infiltration basins following storms of 1 inch or more | | | | | | X | | As Needed |
| Make adjustments or replacements as determined by annual wet weather inspection | X | X | X | X | X | X | X | As Needed |
| Keep records of all inspections and maintenance activities | | | | | | | | Annually |
| Keep records of all costs for inspections, maintenance and repairs. | | | | | | | | Annually |

[1] As Needed means when ponded water is observed for more than 48 hours within the infiltration basin.
[2] As Needed means when sediment has accumulated to a maximum of one foot.
[3] Mowing is only allowed a maximum of twice per year.
Following construction, it will be the responsibility of the owner, Sigma Zeta Housing LLC., to perform the maintenance.
No chemicals are allowed in stormwater features or buffer zones with the following exception: invasive species may be treated with chemicals by a certified applicator. Mowing is only allowed twice per year.
The owner, Sigma Zeta Housing LLC., is required to pay for all maintenance activities on a continuing basis.


FERGUSON & ASSOCIATES, P.E. D.A. MAYNARD, P.E. G.L. MOORE, P.E. ASSOCIATE T.L. BUTTERLAND, P.S.

WASHTENAW ENGINEERING COMPANY

CIVIL ENGINEERS • PLANNERS • SURVEYORS TRANSPORTATION ENGINEERS LANDSCAPE ARCHITECTS

POST OFFICE BOX 1128 • 3029 WEST LIBERTY ROAD • SUITE 402 • ANN ARBOR, MICHIGAN 48106 • TELEPHONE 734-761-8800 • FAX 734-761-8820
www.washtenawengineering.com


### ENGINEER'S CERTIFICATE OF OUTLET

Date September 26, 2026
Development Name 805 Oxford Rd
Twp. of City of Ann Arbor Sec. 33
Washtenaw County, Michigan

I hereby certify that the existing Mallets Creek drain is the only reasonable available storm water outlet for the proposed storm water management system and that the existing drain has sufficient capacity to serve as an adequate outlet for the proposed system, without detriment to or diminution of the drainage service that the existing outlet presently provides.

Signed
Registered Professional Engineer

SETH A. GARNER ENGINEER NO. 52111

S:\PROJECTS\805 OXFORD\CERTIFICATE OF OUTLET.doc

EXISTING WATER FLOW RATE DISCHARGE FOR THE PROJECT SITE

| Area (A) | C | AxC |
|---|---|---|
| 1.108 | 0.3500 | 0.3878 |
| TOTAL = 1.108 | AxC = | 0.3878 |
| | Weighted C = | 0.3500 |

AREA (A) = 1.108 ACRES
Cavg. (C) = 0.3500
$INTENSITY_{10}$ (I) = 5 [(175/(25+Tc); tC = 10 MIN.]
$INTENSITY_{100}$ (I) = 7.86 [(275/(25+Tc); tC = 10 MIN.]
FLOW RATE Q = C x I x A
EX. 10 YEAR FLOW RATE $Q_{\text{ex10}}$ = 1.939 CFT/SEC
EX. 100 YEAR FLOW RATE $Q_{\text{ex100}}$ = 3.048 CFT/SEC

PROPOSED WATER FLOW DISCHARGE FOR THE PROJECT SITE BASED ON WCWRC RULES

| | Area (A) | C | AxC |
|---|---|---|---|
| Undeteined | 0.3568 | 0.3536 | 0.1262 |
| Detained | 0.7510 | 0.8007 | 0.6013 |

Detained flow rate maximum is 0.15 CFS/ACRE = 0.1227 CFS

Undeteined $Q_{100}$ = 0.9919 CFT/SEC
Detained $Q_{100}$ = 0.1227 CFT/SEC
Total $Q_{100}$ = 1.1146 CFT/SEC

The proposed storm water discharge from the site is less than the existing flow rate.

EMERGENCY OUTLET FLOW RATE FOR THE PROJECT SITE BASED ON WCWRC RULES

| | Area (A) | C | AxC |
|---|---|---|---|
| Undeteined | 0.3568 | 0.3536 | 0.1262 |
| Detained | 0.7510 | 0.8007 | 0.6013 |
| TOTAL = | 1.1026 | AxC = | 0.7257 |
| | | Weighted C = | 0.7275 |

Existing 10 year flow rate $Q_{\text{ex10}}$ = 1.939 CFS
Emergency discharge flow rate is based on the 10 year storm event.
Detained time of concentration based on detention time Tc = 209.62 minutes.
$I_{\text{e10}}$ = 175/(25+209.62) = 0.7459
$Q_{\text{e10}}$ = C x I x A = 0.5426 CFS

The emergency outflow from the site is less than the existing. The receiving 18" RCP pipe in Hill St. has an estimated capacity of 5.46 CFS.

No detriment to downstream properties is expected as part of this development.

**Emergency OUTLET Design**

| | Basin: | A |
|---|---|---|
| Design Requirements: | | |
| Tc for 100 Year Flood Volume Storage Calculation | | |
| Calculate Qo | | |
| A = | 0.751 | Acres |
| C = | 0.80 | |
| Qa = 0.15 cfs/acre * Acres | | |
| Qa = | 0.11265 | cfs |
| Qo = Qa/(A*C) | | |
| Qo = | 0.18734 | cfs/(ac-imp) |
| Calculate Storage Time for 100 year storm event | | |
| Tc = -25 + (10312.5/Qo)^.5 | | |
| Tc = | 209.62 | min |

Know what's below. Call before you dig.

BOUNDARY & TOPOGRAPHICAL SURVEY PERFORMED BY: ARBOR LAND CONSULTANTS, DATED: 4–25–25, JOB NO. 09625.

STATE OF MICHIGAN JOSEPH K. MAYNARD ENGINEER No. 52559 PROFESSIONAL ENGINEER

## LEGEND

☆ = LIGHT POLE
○ = UTILITY POLE
⊢ = GUY ANCHOR
⊕ = HYDRANT
924.23 = SPOT ELEV.
⊗ = POST
⊗ = GATE VALVE
⊸ = SIGN
TC = TOP OF CURB
TW = TOP OF WALL
○ = MANHOLE
□ = CATCHBASIN
◡ = END SECTION
= GRAVEL
= FENCE
= CONCRETE
= ASPHALT
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= EXISTING SANITARY
= EXISTING WATER
= EXISTING GAS
= EXISTING ELECTRIC
= EXISTING TELEPHONE

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*BM2002=TOP NUT ON HYDRANT, EASTERLY OF DRIVE TO 1705 HILL ST AND NORTHERLY OF HILL ST, ELEV=890.27 (NAVD 88).*

**REVISIONS** *12–05–2025 REVISED SITE PLAN, 1–19–2026 REVISED SITE PLAN*
*2–4–2026 REVISED SITE PLAN, 2–26–2026 REVISED SITE PLAN*
*3–4–2026 REVISED SITE PLAN, 3–11–2026 REVISED SITE PLAN*

SCALE 40
0 10 20
SCALE: 1"=20'

PREPARED BY
JOSEPH K. MAYNARD P.E., MICH No. 52559


CIVIL ENGINEERS
PLANNERS • SURVEYORS
LANDSCAPE ARCHITECTS
3526 W. LIBERTY RD
SUITE 400
ANN ARBOR, MI 48103
TEL: 734-761-8500

WASHTENAW ENGINEERING


CLIENT
SIGMA ZETA HOUSING, LLC.
3205 PLAYERS LN
MEMPHIS, TN 38125

PROJECT
SIGMA ZETA HOUSING, LLC.
805 OXFORD ROAD

SHEET
GRADING AND SOIL EROSION CONTROL PLAN

SECTION 33 TOWN 2 SOUTH RANGE 6 EAST
WASHTENAW COUNTY • MICHIGAN
CITY OF ANN ARBOR
DATE 10–16–2025 JOB NO. 33191
DWG NO. 191–grd
FIELD BOOK –
FILE NO. 10943

C8.0


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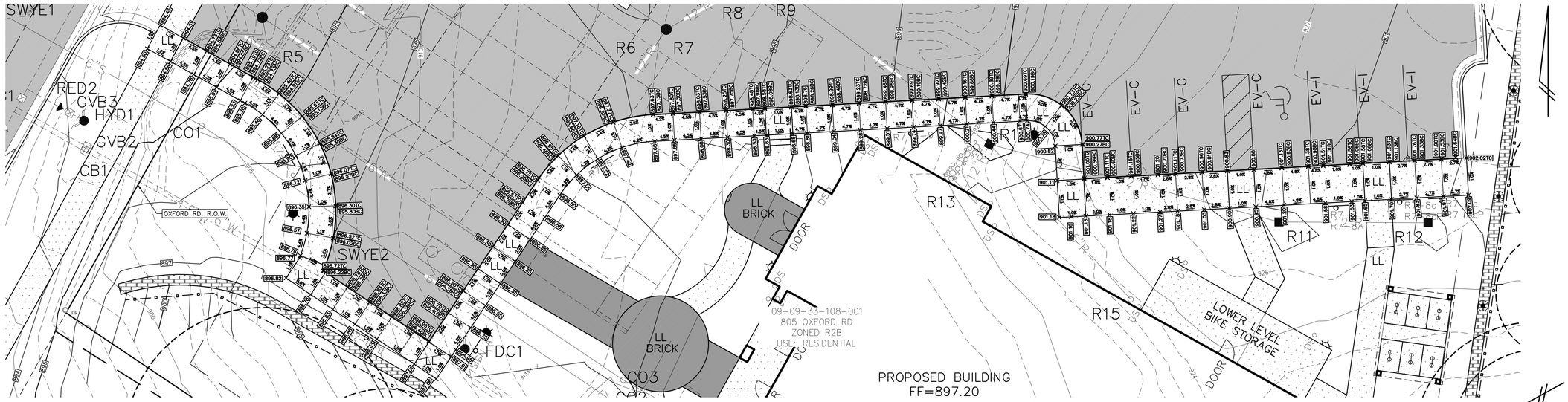
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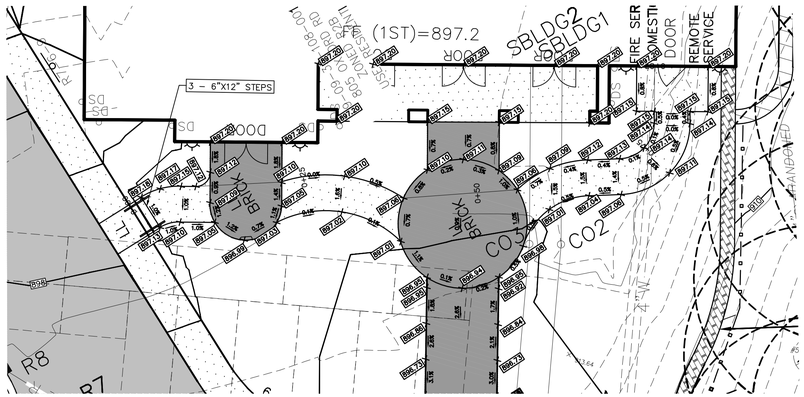
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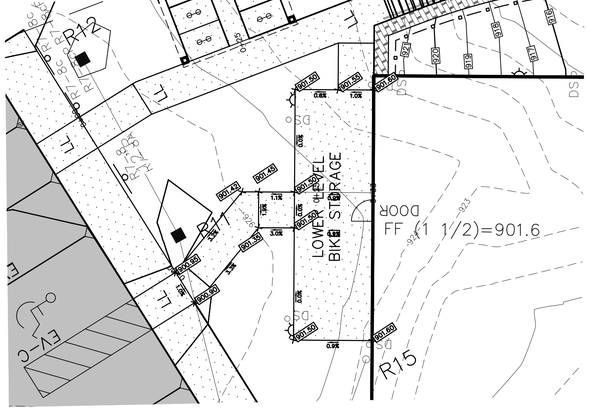
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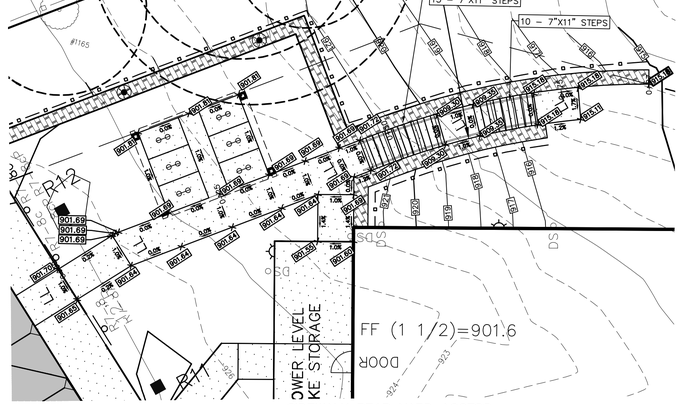

SIDEWALK ENTRANCE DRIVE TO END
STA 0+00 TO STA 3+25




SIDEWALK FRONT OF BUILDING
STA 0+00 TO STA 0+87




SIDEWALK MID-LEVEL ENTRANCE
STA 0+00 TO STA 0+30




SIDEWALK REAR YARD ACCESS
STA 0+00 TO STA 0+87

## PROPOSED GRADING LEGEND

- 924 = PROPOSED 1 FT. CONTOUR
- 925 = PROPOSED 5 FT. CONTOUR
- 1.1% = SLOPE
- 942.23ME × = MATCH EXISTING ELEVATION
- 942.23 × = PROPOSED FINISHED GRADE ELEVATION

## PROPOSED LEGEND

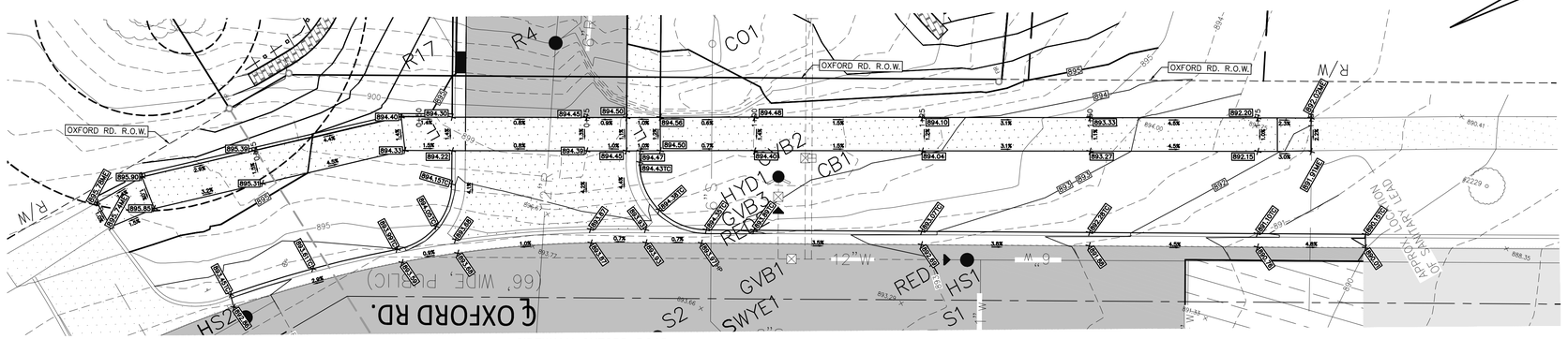
- = CONCRETE SURFACE
- = ASPHALT SURFACE
- = MILL AND FILL SURFACE
- = CONCRETE BARRIER CURB & GUTTER
- = SPILL OUT CONCRETE CURB & GUTTER
- = SIGN
- = LIGHTPOLE
- = WALL MOUNTED LIGHT
- = ROOF MOUNTED LIGHT
- = BRICK SURFACE
- = ELECTRIC VEHICLE CHARGING STATION
- = ELECTRIC VEHICLE CHARGING STATION CAPABLE
- EV–I = ELECTRIC VEHICLE – INSTALLED
- EV–C = ELECTRIC VEHICLE – CAPABLE
- NON–EV = ELECTRIC VEHICLE – NON–CAPABLE

## WASHTENAW COUNTY SOIL SURVEY CLASSIFICATION

MmC – MIAMI LOAM, 6 TO 12 PERCENT SLOPES

SOILS ARE BASED ON USDA SOIL SURVEY OF WASHTENAW COUNTY.

R1C = SINGLE–FAMILY DWELLING
R2A & R2B = TWO–FAMILY DWELLING




SIDEWALK OXFORD ROAD
STA 0+00 TO STA 1+83

Know what's below. Call before you dig.

BOUNDARY & TOPOGRAPHICAL SURVEY PERFORMED BY: ARBOR LAND CONSULTANTS, DATED: 4–25–25, JOB NO. 09625.

## LEGEND

- = LIGHT POLE
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- = POST
- = GATE VALVE
- = SIGN
- TC = TOP OF CURB
- TW = TOP OF WALL
- = MANHOLE
- = CATCHBASIN
- = END SECTION
- = GRAVEL
- = FENCE
- = CONCRETE
- = ASPHALT
- = EXISTING STORM
- = EXISTING SANITARY
- = EXISTING WATER
- = EXISTING GAS
- = EXISTING ELECTRIC
- = EXISTING TELEPHONE

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*3–4–2026 REVISED SITE PLAN, 3–11–2026 REVISED SITE PLAN*

SCALE 20
0 5 10
SCALE: 1"=10'

PREPARED BY
JOSEPH K. MAYNARD P.E., MICH No. 52559

STATE OF MICHIGAN · JOSEPH K. MAYNARD · ENGINEER No. 52559 · REGISTERED PROFESSIONAL ENGINEER

CIVIL ENGINEERS
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3526 W. LIBERTY RD
SUITE 400
ANN ARBOR, MI 48103
TEL. 734–761–8500

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*3205 PLAYERS LN*
*MEMPHIS, TN 38125*

PROJECT
**SIGMA ZETA HOUSING, LLC.**
**805 OXFORD ROAD**

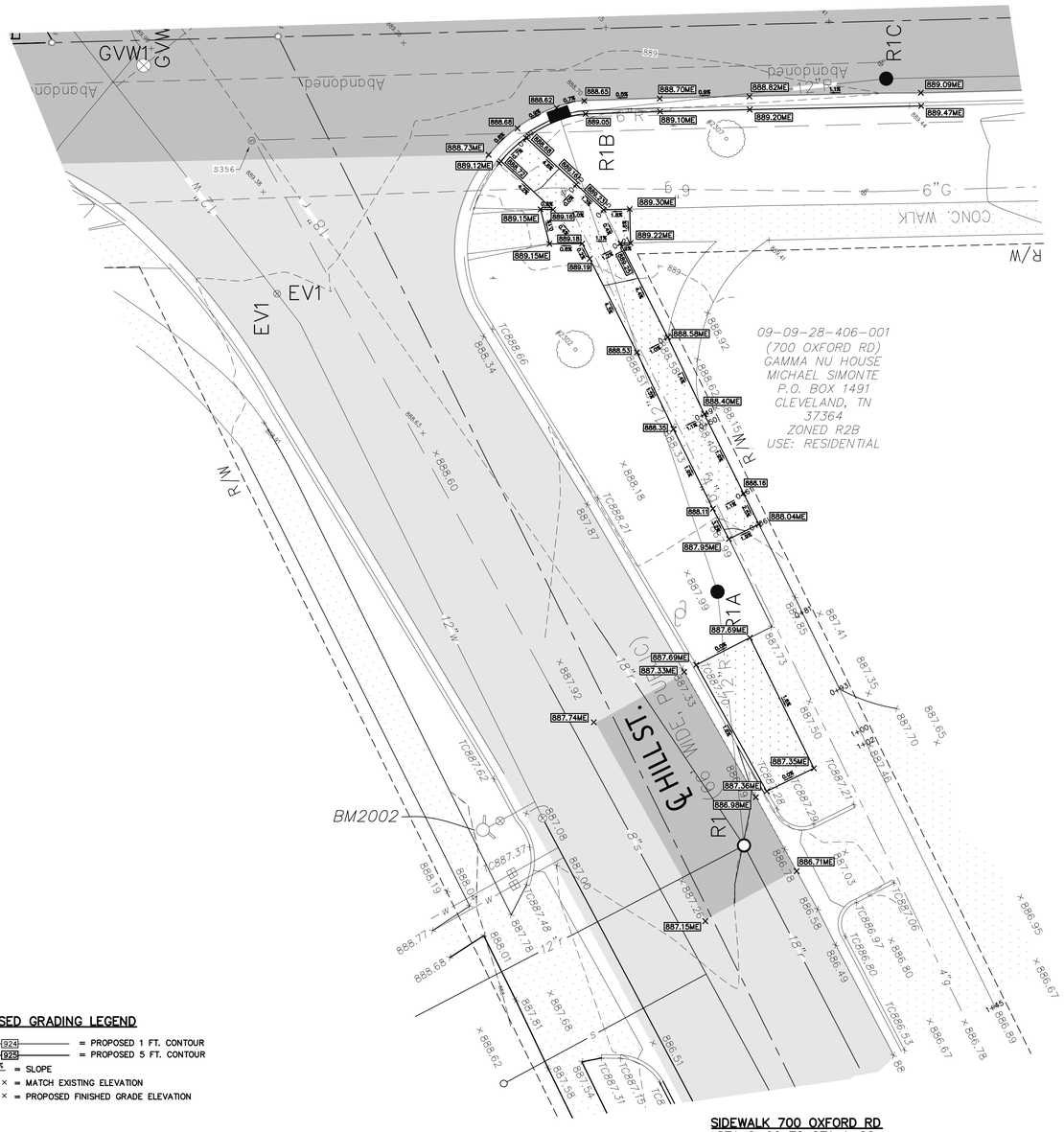
SHEET
**GRADING DETAILS**

SECTION 33 TOWN 2 SOUTH RANGE 6 EAST
CITY OF ANN ARBOR
WASHTENAW COUNTY • MICHIGAN
DATE 10–16–2025
JOB NO. 33191
DWG NO. 191-grd-det
FIELD BOOK –
FILE NO. 10943
SHEET **C8.1**

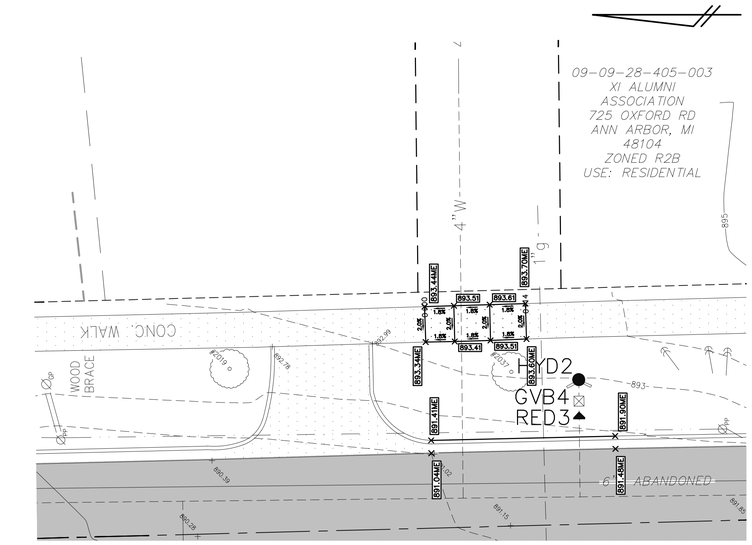
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SIDEWALK 700 OXFORD RD
STA 0+00 TO STA 1+02




SIDEWALK 725 OXFORD ROAD
STA 0+00 TO STA 0+14

## PROPOSED GRADING LEGEND

- 924 = PROPOSED 1 FT. CONTOUR
- 925 = PROPOSED 5 FT. CONTOUR
- 1.1% = SLOPE
- 942.23ME × = MATCH EXISTING ELEVATION
- 942.23 × = PROPOSED FINISHED GRADE ELEVATION

## PROPOSED LEGEND

- = CONCRETE SURFACE
- = ASPHALT SURFACE
- = MILL AND FILL SURFACE
- = CONCRETE BARRIER CURB & GUTTER
- = SPILL OUT CONCRETE CURB & GUTTER
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- = ELECTRIC VEHICLE CHARGING STATION CAPABLE

EV–I = ELECTRIC VEHICLE – INSTALLED
EV–C = ELECTRIC VEHICLE – CAPABLE
NON–EV = ELECTRIC VEHICLE – NON–CAPABLE

## WASHTENAW COUNTY SOIL SURVEY CLASSIFICATION

MmC – MIAMI LOAM, 6 TO 12 PERCENT SLOPES

SOILS ARE BASED ON USDA SOIL SURVEY OF WASHTENAW COUNTY.

R1C = SINGLE–FAMILY DWELLING
R2A & R2B = TWO–FAMILY DWELLING

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## LEGEND

- ☼ = LIGHT POLE
- ⊙ = UTILITY POLE
- ▽ = GUY ANCHOR
- ⊙ = HYDRANT
- 890.23 = SPOT ELEV.
- ▪ = POST
- ⊗ = GATE VALVE
- —o— = SIGN
- TC = TOP OF CURB
- TW = TOP OF WALL
- ○ = MANHOLE
- □ = CATCHBASIN
- ◡ = END SECTION
- = GRAVEL
- = FENCE
- = CONCRETE
- = ASPHALT
- r = EXISTING STORM
- s = EXISTING SANITARY
- w = EXISTING WATER
- g = EXISTING GAS
- e = EXISTING ELECTRIC
- t = EXISTING TELEPHONE

**BENCHMARK** *BM2000=SET SPIKE IN SE FACE OF UTILITY POLE ON NW SIDE OF OXFORD, SOUTH OF DRIVE TO 810 OXFORD RD, ELEV=891.46 (NAVD 88).*
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**REVISIONS** *12–05–2025 REVISED SITE PLAN, 1–19–2026 REVISED SITE PLAN*
*2–4–2026 REVISED SITE PLAN, 2–26–2026 REVISED SITE PLAN*
*3–4–2026 REVISED SITE PLAN, 3–11–2026 REVISED SITE PLAN*

SCALE 20
0 5 10
SCALE: 1"=10'

PREPARED BY
JOSEPH K. MAYNARD P.E., MICH No. 52559

BOUNDARY & TOPOGRAPHICAL SURVEY PERFORMED BY: ARBOR LAND CONSULTANTS, DATED: 4–25–25, JOB NO. 09625.

