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SECTION 05  
TOWN 3 SOUTH, RANGE 6 EAST  
CITY OF ANN ARBOR  
WASHTENAW COUNTY, MICHIGAN

CLIENT  
PEFT DEVELOPMENT LLC/PERITUS VENTURES, LLC  
2900 W. MAIN  
SITE PLAN  
COVER SHEET

DATE  
DECEMBER 22, 2022

03/02/2023 PER CITY  
04/03/2023 PER CITY  
09/15/2023 LAYOUT REV.  
01/11/2024 PER CITY  
03/19/2024 PER CITY  
04/23/2024 PER CITY

Table with 5 columns: REVISIONS, SCALE (0, 25, 50), P.M. MB, DR., CC, CH., --

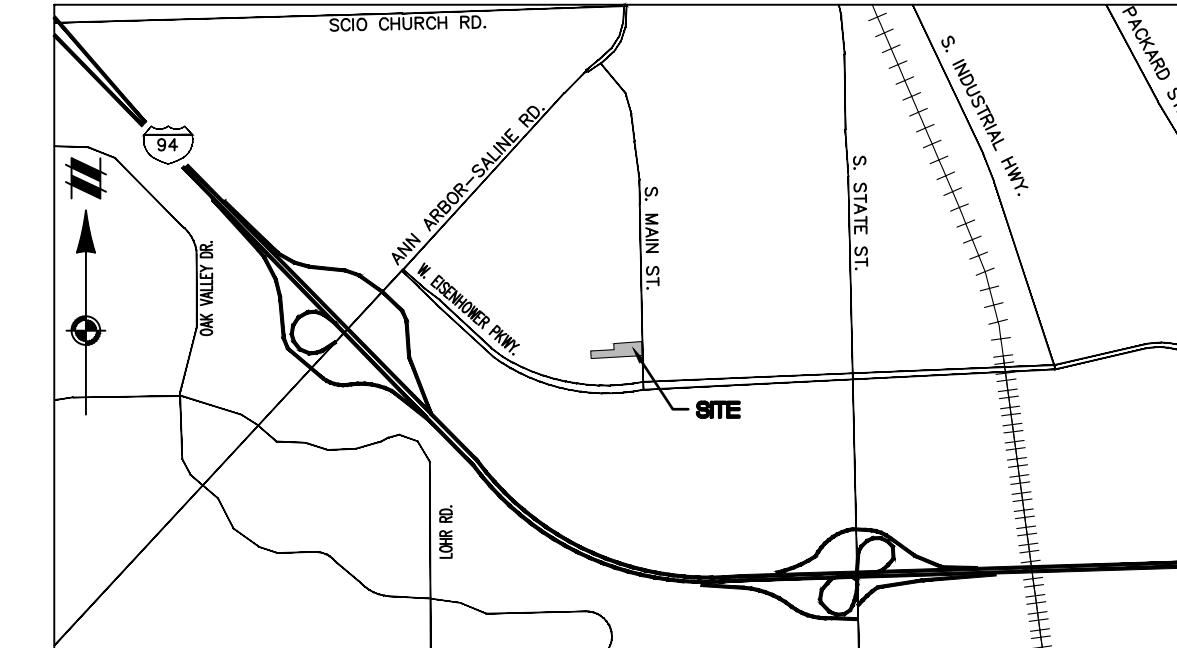
BOOK --  
JOB 22002380  
SHEET NO. 01

CAD FILE: 22002380SP-01-CVDWG

SITE PLAN

2900 S. MAIN APARTMENTS

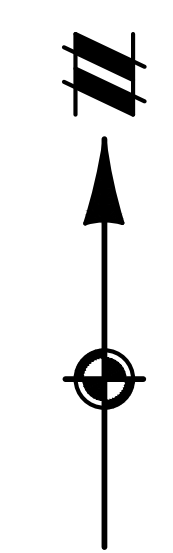
A MULTI-FAMILY RESIDENTIAL DEVELOPMENT  
CITY OF ANN ARBOR, WASHTENAW COUNTY, MICHIGAN



VICINITY MAP  
SCALE: 1" = 2500 FEET



OVERALL DEVELOPMENT MAP  
SCALE: 1" = 50 FEET



DEVELOPMENT TEAM

APPLICANT: UNITED HOSPITALITY GROUP  
OWNER: 2900 S. MAIN, LLC

ENGINEER: ATWELL, LLC  
ARCHITECT: KRIEGER KLATT ARCHITECTS

LAND DEVELOPMENT REGULATIONS

- 1. DEVELOPMENT PROGRAM
a. THE PROPOSED IMPROVEMENTS CONSIST OF THE CONSTRUCTION OF A PROPOSED 45-UNIT, 4-STORY, 36,000± S.F. BUILDING. THIS BUILDING WILL BE ABOVE GROUND.
b. ALL IMPROVEMENTS WILL BE CONSTRUCTED IN ONE PHASE.
c. ANTICIPATED SITE DEVELOPMENT COSTS \$7,400,000 (SUBJECT TO VARY).
2. COMMUNITY IMPACT
a. THE PROPOSED DEVELOPMENT SHOULD NOT HAVE ANY IMPACT ON K-12 SCHOOL.
b. NO REZONING IS PROPOSED. THE CURRENT ZONING IS COMPATIBLE WITH NEIGHBORING ZONING (O AND TC1) AND NEIGHBORING USES.
... (rest of regulations)

CONSTRUCTION NOTES

- 1. THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO THE CITY OF ANN ARBOR PUBLIC SERVICES STANDARD SPECIFICATIONS.
2. THE OMISSION OF ANY STANDARD DETAILS DOES NOT RELIEVE THE CONTRACTORS OF THEIR OBLIGATION TO CONSTRUCT ITEMS IN COMPLETE ACCORDANCE WITH THE PUBLIC SERVICES STANDARD SPECIFICATIONS.
... (rest of construction notes)

LEGAL DESCRIPTION

SCHEDULE C DESCRIPTION PER ALTA COMMITMENT FOR TITLE INSURANCE ISSUED BY WESTCOR LAND TITLE INSURANCE COMPANY, ISSUING AGENT: LIBERTY TITLE AGENCY, COMMITMENT NUMBER: LIB169232, REVISION NUMBER: 1, COMMITMENT DATE: 2/28/2022:
THE LAND REFERRED TO IN THIS COMMITMENT IS LOCATED IN THE CITY OF ANN ARBOR, COUNTY OF WASHTENAW, STATE OF MICHIGAN, AND DESCRIBED AS FOLLOWS:
BEGINNING AT THE SOUTHEAST CORNER OF LOT 4, SOUTH MAIN WOODS, THE SOUTH 10 ACRES OF THE EAST 1/2 OF THE EAST 1/2 OF THE SOUTHWEST 1/4 OF SECTION 5, TOWN 3 SOUTH, RANGE 6 EAST, PITTSFIELD TOWNSHIP, WASHTENAW COUNTY, MICHIGAN AS RECORDED IN LIBER 10 OF PLATS, PAGE 1, WASHTENAW COUNTY RECORDS; THENCE SOUTH 88 DEGREES 02 MINUTES 00 SECONDS WEST 502.02 FEET ALONG THE SOUTH LINE OF SAID LOT (AND THE WESTERLY EXTENSION THEREOF); THENCE NORTH 01 DEGREES 58 MINUTES 00 SECONDS WEST 75.00 FEET; THENCE NORTH 88 DEGREES 02 MINUTES 00 SECONDS EAST 230.04 FEET; THENCE NORTH 02 DEGREES 01 MINUTES 45 SECONDS WEST, 60.07 FEET; THENCE NORTH 86 DEGREES 59 MINUTES 16 SECONDS EAST 276.85 FEET TO THE NORTHEAST CORNER OF LOT 3 OF SAID SOUTH MAIN WOODS; THENCE SOUTH 00 DEGREES 01 MINUTES 20 SECONDS EAST 140.20 FEET ALONG THE WESTERLY RIGHT OF WAY LINE OF SOUTH MAIN STREET TO THE POINT OF BEGINNING, BEING LOT 4 AND PART OF LOTS 3 AND 12 OF SOUTH MAIN WOODS.
... (rest of legal description)



SHEET INDEX

- 01 COVER SHEET
02 EXISTING CONDITIONS & DEMOLITION PLAN
03 LAYOUT PLAN
04 NATURAL FEATURES OVERLAY PLAN
05 NATURAL FEATURES ALTERNATIVE ANALYSIS PLAN
06 TREE LIST & SOIL LOGS
07 UTILITY PLAN & FIRE PROTECTION PLAN
08 GRADING, SESC, & STORMWATER MANAGEMENT PLAN
09 STORMWATER MANAGEMENT DETAILS
10 STORMWATER MANAGEMENT CALCULATIONS
11 STANDARD DETAIL SHEET

SURVEY PLANS

- 1 ALTA/NSPS LAND TITLE SURVEY / LEGAL DESCRIPTION

ARCHITECTURAL PLANS

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A.101 FLOOR PLAN
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A.901 RENDERINGS

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- L-1 LANDSCAPE PLAN
L-2 LANDSCAPE DETAILS

PHOTOMETRIC PLANS

- 1 of 1 PHOTOMETRIC SITE PLAN

PROJECT DESCRIPTION

THE PETITIONER/APPLICANT IS RESPECTFULLY REQUESTING APPROVALS FOR SITE IMPROVEMENTS INVOLVED IN THE DEVELOPMENT OF THE PROPERTY LOCATED AT 2900 S. MAIN. THE PROPOSED IMPROVEMENTS INCLUDE THE CONSTRUCTION OF A 4-STORY FOR-RENT APARTMENT LIVING. A STORM WATER MANAGEMENT SYSTEM IS BEING PROPOSED WITH THE INTENT TO BRING THE SITE IN CURRENT COMPLIANCE WITH THE CITY OF ANN ARBOR REQUIREMENTS. THE PARKING WILL BE PLACED BENEATH THE BUILDING TO ALLOW FOR A REDUCTION IN SURFACE PARKING AND IMPERVIOUS AREAS.

COMPARISON CHART

Table with 5 columns: Existing, Required, Proposed, Notes. Rows include Zoning, Lot Area, FAR, Lot Width, Setbacks, Building, Open Space, Parking, and EV/BIKE.

**SITE BENCHMARKS**

BM #1:  
ARROW ON FIRE HYDRANT IN WEST RIGHT OF WAY OF  
S. MAIN STREET 150' NORTH OF NORTHEAST  
PROPERTY CORNER  
ELEVATION: 887.32 (NAVD88)

BM #2:  
ARROW ON FIRE HYDRANT IN WEST RIGHT OF WAY OF  
S. MAIN STREET ALONG EAST PROPERTY LINE  
ELEVATION: 892.67 (NAVD88)

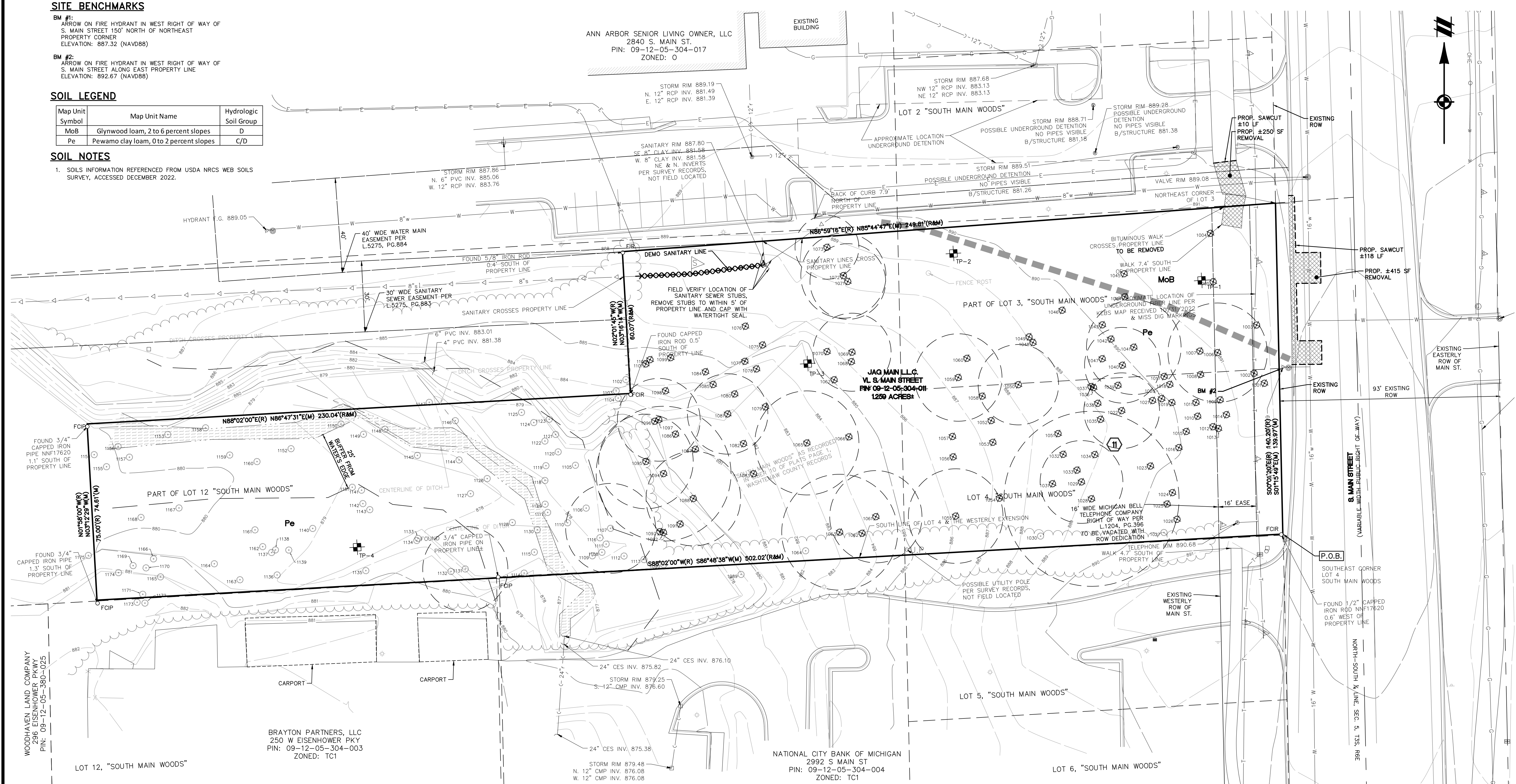
**SOIL LEGEND**

Map Unit Symbol	Map Unit Name	Hydrologic Soil Group
MoB	Glynwood loam, 2 to 6 percent slopes	D
Pe	Pewamaw clay loam, 0 to 2 percent slopes	C/D

**SOIL NOTES**

1. SOILS INFORMATION REFERENCED FROM USDA NRCS WEB SOILS SURVEY, ACCESSED DECEMBER 2022.

ANN ARBOR SEANOR LIVING OWNER, LLC  
2840 S. MAIN ST.  
PIN: 09-12-05-304-017  
ZONED: O



**LEGAL DESCRIPTION**

SCHEDULE C DESCRIPTION PER ALTA COMMITMENT FOR TITLE INSURANCE ISSUED BY WESTCOR LAND TITLE INSURANCE COMPANY, ISSUING AGENT: LIBERTY TITLE AGENCY, COMMITMENT NUMBER: LB189232, REVISION NUMBER: 1, COMMITMENT DATE: 2/28/2022.

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SCHEDULE B, PART II EXCEPTIONS PER ALTA COMMITMENT FOR TITLE INSURANCE ISSUED BY WESTCOR LAND TITLE INSURANCE COMPANY, ISSUING AGENT: LIBERTY TITLE AGENCY, COMMITMENT NUMBER: LB189232, REVISION NUMBER: 1, COMMITMENT DATE: 2/28/2022:

- RIGHT OF WAY IN FAVOR OF MICHIGAN BELL TELEPHONE COMPANY, AS RECORDED IN LIBER 1204, PAGE 396, WASHTENAW COUNTY RECORDS. RESPONSE: AS SHOWN HEREON.
- EASEMENT AGREEMENT AND THE TERMS AND PROVISIONS CONTAINED THEREIN, AS RECORDED IN LIBER 3683, PAGE 323, WASHTENAW COUNTY RECORDS. RESPONSE: LOCATED NORTHWEST OF SUBJECT PROPERTY.
- MATTERS AS DISCLOSED BY SURVEY PREPARED BY ALPINE ENGINEERING, INC. JOB NUMBER 21-139 DATED MARCH 4, 2021 AND DESCRIBED AS:  
1) ASPHALT ENCROACHING ONTO ADJACENT LAND  
2) MANHOLES ON SUBJECT PROPERTY  
3) WATERCOURSE CROSSING SUBJECT PROPERTY

**DEMOLITION NOTES**

- ALL ON-SITE WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT SPECIFICATIONS AND STANDARD DETAILS OF THE CITY OF ANN ARBOR, UNLESS OTHERWISE SPECIFIED.
- THE CONTRACTOR SHALL DEMOLISH OR RELOCATE ANY SITE FEATURES AS APPROPRIATE TO FACILITATE THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.
- ALL DEMOLITION MATERIALS SHALL BE PROPERLY REMOVED FROM THE SITE AND DISPOSED OF IN A LEGALLY DESIGNATED DISPOSAL AREA.
- THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS AND NOTIFY ALL AFFECTED UTILITY COMPANIES PRIOR TO THE DEMOLITION OF ANY EXISTING STRUCTURES. ALL EXISTING UTILITIES SHALL BE CAPPED OFF OR REMOVED SO AS NOT TO INTERFERE WITH THE CONSTRUCTION PROJECT. ALL DEBRIS SHALL BE HAULED AWAY FROM THE SITE AND DISPOSED OF AT AN APPROVED LOCATION.
- THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE. PRIOR TO THE START OF ANY DEMOLITION OR CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES AND FIELD LOCATE EXISTING UTILITIES.
- ANY REMOVAL/ABANDONMENT OF EXISTING WELLS AND SEPTIC FIELDS, SHALL BE IN ACCORDANCE WITH WEHD STANDARDS.
- ANY OVERHEAD LINES AFFECTED BY CONSTRUCTION SHALL BE RELOCATED UNDERGROUND.

**SITE INFORMATION**

SITE LOCATION: SECTION 23, T.35., R.6E., CITY OF ANN ARBOR, WASHTENAW COUNTY, MICHIGAN

- ULTIMATE RECEIVING WATER: **ONSITE WATER COURSE TO CITY STORM SEWER**  
SITE SOILS INFORMATION: PER THE NATIONAL RESOURCES CONSERVATION SERVICE (NRCS) SOIL SURVEY, WASHTENAW COUNTY, MICHIGAN.
- APPROXIMATE AREA OF DISTURBANCE: **0.73 ACRES**
- A PRE-CONSTRUCTION MEETING WITH THE CONTRACTOR AND WASHTENAW COUNTY SOIL EROSION OFFICE WILL BE REQUIRED PRIOR TO CONSTRUCTION ACTIVITIES.

**GENERAL NOTES**

- ANY ITEM NOT INDICATED AS BEING REMOVED SHALL REMAIN.
- FOR ADDITIONAL INFORMATION REFERENCE THE STANDARD NOTES SHEET, STANDARD DETAILS SHEET(S), AND ANY MUNICIPALITY AND/OR JURISDICTIONAL DETAILS ATTACHED TO THIS PLAN SET.
- CONTRACTOR SHALL CALL "MISS DIG" AT LEAST THREE (3) WORKING DAYS PRIOR TO CONSTRUCTION/DEMOLITION.
- CONTRACTOR SHALL COORDINATE ALL UTILITY REMOVAL AND ABANDONMENT ACTIVITIES WITH LOCAL GOVERNING AGENCY OR UTILITY COMPANY PRIOR TO STARTING DEMOLITION TO INSURE COMPLIANCE WITH GOVERNING AGENCY AND UTILITY COMPANY REMOVAL AND ABANDONMENT STANDARDS.
- CONTRACTOR RESPONSIBLE FOR COORDINATING UTILITY TERMINATIONS & OBTAINING DEMOLITION PERMIT FROM THE CITY OF PORTAGE PRIOR TO BEGINNING CONSTRUCTION.
- CONTRACTOR SHALL COMPLY AND ADHERE TO, AS APPLICABLE, ANY REQUIREMENTS RELATED TO INTERACTING WITH OR MANAGING ENVIRONMENTAL CONTAMINATION THAT MAY COINCIDE WITH DEMOLITION ACTIVITIES.
- EXISTING STREAM, BUFFER AND TREE LOCATIONS PER MCI SURVEY, DATED 2014.
- EXISTING SERVICE LEADS ENCOUNTERED ON SITE DURING CONSTRUCTION WILL BE DISCONNECTED AT THE MAIN LEADS SERVING THE PROJECT PARCEL THAT ARE NOT PROPOSED TO BE USED SHALL BE DISCONNECTED AT THEIR RESPECTIVE MAINS

**SURVEYOR'S NOTES**

- BEARINGS ARE BASED ON MICHIGAN STATE PLANE COORDINATES (NAD83), SOUTH ZONE, GROUND DISTANCES, INTERNATIONAL FEET. MEASURED BEARINGS DIFFER FROM TITLE. VERTICAL DATUM IS BASED ON NAVD88.
- THE SITE SHOWN HEREON IS LOCATED WITHIN ZONE X (AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN) ACCORDING TO MAP NUMBERS 2616100392E & 2616100401E OF THE FLOOD INSURANCE RATE MAP, BOTH EFFECTIVE APRIL 3, 2012.
- WATER MAIN, STORM SEWER, SANITARY SEWER AND FRANCHISE UTILITY STRUCTURES HAVE BEEN FIELD LOCATED WHERE VISIBLE. UTILITY AND AS-BUILT MAPS HAVE BEEN REQUESTED AND SOME MAPS HAVE BEEN RECEIVED AT DATE OF THIS SURVEY. FRANCHISE UTILITY MAPS HAVE BEEN REQUESTED FROM THE APPROPRIATE FRANCHISE COMPANIES, BUT NOT ALL MAPS HAVE BEEN RECEIVED AT DATE OF SURVEY.

NOTE: THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED.

NOTE TO THE CLIENT, INSURER, AND LENDER - SOURCE INFORMATION FROM PLANS AND MARKINGS WILL BE COMBINED WITH OBSERVED EVIDENCE OF UTILITIES PURSUANT TO SECTION 5.E.IV. TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES. HOWEVER, LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY, AND RELIABLY DEPICTED. IN ADDITION, IN SOME JURISDICTIONS, 811 OR OTHER SIMILAR UTILITY LOCATE REQUESTS FROM SURVEYORS MAY BE IGNORED OR RESULT IN AN INCOMPLETE RESPONSE, IN WHICH CASE THE SURVEYOR SHALL NOTE ON THE PLAT OR MAP HOW THIS AFFECTED THE SURVEYOR'S ASSESSMENT OF THE LOCATION OF THE UTILITIES. WHERE ADDITIONAL OR MORE DETAILED INFORMATION IS REQUIRED, THE CLIENT IS ADVISED THAT EXCAVATION AND/OR A PRIVATE UTILITY LOCATE REQUEST MAY BE NECESSARY.

REFERENCE SURVEYS:  
-ALTA/NSPS LAND TITLE SURVEY BY ALPINE ENGINEERING, INC., DATED 5/24/21  
-ALTA SURVEY BY MIDWESTERN CONSULTING, JOB NO. 13188, DATED 01-16-14  
-WETLANDS LIMITS AS DETERMINED BY MDEQ 10-27-2011, LEVEL 2 WETLANDS IDENTIFICATION REVIEW CONDUCTED 10-24-2011

**LEGEND**

	PROJECT BOUNDARY		EXIST. UTILITY POLE
	EXIST. ADJACENT BOUNDARY		EXIST. STORM SEWER
	EXIST. OVERHEAD LINE		EXIST. WATER MAIN
	EXIST. SIDEWALK		EXIST. SANITARY SEWER
	EXIST. CONCRETE		EXIST. UNDERGROUND TELEPHONE
	EXIST. GRAVEL		EXIST. TREENLINE
	EXIST. LANDSCAPE		EXIST. FENCE
	EXIST. GAS LINE		EXIST. CONTOUR
	EXIST. WATERS EDGE		EXIST. SOILS
	EXIST. STORM SEWER		EXIST. REGULATED STREAM
	EXIST. WATER MAIN		EXIST. BUILDING
	EXIST. UNDERGROUND ELECTRIC		EXIST. ROW
	EXIST. SANITARY SEWER		
	EXIST. UNDERGROUND TELEPHONE		
	EXIST. TREENLINE		
	EXIST. FENCE		
	EXIST. CONTOUR		
	EXIST. SOILS		
	U.P.		EXIST. UTILITY POLE INLET
	EXIST. STORM SEWER		EXIST. END SECTION
	EXIST. WATER MAIN		EXIST. WATER MANHOLE
	EXIST. SANITARY SEWER		EXIST. FIRE HYDRANT
	EXIST. UNDERGROUND TELEPHONE		EXIST. WATER VALVE
	EXIST. TREENLINE		EXIST. MAILBOX
	EXIST. FENCE		EXIST. TREE / DEMO TREE
	EXIST. CONTOUR		EXIST. LIGHT POLE
	EXIST. SOILS		EXIST. TELEPHONE RISER
	EXIST. REGULATED STREAM		EXIST. CABLE RISER
	EXIST. BUILDING		EXIST. WATER MAIN MARKER
	EXIST. ROW		TEST PIT LOCATION
			FOUND IRON PIPE
			FOUND CAPPED IRON ROD
			FOUND IRON ROD
			PROP. CONCRETE REMOVAL

**811**  
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311 NORTH MAIN  
ANN ARBOR, MI 48104  
734.994.4000

SECTION 05  
TOWN 3 SOUTH, RANGE 6 EAST  
CITY OF ANN ARBOR  
WASHTENAW COUNTY, MICHIGAN

CLIENT: PEFT DEVELOPMENT LLC/PERITUS VENTURES, LLC  
2900 W. MAIN STREET  
SITE PLAN  
EXISTING CONDITIONS & DEMOLITION PLAN

DATE: DECEMBER 22, 2022

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SCALE 0 10 20  
1" = 20 FEET

DR. CC CH. --  
P.M. MB  
BOOK --  
JOB 22002380  
SHEET NO. 02





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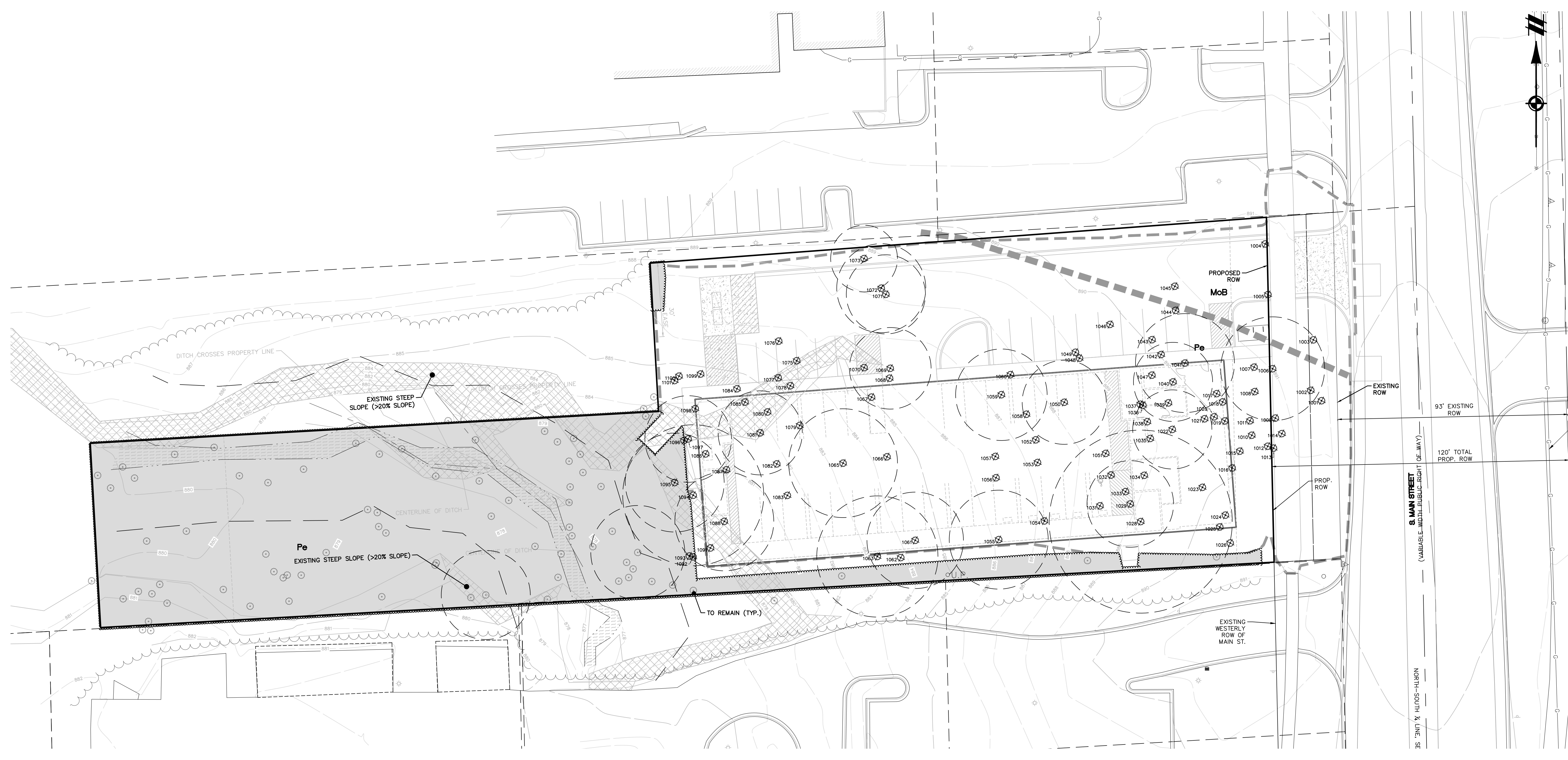
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 2900 W. MAIN  
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 NATURAL FEATURES OVERLAY  
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REVISIONS	
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CH.	--
P.M.	MB
BOOK	--
JOB	22002380
SHEET NO.	04

CAD FILE: 22002380-04-NFO.DWG



### SOIL EROSION CONTROL NOTES

1. STEEP SLOPES SHALL BE PROTECTED USING EROSION CONTROL BLANKET, SEE DETAIL ON SHEET 11

### NATURAL FEATURES NOTES:

**SITE OVERVIEW**  
 THE SUBJECT PROPERTY (+/- 1.3 ACRES) CONSISTS OF UNDEVELOPED LAND CONTAINING UPLAND WOODS, WETLANDS, AND A DRAINAGE FEATURE LOCATED IN THE WESTERN PORTION OF THE SITE. THE SITE IS BOUND ON THE EAST SIDE BY SOUTH MAIN STREET (2900 S. MAIN STREET), COMMERCIAL USE TO THE SOUTH, AND ASSISTED LIVING RESIDENTIAL HOUSING TO THE NORTH. SURROUNDING LAND USE CONSISTS PREDOMINANTLY OF COMMERCIAL AND RESIDENTIAL USES.

