

SOURCE: USGS MAPPING SYSTEM

LOCATION MAP

SCALE: 1" = 2,000'±

SITE DEVELOPMENT PLANS

FOR



PROPOSED CAR WASH

PID: 4715-22-400-023 & 4725-22-402-900 (UNIT 10)

5580 E-M36

TOWNSHIP OF HAMBURG, LIVINGSTON COUNTY, MICHIGAN

APPLICANT

EROP LLC
3130 NORTH KANDY LANE
DECATUR, ILLINOIS 62526
217-972-4296
JEFFJ@HYPERSHINECW.COM

OWNER

CHILLSON COMMONS LLC
27600 NORTHWESTERN HWY STE 200
SOUTHFIELD, MI, 48034

ARCHITECT

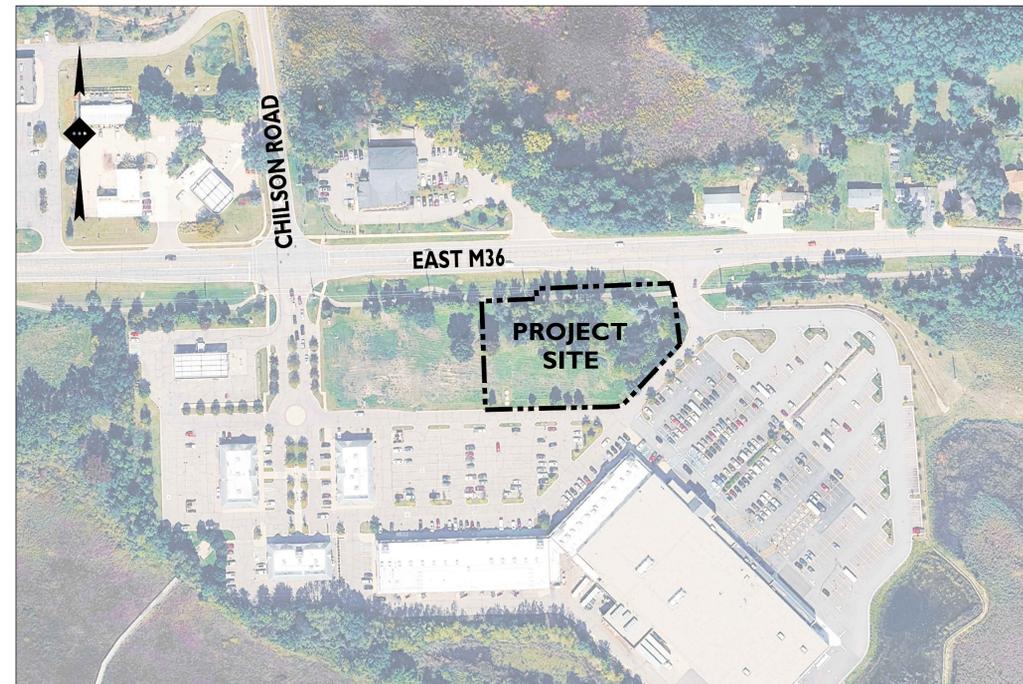
HARRISON FRENCH & ASSOCIATES, LTD
1705 S. WALTON BLVD, SUITE 3
BENTONVILLE, ARKANSAS 72712
479-273-7780

NOT APPROVED FOR CONSTRUCTION

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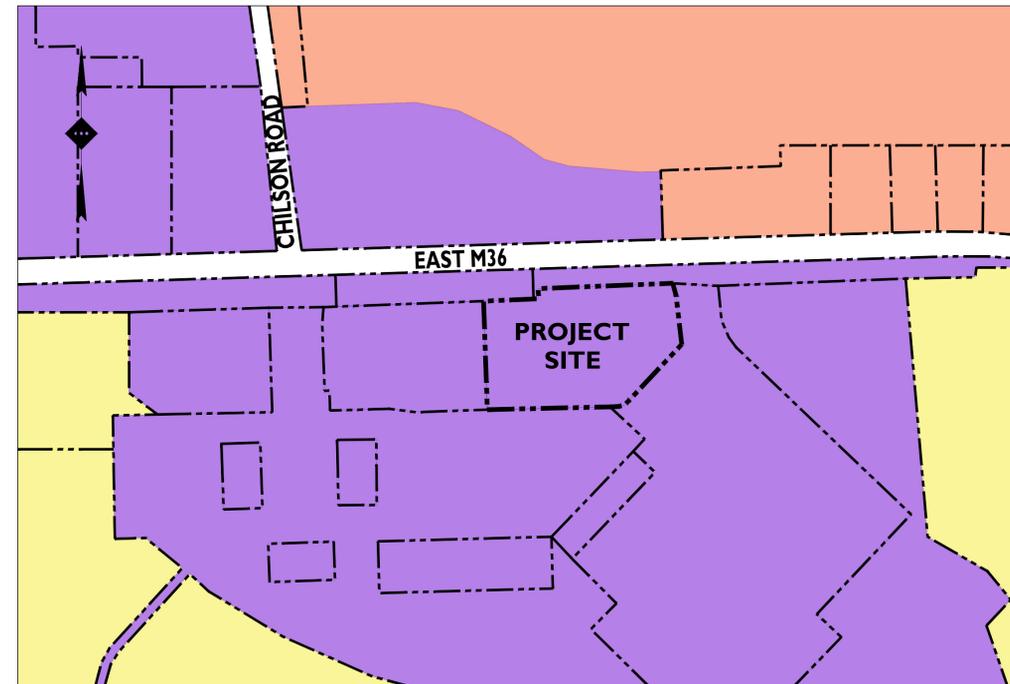
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www.stonefieldeng.com
555 S. Old Woodward Avenue, Suite 12L, Birmingham, MI 48009
Phone 248.247.1115



SOURCE: GOOGLE EARTH PRO

AERIAL MAP

SCALE: 1" = 150'±



SOURCE: TOWNSHIP OF HAMBURG, LIVINGSTON COUNTY, MICHIGAN OFFICIAL ZONING MAP

ZONING MAP

SCALE: 1" = 150'±

ZONING KEY

- RA- SINGLE FAMILY MEDIUM DENSITY RESIDENTIAL
- WFR- WATERFRONT RESIDENTIAL
- CS COMMUNITY SERVICE

PLANS PREPARED BY:



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Phone 248.247.1115

PLAN REFERENCE MATERIALS:

1. THIS PLAN SET REFERENCES THE FOLLOWING DOCUMENTS INCLUDING, BUT NOT LIMITED TO:
 - ALTA/NSPS LAND TITLE SURVEY PREPARED BY KEM-TEC, DATED 11/19/2025
 - ARCHITECTURAL BUILDING PERMIT PLANS PREPARED BY HARRISON FRENCH & ASSOCIATES, LTD
 - AERIAL MAP OBTAIN FROM GOOGLE EARTH PRO DATED 12/11/2025
 - LOCATION MAP OBTAINED FROM USGS NATIONAL MAPPER DATED 12/11/2025
 - WETLANDS DELINEATION REPORT PREPARED BY ASTI ENVIRONMENTAL DATED 10/24/2025
2. ALL REFERENCE MATERIAL LISTED ABOVE SHALL BE CONSIDERED A PART OF THIS PLAN SET AND ALL INFORMATION CONTAINED WITHIN THESE MATERIALS SHALL BE UTILIZED IN CONJUNCTION WITH THIS PLAN SET. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN A COPY OF EACH REFERENCE AND REVIEW IT THOROUGHLY PRIOR TO THE START OF CONSTRUCTION.

