THE CITY OF ANN ARBOR CITY COUNCIL ON DECEMBER 4, 2023 HAD APPROVED THE PROPOSED BRIARWOOD MALL SEARS REDEVELOPMENT PLANS, SP23-0005, THE PROPOSED REZONING, REZ23-0003, AND PROPOSED LAND TRANSFER, LD24-0002. THIS IS AN APPLICATION FOR A SITE PLAN MODIFICATION FOR DEVELOPMENT A, PRESUB24-0020, THE TWO LEVEL 100,000SF LARGE FORMAT RETAILER WILL NOW BE A ONE LEVEL 60,000 SFT LARGE FORMAT RETAILER WITH AN ATTACHED 15,880 SFT RETAIL. THE GROCER REMAINS A 67,608 SFT ONE LEVEL WITH MEZZANINE. WITH THESE CHANGES THE PLAZA AREA LANDSCAPING BETWEEN THE EXISTING MALL AND THE GROCER HAS BEEN DIALED IN MORE REGARDING HOW THIS SPACE WILL BE USED.

DEVELOPMENT B REMAINS AS APPROVED.

THE PROPOSED AREA OF MODIFICATIONS HAS BEEN BUBBLED OR HIGHLIGHTED TO ASSIST WITH RECOGNIZING THE CHANGES.

SEE REDEVELOPMENT A & B PLANS FOR PROJECT INFORMATION, COMPARISON CHARTS, AND REQUIRED

REDEVELOPMENT A

BRIARWOOD SUSTAINABILITY NARRATIVE

THE SUSTAINABILITY NARRATIVE OUTLINES THE GOAL FOR THE BRIARWOOD SEARS REDEVELOPMENT WITH NEW RETAIL, A GROCER AND OUTLOT. THE PROJECT WILL IMPROVE THE EXISTING SITE WITH NEW MORE EFFICIENT BUILDINGS.

THE KEY SUSTAINABILITY STRATEGIES CURRENTLY BEING CONSIDERED FOR THIS PROJECT ARE OUTLINED BELOW.

THE SITE IS DESIGNED TO PROVIDE MORE LANDSCAPE AREAS THAN EXIST WITHIN THE DEVELOPMENT. THE INCREASE IN LANDSCAPE AREA WILL REDUCE THE STORMWATER RUN OFF FROM THE SITE. PEDESTRIAN AND BICYCLE CONNECTIVITY WILL BE INCORPORATED INTO THE SITE WITH COVERED BICYCLE RACKS AND SIDEWALK CONNECTIONS TO BOTH EISENHOWER AND STATE STREETS. THE DEVELOPMENT WILL BE DESIGNED TO PROVIDE ACCESS TO QUALITY PUBLIC TRANSIT. ELECTRONIC VEHICLE (EV) CHARGING STATIONS WILL BE PROVIDED TO ENCOURAGE EV USAGE. ALTERNATIVE MODES OF TRANSPORTATION WILL HELP REDUCE EMISSIONS

STORMWATER MANAGEMENT

THE SITE HAS BEEN EVALUATED BY THE COUNTY WATER RESOURCES AND G2 CONSULTING SERVICE. EXISTING SOIL CONDITIONS DOES NOT ALLOW WATER INFILTRATION.

• MATERIAL RESOURCES

A CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT PLAN WILL BE IMPLEMENTED DURING CONSTRUCTION. THE PLAN WILL ADDRESS WASTE RECYCLING, SALVAGE AND REUSE GOALS. THE PLAN WILL ACHIEVE AT LEAST 90% LANDFILL DIVERSION OF ALL WASTE MATERIALS. THE PLAN SHALL BE PROVIDED AS THE PROJECT COMES CLOSER TO ENTITLEMENT.

REDEVELOPMENT B

THE SUSTAINABILITY NARRATIVE ARTICULATES VISION AND GOALS FOR THE BRIARWOOD MULTIFAMILY RESIDENTIAL DEVELOPMENT. THE PROJECT WILL INCORPORATE HINES' ETHOS OF SUSTAINABILITY AND INTEGRATE BUILDING AND OUTDOOR SPACES THAT ARE ECOLOGICALLY RESPONSIBLE, HAVE A POSITIVE IMPACT ON THE ENVIRONMENT, AND ENHANCE THE SURROUNDING COMMUNITY. THE PROJECT WILL BE ORGANIZED AROUND THE PRINCIPLES OF PASSIVE BIOPHILIC DESIGN. ADVANCED HIGH-PERFORMANCE SYSTEMS, AND IMPROVED OCCUPANT EXPERIENCE. IT WILL ALSO PURSUE LEED CERTIFICATION AND FOLLOW MANY OF THE CORE SUSTAINABLE APPROACHES OF LEED.

THE KEY SUSTAINABILITY STRATEGIES CURRENTLY BEING CONSIDERED FOR THIS PROJECT ARE OUTLINED BELOW.

• SITE AND LANDSCAPE

THE TARGETS FOR SITE DESIGN ARE TO PROVIDE VISUAL CONNECTION TO OUTSIDE FROM WITHIN THE BUILDING. REDUCE STORMWATER RUNOFF. MINIMIZE THE URBAN HEAT ISLANI EFFECT, AND IMPROVE PEDESTRIAN AND BICYCLE CONNECTIVITY. THE DEVELOPMENT WILL BE DESIGNED TO PROVIDE ACCESS TO QUALITY PUBLIC TRANSIT. PROVIDING BICYCLE PARKING AND ACCESS TO THE GROCER NEARBY WILL ENCOURAGE ALTERNATIVE MODES OF TRANSPORTATION AND REDUCE EMISSIONS.

• LOW CARBON DESIGN

THE PROJECT WILL ASPIRE TO BE A LOW CARBON BUILDING WITH FOCUS ON WHOLE LIFE CARBON: OPERATIONAL AND EMBODIED. REDUCING OPERATIONAL CARBON WILL BE ACHIEVED THROUGH A COMBINATION OF HIGH PERFORMANCE FACADE. EFFICIENT HVAC SYSTEMS, LED LIGHTING, AND ALL-ELECTRIC HEATING, COOKING APPLIANCES, AND DOMESTIC HOT WATER. BY INCORPORATING ALL-ELECTRIC SYSTEMS, THE PROJECT WILL ELIMINATE THE NEED FOR FOSSIL FUELS AND, INSTEAD, RELY ON CLEANER ENERGY SOURCES. (A FOSSIL FUEL-BASED GENERATOR IS NECESSARY, BUT IT WILL ONLY BE USED

STRATEGIES THAT REDUCE EMBODIED CARBON AND OTHER GREENHOUSE GAS EMISSIONS ASSOCIATED WITH BUILDING MATERIALS (STRUCTURE, ENCLOSURE, AND INTERIOR MATERIALS) WILL ALSO BE CONSIDERED. LOW CARBON CONCRETE, RECYCLED STEEL, AND WOOD FROM WELL-MANAGED FORESTS WILL BE PRIORITIZED TO MINIMIZE PROPOSED DESIGN EMBODIED CARBON.

WATER MANAGEMENT

POTABLE WATER CONSERVATION IS AN IMPORTANT CONSIDERATION AND WILL BE PRIORITIZED. NATIVE PLANT SPECIES WHICH ELIMINATE THE NEED FOR IRRIGATION WATER AND LOW-FLOW FIXTURES WILL BE CONSIDERED. LOW-IMPACT INFRASTRUCTURE SUCH AS PERMEABLE PAVEMENT AND PARKING TO MANAGE STORMWATER RUNOFF WILL ALSO BE PRIORITIZED AS WELL AS PRIORITIZING GREEN SPACE IN LIEU OF HARDSCAPE.

• RESILIENCE AND ADAPTATION

THIS REGION IS EXPECTED TO EXPERIENCE IMPACTS OF CLIMATE CHANGE SUCH AS INCREASE IS TEMPERATURE AND EXTENDED PERIODS OF HIGH HEAT. STRATEGIES INCLUDING HIGH PERFORMANCE FACADE, OPERABLE WINDOWS, HIGH REFLECTIVITY ROOF AND PAVING MATERIALS, AND MANAGING STORMWATER THROUGH LOW-IMPACT INFRASTRUCTURE WILL BE CONSIDERED.

• MATERIAL RESOURCES AND INDOOR ENVIRONMENTAL QUALITY

OCCUPANT HEALTH AND WELL-BEING WILL BE A CORE FOCUS. STRATEGIES THAT IMPROVE AIR QUALITY, THERMAL COMFORT, AND ACCESS TO DAYLIGHT AND VIEWS WILL BE PRIORITIZED. THE MATERIAL AND PRODUCT SELECTION FOR THIS PROJECT WILL FOCUS ON PRODUCTS WITH MATERIAL INGREDIENT TRANSPARENCY, LOW OR NO VOC, HIGH RECYCLED CONTENT, LOCALLY SOURCED, AND MEANINGFUL EMBODIED CARBON REDUCTION. A COMPREHENSIVE WASTE MANAGEMENT PROGRAM TO REDUCE BOTH CONSTRUCTION AND OPERATIONAL WASTE, ENCOURAGE RECYCLING AND COMPOSTING, AND DIVERT WASTE FROM LANDFILL WILL BE CONSIDERED.

CALL MISS DIG 72 HOURS

Know what's below. Call before you dig. (TOLL FREE)

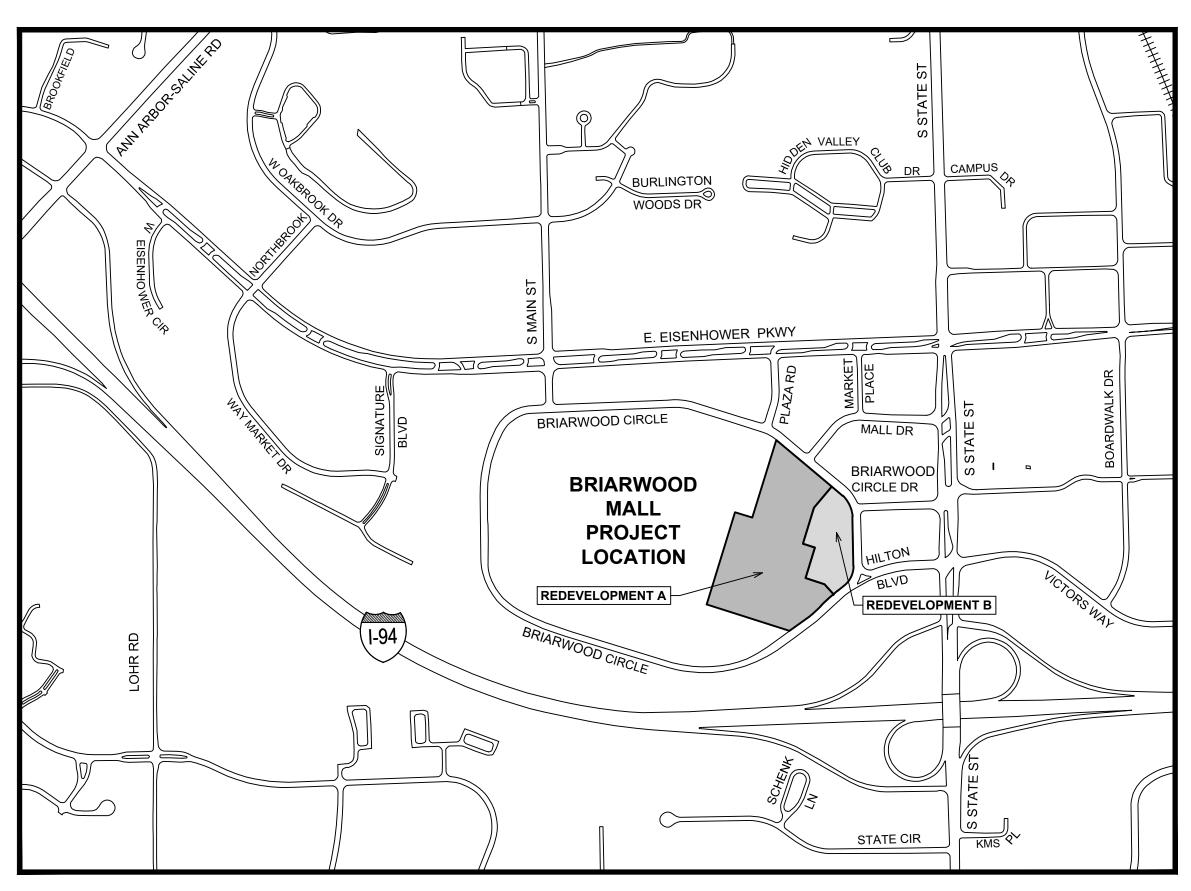
(3 WORKING DAYS **BEFORE YOU DIG** 1-800-482-7171 or **811**

ALL EXISTING UTILITIES SHOWN ON THIS TOPOGRAPHIC SURVEY HAVE BEEN TAKEN FROM VISUAL OBSERVATION AND RECORD MAPPING WHERE AVAILABLE. NO GUARANTEE IS MADE OR SHOULD BE ASSUMED. AS TO THE COMPLETENESS OR ACCURACY OF THE UTILITIES SHOWN ON THIS DRAWING. PARTIES UTILIZING THIS INFORMATION SHALL FIELD VERIFY THE ACCURACY AND COMPLETENESS PRIOR TO CONSTRUCTION.

BRIARWOOD MALL SEARS REDEVELOPMENT

CITY OF ANN ARBOR, MICHIGAN

HRC JOB No. 20220788



ENLARGED LOCATION MAP

SURVEYING NOTE:

DTE ENERGY-GAS

MCI-PHONE

ALL SURVEYING IS BASED ON STATE PLANE COORDINATE SYSTEM

SIDEWALK MAINTENANCE

ALL SIDEWALKS ARE TO BE KEPT AND MAINTAINED IN GOOD REPAIR BUT THE OWNER OF THE LAND ADJACENT AND ABUTTING UPON THE SAME. PRIOR TO THE ISSUANCE OF THE FINAL CERTIFICATION OF OCCUPANCY OF THE SITE ALL EXISTING SIDEWALKS IN NEED OF REPAIR MUST BE REPAIRED IN ACCORDANCE WITH CITY STANDARDS.

CITY OF ANN ARBOR FIELD OPERATIONS SERVICES UNIT THE FOLLOWING UTILITIES ARE LOCATED IN OR NEAR THE SITE FOR THIS PROJECT.

PUBLIC UTILITIES												
CITY OF ANN ARBOR FIELD OPER	RATIONS SERVICES UNIT											
WATER, SEWER AND STORM	W.R. WHEELER SVC. CTR 4251 STONE SCHOOL RD. ANN ARBOR, MI 48108	734-794-6350										
SIGNS/SIGNALS/STREETLIGHTS	W.R. WHEELER SVC. CTR 4251 STONE SCHOOL RD. ANN ARBOR, MI 48108	MARC MORENO 734-794-6361										
PRIVATE UTILITIES												
AT&T-PHONE	550 S. MAPLE ANN ARBOR, MI 48103	BRIAN BERRY 734-996-2135										
DTE ENERGY-ELECTRIC	WESTERN WAYNE SERVICE CTR 8001 HAGGERTY RD. BELVILLE, MI 48111	DOMINIC CIANTA 313-235-4005										
COMCAST-CABLE	27800 FRANKLIN RD. SOUTHFIELD, MI 48034	RON SUTHERLAN 313-999-8300										

17150 ALLEN RD.

MELVINDALE, MI 48122

2400 NORTH GLENFILLE

JACK WHYATT

DEAN BOYERS

313-701-1355

972-729-6016

PERMITS REQUIRED TO BE OBTAINED BY THE CONTRACTOR PRIOR TO THE BEGINNING OF CONSTRUCTION.

PERMIT	ISSUING AUTHORITY
GRADING/ SOIL EROSION & SEDIMENTATION CONTROL PERMIT	CITY OF ANN ARBOR PLANNING AND DEVELOPMENT SERVICES UNIT

05-27-2025 SITE PLAN RESUBMITTAL 04-16-2025 SITE PLAN RESUBMITTAL 03-12-2025 SITE PLAN RESUBMITTAL

07-10-2024 SITE PLAN RESUBMITTAL 04-18-2024 SITE PLAN SUBMITTAL

05/27/2025 SITE PLAN RESUBMITTAL

SHEET INDEX

REDEVELOPMENT A

CA-25 - CA-25A - _ _ TYPICAL DETAILS

CA-01 - CA-03

CA-04 - CA-06

_ COVER SHEET

EASEMENT EXHIBIT ALTA SURVEY

PROJECT LOCATION AND AERIAL

NATURAL FEATURES PLAN

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EXISTING CONDITIONS

PROPOSED UTILITIES

PROPOSED GRADING

SOLID WASTE PLAN

ESTIMATED COSTS

AA-02 - AA-03 _ _ _ GOURMET GROCERY ELEVATIONS

_____PATIO AERIAL OVERVIEW

AA-12 - AA-13 _ _ _ 15,880 SF RETAIL ELEVATIONS

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CB-13 ____ TYPICAL DETAILS

_____ ESTIMATED COSTS

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LB-02 ____ LANDSCAPE NOTES & DETAILS

AB-03 _ _ _ EXTERIOR ELEVATIONS

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FLOOR PLAN 01-02

AB-06 ---- PERSPECTIVE RENDERING - SOUTHEAST

---- FLOOR PLAN 03-04, ROOF

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PROPOSED OVERALL PHASING PLAN

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PROPOSED DRAINAGE AREA PLAN

CA-18 - CA-18C___ PROPOSED STORM WATER DETENTION CALCULATIONS

PROPOSED DIMENSIONAL LAYOUT & SITE PLAN

PROPOSED SOIL EROSION AND SEDIMENT CONTROL PLAN

STORM WATER MANAGEMENT SYSTEM MAINTENANCE PLAN

EXISTING AND PROPOSED FIRE HYDRANT COVERAGE PLAN

PROPOSED STORM SEWER CALCULATIONS

ANN ARBOR SOLID WASTE STANDARD DETAILS

PROPOSED PARKING LOT LANDSCAPING

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GOURMET GROCERY PERSPECTIVE RENDERING

LARGE FORMAT RETAILER FIRST FLOOR PLAN

LARGE FORMAT RETAILER MATERIAL BOARD

LARGE FORMAT RETAILER ELEVATIONS

COVER SHEET - REDEVELOPMENT B

NATURAL FEATURES OVERLAY PLAN

_ PROPOSED DIMENSIONAL LAYOUT PLAN

NATURAL FEATURES PLAN

_ EXISTING CONDITIONS PLAN

PROPOSED UTILITY PLAN

_ PROPOSED GRADING PLAN

___ LANDSCAPE PLAN & PLANT LIST

---- PERSPECTIVE RENDERING - NORTHEAST

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PROPOSED LANDSCAPE PLAN

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GOURMET GROCERY WALL SECTIONS

PRELIMINARY PLAZA PLAN

TRANSPORTATION CIRCULATION

_ OVERALL EXISTING / PROPOSED & SURROUNDING PARCELS

APPROVED AND PROPOSED PERSPECTIVE SITE VIEW

PROPOSED OVERALL DIMENSIONAL LAYOUT PLAN

OVERALL SITE UTILITIES DEVELOPMENT A & B

BRIARWOOD MALL - SEARS REDEVELOPMENT



Indianapolis, IN 46204

(317) 636-1600

CURRENT DEED RESTRICTIONS APPLY

CONSULTING ENGINEERS SINCE 1915 555 HULET DRIVE BLOOMFIELD HILLS, MICH.

PHONE: (248) 454-6300 AX (1st. Floor): (248) 454-6312 FAX (2nd. Floor): (248) 454-6359 WEB SITE: http://www.hrcengr.com

WASHTENAW COUNTY MICHIGAN PREPARED UNDER THE SUPERVISION OF

Albert P. Mickalich ENGINEER

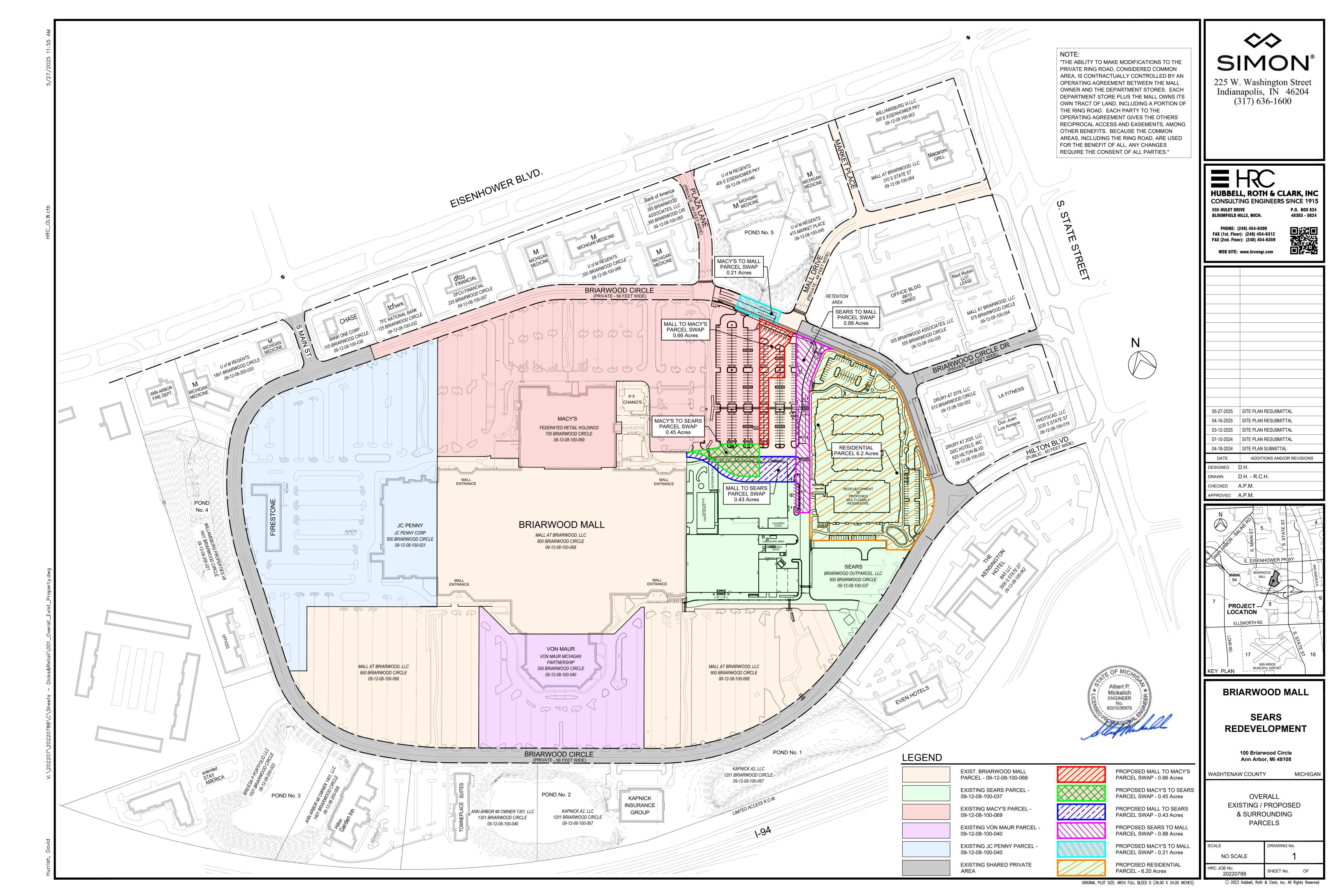
ORIGINAL PLOT SIZE: ARCH FULL BLEED D (36.00 X 24.00 INCHES)

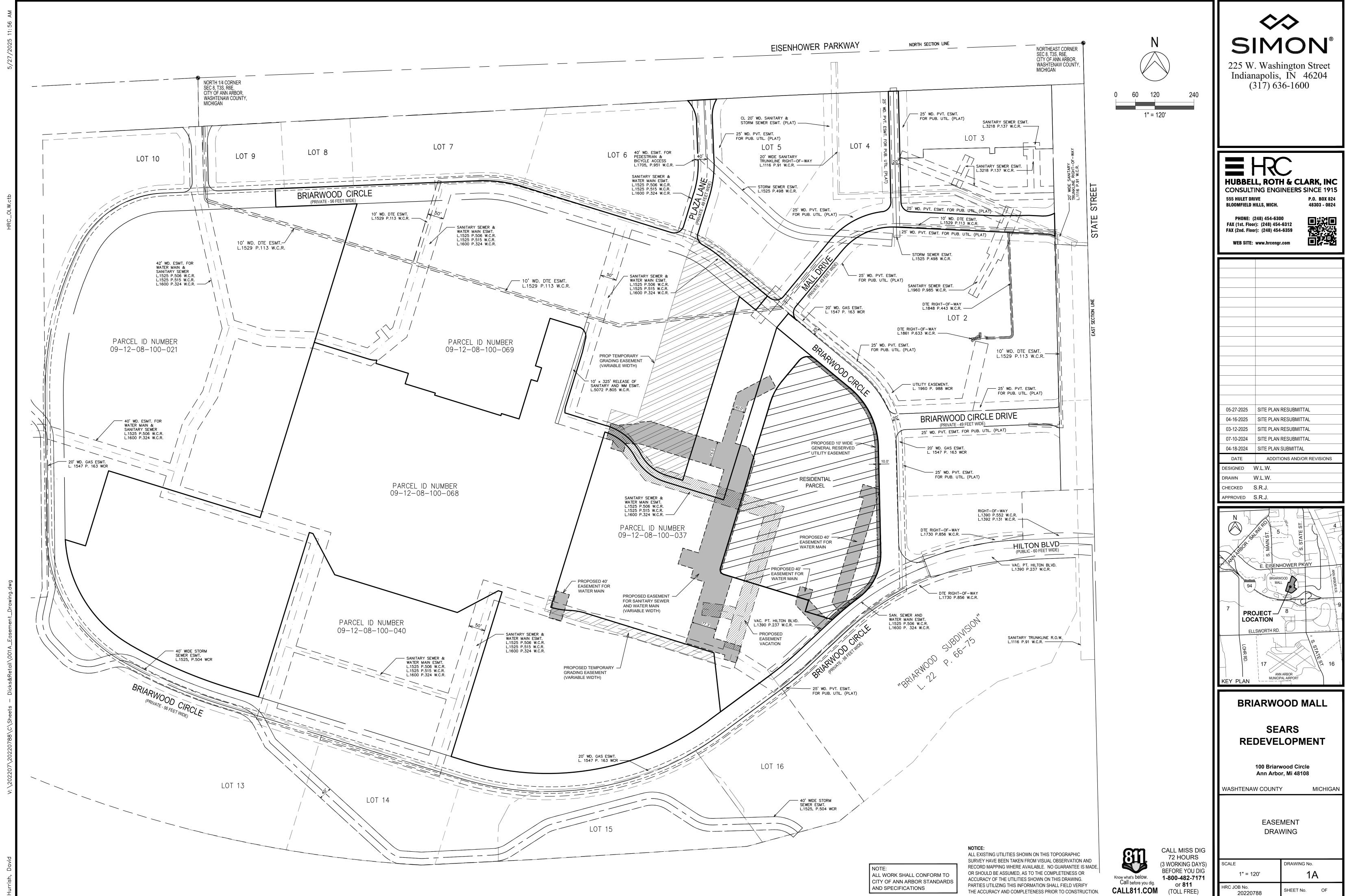
HUBBELL, ROTH & CLARK, INC

100 Briarwood Circle Ann Arbor, Mi 48108

COVER

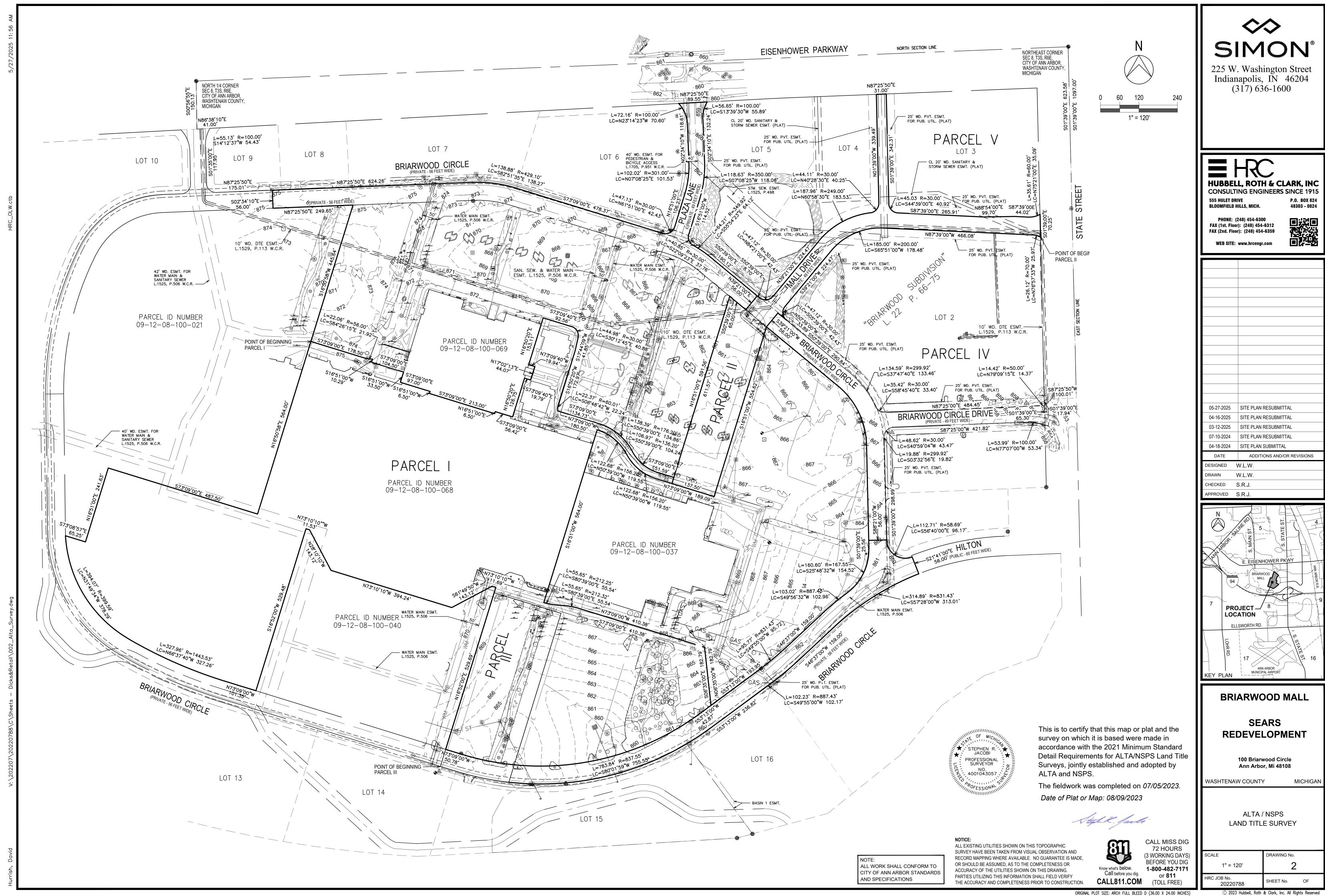
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20220788 SHEET No. OF

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PROPERTY DESCRIPTION

AS SHOWN IN SUPPLIED TITLEWORK FROM FIRST AMERICAN TITLE, COMMITMENT NUMBER NCS-117929293-DC72, DATED MAY 19, 2023.

PARCEL I

COMMENCING AT THE NORTH 1/4 CORNER, SECTION 8, TOWNSHIP 3 SOUTH, RANGE 6 EAST, PITTSFIELD TOWNSHIP, NOW CITY OF ANN ARBOR, WASHTENAW COUNTY, MICHIGAN; THENCE SOUTH 00 DEGREES 56 MINUTES 55 SECONDS EAST 150,13 FEET ALONG THE NORTH AND SOUTH 1/4 LINE OF SAID SECTION; THENCE NORTH 86 DEGREES 38 MINUTES 10 SECONDS EAST 41.0 FEET ALONG THE SOUTH LINE OF THE EISENHOWER PARKWAY; THENCE SOUTHERLY 55.13 FEET ALONG THE ARC OF A CIRCULAR CURVE TO THE LEFT, RADIUS 100.0 FEET, CHORD SOUTH 14 DEGREES 12 MINUTES 37 SECONDS WEST 54.43 FEET; THENCE SOUTH 01 DEGREES 35 MINUTES EAST 117.95 FEET; THENCE SOUTHEASTERLY 47.64 FEET ALONG THE ARC OF A CIRCULAR CURVE TO THE LEFT, RADIUS 30.0 FEET, CHORD SOUTH 47 DEGREES 04 MINUTES 35 SECONDS EAST 42.79 FEET, THENCE NORTH 87 DEGREES 25 MINUTES 50 SECONDS EAST 175.00 FEET; THENCE SOUTH 16 DEGREES 34 MINUTES 10 SECONDS EAST 56.00 FEET; THENCE NORTH 87 DEGREES 25 MINUTES 50 SECONDS EAST 249.65 FEET; THENCE SOUTH 16 DEGREES 51 MINUTES WEST 445.64 FEET FOR A POINT OF BEGINNING: THENCE SOUTH 73 DEGREES 09 MINUTES EAST 178.50 FEET; THENCE EASTERLY 22.06 FEET ALONG THE ARC OF A CIRCULAR CURVE TO THE LEFT, RADIUS 56.00 FEET, CHORD SOUTH 84 DEGREES 26 MINUTES 15 SECONDS EAST 21.92 FEET; THENCE SOUTH 16 DEGREES 51 MINUTES WEST 10.29 FEET; THENCE SOUTH 73 DEGREES 09 MINUTES EAST 10.29 FEET; THENCE SOUTH 76 DEGREES 51 MINUTES EAST 104.50 FEET; THENCE SOUTH 76 DEGREES 51 MINUTES EAST 107.00 FEET; THENCE SOUTH 78 DEGREES 51 MINUTES EAST 107.00 FEET; THENCE SOUTH 78 DEGREES 51 MINUTES EAST 107.00 FEET; THENCE SOUTH 78 DEGREES 51 MINUTES EAST 107.00 FEET; THENCE SOUTH 78 DEGREES 51 MINUTES EAST 107.00 FEET; THENCE SOUTH 78 DEGREES 51 MINUTES EAST 107.00 FEET; THENCE SOUTH 78 DEGREES 51 MINUTES EAST 107.00 FEET; THENCE SOUTH 18 DEGREES 51 MINUTES EAST 107.00 FEET; THENCE SOUTH 18 DEGREES 51 MINUTES EAST 107.00 FEET; THENCE SOUTH 19 DEGREES 51 MINUTES EAST 107.00 FEET; THENCE SOUTH 19 DEGREES 51 MINUTES EAST 107.00 FEET; THENCE SOUTH 19 DEGREES 51 MINUTES EAST 107.00 FEET; THENCE SOUTH 19 DEGREES 51 MINUTES EAST 107.00 FEET; 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THENCE SOUTH 73 DEGREES 51 MINUTES EAST 39.50 FEET; THENCE SOUTH 73 DEGREES 51 MINUTES EAST 39.50 FEET; THENCE SOUTH 73 DEGREES 39 MINUTES EAST 39.50 FEET; THENCE SOUTH 73 DEGREES 39 MINUTES EAST 39.50 FEET; THENCE SOUTH 73 DEGREES 39 MINUTES EAST 39.50 FEET; THENCE SOUTH 73 DEGREES 39 MINUTES EAST 39.50 FEET; THENCE SOUTH 73 DEGREES 39 MINUTES EAST 39.50 FEET; THENCE SOUTH 73 DEGREES 39 MINUTES EAST 39.50 FEET; THENCE SOUTH 73 DEGREES 39 MINUTES EAST 39.50 FEET; THENCE SOUTH 73 DEGREES 39 MINUTES EAST 39.50 FEET; THENCE SOUTH 73 DEGREES 39 MINUTES EAST 39.50 FEET; THENCE SOUTH 73 DEGREES 39 MINUTES EAST 39.50 FEET; THENCE SOUTH 73 DEGREES 39 MINUTES EAST 39.50 FEET; THENCE SOUTH 73 DEGREES 39 MINUTES EAST 39.50 FEET; THENCE SOUTH 74 DEGREES 39 MINUTES EAST 39.50 FEET; THENCE SOUTH 75 DEGREES 39 MINUTES EAST 39.50 FEET; THENCE SOUTH 75 DEGREES 39 MINUTES EAST 39.50 FEET; THENCE SOUTH 75 DEGREES 39 MINUTES EAST 39.50 FEET; THENCE SOUTH 75 DEGREES 39 MINUTES EAST 39.50 FEET; THENCE SOUTH 75 DEGREES 39 MINUTES EAST 39.50 FEET; THENCE SOUTH 75 DEGREES 39 MINUTES EAST 39.50 FEET; THENCE SOUTH 75 DEGREES 39 MINUTES EAST 39.50 FEET; THENCE SOUTH 39 DEGREES 39 MINUTES EAST 39.50 FEET; THENCE SOUTH 39 DEGREES 39 MINUTES EAST 39 DEGREES 3 DEGREES 09 MINUTES EAST 180.50 FEET; THENCE SOUTH 16 DEGREES 51 MINUTES WEST 564.00 FEET; THENCE EAST EAST 55.54 FEET; THENCE TO THE LEFT, RADIUS 212.77 FEET, CHORD SOUTH 80 DEGREES 39 MINUTES EAST 55.54 FEET; THENCE EASTERLY 55.70 FEET ALONG THE ARC OF A CIRCULAR CURVE TO THE RIGHT, RADIUS 212.77 FEET, CHORD SOUTH 80 DEGREES 39 MINUTES EAST 55.54 FEET; THENCE SOUTH 73 DEGREES 09 MINUTES EAST 410.38 FEET; THENCE SOUTH 06 DEGREES 35 MINUTES EAST 182.79 FEET; THENCE NORTH 53 DEGREES 13 MINUTES EAST 193.95 FEET; THENCE NORTHEASTERLY 95.77 FEET ALONG THE ARC OF A CIRCULAR CURVE TO THE LEFT, RADIUS 831.43 FEET, CHORD NORTH 49 DEGREES 55 MINUTES EAST 95.72 FEET; THENCE NORTH 46 DEGREES 37 MINUTES EAST 159.00 FEET; THENCE NORTHEASTERLY 103.02 FEET ALONG THE ARC OF A CIRCULAR CURVE TO THE RIGHT, RADIUS 887.43 FEET, CHORD NORTH 49 DEGREES 56 MINUTES 32 SECONDS EAST 102.96 FEET; THENCE NORTHEASTERLY 160.60 FEET ALONG THE ARC OF A CIRCULAR CURVE TO THE LEFT, RADIUS 167.55 FEET, CHORD NORTH 25 DEGREES 48 MINUTES 32 SECONDS EAST 154.52 FEET; THENCE NORTH 01 DEGREES 39 MINUTES WEST 25.56 FEET; THENCE NORTH 88 DEGREES 21 MINUTES EAST 56.0 FEET; THENCE SOUTHEASTERLY 112.71 FEET ALONG THE ARC OF A CIRCULAR CURVE TO THE LEFT, RADIUS 58.69 FEET, CHORD SOUTH 56 DEGREES 40 MINUTES EAST 96.17 FEET; THENCE SOUTH 21 DEGREES 41 MINUTES EAST 56.00 FEET; THENCE SOUTHWESTERLY 314.89 FEET ALONG THE ARC OF A CIRCULAR CURVE TO THE LEFT, RADIUS 831.43 FEET, CHORD SOUTH 57 DEGREES 28 MINUTES WEST 313.01 FEET; THENCE SOUTH 46 DEGREES 37 MINUTES WEST 159.0 FEET; THENCE SOUTHWESTERLY 102.23 FEET ALONG THE ARC OF A CIRCULAR CURVE TO THE RIGHT, RADIUS 887.43 FEET, CHORD SOUTH 49 DEGREES 55 MINUTES WEST 102.17 FEET; THENCE SOUTH 53 DEGREES 13 MINUTES WEST 236.82 FEET; THENCE WESTERLY 667.62 FEET ALONG THE ARC OF A CIRCULAR CURVE TO THE RIGHT RADIUS 893.38 FEET, CHORD SOUTH 74 DEGREES 37 MINUTES 30 SECONDS WEST 652.20 FEET; THENCE NORTH 16 DEGREES 52 MINUTES 00 SECONDS EAST 551.99 FEET; THENCE NORTH 73 DEGREES 10 MINUTES 10 SECONDS WEST 218.45 FEET; THENCE NORTH 16 DEGREES 52 MINUTES 00 SECONDS EAST 17.90 FEET; THENCE NORTH 73 DEGREES 10 MINUTES 10 SECONDS WEST 11.69 FEET; THENCE SOUTH 61 DEGREES 49 MINUTES 50 SECONDS WEST 143.12 FEET; THENCE NORTH 73 DEGREES 10 MINUTES 10 SECONDS WEST 143.12 FEET; THENCE NORTH 73 DEGREES 10 MINUTES 10 SECONDS WEST 11.53 FEET; THENCE SOUTH 16 DEGREES 52 MINUTES 00 SECONDS WEST 585.47 FEET; THENCE NORTH 73 DEGREES 09 MINUTES 00 SECONDS WEST 101.34 FEET; THENCE NORTHWESTERLY 340.72 FEET ALONG THE ARC OF A CIRCULAR CURVE TO THE RIGHT, RADIUS 1496.42 FEET, CHORD NORTH 66 DEGREES 37 MINUTES 38 SECONDS WEST 339.99 FEET: THENCE CONTINUING NORTHWESTERLY 470.03 FEET ALONG THE ARC OF A CIRCULAR CURVE TO THE RIGHT. RADIUS 455.25 FEET: CHORD NORTH 30 DEGREES 31 MINUTES 36 SECONDS WEST 449.43 FEET: THENCE SOUTH 73 DEGREES 09 MINUTES EAST 124.48 FEET: THENCE NORTH 16 DEGREES 51 MINUTES EAST 241.63 FEET: THENCE SOUTH 73 DEGREES 09 MINUTES EAST 487.50 FEET: THENCE NORTH 16 DEGREES 31 MINUTES EAST 563.99 FEET TO THE POINT OF BEGINNING. BEING PART OF THE NORTH 1/2 OF SECTION 8, TOWNSHIP 3 SOUTH, RANGE 6 EAST, CITY OF ANN ARBOR, WASHTENAW COUNTY, MICHIGAN.

PARCEL II

COMMENCING AT THE NORTHEAST CORNER OF SECTION 8, TOWNSHIP 3 SOUTH, RANGE 6 EAST, PITTSFIELD TOWNSHIP, NOW CITY OF ANN ARBOR, WASHTENAW COUNTY, MICHIGAN; THENCE SOUTH 01 DEGREES 39 MINUTES EAST 623.58 FEET; THENCE NORTH 87 DEGREES 39 MINUTES WEST 100.24 FEET; THENCE NORTH 01 DEGREES 39 MINUTES WEST 25.24 FEET ALONG THE WEST LINE OF SOUTH STATE STREET TO THE POINT OF BEGINNING; THENCE WESTERLY 26.12 FEET ALONG THE ARC OF A CIRCULAR CURVE TO THE LEFT, RADIUS 70.0 FEET, CHORD NORTH 76 DEGREES 57 MINUTES 40 SECONDS WEST 25.97 FEET; THENCE NORTH 87 DEGREES 39 MINUTES WEST 466.08 FEET; THENCE SOUTHWESTERLY 185.0 FEET ALONG THE ARC OF A CIRCULAR CURVE TO THE LEFT, RADIUS 200.0 FEET, CHORD SOUTH 65 DEGREES 51 MINUTES WEST 178.48 FEET; THENCE SOUTH 39 DEGREES 21 MINUTES WEST 224.47 FEET; THENCE SOUTHERLY 47.12 FEET ALONG THE ARC OF A CIRCULAR CURVE TO THE LEFT, RADIUS 30.0 FEET, CHORD SOUTH 05 DEGREES 39 MINUTES EAST 42.43 FEET; THENCE NORTH 50 DEGREES 39 MINUTES WEST 33.89 FEET; THENCE SOUTH 39 DEGREES 21 MINUTES WEST 56.0 FEET; THENCE SOUTH 16 DEGREES 51 MINUTES WEST 554.62 FEET; THENCE NORTH 73 DEGREES 09 MINUTES WEST 137.50 FEET; THENCE NORTH 16 DEGREES 51 MINUTES EAST 611.57 FEET; THENCE SOUTH 50 DEGREES 39 MINUTES EAST 65.00 FEET: THENCE NORTH 39 DEGREES 21 MINUTES EAST 56.00 FEET: THENCE SOUTH 50 DEGREES 39 MINUTES EAST 8.70 FEET: THENCE EASTERLY 47.12 FEET ALONG THE ARC OF A CIRCULAR CURVE TO THE LEFT. RADIUS 30.0 FEET. CHORD NORTH 84 DEGREES 21 MINUTES EAST 42.43 FEET: THENCE NORTH 39 DEGREES 21 MINUTES EAST 224.47 FEET: THENCE NORTHEASTERLY 187.96 FEET ALONG THE ARC OF A CIRCULAR CURVE TO THE RIGHT. RADIUS 249.0 FEET. CHORD NORTH 60 DEGREES 58 MINUTES 30 SECONDS EAST 183.53 FEET: THENCE CONTINUING NORTHEASTERLY 44.11 FEET ALONG THE ARC OF A CIRCULAR CURVE TO THE LEFT, RADIUS 30.0 FEET, CHORD NORTH 40 DEGREES 28 MINUTES 30 SECONDS EAST 40.25 FEET; THENCE NORTH 01 DEGREES 39 MINUTES WEST 339.49 FEET; THENCE NORTH 87 DEGREES 25 MINUTES 50 SECONDS EAST 31.0 FEET ALONG THE SOUTH LINE OF THE EISENHOWER PARKWAY; THENCE SOUTH 01 DEGREES 39 MINUTES EAST 342.31 FEET; THENCE SOUTHEASTERLY 45.03 FEET ALONG THE ARC OF A CIRCULAR CURVE TO THE LEFT, RADIUS 30.0 FEET; CHORD SOUTH 44 DEGREES 39 MINUTES EAST 40.92 FEET; THENCE SOUTH 87 DEGREES 39 MINUTES EAST 265.91 FEET; THENCE NORTH 88 DEGREES 54 MINUTES EAST 99.70 FEET; THENCE SOUTH 87 DEGREES 39 MINUTES EAST 44.02 FEET; THENCE NORTHEASTERLY 35.61 FEET ALONG THE ARC OF A CIRCULAR CURVE TO THE LEFT, RADIUS 60.0 FEET, CHORD NORTH 75 DEGREES 21 MINUTES EAST 35.09 FEET; THENCE SOUTH 01 DEGREES 39 MINUTES EAST 70.25 FEET ALONG THE WEST LINE OF SOUTH STATE STREET TO THE POINT OF BEGINNING, BEING PART OF THE NORTHEAST 1/4 OF SECTION 8, TOWNSHIP 3 SOUTH, RANGE 6 EAST, CITY OF ANN ARBOR, WASHTENAW COUNTY, MICHIGAN.

PARCEL III

COMMENCING AT THE NORTHEAST CORNER OF SECTION 8. TOWNSHIP 3 SOUTH, RANGE 6 EAST, CITY OF ANN ARBOR, WASHTENAW COUNTY, MICHIGAN: THENCE SOUTH 01 DEGREES 39 MINUTES 00 SECONDS EAST 1518.95 FEET ALONG THE EAST LINE OF SAID SECTION: THENCE SOUTH 87 DEGREES 25 MINUTES 00 SECONDS WEST 233.94 FEET ALONG THE NORTHERLY RIGHT-OF-WAY LINE OF HILTON BOULEVARD; THENCE CONTINUING SAID RIGHT-OF-WAY LINE 297.50 FEET ALONG THE ARC OF AN 892.43-FOOT RADIUS CIRCULAR CURVE TO THE LEFT THROUGH A CENTRAL ANGLE OF 19 DEGREES 06 MINUTES 00 SECONDS HAVING A CHORD WHICH BEARS SOUTH 77 DEGREES 52 MINUTES 00 MINUTES WEST 296.13 FEET; THENCE SOUTH 21 DEGREES 41 MINUTES 00 SECONDS EAST 61.00 FEET; THENCE ALONG THE SOUTHERLY RIGHT-OF-WAY LINE OF BRIARWOOD CIRCLE DRIVE IN THE FOLLOWING COURSES: 314.89 FEET ALONG THE ARC OF AN 831.43-FOOT RADIUS CIRCULAR CURVE TO THE LEFT THROUGH A CENTRAL ANGLE OF 21 DEGREES 42 MINUTES 00 SECONDS HAVING A CHORD WHICH BEARS SOUTH 57 DEGREES 28 MINUTES 00 SECONDS WEST 313.01 FEET, SOUTH 46 DEGREES 37 MINUTES 00 SECONDS WEST 159.00 FEET, 102.23 FEET ALONG THE ARC OF AN 887.43-FOOT RADIUS CIRCULAR CURVE TO THE RIGHT THROUGH A CENTRAL ANGLE OF 06 DEGREES 36 MINUTES 00 SECONDS HAVING A CHORD WHICH BEARS SOUTH 49 DEGREES 55 MINUTES 00 SECONDS WEST 102.17 FEET. SOUTH 53 DEGREES 13 MINUTES 00 SECONDS WEST 236.82 FEET. THENCE SOUTHWESTERLY 836.27 FEET ALONG THE ARC OF AN 893.38-FOOT RADIUS CIRCULAR CURVE TO THE RIGHT THROUGH A CENTRAL ANGLE OF 53 DEGREES 38 MINUTES 00 SECONDS HAVING A CHORD WHICH BEARS SOUTH 80 DEGREES 02 MINUTES 00 SECONDS WEST 50.81 FEET TO THE POINT OF BEGINNING: THENCE NORTH 16 DEGREES 52 MINUTES 00 SECONDS EAST 567.78 FEET; THENCE SOUTH 73 DEGREES 10 MINUTES 10 SECONDS EAST 218.45 FEET; THENCE SOUTH 16 DEGREES 52 MINUTES 00 SECONDS WEST 551.99 FEET; THENCE ALONG THE SOUTHERLY RIGHT-OF-WAY LINE OF BRIARWOOD CIRCLE DRIVE SOUTHWESTERLY 168.65 FEET ALONG THE ARC OF A CIRCULAR CURVE TO THE RIGHT RADIUS 893.38 FEET, CHORD NORTH 78 DEGREES 33 MINUTES 30 SECONDS WEST 168.40 FEET; THENCE NORTH 73 DEGREES 09 MINUTES 00 SECONDS WEST 50.81 FEET CONTINUING ALONG SAID RIGHT-OF-WAY LINE TO THE POINT OF BEGINNING, SAID PARCEL BEING PART OF THE NORTHEAST 1/4 OF SECTION 8, TOWNSHIP 3 SOUTH, RANGE 6 EAST, CITY OF ANN ARBOR, WASHTENAW COUNTY, MICHIGAN.

PARCEL IV

A PART OF LOT 2 OF BRIARWOOD SUBDIVISION, AS RECORDED IN LIBER 22, PAGES 66 THROUGH 75 INCLUSIVE OF PLATS, WASHTENAW COUNTY RECORDS, MORE PARTICULARLY DESCRIBED AS: BEGINNING AT THE NORTHEASTERLY CORNER OF LOT 2; THENCE SOUTH 1 DEGREE 39 14.43 FEET ALONG A CURVE TO THE RIGHT, SAID CURVE HAVING A RADIUS OF 50.00 FEET, A CENTRAL ANGLE OF 16 DEGREES 32 MINUTES 09 SECONDS AND A CHORD BEARING AND DISTANCE OF SOUTH 79 DEGREES 08 MINUTES 55 SECONDS WEST 14.38 FEET; THENCE SOUTH 87 DEGREES 25 MINUTES 00 SECONDS WEST 271.30 FEET ALONG THE SOUTHERLY LINE OF SAID LOT 2, AND THE NORTHERLY LINE OF BRIARWOOD CIRCLE: THENCE NORTH 02 DEGREES 35 MINUTES 00 SECONDS WEST 55.00 FEET; THENCE NORTH 87 DEGREES 25 MINUTES 00 SECONDS EAST 25.50 FEET; THENCE NORTH 02 DEGREES 35 MINUTES 00 SECONDS WEST 217.00 FEET; THENCE NORTH 87 DEGREES 25 MINUTES 00 SECONDS EAST 14.00 FEET; THENCE NORTH 02 DEGREES 35 MINUTES 00 SECONDS WEST 83.00 FEET; THENCE NORTH 87 DEGREES 25 MINUTES 00 SECONDS EAST 96.00 FEET: THENCE NORTH 02 DEGREES 35 MINUTES 00 SECONDS WEST 190.74 FEET TO THE NORTHERLY LINE OF SAID LOT 2 AND THE SOUTHERLY LINE OF MALL DRIVE: THENCE SOUTH 87 DEGREES 39 MINUTES 00 SECONDS EAST 134.07 FEET ALONG THE NORTHERLY LINE OF SAID LOT 2 AND THE SOUTHERLY LINE OF SAID MALL DRIVE: THENCE ALONG THE NORTHERLY LINE OF SAID LOT 2 AND THE SOUTHERLY LINE OF SAID MALL DRIVE 26.12 FEET ALONG A CURVE TO THE RIGHT. SAID CURVE HAVING A RADIUS OF 70.00 FEET. A CENTRAL ANGLE OF 21 DEGREES 22 MINUTES 53 SECONDS AND A CHORD BEARING AND DISTANCE OF SOUTH 76 DEGREES 57 MINUTES 33 SECONDS EAST 25.97 FEET TO THE POINT OF BEGINNING.

PARCEL V

LOT 3 OF BRIARWOOD SUBDIVISION, AS RECORDED IN LIBER 22, PAGES 66 THROUGH 75 INCLUSIVE OF PLATS, WASHTENAW COUNTY RECORDS, EXCEPTING THEREFROM THE FOLLOWING DESCRIBED PARCEL: BEGINNING AT THE NORTHEAST CORNER OF LOT 3, BRIARWOOD SUBDIVISION, AS RECORDED IN LIBER 22, PAGES 66 THROUGH 75 INCLUSIVE OF PLATS, WASHTENAW COUNTY RECORDS; THENCE SOUTH 01 DEGREES 39 MINUTES 40 SECONDS (RECORDED AS 38 MINUTES 40 SECONDS) EAST 195.91 FEET ALONG THE WESTERLY IGHT-OF-WAY LINE OF STATE ROAD: THENCE SOUTH 88 DEGREES 21 MINUTES 20 SECONDS WEST 54.00 FEET; THENCE NORTH 01 DEGREES 38 MINUTES 40 SECONDS WEST 7.31 FEET; THENCE SOUTH 88 DEGREES 21 MINUTES 20 SECONDS WEST 124.83 FEET; THENCE SOUTH 01 DEGREES 38 MINUTES 40 SECONDS EAST 18.00 FEET; THENCE SOUTH 88 DEGREES 21 MINUTES 20 SECONDS WEST 16.00 FEET; THENCE NORTH 01 DEGREES 38 MINUTES 40 SECONDS WEST 18.00 FEET; THENCE SOUTH 88 DEGREES 21 MINUTES 20 SECONDS WEST 204.14 FEET; THENCE SOUTH 01 DEGREES 38 MINUTES 40 SECONDS EAST 26.00 FEET; THENCE SOUTH 88 DEGREES 21 MINUTES 20 SECONDS WEST 72.00 FEET TO A POINT ON THE EASTERLY RIGHT-OF-WAYLINE OF MARKET PLACE; THENCE NORTH 01 DEGREES 39 MINUTES 00 SECONDS (RECORDED AS 38 MINUTES 40 SECONDS) WEST 207.00 FEET ALONG SAID RIGHT-OF-WAY LINE TO A POINT ON THE SOUTHERLY RIGHT-OF-WAY LINE OF EISENHOWER PARKWAY; THENCE NORTH 87 DEGREES 25 MINUTES 50 SECONDS EAST 471.03 FEET ALONG SAID RIGHT-OF-WAYLINE TO THE POINT OF BEGINNING.

PARCEL VI (EASEMENT PARCELS):

THE RECIPROCAL AND NON-EXCLUSIVE RIGHTS, EASEMENTS, PRIVILEGES OF USE, INGRESS AND EGRESS, PARKING, UTILITIES AND OTHER PURPOSES, IN, ON, OVER, UPON AND UNDER CERTAIN ADJOINING REAL PROPERTY, WITH ALL RIGHTS, POWERS, PRIVILEGES AND BENEFITS INCIDENTAL THERETO, AND RIGHTS IN THE USE OF BRIARWOOD CIRCLE DRIVE, SOUTH MAIN STREET, PLAZA ROAD, MARKET PLACE, MALL DRIVE AND BRIARWOOD CIRCLE, AS PRIVATE ROADS DEDICATED TO THE LOT OWNERS OF "BRIARWOOD SUBDIVISION" AS RECORDED IN LIBER 22 OF PLATS, PAGES 66 THROUGH 75 INCLUSIVE, WASHTENAW COUNTY RECORDS, WHICH PROVIDE UNINTERRUPTED ACCESS TO PUBLIC STREETS AND ROADWAYS, ALL CREATED AND GRANTED AS APPURTENANT TO PARCELS I, II, AND III ABOVE, IN AND BY THE FOLLOWING:

OPERATING AGREEMENT DATED FEBRUARY 2, 1972 BY AND AMONG BRIARWOOD, A MICHIGAN CO- PARTNERSHIP, SEARS, ROEBUCK AND CO., A NEW YORK CORPORATION, J.C. PENNEY PROPERTIES, INC., A DELAWARE CORPORATION, AND THE J.L. HUDSON COMPANY, A MICHIGAN CORPORATION, RECORDED MARCH 28, 1972 IN LIBER 1390, PAGES 729 THROUGH 866, WASHTENAW COUNTY RECORDS, WITH GUARANTY OF J.C. PENNEY COMPANY, INC. RECORDED MARCH 28, 1972 IN LIBER 1390 AT PAGE 877;

FIRST AMENDMENT TO OPERATING AGREEMENT AMONG BRIARWOOD, SEARS, ROEBUCK AND CO., J.C. PENNEY PROPERTIES, INC., AND THE J.L. HUDSON COMPANY DATED AS OF APRIL 13, 1973 AND RECORDED JUNE 6, 1973 IN LIBER 1441, PAGES 488 THROUGH 546, WASHTENAW COUNTY RECORDS;

SECOND AMENDMENT TO OPERATING AGREEMENT AMONG BRIARWOOD, SEARS, ROEBUCK AND CO., J.C. PENNEY PROPERTIES, INC., AND THE J.L. HUDSON COMPANY, DATED AS OF JULY 2, 1973 AND RECORDED AUGUST 31, 1973 IN LIBER 1453 AT PAGE 420, AND AGAIN RECORDED SEPTEMBER 24, 1973 IN LIBER 1456 AT PAGE 54, WASHTENAW COUNTY RECORDS;

THIRD AMENDMENT TO OPERATING AGREEMENT DATED DECEMBER 4, 1975 AND RECORDED FEBRUARY 25, 1976 IN LIBER 1540 AT PAGE 1, WASHTENAW COUNTY RECORDS;

FOURTH AMENDMENT TO OPERATING AGREEMENT DATED NOVEMBER 16, 1976 AND RECORDED DECEMBER 13, 1976 IN LIBER 1576 AT PAGE 799, WASHTENAW COUNTY RECORDS;

FIFTH AMENDMENT TO OPERATING AGREEMENT DATED MARCH 14, 1978 AND RECORDED JUNE 30, 1978 IN LIBER 1658 AT PAGE 1, WASHTENAW COUNTY RECORDS;

SIXTH AMENDMENT TO OPERATING AGREEMENT DATED AS OF JANUARY 8, 1979 AND RECORDED JUNE 13, 1979 IN LIBER 1711 AT PAGE 369, WASHTENAW COUNTY RECORDS;

SUPPLEMENTAL AGREEMENT DATED FEBRUARY 2, 1972 BETWEEN BRIARWOOD AND J.C. PENNEY PROPERTIES, INC., WITH GUARANTY OF J.C. PENNEY COMPANY, INC., RECORDED MARCH 28, 1972 IN LIBER 1390 AT PAGE 867, WASHTENAW COUNTY RECORDS.

SECOND SUPPLEMENTAL AGREEMENT DATED FEBRUARY 2, 1972 BETWEEN BRIARWOOD AND J.C. PENNEY PROPERTIES, INC., WITH GUARANTY BY J.C. PENNEY COMPANY, INC., RECORDED MARCH 28, 1972 IN LIBER 1390 AT PAGE 877, WASHTENAW COUNTY RECORDS.

SAID RECORDED AGREEMENTS COLLECTIVELY CONSTITUTING THE "OPERATING AGREEMENT":

SEVENTH AMENDMENT TO OPERATING AGREEMENT DATED AS OF JANUARY 20, 1993 AND RECORDED JANUARY 20, 1994 IN LIBER 2927, PAGE 1, WASHTENAW COUNTY RECORDS.

MEMORANDUM OF THIRD AMENDMENT TO SUPPLEMENTAL AGREEMENT DATED OCTOBER 15, 2002, BETWEEN BRIARWOOD LLC AND VON MAUR MICHIGAN PARTNERSHIP RECORDED OCTOBER 18, 2002 IN LIBER 4173, PAGE 441.

ASSIGNMENT OF RECIPROCAL EASEMENT AGREEMENT RECORDED IN LIBER 3893, PAGE 565, AMENDED BY AMENDED AND RESTATED ASSIGNMENT OF RECIPROCAL EASEMENT AGREEMENT RECORDED IN LIBER 4433, PAGE 707. WASHTENAW COUNTY RECORDS.

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.

The fieldwork was completed on 07/05/2023. Date of Plat or Map: 08/09/2023

PROPERTY DESCRIPTION

Mall Parcel (SPS Portfolio Holdings II, LLC) 09-12-08-100-068 800 Briarwood Circle

DESCRIPTION OF PROPERTY (From Tax Description)

A part the North ½ Section 8, Town 3 South, Range 6 East, City Ann Arbor, Washtenaw County, Michigan and part of Seconds Briarwood Subdivision Seconds as recorded in Liber 22 of Plats, Page 66 through 75 inclusive, Washtenaw County Records, being more particularly described as: Commencing at the North 1/4 corner said Section 8; thence South 00 Degrees 56 Minutes 55 Seconds East 150.13 feet thence North 86 Degrees 38 Minutes 10 Seconds East 41.00 feet; thence 55.14 feet along the arc of a 100.00 foot radius curve to the left, having a chord bearing South 14 Degrees 12 Minutes 42 Seconds West 54.44 feet; thence South 01 Degrees 35 Minutes 00 Seconds East 117.95 feet; thence 47.64 feet along the arc of a 30.00 foot radius curve to the left, having a chord bearing South 47 Degrees 04 Minutes 35 Seconds East 42.79 feet; thence North 87 Degrees 25 Minutes 50 Seconds East 175.01 feet thence South 02 Degrees 34 Minutes 10 Seconds East 56.00 feet; thence North 87 Degrees 25 Minutes 50 Seconds East 249.65 feet; thence South 16 Degrees 51 Minutes 00 Seconds West 445.64 feet to a Point of Beginning; thence South 73 Degrees 09 Minutes 00 Seconds East 178.50 feet; thence 22.06 feet along the arc of a 56.00 foot radius curve to the left, having a chord bearing South 84 Degrees 26 Minutes 15 Seconds East 21.92 feet; thence South 16 Degrees 51 Minutes 00 Seconds West 10.29 feet; thence South 73 Degrees 09 Minutes 00 Seconds East 104.50 feet; thence South 16 Degrees 51 Minutes 00 Seconds West 33.50 feet; thence South 73 Degrees 09 Minutes 00 Seconds East 97.00 feet; thence South 16 Degrees 51 Minutes 00 Seconds West 6.50 feet; thence South 73 Degrees 09 Minutes 00 Seconds East 213.00 feet; thence North 16 Degrees 51 Minutes 00 Seconds East 6.50 feet; thence; thence; thence North 16 Degrees 50 Minutes 20 Seconds East 126.75 feet; thence South 73 Degrees 09 Minutes 00 Seconds East 19.79 feet; thence North 17 Degrees 02 Minutes 13 Seconds East 44.07 feet; thence North 73 Degrees 09 Minutes 40 Seconds West 19.94 feet; thence North 16 Degrees 50 Minutes 20 Seconds East 153.11 feet; thence South 73 Degrees 09 Minutes 40 Seconds East 153.11 feet; thence South 73 Degrees 09 Minutes 40 Seconds East 153.11 feet; thence South 73 Degrees 10 Minutes 40 Seconds East 153.11 feet; thence South 73 Degrees 10 Minutes 20 Seconds East 153.11 feet; thence South 73 Degrees 10 Minutes 20 Seconds East 153.11 feet; thence South 73 Degrees 10 Minutes 20 Seconds East 153.11 feet; thence South 73 Degrees 10 Minutes 20 Seconds East 153.11 feet; thence South 73 Degrees 10 Minutes 20 Seconds East 153.11 feet; thence South 73 Degrees 10 Minutes 20 Seconds East 153.11 feet; thence South 73 Degrees 10 Minutes 20 Seconds East 153.11 feet; thence South 73 Degrees 10 Minutes 20 Seconds East 153.11 feet; thence South 73 Degrees 10 Minutes 20 Seconds East 153.11 feet; thence South 74 Degrees 10 Minutes 20 Seconds East 153.11 feet; thence South 74 Degrees 10 Minutes 20 Seconds East 153.11 feet; thence South 74 Degrees 10 Minutes 20 Seconds East 153.11 feet; thence South 74 Degrees 10 Minutes 20 Seconds East 153.11 feet; thence South 75 Degrees 10 Minutes 20 Seconds East 153.11 feet; thence South 75 Degrees 10 Minutes 20 Seconds East 153.11 feet; thence South 75 Degrees 10 Minutes 20 Seconds East 153.11 feet; thence South 75 Degrees 10 Minutes 20 Seconds East 153.11 feet; thence South 75 Degrees 10 Minutes 20 Seconds East 153.11 feet; thence South 75 Degrees 10 Minutes 20 Seconds East 153.11 feet; thence South 75 Degrees 10 Minutes 20 Seconds East 153.11 feet; thence South 75 Degrees 10 Minutes 20 Seconds East 153.11 feet; thence South 75 Degrees 10 Minutes 20 Seconds East 153.11 feet; thence South 75 Degrees 10 Minutes 20 Seconds East 153.11 feet; thence South 75 Degrees 10 Minutes 20 Seconds East 153.11 feet; thence South 75 Degrees 10 Minutes 20 Seconds East 153.11 feet; thence South 75 Degrees 10 Minutes 20 Seconds East 153.11 feet; thence 10 Minutes 20 Seconds East 1 Seconds East 92.56 feet; thence 44.98 feet along the arc of a 30.00 foot radius curve to the right, having a chord bearing South 30 Degrees 12 Minutes 45 Seconds East 40.88 feet; thence South 12 Degrees 44 Minutes 09 Seconds West 41.85 feet; thence South 16 Degrees 50 Minutes 20 Seconds West 172.97 feet; thence 22.37 feet along the arc of a 60.01 foot radius curve to the right, having a chord bearing South 06 Degrees 48 Minutes 42 Seconds West 22.24 feet; thence South 73 Degrees 09 Minutes 00 Seconds East 134.73 feet; thence 138.39 feet along the arc of a 176.20 foot radius curve to the right, having a chord bearing South 50 Degrees 39 Minutes 00 Seconds East 134.86 feet; thence 106.97 feet along the arc of a 136.20 foot radius curve to the left, having a chord bearing South 50 Degrees 39 Minutes 00 Seconds East 104.24 feet; thence South 73 Degrees 09 Minutes 00 Seconds East 51.59 feet; thence North 16 Degrees 51 Minutes 00 Seconds East 591.56 feet; thence South 50 Degrees 39 Minutes 0 Seconds East 148.83 feet to the southerly line of Briarwood Circle; thence South 50 Degrees 39 Minutes 00 Seconds East 148.83 feet along the southerly line of Briarwood Circle; thence South 16 Degrees 51 Minutes 00 Seconds West 554.61 feet; thence North 73 Degrees 09 Minutes 00 Seconds West 189.09 feet; thence 122.68 feet along the arc of a 156.20 foot radius curve to the right, having a chord bearing North 50 Degrees 39 Minutes 00 Seconds East 119.55 feet; thence 122.68 feet along the arc of a 156.20 foot radius curve to the left, having a chord bearing North 50 Degrees 39 Minutes 00 Seconds East 119.55 feet; thence South 16 Degrees 51 Minutes 00 Seconds West 564.00 feet; thence 55.70 feet along the arc of a 212.77 foot radius curve to the right, having a chord bearing South 80 Degrees 39 Minutes 00 Seconds East 55.54 feet; thence 55.69 feet along the arc of a 216.48 foot radius curve to the left, having a chord bearing South 80 Degrees 39 Minutes 00 Seconds East 55.54 feet; thence South73 Degrees 09 Minutes 00 Seconds East 410.38 feet; thence South 06 Degrees 35 Minutes 00 Seconds East 182.79 feet; thence South 53 Degrees 13 Minutes 00 Seconds West 42.87 feet; thence 783.86 feet along the arc of a 837.38 foot radius curve to the right, having a chord bearing South 80 Degrees 01 Minutes 59 Seconds East 755.55 feet; thence North 73 Degrees 09 Minutes 00 Seconds West 50.78 feet; thence North 16 Degrees 52 Minutes 00 Seconds East 529.69 feet; thence North 73 Degrees 10 Minutes 10 Seconds West 11.69 feet; thence South 61 Degrees 49 Minutes 50 Seconds West; thence North 73 Degrees 10 Minutes 10 Seconds West 394.24 feet; thence North 28 Degrees 10 Minutes 10 Seconds West 143.12 feet; thence North 73 Degrees 10 Minutes 10 Seconds West 11.53 feet; thence South 16 Degrees 52 Minutes 00 Seconds West 529.48 feet; thence North 73 Degrees 09 Minutes 00 Seconds West 101.35 feet; thence 327.97 feet along the arc of a 1440.42 foot radius curve to the right, having a chord bearing North 66 Degrees 37 Minutes 40 Seconds West 327.26 feet; thence 394.09 feet along the arc of a 399.25 foot radius curve to the right, having a chord bearing North 31 Degrees 49 Minutes 34 Seconds West 378.29 feet; thence South 73 Degrees 08 Minutes 57 Seconds East 65.25 feet; thence North 16 Degrees 51 Minutes 00 Seconds East 241.63 feet; thence South 73 Degrees 09 Minutes 00 Seconds East 487.50 feet; thence North 16 Degrees 50 Minutes 58 Seconds East 564.00 to the Point of Beginning.

Macy's Parcel 09-12-08-100-069 700 Briarwood Circle

DESCRIPTION OF PROPERTY (From Tax Description)

A part the North ½ Section 8, Town 3 South, Range 6 East, City Ann Arbor, Washtenaw County, Michigan and part of Seconds Briarwood Subdivision Seconds as recorded in Liber 22 of Plats, Page 66 through 75 inclusive, Washtenaw County Records, being more particularly described as: Commencing at the North 1/4 corner said Section 8; thence South 00 Degrees 56 Minutes 55 Seconds East 150.13 feet; thence North 86 Degrees 38 Minutes 10 Seconds East 41.00 feet; thence 55.14 feet along the arc of a 100.00 foot radius curve to the left, having a chord bearing South 14 Degrees 12 Minutes 42 Seconds West 54.44 feet; thence South 01 Degrees 35 Minutes 00 Seconds East 117.95 feet; thence 47.64 feet along the arc of a 30.00 foot radius curve to the left, having a chord bearing South 47 Degrees 04 Minutes 35 Seconds East 42.79 feet; thence North 87 Degrees 25 Minutes 50 Seconds East 175.00 feet to the Point of Beginning; thence continuing North 87 Degrees 25 Minutes 50 Seconds East 624.26 feet; thence 138.94 feet along the arc of a 409.92 foot radius curve to the right, having a chord bearing South 82 Degrees 51 Minutes 35 Seconds East 138.27 feet; thence South 73 Degrees 09 Minutes 00 Seconds East 478.37 feet; thence 47.12 feet along the arc of a 30.00 foot radius curve to the left, having a chord bearing North 61 Degrees 51 Minutes 00 Seconds East 42.43 feet; thence North 16 Degrees 51 Minutes 00 Seconds East 106.23 feet; thence 102.02 feet along the arc of a 301.00 foot radius curve to the left, having a chord bearing North 07 Degrees 08 Minutes 25 Seconds East 101.53 feet; thence North 02 Degrees 34 Minutes 10 Seconds West 118.61 feet; thence 72.15 feet along the arc of a 100.00 foot radius curve to the left, having a chord bearing North 23 Degrees 14 Minutes 23 Seconds West 70.60 feet; thence North 86 Degrees 38 Minutes 10 Seconds East 89.55 feet; thence 56.65 feet along the arc of a 100.00 foot radius curve to the left, having a chord bearing South 13 Degrees 39 Minutes 30 Seconds West 55.89 feet; thence South 02 Degrees 34 Minutes 10 Seconds East 132.24 feet; thence 118.63 feet along the arc of a 350.00 foot radius curve to the right, having a bearing South 07 Degrees 08 Minutes 25 Seconds West 118.06 feet; thence South 16 Degrees 51 Minutes 00 Seconds West 114.52 feet; thence 40.85 feet along the arc of a 30.00 foot radius curve to the left, having a bearing South 22 Degrees 09 Minutes 23 Seconds East 37.76 feet; thence 64.21 feet along the arc of a 349.92 foot radius curve to the right, having a chord bearing South 55 Degrees 54 Minutes 23 Seconds East 64.12 feet; thence South 50 Degrees 39 Minutes 00 Seconds East 190.12 feet; thence South 39 Degrees 21 Minutes 00 Seconds West 56.00 feet; thence North 50 Degrees 39 Minutes 00 Seconds West 65.00 feet; thence South 16 Degrees 51 Minutes 00 Seconds West 591.56 feet; thence North 73 Degrees 09 Minutes 00 Seconds West 51.59 feet; thence 106.97 feet along the arc of a 136.20 foot radius curve to the right, having a chord bearing North 50 Degrees 39 Minutes 00 Seconds West 104.24 feet; thence 138.39 feet along the arc of a 176.20 foot radius curve to the left, having a chord bearing North 50 Degrees 39 Minutes 00 Seconds West 134.86 feet; thence North 73 Degrees 09 Minutes 00 Seconds West 134.73 feet; thence 22.37 feet along the arc of a 60.01 foot radius curve to the right, having a chord bearing North 06 Degrees 48 Minutes 42 Seconds East 22.24 feet; thence North 16 Degrees 50 Minutes 20 Seconds East 172.97 feet; thence North 12 Degrees 44 Minutes 09 Seconds East 41.85 feet; thence 44.98 feet along the arc of a 30.00 foot radius curve to the left, having a chord bearing North 30 Degrees 12 Minutes 45 Seconds West 40.88 feet; thence North 73 Degrees 09 Minutes 40 Seconds West 92.56 feet; thence South 16 Degrees 50 Minutes 20 Seconds West 153.11 feet; thence South 73 Degrees 09 Minutes 40 Seconds East 19.94 feet; thence South 17 Degrees 02 Minutes 13 Seconds West 44.07 feet; thence North 73 Degrees 09 Minutes 40 Seconds West 19.79 feet; thence South 16 Degrees 50 Minutes 20 Seconds West 126.75 feet; thence North 73 Degrees 09 Minutes 00 Seconds West 56.42 feet; thence South 16 Degrees 51 Minutes 00 Seconds West 6.50 feet; thence North 73 Degrees 09 Minutes 00 Seconds West 213.00 feet; thence North 16 Degrees 51 Minutes 00 Seconds East 6.50 feet; thence North 73 Degrees 09 Minutes 00 Seconds West 97.00 feet; thence North 16 Degrees 51 Minutes 00 Seconds East 33.50 feet; thence North 73 Degrees 09 Minutes 00 Seconds West 104.50 feet; thence North 16 Degrees 51 Minutes 00 Seconds East 10.29 feet; thence 22.06 feet along the arc of a 56.00 foot radius curve to the right, having a chord bearing North 84 Degrees 26 Minutes 15 Seconds West 21.92 feet; thence North 73 Degrees 09 Minutes 00 Seconds West 178.50 feet; thence North 16 Degrees 51 Minutes 00 Seconds East 445.64 feet to the south line of Briarwood Circle (56 feet wide); thence South 87 Degrees 25 Minutes 50 Seconds West 249.65 feet thence North 02 Degrees 34 Minutes 10 Seconds West 56.00 feet to the Point of

Sear's Parcel (Briarwood Outparcel, LLC) 09-12-08-100-037

900 Briarwood Circle

DESCRIPTION OF PROPERTY (From Tax Description)

A part the North ½ Section 8, Town 3 South, Range 6 East, City Ann Arbor, Washtenaw County, Michigan and part of Seconds Briarwood Subdivision Seconds as recorded in Liber 22 of Plats, Page 66 through 75 inclusive, Washtenaw County Records, being more particularly described as: Commencing at the Northeast corner of Section 8; thence South 01 Degrees 39 Minutes 00 Seconds East 1097.00; thence South 87 Degrees 25 Minutes 00 Seconds West 100.01 feet; thence South 01 Degrees 39 Minutes 00 Seconds East 17.94 feet to the Point of Beginning; thence continuing South 01 Degrees 39 Minutes 00 Seconds 65.30 feet; thence 53.99 feet along the arc of a 100.00 foot radius curve to the left, having a chord bearing North 77 Degrees 07 Minutes 00 Seconds West 53.34 feet; thence South 87 Degrees 25 Minutes 00 Seconds West 421.82 feet; thence 48.62 feet along the arc of a 30.00 foot radius curve to the left, having a chord bearing South 40 Degrees 59 Minutes 04 Seconds West 43.47 feet along the south line of Briarwood Circle; thence 19.88 feet along the arc of a 299.92 foot radius curve to the right, having a chord bearing South 03 Degrees 32 Minutes 56 Seconds East 19.82 feet; thence South 01 Degrees 39 Minutes 00 Seconds East 298.99 feet; thence South 88 Degrees 21 Minutes 00" West 56.00 feet; thence South 01 Degrees 39 Minutes 00 Seconds East 25.56 feet; thence 160.60 feet along the arc of a 167.55 foot radius curve to the right, having a chord bearing South 25 Degrees 48 Minutes 32 Seconds West 154.52 feet; thence 103.02 feet along the arc of a 887.43 foot radius curve to the left, having a chord bearing South 49 Degrees 56 Minutes 32 Seconds West 102.96 feet; thence South 46 Degrees 37 Minutes 00 Seconds West 159.00 feet; thence 95.77 feet along the arc of a 831.43 foot radius curve to the right, having a chord bearing South 49 Degrees 55 Minutes 00 Seconds West 95.72 feet; thence South 53 Degrees 13 Minutes 00 Seconds West 193.95 feet; thence North 06 Degrees 35 Minutes 00 Seconds West 182.79 feet; thence North 73 Degrees 09 Minutes 00 Seconds West 410.38 feet; thence 55.70 feet along the arc of a 212.77 foot radius curve to the left, having a chord bearing North 80 Degrees 39 Minutes 00 Seconds West 55.54 feet; thence 55.70 feet along the arc of a 212.77 foot radius curve to the right, having a chord bearing North 80 Degrees 39 Minutes 00 Seconds West 55.54 feet; thence North 16 Degrees 51 Minutes 00 Seconds East 564.00 feet; thence 122.68 feet along the arc of a 156.20 foot radius curve to the right, having a chord bearing South 50 Degrees 39 Minutes 00 Seconds East 119.55 feet; thence 122.68 feet along the arc of a 156.20 foot radius curve to the left, having a chord bearing South 50 Degrees 39 Minutes 00 Seconds East 119.55 feet; thence South 73 Degrees 09 Minutes 00 Seconds East 189.10 feet; thence North 16 Degrees 51 Minutes 00 Seconds East 554.62 feet; thence North 39 Degrees 21 Minutes 00 Seconds East 56.00 feet; thence South 50 Degrees 39 Minutes 00 Seconds East 290.84 feet; thence 134.59 feet along the arc of a 299.92 foot radius curve to the right, having a chord bearing South 37 Degrees 47 Minutes 40 Seconds East 133.46 feet; thence 35.42 feet along the arc of a 30.00 foot radius curve to the left, having a chord bearing South 58 Degrees 45 Minutes 40 Seconds East 33.40 feet; thence North 87 Degrees 25 Minutes 00 Seconds East 484.45 feet; thence 14.42 feet along the arc of a 50.00 foot radius curve to the left, having a chord bearing North 79 Degrees 09 Minutes 00 Seconds East 14.37 feet to the Point of Beginning.