ON-SITE WETLAND BOUNDARIES WERE PREVIOUSLY DETERMINED BY THE MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY (MDEQ) IN A LEVEL 2 WETLANDS IDENTIFICATION REVIEW. WETLANDS ASSOCIATED WITH A DRAINAGE FEATURE WERE DOCUMENTED IN THE WESTERN PORTION OF THE SITE. A PREVIOUS TREE SURVEY FOR THE SITE WAS CONDUCTED BY MIDWESTERN CONSULTING. THE TREE SURVEY IDENTIFIED, TAGGED, AND GPS-LOCATED APPROXIMATELY 160 TREES WITH A DIAMETER AT BREAST HEIGHT (DBH) SIX (6) INCHES AND GREATER.

**WOODLANDS**  
 A TREE SURVEY WAS CONDUCTED BY ATWELL, LLC ON FEBRUARY 24, 2023. THE MAJORITY OF THE SITE CONSISTS OF UPLAND WOODS. DOMINANT TREES WITHIN THIS AREA INCLUDE A RANGE OF MEDIUM TO MATURE AGE TREES INCLUDING OAKS (QUERCUS ALBA, Q. RUBRA, AND Q. VELUTINA), SHAGBARK HICKORY

(CARYA OVATA), BLACK CHERRY (PRUNUS SEROTINA), BASSWOOD (TILIA AMERICANA), SUGAR MAPLE (ACER SACCHARUM), HOP HORNBEEAM (OSTRYA VIRGINIANA), AMERICAN ELM (ULMUS AMERICANA), AND HAWTHORN (CRATAEGUS SPP.). THE WOODLAND'S SHRUB LAYER/EDGES ARE DOMINATED BY INVASIVE VEGETATION SPECIES INCLUDING COMMON AND GLOSSY BUCKTHORN (RHAMNUS CATHARTICA). THIS AREA EXHIBITS A LIMITED COVERAGE OF NATIVE GROUND COVER SPECIES SUCH AS PENN SEDGE (CAREX PENNSYLVANICA), RIVER-BANK GRAPE (VITIS RIPARIA), AND VIRGINIA CREEPER (PARthenocissus QUINQUEFOLIA) DUE TO THE PRESENCE OF A DENSE SHRUB LAYER OF INVASIVE SPECIES. THE HABITAT VALUE OF THE WOODLANDS ARE GOOD, HOWEVER THERE IS APPARENT DISTURBANCE HISTORY ALONG THE EDGES (CONCRETE AND BUILDING MATERIALS) AND SIGNIFICANT COVERAGE OF INVASIVE SPECIES. THIS HIGH INVASIVE PLANT SPECIES COVERAGE ALSO ACTS AS A SEED SOURCE FOR CONTINUED COLONIZATION BY THESE SPECIES.

**WETLANDS**  
 ONE WETLAND WAS IDENTIFIED DURING A PREVIOUS MDEQ LEVEL 2 WETLANDS IDENTIFICATION REVIEW. THIS WETLAND AREA IS ASSOCIATED WITH AN EXISTING DRAINAGE FEATURE THAT ENTERS THE SITE IN THE NORTHWEST CORNER AND MEANDERS SOUTH TO THE PROPERTY BOUNDARY. THE DRAINAGE FEATURE APPEARS TO BE A MAPPED STREAM AND IS THEREFORE LIKELY REGULATED BY THE MICHIGAN

DEPARTMENT OF ENVIRONMENT, GREAT LAKES AND ENERGY (EGLE). THE ASSOCIATED WETLAND AREAS ARE THEREFORE LIKELY REGULATED BY EGLE AS THEY ARE ADJACENT TO A REGULATED WATERCOURSE. THE WETLANDS HAVE EXPERIENCED SOME COLONIZATION BY NON-NATIVE SPECIES INCLUDING COMMON AND GLOSSY BUCKTHORN WHICH HAS DECREASED THE BIODIVERSITY OF NATIVE SPECIES. WHILE THE WETLAND STILL PROVIDES BASIC FUNCTIONS SUCH AS STORMWATER STORAGE AND FILTRATION, WILDLIFE HABITAT HAS DECREASED OVER TIME DUE TO THE LOSS OF THIS DIVERSITY. THIS WETLAND AREA CONTINUES OFFSITE TO THE NORTHWEST AND SOUTH AND IS ASSOCIATED WITH THE EXISTING DRAINAGE FEATURE.

**FLOODPLAIN**  
 BASED ON THE FEMA MAP PANEL 26161C0382E (EFFECTIVE 4/3/2012), THE SITE DOES NOT APPEAR TO CONTAIN 100 YEAR FLOODPLAINS.

**WILDLIFE USAGE AND HABITAT**  
 THE MAJORITY OF THE SITE CONTAINS UPLAND HARDWOOD HABITAT. MOST OF THE ANIMAL SPECIES THAT UTILIZE THE SITE ARE LIKELY THOSE THAT FREQUENT SUBURBAN LANDSCAPES, INCLUDING DEER, SMALL MAMMALS, BIRDS, AND INSECTS. THE PLANT HABITAT QUALITY WITHIN MOST OF THE SITE IS LOW TO MODERATE AND THE PRESENCE OF HIGH TRAFFIC ROADS SURROUNDING THE SITE TO THE EAST AND SOUTH IN GENERAL LIMITS WILDLIFE MIGRATION THROUGH THE SITE.

**LEGEND**

- BOUNDARY LINE
- EXIST. TREE LINE
- EXIST. CURB AND GUTTER
- EXIST. FENCE
- EXIST. GRAVEL
- EXIST. BUILDING
- EXIST. SIGN
- EXIST. TREE
- EXIST. LANDMARK TREE
- EXIST. TREE TO BE REMOVED
- EXIST. OVERHEAD ELEC. LINE
- EXIST. GAS
- EXIST. CONTOUR
- PROP. TREE PROTECTION FENCE
- PROP. SILT FENCE
- PROP. LIMITS OF DISTURBANCE
- PROPOSED TREE LINE AREA
- EXISTING STEEP SLOPE AREA (>20% SLOPE)

PRELIMINARY - NOT FOR CONSTRUCTION

K:\22002380\DWG\PLAN SETS SITE-PRELIMINARY\22002380SP-04-NFO.DWG 4/23/2024 10:32 AM KYLER SHEERIN



Know what's below.

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866.850.4200 www.atwell-group.com  
311 NORTH MAIN  
ANN ARBOR, MI 48104  
734.994.4000

SECTION 05  
TOWN 3 SOUTH, RANGE 6 EAST  
CITY OF ANN ARBOR  
WASHTENAW COUNTY, MICHIGAN

CLIENT  
PEFT DEVELOPMENT LLC/PERITUS VENTURES, LLC  
2900 W. MAIN  
SITE PLAN  
NATURAL FEATURES ALTERNATIVE ANALYSIS PLAN

DATE  
DECEMBER 22, 2022

- 03/02/2023 PER CITY
- 04/03/2023 PER CITY
- 09/15/2023 LAYOUT REV.
- 01/11/2024 PER CITY
- 03/19/2024 PER CITY
- 04/23/2024 PER CITY

REVISIONS

SCALE	0	10	20
	1" = 20 FEET		
DR.	CC	CH.	--
P.M.	MB		
BOOK	--		
JOB	22002380		
SHEET NO.			

SCALE 0 10 20  
1" = 20 FEET  
DR. CC CH. --  
P.M. MB  
BOOK --  
JOB 22002380  
SHEET NO.  
**05**

CAD FILE: 22002380SF-04-NFO.DWG



**COMPARISON NARRATIVE:**

THE ALTERNATIVE LAYOUT SHOWN ON THIS SHEET WOULD PROPOSE ADDITIONAL TREE IMPACTS, IMPERVIOUS AREA, WATERCOURSE IMPACTS, AND DISTURBED AREA. SEE TABLE ON THIS SHEET FOR COMPARISON WITH PROPOSED LAYOUT AND DESIGN.

**ALTERNATIVE ANALYSIS TABLE**

	Proposed	Alternate
DBH Tree Removal	1140'	1422'
Water Course Impact	0 SF	360 SF
Disturbed Area	0.73 AC	0.97 AC
Impervious Area	27,663 SF	28,296 SF

**LEGEND**

- BOUNDARY LINE
- EXIST. TREE LINE
- EXIST. CURB AND GUTTER
- EXIST. FENCE
- EXIST. GRAVEL
- EXIST. BUILDING
- EXIST. SIGN
- EXIST. TREE
- EXIST. LANDMARK TREE
- EXIST. TREE TO BE REMOVED
- EXIST. OVERHEAD ELEC. LINE
- EXIST. GAS
- EXIST. CONTOUR
- PROP. ALTERNATIVE DEVELOPMENT
- PROP. LIMITS OF DISTURBANCE
- EXISTING STEEP SLOPE AREA (>20% SLOPE)

K:\22002380\DWG\PLAN SETS\SITE-PRELIMINARY\22002380SF-04-NFO.DWG 4/23/2024 10:32 AM KYLER SHEERIN

Tree Inventory Table - 2900 S. Main St. Ann Arbor - Atwell Project #22002380										
Tree Tag #	Data Code	Scientific Name	Common Name	DBH (Inches)	Condition	Bat Hibernacula	Invasive Species	Landmark Tree	To Be Removed	Notes/Comments
1001	PODE	<i>Populus deltoides</i>	Cottonwood	14	Good	No	No	No	Yes	
1002	QURU	<i>Quercus rubra</i>	Red Oak	13	Good	No	No	No	Yes	
1003	TIAM	<i>Tilia americana</i>	Basswood	13	Good	No	No	No	Yes	
1004	CRSP	<i>Crataegus species</i>	Hawthorn	7.5	Good	No	No	No	Yes	4 Trunk (4T): 6.5, 6, 5.5
1005	PRSE	<i>Prunus serotina</i>	Black Cherry	9	Good	No	No	No	Yes	
1006	QURU	<i>Quercus rubra</i>	Red Oak	21	Good	No	No	No	Yes	
1007	QURU	<i>Quercus rubra</i>	Red Oak	14	Good	No	No	No	Yes	2 Trunk (2T): 10.5
1008	QURU	<i>Quercus rubra</i>	Red Oak	11	Good	No	No	No	Yes	
1009	QURU	<i>Quercus rubra</i>	Red Oak	11	Good	No	No	No	Yes	
1010	QURU	<i>Quercus rubra</i>	Red Oak	7.5	Good	No	No	No	Yes	
1011	QURU	<i>Quercus rubra</i>	Red Oak	6	Good	No	No	No	Yes	
1012	TIAM	<i>Tilia americana</i>	Basswood	11.5	Good	No	No	No	Yes	2T: 11
1013	TIAM	<i>Tilia americana</i>	Basswood	16	Good	No	No	No	Yes	
1014	QURU	<i>Quercus rubra</i>	Red Oak	14	Good	No	No	No	Yes	
1015	QURU	<i>Quercus rubra</i>	Red Oak	11.5	Good	No	No	No	Yes	
1016	QURU	<i>Quercus rubra</i>	Red Oak	13	Good	No	No	No	Yes	
1017	QURU	<i>Quercus rubra</i>	Red Oak	10	Good	No	No	No	Yes	
1018	QURU	<i>Quercus rubra</i>	Red Oak	8	Good	No	No	No	Yes	
1019	QURU	<i>Quercus rubra</i>	Red Oak	9	Good	No	No	No	Yes	
1020	QURU	<i>Quercus rubra</i>	Red Oak	11	Good	No	No	No	Yes	
1021	CAOV	<i>Carya ovata</i>	Shagbark Hickory	6	Good	No	No	No	Yes	
1022	QURU	<i>Quercus rubra</i>	Red Oak	15	Good	No	No	No	Yes	
1023	CAOV	<i>Carya ovata</i>	Shagbark Hickory	10.5	Good	Yes	No	No	Yes	
1024	ACSA	<i>Acer saccharinum</i>	Sugar Maple	10	Good	No	No	No	Yes	
1025	TIAM	<i>Tilia americana</i>	Basswood	9	Good	No	No	No	Yes	
1026	QURU	<i>Quercus rubra</i>	Red Oak	13	Good	No	No	No	Yes	
1027	TIAM	<i>Tilia americana</i>	Basswood	9	Fair	No	No	No	Yes	
1028	QUAL	<i>Quercus alba</i>	White Oak	37	Good	Yes	No	No	Yes	
1029	CAOV	<i>Carya ovata</i>	Shagbark Hickory	17.5	Good	Yes	No	No	Yes	
1030	PRSE	<i>Prunus serotina</i>	Black Cherry	10	Dead	No	No	No	No	
1031	CAOV	<i>Carya ovata</i>	Shagbark Hickory	8	Good	No	No	No	Yes	
1032	QURU	<i>Quercus rubra</i>	Red Oak	10.5	Good	No	No	No	Yes	
1033	CAOV	<i>Carya ovata</i>	Shagbark Hickory	7	Good	No	No	No	Yes	
1034	CAOV	<i>Carya ovata</i>	Shagbark Hickory	7	Good	No	No	No	Yes	
1035	TIAM	<i>Tilia americana</i>	Basswood	8	Good	No	No	No	Yes	
1036	TIAM	<i>Tilia americana</i>	Basswood	12.5	Good	No	No	No	Yes	
1037	CAOV	<i>Carya ovata</i>	Shagbark Hickory	9	Good	Yes	No	No	Yes	
1038	TIAM	<i>Tilia americana</i>	Basswood	6.5	Poor	No	No	No	Yes	Missing Top
1039	TIAM	<i>Tilia americana</i>	Basswood	9	Good	No	No	No	Yes	
1040	QURU	<i>Quercus rubra</i>	Red Oak	16	Good	No	No	No	Yes	
1041	QURU	<i>Quercus rubra</i>	Red Oak	20	Good	No	No	No	Yes	
1042	ULAM	<i>Ulmus americana</i>	American Elm	8	Good	No	No	No	Yes	
1043	ULAM	<i>Ulmus americana</i>	American Elm	8	Good	No	No	No	Yes	
1044	CAOV	<i>Carya ovata</i>	Shagbark Hickory	7.5	Good	No	No	No	Yes	
1045	PRSE	<i>Prunus serotina</i>	Black Cherry	15	Fair	No	No	No	Yes	Missing Bark, Missing Branches
1046	TIAM	<i>Tilia americana</i>	Basswood	11	Good	No	No	No	Yes	
1047	CAOV	<i>Carya ovata</i>	Shagbark Hickory	9	Good	Yes	No	No	Yes	
1048	ACSA	<i>Acer saccharinum</i>	Sugar Maple	10	Good	No	No	No	Yes	
1049	ULAM	<i>Ulmus americana</i>	American Elm	6	Good	No	No	No	Yes	
1050	QURU	<i>Quercus rubra</i>	Red Oak	17	Good	No	No	No	Yes	
1051	TIAM	<i>Tilia americana</i>	Basswood	13	Good	No	No	No	Yes	
1052	ACSA	<i>Acer saccharinum</i>	Sugar Maple	7	Good	No	No	No	Yes	
1053	OSVI	<i>Ostrya virginiana</i>	American Hophornbeam	7	Good	No	No	No	Yes	
1054	TIAM	<i>Tilia americana</i>	Basswood	11	Good	No	No	No	Yes	
1055	CAOV	<i>Carya ovata</i>	Shagbark Hickory	20	Good	Yes	No	No	Yes	
1056	OSVI	<i>Ostrya virginiana</i>	American Hophornbeam	9.5	Dead	No	No	No	Yes	
1057	OSVI	<i>Ostrya virginiana</i>	American Hophornbeam	8	Good	No	No	No	Yes	2T: 5.5
1058	ACSA	<i>Acer saccharinum</i>	Sugar Maple	13	Good	No	No	No	Yes	
1059	QURU	<i>Quercus rubra</i>	Red Oak	18.5	Good	No	No	No	Yes	
1060	ACSA	<i>Acer saccharinum</i>	Sugar Maple	9	Good	No	No	No	Yes	2T: 5
1061	CAOV	<i>Carya ovata</i>	Shagbark Hickory	19.5	Good	Yes	No	No	Yes	
1062	CAOV	<i>Carya ovata</i>	Shagbark Hickory	6.5	Good	No	No	No	Yes	
1063	CAOV	<i>Carya ovata</i>	Shagbark Hickory	24.5	Good	Yes	No	No	Yes	
1064	TIAM	<i>Tilia americana</i>	Basswood	11	Good	No	No	No	No	
1065	FAGR	<i>Fagus grandifolia</i>	American Beech	22	Good	No	No	No	Yes	
1066	ACSA	<i>Acer saccharinum</i>	Sugar Maple	11.5	Good	No	No	No	Yes	
1067	ACSA	<i>Acer saccharinum</i>	Sugar Maple	13	Good	No	No	No	Yes	
1068	TIAM	<i>Tilia americana</i>	Basswood	6	Fair	No	No	No	Yes	Missing Top
1069	ACSA	<i>Acer saccharinum</i>	Sugar Maple	16.5	Good	No	No	No	Yes	
1070	OSVI	<i>Ostrya virginiana</i>	American Hophornbeam	9.5	Good	No	No	No	Yes	2T: 7.5
1071	CAOV	<i>Carya ovata</i>	Shagbark Hickory	16	Good	Yes	No	No	Yes	2T: 13
1072	CAOV	<i>Carya ovata</i>	Shagbark Hickory	18	Good	Yes	No	No	Yes	
1073	CRSP	<i>Crataegus species</i>	Hawthorn	13.5	Good	No	No	No	Yes	4T: 11, 9.5, 9
1075	ACSA	<i>Acer saccharinum</i>	Sugar Maple	12	Good	No	No	No	Yes	
1076	CRSP	<i>Crataegus species</i>	Hawthorn	9	Good	No	No	No	Yes	2T: 8
1077	QURU	<i>Quercus rubra</i>	Red Oak	6.5	Good	No	No	No	Yes	
1078	ACSA	<i>Acer saccharinum</i>	Sugar Maple	11	Good	No	No	No	Yes	
1079	ACSA	<i>Acer saccharinum</i>	Sugar Maple	10.5	Good	No	No	No	Yes	
1080	ACSA	<i>Acer saccharinum</i>	Sugar Maple	12.5	Good	No	No	No	Yes	
1081	QURU	<i>Quercus rubra</i>	Red Oak	17	Good	No	No	No	Yes	2T: 7.5
1082	OSVI	<i>Ostrya virginiana</i>	American Hophornbeam	8	Good	No	No	No	Yes	
1083	OSVI	<i>Ostrya virginiana</i>	American Hophornbeam	6	Good	No	No	No	Yes	
1084	TIAM	<i>Tilia americana</i>	Basswood	14.5	Good	No	No	No	Yes	
1085	QURU	<i>Quercus rubra</i>	Red Oak	10	Good	No	No	No	Yes	
1086	TIAM	<i>Tilia americana</i>	Basswood	7.5	Good	No	No	No	Yes	
1087	ACSA	<i>Acer saccharinum</i>	Sugar Maple	8.5	Good	No	No	No	Yes	
1088	CAOV	<i>Carya ovata</i>	Shagbark Hickory	20	Good	Yes	No	No	Yes	2T: 7
1089	ACSA	<i>Acer saccharinum</i>	Sugar Maple	8.5	Dead	No	No	No	No	
1090	TIAM	<i>Tilia americana</i>	Basswood	11.5	Good	No	No	No	No	
1091	ULAM	<i>Ulmus americana</i>	American Elm	6	Good	No	No	No	Yes	
1092	ULAM	<i>Ulmus americana</i>	American Elm	7	Good	No	No	No	Yes	
1093	ULAM	<i>Ulmus americana</i>	American Elm	13.5	Good	No	No	No	Yes	
1094	QURU	<i>Quercus rubra</i>	Red Oak	21.5	Good	No	No	No	Yes	
1095	CAOV	<i>Carya ovata</i>	Shagbark Hickory	20	Good	Yes	No	No	Yes	
1096	TIAM	<i>Tilia americana</i>	Basswood	8	Good	No	No	No	Yes	
1097	QURU	<i>Quercus rubra</i>	Red Oak	17.5	Good	No	No	No	Yes	
1098	TIAM	<i>Tilia americana</i>	Basswood	8	Fair	No	No	No	Yes	Dead Major Limbs
1099	CAOV	<i>Carya ovata</i>	Shagbark Hickory	6	Good	No	No	No	Yes	
1100	TIAM	<i>Tilia americana</i>	Basswood	13	Good	No	No	No	Yes	
1101	QURU	<i>Quercus rubra</i>	Red Oak	12	Good	No	No	No	Yes	
1102	QURU	<i>Quercus rubra</i>	Red Oak	11	Poor	No	No	No	No	Nearly Dead
1103	QURU	<i>Quercus rubra</i>	Red Oak	10.5	Fair	No	No	No	No	Dead Main Branches
1104	QURU	<i>Quercus rubra</i>	Red Oak	13	Good	No	No	No	No	
1105	QURU	<i>Quercus rubra</i>	Red Oak	12	Good	No	No	No	No	
1106	QURU	<i>Quercus rubra</i>	Red Oak	8	Good	No	No	No	No	
1107	QURU	<i>Quercus rubra</i>	Red Oak	19	Good	No	No	No	No	
1108	QURU	<i>Quercus rubra</i>	Red Oak	14	Good	No	No	No	No	
1109	ULAM	<i>Ulmus americana</i>	American Elm	6	Good	No	No	No	No	
1110	ULAM	<i>Ulmus americana</i>	American Elm	9.5	Good	No	No	No	No	
1111	QURU	<i>Quercus rubra</i>	Red Oak	9.5	Good	No	No	No	No	
1112	Other	Other	Other	6.5	Dead	No	No	No	No	
1113	TIAM	<i>Tilia americana</i>	Basswood	7.5	Good	No	No	No	No	
1114	TIAM	<i>Tilia americana</i>	Basswood	11	Good	No	No	No	No	
1115	ACSA	<i>Acer saccharinum</i>	Sugar Maple	6	Good	No	No	No	No	
1116	Other	Other	Other	6	Dead	Yes	No	No	No	
1117	ACSA	<i>Acer saccharinum</i>	Sugar Maple	7	Good	No	No	No	No	
1118	ULAM	<i>Ulmus americana</i>	American Elm	6.5	Good	No	No	No	No	
1119	CAOV	<i>Carya ovata</i>	Shagbark Hickory	7	Good	No	No	No	No	
1120	ACSA	<i>Acer saccharinum</i>	Sugar Maple	7	Poor	Yes	No	No	No	Nearly Dead
1121	TIAM	<i>Tilia americana</i>	Basswood	12	Good	No	No	No	No	
1122	TIAM	<i>Tilia americana</i>	Basswood	16	Good	No	No	No	No	
1123	TIAM	<i>Tilia americana</i>	Basswood	12	Poor	No	No	No	No	
1124	ACSA	<i>Acer saccharinum</i>	Sugar Maple	10.5	Good	No	No	No	No	
1125	QURU	<i>Quercus rubra</i>	Red Oak	13	Poor	No	No	No	No	2T: 4; Horizontal, Up Rooted
1126	TIAM	<i>Tilia americana</i>	Basswood	12.5	Fair	No	No	No	No	Missing Top
1127	ULAM	<i>Ulmus americana</i>	American Elm	12.5	Good	No	No	No	No	
1128	CAOV	<i>Carya ovata</i>	Shagbark Hickory	6.5	Good	No	No	No	No	

Tree Inventory Table - 2900 S. Main St. Ann Arbor - Atwell Project #22002380										
Tree Tag #	Data Code	Scientific Name	Common Name	DBH (Inches)	Condition	Bat Hibernacula	Invasive Species	Landmark Tree	To Be Removed	Notes/Comments
1128	CAOV	<i>Carya ovata</i>	Shagbark Hickory	6.5	Good	No	No	No	No	
1129	PODE	<i>Populus deltoides</i>	Cottonwood	9	Good	No	No	No	No	
1130	ULPU	<i>Ulmus pumila</i>	Siberian Elm	6	Good	No	No	No	No	
1131	TIAM	<i>Tilia americana</i>	Basswood	18	Good	No	No	No	No	
1132	ACSA	<i>Acer saccharinum</i>	Sugar Maple	9.5	Good	No	No	No	No	
1133	ACSA	<i>Acer saccharinum</i>	Sugar Maple	7.5	Dead	Yes	No	No	No	
1134	ULAM	<i>Ulmus americana</i>	American Elm	11	Dead	Yes	No	No	No	
1135	Other	<i>Acer nigrum</i>	Black Maple	8	Good	No	No	No	No	
1136	CAOV	<i>Carya ovata</i>	Shagbark Hickory	7	Good	No	No	No	No	
1137	CAOV	<i>Carya ovata</i>	Shagbark Hickory	6	Good	No	No	No	No	
1138	TIAM	<i>Tilia americana</i>	Basswood	6	Good	No	No	No	No	
1139	TIAM	<i>Tilia americana</i>	Basswood	14.5	Dead	Yes	No	No	No	
1140	TIAM	<i>Tilia americana</i>	Basswood	7.5	Fair	No	No	No	No	Missing Top
1141	CAOV	<i>Carya ovata</i>	Shagbark Hickory	8	Good	No	No	No	No	
1142	CAOV	<i>Carya ovata</i>	Shagbark Hickory	20	Dead	Yes	No	No	No	
1143	ACSA	<i>Acer saccharinum</i>	Sugar Maple	6.5	Good	No	No	No	No	
1144	ULAM	<i>Ulmus americana</i>	American Elm	6	Good	No	No	No	No	
1145	ACSA	<i>Acer saccharinum</i>	Sugar Maple	8.5	Good	No	No	No	No	
1146	ULPU	<i>Ulmus pumila</i>	Siberian Elm	9	Good	No	No	No	No	
1147	RHCA	<i>Rhamnus cathartica</i>	Common Buckthorn	7	Poor	No	No	No	No	5 Trunk (5T): 6.5, 3, 3, 3; Many Main Dead Branches
1148	ULPU	<i>Ulmus pumila</i>	Siberian Elm	12	Good	No	No	No	No	
1149	PODE	<								



Know what's below. Call before you dig.