STATE OF MICHIGAN
JOSEPH K. MAYNARD
ENGINEER No. 52559
REGISTERED PROFESSIONAL ENGINEER

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

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PLANNERS • SURVEYORS
LANDSCAPE ARCHITECTS
3526 W. LIBERTY RD
SUITE 400
ANN ARBOR, MI 48103
TEL. 734–761–8500

WASHTENAW ENGINEERING

CLIENT
SIGMA ZETA HOUSING, LLC
3205 PLAYERS LN
MEMPHIS, TN 38125

PROJECT
805 OXFORD ROAD

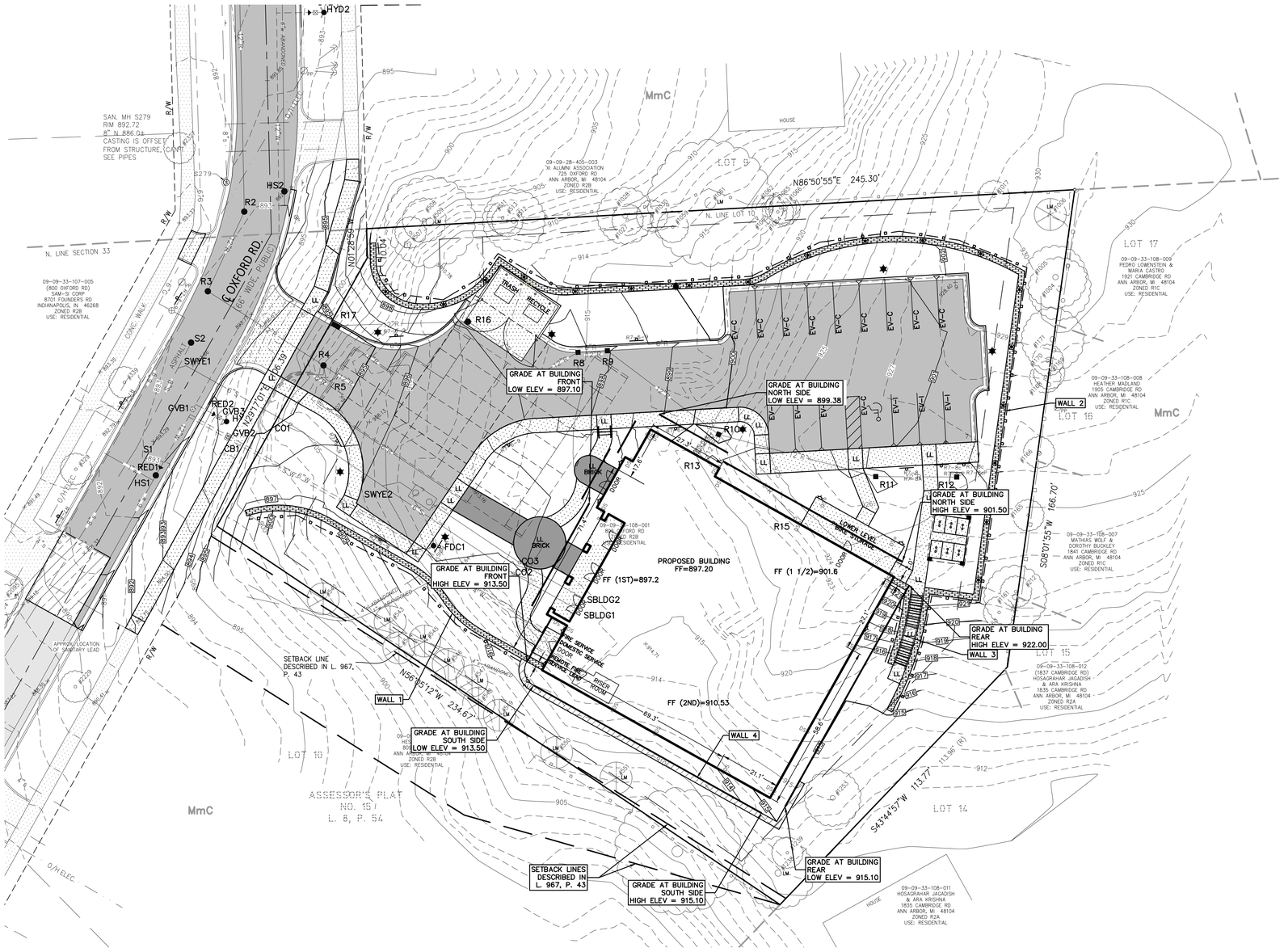
SHEET
GRADING DETAILS

SECTION 33 TOWN 2 SOUTH RANGE 6 EAST
CITY OF ANN ARBOR
WASHTENAW COUNTY • MICHIGAN
DATE 2–24–2026
JOB NO. 33191
DWG NO. 191-grd-det
FIELD BOOK –
FILE NO. 10943
SHEET C8.2

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- 924 = PROPOSED 1 FT. CONTOUR
- 925 = PROPOSED 5 FT. CONTOUR
- 1.1% = SLOPE
- 942.23ME × = MATCH EXISTING ELEVATION
- 942.23 × = PROPOSED FINISHED GRADE ELEVATION

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R2A & R2B = TWO-FAMILY DWELLING

## BUILDING HEIGHT CALCULATION

FRONT HIGH = 913.5
FRONT LOW = 897.1
NORTH SIDE HIGH = 901.50
NORTH SIDE LOW = 899.38
REAR HIGH = 922.00
REAR LOW = 915.10
SOUTH SIDE HIGH = 915.10
SOUTH SITE LOW = 913.50
AVG GRADE =7277.18/8 = 909.65

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*3-4-2026 REVISED SITE PLAN, 3-11-2026 REVISED SITE PLAN*

**SCALE** 0 10 20 40
SCALE: 1"=20'

PREPARED BY _____
JOSEPH R. MAYNARD P.E., MICH No. 52559

BOUNDARY & TOPOGRAPHICAL SURVEY PERFORMED BY: ARBOR LAND CONSULTANTS, DATED: 4-25-25, JOB NO. 09625.

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*3205 PLAYERS LN*
*MEMPHIS, TN 38125*

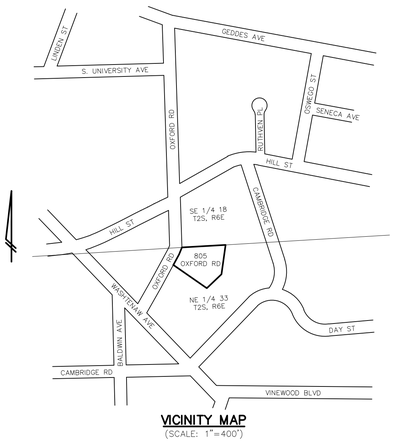
SHEET
# GRADING DETAIL FOR BUILDING ELEVATION

PROJECT
**SIGMA ZETA HOUSING, LLC.**
# 805 OXFORD ROAD

SECTION 33 TOWN 2 SOUTH RANGE 6 EAST
CITY OF ANN ARBOR
WASHTENAW COUNTY • MICHIGAN
DATE 12-5-2025 | JOB NO. 33191 | DWG NO. 191-grd-bld elev | FIELD BOOK – | FILE NO. 10943
SHEET C8.3

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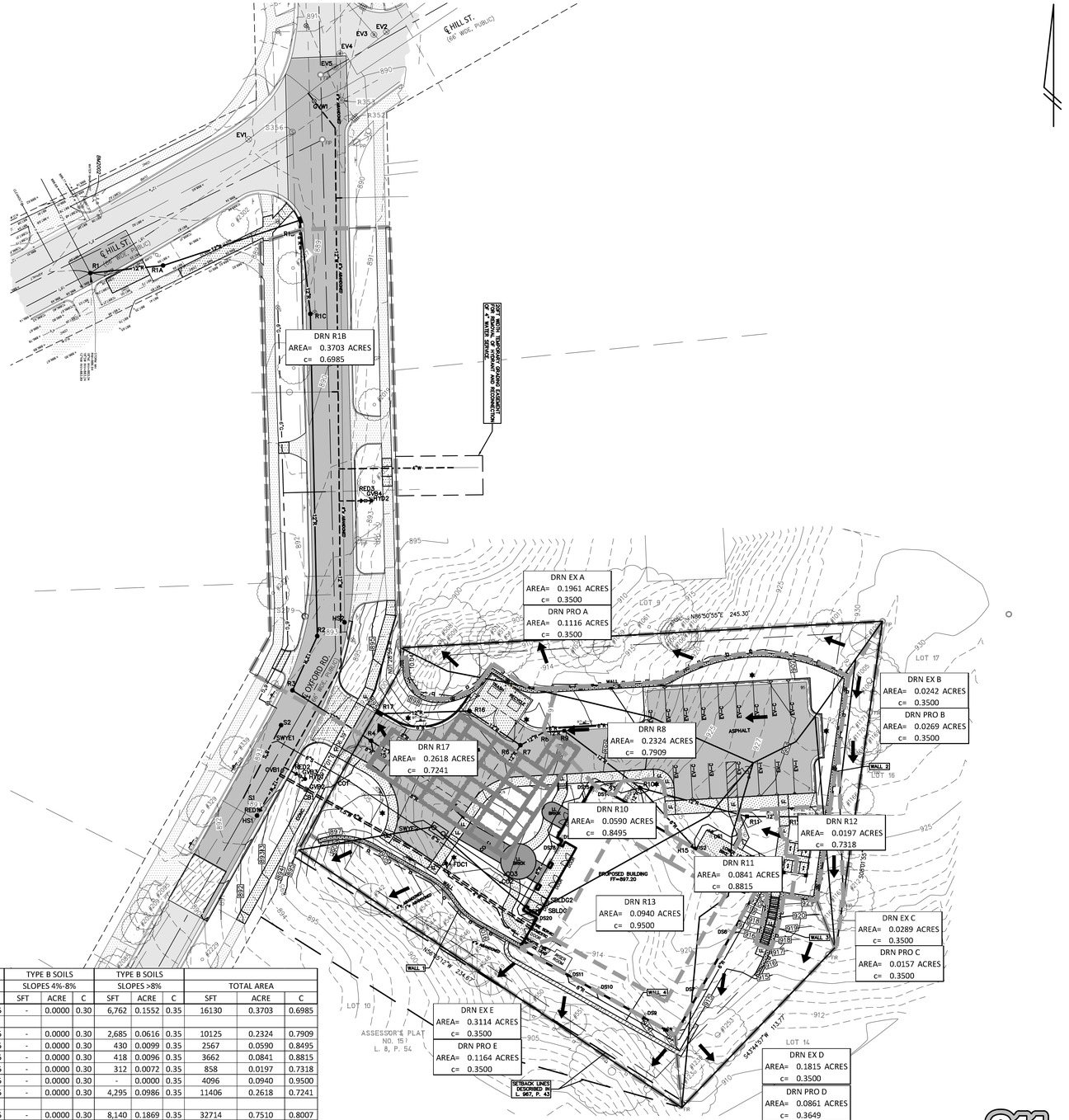
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**VICINITY MAP**
(SCALE: 1"=400')

NOTES:

STORM STRUCTURES R17 AND R1B SHALL BE CITY OF ANN ARBOR HIGH CAPACITY STRUCTURES.




| PROPOSED | WATER | | | ROOF, ASPHALT OR CONCRETE | | | TYPE B SOILS | | | TYPE B SOILS | | | TYPE B SOILS | | | TOTAL AREA | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DRAINAGE AREAS | | | | TYPE B SOILS | | | SLOPES < 4% | | | SLOPES 4%-8% | | | SLOPES >8% | | | | | |
| NAME | SFT | ACRE | C | SFT | ACRE | C | SFT | ACRE | C | SFT | ACRE | C | SFT | ACRE | C | SFT | ACRE | C |
| DRN R1B | - | 0.0000 | 1.00 | 9,368 | 0.2151 | 0.95 | - | 0.0000 | 0.25 | - | 0.0000 | 0.30 | 6,762 | 0.1552 | 0.35 | 16130 | 0.3703 | 0.6985 |
| | | | | | | | | | | | | | | | | | | |
| DRN R8 | - | 0.0000 | 0.00 | 7,440 | 0.1708 | 0.95 | - | 0.0000 | 0.25 | - | 0.0000 | 0.30 | 2,685 | 0.0616 | 0.35 | 10125 | 0.2324 | 0.7909 |
| DRN R10 | - | 0.0000 | 0.00 | 2,137 | 0.0491 | 0.95 | - | 0.0000 | 0.25 | - | 0.0000 | 0.30 | 430 | 0.0099 | 0.35 | 2567 | 0.0590 | 0.8495 |
| DRN R11 | - | 0.0000 | 0.00 | 3,244 | 0.0745 | 0.95 | - | 0.0000 | 0.25 | - | 0.0000 | 0.30 | 418 | 0.0096 | 0.35 | 3662 | 0.0841 | 0.8815 |
| DRN R12 | - | 0.0000 | 0.00 | 546 | 0.0125 | 0.95 | - | 0.0000 | 0.25 | - | 0.0000 | 0.30 | 312 | 0.0072 | 0.35 | 858 | 0.0197 | 0.7318 |
| DRN R13 | - | 0.0000 | 0.00 | 4,096 | 0.0940 | 0.95 | - | 0.0000 | 0.25 | - | 0.0000 | 0.30 | - | 0.0000 | 0.35 | 4096 | 0.0940 | 0.9500 |
| DRN R17 | - | 0.0000 | 0.00 | 7,111 | 0.1632 | 0.95 | - | 0.0000 | 0.25 | - | 0.0000 | 0.30 | 4,295 | 0.0986 | 0.35 | 11406 | 0.2618 | 0.7241 |
| | | | | | | | | | | | | | | | | | | |
| DRN BASIN A | - | 0.0000 | 1.00 | 24,574 | 0.5641 | 0.95 | - | 0.0000 | 0.25 | - | 0.0000 | 0.30 | 8,140 | 0.1869 | 0.35 | 32714 | 0.7510 | 0.8007 |
| | | | | | | | | | | | | | | | | | | |
| DRN EX A | - | 0.0000 | 1.00 | - | 0.0000 | 0.95 | - | 0.0000 | 0.25 | - | 0.0000 | 0.30 | 8,544 | 0.1961 | 0.35 | 8544 | 0.1961 | 0.3500 |
| DRN EX B | - | 0.0000 | 1.00 | - | 0.0000 | 0.95 | - | 0.0000 | 0.25 | - | 0.0000 | 0.30 | 1,054 | 0.0242 | 0.35 | 1054 | 0.0242 | 0.3500 |
| DRN EX C | - | 0.0000 | 1.00 | - | 0.0000 | 0.95 | - | 0.0000 | 0.25 | - | 0.0000 | 0.30 | 1,261 | 0.0289 | 0.35 | 1261 | 0.0289 | 0.3500 |
| DRN EX D | - | 0.0000 | 1.00 | - | 0.0000 | 0.95 | - | 0.0000 | 0.25 | - | 0.0000 | 0.30 | 7,905 | 0.1815 | 0.35 | 7905 | 0.1815 | 0.3500 |
| DRN EX E | - | 0.0000 | 1.00 | - | 0.0000 | 0.95 | - | 0.0000 | 0.25 | - | 0.0000 | 0.30 | 13,564 | 0.3114 | 0.35 | 13564 | 0.3114 | 0.3500 |
| DRN PRO A | - | 0.0000 | 1.00 | - | 0.0000 | 0.95 | - | 0.0000 | 0.25 | - | 0.0000 | 0.30 | 4,860 | 0.1116 | 0.35 | 4860 | 0.1116 | 0.3500 |
| DRN PRO B | - | 0.0000 | 1.00 | - | 0.0000 | 0.95 | - | 0.0000 | 0.25 | - | 0.0000 | 0.30 | 1,173 | 0.0269 | 0.35 | 1173 | 0.0269 | 0.3500 |
| DRN PRO C | - | 0.0000 | 1.00 | - | 0.0000 | 0.95 | - | 0.0000 | 0.25 | - | 0.0000 | 0.30 | 686 | 0.0157 | 0.35 | 686 | 0.0157 | 0.3500 |
| DRN PRO D | - | 0.0000 | 1.00 | 93 | 0.0021 | 0.95 | - | 0.0000 | 0.25 | - | 0.0000 | 0.30 | 3,661 | 0.0840 | 0.35 | 3754 | 0.0861 | 0.3649 |
| DRN PRO E | - | 0.0000 | 1.00 | - | 0.0000 | 0.95 | - | 0.0000 | 0.25 | - | 0.0000 | 0.30 | 5,070 | 0.1164 | 0.35 | 5070 | 0.1164 | 0.3500 |

## PROPOSED UTILITY LEGEND

- ■ = CATCH BASIN
- ● = MANHOLE
- ⌒ = END SECTION
- 18"R = STORM SEWER
- (UD) = UNDER DRAIN
- CO = CLEANOUT
- □ = OIL/GREASE SEPARATOR
- 8"S = SANITARY SEWER
- 6"S = SANITARY SERVICE
- 8"W = WATER MAIN
- 1"W = WATER SERVICE
- ⊠ = GATE VALVE IN BOX
- ⊗ = GATE VALVE IN WELL
- HYD = HYDRANT
- ⊞ = CURB BOX
- ◂ = REDUCER
- YD ■ = YARD DRAIN
- FDC = FDC BUILDING CONNECTION
- G = GAS SERVICE
- ⊕ = GAS GATE VALVE
- UGE = UNDERGROUND ELECRIC SERVICE
- DS ○ = DOWNSPOUT

## PROPOSED GRADING LEGEND

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*2-4-2026 REVISED SITE PLAN, 2-26-2026 REVISED SITE PLAN*
*3-4-2026 REVISED SITE PLAN, 3-11-2026 REVISED SITE PLAN*

SCALE 40
0 10 20
SCALE: 1"=20'

BOUNDARY & TOPOGRAPHICAL SURVEY PERFORMED BY: ARBOR LAND CONSULTANTS, DATED: 4-25-25, JOB NO. 09625.

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PREPARED BY
JOSEPH K. MAYNARD P.E., MICH No. 52559

JOSEPH K. MAYNARD ENGINEER No. 52559 STATE OF MICHIGAN PROFESSIONAL ENGINEER

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TEL. 734-761-8650

WASHTENAW ENGINEERING

CLIENT
SIGMA ZETA HOUSING, LLC
3205 PLAYERS LN
MEMPHIS, TN 38125

PROJECT
805 OXFORD ROAD

SHEET
STORM WATER MANAGMENT DRAINAGE AREA PLAN

SECTION 33 TOWN 2 SOUTH RANGE 6 EAST
CITY OF ANN ARBOR
WASHTENAW COUNTY • MICHIGAN
DATE 10-16-2025
JOB NO. 33191
DWG NO. 191-swm-drn
FIELD BOOK -
FILE NO. 10943
SHEET C9.0

H:\GIS\engr\33191\dwg\191-swm-drn.dwg 09:0, 3/11/2026 10:40:03 AM, kt

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## "BASIN A" STORM WATER MANAGEMENT CALCULATIONS

Standard Method Runoff Volume Work Sheets

Project: 805 Oxford Road
Basin: Underground Detention Basin A
By: Seth Garner, P.E.
Date: 12/5/2025

W1 Determining Post-Development Cover types, Areas, Curve Numbers and Runoff Coefficients

Total Site area = 1.1079 Ac
Onsite Disturbed Site Area = 0.8306 Ac
% Disturbed = 75 %
Total Tributary area Excluding "Self-Crediting" BMPS = 0.7510 Ac

Rational Method Variables

| Cover Type | Soil Type | Proposed Soil Slope | Area (ft2) | Area(acre) | C | Runoff Coefficient (C)(Area) |
|---|---|---|---|---|---|---|
| Impervious | B | | 24,574 | 0.5641 | 0.95 | 0.5359 |
| Pervious | B | <4% | 0 | 0.0000 | 0.25 | 0.0000 |
| Pervious | B | 4%-8% | 0 | 0.0000 | 0.3 | 0.0000 |
| Pervious | B | 8%> | 8,140 | 0.1869 | 0.35 | 0.0654 |
| | | | | | Σ(C)(Area) = | 0.6013 |
| | | | | | Σ(Area) = | 0.7510 |
| | | | | | Weighted C = Σ(C)(Area)/Σ(Area) = | 0.8007 |

NRCS Variables - Pervious Cover

| Cover Type | Soil Type | Area (ft2) | Area(acre) | Curve Number | (CN)(Area) |
|---|---|---|---|---|---|
| Open Space-Good | B | 8,140 | 0.1869 | 61 | 11.40 |
| Open Space-Good | D | 0 | 0.0000 | 80 | 0.00 |
| | | | | Σ(CN)(Area) = | 11.40 |
| | | | | Σ(Area) = | 0.1869 |
| | | | | Weighted CN = Σ(CN)(Area)/Σ(Area) = | 61.01 |

NRCS Variables - Impervious Cover

| Cover Type | Soil Type | Area (ft2) | Area(acre) | Curve Number | (CN)(Area) |
|---|---|---|---|---|---|
| Paved | B | 24,574 | 0.5641 | 98 | 55.29 |
| | | | | Σ(CN)(Area) = | 55.29 |
| | | | | Σ(Area) = | 0.5641 |
| | | | | Weighted CN = Σ(CN)(Area)/Σ(Area) = | 98.01 |

W2 First Flush

Vff = (1")(1'/12")(43560ft3/1ac)AC
A = 0.75 Ac
C = 0.8007
Vff = 2,183 cft

W3 Pre-development Bankfull Runoff Calculation (Vbf-pre)

NRCS Variables - Pervious Cover

| Cover Type | Soil Type | Area (ft2) | Area(acre) | Curve Number | (CN)(Area) |
|---|---|---|---|---|---|
| Meadow | B | 32,714 | 0.7510 | 58 | 43.56 |
| Meadow | D | 0 | 0.0000 | 78 | 0.00 |
| | | | | Σ(CN)(Area) = | 43.56 |
| | | | | Σ(Area) = | 0.7510 |
| | | | | Weighted CN = Σ(CN)(Area)/Σ(Area) = | 58.00 |

Existing Cover Type = Meadow
2year/24 hour storm event P = 2.35 inches
Curve Number for Good Cover Woods or Meadow CN = 58.00
S = (1000/CN) - 10 = 7.241379 inches
Q = (P-0.2S)$^2$/(P+0.8S) = 0.099852 inches
Total Site Area (SF) excluding "Self-Crediting" BMPs Area = 32,714 square feet
Vbf-pre = Q(1/12)Area = 272 ft$^3$

W4 Pervious Cover Post-development Bankfull Runoff Calculation (Vbf-per-post)

2year/24 hour storm event P = 2.35 inches
Pervious Curve Number from W1 = 61.01
S = (1000/CN) - 10 = 6.390756 inches
Q = (P-0.2S)$^2$/(P+0.8S) = 0.153949 inches
Pervious Cover Area from W1 = 8,140 square feet
Vbf-per-post = Q(1/12)Area = 104 ft$^3$

W5 Impervious Cover Post-development Bankfull Runoff Calculation (Vbf-imp-post)

2year/24 hour storm event P = 2.35 inches
Impervious Curve Number from W1 = 98.01
S = (1000/CN) - 10 = 0.203041 inches
Q = (P-0.2S)$^2$/(P+0.8S) = 2.12276 inches
Impervious Cover Area from W1 = 24,574 square feet
Vbf-imp-post = Q(1/12)Area = 4,347 ft$^3$

W6 Pervious Cover Post-development 100-Year Storm Runoff Calculation ($V_{100\text{-per-post}}$)

100year/24 hour storm event P = 5.11 inches
Pervious Curve Number from W1 = 61.01
S = (1000/CN) - 10 = 6.390756 inches
Q = (P-0.2S)$^2$/(P+0.8S) = 1.436333 inches
Pervious Cover Area from W1 = 8,140 square feet
$VV_{100\text{-per-post}}$ = Q(1/12)Area = 974 ft$^3$

W7 Impervious Cover Post-development 100-Year Storm Runoff Calculation ($V_{100\text{-imp-post}}$)

100year/24 hour storm event P = 5.11 inches
Impervious Curve Number from W1 = 98.01
S = (1000/CN) - 10 = 0.203041 inches
Q = (P-0.2S)$^2$/(P+0.8S) = 4.87417 inches
Impervious Cover Area from W1 = 24,574 square feet
$V_{100\text{-imp-post}}$ = Q(1/12)Area = 9,981 ft$^3$

## "BASIN A" STORM WATER MANAGEMENT CALCULATIONS (CONTINUED

W8 Determine Time of Concentration for Applicable Flow Types (Tc-hrs)

| Flow Type | K | Change in Elevation | Length (L) | Slope % (S*100) | $S^{0.5}$ | V=K*$S^{0.5}$ | Tc = L/(V*3600) |
|---|---|---|---|---|---|---|---|
| Sheet Flow* | 0.48 | 0.75 | 24 | 3.13 | 1.77 | 0.85 | 0.01 |
| Waterway | 1.2 | 1.05 | 210 | 0.5 | 0.71 | 0.85 | 0.07 |
| Small Trib. | 2.1 | | | | | | |
| | | | | | Total Tc = | | 0.08 |

*Sheet flow cannot exceed 300 feet. Anything beyond this is considered waterway.

W9 Runoff Summary & Onsite Infiltration Requirement

First Flush Volume Vff = 2,183 ft$^3$
Pervious-Post Development Bankfull Runoff Volume Vbf-per-post = 104 ft$^3$
Impervious Cover Post-Development Bankfull Runoff Volume Vbf-imp-post = 4,347 ft$^3$
Total BF Volume Vbf-post = 4,451 ft$^3$
Pervious - Post Development 100-year Runoff Volume $V_{100\text{-per-post}}$ = 974 ft$^3$
Impervious Cover Post-Development 100-year Runoff Volume $V_{100\text{-imp-post}}$ = 9,981 ft$^3$
Total 100-year Volume $V_{100}$ = **10,955** ft$^3$

Determine Onsite Infiltration Requirement
Subtract the Pre-Development Bankfull from the Post Development Bankfull Volume
Total Post-Development Bankfull Volume Vbf-post = 4,451 ft$^3$
Pre-Development Bankfull Runoff Volume Vbf-pre = 272 ft$^3$
Bankfull Volume Difference = 4,179 ft$^3$

Compare the Bankfull Volume Difference with the First Flush Volume.
The greater of the two is the Onsite Infiltration Requirement.
Onsite Infiltration Requirement $V_{inf}$ = **4,179** ft$^3$

W10 Detention/Retention Requirement

Detention
Peak of Unit Hydrograph Qp=238.6Tc$^{-0.82}$ = 1.893 cfs/in-mi$^2$
Total Site Area (ac) excluding "Self Crediting" BMPs Area = 0.751 ac
$Q_{100}$ = $Q_{100\text{-per}}$ + $Q_{100\text{-imp}}$ = 6.3105036 in
Peak Flow PF =Qp*Q100*Area/640 = 14.01763 cfs
Δ = PF - 0.15 Area = 13.90498 cfs
Vdet = (Δ/PF)*$V_{100\text{-post}}$ = **10,867** ft$^3$

W11 Determine Applicable BMPs and Associated Volume Credits

| Proposed BMP | Infiltration Area (ft2) | Storage Volume (ft3) | Storage Surface Volume Soil (ft3) | Avg Design Infiltration Rate | Infiltration Volume During Storm (ft3) | Total Volume Reduction (ft3) |
|---|---|---|---|---|---|---|
| Porous Pavement w/ Infiltration Bed | | | | | | |
| Infiltration Trench | | | | | | |
| Subsurface Infiltration Bed | | | | | | |
| Structural Infiltration Basin | | | | | | |
| Rain Garden / Bioretention | | | | | | |
| Dry Well | | | | | | |
| Bioswale | | | | | | |
| Vegetated Filter Strip | | | | | | |
| Green Roof | | | | | | |

Total Volume Reduction Credit by Proposed Structural BMPs = 0 ft$^3$
MAXIMUM allowed Volume Reduction Credit (Vdet) = 0 ft$^3$
Runoff Volume Infiltration Requirement (Vinf) from W9 = 4,179 ft$^3$
Runoff Volume Credit = -4,179 ft$^3$

W12 Natural Features Inventory

| Exististing Natural Resources | Mapped (yes,no, n/a) | Total Area (ac) | Protected/ Undisturbed Area (ac) |
|---|---|---|---|
| Waterbodies | N/A | | |
| Floodplains | N/A | | |
| Riparian Areas | N/A | | |
| Wetlands | N/A | | |
| Woodlands | N/A | | |
| Natural Drainage Area | N/A | | |
| Steep Slopes, 15%-25% | N/A | | |
| Steep Slopes, over 25% | N/A | | |
| Special Habitat Areas | N/A | | |
| Other | N/A | | |
| Total Existing (ac) | | 0 | |

W13 Summary

A. Storm Water Management Summary

Minimum Onsite Infiltration Requirement, Vinf = 4,179 cft
Designed/Provided BMP Volume = 0 cft
% Minimum Required Infiltration Provided = 0 %
Total Calculated Detention Volume, Vdet = 10,867 cft
Net Required Detention Volume
(Vdet - Designed/Provided Infiltration Volume) = 10,867 cft
B. Detention Volume Increase for sites where the required infiltration cannot be achieved.
% Required Infiltration NOT provided
(100%-%Minimum Required Infiltration Provided) 100 %
Net % Penalty
(20% x %Required Infiltration NOT Provided) 20 %
Total Required Detention Volume, including penalty
[(100% + Net % Penalty) x Net Required Detention Volume)] 13,040 cft

## "BASIN A" STORM WATER STORAGE CALCULATIONS

**UNDERGROUND DETENTION BASIN "A" CALCULATIONS**
**PROJECT NAME: 805 Oxford Rd.** **Date:** 12/5/2025
**Design By: Seth Garner, P.E.**