★ `STEPHEN R.'/ SURVEYOR NO. 4001043057

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05-27-2025 SITE PLAN RESUBMITTAL

04-16-2025 SITE PLAN RESUBMITTAL

03-12-2025 SITE PLAN RESUBMITTAL

07-10-2024 SITE PLAN RESUBMITTAL

04-18-2024 SITE PLAN SUBMITTAL

ADDITIONS AND/OR REVISIONS

WEB SITE: www.hrcengr.com

CHECKED S.R.J. APPROVED S.R.J. PROJECT — LOCATION FLLSWORTH RD.

BRIARWOOD MALL

MUNICIPAL AIRPORT

SEARS REDEVELOPMENT

> 100 Briarwood Circle Ann Arbor, Mi 48108

WASHTENAW COUNTY **MICHIGAN**

> ALTA / NSPS LAND TITLE SURVEY

DRAWING No. NO SCALE HRC JOB No. SHEET No.

EXCEPTIONS

AS SHOWN IN SUPPLIED TITLEWORK FROM FIRST AMERICAN TITLE, COMMITMENT NUMBER NCS-117929293-DC72, DATED MAY 19, 2023.

- The terms, provisions and easement(s) contained in the document entitled "Southwest Sanitary Trunkline Right of Way Agreement" recorded June 9, 1965 as Liber 1116, Page 91 of Official Records. (Affects Parcel V)
- The terms, provisions and easement(s) contained in the document entitled "Resolution Vacating a portion of Hilton Boulevard" recorded March 22, 1972 as Liber 1390, Page 237 and Liber 1390, Page 551 of Official Records. (Affects Parcels IV & V)
- The terms, provisions and easement(s) contained in the document entitled "Quit Claim Deed" recorded as Liber 1390, Page 552 of Official Records. (Affects Parcel VI)
- The terms, provisions and easement(s) contained in the document entitled "Operating Agreement" recorded March 28, 1972 as Liber 1390, Page 729; and as amended by Supplemental Agreement made as of February 2, 1972 and recorded in March 28, 1972 in Liber 1390, Page 867; as amended by Second Supplemental Agreement made as of February 2, 1972 and recorded in March 28, 1972 in Liber 1390, Page 877; as amended by First Amendment to Operating Agreement made as of April 13, 1973 and recorded June 6, 1973 in Liber 1441, Page 488; as amended by Second Amendment to Operating Agreement made as of July 2, 1973 and recorded in August 3, 1973 in Liber 1453, Page 420; as amended by Third Amendment to Operating Agreement made as of December 4, 1975 and recorded February 25, 1976 in Liber 1540, Page 1; as amended by Fourth Amendment to Operating Agreement made as of November 16, 1976 and recorded December 23, 1976 in Liber 1576, Page 799; as amended by Fifth Amendment to Operating Agreement made as of March 14, 1978 and recorded June 30, 1978 in Liber 1658, Page 1; as amended by Sixth Amendment to Operating Agreement made as of January 8, 1979 and recorded June 13, 1979 in Liber 1711, Page 369; as amended by Seventh Amendment to Operating Agreement made as of January 20, 1993 and recorded January 20, 1994 in Liber 2927, Page 1; and Assignment of Reciprocal Easement Agreement made as of August 10, 1999, recorded August 19, 1999 in Liber 3893, Page 565, as amended by Third Supplemental Agreement made as of October 15, 2002 and recorded October 18, 2002 in Liber 4173, Page 441. First Amendment to Loan Documents dated June 26, 2003, recorded July 8, 2003 in Liber 4280, Page 685. Amended and Restated Assignment of Reciprocal Easement Agreement dated October 15, 2004, recorded October 22, 2004 in Liber 4433, Page 707. of Official Records. (Affects Parcels I to III)
- The terms, provisions and easement(s) contained in the document entitled "Grant of Easement" recorded April 10, 1972 as Liber 1392, Page 131 of Official Records. (Affects Parcel VI)
- The terms, provisions and easement(s) contained in the document entitled "Grant of Easement and Dedication" recorded September 25, 1975 as Liber 1525, Page 498 and Agreement of Continual Maintenance recorded in Liber 1664, Page 651 of Official Records. (Affects Parcel I and retention
- The terms, provisions and easement(s) contained in the document entitled "Grant of Easement and Dedication" recorded September 25, 1975 as Liber 1525, Page 506 of Official Records. (Affects Parcels I, II, III and VI)
- The terms, provisions and easement(s) contained in the document entitled "Grant of Easement and Dedication" recorded September 25, 1975 as Liber 1525, Page 515 of Official Records. (Affects Parcel VI)
- The terms, provisions and easement(s) contained in the document entitled "Grant of Easement" recorded October 29, 1975 as Liber 1529, Page 113 of Official Records. (Affects Parcel IV)
- The terms, provisions and easement(s) contained in the document entitled "Grant of Easement" recorded May 7, 1976 as Liber 1547, Page 163 of Official Records. (Affects Parcel VI)
- The terms, provisions and easement(s) contained in the document entitled "Grant of Easement and Dedication" recorded June 24, 1977 as Liber 1600, Page 324 of Official Records. (Affects Parcels I, II III and VI)
- The terms, provisions and easement(s) contained in the document entitled "Resolution Approving Briarwood Easement" recorded November 22, 1978 as Liber 1683, Page 612 of Official Records. (Affects Parcels I, II III and VI)
- The terms, provisions and easement(s) contained in the document entitled "Right of Way" recorded October 3, 1979 as Liber 1730, Page 856 of Official Records. (Affects Parcel IV)
- The terms, provisions and easement(s) contained in the document entitled "Easement" recorded September 1, 1982 as Liber 1848, Page 443 and Liber 1861, Page 633 of Official Records. (Affects Parcels IV and VI)
- The terms, provisions and easement(s) contained in the document entitled "Grant of Easement" recorded December 5, 1984 as Liber 1960, Page 985 of Official Records. (Affects Parcel IV)
- The terms, provisions and easement(s) contained in the document entitled "Grant of Easement" recorded December 5, 1984 as Liber 1960, Page 988 of Official Records. (Affects Parcel IV)
- The terms, provisions and easement(s) contained in the document entitled "Resolution to Accept Easements from Briarwood (Bennigan's Restaurant)" recorded December 13, 1984 as Liber 1962, Page 139 of Official Records. (Affects Parcel IV)
- The terms, provisions and easement(s) contained in the document entitled "Site Development Agreement" recorded September 21, 1995 as Liber 3156, Page 606 of Official Records. (Affects Parcel V)
- The terms, provisions and easement(s) contained in the document entitled "Warranty Deed" recorded September 22, 1995 as Liber 3157, Page 95 of Official Records. (Affects Parcel V)
- The terms, provisions and easement(s) contained in the document entitled "Reciprocal Easement and Operation Agreement" recorded September 22, 1995 as Liber 3157, Page 118 of Official Records. (Affects Parcel V)
- The terms, provisions and easement(s) contained in the document entitled "Grant of Easement" recorded February 20, 1996 as Liber 3218, Page 137 of Official Records. (Affects Parcel V)
- The terms, provisions and easement(s) contained in the document entitled "Grant of Easement" recorded June 19, 1996 as Liber 3277, Page 511 of Official Records. (Affects Parcel VI)
- The terms and provisions contained in the document entitled "Agreement" recorded January 13, 2010 as Liber 4769, Page 61 of Official Records. (Affects all Parcels)
- The terms and provisions contained in the document entitled "Agreement" recorded January 13, 2010 as Liber 4769, Page 62 of Official Records. (Affects all Parcels)
- The terms and provisions contained in the document entitled "Briarwood Restaurants Development Agreement" recorded May 27, 2014 as Liber 5039, Page 222 of Official Records. (Affects Parcels I to
- The terms, provisions and easement(s) contained in the document entitled "Resolution: R-14-428" recorded December 30, 2014 as Liber 5072, Page 805 of Official Records. (Affects Parcels I to III)
- Easement(s) as disclosed by the recorded plat. (Affects Parcels IV and V)

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.

The fieldwork was completed on 07/05/2023. Date of Plat or Map: 08/09/2023

Stopl K. Javli



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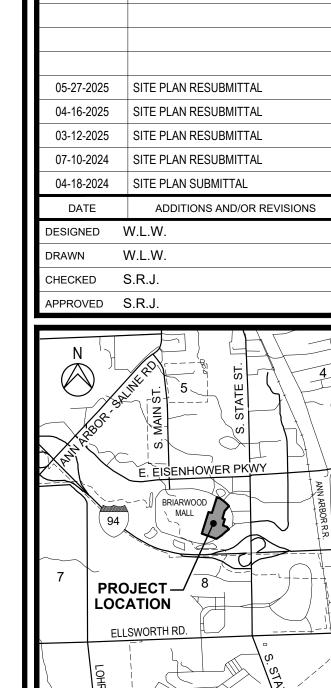
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BRIARWOOD MALL

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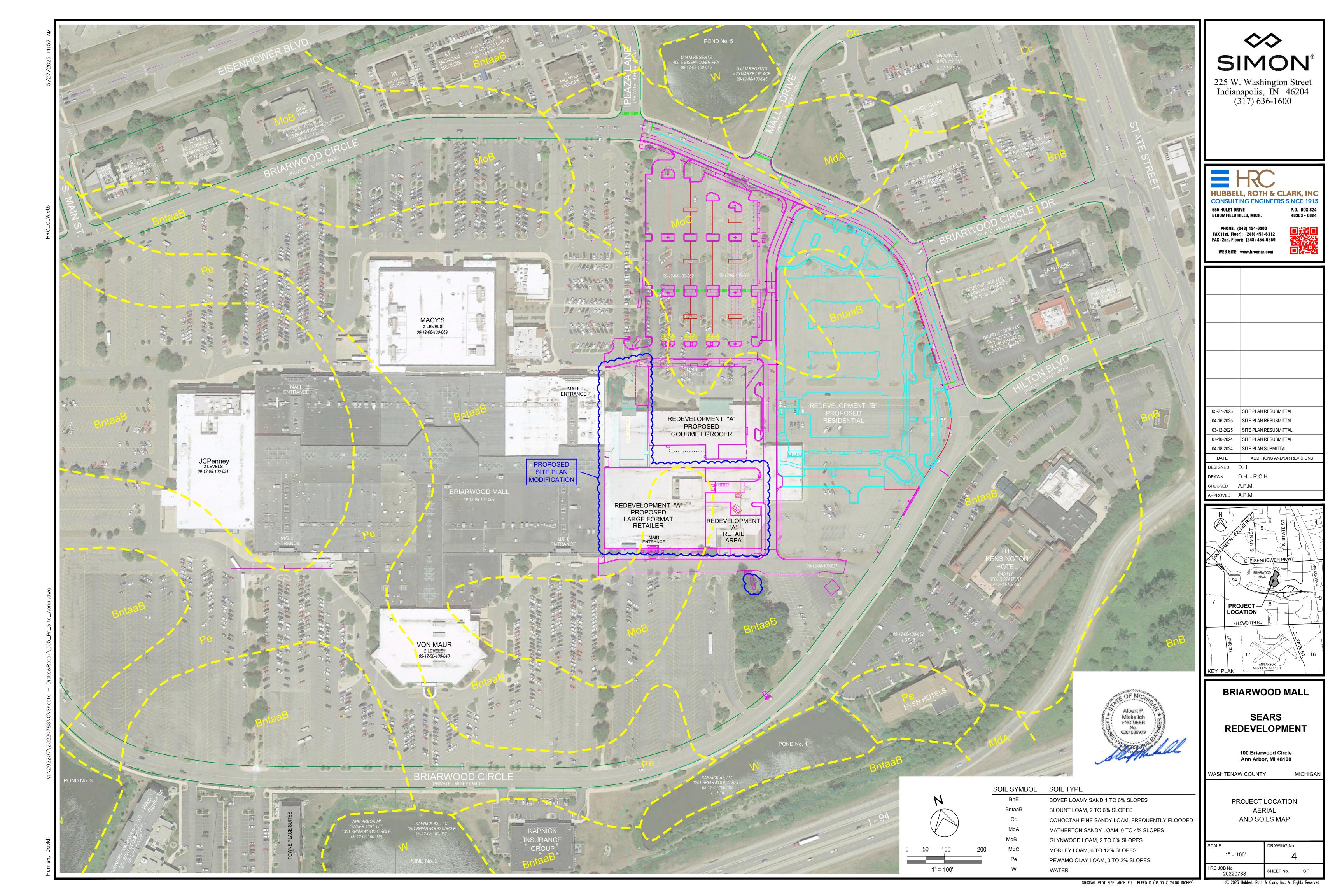
WASHTENAW COUNTY

ALTA / NSPS

LAND TITLE SURVEY

RAWING No. NO SCALE IRC JOB No. SHEET No.

20220788







LARGE FORMAT RETAILER AS APPROVED 12-04-2023



PROPOSED LARGE FORMAT RETAILER AND NEW SHOPS



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04-18-2024 SITE PLAN SUBMITTAL

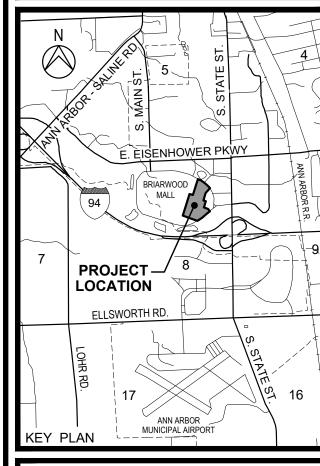
DATE ADDITIONS AND/OR REVISIONS

DESIGNED D.H.

DRAWN D.H. - R.C.H.

CHECKED A.P.M.

APPROVED A.P.M.



BRIARWOOD MALL

SEARS REDEVELOPMENT

100 Briarwood Circle Ann Arbor, Mi 48108

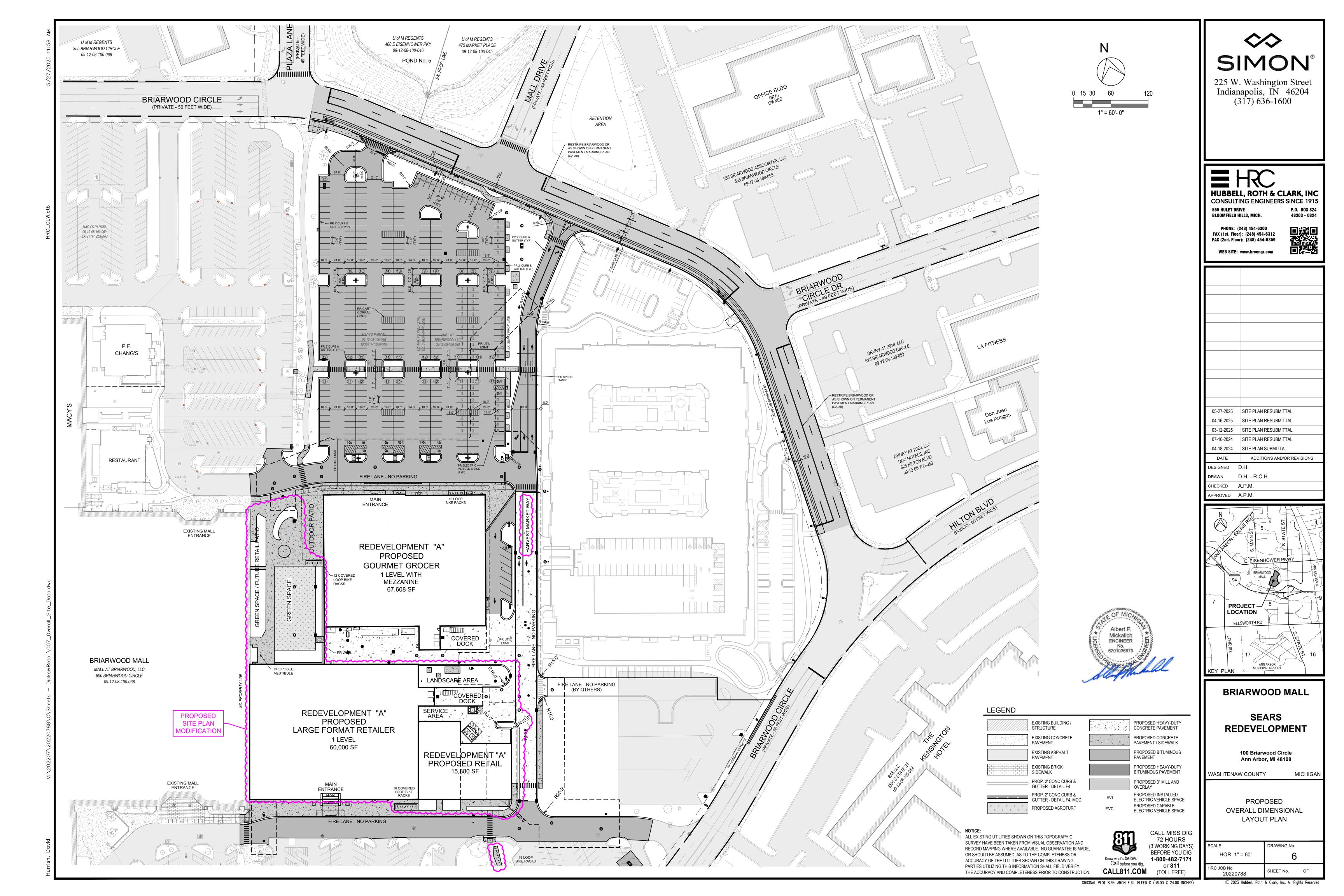
WASHTENAW COUNTY

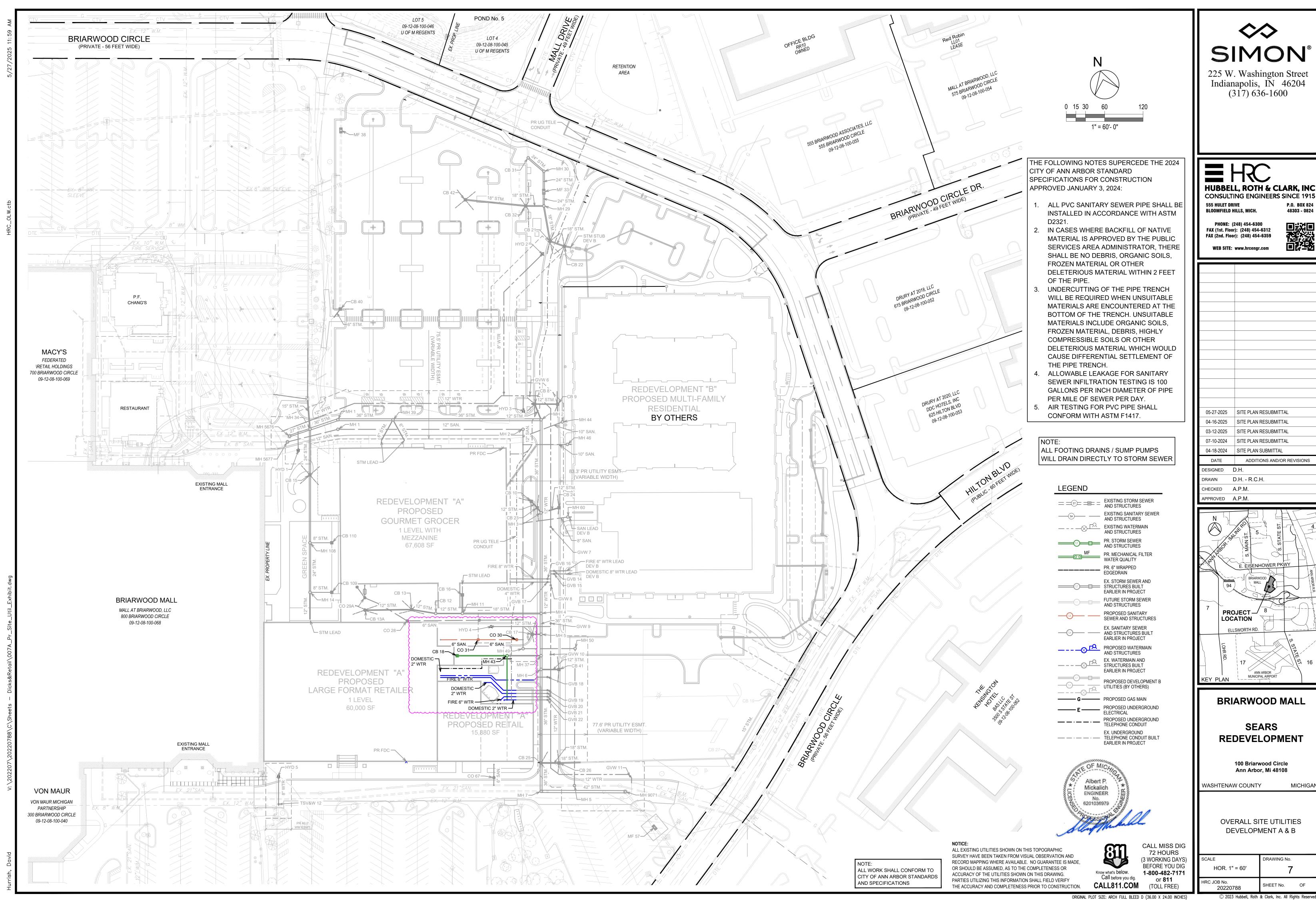
APPROVED AND PROPOSED PERSPECTIVE SITE VIEW

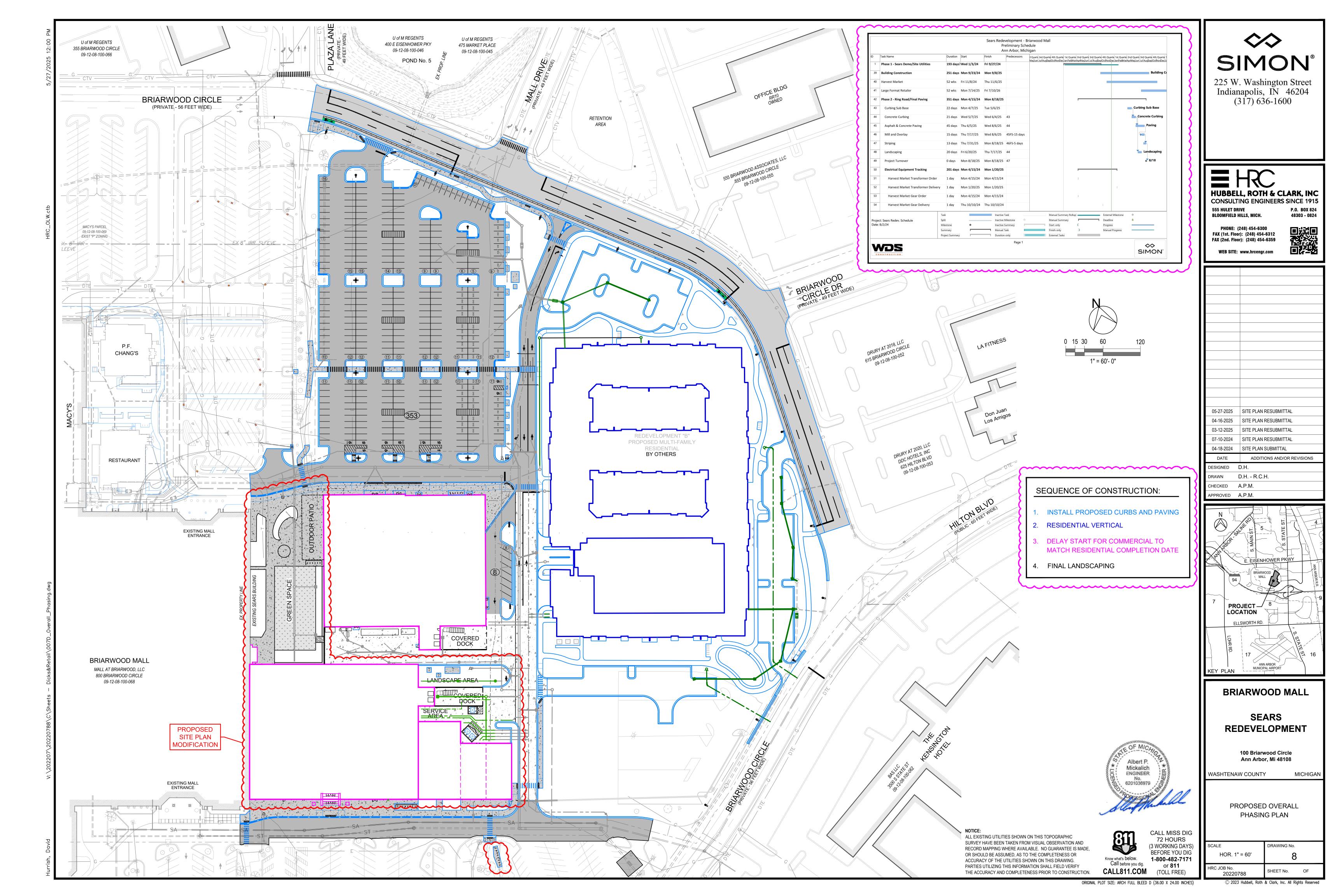
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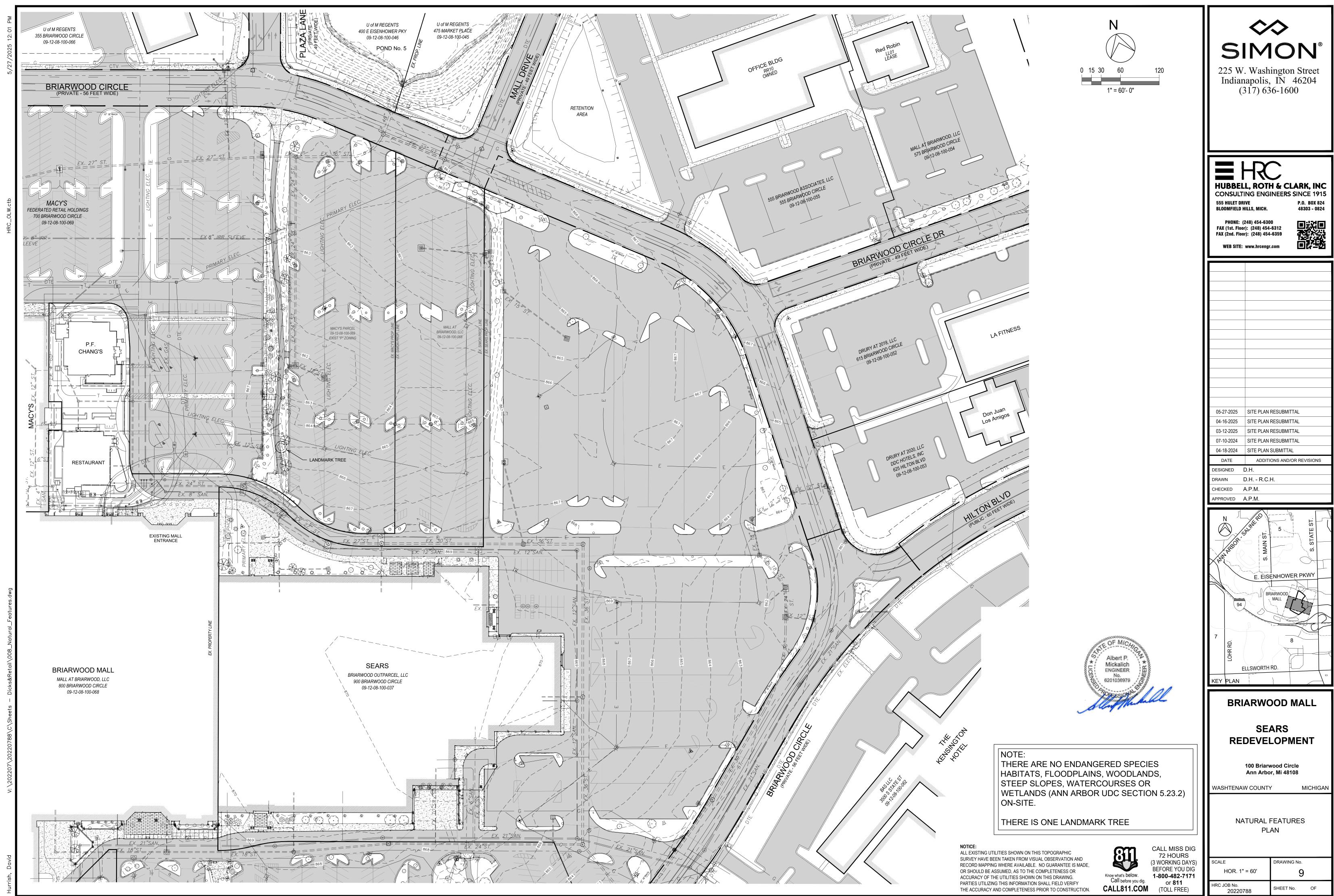
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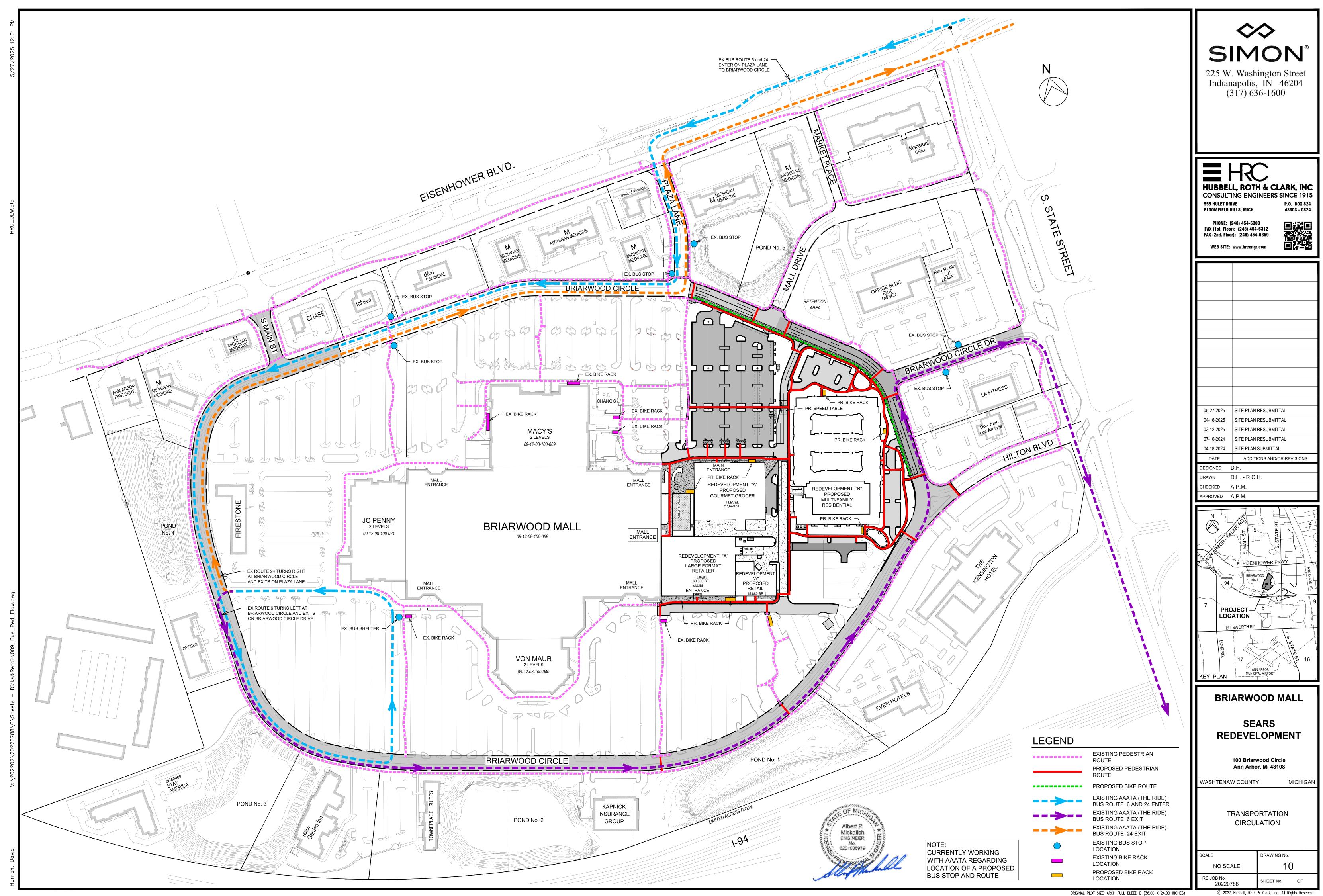
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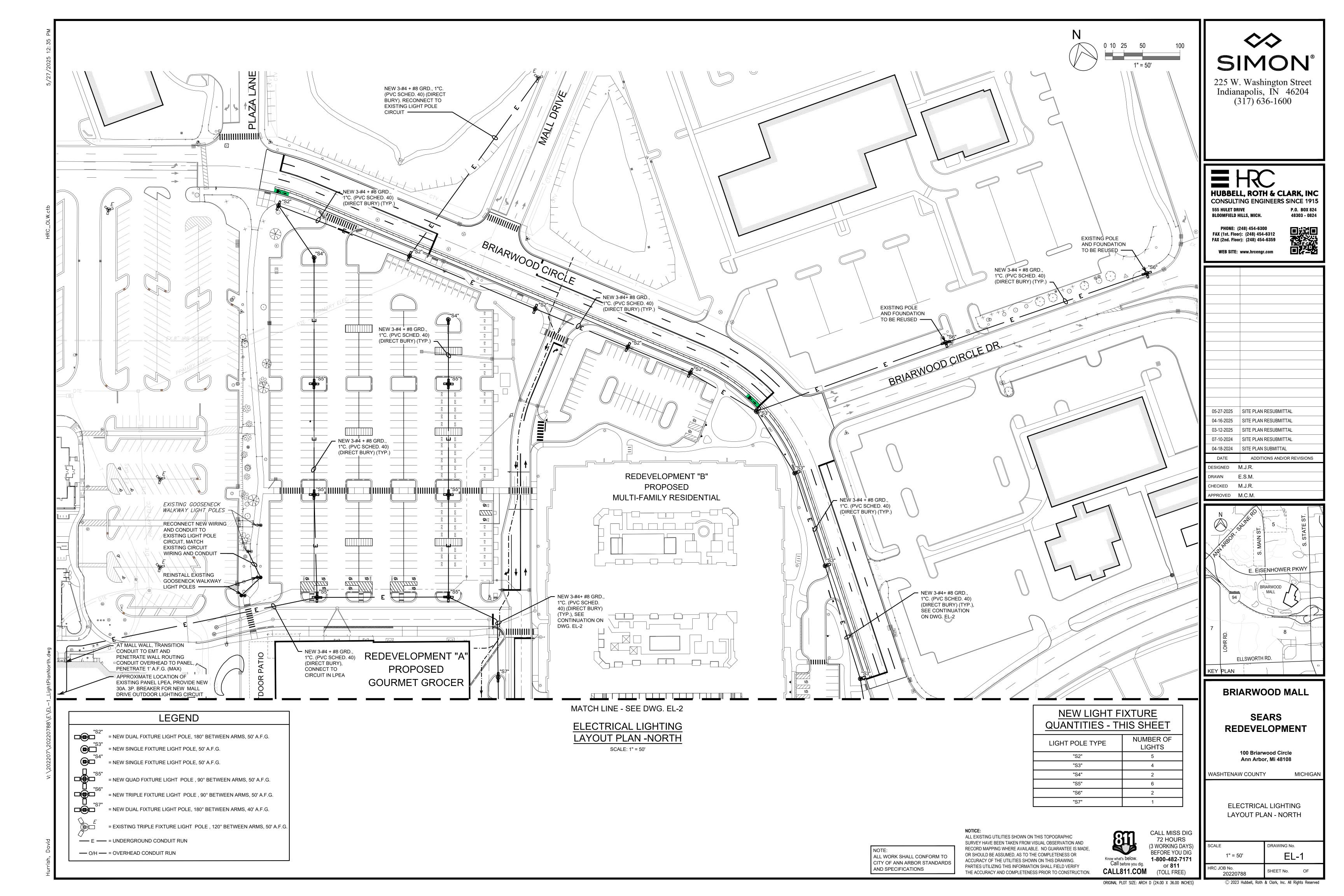


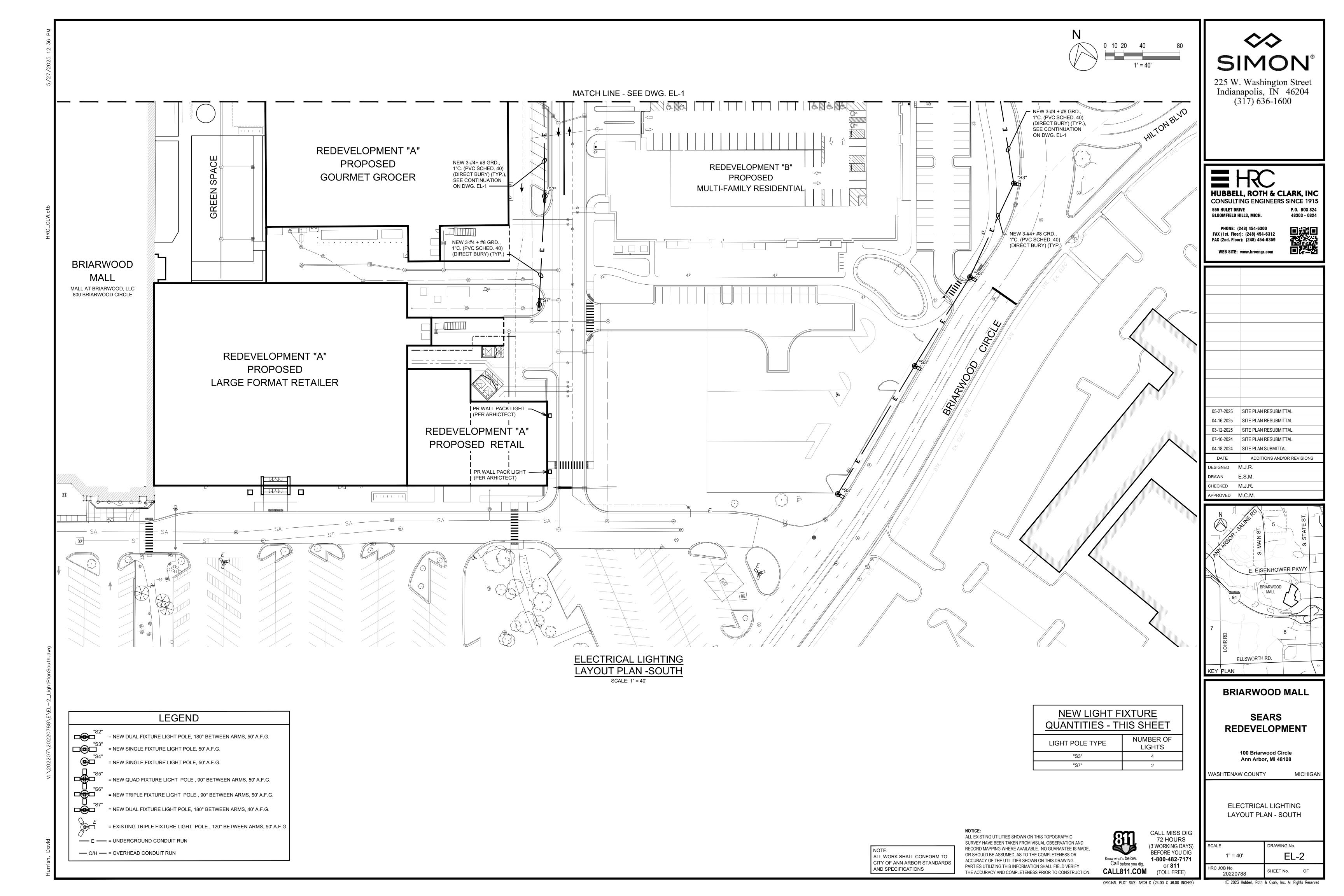


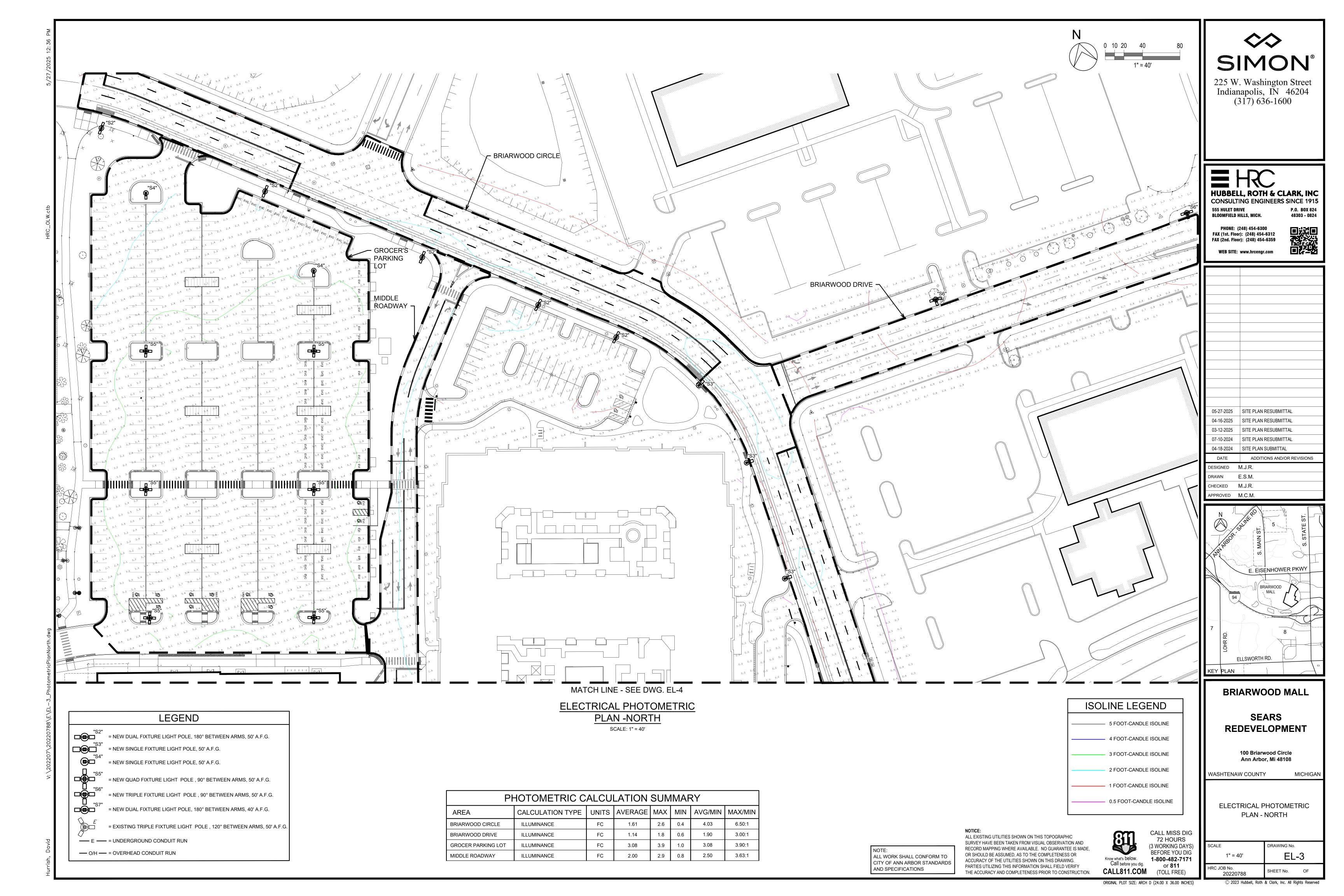


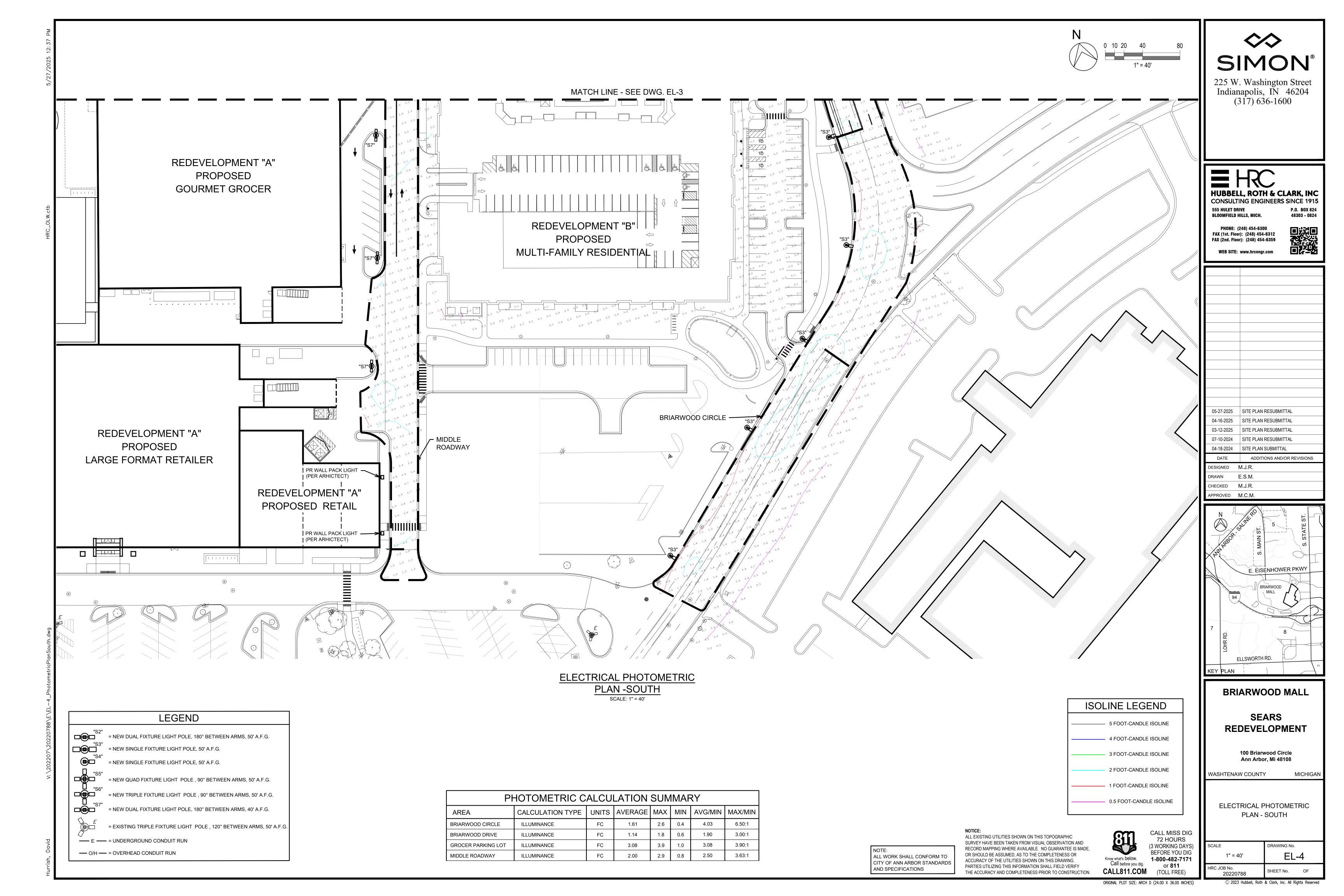




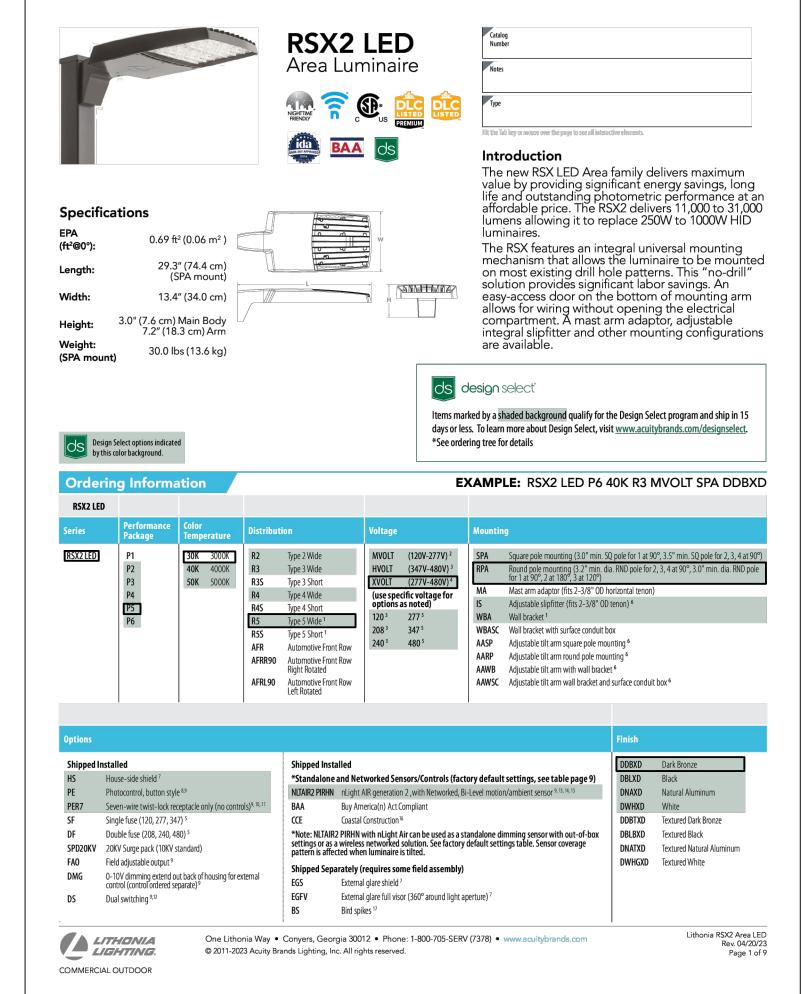




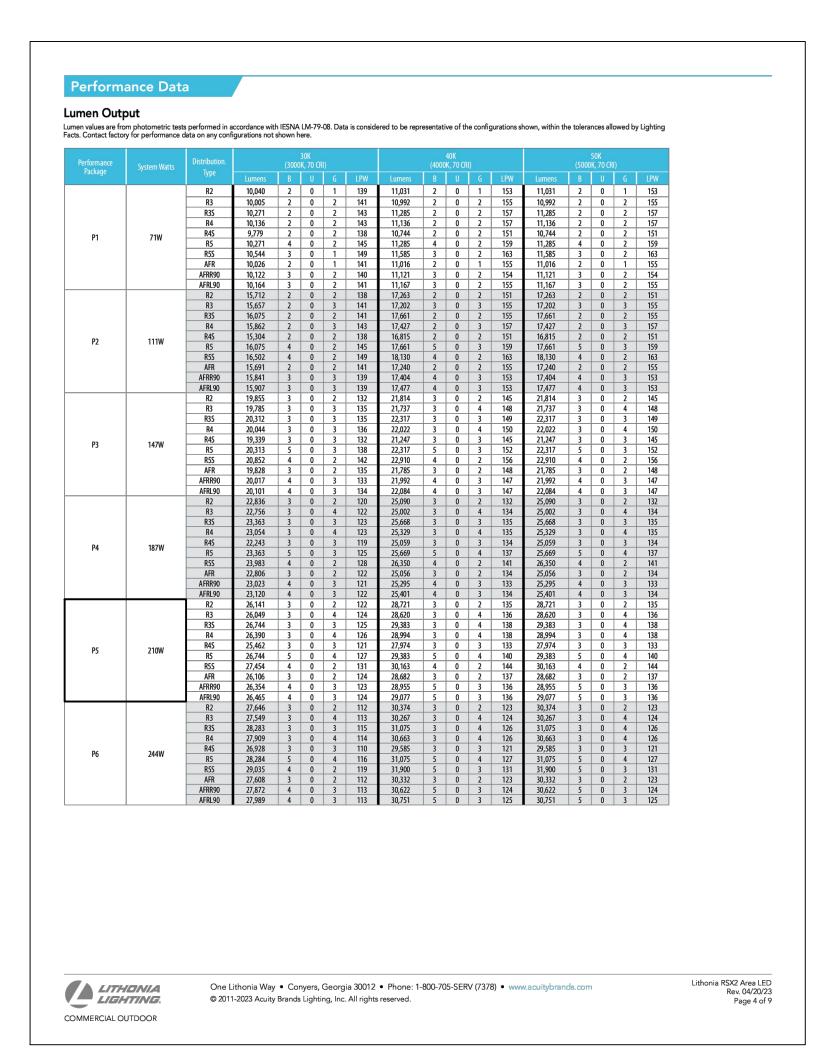




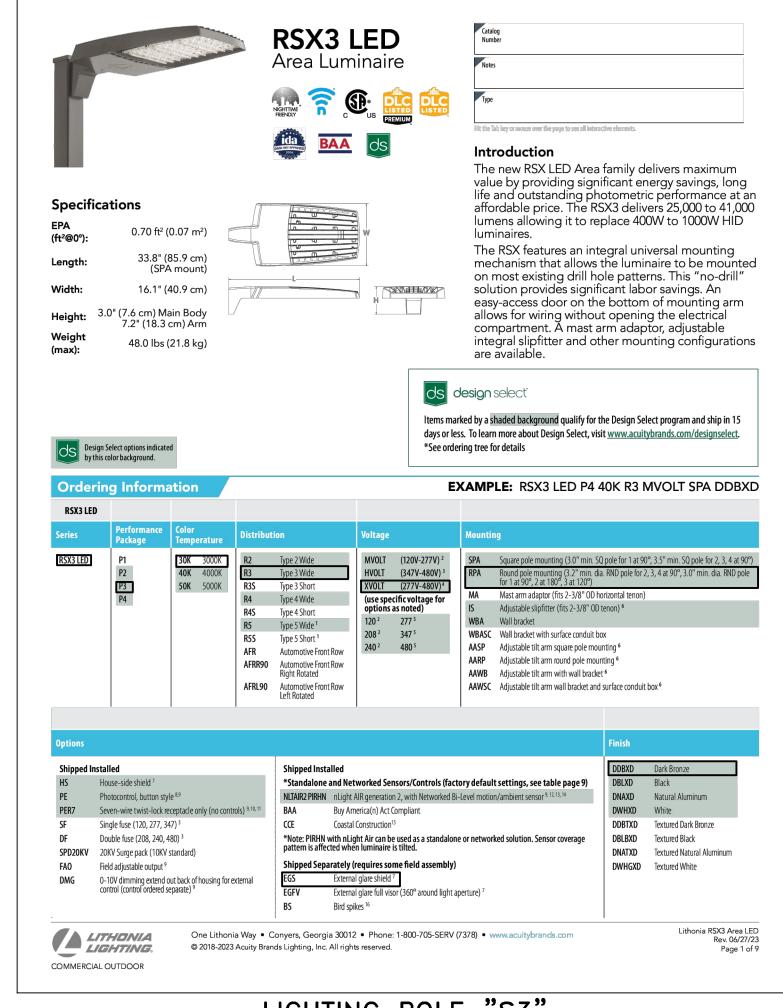




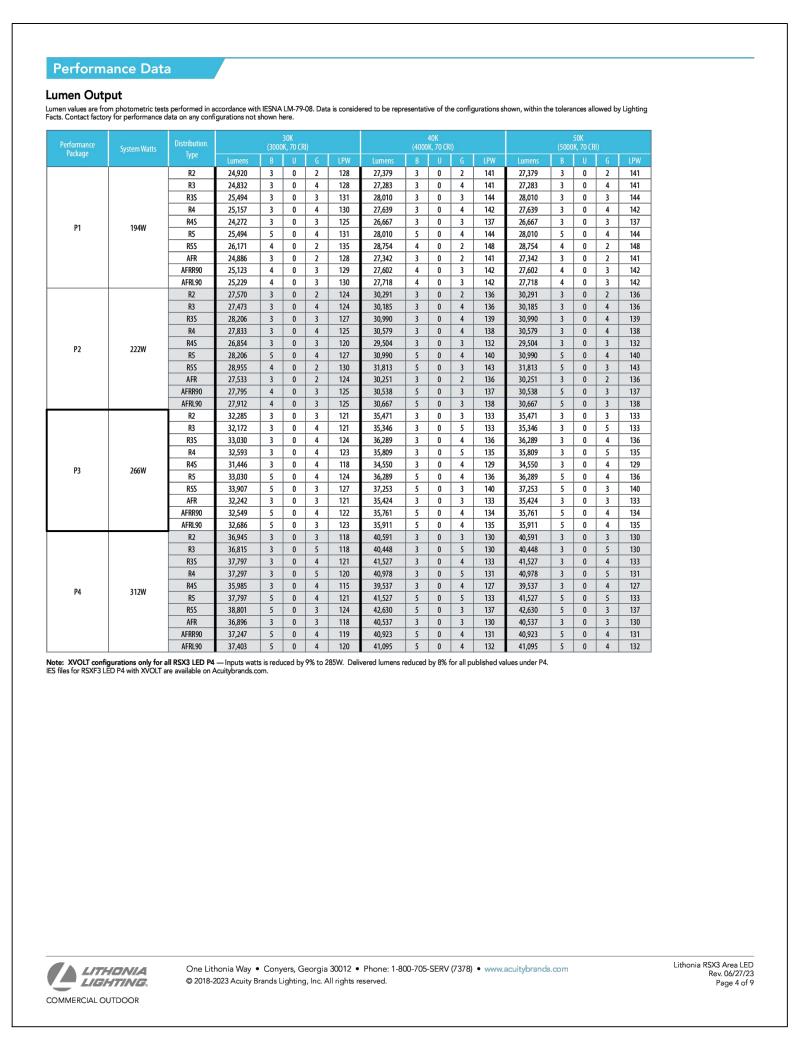
LIGHTING POLES "S2", "S4", "S5", "S6" LIGHT FIXTURE CUTSHEET



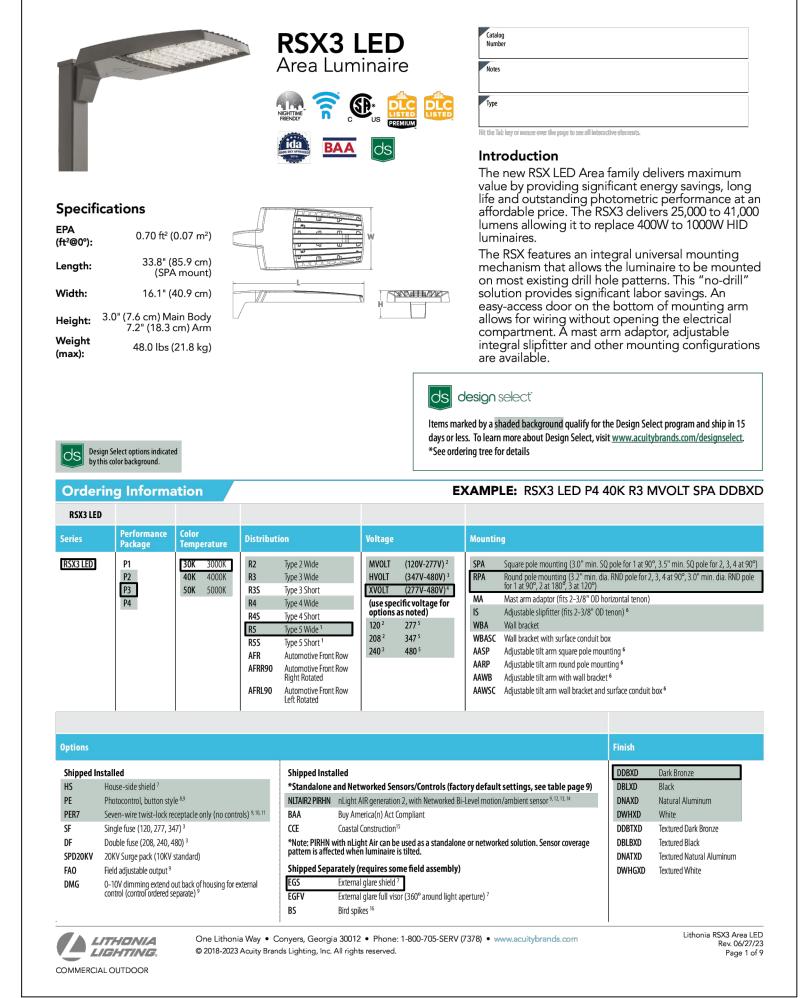
LIGHTING POLES "S2", "S4", "S5", "S6" WATTAGES



LIGHTING POLE "S3" LIGHT FIXTURE CUTSHEET



LIGHTING POLES "S3" AND "S7" WATTAGES



LIGHTING POLE "S7" LIGHT FIXTURE CUTSHEET



Indianapolis, IN 46204

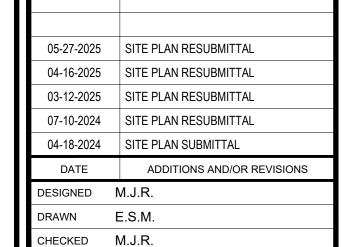
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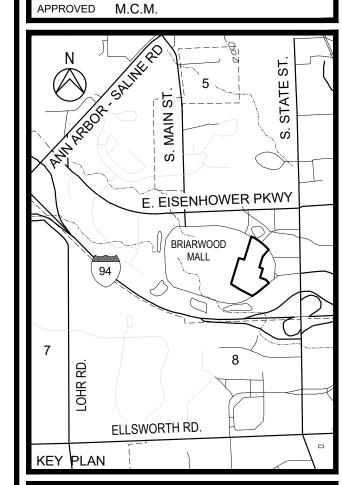


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BRIARWOOD MALL SEARS

REDEVELOPMENT 100 Briarwood Circle

MICHIGAI

Ann Arbor, Mi 48108 WASHTENAW COUNTY

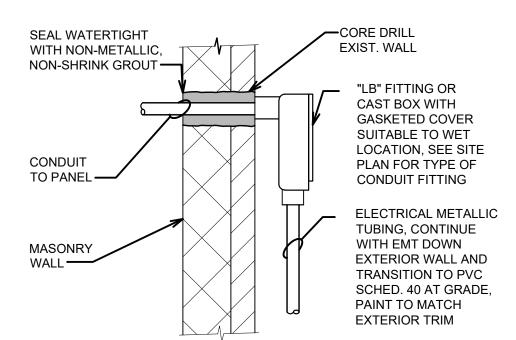
ELECTRICAL LIGHT FIXTURE

CUTSHEETS

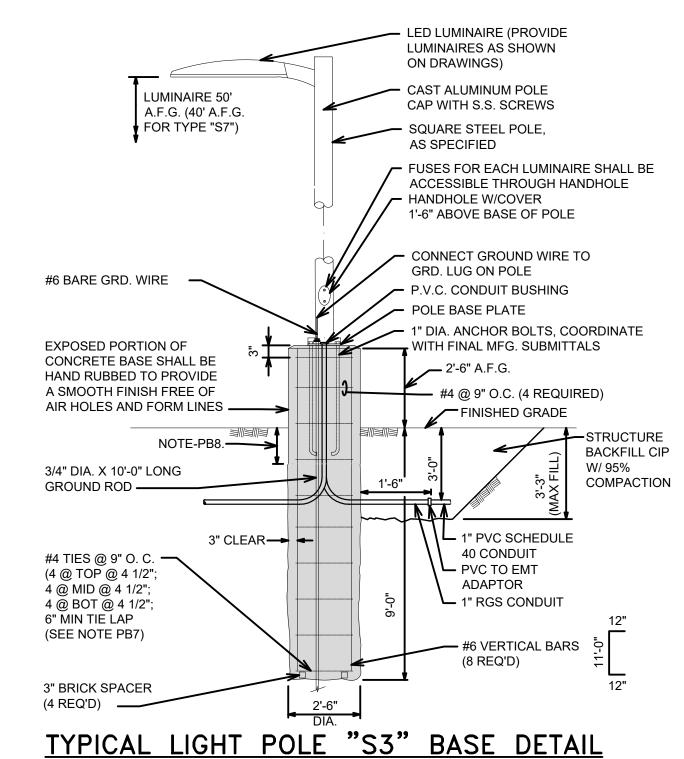
RAWING No. EL-5 NO SCALE

SHEET No. 20220788





WALL PENETRATION DETAIL N.T.S.



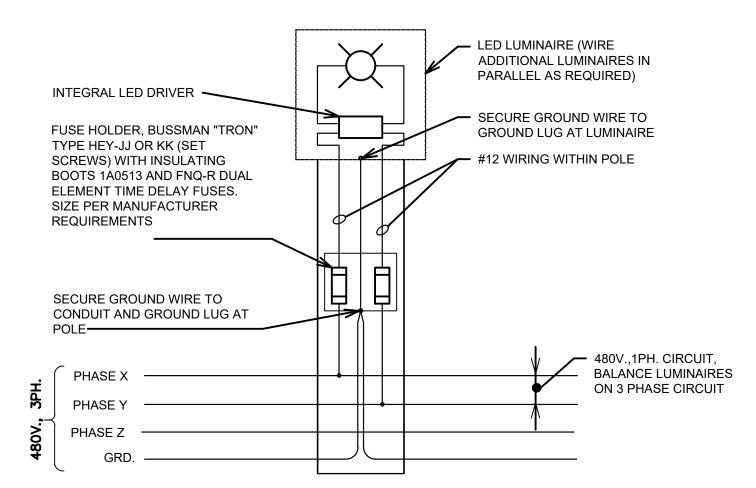
(NOTE: ALL MOUNTING HARDWARE TO BE STAINLESS STEEL) (LIGHT POLES "S2", "S4", "S5", "S6", & "S7" ARE MOUNTED SIMILAR) NOTE: BACKFILLING OPERATIONS & CONCRETE ATTAINING THE 28

DAY COMPRESSIVE STRENGTH MUST BE COMPLETED PRIOR TO

LIGHT POLE PLACEMENT.

POLE BASE NOTES:

- PB1. 3500 PSI MINIMUM 28-DAY CONCRETE COMPRESSIVE STRENGTH CONCRETE, IN ACCORDANCE WITH MDOT STANDARD SPEC. TABLE 1004-1 FOR CONCRETE GRADE 3500, AND NO FLY ASH, ASTM A-615 GRADE 60 UNCOATED RE-BARS.
- PB2 IF WATER IS PRESENT IN HOLE, PUMP TO A DRY CONDITION BEFORE PLACING CONCRETE.
- PB3 CONTRACTOR TO PREVENT SLOUGHING OF UNSTABLE CLAY OR GRANULAR MATERIALS AND GROUNDWATER INFILTRATION BY MEANS OF A TEMPORARY STEEL CASING.
- PB4. IF WET CONDITIONS ARE ENCOUNTERED AND DEEMED UNAVOIDABLE (SEE NOTE PB2). TREMIE - PLACE CONCRETE. TREMIE SHALL HAVE A PLUG TO PREVENT MIXING OF GROUND WATER AND CONCRETE AT THE TIP OF THE TREMIE.
- PB5 DURING EXTRACTION OF TEMPORARY CASING AND/OR TREMIE, CONTRACTOR SHALL MAINTAIN A HEAD OF CONCRETE WITHIN CASING/TREMIE TO PREVENT INFILTRATION OF WATER AND/OR SOIL INTO THE EXCAVATION.
- PB6. FOUNDATION EXCAVATION SHALL BE BY 30" AUGER IN UNDISTURBED OR PROPERLY COMPACTED FILL, PER MDOT STANDARD SPECIFICATIONS
- PB7. VERTICAL PORTION OF CONCRETE POLE BASE SHALL BE PLACED IN ONE CONTINUOUS POUR.
- PB8. CONCRETE FORMING SHALL EXTEND APPROXIMATELY 6" BELOW PROPOSED FINISHED GRADE
- PB8. CONCRETE SHALL BE THOROUGHLY VIBRATED WITH MECHANICAL VIBRATORS IN ACCORDANCE WITH MDOT STANDARD SPEC. SECTION
- PB9. REINFORCING CAGE SHALL BE TIED, WELDING OF REINFORCING CAGE SHALL NOT BE PERMITTED.
- PB10. BASE PLATE CANNOT BE MODIFIED IN THE FIELD TO FIT ANCHOR BOLTS LOCATIONS. REMOVE AND RE-INSTALL CONCRETE FOUNDATION AS REQUIRED TO COORDINATE ANCHOR BOLT LOCATIONS. EPOXY EMBEDDED ANCHORAGE IS NOT ALLOWED.



TYPICAL POLE WIRING DIAGRAM

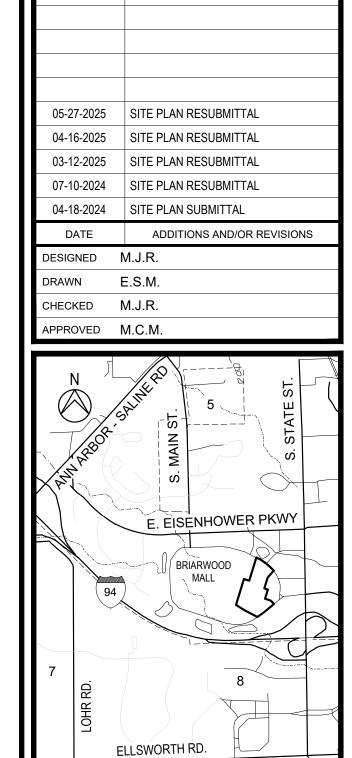


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BRIARWOOD MALL

100 Briarwood Circle Ann Arbor, Mi 48108

MICHIGAN

WASHTENAW COUNTY

ELECTRICAL LIGHT FIXTURE **DETAILS**

DRAWING No. EL-6 NO SCALE HRC JOB No. SHEET No. 20220788

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ORIGINAL PLOT SIZE: ARCH D (24.00 X 36.00 INCHES)

DEVELOPMENT B REMAINS AS APPROVED.

THE PROPOSED AREA OF MODIFICATIONS HAS BEEN BUBBLED AND HIGHLIGHTED TO ASSIST WITH RECOGNIZING THE CHANGES

SEE REDEVELOPMENT A & B PLANS FOR PROJECT INFORMATION, COMPARISON CHARTS, AND REQUIRED STATEMENT

THE SUSTAINABILITY NARRATIVE OUTLINES THE GOAL FOR THE BRIARWOOD SEARS REDEVELOPMENT WITH NEW RETAIL. A GROCER AND OUTLOT. THE PROJECT WILL IMPROVE THE EXISTING SITE WITH NEW MORE EFFICIENT BUILDINGS.

THE KEY SUSTAINABILITY STRATEGIES CURRENTLY BEING CONSIDERED FOR THIS PROJECT ARE OUTLINED BELOW

THE SITE IS DESIGNED TO PROVIDE MORE LANDSCAPE AREAS THAN EXIST WITHIN THE DEVELOPMENT. THE INCREASE IN LANDSCAPE AREA WILL REDUCE THE STORMWATER RUN OFF FROM THE SITE. PEDESTRIAN AND BICYCLE CONNECTIVITY WILL BE INCORPORATED INTO THE SITE WITH COVERED BICYCLE RACKS AND SIDEWALK CONNECTIONS TO BOTH EISENHOWER AND STATE STREETS. THE DEVELOPMENT WILL BE DESIGNED TO PROVIDE ACCESS TO QUALITY PUBLIC TRANSIT. ELECTRONIC VEHICLE (EV) CHARGING STATIONS WILL BE PROVIDED TO ENCOURAGE EV USAGE. ALTERNATIVE MODES OF TRANSPORTATION WILL HELP

MECHANICAL FILTERS WILL BE INSTALLED ON THE STORM SEWER EXISTING ON-SITE TO TREAT THE RUNOFF AND REDUCE THE SUSPENDED SOLIDS THAT MAY OTHERWISE END UP DOWNSTREAM.