SHEET INDEX

DRAWING TITLE	SHEET #
COVER SHEET	C-1
DEMOLITION & TREE REMOVAL PLAN	C-2
SITE PLAN	C-3
GRADING PLAN	C-4
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DRAINAGE AREA MAPS	C-6
UTILITY PLAN	C-7
LIGHTING PLAN	C-8
SOIL EROSION & SEDIMENT CONTROL PLAN	C-9
LANDSCAPING PLAN & DETAILS	C-10 TO C-11
CONSTRUCTION DETAILS	C-12 TO C-14

ADDITIONAL SHEETS

DRAWING TITLE	SHEET #
ALTA / NSPS LAND TITLE SURVEY	1 OF 1

PROPERTY DESCRIPTION:

THE LAND SITUATED IN THE TOWNSHIP OF HAMBURG, COUNTY OF LIVINGSTON, STATE OF MICHIGAN, AND IS DESCRIBED AS FOLLOWS:

SECTION 22, TOWN 1 NORTH, RANGE 5 EAST, COMMENCING AT THE EAST 1/4 CORNER OF SAID SECTION, THENCE SOUTH 01 DEGREE 08 MINUTES 26 SECONDS EAST 95.25 FEET TO SOUTH LINE OF M-36, THENCE ALONG CHORD BEARING NORTH 73 DEGREES 10 MINUTES 10 SECONDS WEST 179.03 FEET THENCE SOUTH 06 DEGREES 08 MINUTES 27 SECONDS WEST 33.00 FEET THENCE ALONG CHORD BEARING NORTH 87 DEGREES 53 MINUTES 03 SECONDS WEST 63.11 FEET THENCE SOUTH 88 DEGREES 05 MINUTES 53 SECONDS WEST 489.73 FEET FOR POB, THENCE SOUTH 01 DEGREE 54 MINUTES 07 SECONDS EAST 118.50 FEET THENCE SOUTH 43 DEGREES 50 MINUTES 39 SECONDS WEST 116.73 FEET THENCE ALONG CHORD BEARING SOUTH 45 DEGREES 55 MINUTES 22 SECONDS WEST 18.79 FEET THENCE SOUTH 89 DEGREES 00 MINUTES 04 SECONDS WEST 16.28 FEET THENCE NORTH 02 DEGREES 15 MINUTES 15 SECONDS WEST 72.01 FEET THENCE SOUTH 88 DEGREES 04 MINUTES 04 SECONDS WEST 201.44 FEET THENCE NORTH 02 DEGREES 00 MINUTES 09 SECONDS WEST 111.55 FEET TO SOUTH LINE M-36 THENCE NORTH 87 DEGREES 40 MINUTES 10 SECONDS EAST 130.30 FEET THENCE NORTH 02 DEGREES 19 MINUTES 50 SECONDS WEST 22.89 FEET THENCE NORTH 88 DEGREES 05 MINUTES 53 SECONDS EAST 190.04 FEET TO POB, ENCLUMBERED BY CHILSON COMMONS SHOPPING CENTER CONDOMINIUM.



Know what's below
Call before you dig.

SITE DEVELOPMENT PLANS

EROP LLC

PROPOSED CAR WASH
PARCEL ID: 4715-22-400-023 & 4725-22-402-900
5580 E M36
HAMBURG TOWNSHIP
LIVINGSTON COUNTY, MICHIGAN 48169



SCALE: AS SHOWN PROJECT ID: DET-240177

TITLE:

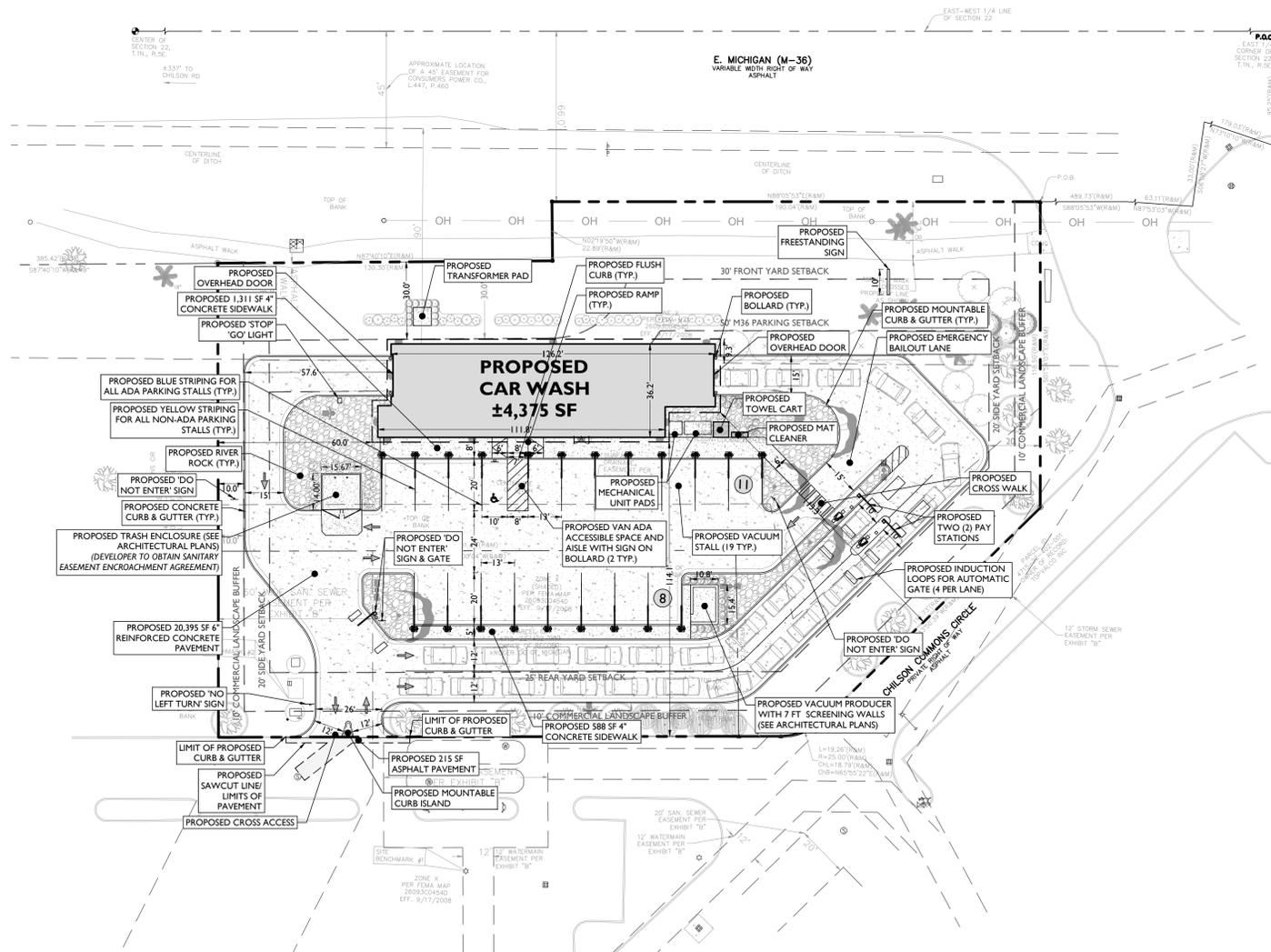
COVER SHEET

DRAWING:

C-1

NORTHWOODS-240177-001-LLC - 558E E M36, HAMBURG TOWNSHIP, MICHIGAN 48169 - COVERING

V:\012010\DET-240177\1001\11-15-24\HAMBURG\TOWNSHIP\HIC\240177\DET-240177-01 SITE.DWG



LAND USE AND ZONING			
PARCEL ID: 4715-22-400-023 & 4725-22-402-900 (UNIT 10)			
COMMUNITY SERVICE DISTRICT (CS) & HARDSHIP PLANNED UNIT DEVELOPMENT (HPUD)			
PROPOSED USE		SPECIAL LAND USE	
CAR WASH		M-36 ACCESS	
ZONING REQUIREMENT	REQUIRED (CS)	REQUIRED (HPUD)	PROPOSED
MINIMUM LOT AREA	43,560 SF	N/A	1.36 AC (59,223 SF)
MINIMUM LOT WIDTH AT STREET	150 FT	N/A	320.2 FT
MINIMUM LOT COVERAGE (BUILDING)	40% (23,688 SF)	N/A	7.2% (4,375 SF)
MINIMUM LOT COVERAGE (PARKING)	75% (44,415 SF)	N/A	34.9% (20,354 SF)
MAXIMUM BUILDING HEIGHT	2.5 STORIES / 35 FT	N/A	1 STORY / 22 FT
MINIMUM FRONT YARD SETBACK	30 FT ⁽¹⁾	N/A	30.0 FT
MINIMUM SIDE YARD SETBACK	20 FT ⁽²⁾	N/A	60.0 FT
MINIMUM REAR YARD SETBACK	25 FT	N/A	113.3 FT
MINIMUM COMMERCIAL LANDSCAPE BUFFER	10 FT	N/A	10.0 FT
MINIMUM PARKING SETBACK (M-36 ROW)	N/A	50 FT ⁽³⁾	75.8 FT
M-36 ACCESS	N/A	NO NEW CURB CUTS ON M-36, SHARE WITH CHILSON COMMONS	COMPLIES

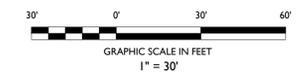
- (1) § 36-171.4 MINIMUM FRONT YARD SETBACKS ARE REQUIRED AS SHOWN EXCEPT WHERE ESTABLISHED BUILDINGS ON ADJACENT LOTS VARY FROM THIS MINIMUM. IN SUCH CASE, A NEW BUILDING SHALL BE CONSTRUCTED WITH A FRONT YARD NO LESS DEPTH THAN THE AVERAGE FRONT YARDS OF BUILDING LOCATED ON EACH SIDE OF THE PROPOSED BUILDING. IN NO CASE SHALL THIS PROVISION BE INTERPRETED TO ALLOW A FRONT YARD OF MORE THAN 40 FT OR LESS THAN 20 FT.
- (2) § 36-171.5 IN COMMUNITY SERVICE DISTRICT, A PRINCIPAL BUILDING MAY BE CONSTRUCTED ON OR NEAR THE PROPERTY LINE PROVIDED THAT THE COMBINATION OF THE TWO SIDE YARDS SHALL BE 20 FT AND THE BUILDINGS SIDE WALL BE FIREWALL MEETING BUILDING CODE.
- (3) OR MUST BE LOCATED SOUTH OF PROPOSED BUILDING