**100 YEAR FLOOD VOLUME STORAGE**
V100 = 13040 cft

**BANKFULL FLOOD VOLUME:**
Vbf = 4451

**FIRST FLUSH VOLUME**
Vff = 2183 cf

**STORAGE ANALYSIS**

| | Pond Area Elevation | Area A | Vol A (cft) | Cumulative Vol (cft) |
|---|---|---|---|---|
| | 883.41 | 3749 | 3307 | 18755 |
| | 882.41 | 3750 | 1356 | 15448 |
| | 892 | 3750 | 3308 | 14092 |
| | 891 | 3750 | 3308 | 10784 |
| | 890 | 3750 | 3308 | 7476 |
| | 889 | 3750 | 3308 | 4168 |
| | 888 | 3750 | 860 | 860 |
| Xbot | 887.74 | 3750 | 0 | 0 |
| | | TOTAL VOLUME (A) | 18755 | CF |

Storage Elev Calc: First Flush (Xff) = 888.40
Storage Elev Calc: Bankfull (Xbf) = 889.09
Storage Elev Calc: 100 year X100 = 891.68

**OUTLET CONTROL STRUCTURE DESIGN**

**FIRST FLUSH:**
**Calculate Allowable Release Rate for First Flush Runoff (Vff)**
Qff = Vff/((24 hrs)*(3600 s/hr))
Qff = 0.025 cfs
**Calculate Average Head for First Flush Runoff**
*assume trapezoidal cross section
H(average) = 2/3*(Xff-Xbot)
H(average) = 0.44 ft
**Calculate Orifice Area Required for First Flush Discharge**
Aff= Qff/(0.62*(2*g*hf)^.5)
Aff = 0.0076 sft
**Calculate # of Orifice Openings**
Orifice Diam. = 1 1/8 inches
Area = 0.00902908 sft
# openings = Aff/(Area of orifice)
# openings = 1.09
**# openings required =** 1.00
Total Area of orifice = 0.00990 sft
**Calculate Detention Time for Orifice Openings**
Qff(new) = Aff(0.62)(2*g*Have)^.5
Qff(new) = 0.023 cfs
Tff(new) = Vff/Qff(new)
Tff(new) = 94913.04348 sec
**Tff(new) =** 26.36 **hours**
**> 24 hour minimum time for discharge**

**BANKFULL FLOOD**
**Check FF Orifice to Determine Whether Adequate for BF Discharge in Allowable T(36<Tf<48 hrs)**
**Calculate Average Head for First Flush Runoff Orifice**
*assume trapezoidal cross section
H(average) = 2/3*(Xbf-Xbot)
H(average) = 0.90 ft

**Calculate Q Utilizing First Flush Orifice**
Qbf = Aff(0.62)(2*g*Hbf)^.5
Qbf = 0.033 cfs
**Calculate Time for Bankfull Discharge (36 hrs< Tbf < 48 hrs)**
Tbf = Vbf/Qbf
Tbf = 134878.79 sec
Tbf = 37.5 hours
**Determine Additional Orifice Required for Bankfull Discharge Within 48 hrs**
T(target) = 36 hrs
V(remaining) = Vbf - Vff
V(remaining) = 2268 cf
T(remaining) = T(target) - Tff
T(remaining) = 11.6 hrs
**Calculate Q and V for Remaining Time**
Hbf = 2/3(Xbf-Xff)+(Xff-Xbot)
Hbf = 1.12 ft
Qbf+ff = 0.62*Aff*(2*g*Hbf)^.5
Qbf+ff = 0.0364 cfs
V = T(remaining)*Qbf+ff
V = 1524 cft
**Calculate Discharge Volume for Bankfull Orifice**
Vbfo = Vrem - V
Vbfo = 744 cft
Qbfo = Vbfo/Trem
Qbfo = 0.01776 cfs
Hbf = 2/3(Xbf - Xff)
Hbf = 0.46900 ft
Abf = Qbf/(0.62*(2*g*hf)^.5)
Abf = 0.00526 sft
**Calculate # of Orifice Openings**
Orifice Diam. = 7/8 inches
Area of orifice = 0.00418 sft
**Calculate # of Orifice Required**
# = 1.2604
**# openings required =** 1.00
Total Area of orifice = 0.00418 sft
**Check Time for Bankfull Discharge (36 hrs< Tbf < 48 hrs)**
Qbfo = 0.62*Abf*(2*g*Hbf)^.5
Qbfo = 0.01409 cft
Tbf = Tff(new)+Vrem/((Qbf+ff + Qbfo)*(3600sec/1hr))
Tbf = 38.8 hrs

**100 YEAR FLOOD**
Maximum Allowable Flow = Qa
Qa = 0.15 * Total Area Tributary to Basin(acres)
Qa = 0.15 * 0.751
Qa = 0.113 cfs
**Calculate Q100 (flow not accomodated by FF or BF orifice under 100 year conditions)**
Hbf = X100-Xff
Hbf = 3.3 ft
Hff = X100-Xbot
Hff = 3.8 ft
Qff + Qbf = (0.62)(Aff)(2gHff)^.5 + (0.62)(Abf)(2gHbf)^.5
Qff + Qbf = 0.1058 cfs
**Calculate Q100**
Q100 = Qa - (Qff +Qbf)
Q100 = 0.007 CFS
**Calculate Orifice Area required to Discharge Q100**
H100 = X100-Xbf
H100 = 2.6 ft
Atot = Q100/(0.62(2*g*H100)^.5)
Atot = 0.00090 sft
**Calculate # of Orifice Openings**
Orifice Diam. = 7/8 inches
Area of orifice = 0.00418 sft
**Calculate # of Orifices Needed**
# Orifice = Atot/(Area of Orifice)
# Orifice = 0.22
**# openings required =** 0.00
**Check allowable flow rate is not exceeded.**
Qact = Qbf + Qbf + 0.62*Norifice*Aorifice*(2gH100)^0.5
Qact = 0.106 cfs
**Check Time for 100-year Storm Discharge (T100 < 72 hrs)**
**Discharge through ff orifices**
Hall = 2/3(X100-Xbf)+(Xbf-Xbot)
Hall = 3.09 ft
Qall = (0.62)(#ffonf)(Affonf)(2gHall)^0.5
Qall = 0.060 cfs
**Discharge through Bf orifices**
Hbf = 2/3(X100-Xbf)+(Xbf-Xff)
Hbf = 2.42 ft
Qbf+100 = (0.62)(#Bfonf)(Abfonf)(2gHbf)^0.5
Qbf+100 = 0.032 cfs
**Discharge through 100yr orifices**
H100 = 2/3(X100-Xbf)
H100 = 1.73 ft
Q100 = (0.62)(#100onf)(A100onf)(2gH100)^0.5
Q100 = 0.000 cfs
**Time to Discharge**
Vrem = V100-Vbf
Vrem = 8589 cft
T100 = Tbf + Vrem/((Qall + Qbf+100 +Q100)*(3600sec/1hr))
T100 = 64.73 hrs

ORIFICE TABLE

| CALCULATED ELEVATION | ORIFICE # | DIAM. (IN) |
|---|---|---|
| 887.74 | 1 | 1 1/8 |
| 888.40 | 1 | 7/8 |
| 889.09 | 0 | 7/8 |

## FIRST FLUSH CALCULATIONS

StormTrap | SIGMA ZETA HOUSING, ANN ARBOR, MI, WASHTENAW ENGINEERING, 9/10/2025 | StormSettler

**StormSettler Design Overview** Designer: BAH

**Design Criteria**
Authority Having Jurisdiction: City of Ann Arbor
Removal Requirement: Pretreatment (50% TSS)

**Sizing Overview**
The StormSettler treatment device, manufactured by StormTrap, is a highly efficient stormwater treatment settling device that improves the quality of stormwater runoff. StormSettler is the first hydrodynamic separator in the stormwater industry to utilize tube settling packs and upflow patterns to promote settlement and capture of sediments. Designed using computational fluid dynamics and extensive laboratory testing, StormSettler utilizes flow modifiers and tube settlers for effective treatment. The StormSettler is NJCAT verified for 80% TSS removal of OK-110 and is certified by NJDEP for 50% TSS removal following the 2021 protocol.

The StormSettler(s) below were designed based on the water quality flow rate provided by the engineer of record.

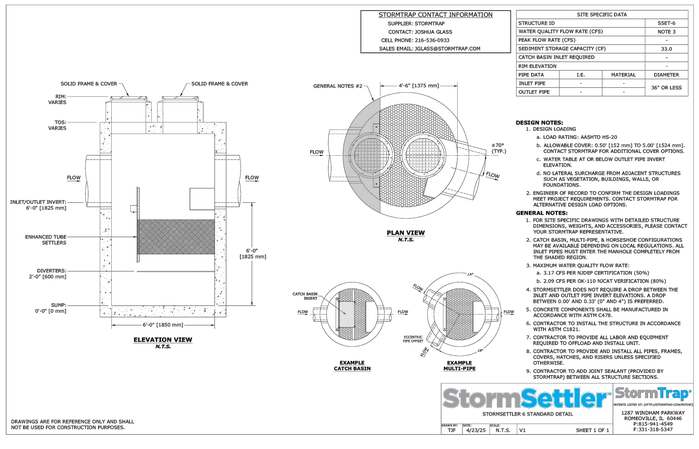
| Structure ID | Water Quality Flow Rate (CFS) | StormSettler Model | MTFR for 50% NJDEP (CFS) |
|---|---|---|---|
| R7 | 0.72 | SSet-6 | 3.17 |

**Maintenance**
StormSettler requires regular inspection and maintenance to ensure optimal performance, similar to other stormwater treatment best management practices. StormSettler's maintenance frequency is site dependent and routine inspections are recommended to ensure that the system is functioning as designed. Inspection and maintenance without the need to enter the unit ensures efficient, worry-free functionality of StormTrap water quality solutions. Please contact your authorized StormTrap representative if you have questions regarding the inspection and maintenance of the StormSettler system.

Sincerely,
Joshua Glass
Territory Manager - MI, OH
jglass@stormtrap.com
(216) 536-0933

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## SEDIMENT/FIRST FLUSH TREATMENT UNIT DETAIL
(NOT TO SCALE)




## DRAINAGE NARRATIVE

THE EXISTING SITE IS LOCATED IN THE CITY OF ANN ARBOR ON THE EAST SIDE OF OXFORD RD. BETWEEN HILL ST. AND WASHTENAW AVE. IT IS CURRENTLY DEVELOPED. THE EXISTING BUILDING AND SITE WILL BE DEMOLISHED AND A NEW BUILDING, PARKING LOT AND ONSITE STORM WATER MANAGEMENT SYSTEM ARE PROPOSED. THE EXISTING SITE DRAINS FROM A HIGH POINT AT THE NORTH EAST CORNER TOWARDS THE FRONT OF THE PROPERTY AND DISCHARGES INTO OXFORD RD. OXFORD RD. GOES NORTH FROM THIS POINT TO HILL ST. WHICH THEN GOES TO WASHTENAW AVE. AND EVENTUALLY DISCHARGES TO MALLETS CREEK DRAIN.

THE SOILS ONSITE ARE HYDROLOGIC TYPE B SOILS. HOWEVER, THE SOILS INVESTIGATION BY MATERIALS TESTING CONSULTANTS (MTC) DATED JUNE 2025, MTC PROJECT NO. 251443 DOES NOT SHOW ANY AREAS SUITABLE FOR INFILTRATION.

IT IS PROPOSED TO USE AN UNDERGROUND DETENTION BASIN TO DETAIN THE 100 YEAR STORM EVENT BEFORE DISCHARGING TO OXFORD RD. AS PART OF THIS PROJECT, A STORM SEWER CONNECTION IN OXFORD ROAD TO HILL ST. WILL BE CONSTRUCTED SO AS TO FOLLOW THE EXISTING DRAINAGE PATTERNS.

THE STORM WATER WILL HAVE A PRETREATMENT UNIT TO REMOVE THE FIRST FLUSH SEDIMENT AND DEBRIS PRIOR TO ENTERING THE UNDERGROUND DETENTION BASIN.

THE EDGES OF THE PROPERTY WILL REMAIN UNCHANGED AND CONTINUE TO FLOW FOLLOWING EXISTING DRAINAGE PATTERNS.

THE EMERGENCY OVERFLOW FOR THE SITE WILL OVERLAND FLOW TO OXFORD RD. NO DETRIMENT TO THE DOWNSTREAM PROPERTIES IS EXPECTED FROM THIS PROJECT.

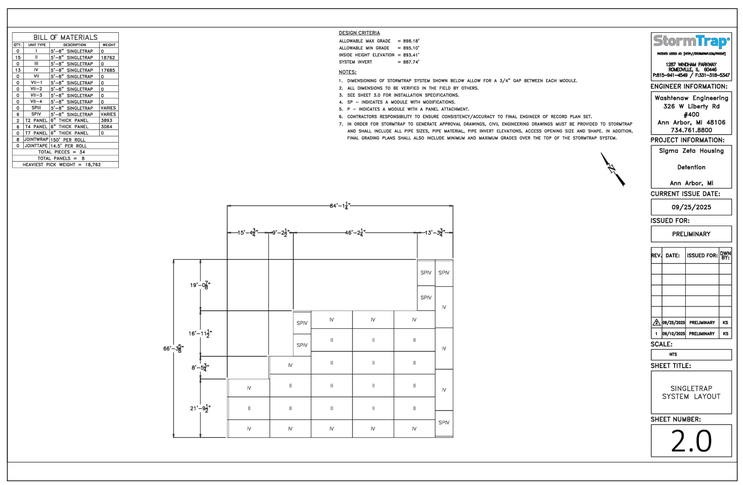
THE OWNER SHALL NOT USE OR AUTHORIZE ANY OTHER PERSON TO USE THE DRAWINGS, SPECIFICATIONS, ELECTRONIC DATA AND OTHER INSTRUMENTS OF SERVICE ON OTHER PROJECTS, FOR ADDITIONS TO THIS PROJECT OR FOR COMPLETION OF THE PROJECT BY OTHERS SO LONG AS WASHTENAW ENGINEERING COMPANY (WECO) IS NOT ADJUDGED TO BE IN DEFAULT UNDER THIS AGREEMENT. EXCEPT AS OTHERWISE PROVIDED IN THE AGREEMENT BETWEEN OWNER AND WECO, THE OWNER SHALL INDEMNIFY AND HOLD HARMLESS WECO, WECO'S CONSULTANTS AND AGENTS AND EMPLOYEES OF ANY OF THEM FROM AND AGAINST CLAIMS, DAMAGES, LOSSES AND EXPENSES, INCLUDING BUT NOT LIMITED TO ATTORNEYS' FEES, ARISING OUT OF OR RESULTING FROM THE REUSE, ADAPTATION OR MODIFICATION OF DRAWINGS, SPECIFICATIONS, ELECTRONIC DATA OR OTHER INSTRUMENTS OF SERVICE.

BILL OF MATERIALS

| QTY. | UNIT TYPE | DESCRIPTION | WEIGHT |
|---|---|---|---|
| 0 | I | 2'-6" SINGLETRAP | 0 |
| 15 | II | 2'-6" SINGLETRAP | 1878 |
| 0 | III | 2'-6" SINGLETRAP | 0 |
| 13 | IV | 2'-6" SINGLETRAP | 1785 |
| 0 | V1 | 2'-6" SINGLETRAP | 0 |
| 0 | V1-I | 2'-6" SINGLETRAP | 0 |
| 0 | V1-II | 2'-6" SINGLETRAP | 0 |
| 0 | V1-III | 2'-6" SINGLETRAP | 0 |
| 0 | V1-IV | 2'-6" SINGLETRAP | 0 |
| 6 | SPIV | 2'-6" SINGLETRAP | VARIES |
| 6 | SPIV | 2'-6" SINGLETRAP | VARIES |
| 2 | T2 PANEL 8" THICK PANEL | | 3863 |
| 6 | T4 PANEL 16" THICK PANEL | | 3264 |
| 0 | T7 PANEL 28" THICK PANEL | | 0 |
| 8 | JOINTWRAP | 100' PER ROLL | |
| 0 | JOINTAPE | 16.5' PER ROLL | |
| | TOTAL PIECES = | 34 | |
| | TOTAL PANELS = | 8 | |
| | HEAVIEST PICK WEIGHT = | 1878 | |

DESIGN CRITERIA
ALLOWABLE MAX GRADE = 898.18'
ALLOWABLE MIN GRADE = 895.10'
INSIDE HEIGHT ELEVATION = 893.41'
SYSTEM INVERT = 887.74'

NOTES:
1. DIMENSIONING OF STORMTRAP SYSTEM SHOWN BELOW ALLOW FOR A 3/4" GAP BETWEEN EACH MODULE.
2. ALL DIMENSIONS TO BE VERIFIED IN THE FIELD BY OTHERS.
3. SEE SHEET 3.0 FOR INSTALLATION SPECIFICATIONS.
4. • - INDICATES A MODULE WITH MODIFICATIONS.
5. P - INDICATES A MODULE WITH A PANEL ATTACHMENT.
6. CONTRACTOR RESPONSIBILITY TO ENSURE CONSISTENCY/ACCURACY TO FINAL ENGINEER OF RECORD PLAN SET.
7. IN ORDER FOR STORMTRAP TO GENERATE APPROVAL DRAWINGS, CIVIL ENGINEERING DRAWINGS MUST BE PROVIDED TO STORMTRAP AND SHALL INCLUDE ALL PIPE SIZES, PIPE MATERIAL, PIPE INVERT ELEVATIONS, ACCESS OPENING SIZE AND SHAPE. IN ADDITION, FINAL GRADING PLANS SHALL ALSO INCLUDE MINIMUM AND MAXIMUM GRADES OVER THE TOP OF THE STORMTRAP SYSTEM.



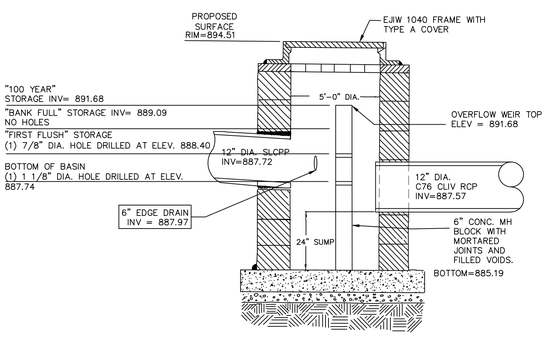

StormTrap | 1287 WINDHAM PARKWAY ROMEOVILLE, IL 60446 P:815-941-4549 / F:351-318-5347
ENGINEER INFORMATION:
Washtenaw Engineering 326 W. Liberty Rd #400 Ann Arbor, MI 48106 734.761.8800
PROJECT INFORMATION:
Sigma Zeta Housing
Detention
Ann Arbor, MI
CURRENT ISSUE DATE:
09/25/2025
ISSUED FOR:
PRELIMINARY

| REV. | DATE: | ISSUED FOR: | DRN BY: |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| 2 | 09/25/2025 | PRELIMINARY | KS |
| 1 | 09/10/2025 | PRELIMINARY | KS |

SCALE: NTS
SHEET TITLE: SINGLETRAP SYSTEM LAYOUT
SHEET NUMBER: 2.0

## UNDERGROUND DETENTION BASIN LAYOUT PLAN

R1C = SINGLE-FAMILY DWELLING
R2A & R2B = TWO-FAMILY DWELLING




USE CITY OF ANN ARBOR STANDARD MANHOLE DETAIL

## R4 OUTLET CONTROL STRUCTURE DETAIL
(NOT TO SCALE)

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

BOUNDARY & TOPOGRAPHICAL SURVEY PERFORMED BY: ARBOR LAND CONSULTANTS, DATED: 4-25-25, JOB NO. 09625.

STATE OF MICHIGAN JOSEPH K. MAYNARD ENGINEER No. 52559 REGISTERED PROFESSIONAL ENGINEER

## LEGEND

- LIGHT POLE
- UTILITY POLE
- GUY ANCHOR
- HYDRANT
- SPOT ELEV.
- POST
- GATE VALVE
- SIGN
- TC = TOP OF CURB
- TW = TOP OF WALL
- MANHOLE
- CATCHBASIN
- END SECTION
- GRAVEL
- FENCE
- CONCRETE
- ASPHALT
- EXISTING STORM
- EXISTING SANITARY
- EXISTING WATER
- EXISTING GAS
- EXISTING ELECTRIC
- EXISTING TELEPHONE

**BENCHMARK** *BM2000=SET SPIKE IN SE FACE OF UTILITY POLE ON NW SIDE OF OXFORD, SOUTH OF DRIVE TO 810 OXFORD RD, ELEV=891.46 (NAVD 88).*
*BM2001=SET SPIKE IN E FACE OF UTILITY POLE ON NW SIDE OF OXFORD, SOUTH OF DRIVE TO 800 OXFORD RD, ELEV=894.70 (NAVD 88).*
*BM2002=TOP NUT ON HYDRANT, EASTERLY OF DRIVE TO 1705 HILL ST AND NORTHERLY OF HILL ST, ELEV=890.27 (NAVD 88).*

**REVISIONS** *12-05-2025 REVISED SITE PLAN, 1-19-2026 REVISED SITE PLAN*
*2-4-2026 REVISED SITE PLAN, 2-26-2026 REVISED SITE PLAN*
*3-4-2026 REVISED SITE PLAN, 3-11-2026 REVISED SITE PLAN*

SCALE: NO SCALE

PREPARED BY: JOSEPH K. MAYNARD P.E., MICH No. 52559

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PLANNERS + SURVEYORS
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WASHTENAW ENGINEERING

CLIENT: SIGMA ZETA HOUSING, LLC
3205 PLAYERS LN
MEMPHIS, TN 38125

PROJECT: 805 OXFORD ROAD

SHEET: STORM WATER MANAGEMENT CALCULATIONS 'BASIN A'

SECTION 33 TOWN 2 SOUTH RANGE 6 EAST
CITY OF ANN ARBOR
WASHTENAW COUNTY • MICHIGAN
DATE 10-16-2025 JOB NO. 33191 DWG NO. 191-swm-calc FIELD BOOK - FILE NO. 10943
SHEET C9.1

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# ANN ARBOR FIRE DEPARTMENT

**FIRE PREVENTION BUREAU**
111 North Fifth Avenue, Ann Arbor, Michigan 48104-1405
(734) 794-6961 - a2gov.org/fire
Serving Since 1889

## Hydrant Flow Test Report

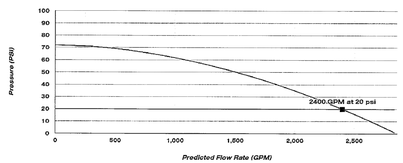
Date: 09-26-2025
Time: 11:30 AM
Location: 1705 Hill St
Performed By: Inspector Atkins & Inspector Brown

Read Hydrant #02-04816
Static Pressure: 72 PSI
Residual Pressure: 56 PSI

Flow Hydrant #02-00163
Flow PSI: 11 PSI
Flow GPM: 1270 GPM
GPM at 20 psi: 2400 GPM
Note: (HMBB4 Chart Used – for Hose Monster)

Flow test completed with Hose Monster HMBB4 unit.
Calculations performed by Hose Monster calculator.

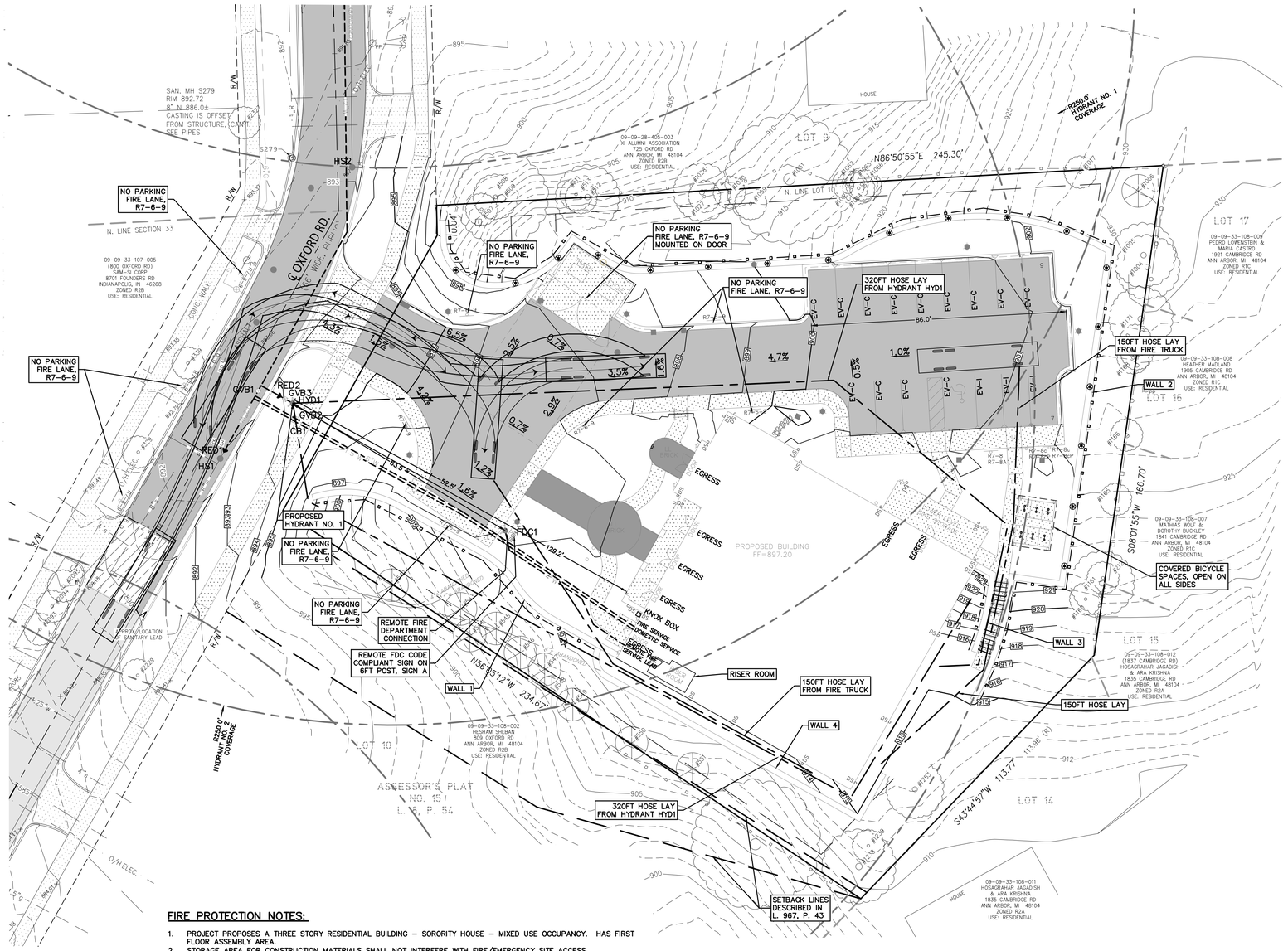


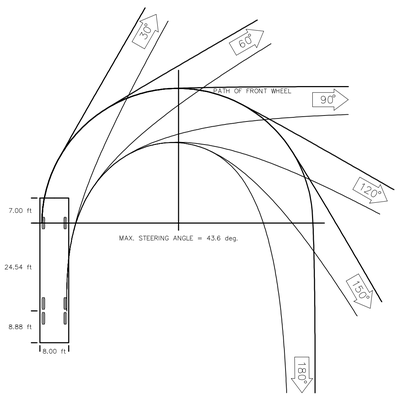






THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING RECORDS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER AB-SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE SURVEYOR DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

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### ANN ARBOR FIRE TRUCK




| | feet |
|---|---|
| Width | : 8.00 |
| Track | : 6.91 |
| Lock to Lock Time | : 6.00 |
| Steering Angle | : 45.00 |




### FIRE PROTECTION NOTES:

1. PROJECT PROPOSES A THREE STORY RESIDENTIAL BUILDING – SORORITY HOUSE – MIXED USE OCCUPANCY. HAS FIRST FLOOR ASSEMBLY AREA.
2. STORAGE AREA FOR CONSTRUCTION MATERIALS SHALL NOT INTERFERE WITH FIRE/EMERGENCY SITE ACCESS.
3. HYDRANTS SHALL BE IN SERVICE DURING CONSTRUCTION.
4. HYDRANTS PROVIDING PROTECTION COVERAGE FOR THE BUILDING SHALL BE IN SERVICE AND APPROVED BY BOTH ENGINEERING BEFORE FIRE DEPARTMENT WILL SUPPORT PERMIT ISSUANCE FOR NEW CONSTRUCTION PHASE AND BEFORE COMBUSTIBLE MATERIAL ARE PLACED ON THE JOB SITE.
5. LANDSCAPING SHALL NOT BE PLANTED WITHIN A 3' RADIUS OF THE FDC OR THE HYDRANTS.
6. FDC CONNECTION SHALL FALL WITHIN THE 100' MAXIMUM DISTANCE FOR A SUPPORTING HYDRANT. PROJECT PROPOSES A REMOTE FDC TO SUPPORT THE MAXIMUM DISTANCE.
7. A HORN/STROBE DEVICE SHALL BE INSTALLED ABOVE THE FDC THAT ACTIVATES UPON WATER FLOW IN THE AUTOMATIC SPRINKLER SYSTEM.
8. KNOX BOX SHALL BE MOUNTED ON AN EXTERIOR LOCATION FOR EMERGENCY ACCESS TO THE BUILDING BETWEEN 5' AND 6' HIGH.
9. BUILDING WILL MEET NFPA 13 FIRE PROTECTION.
10. SEE ARCHITECTURAL SHEET FOR STREET ADDRESS LOCATIONS.
11. BUILDING DOES NOT CONTAIN ANY FIRE WALLS.
12. NO PUMP ROOM.
13. AS A FREESTANDING FDC IS PROPOSED AS PART OF THIS PROJECT IT MUST BE COMPLIANT WITH IFC, MBC & NFPA CODES FOR A FREESTANDING FDC FOR PROPER FREEZE PROTECTION, ACCESS AND SIGNAGE.
14. ALL AREAS OF PAVED FIRE LANE ACCESS CAN NOT HAVE ANY AREAS THAT EXCEED 10% GRADE FOR FIRE APPARATUS ANGLE OF APPROACH FOR AERIAL OPERATIONS. THE DRIVE LANE AND ALL PARKING SPACES MEET THIS REQUIREMENT.