THE SITE HAS BEEN EVALUATED BY THE COUNTY WATER RESOURCES AND G2 CONSULTING SERVICE. EXISTING SOIL CONDITIONS

A CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT PLAN WILL BE IMPLEMENTED DURING CONSTRUCTION. THE PLAN WILL ADDRESS WASTE RECYCLING, SALVAGE AND REUSE GOALS. THE PLAN WILL ACHIEVE AT LEAST 90% LANDFILL DIVERSION OF ALL WASTE MATERIALS. THE PLAN SHALL BE PROVIDED AS THE PROJECT COMES CLOSER TO ENTITLEMENT.

PROJECT INFORMATION

PROJECT ADDRESS: 900 BRIARWOOD CIRCLE ANN ARBOR, MICHIGAN, 48108

EXISTING ZONING: C2B

OWNER

SITE TYPE/USE:

THE OWNER OF THE REDEVELOPMENT A IS BRIARWOOD OUTPARCEL, LLC LOCATED AT: 225 W WASHINGTON ST

INDIANAPOLIS, INDIANA, 46204

DEVELOPMENT PROGRAM

SEARS REDEVELOPMENT IS A PROPOSED RETAIL DEVELOPMENT THAT WILL DEMOLISH THE EXISTING SEARS STORE LOCATED AT THE EAST SIDE OF BRIARWOOD MALL FOR THE DEVELOPMENT OF A ONE LEVEL WITH MEZZANINE 67,608 SFT GROCERY STORE AND A 1 LEVEL, 60,000 SFT RETAIL BUILDING WITH ATTACHED 15.880 SFT RETAIL. ADJACENT TO THIS DEVELOPMENT WILL BE A NEW MULTI-LEVEL, MULTI-FAMILY RESIDENTIAL BUILDING. THIS DEVELOPMENT WILL PROVIDE ELECTRICAL CHARGING STATIONS FOR EACH BUILDING AND PEDESTRIAN CONNECTIVITY TO STATE STREET AND THE REST OF THE EXISTING DEVELOPMENT. ALSO, BIKE RACKS AND PUBLIC TRANSPORTATION WILL BE PROVIDED TO THIS AREA OF THE DEVELOPMENT. BUILDING HEIGHT, AREA, DENSITY AND PARKING ARE PROVIDED IN THE COMPARISON TABLE:

C	OMPARISON CHART	OF REQUIREMENTS						
	Existing	Proposed	Requirements					
Zoning Classification	C2B & P	C2B	C2B					
Lot Area (Redevelopment A)	12.1	12.1						
Total Area of Floors	164,621	143,488	None					
First Floor Area	164,621	131,962						
Floor Area Ratio (FAR)	1/1	1.09/1	200%					
Open Space and Building Coverage Required	None	None	None					
Active Open Space								
Required Building Setbacks								
Front	10 ft.	10 ft. Min, 25 ft. Max	10 ft. Min, 25 ft. Max					
Side	2.5 ft.	0 ft.	0 ft. (*)					
Rear	2.5 ft.	0 ft.	0 ft. (*)					
Required Yard Setback								
Front	10 ft. Min, 25 ft. Max	10 ft. Min, 25 ft. Max						
Side	0 ft.	0 ft.						
Rear	0 ft.	0 ft.						
Building Height/Stories	32 ft3 in. / 2 Stories	55 ft 0 in./ 2 Stories	Max 55 ft 0 in. / 4 Stories					
Lot Dimensions								
Area			Min 4,000 Sq. Ft.					
Width			Min 40 Ft.					
Off Street Parking								
Standard Stalls	1033	360	1/235 sft = 607 Max Space					
ADA Stalls	19	9						
EVI	N/A	18	5% of Total Spaces					
EVC	N/A	54	15% of Total Spaces					
EVI ADA	N/A	1	Per Table 5.19-3					
Bicycle Parking								
Requirements	-	1/3000 sft	1/3000 sft					
Covered	0	24	50% of Total Required					
Uncovered	0	24	50% of Total Required					

(*) Min. 30 ft. Plus 1 ft. additional for each foot of Building Height over 30 ft. when abutting R District, Otherwise 0 ft.

THE PROJECT WILL BE DEVELOPED AT ONE TIME WITH THE BUILDING CONSTRUCTION FOLLOWING THE SITE WORK BY THE INDIVIDUAL USERS. REQUIRED INFRASTRUCTURE WILL BE PROVIDED TO SUPPORT EACH BUILDING IN THE DEVELOPMENT. 3. COMMUNITY ANALYSIS

a. IMPACT OF PROPOSED DEVELOPMENT ON AREA SCHOOLS

THIS PORTION OF THE DEVELOPMENT DOES NOT PROVIDE FOR ANY INCREASE IN RESIDENTIAL UNITS. THE PROJECT WILL NOT HAVE AN IMPACT ON AREA SCHOOLS.

THE EXISTING SEARS RETAIL DEVELOPMENT IS 164,621 SFT. THE PROPOSED TOTAL AREA OF THE NEW BUILDINGS PROPOSED IS 143,488 SFT OF RETAIL SPACE IN BASICALLY THE SAME LOCATION. THE NEW DEVELOPMENT WILL HAVE BOTH INTERNAL AND EXTERNAL CONNECTIVITY TO THE EXISTING MALL

b. RELATIONSHIP OF INTENDED USE TO NEIGHBORING USES

THE ADJACENT USES ARE SIMILAR AND SUPPORTIVE OF THE DEMOLITION OF THE VACANT SEARS STORE AND THE CONSTRUCTION OF THE NEW USERS. THE GROCER WILL PROVIDE FOR MORE FREQUENT RETURN OF USERS TO THE SITE WHICH SHOULD IMPROVE THE OVERALL

AIR QUALITY - THERE SHOULD NOT BE ANY IMPACT ON AIR QUALITY DO TO THE NEW DEVELOPMENT. PUBLIC TRANSPORTATION WILL

BE INCREASED TO ALLOW FOR MORE USERS TO FREQUENT THE DEVELOPMENT WITH FEWER TRIP GENERATIONS FROM MOTORIZED VEHICLES. BIKE RACKS WILL BE INSTALLED TO ALL FOR NON-MOTORIZED ACCESS TO THE PROJECT. DEDICATED ELECTRICAL VEHICLE (EV) SPACES WILL BE INSTALLED WITH CHARGING STATIONS AT EACH OF THE NEW BUILDINGS TO HELP MEET ANN ARBOR'S LIVING

FILTERS WILL BE INSTALLED ON THE STORM WATER SYSTEM TO TREAT THE RUN OFF PRIOR TO DISCHARGE TO THE EXISTING DETENTION BASINS FOR THE PROJECT THAT WILL BE OPERATED AND MAINTAINED BY THE WASHTENAW COUNTY WATER RESOURCES • NATURAL FEATURES - THERE ARE NOT ANY NATURAL FEATURES ON THE SITE AND THEREFORE NONE WILL BE IMPACTED. THE

• WATER QUALITY - STORM WATER RUN OFF WILL BE REDUCED BY THE REDUCTION OF IMPERVIOUS AREA ON THE SITE. MECHANICAL

IMPERVIOUS AREA ON THE SITE WILL BE REDUCED AND ADDITIONAL VEGETATED AREA WILL BE ADDED e. IMPACT ON HISTORIC SITES OR STRUCTURES

THE SITE IS NOT IN AN HISTORIC DISTRICT AND THERE ARE NOT ANY HISTORIC BUILDINGS ON THE SITE.

Call before you dig.

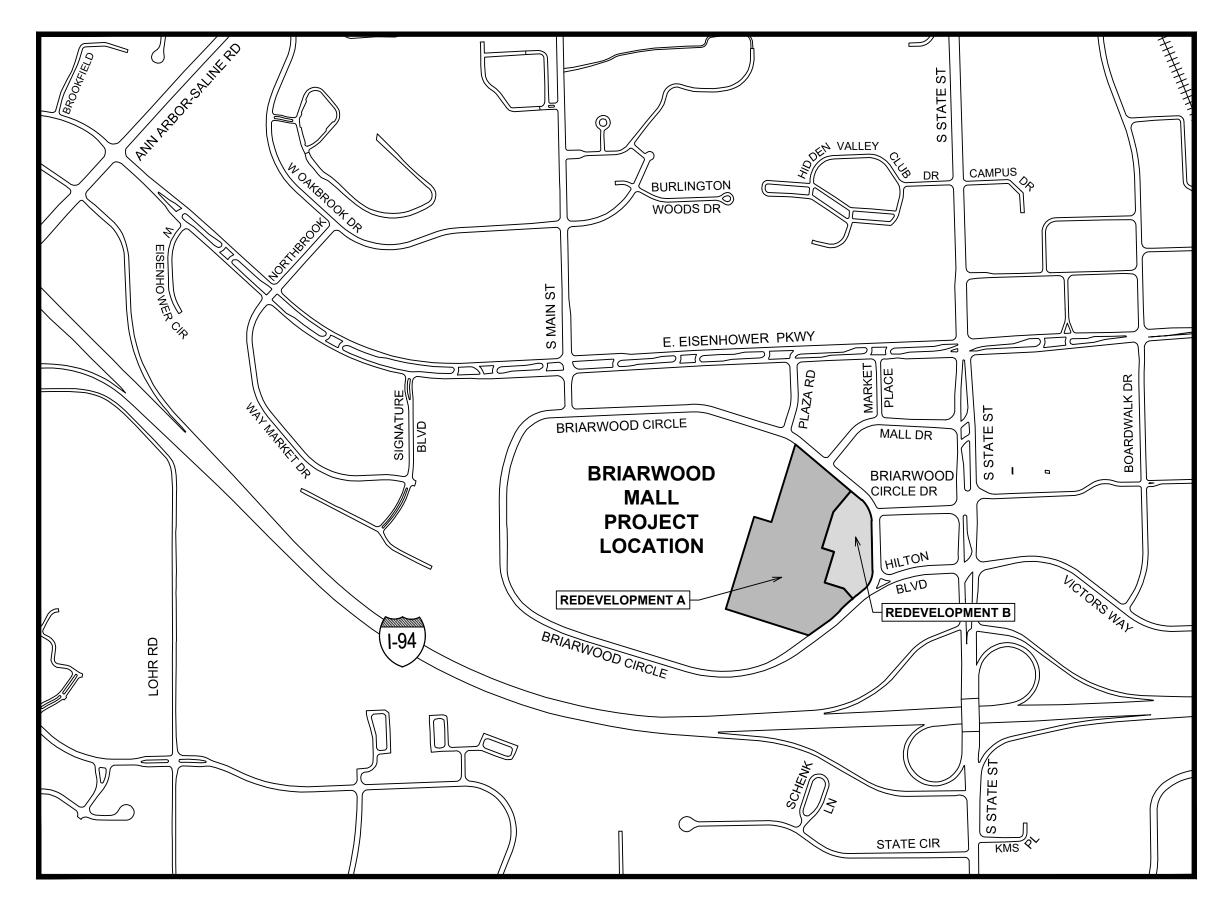
CALL MISS DIG 72 HOURS (3 WORKING DAYS **BEFORE YOU DIG** 1-800-482-7171 or **811** (TOLL FREE)

ALL EXISTING UTILITIES SHOWN ON THIS TOPOGRAPHIC SURVEY HAVE BEEN TAKEN FROM VISUAL OBSERVATION AND RECORD MAPPING WHERE AVAILABLE. NO GUARANTEE IS MADE OR SHOULD BE ASSUMED. AS TO THE COMPLETENESS OR ACCURACY OF THE UTILITIES SHOWN ON THIS DRAWING. PARTIES UTILIZING THIS INFORMATION SHALL FIELD VERIFY THE ACCURACY AND COMPLETENESS PRIOR TO CONSTRUCTION.

BRIARWOOD MALL SEARS REDEVELOPMENT REDEVELOPMENTA

CITY OF ANN ARBOR, MICHIGAN

HRC JOB No. 20220788



ENLARGED LOCATION MAP



REDEVELOPMENT A

CA-00	COVER SHEET - REDEVELOPMENT A
	_EXISTING CONDITIONS
	PROPOSED DIMENSIONAL LAYOUT & SITE PLAN
	_PROPOSED DEMOLITION PLAN
	PROPOSED UTILITIES
	_PROPOSED DRAINAGE AREA PLAN
	_ PROPOSED STORM SEWER CALCULATIONS
	PROPOSED STORM WATER DETENTION CALCULATIONS
	PROPOSED GRADING
	_ PROPOSED SOIL EROSION AND SEDIMENT CONTROL PLAN
	TYPICAL DETAILS
	STORM WATER MECHANICAL FILTER DETAILS
	STORM WATER MANAGEMENT SYSTEM MAINTENANCE PLAN
	_EXISTING AND PROPOSED FIRE HYDRANT COVERAGE PLAN
CA-27	_ SOLID WASTE PLAN
	_ ANN ARBOR SOLID WASTE STANDARD DETAILS
CA-29	_ ESTIMATED COSTS
	_ PROPOSED PARKING LOT LANDSCAPING
LA-02 - LA-03	PROPOSED LANDSCAPE PLAN
LA-04	_ PROPOSED LANDSCAPE NOTES AND DETAILS
L6	_ PRELIMINARY PLAZA PLAN
	_ GOURMET GROCERY FLOOR PLAN
AA-02 - AA-03	GOURMET GROCERY ELEVATIONS
AA-04	_ GOURMET GROCERY WALL SECTIONS
	_ GOURMET GROCERY PERSPECTIVE RENDERING
AA-06	_ CORNER CONCEPT MODIFICATION
AA-07	_ EXTERIOR CORNER OVERVIEW
AA-08	_ PATIO AERIAL OVERVIEW
	_LARGE FORMAT RETAILER FIRST FLOOR PLAN
AA-10	_LARGE FORMAT RETAILER ELEVATIONS
AA-11	_LARGE FORMAT RETAILER MATERIAL BOARD
A A A A A A A A A A A A A A A A A A A	45 000 OF DETAIL ELEVATIONS

PERMITS REQUIRED TO BE OBTAINED BY THE CONTRACTOR

ISSUING AUTHORITY

PLANNING AND DEVELOPMENT

SERVICES UNIT

PRIOR TO THE BEGINNING OF CONSTRUCTION

GRADING/ SOIL EROSION & SEDIMENTATION

CONTROL PERMIT

STORM WATER NARRATIVE:

AA-12 - AA-13 _ _ _ 15,880 SF RETAIL ELEVATIONS

THE STORMWATER MANAGEMENT FOR THE PROPOSED DEVELOPMENT, BRIARWOOD MALL, CONSISTS OF A TOTAL OF 5 EXISTING DETENTION PONDS WHICH OUTLIFT UITIMATELY TO THE MALLETTS CREEK THE PROPOSED DEVELOPMENT WILL OUTLET INTO PONDS #1 & #5. POND #1 OUTLETS INTO MALLETTS CREEK ON THE SOUTH SIDE OF THE SITE, WHILE POND #5 OUTLETS TO THE NORTH.

RUN-OFF COEFFICIENTS OF DEVELOPMENT AREA HAS BEEN LOWERED FROM EXISTING CONDITIONS. ALL STORMWATER GENERATED FROM THE PROPOSED DEVELOPMENT PASSES THROUGH A MECHANICAL FILTER, WHICH IS PROPOSED ON THE STORM SEWER BEFORE BEING DISCHARGED INTO THE MAINLINE STORM SEWER IN THE RING ROAD AND OUTLET INTO THE DETENTION PONDS. THE STORMWATER PRIMARILY SHEET FLOWS OVER THE PARKING LOTS AND ALONG ROADSIDE CURB AND GUTTER INTO AN ENCLOSED STORM SYSTEM. THE STORM SYSTEM CONSISTS OF APPROXIMATEL 3.000 LINEAR FEET OF REINFORCED CONCRETE PIPING RANGING FROM 12"-36" IN DIAMETER, ALL FNCLOSED STORM FACILITIES AND DRAINAGE SWALES ARE PROPOSED TO BE WITHIN AN EASEMENT DEDICATED TO THE WASHTENAW COUNTY WATER RESOURCES COMMISSIONER'S OFFICE.

CITY OF ANN ARBOR FIELD OPERATIONS SERVICES UNIT THE FOLLOWING UTILITIES ARE LOCATED IN OR NEAR THE SITE FOR THIS PROJECT

CITY OF ANN ARBOR FIELD OPERATIONS SERVICES UNIT

734-794-6350 4251 STONE SCHOOL RD. ANN ARBOR, MI 48108 SIGNS/SIGNALS/STREETLIGHTS W.R. WHEELER SVC. CTR MARC MORENO 4251 STONE SCHOOL RD. 734-794-6361 ANN ARBOR, MI 48108

W.R. WHEELER SVC. CTR

MCI-PHONE

WATER, SEWER AND STORM

AT&T-PHONE 550 S. MAPLE **BRIAN BERRY** ANN ARBOR, MI 48103 734-996-2135 DTE ENERGY-ELECTRIC DOMINIC CIANTAR WESTERN WAYNE SERVICE CTR 8001 HAGGERTY RD. 313-235-4005 BELVILLE, MI 48111 COMCAST-CABLE 27800 FRANKLIN RD. RON SUTHERLAND SOUTHFIELD, MI 48034 313-999-8300 DTE ENERGY-GAS 17150 ALLEN RD. JACK WHYATT MELVINDALE, MI 48122 313-701-1355

2400 NORTH GLENFILLE

RICHARDSON, TX 75082

DEAN BOYERS

972-729-6016

SIDEWALK MAINTENANCE

ALL SIDEWALKS ARE TO BE KEPT AND MAINTAINED IN GOOD REPAIR BUT THE OWNER OF THE LAND ADJACENT AND ABUTTING UPON THE SAME. PRIOR TO THE ISSUANCE OF THE FINAL CERTIFICATION OF OCCUPANCY OF THE SITE ALL EXISTING SIDEWALKS IN NEED OF REPAIR MUST BE REPAIRED IN ACCORDANCE WITH CITY STANDARDS.

05-27-2025 SITE PLAN RESUBMITTAL 04-16-2025 SITE PLAN RESUBMITTAL 03-12-2025 SITE PLAN RESUBMITTAL 07-10-2024 SITE PLAN RESUBMITTAL

04-18-2024 SITE PLAN SUBMITTAL

05/27/2025 SITE PLAN RESUBMITTAL

BRIARWOOD MALL - SEARS REDEVELOPMENT

Indianapolis, IN 46204

(317) 636-1600

CURRENT DEED RESTRICTIONS APPLY

DEVELOPER

HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915 55 HULET DRIVE BLOOMFIELD HILLS, MICH. 225 W. Washington Street

PHONE: (248) 454-6300 AX (1st. Floor): (248) 454-6312 FAX (2nd. Floor): (248) 454-6359 WEB SITE: http://www.hrcengr.com

Ann Arbor, Mi 48108

WASHTENAW COUNTY MICHIGAN

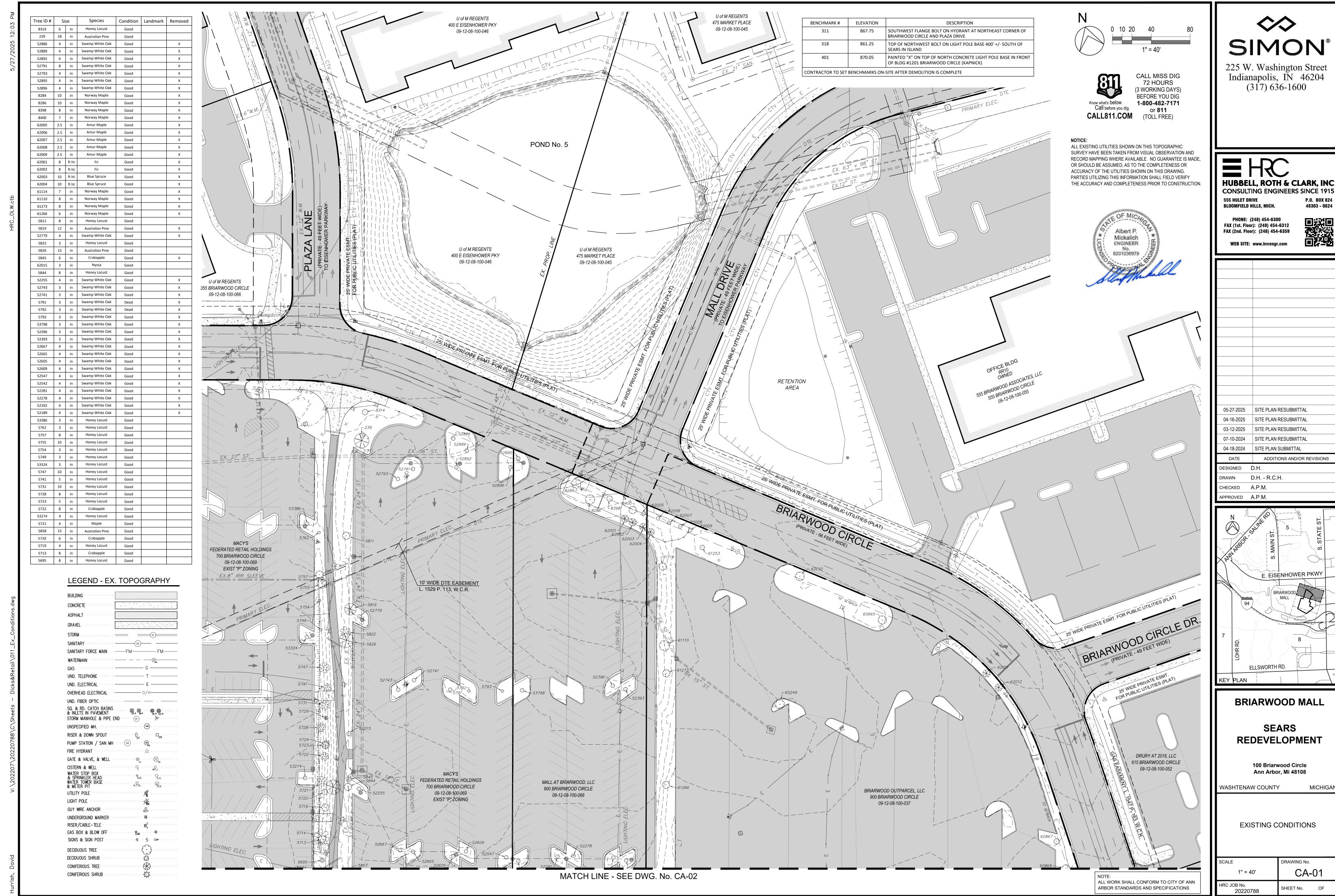
DESIGN ENGINEER P.E., MICHIGAN No.

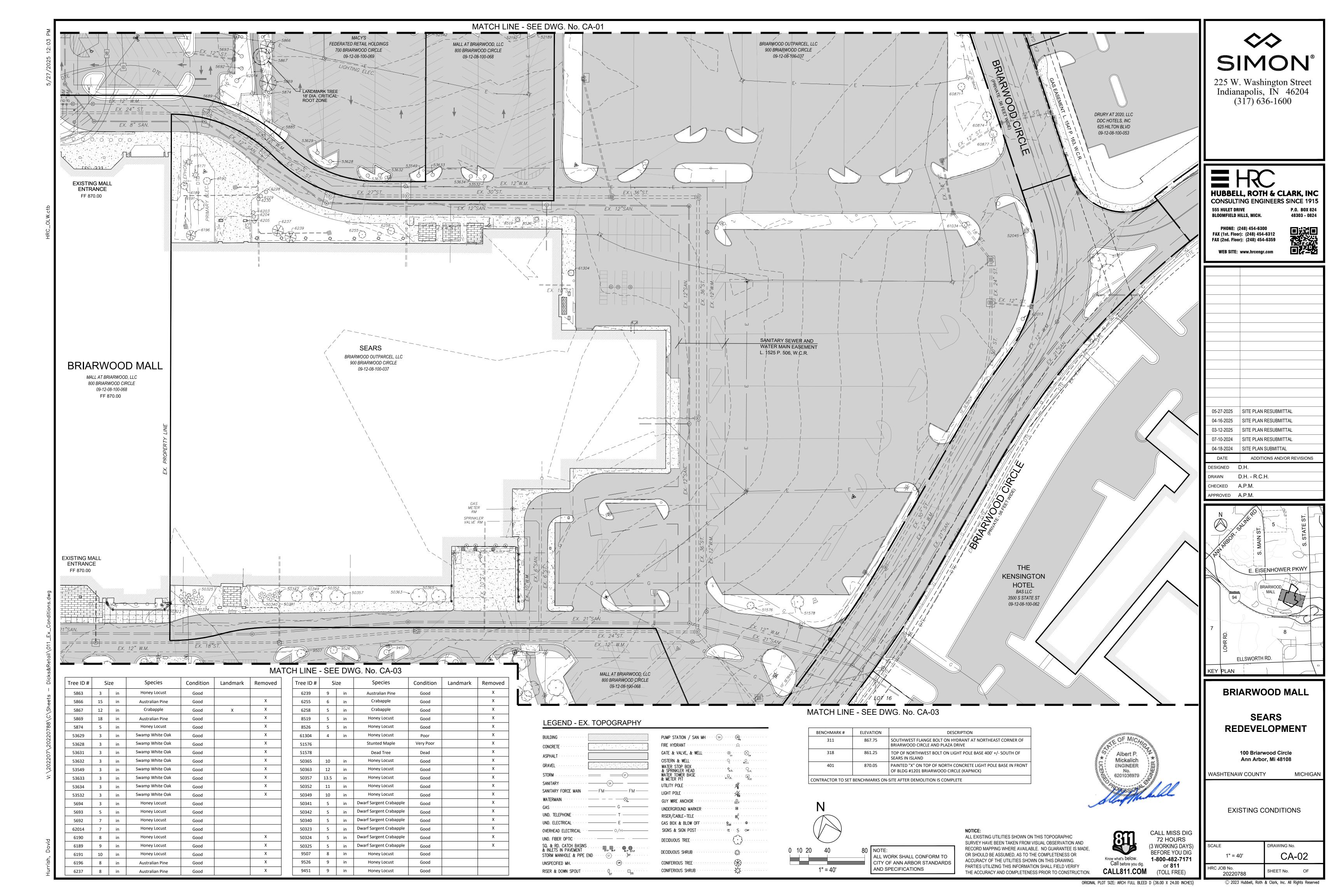
PREPARED UNDER THE SUPERVISION OF

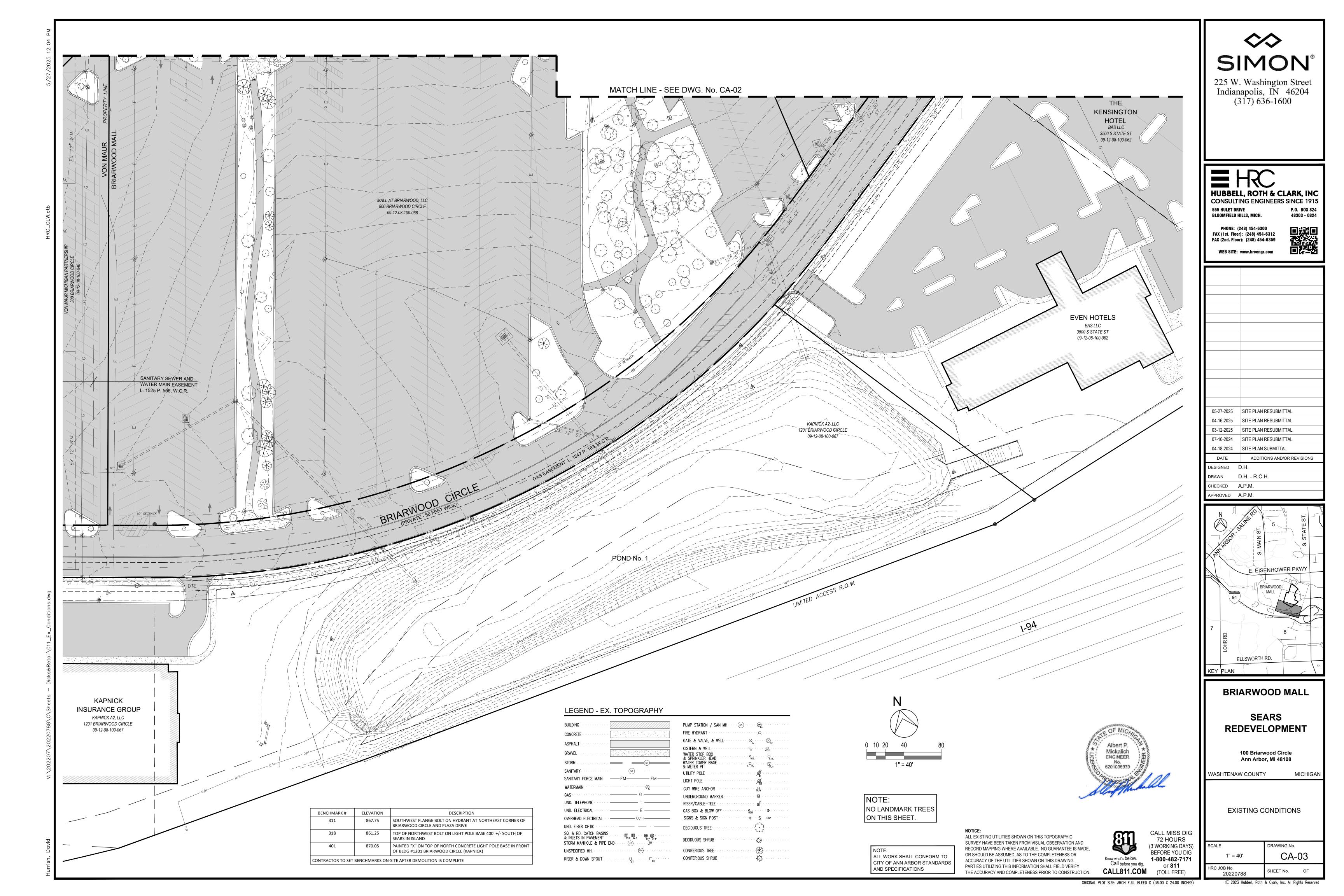
Mickalich ENGINEER

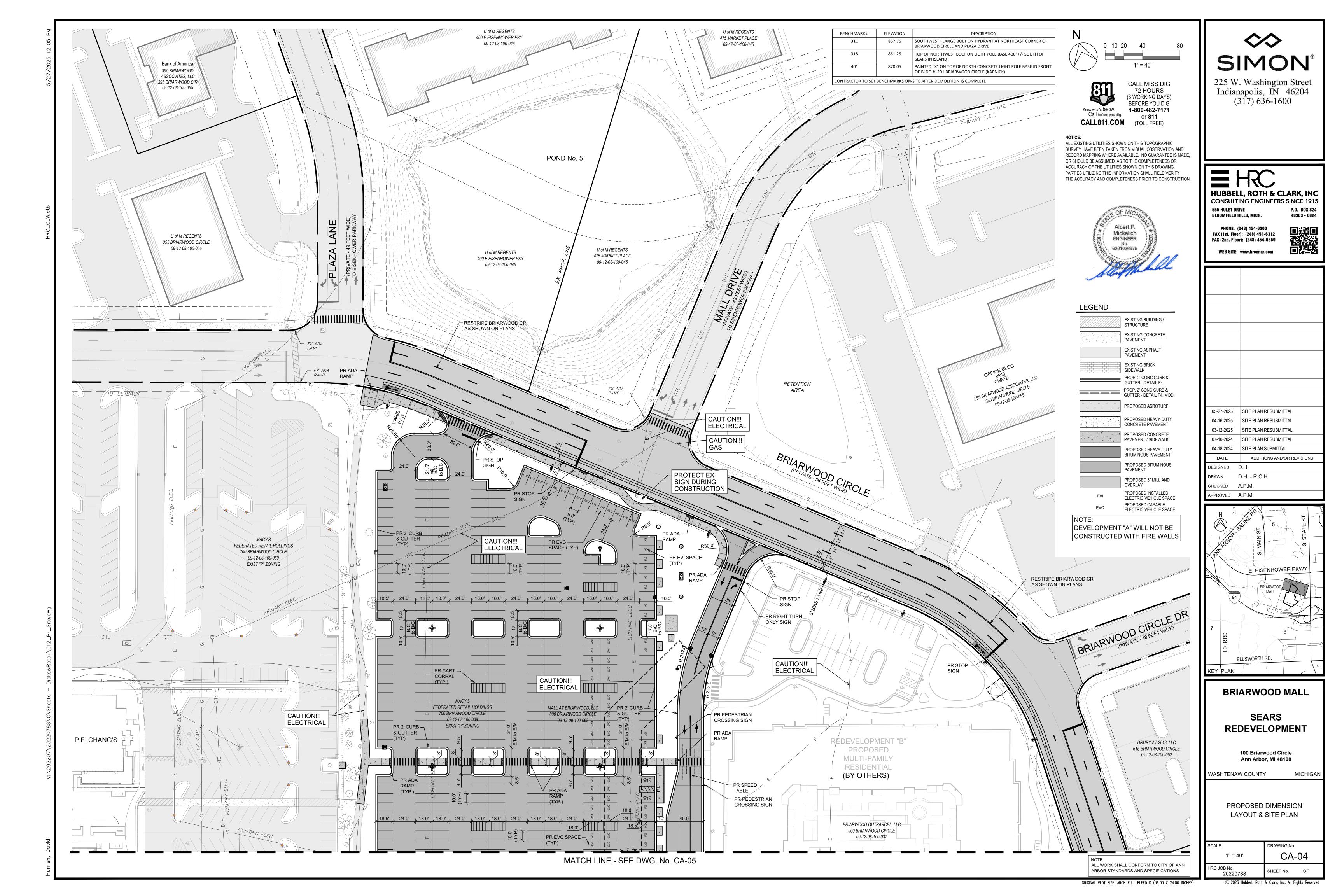
CA-00

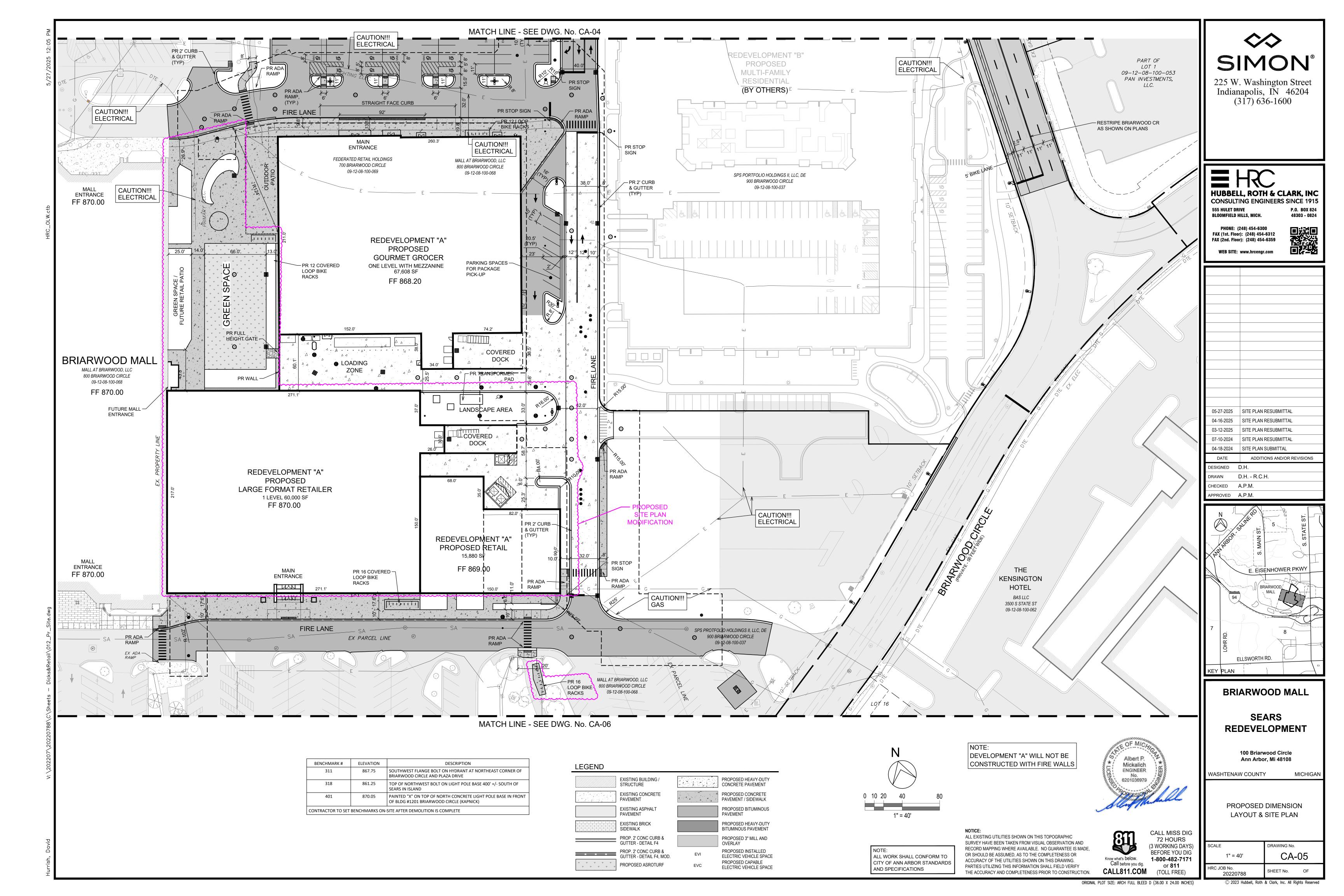
ORIGINAL PLOT SIZE: ARCH FULL BLEED D (36.00 X 24.00 INCHES)

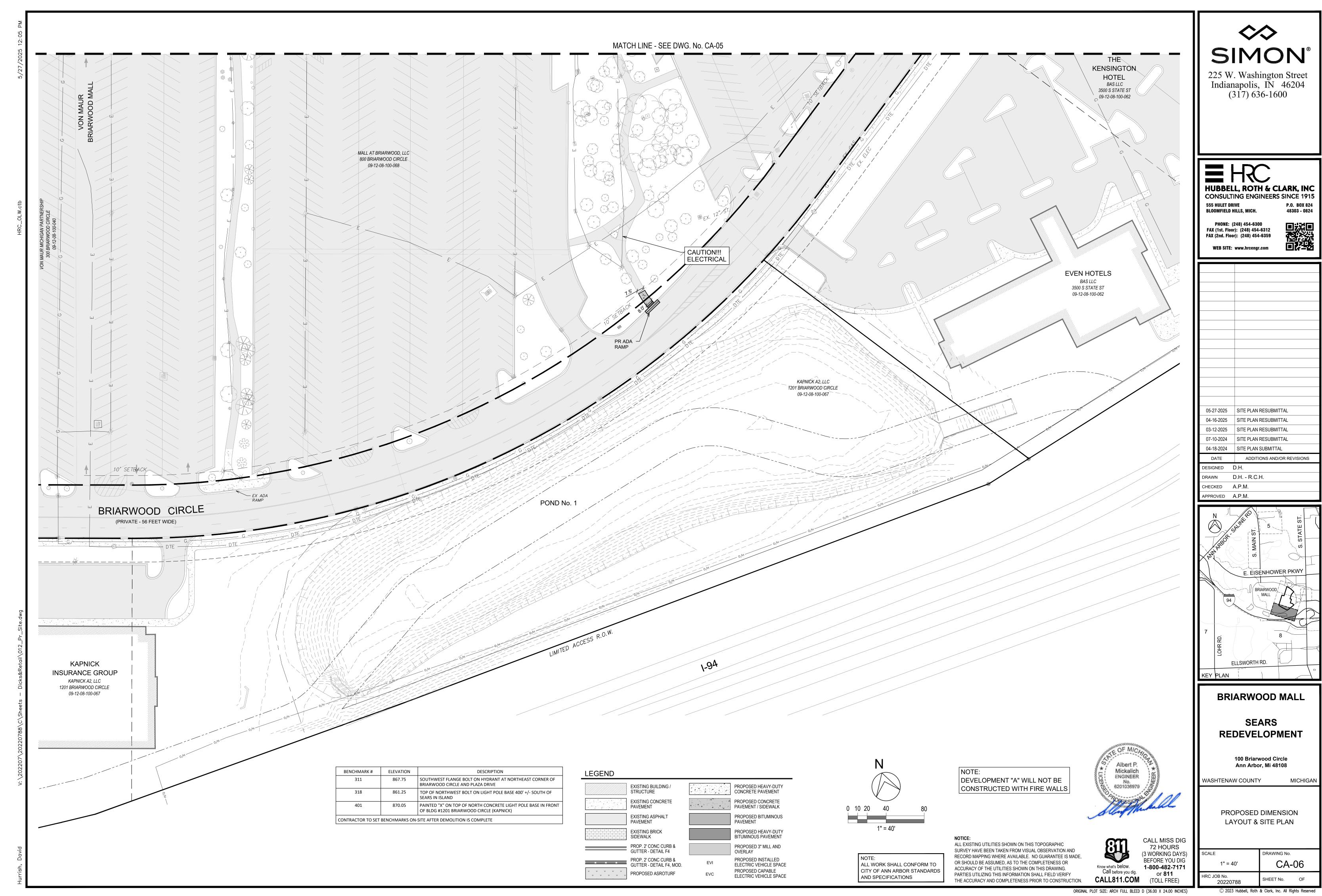


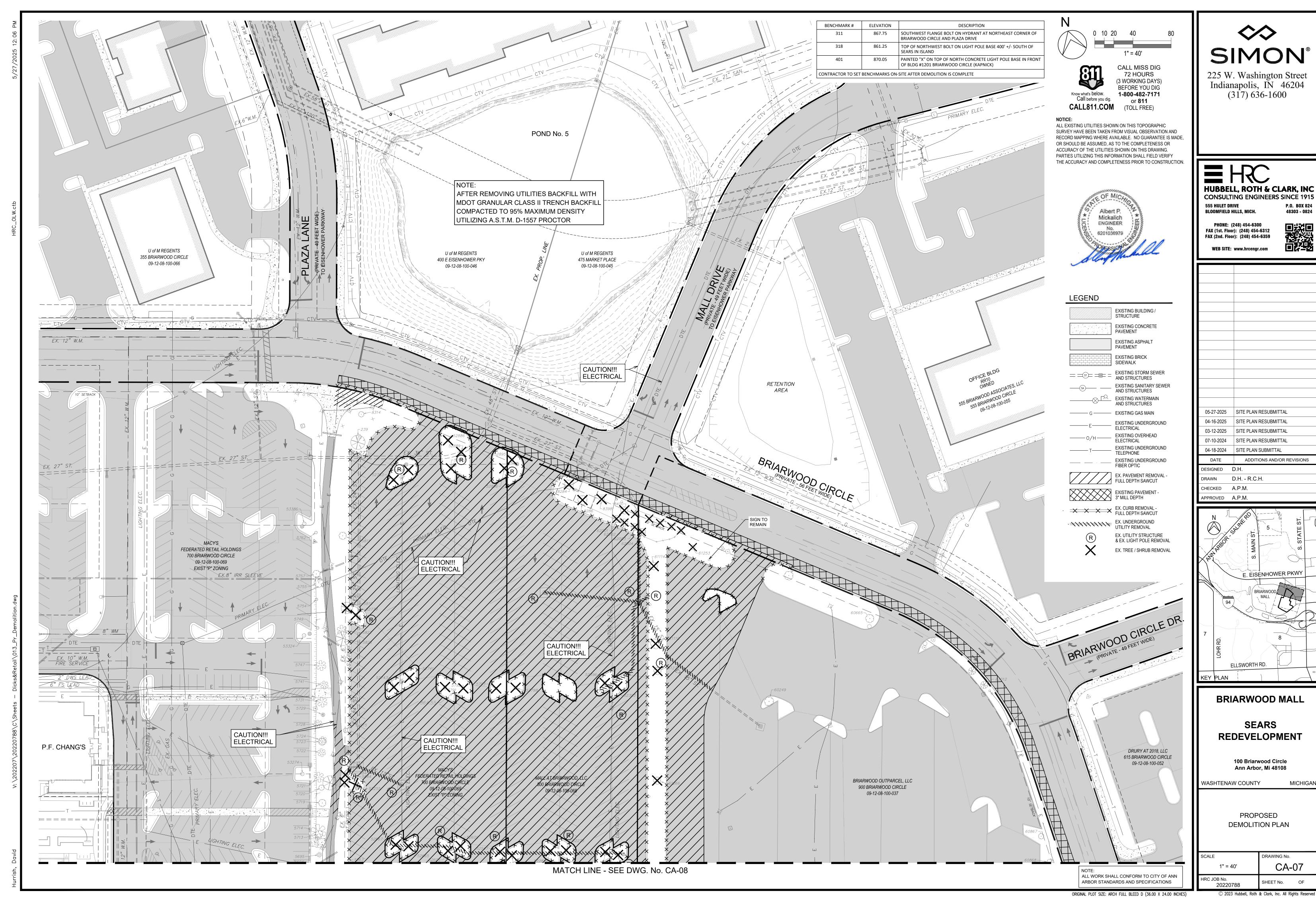


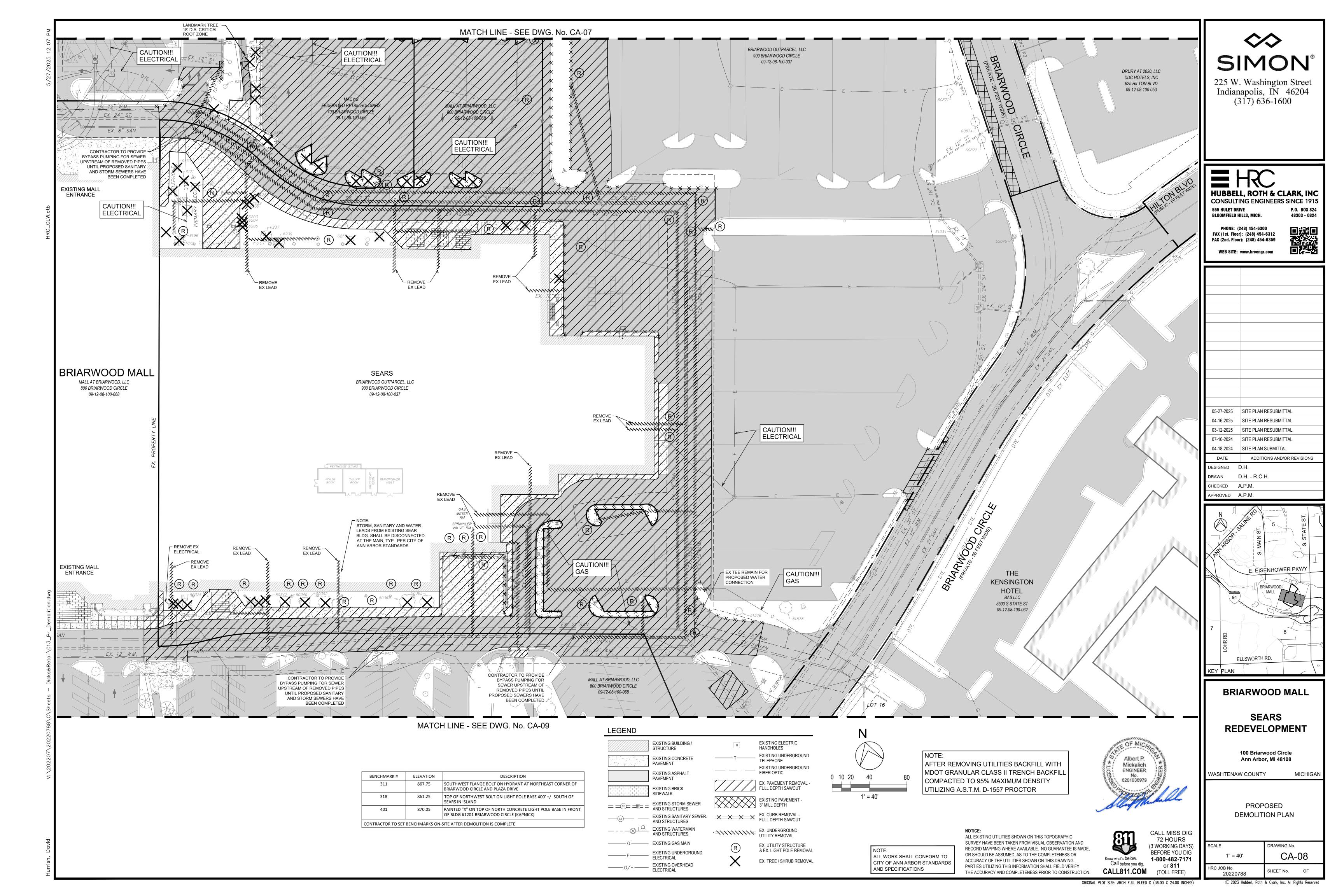


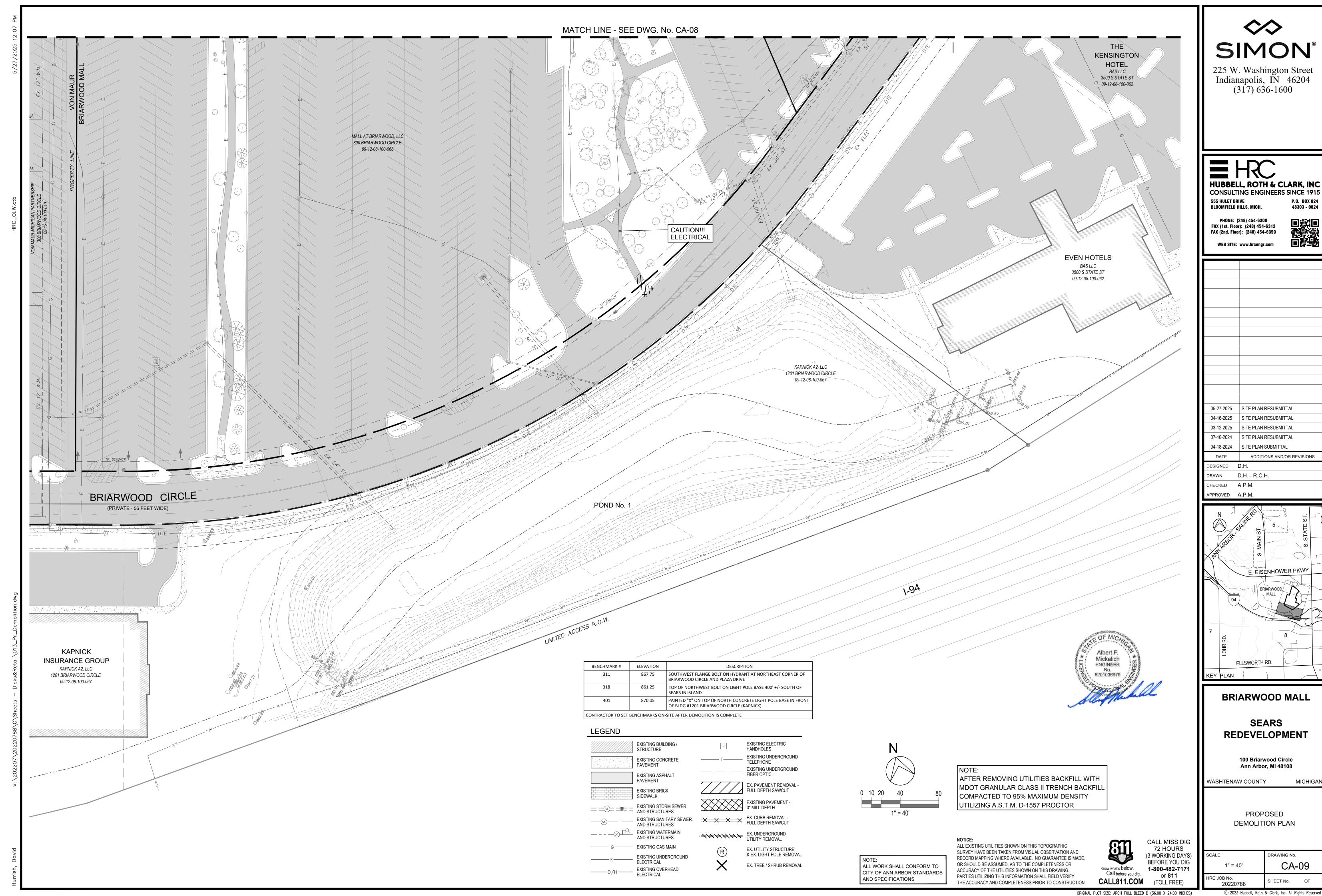


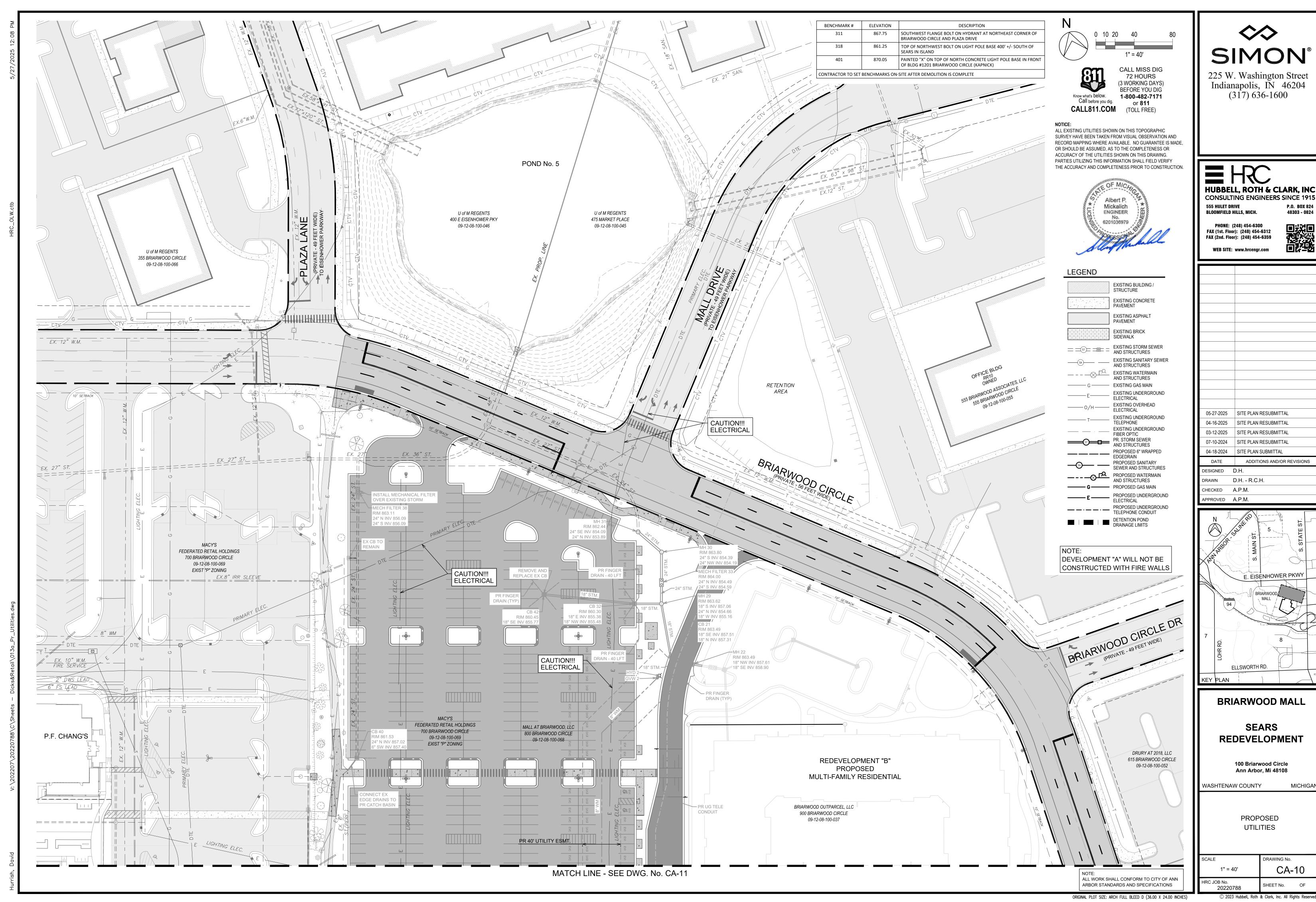


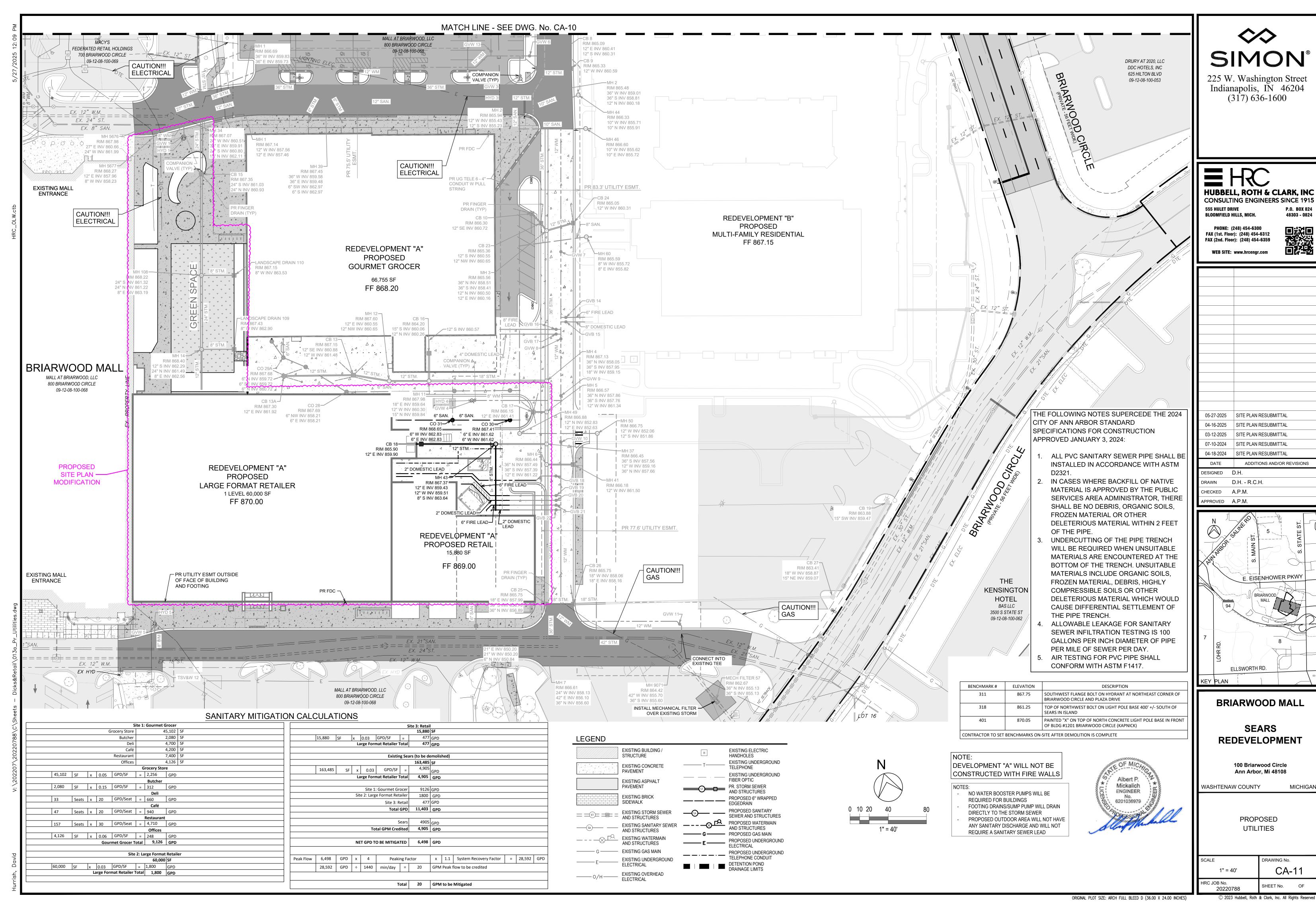


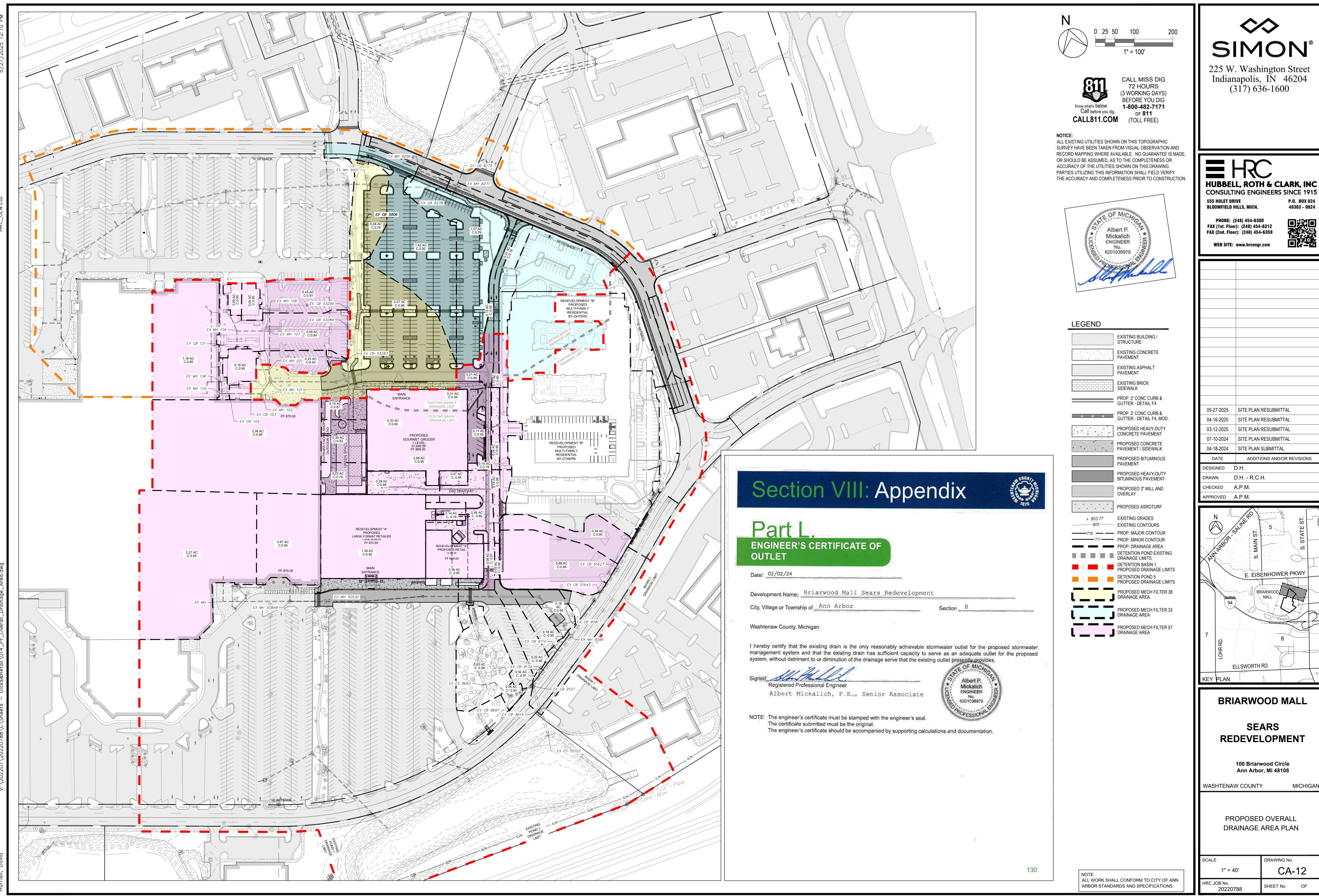


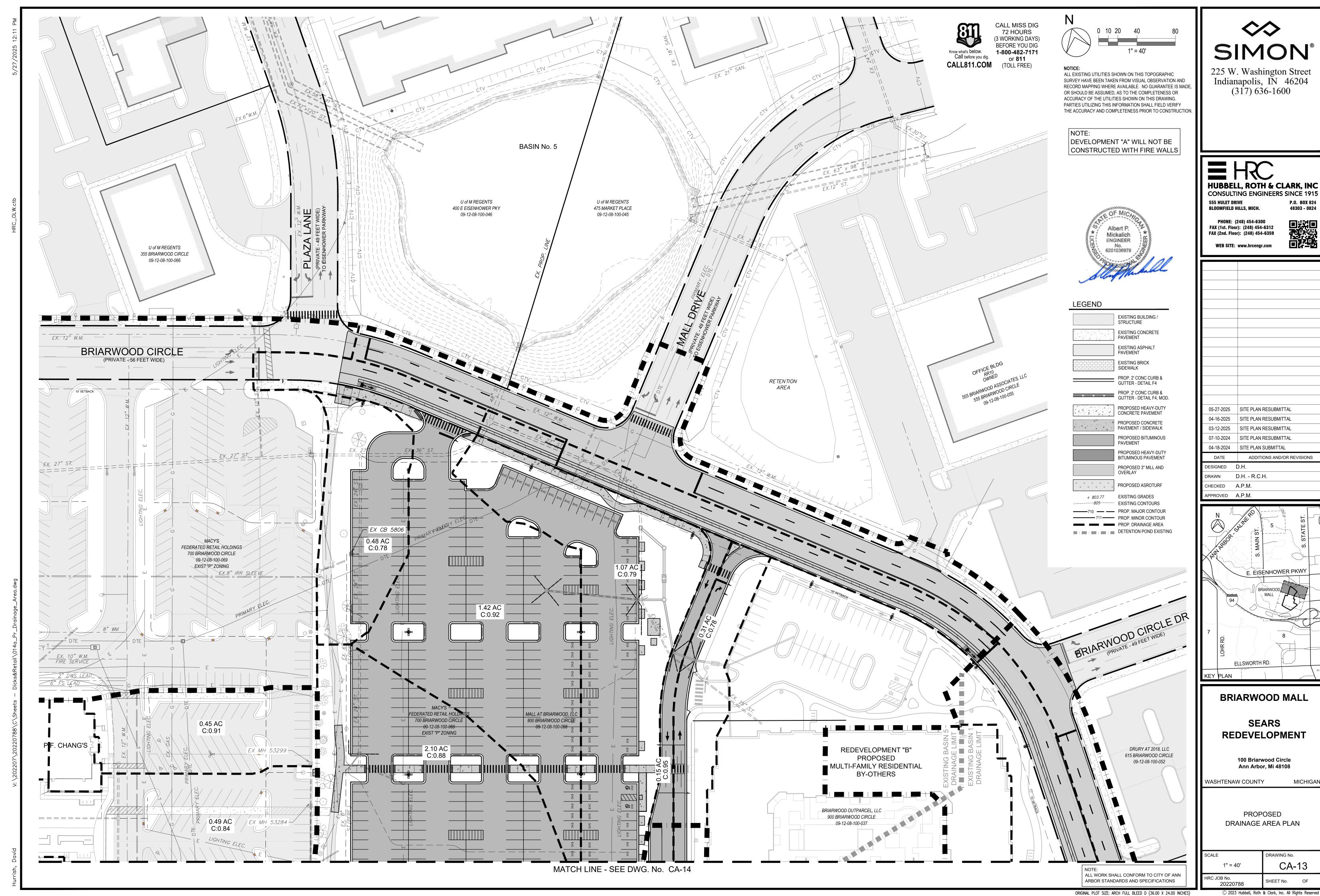


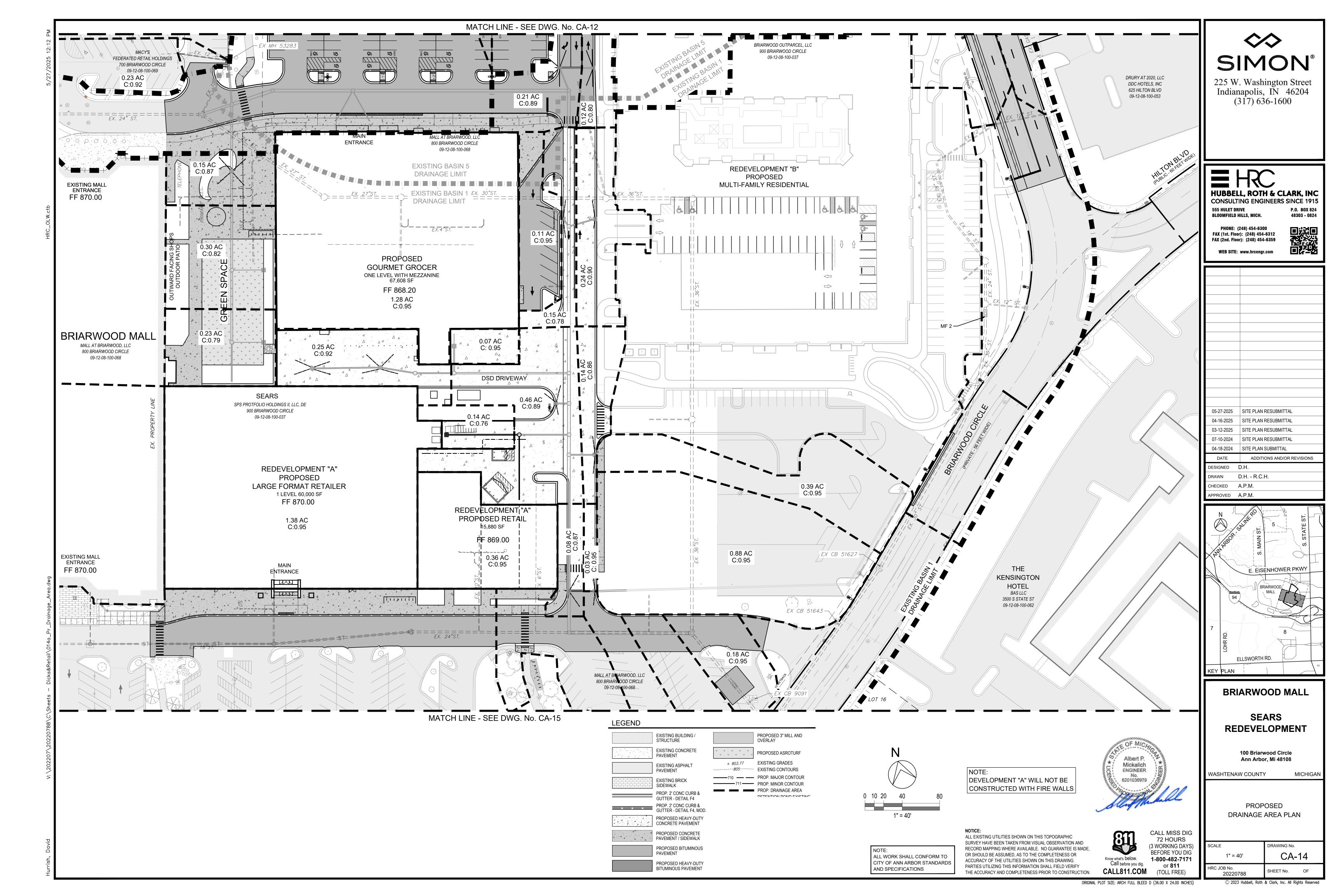


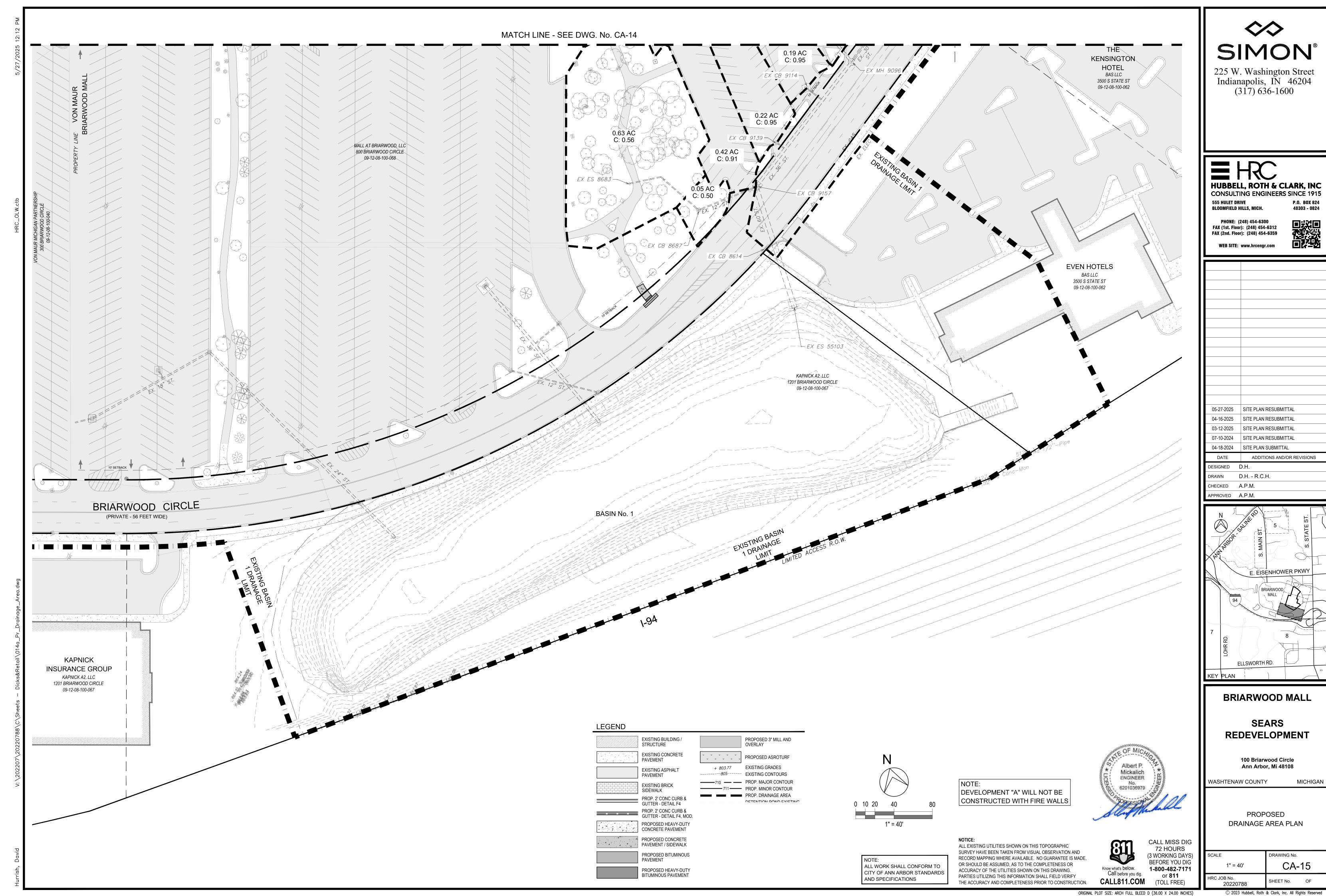












Albert P. Mickalich ENGINEER No. 6201036979	
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ALL WORK SHALL CONFORM TO CITY OF ANN ARBOR STANDARDS AND SPECIFICATIONS

NOTICE:
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Know what's below.
Call before you dig.