OFF-STREET PARKING REQUIREMENTS		
CODE SECTION	REQUIRED	PROPOSED
§36-330.c	MINIMUM VEHICLE PARKING SPACE: 200 SF	260 SF
§36-334.23	GASOLINE FILLING AND SERVICE STATIONS: 1 SPACE PER SERVICE STALL 1 WASH LANE = 1 SPACE PLUS 1 SPACE PER EMPLOYEE 5 EMP. = 5 SPACES TOTAL: 1 + 5 = 6 SPACES	19 VACUUMS +5 EMPLOYEE ⁽¹⁾ 24 TOTAL SPACES
	STACKING: N/A	28 SPACES

(1) SHARED PARKING AGREEMENT WITH KROGER FOR 5 EMPLOYEE PARKING SPACES.

SYMBOL	DESCRIPTION
---	PROPERTY LINE
- - - - -	SETBACK LINE
- - - - -	SAWCUT LINE
=====	PROPOSED CURB & GUTTER
=====	PROPOSED FLUSH CURB
=====	PROPOSED MOUNTABLE CURB
○ ○ ○	PROPOSED SIGNS / BOLLARDS
■	PROPOSED BUILDING
□	PROPOSED ASPHALT
□	PROPOSED CONCRETE
∩	PROPOSED BUILDING DOORS

- GENERAL NOTES**
- THE CONTRACTOR SHALL VERIFY AND FAMILIARIZE THEMSELVES WITH THE EXISTING SITE CONDITIONS AND THE PROPOSED SCOPE OF WORK (INCLUDING DIMENSIONS, LAYOUT, ETC.) PRIOR TO INITIATING THE IMPROVEMENTS IDENTIFIED WITHIN THESE DOCUMENTS. SHOULD ANY DISCREPANCY BE FOUND BETWEEN THE EXISTING SITE CONDITIONS AND THE PROPOSED WORK, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC PRIOR TO THE START OF CONSTRUCTION.
 - THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND ENSURE THAT ALL REQUIRED APPROVALS HAVE BEEN OBTAINED PRIOR TO THE START OF CONSTRUCTION. COPIES OF ALL REQUIRED PERMITS AND APPROVALS SHALL BE KEPT ON SITE AT ALL TIMES DURING CONSTRUCTION.
 - ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS STONEFIELD ENGINEERING & DESIGN, LLC, AND ITS SUB-CONSULTANTS FROM AND AGAINST ANY DAMAGES AND LIABILITIES INCLUDING ATTORNEY'S FEES ARISING OUT OF CLAIMS BY EMPLOYEES OF THE CONTRACTOR IN ADDITION TO CLAIMS CONNECTED TO THE PROJECT AS A RESULT OF NOT CARRYING THE PROPER INSURANCE FOR WORKERS COMPENSATION, LIABILITY INSURANCE, AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE.
 - THE CONTRACTOR SHALL NOT DEVIATE FROM THE PROPOSED IMPROVEMENTS IDENTIFIED WITHIN THIS PLAN SET UNLESS APPROVAL IS PROVIDED IN WRITING BY STONEFIELD ENGINEERING & DESIGN, LLC.
 - THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE MEANS AND METHODS OF CONSTRUCTION.
 - THE CONTRACTOR SHALL NOT PERFORM ANY WORK OR CAUSE DISTURBANCE ON A PRIVATE PROPERTY NOT CONTROLLED BY THE PERSON OR ENTITY WHO HAS AUTHORIZED THE WORK WITHOUT PRIOR WRITTEN CONSENT FROM THE OWNER OF THE PRIVATE PROPERTY.
 - THE CONTRACTOR IS RESPONSIBLE TO RESTORE ANY DAMAGED OR UNDERMINED STRUCTURE OR SITE FEATURE THAT IS IDENTIFIED TO REMAIN ON THE PLAN SET. ALL REPAIRS SHALL USE NEW MATERIALS TO RESTORE THE FEATURE TO ITS EXISTING CONDITION AT THE CONTRACTOR'S EXPENSE.
 - CONTRACTOR IS RESPONSIBLE TO PROVIDE THE APPROPRIATE SHOP DRAWINGS, PRODUCT DATA, AND OTHER REQUIRED SUBMITTALS FOR REVIEW. STONEFIELD ENGINEERING & DESIGN, LLC WILL REVIEW THE SUBMITTALS IN ACCORDANCE WITH THE DESIGN INTENT AS REFLECTED WITHIN THE PLAN SET.
 - THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
 - THE CONTRACTOR IS REQUIRED TO PERFORM ALL WORK IN THE PUBLIC RIGHT-OF-WAY IN ACCORDANCE WITH THE APPROPRIATE GOVERNING AUTHORITY AND SHALL BE RESPONSIBLE FOR THE PROCUREMENT OF STREET OPENING PERMITS.
 - THE CONTRACTOR IS REQUIRED TO RETAIN AN OSHA CERTIFIED SAFETY INSPECTOR TO BE PRESENT ON SITE AT ALL TIMES DURING CONSTRUCTION & DEMOLITION ACTIVITIES.
 - SHOULD AN EMPLOYEE OF STONEFIELD ENGINEERING & DESIGN, LLC, BE PRESENT ON SITE AT ANY TIME DURING CONSTRUCTION, IT DOES NOT RELIEVE THE CONTRACTOR OF ANY OF THE RESPONSIBILITIES AND REQUIREMENTS LISTED IN THE NOTES WITHIN THIS PLAN SET.



DATE	ISSUE	BY	DESCRIPTION
01/23/2024	1	JSEH	FOR SITE PLAN & SPECIAL USE PERMIT APPROVAL

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SITE DEVELOPMENT PLANS

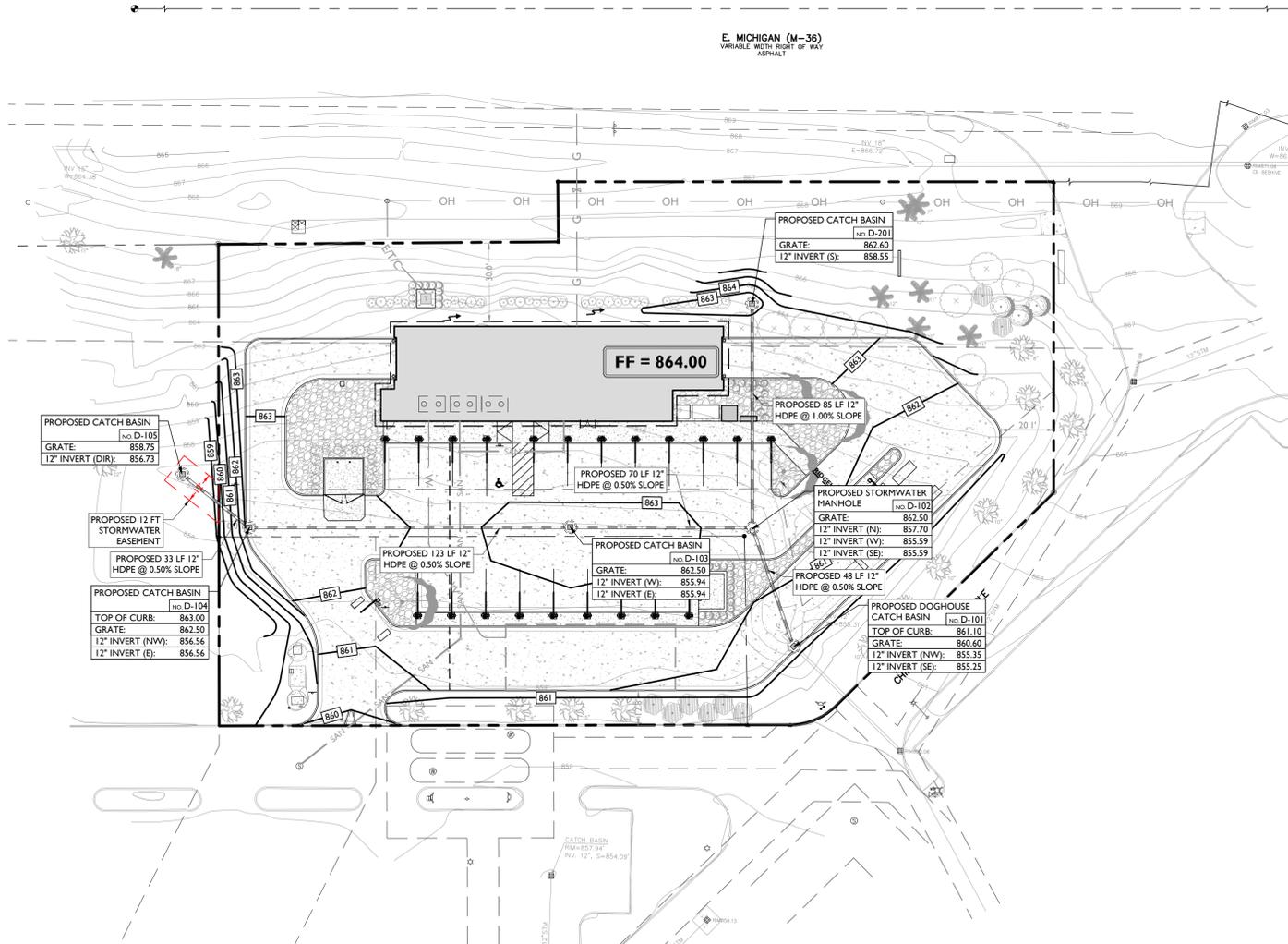
PROPOSED CAR WASH
PARCEL ID: 4715-22-400-023 & 4725-22-402-900
5580 E M36
HAMBURG TOWNSHIP
LIVINGSTON COUNTY, MICHIGAN 48169