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 866.850.4200 www.atwell-group.com  
 311 NORTH MAIN  
 ANN ARBOR, MI 48104  
 734.994.4000

SECTION 05  
 TOWN 3 SOUTH, RANGE 6 EAST  
 CITY OF ANN ARBOR  
 WASHTEENAW COUNTY, MICHIGAN

CLIENT: PEFT DEVELOPMENT LLC/PERITUS VENTURES, LLC  
 2900 W. MAIN  
 SITE PLAN  
 UTILITY PLAN & FIRE PROTECTION PLAN

DATE: DECEMBER 22, 2022

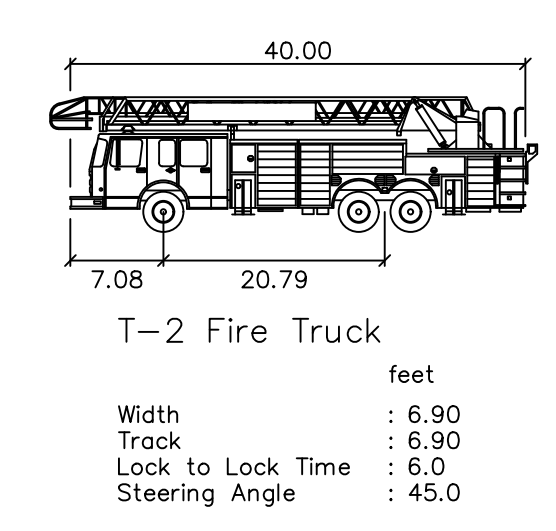
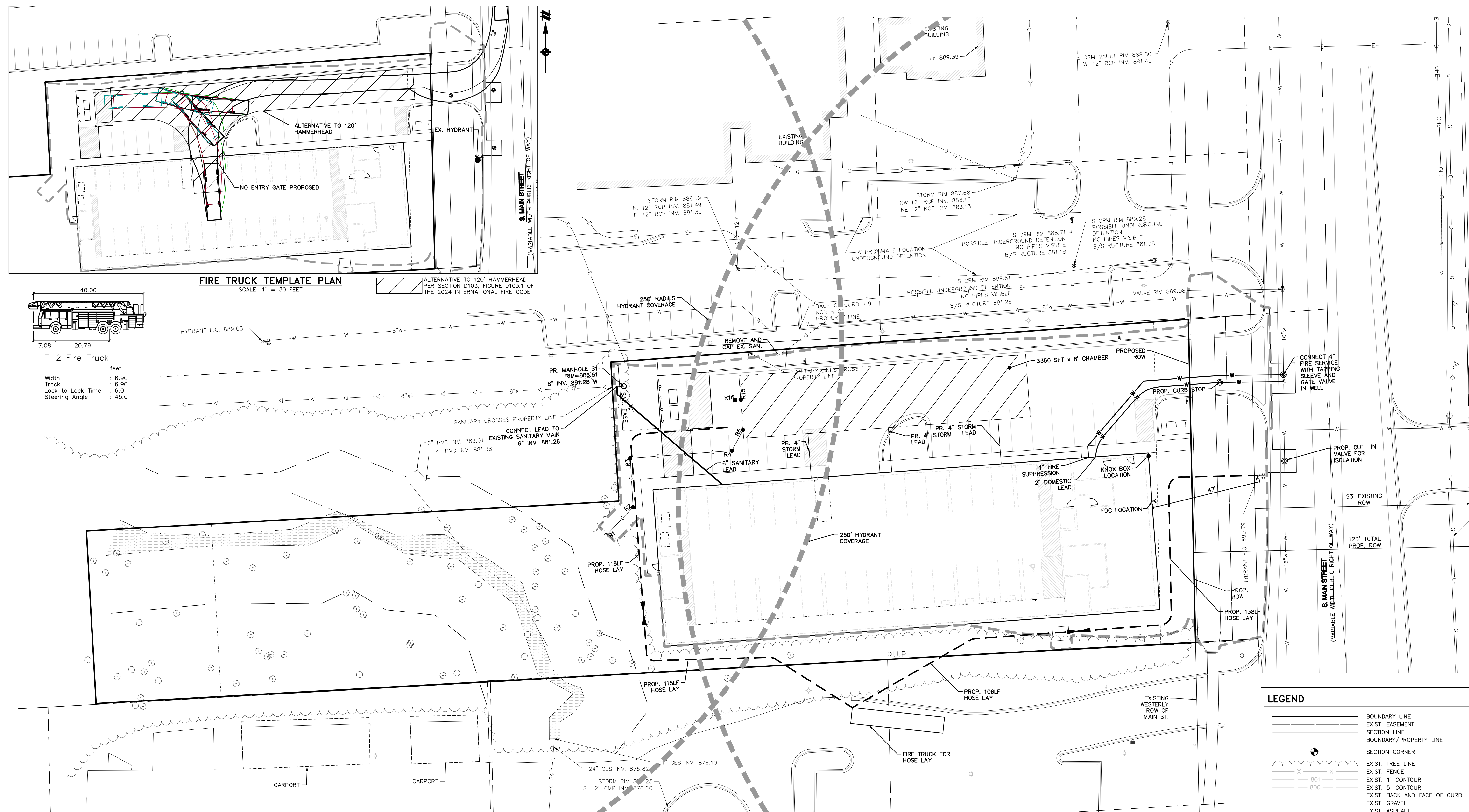
03/02/2023 PER CITY  
 04/03/2023 PER CITY  
 09/15/2023 LAYOUT REV.  
 01/11/2024 PER CITY  
 03/19/2024 PER CITY  
 04/23/2024 PER CITY

REVISIONS

NO.	DATE	DESCRIPTION

SCALE: 0 10 20  
 1" = 20 FEET  
 DR. CC CH. --  
 P.M. MB  
 BOOK --  
 JOB 22002380  
 SHEET NO. 07

CAD FILE: 22002380-05-UDWG



FIRE TRUCK TEMPLATE PLAN  
SCALE: 1" = 30 FEET

- FIRE DEPARTMENT NOTES:**
1. THE BUILDING ADDRESS SHALL BE CLEARLY VISIBLE WHEN APPROACHING THE BUILDING.
  2. A KNOX BOX SHALL BE MOUNTED ON AN APPROVED EXTERIOR BUILDING LOCATION ON THE STREET SIDE FOR EMERGENCY ACCESS TO THE BUILDING. PROPOSED LOCATION HAS BEEN SHOWN ON THIS PLAN (KB).
  3. FIRE PROTECTION IS ASSUMED TO BE PER NFPA 13R BECAUSE OF RESIDENTIAL OCCUPANCY. A MAXIMUM 4" FIRE LINE IS ANTICIPATED. FIRE SUPPRESSION DESIGN AND LEAD SIZING TO BE CONFIRMED BY A MEP DESIGNER PRIOR TO CONSTRUCTION.
  4. CONSTRUCTION MATERIAL STORAGE SHALL NOT INTERFERE WITH FIRE/EMERGENCY SITE ACCESS.
  5. HYDRANTS SHALL BE IN SERVICE DURING CONSTRUCTION.
  6. HYDRANTS PROVIDING PROTECTION COVERAGE FOR THE BUILDING SHALL BE IN SERVICE AND APPROVED BY BOTH ENGINEERING AND FIRE DEPARTMENT BEFORE FIRE DEPARTMENT WILL SUPPORT PERMIT ISSUANCE FOR NEW CONSTRUCTION PHASE AND BEFORE COMBUSTIBLE MATERIAL ARE PLACED ON THE JOB SITE.
  7. NO FIREWALL IS PROPOSED WITHIN THE BUILDING.

- UTILITY NOTES:**
1. PROPOSED UTILITIES ARE TO MEET THE REQUIREMENTS OF THE CITY OF ANN ARBOR.
  2. UTILITY TRENCHES SHALL BE IN ACCORDANCE WITH CITY OF ANN ARBOR DIV X STANDARD DETAILS.
  3. WATER LEADS SHALL CONTAIN 5.5' OF FINAL GRADE COVER (5'-6.5" ALLOWABLE TOLERANCE).
  4. A MINIMUM HORIZONTAL CLEARANCE OF 10' FOR SANITARY & STORM SEWERS AND 5' HORIZONTAL CLEARANCE FOR ALL OTHER UTILITIES SHALL BE MAINTAINED FROM THE WATER MAIN.
  5. A MINIMUM VERTICAL CLEARANCE OF 18" FOR SANITARY & STORM SEWERS AND 12" FOR ALL OTHER UTILITIES SHALL BE MAINTAINED FROM WATER MAIN AND WATER SERVICE LEADS.
  6. MINIMUM COVER FOR SEWER LEADS IS 5 FEET.
  7. DOWNSPOUTS, WEEPTILE, FOOTING DRAINS, SUMP PUMP DISCHARGES, OR ANY OTHER CONDUIT THAT CARRIES STORM OR GROUND WATER SHALL NOT BE ALLOWED TO DISCHARGE INTO SANITARY SEWER SERVICE LEADS OR LATERAL SEWER.
  8. IF FOOTING DRAINS ARE CONNECTED TO THE SANITARY SEWER SYSTEM, THEY MUST BE REMOVED AS A CONDITION OF SITE PLAN APPROVAL.
  9. THE WATER SERVICE LEAD WILL BE INSTALLED ENTIRELY WITH PUSH-ON RESTRAINED JOINTS IN THE EVENT MECHANICAL VERTICAL BENDS ARE REQUIRED.
  10. DOMESTIC/FIRE SERVICE LEAD TO BE POLYWRAPPED D.I.P. CL50.
  11. LINE STOPS SHALL BE INSTALLED WHERE EXISTING WATER MAINS CANNOT BE SUFFICIENTLY ISOLATED TO COMPLETE THE WORK. THE COST OF ANY LINE STOP INSTALLATION IS THE RESPONSIBILITY OF THE DEVELOPER AND/OR CONTRACTOR.
  12. WATER SERVICE METERING SHALL OCCUR AT THE POINT THE SERVICE LEADS ENTER THE BUILDING.
  13. THE CONTRACTOR MUST SUBMIT A BACKFLOW PREVENTION AND METERING ARRANGEMENT DRAWING FOR THE CITY TO REVIEW AND APPROVE PRIOR TO THE START OF CONSTRUCTION.
  14. REFER TO THE BUILDING DRAWINGS FOR ADDITIONAL CONSTRUCTION INFORMATION. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN BUILDING DRAWINGS THESE PLANS PRIOR TO CONSTRUCTION.
  15. THE USE OF BOOSTER PUMPS IS ANTICIPATED. THIS WILL BE CONFIRMED DURING FINAL BUILDING DESIGN.
  16. GARAGE FOOTING DRAINS SHALL BE CONNECTED TO STORM SEWER.
  17. FLOOR DRAINS IN THE PARKING STRUCTURE SHALL BE CONNECTED TO THE SANITARY SEWER.
  18. SANITARY LEAD CONNECTIONS WILL BE MADE USING A NEW 8"x8"x6" WYE CUT INTO THE SEWER MAIN WITH SEWER REPAIR JOINTS, PER THE PUBLIC SERVICES STANDARD SPECIFICATIONS.

**SANITARY SEWER OFFSET MITIGATION PROGRAM**

	Units	'Table A' Design flow	Average Flow	Peaking Factor	System Recovery Factor	Peak Flow (GPD)	Peak Flow (GPM)
<b>Proposed New Uses</b>							
Apartments up to 600 sqft	3	175.00	525	4	1.1	2,310	1.6
Apartments 601-1200 sqft	42	250.00	10,500	4	1.1	46,200	32.1
Underground Parking	28	27.00	756	4	1.1	3,324	2.3
<b>Total</b>						51,834	36.0
<b>Required GPM to mitigate</b>							36 GPM

**SANITARY SEWER ESTIMATED FLOW CALCULATIONS**

	Units	'Table A' Design flow	Average Flow	Peaking Factor	Peak Flow (GPD)	Peak Flow (GPM)
Apartments	45	300.00	10,800	4	43,200	30.0
Underground Parking	28	27.00	756	4	3,024	2.1
<b>Total</b>					46,224	32.1

	Size (ft.)	n	A (ft <sup>2</sup> )	R	S	Q (cfs)	Q (GPM)
Design Capacity of 8" Clay Pipe @ 0.55%	0.67	0.014	0.3491	0.16667	0.0055	0.8344	374.5

**LEGEND**

- BOUNDARY LINE
- EXIST. EASEMENT
- SECTION LINE
- BOUNDARY/PROPERTY LINE
- SECTION CORNER
- EXIST. TREE LINE
- EXIST. FENCE
- EXIST. 1' CONTOUR
- EXIST. 5' CONTOUR
- EXIST. BACK AND FACE OF CURB
- EXIST. GRAVEL
- EXIST. ASPHALT
- EXIST. CONCRETE
- EXIST. STORM
- EXIST. WATER MAIN
- EXIST. SANITARY
- EXIST. SIGN
- EXIST. WATER VALVE
- EXIST. HYDRANT
- EXIST. SANITARY MANHOLE
- EXIST. CATCH BASIN/INLET
- EXIST. END SECTION
- EXIST. BUILDING
- EXIST. LANDMARK TREE AND CRITICAL ROOT ZONE
- PROP. BUILDING
- PROP. BUILDING INT.
- PROP. SETBACK
- PROP. GRADING LIMITS
- PROP. DETENTION
- PROP. ASPHALT
- PROP. EASEMENT
- PROP. SANITARY SEWER
- PROP. WATER MAIN
- PROP. SANITARY LEAD
- PROP. WATER VALVE
- PROP. FIRE HYDRANT
- PROP. MANHOLE







Know what's below. Call before you dig.

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NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

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SECTION 05  
TOWN 3 SOUTH, RANGE 6 EAST  
CITY OF ANN ARBOR  
WASHTENAW COUNTY, MICHIGAN

CLIENT: PEFT DEVELOPMENT LLC/PERITUS VENTURES, LLC  
2900 W. MAIN  
SITE PLAN  
STORMWATER MANAGEMENT DETAILS

DATE: DECEMBER 22, 2022

- 03/02/2023 PER CITY
- 04/03/2023 PER CITY
- 09/15/2023 LAYOUT REV.
- 01/11/2024 PER CITY
- 03/19/2024 PER CITY
- 04/23/2024 PER CITY

REVISIONS table with columns for SCALE, CH, and GH.

DR. CC GH. --  
P.M. MB  
BOOK --  
JOB 22002380  
SHEET NO. 09

### STORM WATER DRAINAGE NARRATIVE

#### STORM WATER MANAGEMENT SYSTEM NARRATIVE

IN CONJUNCTION WITH THE DEVELOPMENT OF THE SITE, THE PROPOSED STORM WATER MANAGEMENT IMPROVEMENTS ARE TO COMPLY WITH THE CURRENT RULES AND REGULATIONS OF THE WASHTENAW COUNTY WATER RESOURCES COMMISSIONERS OFFICE (WCWRC) AND THE CITY OF ANN ARBOR. THIS INCLUDES REQUIRED TREATMENT AND ATTENUATION OF STORM WATER.

#### INFILTRATION

A GEOTECHNICAL INFILTRATION EVALUATION HAS BEEN PREPARED FOR THE SITE BY G2 CONSULTING GROUP (DATED 3-19-19). BASED ON THIS EVALUATION THE SOILS ON THE SITE CANNOT SUPPORT INFILTRATION THEREFORE REQUIRING 120% DETENTION VOLUME (PER WCWRC RULES).

#### CONVEYANCE AND DETENTION:

THE PROPOSED STORM WATER RUNOFF WILL BE COLLECTED AND CONVEYED VIA STORM SEWERS TO: UNDERGROUND DETENTION CHAMBERS ON THE NORTH SIDE OF THE PROJECT. THESE CHAMBERS WILL DRAIN VIA GRAVITY TO A PROPOSED STORM SEWER OUTLET TO AN EXISTING UNNAMED WATERCOURSE IN THE WESTERN PORTION OF THE SITE. THE BUILDING WILL DRAIN TO THIS AREA AS WELL.

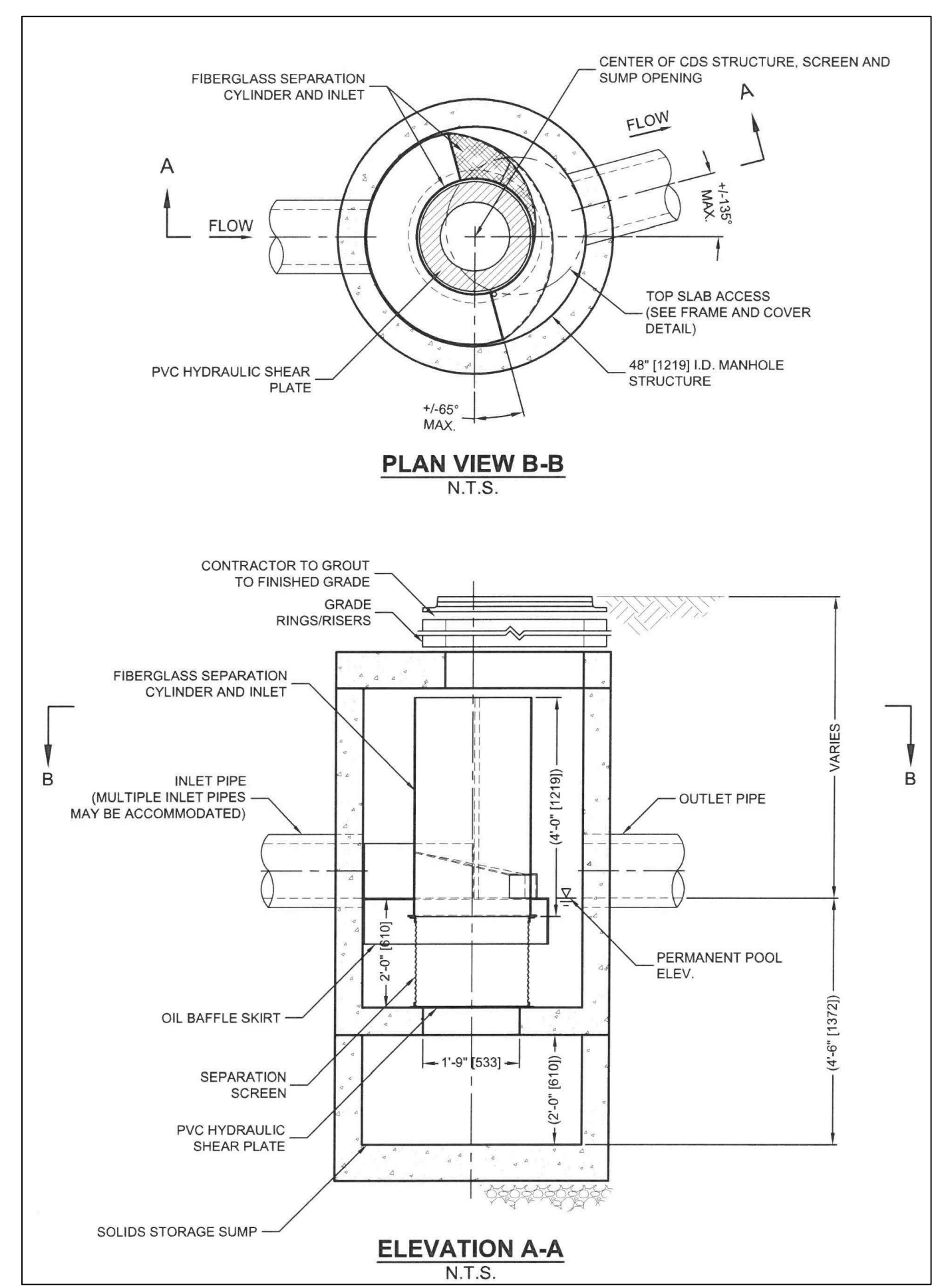
OUTLET FLOW RESTRICTION OF THE DETENTION AREAS WILL BE REQUIRED AND PROVIDED VIA AN OUTLET CONTROL STRUCTURE. THIS WILL REGULATE THE RATE OF DISCHARGE AT OR BELOW THE ALLOWABLE RATES AS DEFINED BY THE RULES OF THE WCWRC.

#### PROPOSED STORM WATER OUTLET

THE PROPOSED STORM WATER OUTLET IS TO AN EXISTING UNNAMED WATERCOURSE IN THE WESTERN PORTION OF THE SITE. THIS WATER COURSE ULTIMATELY DRAINS ACROSS THE SITE TO THE SOUTH TOWARD EISENHOWER STREET AND IS TRIBUTARY TO THE MALLET'S CREEK DRAIN.

THE PROPOSED STORM WATER OUTLET LOCATION IS UNDERSTOOD TO BE ADEQUATE FOR THE PROPOSED DISCHARGE FOR THE FOLLOWING REASONS:

- THE OUTLET LOCATION IS THE ONLY VIABLE AND REASONABLE OUTLET FOR THE SITE
- THE OUTLET APPEARS FUNCTIONAL AND THERE ARE NO KNOWN DOWNSTREAM FLOODING ISSUES
- THE DISCHARGE RATE AND VOLUME TO THE ULTIMATE OUTLET WILL BE REDUCED IN PROPOSED CONDITIONS



CONTECH CDS® OR APPROVED ALTERNATE MANUFACTURER TO PROVIDE SIZING AND CONTRACT DESIGN DRAWINGS FOR APPROVAL DURING DETAILED ENGINEERING  
**TYPICAL PRE-TREATMENT STRUCTURE**

TASKS	Storm Sewer System	Catch Basin Sumps	Catch Basin Inlet Casings	Ditches and Swales	Outflow Control Structure	Rip-Rap	Filtration Basins	Storm Detention Areas	Wetlands	Emergency Overflow	SCHEDULE
Inspect for sediment accumulation	X	X		X	X	X	X	X		X	Weekly
Removal of sediment accumulation	X	X		X	X	X	X	X			As needed* & prior to turnover
Inspect for floatables and debris	X	X	X	X	X		X	X			Quarterly
Cleaning of floatables and debris	X	X	X	X	X		X	X			Quarterly & at turnover
Inspect Stormwater system components during wet weather and compare to as-built plans					X		X	X			Annually and at turnover
Make adjustments as determined by annual wet weather inspection	X	X	X	X	X	X	X	X	X	X	As needed

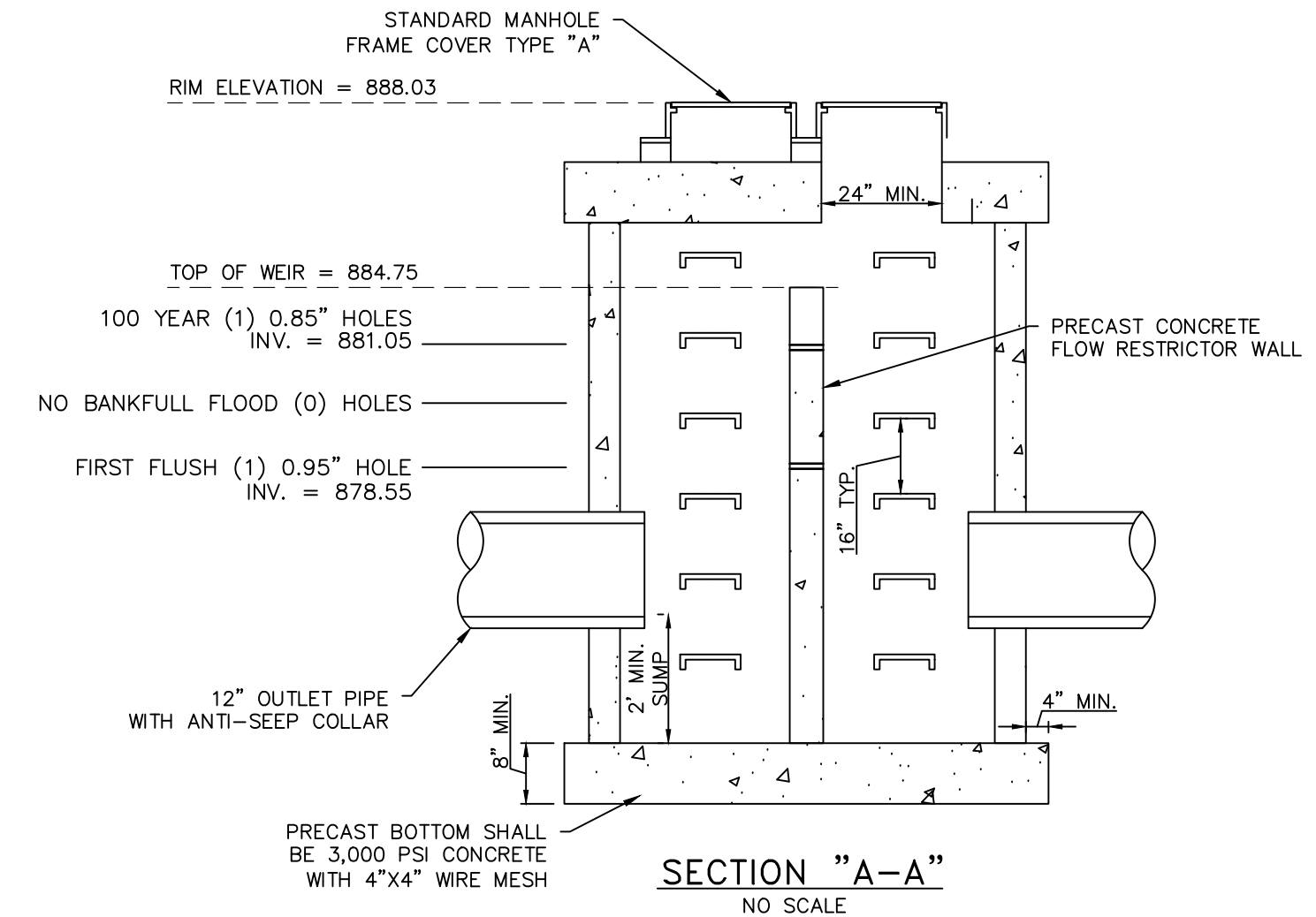
### STORM WATER MAINTENANCE TASKS AND SCHEDULE DURING CONSTRUCTION

DURING CONSTRUCTION THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF THE STORMWATER SYSTEM

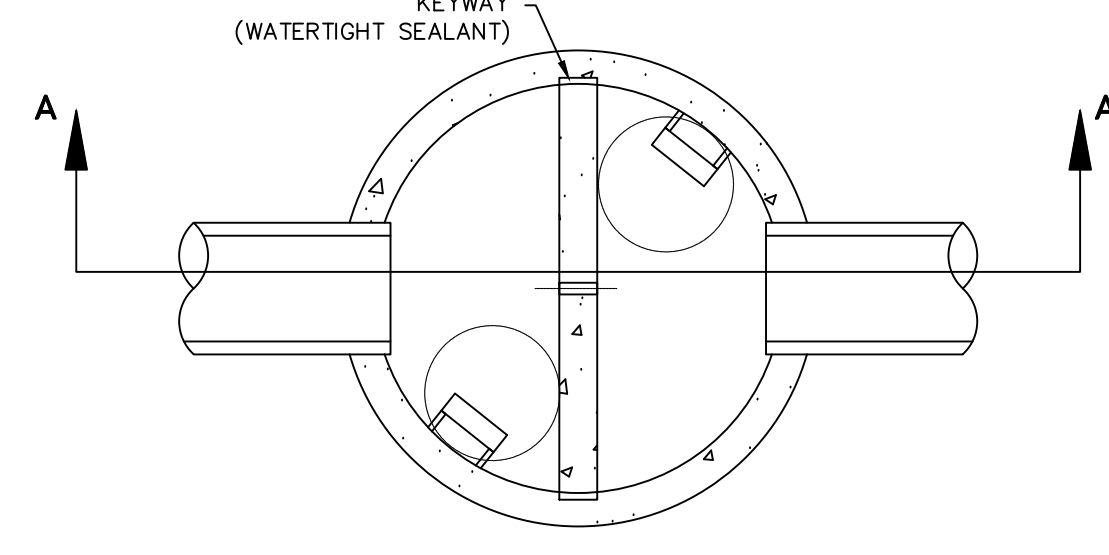
TASKS	COST
Annual inspection for sediment accumulation	\$300.00
Removal of sediment accumulation every 2 years as needed	\$1,500.00
Inspect for floatables and debris annually and after major storms	\$500.00
Removal of floatables and debris annually and after major storms	\$900.00
Inspect structural elements during wet weather and compare to as-built plans every 2 years	\$900.00
Make structural adjustments or replacements as determined by inspection as needed	\$1,000.00
Have professional engineer carry out emergency inspections upon identification of severe problems	\$1,000.00
<b>A. Total Annual Budget</b>	<b>\$6,200.00</b>

### STORM WATER MAINTENANCE TASKS ANNUAL BUDGET

POST CONSTRUCTION THE BUILDING OWNER IS RESPONSIBLE FOR MAINTENANCE OF THE STORMWATER SYSTEM  
NOTE: NO CHEMICALS SHALL BE USED IN THE STORM WATER FEATURES OR BUFFER ZONES WITH THE EXCEPTION OF TREATING FOR INVASIVE SPECIES. MOWING SHALL NOT BE PERFORMED MORE THAN TWICE A YEAR.