CALL MISS DIG
72 HOURS
(3 WORKING DAYS)
BEFORE YOU DIG
1-800-482-7171 or **811** CALL811.COM (TOLL FREE)

HRC JOB No. 20220788

											n=	0.013	South Mech	anical Filter Storm Sew	er Calculations		T																		
From	То	Increment A	rea C Fact	tor Equiv Area C*.	A Total Equiv	Area Tir	me Intensity		Pipe Diameter	r Slope	Pipe Length (ft)	Velocity Full	Time of Flow	Capacity of Pipe	Capacity Check	10 Year Min H.G. Slope	Upstream	ear H.G. Downstream		nvert Downstream	Top of I Upstream	Downstream	Top of Pipe to Upstream Do	wnstream U	Rim pstream Downst	tream Up	Cover - Rim pstream Downstream	Rim to 10 Year H.G Upstream Downstr	eam Intensity F	100 Year Flow Min H.G. Slop	oe Upstro	100 Year H.G. eam Downstream		ownstream	
Structure	Structu			(acres)	(acres)		=175/(T+2		(in)		, ,	(ft/sec)	(min)	(cfs)	(yes/no)	(%)		Elevation										Elevation Elevati				tion Elevation			~~
LANDSCAPE DRAIN 109			0.79	0.18	0.18		00 4.38			1.00	34	3.47	0.16	1.21	ok	0.44	863.04		862.90		863.57		0.52				3.58 5.32			1.25 1.02			-3.12	-1.37	SIMO
LANDSCAPE DRAIN 110							4.38		8	1.00	34	3.47	0.16	1.21	ok			863.52					0.41						6.875			35 869.74	-2.92	-1.52	JIVIC
LARGE FORMAT RETAIL MH 14	MH 14 MH 10	0.00	0.00	0.00	1.30 1.48	15.	16 4.36	6.46	12 24	2.60 0.22	42 77	7.33 3.39	0.10 0.38	5.76 10.64	ok ok	2.36 0.10	863.78 862.40	862.32	863.38 861.49	862.29 861.32		863.29 863.32	1.09		868.55 868.2	.22	5.03 4.75 4.59	5.76 6.15 5.90	6.847 1	8.95 5.44 10.16 0.24	872.2 869.9	92 869.74	-1.37	-1.37 -1.52	225 W. Washingt
MH 108 CB 15	CB 15 MH 34		0.00 0.87		1.73 1.86			7.46 7.91	24 24	0.18 0.18	106 72	3.06 3.06	0.58 0.39	9.62 9.62	ok ok	0.13 0.15	862.17 861.93	862.03 861.82	861.22 860.93	861.03 860.80	863.22 862.93	863.03 862.80		1.00 0.98	868.22 867.3 867.35 866.3	.35 .77	4.69 4.01 4.11 3.66	6.05 5.32 5.42 4.95	0.7.00	11.73 0.31 12.44 0.34	869. ²	74 869.42 42 869.17		-2.07 -2.40	Indianapolis, IN
GROCERY STORE	MH 39	39 0.00		0.00	0.00	15.	00 4.38	0.00	6	2.00	37	4.05	0.15	0.80	ok	0.00	863.22	863.22	863.71	862.97	864.21	863.47	0.99	0.25	866.9	.92	3.45	3.70	6.875	0.00 0.00	868.:	51 868.51		-1.59	(317) 636-1
GROCERY STORE	MH 39	39 0.00		0.00	0.00	15.	00 4.38	0.00	6	2.00	37	4.05	0.15	0.80	ok	0.00	863.22	863.22	863.71	862.97	864.21	863.47	0.99	0.25	866.9	.92	3.45	3.70	6.875	0.00 0.00	868.:	51 868.51		-1.59	(317) 030-1
CB 9	CB 8	8 0.12	0.80	0.10	0.10	15.	00 4.38	0.42	12	0.50	36	3.22	0.19	2.53	ok	0.02	861.09		860.59	860.41	861.59	861.41		0.33	865.33 865.0	.09	3.51 3.45	4.24 4.01	6.875	0.66 0.04		48 867.46	-2.15	-2.37	
CB 8	MH 2	2 0.21	0.89	0.19	0.28	15.	19 4.35		12	0.50	26	3.22	0.13	2.53	ok	0.14	861.08	861.05	860.31	860.18	861.31	861.18	0.23	0.13	865.09 865.9	.96	3.55 4.55	4.01 4.91		1.94 0.32 0.00	867.4	46 867.38	-2.37	-1.42	
CB 24	MH 3	3 0.24	0.90	0.22	0.22	15.	00 4.38	0.95	12	0.50	29	3.22	0.15	2.53	ok	0.08	860.75	860.73	860.31	860.16	861.31	861.16	0.56	0.43	865.05 865.5	.56	3.51 4.17	4.30 4.83	6.875	1.49 0.20	866.	70 866.65	-1.65	-1.09	
CB 10 CB 23	CB 23 MH 3		0.95 0.78		0.10 0.22		00 4.38 07 4.37		12	0.50	14 10	3.22 3.22	0.07 0.05	2.53 2.53	ok ok	0.02	861.21 861.07		860.78 860.61	860.71 860.56		861.71 861.56					4.29 3.42 3.52 3.77	5.09 4.15 4.29 4.50		0.72 0.05 1.52 0.20	866.0 866.0	68 866.67 67 866.65		-1.31 -1.09	
GROCERY STORE	CB 16		0.95		1.22		00 4.38		12	2.25	15	6.82	0.04	5.36	ok	2.08	861.40		860.59	860.26		861.26		0.16	864.2		2.71	3.10		8.36 4.80	868.2			-3.30	
CB 16	MH 1				1.28		00 4.38		15	0.75	29	4.57	0.11	5.61	ok	0.77	861.10		860.06	859.84		861.09					2.64 6.56	3.10 7.03		8.82 1.79	867.3		-3.30	0.92	
CB13 MH 12	MH 12	12 0.25	0.92	2 0.23 0.00	0.23		00 4.38 26 4.35			0.60	55 42	3.52 3.52	0.26 0.20	2.77	ok ok	0.10	861.20 860.91	861.15 860.87	860.98 860.55	860.65 860.30	861.98 861.55	861.65 861.30	0.78	0.50 0.43	866.89 867.7 867.77 867.9		4.68 5.89 5.99 6.37	5.69 6.62 6.86 7.03	6.875	1.58	867.1 867.1	19 867.07 07 866.98	-0.30 0.70	0.70	
MH 11	MH 4	4		0.00	1.51		46 4.33			0.40	123	3.77	0.54	6.66	ok	0.42	860.87	860.35	859.64	859.15	861.14	860.65					6.49 6.21	7.03 6.78		10.28 0.98	866.9		0.92	1.35	
CB 17	MH 5	5 0.46	0.89	0.41	0.41	15.	00 4.38	1.79	12	0.50	14	3.22	0.07	2.53	ok	0.28	861.88	861.84	861.41	861.34	862.41	862.34	0.53	0.50	866.17 866.3	.36	3.53 3.79	4.29 4.52	6.875	2.81 0.64	865.3	35 865.26	0.82	1.10	HUBBELL, ROTH &
CB 41	MH 6	6 0.14	0.86	6 0.12	0.12	15.	00 4.38	0.53	12	1.00	28	4.55	0.10	3.57	ok	0.03	861.73	861.72	861.50	861.22	862.50	862.22	0.77	0.50	866.18 866.2	.27	3.45 3.82	4.45 4.55	6.875	0.83 0.07	865.0	08 865.06	1.10	1.21	CONSULTING ENGINEE 555 HULET DRIVE
15K RETAIL	MH 43	43 0.36	0.95	5 0.34	0.34	15.	00 4.38	1.50	8	2.00	70	4.91	0.24	1.71	ok	1.43	864.97	863.97	865.04	863.64	865.71	864.31	0.73	0.33	868.2	.27	3.96	4.30	6.875	2.35 3.30	868.0	00 865.69		2.58	BLOOMFIELD HILLS, MICH.
CB 18 MH 43	MH 43		0.76	6 0.11	0.11		00 4.38 40 4.33		12	0.50	78	3.22 3.22	0.40	2.53	ok	0.02 0.32	860.31 860.30	860.30	859.92 859.43	859.53 859.16	860.92 860.43	860.53	0.61 0.13	0.23	868.27 865.9 865.90 866.3	.90	7.12 5.14 5.24 5.97	7.96 5.60 5.60 6.23		0.73 0.05 3.05 0.74	865.0	69 865.65 65 865.26	2.58 0.25		PHONE: (248) 454-6300
	1,1113		0.05						12				0.27	2.53	ok																			1.10	FAX (1st. Floor): (248) 454-6312
CB 19 CB 27	CB 27	26 0.88	0.95	5 0.84	0.37 1.21	15.	.61 4.31	5.20	15	0.35 0.26	114 272	3.12 3.04	0.61	3.83 5.37	ok ok	0.08 0.28	860.38 860.29	859.54	859.47 858.87	859.07 858.16	860.37	860.32 859.66	0.08	0.12	863.88 863. 863.13 867.	.19	2.91 2.56 2.49 7.26	3.50 2.84 2.84 7.65	6.772	2.55 0.18 8.17 0.64	865.8 865.0	64 863.90		-2.51 3.29	FAX (2nd. Floor): (248) 454-6359
CB 26	CB 25		0.95	5 0.03	1.24	17.			18	0.26	28	3.04	0.15	5.37	ok	0.27	859.54		858.06		859.56	859.49	0.02	0.03	867.19 866.2	.21	7.36 6.51	7.65 6.81		8.07 0.62		90 863.73	3.29	2.54	WEB SITE: www.hrcengr.com
EX BLDG LEAD	50849		0.95	0.83	0.83	15.	00 4.38	3.62	4	1.00	52	2.19	0.40	0.19	NO!	213.15	978.05	867.21		867.21	0.33	867.54		U.33	868.	. /9	1.23	1.58	6.875	3.08 491.85	1128.	872.51		-5./2	<u> </u>
EX BLDG LEAD EX MH	EX MI		0.95		2.16		00 4.38		18	1.00	1=2	5.96	0.14	10.53	ok ok	0.83	867.03 866.63	0.55.50			863.74 863.15		-3.29 -3.48			.20	6.68 6.78 7.10	3.57 3.57 3.59	0.075	14.83 1.93 14.78 1.91	876.° 875.8	75 875.81 81 872.51	-5.61	-5.61 -3.72	
EX MH 50849	50849 EX MI	19		0.00	2.16				18		173	5.96 6.76	0.48	10.53	ok NO!	0.83	866.63	865.20 862.29				861.42 863.79	-3.48		870.20 868.7 868.79 868.3		7.10 7.26 4.25	3.57 3.59 3.59 6.02		14.78 1.91 20.20 3.41		81 872.51 51 865.80		2.51	
EX MH 50530	50530 EX MI	30		0.00	2.98		10 4.26					5.18	0.47	16.26	ok	0.36	861.86				864.09		2.23				3.91 4.89	6.45 7.20		19.96 0.82		80 864.59		3.94	
EX MH 50524	50524 MH 7	24		0.00			58 4.21			1.63	169	9.20	0.31	28.92	ok	0.35			860.88	858.13	862.88						5.34 6.17		6.614 1	19.73 0.81	864.5	59 863.23	3.94	3.38	
EX CB 121	EX MI	4H 0.01	0.95	5 0.01	0.01	15.	00 4.38	0.04	12	1.00	42	4.55	0.15	3.57	ok	0.00	866.45	866.45	866.87	866.45	867.87	867.45	1.42	1.00	870.52 872.0	.00	2.42 4.32	4.07 5.55	6.875	0.07 0.00	871.0	67 871.67	-1.15	0.33	
EX BLDG LEAD	EX MI	0.09 MH 0.09	0.00	5 0.09	0.09		00 4.38	0.27	12	1.00	20	4.55	0.14	2 57	_1	0.02	066.46	066 45	066.02	066.45	867.83	967 AE	1 27	1.00	050	.00	4.32	5,55	6.875	0.59 0.04	0.51	68 871.67		0.33	
EX MH 109	109 EX MI)	0.95	0.09	0.09		15 4.36			1.00		4.55	0.14	3.57	ok ok	0.02	866.46 865.63				867.45				872.00 871.3		4.32	6.37 5.70		0.65 0.04		67 871.63		-0.32	
222.112.107	107	7				15.				1100		1.00	0.51		OK .	0.02	000100	000.01		000101	007110	000101	1102	1100	0,2.00		,	3.57	3.0.7	0.00		0,1103	0.55		
EX BLDG LEAD	EX MI 201	MH 0.17	0.95	5 0.16	0.16	15.	00 4.38	0.71	12	1.00	29	4.55	0.11	3.57	ok	0.05	865.14	865.13	865.42	865.13	866.42	866.13	1.28	1.00	870.3	.17	3.81	5.04	6.875	1.11 0.11	871.0	65 871.62		-1.45	
EX BLDG LEAD	EX MI	MH 2.33	0.95	5 2.21	2.21	15.	00 4.38	9.68	15	1.00	7	5.28	0.02	6.48	NO!	2.13	864.86	864.71	864.43	864.36	865.68	865.61	0.82	0.90	869.8	.86	4.00	5.15	6.875 1	15.22 4.91	873.5	58 873.24		-3.38	
	102	2		1.10	110	15		4.02		100		5.20	2.22	6.40		0.50	065.40	067.20	065.46	0.520	06671	066.64	1.20	105	050	52				7.50		07101		2.40	
EX BLDG LEAD EX MH 106	EX MI 106 EX MI	5	0.95	0.00	1.10		00 4.38 02 4.37		15	0.70	30	5.28	0.02	6.48 8.81	ok ok	0.59	865.43			865.39 865.08				1.25	870.53 870.6		3.64	5.14 5.38 4.92		7.58 1.35 7.57 0.56	874 (874.01	-3.48	-3.48	
EX MH 105	105 EX CB1	5		0.00	1.10		12 4.36		18	0.80	20	5.33	0.06	9.42	ok	0.24	864.97	864.92	865.08	864.92	866.58	866.42	1.61	1.50	870.00 869.	.74	3.15 3.05	5.03 4.82		7.55 0.55	873.8	84 873.73	-3.84	-3.99	
EX CB104 EX CB 103	EX CB 1	103 0.04		0.0.	1.14 1.19		18 4.35 36 4.34		18 18	0.80	33	5.33 5.33	0.17	9.42 9.42	ok ok	0.25 0.27	864.92 864.78	864.78 864.71		864.48 864.26	866.42 865.98				869.74 869.6 869.60 869.8	.60	3.05 3.35 3.35 3.83	4.82 4.82 4.82 5.15	6.843	7.80 0.59 8.09 0.63		73 873.41 41 873.24		-3.81 -3.38	
EX MH 102	EX MI	2		0.00	3.40			14.72		0.70		4.99	0.12	8.81	NO!	1.90	864.71	864.00							869.86 870.2		3.83 4.54	5.15 6.31	6.800 2	23.13 4.38		24 871.60		-1.29	05-27-2025 SITE PLAN RESUB
	101	1			0.00	15		0.25	12	1.00	20	1.55	0.05	2.55		0.00	0.66.00	0.66.00	0.7.00	0.66.00	0.60.00	0.67.00	1.20	1.00	071	21	2.10					871 64		-0.43	04-16-2025 SITE PLAN RESUB
EX BLDG LEAD EX MH 108	EX MI 108 EX MI	3	0.95	0.09	0.09		00 4.38 07 4.37		12	0.80	108	4.55 5.34	0.07	3.57	ok ok	0.02	866.80 865.05				868.00 867.42			1.00	871.21 871.3		3.18	6.16 6.26		0.59 0.04 0.59 0.00	871 /	0,1101	-0.43	0.15	03-12-2025 SITE PLAN RESUB
EX MH 107	107 EX MI	7		0.00	0.09		4.37					5.33	0.34	9.44	ok ok	0.00	864.26								871.31 870.			7.05 5.92		1.23 0.02			-0.43		07-10-2024 SITE PLAN RESUB
EX MH 201	201 EX MI	1		0.00	0.34		77 4.29			0.80		5.33	0.10	9.42	ok	0.03	864.01								870.17 870.3					2.31 0.06		62 871.60	1	-1.29	04-18-2024 SITE PLAN SUBMIT
EX MH 101	EX MI			0.00	3.74	15.	87 4.28	16.03	24	1.15	173	7.74	0.37	24.33	ok	0.55	862.94	861.99	863.98	861.99	865.98	863.99	3.04	2.00	870.31 867.9	.99	4.02 3.69	7.37 6.00	6.728 2	25.18 1.27	871.6	60 869.41	1	-1.42	DATE ADDITIONS AN
EV CD	5676		0.07	7 0.17	0.17	15	00 420	0.76	12	0.27	44	2.77	0.27	2.17	1	0.07	0(2.01	9/2.00	0.62.00	9/2.72	0.62.00	9/2.72	0.00	0.74	967.96	(1	2.74	4.05	(975	1 20 0 12	970	00.75	1.04	2.11	DESIGNED D.H.
EX CB	53283	CB 0.20	0.87	0.17	0.17	15.	00 4.38	0.76	12	0.37	44	2.77	0.27	2.17	ok	0.06	863.01	862.99	862.89	862.73	863.89	863./3	0.88	0.74	867.86 866.0	.04	3.74 2.68	4.85 3.65	6.875	1.20 0.13	869.8	80 869.75	-1.94	-3.11	DRAWN D.H R.C.H.
EX CB 53299	EX CI 53284	CB 0.03	0.95	5 0.03	0.03	15.	00 4.38	0.12	12	0.37	44	2.77	0.27	2.17	ok	0.00	863.87	863.87	863.06	862.90	864.06	863.90	0.19	0.03	867.11 865.8	.80	2.82 1.67	3.24 1.93	6.875	0.20 0.00	871.2	20 871.20	-4.09	-5.40	CHECKED A.P.M.
EX CB 53284	EX CH 53283	33	0.84		0.69	15.	27 4.35		12	0.13	87	1.64	0.88	1.29	NO!	0.72	863.87	863.24	862.85	862.74		863.74			865.80 866.0		1.72 2.67	1.93 3.40	6.830	4.73 1.67	871.2			-3.11	APPROVED A.P.M.
EX CB 53283	MH 34		0.92		1.08				15	1.00	47	5.28	0.15	6.48	ok	0.53	862.99		862.58	862.11	863.83	863.36			866.64 866.		2.56 3.16	3.65 4.04		7.20 1.23		75 869.17	-3.11	-2.40	
EX MH 5676 MH 34	MH 34 MH 1	1		0.00 0.00	3.74 6.68	16.	51 4.22	28.16	27 36	0.44 0.18	34 46	5.18 4.01	0.11 0.19	20.60 28.37	ok ok	0.30 0.22	861.92 861.82	861.72	860.66 859.91	860.51 859.83	862.91 862.91	862.76 862.83	1.09	1.11	867.99 866. [°] 866.77 866.	.51	4.75 3.68 3.46 3.28	6.07 4.95 4.95 4.79	6.625 4	24.92 0.70 44.26 0.50	869. 869.	17 868.94	-1.42 -2.40	-2.40 -2.43	N Lev
MH 1 MH 39	MH 39 MH 2	2		0.00 0.00	6.68 6.68				36	0.18 0.20	86	4.01 4.27	0.36 0.90	28.37 30.21	ok ok	0.21 0.21	861.72 861.54	861.54 861.05	859.73 859.48	859.58 859.01	862.73 862.48	862.58 862.01	0.94	1.04 0.96	866.51 866.9 866.92 865.9	.96	3.38 3.94 4.04 3.55	4.79 5.38 5.38 4.91	0.571	44.05 0.50 43.68 0.49	868.9 868.3	51 867.38	-2.43 -1.59	-1.59 -1.42	GRITT 5
MH 2 MH 3	MH 3 MH 4	-		0.00	6.96 7.40			28.36 29.76	36 36	0.21 0.23	145 157	4.34 4.54	0.56 0.58	30.65 32.07	ok ok	0.22 0.24	861.05 860.73	860.73 860.35	858.81 858.41	858.51 858.05	861.81 861.41	861.51 861.05			865.96 865.3 865.56 867.		3.75 3.65 3.75 5.68	4.91 4.83 4.83 6.78		44.57 0.51 46.76 0.55	867.3 866.0	I	-1.42 -1.09	-1.09 1.35	σ σ σ σ σ σ σ σ σ σ σ σ σ σ σ σ σ σ σ
MH 4 MH 5	MH 5	*		0.00	8.91 9.32			35.37	36	0.28	33	5.01	0.11	35.39 36.92	ok ok	0.33	860.35 860.24	860.24 860.13	857.95 857.76	857.86 857.66	860.95 860.76	860.86 860.66	0.60	0.62	867.13 866.3 866.58 866.3		5.78 5.32 5.42 5.30	6.78 6.34 6.34 6.23	6.236 5	55.58 0.76 57.99 0.82	865.1 865.1	78 865.53	1.35	1.05	PRO A
MH 37 MH 6	MH 6 CB 25	6		0.00	9.77 9.89	19.	31 3.95	38.59	36	0.33	22	5.46 5.52	0.07	38.59 39.05	ok	0.39	860.13 860.04	860.04	857.56 857.39	857.49 856.89	860.56 860.39	860.49 859.89	0.43		866.36 866.2 866.27 865.	.27	5.40 5.38	6.23 6.23 6.23 6.29	6.206 6	60.64 0.89 61.29 0.91		26 865.06	1.10	1.21	NATURE OF THE PROPERTY OF THE
CB 25 MH 7	MH 7	7 0.08	0.87	7 0.07	11.20	19.	82 3.90	43.71	36	0.43	44	6.21	0.12	43.91	ok ok	0.49	859.46	859.25	856.79	856.60	859.79	859.60	0.33	0.35	865.75 866.0	.61	5.56 6.61	6.29 7.36	6.136 6	58.69 1.13	863.	73 863.23	2.02	3.38	
EX MH 9071	EX MI 9071 MECH			0.00	14.18				36	0.30	132	5.74 7.63	0.38	55.25	ok NO!	0.36	859.25 858.78		856.10 855.60	855.70 855.13					866.61 864.4 864.42 862.6		6.57 4.78 5.42 4.14	7.36 5.64 5.64 4.43		86.77 0.82 86.03 1.71	863.2	23 862.14 14 860.91		1.76	E. EISENHO
MECH FILTER 57	FILTER EX BLI	R 57 IND		0.00	14.18		.48 3.85		36	0.65	24	7.63	0.16	53.92	NO!	0.74	858.24										4.14 2.98	4.43		35.74 1.70		91 860.51	1.76		A PRIADWO
	TAP 4	4																									205								BRIARWOO MALL
EX CB 9091	EX BLII TAP 4		0.95	5 0.17	0.17	15.	4.38	0.75	12	13.40	6	16.65	0.01	13.08	ok	0.06	858.07	858.07	857.37	856.57	858.37	857.57	0.30	-0.50	861.87		3.27	3.80	6.875	1.18 0.13	860.:	51 860.51	1.36		94
EX BLIND TAP 4				0.00	14.35	20.	.53 3.84	55.15	36	0.65	34	7.63	0.07	53.92	NO!	0.75	858.07	857.81	854.97	854.75	857.97	857.75	-0.10	-0.06	862.67 861.3	.35	4.30 3.20	4.60	6.040 8	86.67 1.73	860.:	51 859.92	2.16		
REDEV B	9096 MF 2	1	0.71	1 2.84	2.84	15	00 4.38	12.43	30	0.21	10	3.79	0.04	18.62	ok	0.12	858.39	858 38	856.48	856.46	858.98	858.96	0.59	0.58					6.875 1	19.54 0.27	861	26 861.24			
MF 2	EX MI 51627	ИН	0.71	0.00	2.84				30	0.21	300	3.79	1.32	18.62	ok	0.12	858.38		856.33			858.21		0.17					6.867	19.52 0.27	861.2				7
EX MH 51627	EX BLIT	IND 5		0.00	2.84		36 4.23		30	0.40		5.27	0.23	25.85	ok	0.11	858.04		855.58		858.08			-0.17						18.89 0.25		44 860.25			
EX BLIND TAP 5	EX MI 9096			0.00	2.84	16.	60 4.21	11.96	30	0.40	134	5.30	0.42	26.01	ok	0.11	857.96	857.81	855.29	854.75	857.79	857.25	-0.17	-0.56	861.3	.35	3.75	3.54	6.611 1	18.79 0.25	860.2	25 859.92		1.43	
EX CB 9114	EX BLIT		0.95	5 0.18	0.18	15.	00 4.38	0.79	12	8.30	21	13.10	0.03	10.29	ok	0.06	857.30	857.29	856.30	854.56	857.30	855.56	0.00	-1.73	861.27		3.74	3.97	6.875	1.24 0.14	858.7	74 858.71	2.53		ELLSWORTH RD.
EX CB 9139	EX BLI		0.95	5 0.21	0.21	15	00 4.38	0.91	12	13.20	11	16.53	0.01	12.98	ak	0.08	856.62	856.61	855.76	854.31	856.76	855 31	0.14	-1.30	860.71		3.72	4.09	6.875	1.44 0.18	857	17 857.14	3.54		KEY PLAN
LA CD 9139	TAP 2		0.95	0.21	0.21	15.	00 4.38	0.91	12	13.20	11	10.33	0.01	12.70	ok	0.00	0.00.02	0.001			050.70	1 6.660	0.17	1.50			5.12			0.18			۳۵.۵	[]	
EX MH 9096	EX BLIT	3		0.00	17.19	20.	.61 3.84	65.97	36	0.39	50	5.87	0.14	41.50	NO!	1.05	857.81	857.29	854.75					0.27	861.35		3.20	3.54		03.66 2.41		92 858.71	1.43		BRIARWOOD
EX BLIND TAP 3	EX ES 8683	ES 3		0.00	17.37		3.83		36	0.39	64	5.91	0.18	41.77	NO!	1.06	857.29		854.56		857.56	857.31	0.27							04.43 2.45		71 857.14			DIMANAGOL
EX BLIND TAP 2	EX CB915			0.00	17.58	20.	.93 3.81	66.99	36	0.39	50	5.91	0.14	41.77	NO!	1.08	856.61	856.07	854.31	854.11	857.31	857.11	0.70	1.04	860.4	.47	2.96	4.40	5.987	05.27 2.48	857.	14 855.90		4.57	1
EX ES 8683	EX CF 8687	CB 0.63	0.56	0.35	0.35	15.	00 4.38	1.54	12	1.59	86	5.74	0.25	4.50	ok	0.21	857.19			857.01		858.01		1.00	861.		3.37	4.60		2.43 0.49		43 857.01		4.60	SEARS
EX CB 8687	EX CB915	0.05	0.50	0.03	0.38	15.	25 4.35	1.64	12	2.63	64	7.38	0.14	5.79	ok	0.24	856.22	856.07	856.81	855.13	857.81	856.13	1.59	0.06	861.61 860.4	.47	3.57 4.11	5.39 4.40	6.832	2.58 0.55	856.2	25 855.90	5.36		REDEVELOR
EX CB 8614	EX BLI		0.95	5 0.83	0.83	15.	00 4.38	3.62	12	0.80	9	4.07	0.04	3.20	NO!	1.02	855.71	855.62	855.69	855.62	856.69	856.62	0.98	1.00	859.29		2.37	3.58	6.875	5.68 2.35	855.8	83 855.62	3.46		1
	TAP1	71						+												+	+														400 Dulamora I
EX CB9157	EX BLI	IND 0.42	0.91	1 0.38	18.34	21	.07 3.80	69.67	48	0.29	64	6.14	0.17	77.16	ok	0.29		LOW ARE 38"x60" 855.89	•			857.89	2.00	2.00	860.47		2.75	4.40	5.969 10	09.48 0.66	255 (90 855.48	4.57		100 Briarwood Ann Arbor, Mi
EX BLIND TAP1	TAP1 EX ES	P1 ES	0.91	0.00	19.17		24 3.78		48	0.29	68	6.14	0.17	77.16	ok	0.29	855.11				857.89		2.78							13.99 0.71		48 855.00			
	55103)3				21.				-	+			·		+	-			-															WASHTENAW COUNTY
						21.	I					<u> </u>	1								<u> </u>							<u> </u>							1

South Mechanical Filter Storm Sewer Calculations

SIMON® 225 W. Washington Street Indianapolis, IN 46204 (317) 636-1600

HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915 555 HULET DRIVE Bloomfield Hills, Mich. P.O. BOX 824 48303 - 0824

05-27-2025 SITE PLAN RESUBMITTAL 04-16-2025 SITE PLAN RESUBMITTAL 03-12-2025 SITE PLAN RESUBMITTAL 07-10-2024 SITE PLAN RESUBMITTAL 04-18-2024 SITE PLAN SUBMITTAL ADDITIONS AND/OR REVISIONS ESIGNED D.H. RAWN D.H. - R.C.H. CHECKED A.P.M. PPROVED A.P.M.



BRIARWOOD MALL

SEARS REDEVELOPMENT

100 Briarwood Circle Ann Arbor, Mi 48108

MICHIGAN

PROPOSED

STORM SEWER CALCULATIONS

DRAWING No. CA-16

NOTE:
ALL WORK SHALL CONFORM TO CITY OF ANN ARBOR STANDARD
CITY OF ANN ARBOR STANDARD
AND SPECIFICATIONS

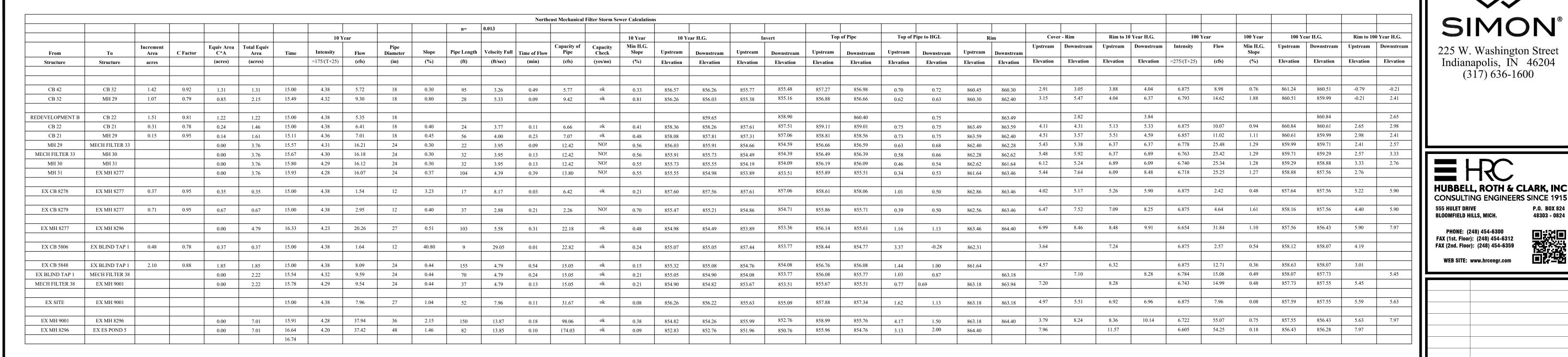
ALL EXISTING UTILITIES SHOWN ON THIS TOPOGRAPHIC SURVEY HAVE BEEN TAKEN FROM VISUAL OBSERVATION AND RECORD MAPPING WHERE AVAILABLE. NO GUARANTEE IS MADE, OR SHOULD BE ASSUMED, AS TO THE COMPLETENESS OR ACCURACY OF THE UTILITIES SHOWN ON THIS DRAWING. PARTIES UTILIZING THIS INFORMATION SHALL FIELD VERIFY THE ACCURACY AND COMPLETENESS PRIOR TO CONSTRUCTION.

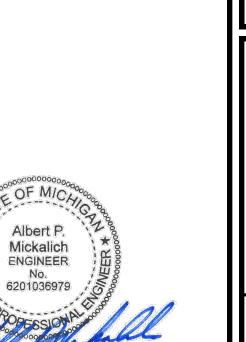
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05-27-2025 SITE PLAN RESUBMITTAL 04-16-2025 SITE PLAN RESUBMITTAL 03-12-2025 SITE PLAN RESUBMITTAL 07-10-2024 SITE PLAN RESUBMITTAL 04-18-2024 SITE PLAN SUBMITTAL

D.H. - R.C.H.

DESIGNED D.H.

CHECKED A.P.M. APPROVED A.P.M.

DRAWN

ADDITIONS AND/OR REVISIONS

E. EISENHOWER PKWY

BRIARWOOD

(317) 636-1600

48303 - 0824

SEARS REDEVELOPMENT

> 100 Briarwood Circle Ann Arbor, Mi 48108

WASHTENAW COUNTY

PROPOSED STORM SEWER CALCULATIONS

MICHIGAN

DRAWING No.

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W1	Determining Post-Development C	over Types, Areas,	Curve Number	s, and Runoff Coeffic	cients		
		Total Con	tributing Area =	15.32	acres		
		i otai Coll		10.02	acres		
	Cover Type	Soil Type	Area (sft)	Area (acres)	Runoff Coeff	(C)(Area)	
e S	Paved parking lots, roofs, driveways, etc.	D	623,806	14.32	0.95	592,616	
/ariabl	Developed open space, good	D	43,675	1.00	0.50	21,838	
Rational Method Variables	condition	D	43,073	1.00	0.50	21,030	
ial Me							
Ration				To	otal - (C)(Area) =	614,453	
				,	Area Total (sft) =	667,481	
					Weighted C =	0.92	
	Pervious Cover Type	Soil Type	Area (sft)	Area (acres)	Curve Number	(CN)(Area)	
	Developed open space, good						
	condition	D	43,675	1.00	80	3,494,000	
				Tot	al - (CN)(Area) =	3,494,000	
					Area Total (sft) =	43,675	
oles					Weighted CN =	80	
NRCS Variables							
IRCS	Impervious Cover Type	Soil Type	Area (sft)	Area (acres)	Curve Number	(CN)(Area)	
2	Paved parking lots, roofs, driveways, etc.	D	623,806	14.32	98	61,132,988	
	Water surfaces, ponds	D	0	0.00	98	0	
				_	ol (CNI)(A	64 400 000	
					al - (CN)(Area) = Area Total (sft) =	61,132,988 623,806	
					Weighted CN =	98	
W2	First Flush Runoff Calculations (\	<mark>/ff)</mark>				I I	
	Vff = (1")(1'/12")(43,560 ft2/1						
Α.	ac)AC =			Vff =	51,204	cft	
	Due development Bealfull Bureff	Calaulatiana ()/hf.					
W3	Pre-development Bankfull Runoff	Calculations (Vbf-	ore)				
Α.	2 year/24 hour storm event			P =	2.35	in	
	Pre-development land cover (good						
В.	cover woods)			CN =	77		
C.	S = 1000/CN - 10			S =	2.99	in	
D.	Q = (P-0.2S)2/(P+0.8S)			Q =	0.65	in	
E.	Total site area (sf) excluding "self-crediting" BMPs			Area =	667,481	sft	
F.	Vbf-pre = Q(1/12)Area			Vbf-pre =	36,048	cft	
W4	Pervious Cover Post-developmen	t Bankfull Runoff C	alculations (VD	t-per-post)			
Α.	2 year/24 hour storm event			P =	2.35	in	
В.	Pervious cover CN from W1			CN =	80		
C.	S = 1000/CN - 10			S =	2.50	in	
D.	O (D 0 00)0((D 0 00)			Q =	0.79	in	
	Q = (P-0.2S)2/(P+0.8S)			3	0.79		
E.	Q = (P-0.2S)2/(P+0.8S) Pervious cover area from W1			Area =	43,675	cft	
E. F.						cft cft	
	Pervious cover area from W1			Area =	43,675		
	Pervious cover area from W1	ent Bankfull Runof	f Calculations (Area = Vbf-per-post =	43,675		
F.	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area	ent Bankfull Runof	f Calculations ('	Area = Vbf-per-post =	43,675		
F.	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area	ent Bankfull Runof	f Calculations (Area = Vbf-per-post =	43,675		
F. W5	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-developm	ent Bankfull Runof	f Calculations (Area = Vbf-per-post = Vbf-imp-post)	43,675 2,864	cft	
F. W5	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-developm 2 year/24 hour storm event	ent Bankfull Runof	f Calculations (Area = Vbf-per-post = Vbf-imp-post) P =	2,864 2.35	cft	
F. W5 A. B.	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-developm 2 year/24 hour storm event Impervious cover CN from W1	ent Bankfull Runof	f Calculations (Area = Vbf-per-post = Vbf-imp-post) P = CN =	2,864 2,35	cft	
F. W5 A. B. C.	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-developm 2 year/24 hour storm event Impervious cover CN from W1 S = 1000/CN - 10	ent Bankfull Runof	f Calculations (Area = Vbf-per-post = Vbf-imp-post) P = CN = S =	2,864 2,864 2.35 98 0.20	in	
F. W5 A. B. C. D.	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-developm 2 year/24 hour storm event Impervious cover CN from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S)	ent Bankfull Runof	f Calculations (Area = Vbf-per-post = Vbf-imp-post) P = CN = S = Q =	2,864 2,864 2.35 98 0.20 2.12	in in in	
F. W5 A. B. C. D. E.	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-developm 2 year/24 hour storm event Impervious cover CN from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S) Impervious cover area from W1	ent Bankfull Runof	f Calculations (Area = Vbf-per-post = Vbf-imp-post) P = CN = S = Q = Area =	2,864 2,864 2.35 98 0.20 2.12 623,806	in in sft	
F. W5 A. B. C. D. E.	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-developm 2 year/24 hour storm event Impervious cover CN from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S) Impervious cover area from W1			Area = Vbf-per-post = Vbf-imp-post) P = CN = S = Q = Area = Vbf-imp-post =	2,864 2,864 2.35 98 0.20 2.12 623,806	in in sft	
F. W5 A. B. C. D. E. F.	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-developm 2 year/24 hour storm event Impervious cover CN from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S) Impervious cover area from W1 Vbf-imp-post = Q(1/12)Area Pervious Cover Post-development			Area = Vbf-per-post = Vbf-imp-post) P = CN = S = Q = Area = Vbf-imp-post =	2,864 2,864 2.35 98 0.20 2.12 623,806 110,293	in in sft cft	
F. W5 A. B. C. D. E. F. W6	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-developm 2 year/24 hour storm event Impervious cover CN from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S) Impervious cover area from W1 Vbf-imp-post = Q(1/12)Area Pervious Cover Post-development 100-year storm event			Area = Vbf-per-post = Vbf-imp-post) P = CN = Q = Area = Vbf-imp-post = Ons (V100-per-post) P =	2,864 2,864 2.35 98 0.20 2.12 623,806 110,293	in in sft	
F. W5 A. B. C. D. E. F. W6 A. B.	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-developm 2 year/24 hour storm event Impervious cover CN from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S) Impervious cover area from W1 Vbf-imp-post = Q(1/12)Area Pervious Cover Post-development 100-year storm event Pervious cover from W1			Area = Vbf-per-post = Vbf-imp-post) P = CN = Q = Area = Vbf-imp-post = Vbf-imp-post = CN = CN = CN = CN =	2,864 2,864 2.35 98 0.20 2.12 623,806 110,293 5.11 80	in in sft cft	
F. W5 A. B. C. D. E. F. W6	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-developm 2 year/24 hour storm event Impervious cover CN from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S) Impervious cover area from W1 Vbf-imp-post = Q(1/12)Area Pervious Cover Post-development 100-year storm event			Area = Vbf-per-post = Vbf-imp-post) P = CN = Q = Area = Vbf-imp-post = Ons (V100-per-post) P =	2,864 2,864 2.35 98 0.20 2.12 623,806 110,293	in in sft cft	
F. W5 A. B. C. D. E. F. W6 A. B. C.	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-developm 2 year/24 hour storm event Impervious cover CN from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S) Impervious cover area from W1 Vbf-imp-post = Q(1/12)Area Pervious Cover Post-development 100-year storm event Pervious cover from W1 S = 1000/CN - 10			Area = Vbf-per-post = Vbf-imp-post) P = CN = Q = Area = Vbf-imp-post = Cns (V100-per-post) P = CN = S = S = S = S = S = S = CN = S = S = S = S = S = S = S =	2,364 2,364 2.35 98 0.20 2.12 623,806 110,293 5.11 80 2.50	in in sft cft	
F. W5 A. B. C. D. E. F. W6 A. B. C. D. E.	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-developm 2 year/24 hour storm event Impervious cover CN from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S) Impervious cover area from W1 Vbf-imp-post = Q(1/12)Area Pervious Cover Post-developmen 100-year storm event Pervious cover from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S) Pervious cover area from W1			Area = Vbf-per-post = Vbf-imp-post) P = CN = Q = Area = Vbf-imp-post = CN = CN = Q = Area =	2,864 2,864 2.35 98 0.20 2.12 623,806 110,293 5.11 80 2.50 2.99 43,675	in in in in in cft	
F. W5 A. B. C. D. E. F. W6 A. B. C. D.	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-developm 2 year/24 hour storm event Impervious cover CN from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S) Impervious cover area from W1 Vbf-imp-post = Q(1/12)Area Pervious Cover Post-development 100-year storm event Pervious cover from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S)			Area = Vbf-per-post = Vbf-imp-post) P = CN = Q = Area = Vbf-imp-post = Ons (V100-per-post) P = CN = Q = Q = Q = Q = Q = Q = Q =	2,364 2,364 2.35 98 0.20 2.12 623,806 110,293 5.11 80 2.50 2.99	in in sft cft	
F. W5 A. B. C. D. E. F. W6 A. B. C. D. E.	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-developm 2 year/24 hour storm event Impervious cover CN from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S) Impervious cover area from W1 Vbf-imp-post = Q(1/12)Area Pervious Cover Post-developmen 100-year storm event Pervious cover from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S) Pervious cover area from W1	t 100-year Storm R	unoff Calculatio	Area = Vbf-per-post = Vbf-imp-post) P = CN = Q = Area = Vbf-imp-post = CN = CN = Q = Area = Vtf-imp-post = CN = Area = Vtf-imp-post = CN =	43,675 2,864 2.35 98 0.20 2.12 623,806 110,293 5.11 80 2.50 2.99 43,675 10,879	in in in in in cft	

S = 0.20

Q = 4.87

S = 1000/CN - 10

Q = (P-0.2S)2/(P+0.8S)

E.	Impervious cover area from W1			Area =	623,806	cft	
F.	V100-imp-post = Q(1/12)Area			V100-imp-post =	253,317	cft	
	Batana in Ti	£ £	- T				
W8	Determine Time of Concentration	TOT Applicable Flor	w Types (Tc-hrs				
Flow Type	К	Elev. Difference	Length (L)	Slope % (S)	S0.5	V=K*S0.5	Tc=L
I-A, Sheet Flow	0.48	5.39	247	2.18	1.48	0.71	
*1-B to 1-L , Pipe Flow	v						
*See Sheet C-26, Ove	erall Detention Distrtict Plan, for Pipe	Flow Calculation					
		Γ	Γ	Total Tir	ne of Concentra	tion (Tc-hrs) =	
W9		Runoff Sur	 nmary and Ons	ite Infiltration Requir	ement		
А.	Runoff Summary from Previous Worksheets						
	First Flush Volume (Vff)			Vff =	51,204	cft	
	Pre-Development Bankfull Runoff Volume (Vbf-pre)			Vbf-pre =	36,048	cft	
	Pervious Cover Post-Development Bankfull Volume (Vbf-per-post)			Vbf-per-post =	2,864	cft	
	Impervious Cover Post-Development Bankfull Volume (Vbf-imp-post)			Vbf-imp-post =	110,293	cft	
	Total Bankfull Volume (Vbf-post)			Vbf-post =	113,156	cft	
	Pervious Cover Post-Development 100-Year Volume (V100-per-post)			V100-per-post =	10,879	cft	
	Impervious Cover Post-Development 100-Year Volume (V100-imp-post)			V100-imp-post =	253,317	cft	
	Total 100-Year Volume (V100)			V100 =	264,196	cft	
В.	Determine Onsite Infiltration Requirement						
	Total Post-Development Bankfull Volume (Vbf-post)			Vbf-post =	113,156	cft	
	Pre-Development Bankfull Runoff Volume (Vbf-pre)			Vbf-pre =	36,048	cft	
	Bankfull Volume Difference			Vbf-difference	77,108	cft	
	First Flush Volume (Vff)			Vff =	51,204	cft	
	Onsite Infiltration Requirement (Vinf)			Vinf =	77,108	cft	
W10		-	otantian/Patan	tion Requirement			
				non Requirement			
A.	Peak of the Unit Hydrograph (Qp)	Qp=238.6Tc-0.82		Qp =	555.55	cfs/in-mi2	
B.	Total Contributing Area			Area =	15.32	acres	
C.	Q100 = Q100-per + Q100-imp			Q100 =	7.86	in	
D.	Peak Flow (PF) = (Qp*Q100*A)/640			PF =	104.57	cfs	
E	Delta = PF - 0.15*A			Delta =	102.28	cfs	
F.	Vdet = (Delta / PF)*V100			Vdet =	258,389	cft	
W11		Determine App	l plicable BMPs a	nd Associated Volur	ne Credits	<u> </u>	I
	No applicable BMPs and/or associated volume credits						
W12	associated volume credits		Natural Fast	ires Inventory			
W12			waturai Feati	ures Inventory			
	See sheet C-10, Natural Features Plan, for natural resources map and impact summary						

BASIN 1 EXISTING CONDITIONS DETENTION VOLUME: 258,389 CF



ALL WORK SHALL CONFORM TO CITY OF ANN ARBOR STANDARDS AND SPECIFICATIONS

NOTICE:
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ORIGINAL PLOT SIZE: ARCH FULL BLEED D (36.00 X 24.00 INCHES)

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D.H. - R.C.H.

DATE ADDITIONS AND/OR REVISIONS

WEB SITE: www.hrcengr.com

CHECKED A.P.M. APPROVED A.P.M. E. EISENHOWER PKWY BRIARWOOD ELLSWORTH RD.

BRIARWOOD MALL

SEARS REDEVELOPMENT

100 Briarwood Circle Ann Arbor, Mi 48108

WASHTENAW COUNTY

PROPOSED STORM WATER DETENTION CALCULATIONS EX BASIN 1

MICHIGAN

DRAWING No. CA-18 HRC JOB No. 20220788 SHEET No. OF

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W1	Determining Post-Development C	over Types, Areas,	Curve Number	s, and Runoff Coeffi	cients	<u>I</u>	
		Total Con	tributing Area =	15.40	acres		
	2 -	0.77	A (5)			(0)(4)	
	Cover Type Paved parking lots, roofs,	Soil Type	Area (sft)	Area (acres)	Runoff Coeff	(C)(Area)	
ables	driveways, etc.	D	593,423	13.62	0.95	563,752	
Rational Method Variables	Developed open space, good condition	D	77,551	1.78	0.50	38,776	
Metho							
ional I				_	(0)(4		
Rati					otal - (C)(Area) = Area Total (sft) =	602,527 670,974	
				,	Weighted C =	0.90	
	Pervious Cover Type	Soil Type	Area (sft)	Area (acres)	Curve Number	(CN)(Area)	
	Developed open space, good condition	D	77,551	1.78	80	6,204,080	
	Condition						
				Tot	al - (CN)(Area) =	6,204,080	
				,	Area Total (sft) =	77,551	
NRCS Variables					Weighted CN =	80	
S Vari	Impervious Cover Type	Soil Type	Area (eft)	Area (acres)	Curve Number	(CN)(Area)	
NRC	Paved parking lots, roofs,		Area (sft)	Area (acres)	Curve Number		
	driveways, etc.	D	593,423	13.62	98	58,155,454	
	Water surfaces, ponds	D	0	0.00	98	0	
				Tot	al - (CN)(Area) =	58,155,454	
					Area Total (sft) =	593,423	
					Weighted CN =	98	
		(10)					
W2	First Flush Runoff Calculations (V	rtf)					
Α.	Vff = (1")(1'/12")(43,560 ft2/1			Vff =	50,211	cft	
A .	ac)AC =			νπ=	50,211	cπ	
W3	Pre-development Bankfull Runoff	Calculations (Vbf-	pre)				
	·		,				
A.	2 year/24 hour storm event			P =	2.35	in	
В.	Pre-development land cover (good			CN =	77		
	cover woods)					:	
C.	S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S)			S = Q =	2.99 0.65	in in	
<u> </u>	Total site area (sf) excluding			Q -	0.00	""	
E.	"self-crediting" BMPs			Area =	670,974	sft	
F.	Vbf-pre = Q(1/12)Area			Vbf-pre =	36,236	cft	
	Demisera Cover Boot developmen	t Bankfull Buneff (Calaulatiana (VI)	f nor noot)			
W4	Pervious Cover Post-developmen	t Bankiuli Runon C	alculations (vo	n-per-post)			
Α.	2 year/24 hour storm event			P=	2.35	in	
B.	Pervious cover CN from W1			CN =	80		
C.	S = 1000/CN - 10			S =	2.50	in	
D.	Q = (P-0.2S)2/(P+0.8S)			Q =	0.79	in	
E.	Pervious cover area from W1			Area =	77,551	cft	
F.	Vbf-per-post = Q(1/12)Area			Vbf-per-post =	5,085	cft	
	. , ,					-	
W5	Impervious Cover Post-developm	ent Bankfull Runof	f Calculations (Vbf-imp-post)			
Α.	2 year/24 hour storm event			P=	2.35	in	
В.	Impervious cover CN from W1			CN =	98		
C.	S = 1000/CN - 10			S =	0.20	in	
D.	Q = (P-0.2S)2/(P+0.8S)			Q =	2.12	in	
E.	Impervious cover area from W1			Area =	593,423	sft	
F.	Vbf-imp-post = Q(1/12)Area			Vbf-imp-post =	104,921	cft	
W6	Pervious Cover Post-developmen	t 100-year Storm R	unoff Calculation	ons (V100-per-post)			
	100						
А. В.	100-year storm event Pervious cover from W1			P = CN =	5.11 80	in	
С.	S = 1000/CN - 10			S =	2.50	in	
	Q = (P-0.2S)2/(P+0.8S)			Q =	2.99	in	
D.	Pervious cover area from W1			Area =	77,551	cft	
D. E.	1			V100-per-post =	19,317	cft	
E.	$V100-per-post = O(1/12)\Delta rec$		l		10,017	Cit	
	V100-per-post = Q(1/12)Area					1	
E.	V100-per-post = Q(1/12)Area Impervious Cover Post-developm	ent 100-year Storm	Runoff Calcula	ations (V100-imp-pos	st)		
E. F.		ent 100-year Storm	Runoff Calcula	ations (V100-imp-pos	st)		
E. F. W7	Impervious Cover Post-developm 100-year storm event	ent 100-year Storm	Runoff Calcula	P =	5.11	in	
E. F. W7 A. B.	Impervious Cover Post-developm 100-year storm event Impervious cover from W1	ent 100-year Storm	Runoff Calcula	P = CN =	5.11 98		
E. F. W7	Impervious Cover Post-developm 100-year storm event	ent 100-year Storm	Runoff Calcula	P =	5.11	in in	

W8	Determine Time of Concentration	for Applicable Flow	v Types (Tc-hrs	;)			
Flow Type	К	Elev. Difference	Length (L)	Slope % (S)	S0.5	V=K*S0.5	Tc=L/(V*36
1-A, Sheet Flow	0.48	5.39	247	2.18	1.48	0.71	0.10
**1-B to 1-L , Pipe Flow							0.26
**See Sheet C-26, Overa	 all Detention Distrtict Plan, for Pipe	Flow Calculation					
<u>-</u>	<u>·</u>			Total Tir	me of Concentra	tion (Tc-hrs) =	0.36
W9		Runoff Sur	nmary and Ons	ite Infiltration Requi	rement		·
Α.	Runoff Summary from Previous Worksheets						
	First Flush Volume (Vff)			Vff =	50,211	cft	
	Pre-Development Bankfull Runoff			Vbf-pre =	36,236	cft	
	Volume (Vbf-pre)						
	Pervious Cover Post-Development Bankfull Volume (Vbf-per-post)			Vbf-per-post =	5,085	cft	
	Impervious Cover Post-Development Bankfull Volume (Vbf-imp-post)			Vbf-imp-post =	104,921	cft	
	Tatal Design No. 1			V0.6	446.65=		
	Total Bankfull Volume (Vbf-post)			Vbf-post =	110,005	cft	
	Pervious Cover Post-Development 100-Year Volume (V100-per-post)			V100-per-post =	19,317	cft	
	Impervious Cover Post-Development 100-Year Volume (V100-imp-post)			V100-imp-post =	240,979	cft	
	Total 100-Year Volume (V100)			V100 =	260,296	cft	
В.	Determine Onsite Infiltration Requirement						
	Total Post-Development Bankfull Volume (Vbf-post)			Vbf-post =	110,005	cft	
	Pre-Development Bankfull Runoff Volume (Vbf-pre)			Vbf-pre =	36,236	cft	
	Bankfull Volume Difference			Vbf-difference	73,769	cft	
	First Flush Volume (Vff)			Vff =	50,211	cft	
	Onsite Infiltration Requirement (Vinf)			Vinf =	73,769	cft	
W10		<u> </u>	etention/Reten	tion Requirement			
A.	Peak of the Unit Hydrograph (Qp)	Qp=238.6Tc-0.82		Qp =	555.55	cfs/in-mi2	
В.	Total Contributing Area			Area =	15.40	acres	
C.	Q100 = Q100-per + Q100-imp			Q100 =	7.86	in	
D.	Peak Flow (PF) = (Qp*Q100*A)/640			PF =	105.12	cfs	
E. F.	Delta = PF - 0.15*A			Delta =	102.81	cfs	
r.	Vdet = (Delta / PF)*V100			Vdet =	254,575	cft	
W11		Determine App	olicable BMPs a	nd Associated Volu	ne Credits		
	No applicable BMPs and/or associated volume credits						
W12			Natural Featu	ures Inventory	<u> </u>	I	<u> </u>
	See sheet C-10, Natural Features Plan, for natural resources map and impact summary						

BASIN 1 PROPOSED CONDITIONS DETENTION VOLUME: 254,575 CF

Pond 1		
EX CONSTRUCTION AREA DEV A & B DETENTION VOLUME	258,389	CF
PR CONSTRUCTION AREA DEV A & B DETENTION VOLUME	254,575	CF
ADDITIONAL VOLUME REQUIRED PR VOLUME - EX VOLUME	-3,814	CF

3,814 CF OF EXCESS VOLUME NOW PROVIDED WASHTENAW COUNTY WATER RESOURCE COMMISSIONER WILL MODIFY BASIN TO INCREASE STORAGE CAPACITY OF EXISTING BASIN 1

Mickalich ENGINEER

ALL WORK SHALL CONFORM TO CITY OF ANN ARBOR STANDARDS AND SPECIFICATIONS

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05-27-2025 SITE PLAN RESUBMITTAL 04-16-2025 SITE PLAN RESUBMITTAL 03-12-2025 SITE PLAN RESUBMITTAL 07-10-2024 SITE PLAN RESUBMITTAL 04-18-2024 SITE PLAN SUBMITTAL

D.H. - R.C.H.

DESIGNED D.H.

CHECKED A.P.M. APPROVED A.P.M.

DRAWN

DATE ADDITIONS AND/OR REVISIONS

E. EISENHOWER PKWY

BRIARWOOD

WASHTENAW COUNTY MICHIGAN

PROPOSED STORM WATER

DETENTION CALCULATIONS PR BASIN 1

> SHEET No. OF 20220788

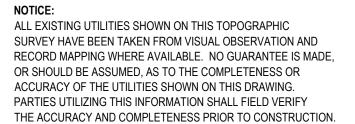
W1	1		ı			,
	Determining Post-Development Co	over Types. Areas	Curve Numbers	s, and Runoff Coeffi	cients	
	g					
		Total Con	tributing Area =	4.64	acres	
	Cover Type	Soil Type	Area (sft)	Area (acres)	Runoff Coeff	(C)(Area)
S	Paved parking lots, roofs,	D	160,117	3.68	0.95	152,111
ariable	driveways, etc. Developed open space, good					
V bod V	condition	D	41,918	0.96	0.50	20,959
Rational Method Variables						
Ratior					otal - (C)(Area) =	173,070
					Area Total (sft) = Weighted C =	202,035 0.86
					weighted C =	0.86
	Pervious Cover Type	Soil Type	Area (sft)	Area (acres)	Curve Number	(CN)(Area)
	Developed open space, good condition	D	41,918	0.96	80	3,353,440
	Condition					
				Tot	al - (CN)(Area) =	3,353,440
Ø					Area Total (sft) = Weighted CN =	41,918
ariable					weighted CN =	80
NRCS Variables	Impervious Cover Type	Soil Type	Area (sft)	Area (acres)	Curve Number	(CN)(Area)
Z	Paved parking lots, roofs,	D	160,117	3.68	98	15,691,466
	driveways, etc. Water surfaces, ponds	D	0	0.00	98	0
					al - (CN)(Area) =	15,691,466
					Area Total (sft) = Weighted CN =	160,117 98
					·	
W2	First Flush Runoff Calculations (V	ff)				
	Vff = (1")(1'/12")(43,560 ft2/1				44.400	
A .	ac)AC =			Vff =	14,423	cft
W3	Pre-development Bankfull Runoff	Calculations (Vbf-	ore)			
A.	2 year/24 hour storm event			P =	2.35	in
В.	Pre-development land cover (good cover woods)			CN =	77	
C.	S = 1000/CN - 10			S =	2.99	in
D.	Q = (P-0.2S)2/(P+0.8S)			Q =	0.65	in
E.	Total site area (sf) excluding "self-crediting" BMPs			Area =	202,035	sft
F.	Vbf-pre = Q(1/12)Area			Vbf-pre =	10,911	cft
	. , , ,				-,-··	J.,
W4	Pervious Cover Post-development	Bankfull Runoff C	alculations (Vb	f-per-post)		
	2 year/24 hour storm overt			-	2.25	10.
A. B.	2 year/24 hour storm event Pervious cover CN from W1			P = CN =	2.35	in
В. С.	S = 1000/CN - 10			S =	2.50	in
D.						
	Q = (P-0.2S)2/(P+0.8S)			Q =	0.79	in
E.	Q = (P-0.2S)2/(P+0.8S) Pervious cover area from W1			Q = Area =		in cft
E. F.	, , , ,				0.79	
	Pervious cover area from W1			Area =	0.79 41,918	cft
	Pervious cover area from W1	ent Bankfull Runof	f Calculations (\	Area = Vbf-per-post =	0.79 41,918	cft
F. W5	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-developme	ent Bankfull Runof	f Calculations (\	Area = Vbf-per-post = Vbf-imp-post)	0.79 41,918 2,748	cft cft
F. W5	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-development 2 year/24 hour storm event	ent Bankfull Runof	f Calculations (\	Area = Vbf-per-post = Vbf-imp-post) P =	0.79 41,918	cft
F. W5 A. B.	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-development 2 year/24 hour storm event Impervious cover CN from W1	ent Bankfull Runof	f Calculations (\	Area = Vbf-per-post = Vbf-imp-post) P = CN =	0.79 41,918 2,748 2.35	cft cft
F. W5 A. B. C.	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-developme 2 year/24 hour storm event Impervious cover CN from W1 S = 1000/CN - 10	e <mark>nt Bankfull Runof</mark>	f Calculations (\	Area = Vbf-per-post = Vbf-imp-post) P = CN = S =	0.79 41,918 2,748 2.35 98 0.20	cft cft in
F. W5 A. B. C. D.	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-development 2 year/24 hour storm event Impervious cover CN from W1	ent Bankfull Runof	f Calculations (\	Area = Vbf-per-post = Vbf-imp-post) P = CN =	0.79 41,918 2,748 2.35 98 0.20 2.12	cft cft
F. W5 A. B. C. D. E.	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-developme 2 year/24 hour storm event Impervious cover CN from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S) Impervious cover area from W1	ent Bankfull Runof	f Calculations (\	Area = Vbf-per-post = Vbf-imp-post) P = CN = S = Q = Area =	0.79 41,918 2,748 2.35 98 0.20 2.12 160,117	cft cft in in sft
F. W5 A. B. C. D.	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-developme 2 year/24 hour storm event Impervious cover CN from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S)	ent Bankfull Runof	f Calculations (\	Area = Vbf-per-post = Vbf-imp-post) P = CN = S = Q =	0.79 41,918 2,748 2.35 98 0.20 2.12	cft cft in in in
F. W5 A. B. C. D. E.	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-developme 2 year/24 hour storm event Impervious cover CN from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S) Impervious cover area from W1			Area = Vbf-per-post = Vbf-imp-post) P = CN = S = Q = Area = Vbf-imp-post =	0.79 41,918 2,748 2.35 98 0.20 2.12 160,117	cft cft in in sft
F. W5 A. B. C. D. E. F.	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-development 2 year/24 hour storm event Impervious cover CN from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S) Impervious cover area from W1 Vbf-imp-post = Q(1/12)Area Pervious Cover Post-development			Area = Vbf-per-post = Vbf-imp-post) P = CN = S = Q = Area = Vbf-imp-post =	0.79 41,918 2,748 2.35 98 0.20 2.12 160,117 28,310	cft cft in in sft cft
F. W5 A. B. C. D. E. F. W6	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-development 2 year/24 hour storm event Impervious cover CN from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S) Impervious cover area from W1 Vbf-imp-post = Q(1/12)Area Pervious Cover Post-development 100-year storm event			Area = Vbf-per-post = Vbf-imp-post) P = CN = Q = Area = Vbf-imp-post = ons (V100-per-post) P =	0.79 41,918 2,748 2.35 98 0.20 2.12 160,117 28,310	cft cft in in sft
F. W5 A. B. C. D. E. F.	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-development 2 year/24 hour storm event Impervious cover CN from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S) Impervious cover area from W1 Vbf-imp-post = Q(1/12)Area Pervious Cover Post-development			Area = Vbf-per-post = Vbf-imp-post) P = CN = S = Q = Area = Vbf-imp-post =	0.79 41,918 2,748 2.35 98 0.20 2.12 160,117 28,310	cft cft in in sft cft
F. W5 A. B. C. D. E. F. W6 A. B.	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-development 2 year/24 hour storm event Impervious cover CN from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S) Impervious cover area from W1 Vbf-imp-post = Q(1/12)Area Pervious Cover Post-development 100-year storm event Pervious cover from W1			Area = Vbf-per-post = Vbf-imp-post) P = CN = Q = Area = Vbf-imp-post = Ons (V100-per-post) P = CN =	0.79 41,918 2,748 2.35 98 0.20 2.12 160,117 28,310 5.11 80	in in sft cft
F. W5 A. B. C. D. E. F. W6 A. B. C.	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-development 2 year/24 hour storm event Impervious cover CN from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S) Impervious cover area from W1 Vbf-imp-post = Q(1/12)Area Pervious Cover Post-development 100-year storm event Pervious cover from W1 S = 1000/CN - 10			Area = Vbf-per-post = Vbf-imp-post) P = CN = Q = Area = Vbf-imp-post = Ons (V100-per-post) P = CN = S = S = S = S = S = CN = S = S = CN = S = CN = S =	0.79 41,918 2,748 2.35 98 0.20 2.12 160,117 28,310 5.11 80 2.50	cft cft in in sft cft in in in in in in in in in i
F. W5 A. B. C. D. E. F. W6 A. B. C. D.	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-development 2 year/24 hour storm event Impervious cover CN from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S) Impervious cover area from W1 Vbf-imp-post = Q(1/12)Area Pervious Cover Post-development 100-year storm event Pervious cover from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S)			Area = Vbf-per-post = Vbf-imp-post) P = CN = Q = Area = Vbf-imp-post = CN = CN = CN = CN = CN = Q = CN =	0.79 41,918 2,748 2.35 98 0.20 2.12 160,117 28,310 5.11 80 2.50 2.99	cft cft in in in sft cft in in in in in in in
F. W5 A. B. C. D. E. F. W6 A. B. C. D. E.	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-development 2 year/24 hour storm event Impervious cover CN from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S) Impervious cover area from W1 Vbf-imp-post = Q(1/12)Area Pervious Cover Post-development 100-year storm event Pervious cover from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S) Pervious cover area from W1			Area = Vbf-per-post = /bf-imp-post) P = CN = Q = Area = Vbf-imp-post = Ons (V100-per-post) P = CN = Q = Area = Area = Area = Area =	0.79 41,918 2,748 2.35 98 0.20 2.12 160,117 28,310 5.11 80 2.50 2.99 41,918	cft cft in in sft cft in in cft
F. W5 A. B. C. D. E. F. W6 A. B. C. D. E.	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-development 2 year/24 hour storm event Impervious cover CN from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S) Impervious cover area from W1 Vbf-imp-post = Q(1/12)Area Pervious Cover Post-development 100-year storm event Pervious cover from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S) Pervious cover area from W1	100-year Storm R	unoff Calculatio	Area = Vbf-per-post = CN = CN = Q = Area = Vbf-imp-post = Ons (V100-per-post) P = CN = Q = Area = V100-per-post =	0.79 41,918 2,748 2.35 98 0.20 2.12 160,117 28,310 5.11 80 2.50 2.99 41,918 10,441	cft cft in in sft cft in in cft
F. W5 A. B. C. D. E. F. W6 A. B. C. D. E. F. W7	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-development 2 year/24 hour storm event Impervious cover CN from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S) Impervious cover area from W1 Vbf-imp-post = Q(1/12)Area Pervious Cover Post-development 100-year storm event Pervious cover from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S) Pervious cover area from W1 V100-per-post = Q(1/12)Area	100-year Storm R	unoff Calculatio	Area = Vbf-per-post = Vbf-imp-post P = CN = S = Q = Area = Vbf-imp-post = CN	0.79 41,918 2,748 2.35 98 0.20 2.12 160,117 28,310 5.11 80 2.50 2.99 41,918 10,441	cft cft in in in sft cft cft cft cft cft cft cft
F. W5 A. B. C. D. E. F. W6 A. B. C. D. E. F.	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-development 2 year/24 hour storm event Impervious cover CN from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S) Impervious cover area from W1 Vbf-imp-post = Q(1/12)Area Pervious Cover Post-development 100-year storm event Pervious cover from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S) Pervious cover area from W1 V100-per-post = Q(1/12)Area	100-year Storm R	unoff Calculatio	Area = Vbf-per-post = CN = CN = Q = Area = Vbf-imp-post = Ons (V100-per-post) P = CN = Q = Area = V100-per-post =	0.79 41,918 2,748 2.35 98 0.20 2.12 160,117 28,310 5.11 80 2.50 2.99 41,918 10,441	cft cft in in sft cft in in cft
F. W5 A. B. C. D. E. F. W6 A. B. C. D. E. F. W7 A. B. C.	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-development 2 year/24 hour storm event Impervious cover CN from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S) Impervious cover area from W1 Vbf-imp-post = Q(1/12)Area Pervious Cover Post-development 100-year storm event Pervious cover from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S) Pervious cover area from W1 V100-per-post = Q(1/12)Area Impervious Cover Post-development 100-year storm event Impervious cover from W1 S = 1000/CN - 10	100-year Storm R	unoff Calculatio	Area = Vbf-per-post = Vbf-imp-post P = CN = S = Q = Area = Vbf-imp-post = CN	0.79 41,918 2,748 2.35 98 0.20 2.12 160,117 28,310 5.11 80 2.50 2.99 41,918 10,441 5t) 5.11 98 0.20	cft cft in in in in in cft cft cft cft in in in in in in in in in i
F. W5 A. B. C. D. E. F. W6 A. B. C. D. E. F. W7 A. B.	Pervious cover area from W1 Vbf-per-post = Q(1/12)Area Impervious Cover Post-development 2 year/24 hour storm event Impervious cover CN from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S) Impervious cover area from W1 Vbf-imp-post = Q(1/12)Area Pervious Cover Post-development 100-year storm event Pervious cover from W1 S = 1000/CN - 10 Q = (P-0.2S)2/(P+0.8S) Pervious cover area from W1 V100-per-post = Q(1/12)Area Impervious Cover Post-development 100-year storm event Impervious Cover Post-development 100-year storm event	100-year Storm R	unoff Calculatio	Area = Vbf-per-post = Vbf-imp-post P = CN = S = Q = Area = Vbf-imp-post = CN	0.79 41,918 2,748 2.35 98 0.20 2.12 160,117 28,310 5.11 80 2.50 2.99 41,918 10,441 st) 5.11 98	in in in in in cft cft

F.	V100-imp-post = Q(1/12)Area			V100-imp-post =	65,021	cft	
W8		Determine Time of	Concentration	for Applicable Flow	Types (Tc-hrs)		
Flow Type	К	Elev. Difference	Length (L)	Slope % (S)	S0.5	V=K*S0.5	Tc=L/(V*36
1 A Chart Flow	0.40	2.6	220	1.64	1.20	0.61	0.10
1-A, Sheet Flow **1-B to 1-L , Pipe Flow	0.48	3.6	220	1.64	1.28	0.61	0.10 0.18
1-B to 1-L , Fipe Flow							0.16
	**See Sheet C-2	6, Overall Detention	n Distrtict Plan,	for Pipe Flow Calcu	lation		
	Total '	Time of Concentrat	ion (Tc-hrs) =			_	0.28
W9		Runoff Sun	nmary and Ons	ite Infiltration Requir	rement		1
	D"(0(D						
Α.	Runoff Summary from Previous Worksheets						
	First Flush Volume (Vff)			Vff =	14,423	cft	
	Pre-Development Bankfull Runoff Volume (Vbf-pre)			Vbf-pre =	10,911	cft	
	Pervious Cover Post-Development			Vbf-per-post =	2,748	cft	
	Bankfull Volume (Vbf-per-post)				_,		
	Impervious Cover			Vbf-imp-post =	28,310	cft	
	Post-Development Bankfull			V BI-IIIIp-post –	20,010	Oit	
	Volume (Vbf-imp-post)						
	Total Bankfull Volume (Vbf-post)			Vbf-post =	31,058	cft	
	Total Balikiuli Volume (VBI-post)			Vbi-post –	31,030		
	Pervious Cover Post-Development 100-Year Volume (V100-per-post)			V100-per-post =	10,441	cft	
	100-10al Volume (V100-per-post)						
	Impervious Cover			V100-imp-post =	65,021	cft	
	Post-Development 100-Year			v 100-imp-post –	05,021	Cit	
	Volume (V100-imp-post)						
	Total 100-Year Volume (V100)			V100 =	75,462	cft	
В.	Determine Onsite Infiltration						
	Requirement						
	Total Post-Development Bankfull Volume (Vbf-post)			Vbf-post =	31,058	cft	
	Pre-Development Bankfull Runoff			Vbf-pre =	10,911	cft	
	Volume (Vbf-pre)						
	Bankfull Volume Difference			Vbf-difference	20,147	cft	
	First Flush Volume (Vff)			Vff =	14,423	cft	
	Onsite Infiltration Requirement			Vinf =	20,147	cft	
	(Vinf)			VIIII -	£0,147		
W10		D	etention/Reten	tion Requirement			_
Α.	Peak of the Unit Hydrograph (Qp)	Qp=238.6Tc-0.82		Qp =	678.58	cfs/in-mi2	
В.	Total Contributing Area			Area =	4.64	acres	
C.	Q100 = Q100-per + Q100-imp			Q100 =	7.86	in	
	D. J. El. (25)			55	00.00	1	
D.	Peak Flow (PF) = (Qp*Q100*A)/640			PF =	38.66	cfs	
E.	Delta = PF - 0.15*A			Delta =	37.97	cfs	
F.	Vdet = (Delta / PF)*V100			Vdet =	74,104	cft	
						<u>L</u> _	
W11		Determine App	licable BMPs a	nd Associated Volur	me Credits		
	No applicable BMPs and/or associated volume credits						
						1	
W12			Natural Featu	ures Inventory		_1	<u>I</u>
	See sheet C-10, Natural Features Plan, for natural resources map						
	FIAU TOLDAUTER RESOURCES MAN			ı		1	1

BASIN 5 EXISTING CONDITIONS DETENTION VOLUME: 74,104 CF



ALL WORK SHALL CONFORM TO CITY OF ANN ARBOR STANDARDS AND SPECIFICATIONS





ORIGINAL PLOT SIZE: ARCH FULL BLEED D (36.00 X 24.00 INCHES)

CALL MISS DIG 72 HOURS (3 WORKING DAYS) BEFORE YOU DIG 1-800-482-7171 or **811**

DRAWING No. HRC JOB No. 20220788

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PHONE: (248) 454-6300 FAX (1st. Floor): (248) 454-6312 FAX (2nd. Floor): (248) 454-6359

05-27-2025 SITE PLAN RESUBMITTAL 04-16-2025 SITE PLAN RESUBMITTAL 03-12-2025 SITE PLAN RESUBMITTAL 07-10-2024 SITE PLAN RESUBMITTAL

04-18-2024 SITE PLAN SUBMITTAL

DATE ADDITIONS AND/OR REVISIONS

D.H. - R.C.H. CHECKED A.P.M. APPROVED A.P.M. E. EISENHOWER PKWY BRIARWOOD ELLSWORTH RD.

BRIARWOOD MALL

SEARS REDEVELOPMENT

100 Briarwood Circle Ann Arbor, Mi 48108

WASHTENAW COUNTY

PROPOSED STORM WATER DETENTION CALCULATIONS EX BASIN 5

MICHIGAN

CA-18B SHEET No. OF

Determining Post-Development Cover Types, Areas, Curve Numbers, and Runoff Coefficients Total Contributing Area = 4.56 acres Cover Type Area (sft) Area (acres) Runoff Coeff Paved parking lots, roofs, 142,967 3.28 135,819 0.95 driveways, etc. Developed open space, good 55,575 27,788 1.28 0.50 Total - (C)(Area) = 163,606 Area Total (sft) = 198,542 Weighted C = 0.82 Soil Type Pervious Cover Type Area (sft) Area (acres) Curve Number (CN)(Area) Developed open space, good 4,446,000 55,575 1.28 80 condition Total - (CN)(Area) = 4,446,000 Area Total (sft) = 55,575 Weighted CN = 80 Curve Number (CN)(Area) Impervious Cover Type Soil Type Area (sft) Area (acres) Paved parking lots, roofs, 142,967 14,010,766 3.28 driveways, etc. Water surfaces, ponds 0.00 0 Total - (CN)(Area) = 14,010,766 Area Total (sft) = 142,967 Weighted CN = 98 First Flush Runoff Calculations (Vff) Vff = (1")(1'/12")(43,560 ft2/1 13,634 Pre-development Bankfull Runoff Calculations (Vbf-pre) 2 year/24 hour storm event 2.35 Pre-development land cover (good CN = cover woods) S = 1000/CN - 10 S = 2.99 Q = (P-0.2S)2/(P+0.8S)Q = 0.65 Total site area (sf) excluding 198,542 "self-crediting" BMPs Vbf-pre = Q(1/12)Area Vbf-pre = 10,722 cft F. Pervious Cover Post-development Bankfull Runoff Calculations (Vbf-per-post) 2 year/24 hour storm event 2.35 В. Pervious cover CN from W1 CN = 80 S = 1000/CN - 10 S = 2.50 Q = (P-0.2S)2/(P+0.8S)Q = 0.79 55,575 cft Pervious cover area from W1 Area = 3,644 Vbf-per-post = Q(1/12)Area Vbf-per-post = cft Impervious Cover Post-development Bankfull Runoff Calculations (Vbf-imp-post) 2 year/24 hour storm event 2.35 Impervious cover CN from W1 CN = 98 S = 1000/CN - 10 S = 0.20 C. in Q = (P-0.2S)2/(P+0.8S)D. Q = 2.12 in Impervious cover area from W1 142,967 sft Area = 25,277 Vbf-imp-post = Q(1/12)Area Vbf-imp-post = Pervious Cover Post-development 100-year Storm Runoff Calculations (V100-per-post) P = 5.11 100-year storm event in Pervious cover from W1 CN = S = 1000/CN - 10 S = 2.50 C. in Q = (P-0.2S)2/(P+0.8S)Q = 2.99 D. in 55,575 Pervious cover area from W1 cft Area = V100-per-post = 13,843 V100-per-post = Q(1/12)Area Impervious Cover Post-development 100-year Storm Runoff Calculations (V100-imp-post) P = 5.11 100-year storm event Impervious cover from W1 CN = 98 S = 1000/CN - 10 S = 0.20 Q = (P-0.2S)2/(P+0.8S)Q = 4.87 D. in Impervious cover area from W1 Area = 142,967 cft

Pr Detention Basin #5

F.	V100-imp-post = Q(1/12)Area			V100-imp-post =	58,057	cft	
W8		Determine Time of	Concentration	for Applicable Flow	Types (Tc-hrs)		1
Flow Type	K	Elev. Difference	Length (L)	Slope % (S)	S0.5	V=K*S0.5	Tc=L/(V*360
riow Type	K	Liev. Dillerence	Lengur (L)	Slope % (3)	30.3	V-K 30.3	1C-L/(V 300
1-A, Sheet Flow	0.48	3.6	220	1.64	1.28	0.61	0.10
**1-B to 1-L , Pipe Flow							0.18
				, for Pipe Flow Calcu	lation		1
	Total	Time of Concentrat	ion (Tc-hrs) =			I	0.28
W9		Runoff Sur	 nmary and Ons	site Infiltration Requi	rement		
A .	Runoff Summary from Previous Worksheets						
	First Flush Volume (Vff)			Vff =	13,634	cft	
	Pre-Development Bankfull Runoff Volume (Vbf-pre)			Vbf-pre =	10,722	cft	
	Pervious Cover Post-Development Bankfull Volume (Vbf-per-post)			Vbf-per-post =	3,644	cft	
	Impervious Cover			Vbf-imp-post =	25,277	cft	
	Post-Development Bankfull Volume (Vbf-imp-post)						
	Total Bankfull Volume (Vbf-post)			Vbf-post =	28,921	cft	
	Pervious Cover Post-Development 100-Year Volume (V100-per-post)			V100-per-post =	13,843	cft	
	Impervious Cover Post-Development 100-Year			V100-imp-post =	58,057	cft	
	Volume (V100-imp-post)						
	Total 100-Year Volume (V100)			V100 =	71,900	cft	
В.	Determine Onsite Infiltration Requirement						
				\(\alpha\)	00.004		
	Total Post-Development Bankfull Volume (Vbf-post)			Vbf-post =	28,921	cft	
	Pre-Development Bankfull Runoff Volume (Vbf-pre)			Vbf-pre =	10,722	cft	
	Double HAVelow Diff			V/I C 1/20	40.400		
	Bankfull Volume Difference First Flush Volume (Vff)			Vbf-difference Vff =	18,199 13,634	cft cft	
					-,		
	Onsite Infiltration Requirement (Vinf)			Vinf =	18,199	cft	
W10		С	etention/Reten	tion Requirement			
Α.	Peak of the Unit Hydrograph (Qp)	Qp=238.6Tc-0.82		Qp =	678.58	cfs/in-mi2	
В.	Total Contributing Area			Area =	4.56	acres	
C.	Q100 = Q100-per + Q100-imp			Q100 =	7.86	in	
D.	Peak Flow (PF) =			PF =	37.99	cfs	1
	(Qp*Q100*A)/640			D.H.	07.04		
E. F.	Delta = PF - 0.15*A Vdet = (Delta / PF)*V100			Delta =	37.31 70,606	cfs cft	
• •	(23.12, 11, 1100				- 2,200		
W11		Determine App	olicable BMPs a	and Associated Volu	me Credits		
	No applicable BMPs and/or associated volume credits						
	associated volume orduits						
W12			Natural Feat	ures Inventory			
	See sheet C-10, Natural Features						
	Plan, for natural resources map	1	1	1	I	1	1

BASIN 5 PROPOSED CONDITIONS DETENTION VOLUME: 70,606 CF

Pond 5						
EX CONSTRUCTION AREA DEV A & B DETENTION VOLUME	74,104	CF				
PR CONSTRUCTION AREA DEV A & B DETENTION VOLUME	70,606	CF				
ADDITIONAL VOLUME REQUIRED PR VOLUME - EX VOLUME	-3,498	CF				

3,498 CF OF EXCESS VOLUME NOW PROVIDED

CONSTRUCTION WILL LOWER REQUIRED DETENTION VOLUME FOR POND 5. NO REVISIONS TO THE EXISTING POND 5 WILL BE REQUIRED

ALL WORK SHALL CONFORM TO CITY OF ANN ARBOR STANDARDS AND SPECIFICATIONS

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SCALE DRAWING No. CA-18C 1" = 40' HRC JOB No. SHEET No. (TOLL FREE) 20220788

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Albert P. Mickalich **ENGINEER** 6201036979

WASHTENAW COUNTY

225 W. Washington Street Indianapolis, IN 46204 (317) 636-1600

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07-10-2024 SITE PLAN RESUBMITTAL

D.H. - R.C.H.