SCALE: 1" = 30' PROJECT ID: DET-240177

TITLE: **SITE PLAN**

DRAWING: **C-3**

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SYMBOL	DESCRIPTION
	PROPERTY LINE
	PROPOSED GRADING CONTOUR
	PROPOSED GRADING RIDGELINE
	PROPOSED STORMWATER STRUCTURES
	PROPOSED STORMWATER PIPING



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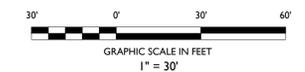
WHITEWATER EXPRESS CAR WASH

DRAINAGE AND UTILITY NOTES

1. THE CONTRACTOR TO PERFORM A TEST PIT PRIOR TO CONSTRUCTION (RECOMMEND 30 DAYS PRIOR) AT LOCATIONS OF EXISTING UTILITY CROSSINGS FOR STORMWATER IMPROVEMENTS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IN WRITING.
2. CONTRACTOR SHALL START CONSTRUCTION OF STORM LINES AT THE LOWEST INVERT AND WORK UP-GRADE.
3. THE CONTRACTOR IS REQUIRED TO CALL THE APPROPRIATE AUTHORITY FOR NOTICE OF CONSTRUCTION/EXCAVATION AND UTILITY MARK OUT PRIOR TO THE START OF CONSTRUCTION IN ACCORDANCE WITH STATE LAW. CONTRACTOR IS REQUIRED TO CONFIRM THE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES IN THE FIELD. SHOULD A DISCREPANCY EXIST BETWEEN THE FIELD LOCATION OF A UTILITY AND THE LOCATION SHOWN ON THE PLAN SET OR SURVEY, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IMMEDIATELY IN WRITING.
4. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD OF THE AS-BUILT LOCATIONS OF ALL PROPOSED UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR SHALL NOTE ANY DISCREPANCIES BETWEEN THE AS-BUILT LOCATIONS AND THE LOCATIONS DEPICTED WITHIN THE PLAN SET. THIS RECORD SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.

EXCAVATION, SOIL PREPARATION, AND DEWATERING NOTES

1. THE CONTRACTOR IS REQUIRED TO REVIEW THE REFERENCED GEOTECHNICAL DOCUMENTS PRIOR TO CONSTRUCTION. THESE DOCUMENTS SHALL BE CONSIDERED A PART OF THE PLAN SET.
2. THE CONTRACTOR IS REQUIRED TO PREPARE SUBGRADE SOILS BENEATH ALL PROPOSED IMPROVEMENTS AND BACKFILL ALL EXCAVATIONS IN ACCORDANCE WITH RECOMMENDATIONS BY THE GEOTECHNICAL ENGINEER OF RECORD.
3. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING SHORING FOR ALL EXCAVATIONS AS REQUIRED. CONTRACTOR SHALL HAVE THE SHORING DESIGN PREPARED BY A QUALIFIED PROFESSIONAL SHORING DESIGNER. THESE DESIGNS SHALL BE SUBMITTED TO STONEFIELD ENGINEERING & DESIGN, LLC, AND THE OWNER PRIOR TO THE START OF CONSTRUCTION.
4. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL OPEN EXCAVATIONS ARE PERFORMED AND PROTECTED IN ACCORDANCE WITH THE LATEST OSHA REGULATIONS.
5. THE CONTRACTOR IS RESPONSIBLE FOR ANY DEWATERING DESIGN AND OPERATIONS, AS REQUIRED, TO CONSTRUCT THE PROPOSED IMPROVEMENTS. THE CONTRACTOR SHALL OBTAIN ANY REQUIRED PERMITS FOR DEWATERING OPERATIONS AND GROUNDWATER DISPOSAL.



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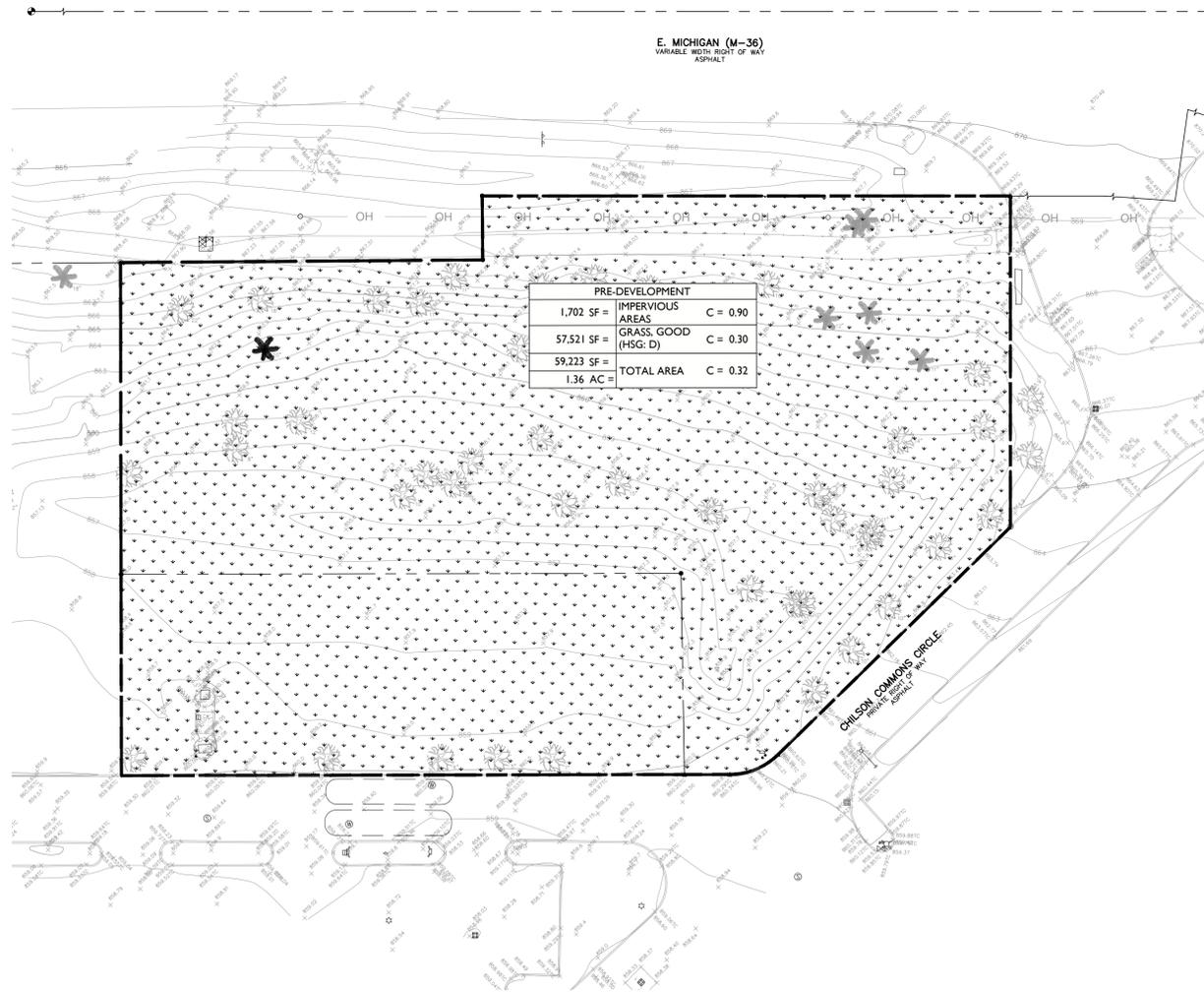
SCALE: 1" = 30' PROJECT ID: DET-240177