HYDRANT LOCATIONS

- EXISTING HYDRANT AT THE NORTHEAST CORNER OF OXFORD RD AND WASHTENAW AVE.
- EXISTING HYDRANT 86'± NORTH OF THE NORTH PROPERTY LINE OF 805 OXFORD RD.
- EXISTING HYDRANT AT THE SOUTHEAST CORNER OF OXFORD RD AND HILL ST.
- PROPOSED HYDRANT IN FRONT OF 805 OXFORD RD.
- BUILDING IS UNDER 30' IN HEIGHT TO MIDPOINT OF ROOF.

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

BOUNDARY & TOPOGRAPHICAL SURVEY PERFORMED BY: ARBOR LAND CONSULTANTS, DATED: 4-25-25, JOB NO. 09625.

**LEGEND**

☆ = LIGHT POLE
⊙ = UTILITY POLE
▽ = GUY ANCHOR
◇ = HYDRANT
SPOT ELEV. = SPOT ELEV.
UP = POST
⊗ = GATE VALVE
⊸ = SIGN
TC = TOP OF CURB
TW = TOP OF WALL
○ = MANHOLE
□ = CATCHBASIN
◡ = END SECTION
= GRAVEL
= FENCE
= CONCRETE
= ASPHALT
= EXISTING STORM
= EXISTING SANITARY
= EXISTING WATER
= EXISTING GAS
= EXISTING ELECTRIC
= EXISTING TELEPHONE

**BENCHMARK** *BM2000=SET SPIKE IN SE FACE OF UTILITY POLE ON NW SIDE OF OXFORD, SOUTH OF DRIVE TO 810 OXFORD RD, ELEV=891.46 (NAVD 88).*
*BM2001=SET SPIKE IN E FACE OF UTILITY POLE ON NW SIDE OF OXFORD, SOUTH OF DRIVE TO 800 OXFORD RD, ELEV=894.70 (NAVD 88).*
*BM2002=TOP NUT ON HYDRANT, EASTERLY OF DRIVE TO 1705 HILL ST AND NORTHERLY OF HILL ST, ELEV=890.27 (NAVD 88).*

**REVISIONS** *12-05-2025 REVISED SITE PLAN, 1-19-2026 REVISED SITE PLAN*
*2-4-2026 REVISED SITE PLAN, 2-26-2026 REVISED SITE PLAN*
*3-4-2026 REVISED SITE PLAN, 3-11-2026 REVISED SITE PLAN*

**SCALE** 0 10 20 40
SCALE: 1"=20'

PREPARED BY _____
JOSEPH K. MAYNARD P.E., MICH No. 52559

JOSEPH K. MAYNARD ENGINEER No. 52559 STATE OF MICHIGAN REGISTERED PROFESSIONAL ENGINEER

CIVIL ENGINEERS
PLANNERS • SURVEYORS
LANDSCAPE ARCHITECTS
3526 W. LIBERTY RD
SUITE 400
ANN ARBOR, MI 48103
TEL: 734-761-8500

WASHTENAW ENGINEERING

CLIENT
*SIGMA ZETA HOUSING, LLC*
*3205 PLAYERS LN*
*MEMPHIS, TN 38125*

# FIRE PROTECTION PLAN

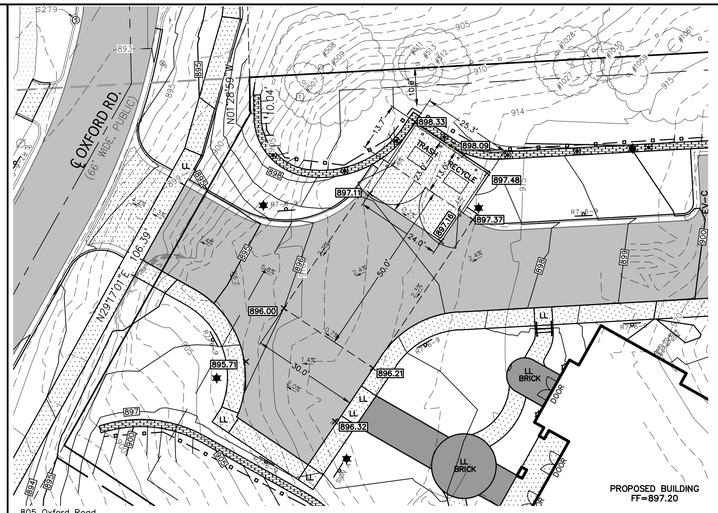
PROJECT
**SIGMA ZETA HOUSING, LLC.**
**805 OXFORD ROAD**

SECTION 33 TOWN 2 SOUTH RANGE 6 EAST
CITY OF ANN ARBOR
WASHTENAW COUNTY • MICHIGAN
DATE 10-16-2025 JOB NO. 33191
DWG NO. 191-fire
FIELD BOOK –
FILE NO. 10943

SHEET
C10.0

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THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING RECORDS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER ABANDONED OR IN USE. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. THE SURVEYOR DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.




805 Oxford Road
Solid Waste
January 2026

## SOLID WASTE NARRATIVE

The project will be a sorority house with the maximum occupancy of 47 beds. At the current location that the sorority house operates they have service pick up twice a week and expect this location to be the same. This project will be providing an enclosure for two 6-yard dumpsters. One will be used for trash and the second one will be used for recycling. Both dumpsters will be non-compacting style.

## REQUIREMENTS OF CITY SERVICES

i. Pursuant to the City's Solid Waste Regulations, Residential Dumpster Customers receive refuse collection once per week either by the City of by by the City's Franchised Hauler. Additional dumpster service is at the expense of the Residential Dumpster Customer and is billed by the Franchise Hauler.

ii. Pursuant to the City's Solid Waste Regulations, Residential Dumpster Customers are responsible for maintaining any enclosures and/or gates for Solid Waste Containers. Residential Dumpster Customers must ensure that all enclosures and/or gates are open and accessible for collection before the collection time.

## REQUIREMENTS OF OWNERS

The project will have a house director that will be staying at the property. The House Director will be responsible for the following items as it relates to City solid waste pick up services:

1. House Director will enforce the 'No Parking'requirements for City staff to access the enclosure.
2. House Director will inform the residents of proper sorting and use of the enclosure and placement of materials within the bins.
3. House Director will ensure bin doors are closed when not in use and ensure doors and enclosure are maintained in proper working order.
4. House Director will ensure that the access drive and dedicated turn around area are kept clean, stable and free of snow and ice to provide access to all waste containers.

## SOLID WASTE CALCULATIONS

- Project proposes to have a total of 23 bedrooms or 47 beds
- Waste generated is expected at 4 lbs/bedroom/day
  47 beds x 4 lbs/bedroom/day = 188 lbs/day
  188 lbs/day x 7 days/week = 1316 lbs/week

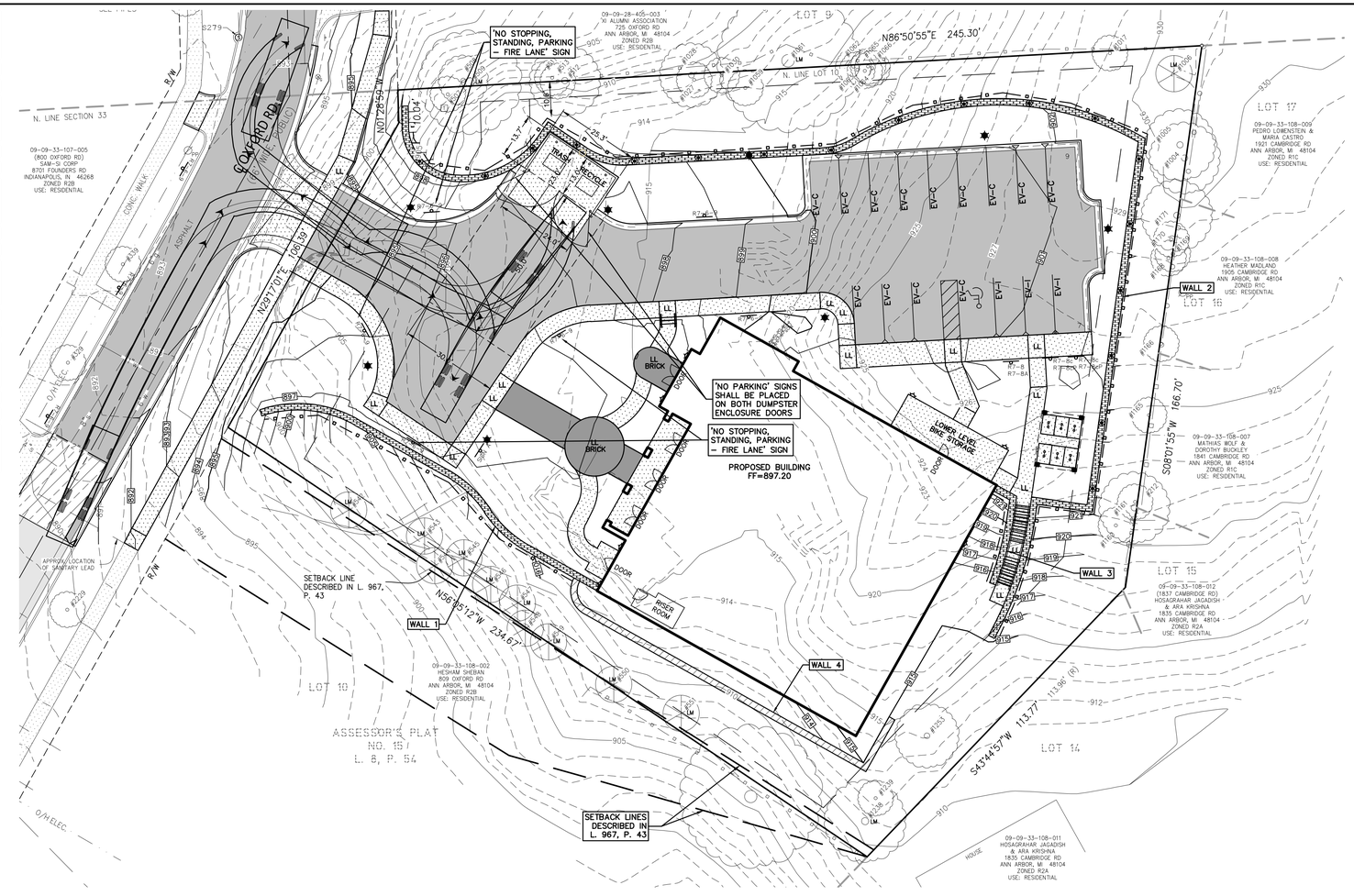
1. Trash generation: 1316 lbs/week x 80% = 1053 lbs/week divided by 225 lbs/cubic yard uncompacted trash = 4.68 cubic yards uncompacted trash/week (one 6 cubic yard dumpster per week).
2. Recycle generation: 1316 lbs/week x 20% = 263 lbs/week divided by 100 lbs/cubic yard uncompacted recycling = 2.63 cubic yards uncompacted recycling/week (one 4 cubic yard recycle dumpster per week).

## ADDITIONAL NOTES

1. The pavement surface for the access drive route and enclosure will be designed for the weight of the solid waste vehicles at 79,500 GVWR.
2. The City compost program does not currently extend to multi-family or commercial developments therefore space for this has not been added to the plans.
3. All 'No Parking'signs as shown on the plan must be maintained to facilitate solid waste collection services.

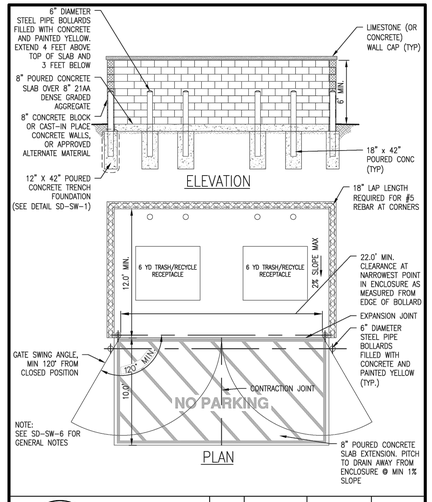
NO STOPPING STANDING PARKING FIRE LANE

R7-6-9
12"x18"




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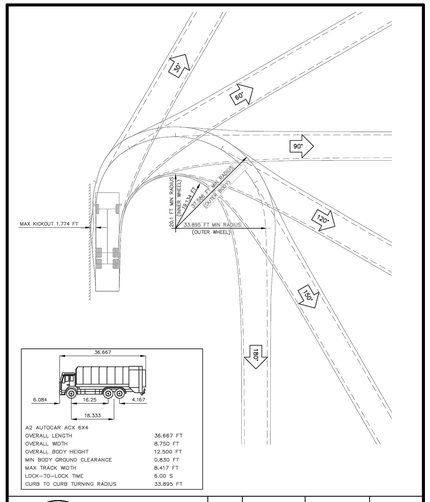



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734-794-6410
www.a2gov.org

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| | | | |

**DOUBLE BIN ENCLOSURE**

| DR. ENG | CH. ENG | DRAWING NO. |
|---|---|---|
| SCALE N.T.S. | DATE 12/8/2023 | SD-SW-2 |




| | |
|---|---|
| A2 AUTOCAR ACX 6X4 | |
| OVERALL LENGTH | 36.667 FT |
| OVERALL WIDTH | 8.750 FT |
| OVERALL BODY HEIGHT | 12.500 FT |
| MIN BODY GROUND CLEARANCE | 0.830 FT |
| MAX TRACK WIDTH | 8.417 FT |
| LOCK-TO-LOCK TIME | 6.00 S |
| CURB TO CURB TURNING RADIUS | 33.895 FT |

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|---|---|---|---|
| | | | |

**SWEPT PATH REQUIREMENTS FOR FRONT LOAD SOLID WASTE VEHICLE**

| DR. ENG | CH. ENG | DRAWING NO. |
|---|---|---|
| SCALE N.T.S. | DATE 12/8/2023 | SD-SW-4 |

1. MAINTAIN A CLEAR SPACE DIRECTLY IN FRONT OF THE SOLID WASTE ENCLOSURE. THE CLEAR SPACE SHALL BE A MINIMUM OF FIFTY (50) FEET LONG BY THE WIDTH OF THE INSIDE DIMENSION (I.D.) OF THE ENCLOSURE WALLS PLUS FOUR (4) FEET ON EACH SIDE. A MINIMUM VERTICAL CLEARANCE OF AT LEAST TWENTY-FIVE (25) FEET MUST BE PROVIDED ABOVE THIS AREA.
2. INGRESS AND EGRESS ROUTES MUST BE DEVELOPED BASED ON SOLID WASTE SWEPT PATH REQUIREMENTS PER SD-SW-4. A MINIMUM HORIZONTAL CLEARANCE OF FOUR (4) FEET FROM THE EDGE OF THE SWEPT PATH AND A MINIMUM VERTICAL CLEARANCE OF AT LEAST FIFTEEN (15) FEET MUST BE PROVIDED ALONG THE ENTIRE SOLID WASTE COLLECTION ROUTE.
3. PROVIDE TEN (10) FEET MINIMUM HORIZONTAL CLEARANCE FROM SOLID WASTE ENCLOSURE TO MAJOR ELECTRICAL EQUIPMENT, ABOVE GROUND UTILITY SERVICES, AND EDGE OF OVERHEAD OBSTRUCTIONS SUCH AS TREE BRANCHES, BALCONIES, AND OVERHANGS.
4. IF FORWARD ACCESS TO THE PUBLIC STREET IS NOT AVAILABLE FOR THE SOLID WASTE VEHICLE, THE SITE DEVELOPMENT LAYOUT MUST ACCOMMODATE A TURN-AROUND LOCATION MEETING REQUIREMENTS WITHIN SOLID WASTE REFERENCE SPECIFIC TURN-AROUND DETAIL (SD-SW-5) AND ACCEPTABLE TO THE PSAA.
5. FOR SITES THAT CANNOT ACCOMMODATE A TURN-AROUND, THE FOLLOWING ADDITIONAL REQUIREMENTS MUST BE MET:
   - 5.1. SOLID WASTE VEHICLES MUST BE ABLE TO SERVICE DUMPSTERS WITHOUT IMPEDING THE PUBLIC STREET OR SIDEWALK.
   - 5.2. THE COLLECTION LOCATION SHALL BE CLEARLY DELINEATED AND NOT HAVE A SLOPE GREATER THAN 2% IN ANY DIRECTION.
   - 5.3. BOLLARDS OR ADEQUATE CLEAR SPACE MUST BE PROVIDED BEHIND THE LIFT POINT SO THE DUMPSTERS ARE NOT PUSHED INTO ANY BUILDING OR ACCESS ROUTE.
   - 5.4. ALL SWEPT-PATH CLEARANCE AND VERTICAL CLEARANCE REQUIREMENTS PREVIOUSLY IDENTIFIED SHALL BE PROVIDED.
   - 5.5. SOLID WASTE VEHICLE BACK-UP DISTANCES MUST BE LESS THAN 30' ALONG SERVICING ROUTE.
6. GATES ON BIN ENCLOSURES SHALL OPEN A MINIMUM OF 120 DEGREES FROM THE CLOSED POSITION. THE GATES SHALL NOT IMPEDE ON THE REQUIRED BIN ENCLOSURE OPENING WIDTH, SHALL NOT BLOCK ADJACENT PARKING SPOTS, AND NOT BE IMPEDED BY ADJACENT CURBS OR LANDSCAPING.
7. GATES SHALL BE DESIGNED TO BE FREE STANDING WITHOUT CENTER POLE DESIGN. IF CENTER POLE DESIGN IS NECESSARY, 12 INCHES SHALL BE ADDED TO THE MINIMUM INTERIOR WIDTH OF THE ENCLOSURE.
8. GATE DESIGN SHALL INCLUDE A RELIABLE MEANS TO SECURE THE DOOR IN BOTH THE OPEN AND CLOSED POSITIONS.

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ANN ARBOR, MI 48107-8647
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|---|---|---|---|
| REV. NO. | DATE | DRAWN BY | CHECKED BY |

**SOLID WASTE GENERAL NOTES**

| DR. ENG | CH. ENG | DRAWING NO. |
|---|---|---|
| SCALE N.T.S. | DATE 12/8/2023 | SD-SW-6A |

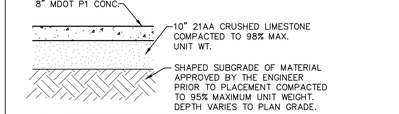
9. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF NO PARKING SIGNS ALONG THE SOLID WASTE INGRESS/EGRESS ROUTE TO ENSURE THE ROUTE REMAINS FREE OF VEHICLES.
10. REFER TO ASSOCIATED STANDARD DETAILS SD-SW-1 AND SD-SW-2 FOR REQUIREMENTS ON SINGLE AND DOUBLE WIDE SOLID WASTE BIN ENCLOSURE LAYOUT AND DESIGN CRITERIA. THE CITY SHALL HAVE THE ABILITY TO MODIFY OR INTERPRET THESE DETAILS AS NECESSARY TO ACCOMMODATE THE CITY OR CITY CONTRACTOR'S NEEDS FOR SOLID WASTE PICK-UP.
11. SOLID WASTE EQUIPMENT ACCESS ROADS AND SERVICE AREA SURFACES SHALL BE DESIGNED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF COLLECTION VEHICLES WEIGHING UP TO 79,500 LBS GROSS VEHICLE WEIGHT (GVW) AND SHALL BE PROVIDED WITH AN APPROVED SURFACE SO AS TO PROVIDE ALL WEATHER DRIVING CAPABILITIES. PROPERTY OWNER SHALL BE RESPONSIBLE FOR ALL SNOW AND ICE REMOVAL REQUIRED FOR SAFE ACCESS.
12. FOR SITES THAT CANNOT ACCOMMODATE A STANDARD DUMPSTER ENCLOSURE, THE DUMPSTERS MAY BE ROLLED OUT OF A BUILDING OR ALTERNATE ENCLOSURE BY THE PROPERTY OWNER TO AN APPROVED COLLECTION LOCATION.
13. SOLID WASTE COLLECTION LOCATIONS MUST BE LOCATED WITHIN THE BOUNDARIES OF THE PROPERTY UNLESS AN APPROPRIATE EASEMENT IS OBTAINED.

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**SOLID WASTE GENERAL NOTES**

| DR. ENG | CH. ENG | DRAWING NO. |
|---|---|---|
| SCALE N.T.S. | DATE 12/8/2023 | SD-SW-6B |




**DUMPSTER PAD SECTION**
NOT TO SCALE

**SOLID WASTE ACCESS NOTES:**

- TRUCK ACCESS IS OFF OF OXFORD ROAD ONLY.
- DUMPSTER SHALL BE CLEARLY MARKED. ONE (1) FOR "SOLID WASTE" AND ONE (1) FOR "RECYCLING".
- DUMPSTER SHALL HAVE A "NO PARKING" SIGN ON DOOR
- SEE SHEET C11.0 FOR ONSITE ASPHALT PAVEMENT SECTION FOR SUPPORT OF SOLID WASTE VEHICLES (79,500 GVWR)

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

BOUNDARY & TOPOGRAPHICAL SURVEY PERFORMED BY: ARBOR LAND CONSULTANTS, DATED: 4-25-25, JOB NO. 09625.

**LEGEND**

- ☆ = LIGHT POLE
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- = GRAVEL
- = FENCE
- = CONCRETE
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- g = EXISTING GAS
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*2-4-2026 REVISED SITE PLAN, 2-26-2026 REVISED SITE PLAN*
*3-4-2026 REVISED SITE PLAN, 3-11-2026 REVISED SITE PLAN*

SCALE 40
0 10 20
SCALE: 1"=20'

PREPARED BY
JOSEPH R. MAYNARD P.E., MICH No. 52559

STATE OF MICHIGAN
JOSEPH R. MAYNARD
ENGINEER
No. 52559
REGISTERED PROFESSIONAL ENGINEER

CIVIL ENGINEERS
PLANNERS + SURVEYORS
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WASHTENAW ENGINEERING

CLIENT
SIGMA ZETA HOUSING, LLC
3205 PLAYERS LN
MEMPHIS, TN 38125

PROJECT
805 OXFORD ROAD

SHEET
SOLID WASTE PLAN & DETAILS

SECTION 33 TOWN 2 SOUTH RANGE 6 EAST
CITY OF ANN ARBOR
WASHTENAW COUNTY + MICHIGAN
DATE 10-16-2025 JOB NO. 33191
DWG NO. 191-solid waste
FIELD BOOK –
FILE NO. 10943

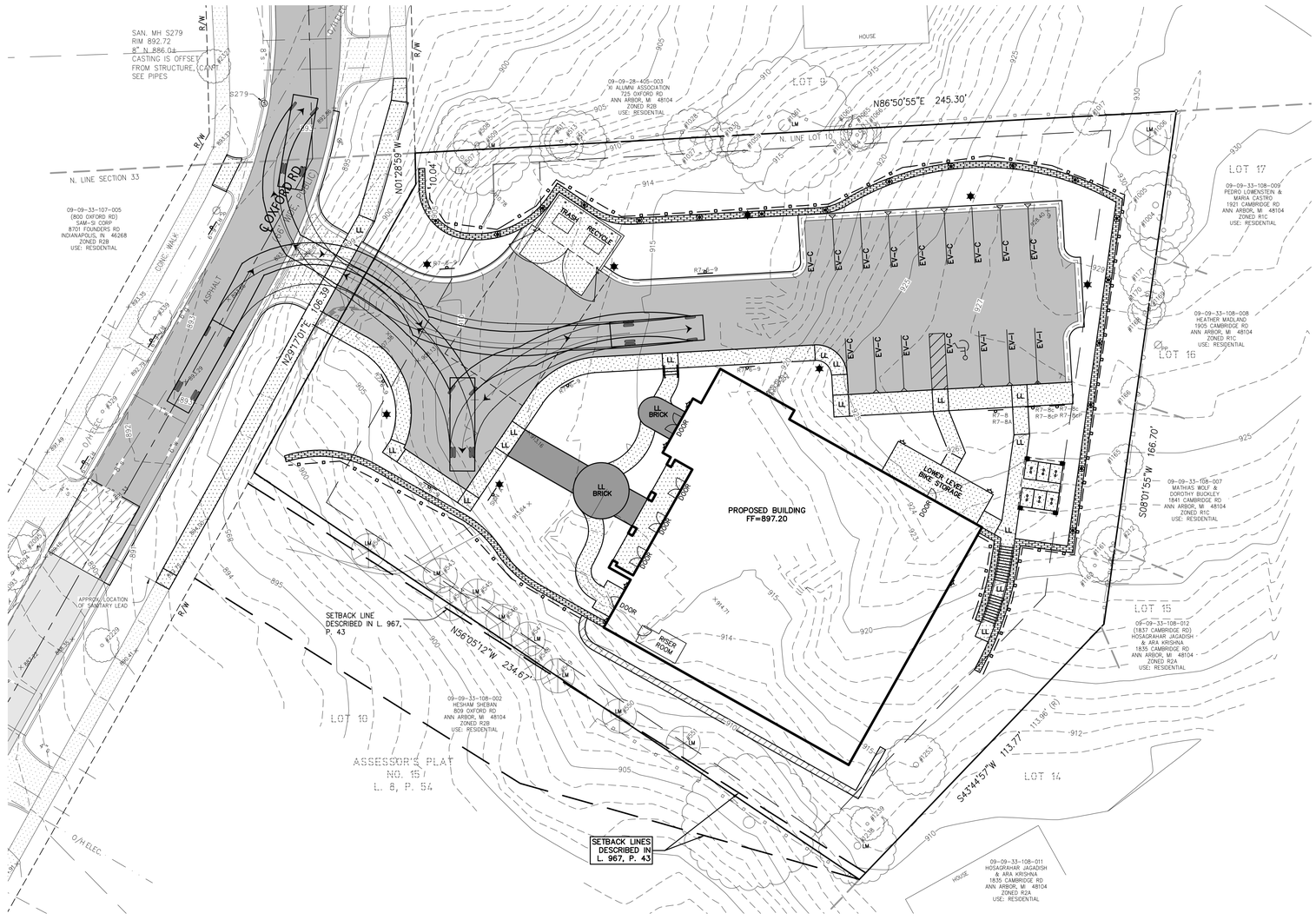
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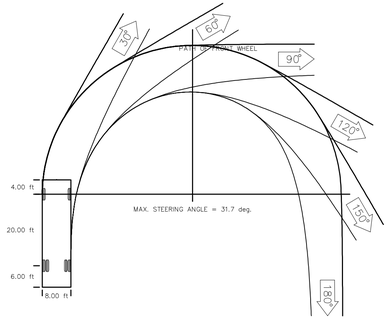
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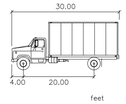
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**DELIVERY TRUCK**




feet

| | |
|---|---|
| Width | : 8.00 |
| Track | : 8.00 |
| Lock to Lock Time | : 6.00 |
| Steering Angle | : 31.80 |

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

**LEGEND**

- ☆ = LIGHT POLE
- ☆ = UTILITY POLE
- ☆ = GUY ANCHOR
- ☆ = HYDRANT
- #897.23 SP = SPOT ELEV.
- = POST
- ⊗ = GATE VALVE
- = SIGN
- TC = TOP OF CURB
- TW = TOP OF WALL
- ○ = MANHOLE
- □ = CATCHBASIN
- ◡ = END SECTION
- = GRAVEL
- = FENCE
- = CONCRETE
- = ASPHALT
- r = EXISTING STORM
- s = EXISTING SANITARY
- w = EXISTING WATER
- g = EXISTING GAS
- e = EXISTING ELECTRIC
- t = EXISTING TELEPHONE

**BENCHMARK** *BM2000=SET SPIKE IN SE FACE OF UTILITY POLE ON NW SIDE OF OXFORD, SOUTH OF DRIVE TO 810 OXFORD RD, ELEV=891.46 (NAVD 88).*
*BM2001=SET SPIKE IN E FACE OF UTILITY POLE ON NW SIDE OF OXFORD, SOUTH OF DRIVE TO 800 OXFORD RD, ELEV=894.70 (NAVD 88).*
*BM2002=TOP NUT ON HYDRANT, EASTERLY OF DRIVE TO 1705 HILL ST AND NORTHERLY OF HILL ST, ELEV=890.27 (NAVD 88).*

**REVISIONS** *12-05-2025 REVISED SITE PLAN, 1-19-2026 REVISED SITE PLAN*
*2-4-2026 REVISED SITE PLAN, 2-26-2026 REVISED SITE PLAN*
*3-4-2026 REVISED SITE PLAN, 3-11-2026 REVISED SITE PLAN*

**SCALE** 0 10 20 40
SCALE: 1"=20'

PREPARED BY _____
JOSEPH K. MAYNARD P.E., MICH No. 52559

BOUNDARY & TOPOGRAPHICAL SURVEY PERFORMED BY: ARBOR LAND CONSULTANTS, DATED: 4-25-25, JOB NO. 09625.