ADDITIONS AND/OR REVISIONS

E. EISENHOWER PKWY

BRIARWOOD

ELLSWORTH RD.

BRIARWOOD MALL

SEARS

REDEVELOPMENT

100 Briarwood Circle

Ann Arbor, Mi 48108

PROPOSED STORM WATER

DETENTION CALCULATIONS

PR BASIN 5

MICHIGAN

KEY PLAN

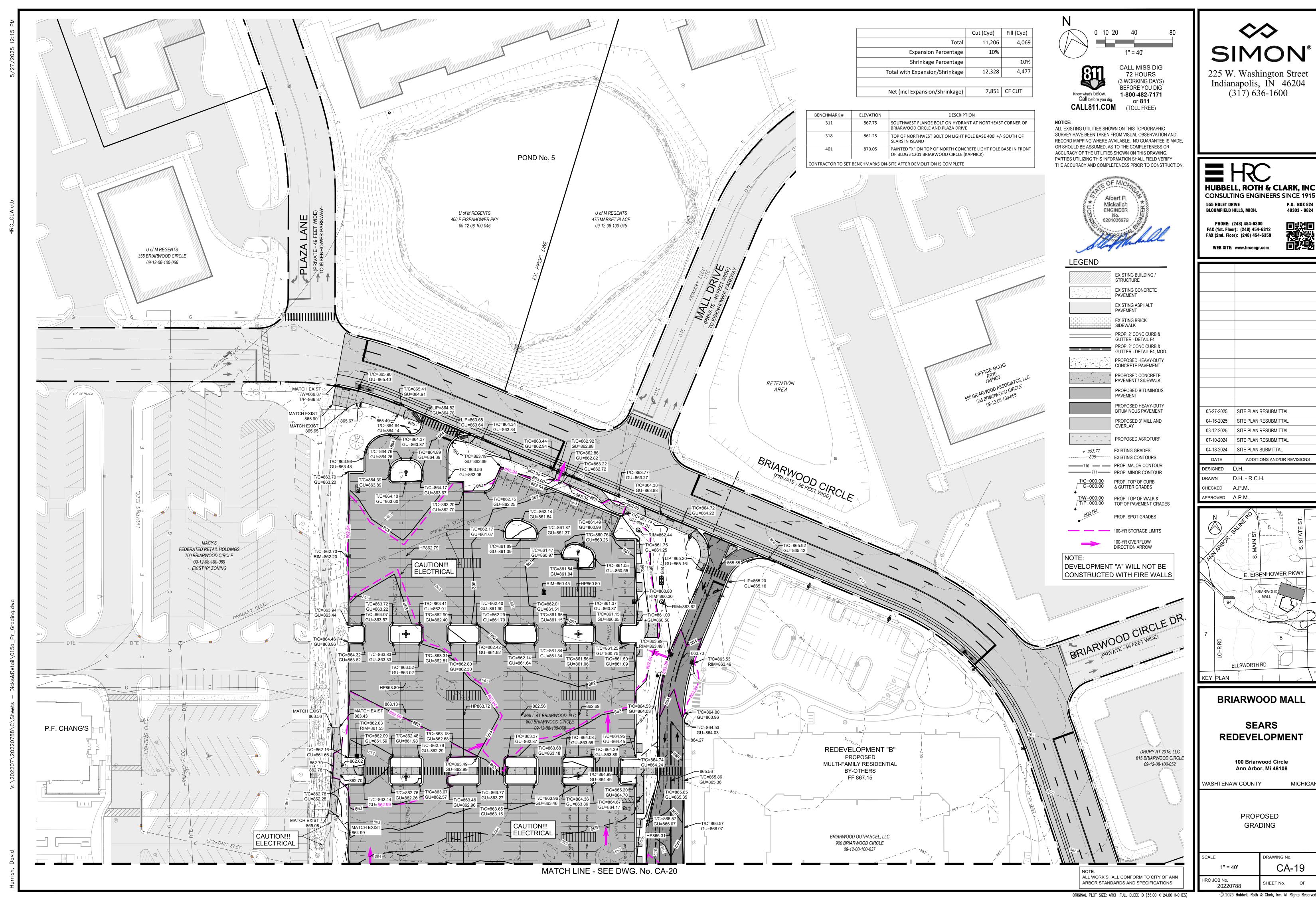
04-18-2024 SITE PLAN SUBMITTAL

DESIGNED D.H.

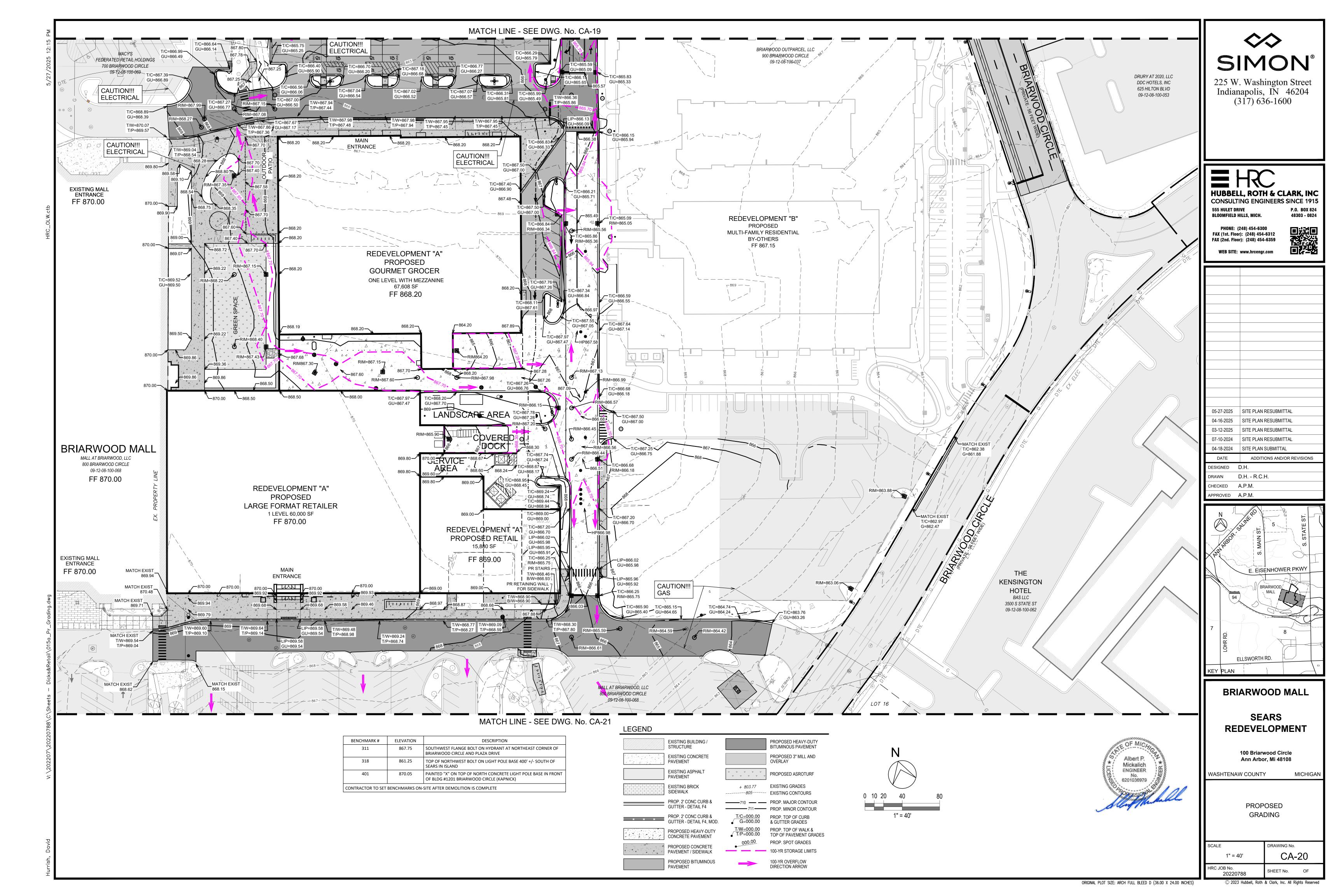
CHECKED A.P.M.

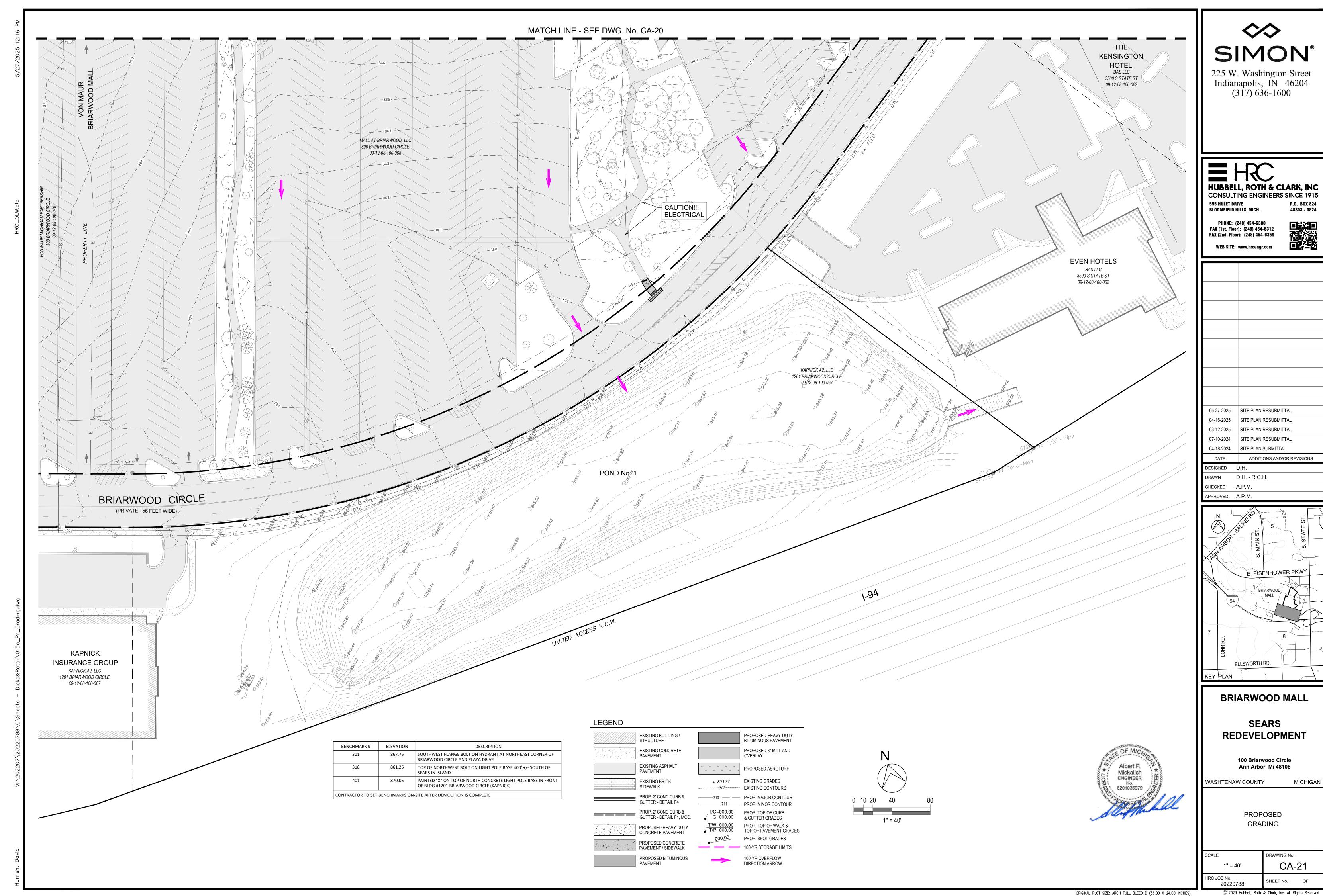
APPROVED A.P.M.

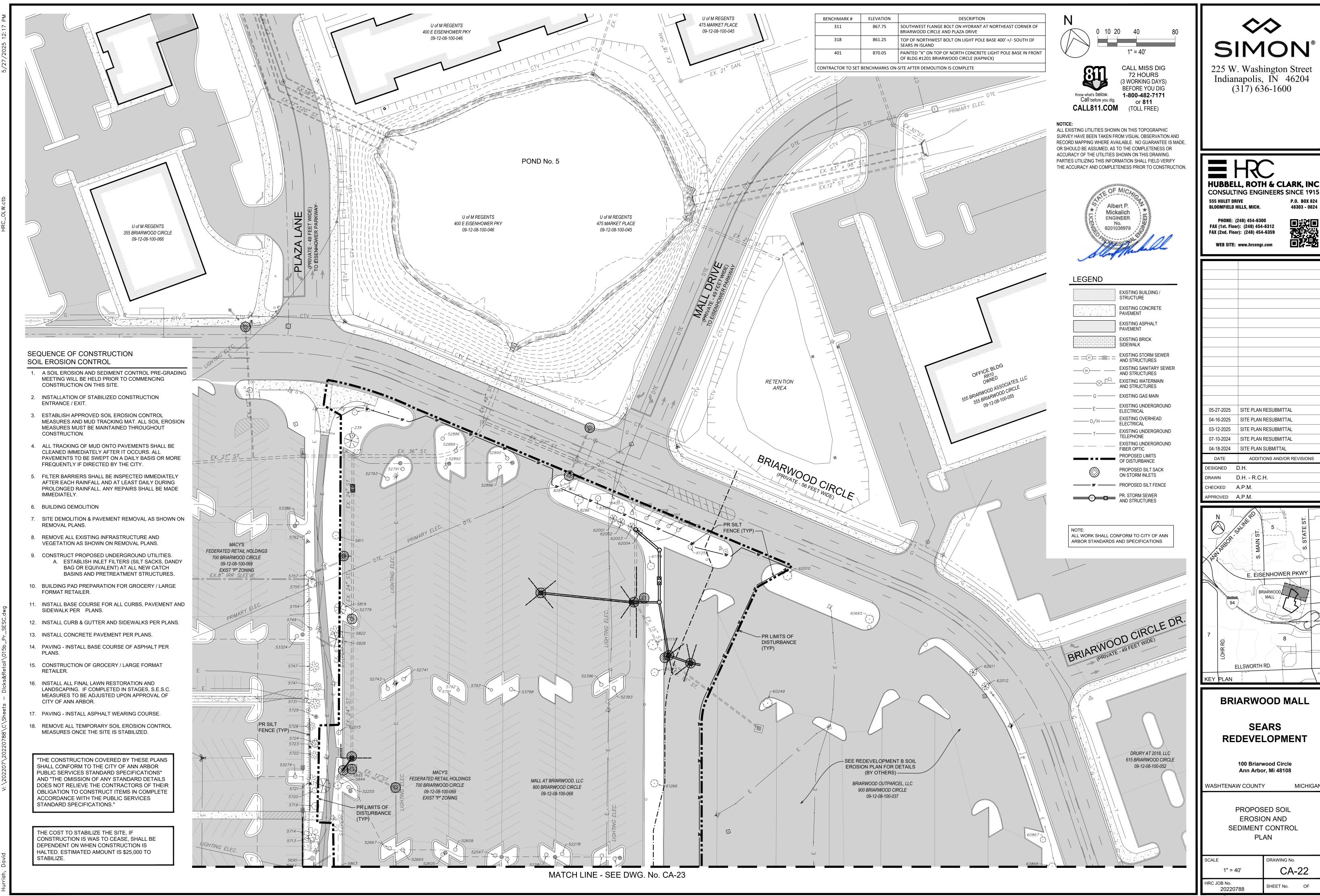
DRAWN



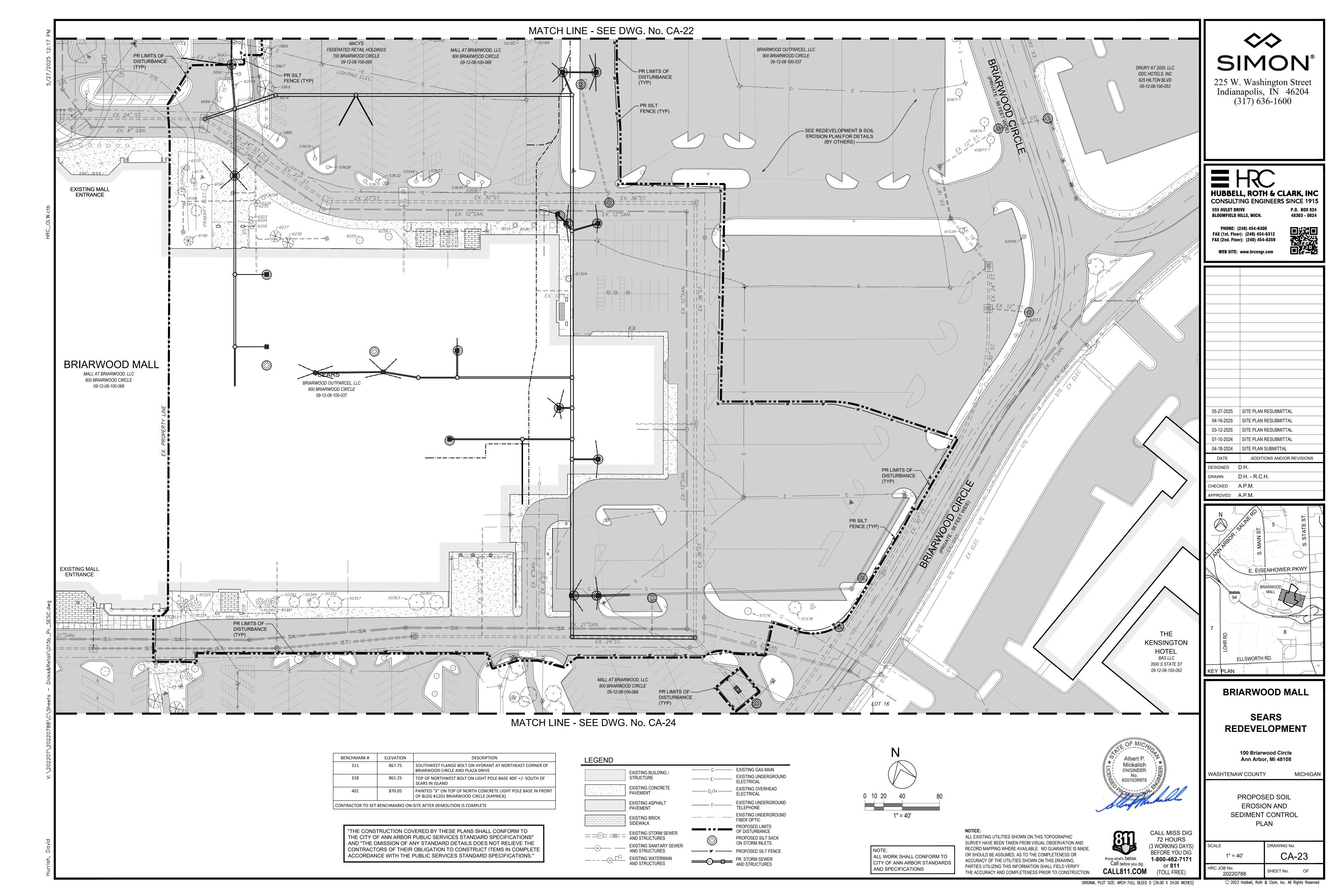
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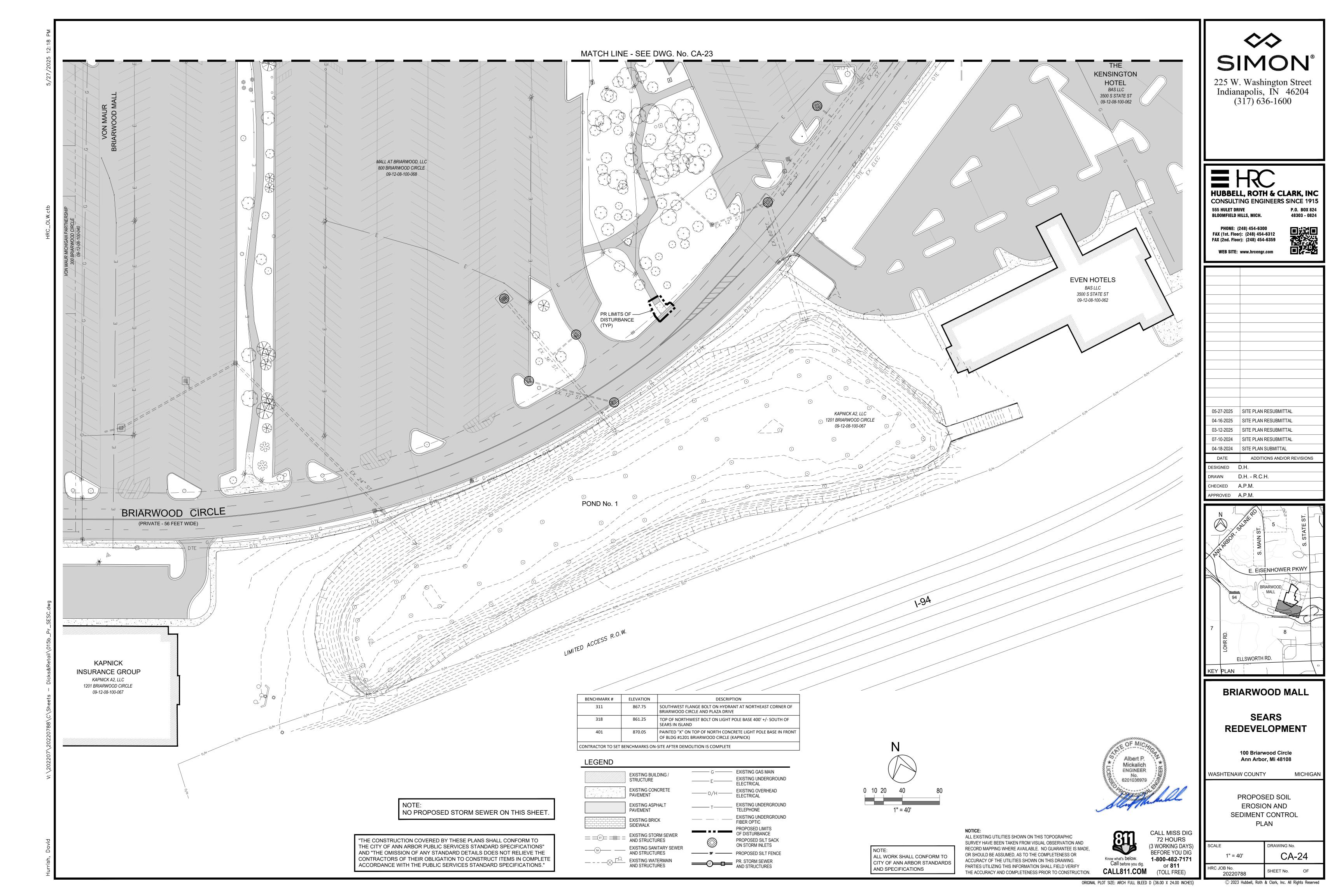


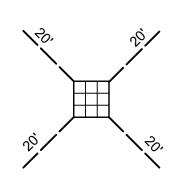




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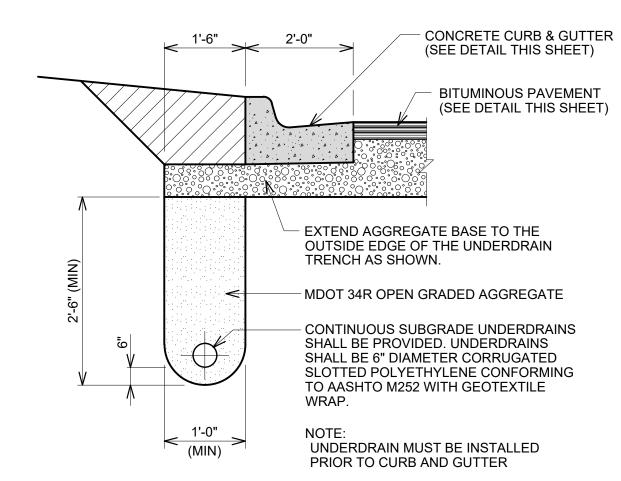






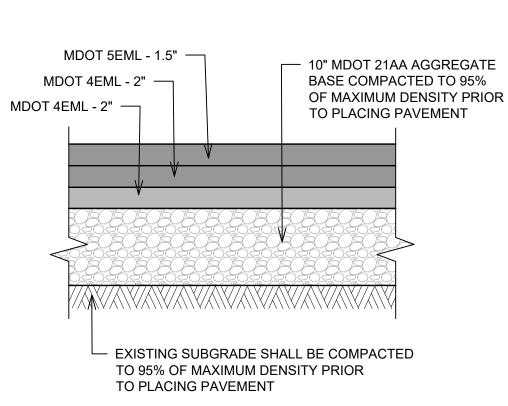
CATCH BASIN/STORM MANHOLE EDGE DRAIN IN PARKING LOT DETAIL- (TYP.)

NOT TO SCALE

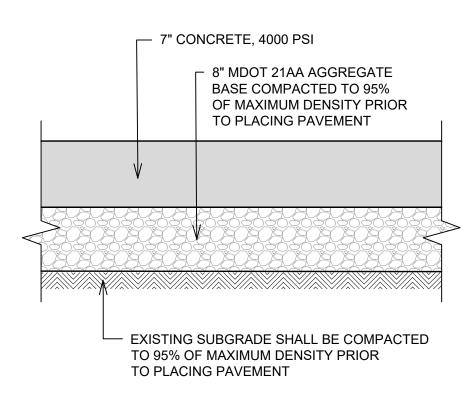


TYPICAL UNDERDRAIN DETAIL

NOT TO SCALE

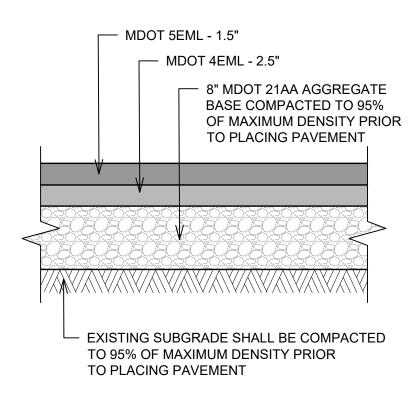


TYPICAL HEAVY DUTY **BITUMINOUS PAVEMENT SECTION** NO SCALE



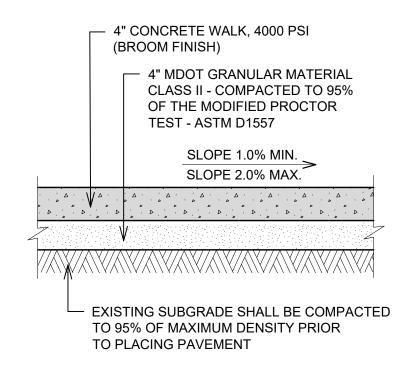
7" HEAVY DUTY CONCRETE SECTION

NOT TO SCALE



TYPICAL LIGHT DUTY BITUMINOUS PAVEMENT SECTION

NO SCALE



4 INCH SIDEWALK TYPICAL CONCRETE SECTION

NOT TO SCALE



R1-1 (30"x30")

BRIARWOOD CIRCLE - 10' WIDE MILL / 3" DEPTH

___ MDOT 5EML - 1.5"

BRIARWOOD CIRCLE

MILL AND OVERLAY SECTION

NO SCALE



ROAD SIGNAGE DETAILS

NOT TO SCALE

EXISTING BITUMINOUS PAVEMENT -

THICKNESS VARIES

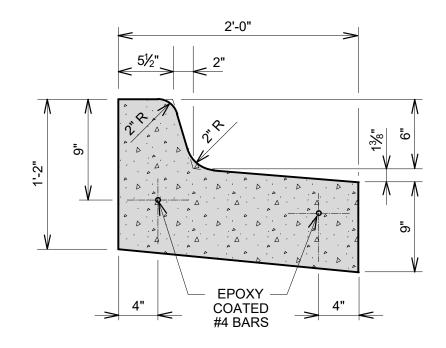
2'-0" < 5½" > 2"

MDOT TYPE F4 CONC. CURB & GUTTER DETAIL

NOT TO SCALE

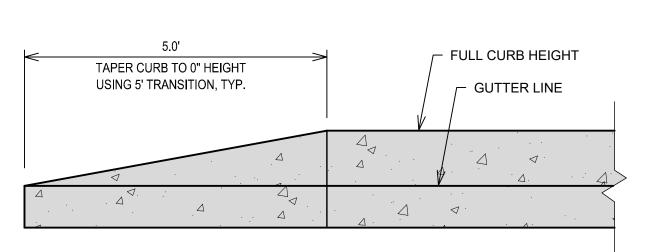
EPOXY

COATED #4 BARS



MDOT TYPE F4 (REVERSE) CONC. CURB & GUTTER DETAIL

NOT TO SCALE



TYP. CURB END TRANSITION DETAIL

NOT TO SCALE

अं

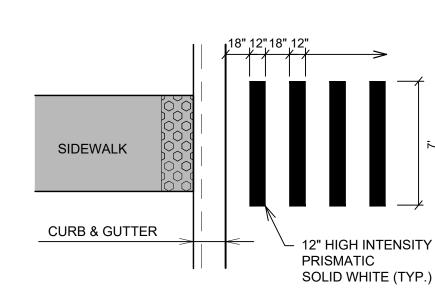
ONLY

12" x 18"

SIGN (R7-8)

PARKING

12" x 18"



EXISTING CONC. ——

EXISTING SUBGRADE

CURB AND GUTTER

— 6" CONCRETE WALK, 4000 PSI

── 4" MDOT GRANULAR MATERIAL

OF THE MODIFIED PROCTOR

SLOPE 1.0% MIN.

SLOPE 2.0% MAX.

TEST - ASTM D1557

TO 95% OF MAXIMUM DENSITY PRIOR

6 INCH SIDEWALK

TYPICAL CONCRETE SECTION

NOT TO SCALE

TO PLACING PAVEMENT

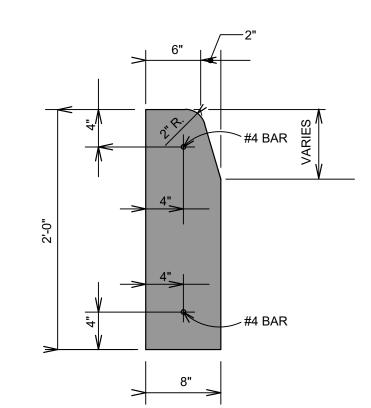
- EXISTING SUBGRADE SHALL BE COMPACTED

CLASS II - COMPACTED TO 95%

(BROOM FINISH)

TYPICAL CROSSWALK STRIPING

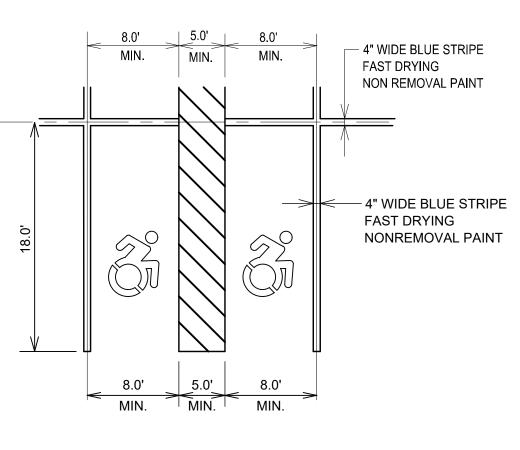
NOT TO SCALE



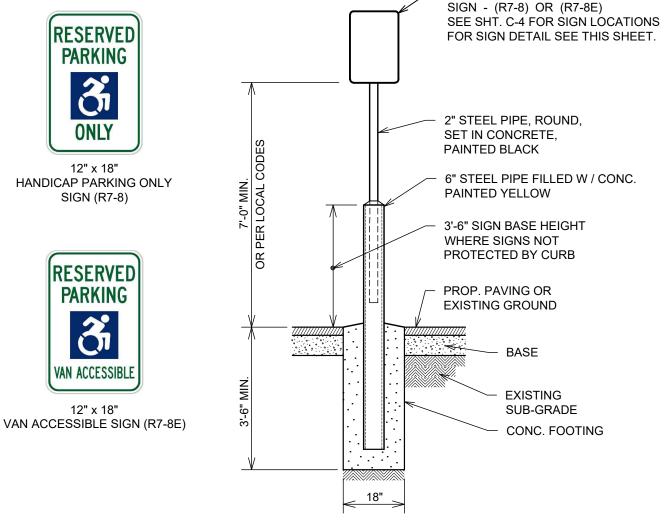
STRAIGHT FACE CURB DETAIL NO SCALE

- 4" WIDE BLUE STRIPE FAST DRYING NON REMOVAL PAINT - 4" WIDE BLUE STRIPE FAST DRYING NONREMOVAL PAINT 8.0' 8.0'

TYPICAL BARRIER - FREE **VAN PARKING SPACE** NOT TO SCALE



TYPICAL BARRIER - FREE PARKING SPACE NOT TO SCALE



12" x 18" HANDICAP PARKING ONLY

TYP. BARRIER FREE SIGNAGE DETAIL

THE OMISSION OF ANY CURRENT STANDARD DETAIL DOES NOT RELIEVE THE CONTRACTOR FROM THIS REQUIREMENT. THE WORK SHALL BE PERFORMED IN COMPLETE CONFORMANCE WITH THE CURRENT PUBLIC SERVICES DEPARTMENT STANDARD SPECIFICATIONS AND DETAILS.

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ELLSWORTH RD. **BRIARWOOD MALL SEARS REDEVELOPMENT** 100 Briarwood Circle Ann Arbor, Mi 48108 WASHTENAW COUNTY MICHIGAN

SIMON

225 W. Washington Street

Indianapolis, IN 46204

(317) 636-1600

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D.H. - R.C.H.

CHECKED A.P.M.

APPROVED A.P.M.

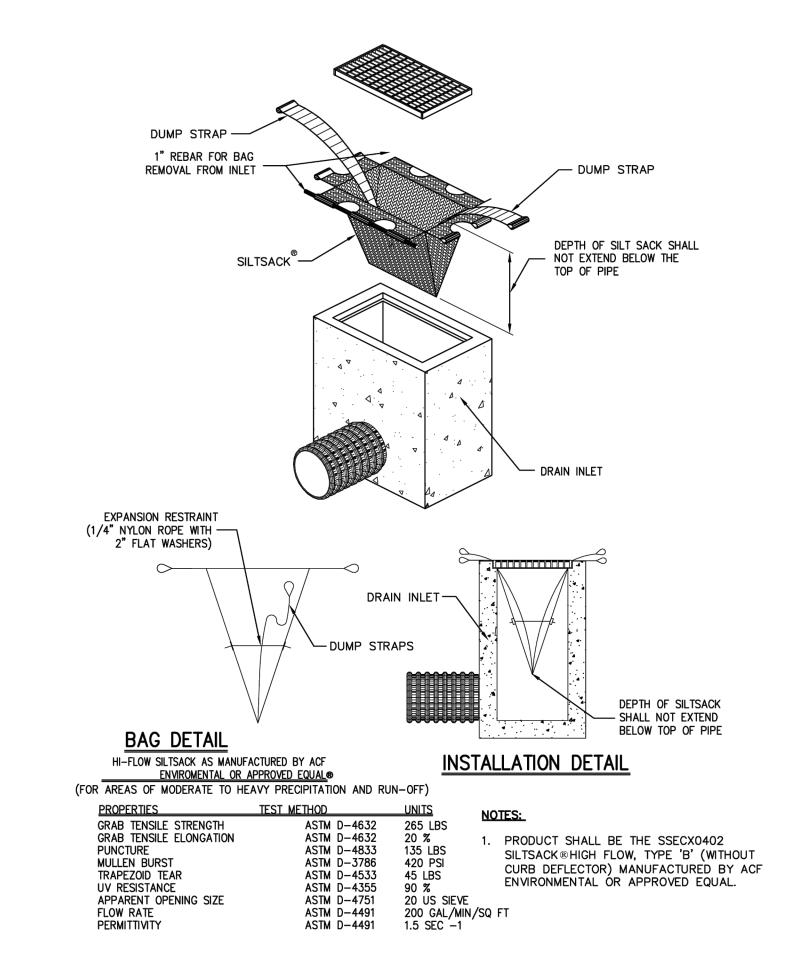
ADDITIONS AND/OR REVISIONS

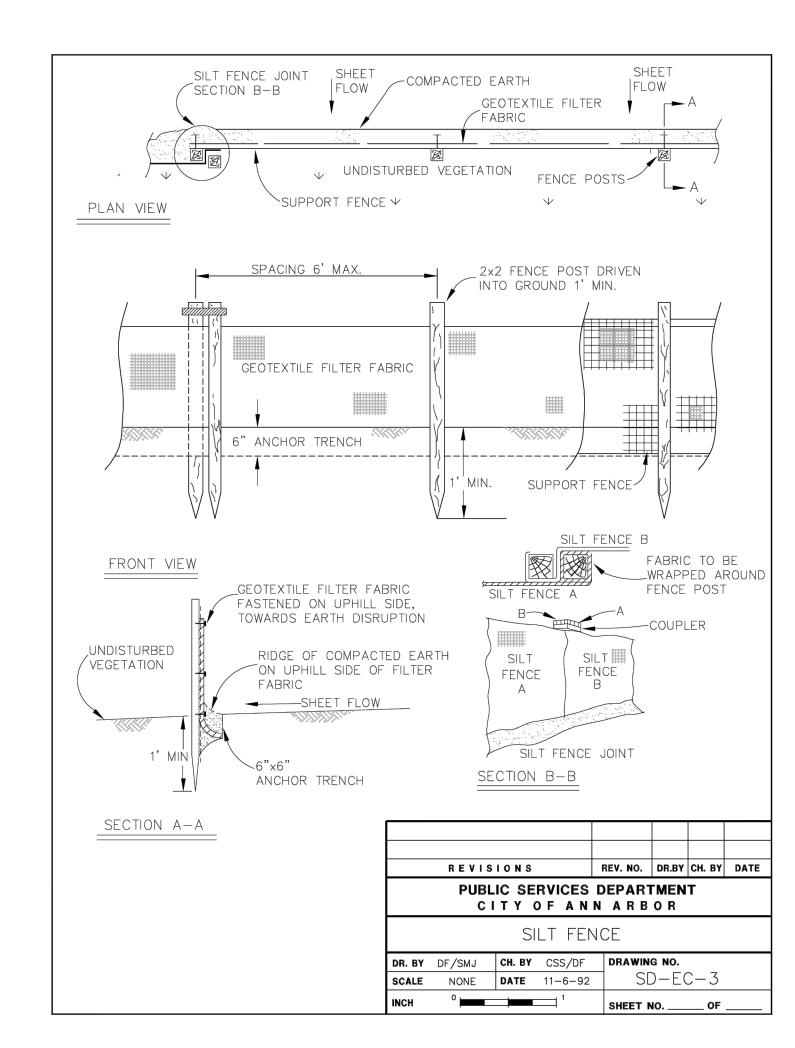
E. EISENHOWER PKWY

BRIARWOOD

TYPICAL DETAILS

DRAWING No. CA-25 HRC JOB No. SHEET No. 20220788





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Know what's below. Call before you dig. THE ACCURACY AND COMPLETENESS PRIOR TO CONSTRUCTION.

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04-18-2024 SITE PLAN SUBMITTAL ADDITIONS AND/OR REVISIONS DRAWN D.H. - R.C.H. CHECKED A.P.M. APPROVED A.P.M. E. EISENHOWER PKWY BRIARWOOD

05-27-2025 SITE PLAN RESUBMITTAL 04-16-2025 SITE PLAN RESUBMITTAL 03-12-2025 SITE PLAN RESUBMITTAL 07-10-2024 SITE PLAN RESUBMITTAL

> **BRIARWOOD MALL SEARS**

REDEVELOPMENT

ELLSWORTH RD.

KEY PLAN

100 Briarwood Circle

Ann Arbor, Mi 48108 WASHTENAW COUNTY MICHIGAN

> **TYPICAL DETAILS**

CA-25A SHEET No. OF

Project Name: Briarwood Mall 33 Location: Ann Arbor, MI

Date: 2/23/24

Site Designation: Briarwood Mall 33

Peak Treatment Rate: 1.52 cfs (Manual Entry)

Barracuda Size: S4

Peak treatment rate: 1.52 cfs

Unit Bypass Flow:82 cfs

Barrucuda Specification

Materials and Design

- Concrete Structures: Designed for H-20 traffic loading and applicable soil loads or as otherwise determined by a Licensed Professional Engineer. The materials and
- structural design of the devices shall be per ASTM C857 and ASTM C858. • 36" (900 mm) and 48" (1200 mm) HP Manhole Structures: Made from an impact modified copolymer polypropylene meeting the material requirements of ASTM F2764. The eccentric
- cone reducer shall be manufactured from polyethylene material meeting ASTM D3350 cell class 213320C. Gaskets shall be made of material meeting the requirements of ASTM F477.
- Separator internals shall be substantially constructed of stainless steel, polyethylene

or other thermoplastic material approved by the manufacturer.

• The stormwater treatment unit shall be an inline unit capable of conveying 100% of the design peak

- flow. If peak flow rates exceed maximum hydraulic rate, the unit shall be installed offline.
- The Barracuda Max unit shall be designed to remove at least 80% of the suspended solids on an annual aggregate removal basis. Said removal shall be based on full-scale third party testing using OK-110 media gradation or equivalent and 300 mg/L influent concentration. Said full scale testing shall have included sediment capture based on actual total mass collected by the stormwater treatment unit.

The Barracuda Max unit shall be designed to remove at least 50% of TSS using a media mix with d_{50} =75 micron and 200 mg/L influent concentration.

The Barracuda Max unit shall be designed to remove at least 50% of TSS per current NJDEP/NJCAT

• The stormwater treatment unit internals shall consist of (1) separator cone assembly, and (1) sump assembly, which includes the "teeth".

Barracuda Max Model	Manhole Diameter	NJDEP (50% removal)	OK-110 (80% removal)
S3	36" (900 mm)	0.85 CFS (24.1 L/s)	0.86 CFS (24.1 L/s)
S4	48" (1200 mm)	1.52 CFS (43.0 L/s)	1.52 CFS (43.0 L/s)
S6	72" (1800 mm)	3.40 CFS (96.3 L/s)	3.42 CFS (96.8 L/s)
S8	96" (2400 mm)	6.08 CFS (172.2 L/s)	6.08 CFS (172.2 L/s)

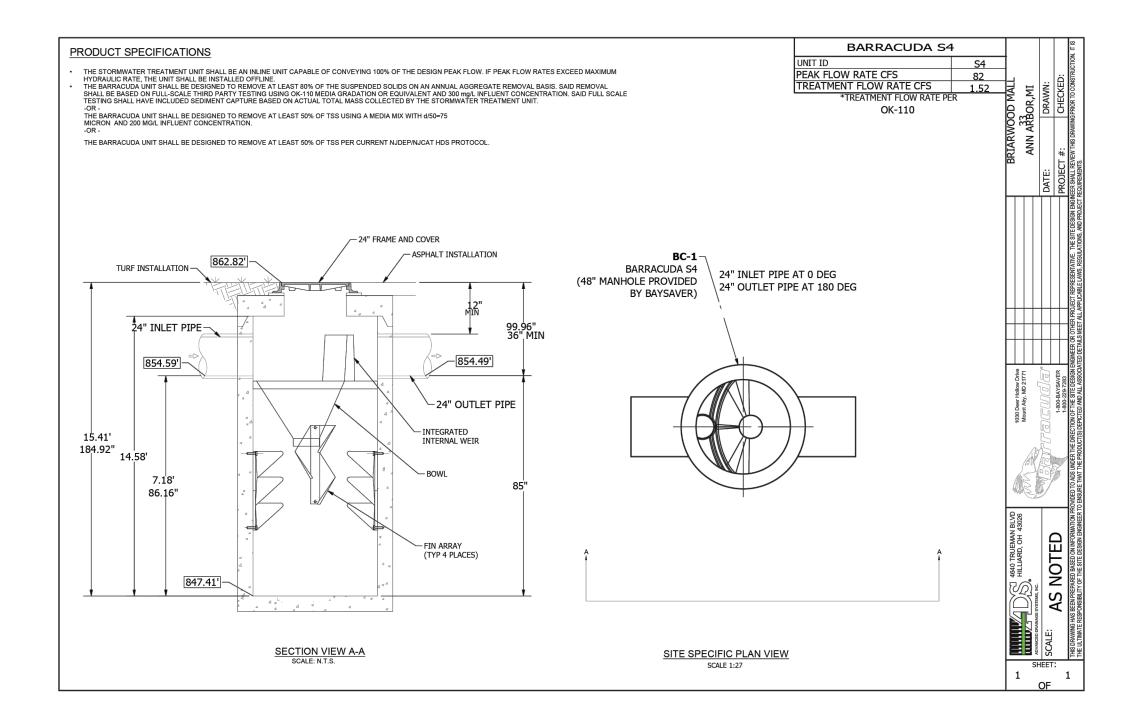
* Peak bypass flows are dependent on final design

Installation

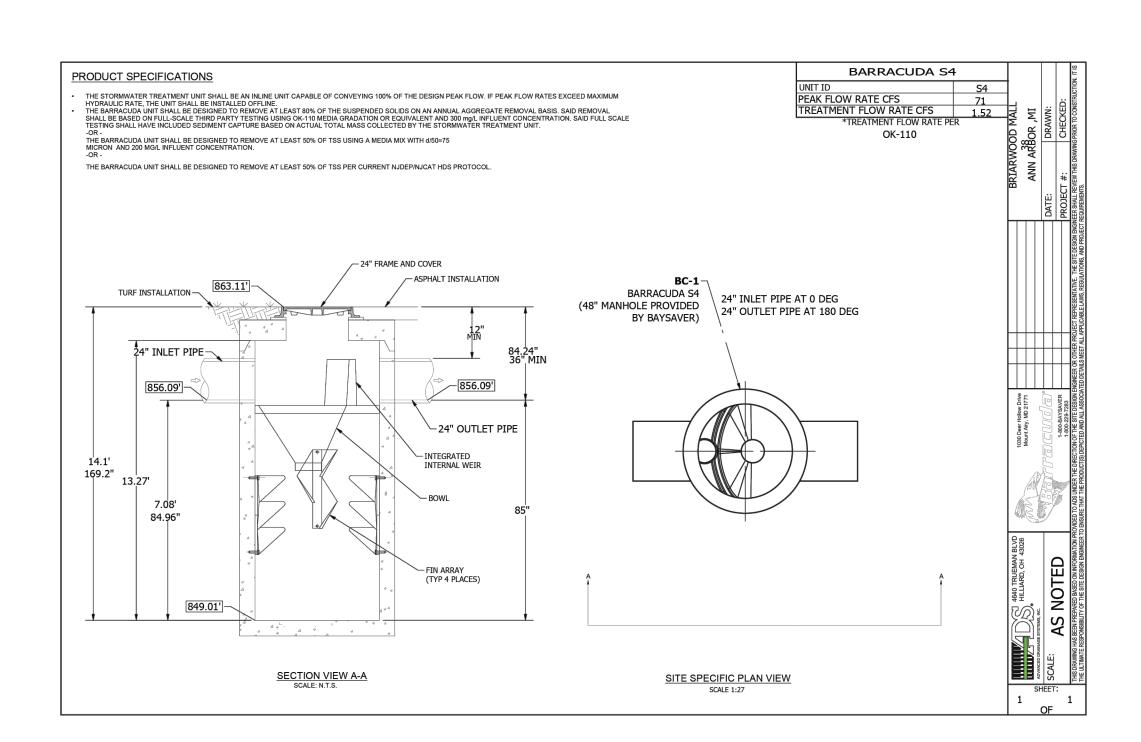
Installation of the stormwater treatment unit(s) shall be performed per manufacturer's installation instructions. Such instructions can be obtained by calling Advanced Drainage Systems at 800-821-6710 or by logging on to www.adspipe.com.

Barracuda logo, and the Green Stripe are registered trademarks of Advanced Drainage Systems, Inc.

adspipe.com 800-821-6710



MF 33



MF 38

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HRC JOB No.

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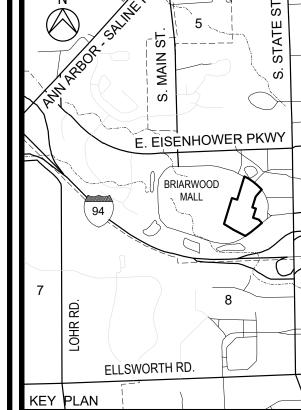
PHONE: (248) 454-6300 FAX (1st. Floor): (248) 454-6312 FAX (2nd. Floor): (248) 454-6359

WEB SITE: www.hrcengr.com

05-27-2025 SITE PLAN RESUBMITTAL 04-16-2025 SITE PLAN RESUBMITTAL 03-12-2025 SITE PLAN RESUBMITTAL 07-10-2024 SITE PLAN RESUBMITTAL 04-18-2024 SITE PLAN SUBMITTAL

ADDITIONS AND/OR REVISIONS DESIGNED D.H. D.H. - R.C.H. DRAWN CHECKED A.P.M.

APPROVED A.P.M.



BRIARWOOD MALL

SEARS REDEVELOPMENT

100 Briarwood Circle

MICHIGAN

Ann Arbor, Mi 48108 WASHTENAW COUNTY

STORM WATER

MECHANICAL FILTER **DETAILS**

> DRAWING No. CA-25B SHEET No. 20220788

ORIGINAL PLOT SIZE: ARCH FULL BLEED D (36.00 X 24.00 INCHES)

Barracuda Storage Capacities

Model	Manhole Diameter in. (mm)	Total System Volume Gallons (Liters)	Treatment Chamber Capacity Gallons (Liters)	Standard Sediment Capacity (20" depth) Yards³ (meters³)	NJDEP Sediment Capacity (50% of standard depth) Yards³ (meters³)
S3	36 (900)	264 (999)	212 (803)	0.44 (0.34)	0.22 (0.17)
S4	48 (1200)	665 (2517)	564 (2135)	0.78 (0.60)	0.39 (0.30)
S6	72 (1800)	1497 (5667)	1269 (4804)	1.75 (1.34)	0.88 (0.67)
S8	96 (2400)	4196 (15884)	3835 (14517)	3.10 (2.37)	1.55 (1.19)

Maintenance Instructions

- 1. Remove the manhole cover to provide access to the pollutant storage. Pollutants are stored in the sump, below the bowl assembly visible from the surface. Access this area through the 8" (200 mm), 10" (250 mm), 15" (375 mm) or 20" (500 mm) diameter access cylinder.
- 2. Use a vacuum truck or other similar equipment to remove all water, debris, oils and sediment. See figure 1.
- 3. Use a high pressure hose to clean the manhole of all the remaining sediment and debris. Then, use the vacuum truck to remove the water.
- 4. Fill the cleaned manhole with water until the level reaches the invert of the outlet pipe.
- 5. Replace the manhole cover.
- 6. Dispose of the polluted water, oils, sediment and trash at an approved facility.
- a. Local regulations prohibit the discharge of solid material into the sanitary system. Check with the local sewer authority for authority to discharge the liquid.

ACCESS __ CYLINDER

SEDIMENT \

- b. Some localities treat the pollutants as leachate. Check with local regulators about disposal
- c. Additional local regulations may apply to the maintenance procedure.



adspipe.com 1-800-821-6710



PHILIP D. MURPHY SHEILA Y. OLIVER Lt. Governor

State of New Jersey DEPARTMENT OF ENVIRONMENTAL PROTECTION Bureau of NJPDES Stormwater Permitting & Water Quality Management Division of Watershed Protection and Restoration

SHAWN M. LATOURETTE Acting Commissioner

Post Office Box 420 Trenton, New Jersey 08625-0420 609-633-7021 Fax: 609-777-0432

April 28, 2021

Daniel J. Figola, P.E. Director of Sustainability Development Advanced Drainage Systems, Inc. 1030 Deer Hollow Drive Mt. Airy, MD 21771

Re: MTD Lab Certification BarracudaTM MAX Hydrodynamic Separator Stormwater Treatment Device

TSS Removal Rate 50%

Dear Mr. Figola:

The Stormwater Management rules under N.J.A.C. 7:8-5.5(b) and 5.7(c) allow the use of manufactured treatment devices (MTDs) for compliance with the design and performance standards at N.J.A.C. 7:8-5 if the pollutant removal rates have been verified by the New Jersey Corporation for Advanced Technology (NJCAT) and have been certified by the New Jersey Department of Environmental Protection (NJDEP). Advanced Drainage Systems, Inc. (ADS) has requested an MTD Laboratory Certification for the BarracudaTM MAX Hydrodynamic Separator stormwater treatment system (BarracudaTM MAX).

The project falls under the "Procedure for Obtaining Verification of a Stormwater Manufactured Treatment Device from New Jersey Corporation for Advance Technology" dated January 25, 2013. The applicable protocol is the "New Jersey Laboratory Testing Protocol to Assess Total Suspended Solids Removal by a Hydrodynamic Sedimentation Manufactured Treatment Device" dated January 25, 2013.

NJCAT verification documents submitted to the NJDEP indicate that the requirements of the aforementioned protocol have been met or exceeded. The NJCAT letter also included a recommended certification TSS removal rate and the required maintenance plan. The NJCAT Verification Report with the Verification Appendix (dated April 2021) for this device is published online at http://www.njcat.org/verification-process/technology-verification-database.html.

> New Jersey is an Equal Opportunity Employer Printed on Recycled Paper and Recyclable ADDITIONAL INFORMATION ABOUT NJDEP CERTIFICATION CAN BE FOUND AT https://dep.nj.gov/stormwater/stormwater-manufactured-treatment-devices/



Project Name:Briarwood Mall 57 Location: Ann Arbor, MI

Site Designation: Briarwood Mall 57

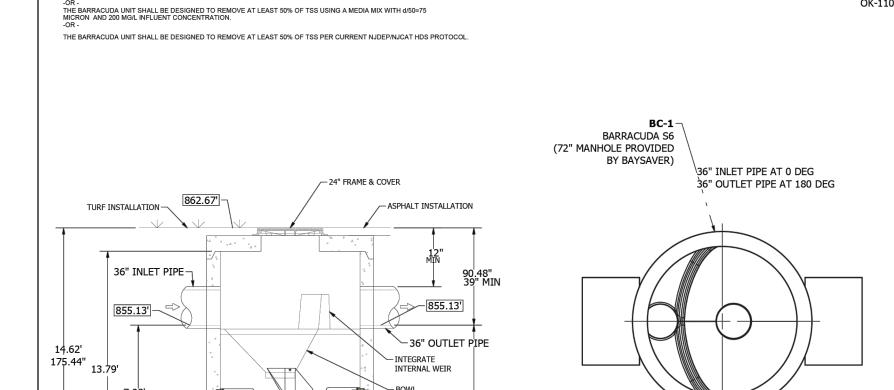
(Manual Entry)

Peak Treatment Rate: 3.42 cfs

Date: 2/23/24

Barracuda Size: S6

Peak treatment rate: 3.42 cfs Unit Bypass Flow:170



THE STORMWATER TREATMENT UNIT SHALL BE AN INLINE UNIT CAPABLE OF CONVEYING 100% OF THE DESIGN PEAK FLOW. IF PEAK FLOW RATES EXCEED MAXIMUM HYDRAULIG RATE, THE UNIT SHALL BE INSTALLED OFFLINE.
THE BARRACUDA UNIT SHALL BE DESIGNED TO REMOVE AT LEAST 80% OF THE SUSPENDED SOLIDS ON AN ANNUAL AGGREGATE REMOVAL BASIS. SAID REMOVAL SHALL BE BASED ON FULL-SCALE THIRD PARTY TESTING USING OK-110 MEDIA GRADATION OR EQUIVALENT AND 300 mg/L INFLUENT CONCENTRATION. SAID FULL SCALE TESTING SHALL HAVE INCLUDED SEDIMENT CAPTURE BASED ON ACTUAL TOTAL MASS COLLECTED BY THE STORMWATER TREATMENT UNIT.

SECTION VIEW A-A SCALE: N.T.S.

MF 57

ALL WORK SHALL CONFORM TO CITY OF ANN ARBOR STANDARDS AND SPECIFICATIONS

ALL EXISTING UTILITIES SHOWN ON THIS TOPOGRAPHIC SURVEY HAVE BEEN TAKEN FROM VISUAL OBSERVATION AND RECORD MAPPING WHERE AVAILABLE. NO GUARANTEE IS MADE, OR SHOULD BE ASSUMED, AS TO THE COMPLETENESS OR ACCURACY OF THE UTILITIES SHOWN ON THIS DRAWING. PARTIES UTILIZING THIS INFORMATION SHALL FIELD VERIFY THE ACCURACY AND COMPLETENESS PRIOR TO CONSTRUCTION.

Know what's below. Call before you dig. CALL811.COM

PEAK FLOW RATE CFS

SCALE 1:27

TREATMENT FLOW RATE CFS

TREATMENT FLOW RATE PER

CALL MISS DIG 72 HOURS (3 WORKING DAYS) BEFORE YOU DIG 1-800-482-7171 or **811** (TOLL FREE)

HRC JOB No. SHEET No. 20220788 © 2023 Hubbell, Roth & Clark, Inc. All Rights Reserved

CA-25C

DRAWING No.

MICHIGAN

ORIGINAL PLOT SIZE: ARCH FULL BLEED D (36.00 X 24.00 INCHES)

225 W. Washington Street Indianapolis, IN 46204 (317) 636-1600 **HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915 555 HULET DRIVE** BLOOMFIELD HILLS, MICH. 48303 - 0824 FAX (1st. Floor): (248) 454-6312 FAX (2nd. Floor): (248) 454-6359 WEB SITE: www.hrcengr.com

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E. EISENHOWER PKWY

BRIARWOOD

ELLSWORTH RD.

BRIARWOOD MALL

SEARS

REDEVELOPMENT

100 Briarwood Circle

Ann Arbor, Mi 48108

STORM WATER

MECHANICAL FILTER

DETAILS

WASHTENAW COUNTY

1. RESPONSIBILITY FOR MAINTENANCE

a. DURING CONSTRUCTION, IT IS THE DEVELOPER'S RESPONSIBILITY TO PERFORM

THE MAINTENANCE

b. FOLLOWING CONSTRUCTION, IT WILL BE THE RESPONSIBILITY OF SIMON PROPERTY GROUP TO PERFORM THE MAINTENANCE

c. THE MASTER DEED WILL THAT THE ROUTINE MAINTENANCE OF THE STORM WATER FACILITIES MUST BE COMPLETED WITH 60 DAYS OF RECEIPT OF WRITTEN NOTIFICATION THAT ACTION IS REQUIRED, UNLESS OTHER WASHTENAW COUNTY WATER RESOURCE COMMISSIONER, OR SUCCESSORS, EMERGENCY MAINTENANCE (IE. WHEN THERE IS A DANGER TO PUBLIC HEALTH, SAFETY, OR WELFARE) SHALL BE PERFORMED IMMEDIATELY UPON RECEIPT OF WRITTEN NOTICE. SHOULD SIMON PROPERTY GROUP FAIL TO ACT WITHIN THESE TIME FRAMES, THE CITY OF ANN ARBOR, WASHTENAW COUNTY WATER RESOURCE COMMISSIONER, OR SUCCESSORS MAY PERFORM THE NEEDED

MAINTENANCE AND ASSESS THE COSTS AGAINST SIMON PROPERTY GROUP.

2. SOURCE OF FINANCING SIMON PROPERTY GROUP IS REQUIRED TO PAY FOR ALL MAINTENANCE ACTIVITIES ON A CONTINUING BASIS.

3. MAINTENANCE TASKS AND SCHEDULE

a. SEE THE CHARTS ON THIS SHEET: THE FIRST DESCRIBES THE MAINTENANCE TASKS DURING CONSTRUCTION TO BE PERFORMED BY THE DEVELOPER, THE SECOND DESCRIBES MAINTENANCE TASKS BY SIMON PROPERTY GROUP.

b. IMMEDIATELY FOLLOWING CONSTRUCTION, THE DEVELOPER WILL HAVE THE STORM WATER MANAGEMENT SYSTEM INSPECTED BY AN ENGINEER TO VERIFY GRADES OF THE DETENTION AND FILTRATION AREAS AND MAKE RECOMMENDATIONS FOR ANY NECESSARY SEDIMENT.

REFER TO THE "LOW IMPACT DEVELOPMENT MANUAL FOR MICHIGAN" FOR MAINTENANCE TASK CHECKLISTS FOR PERMANENT BMPS AND CREATE A TABLE OF APPLICABLE MAINTENANCE TASKS AND SCHEDULES FOR THE PROJECT

THE BMP MAINTENANCE CHECKLISTS IN THE LID MANUAL INCLUDE:

DETENTION (PONDS, BASINS, WETLANDS)

BIOSWALES, VEGETATED FILTER STRIPS

 INFILTRATION (BASINS, TRENCHES) BIORETENTION

Barracuda[®] Max & Barracuda

Maintenance Guide

One of Barracuda's advantages is the ease of maintenance. Like any system that collects pollutants, the Barracuda must be maintained for continued effectiveness. Maintenance is a simple procedure performed using a vacuum truck or similar equipment. The systems were designed to minimize the volume of water removed during routine maintenance, reducing disposal costs.

Contractors can access the pollutants stored in the manhole through the manhole cover. This allows them to gain vacuum hose access to the bottom of the manhole to remove sediment and trash. There is no confined space entry necessary for inspection or maintenance.

The entire maintenance procedure typically takes 2 to 4 hours, depending on the system's size, the captured material, and the vacuum truck's capacity.

Local regulations may apply to the maintenance procedure. Safe and legal disposal of pollutants is the responsibility of the maintenance contractor. Maintenance should be performed only by a qualified

Inspection and Cleaning Cycle

Periodic inspection is needed to determine the need for and frequency of maintenance. You should begin inspecting as soon as construction is complete and then on an annual basis. Typically, the system needs to be cleaned every 1-3 years.

Excessive oils, fuels or sediments may reduce the maintenance cycle. Periodic inspection is important.

Determining When to Clean

To determine the sediment depth, the maintenance contractor should lower a stadia rod into the manhole until it contacts the top of the captured sediment and mark that spot on the rod. Then push the probe through to the bottom of the sump and mark that spot to determine sediment depth.

Maintenance should occur when the sediment has reached the levels indicated in the Storage Capacity Chart.

Barracuda Storage Capacities

Model	Manhole Diameter in. (mm)	Total System Volume Gallons (Liters)	Treatment Chamber Capacity Gallons (Liters)	Standard Sediment Capacity (20" depth) Yards³ (meters³)	(ch) Capacity (50% of standard donth)	
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ACCESS _ CYLINDER

SEDIMENT ~

b. Some localities treat the pollutants as leachate. Check with local regulators about disposal requirements.

c. Additional local regulations may apply to the maintenance procedure.

The ADS logo, Barracuda® and the Green Stripe are registered trademarks of Advanced Drainage Systems, Inc. © 2022 Advanced Drainage Systems, Inc. MG1.01 08/22 CS

ALL WORK SHALL CONFORM TO

CITY OF ANN ARBOR STANDARDS

AND SPECIFICATIONS

adspipe.com 1-800-821-6710

VAC TRUCK

DURING THE FIRST YEAR OF USE TO ESTABLISH AN APPROPRIATE MAINTENANCE SCHEDULE.

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(TOLL FREE)

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DRAWING No.

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adspipe.com 1-800-821-6710

MANUFACTURER RECOMMENDS QUARTERLY INSPECTION

CA-25D HRC JOB No. SHEET No. 20220788

SIMON®

225 W. Washington Street

Indianapolis, IN 46204 (317) 636-1600

HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915

P.O. BOX 824

48303 - 0824

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D.H. - R.C.H.

CHECKED A.P.M.

APPROVED A.P.M.

ADDITIONS AND/OR REVISIONS

E. EISENHOWER PKWY

BRIARWOOD

ELLSWORTH RD.

BRIARWOOD MALL

SEARS

REDEVELOPMENT

100 Briarwood Circle

Ann Arbor, Mi 48108

STORM WATER MANAGEMENT SYSTEM MAINTENANCE PLAN

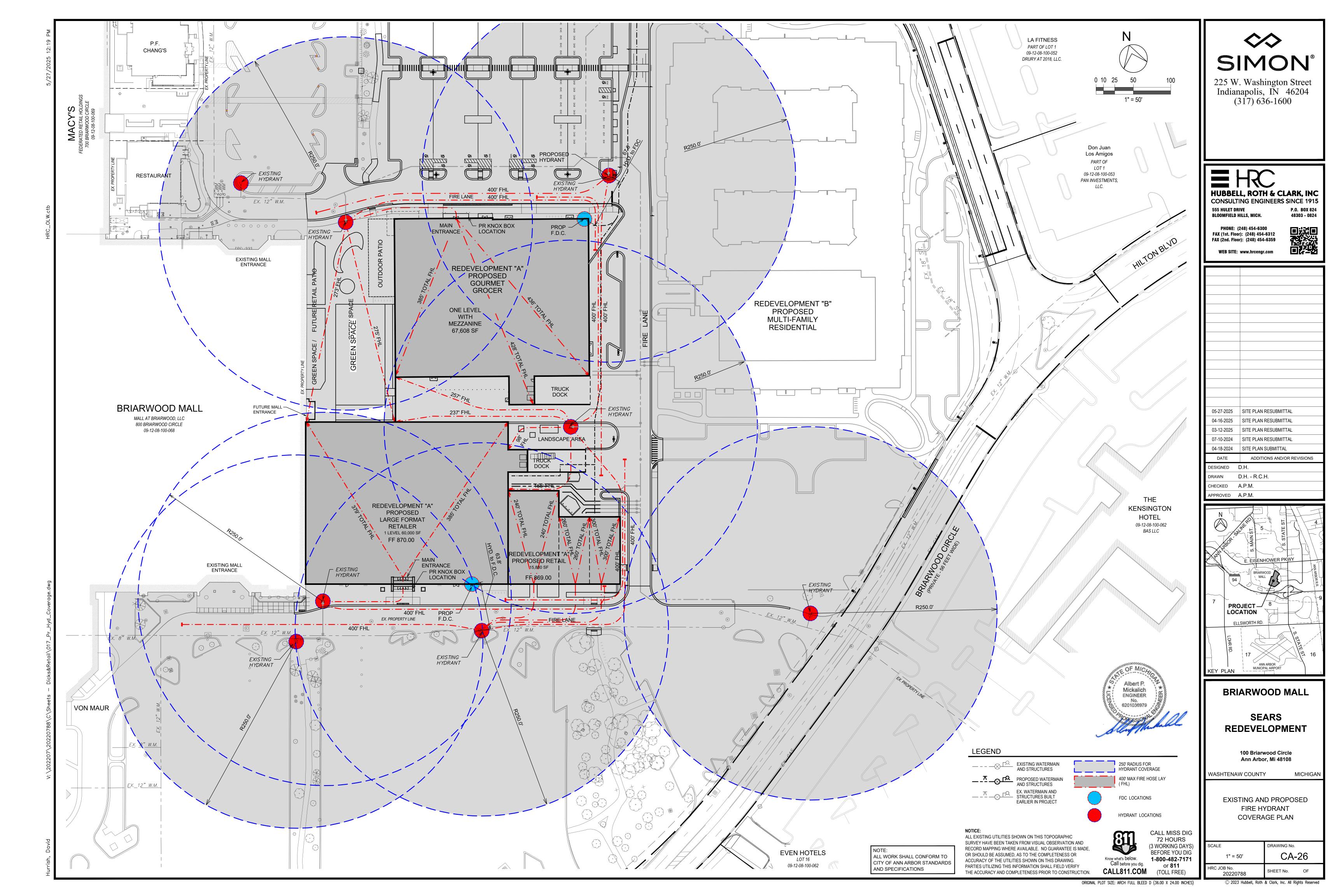
MICHIGAN

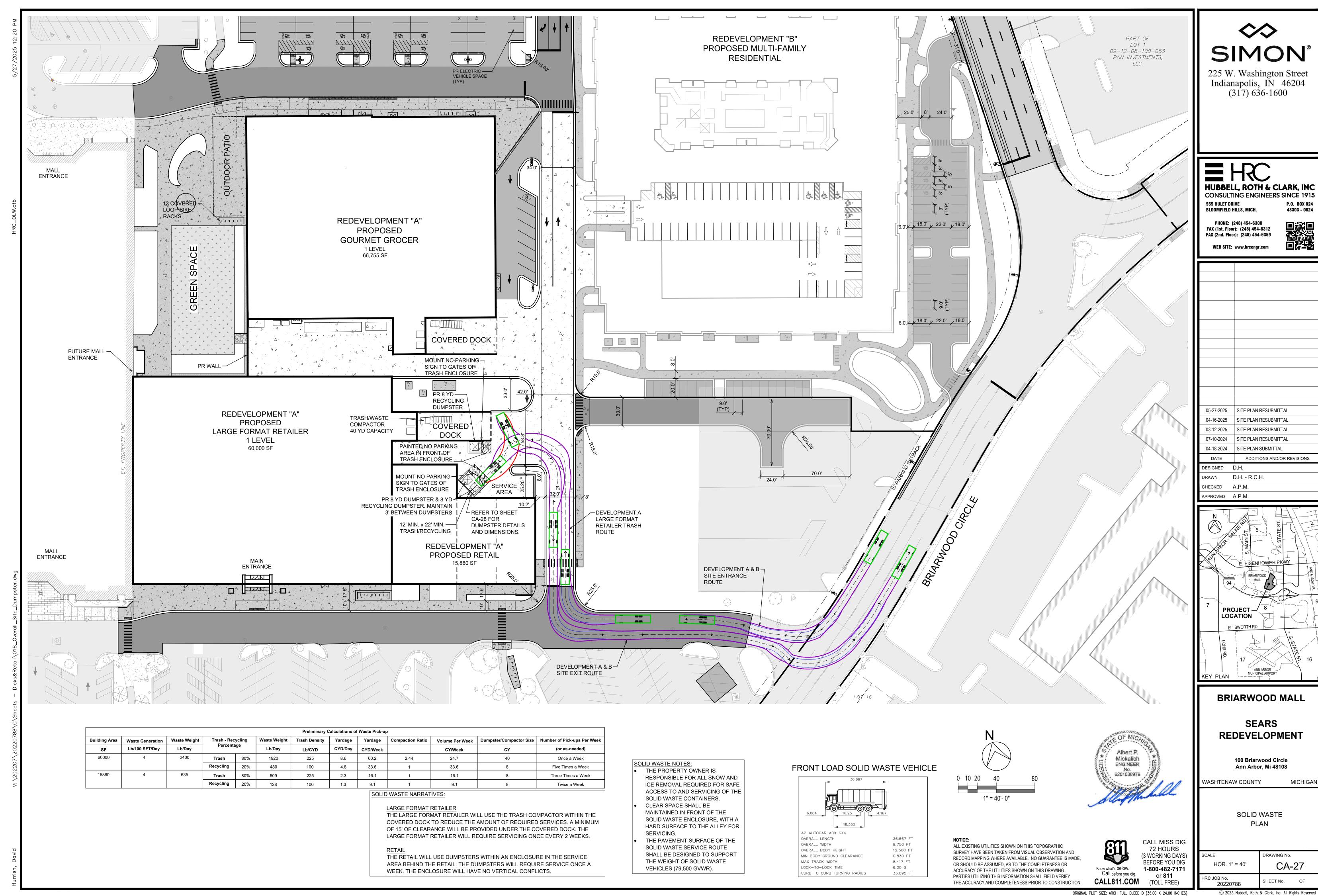
WASHTENAW COUNTY

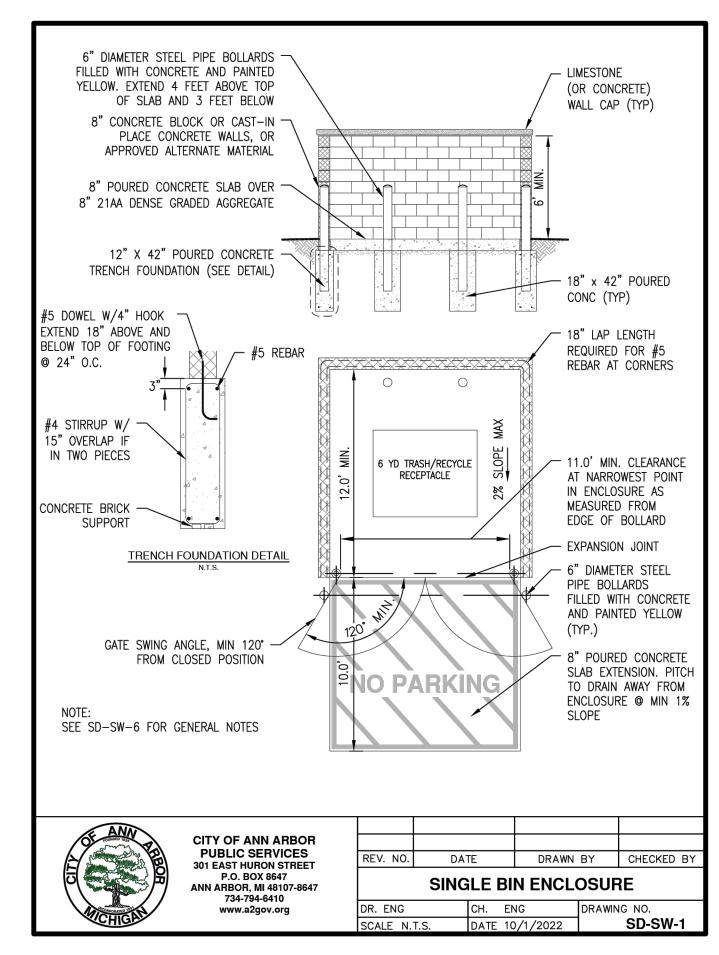
KEY PLAN

04-18-2024 SITE PLAN SUBMITTAL

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MINIMUM OF 15'-0" VERTICAL CLEARANCE IS REQUIRED

ALONG ENTIRE SOLID WASTE

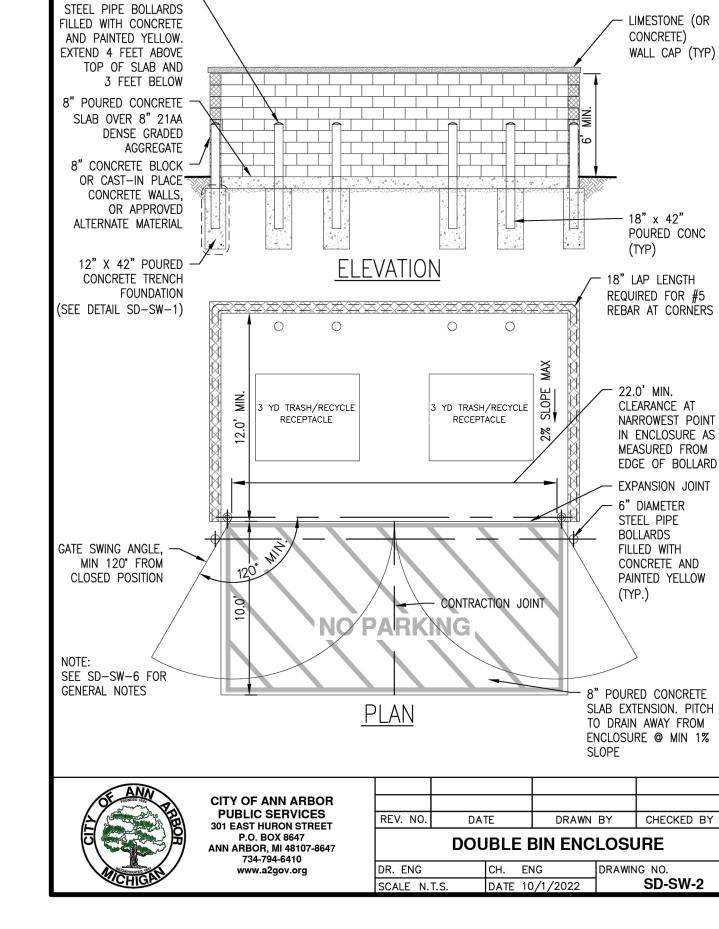
COLLECTION ROUTE.