TITLE:
**STORMWATER
MANAGEMENT PLAN**

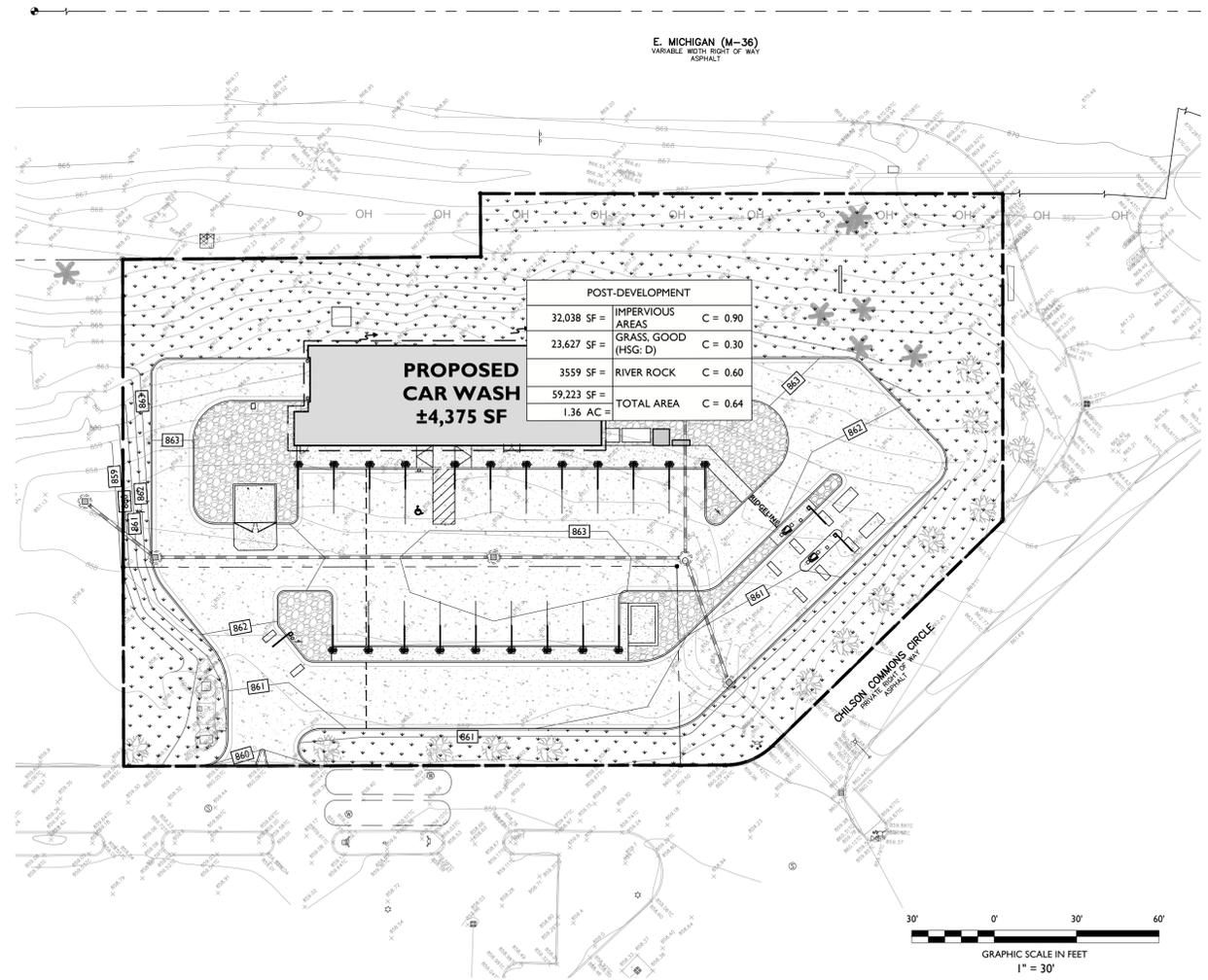
DRAWING:
C-5

ISSUE	DATE	BY	DESCRIPTION
1	01/23/2024	JSEH	FOR SITE PLAN & SPECIAL USE PERMIT APPROVAL

PRE-DEVELOPMENT DRAINAGE AREA MAP



POST-DEVELOPMENT DRAINAGE AREA MAP



SYMBOL	DESCRIPTION
	DRAINAGE AREA BOUNDARY
	PERVIOUS AREA



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SITE DEVELOPMENT PLANS

EROP LLC

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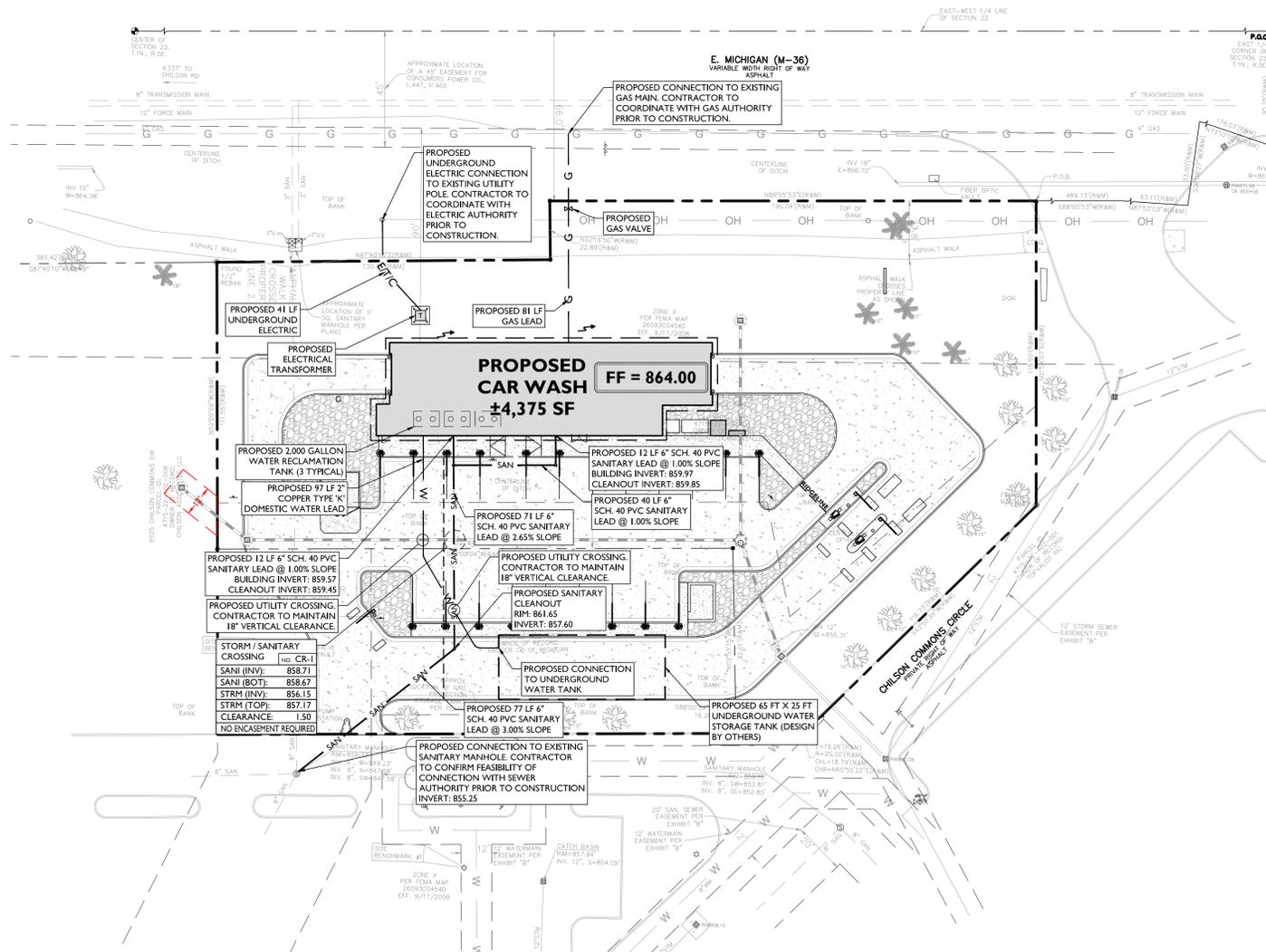
SCALE: 1" = 30' PROJECT ID: DET-240177