SECTION "A-A"  
NO SCALE



PLAN VIEW  
NO SCALE

- NOTES:
1. THE PRECAST REINFORCED FLOW RESTRICTOR STRUCTURE SHALL BE MANUFACTURED PER ASTM C478 SPECIFICATIONS.
  2. ALL JOINTS SHALL BE MADE WATERTIGHT.
  3. CONTRACTOR TO PROVIDE DETAILED SHOP DRAWINGS OF CONTROL STRUCTURE PRIOR TO CONSTRUCTION.

### OUTLET CONTROL STRUCTURE DETAIL OR APPROVED ALTERNATE

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STORM SEWER CONVEYANCE CALCULATIONS

B/(T+D)^E B = 275.0 D = 25.0 E = 1 C = varies T = 20 (min.)

Table with columns: FROM MH INPUT, TO MH, INCRE-MENT ACRES (A), C, EQUIV. AREA 100% ACRES CA, TOTAL AREA 100% ACRES SUM CA, T TIME (MIN.), I (IN PER HOUR), Q=CIA C.F.S. FLOW, CAPAC-ITY OF SEWER (C.F.S.), DIAM. OF PIPE (IN.), LENGTH OF LINE (FT.), SLOPE OF PIPE (%), MIN HG BASED ON 'Q', HG FOR 2.5 FPS GIVEN 'D', ACTUAL HG (%), VEL. FLOW FULL (FT./ SEC.), TIME OF FLOW (MIN.), H.G.L. ELEV. UPPER END, H.G.L. ELEV. LOWER END, GROUND ELEV. UPPER END, GROUND ELEV. LOWER END, INVERT ELEV. UPPER END, INVERT ELEV. LOWER END.

PRELIMINARY UNDERGROUND DETENTION CALCULATIONS

W1 Determining Post-Development Cover Types, Areas, Curve Numbers and runoff coefficients

Total Contributing Drainage Area = 0.67 Acres Total Disturbed Area = 0.67 Acres

Table with columns: National/Method Variables, Cover Type, Soil Type, Area (sf), Area (ac), Runoff Coef, (c)(Area). Rows include Paved Parking Lots, roofs, driveways, Developed Open Space, Good Condition, Water Surfaces.

Table with columns: NRCS Variables, Pervious Cover Type, Soil Type, Area (sf), Area (ac), Curve Number, (CN)(Area). Rows include Developed Open Space, Good Condition.

Table with columns: NRCS Variables, Impervious Cover Type, Soil Type, Area (sf), Area (ac), Curve Number, (CN)(Area). Rows include Paved Parking Lots, roofs, driveways, Water Surfaces.

W2 First Flush Runoff Calculations (Vff)

A. Vff = (1") (1/12) (43560/1) (C) AC = 2,262 cf

W3 Predevelopment Bankfull Runoff Calculations (Vbf-pre)

A. 2 year/24 hour storm event P = 2.35 in B. Pervious Cover CN (Meadow) CN = 78 C. S = (1000/CN) - 10 S = 2.82 in D. Q = (P - 0.25)^2 / (P + 0.85) Q = 0.69 in E. Pervious Cover Area Area = 29,185 sf F. Vbf-pre = Q(1/12)Area Vbf-pre = 1,684 cf

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

A. 2 year/24 hour storm event P = 2.35 in B. Pervious Cover CN CN = 80 C. S = (1000/CN) - 10 S = 2.50 in D. Q = (P - 0.25)^2 / (P + 0.85) Q = 0.79 in E. Pervious Cover Area Area = 1,522 sf F. Vbf-per-post = Q(1/12)Area Vbf-per-post = 100 cf

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

A. 2 year/24 hour storm event P = 2.35 in B. Impervious Cover CN CN = 98 C. S = (1000/CN) - 10 S = 0.20 in D. Q = (P - 0.25)^2 / (P + 0.85) Q = 2.12 in E. Impervious Cover Area Area = 27,663 sf F. Vbf-imp-post = Q(1/12)Area Vbf-imp-post = 4,891 cf

W6 Pervious Cover Post-development 100-year Storm Runoff Calculations (V100-per-post)

A. 100 year storm event P = 5.11 in B. Pervious Cover CN CN = 80 C. S = (1000/CN) - 10 S = 2.50 in D. Q = (P - 0.25)^2 / (P + 0.85) Q = 2.99 in E. Pervious Cover Area Area = 1,522 sf F. V100-per-post = Q(1/12)Area V100-per-post = 379 cf

W7 Impervious Cover Post-development 100-year Storm Runoff Calculations (V100-imp-post)

A. 100 year storm event P = 5.11 in B. Pervious Cover CN CN = 98 C. S = (1000/CN) - 10 S = 0.20 in D. Q = (P - 0.25)^2 / (P + 0.85) Q = 4.87 in E. Pervious Cover Area Area = 27,663 sf F. V100-imp-post = Q(1/12)Area V100-imp-post = 11,234 cf

W9 Runoff Summary & Onsite Infiltration Requirement

A. Runoff Summary from Previous Worksheets Vff = 2,262 cf\* Vbf-pre = 1,684 cf Vbf-per-post = 100 cf Vbf-imp-post = 4,891 cf Total BF Volume (Vbf-total) = 4,991 cf V100-per-post = 379 cf V100-imp-post = 11,234 cf Total 100-year Volume (V100) = 11,613 cf B. Determine Onsite Infiltration Requirement Vff-rem = 4,991 cf Vbf-rem = 1,684 cf V100-rem = 3,307 cf\* Bankfull Volume Difference = 3,307 cf\* Onsite Infiltration Requirement (Vinf) = 3,307 cf

W10 Detention / Retention Requirement

A. Qe = 238.6 (T)^-0.82 489.15 cfs/in-mi^2 B. Total Site Area 0.67 ac C. Q100 = Q100-per + Q100-imp 7.86 in D. Peak Flow (PF) = (Qe - Q100-per) / 640 4.026 cfs E. Delta = PF - Q15A 3.926 cfs F. Vdet = (Delta/PF) x V100 Calculated Detention (unadjusted) = 11,323 cf

W11 Determine Applicable BMPs and Associated Volume Credits

Table with columns: Proposed BMP, Area (ft^2), Storage Depth (ft), Storage Volume (ft^3), Ave. Design Infil. Rate (in/hr)\*, Infil. During Storm (ft^3), Total Volume Reduction (ft^3). Row for Infiltration Basin shows 0 storage depth and 0 volume reduction.

Total Volume Reduction Credit by Proposed Structural BMP's (Vred) = 0 cf

Table with columns: Proposed BMP, Ave. Design Infil. Rate (ft/hr)\*, Volume Rate (cf/hr), Estimated Drawdown Time (hrs). Row for Infiltration Basin shows 0.0000 rate and N/A time.

W12 Infiltration / Detention Summary

Total BMP Credits Required per W10: 3,307 cf Total BMP Credits Provided: 0 cf Difference: (3,307) cf % Deficiency: 100.0% Volume Penalty (prorated up to 20% based on BMP deficiency): 20.0% Detention Volume adjusted for BMP credits, Vdet = 11,323 cf Detention Volume required inc. Penalty, Vdet = 120.0% 13,587 cf Zero Outflow Volume, V100 = 11,613 cf

DET Detention Basin Summary

Table with columns: Elevation, Surface Area (SF), Depth (FT), Cumulative Volume (CF), First Flush Zbf, Bank Full Zbf, 100-Year Z100. Rows show elevations from 879 to 884.5 with corresponding surface areas and volumes.

Total Basin Volume Provided to EL 884.55 = 16,733 cf Freeboard Provided = Top of Bank - Z100 = 1.00 ft Bankfull Pond Area = Area @ Zbf = 0.07 ac

OUTLET Outlet Control Structure Sizing

1. Standpipe outlet holes sizing - "first flush" runoff First Flush discharge should be released from in 24 hours Qff = Vff / 24 hrs / 3600 sec Qff = 0.026 cfs hff(ave) = 2/3 x (Zff - Zo) hff(ave) = 0.800 ft A(required) = Qff / 0.006 sf A(required) = 0.0049 sf Selected Orifice Diameter = 0.95 in Area of each orifice = 0.0049 sf Number of orifice holes provided = 1 holes at elev. 878.55

Check First Flush discharge release time Aft(actual) = 0.0049 ft^2 Qff = A x 0.62 x sqrt(2^\*32.2^\*h) Qff = 0.0219 cfs Tff = Vff / (Qff x 3600) Tff = 28.7 hrs O.K.

2. Standpipe outlet holes sizing - "Bankfull flood" discharge Bankfull should discharge within 35 to 48 hours Check release from first flush holes only hbff(ave) = 2/3 x (Zbf - Zo) hbff(ave) = 1.43 ft Qbf = A x 0.62 x sqrt(2^\*32.2^\*h) Qbf = 0.029 cfs Tbf = Vbf / (Qbf x 3600) Tbf = 47.3 hr O.K.

3. Standpipe outlet holes sizing - "100-yr flood" discharge Q100 = Qa Q100 = 0.10 cfs Release from above holes hff = (Z100 - Zff) hff = 5.00 ft hbff = (Z100 - Zff) hbff = 3.80 ft Q = A x 0.62 x sqrt(64.4^\*hff) + A x 0.62 x sqrt(64.4^\*hbff) Q = 0.05 cfs Remaining flow = Q100 - Q = 0.05 cfs A = Q100 / ( 0.62 x sqrt(2^\*32.2^\*h) ) A(required) = 0.01 sf Selected Orifice Diameter = 0.85 in Area of each orifice = 0.0039 sf Number of orifice holes required = 1 holes at elev. 880.70

Check that the actual flow rate does not exceed the allowable flow rate Qff = 62 x #ff holes x A x sqrt(2 x 32.2 x (X100 - Xbot)) = 0.055 cfs Qbf = 62 x #bf holes x A x sqrt(2 x 32.2 x (X100 - Xff)) = 0.000 cfs Qmax = Qff + Qbf = 0.055 cfs x sqrt(2 x 32.2 x (X100 - Xff)) = 0.088 cfs O.K.

Check "100-yr discharge" holes discharge release time hall(ave) = 2/3 x (X100 - Xbf) + (Xbf - Xo) hall(ave) = 4.05 ft Qall = 62 x #ff holes x A x sqrt(2 x 32.2 x h) = 0.049 cfs hbff(ave) = 2/3 x (X100 - Xbf) + (Xbf - Xff) = 2.85 ft Qbf + 100 = A x 0.62 x sqrt(64.4^\*hbff) + A x 0.62 x sqrt(64.4^\*h) = 0.000 cfs h100(ave) = 2/3 x (X100 - Xbf) h100(ave) = 1.90 ft Q100 = A x 0.62 x sqrt(2 x 32.2 x h) = 0.027 cfs Vrem = V100 - Vbf = 6,622 cf Q100(ave) = 0.027 cfs T100 = Tbf + (Vrem) / (Q100 + Q100(ave)) = 71.4 hrs O.K.

4. Riser Outlet Pipe Design Outlet pipe designed to handle the 100-year restricted flow 100-year restricted flow = 1.90 cfs Choose outflow pipe diameter = 12 in s = 0.44 % Assume roughness factor n = 0.013 Flow velocity at 100-yr restricted flow (Mannings) = 3.01 fps Design Pipe Capacity = 2.36 cfs OK

5. Basin Overflow Weir (design to convey 10-year unrestricted flow) Design Flow (Q) = 2.2 cfs, per storm sewer calls Weir Coefficient (C) = 3.367 Bottom of Weir (min. 0.25 ft above Z100) = 883.8 Top of Basin = 884.55 Height of Weir (H) = 0.75 Min. Length of Weir, L = Q / (C x H^(3/2)) = 1.0 ft



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SECTION 05 TOWN 3 SOUTH, RANGE 6 EAST CITY OF ANN ARBOR WASHTENAW COUNTY, MICHIGAN

CLIENT PEET DEVELOPMENT LLC/PERITUS VENTURES, LLC 2900 W. MAIN SITE PLAN STORMWATER MANAGEMENT CALCULATIONS

DATE DECEMBER 22, 2022

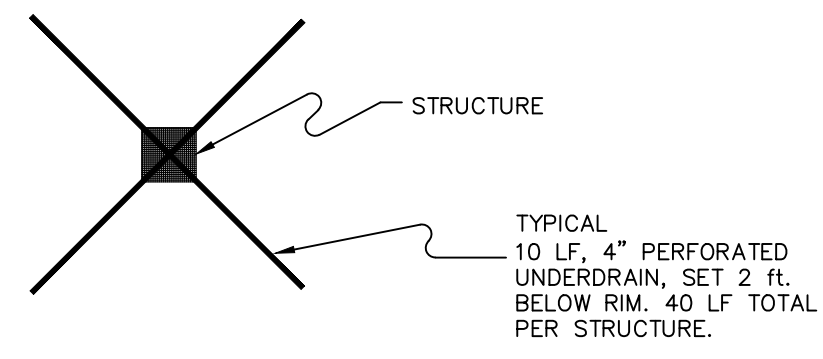
03/02/2023 PER CITY 04/03/2023 PER CITY 09/15/2023 LAYOUT REV. 01/11/2024 PER CITY 03/19/2024 PER CITY 04/23/2024 PER CITY

Table with columns: SCALE, DR., CC., CH., P.M., MB., BOOK, JOB, SHEET NO., REVISIONS.

SCALE 0 20 40 1" = 40 FEET DR. CC CH. P.M. MB. BOOK JOB 22002380 SHEET NO. 10

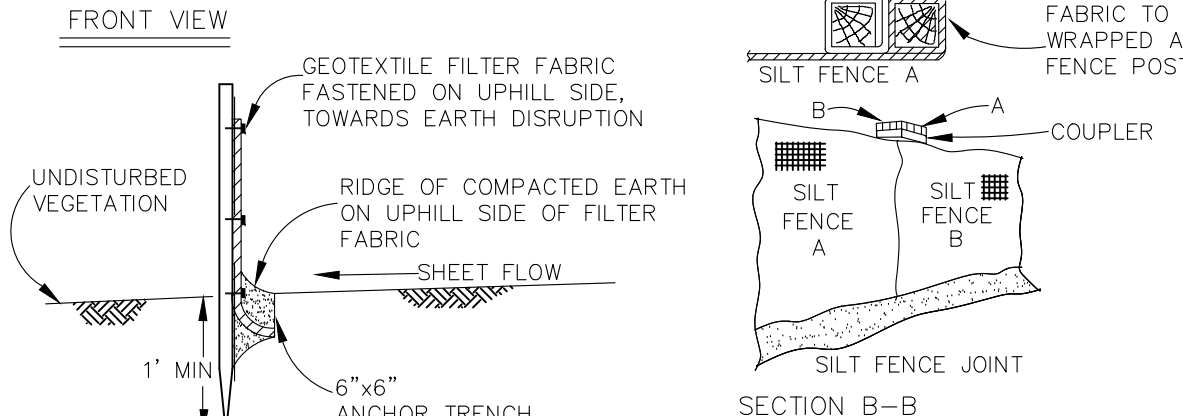
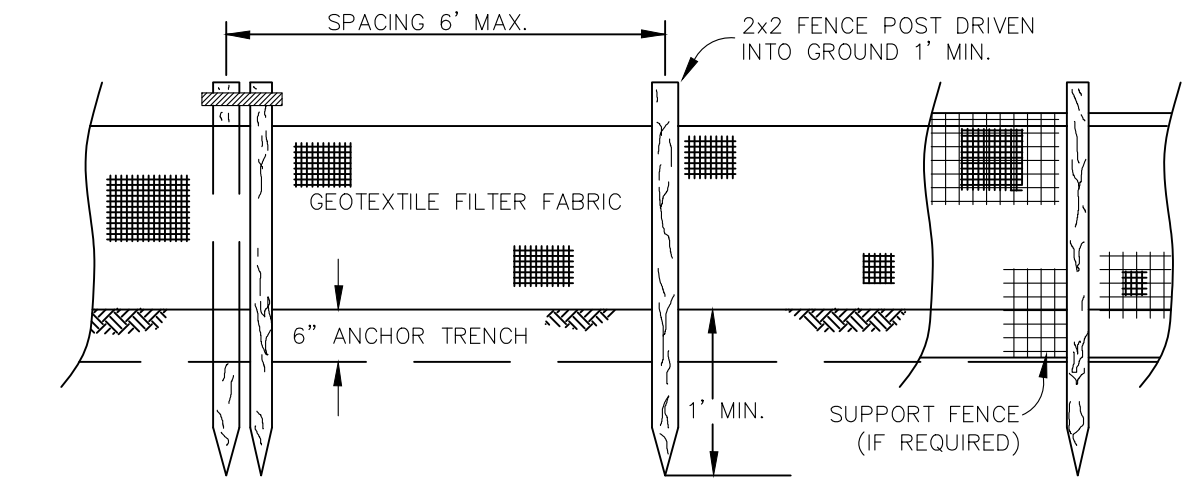
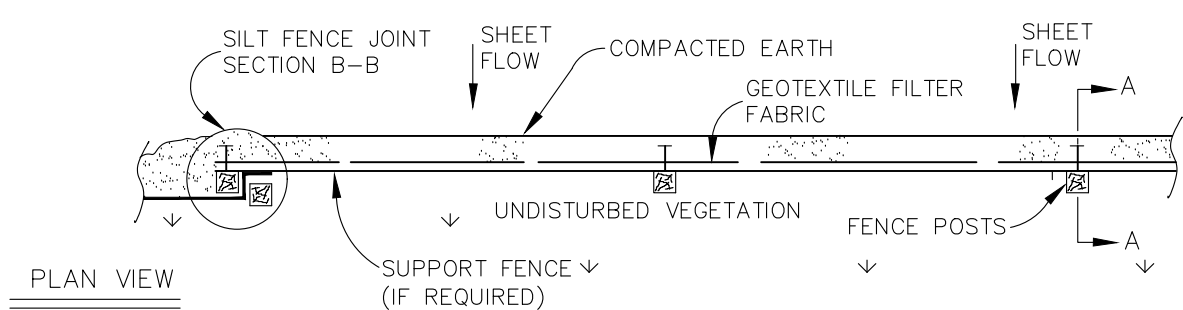
K:\22002380\_DWG\PLAN SETS SITE-PRELIMINARY\22002380SP-08.dwg 4/23/2024 3:20 PM KYLER SHEERIN

CAD FILE: 22002380SP-08.dwg



**FINGER DRAIN DETAIL**

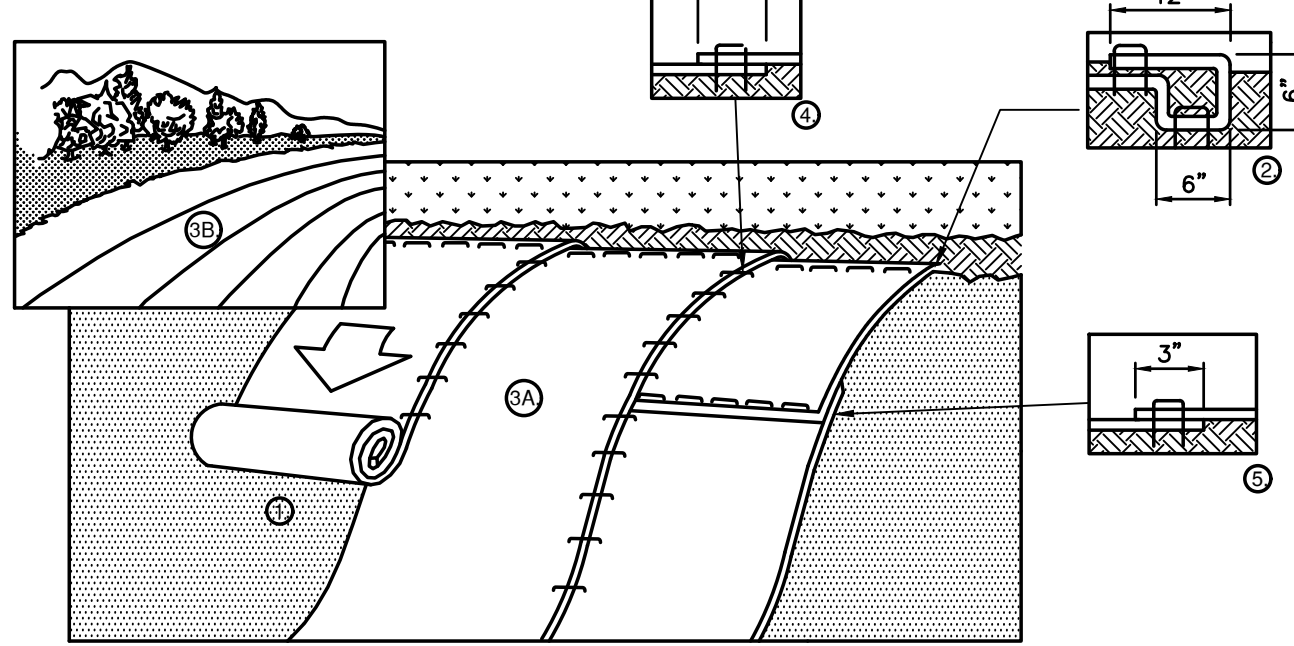
NO SCALE  
(FOR USE ON STRUCTURES WITHIN PAVEMENT)



REVISIONS		REV. NO.	DR. BY	CH. BY	DATE
PUBLIC SERVICES DEPARTMENT CITY OF ANN ARBOR					
SILT FENCE					
DR. BY	DF/SMJ	CH. BY	CSS/DF	DRAWING NO.	SD-EC-3
SCALE	NONE	DATE	11-6-92	SHEET NO.	OF

**SILT FENCE DETAIL**

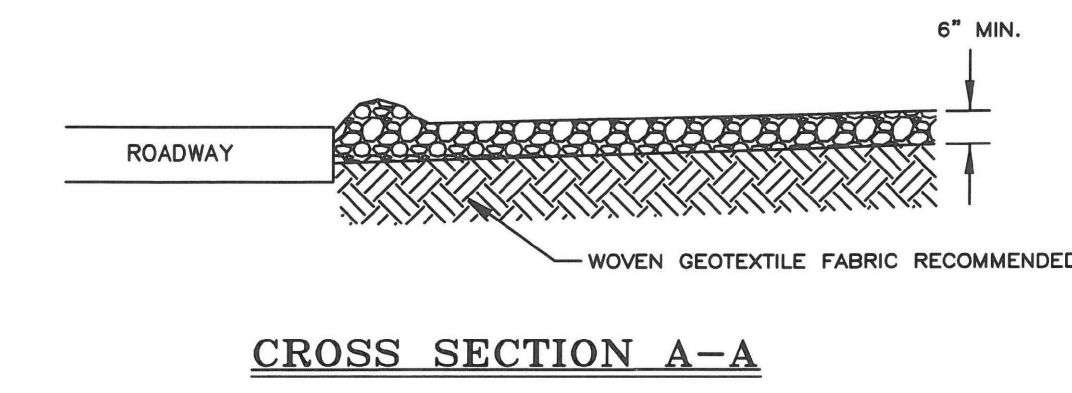
NO SCALE



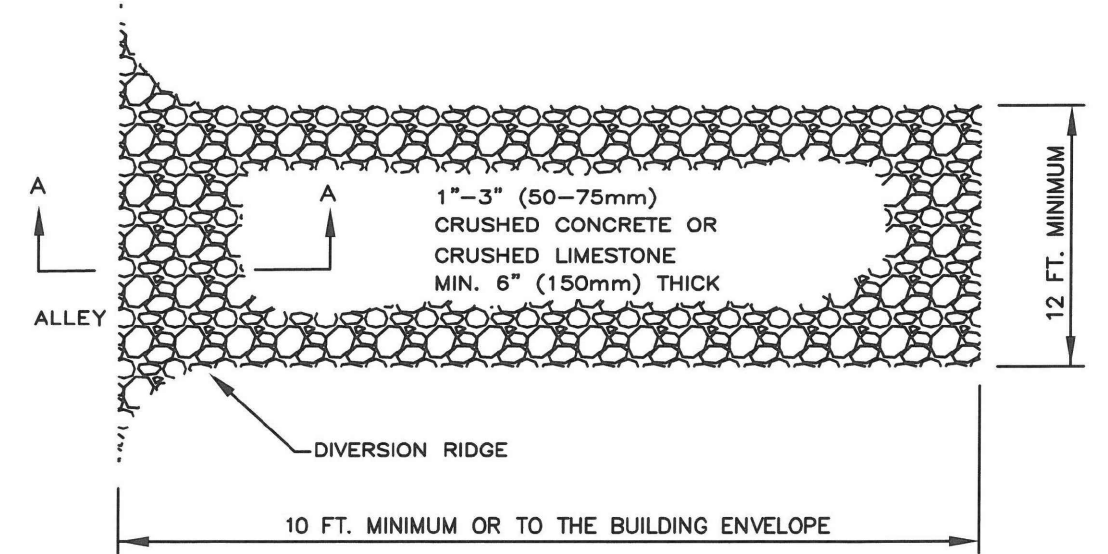
- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
- BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
- ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS PER MANUFACTURER'S RECOMMENDATION.
- THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH MINIMUM 6" OVERLAP TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
- CONSECUTIVE BLANKETS SPICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH.
- PLACE STAPLES/STAKES PER MANUFACTURE RECOMMENDATION FOR THE APPROPRIATE SLOPE BEING APPLIED.