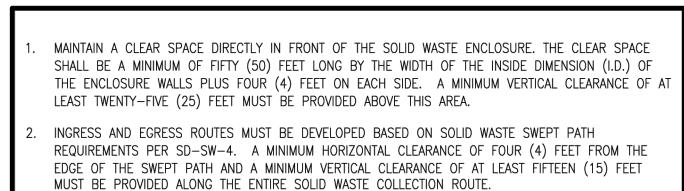
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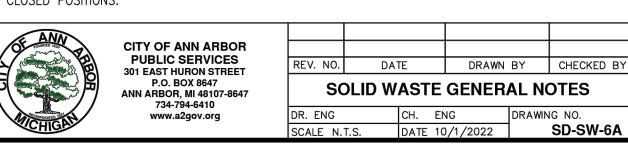
DATE 10/1/2022 SD-SW-5

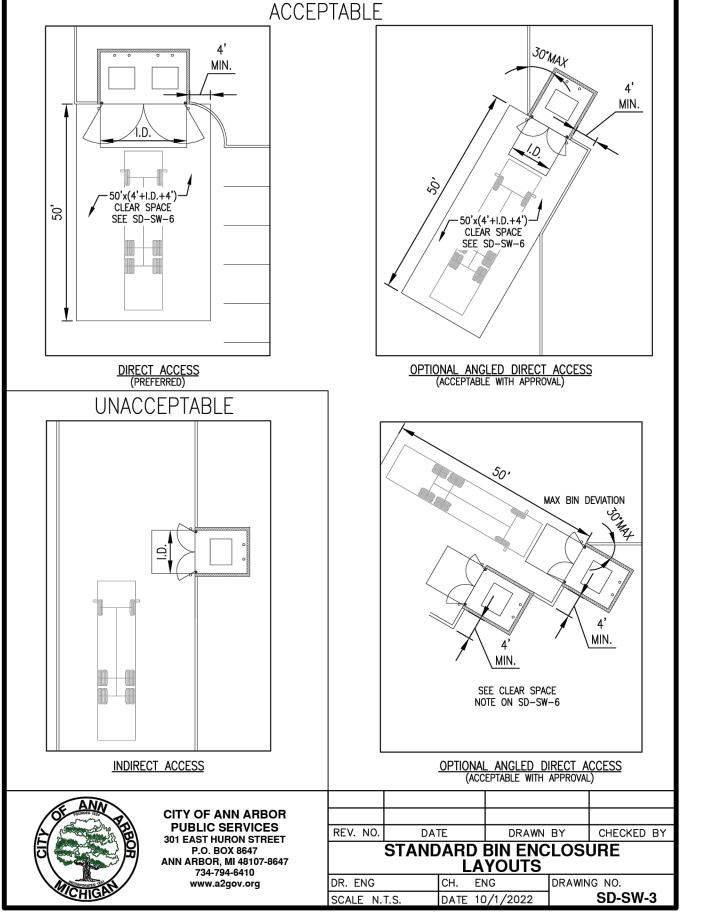
SOLID WASTE VEHICLE TURN-AROUND

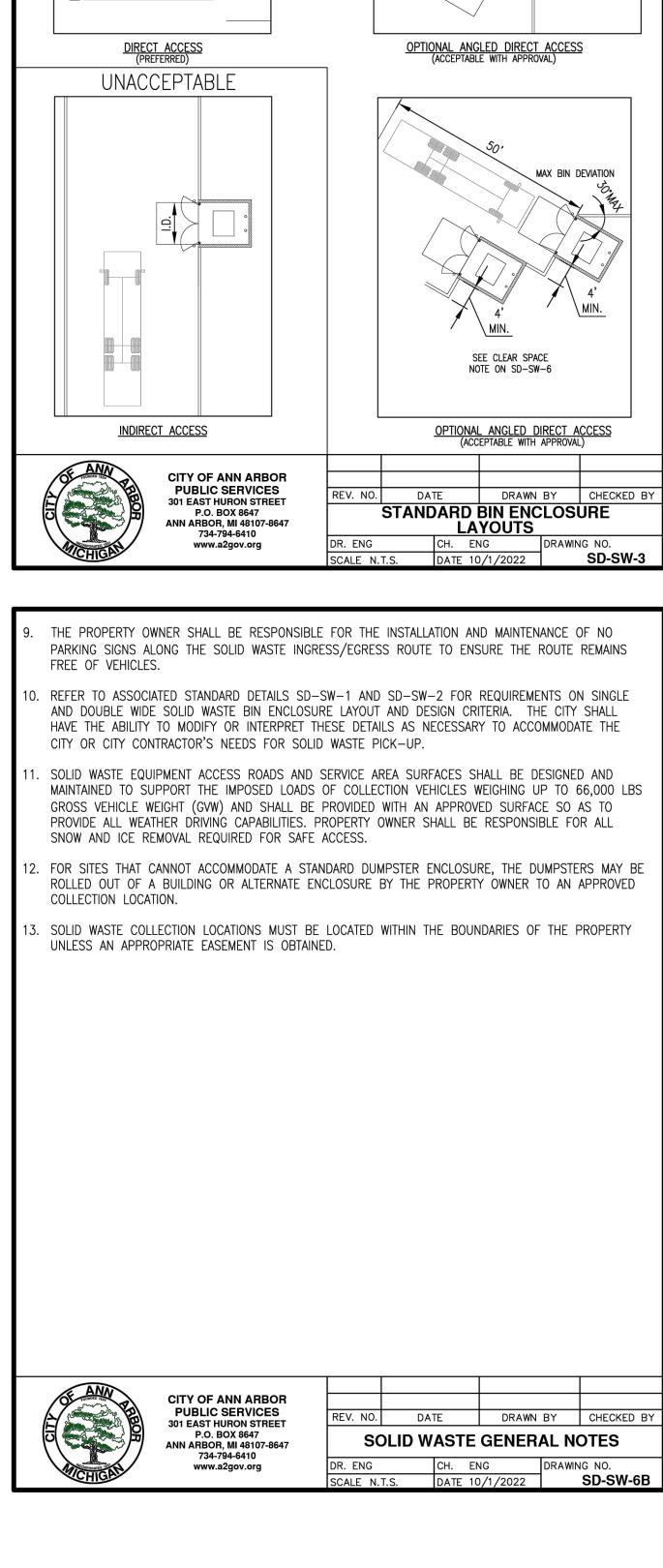


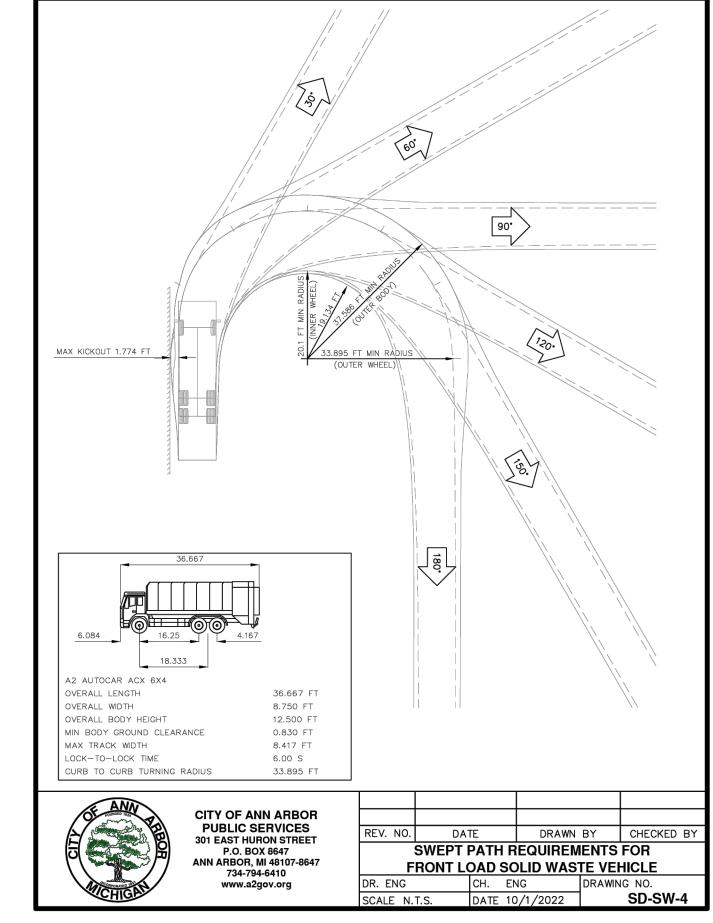


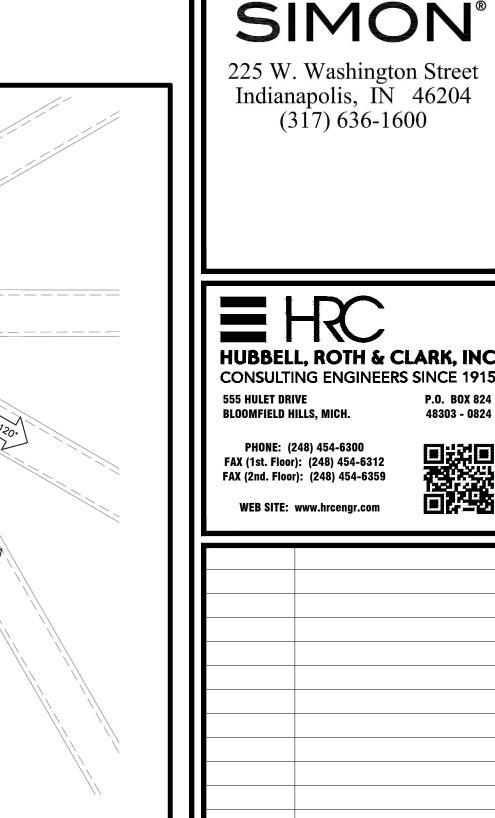
- PROVIDE TEN (10) FEET MINIMUM HORIZONTAL CLEARANCE FROM SOLID WASTE ENCLOSURE TO MAJOR ELECTRICAL EQUIPMENT, ABOVE GROUND UTILITY SERVICES, AND EDGE OF OVERHEAD OBSTRUCTIONS SUCH AS TREE BRANCHES, BALCONIES, AND OVERHANGS.
- IF FORWARD ACCESS TO THE PUBLIC STREET IS NOT AVAILABLE FOR THE SOLID WASTE 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
- 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
- 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.
- 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.
- 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.
- GATE DESIGN SHALL INCLUDE A RELIABLE MEANS TO SECURE THE DOOR IN BOTH THE OPEN AND CLOSED POSITIONS.

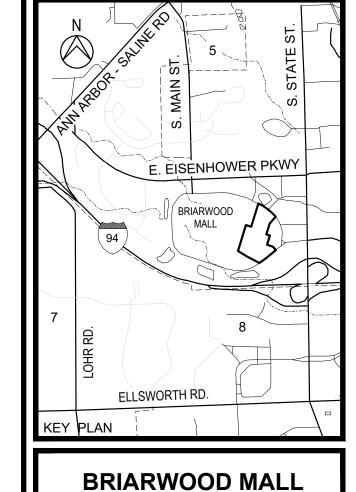












05-27-2025 SITE PLAN RESUBMITTAL

04-16-2025 | SITE PLAN RESUBMITTAL

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07-10-2024 SITE PLAN RESUBMITTAL 04-18-2024 | SITE PLAN SUBMITTAL

D.H. - R.C.H.

DESIGNED D.H.

CHECKED A.P.M.

APPROVED A.P.M.

DRAWN

ADDITIONS AND/OR REVISIONS

(317) 636-1600

48303 - 0824



100 Briarwood Circle Ann Arbor, Mi 48108

MICHIGAN

WASHTENAW COUNTY

ANN ARBOR SOLID WASTE

STANDARD DETAILS

SCALE DRAWING No. CA-28 HRC JOB No. SHEET No.

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Albert P.

Mickalich

ENGINEER

6201036979







CITY OF ANN ARBOR

PUBLIC SERVICES

301 EAST HURON STREET

ANN ARBOR. MI 48107-8647

P.O. BOX 8647

734-794-6410

www.a2gov.org

ORIGINAL PLOT SIZE: ARCH FULL BLEED D (36.00 X 24.00 INCHES)

CITY OF ANN ARBOR STANDARDS AND SPECIFICATIONS

ALL WORK SHALL CONFORM TO



HUBBELL, ROTH & CLARK, INC CONSULTING ENGINEERS SINCE 1915 555 HULET DRIVE Bloomfield Hills, Mich. P.O. BOX 824 48303 - 0824

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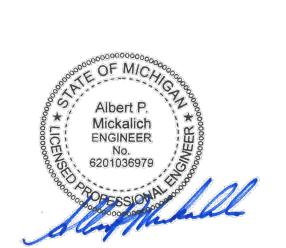
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CHECKED A.P.M. APPROVED A.P.M.

DATE ADDITIONS AND/OR REVISIONS

WEB SITE: www.hrcengr.com

PRELIMINARY SITE LAYOUT					
DESCRIPTION	QUANTITY	UNIT	COST		TOTAL
SCHEDULE I - EXCAVATION AND GRADIN	G IMPROVEME	NTS			
MOBILIZATION	LS	1	\$ 50,000.00	\$	50,000.00
EARTHWORK	LS	1	\$ 25,000.00	\$	25,000.00
SUBTOTAL SCHEDULE I - EXCAVA	ATION AND GR	ADING IN	IPROVEMENTS		\$75,000.00
SCHEDULE II - UTILITY IMPROVEMENTS					
SANITARY SEWER LEAD, PVC SCH 40, 6"	LFT	119	\$ 35.00	\$	4,165.00
STORM SEWER LEAD, PVC SCH 40, 8"	LFT	70	\$ 30.00	\$	2,100.00
STORM SEWER, C-76 CL.IV, 12"	LFT	98	\$ 50.00	\$	4,900.00
CATCH BASIN, 4' DIA W/ 2' SUMP	EA	1	\$ 2,000.00	\$	2,000.00
STM MANHOLE, 4' DIA	EA	1	\$ 2,000.00	\$	2,000.00
WATER LEAD, TYPE K COPPER, 2"	LFT	255	\$ 35.00	\$	8,925.00
WATER LEAD, DI CL54, 6"	LFT	209	\$ 70.00	\$	14,630.00
SUBTOTAL S	CHEDULE II - U	TILITY IN	IPROVEMENTS		\$38,720.00
SCHEDULE III - ON-SITE IMPROVEMENTS					
21AA AGGREGATE	TONS	516	\$ 20.00	\$	10,320.00
CONCRETE SIDEWALK, 4 IN, INCL BASE	SFT	942	\$ 2.00	\$	1,884.00
CONCRETE SIDEWALK, 6 IN, INCL BASE	SFT	102	\$ 3.00	\$	306.00
CONC BIKE RACK PAD, 6 IN, INCL BASE	SFT	73	\$ 3.00	\$	219.00
6" CONCRETE CURB	LFT	144	\$ 30.00	\$	4,320.00
LOOP BIKE RACK	EA	1	\$ 500.00	\$	500.00
BIKE SHELTER	EA	1	\$ 2,000.00	\$	2,000.00
DUMPSTER ENCLOSURE	EA	1	\$ 3,000.00	\$	3,000.00
LANDSCAPING	LS	1	\$ 30,000.00	\$	30,000.00
PAVEMENT MARKINGS	LS	1	\$ 8,000.00	\$	8,000.00
SUBTOTAL SC	HEDULE III - O	N-SITE IN	PROVEMENTS		\$60,549.00





PROJECT — LOCATION

SEARS REDEVELOPMENT

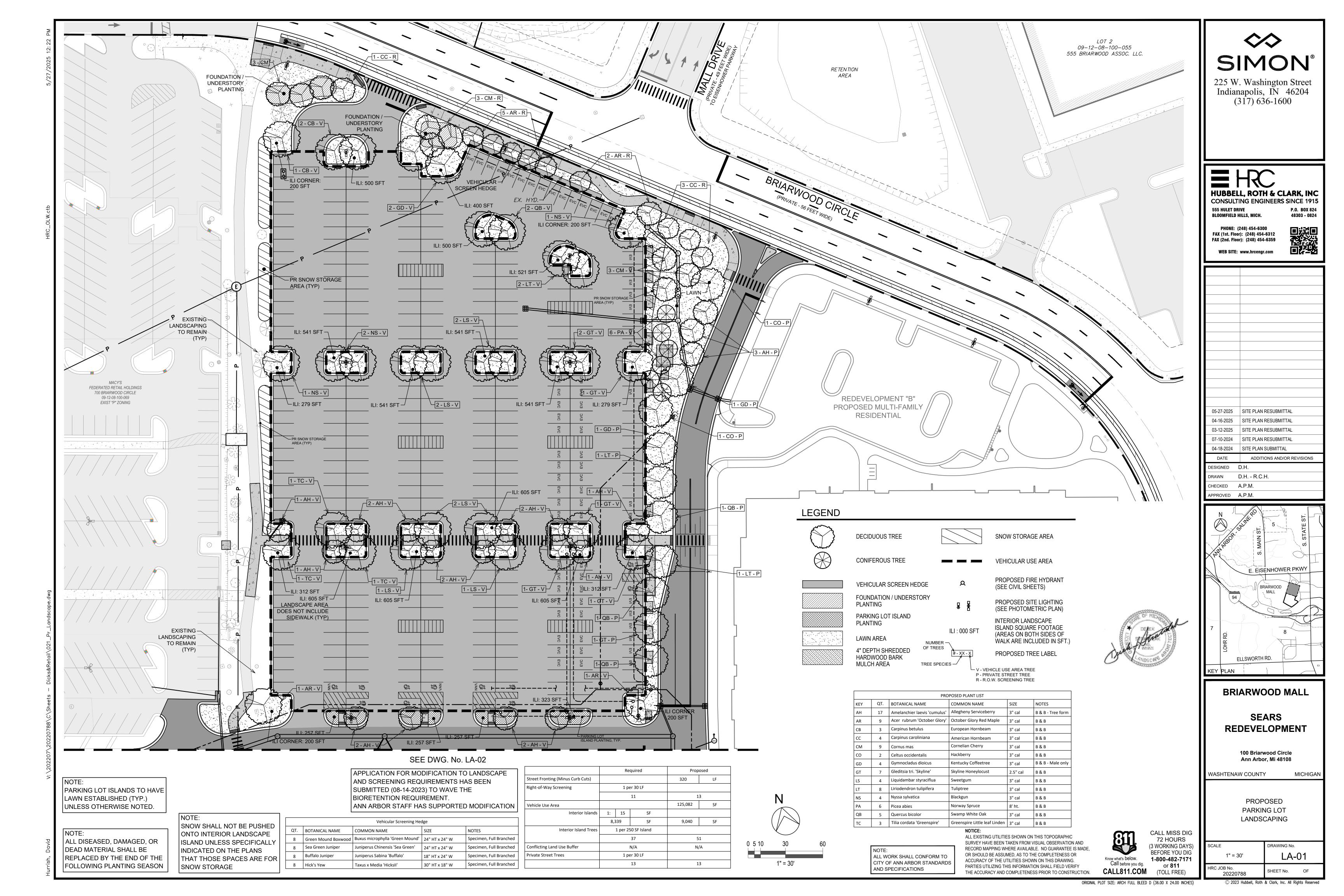
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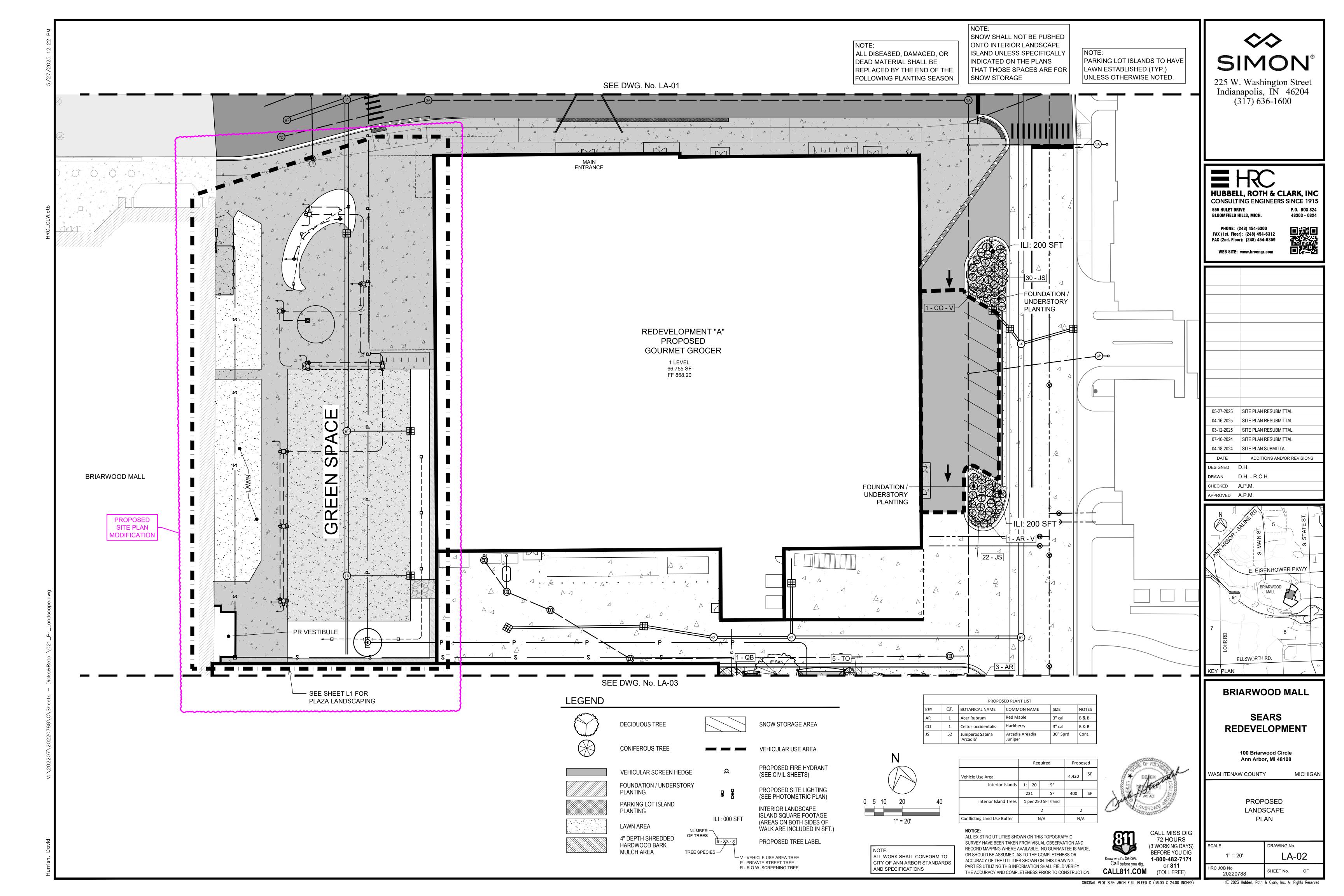
WASHTENAW COUNTY

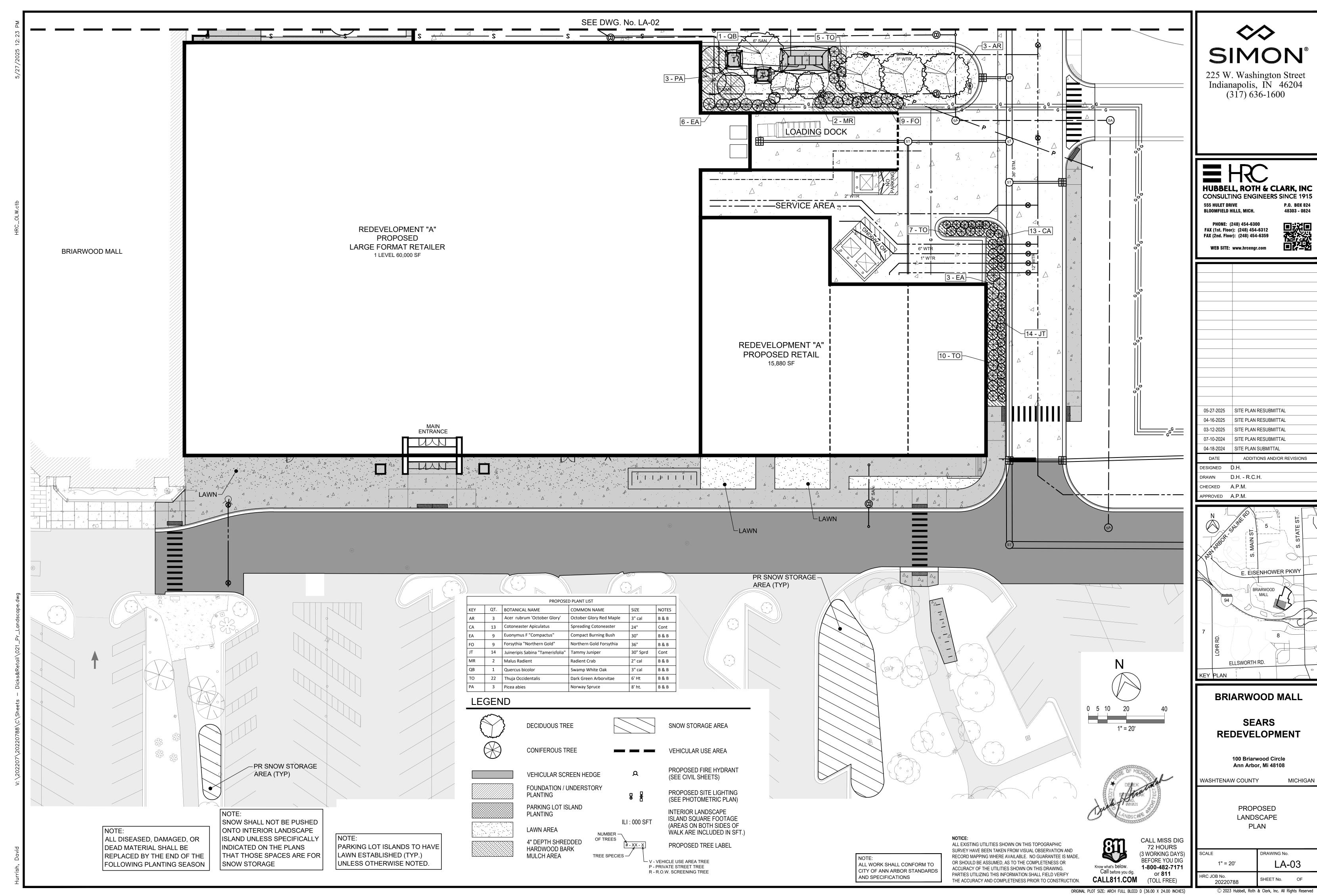
ESTIMATED COSTS

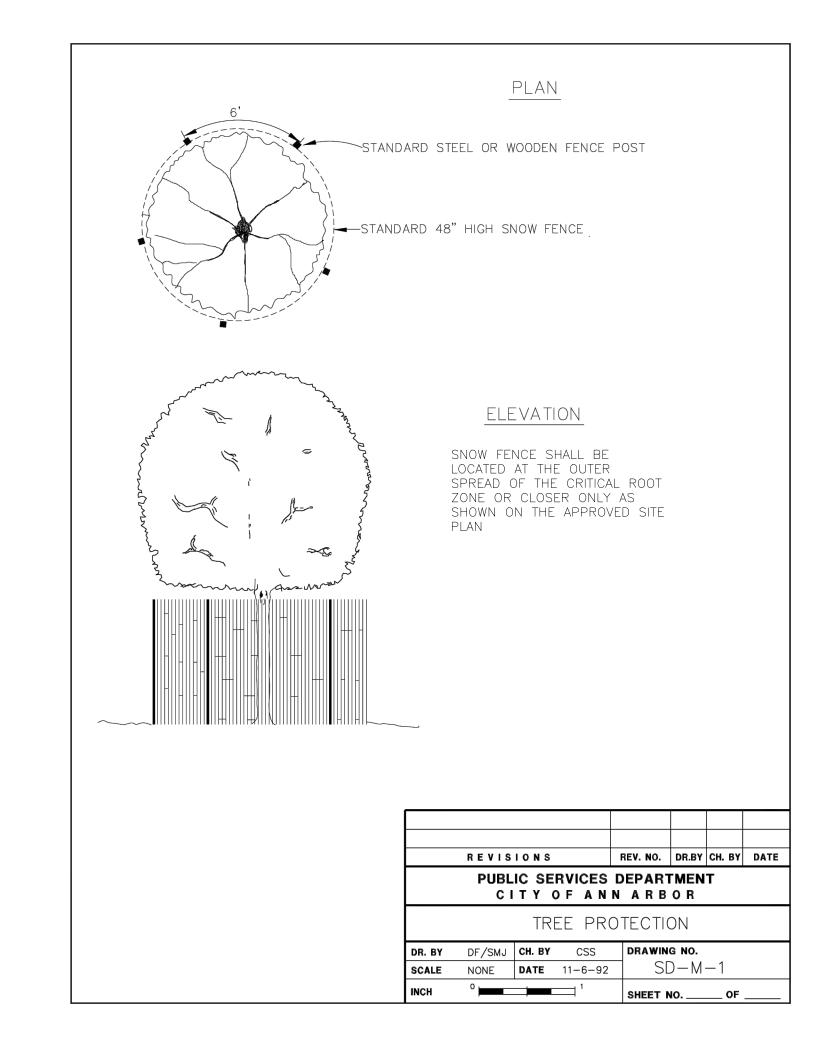
MICHIGAN

DRAWING No. NO SCALE CA-29 HRC JOB No. 20220788 SHEET No. OF





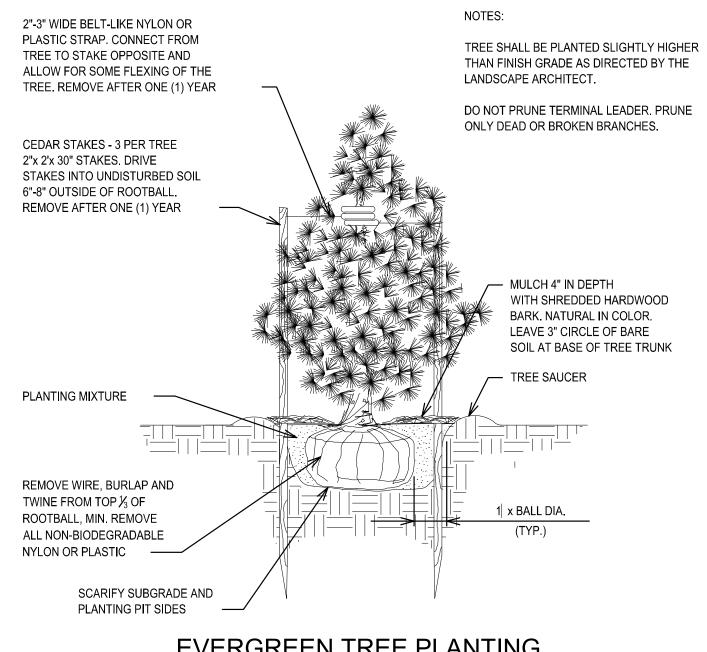




LANDSCAPE NOTES:

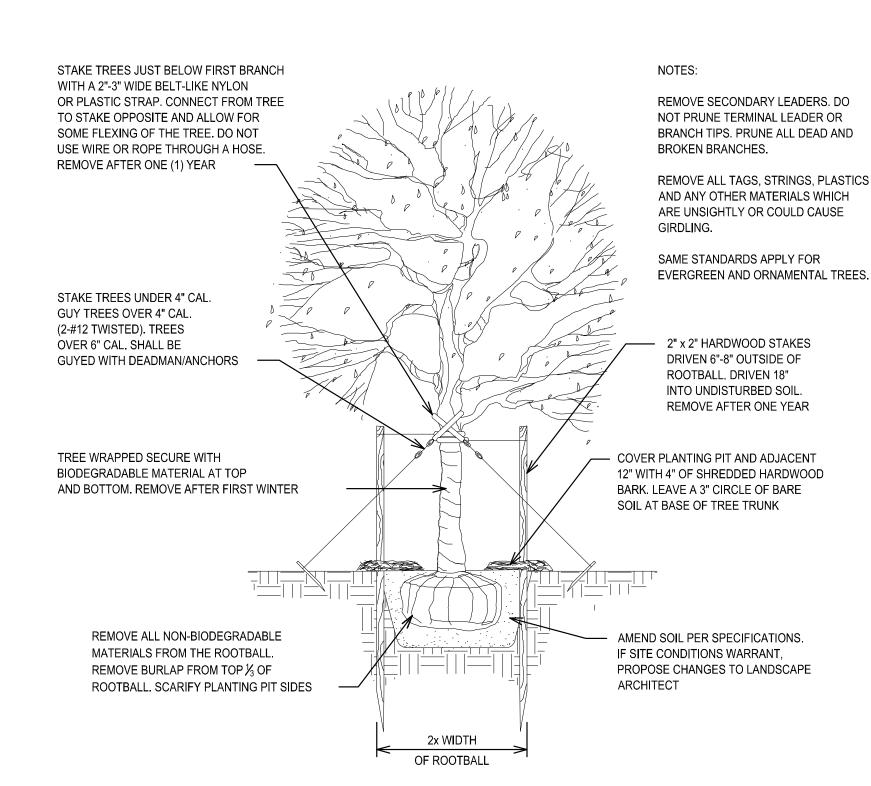
- 1. VERIFY ALL CONDITIONS ON SITE PRIOR TO COMMENCING CONSTRUCTION AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER OR OWNER.
- 2. VERIFY THE LOCATION OF ALL UNDERGROUND AND OVERHEAD UTILITIES AND SERVICES PRIOR TO COMMENCING WORK, CONTRACTOR IS RESPONSIBLE FOR ANY COST INCURRED DUE TO DAMAGED UTILITIES.
- 3. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES REFLECTED ON THE PLANT LIST. IF A DISCREPANCY EXISTS BETWEEN THE LIST AND THE PLAN, THE PLAN SHALL BE HELD VALID.
- 4. INSTALLATION AND SIZE OF ALL PLANT MATERIAL SHALL BE IN ACCORDANCE WITH THE STANDARDS SET FORTH BY THE 'AMERICAN NURSERY AND LANDSCAPE ASSOCIATION'.
- 5. THE LANDSCAPE CONTRACTOR SHALL CONTACT THE ENGINEER OR THE OWNER'S REPRESENTATIVE PRIOR TO BEGINNING CONSTRUCTION. DISCREPANCIES BETWEEN THE PLANS AND ACTUAL SITE CONDITIONS SHALL BE RESOLVED AT THIS TIME.
- 6. THE LOCATION OF ALL PLANTS SHALL BE STAKED IN THE FIELD OR SCALED FROM THE DRAWINGS.
- 7. IF ROUGH GRADE IS DONE BY OTHERS, THE CONTRACTOR SHOULD REVIEW THAT GRADE AND ADDRESS ANY PROBLEMS WITH THE OWNER. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL GRADING AND SITE SURFACE DRAINAGE, DRAINAGE TO PAVING, CATCH BASINS ETC. NO LOW SPOTS THAT HOLD STANDING WATER WILL BE ACCEPTED.
- 8. ANY RAISED EARTH BERMS SHOWN ON THE PLANS SHALL BE MADE ENTIRELY OF LIGHT ORGANIC SOILS AND SHALL BLEND SMOOTHLY INTO THE EXISTING TOPOGRAPHY.
- 9. WATER IN ALL PLANT MATERIAL IMMEDIATELY AFTER INSTALLATION.
- 10. ALL PLANTING BEDS SHALL HAVE A PRE-EMERGENT HERBICIDE, 'RONSTAR' (OR APPROVED EQUAL) APPLIED PER MANUFACTURER'S INSTRUCTIONS. SUBMIT LABELS TO THE PROJECT ENGINEER FOR APPROVAL.
- 11. MULCH CIRCLES FOR ALL TREES SHALL COVER THE ENTIRE PLANTING PIT. IF SOIL HAS HEAVY CLAY CONTENT, PLANTING THE TREE 6 INCHES HIGHER IS ACCEPTABLE. ADVISE THE ENGINEER PRIOR TO PLANTING.
- 12. SUBMIT SAMPLES OF MULCH, TOPSOIL, STONE, ETC. AS REQUIRED BY THE PROJECT ENGINEER.
- 13. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR SUPPLY AND PLACEMENT OF TOPSOIL PER SPECIFICATIONS.
- 14. ALL TREES SHALL HAVE CLAY LOAM ROOT BALLS. NO SAND BALLS WILL BE ACCEPTED.
- 15. DIG SHRUB PIT A MINIMUM OF 1 FOOT LARGER THAN SHRUB ROOT BALLS AND TREE PITS 2 FEET LARGER THAN ROOT BALLS. BACKFILL WITH TWO PARTS TOP SOIL, TWO PARTS SOIL FROM EXCAVATED PLANTING HOLE AND ONE PART PEAT. PLANT TREES AND SHRUBS AT THE SAME GRADE LEVEL AT WHICH THEY WERE PLANTED AT THE NURSERY, IF WET CLAY SOILS ARE EVIDENT, PLANT TREES AND SHRUBS HIGHER.

- 16. REMOVE ALL TWINE, WIRE AND BURLAP FROM THE TOP 1/3 OF TREE AND SHRUB EARTH BALLS AND FROM TREE TRUNKS. REMOVE ALL NON-BIODEGRADABLE MATERIAL SUCH AS PLASTIC OR NYLON COMPLETELY.
- 17. LAWN TREES ARE TO BE MULCHED WITH A MINIMUM OF 4 FEET WIDE BY 6 INCH DEEP SHREDDED BARK RINGS OR APPROVED DESIGN FOR TRUNK PROTECTION. ONLY NATURAL COLORED, SHREDDED HARDWOOD BARK MULCH WILL BE ACCEPTED.
- 18. SHRUB BEDS ARE TO BE MULCHED WITH SHREDDED BARK MULCH TO A MINIMUM DEPTH OF 4 INCHES. ONLY NATURAL COLORED, SHREDDED HARDWOOD BARK MULCH WILL BE ACCEPTED.
- 19. UPON COMPLETION, ALL PLANT MATERIALS MUST BE PRUNED AND INJURIES REPAIRED. THE AMOUNT OF PRUNING SHALL BE LIMITED TO THE MINIMUM NECESSARY TO REMOVE DEAD OR INJURED TWIGS AND BRANCHES AND TO COMPENSATE FOR THE LOSS OF ROOTS FROM TRANSPLANTING. ALL CUTS SHALL BE MADE FLUSH, LEAVING NO STUBS.
- 20. EXISTING LAWN THAT THE OWNER INTENDS TO SAVE AND AREAS THAT ARE DAMAGED DURING CONSTRUCTION MUST BE INSPECTED BY THE OWNER TO DETERMINE VIABILITY. IF THE EXISTING LAWN IS FOUND TO BE LEVEL, HEALTHY, DENSE AND FREE FROM WEEDS, THE LAWN MAY NOT REQUIRE REPLACEMENT OR RENOVATION. IF RENOVATION IS REQUIRED OR IS PART OF THE APPROVED PLAN, THEN THE FOLLOWING REQUIREMENTS WILL APPLY:
 - EXISTING LAWN FOUND TO BE IN POOR CONDITION MUST FIRST BE SPRAYED WITH 'ROUND-UP' (OR EQUAL) TO KILL THE EXISTING LAWN AND WEED AREAS. WAIT FOR A MINIMUM PERIOD OF SEVEN (7) DAYS FOR THE HERBICIDE TO TAKE EFFECT, THEN REMOVE ALL DEAD SOD AND WEEDS TO A MINIMUM OF FOUR (4) TO SIX (6) INCHES. NEW TOPSOIL TO ALL LAWN AREAS TO BE REPLACED. BACKFILL AND COMPACT TOPSOIL TO THE TOP OF ALL CURBS AND WALKS PRIOR TO SODDING/SEEDING. REGRADE TO ELIMINATE ALL BUMPS AND DEPRESSIONS AND RESOD ALL AREAS.
- 21. EXISTING LAWN FOUND TO BE IN GENERALLY GOOD CONDITION BUT WITH BARE, SPARSE OR WEEDY AREAS MUST BE RENOVATED BY FILLING IN LOW AREAS, RAKING, OVERSEEDING AND TOP DRESSING ALL SPARSE AND BARE SPOTS AND BY INITIATING A 'WEED AND FEED' PROGRAM.
- 22. BACKFILL DIRECTLY BEHIND CURBS AND ALONG SIDEWALKS AND COMPACT TO THE TOP OF CURB OR WALK TO SUPPORT VEHICLE AND PEDESTRIAN WEIGHT WITHOUT SETTLING.
- 23. THE CONTRACTOR AGREES TO WARRANTY ALL PLANTS FOR TWO (2) YEARS FROM THE TIME OF PLANTING AND FINAL INSPECTION BY THE OWNER'S REPRESENTATIVE. THIS WARRANTY INCLUDES FURNISHING NEW PLANTS AS WELL AS THE LABOR AND MATERIALS FOR THE INSTALLATION OF REPLACEMENTS. ALL REPLACEMENT PLANTS SHALL BE GUARANTEED FOR AN ADDITIONAL PERIOD OF ONE (1) YEAR.
- 24. PLANT MATERIAL WITH 25% OR GREATER DIE BACK, AS DETERMINED BY THE OWNER'S REPRESENTATIVE, SHALL BE REPLACED AS STIPULATED ABOVE.
- 25. ALL SPECIES DEVIATION FROM THE APPROVED SITE PLAN MUST BE APPROVED IN WRITING BY THE CITY OF ANN ARBOR PRIOR TO INSTALLATION



EVERGREEN TREE PLANTING

NO SCALE



DECIDUOUS TREE PLANTING

NO SCALE

ALL EXISTING UTILITIES SHOWN ON THIS TOPOGRAPHIC

SURVEY HAVE BEEN TAKEN FROM VISUAL OBSERVATION AND

OR SHOULD BE ASSUMED, AS TO THE COMPLETENESS OR

PARTIES UTILIZING THIS INFORMATION SHALL FIELD VERIFY

ACCURACY OF THE UTILITIES SHOWN ON THIS DRAWING.

RECORD MAPPING WHERE AVAILABLE. NO GUARANTEE IS MADE,

THE ACCURACY AND COMPLETENESS PRIOR TO CONSTRUCTION.

ALL SPECIES DEVIATION FROM THE APPROVED SITE PLAN MUST BE APPROVED IN WRITING BY THE CITY OF ANN ARBOR PRIOR TO INSTALLATION.

ALL WORK SHALL CONFORM TO

AND SPECIFICATIONS

CITY OF ANN ARBOR STANDARDS

Know what's below.

CALL MISS DIG 72 HOURS (3 WORKING DAYS) BEFORE YOU DIG 1-800-482-7171 or **811** CALL811.COM (TOLL FREE)

NO SCALE LA-04 HRC JOB No. SHEET No. 20220788

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Call before you dig.

ORIGINAL PLOT SIZE: ARCH FULL BLEED D (36.00 X 24.00 INCHES)

100 Briarwood Circle WASHTENAW COUNTY

KEY PLAN

Ann Arbor, Mi 48108 MICHIGAN

BRIARWOOD MALL

SEARS

REDEVELOPMENT

ELLSWORTH RD.

225 W. Washington Street

Indianapolis, IN 46204

(317) 636-1600

HUBBELL, ROTH & CLARK, INC

CONSULTING ENGINEERS SINCE 1915

48303 - 0824

555 HULET DRIVE

BLOOMFIELD HILLS, MICH.

PHONE: (248) 454-6300

FAX (1st. Floor): (248) 454-6312

WEB SITE: www.hrcengr.com

05-27-2025 SITE PLAN RESUBMITTAL

04-16-2025 SITE PLAN RESUBMITTAL

03-12-2025 SITE PLAN RESUBMITTAL

07-10-2024 SITE PLAN RESUBMITTAL

D.H. - R.C.H.

DRAWN

CHECKED A.P.M.

APPROVED A.P.M.

ADDITIONS AND/OR REVISIONS

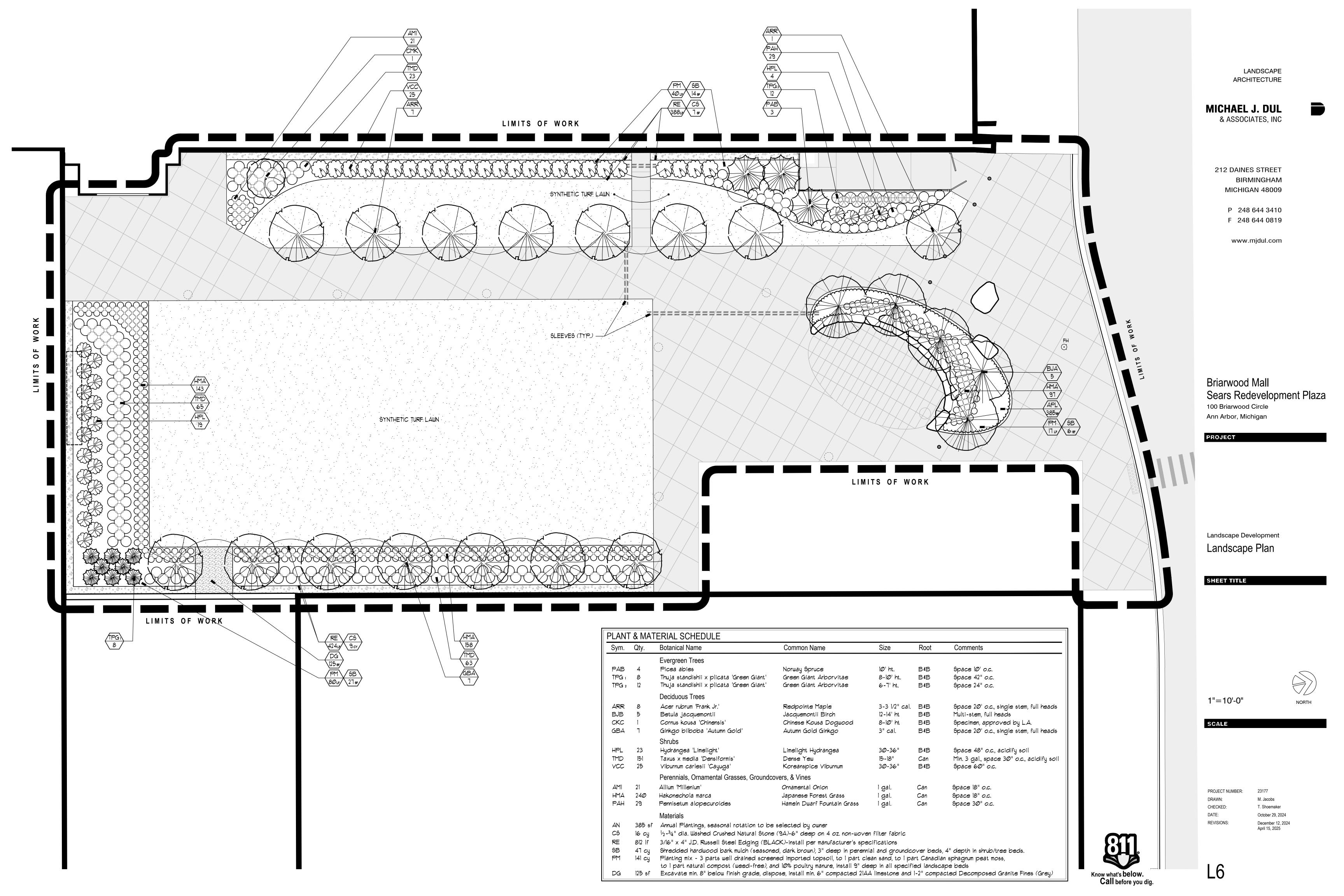
E. EISENHOWER PKWY

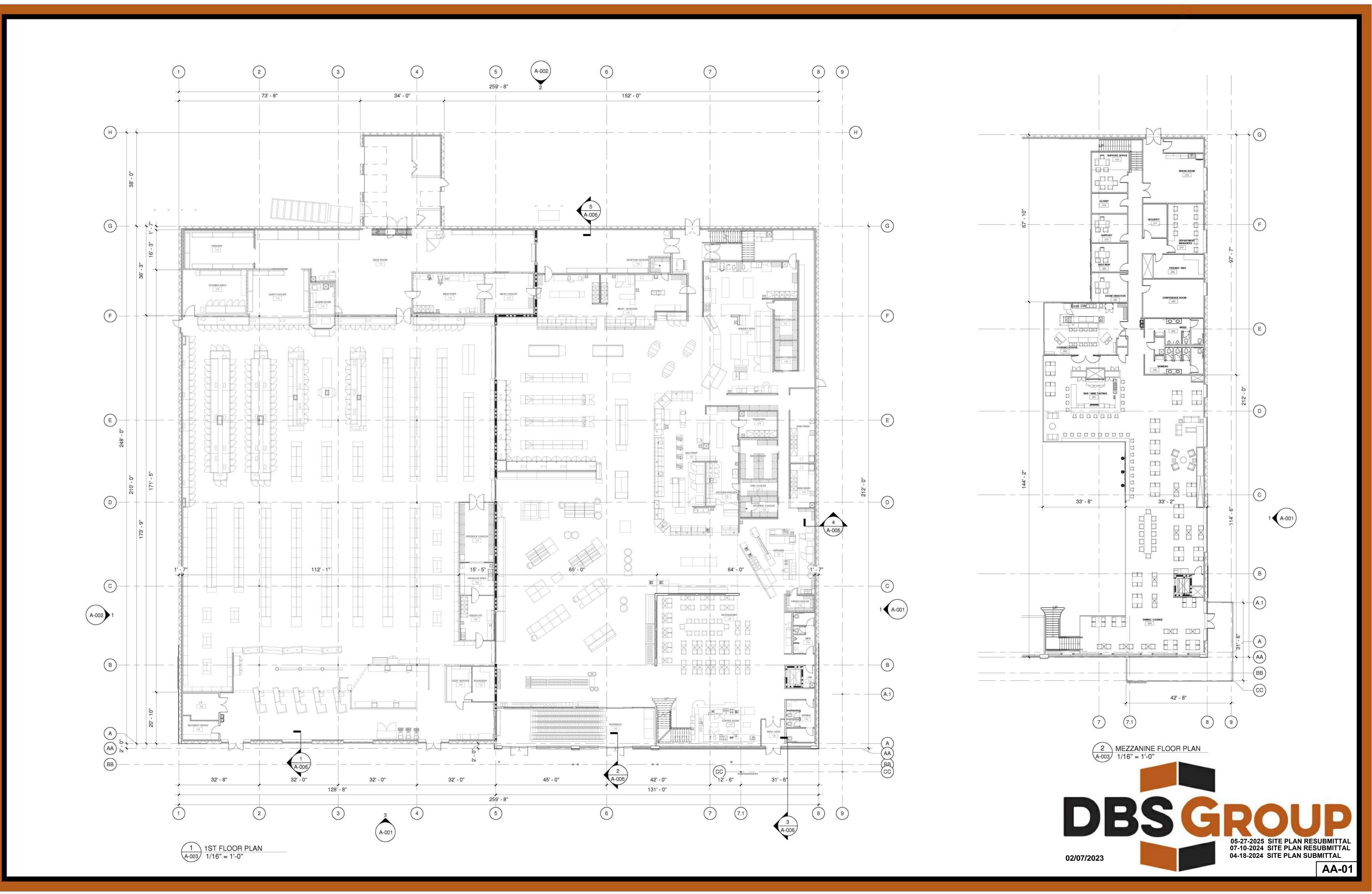
04-18-2024 SITE PLAN SUBMITTAL

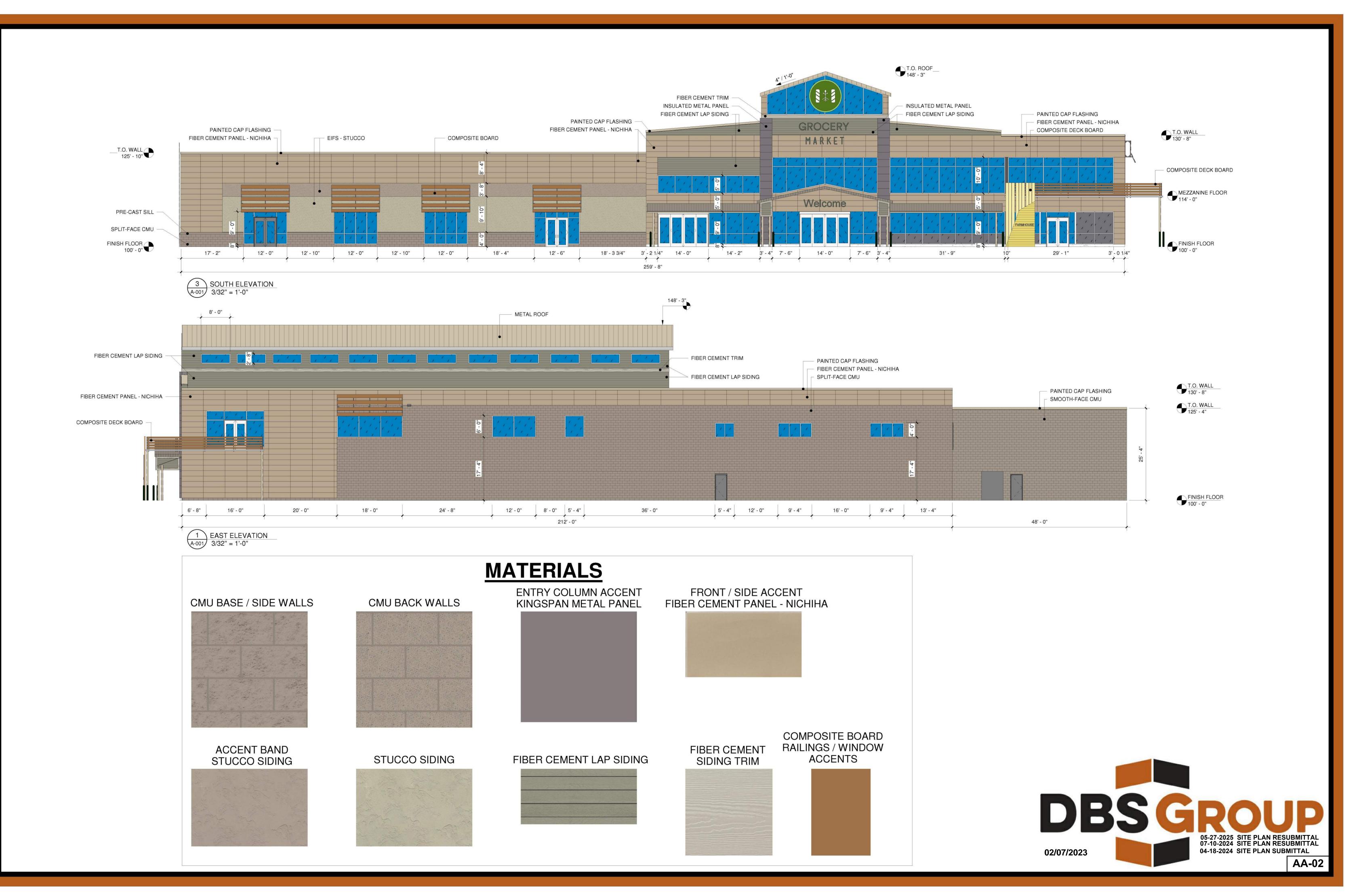
FAX (2nd. Floor): (248) 454-6359

PROPOSED LANDSCAPE NOTES AND DETAILS

DRAWING No.







NFI Harvest Market ANN ARBOR, MI METAL ROOF — LP SMARTSIDE TRIM - CAP FLASHING - FIBER CEMENT PANEL - NICHIHA LP SMARTSIDE LAP SIDING ─ SPLIT-FACE CMU ⊕_{30′ - 8″} T.O. WALL— CAP FLASHING FIBER CEMENT PANEL - NICHIHA -- SMOOTH-FACE CMU COMPOSITE DECK BOARD -1.0. WALL_ PINISH FLOOR PROPERTY LINE SPLIT-FACE CMU 1 EAST ELEVATION - PREVIOUSLY PROPOSED METAL ROOF T.O. ROOF 48' - 3" LP SMARTSIDE LAP SIDING LP SMARTSIDE TRIM CAP FLASHING FIBER CEMENT PANEL - NICHIHA LP SMARTSIDE LAP SIDING SPLIT-FACE CMU T.O. WALL 30' - 8" CAP FLASHING FIBER CEMENT PANEL - NICHIHA SMOOTH-FACE CMU T.O. WALL 25' - 4" COMPOSITE DECK BOARD T.O. WALL 8' - 0" FINISH FLOOR 0' - 0" 4' - 8" 12' - 8" 3' - 4" 10' - 0" 4' - 8" 4' - 4" 3' - 8" 3' - 0"5 7/8" SPLIT-FACE CMU EXTEND WALL TO PROPERTY LINE -1 EAST ELEVATION - NEW PROPOSED 3/32" = 1'-0" **MATERIALS ENTRY COLUMN ACCENT** FRONT / SIDE ACCENT CMU BASE / SIDE WALLS CMU BACK WALLS KINGSPAN METAL PANEL FIBER CEMENT PANEL - NICHIHA COMPOSITE BOARD

ACCENT BAND

STUCCO SIDING

STUCCO SIDING

RAILINGS / WINDOW

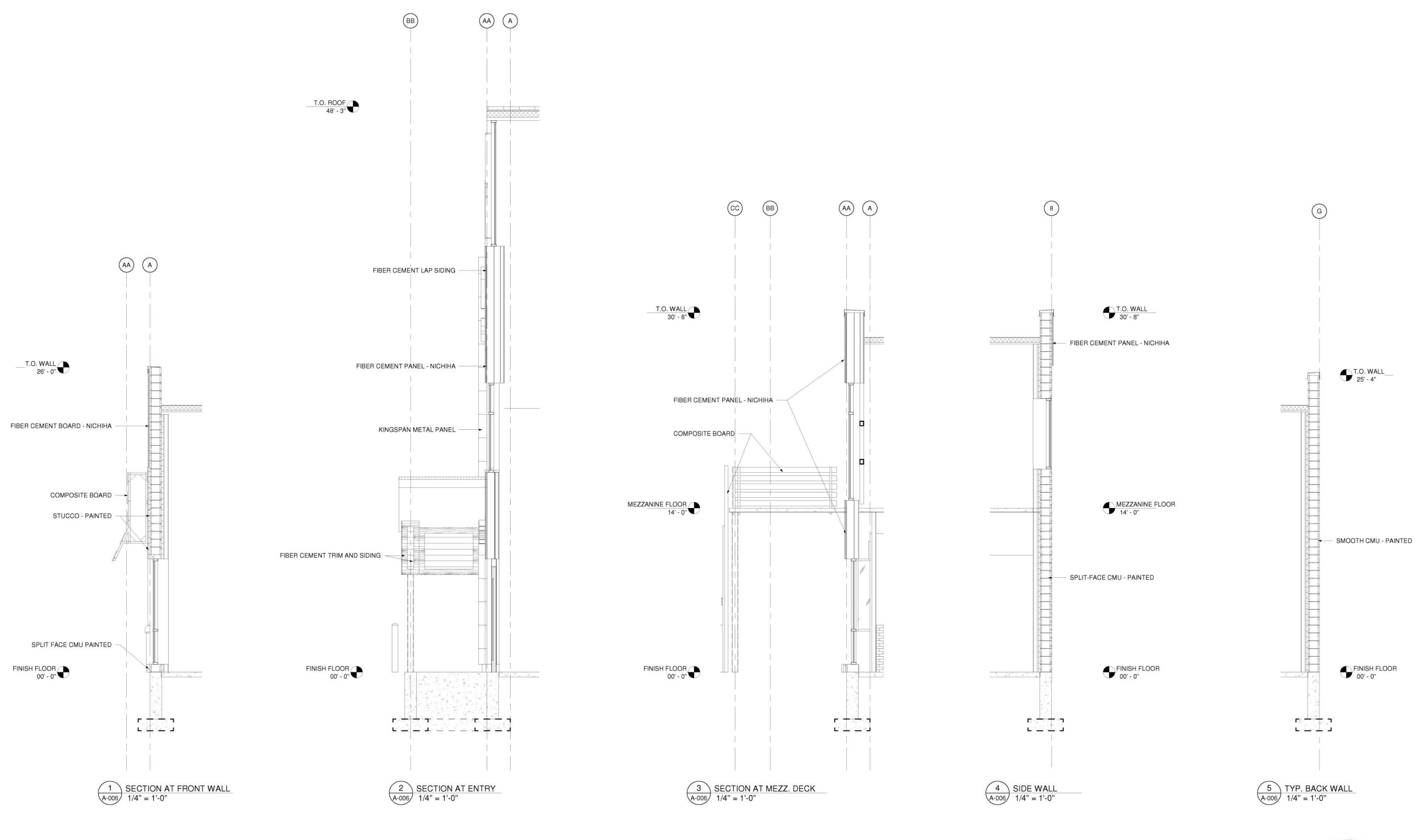
ACCENTS

LP SMARTSIDE

TRIM

LP SMARTSIDE LAP SIDING





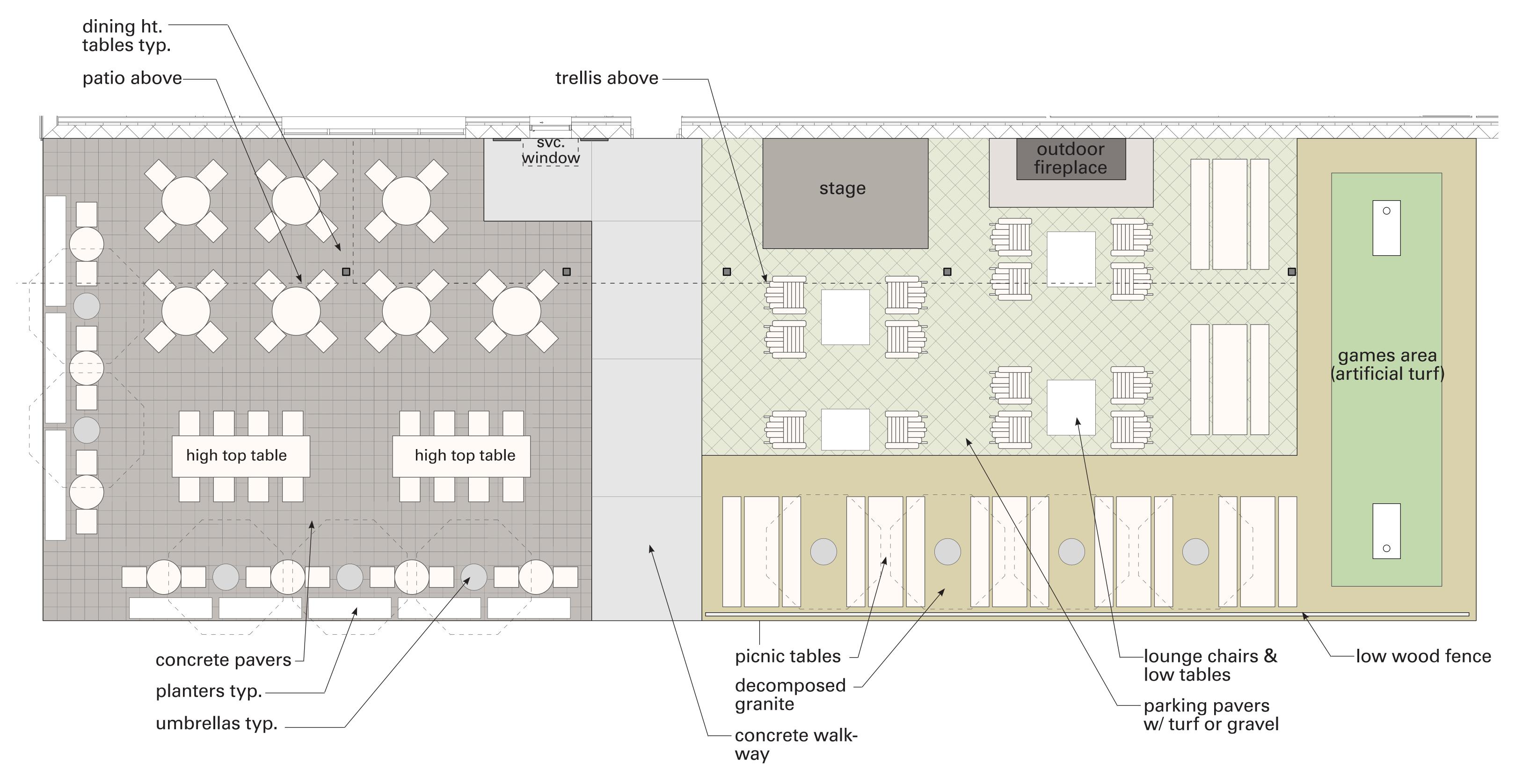


AA-04





Patio Plan

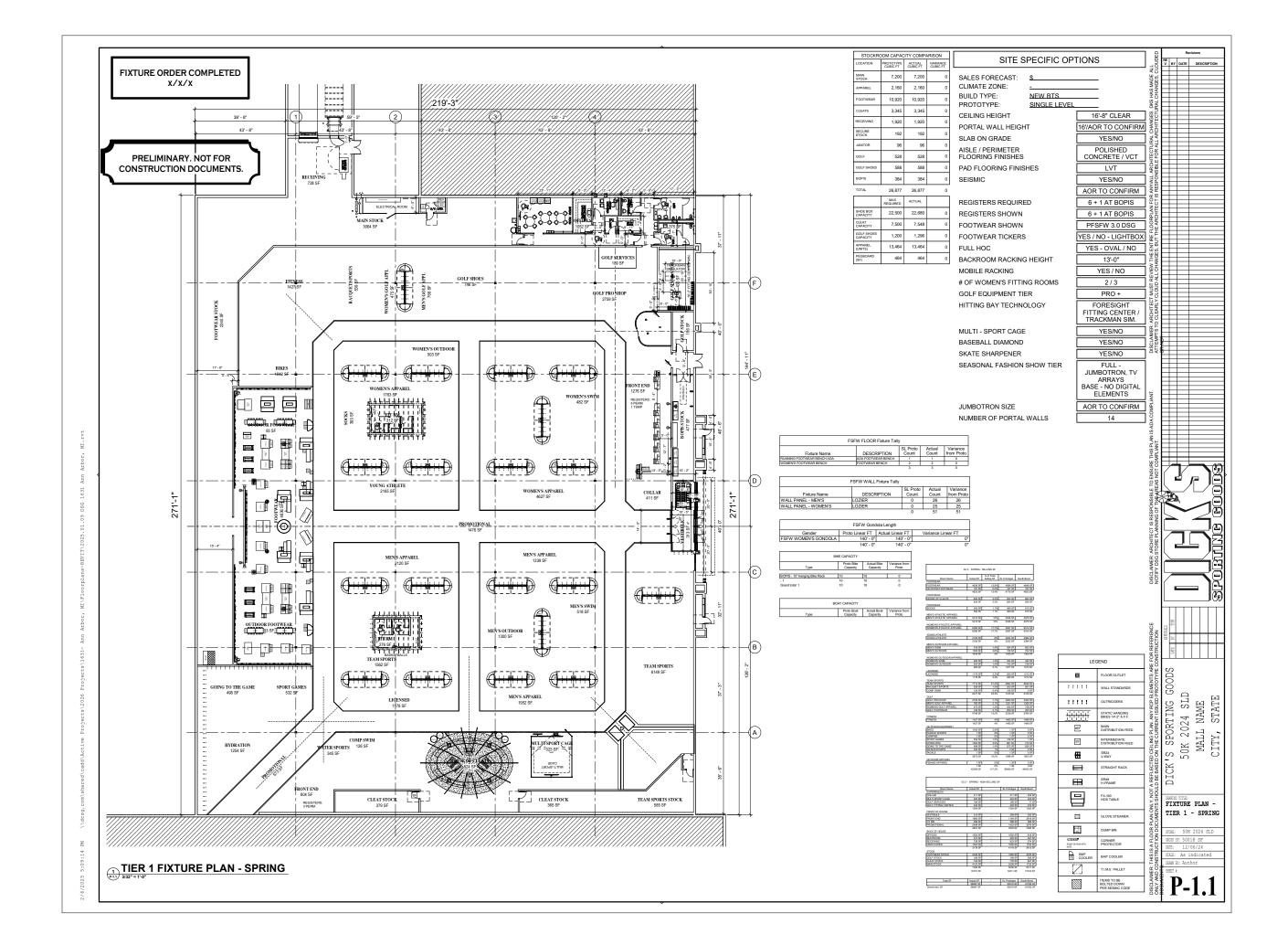


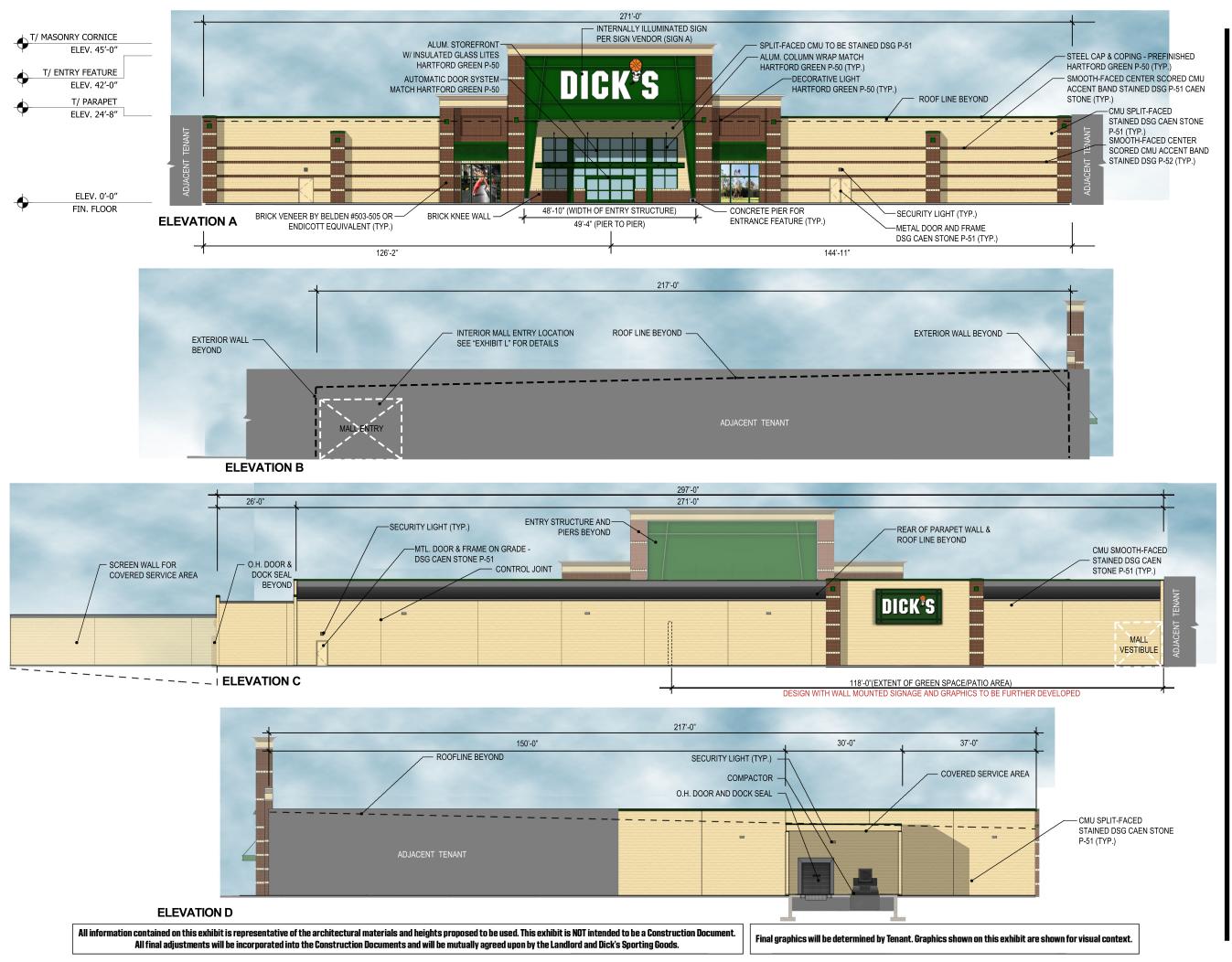
6. Exterior Corner Overview



10. Patio Aerial Overview





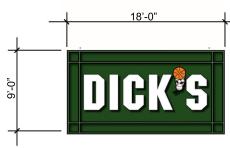




BRIARWOOD MALL ANN ARBOR, MI EXHIBIT K STORE #1631

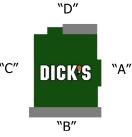


SIGN A



SIGN B

AA-10



Key Plan

REV 1	
REV 2	
REV 3	
REV 4	
REV 5	

EXTE	RIOR MATERIALS
BRK-1	FACE BRICK VENEER - SIZE: STANDARD REFER TO SPECIFICATION SECTION 04 2000 FOR ACCEPTABLE MANUFACTURERS. MORTAR - ARGOS BLUSH (TO ORDER CALL: WESLEY ALBRIGHT @ 404-402-6386 -WALBRIGHT@ARGOS-US.COM)
CMU-1	SMOOTH-FACED, CENTER SCORED C.M.U 16"x8" EXPOSURE PAINT-1
CMU-2	SMOOTH-FACED C.M.U 16"x8" EXPOSURE STAIN-1
CMU-3	SPLIT-FACED C.M.U 16"x8" EXPOSURE STAIN-1
CPNG-1	PRE-FINISHED METAL COPING - COLOR TO MATCH DSG EXTERIOR "HARTFORD GREEN"
CPNG-2	PRE-FINISHED METAL FASCIA W/ GRAVEL STOP - COLOR TO MATCH DSG EXTERIOR "CAEN STONE"
EIFS-1	EXTERIOR INSULATION AND FINISH SYSTEM- COLOR TO MATCH DSG EXTERIOR "CAEN STONE"
ROOF	PREFINISHED CORRUGATED METAL ROOF, SEE SPECIFICATIONS - COLOR: HARTFORD GREEN
STAIN-1	EXTERIOR STAIN - COLOR TO MATCH (P-51) "CAEN STONE" SW 0028 BY SHERWIN WILLIAMS
PAINT-1	EXTERIOR PAINT - COLOR (P-50) DSG EXTERIOR "HARTFORD GREEN"
PAINT-2	EXTERIOR PAINT - COLOR (P-51) "CAEN STONE" SW 0028 BY SHERWIN WILLIAMS
PAINT-3	EXTERIOR PAINT, SEE SPECIFICATIONS COLOR (P-52) DSG BELDON
GLAZ	ALUMINUM STOREFRONT/CURTAIN-WALL SYSTEM, COLOR OF MULLIONS (EXT.) TO MATCH DSG EXTERIOR "HARTFORD GREEN"
DOOR	ALUMINUM AUTOMATIC SLIDING DOOR, COLOR TO MATCH DSG EXTERIOR "HARTFORD GREEN"



CONSTRUCTED ELEVATION EXAMPLE IN ROCKHILL, SC



All information contained on this exhibit is representative of the architectural materials and heights proposed to be used. This exhibit is NOT intended to be a Construction Document.