TITLE:
DRAINAGE AREA MAPS

DRAWING:

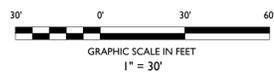
C-6

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SYMBOL	DESCRIPTION
---	PROPERTY LINE
— SAN —	PROPOSED SANITARY LATERAL
— W —	PROPOSED DOMESTIC WATER SERVICE
— E/T/C —	PROPOSED ELECTRICAL/DATA CONDUITS
— G —	PROPOSED GAS LINE
⊗	PROPOSED VALVE
○	PROPOSED SANITARY CLEANOUT
⊠	PROPOSED TRANSFORMER ON CONCRETE PAD WITH BOLLARDS

- DRAINAGE AND UTILITY NOTES**
- THE CONTRACTOR IS REQUIRED TO CALL THE APPROPRIATE AUTHORITY FOR NOTICE OF CONSTRUCTION/EXCAVATION AND UTILITY MARK OUT PRIOR TO THE START OF CONSTRUCTION IN ACCORDANCE WITH STATE LAW. CONTRACTOR IS REQUIRED TO CONFIRM THE HORIZONTAL AND VERTICAL LOCATION OF UTILITIES IN THE FIELD. SHOULD A DISCREPANCY EXIST BETWEEN THE FIELD LOCATION OF A UTILITY AND THE LOCATION SHOWN ON THE PLAN SET OR SURVEY, THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IMMEDIATELY IN WRITING.
 - THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN IN OPERATION ALL UTILITIES NOT DESIGNATED TO BE REMOVED.
 - THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO ANY EXISTING UTILITY IDENTIFIED TO REMAIN WITHIN THE LIMITS OF THE PROPOSED WORK DURING CONSTRUCTION.
 - A MINIMUM HORIZONTAL SEPARATION OF 10 FEET IS REQUIRED BETWEEN ANY SANITARY SEWER SERVICE AND ANY WATER LINES. IF THIS SEPARATION CANNOT BE PROVIDED, A CONCRETE ENCASMENT SHALL BE UTILIZED FOR THE SANITARY SEWER SERVICE AS APPROVED BY STONEFIELD ENGINEERING & DESIGN, LLC.
 - ALL WATER LINES SHALL BE VERTICALLY SEPARATED ABOVE SANITARY SEWER LINES BY A MINIMUM DISTANCE OF 18 INCHES. IF THIS SEPARATION CANNOT BE PROVIDED, A CONCRETE ENCASMENT SHALL BE UTILIZED FOR THE SANITARY SEWER SERVICE AS APPROVED BY STONEFIELD ENGINEERING & DESIGN, LLC.
 - THE CONTRACTOR TO PERFORM A TEST PIT PRIOR TO CONSTRUCTION (RECOMMEND 30 DAYS PRIOR) AT LOCATIONS OF EXISTING UTILITY CROSSINGS FOR WATER AND SANITARY SEWER CONNECTION IMPROVEMENTS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IN WRITING.
 - THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING GAS, ELECTRIC AND TELECOMMUNICATION CONNECTIONS WITH THE APPROPRIATE GOVERNING AUTHORITY.
 - CONTRACTOR SHALL START CONSTRUCTION OF ANY GRAVITY SEWER AT THE LOWEST INVERT AND WORK UP-GRADE.
 - THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD SET OF PLANS REFLECTING THE LOCATION OF EXISTING UTILITIES THAT HAVE BEEN CAPPED, ABANDONED, OR RELOCATED BASED ON THE DEMOLITION/REMOVAL ACTIVITIES REQUIRED IN THIS PLAN SET. THIS DOCUMENT SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.
 - THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN A RECORD OF THE AS-BUILT LOCATIONS OF ALL PROPOSED UNDERGROUND INFRASTRUCTURE. THE CONTRACTOR SHALL NOTE ANY DISCREPANCIES BETWEEN THE AS-BUILT LOCATIONS AND THE LOCATIONS DISPICTED WITHIN THIS PLAN SET. THIS RECORD SHALL BE PROVIDED TO THE OWNER FOLLOWING COMPLETION OF WORK.



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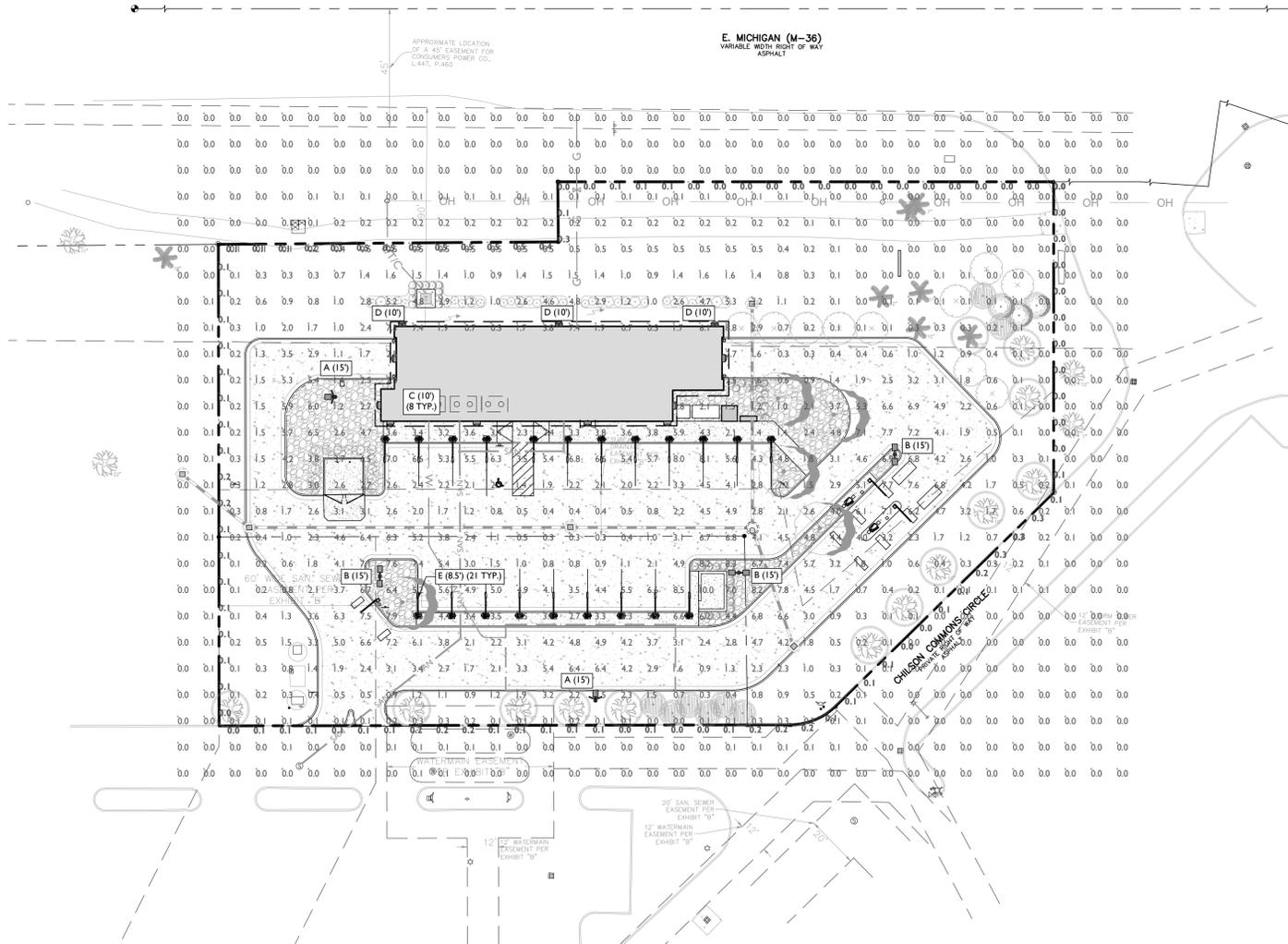
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SCALE: 1" = 30' PROJECT ID: DET-240177