STATE OF MICHIGAN — JOSEPH K. MAYNARD — No. 52559 — REGISTERED PROFESSIONAL ENGINEER

CIVIL ENGINEERS
PLANNERS • SURVEYORS
LANDSCAPE ARCHITECTS
3526 W. LIBERTY RD
SUITE 400
ANN ARBOR, MI 48103
TEL: 734-761-8500

WASHTENAW ENGINEERING

CLIENT
*SIGMA ZETA HOUSING, LLC*
*3205 PLAYERS LN*
*MEMPHIS, TN 38125*

# DELIVERY TRUCK PLAN & DETAILS

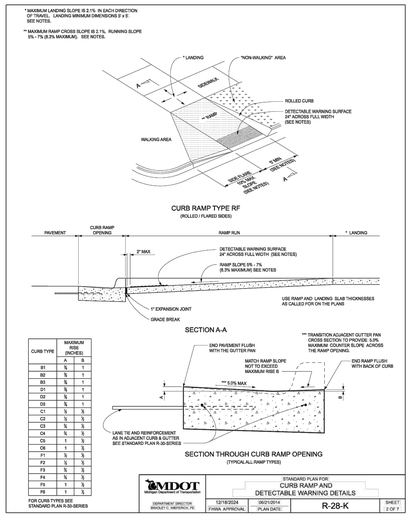
PROJECT: SIGMA ZETA HOUSING, LLC.
## 805 OXFORD ROAD

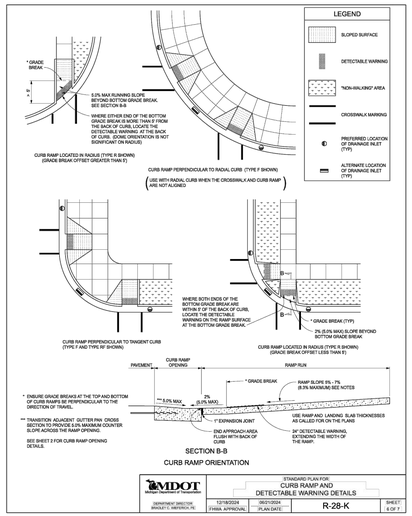
SECTION 33 TOWN 2 SOUTH RANGE 6 EAST
CITY OF ANN ARBOR
WASHTENAW COUNTY • MICHIGAN
DATE 10-16-2025 JOB NO. 33191
DWG NO. 191-delivery
FIELD BOOK –
FILE NO. 10943

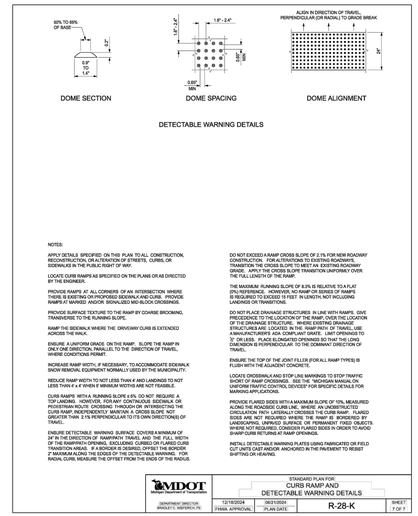
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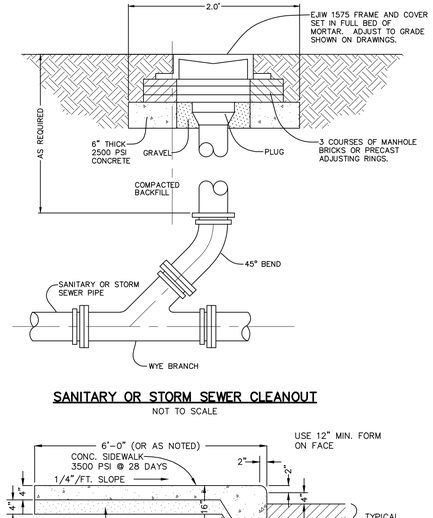
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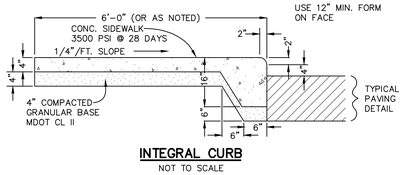
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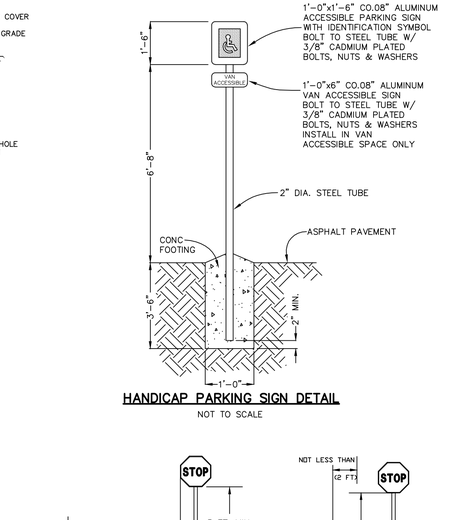


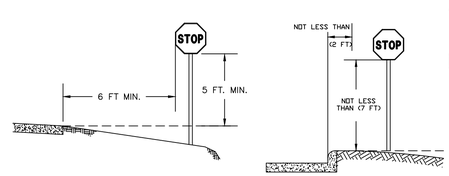




NOTES:
1. SIGNS ARE TO COMPLY WITH THE MOST CURRENT EDITION OF THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
2. THE MINIMUM HEIGHT, MEASURED VERTICALLY FROM THE BOTTOM OF THE SIGN TO THE ELEVATION OF THE NEAR EDGE OF THE PAVEMENT, OF SIGNS INSTALLED AT THE SIDE OF THE ROAD IN RURAL AREAS SHALL BE 5 FEET.
3. THE MINIMUM HEIGHT, MEASURED VERTICALLY FROM THE BOTTOM OF THE SIGN TO THE TOP OF THE CURB, OR IN THE ABSENCE OF CURB, MEASURED VERTICALLY FROM THE BOTTOM OF THE SIGN TO THE ELEVATION OF THE NEAR EDGE OF THE TRAVELED WAY, OF SIGNS INSTALLED AT THE SIDE OF THE ROAD IN BUSINESS, COMMERCIAL, OR RESIDENTIAL AREAS WHERE PARKING OR PEDESTRIAN MOVEMENTS ARE LIKELY TO OCCUR, OR WHERE THE VIEW OF THE SIGN MIGHT BE OBSTRUCTED SHALL BE 7 FEET.
4. POST MOUNTED SIGN AND OBJECT MARKER SUPPORTS SHALL BE CRASH WORTHY (BREAKAWAY, YIELDING, OR SHIELDED WITH A LONGITUDINAL BARRIER OR CRASH CUSHION) IF WITHIN A CLEAR ZONE.
5. SIGN POSTS, FOUNDATIONS, AND MOUNTINGS SHALL BE SO CONSTRUCTED AS TO HOLD SIGNS IN A PROPER AND PERMANENT POSITION, AND TO RESIST SWAYING IN THE WIND OR DISPLACEMENT BY VANDALISM.



**PORTABLE CONCRETE WASHOUT CONTAINER**

CONCRETE WASHOUT SYSTEMS
PO Box 2604
Carmichael, CA. 95609
Phone: 1.877.292.7456
Fax: 1.916.244.0403
Info@concretewashout.com
www.concretewashout.com
Patent Pending

**DESCRIPTION**
A portable, self-contained and watertight container affixed with ramps that controls, captures and contains caustic concrete wastewater and washout material.

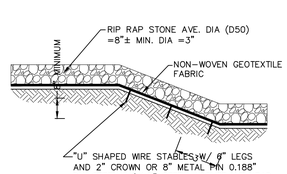
**PURPOSE & OBJECTIVE**
Allows track personnel to easily washout concrete trucks, pumps and other equipment associated with cement on site and allows easy off site recycling of the same concrete materials and wastewater.

**APPLICATION**
Construction projects where concrete, stucco, mortar, grout and cement are used as a construction material or where cementitious wastewater is created.

**MAINTENANCE**
Inspect and clean out when ¾ full, not allowing the container to overflow.
Inspect wastewater level and request a vacuum if needed.
Inspect subcontractors to ensure that proper housekeeping measures are employed when washing out equipment.

**SPECIFICATIONS**
The container must be portable and temporary, watertight, equipped with ramps and have a holding capacity to accept washout from approximately 350 yards of poured concrete. A vacuum service must accompany washout container and be used by site superintendent as needed. A rampless container may be used in conjunction with a ramped container or by itself if a concrete pump is not needed. The washwater must be disposed of or treated and recycled in an environmentally safe mainner and in accordance with federal, state or local regulatory guidelines.

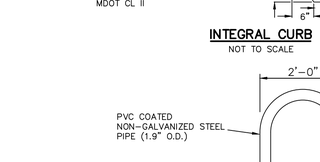
**TARGETED POLLUTANTS**
Caustic wastewater (high pH level near 12 units)
Suspended solids
Assorted Metals; Chromium VI, Nickel, Sulfate, Potassium, Magnesium and Calcium Compounds




**SITE MATERIALS NOTES:**
1. ALL MATERIALS AND COMPACTION REQUIREMENTS SHALL MEET MDOT STANDARDS.
2. ALL CONCRETE CURBING SHALL HAVE A MIN 4" LAYER OF 21AA CRUSHED LIMESTONE COMPACTED IN PLACE UNDER THE CURB.
3. ALL MATERIALS ARE TO BE COMPACTED TO THE REQUIREMENTS LISTED IN DIVISION 3 OF THE M.D.O.T. 2020 STANDARD SPECIFICATIONS FOR CONSTRUCTION.
4. CONTRACTOR TO USE PG 64-28 PERFORMANCE GRADE BINDER BETWEEN ASPHALT LAYERS.

COMPACTION NOTE:
USE OF NUCLEAR DENSITY GAUGE REQUIRES MEASURING THE PAVEMENT DENSITY USING THE THEORETICAL MAXIMUM SPECIFIC GRAVITY (Gmm) FROM THE JOB MIX FORMULA (JMF) FOR THE DENSITY CONTROL TARGET. THE REQUIRED IN-PLACE DENSITY OF THE HOT MIX ASPHALT (HMA) MIXTURE MUST BE 92.0 TO 98.0 PERCENT OF THE DENSITY CONTROL TARGET. NUCLEAR TESTING AND FREQUENCY WILL BE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) DENSITY AND INSPECTION MANUAL.

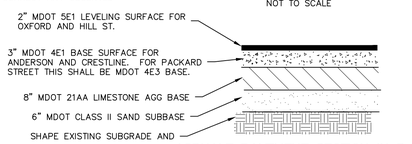
PROOF ROLL NOTE:
COMPLETE A PROOF ROLL USING EQUIPMENT APPROVED BY THE ENGINEER. THE ENGINEER WILL WITNESS AND DOCUMENT THE PROOF ROLL AND DETERMINE THE PROPER COURSE OF ACTION TO CORRECT ANY OBSERVED RUTTING OR DISPLACEMENT.

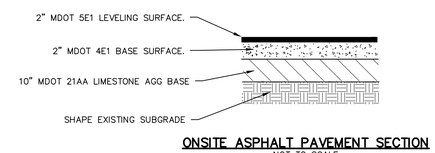


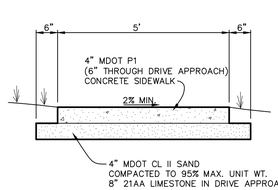


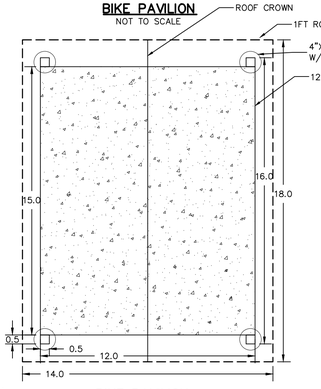


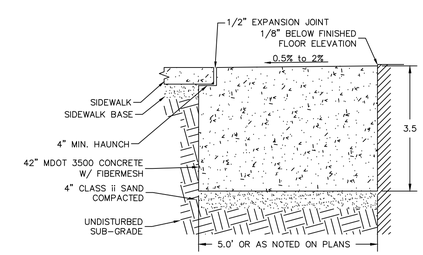

BIKE PAVILION
NOT TO SCALE

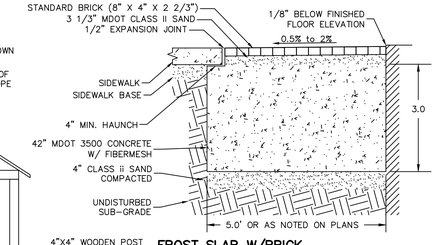


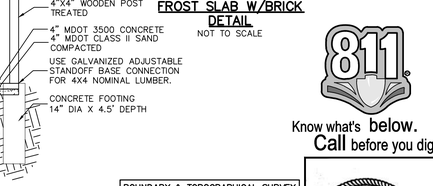



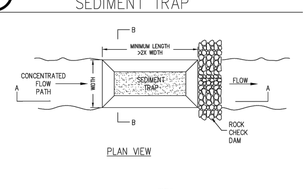




811 Know what's below. Call before you dig.

BOUNDARY & TOPOGRAPHICAL SURVEY PERFORMED BY: ARBOR LAND CONSULTANTS, DATED: 4-25-25, JOB NO. 09625.

STATE OF MICHIGAN JOSEPH K. MAYNARD ENGINEER No. 52559 PROFESSIONAL ENGINEER

**SEDIMENT TRAP** S56




**SEDIMENT TRAP SPECIFICATIONS** S56

| | |
|---|---|
| When | • When runoff from construction sites contains suspended sediment. |
| Why | • Should be used as a temporary measure.<br>• To collect and store sediment from sites cleared and/or graded during construction. |
| Where | • In small drainage areas with less than 5 acres of contributing drainage.<br>• Along the construction site perimeter where runoff is discharged offsite.<br>• Above check dams and/or upslope of drain inlet protection measures. |
| How | 1. Prior to construction initiation, identify stormwater drainage routes likely to carry construction site runoff.<br>2. Build sediment traps in site runoff corridors before clearing, grubbing, and grading begin.<br>3. Install traps in natural depressions or in small drainageways to minimize vegetation removal.<br>4. A sediment trap is intended as a temporary measure.<br>5. In-stream applications should be designed by a professional engineer, with consideration for the type of soil, size of drainage area, and desired sediment removal efficiency.<br>6. Locate where the trap can be easily cleared of sediment.<br>7. Collection channels should enter the trap from the upslope side.<br>8. The sediment trap should have a minimum length to width ratio of 2:1.<br>9. The outlet of the trap must be stabilized with rock, vegetation, or another suitable material. |

STATE OF MICHIGAN DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET STATE FACILITIES ADMINISTRATION

**LEGEND**

| | | | |
|---|---|---|---|
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| ⊕ = UTILITY POLE | ⊗ = POST | TW = TOP OF WALL | s = EXISTING SANITARY |
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| | | ◡ = END SECTION | e = EXISTING ELECTRIC |
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| | | = FENCE | |
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| | | = ASPHALT | |

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*2-4-2026 REVISED SITE PLAN, 2-26-2026 REVISED SITE PLAN*
*3-4-2026 REVISED SITE PLAN, 3-11-2026 REVISED SITE PLAN*

SCALE
NO SCALE

PREPARED BY
JOSEPH K. MAYNARD P.E., MICH No. 52559

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TEL: 734-761-8500

WASHTENAW ENGINEERING

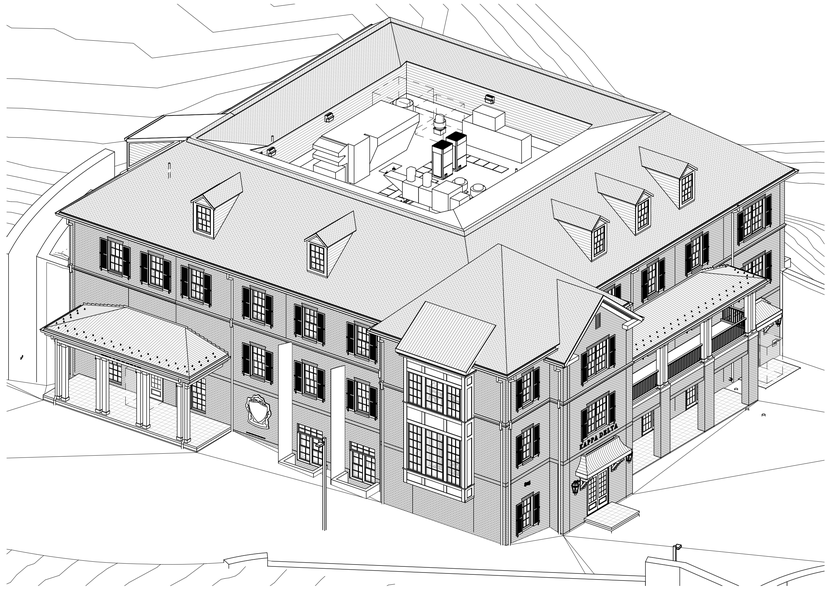
CLIENT
SIGMA ZETA HOUSING, LLC
3205 PLAYERS LN
MEMPHIS, TN 38125

PROJECT
805 OXFORD ROAD

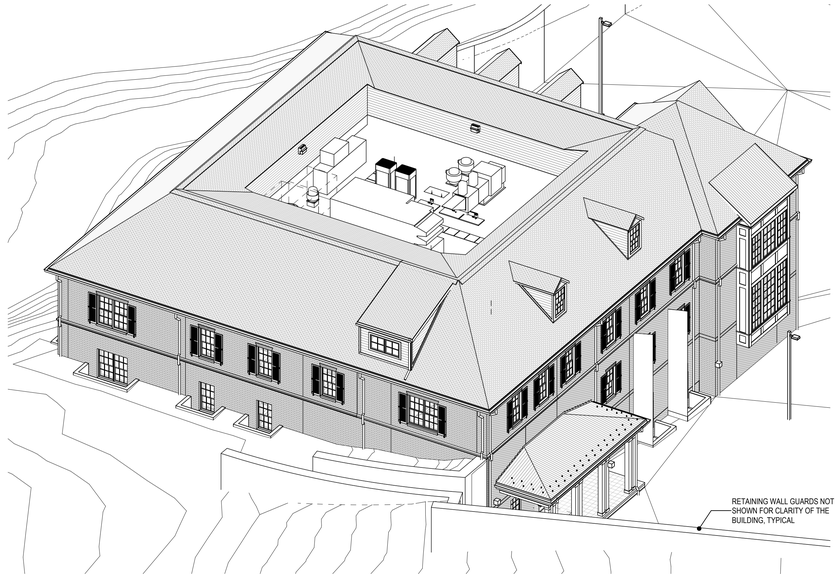
SHEET
DETAILS

SECTION 33 TOWN 2 SOUTH RANGE 6 EAST
CITY OF ANN ARBOR
WASHTENAW COUNTY • MICHIGAN
DATE 10-16-2025
JOB NO. 33191
DWG NO. 191-26toil
FIELD BOOK -
FILE NO. 10943
SHEET C11.0

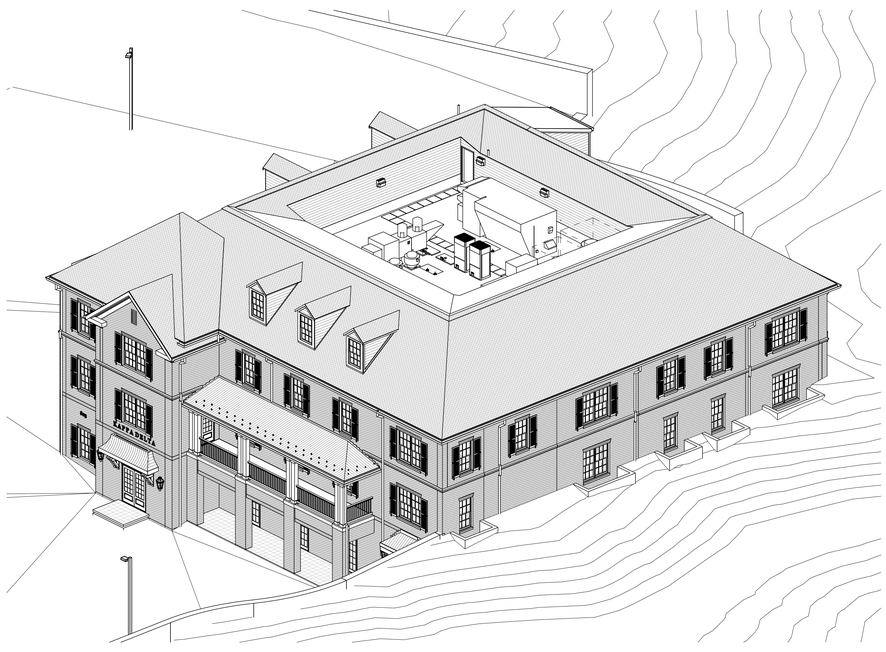
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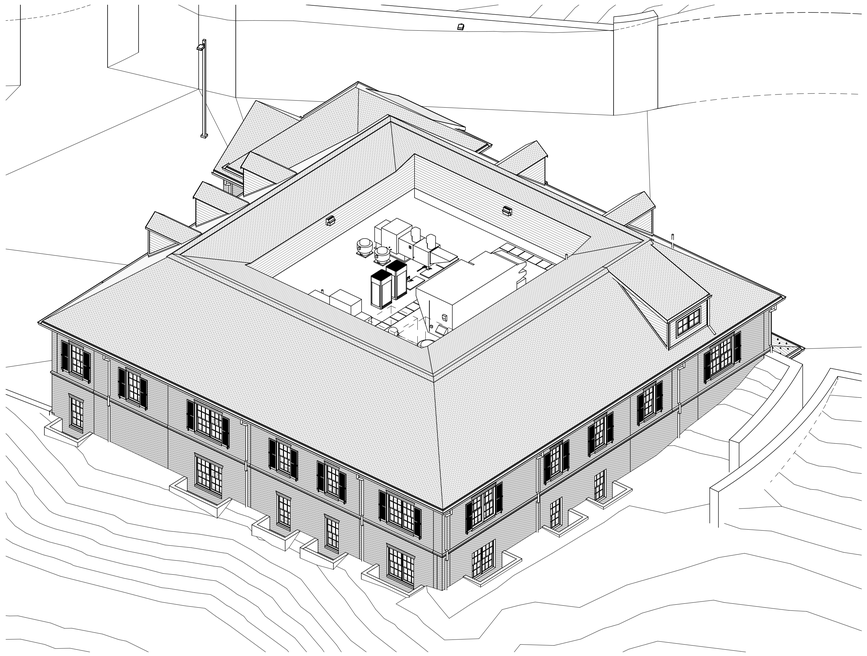

**01** G-102 | **NORTH WEST AXONOMETRIC**




**02** G-102 | **NORTH EAST AXONOMETRIC**




**03** G-102 | **SOUTH WEST AXONOMETRIC**



**04** G-102 | **SOUTH EAST AXONOMETRIC**

LIGHTWELLS ARE TO HAVE STAMPED BRICK FACE CONCRETE INSIDE AND OUTSIDE WITH A CAST STONE COPING

CORE
ENGINEERING EXPERTISE, ARCHITECTURAL THINKING

4293 Five Oaks Drive
Lansing, Michigan 48911

916 Washington Ave
Suite 203
Bay City, Michigan 48708

drivenbycore.com

**SEAL**

**PROJECT TEAM**

**PROJECT DATA**

**ADDRESS:**
805 OXFORD ROAD
ANN ARBOR, MICHIGAN 48708

**CLIENT NAME:**
SIGMA ZETA HOUSING LLC

**PROJECT NAME:**
**KAPPA DELTA HOUSING LLC**

**ISSUANCES**

| DATE | DESCRIPTION |
|---|---|
| 10-31-25 | 100% SD |
| 12-19-25 | 100% DD |
| 02-27-26 | OWNER REVIEW |
| 03-11-26 | REVISED SITE PLAN |

**DRAWING DATA**
**AXONOMETRIC VIEWS**

PROJECT #: 25-083
APPROVED BY: C. MILLER
CHECKED BY: B. WELSH
DESIGNED BY: J. RICE
DRAWN BY: S. FISHER

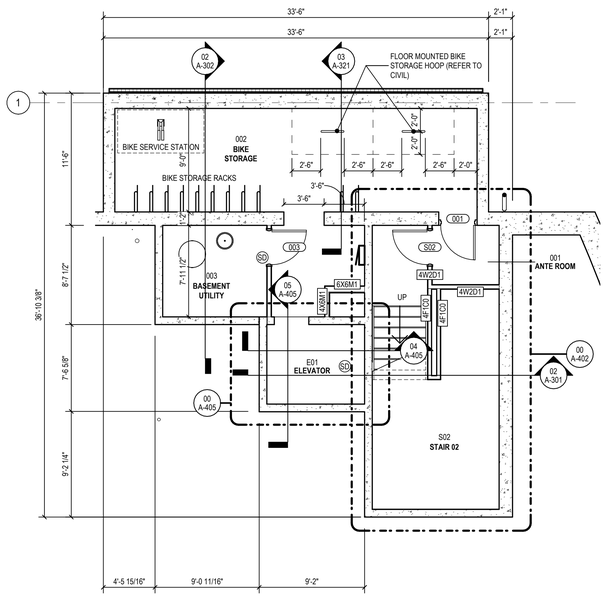
**G-102**

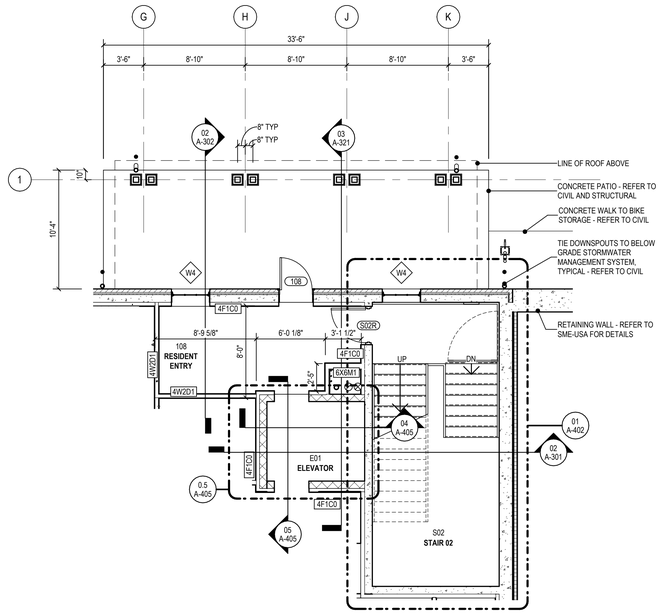
3/11/2026 7:23:28 AM COPYRIGHT 2026 CORE

## FLOOR PLANS

1. DIMENSIONS ARE TO: (UNLESS OTHERWISE INDICATED)
   - EXTERIOR WALLS: OUTSIDE FACE OF SHEATHING OR OUTSIDE FACE OF MASONRY
   - INTERIOR WALLS: FACE OF MASONRY, STUDS, AND/ OR CENTERLINE OF COLUMN LINES
   - COMMERCIAL DOORS AND WINDOWS: EDGE OF UNIT FRAME
   - RESIDENTIAL DOORS AND WINDOWS: EDGE OF UNIT FRAME IN MASONRY AND CENTERLINE IN WOOD FRAMED CONSTRUCTION
   - COORDINATE ROUGH OPENINGS WITH UNIT MANUFACTURER REQUIREMENTS
2. DOOR FRAMES ARE 4" FROM ADJACENT WALLS UNLESS OTHERWISE INDICATED.
3. PROVIDE WOOD STORAGE SHELVING IN THE FOLLOWING LOCATIONS:
   - BEDROOM CLOSETS, COAT CLOSETS, LAUNDRY, AND WALK-IN CLOSETS (WIC)
4. SEAL BUILDING ENVELOPE JOINTS AND PENETRATIONS TO PREVENT AIR LEAKAGE.
5. SEAL SLEEPING UNITS FROM ADJACENT UNITS AND CORRIDORS FOR ACOUSTICAL AND AIR LEAKAGE.
6. TERMINATE INTERIOR NON-LOAD BEARING WALLS THAT ARE NOT FIRE BARRIERS TO THE UNDERSIDE OF FLOOR AND ROOF TRUSSES AND MAINTAIN THE MEMBRANE OF THE RATED FLOOR/CEILING ASSEMBLY.