All final adjustments will be incorporated into the Construction Documents and will be mutually agreed upon by the Landlord and Dick's Sporting Goods.

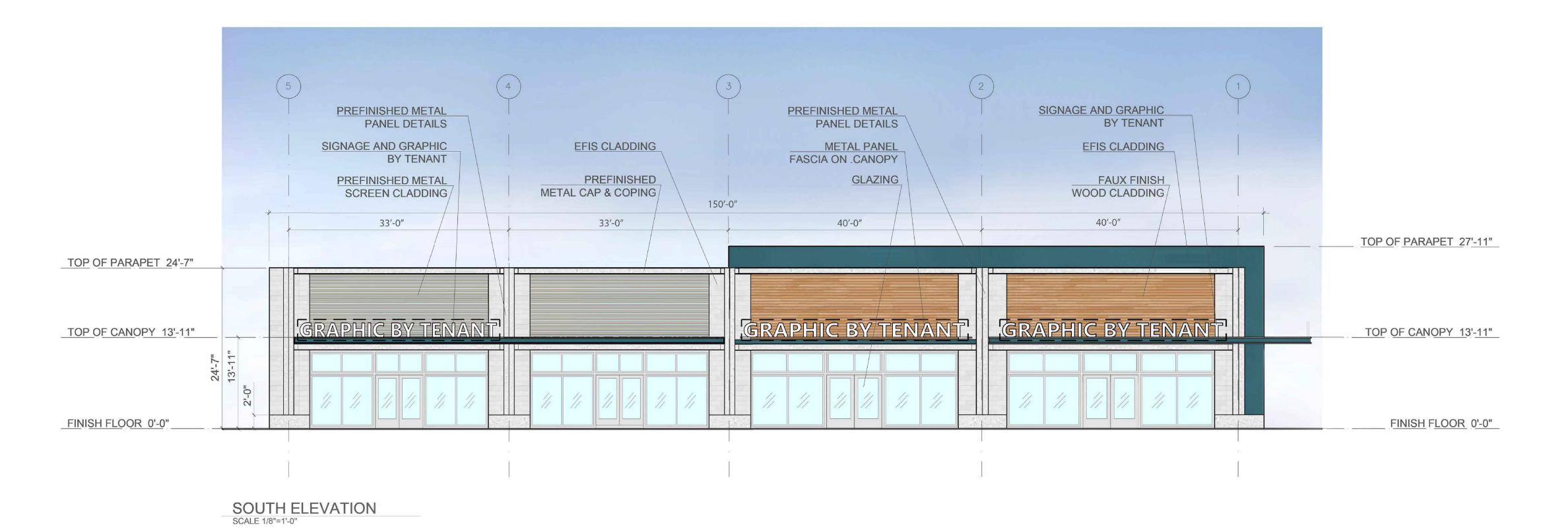
Final graphics will be determined by Tenant. Graphics shown on this exhibit are shown for visual context.

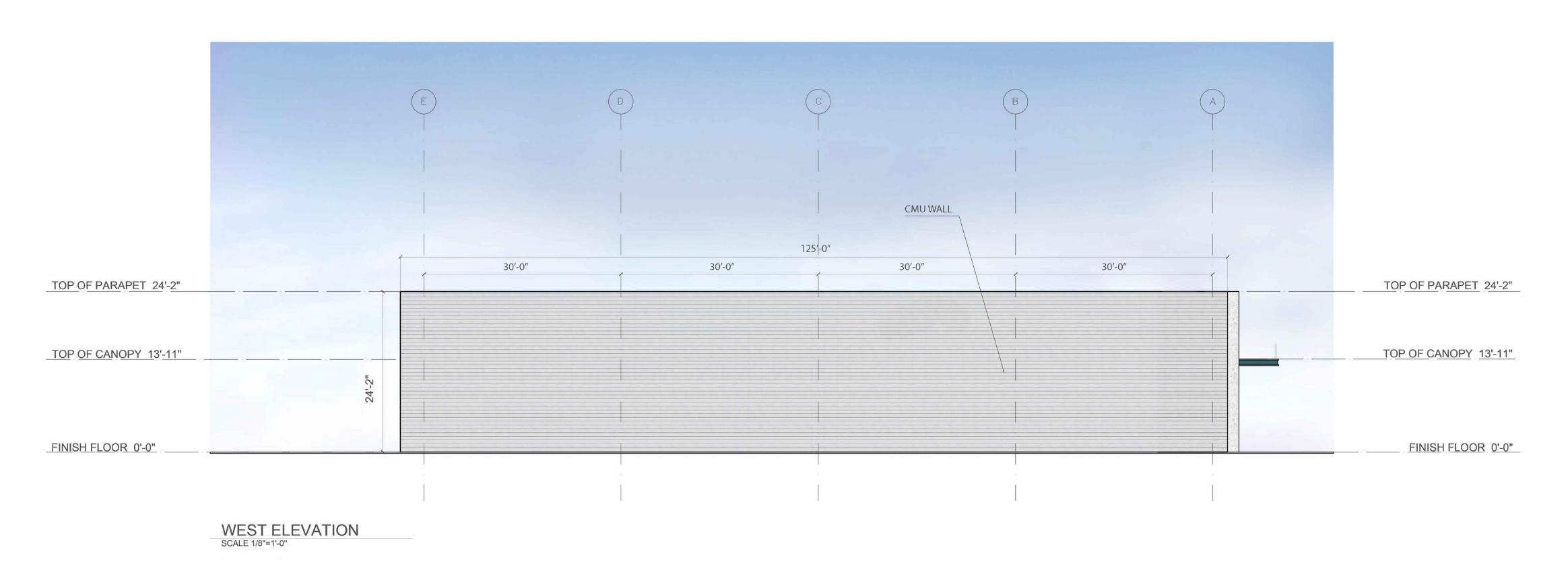


SINGLE LEVEL DICK'S MATERIAL BOARD

AA-11

REV 1	
REV 2	
REV 3	
REV 4	
REV 5	



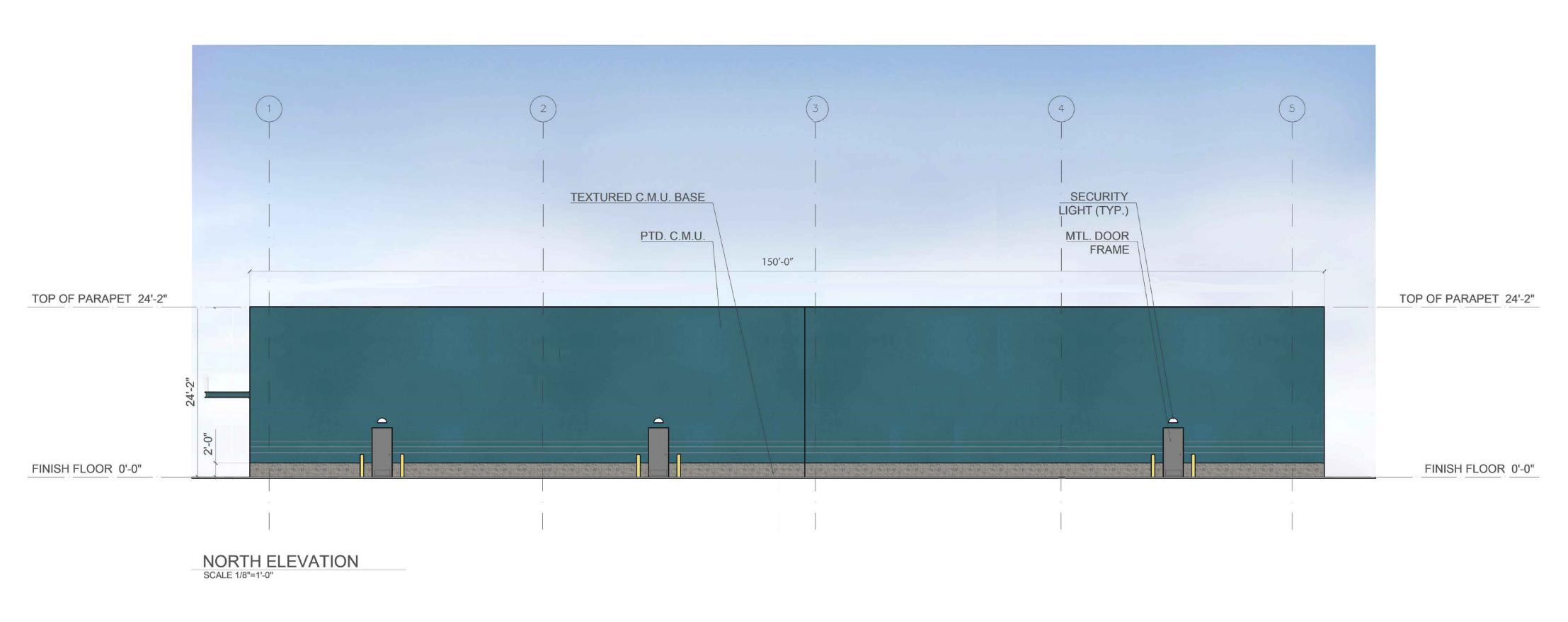


15,800 SF RETAIL

ANN ARBOR, MI

AA-12





15,800 SF RETAIL

ANN ARBOR, MI

Proposed Zoning: C2B

Site Type/Use: Residential

OWNER: The owner of the Redevelopment B is Hines, with global headquarters located at:

> 845 Texas Avenue, Suite 3300, Houston

REQUIRED STATEMENTS

PROPOSED DEVELOPMENT PROGRAM - REDEVELOPMENT I The redevelopment B site is proposed to have a 4 story residential building with an interior parking garage and loading dock which can accommodate up to a WB-40 sized vehicle. There will also be exterior off-street parking on the site. Residents will access the north

parking lot via a curb cut at the west side of the lot. The curb cut is off of an access road from the mall's primary outer roadway, Briarwood Circle.

See the main cover sheet for the required statements for the overall Sears Redevelopment Site **COMPARISON CHART**

СОМ	PARISON CHART OF REQUIREME	INTS
	EXISTING	PROPOSED
ZONING CLASSIFICATION	Р	C2B
ZONING REQUIRED	Р	C2B
LOT AREA (REDEVELOPMENT B)	6.1 ACRES	6.1 ACRES
TOTAL AREA OF ALL FLOORS	0	508,842 SF
FLOOR AREA	0	126,769 SF
FLOOR AREA RATIO	0 %	189.55 %
OPEN SAPCE PROVIDED	29,456 SF	106,187 SF
ACTIVE OPEN SPACE	28,026 SF	106,187 SF
REQUIRED BUILDING SETBACKS; FRONT SIDE REAR	10' MIN 2.5' MIN 2.5' MIN	10' MIN; 25' MAX 0' 0'
REQUIRED YARD SETBACK	10' MIN; 25' MAX	10' MIN; 25' MAX 0' 0'
BUILDING HEIGHT/STORIES	N/A	50' MAXIMUM/4 STORIES
OFF STREET PARKING	514 STANDARD STALLS/ 6 ADA STALLS	EXTERIOR PARKING: 106 STANDARD STALLS/ 5 ADA STALLS INTERIOR PARKING: 301 STANDARD STALLS/ 8 ADA STALLS
ELECTRIC VEHICLES	NONE	10% EV-I PROVIDED 90% EV-C PROVIDED
BICYCLE PARKING REQUIRED	0	1 PER 5 VEHICLE STALL/ DWELLING UNIT =407/5 = 82 STALLS
BICYCLE PARKING PROVIDED	0	EXTERIOR: 21, 50% CLASS A, 50% CLASS C INTERIOR: 71, 50% CLASS A, 50% CLASS C

CITY OF ANN ARBOR FIELD OPERATIONS SERVICES UNIT THE FOLLOWING UTILITIES ARE LOCATED IN OR NEAR THE SITE FOR THIS PROJECT.

W.R. WHEELER SVC. CTR

PUBLIC UTILITIES

WATER, SEWER AND STORM

CITY OF ANN ARBOR FIELD OPERATIONS SERVICES UNIT

4251 STONE SCHOOL RD. ANN ARBOR, MI 48108

SIGNS/SIGNALS/STREETLIGHTS W.R. WHEELER SVC. CTR CHUCK FOJTIK 4251 STONE SCHOOL RD. ANN ARBOR, MI 48108

550 S. MAPLE

ANN ARBOR, MI 48103

RICHARDSON, TX 75082

PRIVATE UTILITIES

AT&T-PHONE DTE ENERGY-ELECTRIC

8001 HAGGERTY RD. COMCAST-CABLE SOUTHFIELD, MI 48034 313-999-8300 17150 ALLEN RD. JACK WHYATT DTE ENERGY-GAS MELVINDALE, MI 48122 313-701-1355 MCI-PHONE 2400 NORTH GLENFILLE **DEAN BOYERS**

CALL MISS DIG (3 WORKING DAYS 1-800-482-7171 Call before you dig. (TOLL FREE)

ALL EXISTING UTILITIES SHOWN ON THIS TOPOGRAPHIC SURVEY HAVE BEEN TAKEN FROM VISUAL OBSERVATION AND RECORD MAPPING WHERE AVAILABLE. NO GUARANTEE IS MADE PARTIES UTILIZING THIS INFORMATION SHALL FIELD VERIFY THE ACCURACY AND COMPLETENESS PRIOR TO CONSTRUCTION

WESTERN WAYNE SERVICE CTR CLAY COMBEE

BRIAN BERRY

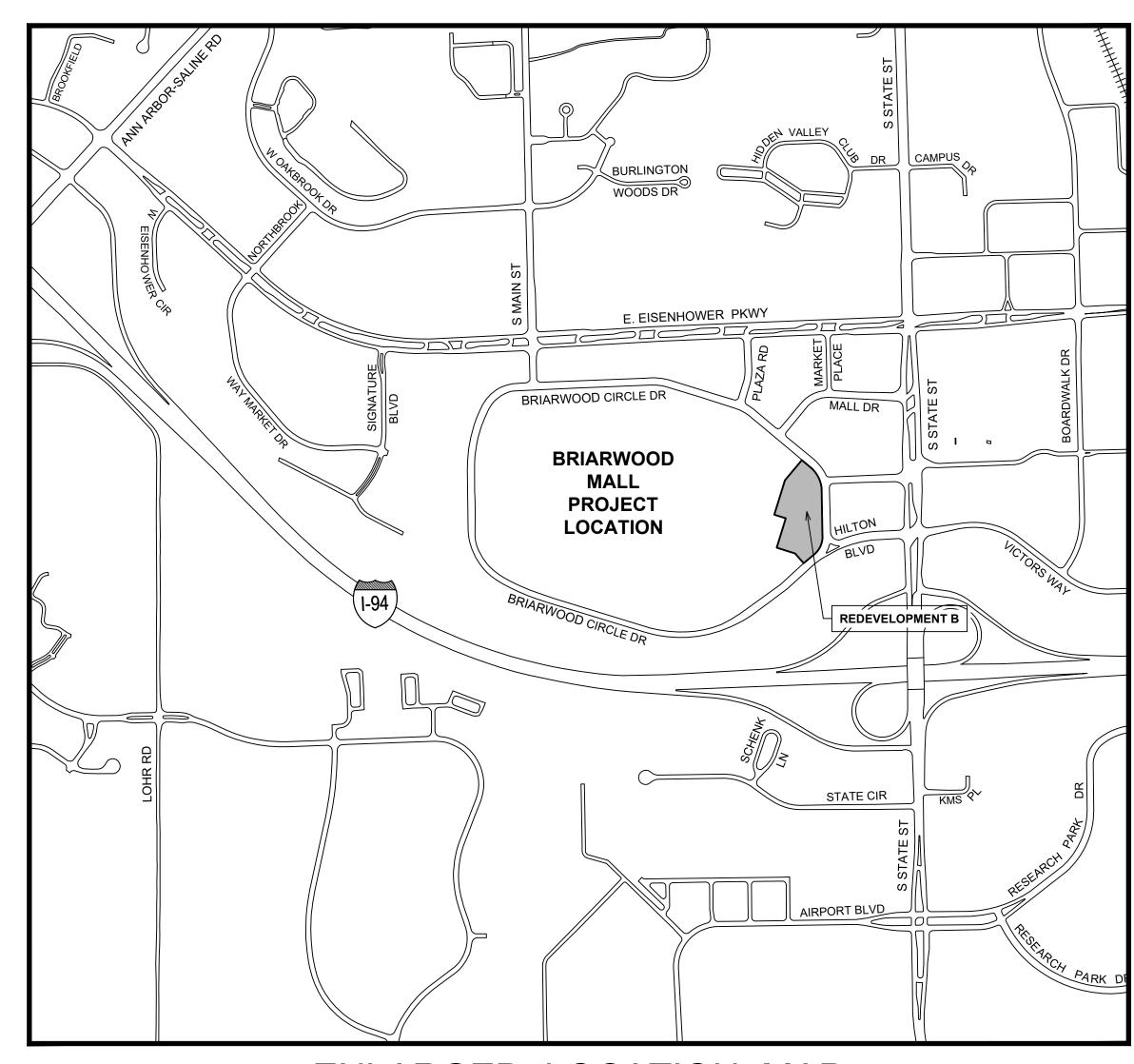
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972-729-6016

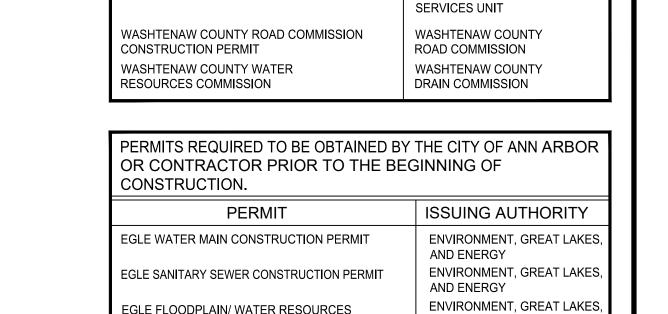
BRIARWOOD MALL SEARS REDEVELOPMENT REDEVELOPMENT B

CITY OF ANN ARBOR, MICHIGAN

Epstein No. 22296



ENLARGED LOCATION MAP



PERMITS REQUIRED TO BE OBTAINED BY THE CONTRACTOR

ISSUING AUTHORITY

PLANNING AND DEVELOPMENT

PLANNING AND DEVELOPMENT

CITY OF ANN ARBOR

REPUBLIC PARKING

CITY OF ANN ARBOR

CITY OF ANN ARBOR

AND ENERGY

AND ENERGY

AND ENERGY

ENVIRONMENT, GREAT LAKES

ENVIRONMENT, GREAT LAKES

ENGINEERING

SERVICES UNIT

PRIOR TO THE BEGINNING OF CONSTRUCTION.

LANE CLOSURE PERMIT

"NO PARKING" SIGNS PERMIT

CONTROL PERMIT

PROTECTION PERMIT

EGLE INLAND LAKES & STREAMS PERMIT

WETLAND & WATER COURSE USE PERMIT

GRADING/ SOIL EROSION & SEDIMENTATION

SHEET INDEX

NORTH

SHT. No.	SHT. TITLE
CB-01	COVER SHEET
CB-02	NATURAL FEATURES PLAN
CB-03	NATURAL FEATURES OVERLAY PLAN
CB-04	EXISTING CONDITIONS PLAN
CB-05	PROPOSED DIMENSIONAL LAYOUT PLAN
CB-06	PROPOSED DEMOLITION PLAN
CB-07	PROPOSED UTILITY PLAN
CB-08	PROPOSED DRAINAGE AREA PLAN
CB-09	PROPOSED UTILITY CALCULATIONS
CB-10	PROPOSED GRADING PLAN
CB-11	PROPOSED SEDIMENT AND EROSION CONTROL PLAN
CB-12	PROPOSED SEDIMENT AND EROSION CONTROL NOTES
CB-13	TYPICAL DETAILS
CB-13.1	MECHANICAL FILTER DETAILS
CB-14	EXISTING AND PROPOSED FIRE HYDRANT COVERAGE
CB-15	ESTIMATED COSTS
CB-16	SOLID WASTE PLAN -DEVB
LB-01	LANDSCAPE PLAN & PLANT LIST
LB - 02	LANDSCAPE NOTES & DETAILS
AB-01	FLOOR PLAN LEVEL 01-02
AB - 02	FLOOR PLAN LEVEL 03-04, ROOF
AB-03	
	STREET WALL HEIGHT
AB-05	PERSPECTIVE RENDERING - NORTH EAST
	PERSPECTIVE RENDERING - SOUTHEAST

12/04/2023 SITE PLAN RE-SUBMITTAL







 $\Diamond \Diamond$ SIMON® 225 W. Washington Street Indianapolis, IN 46204 (317) 636-1600

> Hines 845 TEXAS AVENUE SUIT 3300 HOUSTON, TX

PHONE: (713) 621 8000

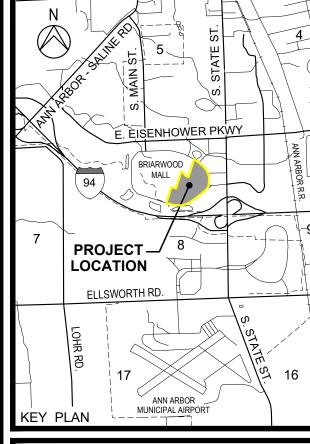
EPSTEIN

600 W. FULTON STREET PHONE: (312) 454-9100

DANIEL WEINBACH & PARTNERS, LTD.



N	11/14/2023	SITE PLAN RE-SUBMITTAL
1	09/28/2023	WCWRC RE-SUBMITTAL
3	09/27/2023	SITE PLAN RE-SUBMITTAL
1	09/08/2023	SITE PLAN RE-SUBMITTAL
	08/14/2023	SITE PLAN RE-SUBMITTAL
	06/30/2023	SITE PLAN RE-SUBMITTAL
	03/16/2023	SITE PLAN SUBMITTAL
ğ	DATE	ADDITIONS AND/OR REVISIONS
ě	DESIGNED	D.H.
2	DRAWN	J.C.
	CHECKED	D.H.



BRIARWOOD MALL SEARS REDEVELOPMENT

REDEVELOPMENT B

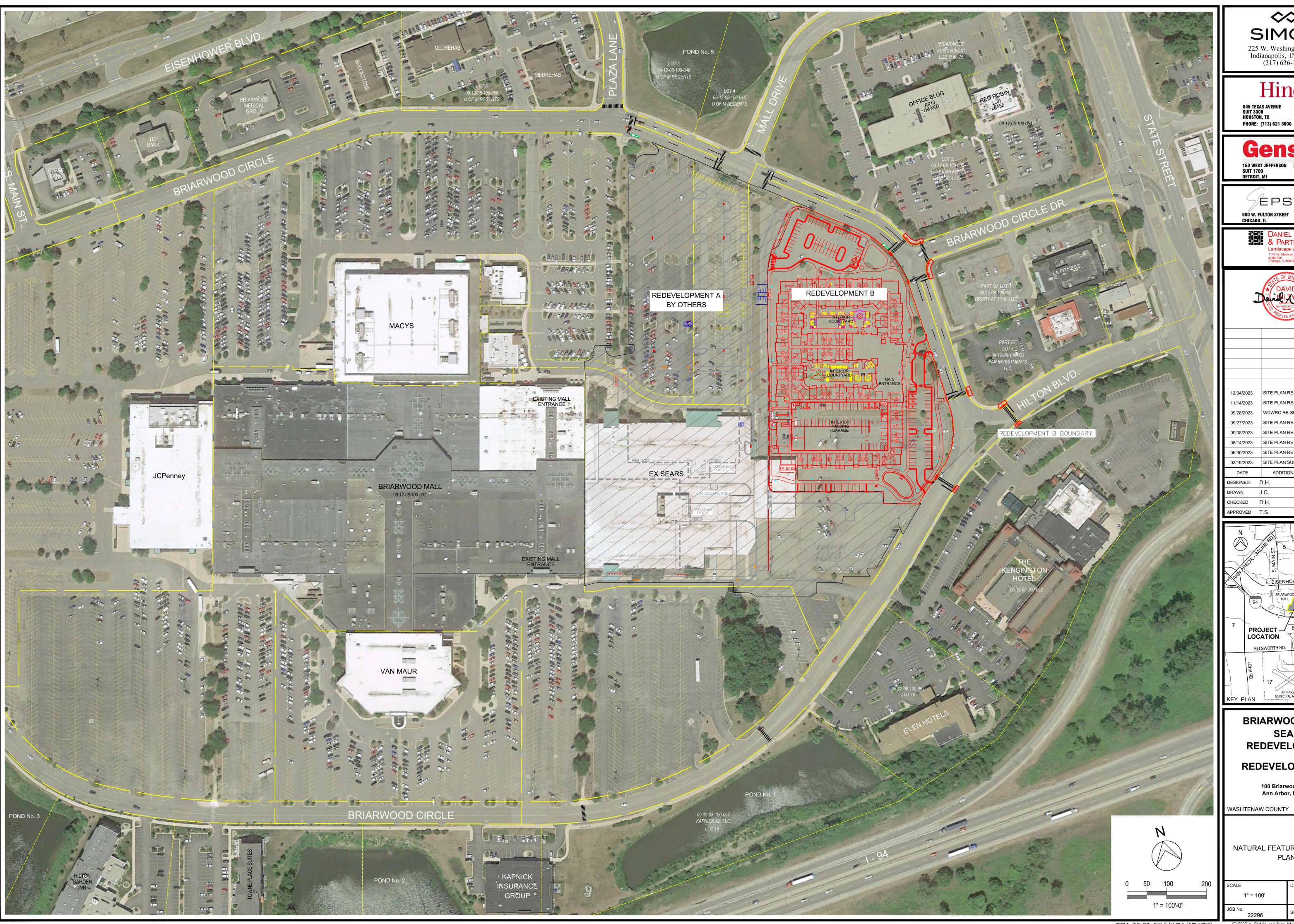
100 Briarwood Circle Ann Arbor, Mi 48108

WASHTENAW COUNTY

NATURAL FEATURES

PLAN

CB-02



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12/04/2023 SITE PLAN RE-SUBMITTAL 09/28/2023 WCWRC RE-SUBMITTAL 08/14/2023 SITE PLAN RE-SUBMITTAL 06/30/2023 SITE PLAN RE-SUBMITTAL 03/16/2023 SITE PLAN SUBMITTAL ADDITIONS AND/OR REVISIONS



BRIARWOOD MALL SEARS REDEVELOPMENT

REDEVELOPMENT B

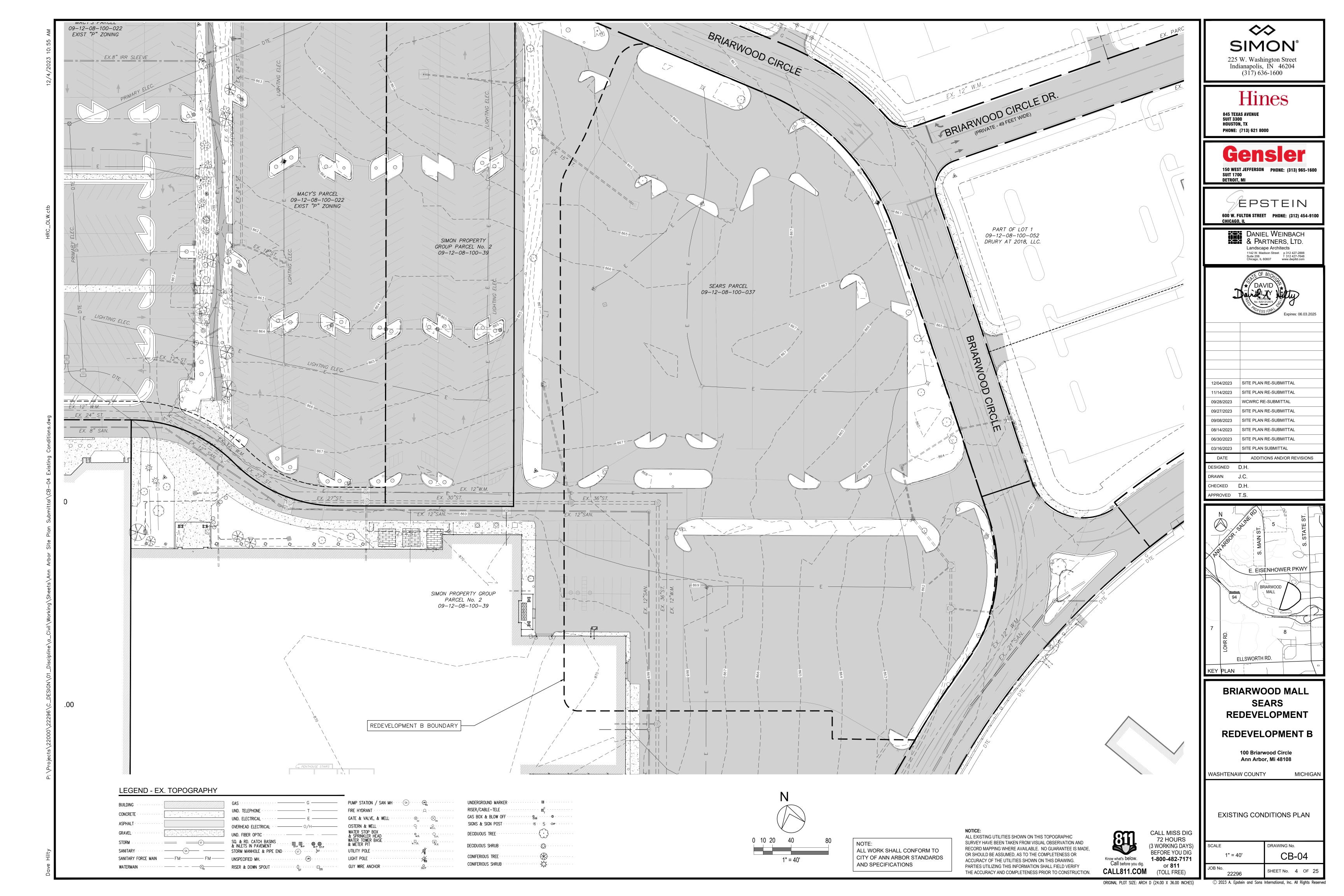
100 Briarwood Circle Ann Arbor, Mi 48108

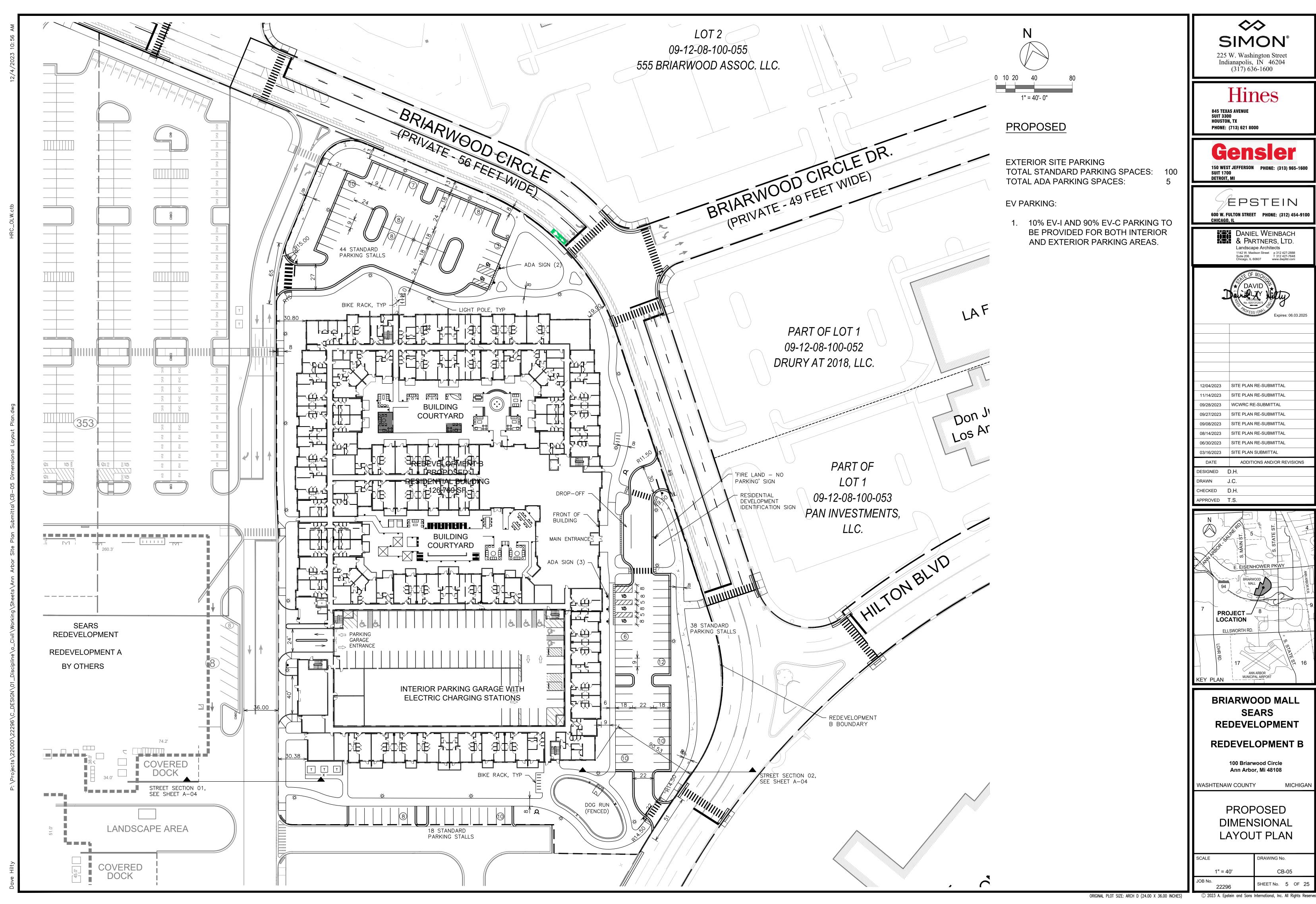
WASHTENAW COUNTY

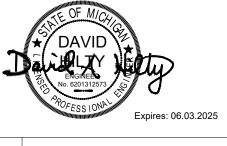
NATURAL FEATURES OVERLAY

CB-03

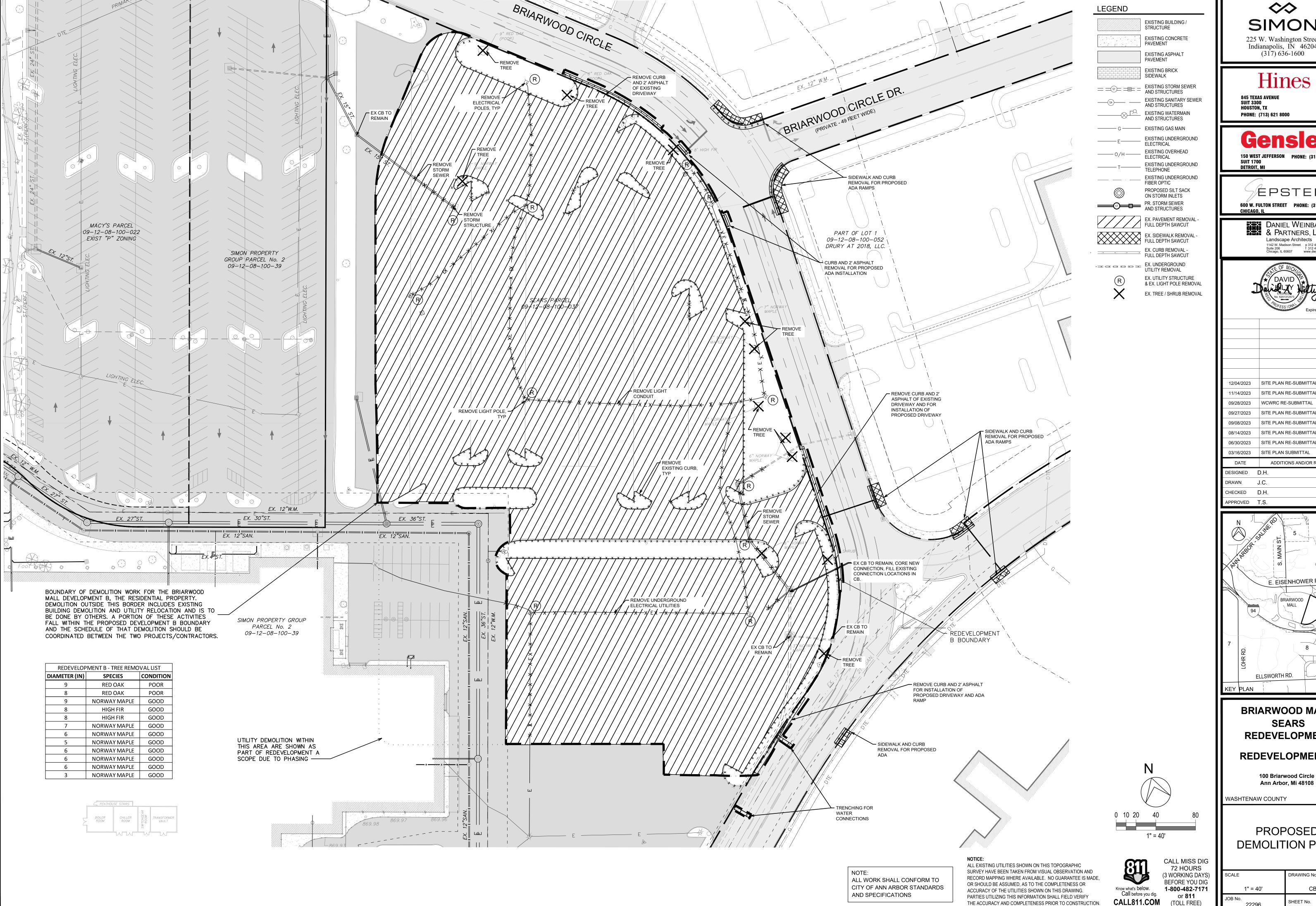
ORIGINAL PLOT SIZE: ARCH D (24.00 X 36.00 INCHES)







SHEET No. 5 OF 25



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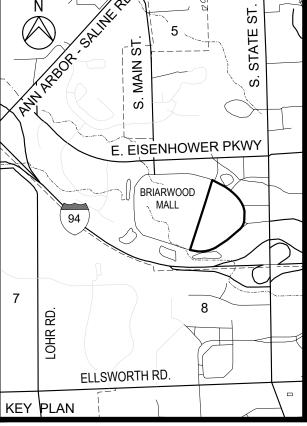
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BRIARWOOD MALL SEARS REDEVELOPMENT

REDEVELOPMENT B

100 Briarwood Circle

WASHTENAW COUNTY

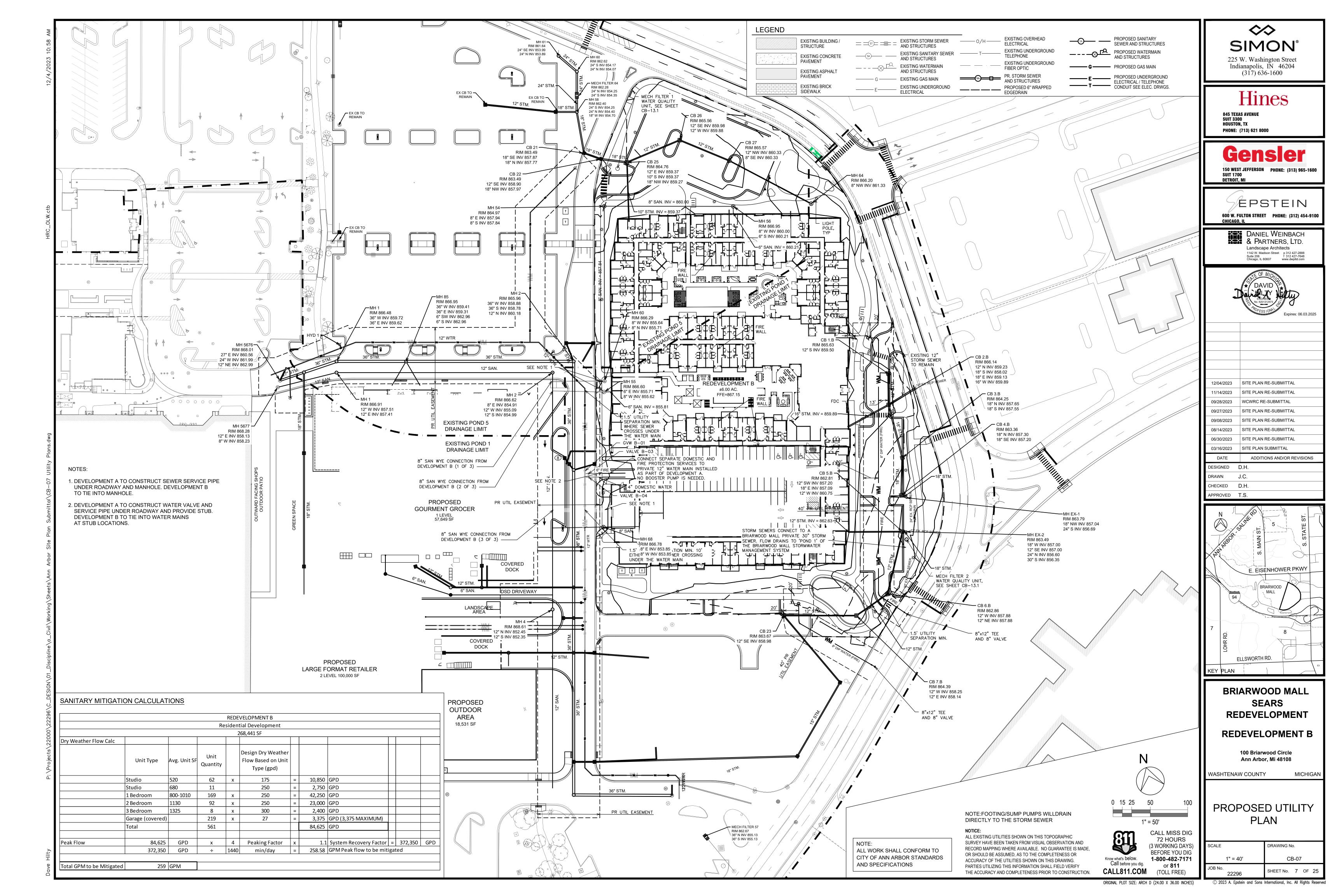
PROPOSED **DEMOLITION PLAN**

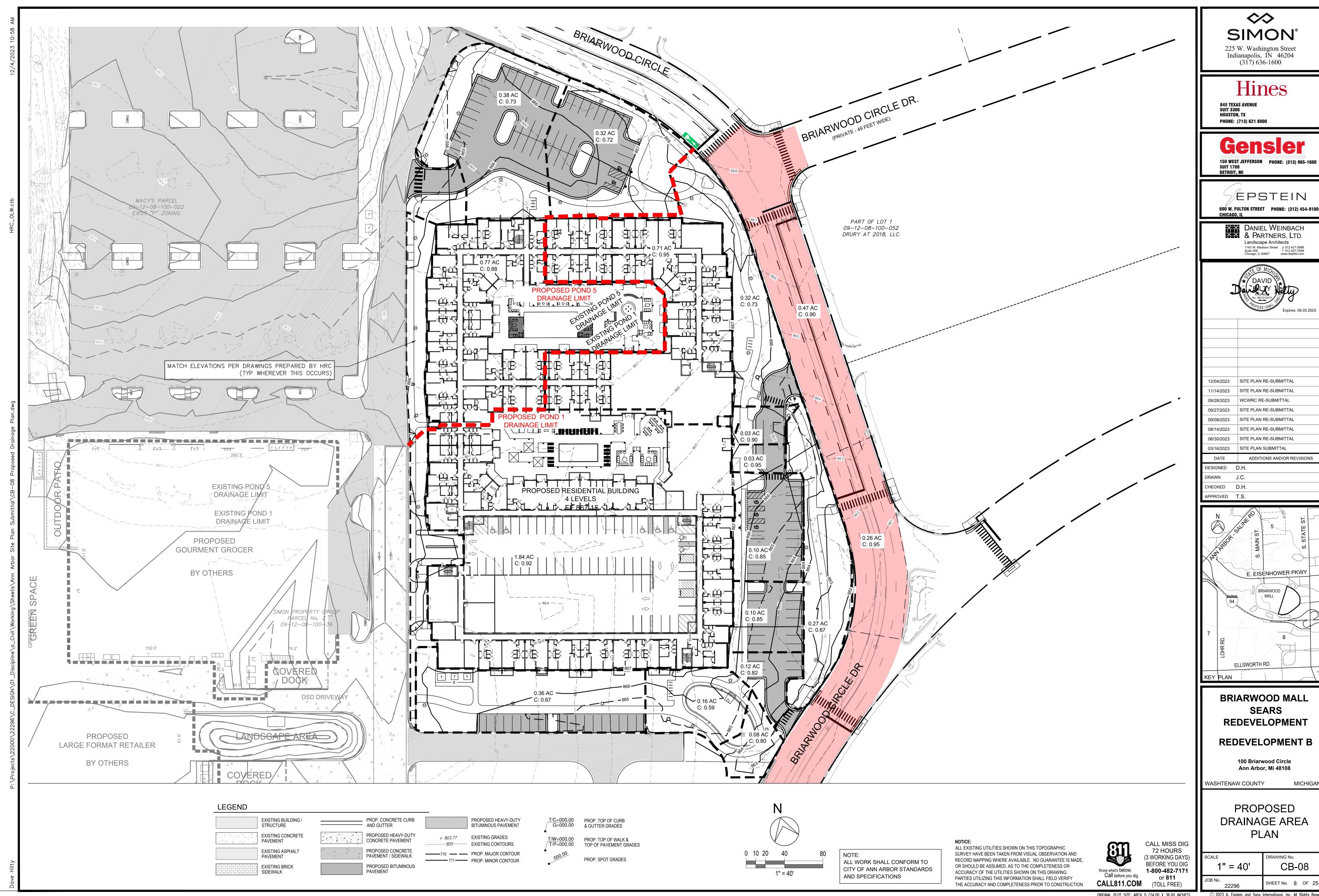
MICHIGAN

DRAWING No. CB-06 SHEET No. 6 OF 25

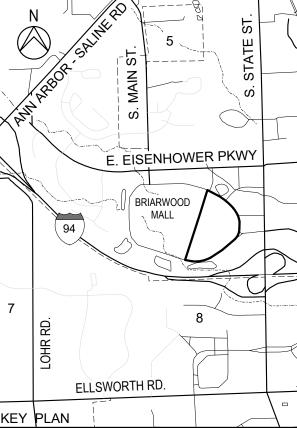
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ADDITIONS AND/OR REVISIONS



BRIARWOOD MALL REDEVELOPMENT

CB-08

	Gravity Flow Pipe Design						M	lanning:	s "n" v	alue =	0.013				
							F	RCP Pip	е						
	From Struct.	To Struct.	Incr. Area A (ac)	Avg. Runoff Coeff. C	Accum . Equiv. Area	Linner	Rainfall Intensity I (in/hr)	Total Runoff Q (cfs)	Pipe Diam. (in)	Pipe Slope (%)	Full Capacity Q (cfs)	Full Velocity V (ft/sec)	q0/q1	v0/v1	Actual Velocity V (ft/sec)
	27	26	0.32	0.72	0.32	10.00	5.11	1.18	12	0.50	2.52	3.21	0.47	0.98	3.13
	26	25	0.38	0.73	0.70	10.00	5.11	2.59	12	0.60	2.76	3.51	0.94	1.16	4.07
	25 (&building)	24	1.19	0.94	1.89	10.00	5.11	8.31	18	1.00	10.50	5.94	0.79	1.13	6.70
	1	2	0.03	0.90	0.03	10.00	5.11	0.12	12	0.50	2.52	3.21	0.05	#N/A	#N/A
	2 (& Roadw ay inlet)	3	0.90	0.75	0.93	10.00	5.11	3.57	12	0.60	2.76	3.51	1.29	1.13	3.97
	3	4	0.10	0.85	1.03	10.00	5.11	4.00	12	1.50	4.36	5.56	0.92	1.15	6.40
	4	EX-1	0.10	0.85	1.13	10.00	5.11	4.43	12	1.80	4.78	6.09	0.93	1.15	7.02
*Existing pipe	EX-1	EX-2	0.00	0.85	1.13	10.00	5.11	4.43	24	0.20	10.12	3.22	0.44	0.96	3.08
	8	7	0.36	0.67	0.36	10.00	5.11	1.23	12	0.50	2.52	3.21	0.49	0.99	3.17
	7	6	0.16	0.59	0.52	10.00	5.11	1.72	12	0.50	2.52	3.21	0.68	1.09	3.50
	6	5	0.07	0.90	0.59	10.00	5.11	2.05	12	0.80	3.19	4.06	0.64	1.08	4.36
	5 (& building)	EX-2	1.99	0.94	2.58	10.00	5.11	11.58	18	1.50	12.87	7.28	0.90	1.15	8.37
*Existing pipe	EX-2 (& EX-1 & Roadway inlet)	Offsite	0.26	0.95	2.84	10.00	5.11	17.28	30	0.21	18.71	3.81	0.92	1.15	4.40
	North Roof only		1.48	0.95	1.48	10.00	5.11	7.18	15	2.00	9.14	7.44	0.79	1.12	8.37
	South Roof only		1.84	0.95	1.84	10.00	5.11	8.93	15	2.60	10.42	8.49	0.86	1.14	9.68
				Raimaii	Intensty	Tor the	To year s	lorii per u	le equal			ne WCWR0	Rules	V IUT 124	-5.11 III/I



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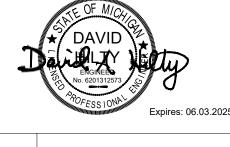
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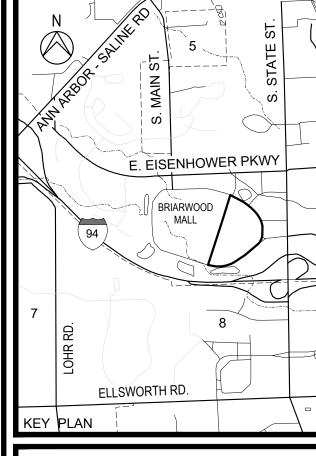


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BRIARWOOD MALL SEARS REDEVELOPMENT

REDEVELOPMENT B

100 Briarwood Circle Ann Arbor, Mi 48108

WASHTENAW COUNTY

PROPOSED UTILITY

MICHIGAN

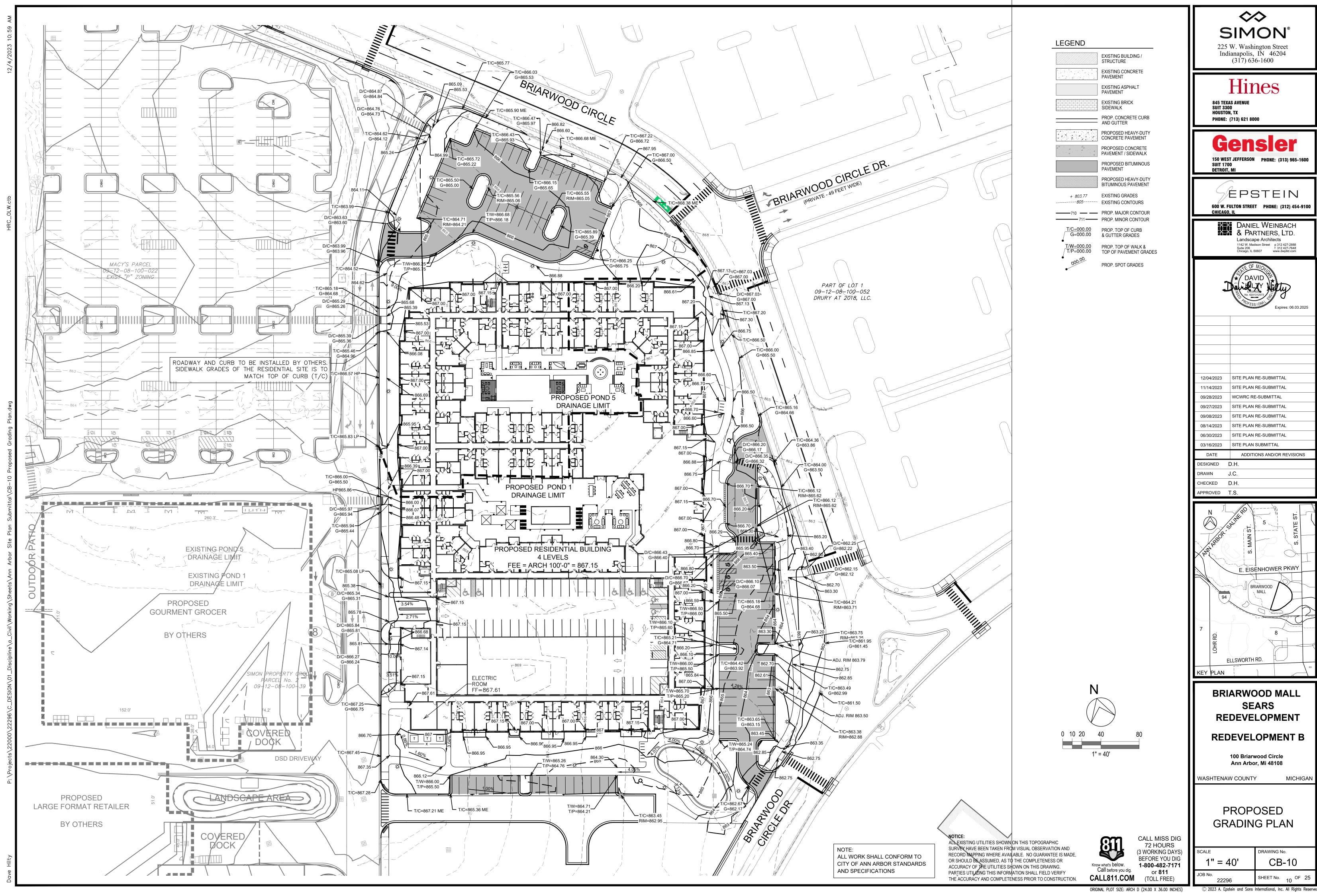
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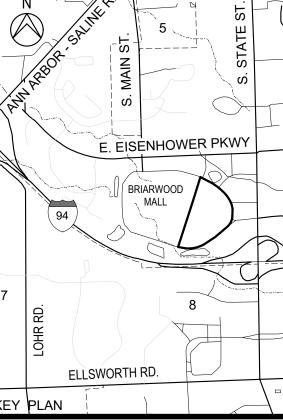
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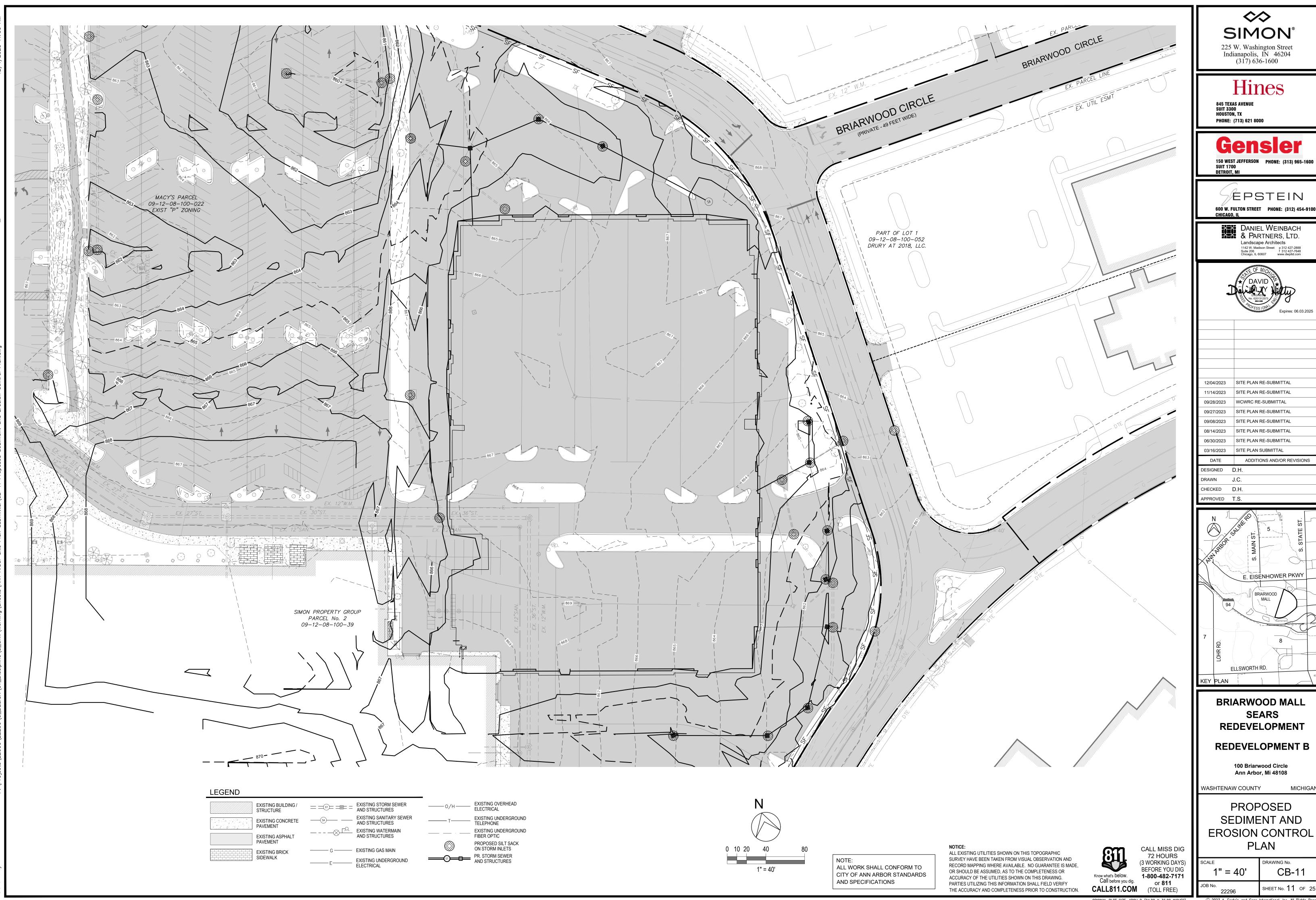
NOTE: ALL WORK SHALL CONFORM TO CITY OF ANN ARBOR STANDARDS AND SPECIFICATIONS

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PARTIES UTILIZING THIS INFORMATION SHALL FIELD VERIFY THE ACCURACY AND COMPLETENESS PRIOR TO CONSTRUCTION.

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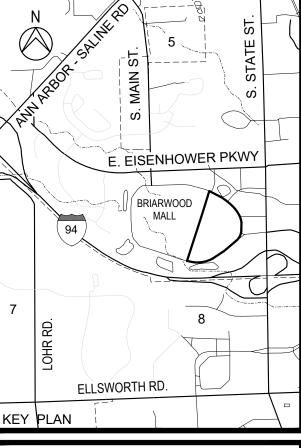
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12/04/2023	SITE PLAN RE-SUBWITTAL
11/14/2023	SITE PLAN RE-SUBMITTAL
09/28/2023	WCWRC RE-SUBMITTAL
09/27/2023	SITE PLAN RE-SUBMITTAL
09/08/2023	SITE PLAN RE-SUBMITTAL
08/14/2023	SITE PLAN RE-SUBMITTAL
06/30/2023	SITE PLAN RE-SUBMITTAL
03/16/2023	SITE PLAN SUBMITTAL
DATE	ADDITIONS AND/OR REVISIONS
DESIGNED [D.H.
DRAWN .	J.C.
CHECKED [D.H.



BRIARWOOD MALL SEARS REDEVELOPMENT

REDEVELOPMENT B

PROPOSED SEDIMENT AND **EROSION CONTROL**

MICHIGAN

SCALE	DRAWING No.
1" = 40'	CB-11
JOB No.	SHEET No. 11 OF 25

SOIL EROSION AND SEDIMENTATION CONTROL SHALL MEET THE REQUIREMENTS OF THE FOLLOWING STANDARDS, CODES AND REGULATIONS OF PUBLIC AUTHORITIES BEARING ON PERFORMANCE OF THE WORK:

DTMB SESC GUIDEBOOK AND EGLE NONPOINT SOURCE PROGRAM GUIDEBOOK TO BMPS

PART 91, SOIL EROSIO AND SEDIMENTATION CONTROL, OR THE NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT (NREPA)

PROJECT DESCRIPTION

THE PROJECT IS A PORTION OF THE SEARS REDEVELOPMENT AT THE BRIARWOOD MALL. THIS DEVELOPMENT REDEVELOPMENT B, CONSISTS OF A NEW 4 STORY BUILDING ON AN APPROXIMATELY 6 ACRE SITE THAT IS CURRENTLY USED AS A PARKING LOT FOR THE EXISTING SEARS STORE. THE SITE WILL PRIMARILY CONSIST OF PARKING, WITH SIDEWALK THROUGHOUT THE SITE. STORMWATER FROM THE SITE WILL BE COLLECTED BY ROOF DRAINS AND INLETS, AND ROUTED THROUGH A STORM PIPE SYSTEM TO ONE OF TWO EXISTING PONDS WITHIN THE BRIARWOOD MALL PROPERTY. PRIOR TO ANY FLOW LEAVING THE REDEVELOPMENT A SITE, WATER QUALITY UNITS WILL BE DESIGNED TO TREAT THE FIRST FLUSH FOR A STORM EVENT.

EXISTING EROSION PROBLEMS

UPON REVIEW OF THE EXISTING CONDITIONS, THERE IS NO EVIDENCE OF EXISTING EROSION OR SEDIMENTATION CONCERNS.

IMPACT OF PROJECT ON EXISTING EROSION PROBLEMS

THE PROPOSED DEVELOPMENT WILL NOT ADVERSELY IMPACT THE EXISTING DRAINAGE CONDITIONS OR CREATE SUCH CONDITIONS THAT WOULD CAUSE THE GENERATION OF EXCESSIVE EROSION OR SEDIMENTATION.

EFFECT OF LAND DISTURBANCE ACTIVITIES ON ADJACENT LAND

THE PROPOSED DEVELOPMENT WILL BE CONSTRUCTED IN SUCH A WAY AS TO NOT ADVERSELY AFFECT ADJACENT LAND. WHERE PROPOSED GRADES CAUSE STORMWATER TO FLOW TOWARD THE PERIMETER OF THE SITE, SILT FENCE WILL BE INSTALLED TO CONTAIN THE SEDIMENT ON SITE. AFTER COMPLETION OF GRADING ACTIVITIES, THE DISTURBED AREAS WILL BE STABILIZED WITH PAVEMENT OR GROUND.

PROPOSED RUNOFF CONDITIONS COMPARED TO EXISTING

THE EXISTING SITE DRAINS ROUGHLY HALF TO THE EXISTING NORTHERN POND (POND 5) WITHIN THE BRIARWOOD MALL PROPERTY AND HALF TO THE EXISTING SOUTHERN POND (POND 1) ALSO WITHIN THE BRIARWOOD MALL PROPERTY. GENERALLY, THESE WATERSHEDS WILL BE MAINTAINED.

PROPOSED RUNOFF COEFFICIENT

THE AVERAGE ESTIMATED RUNOFF COEFFICIENT OF THE SITE AFTER COINSTRUCTION ACTIVITIES ARE COMPLETED WILL BE 75.32

SCHEDULE FOR INSPECTION AND MAINTENANCE

ALL CONTROL MEASURES ARE TO BE INSPECTED AT LEAST ONCE PER WEEK AND FOLLOWING ANY STORM EVENT OF 1/2"

ALL MEASURES ARE TO BE MAINTAINED IN GOOD WORKING ORDER. IF A REPAIR IS NECESSARY, IT SHOULD BE INITIATED WITHIN 24 HOURS OF REPORT.

SILT FENCE TO BE INSPECTED WEEKLY FOR PROPER ANCHORAGE AND LEAKAGE UNDERNEATH. SILT FENCING IS TO BE INSPECTED FOR TEARS AND REPLACED AS NECESSARY WITHIN 24 HOURS OF REPORT.

BUILT-UP SEDIMENT IS TO BE REMOVED FROM SILT BARRIERS WHEN IT HAS REACHED { OF THE HEIGHT OF THE BARRIER. SEDIMENT THAT IS REMOVED IS TO BE PLACED IN A STABILIZED LOCATION ON SITE TO PREVENT RE-ENTRY INTO THE SAME OR ANOTHER ENTRAPMENT AREA.

THE CONTRACTOR IS TO PROVIDE DUST CONTROL CONTINUOUSLY THROUGHOUT DRY WEATHER PERIODS, UNTIL ALL DISTURBED AREAS HAVE BEEN STABILIZED. DUST CONTROL INCLUDES PROVIDING VEGETATIVE COVER, SPRINKLING, STREET CLEANING, AND MULCHING.

THE STORAGE OF ON-SITE CONSTRUCTION MATERIALS SHALL MEET ALL LOCAL, STATE AND FEDERAL RULES REGARDING SECONDARY CONTAINMENT.

ALLOWABLE NON-STORMWATER DISCHARGES

DISCHARGES FROM FIRE FIGHTING ACTIVITIES.

FIRE HYDRANT FLUSHINGS.

WATER USED TO WASH VEHICLES OR CONTROL DUST.

POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS CONTAINING LESS THAN 1,000 GALLONS.

UNCONTAMINATED GROUNDWATER, INCLUDING DEWATERING GROUNDWATER.

IRRIGATION WATER

EXTERIOR BUILDING WASHDOWN WITHOUT DETERGENTS.

PAVEMENT WASH WATERS WHERE SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED AND WHERE DETERGENTS ARE NOT USED.

LONG-RANGE EROSION AND SEDIMENTATION MANAGEMENT

POST CONSTRUCTION BEST MANAGEMENT PRACTICES WILL BE PROVIDED AS NECESSARY. BEST MANAGEMENT PRACTICES WILL INCLUDE MINIMIZATION OF LAND DISTURBANCE, MINIMIZATION OF IMPERVIOUS SURFACES, AND ENSURING THAT INTERIOR FLOOR DRAINS ARE NOT CONNECTED TO A STORM SEWER SYSTEM.

POST CONSTRUCTION BEST MANAGEMENT PRACTICES WILL BE CONSISTENT WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS, POLICIES, AND GUIDELINES. THE OWNER WILL CONSIDER SITE—SPECIFIC AND SEASONAL CONDITIONS WHEN IMPLEMENTING CONTROL PRACTICES.

OPERATION AND MAINTENANCE OF BEST MANAGEMENT CONTROL PRACTICES AFTER CONSTRUCTION SHALL BE PROVIDED BY THE OWNER.

TEMPORARY SEEDING

- 1. PROVIDE A MINIMUM OF 6" OF TOPSOIL HAVING A pH BETWEEN 5.5 AND 7.5.
- 2. PREPARE SEEDBED BY SCARIFYING TO A MINIMUM DEPTH OF 3-4 INCHES.
- 3. APPLY FERTILIZER AND LIME (IF SOIL pH IS LESS THAN 5.5) 2" TO 4" INTO THE SOIL. BROADCAST 500 POUNDS OF N-P-K (10-10-10) PER ACRE.
- 4. APPLY CERTIFIED QUALITY SEED BY BROADCAST METHOD. SELECT A SPECIES AND MIX ACCORDING TO THE OPTIMUM SEEDING DATES AS FOLLOWS:
- 5. SEE LANDSCAPE PLANS FOR PERMANENT SEEDING.

EROSION AND SEDIMENTATION CONTROL MEASURES

TABLE 1

TEMPORARY SEEDING SPECIES, RATES AND DATES					
SPECIES	LBS./ACRE	LBS./1000 FT²	SEEDING DATES		
OATS	90	2	EARLY SPRING-JULY 1		
CEREAL RYE	90	2	EARLY SPRING-SEPT. 30		
WHEAT	90	2	EARLY SPRING-SEPT. 30		
PERENNIAL RYEGRASS	25	0.6	EARLY SPRING-SEPT. 30		

5. APPLY MULCH OVER A MINIMUM OF 75% OF THE GROUND SURFACE TO BE STABILIZED.

6. INSPECT SEEDED AREAS 2 TO 4 WEEKS AFTER SEEDING FOR ESTABLISHMENT AND EROSION CONTROL. REPAIR AND RESEED AS NECESSARY.

PURPOSE

7. SATISFACTORY ESTABLISHMENT OF SEEDING MAY REQUIRE WATERING AND RE-FERTILIZING.

STABILIZED CONSTRUCTION ENTRANCE/EXIT PAD	PREVENT TRACKING OF SEDIMENT OFF-SITE
LAND GRADING	MINIMIZE EROSION, DUST, SEDIMENTATION
DUST CONTROL	MINIMIZE AIR POLLUTION
PERIMETER PROTECTION	PREVENT EROSION AND SEDIMENTATION
INLET PROTECTION	PREVENT SEDIMENT FROM FLOWING INTO DRAINS OR OFF-SITE
SILT FENCE	PREVENT EROSION AND SEDIMENTATION
CONSTRUCTION ROAD STABILIZATION	MINIMIZE EROSION, DUST, SEDIMENTATION

PREVENT EROSION AND SEDIMENTATION DITCH CHECK REDUCE RUNOFF AND EROSION TEMPORARY SEEDING EROSION CONTROL BLANKET SLOPE STABILIZATION

PLEASE SEE REDEVELOPMENT A FOR CONSTRUCTION PHASING SCHEDULE. SHOULD CONSTRUCTION BE HALTED, APPROXIMATE COST TO SEED THE SITE IS 0.15/AC RESULTING IN A COST OF \$39,200. APPROXIMATE COST TO LAY GEOFABRIC AND COVER WITH CRUSHED STONE IS 2.5/AC RESULTING IN A COST OF \$653,400.

CONSTRUCTION SCHEDULE

- 1. INSTALLATION OF STABILIZED CONSTRUCTION ENTRANCE/EXIT
- 2. INSTALLATION OF TEMPORARY PERIMETER SEDIMENT FENCE, INLET PROTECTION OF EXISTING STRUCTURES
- 3. DEMOLITION OF ITEMS THAT HAVE NOT YET BEEN DEMOLISHED
- 4. ROUGH GRADING OF THE SITE
- 5. INSTALLATION OF UNDERGROUND UTILITIES. STORM DRAINS SHALL BE PROTECTED BUT IN USE DURING CONSTRUCTION
- 6. FINAL GRADING OF THE SITE
- 7. INSTALLATION OF EROSION CONTROL BLANKET AND INLET AND OUTLET PROTECTION
- 8. INSTALLATION OF PAVEMENT AND CURBING
- 9. BEGIN BUILDING CONSTRUCTION
- 9. INSTALLATION OF PERMANENT GROUND COVER
- 10. REMOVAL OF INLET PROTECTION
- 11. SITE STABILIZED-REMOVAL OF EROSION CONTROL AND SEDIMENTATION MEASURES INCLUDING TEMPORARY ACCESSES.
- 12. CONTRACTOR TO PROVIDE REGULAR INSPECTION, MAINTENANCE, AND REPAIR OF EROSION CONTROL STRUCTURES AND STORMWATER MANAGEMENT PRACTICES DURING UTILITY INSTALLATION AND THROUGHOUT THE PROJECT
- 13. CONTRACTOR TO PROVIDE DUST CONTROL THROUGHOUT THE PROJECT BY MEANS OF SPRINKLING AND STREET CLEANING

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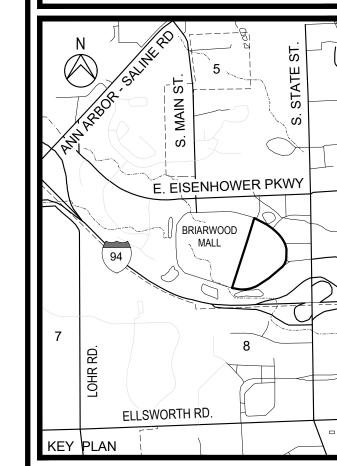




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CHECKED D.H.

APPROVED T.S.



BRIARWOOD MALL SEARS REDEVELOPMENT

REDEVELOPMENT B

100 Briarwood Circle Ann Arbor, Mi 48108

WASHTENAW COUNTY

SEDIMENT AND **EROSION CONTROL** NOTES

MICHIGAN

DRAWING No. CB-12 SHEET No. 12 OF 25

ORIGINAL PLOT SIZE: ARCH D (24.00 X 36.00 INCHES)

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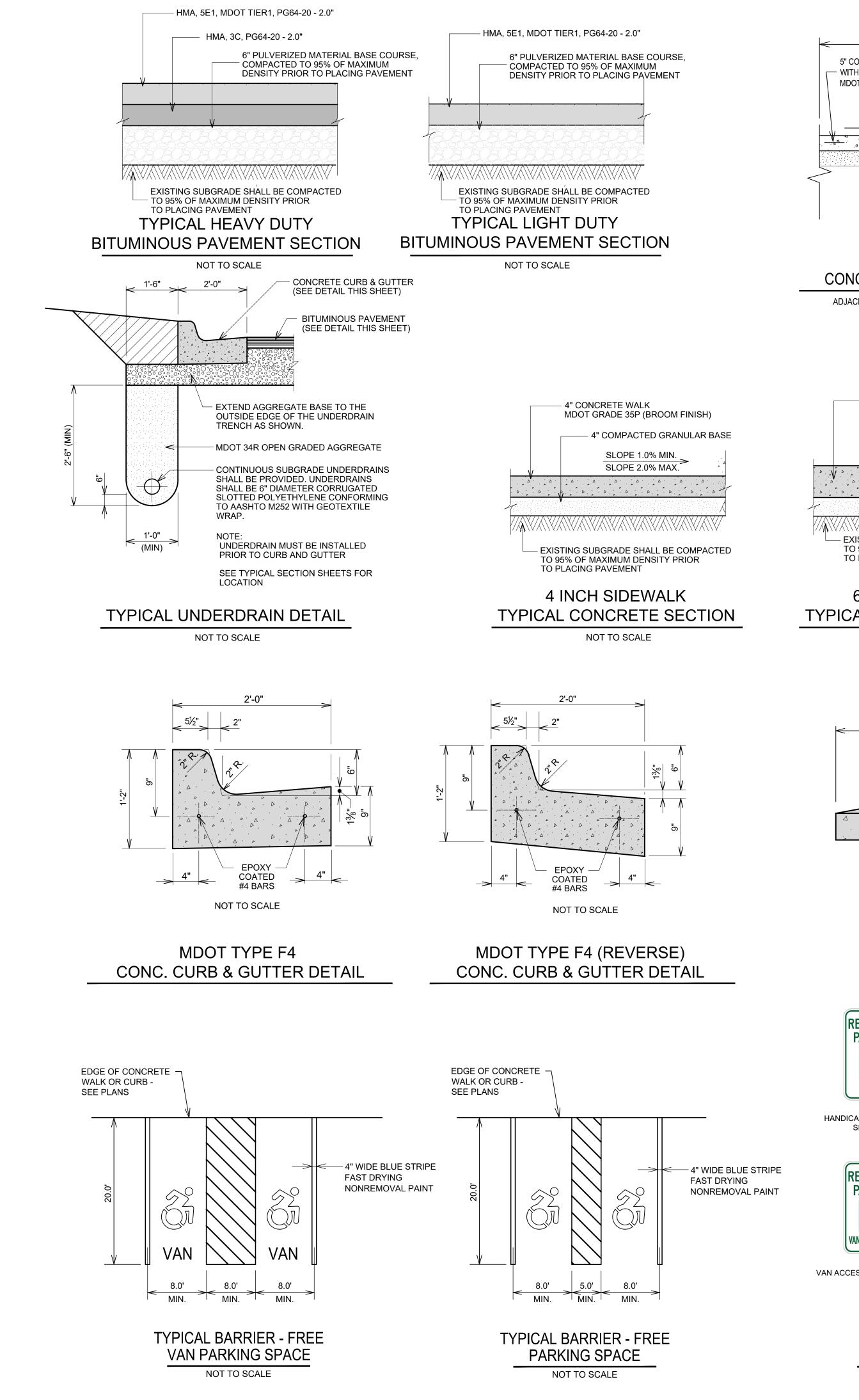
THE ACCURACY AND COMPLETENESS PRIOR TO CONSTRUCTION.