**EROSION CONTROL BLANKET (SLOPE INSTALLATION)**

NO SCALE

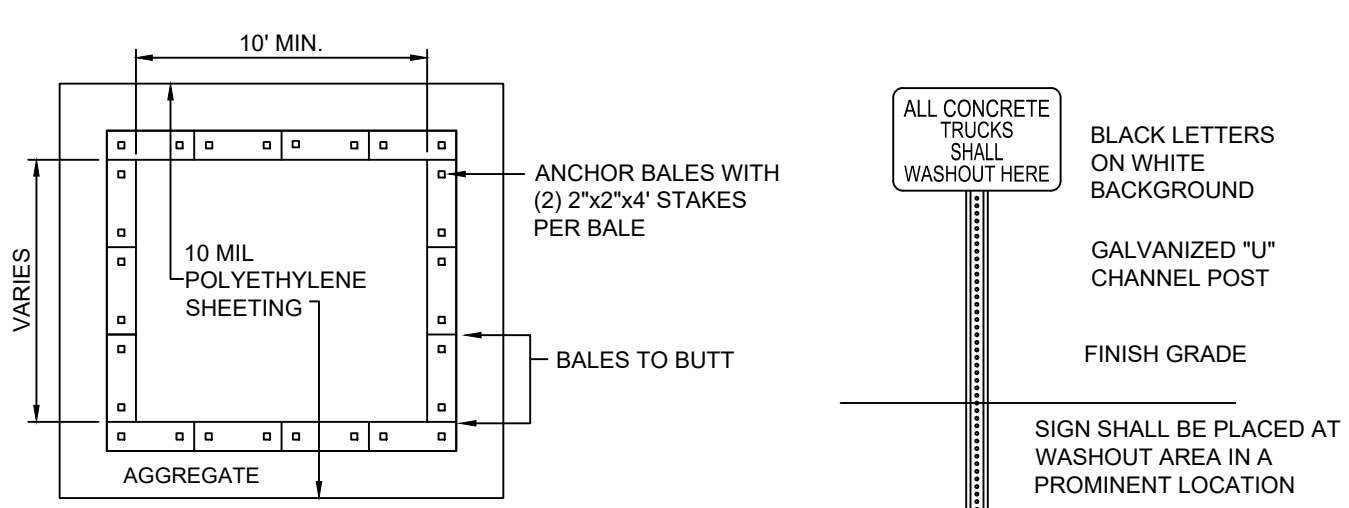


**CROSS SECTION A-A**



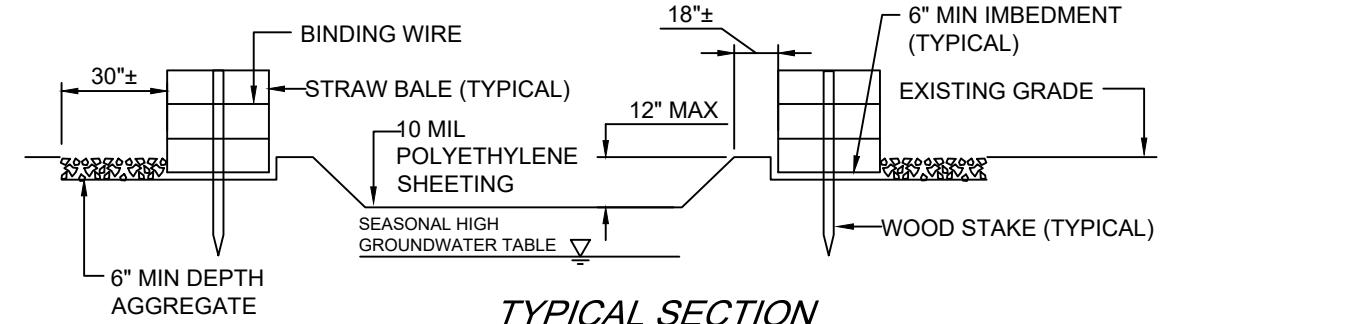
**TEMPORARY STONE TRACKING MAT**

NO SCALE



**PLAN**

**WASHOUT SIGN**

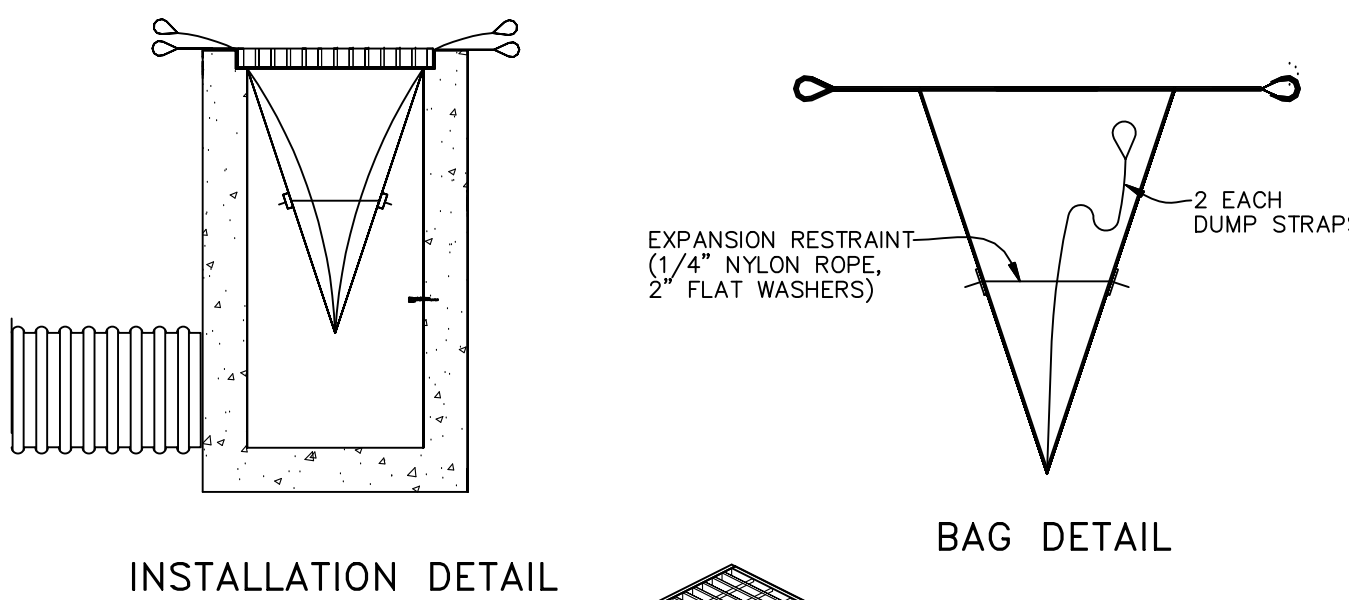


**TYPICAL SECTION**

- NOTES:**
- CONTAINMENT MUST BE STRUCTURALLY SOUND AND LEAK FREE AND CONTAIN ALL LIQUID WASTES.
  - CONTAINMENT DEVICES MUST BE OF SUFFICIENT QUANTITY OR VOLUME TO COMPLETELY CONTAIN THE LIQUID WASTES GENERATED.
  - WASHOUT MUST BE CLEANED OR NEW FACILITIES CONSTRUCTED AND READY TO USE ONCE ASHOUT IS 75% FULL.
  - WASHOUT AREA(S) SHALL BE INSTALLED IN A LOCATION EASILY ACCESSIBLE BY CONCRETE TRUCKS.
  - ONE OR MORE AREAS MAY BE INSTALLED ON THE CONSTRUCTION SITE AND MAY BE RELOCATED AS CONSTRUCTION PROGRESSES.
  - AT LEAST WEEKLY REMOVE ACCUMULATION OF SAND AND AGGREGATE AND DISPOSE OF PROPERLY.

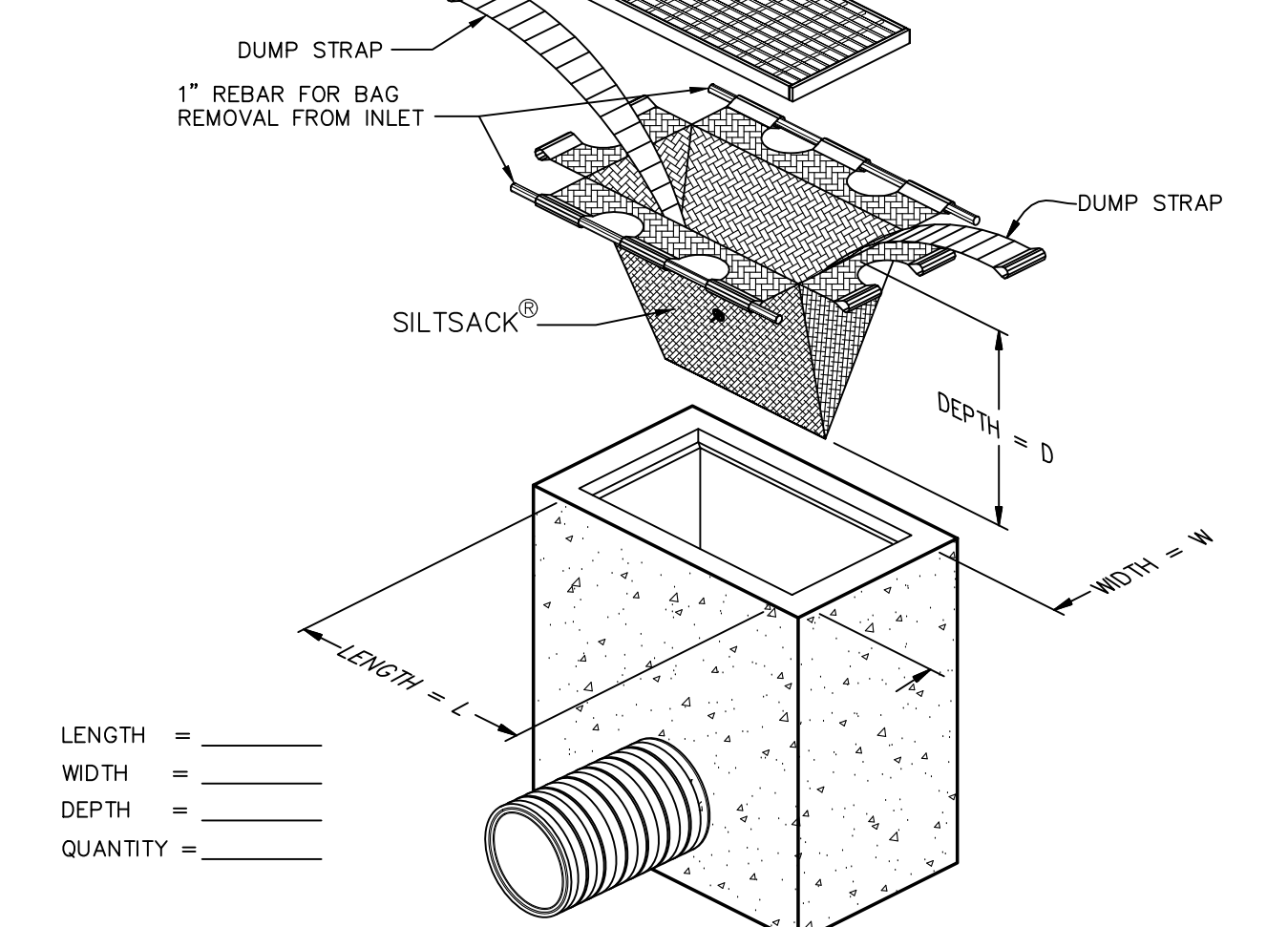
**CONCRETE WASHOUT AREA**

NO SCALE



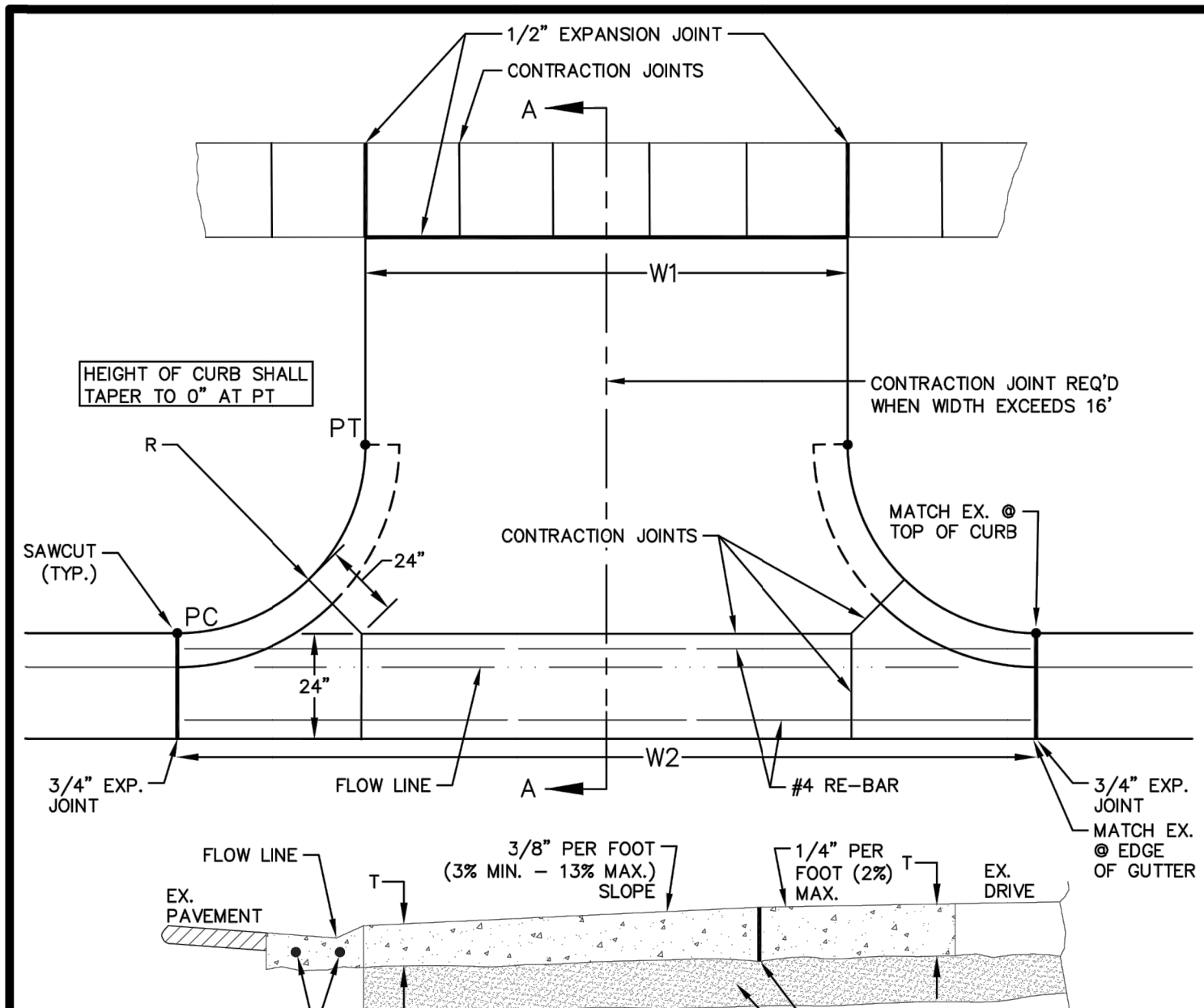
**INSTALLATION DETAIL**

**BAG DETAIL**



**SILT SACK INLET FILTER**

NO SCALE



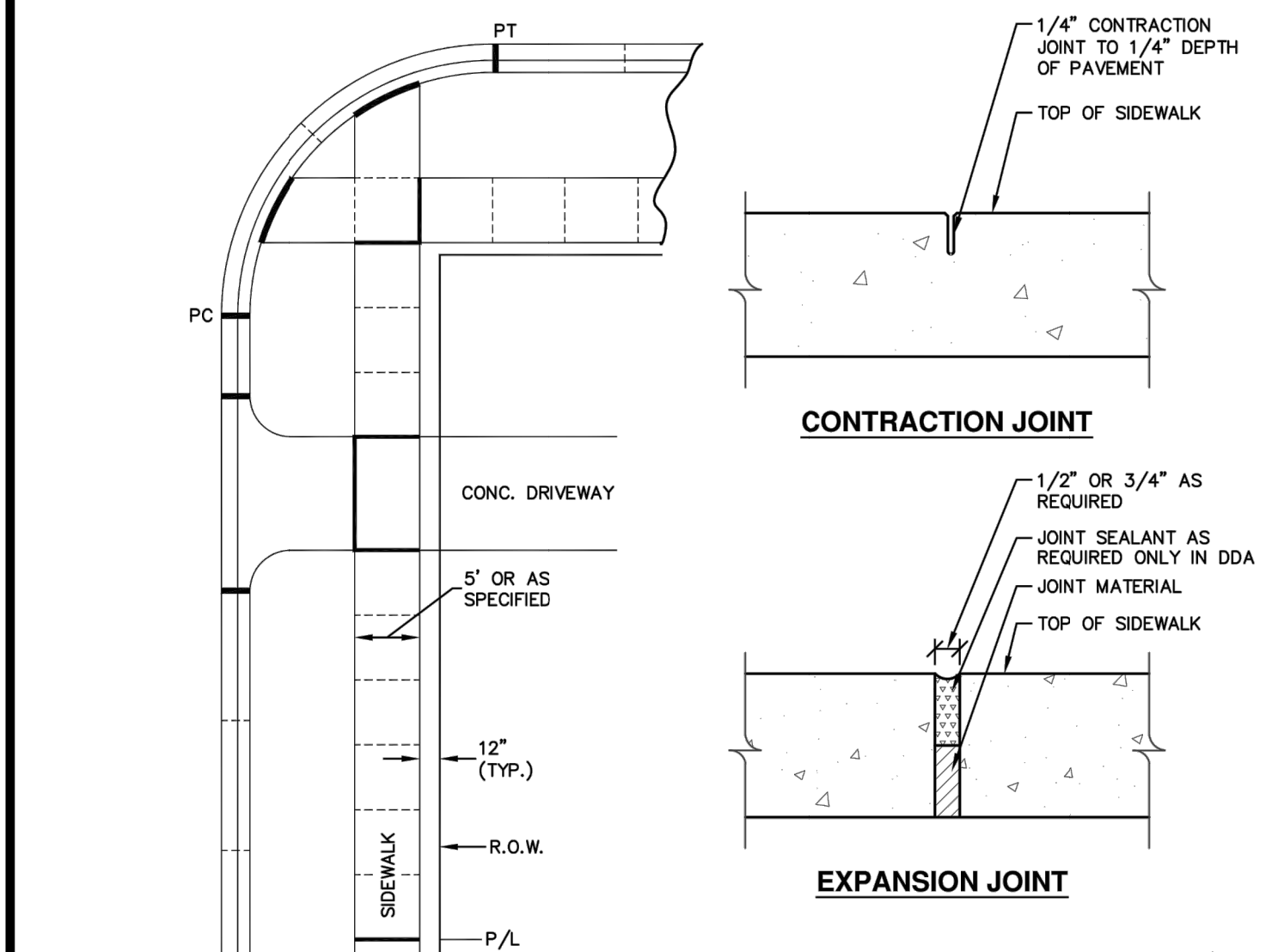
**TYPE M DRIVE APPROACH FOR ASPHALT STREETS WITH BARRIER CURB**

- NOTE:**
- MINIMUM REQUIREMENT FOR DRIVE APPROACH TO BE MDOT 3500 CONCRETE.
  - R (RADIUS) AND W1 (OPENING WIDTH) AND W2 (CURB CUT WIDTH) AS REQUIRED PER TABLE A, ARTICLE 6 OF CITY STANDARDS.
  - IF GUTTER IS OVERLAID, GUTTER OF THE APPROACH SHALL BE AT SAME ELEVATION AS EXISTING CONCRETE GUTTER AND ASPHALT WEDGE SHALL BE PLACED IN THE APPROACH.



**CITY OF ANN ARBOR PUBLIC SERVICES**  
301 EAST HURON STREET  
P.O. BOX 8647  
ANN ARBOR, MI 48107-8647  
734-794-6410  
www.a2gov.org

REV. NO.	DATE	DRAWN BY	CHECKED BY
<b>TYPE M DRIVE APPROACH FOR ASPHALT STREETS WITH BARRIER CURB</b>			
DR. ENG.	CH. ENG.	DRAWING NO.	SCALE
		SD-DS-1	N.T.S.



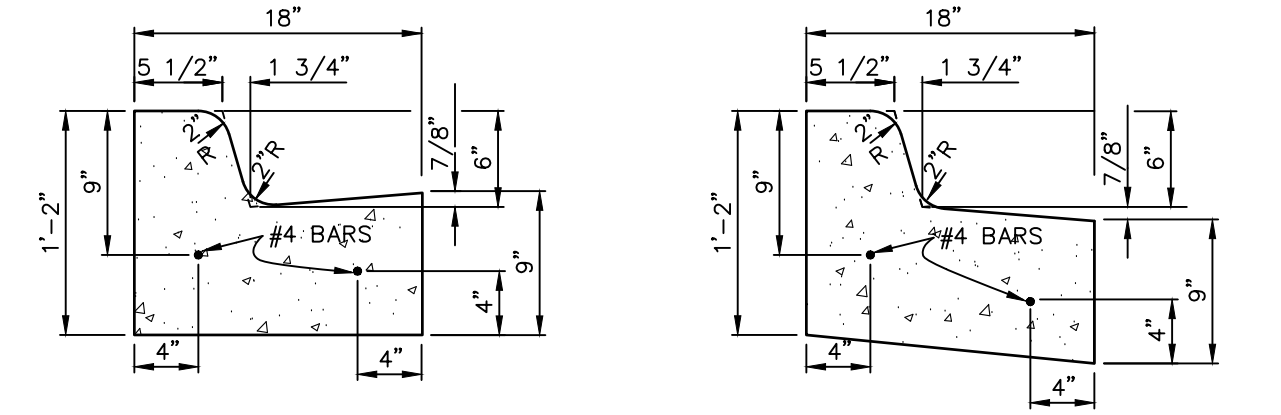
**SIDEWALK AND CURB & GUTTER JOINTS**

- MAXIMUM SPACING BETWEEN ALL EXPANSION JOINTS SHALL BE 300'.
- EXPANSION JOINTS SHALL BE PLACED IN SIDEWALKS AT THE EXTENSION OF ALL PROPERTY LINES.
- EXPANSION JOINTS SHALL BE PLACED AT DRIVE APPROACH EDGES PER STANDARD DRIVE APPROACH DETAILS SD-DS-1 THROUGH SD-DS-3.
- EXPANSION JOINTS SHALL BE PLACED AT SIDEWALK INTERSECTIONS AS SHOWN.
- EXPANSION JOINTS SHALL BE PLACED IN CURB AND GUTTER AT PC AND PT OF INTERSECTION RADII.
- WHEN SIDEWALK IS AGAINST THE BACK-OF-CURB, AN EXPANSION JOINT SHALL BE PROVIDED ALONG THE CURB.
- CONTRACTION JOINT SPACING FOR CURB AND CURB SHALL BE 10' STANDARD AND 8' MINIMUM.
- CONTRACTION JOINTS FOR SIDEWALKS SHALL BE PLACED AT ALL SLAB ENDS (5' TYPICAL, 3' MINIMUM TO 7' MAXIMUM).
- DESIGN MAY UTILIZE TOOLED OR SAW-CUT CONTRACTION JOINT. PLANS MUST INDICATE SELECTION OF JOINT TYPE. PROJECT MUST HAVE EITHER JOINT TYPE, BUT NOT BOTH.



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301 EAST HURON STREET  
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ANN ARBOR, MI 48107-8647  
734-794-6410  
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REV. NO.	DATE	DRAWN BY	CHECKED BY
<b>SIDEWALK AND CURB &amp; GUTTER JOINTS</b>			
DR. ENG.	CH. ENG.	DRAWING NO.	SCALE
		SD-DS-4	N.T.S.

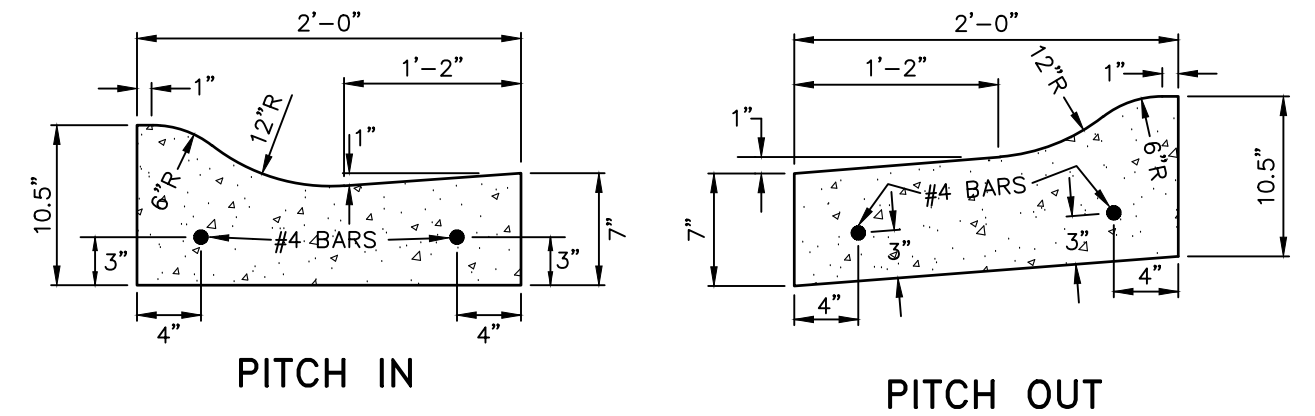


**PITCH IN CURB**  
**PITCH OUT CURB**

BASE AND SUBBASE AGGREGATES TO EXTEND MINIMUM 1'-0" BEHIND BACK OF CURB.