TITLE:
UTILITY PLAN

DRAWING:
C-7

V:\012015\DET-240177\EROP-LLC-5586-14-16-HAMBURG-TOWNSHIP-PROJECT\LIGHTING



PROPOSED LUMINAIRE SCHEDULE							
SYMBOL	LABEL	QUANTITY	LIGHTING	DISTRIBUTION	LLF	MANUFACTURER	IES FILE
	A	2	MIRADA MEDIUM LED AREA LIGHT 12L LUMEN PACKAGE W/ HOUSE-SIDE SHIELD - SINGLE	TYPE 3	0.90	LSI INDUSTRIES	MRM-LED-18-SIL-3-40-70CRI-IL
	B	3	MIRADA MEDIUM LED AREA LIGHT 18L LUMEN PACKAGE W/ HOUSE-SIDE SHIELD - DOUBLE @ 180°	FT	0.90	LSI INDUSTRIES	MRM-LED-18-SIL-FT-40-70CRI-IL
	C	8	MIRADA SMALL OUTDOOR LED WALL SCONCE 2L LUMEN PACKAGE	TYPE 2	0.90	LSI INDUSTRIES	XWS-LED-02L-2-40-70CRI
	D	3	MIRADA MEDIUM OUTDOOR LED WALL SCONCE 8L LUMEN PACKAGE (1)	FT	0.90	LSI INDUSTRIES	XWM-FT-LED-06L-40
	E	21	VACUUM MOUNTED - LOW-PROFILE DRIVERLESS LINKABLE LED LINEAR LUMINAIRE - 2 FT	N/A	0.90	LSI INDUSTRIES	GPX2-SO

* SECURITY LIGHTING NOT INCLUDED WITHIN LIGHTING CALCULATIONS

SYMBOL	DESCRIPTION
---	PROPOSED CALCULATION AREA
---	PROPOSED ISOMETRIC LINE
A (XX')	PROPOSED LIGHTING FIXTURE (MOUNTING HEIGHT)
+xx	PROPOSED LIGHTING INTENSITY (FOOTCANDLES)
	PROPOSED AREA LIGHT
	PROPOSED BUILDING MOUNTED LIGHT

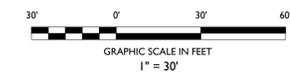
LIGHTING STATISTICS			
DESCRIPTION	AVERAGE	MINIMUM	MAXIMUM
OVERALL PARCEL	2.10 FC	0.0 FC	10.0 FC
PROPERTY LINE	0.12 FC	0.0 FC	0.5 FC

LIGHTING REQUIREMENTS		
CODE SECTION	REQUIRED	PROPOSED
§ 36-295.d(1)	EXTERIOR LIGHTING SHALL BE FULLY SHIELDED AND DIRECTED DOWNWARD	COMPLIES
§ 36-295.d(3)	MAXIMUM POLE HEIGHT: 15 FT	15 FT
§ 36-295.d(5)	MAXIMUM INTENSITY: 10 FC MAXIMUM SPILLOVER (NON-RESIDENTIAL ZONE): 1.0 FC	10.0 FC 0.5 FC

GENERAL LIGHTING NOTES

- THE LIGHTING LEVELS DEPICTED WITHIN THE PLAN SET ARE CALCULATED UTILIZING DATA OBTAINED FROM THE LISTED MANUFACTURER ACTUAL ILLUMINATION LEVELS AND PERFORMANCE OF ANY PROPOSED LIGHTING FIXTURE MAY VARY DUE TO UNCONTROLLABLE VARIABLES SUCH AS WEATHER, VOLTAGE SUPPLY, LAMP TOLERANCE, EQUIPMENT SERVICE LIFE AND OTHER VARIABLE FIELD CONDITIONS.
- WHERE APPLICABLE, THE EXISTING LIGHT LEVELS DEPICTED WITHIN THE PLAN SET SHALL BE CONSIDERED APPROXIMATE. THE EXISTING LIGHT LEVELS ARE BASED ON FIELD OBSERVATIONS AND THE MANUFACTURER'S DATA OF THE ASSUMED OR MOST SIMILAR LIGHTING FIXTURE MODEL.
- UNLESS NOTED ELSEWHERE WITHIN THIS PLAN SET, THE LIGHT LOSS FACTORS USED IN THE LIGHTING ANALYSIS ARE AS FOLLOWS:
 - LIGHT EMITTING DIODES (LED): 0.90
 - HIGH PRESSURE SODIUM: 0.72
 - METAL HALIDE: 0.72
- THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC IN WRITING, PRIOR TO THE START OF CONSTRUCTION, OF ANY PROPOSED LIGHTING LOCATIONS THAT CONFLICT WITH EXISTING PROPOSED DRAINAGE, UTILITY, OR OTHER IMPROVEMENTS.
- THE CONTRACTOR IS RESPONSIBLE TO PREPARE A WIRING PLAN AND PROVIDE ELECTRIC SERVICE TO ALL PROPOSED LIGHTING FIXTURES. THE CONTRACTOR IS REQUIRED TO PREPARE AN AS-BUILT PLAN OF WIRING AND PROVIDE COPIES TO THE OWNER AND STONEFIELD ENGINEERING & DESIGN, LLC.

EXCEPT WHERE USED FOR SECURITY PURPOSES, ALL OUTDOOR LIGHTING FIXTURES, EXISTING OR HEREAFTER INSTALLED AND MAINTAINED SHALL BE TURNED OFF BETWEEN 11:00 P.M. AND SUNRISE, EXCEPT WHEN USED FOR COMMERCIAL AND INDUSTRIAL USES, SUCH AS IN SALES, ASSEMBLY AND REPAIR AREAS, WHERE SUCH USE IS OPEN FOR BUSINESS AFTER 11:00 P.M. BUT ONLY FOR SO LONG AS SUCH USE OPEN FOR BUSINESS. BUSINESSES WITH LIGHT FIXTURES USED FOR SECURITY PURPOSES ARE ENCOURAGED TO USE A MOTION DETECTION DEVICE WHICH IS DIRECTED TO DETECT MOTION WITHIN THE PROPERTY.



DATE	ISSUE	BY	DESCRIPTION
01/23/2024	1	JSEB	FOR SITE PLAN & SPECIAL USE PERMIT APPROVAL

NOT APPROVED FOR CONSTRUCTION

STONEFIELD
engineering & design

Birmingham, MI · New York, NY · Salem, MA
Princeton, NJ · Tampa, FL · Rutherford, NJ
www.stonefielddesign.com

555 S. Old Woodward Avenue, Suite 12L, Birmingham, MI 48009
Phone 248.247.1115

EROP LLC

PROPOSED CAR WASH
PARCEL ID: 4715-22-400-023 & 4725-22-402-900
5580 E M36
HAMBURG TOWNSHIP
LIVINGSTON COUNTY, MICHIGAN 48169