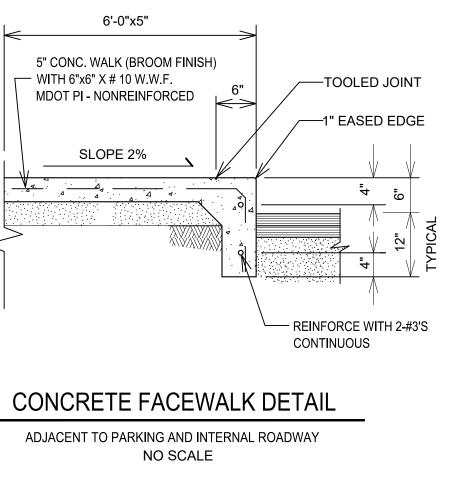
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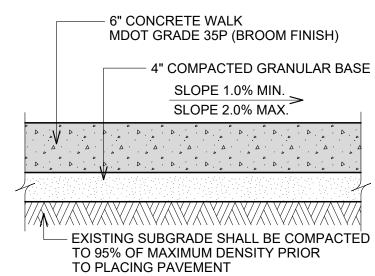
REMOVAL FROM INLET

OPTIONAL OVERFLOW-

DUMP LOOPS (REBAR ---

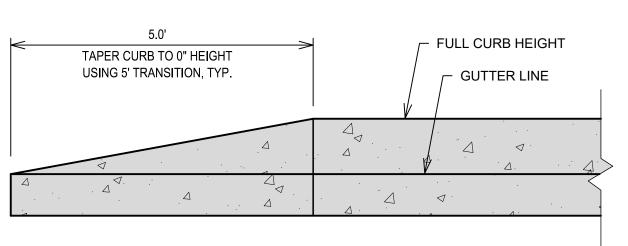
NOT INCLUDED)

SILTSACK ---



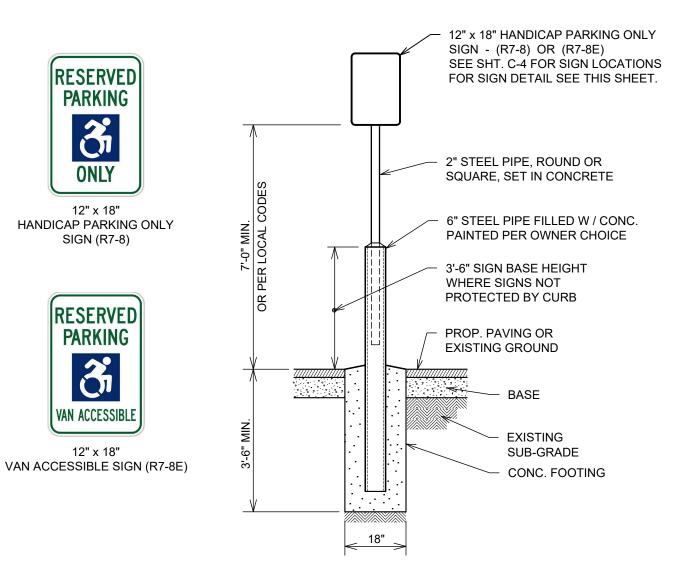
6 INCH SIDEWALK TYPICAL CONCRETE SECTION

NOT TO SCALE



TYP. CURB END TRANISTION DETAIL

NOT TO SCALE



TYP. BARRIER FREE SIGNAGE DETAIL

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HOUSTON, TX

PHONE: (713) 621 8000

NOTE: THE SILTSACK WILL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE

FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

(FOR AREAS OF LOW TO MODERATE PRECIPITATION AND RUNOFF)

REQUIRED VALUE

ASTM D-4632

ASTM D-4632

ASTM D-4533

ASTM D-4355

ASTM D-4491

ASTM D-4491

(FOR AREAS WHERE THERE IS A CONCERN FOR OIL RUNOFF OR SPILLS)

IT IS THE INTENT OF THE PLANS AND SPECIFICATIONS THAT THE CONTRACTOR INSTALL THE REBAR AS SHOWN IN THIS DETAIL TO PROVIDE A FULLY FUNCTIONING UNIT. ALL COSTS ASSOCIATED

DISPOSAL OF SEDIMENT, AND REMOVING THE INLET FILTER WHEN NO LONGER NEEDED IS INCLUDED IN THE ITEM OF WORK AND

2x2 FENCE POST DRIVEN INTO GROUND 1' MIN.

SUPPORT FENCE

FENCE

SILT FENCE JOINT

PUBLIC SERVICES DEPARTMENT

CITY OF ANN ARBOR

SILT FENCE

DR. BY DF/SMJ | CH. BY CSS/DF | DRAWING NO.

NONE **DATE** 11-6-92

SILT FENCE A

SILT

FENCE

SECTION B-B

FABRIC

UNDISTURBED VEGETATION

`SUPPORT FENCE ✓

GEOTEXTILE FILTER FABRIC

_GEOTEXTILE FILTER FABRIC FASTENED ON UPHILL SIDE,

SHEET FLOW

ANCHOR TRENCH

TOWARDS EARTH DISRUPTION

RIDGE OF COMPACTED EARTH

ON UPHILL SIDE OF FILTER

6" ANCHOR TRENCH

FLOW

└ A

FABRIC TO BE

FENCE POST

REV. NO. DR.BY CH. BY DATE

SD-EC-3

__WRAPPED AROUND

WITH FURNISHING. CLEANING AS MANY TIMES AS REQUIRED,

ASTM D-4751

TEST METHOD

300 LBS

120 LBS

80% 40 US SIEVE

40 GAL/MIN/SO FT 0.55 SEC -1

REGULAR FLOW SILTSACK

GRAB TENSILE STRENGTH

APPARENT OPENING SIZE

OIL-ABSORBANT SILTSACK

WILL NOT BE PAID FOR SEPARATELY.

MULLEN BURST

TRAPEZOID TEAR

UV RESISTANCE

FLOW RATE

PERMITTIVITY

GRAB TENSILE ELONGATION

CURB OPENING

SIDE VIEW INSTALLED

INSTALLATION DETAIL

PLAN VIEW

FRONT VIEW

SECTION A-A

UNDISTURBED

/ VEGETATION

SILT FENCE JOINT

SECTION B-B

SILTSACK DETAIL

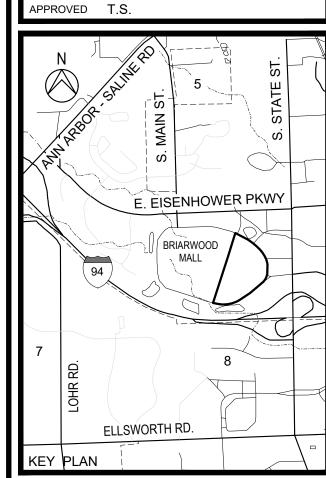
DETROIT. MI

EPSTEIN 600 W. FULTON STREET PHONE: (312) 454-9100

DANIEL WEINBACH & PARTNERS, LTD. Landscape Architects

1142 W. Madison Street p 312 427-2888 Suite 206 f 312 427-7648 Chicago, IL 60607 www.dwpltd.com DAVID

12/04/2023 SITE PLAN RE-SUBMITTAL 11/14/2023 SITE PLAN RE-SUBMITTAL WCWRC RE-SUBMITTAL 09/28/2023 09/27/2023 SITE PLAN RE-SUBMITTAL SITE PLAN RE-SUBMITTAL 09/08/2023 08/14/2023 SITE PLAN RE-SUBMITTAL 06/30/2023 SITE PLAN RE-SUBMITTAL 03/16/2023 SITE PLAN SUBMITTAL ADDITIONS AND/OR REVISIONS DRAWN CHECKED D.H.



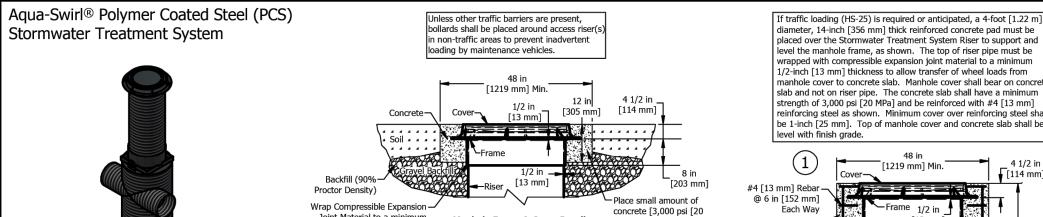
BRIARWOOD MALL SEARS REDEVELOPMENT

REDEVELOPMENT B 100 Briarwood Circle

Ann Arbor, Mi 48108 WASHTENAW COUNTY MICHIGAN

TYPICAL DETAILS

DRAWING No. CB-13 SHEET No. 13 OF 25



For Non-Traffic Areas Only

Internal Baffles

Lifting Lug

[Ø1070 mm]

-Octagonal Base Plate

OFlores

MPa] (min)] to support

and level manhole frame

DO NOT allow manhole

frame to rest upon riser.

3,000 psi [20 MPa]

(min) Concrete

Proctor Density)

Backfill (90%

Joint Material to a minimum

inadvertent loading fron

√— 54 in —

[1372 mm]

Plan View

SCALE 1:40

top of riser to allow transfer of

manhole cover to concrete slab

Pipe coupling –

by Contractor.

long Stub-out

Ø21 in

[′] [Ø533 mm]

12 in [305 mm]

by Manufacturer.

54 in [1372 mm]

[Ø533 mm]

Pipe coupling –

by Contractor.

long Stub-out

Aqua-Swirl® Concentrator

Standard Detail

12 in [305 mm]

by Manufacturer.

AS-3 BYP CW

Projected View **SCALE 1:80**

Agua**Shield**

33 Kanasita Drive, Suite 111, Chattanooga, TN 3734

slab and not on riser pipe. The concrete slab shall have a minimum reinforcing steel as shown. Minimum cover over reinforcing steel shall be 1-inch [25 mm]. Top of manhole cover and concrete slab shall be

1500 lbs [700 kg]. (1) As an alternative, 42 in [1067 mm] diameter, HS-20/25 rated precast concrete rings may be substituted. 14 in [356 mm] thickness must be maintained.

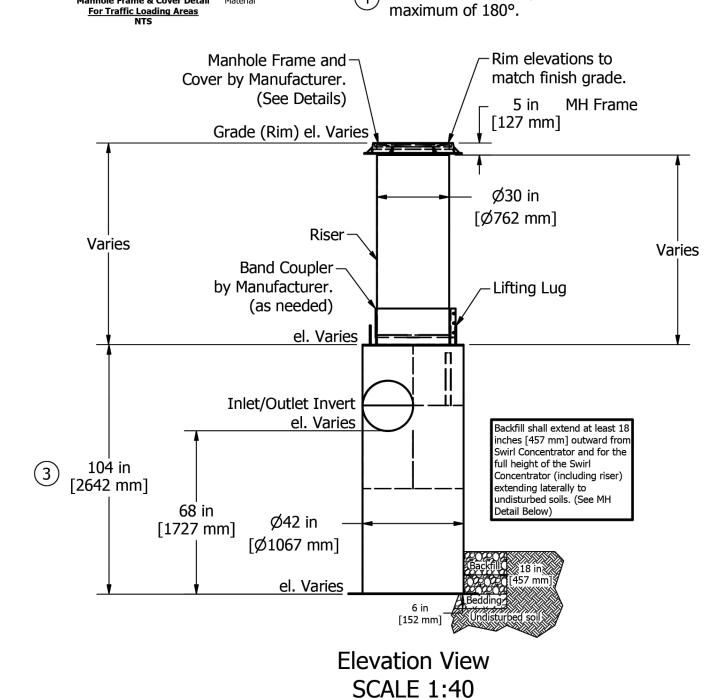
Please see accompanied Aqua-Swirl® specification notes. See Site

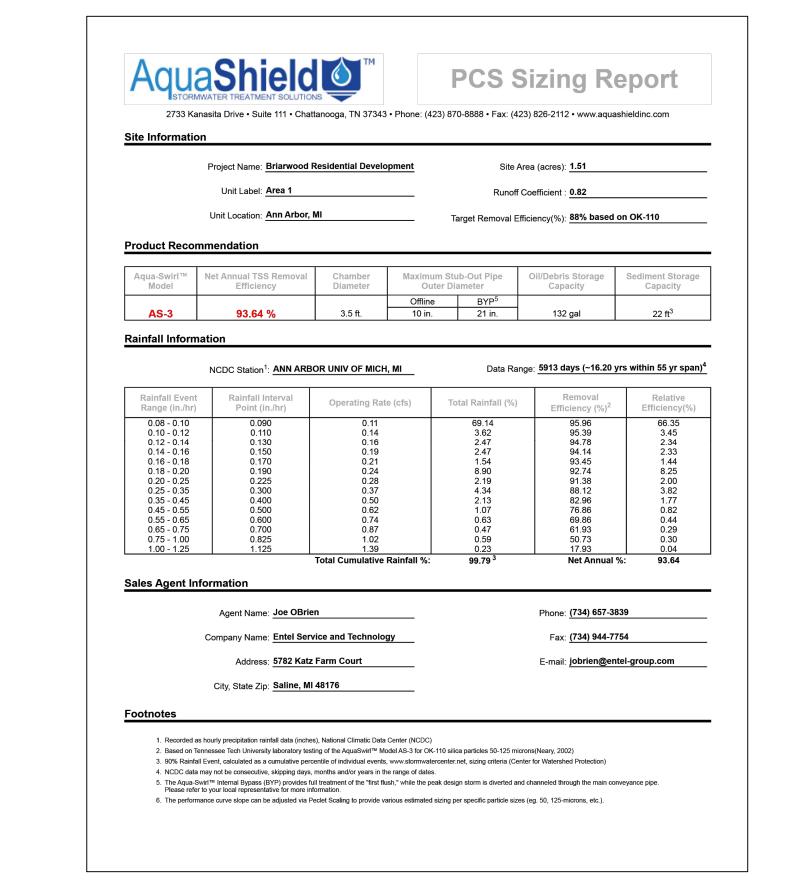
Plan for actual system orientation. Approximate dry (pick) weight

(2) AS-3 BYP inlet/outlet pipe size ranges from 10 in [254 mm] to 21 in [533 mm].

AS-3 chamber height may vary from 90 in [2286 mm] to 104 in [2642 mm], depending on inlet/outlet pipe size.

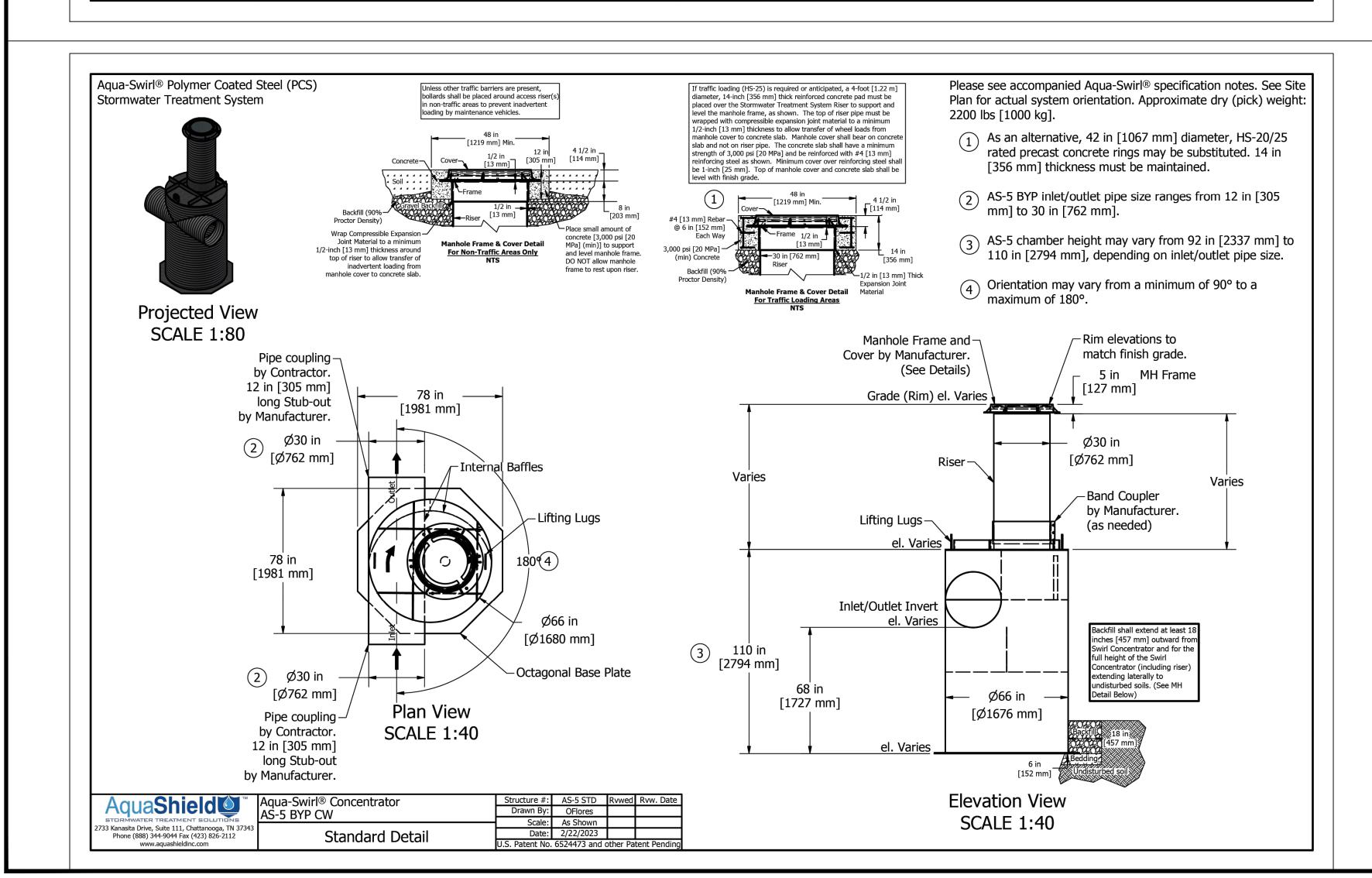
Orientation may vary from a minimum of 90° to a

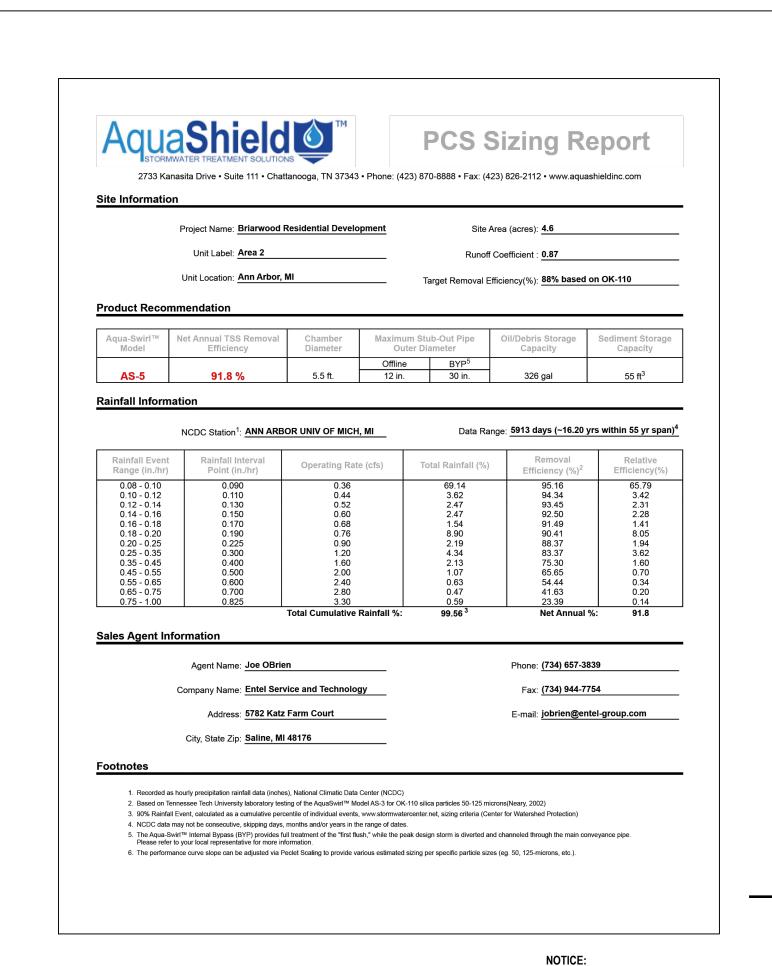




MECHANICAL FILTER #1

OR APPROVED EQUAL





MECHANICAL FILTER #2

OR APPROVED EQUAL

NOTE: ALL WORK SHALL CONFORM TO CITY OF ANN ARBOR STANDARDS AND SPECIFICATIONS

ALL EXISTING UTILITIES SHOWN ON THIS TOPOGRAPHIC SURVEY HAVE BEEN TAKEN FROM VISUAL OBSERVATION AND RECORD MAPPING WHERE AVAILABLE. NO GUARANTEE IS MADE, OR SHOULD BE ASSUMED, AS TO THE COMPLETENESS OR ACCURACY OF THE UTILITIES SHOWN ON THIS DRAWING. PARTIES UTILIZING THIS INFORMATION SHALL FIELD VERIFY THE ACCURACY AND COMPLETENESS PRIOR TO CONSTRUCTION.

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DETAILS

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09/28/2023

BRIARWOOD MALL SEARS REDEVELOPMENT

ELLSWORTH RD.

KEY PLAN

 $\Diamond \Diamond$

SIMON®

225 W. Washington Street

Indianapolis, IN 46204

(317) 636-1600

Hines

EPSTEIN

600 W. FULTON STREET PHONE: (312) 454-9100

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12/04/2023 SITE PLAN RE-SUBMITTAL

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WCWRC RE-SUBMITTAL

Landscape Architects

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845 TEXAS AVENUE SUIT 3300

PHONE: (713) 621 8000

HOUSTON, TX

DETROIT. MI

REDEVELOPMENT B

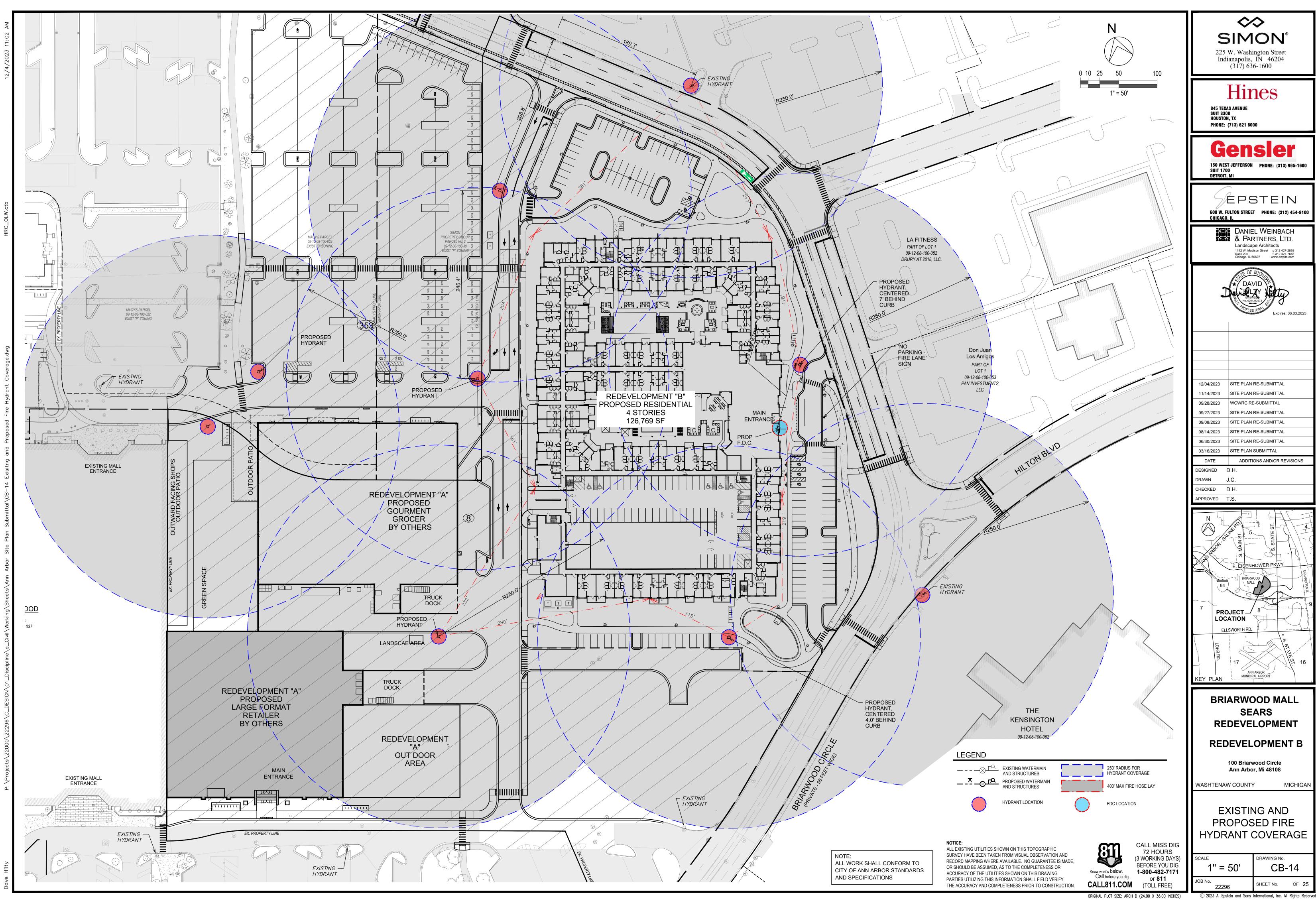
100 Briarwood Circle Ann Arbor, Mi 48108

WASHTENAW COUNTY MICHIGAN

MECHANICAL FILTER

DRAWING No. CB-13.1

ORIGINAL PLOT SIZE: ARCH D (24.00 X 36.00 INCHES)



ENGINEER'S OPINION OF PROBABLE COST - PRELIMINARY SITE LAYOUT

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	COST
SCHE	DULE I - EXCAVATION AND GRADING IMPROVEMENTS				
	Mobilization	1	LUMP SUM	\$15,000.00	\$15,000.0
	Inlet Protection	8	EACH	\$200.00	\$1,600.0
	Construction Fence	3,000		\$22.00	\$66,000.0
	Silt Fence			\$8.00	\$24,000.0
		3,000			
	Construction Gate	2	EACH	\$1,000.00	\$2,000.0
	Excavation	8,000		\$26.00	\$208,000.0
	Sugrade preparation	23,130	SY	\$5.00	\$115,650.0
	Haul off	1,800	CY	\$150.00	\$270,000.0
	Fine grading	6	Ac	\$5,000.00	\$30,500.0
	Slope Stabilization	4,000	SY	\$1.00	\$4,000.00
TOTA	L SCHEDULE I - EXCAVATION AND GRADING IMPROVEME	NTS			\$736,750.00
SCHE	DULE II - DEMOLITION				
SCHE		600	SY	\$18.00	¢10, 900, 00
	2" Asphalt Mill	600			\$10,800.0
	Curb Cuts	4	EACH	\$585.00	\$2,340.0
	Full Depth Pavement Removal	4500		\$25.00	\$112,500.0
	Remove Tree	5	EACH	\$1,000.00	\$5,000.0
SCHE	DULE II - DEMOLITION				\$130,640.0
SCHE	DULE III - UTILITY IMPROVEMENTS				
	Storm Sewer Replacement with pavement restoration	18	LF	\$80.00	\$1,440.0
	Storm Sewer/ Structure Adjustments	2	LUMP SUM	\$15,000.00	\$30,000.00
	12" RCP	614		\$40.00	\$24,560.00
	15" RCP	122		\$45.00	\$5,490.0
	18" RCP	37	LF	\$50.00	\$1,850.0
	Backfill storm				10.1
		773		\$36.00	\$27,828.0
	Catch Basin	11	EA	\$3,000.00	\$33,000.0
	Water Quality Unit	2	LUMP SUM	\$50,000.00	\$100,000.00
	Connect to Ex	5	EA	\$500.00	\$2,500.00
	Sanitary Sewer	30	LF	\$40.00	\$1,200.00
	6" DIP	294	LF	\$65.00	\$19,110.00
	6" DIP Tee	3	EA	\$350.00	\$1,050.00
	6" DIP Bend	1	EA	\$340.00	\$340.00
	6" Valve	3	EA	\$1,000.00	\$3,000.0
	Hydrant	2	EA	\$3,000.00	\$6,000.00
	12" DIP	26	LF	\$108.00	\$2,808.00
	12" DIP Tee	1	EA	\$1,500.00	\$1,500.00
	12" Vault and valve	3	EA	\$2,500.00	\$7,500.00
	Backfill water	320	LF	\$22.00	\$7,040.00
SUBT	OTAL SCHEDULE III UTILTIY IMPROVEMENTS			,	\$276,216.00
	DUI E IV. ON OUTE IMPROVEMENTO				
SCHE	DULE IV - ON-SITE IMPROVEMENTS		0)/	A.F.O. O.	4005 700 0
	Subbase Granular Material	4114		\$50.00	\$205,700.00
	Hot-Mix Asphalt Binder Course, - 3.5"	566		\$150.00	\$84,900.0
	Hot-Mix Asphalt Surface Course, - 2"	323		\$150.00	\$48,450.0
	PCC Sidewalk - 4" with Subbase	19934		\$9.00	\$179,406.0
	Heavy Duty Concrete	1080	SF	\$10.00	\$10,800.0
	Curb	2650	LF	\$15.00	\$39,750.0
	Pavement Markings	1	LUMP SUM	\$3,000.00	\$3,000.0
	Standard Benches	4	EACH	\$2,000.00	\$8,000.0
	Signage	9	EACH	\$500.00	\$4,500.0
	Ornamental Gate	2	EACH	\$2,000.00	\$4,000.0
	Ornamental Fence	230		\$50.00	\$11,500.0
	Bike Racks	12	EACH	\$501.00	\$6,012.0
	Street lighting	25	EACH	\$5,500.00	\$137,500.0
	Landscaping	23	LUMP SUM	\$190,000.00	\$190,000.0
		1		. ,	
ΤΟΤΔ	As-built Plans L SCHEDULE IV - ON-SITE IMPROVEMENTS	1	LUMP SUM	\$12,000.00	\$12,000.0 \$945,518.0
SUBT	OTAL SCHEDULES I-IV				\$2,089,124.0
CONT	RACTOR GENERAL CONDITIONS/BOND/INSURANCE/FEES			18.00%	\$376,042.32
CONT	INGENCY			5.00%	\$104,456.20
TOTA					\$2,569,622.52
IUIA					ψ∠,309,622.32

NOTE: This Engineer's Opinion of Probable Cost is made on the basis of Engineer's experience and qualifications using plan quantities and represents Engineer's best judgment as an experienced and qualified professional engineer generally familiar with the construction industry. However, since the Engineer has no control over the cost of labor, materials, equipment or services furnished by others, or over the Contractor's methods of determining prices, or over competitive bidding or market conditions, or over quantities of work actually performed, Engineer cannot and does not guarantee that proposals, bids or actual Construction Cost will not vary from Opinions of Probable Cost prepared by Engineer. This Opinion of Probable Construction Cost is limited to those items stated herein and does not include permit fees, recapture costs, consultant fees, landscaping, dewatering, maintenance, bonds or the like.



Hines 845 TEXAS AVENUE SUIT 3300 HOUSTON, TX

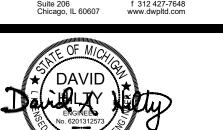
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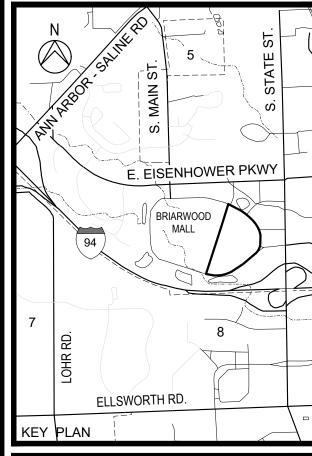


12/04/2023	SITE PLAN RE-SUBMITTAL
11/14/2023	SITE PLAN RE-SUBMITTAL
09/28/2023	WCWRC RE-SUBMITTAL
09/27/2023	SITE PLAN RE-SUBMITTAL
09/08/2023	SITE PLAN RE-SUBMITTAL
08/14/2023	SITE PLAN RE-SUBMITTAL

DESIGNED	D.H.
DATE	ADDITIONS AND/OR REVISIONS
03/16/2023	SITE PLAN SUBMITTAL

06/30/2023 SITE PLAN RE-SUBMITTAL

DRAWN J.C. CHECKED D.H. APPROVED T.S.



BRIARWOOD MALL SEARS REDEVELOPMENT

REDEVELOPMENT B

100 Briarwood Circle

MICHIGAN

Ann Arbor, Mi 48108

WASHTENAW COUNTY

ESTIMATED COST

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DRAWING No. C-15

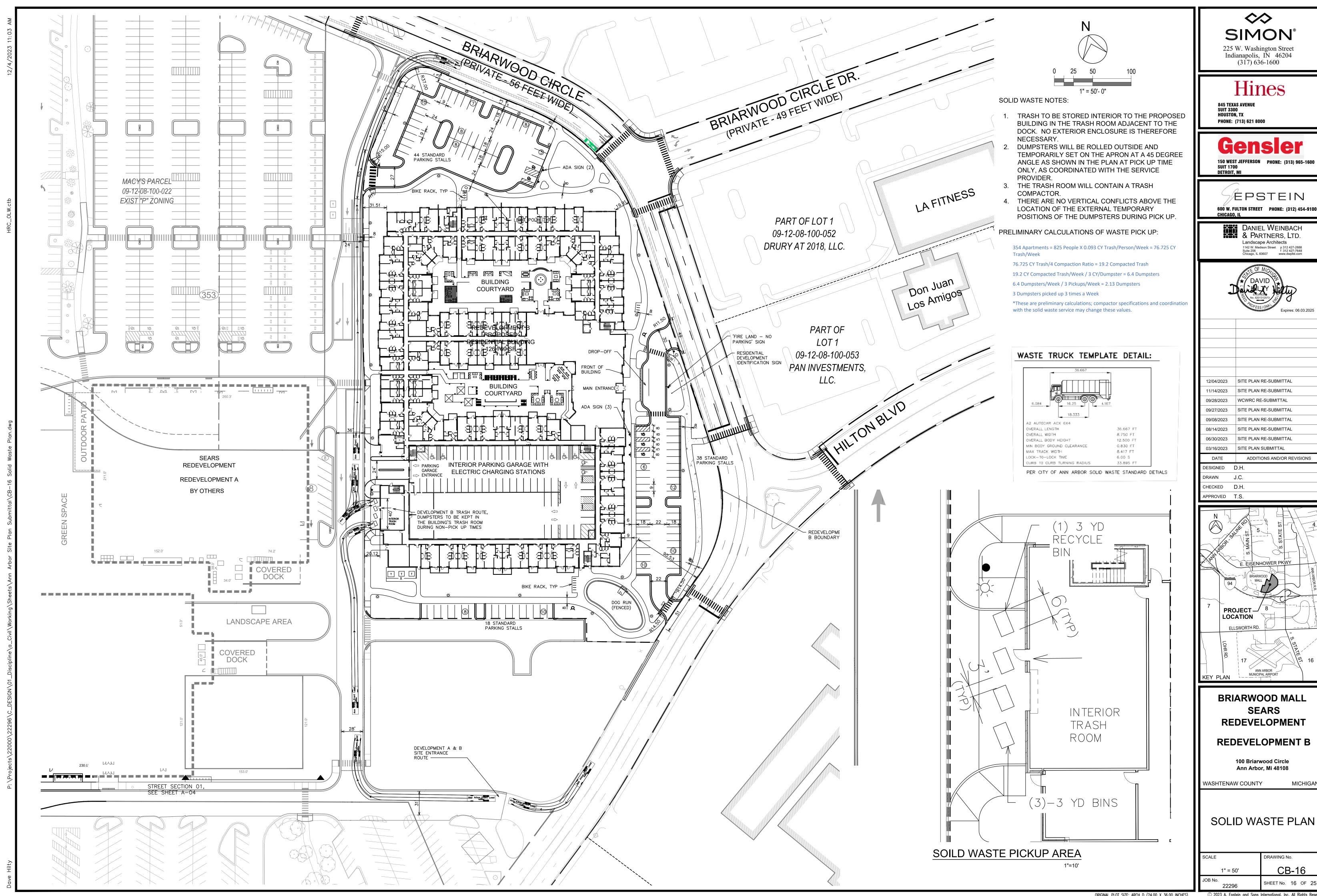
ORIGINAL PLOT SIZE: ARCH D (24.00 X 36.00 INCHES)

ALL WORK SHALL CONFORM TO CITY OF ANN ARBOR STANDARDS

AND SPECIFICATIONS

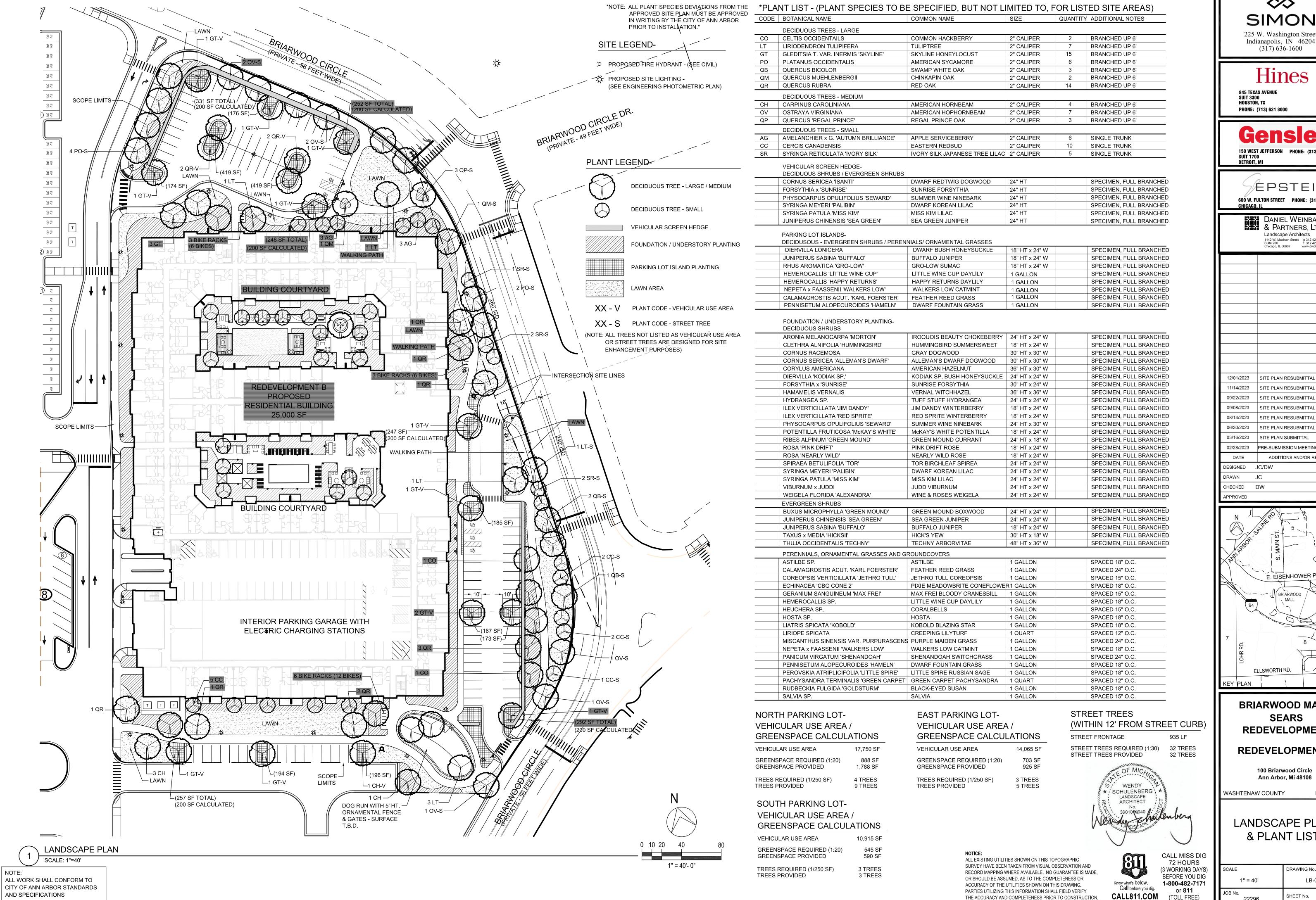
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THE ACCURACY AND COMPLETENESS PRIOR TO CONSTRUCTION.





ORIGINAL PLOT SIZE: ARCH D (24.00 X 36.00 INCHES)



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XX DANIEL WEINBACH **AND APPRICE S. LTD.** Landscape Architects

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SITE PLAN RESUBMITTAL SITE PLAN SUBMITTAL 02/28/2023 PRE-SUBMISSION MEETING SUBMITT ADDITIONS AND/OR REVISIONS



BRIARWOOD MALL SEARS REDEVELOPMENT

REDEVELOPMENT B

100 Briarwood Circle Ann Arbor, Mi 48108

MICHIGAN

LANDSCAPE PLAN & PLANT LIST

DRAWING No. LB-01 SHEET No. 1 OF

ORIGINAL PLOT SIZE: ARCH D

GENERAL NOTES

- 1. ALL DIMENSIONS ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR. NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES PRIOR TO STARTING WORK.
- 2. THE CONTRACTOR SHALL HAVE A MINIMUM OF FIVE YEARS EXPERIENCE WITH PROJECTS OF SIMILAR SIZE AND TYPE.
- SPECIES AND SIZES OF PLANTS LISTED IN THE PLANT LIST ARE SUBJECT TO AVAILABILITY AT TIME OF INSTALLATION. IF SUBSTITUTIONS ARE REQUIRED, THE CONTRACTOR SHALL SUBMIT REQUESTS TO THE LANDSCAPE ARCHITECT FOR APPROVAL
- 4. QUANTITIES SHOWN ON THE DRAWING AND IN THE PLANT LIST ARE PROVIDED ONLY FOR THE CONTRACTOR'S CONVENIENCE. THE NUMBER OF PLANT SYMBOLS SHOWN ON THE DRAWINGS SUPERCEDE ALL QUANTITIES PROVIDED. THE CONTRACTOR SHALL VERIFY ALL PLANT QUANTITIES ON THE DRAWINGS AND NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES PRIOR TO INSTALLATION. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL PLANTS PER THE PLANT SYMBOLS SHOWN ON THE DRAWINGS.
- 5. ALL OVERHEAD AND UNDERGROUND UTILITIES ARE TO BE LOCATED PRIOR TO DIGGING OR EXCAVATION. IF UTILITIES OR OTHER OBSTRUCTIONS ARE DISCOVERED TO CONFLICT WITH GRADING, PLANT OR MATERIALS PLACEMENT, NOTIFY THE LANDSCAPE ARCHITECT SO THAT ADJUSTMENTS MAY BE MADE PRIOR TO PROCEEDING.
- CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PROTECT EXISTING PLANTS, LAWN AREA, FENCES, SITE FEATURES AND PAVING TO REMAIN. ANY DAMAGE TO THESE EXISTING AREAS OR FEATURES SHALL BE REPLACED BY THE CONTRACTOR AT THEIR EXPENSE. DAMAGED LAWN AREAS SHALL BE TILLED. RE-GRADED, TOPSOIL ADDED AS NEEDED AND BE RESTORED WITH SOD. REPLACED FEATURES, PLANTS AND SOD SHALL BE WARRANTED BY THE CONTRACTOR FOR A PERIOD OF ONE YEAR.
- 7. PROVIDE POSITIVE DRAINAGE AT ALL TIMES. DO NOT OBSTRUCT THE NATURAL OR ENGINEERED DRAINAGE FLOW PATTERN. NOTIFY THE LANDSCAPE ARCHITECT OF ANY DRAINAGE
- 8. IMPORTED TOPSOIL FOR THIS PROJECT SHALL BE FRIABLE LOAM OR SANDY LOAM, COMPRISED OF BETWEEN 20% AND 50% SILT, 5% AND 20% CLAY, AND 30% AND 60% SAND. THE pH LEVEL SHALL BE BETWEEN 6.0 AND 7.2 AND THE ORGANIC MATTER CONTENT SHALL BE BETWEEN 3% AND 8%. TOPSOIL SHALL BE FREE OF SEEDS, STONES, LARGE CLUMPS, ROOTS, LEAVES AND DEBRIS, AND SHALL NOT BE DELIVERED WHILE IN A FROZEN OR MUDDY CONDITION. CONTRACTOR SHALL PROVIDE A RECENT SOIL TEST ANALYSIS FOR ALL SOIL TO BE USED. THE ANALYSIS MUST INCLUDE THE INFORMATION REQUIRED ABOVE. IF TESTED TOPSOIL REQUIRES AMENDMENTS TO COMPLY WITH REQUIREMENTS, CONTRACTOR SHALL AMEND THE TOPSOIL, RE-TEST AND RESUBMIT THE ANALYSIS FOR APPROVAL PRIOR TO BRINGING THE TOPSOIL ON SITE.
- 9. EXISTING TOPSOIL FROM ON SITE THAT HAS BEEN STOCKPILED MAY BE USED IF IT MEETS THE REQUIREMENTS FOR IMPORTED TOPSOIL. THIS INCLUDES CONDUCTING SOIL TEST ANALYSIS' AND ADDING AMENDMENTS AS NEEDED SO THAT THE SOIL COMPLIES WITH THE REQUIREMENTS.
- 10. SOD SHALL BE A TALL FESCUE BLEND SOD, SUCH AS RHIZOMATOUS TALL FESCUE (RTF) OR BLACK BEAUTY, AVAILABLE FROM CENTRAL SOD FARMS. BLUEGRASS BLEND SOD IS NOT ACCEPTABLE, UNLESS APPROVED BY THE LANDSCAPE ARCHITECT.
- 11. ALL PLANT MATERIAL MUST BE SPECIMEN QUALITY, TRUE TO SPECIES AND VARIETY, WITH FULL, DENSE AND HEALTHY FORMS. PLANTS THAT ARE NOT SPECIMEN QUALITY WILL NOT BE ACCEPTED. ALL PLANTS MUST HAVE BEEN LOCALLY GROWN AT A NORTHERN ILLINOIS NURSERY, LOCATED WITHIN 50 MILES OF THE PROJECT SITE, AND THAT HAS BEEN INSPECTED AND CERTIFIED BY THE MICHIGAN DEPARTMENT OF AGRICULTURE FOR THE CURRENT YEAR.
- 12. ALL DECIDUOUS AND EVERGREEN TREES AND SHRUBS THAT ARE 36" HEIGHT OR TALLER ARE TO HAVE FRESHLY DUG, BALLED AND BURLAPPED ROOT BALLS WITH SIZES THAT MEET THE STANDARDS OF THE AMERICAN NURSERYMEN'S ASSOCIATION. DECIDUOUS AND EVERGREEN SHRUBS THAT ARE 30" HEIGHT OR LESS MAY EITHER HAVE FRESHLY DUG, BALLED AND BURLAPPED ROOT BALLS OR MAY BE CONTAINER GROWN. ALL PERENNIALS, ORNAMENTAL GRASSES AND GROUNDCOVERS MUST BE CONTAINER GROWN, CONTAINER GROWN MATERIALS SHALL HAVE BEEN GROWN IN THEIR CURRENT CONTAINER FOR A PERIOD OF NO LESS THAN SIX MONTHS.
- 13. ALL BALLED AND BURLAPPED MATERIALS SHALL BE INSPECTED AND TAGGED AT THE NURSERY BY THE LANDSCAPE ARCHITECT, PRIOR TO DIGGING. PRE-DUG OR HEELED-IN STOCK WILL NOT BE ACCEPTED, WITHOUT PRIOR APPROVAL BY THE LANDSCAPE ARCHITECT.
- 14. PLANT MATERIAL SHALL ONLY BE INSTALLED WITHIN THE FOLLOWING DATES: **DECIDUOUS TREES AND SHRUBS:** APR 1 THROUGH DEC **EVERGREEN TREES AND SHRUBS:** APR 1 THROUGH NOV 1 PERENNIALS, ORNAMENTAL GRASSES AND GROUNDCOVERS: MAY 1 THROUGH OCT 15.
- 15. TEST TREE PITS AND PLANT BEDS FOR ADEQUATE DRAINAGE. FILL PLANT PIT WITH 12" OF WATER. IF WATER LEVEL DOES NOT DROP A MINIMUM OF ONE INCH PER HOUR, NOTIFY THE LANDSCAPE ARCHITECT OF DRAINAGE ISSUES.
- 16. PLANTING MIX FOR ALL PLANTINGS SHALL BE AS FOLLOWS. MIXING OF PLANTING MIX COMPONENTS SHALL BE THOROUGHLY BLENDED OUTSIDE THE PLANTING PITS, PRIOR TO PLANTING. TREES AND SHRUBS: 70% TOPSOIL, 15% SAND, 15% PINE FINES PERENNIALS AND ANNUALS: 50% TOPSOIL, 25% SAND, 25% PINE FINES
- 17. FOR PLANTING MIXES, SAND SHALL BE ANGULAR, COARSE SAND AND PINE FINES SHALL BE 3/8" SOUTHERN PINE BARK FINES.
- 18. EXCAVATE PARKING LOT ISLANDS AND CURBED PLANTERS TO A DEPTH OF 24" AND BACKFILL WITH TOPSOIL. BERM PLANTERS AND ISLANDS TO A HEIGHT OF 6" ABOVE TOP OF CURB.
- 19. ALL PLANT BEDS ARE TO BE WELL SHAPED 'SPADE CUT' EDGES, 3" DEPTH, IN LINES OR IN CURVES AS SHOWN ON THE DRAWINGS.
- 20. THE CONTRACTOR SHALL REQUEST AN INSPECTION OF LANDSCAPE PLANTING UPON SUBSTANTIAL COMPLETION FOR "ACCEPTANCE". REQUEST MUST BE SUBMITTED TO LANDSCAPE ARCHITECT AT LEAST TEN DAYS PRIOR TO ANTICIPATED INSPECTION. UPON INSPECTION THE LANDSCAPE ARCHITECT SHALL PREPARE A PUNCH LIST OF UNACCEPTABLE OR OUTSTANDING ITEMS. AFTER THE ITEMS HAVE BEEN SATISFACTORILY COMPLETED AND REVIEWED, THE LANDSCAPE ARCHITECT WILL RECOMMEND "ACCEPTANCE".
- 21. ALL PLANT MATERIAL SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM DATE OF "ACCEPTANCE". AT OR NEAR THE END OF THE GUARANTEE PERIOD, THE CONTRACTOR SHALL REQUEST AN INSPECTION OF LANDSCAPE PLANTING FOR "FINAL ACCEPTANCE". REQUEST MUST BE SUBMITTED TO LANDSCAPE ARCHITECT AT LEAST TEN DAYS PRIOR TO ANTICIPATED INSPECTION. UPON INSPECTION THE LANDSCAPE ARCHITECT SHALL PREPARE A PUNCH LIST OF UNACCEPTABLE ITEMS. AFTER THE ITEMS HAVE BEEN SATISFACTORILY REPLACED OR REPAIRED, REVIEWED AND APPROVED, THE LANDSCAPE ARCHITECT WILL RECOMMEND "FINAL ACCEPTANCE".

TO BE PERFORMED:

GENERAL LANDSCAPE MAINTENANCE

BE KEPT AT A HEIGHT OF 3".

AS INDIVIDUAL SPECIMENS.

OR PRE-EMERGENTS.

GROUNDCOVER BEDS.

ALL POTENTIAL PROBLEMS.

FERTLIZERS.

EXISTS.

BRANCHES AND FALLEN LEAVES.

GENERAL LANSCAPE MAINTENANCE WILL CONSIST OF WEEKLY SITE VISITS DURING THE

A. PROVIDE WEEKLY LAWN CARE, INCLUDING MOWING AND EDGING. LAWN TO

PRUNE ALL SHRUBS AND TREES TO REMOVE BROKEN BRANCHES AND TO KEEP NEW GROWTH IN BOUNDS. DO NOT SHEAR PLANTS. SHRUBS

PLANTED IN STRAIGHT LINES SHALL BE PRUNED AS A LOOSE, INFORMAL

SINGLE, INFORMAL SHAPE. DO NOT PRUNE MASSED SHRUBS INTO

DEADHEAD PERENNIALS AND REMOVE DEAD FLOWER STALKS.

D. FERTILIZE BEDS AS NEEDED USING ONLY SLOW RELEASE NITROGEN

AND IRRIGATION CONTRACTOR OF ALL POTENTIAL PROBLEMS.

HEDGE. SHRUBS PLANTED IN MASSINGS ARE TO BE PRUNED AS A LARGE

INDIVIDUAL SHAPES. SPECIMEN SHRUBS ARE TO BE PRUNED INFORMALLY

CLEAN ALL BEDS, SPECIAL PAVING AND SIDEWALKS BY REMOVING TRASH

WEED BEDS BY MANUALLY PULLING ALL WEEDS. DO NOT USE HERBICIDES

TOPDRESS HARDWOOD MULCH AS NEEDED TO MAINTAIN 3" DEPTH AROUND

SHRUBS AND TREES, IN THE SPRING. DO NOT ADD ADDITIONAL MULCH IN

MONITOR PLANTS FOR ADEQUATE MOISTURE AND ADJUST THE IRRIGATION

SYSTEM. PROVIDE HAND WATERING AS NEEDED IF NO IRRIGATION SYSTEM

PROVIDE VISUAL INSPECTION OF IRRIGATION SYSTEM AND INFORM OWNER

INSPECT ALL PLANTINGS FOR DISEASES OR PESTS. NOTIFY THE OWNER OF

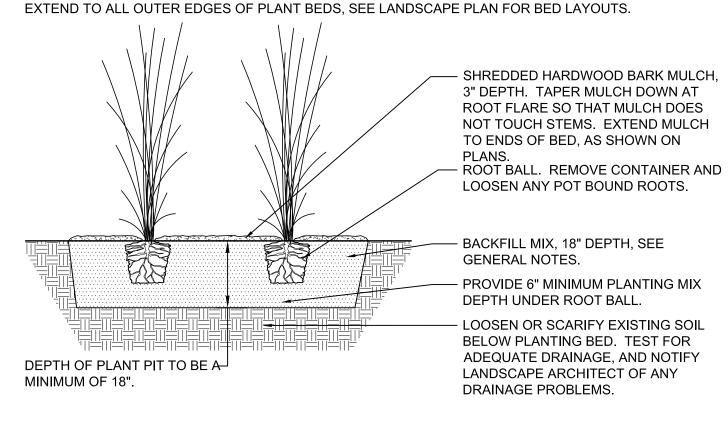
MONTHS OF APRIL THROUGH NOVEMBER, IN WHICH THE FOLLOWING ACTIVITIES ARE

FERTILIZATION TO BE PROVIDED AT OWNER'S REQUEST.

IRRIGATION NOTES

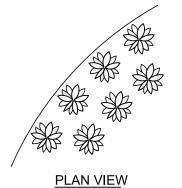
- 1. A PLASTIC, AUTOMATIC, TIMER-ACTIVATED IRRIGATION SYSTEM SHALL BE PROVIDED FOR ALL LANDSCAPE AREAS. SEPARATE ZONES TO BE PROVIDED FOR LAWN AND PLANTED BEDS
- 2. PROVIDE ROTARY AND MIST POP-UP SPRAYHEADS AS APPROPRIATE FOR THE PARTICULAR SIZE AND SHAPE OF LAWN OR PLANTING AREA, WITH 60%, HEAD TO HEAD SPACING. THERE SHALL BE NO OVER SPRAY ON ROADS OR SIDEWALKS.
- 3. P ROVIDE DRIP IRRIGATION WHERE NOTED ON THE PLANS. DRIP IRRIGATION TO PROVIDE PROPER MOISTURE LEVEL FOR SPECIFIED PLANTS (SEE PLANS). A DRIP SYSTEM OPERATION INDICATOR SHALL BE PROVIDED FOR EACH ZONE.
- 4. PROVIDE WATER CONNECTION, BACKFLOW PREVENTER AND IRRIGATION CONTROLLER INSIDE THE BUILDING.
- 5. SIZE BOOSTER PUMP, IF REQUIRED, TO PROVIDE 50 GPM AND 40 PSI AT THE SPRINKLER HEADS.
- 6. PROVIDE SLEEVING AS NECESSARY AND COORDINATE SLEEVE INSTALLATION WITH THE GENERAL CONTRACTOR TO ELIMINATE FUTURE DAMAGE TO INSTALLED PAVEMENT.
- 7. ALL IRRIGATION EQUIPMENT SHALL BE BY TORO, RAINBIRD, OR APPROVED EQUAL.
- 8. THE IRRIGATION CONTRACTOR SHALL SUBMIT SHOP DRAWINGS SHOWING THE DESIGN OF THE SYSTEM FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION. THE DRAWING SHOULD INDICATE THE WATER CONNECTION BACKFLOW PREVENTER, PIPING, INCLUDING SIZES VALVES, INCLUDING SIZES HEADS, INCLUDING LOCATIONS, TYPE AND INDICATION OF SPRAY RADIUS DRIPLINES, INCLUDING EMITTERS QUICK COUPLERS THE AUTOMATIC RAIN SHUTOFF AND THE PROPOSED ELECTRICAL CONNECTION PROVIDE CATALOGUE CUTS FOR ALL EQUIPMENT.
- 9. PROVIDE AN AUTOMATIC RAIN SHUT-OFF.
- 10. PROVIDE A QUICK COUPLER IN OR ADJACENT TO EACH VALVE BOX, AND AT INTERVALS ALONG THE MAIN WITHIN 100' OF ALL NEW PLANTS, OR AS INDICATED ON THE PLANS.
- 11. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR BLOWING OUT THE SYSTEM BY AIR COMPRESSION IN THE FALL FOLLOWING INSTALLATION AND TURNING ON THE SYSTEM IN THE FOLLOWING SPRING.
- 12. THE ENTIRE IRRIGATION SYSTEM SHALL BE GUARANTEED BY THE CONTRACTOR AS TO MATERIAL AND WORKMANSHIP, INCLUDING SETTLING OF BACKFILLED AREAS BELOW GRADE FOR A PERIOD OF ONE YEAR FOLLOWING THE DATE OF FINAL ACCEPTANCE OF THE WORK.
- 13. ALL WORK SHALL BE IN ACCORDANCE WITH LOCAL MUNICIPALITY STANDARDS. CODES AND ORDINANCES.

LOCATE ALL UNDERGROUND UTILITIES PRIOR TO PLANTING. PERENNIAL BEDS ARE TO BE EXCAVATED AS A SINGLE PIT. EXTEND PIT WIDTH TO EDGES OF PLANT BED AS SHOWN ON THE LANDSCAPE PLAN. LOCATE ROOT FLARE IN ROOT BALL AND SET PERENNIAL HEIGHT SO THAT ROOT FLARE IS FLUSH WITH FINISH GRADE. BACKFILL AND WATER IN THE PLANTING MIX THOROUGHLY, WHILE KEEPING THE PLANT PLUMB. STRAIGHTEN PLANT IF SETTLING OCCURS. MULCH LIMITS FOR PERENNIAL PLANTINGS SHALL

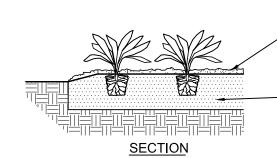


ORNAMENTAL GRASS PLANTING DETAIL

LOCATE ALL UNDERGROUND UTILITIES PRIOR TO DIGGING. EXCAVATE ENTIRE PERENNIAL / GROUNDCOVER BED, AND BACKFILL WITH PLANTING MIX AS SPECIFIED. BED HEIGHT IS TO BE 2" ABOVE FINISH GRADE AND WELL DRAINED. MULCH LIMITS FOR PERENNIAL BEDS TO EXTEND TO ALL EDGES OF THE BEDS, SEE PLANS FOR BED LAYOUTS. SEE PLANT LIST FOR PLANT SPACING. GAPS BETWEEN PLANTS SHALL BE NO GREATER THAN THE SPECIFIED SPACING FOR THAT PARTICULAR PLANT.



SPACING TO BE AS SPECIFIED IN THE PLANT LIST. PERENNIALS SHALL BE PLACED WITH THEIR CENTERS 12" FROM THE EDGE OF BED. GROUNDCOVERS SHALL BE PLACED WITH THEIR CENTERS 6" FROM THE EDGE OF BED. WHEN LAYING OUT PLANTS, ALWAYS START BY FOLLOWING THE BED EDGE, WORKING TOWARDS THE CENTER OF THE BED. USE TRIANGULAR (STAGGERED) SPACING WHENEVER POSSIBLE.



NOT TO SCALE

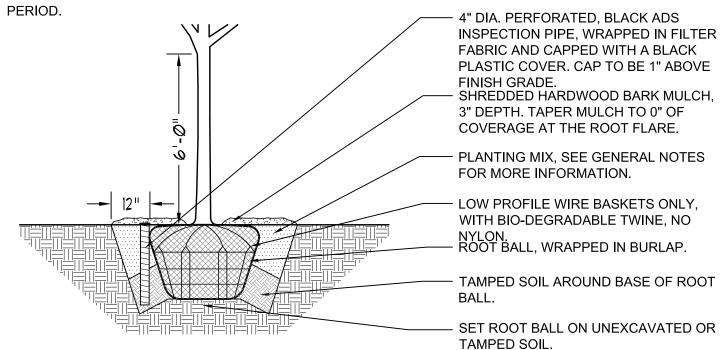
- LEAF MULCH, 1" DEPTH AROUND PERENNIALS AND GROUNDCOVER - PLANTING MIX. 12" DEPTH. SEE **GENERAL NOTES FOR MORE**

PERENNIAL AND GROUNDCOVER PLANTING DETAIL

INFORMATION.

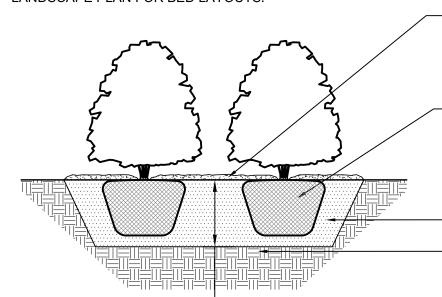
*NOTE: ALL PLANT SPECIES DEVIATIONS FROM THE APPROVED SITE PLAN MUST BE APPROVED IN WRITING BY THE CITY OF ANN ARBOR PRIOR TO INSTALLATION."

LOCATE ALL UNDERGROUND UTILITIES PRIOR TO DIGGING. TREE PIT WIDTH TO BE EXTENDED 12" AROUND THE ENTIRE ROOT BALL AS SHOWN IN THE DETAIL BELOW. TEST TREE PIT FOR DRAINAGE PRIOR TO INSTALLING TREE. PRUNE OFF ALL DEAD, BROKEN OR SCARRED BRANCHES, AND SHAPE PRUNE AS DIRECTED BY THE LANDSCAPE ARCHITECT. FOR TREES UP TO 4" CALIPER OR 12' HEIGHT, REMOVE APPROXIMATELY 5% -10% OF THE OVERALL BRANCHING. FOR TREES OVER 4" CALIPER OR 12' HEIGHT. REMOVE APPROXIMATELY 15%-20% OF THE OVERALL BRANCHING. LOCATE ROOT FLARE IN ROOT BALL AND SET TREE HEIGHT SO THAT ROOT FLARE IS FLUSH WITH FINISH GRADE. WATER IN THE PLANTING MIX THOROUGHLY, WHILE KEEPING THE TREE PLUMB. STRAIGHTEN TREE IF SETTLING OCCURS. CONTRACTOR TO UN-TIE AND REMOVE TWINE FROM AROUND ROOT FLARE OF TREE AT THE END OF THE WARRANTY



DECIDUOUS TREE PLANTING DETAIL

LOCATE ALL UNDERGROUND UTILITIES PRIOR TO PLANTING. SHRUBS BEDS ARE TO BE EXCAVATED AS A SINGLE SHRUB PIT. EXTEND SHRUB PIT WIDTH TO EDGES OF PLANT BED AS SHOWN ON THE LANDSCAPE PLAN. LOCATE ROOT FLARE IN ROOT BALL AND SET SHRUB HEIGHT SO THAT ROOT FLARE IS FLUSH WITH FINISH GRADE. REMOVE TWINE FROM ROOT FLARE. BACKFILL AND WATER IN THE PLANTING MIX THOROUGHLY, WHILE KEEPING THE SHRUB PLUMB. STRAIGHTEN SHRUB IF SETTLING OCCURS. PRUNE OFF ALL DEAD, BROKEN OR SCARRED BRANCHES, AND SHAPE PRUNE AS DIRECTED BY THE LANDSCAPE ARCHITECT. MULCH LIMITS FOR SHRUBS SHALL EXTEND TO ALL OUTER EDGES OF PLANTING BEDS, SEE LANDSCAPE PLAN FOR BED LAYOUTS.



2" DEPTH. TAPER MULCH DOWN AT ROOT FLARE SO THAT MULCH DOES NOT TOUCH STEMS. EXTEND MULCH TO ENDS OF BED, AS SHOWN ON - ROOT BALL. FOR BALL AND

- SHREDDED HARDWOOD BARK MULCH,

BURLAPPED SHRUBS, REMOVE ALL NON-BIODEGRADABLE TWINE. FOR CONTAINERIZED SHRUBS, REMOVE CONTAINER AND LOOSEN ANY POT BOUND ROOTS.

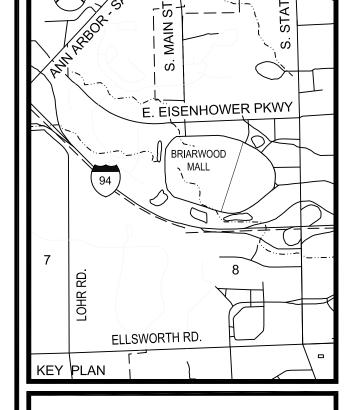
PLANTING MIX, SEE GENERAL NOTES.

LOOSEN OR SCARIFY EXISTING SOIL BELOW PLANTING BED. TEST FOR ADEQUATE DRAINAGE, AND NOTIFY LANDSCAPE ARCHITECT OF ANY DRAINAGE PROBLEMS.

SHRUB PLANTING DETAIL NOT TO SCALE

DEPTH OF SHRUB PIT TO BE-

3" DEEPER THAN ROOT BALLS



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Landscape Architects

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12/01/2023

11/14/2023

09/22/2023

09/08/2023

08/14/2023

06/30/2023

03/16/2023

DATE

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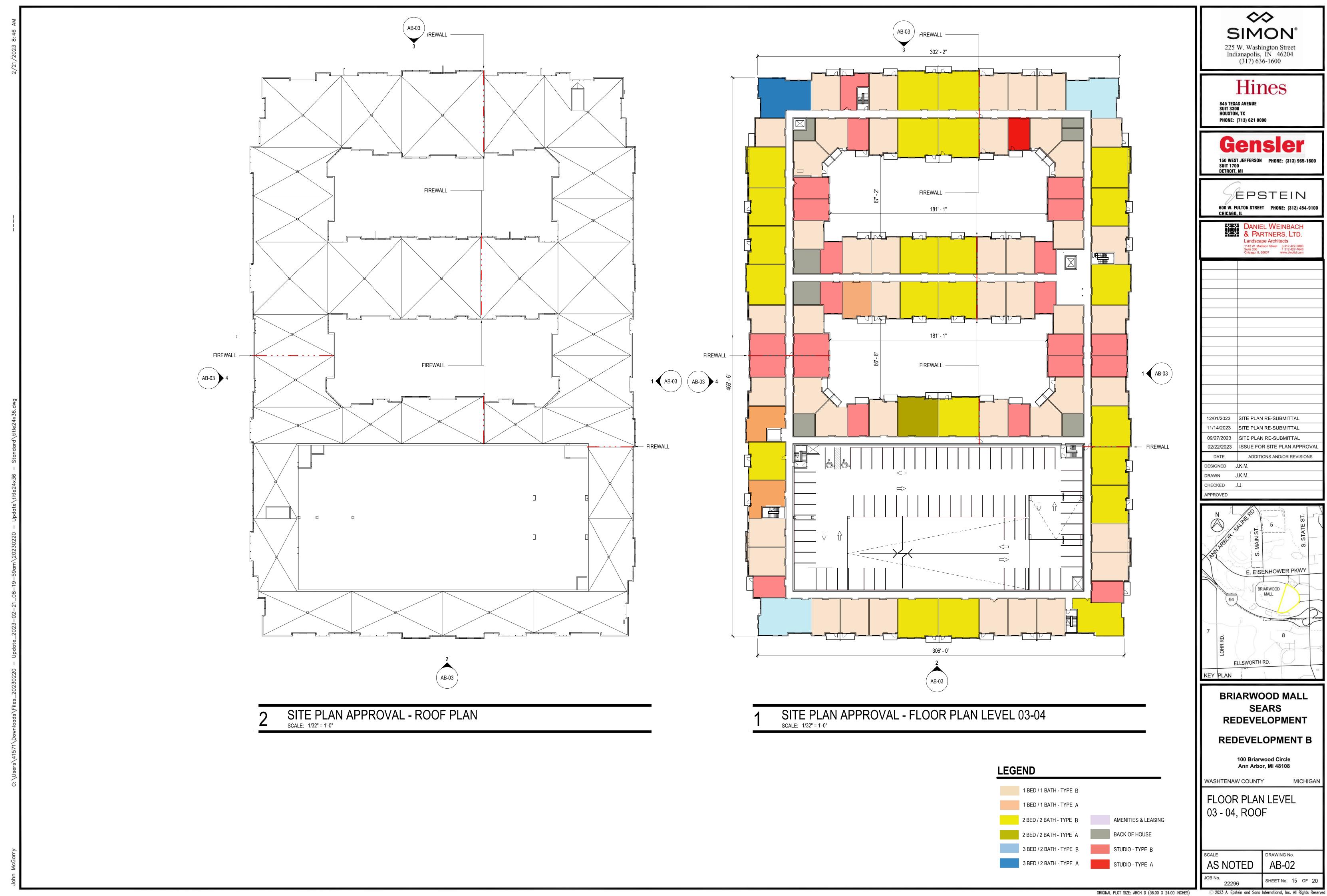
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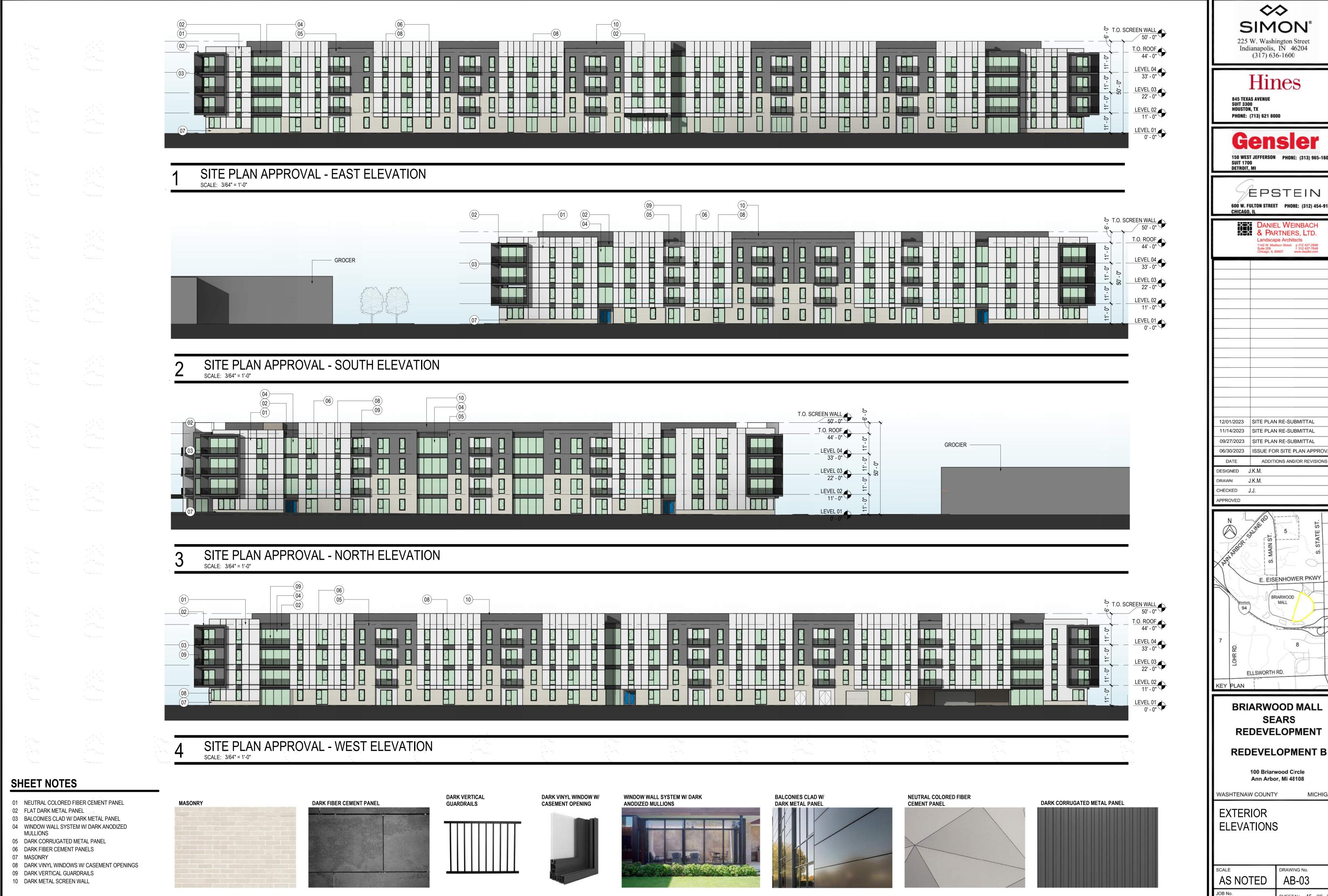
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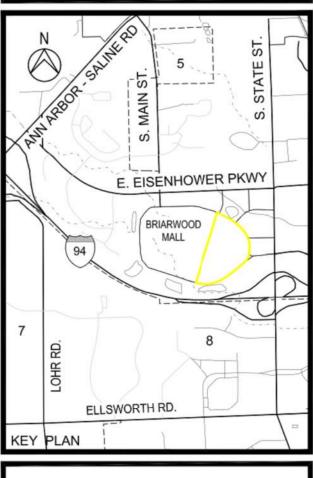
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REDEVELOPMENT B

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