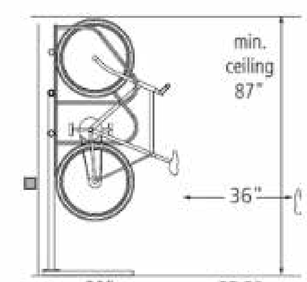
   FIRE-BARRIER WALLS ARE TO RUN CONTINUOUS FROM FOUNDATION TO FLOOR OR ROOF DECK AT THE LEVEL OF TERMINATION AND HAVE A TOP CLOSURE MATCHING THE RATING OF THE WALL.
7. ANGLES ARE 45 DEGREE OR 90 DEGREES UNLESS OTHERWISE INDICATED.
8. SLOPE FLOORS TO DRAINS AT 1/8" PER FOOT MINIMUM.
9. COORDINATE TOLERANCES OF FRAMING AND SUBSTRATES TO FINISH MATERIAL MANUFACTURER REQUIREMENTS.
10. ALL INTERIOR FINISHES AND TRIM BY INTERIOR DESIGN CONSULTANT.

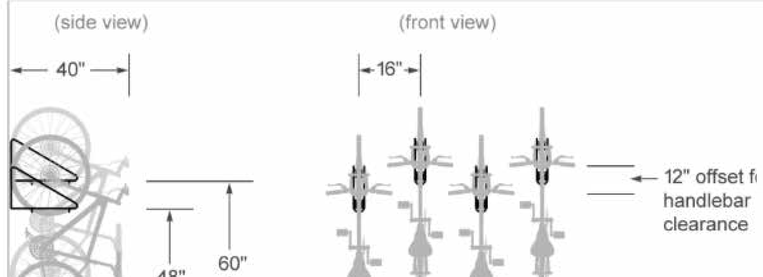



N **01** A-100 — 3/16" = 1'-0"
**BASEMENT FLOOR PLAN**
RE: 01/ A-201

N **02** A-100 — 3/16" = 1'-0"
**RESIDENT ENTRY FLOOR PLAN**
RE: 01/ A-201



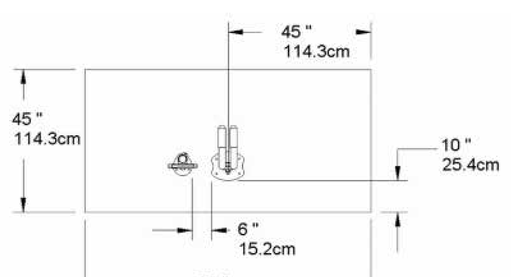




**Figure 1: Minimum space requirements**


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**SEAL**

**PROJECT TEAM**

**PROJECT DATA**

**ADDRESS:**
805 OXFORD ROAD
ANN ARBOR, MICHIGAN 48708

**CLIENT NAME:**
SIGMA ZETA HOUSING LLC

**PROJECT NAME:**
**KAPPA DELTA HOUSING LLC**

**ISSUANCES**

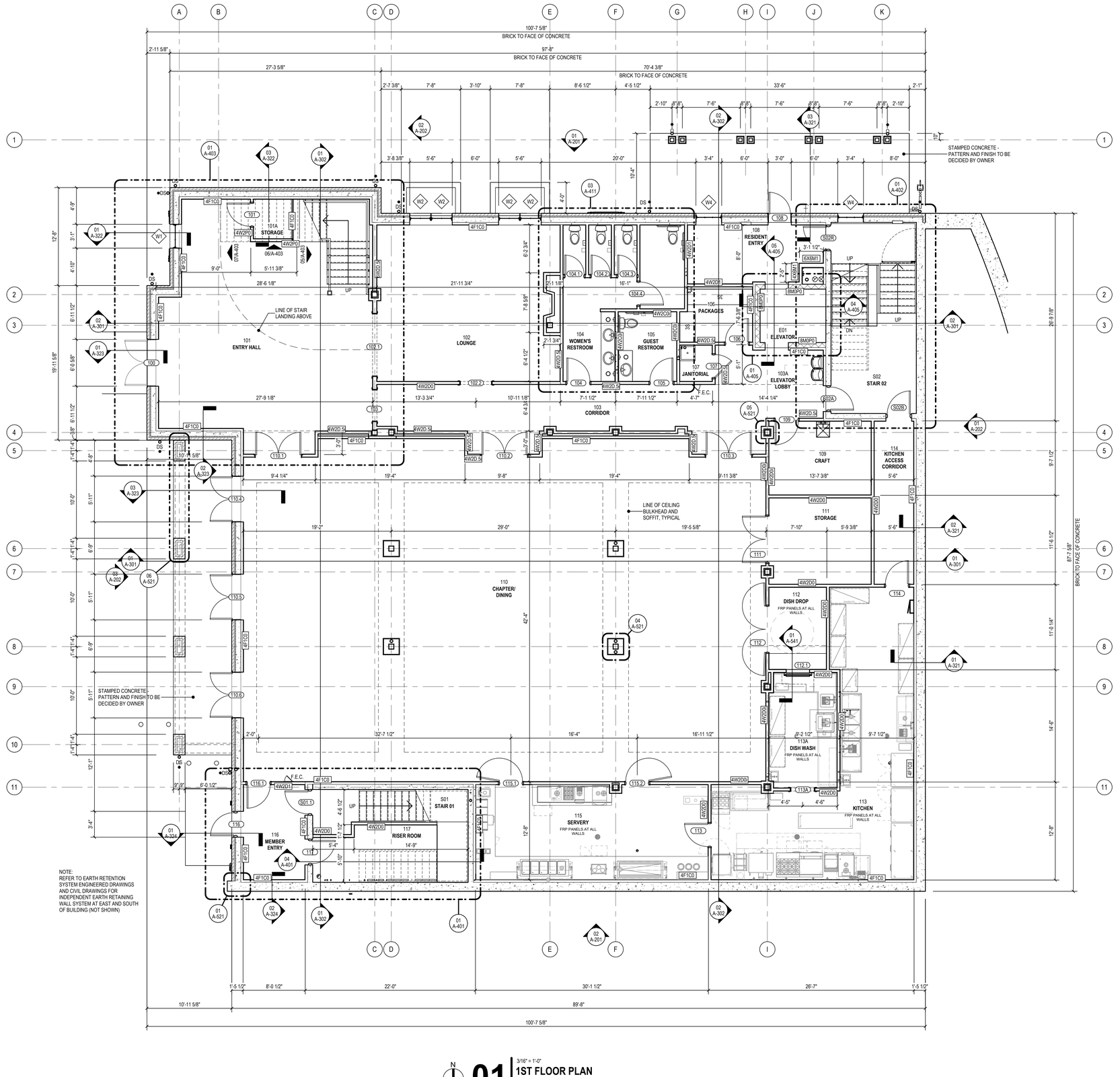
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|---|---|
| 10-31-25 | 100% SD |
| 12-19-25 | 100% DD |
| 02-27-26 | OWNER REVIEW |
| 03-11-26 | REVISED SITE PLAN |

**DRAWING DATA**
**BASEMENT AND RESIDENT ENTRY PLANS**

PROJECT #: 25-083
APPROVED BY: C. MILLER
CHECKED BY: B. WELSH
DESIGNED BY: J. RICE
DRAWN BY: S. FISHER

**A-100**


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N

# 01 1ST FLOOR PLAN

3/16" = 1'-0"

A-101 | RE: 01/ A-201

## FLOOR PLANS

1. DIMENSIONS ARE TO: (UNLESS OTHERWISE INDICATED)
   - EXTERIOR WALLS: OUTSIDE FACE OF SHEATHING OR OUTSIDE FACE OF MASONRY
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10. ALL INTERIOR FINISHES AND TRIM BY INTERIOR DESIGN CONSULTANT.

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## SEAL

## PROJECT TEAM

## PROJECT DATA

**ADDRESS:**
805 OXFORD ROAD
ANN ARBOR, MICHIGAN 48708

**CLIENT NAME:**
SIGMA ZETA HOUSING LLC

**PROJECT NAME:**
**KAPPA DELTA HOUSING LLC**

## ISSUANCES

| DATE | DESCRIPTION |
|---|---|
| 10-31-25 | 100% SD |
| 12-19-25 | 100% DD |
| 02-27-26 | OWNER REVIEW |
| 03-11-26 | REVISED SITE PLAN |

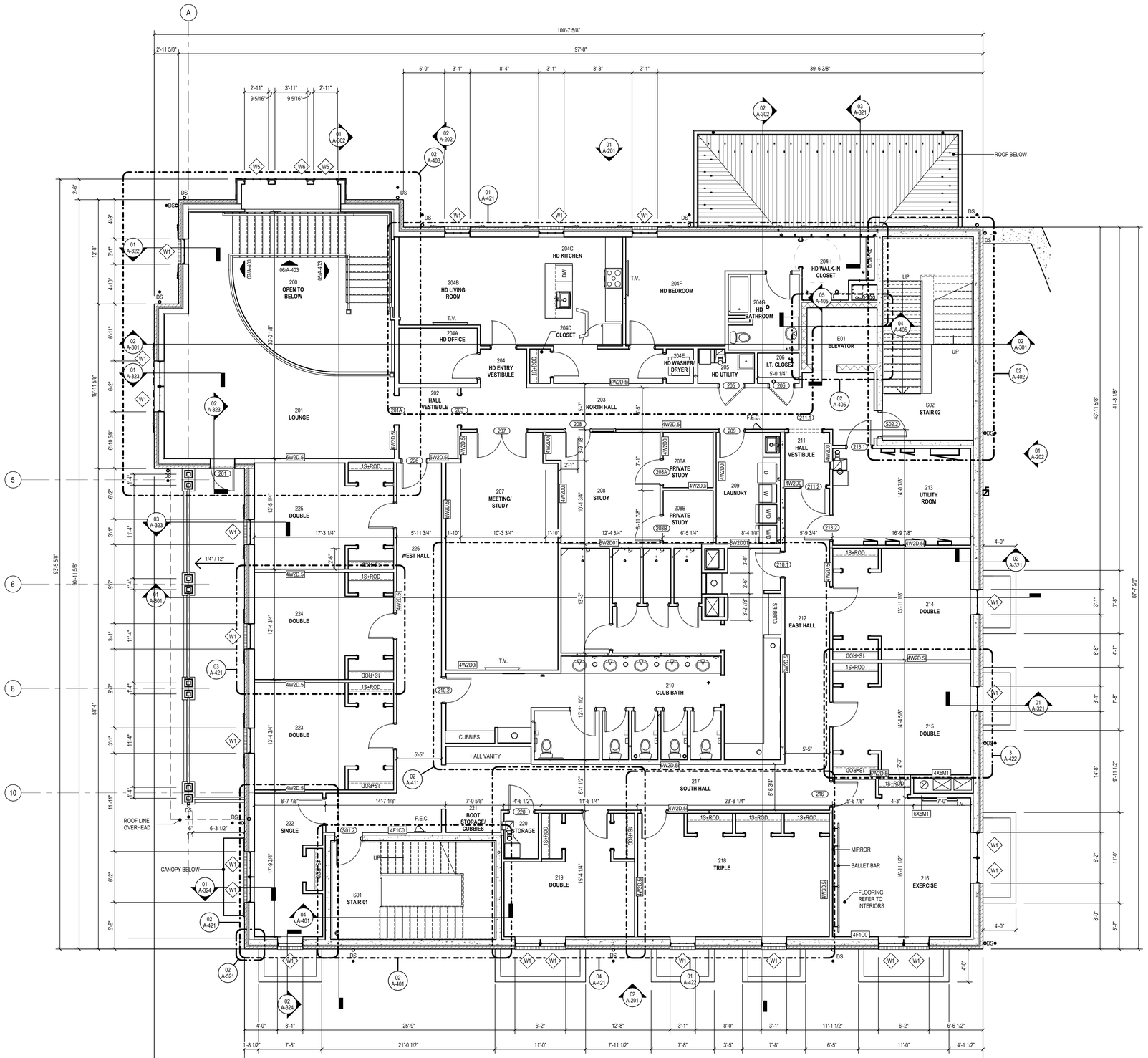
## DRAWING DATA

**1ST FLOOR PLAN**

PROJECT #: 25-083
APPROVED BY: C. MILLER
CHECKED BY: B. WELSH
DESIGNED BY: J. RICE
DRAWN BY: S. FISHER

**A-101**

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N

# 01 2ND FLOOR PLAN

3/16" = 1'-0"

A-102 | RE: 01/ A-201

## FLOOR PLANS

1. DIMENSIONS ARE TO: (UNLESS OTHERWISE INDICATED)
   - EXTERIOR WALLS: OUTSIDE FACE OF SHEATHING OR OUTSIDE FACE OF MASONRY
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## SEAL

## PROJECT TEAM

## PROJECT DATA

**ADDRESS:**
805 OXFORD ROAD
ANN ARBOR, MICHIGAN 48708

**CLIENT NAME:**
SIGMA ZETA HOUSING LLC

**PROJECT NAME:**
**KAPPA DELTA HOUSING LLC**

## ISSUANCES

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| 12-19-25 | 100% DD |
| 02-27-26 | OWNER REVIEW |
| 03-11-26 | REVISED SITE PLAN |

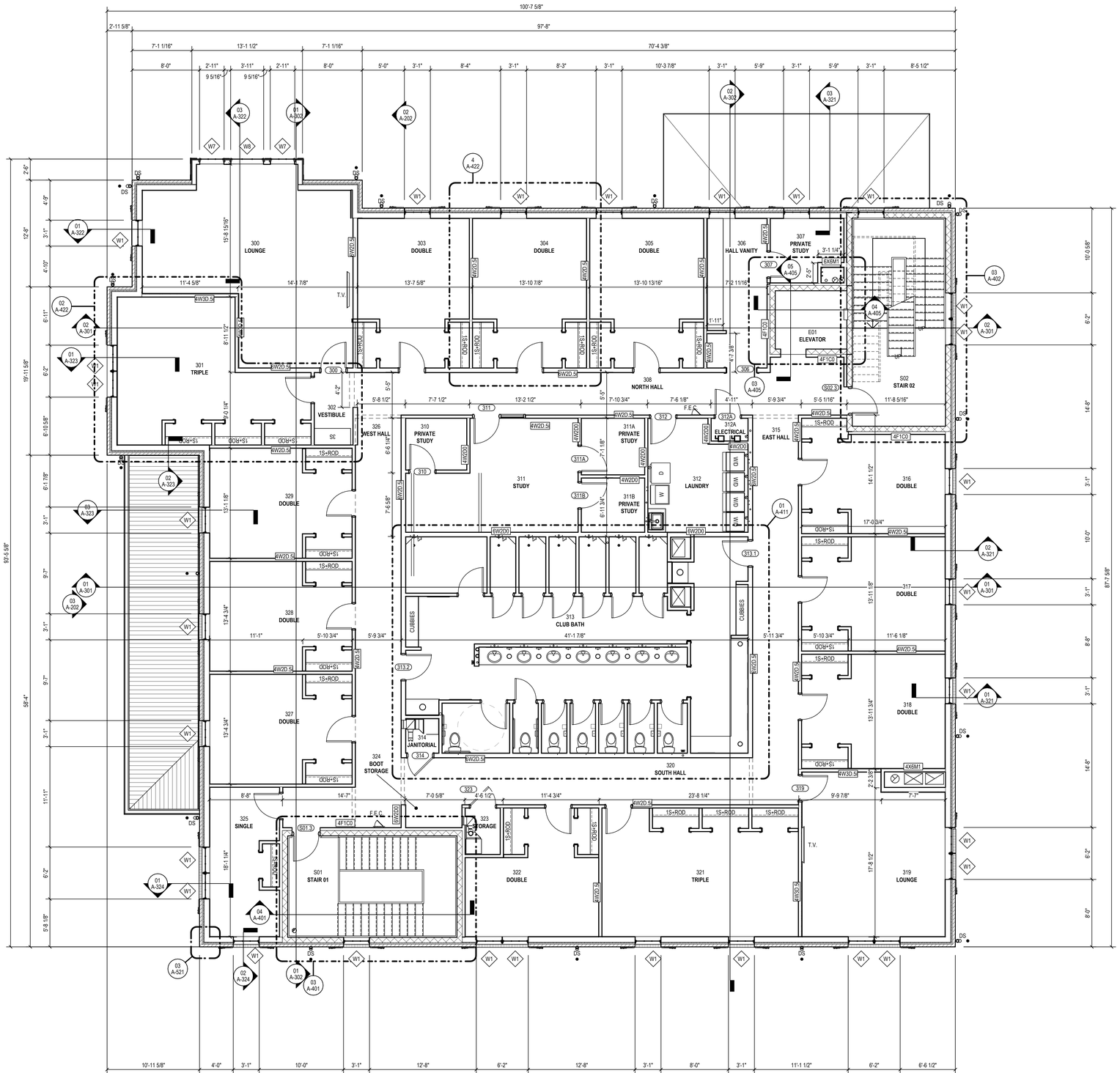
## DRAWING DATA

**2ND FLOOR PLAN**

PROJECT #: 25-083
APPROVED BY: C. MILLER
CHECKED BY: B. WELSH
DESIGNED BY: J. RICE
DRAWN BY: S. FISHER

**A-102**

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N

# 01 3RD FLOOR PLAN

3/16" = 1'-0"

A-103 | RE: 01/ A-201

## FLOOR PLANS

1. DIMENSIONS ARE TO: (UNLESS OTHERWISE INDICATED)
   - EXTERIOR WALLS: OUTSIDE FACE OF SHEATHING OR OUTSIDE FACE OF MASONRY
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9. COORDINATE TOLERANCES OF FRAMING AND SUBSTRATES TO FINISH MATERIAL MANUFACTURER REQUIREMENTS.
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**SEAL**

**PROJECT TEAM**

**PROJECT DATA**

**ADDRESS:**
805 OXFORD ROAD
ANN ARBOR, MICHIGAN 48708

**CLIENT NAME:**
SIGMA ZETA HOUSING LLC

**PROJECT NAME:**
**KAPPA DELTA HOUSING LLC**

**ISSUANCES**

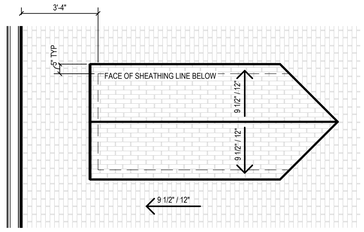
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| 10-31-25 | 100% SD |
| 12-19-25 | 100% DD |
| 02-27-26 | OWNER REVIEW |
| 03-11-26 | REVISED SITE PLAN |

**DRAWING DATA**
**3RD FLOOR PLAN**

PROJECT #: 25-083
APPROVED BY: C. MILLER
CHECKED BY: B. WELSH
DESIGNED BY: J. RICE
DRAWN BY: S. FISHER

**A-103**


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## 02 ENLARGED ROOF PLAN TYPICAL DORMER

3/8" = 1'-0"

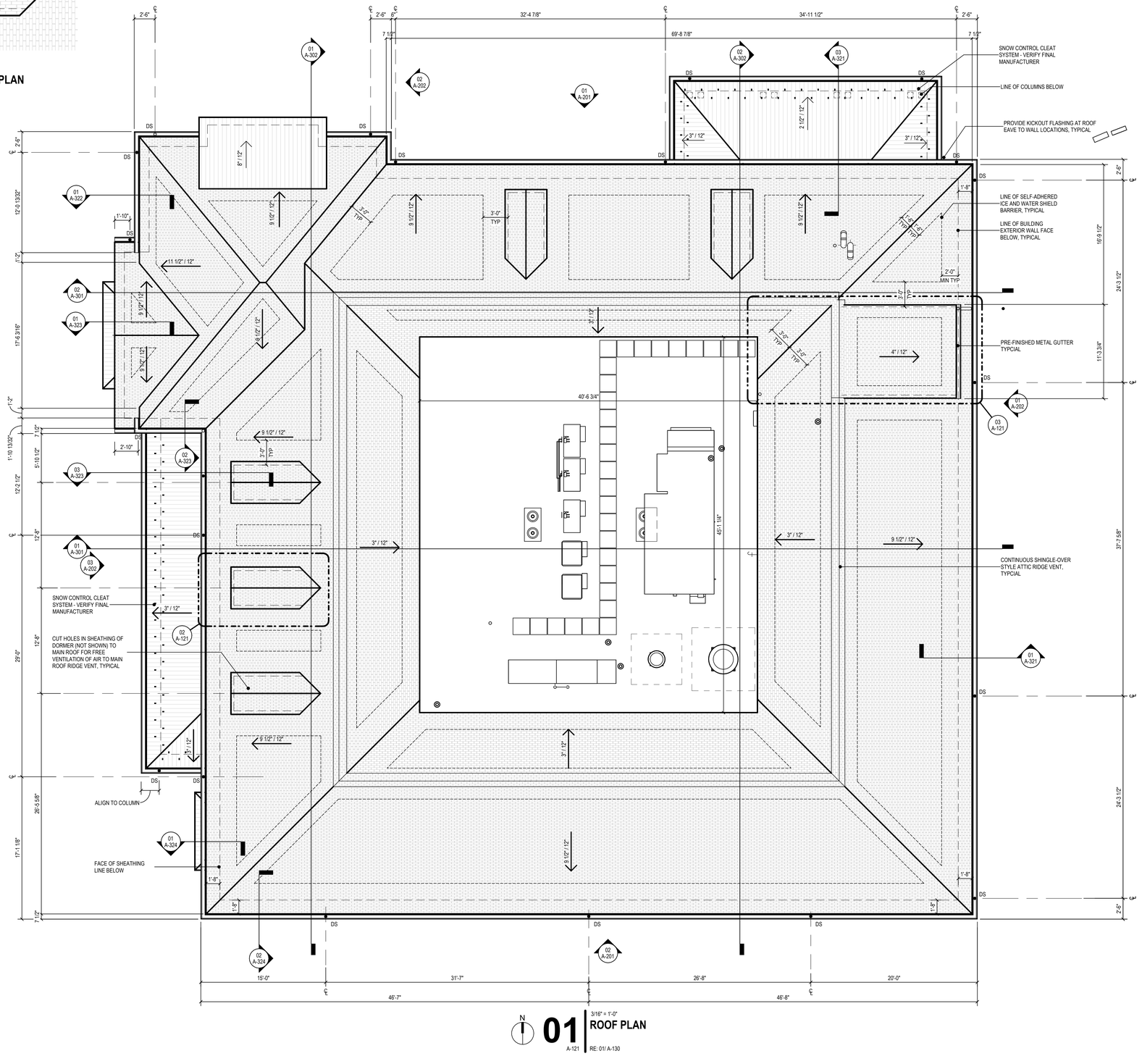
A-121 | RE: 01/ A-121

## ROOF PLAN NOTES

1. ALL ROOF-MOUNTED EQUIPMENT AND PENETRATIONS ARE NOT SHOWN. COORDINATE LOCATIONS AND QUANTITIES WITH OTHER DISCIPLINES.
2. PROVIDE SADDLES AT OBSTRUCTIONS THAT RESTRICT THE FLOW OF WATER TO DRAINAGE SYSTEM.
3. MATCH THICKNESS OF BLOCKING WITH ADJACENT ROOF INSULATION AT LOW-SLOPE MEMBRANE ROOFS.
4. PLACE ROOF MOUNTED EQUIPMENT 10'-0" MINIMUM AWAY FROM ROOF EDGES WITHOUT FALL GUARD PROTECTION.
5. COMPLY WITH ROOF MANUFACTURER REQUIREMENTS AND TO MAINTAIN ROOF WARRANTY.
6. PROVIDE KICKOUT FLASHING AT ROOF EAVES TO GABLE AND SIDE WALLS THAT RUN PAST THE ROOF EDGE.
7. PROVIDE DIVERTER FLASHING AT ROOF EAVE INSIDE CORNER GUTTERS.