**F2 CURB DETAIL**

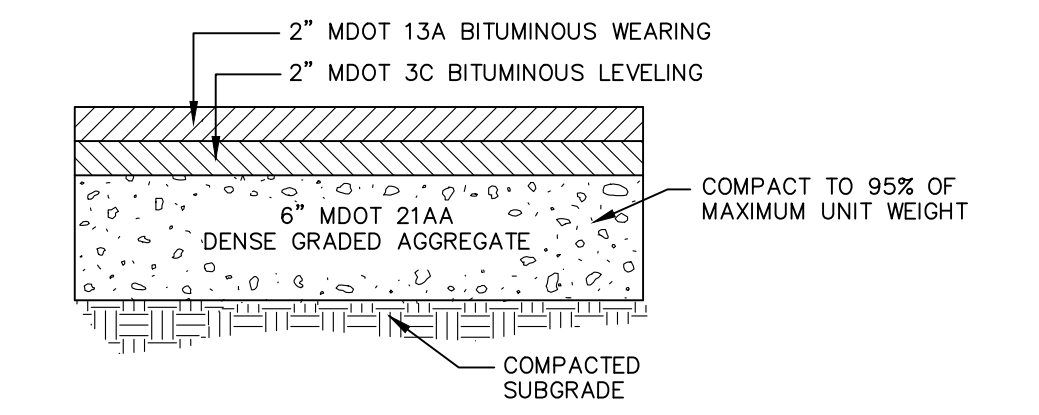
NO SCALE



**PITCH IN**  
**PITCH OUT**

**ROLL CURB AND GUTTER**

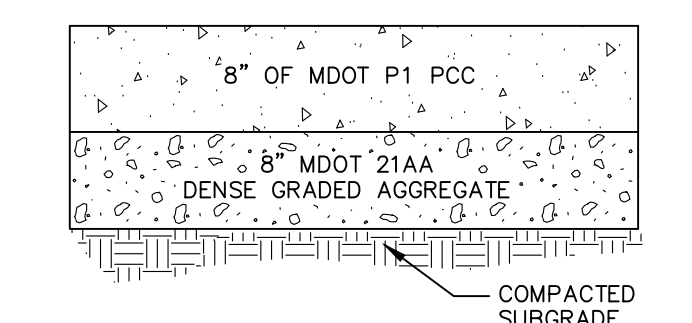
NO SCALE



**NOTE:** NOT APPLICABLE WITHIN PUBLIC RIGHT-OF-WAY. FOR ON-SITE USE ONLY. PAVEMENT WITHIN THE RIGHT OF WAY SHALL CONFORM TO CITY OF ANN ARBOR STANDARDS.

**PARKING AREA PAVING SECTION**

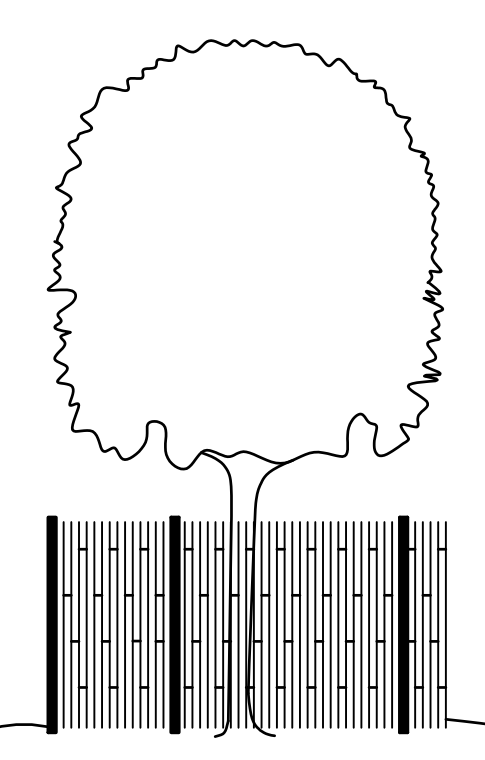
PER GEOTECHNICAL REPORT  
NO SCALE



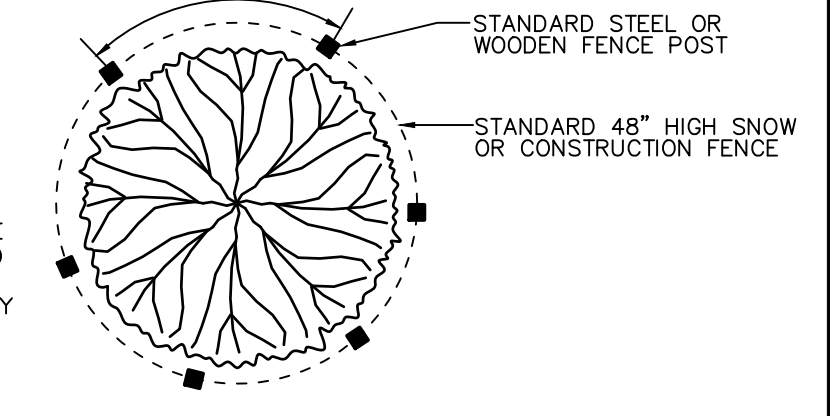
**CONCRETE PAVING SECTION**

CONFIRM SECTION WITH GEOTECHNICAL REPORT  
NO SCALE

**ELEVATION**



**PLAN**



**TREE PROTECTION FENCE DETAIL**

NO SCALE

- TREE PROTECTION NOTES:**
- ALL TREES TO BE REMOVED WILL BE IDENTIFIED BY RED FLAGGING.
  - TREE PROTECTION FENCING IS TO BE ERECTED PRIOR TO ANY EARTHWORK OR CONSTRUCTION AND IS TO REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE.
  - ALL DEBRIS, FILL EQUIPMENT OR MATERIAL IS TO BE KEPT CLEAR OF AREA WITHIN PROTECTIVE FENCE. NO CLEANING OF EQUIPMENT OR MATERIAL OR STORAGE OR DISPOSAL OF ANY MATERIAL WITHIN THE DRIP LINE OF ANY TREES TO BE SAVED.



Know what's below.  
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

**NOTICE:** CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

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311 NORTH MAIN  
ANN ARBOR, MI 48104  
734.994.4000



SECTION 05  
TOWN 3 SOUTH, RANGE 6 EAST  
CITY OF ANN ARBOR  
WASHTENAW COUNTY, MICHIGAN

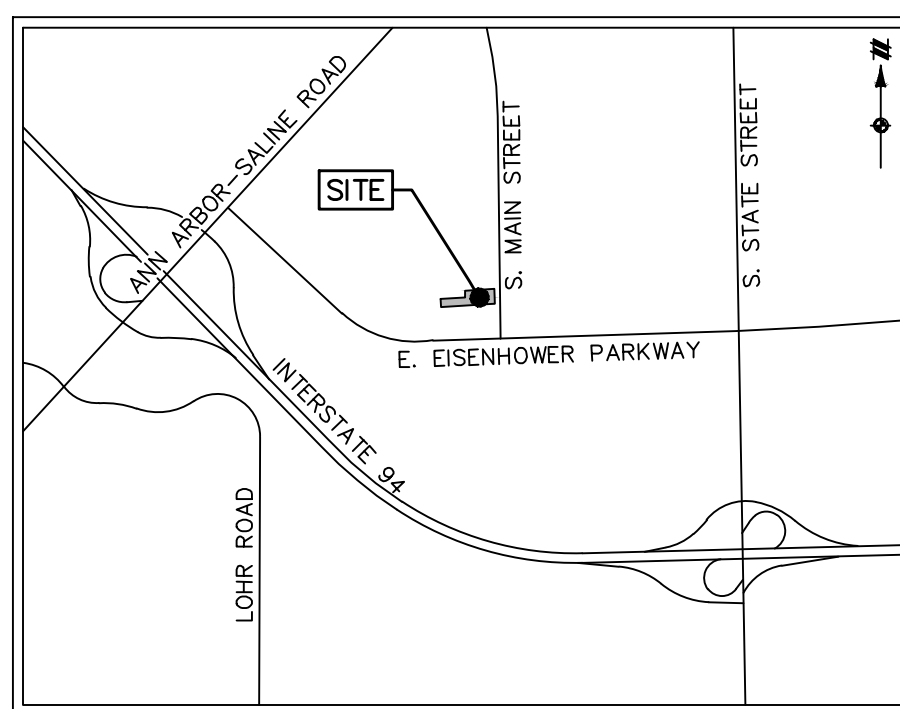
CLIENT  
PEFT DEVELOPMENT LLC/PERITUS VENTURES, LLC  
2900 W. MAIN  
SITE PLAN  
STANDARD DETAIL SHEET

DATE  
DECEMBER 22, 2022

DATE	REVISIONS
03/02/2023	PER CITY
04/03/2023	PER CITY
09/15/2023	LAYOUT REV.
01/11/2024	PER CITY
03/19/2024	PER CITY
04/23/2024	PER CITY

DR.	CH.
AC	NOTED
P.M. MB	
BOOK	
JOB	22002380
SHEET NO.	11

# ALTA/NSPS LAND TITLE SURVEY



VICINITY MAP  
NOT TO SCALE

LEGEND	
○ FICP	FOUND CAPPED IRON PIPE
○ FIR	FOUND IRON ROD
○ FICR	FOUND CAPPED IRON ROD
—	EXISTING SIGN
—	EXISTING MAILBOX
—	EXISTING GUY ANCHOR WITH WIRE
—	EXISTING UTILITY POLE
—	EXISTING MANHOLE/CATCH BASIN
—	EXISTING TELEPHONE RISER
—	EXISTING WATER VALVE
—	EXISTING FIRE HYDRANT
—	EXISTING CULVERT
—	EXISTING LIGHT POLE
—	EXISTING GAS VALVE
—	EXISTING HANDHOLE
—	UNDERGROUND ELECTRIC MARKER
—	UNDERGROUND GAS MARKER
—	UNDERGROUND TELEPHONE MARKER
—	EXISTING GROUND ELEVATION
—	EXISTING TOP OF CURB ELEVATION
—	EXISTING GUTTER ELEVATION
—	EXISTING PAVEMENT ELEVATION
—	RECORD MEASURED BOUNDARY ADJACENT LINE
—	EASEMENT LINE
—	SECTION LINE
—	UNDERGROUND STORM LINE
—	EXISTING OVERHEAD ELECTRIC LINE
—	UNDERGROUND SANITARY LINE
—	UNDERGROUND TELEPHONE LINE
—	UNDERGROUND GAS LINE
—	UNDERGROUND WATER LINE
—	CENTERLINE OF DITCH
—	EXISTING FENCE
—	EXISTING LIMITS OF VEGETATION
—	EXISTING GROUND CONTOUR
—	EXISTING BUILDING
—	SCHEDULE B, PART II EXCEPTION
—	POINT OF COMMENCEMENT
—	PLACE OF BEGINNING

**SITE BENCHMARKS:**  
 BM #1: ARROW ON FIRE HYDRANT IN WEST RIGHT OF WAY OF S. MAIN STREET 150' NORTH OF NORTHEAST PROPERTY CORNER ELEVATION: 887.32 (NAVD88)  
 BM #2: ARROW ON FIRE HYDRANT IN WEST RIGHT OF WAY OF S. MAIN STREET ALONG EAST PROPERTY LINE ELEVATION: 892.67 (NAVD88)

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

NOTICE:  
 CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

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 TWO TOWNE SQUARE, SUITE 700  
 SOUTHFIELD, MI 48076  
 248.447.2000

SECTION 5  
 TOWN 3 SOUTH, RANGE 6 EAST  
 CITY OF ANN ARBOR  
 WASHTENAW COUNTY, MICHIGAN

CLIENT  
 UNITED HOSPITALITY GROUP  
 ALTA/NSPS LAND TITLE SURVEY  
 LOCATED IN

DATE  
 11/30/2022

REVISIONS  
 SCALE 0 15 30  
 1" = 30 FEET  
 DR. JR. GH. ME  
 P.M. M. EMBREE  
 BOOK NA  
 JOB 22002380  
 SHEET NO.  
 1 OF 1

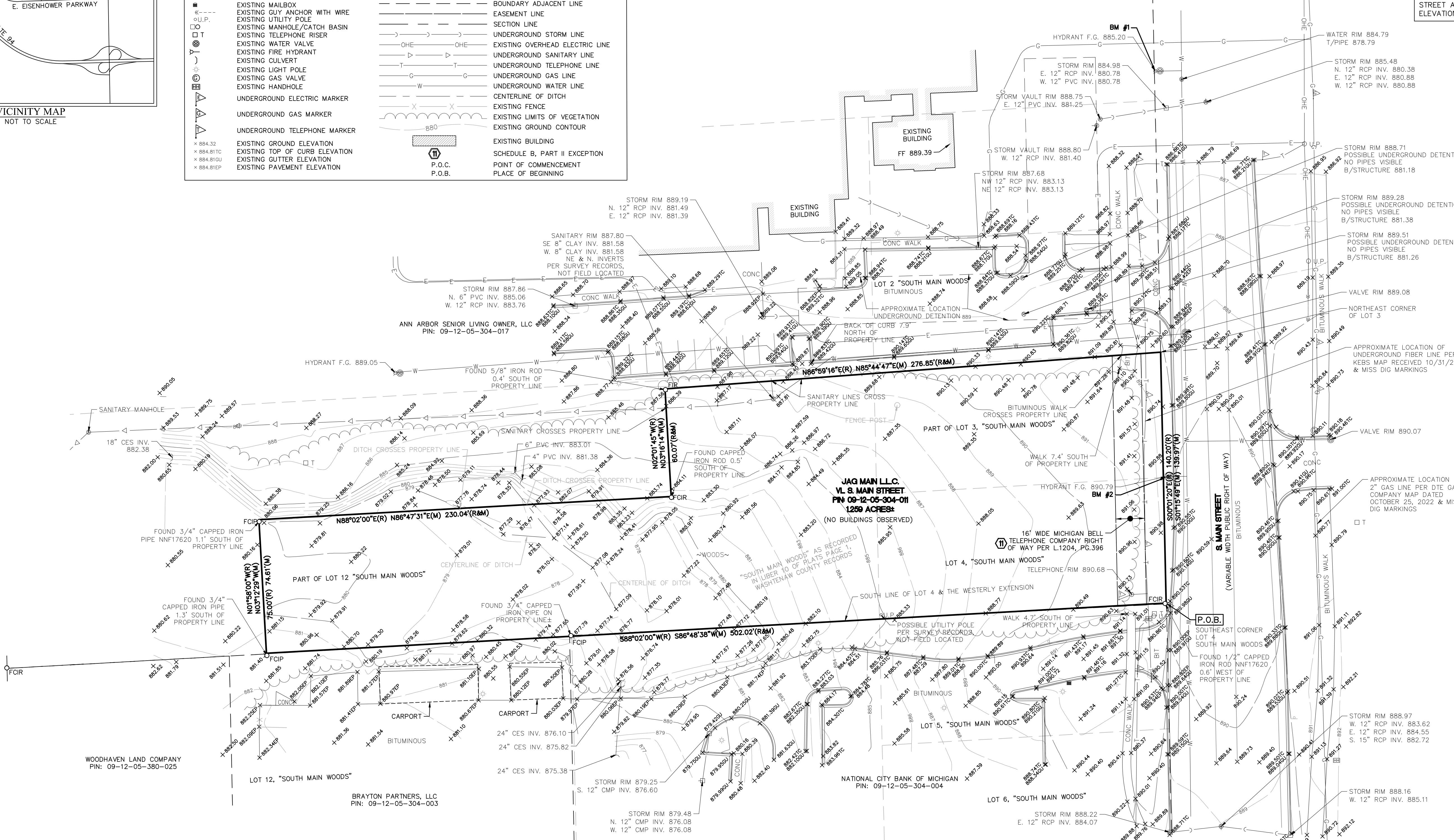
**NOTES:**

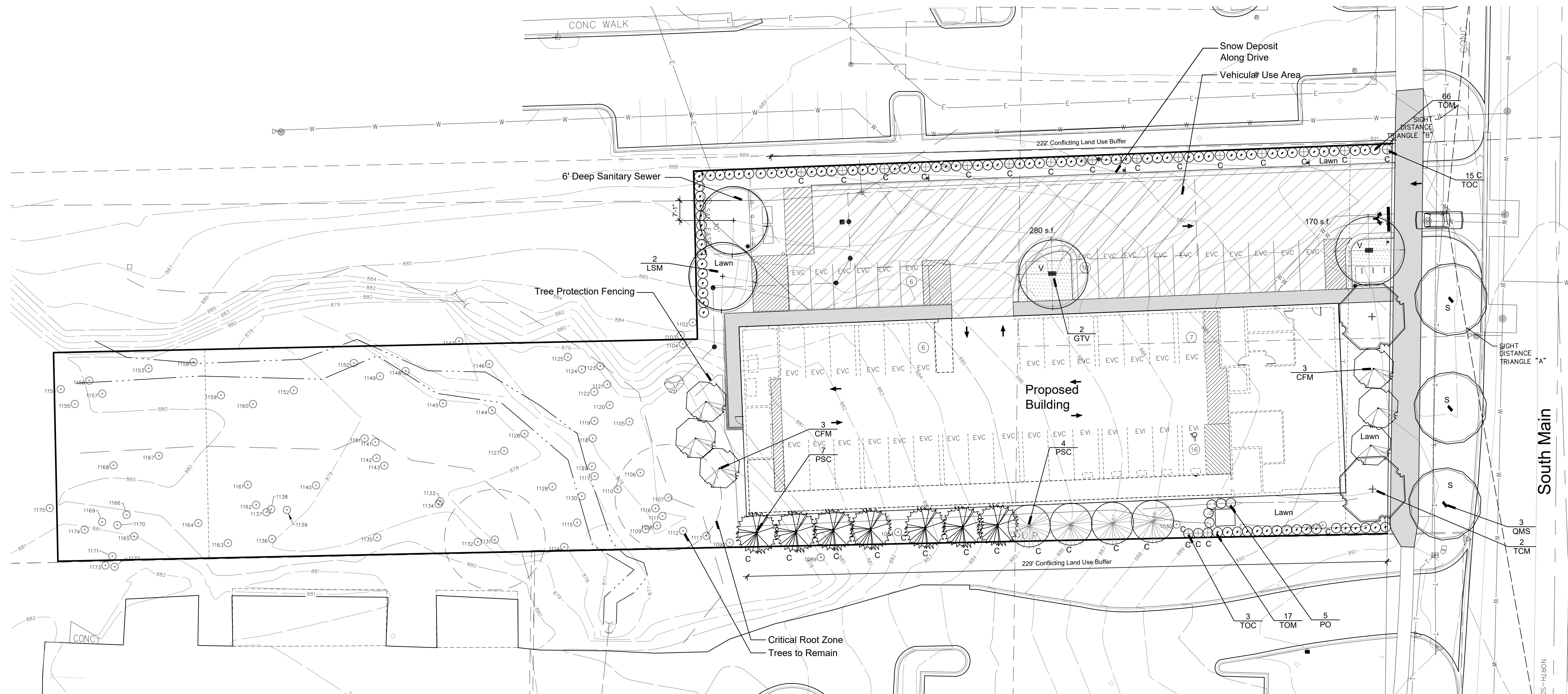
- BEARINGS ARE BASED ON MICHIGAN STATE PLANE COORDINATES (NAD83), SOUTH ZONE, GROUND DISTANCES, INTERNATIONAL FEET. MEASURED BEARINGS DIFFER FROM TITLE. VERTICAL DATUM IS BASED ON NAVD88.
- THE SITE SHOWN HEREON IS LOCATED WITHIN ZONE X (AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN) ACCORDING TO MAP NUMBERS 26161C0382E & 26161C0401E OF THE FLOOD INSURANCE RATE MAP, BOTH EFFECTIVE APRIL 3, 2012.
- WATER MAIN, STORM SEWER, SANITARY SEWER AND FRANCHISE UTILITY STRUCTURES HAVE BEEN FIELD LOCATED WHERE VISIBLE. UTILITY AND AS-BUILT MAPS HAVE BEEN REQUESTED AND SOME MAPS HAVE BEEN RECEIVED AT DATE OF THIS SURVEY. FRANCHISE UTILITY MAPS HAVE BEEN REQUESTED FROM THE APPROPRIATE FRANCHISE COMPANIES, BUT NOT ALL MAPS HAVE BEEN RECEIVED AT DATE OF SURVEY.  
 NOTE: THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED.  
 NOTE TO THE CLIENT, INSURER, AND LENDER - SOURCE INFORMATION FROM PLANS AND MARKINGS WILL BE COMBINED WITH OBSERVED EVIDENCE OF UTILITIES PURSUANT TO SECTION 5.E.IV. TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES. HOWEVER, LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY, AND RELIABLY DEPICTED. IN ADDITION, IN SOME JURISDICTIONS, 811 OR OTHER SIMILAR UTILITY LOCATE REQUESTS FROM SURVEYORS MAY BE IGNORED OR RESULT IN AN INCOMPLETE RESPONSE, IN WHICH CASE THE SURVEYOR SHALL NOTE ON THE PLAT OR MAP HOW THIS AFFECTED THE SURVEYOR'S ASSESSMENT OF THE LOCATION OF THE UTILITIES. WHERE ADDITIONAL OR MORE DETAILED INFORMATION IS REQUIRED, THE CLIENT IS ADVISED THAT EXCAVATION AND/OR A PRIVATE UTILITY LOCATE REQUEST MAY BE NECESSARY.
- REFERENCE SURVEYS:  
 -ALTA/NSPS LAND TITLE SURVEY BY ALPINE ENGINEERING, INC., DATED 5/24/21  
 -ALTA SURVEY BY MIDWESTERN CONSULTING, JOB NO. 13185, DATED 01-16-14

**SCHEDULE C DESCRIPTION PER ALTA COMMITMENT FOR TITLE INSURANCE ISSUED BY WESTCOR LAND TITLE INSURANCE COMPANY, ISSUING AGENT: LIBERTY TITLE AGENCY, COMMITMENT NUMBER: LIB169232, REVISION NUMBER: 1, COMMITMENT DATE: 2/28/2022:**  
 THE LAND REFERRED TO IN THIS COMMITMENT IS LOCATED IN THE CITY OF ANN ARBOR, COUNTY OF WASHTENAW, STATE OF MICHIGAN, AND DESCRIBED AS FOLLOWS:  
 BEGINNING AT THE SOUTHEAST CORNER OF LOT 4, SOUTH MAIN WOODS, THE SOUTH 10 ACRES OF THE EAST 1/2 OF THE SOUTHWEST 1/4 OF SECTION 5, TOWN 3 SOUTH, RANGE 6 EAST, PITTSFIELD TOWNSHIP, WASHTENAW COUNTY, MICHIGAN AS RECORDED IN LIBER 10 OF PLATS, PAGE 1, WASHTENAW COUNTY RECORDS; THENCE SOUTH 88 DEGREES 02 MINUTES 00 SECONDS WEST 502.02 FEET ALONG THE SOUTH LINE OF SAID LOT (AND THE WESTERLY EXTENSION THEREOF); THENCE NORTH 01 DEGREES 58 MINUTES 00 SECONDS WEST 75.00 FEET; THENCE NORTH 88 DEGREES 02 MINUTES 00 SECONDS EAST 230.04 FEET; THENCE NORTH 02 DEGREES 01 MINUTES 45 SECONDS WEST, 60.07 FEET; THENCE NORTH 86 DEGREES 59 MINUTES 16 SECONDS EAST 276.85 FEET TO THE NORTHEAST CORNER OF LOT 3 OF SAID SOUTH MAIN WOODS; THENCE SOUTH 00 DEGREES 01 MINUTES 20 SECONDS EAST 140.20 FEET ALONG THE WESTERLY RIGHT OF WAY LINE OF SOUTH MAIN STREET TO THE POINT OF BEGINNING, BEING LOT 4 AND PART OF LOTS 3 AND 12 OF SOUTH MAIN WOODS.

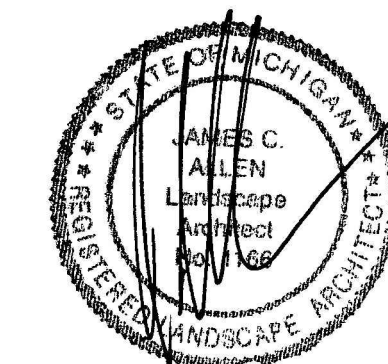
**SCHEDULE B, PART II EXCEPTIONS PER ALTA COMMITMENT FOR TITLE INSURANCE ISSUED BY WESTCOR LAND TITLE INSURANCE COMPANY, ISSUING AGENT: LIBERTY TITLE AGENCY, COMMITMENT NUMBER: LIB169232, REVISION NUMBER: 1, COMMITMENT DATE: 2/28/2022:**  
 11. RIGHT OF WAY IN FAVOR OF MICHIGAN BELL TELEPHONE COMPANY, AS RECORDED IN LIBER 1204, PAGE 396, WASHTENAW COUNTY RECORDS.  
 RESPONSE: AS SHOWN HEREON.  
 12. EASEMENT AGREEMENT AND THE TERMS AND PROVISIONS CONTAINED THEREIN, AS RECORDED IN LIBER 3683, PAGE 323, WASHTENAW COUNTY RECORDS.  
 RESPONSE: LOCATED NORTHWEST OF SUBJECT PROPERTY.  
 13. MATTERS AS DISCLOSED BY SURVEY PREPARED BY ALPINE ENGINEERING, INC. JOB NUMBER 21-139 DATED MARCH 4, 2021 AND DESCRIBED AS:  
 1) ASPHALT ENCRoACHING ONTO ADJACENT LAND  
 2) MANHOLES ON SUBJECT PROPERTY  
 3) WATERCOURSE CROSSING SUBJECT PROPERTY

**SURVEYOR'S CERTIFICATE**  
 TO:  
 -WESTCOR LAND TITLE INSURANCE COMPANY  
 -LIBERTY TITLE AGENCY  
 -S. MAIN STREET HOLDINGS, LLC, A MICHIGAN LIMITED LIABILITY COMPANY  
 THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES NO ITEMS OF TABLE A THEREOF.  
 FIELD WORK WAS COMPLETED ON NOVEMBER 21, 2022.  
 MICHAEL D. EMBREE  
 PROFESSIONAL SURVEYOR NO. 4001056860  
 MEMBRE@ATWELL-GROUP.COM  
 TWO TOWNE SQUARE, SUITE 700  
 SOUTHFIELD, MICHIGAN 48076  
 248.447.2000  
 DATE: 02/20/2023





Seal:



Title:  
**Landscape Plan**

Project:  
**2900 South Main  
 Ann Arbor, Michigan**

Prepared for:  
 Atwell, LLC  
 311 North Main Street  
 Ann Arbor, Michigan 48104

Revision:      Issued:

Submission	December 20, 2022
Revised	March 16, 2023
Revised	September 11, 2023
Revised	January 12, 2024
Revised	March 12, 2024
Revised	April 19, 2024

**Landscape Summary**

Vehicular Use Area	
Use Area	8,976 s.f.
Landscape Area Required	449 s.f. (1.20)
Landscape Area Provided	450 s.f.
Bioretention Required	None, Area is Less than 750 s.f.
Trees Required	1.8 Trees (449 / 250 s.f.)
Trees Provided	2 Trees
Street Trees	
Right of Way Length	140 l.f.
Less Driveway	27 l.f.
Net Right of Way Length	113 l.f.
Street Trees Required	2.5 Trees (113 / 45)
Street Trees Provided	3 Trees
Street Tree Canopy Loss	
DBH Removed	102" (7 Trees)
Street Tree DBH Replaced	2.5" (1, 2.5" Tree)
Fee Required	\$24,278 (102" - 2.5" = 99.5" x \$244)
Conflicting Land Use Buffer	
South:	
Conflicting Land Use Buffer Length	229'
Trees Required	15.3 Trees (229' / 15)
Trees Provided	16 Trees (3 Trees Existing)
North:	
Conflicting Land Use Buffer Length	222'
Trees Required	14.8 Trees (222' / 15)
Trees Provided	15 Trees
Tree Mitigation	
D.B.H. Removed	1,038"
Mitigation Required	519" (1,038 x 50%)
Inches Provided	273" (52.6 % Inches Planted on-site)
Remaining DBH Paid into Fund	\$60,024 (519" - 273) x \$244

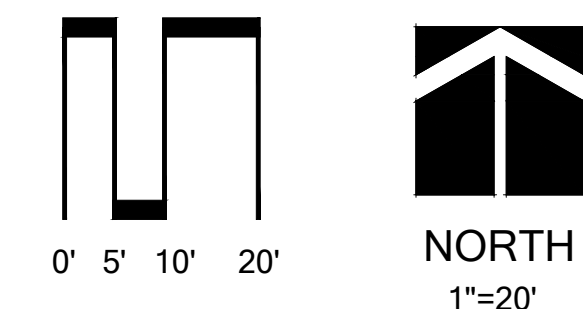
**Plant List**

sym.	qty.	botanical name	common name	caliper	spacing	root	height
<b>Vehicular Use Planting</b>							
GTV	2	Gleditsia triacanthos var. 'nemis'	Honey Locust	2.5"	as shown	B&B	
	2	Trees Provided					
<b>Street Trees</b>							
QMS	3	Quercus macrocarpa	Bur Oak	2.5"	as shown	B&B	
	3	Trees Provided					
<b>Conflicting Land Use</b>							
PAC	4	Picea abies	Norway Spruce		as shown	B&B	8.0'
PSC	7	Pinus strobus	White Pine		as shown	B&B	8.0'
TOC	18	Thuja occidentalis	White Cedar		as shown	B&B	8.0'
	29	Trees Provided					
<b>Woodland Mitigation</b>							
CFM	6	Cornus florida	Flowering Dogwood	2.0"	as shown	B&B	12
LSM	2	Liquidambar styraciflua	American Sweetgum	3.0"	as shown	B&B	6
TCM	2	Tilia americana	American Linden	3.0"	as shown	B&B	6
TOM	83	Thuja occidentalis	White Cedar		as shown	B&B	8.0' / 249 Inches Provided / 273
<b>General Plantings</b>							
PO	5	Physocarpus opulifolius 'Coppertina'	Coppertina Ninebark		as shown	cont	24"

- Notes:
- Utility Boxes will be Screened on 3 Sides.
  - Lawn Areas to be Seed or Sod.
  - All Landscape Areas will be Watered with an Underground, Automatic Irrigation System.
  - Snow Storage Shall not Include Landscaped Areas.
  - All Trees Shall be Planted no Closer than 10' to Utility Leads and 15' from Hydrants.
  - All Species Deviations from the Approved Site Plan Must be Approved in Writing from the City of Ann Arbor Prior to Installation.
  - Tree Mitigation Fee Shall be Paid Prior to Tree Removal and Prior to Issuance of the Grading Permit.
  - A ROW Street Tree Permit Shall be Required Prior to any ROW Tree Removal. The Canopy Loss Fee Will be Paid Via a ROW Street Tree Permit Prior to Removal.