## ROOF ATTIC VENT CALCULATIONS

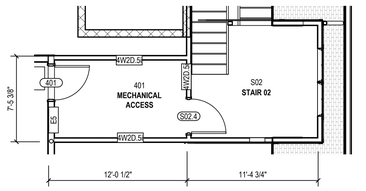





## 01 ROOF PLAN

3/16" = 1'-0"

A-121 | RE: 01/ A-130




## 03 ENLARGED ROOF PLAN SHED DORMER

3/16" = 1'-0"

A-121 | RE: 01/ A-121

## ROOF LEGEND

- ASPHALT SHINGLES
- STANDING SEAM METAL ROOFING
- ADHERED WALKPADS
- MEMBRANE ROOFING SYSTEM
- MECHANICAL UNIT - REFER TO MECHANICAL
- PIPING - REFER TO MECHANICAL
- EFFECTIVE DIRECTION OF ROOF SLOPE DUE TO STRUCTURE (X" / 12")
- TAPERED INSULATION SLOPE 1/2:12 TYPICAL
- GUTTER AND DOWNSPOUTS (DOWNSPOUT, DS, DOWNSPOUT TAG, GUTTER)


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PROJECT TEAM

**PROJECT DATA**

**ADDRESS:**
805 OXFORD ROAD
ANN ARBOR, MICHIGAN 48708

**CLIENT NAME:**
SIGMA ZETA HOUSING LLC

**PROJECT NAME:**
**KAPPA DELTA HOUSING LLC**

**ISSUANCES**

| DATE | DESCRIPTION |
|---|---|
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| 03-11-26 | REVISED SITE PLAN |

**DRAWING DATA**
**ROOF PLAN**

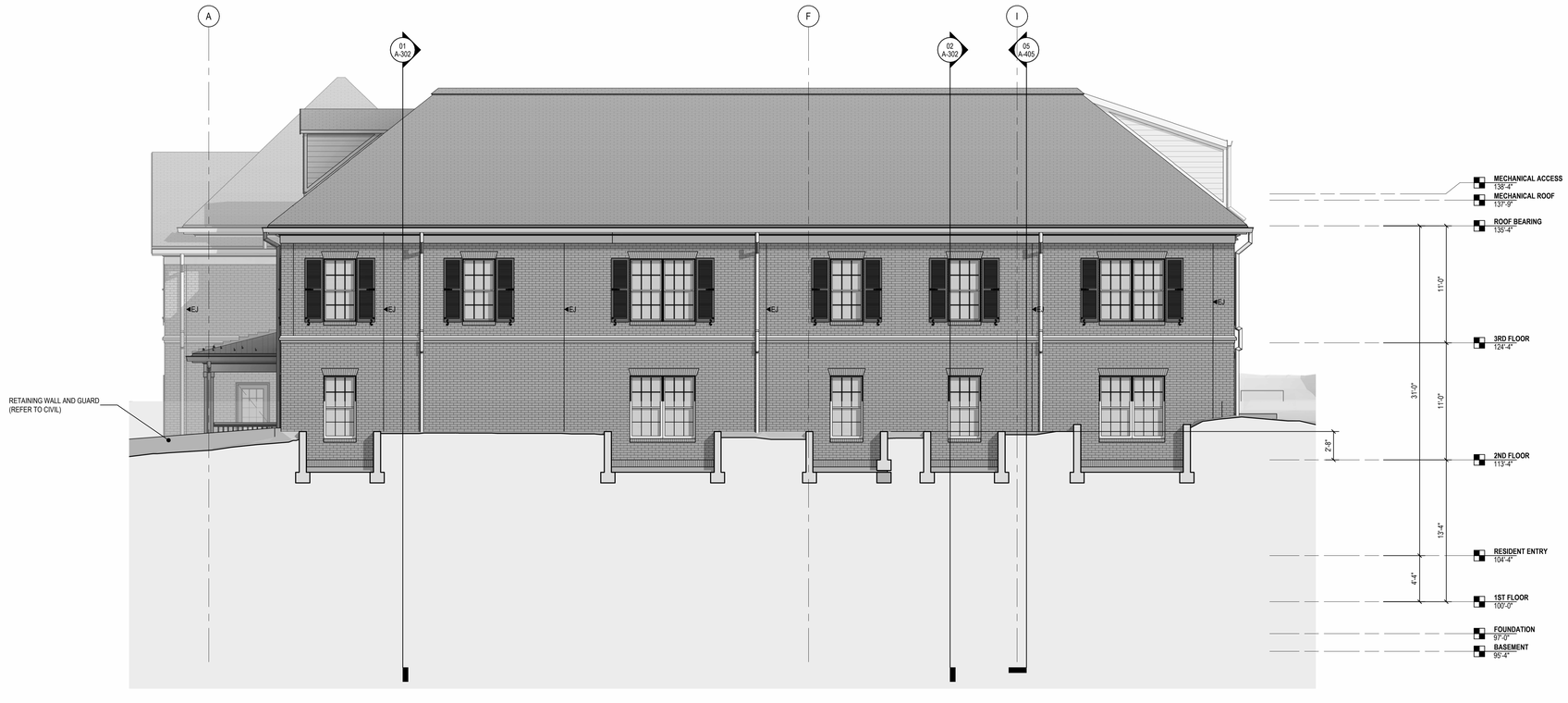
PROJECT #: 25-083
APPROVED BY: C. MILLER
CHECKED BY: B. WELSH
DESIGNED BY: J. RICE
DRAWN BY: S. FISHER

# A-121

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**01** 3/16" = 1'-0"
**EXTERIOR ELEVATION NORTH**
A-201 RE: 01/ A-101




**02** 3/16" = 1'-0"
**EXTERIOR ELEVATION SOUTH**
A-201 RE: 01/ A-101

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ANN ARBOR, MICHIGAN 48708

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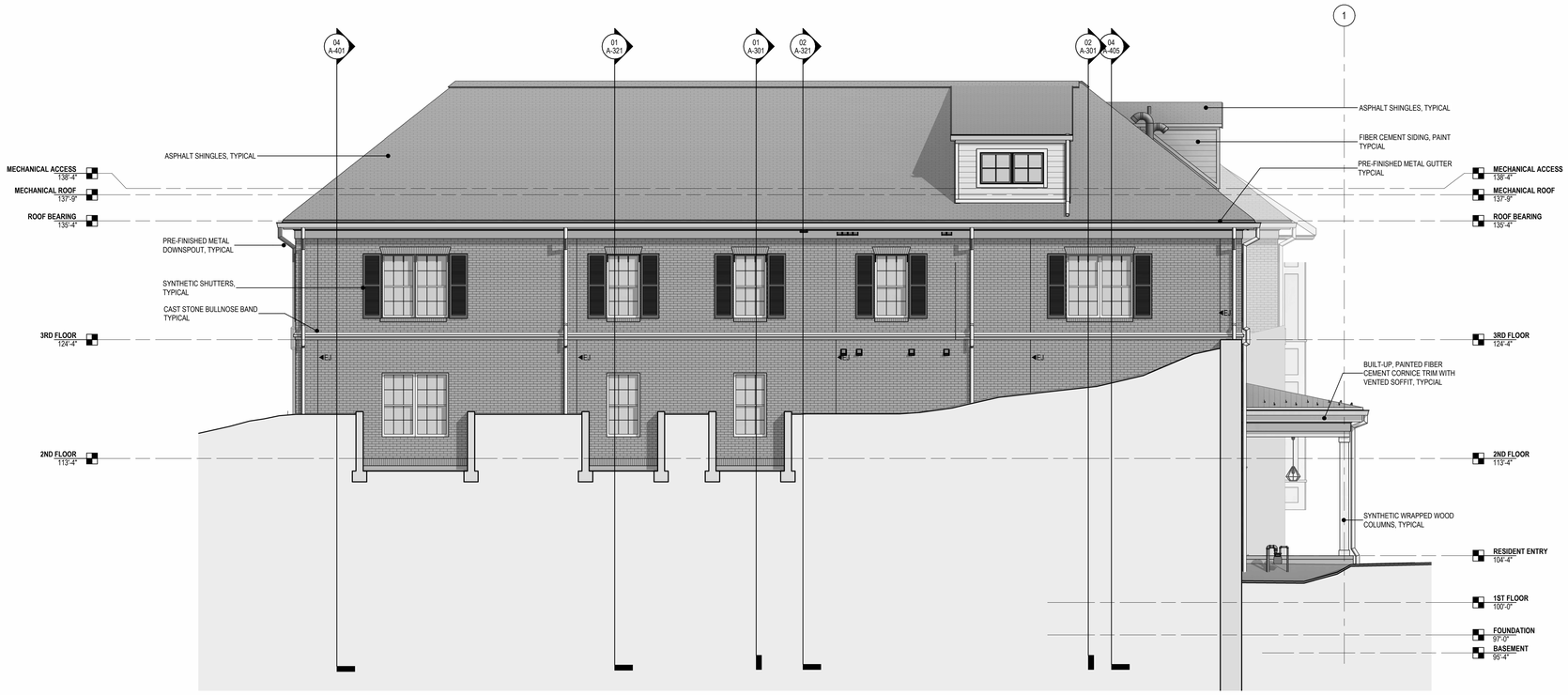
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| 02-27-26 | OWNER REVIEW |
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**DRAWING DATA**
**EXTERIOR ELEVATIONS**

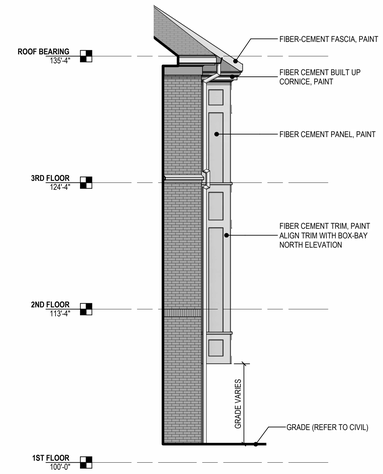
PROJECT #: 25-083
APPROVED BY: C. MILLER
CHECKED BY: B. WELSH
DESIGNED BY: J. RICE
DRAWN BY: S. FISHER

**A-201**

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**01** 3/16" = 1'-0"
**EXTERIOR ELEVATION EAST**
A-202 RE: 01/ A-101




**02** 3/16" = 1'-0"
**EAST ELEVATION BOX BAY WINDOW**
A-202 RE: 01/ A-101




**03** 3/16" = 1'-0"
**EXTERIOR ELEVATION WEST**
A-202 RE: 01/ A-101


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**PROJECT NAME:**
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**ISSUANCES**

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**DRAWING DATA**
**EXTERIOR ELEVATIONS**

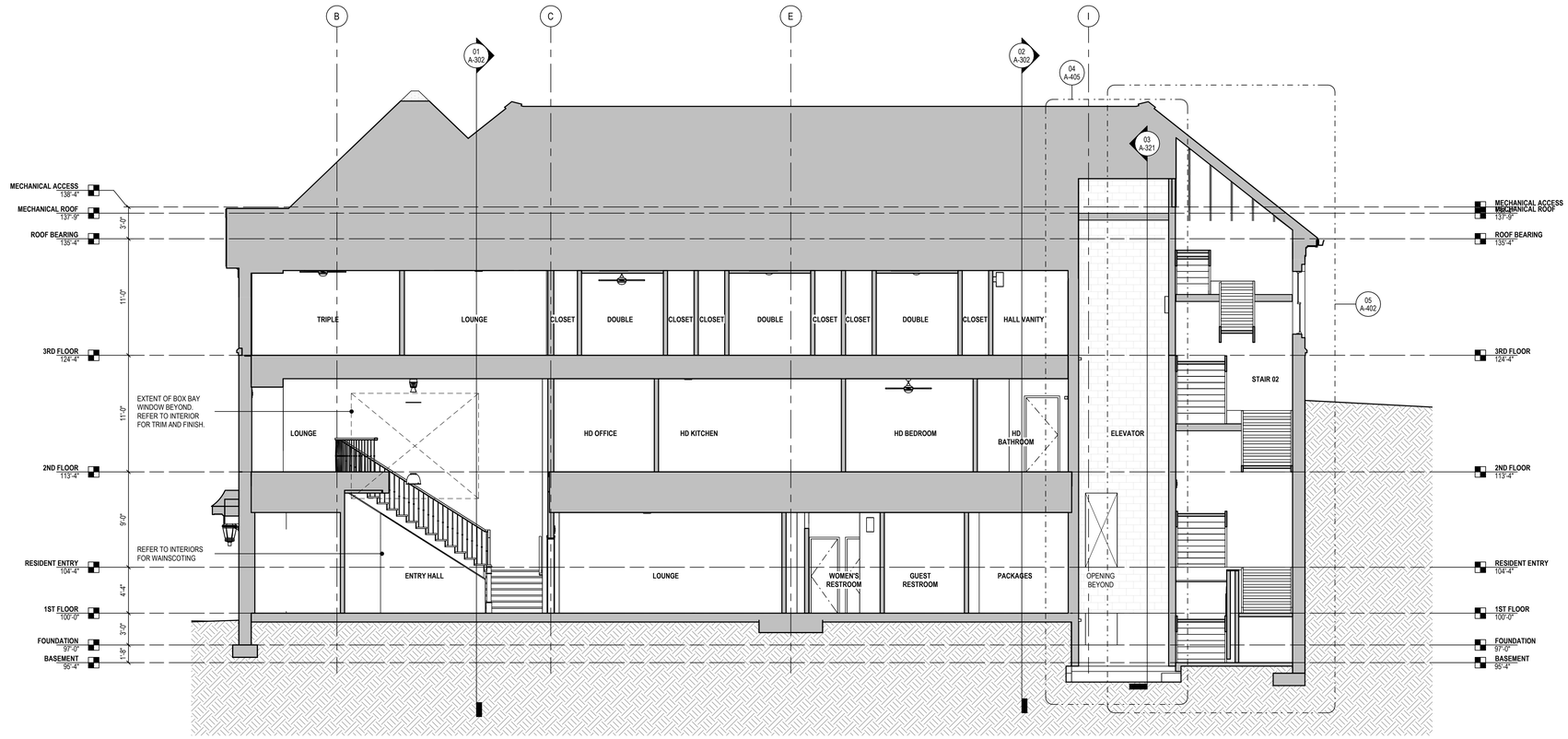
PROJECT #: 25-083
APPROVED BY: C. MILLER
CHECKED BY: B. WELSH
DESIGNED BY: J. RICE
DRAWN BY: S. FISHER

**A-202**


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**01** 3/16" = 1'-0"
**BUILDING SECTION**
A-301 | RE: 01/ A-101




**02** 3/16" = 1'-0"
**BUILDING SECTION**
A-301 | RE: 01/ A-100

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**PROJECT TEAM**

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ANN ARBOR, MICHIGAN 48708

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SIGMA ZETA HOUSING LLC

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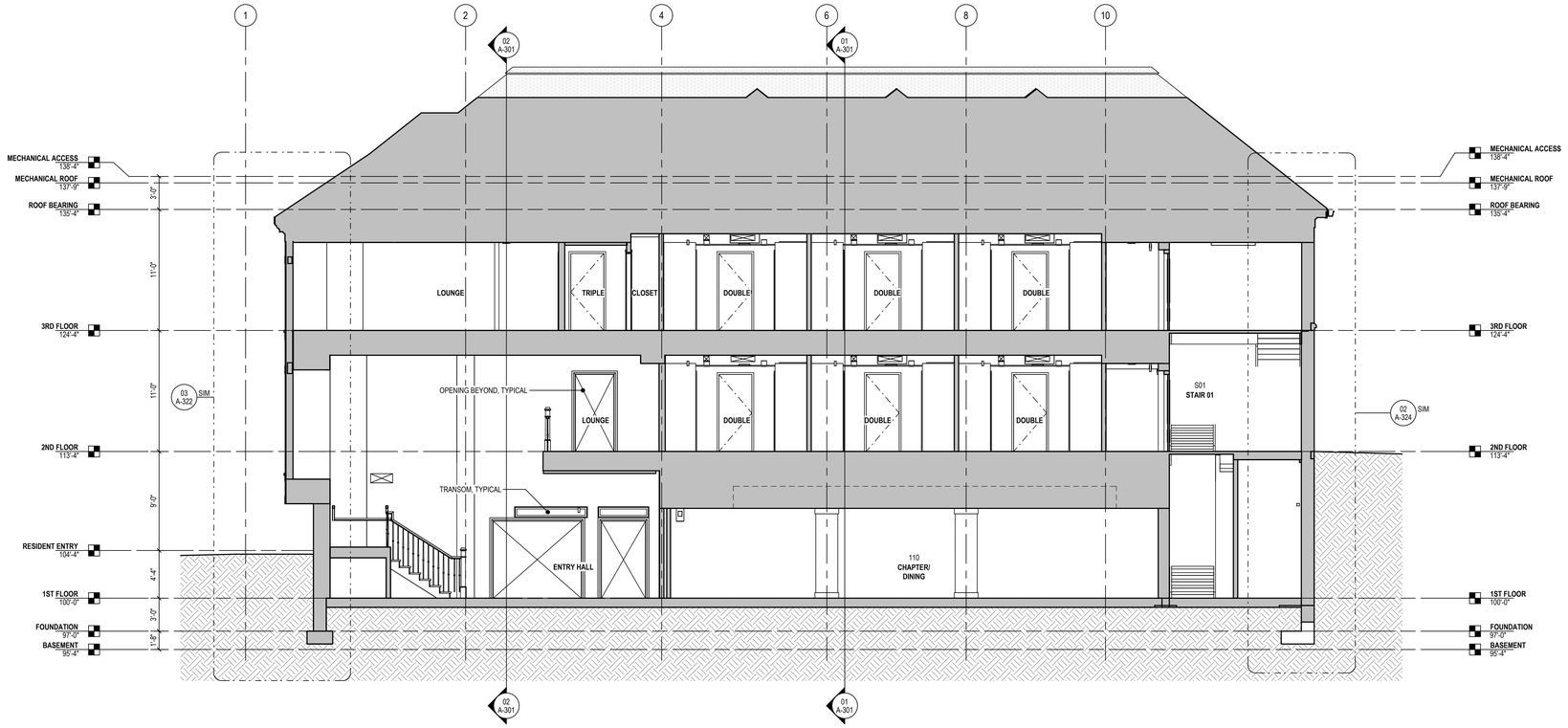
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| 10-31-25 | 100% SD |
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| 02-27-26 | OWNER REVIEW |
| 03-11-26 | REVISED SITE PLAN |

**DRAWING DATA**
**BUILDING SECTIONS**

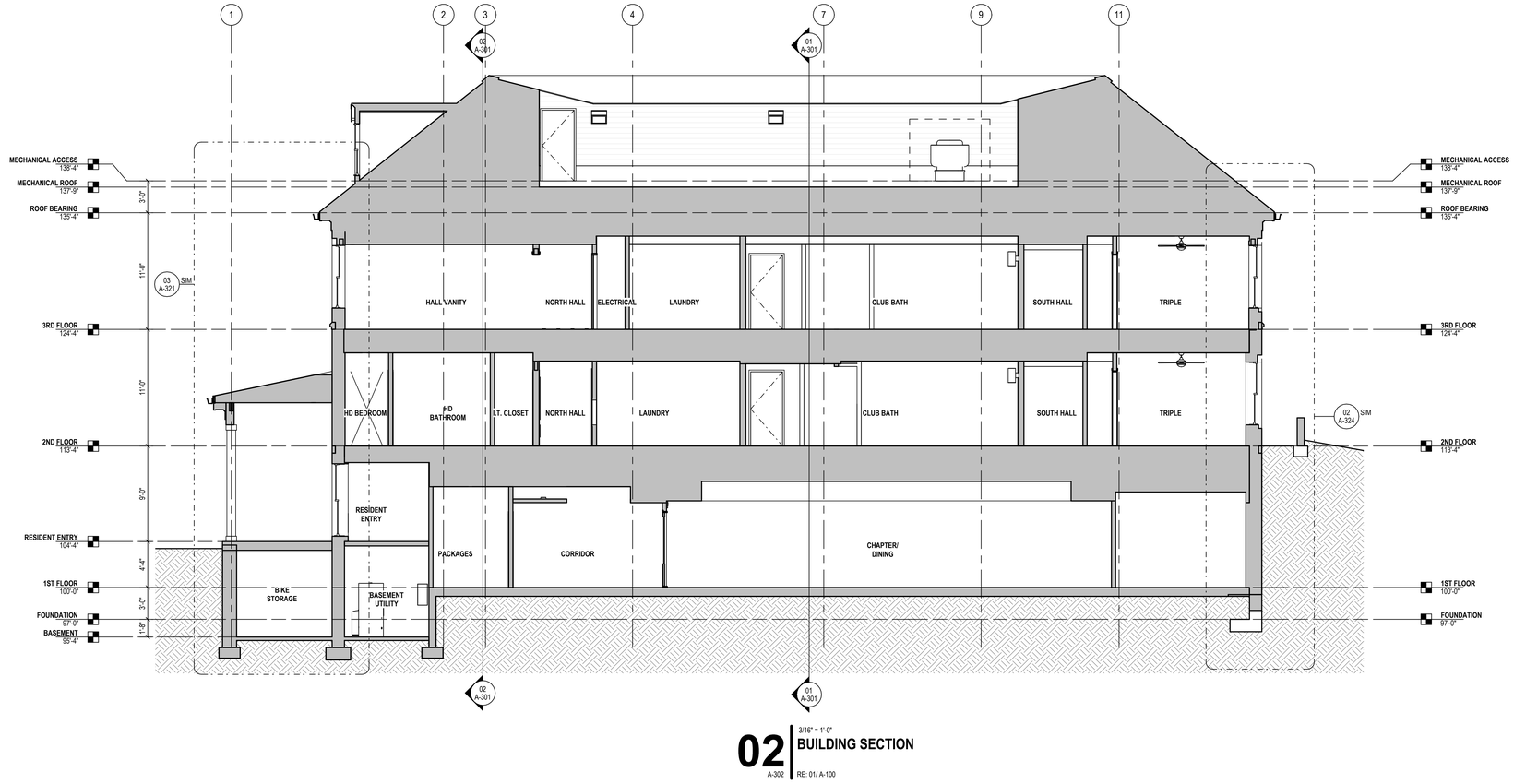
PROJECT #: 25-083
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CHECKED BY: B. WELSH
DESIGNED BY: J. RICE
DRAWN BY: S. FISHER

**A-301**

3/11/2026 7:50:51 AM COPYRIGHT 2026 CORE




**01** 3/16" = 1'-0"
**BUILDING SECTION**
A-302 | RE: 01/ A-101




**02** 3/16" = 1'-0"
**BUILDING SECTION**
A-302 | RE: 01/ A-100


CORE
ENGINEERING EXPERTISE, ARCHITECTURAL THINKING

4293 Five Oaks Drive
Lansing, Michigan 48911

916 Washington Ave
Suite 203
Bay City, Michigan 48708

drivenbycore.com


**SEAL**

**PROJECT TEAM**

**PROJECT DATA**

**ADDRESS:**
805 OXFORD ROAD
ANN ARBOR, MICHIGAN 48708

**CLIENT NAME:**
SIGMA ZETA HOUSING LLC

**PROJECT NAME:**
**KAPPA DELTA HOUSING LLC**

**ISSUANCES**

| DATE | DESCRIPTION |
|---|---|
| 02-27-26 | OWNER REVIEW |
| 03-11-26 | REVISED SITE PLAN |

**DRAWING DATA**
**BUILDING SECTIONS**

PROJECT #: 25-083
APPROVED BY: C. MILLER
CHECKED BY: B. WELSH
DESIGNED BY: J. RICE
DRAWN BY: S. FISHER

**A-302**


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5.25 Outdoor Lighting

5.25.1 Purpose
The purpose of this section is to:

A.Minimize adverse and unsafe impacts of lighting such as light trespass, glare, and skyglow.

B.Protect the natural environment from artificial light at night.

C.Promote energy efficiency.

D.Foster a safer environment that supports and/or enhances commerce and lawful nighttime activities.

5.25.2 Applicability

All lighting that causes exterior illumination after sunset and before sunrise shall be subject to the requirements of this section except for the following:

A.Any temporary light installation on private property is permitted for a total of 90 consecutive days in one calendar year. Examples include seasonal decorative lighting and lighting for temporary public art installations, screenings, performances, and special events. Temporary lighting installations shall be extinguished between 12am and 6am.

Any temporary light installation in Nonresidential Zoning Districts shall comply with Section 5.25.3.B.10.

B.Lighting for flags.
C.Any light installation determined by the Historic District Commission to contribute to the historic character of a property listed in a local or state historic district or on the National Register of Historic Places.

5.25.3 Exterior Lighting Specifications

A. Color Spectrum Management
1. All permanent nonresidential and multi-family lighting installations, with the exception of illuminated signs, shall have a minimum color rendering index (CRI) of 70.
2. All permanent nonresidential and multi-family lighting installations, with the exception of illuminated signs, shall have a correlated color temperature (CCT) of no greater than 3000 K.
B. Luminaire Design and Installation
1. Light Trespass
a.Light trespass beyond the property line shall at no time exceed 0.1 foot-candles onto any lot that is in a Residential Zoning District or the PL district, or in the public right-of-way.
b.In the D1 Downtown Core and D2 Downtown Interface districts, the total illuminance from all sources at the property line shall not exceed eight foot-candles, except for under- canopy lighting.
c.In all other zoning districts, light trespass beyond the property line shall at no time exceed two foot-candles onto any property.
d.In D1 Downtown Core and D2 Downtown Interface districts, the illuminance shall be measured facing up, at a distance three feet above the ground. In any other district, the illuminance shall be measured facing the luminaire and measured at any point within the receiving property, including at any height above grade at the property line.

2. No luminaire in any district shall cause glare onto any property in a Residential Zoning District or zoned PL Public Land, or onto the public right of way.

3. Where lighting targets primarily the ground or horizontal targets, including but not limited to parking areas, loading docks, recreational areas, and site entrances, luminaires shall meet fully shielded criteria, so that no light will cause light trespass as specified in this section, or glare.

4. Where lighting illuminates features on an above grade or vertical target, including but not limited to architectural features, signs, landscaping, fountains, and sculptures, luminaires shall be partially shielded and shall be installed and aimed to minimize their output past the object being illuminated, skyward or otherwise. Such lighting shall not cause light trespass as specified in this section, or glare.

5. If a building façade is more than 10 feet from the property line, the maximum average illuminance on the facade shall be 1 foot-candle on any property in a Residential Zoning District, and 3 foot-candles on any property in any other zoning district, as measured at a distance of 10 feet from the facade, provided that the illuminance does not violate the light trespass limit specified above in paragraph 1. The measurement shall be made facing the facade. Facade illumination shall be provided from above, rather than below, and shall be shielded from glare as specified above in paragraph 3. Facades in D1 and D2 districts, and facades situated less than 10 feet from a building on the same parcel are exempt from this requirement. Signs painted on a façade shall also be exempt from this requirement except Section 5.24.4 D Sign Illumination shall apply.

6. Decorative Building Façade and Landscape Illumination
a.For properties in a Residential Zoning District, Illumination for building facades and/or landscapes whose primary purpose is decorative is prohibited between 12:00 am and 6:00 am.
b.In all other districts, Illumination for building facades and/or landscapes whose primary purpose is decorative is prohibited between 12:00 am and 6:00 am except during business bours. The lighting shall be controlled by an automated timer system.