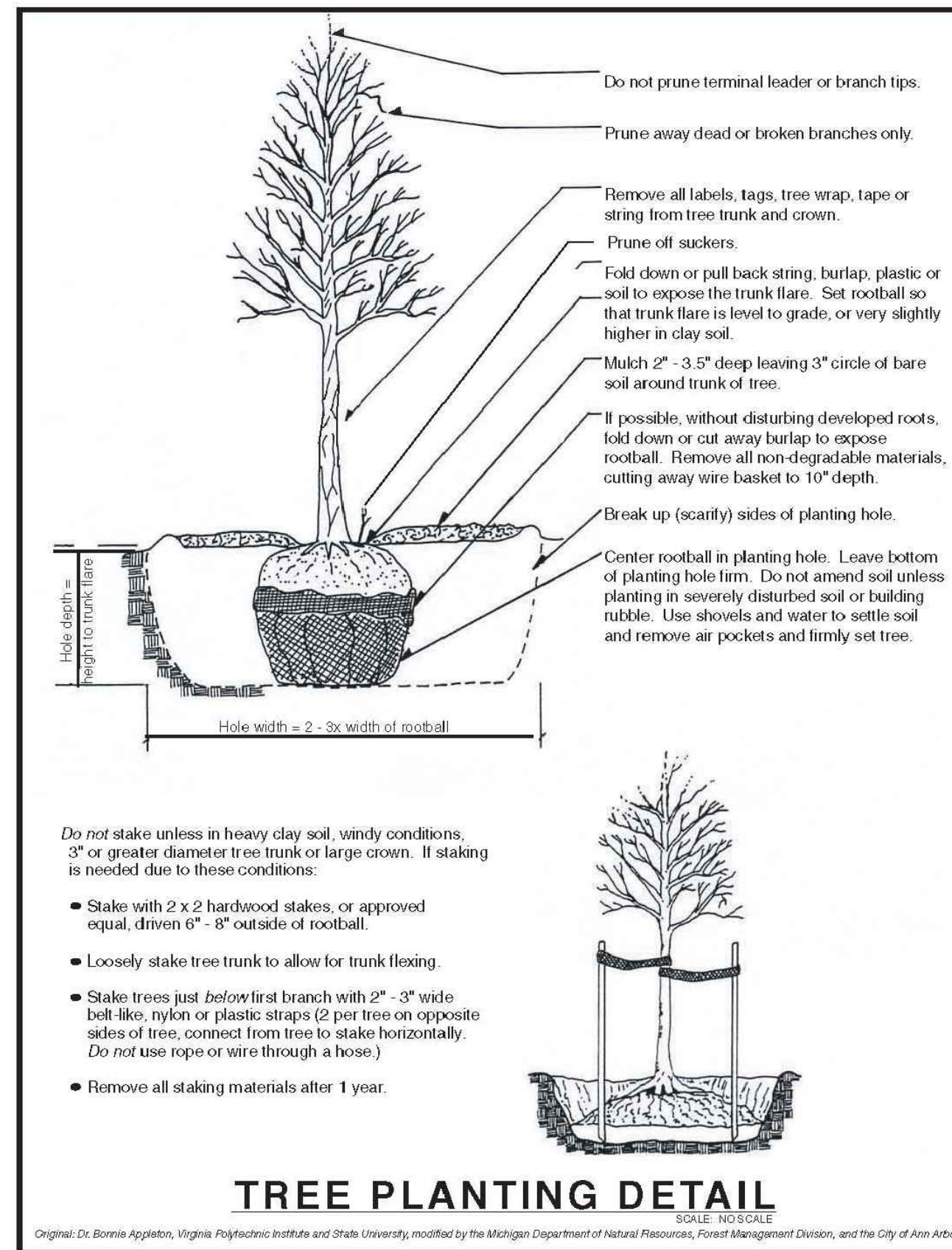
Job Number:  
 22-088

Drawn By:      Checked By:  
 jca                                  jca



Sheet No.





**Maintenance Notes**

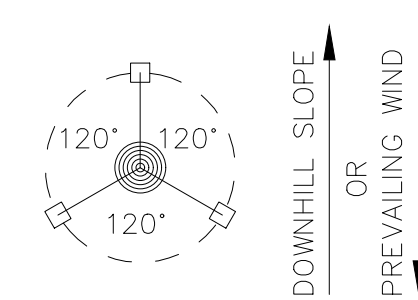
**Continuing Care**  
 Landscaping shall be kept in a neat, orderly and healthy growing condition, free from debris and refuse. All landscape materials shall be maintained by a regular program of mowing, watering, weeding, feeding and pruning. Pruning shall be minimal at the time of installation, only to remove dead or diseased branches. Subsequent pruning shall assure proper maturation of plants to achieve their approved purpose.

**Replenishment**  
 All dead, damaged or diseased plant material shall be replaced, in accordance with Chapter 55, Article V-5.29.6.1 of the Ann Arbor City Code, by the end of the planting season as a continued obligation of the site plan.

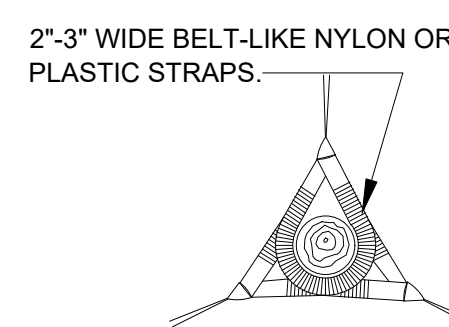
**Watering**  
 This shall be accomplished by the use of hose bibs to provide water for the landscape areas specified on the landscape plan.

**Clay Soils**  
 Construct Earth Bed to Required Grade and Trim. Prior to Placement of Topsoil or Compost, Harrow all Earth Beds to a Minimum of 3" Depth.

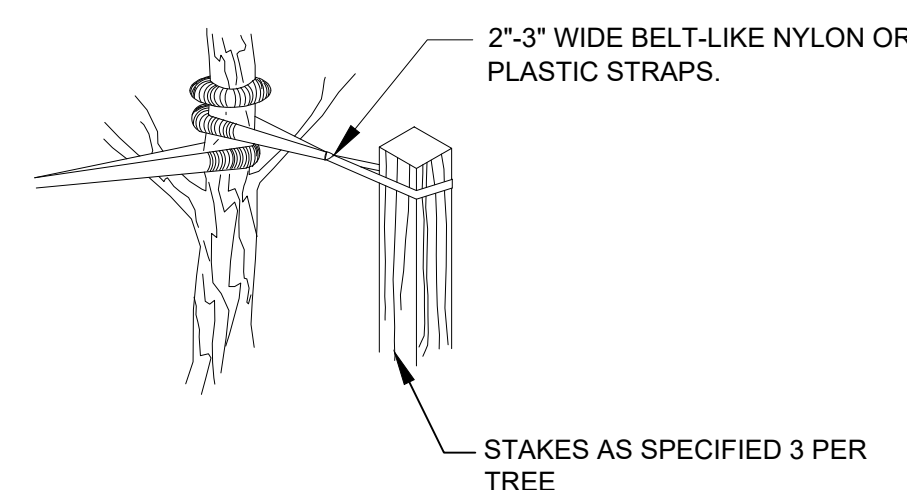
**Fertilizer**  
 Beyond Initial Fertilization, All Future Fertilizer Applications Shall not Contain Phosphorus.



STAKING/GUYING LOCATION



GUYING DETAIL



STAKING DETAIL

**TREE STAKING DETAIL**

Not to scale

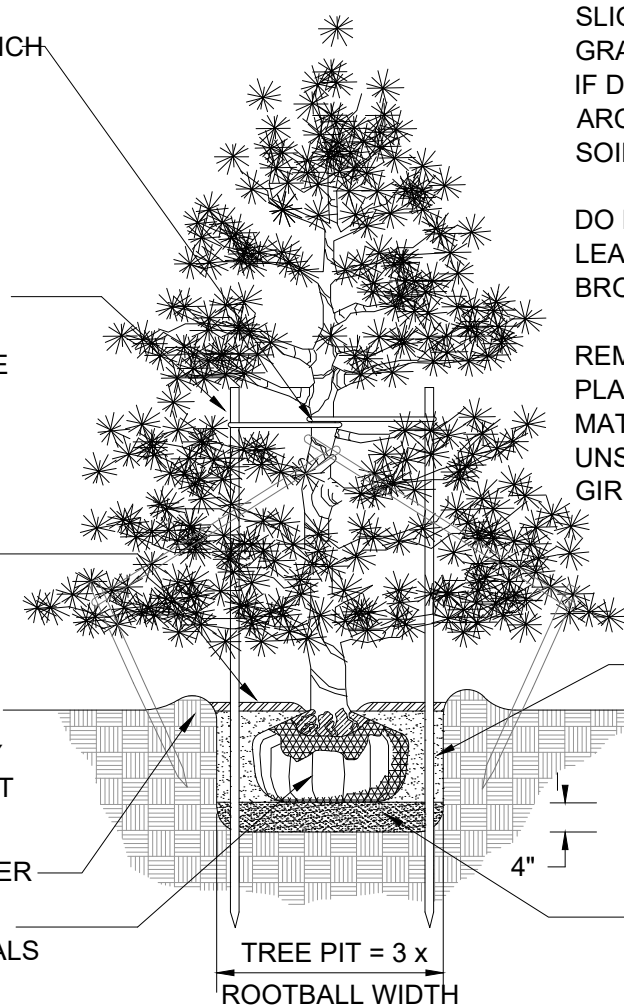
**NOTE:**  
 GUY EVERGREEN TREES ABOVE 12' HEIGHT. STAKE EVERGREEN TREE BELOW 12' HEIGHT.

STAKE TREES AT FIRST BRANCH USING 2"-3" WIDE BELT-LIKE NYLON OR PLASTIC STRAPS. ALLOW FOR SOME MINIMAL FLEXING OF THE TREE. REMOVE AFTER ONE YEAR.

2" X 2" HARDWOOD STAKES, MIN. 36" ABOVE GROUND FOR UPRIGHT, 18" IF ANGLED. DRIVE STAKES A MIN. 18" INTO UNDISTURBED GROUND OUTSIDE ROOTBALL. REMOVE AFTER ONE YEAR.

MULCH 4" DEPTH WITH SHREDDED HARDWOOD BARK, NATURAL IN COLOR. LEAVE 3" CIRCLE OF BARE SOIL AT BASE OF TREE TRUNK. PULL ANY ROOT BALL DIRT EXTENDING ABOVE THE ROOT FLARE AWAY FROM THE TRUNK SO THE ROOT FLARE IS EXPOSED TO AIR.

MOUND EARTH TO FORM SAUCER. REMOVE ALL NON-BIODEGRADABLE MATERIALS COMPLETELY FROM THE ROOTBALL. CUT DOWN WIRE BASKET AND FOLD DOWN BURLAP FROM TOP 1/2 OF THE ROOTBALL.



**NOTE:**  
 TREE SHALL BEAR SAME RELATION TO FINISH GRADE AS IT BORE ORIGINALLY OR SLIGHTLY HIGHER THAN FINISH GRADE UP TO 6" ABOVE GRADE, IF DIRECTED BY LANDSCAPE ARCHITECT FOR HEAVY CLAY SOIL AREAS.

DO NOT PRUNE TERMINAL LEADER. PRUNE ONLY DEAD OR BROKEN BRANCHES.

REMOVE ALL TAGS, STRING, PLASTICS AND OTHER MATERIALS THAT ARE UNSIGHTLY OR COULD CAUSE GIRDLING.

PLANTING MIXTURE: AMEND SOILS PER SITE CONDITIONS AND REQUIREMENTS OF THE PLANT MATERIAL.

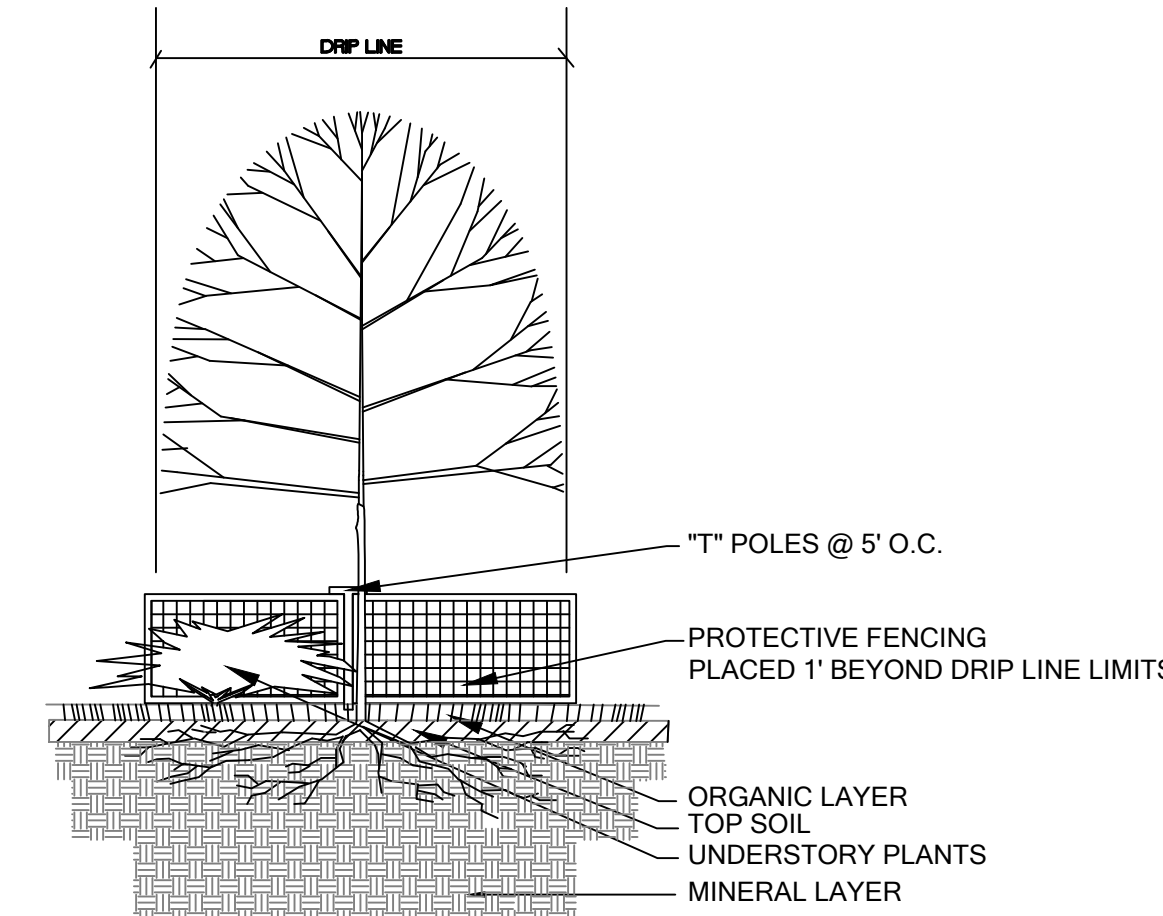
SCARIFY SUBGRADE AND PLANTING PIT SIDES. RECOMPACT BASE OF TO 4" DEPTH.

**EVERGREEN TREE PLANTING DETAIL**

Not to scale

**TREE PROTECTION DETAIL**

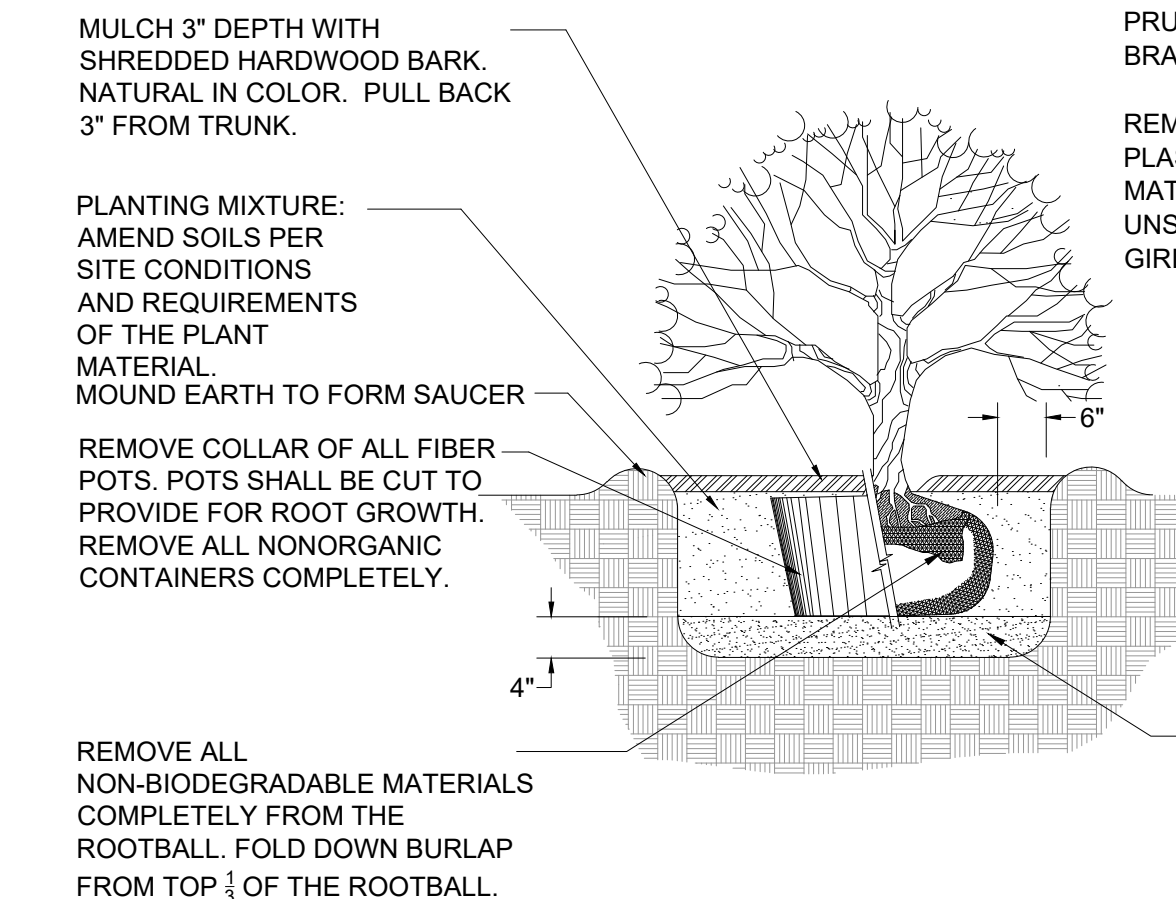
NO SCALE



- Either Plastic or Wood Orange Snow Fencing Shall be Installed at or Beyond the Dripline, Unless More Substantial Fencing is Required.
- Stakes Shall be Metal "T" Poles Spaced no Further than 5' on Center.
- Fencing Shall not be Installed Closer to the Tree than the Dripline of Those Trees to be Saved. Special Circumstances Shall be Reviewed by the City.
- Fencing Shall be Erected Prior to Construction. The City Shall be Notified Once the Fencing is Installed for Inspection.
- Under no Circumstances Shall the Protective Fencing be Removed Without Proper Approval from the City.
- No Person Shall Conduct any Activity Within Areas Proposed to Remain. This Shall Include, but not Limited to:
  - No Solvents or Chemicals Within Protected Areas.
  - No Building Materials or Construction Equipment Within Protected Areas.
  - No Grade Changes, Including Fill, Within Protected Areas.
  - No Removal of Vegetation from the Ground Up Without Permission from the Proper Reviewing Authority, including the Woodlands Review Board.
  - Any Required Swale Needs to be Directed Around the Protected Areas. Instances Where Swales are Approved Through a Protected Area, the Swales Need to be HAND DUG. Machinery of Any Kind is Prohibited.
- Regulated Woodland or Regulated Trees Adjacent to the Property are Also Required to be Protected Whether or not they are Shown on the Plan.

**PERENNIAL PLANTING DETAIL**

Not to scale



**SHRUB PLANTING DETAIL**

NOT TO SCALE

**LANDSCAPE NOTES**

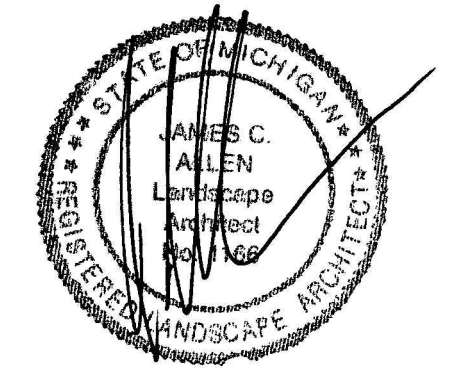
- All plants shall be north Midwest American region grown, No. 1 grade plant materials, and shall be true to name, free from physical damage and wind burn.
- Plants shall be full, well-branched, and in healthy vigorous growing condition.
- Plants shall be watered before and after planting is complete.
- Staking is only needed if site is windy or stock is great than 3". Trees to be mulched and shall be guaranteed to exhibit a normal growth cycle for at least two (2) full years following City approval.
- All material shall conform to the guidelines established in the most recent edition of the American Standard for Nursery Stock.
- Provide clean backfill soil, using material stockpiled on site. Soil shall be screened and free of any debris, foreign material, and stone.
- Amended planting mix shall consist of 1/3 screened topsoil, 1/3 sand and 1/3 peat, mixed well and spread to the depth as indicated in planting details.
- All plantings shall be mulched per planting details located on this sheet.
- The Landscape Contractor shall be responsible for all work shown on the landscape drawings and specifications.
- No substitutions or changes of location, or plant types shall be made without the approval of the Landscape Architect.
- The City shall be notified of any discrepancies between the plans and field conditions prior to installation.
- The Landscape Contractor shall be responsible for maintaining all plant material in a vertical condition throughout the guaranteed period.
- The Landscape Architect shall have the right, at any stage of the installation, to reject any work or material that does not meet the requirements of the plans and specifications, if requested by owner.
- Contractor shall be responsible for checking plant quantities to ensure quantities on drawings and plant list are the same. In the event of a discrepancy, the quantities on the plans shall prevail.
- The Landscape Contractor shall seed and mulch or sod (as indicated on plans) all areas disturbed during construction, throughout the contract limits.
- A pre-emergent weed control agent, "Preen" or equal, shall be applied uniformly on top of all mulching in all planting beds.
- All landscape areas shall be irrigated with hose bibs.
- Sod shall be two year old "Baron/Cheridolph" Kentucky Blue Grass grown in a sod nursery on loam soil.
- All landscape islands shall be backfilled with a sand mixture to facilitate drainage.
- All proposed landscape islands shall be curbed.
- All landscape areas shall be irrigated.
- Overhead utility lines and poles to be relocated as directed by utility company of record.
- Evergreen and canopy trees shall be planted a minimum of 10' from a fire hydrant, and manhole, 15' from overhead wires.
- All plant material shall be guaranteed for two (2) years after City Approval and shall be installed and maintained according to City of Ann Arbor standards. Replace Failing Material During the Next Appropriate Planting Period.
- All proposed street trees shall be planted a minimum of 4' from both the back of curb and proposed walks.
- All tree and shrub planting beds shall be mulched with shredded hardwood bark, spread to minimum depth of 4". All lawn area trees shall have a 4' diameter circle of shredded hardwood mulch 3" away from trunk. All perennial, annual and ground cover beds shall receive 2" of dark colored bark mulch as indicated on the plant list. Mulch is to be free from debris and foreign material, and shall contain no pieces of inconsistent size.
- All Substitutions or Deviations from the Landscape Plan Must be Approved by the City of Ann Arbor Prior to their Installation.
- Fertilizer Applications Beyond the Initial Topsoil and Seeding Application Shall not Contain Phosphorus.

**NOTE:**  
 TREE SHALL BEAR SAME RELATION TO FINISH GRADE AS IT BORE ORIGINALLY OR SLIGHTLY HIGHER THAN FINISH GRADE UP TO 4" ABOVE GRADE, IF DIRECTED BY LANDSCAPE ARCHITECT FOR HEAVY CLAY SOIL AREAS.

PRUNE ONLY DEAD OR BROKEN BRANCHES.

REMOVE ALL TAGS, STRING, PLASTICS AND OTHER MATERIALS THAT ARE UNSIGHTLY OR COULD CAUSE GIRDLING.

Seal:



Title:

**Landscape Details**

Project:

2900 South Main  
 Ann Arbor, Michigan

Prepared for:

Atwell, LLC  
 311 North Main Street  
 Ann Arbor, Michigan 48104

Revision:

Issued:

Submission	December 20, 2022
Revised	March 16, 2023
Revised	September 11, 2023
Revised	January 12, 2024
Revised	March 12, 2024
Revised	April 19, 2024

Job Number:

22-088

Drawn By:

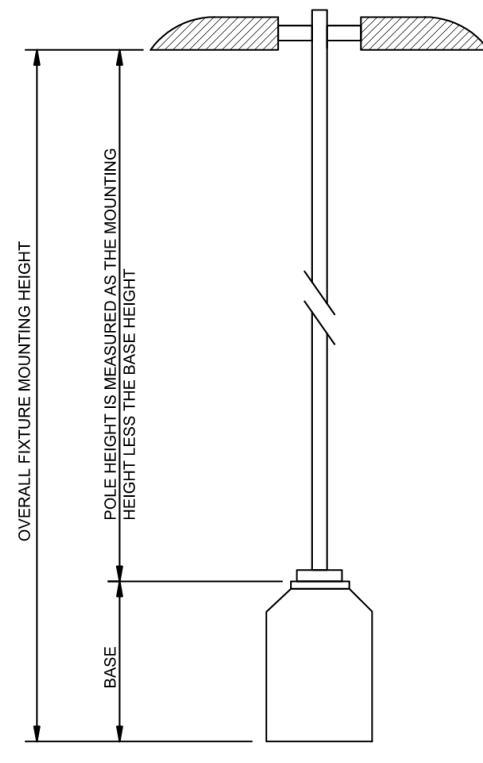
Checked By:

jca

jca

Sheet No.