7. Motion-activated lighting systems shall not be activated by movement beyond the property boundary.

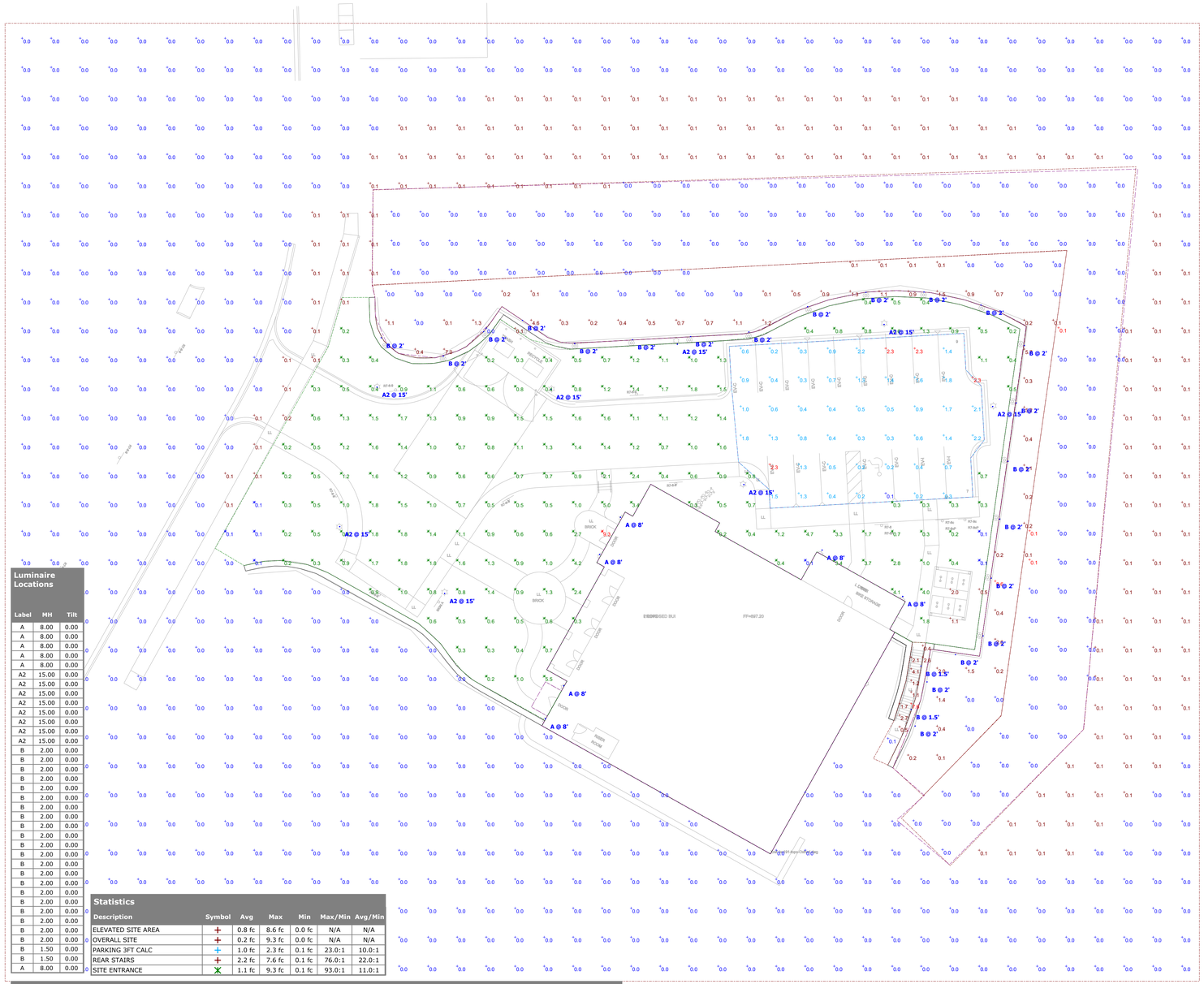
8. Under- canopy lighting for applications such as gasoline service stations, hotel or theater marquees, or Drive Through Facilities shall be fully shielded. The average maintained horizontal Illumination in the area directly below the canopy shall not exceed 20 foot-candles, with no value exceeding 30 foot-candles.
9. Wall- or pole-mounted floodlights shall be aimed no higher than 45 degrees below horizontal, and they shall comply with shielding and light trespass limits as specified in paragraphs 1 and 2.

10. The following lighting systems are prohibited: Any dynamically changing lights, including strobe lights, or lights that are programmed to be flashing, blinking, or moving; except that lighting systems may dim or brighten in response to changes in ambient light as permitted in this Code.

C. Parking Lots
1. Parking lots shall not exceed maximum illuminances at all unobstructed points of 6 foot-candles at any time after sunset and before sunrise. illuminances shall be measured facing upward, three feet above the parking lot surface.

2. Lighting for parking areas and vehicular and pedestrian traffic ways on sites that contain no residential uses shall be extinguished nightly beyond business hours. For after-hours site safety lighting, or uses with no business hours, lighting after sunset and before sunrise shall not be in excess of 2 foot-candles.

5.24.4 Indoor Lighting
Indoor lighting shall not be the source of exterior light trespass or glare as specified in Section 5.25.3.B.1 and 5.25.3.B. 2 above.


A @ 8'
A2 @ 15'
B @ 2'
B @ 1.5'
B @ 2'
B @ 1.5'
B @ 2'
DOOR
DOOR
DOOR

TYPE A/A2

Specification Sheet

**Main Street Specification Sheet**
MS605ALED/MS605BLED Medium

**Main Street**
MS605ALED/MS605BLED Medium

## Finish

Black Textured · White Textured · Park Green Textured · Arch Med Bronze Tex
Dark Bronze Textured · Verde Green · Swedish Iron · Old World Gray Tex
Old Iron · Rust · Weathered Brown · Cedar
Weathered Black · Two Tone · Custom Match

## CCT - Color Temp (K)

2,700K · 3,000K · 3,500K · 4,000K · 5,000K

## Distribution Type

Type 2 · Type 3 · Type 4 · Type 5

| | |
|---|---|
| **Optional Control** | **PEC:** Electronic Button Photocontrol (120V-277V)<br>**PEC4:** Electronic Button Photocontrol (480V) |
| **Optional Fuse** | **FHD:** Double Fuse and Holder |
| **Optional House Side Shield** | **BLOC:** Back Light Optical Control |
| **Optional Chimney** | **FHC:** Frosted Hurricane Chimney |
| **Optional Internal Flat Lens** | **SV1F:** Light diffused internal flat lens<br>**SV2F:** Moderate diffused internal flat lens |
| **Optional Fixed Dimming Resistor Board** | **FDRB:** Fixed Dimming Resistor Board |
| **Finish** | **BKT:** Black Textured<br>**WHT:** White Textured<br>**PGT:** Park Green Textured<br>**ABZT:** Arch Med Bronze Tex<br>**DBT:** Dark Bronze Textured<br>**CM:** Custom Match<br>**OI:** Old Iron<br>**RT:** Rust<br>**WBR:** Weathered Brown<br>**CD:** Cedar<br>**WBK:** Weathered Black<br>**TT:** Two Tone<br>**VG:** Verde Green<br>**SI:** Swedish Iron<br>**OWGT:** Old World Gray Tex |

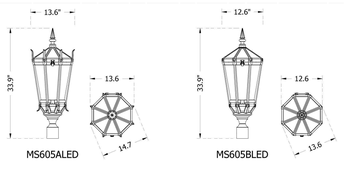
## Light Source

| | |
|---|---|
| **LED** | **08L:** 8 LEDs<br>**16L:** 16 LEDs<br>**24L:** 24 LEDs |
| **CCT - Color Temp (K)** | **27:** 2,700K<br>**30:** 3,000K<br>**35:** 3,500K<br>**40:** 4,000K<br>**50:** 5,000K |
| **Distribution Type** | **T2:** Type 2<br>**T3:** Type 3<br>**T4:** Type 4<br>**T5:** Type 5 |
| **Driver** | **MDL014:** 120V-277V,140mA<br>**MDH014:** 347V-480V,140mA |

Project Name _____ Qty _____

Type _____ Catalog / Part Number _____






## Certifications

c UL us LISTED

## Mounting Configuration

Wall Mount · Post Top · 1 Arm Mount · 1 Arm & Post Top
2 Arm Mount @ 180° · 2 Arm Mount @ 90° · 2Arm @180 & Post Top · 3 Arms @ 120°
3 Arms @ 90° · 3Arm @120 & Post Top · 4 Arms @ 90° · 4Arm @90 & Post Top
1Arm MidMount · 2Arm MidMount @180 · Pier Base

## Description

The MS605ALED or MS605BLED Main Street luminaire is a medium scale modern replica of a popular styled octagonal fixture. Available with spikes (A) or without spikes (B). The cast aluminum hinged roof is appointed with a spiked finial. The unique hinged cage allows for easy access to the driver compartment. The lantern includes individual tapered lenses offered in a variety of styles.

**EPA: 1.71 (ft²) | WEIGHT: 23 LBS**

## Features

| | |
|---|---|
| **Mounting Configuration** | **1W:** Wall Mount<br>**PT:** Post Top<br>**1A:** 1 Arm Mount<br>**1APT:** 1 Arm & Post Top<br>**2A:** 2 Arm Mount @ 180°<br>**2AY0:** 2 Arm Mount @ 90°<br>**2APT:** 2Arm @180 & Post Top<br>**3A:** 3 Arms @ 120°<br>**3AY0:** 3 Arms @ 90°<br>**3APT:** 3Arm @120 & Post Top<br>**4A:** 4 Arms @ 90°<br>**4APT:** 4Arm @90 & Post Top<br>**1AM:** 1Arm MidMount<br>**2AM:** 2Arm MidMount @180<br>**450PB:** Pier Base |
| **Fixture** | **MS605ALED:** Main Street, With Spikes<br>**MS605BLED:** Main Street, Without Spikes |
| **Lens** | **SV1:** Flat SoftVue™ Light Diffused Acrylic<br>**SV2:** Flat SoftVue™ Moderate Diffused Acrylic<br>**SV4:** Flat SoftVue™ Maximum Diffused Acrylic<br>**CTA:** Clear Textured Acrylic<br>**CSA:** Clear Seeded Acrylic<br>**PA:** Prismatic Acrylic |





Specification Sheet

**Main Street**
MS605ALED/MS605BLED Medium

| | |
|---|---|
| **LEDs** | The LEDs in this system will be fully shielded in a direct downward position to maximize efficiency.<br>The LEDs are mounted to maximize thermal transfer to the heat sink surface. The LEDs shall be 100% recyclable: not contain lead, mercury or any other hazardous substances and shall be RoHS compliant. Lumen maintenance shall be determined in accordance with IESNA TM-21, based on LED manufacturer LM-80 test data of no less than 6,000 hours and in-situ testing of the luminaire by an NVLAP accredited Energy Efficient Lighting Products lab. The high-performance white LEDs will have a predicted lumen depreciation of approximately 100,000 hours with greater than 70% of initial output at 25°C. The high brightness, high-output white LEDs shall be 4000K nominal (2700K, 3000K, 3500K or 5000K optional) correlated color temperature (CCT) with a 70 (minimum) color rendering index (CRI). Consult factory for custom CCT or CRI. The luminaire shall have a minimum _____ (see table) delivered initial lumens when operated at steady state with an average ambient temperature of 25°C (77°F).<br>**CCT Lumen Derate Values from 4,000K**<br>2,700K (70+ CRI)=.**92**<br>3,000K (70+ CRI)=.**95**<br>3,500K (70+ CRI)=**1.03**<br>5,000K (70+ CRI)=**1.00** |
| **Optics** | The luminaire shall be provided with individual, refractor type optics applied to each LED. The luminaire shall provide Type ___ (2, 3, 4 or 5) light distribution per the IESNA classifications. Testing shall be done in accordance with IESNA LM-79. |
| **Backlight Optical Control** | **BLOC Optic (BLOC):** An optional "Back Light Optical Control" shield can be provided at the factory. This is an internal optic level "House Side Shield" offering significantly reduced backlight and glare while maintaining the original design aesthetics of the luminaire. |
| **Frosted Chimney** | An optional hourglass shaped opal glass Hurricane Chimney sits a top a decorative brass holder. This ornate feature adds a decorative element inside the lens to create a classic look. |
| **Fixed Dimming Resistor Board (FDRB)** | Optional numbered 10-step selector switch allows for fine adjustment of the light levels in the field, repeatable from location to location. Offers dimming from 25% to 100% of the original output. Enclosure is composite material, sealed to protect components for the life of the product. |
| **Photocontrols** | **Button Photocell:** The photocontrol shall be mounted on the fixture and pre-wired to driver. The electronic button type photocontrol is instant on and will turn on at 1.5 footcandles and will turn off at 2-3 footcandles. See pole spec sheet for pole mounted version. |

## Lumen Chart(s)

**Tested with CSA lens**

| Model # | *2 DELIVERED LUMENS | BUG | EFFICACY (LPW) | *3 DELIVERED LUMENS | BUG | EFFICACY (LPW) | *4 DELIVERED LUMENS | BUG | EFFICACY (LPW) | *5 DELIVERED LUMENS | BUG | EFFICACY (LPW) | WATTAGE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 24L-40-T-_MDL014 | 6530 | B1U2/01 | 75.9 | 6210 | B2U2/02 | 72.2 | 6230 | B1U2/01 | 72.4 | 7035 | B3U2/01 | 81.8 | 86 |
| 24L-30-T-_MDL014 | 6225 | B1U2/01 | 72.4 | 5920 | B2U2/02 | 68.8 | 5940 | B1U2/01 | 69.1 | 6710 | B3U2/01 | 78.0 | 86 |
| 24L-27-T-_MDL014 | 6025 | B1U2/01 | 70.1 | 5730 | B2U2/02 | 66.6 | 5745 | B1U2/01 | 66.8 | 6490 | B3U2/01 | 75.5 | 86 |
| 16L-40-T-_MDL014 | 4445 | B1U2/01 | 76.6 | 4250 | B1U2/01 | 73.3 | 4295 | B1U2/01 | 74.1 | 4860 | B2U2/01 | 83.8 | 58 |
| 16L-30-T-_MDL014 | 4240 | B1U2/01 | 73.1 | 4050 | B1U2/01 | 69.8 | 4095 | B1U2/01 | 70.6 | 4635 | B2U2/01 | 79.9 | 58 |
| 16L-27-T-_MDL014 | 4100 | B1U2/01 | 70.7 | 3920 | B1U2/01 | 67.6 | 3960 | B1U2/01 | 68.3 | 4485 | B2U2/01 | 77.3 | 58 |
| 8L-40-T-_MDL014 | 2305 | B1U2/01 | 74.4 | 2265 | B1U2/01 | 73.1 | 2365 | B1U2/01 | 76.3 | 2550 | B1U2/01 | 82.3 | 31 |
| 8L-30-T-_MDL014 | 2200 | B1U2/01 | 71.0 | 2160 | B1U2/01 | 69.7 | 2255 | B1U2/01 | 72.7 | 2430 | B1U2/01 | 78.4 | 31 |
| 8L-27-T-_MDL014 | 2125 | B1U2/01 | 68.5 | 2090 | B1U2/01 | 67.4 | 2180 | B1U2/01 | 70.3 | 2350 | B1U2/01 | 75.8 | 31 |



## Specifications

| | |
|---|---|
| **Fitter** | The aluminum fitter includes 4 stainless steel Allen-head set screws for attachment to a pole/tenon, and shall slip fit a 3" OD x 3" tall tenon. |
| **Internal Lens** | An optional internal diffusing lens can be added for visual comfort. Suggested for use with CSA lenses but can be used in addition to any other external lens.<br>Optional **(SV1F)** light diffused acrylic flat horizontal lens.<br>Optional **(SV2F)** moderate diffused acrylic flat horizontal lens.<br>Optional **(SV4F)** maximum diffused acrylic flat horizontal lens. |
| **Lens** | Optional glare reducing SoftVue™ lens provides optimal visual comfort.<br>The luminaire is offered with a variety of optional acrylic lenses installed internally in the lantern, held in place with retaining bars. The individual panels are 1/8" thick and are precision cut for fit in the luminaire. |
| **Hardware** | Includes Stainless steel hardware. Most finishes will include hardware with a Black Oxide conversion coating. Light finishes will get non-color coated hardware **(Whites and Silvers)** |
| **Serviceability** | Tool-less access to the driver compartment for ease of installation and maintenance. |
| **UL Listing** | UL listed per UL1598 and CSA C22.2 No. 250.0 for the United States and Canada. Suitable for Wet Locations. |
| **Electronic Driver** | The LED driver is UL recognized and will be securely mounted inside the fixture, for optimized performance and longevity. It will be supplied with a quick-disconnect electrical connector on the power supply, providing easy power connections for fixture installation and maintenance. It will have DC voltage output and be a constant current design. It runs at 50/60HZ and will have overload, overheat, and short circuit protection. It will be supplied with a supplemental line-ground, line-neutral and neutral-ground electrical surge protection in accordance with IEEE/ANSI C62.41.2 guidelines. It will be a high efficiency driver with a THD less than 20% and a high-power factor greater than .9. It will be dimming capable using a 0-10V signal, consult factory for more information. |
| **Finish** | Our 6 Stage Polyester Powder coat paint system offers a beautiful high-end finish that holds up to even the most extreme environments. Each part is inspected for quality and consistency before being released for shipment.<br>Our system exceeds AAMA 2604, AAMA 2605, ASTM D523 and ASTM D4214 requirements. |
| **Traditional Finish** | Traditional paint finishes are available in Sternberg Lighting's Traditional product line. A range of colors help accent the decorative elements on the product. Finishes are available in textured or smooth.<br>Available finishes include: **Black**, **White**, **Park Green**, **Architectural Medium Bronze and Dark Bronze** |
| **Sternberg Select Finish** | The Sternberg Select antique-inspired palette adds a touch of vintage elegance to modern applications.<br>**Old World Gray Textured** is a 1 part powder coat with metallic flakes.<br>**Verde Green and Swedish Iron** is a 2 part finish that includes a powder coat base coat with a hand applied antique top coat. The top coat is unique to each application and changes over time. |
| **Custom Finish** | Custom finishes are offered to adapt to any application.<br>**Rust**, **Weathered Brown and Cedar** are special 1 part powder coat finishes with a distinctive look.<br>**Old Iron and Weathered Black** are 2 part finishes that includes a powder coat base coat with a hand applied antique top coat. The top coat is unique to each application and changes over time.<br>**Two-Tone and Custom Match** options are available to blend Sternberg product with the site, consult factory for more information. |
| **Warranty** | 7-year limited warranty. See Website for Terms and Conditions. |



TYPE B

HYDREL

WANDER Surface Mount
Step Light | 3

## PERFORMANCE DATA

### LUMEN OUTPUT - WANDER1 SM

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Actual performance may differ as a result of end-user environment and application. Contact factory for performance data on any configurations not shown here

| Performance Package | System Watts | Distribution Type | 27K (2700K, 90CRI) | | | 30K (3000K, 90CRI) | | | 35K (3500K, 90CRI) | | | 40K (4000K, 90CRI) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Lumens | LPW | BUG | Lumens | LPW | BUG | Lumens | LPW | BUG | Lumens | LPW | BUG |
| P1 | 4.4 | SW | 295 | 67 | B0-UG-G1 | 319 | 73 | B0-UG-G1 | 340 | 77 | B0-UG-G1 | 353 | 80 | B0-UG-G1 |
| | | MW | 299 | 68 | B0-UG-G1 | 323 | 73 | B0-UG-G1 | 344 | 78 | B0-UG-G1 | 357 | 81 | B0-UG-G1 |
| | | LM | 298 | 68 | B0-UG-G1 | 322 | 73 | B0-UG-G1 | 342 | 78 | B0-UG-G1 | 356 | 81 | B0-UG-G1 |

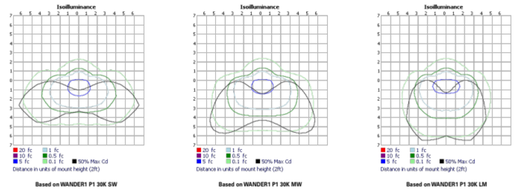
| Performance Package | System Watts | Distribution Type | AMBLW | | |
|---|---|---|---|---|---|
| | | | Lumens | LPW | BUG |
| P1 | 4.6 | SW | 187 | 41 | B0-UG-G1 |
| | | MW | 188 | 41 | B0-UG-G1 |
| | | LM | 184 | 40 | B0-UG-G1 |

### LUMEN OUTPUT - WANDER3 SM

| Performance Package | System Watts | Distribution Type | 27K (2700K, 90CRI) | | | 30K (3000K, 90CRI) | | | 35K (3500K, 90CRI) | | | 40K (4000K, 90CRI) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Lumens | LPW | BUG | Lumens | LPW | BUG | Lumens | LPW | BUG | Lumens | LPW | BUG |
| P1 | 12.7 | SW | 1004 | 79 | B0-UG-G1 | 1085 | 85 | B0-UG-G1 | 1154 | 91 | B0-UG-G1 | 1200 | 94 | B0-UG-G1 |
| | | MW | 995 | 78 | B0-UG-G1 | 1075 | 85 | B0-UG-G1 | 1144 | 90 | B0-UG-G1 | 1190 | 94 | B0-UG-G1 |
| | | LM | 998 | 79 | B0-UG-G1 | 1078 | 85 | B0-UG-G1 | 1147 | 90 | B0-UG-G1 | 1192 | 94 | B0-UG-G1 |

| Performance Package | System Watts | Distribution Type | AMBLW | | |
|---|---|---|---|---|---|
| | | | Lumens | LPW | BUG |
| P1 | 13.2 | SW | 533 | 40 | B0-UG-G1 |
| | | MW | 523 | 40 | B0-UG-G1 |
| | | LM | 512 | 39 | B0-UG-G1 |

### ISO CANDELA PLOTS




Based on WANDER1 P1 30K SW




Based on WANDER1 P1 30K MW




Based on WANDER1 P1 30K LM





HYDREL

WANDER Surface Mount
Step Light | 5

## FEATURES & SPECIFICATIONS

**INTENDED USE:** To provide optimal pathway and building perimeter illumination achieving best uniformity and spacing criteria in product class. Provides visual continuity throughout the space when used alongside the pedestal or semi- recessed mount Wander family luminaires.

**MATERIAL:** Extruded corrosion resistant aluminum

**LIGHT SOURCE:** Proprietary precision high clarity acrylic optic / micro optical assembly with correlated color temperatures (CCT) of 2700K, 3000K, 3500K, 4000K, (90CRI) AMBLW, RED, GREEN and BLUE. All within 3 MacAdam ellipses. Available with an LED light engine supporting a high color rendering of 90CRI.

**DISTRIBUTION:** Available in SW (Short Forward, Wide Lateral), MW (Medium Forward, Wide Lateral) and LM (Long Forward, Medium Lateral)

**VOLTAGE:** MVOLT 120V-277V 50/60Hz

**MOUNTING:** Mounts to standard 4" octagonal j-box (provided by others)

**FEATURES:** Hydrel Exclusive "Flow-Thru" technology, featuring independently encapsulated LED module and Integral Driver

**ENVIRONMENT:** Wet location

**LISTING:** cCSAus, Suitable for outdoor & wet location. IP66 rated. Approved DarkSky Pedestrian Comfort Luminaire when the LED surface is mounted below 1.2m (4 feet) and in a downward position.

**LED LIFE:** Reported L80 @>120,000 hours

**VIBRATION:** 3G vibration rated per ANSI C136.31

**FINISH:** Exterior parts are protected by a zinc-infused durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climates without cracking or peeling.

**GOVERNMENT PROCUREMENT:** BAA – Buy American(h) Act: Product qualifies as a domestic end product under the Buy American Act as implemented in the FAR and DFARS. Product also qualifies as manufactured in the United States under DOT Buy America regulations. BABA – Build America Buy America: Product qualifies as produced in the United States under the definitions of the Build America, Buy America Act. Please refer to www.acuitybrands.com/resources/buy-american for additional information

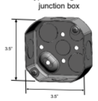
**WARRANTY:** 5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at:
www.acuitybrands.com/support/warranty/terms-and-conditions
Consult factory for details

**NOTE:** Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice

| Specifications | |
|---|---|
| **Model:** | **Weight:** |
| WANDER1 SM | 2.55 lbs. |
| WANDER3 SM | 4.00 lbs. |

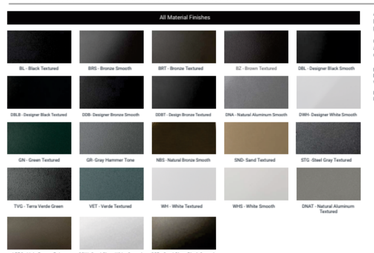
### MOUNTING DETAIL

Typical octagonal junction box




Suggested Octagonal Boxes:
Hubbell/Raco 127
Hubbell/Raco 810S2
Orbit Industries D4RB

## Standard Architectural Colors




Aluminum fixture surfaces undergo a six-step pretreatment process before being painted with a long-lasting TGIC polyester powder coat.

Custom finishes are available. Textures of custom finishes are dependent on the finish material specified. Please consult factory.

Note: These colors were scanned from color chip samples. Some colors, however, may vary slightly from actual appearance due to printing variations and limitations. Please contact factory for color chip samples.

RAL Paint Finishes also available. See the RALBROCHURE for options. It is recommended that Hydrel products only use textured paint.





HYDREL

WANDER Surface Mount
Step Light | 2

## ORDERING INFORMATION

**EXAMPLE:** WANDER1 SM P1 90CRI 27K MVOLT LM ZT BL

| Model* | Style* | Performance Package* | CRI | Color Temperature* | Voltage* | Distribution* |
|---|---|---|---|---|---|---|
| WANDER1 One Optic Pathway Light<br>WANDER3 Three Optic Pathway Light | SM Surface Mount (Octagon box by others) | P1 | 90CRI<br>Note: 90CRI is only required with 27K, 30K, 35K and 40K | 27K 2700K<br>30K 3000K<br>35K 3500K<br>40K 4000K<br>AMBLW Amber Limited Wavelength 590nm<br>RED Red<br>GRN Green<br>BLU Blue | MVOLT Multi-Volt 120V thru 277V | SW Short Forward, Wide Lateral Distribution<br>MW Medium Forward, Wide Lateral Distribution<br>LM Long Forward, Medium Lateral Distribution |

| Control Input* | Finish* | | |
|---|---|---|---|
| ZT 0-10V Dimming (Dims to Dark)* | BL Black Textured | NBS Natural Bronze Smooth | |
| ELV Reverse Phase | BRS Bronze Smooth | WH White Textured | |
| | BRT Bronze Textured | WHS White Smooth | |
| | DBL Designer Black Smooth | _Z* Zinc Undercoat for harsh environment (Example BLZ) | |
| | DDB Designer Bronze Smooth | CF | |
| | DNA Natural Aluminum Smooth | RALTBD* Ral Paint Finishes<br>Note: Additional standard finish options available. See page 5 | |

Note: * is required field.

**Notes:**
1. Zinc Undercoat provides corrosion protection for Marine Environment and Natatorium Construction
2. RALTBD for pricing only, replace with applicable RAL call out when ready to order. See the RALBROCHURE for available options. It is recommended that Hydrel products only use textured paint.



HYDREL

CATALOG NUMBER

NOTES

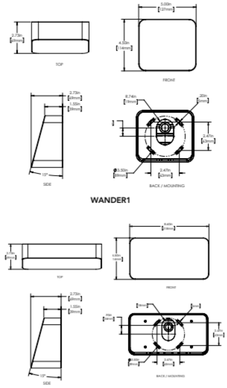
TYPE

# WANDER

## Pathway and Step Light Family
## Surface Mount




## DIMENSIONS




## HIGHLIGHTS

- Available in 2 sizes and can be mounted downward facing for pathway and step applications or upward facing for indirect lighting applications
- Sturdy die-cast body with IK10 impact rating
- Mounts to standard 4" octagonal j-box (provided by others)
- Integral driver
- IP66 Rated
- Precision acrylic optic available in 3 tailored distributions
- Industry leading performance with up to 1000 delivered lumens
- Ideal solution for retrofit applications
- Achieve excellent uniformity and meet egress lighting requirements with fixture spacings of up to 16' on-center (18" mounting height).
- Fully shielded, BUG U-0 rating
- ADA-compliant design
- 3G vibration rated per ANCI C136.31
- DarkSky Approved Pedestrian Comfort Luminaire when the LED surface is mounted below 1.2m (4 feet) and in a downward position.

5 YEAR warranty · 66 IP RATED · BAA · BABA · IK10 · DarkSky Approved Pedestrian Comfort Luminaire

## PERFORMACE SUMMARY

| Model | Performance Package | Distribution | Delivered Lumens | Watts | LPW |
|---|---|---|---|---|---|
| WANDER1 | P1 | SW | 353 | 4.4 | 80 |
| | | MW | 357 | 4.4 | 81 |
| | | LM | 356 | 4.4 | 81 |
| WANDER3 | P1 | SW | 1200 | 12.7 | 94 |
| | | MW | 1190 | 12.7 | 94 |
| | | LM | 1192 | 12.7 | 94 |

Note: Information based on 4000K

## STANDARD DISTRIBUTION



Short Forward, Wide Lateral Distribution (SW) · Medium Forward, Wide Lateral (MW) · Long Forward, Medium Lateral Distribution (LM)



ENGINEERING EXPERTISE. ARCHITECTURAL THINKING

SIGMA ZETA HOUSING LLC
805 OXFORD ROAD - ANN ARBOR, MI

STATE OF MICHIGAN
JESSE SULLIVAN
ENGINEER
6201058610
LICENSED PROFESSIONAL ENGINEER

12-05-2025 Revised Site Plan
02-26-2025 Amended Site Plan

**Designer**
B. Gilbert
**Date**
02/25/2026
**Scale**
AS SHOWN
**Drawing No.**

P2