Symbol	Label	QTY	Manufacturer	Description	Lamp	Mounting Height
	A	7	Lithonia Lighting	WDGE2 LED WALL MOUNTED LUMINAIRE 3000K 80CRI	LED	12'-0"
	B	22	Lithonia Lighting	VCPGX PARKING GARAGE LUMINAIRE 3000K 80CRI	LED	16'-0"
	C	3	Lithonia Lighting	D-Series Size 0 Area Luminaire 3000K 80CRI	LED	18'-0"

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min	Avg/Max
BOUNDARY LINE	+	0.0 fc	0.3 fc	0.0 fc	N/A	N/A	0.0:1
ENTRANCE ROAD	+	1.5 fc	2.3 fc	0.3 fc	7.7:1	5.0:1	0.7:1
PARKING GARAGE	X	16 fc	21 fc	3 fc	7.0:1	5.3:1	0.8:1
SITE	+	0.4 fc	2.3 fc	0.0 fc	N/A	N/A	0.2:1



**Specifications**

EPA: 0.95 ft<sup>2</sup> (max)

Length: 26" (16.5 in)

Width: 13" (10.5 in)

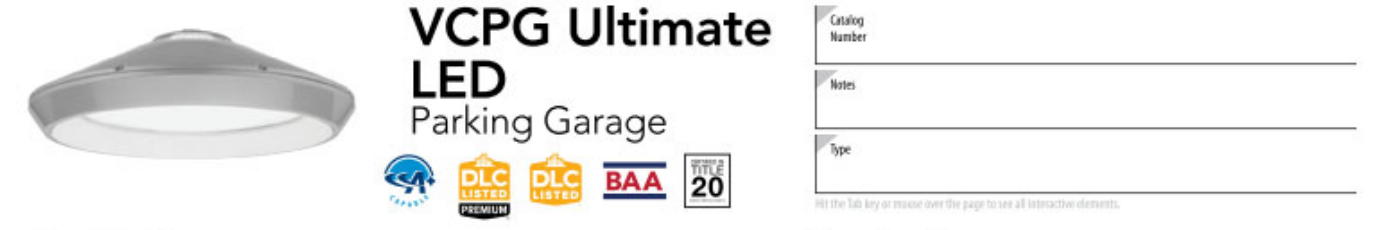
Height<sub>1</sub>: 3" (7.5 in)

Height<sub>2</sub>: 7" (17.5 in)

Weight (max): 16 lbs (7.2 kg)

**Ordering Information** EXAMPLE: DSX0 LED P6 40K T3M MVOLT SPA NL2AIR2 PIRHN DDBXD

Series	LEDs	Color temperature	Distribution	Package	Mounting	
DSX0 LED	Forward optics	P1 30K 3000K	T15 Type I (short)	WVLT <sup>1</sup>	Shipped included	
		P2 40K 4000K	T15 Type II (short)	120°		
		P3 50K 5000K	T15 Type III (short)	208°		
	Refracted optics	P4 30K 3000K	T15 Type I (short)	BLC Backlight control <sup>2</sup>	240°	Shipped separately
		P5 40K 4000K	T15 Type II (short)	LED Self-cleaning control <sup>3</sup>	277°	
		P6 50K 5000K	T15 Type III (short)	RECQ Right corner control <sup>4</sup>	342°	



**Specifications**

Diameter: 19"

Height: 4.95" (w/ no light)

Weight (max, with no options): 25 lbs

**Ordering Information** EXAMPLE: VCPGX LED V8 P3 40K 70CRI TSM MVOLT PM UPLD DWHXD

Series	LED Light Engines	Package	Color temperature	Color Rendering Index	Distribution	Voltage	Mounting
VCPGX LED	V4 4 Light Engines	P1	30K 3000K	70CRI	TSM Type V, medium	MVOLT	PM Pendant mount standard (24-inch length supply leads)
		P2	35K 3500K	80CRI	TSM Type V, medium	347	120
		P3	40K 4000K	TSM Type V, rectangular	347	208	



**Specifications**

Depth (D1): 7"

Depth (D2): 1.5"

Height: 9"

Width: 11.5"

Weight (without options): 13.5 lbs

**Ordering Information** EXAMPLE: WDGE2 LED P3 40K 80CRI VF MVOLT SRM DDBXD

Series	Package	Color Temperature	CRI	Distribution	Voltage	Mounting
WDGE2 LED	P0 <sup>1</sup>	27K 2700K	70CRI	T15 Type I (short)	MVOLT	Shipped included
	P1 <sup>2</sup>	30K 3000K	80CRI	T2M Type II (medium)	347	120
	P2 <sup>3</sup>	40K 4000K	80CRI	T3M Type III (medium)	347	208
	P3 <sup>4</sup>	50K 5000K	80CRI	T4M Type IV (medium)	347	208

**Plan View**  
Scale - 1" = 25ft

- General Note**
- SEE SCHEDULE FOR LUMINAIRE MOUNTING HEIGHT.
  - CALCULATIONS ARE SHOWN IN FOOTCANDLES AT: 0' - 0"

THE ENGINEER AND/OR ARCHITECT MUST DETERMINE APPLICABILITY OF THE LAYOUT TO EXISTING / FUTURE FIELD CONDITIONS. THIS LIGHTING LAYOUT REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER CONTROLLED CONDITIONS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER VARIABLE FIELD CONDITIONS. MOUNTING HEIGHTS INDICATED ARE FROM GRADE AND/OR FLOOR UP.

THESE LIGHTING CALCULATIONS ARE NOT A SUBSTITUTE FOR INDEPENDENT ENGINEERING ANALYSIS OF LIGHTING SYSTEM SUITABILITY AND SAFETY. THE ENGINEER AND/OR ARCHITECT IS RESPONSIBLE TO REVIEW FOR MICHIGAN ENERGY CODE AND LIGHTING QUALITY COMPLIANCE.

UNLESS EXEMPT, PROJECT MUST COMPLY WITH LIGHTING CONTROLS REQUIREMENTS DEFINED IN ASHRAE 90.1 2013. FOR SPECIFIC INFORMATION CONTACT GBA CONTROLS GROUP AT ASG@GASSERBUSH.COM OR 734-266-6705.

**Alternates Note**  
THE USE OF FIXTURE ALTERNATES MUST BE RESUBMITTED TO THE CITY FOR APPROVAL.

**Mounting Height Note**  
MOUNTING HEIGHT IS MEASURED FROM GRADE TO FACE OF FIXTURE. POLE HEIGHT SHOULD BE CALCULATED AS THE MOUNTING HEIGHT LESS BASE HEIGHT.

**Ordering Note**  
FOR INQUIRIES CONTACT GASSER BUSH AT QUOTES@GASSERBUSH.COM OR 734-266-6705.

**Drawing Note**  
THIS DRAWING WAS GENERATED FROM AN ELECTRONIC IMAGE FOR ESTIMATION PURPOSE ONLY. LAYOUT TO BE VERIFIED IN FIELD BY OTHERS.

# UHG Flats Ann Arbor

2900 S. Main St.  
Ann Arbor, 48103

### Owner

United Hospitality Group  
555 S. Old Woodward Ave. Ste. 765  
Birmingham, MI 48009  
P.248.709.9958

### Architect

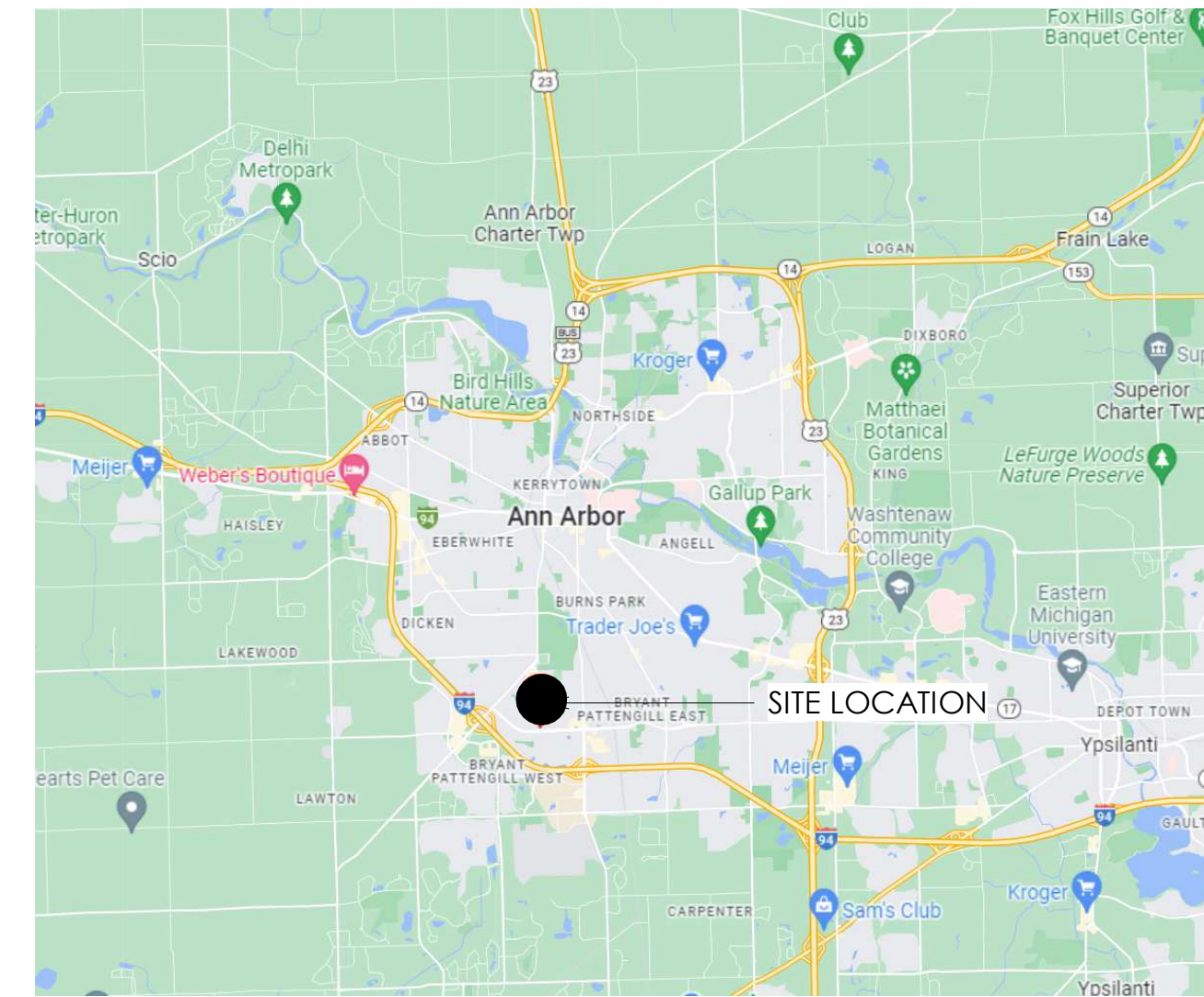
Krieger | Klatt Architects Inc.  
2120 E. 11 Mile Rd.  
Royal Oak, MI 48067  
P.248.414.9270  
F.248.414.9275

### Civil Engineer

ATWELL, LLC  
311 North Main St.  
Ann Arbor, MI 48104  
P.734.887.2714

### Building Code Notes:

ALL WORK IS TO COMPLY WITH:  
MICHIGAN BUILDING CODE 2015  
MICHIGAN MECHANICAL CODE 2015  
MICHIGAN ACCESSIBILITY CODE 2009; A117.1, 2009  
MICHIGAN ELECTRICAL CODE NFPA 70, 2017  
MICHIGAN PLUMBING CODE 2018  
MICHIGAN ENERGY CODE IECC 2015



### General Scope of Work:

1. CONSTRUCTION OF A 4-STORY MULTI-FAMILY APARTMENT COMPLEX
2. MODIFYING EXISTING TOPOGRAPHY TO ACCOMMODATE PROPOSED MULTI-FAMILY APARTMENT COMPLEX



## KRIEGER KLATT ARCHITECTS

2120 E. 11 Mile Rd. | Royal Oak, MI 48067  
P: 248.414.9270 F: 248.414.9275  
www.kriegerklatt.com

### Client:

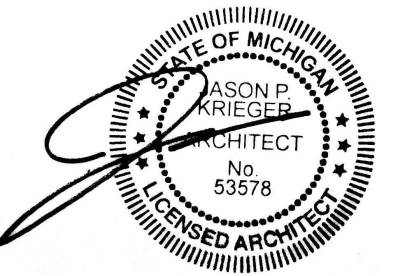
United Hospitality Group  
555 S. Old Woodward Ave. Ste. 765  
Birmingham, MI 48009

### Project:

UHG Flats Ann Arbor  
2900 S. Main St.  
Ann Arbor, 48103

Issued	Description	By
09-15-2023	SPA Resubmittal #1	RP
01-11-2024	SPA Resubmittal #2	RP
03-18-2024	SPA Resubmittal #3	RP

### Seal:



### Note:

Do not scale drawings. Use calculated dimensions only. Verify existing conditions in field.

### North Arrow:

### Sheet Title:

Cover Sheet

### Project Number:

23-077

### Scale:

1/4" = 1'-0"

### Sheet Number:

G.001

### Sheet Index

Sheet No	Title	09-15-2023 SPA Resubmittal #1	01-11-2024 SPA Resubmittal #2	03-18-2024 SPA Resubmittal #3
G.001	Cover Sheet	•	•	•
A.100	Floor Plan	•	•	•
A.101	Floor Plan	•	•	•
A.200	Elevations	•	•	•
A.201	Elevations	•	•	•
A.400	Building Sections	•	•	•
A.900	Renderings	•	•	•
A.901	Renderings	•	•	•



**Client:**

United Hospitality Group  
555 S. Old Woodward Ave. Ste. 765  
Birmingham, MI 48009

**Project:**

UHG Flats Ann Arbor  
2900 S. Main St.  
Ann Arbor, MI 48103

Issued	Description	By
09-15-2023	SPA Resubmittal #1	RP
03-18-2024	SPA Resubmittal #3	RP

Parking Schedule	
Family and Type	Count
Parking Spaces: Bx16	6
Parking Spaces: ADA 18' Clearance	1
Parking Spaces: Parking Space 9x18	38

Parking Ratio	
TOTAL UNITS: 45	
45 SPACES / 45 UNITS = 1.00 RATIO	

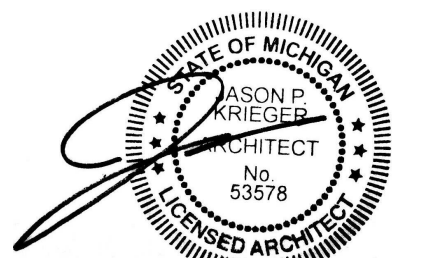
Unit Schedules	
Name	Count
<b>02 - Second Floor</b>	
Unit A1	1
Unit B1	10
Unit C1	1
Unit C2	1
Unit C3	1
Unit C4	1
<b>Total</b>	<b>15</b>
<b>03 - Third Floor</b>	
Unit A1	1
Unit B1	10
Unit C1	1
Unit C2	1
Unit C3	1
Unit C4	1
<b>Total</b>	<b>15</b>
<b>04 - Fourth Floor</b>	
Unit A1	1
Unit B1	10
Unit C1	1
Unit C2	1
Unit C3	1
Unit C4	1
<b>Total</b>	<b>15</b>
<b>Total Units</b>	<b>45</b>

Unit SF		
Name	Area	
Unit A1	574 SF	
Unit B1	735 SF	
Unit C1	1134 SF	
Unit C2	1062 SF	
Unit C3	1084 SF	
Unit C4	1051 SF	

Unit Percentage		
Department	Count	Unit %
1 Bedroom	30	68%
2 Bedroom	12	27%
Studio	3	5%
<b>Grand total</b>	<b>45</b>	

Layout Legend	
AMENITIES / CLUBHOUSE	[Orange Box]
COMMON AREAS	[Light Green Box]
1 BEDROOM	[Light Blue Box]
2 BEDROOM	[Light Purple Box]
STUDIO	[Light Green Box]

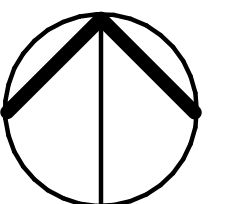
**Seal:**



**Note:**

Do not scale drawings. Use calculated dimensions only. Verify existing conditions in field.

**North Arrow:**



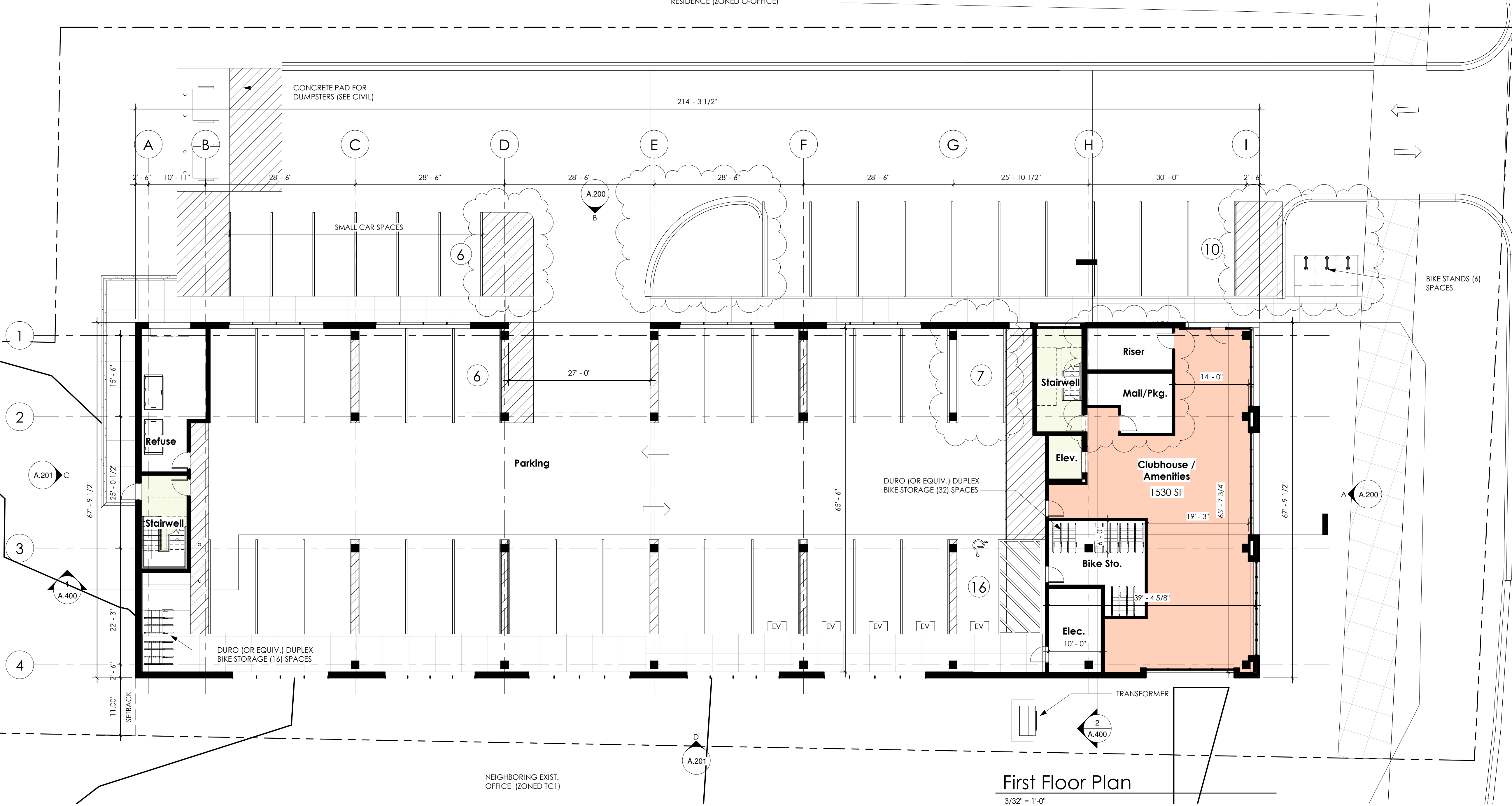
**Sheet Title:**  
Floor Plan

**Project Number:**  
23-077

**Scale:**  
As indicated

**Sheet Number:**

**A.100**

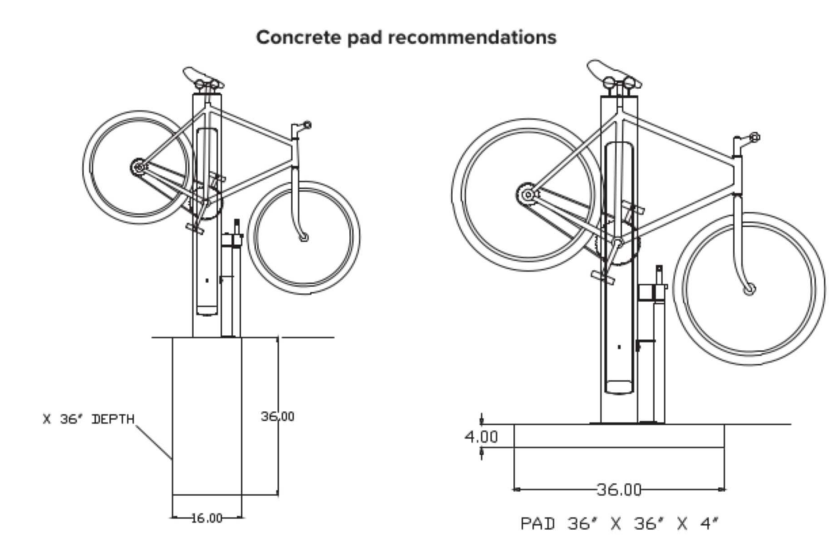
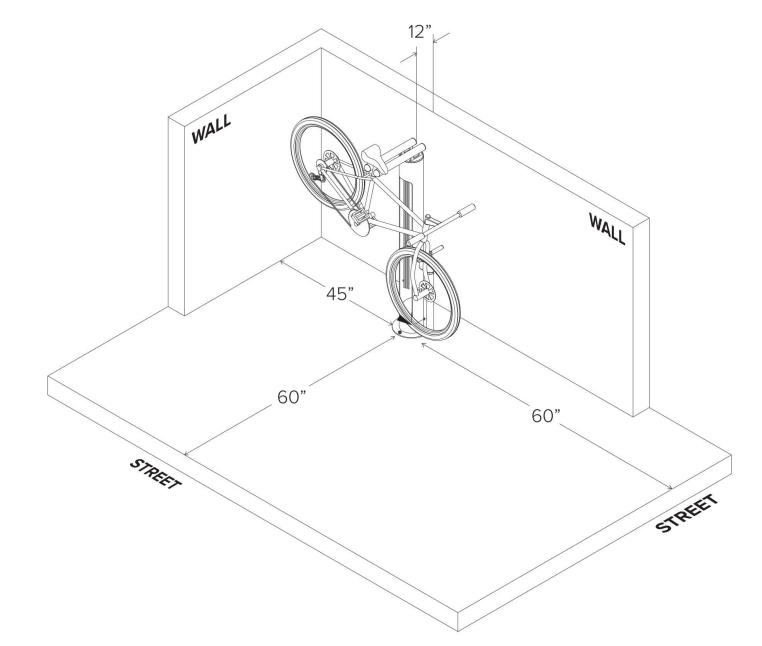


**First Floor Plan**

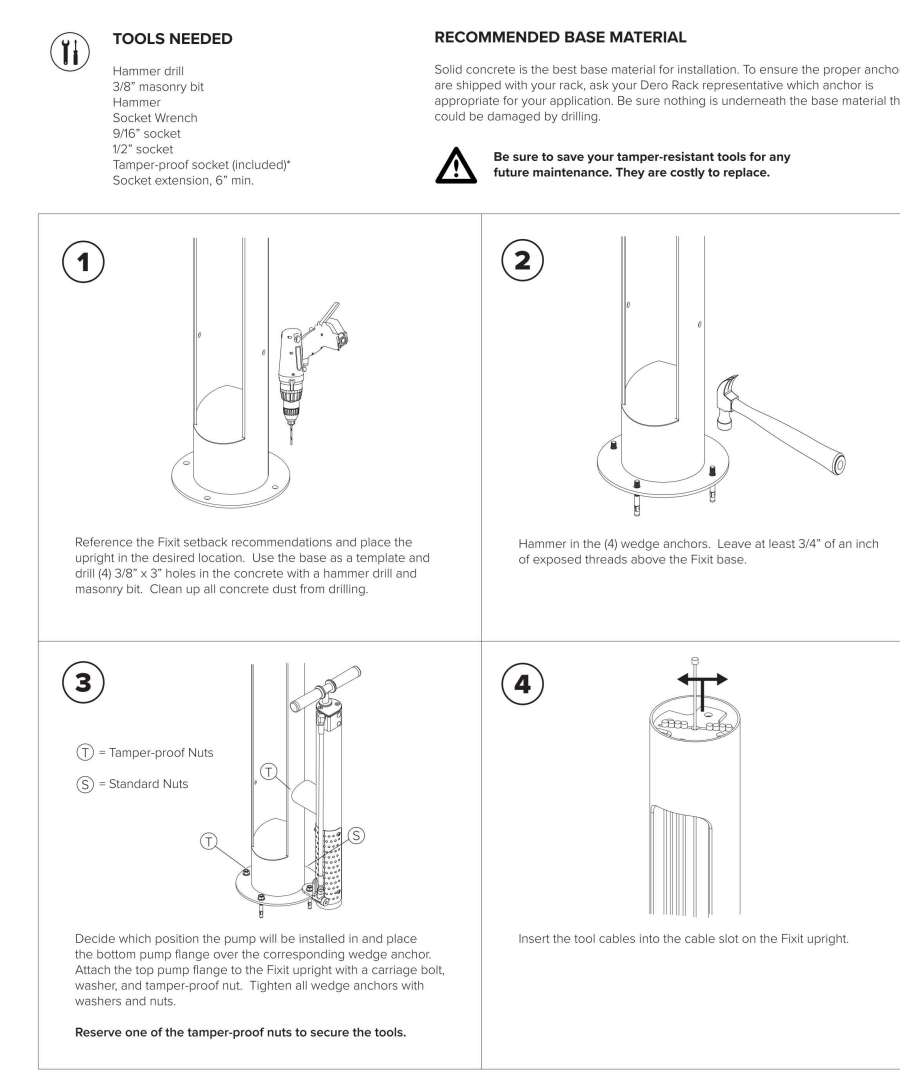
3/32" = 1'-0"



Setbacks



Installation



Bike Calculations	
<b>REQUIRED:</b>	
1 SPACE PER 5 DWELLINGS	
45 / 5 UNITS = 9 RATIO	
PER ORDINANCE 50% FIXED RACKS & 50% ENCLOSED	
9 X 0.5 = 4.5 - 5 ENCLOSED	
9 X 0.5 = 4.5 - 5 FIXED	
<b>PROVIDED:</b>	
<b>48 ENCLOSED &amp; 6 FIXED</b>	



DERO DUPLEX DOUBLE SIDED FREE STANDING BIKE RACK - INTENDED FOR THE FIRST FLOOR TENANT STORAGE ROOM.

**Bike Storage System**

1/4" = 1'-0"