WHITEWATER EXPRESS CAR WASH



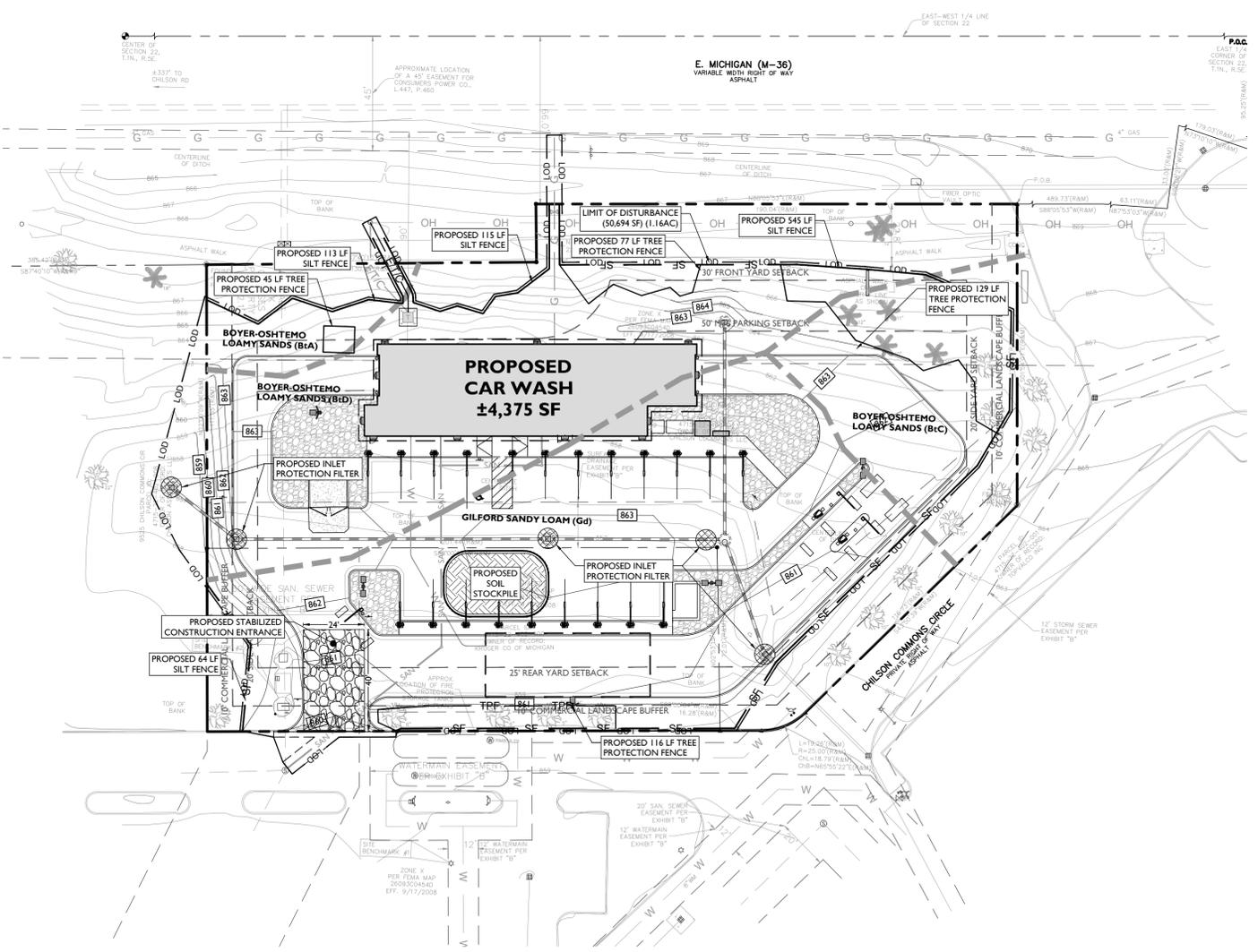
STONEFIELD
engineering & design

SCALE: 1" = 30' PROJECT ID: DET-240177

TITLE:
LIGHTING PLAN

DRAWING:
C-8

V:\01301045\240171\EROP.LLC - 5586 E M36, HAMBURG TOWNSHIP, MICHIGAN\240171\EROP.dwg



SYMBOL	DESCRIPTION
	PROPERTY BOUNDARY
	PROPOSED LIMIT OF DISTURBANCE
	PROPOSED SILT FENCE
	PROPOSED TREE PROTECTION FENCE
	PROPOSED STOCKPILE & EQUIPMENT STORAGE
	PROPOSED STABILIZED CONSTRUCTION ENTRANCE
	PROPOSED INLET PROTECTION FILTER

SOIL EROSION AND SEDIMENT CONTROL NOTES

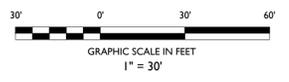
1. THE CONTRACTOR IS RESPONSIBLE FOR SOIL EROSION AND SEDIMENT CONTROL IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS.
2. THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL IN COMPLIANCE WITH LOCAL, STATE, AND FEDERAL AIR QUALITY STANDARDS.
3. THE CONTRACTOR IS RESPONSIBLE TO INSPECT ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES WEEKLY AND AFTER A PRECIPITATION EVENT GREATER THAN 1 INCH. THE CONTRACTOR SHALL MAINTAIN AN INSPECTION LOG ON SITE AND DOCUMENT CORRECTIVE ACTION TAKEN THROUGHOUT THE COURSE OF CONSTRUCTION AS REQUIRED.

SOIL CHARACTERISTICS CHART	
TYPE OF SOIL	BOYER-OSHTEMO LOAMY SANDS (BtA)
PERCENT OF SITE COVERAGE	7.6%
HYDROLOGIC SOIL GROUP	B
DEPTH TO RESTRICTIVE LAYER	> 80 INCHES
SOIL PERMEABILITY	0.60 TO 2.00 IN / HR
DEPTH TO WATER TABLE	> 80 INCHES

SOIL CHARACTERISTICS CHART	
TYPE OF SOIL	BOYER-OSHTEMO LOAMY SANDS (BtC)
PERCENT OF SITE COVERAGE	16.1%
HYDROLOGIC SOIL GROUP	B
DEPTH TO RESTRICTIVE LAYER	> 80 INCHES
SOIL PERMEABILITY	0.60 TO 2.00 IN / HR
DEPTH TO WATER TABLE	> 80 INCHES

SOIL CHARACTERISTICS CHART	
TYPE OF SOIL	BOYER-OSHTEMO LOAMY SANDS (BtD)
PERCENT OF SITE COVERAGE	32.5%
HYDROLOGIC SOIL GROUP	B
DEPTH TO RESTRICTIVE LAYER	> 80 INCHES
SOIL PERMEABILITY	0.60 TO 2.00 IN / HR
DEPTH TO WATER TABLE	> 80 INCHES

SOIL CHARACTERISTICS CHART	
TYPE OF SOIL	GILFORD SANDY LOAM (Gg)
PERCENT OF SITE COVERAGE	43.8%
HYDROLOGIC SOIL GROUP	A/D
DEPTH TO RESTRICTIVE LAYER	> 80 INCHES
SOIL PERMEABILITY	0.14 TO 14.17 IN / HR
DEPTH TO WATER TABLE	0 INCHES



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1	01/23/2024	JSEH	FOR SITE PLAN & SPECIAL USE PERMIT APPROVAL

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STONEFIELD
engineering & design

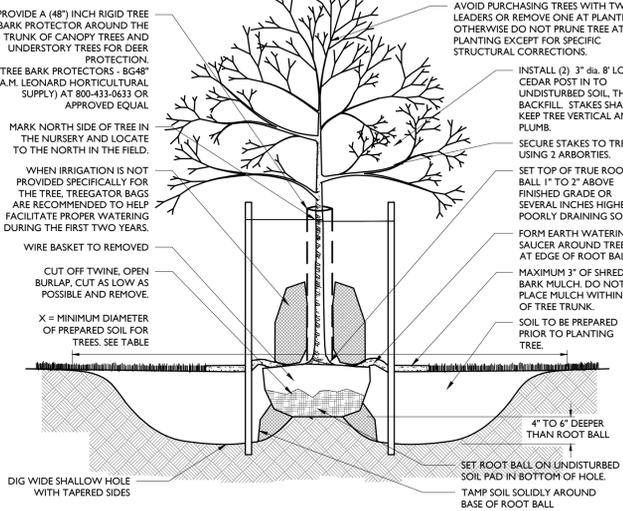
SCALE: 1" = 30' PROJECT ID: DET-240177

TITLE:
SOIL EROSION & SEDIMENT CONTROL PLAN

DRAWING:
C-9

NOTES:

- FOR CONTAINER-GROWN TREES, USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OF THE CONTAINER.
- THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
- SOIL AMENDMENTS:
 - MODIFY HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) OR GYPSUM
 - MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX

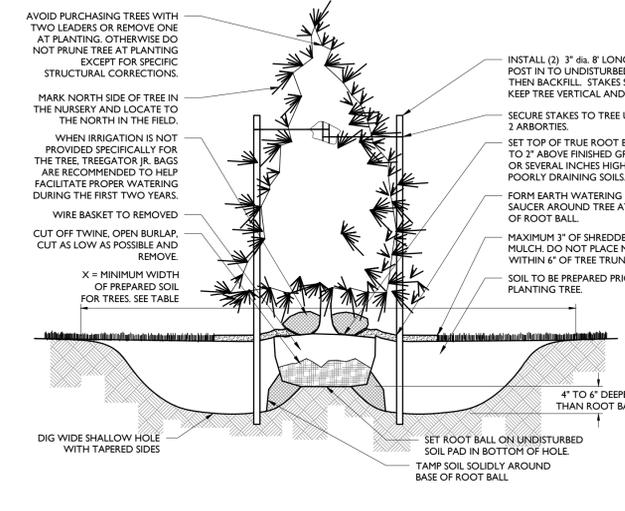


DECIDUOUS TREE PLANTING DETAIL

NOT TO SCALE

NOTES:

- FOR CONTAINER-GROWN TREES, USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OF THE CONTAINER.
- THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
- SOIL AMENDMENTS:
 - MODIFY HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) OR GYPSUM
 - MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX

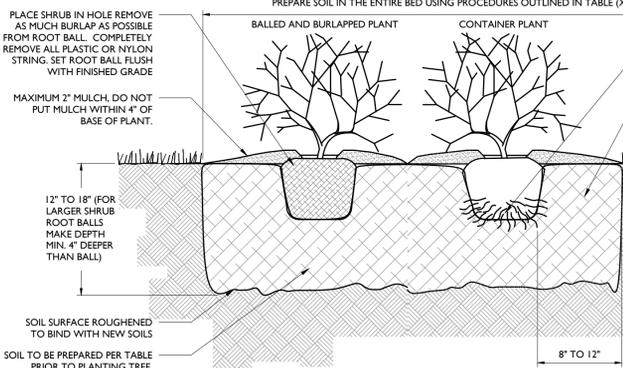


CONIFEROUS TREE PLANTING DETAIL

NOT TO SCALE

NOTES:

- FOR THE CONTAINER-GROWN SHRUBS, USE FINGERS OR SMALL HAND TOOL TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OF THE CONTAINER.
- THOROUGHLY SOAK THE SHRUB ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
- SOIL AMENDMENTS:
 - MODIFY HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) OR GYPSUM
 - MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX

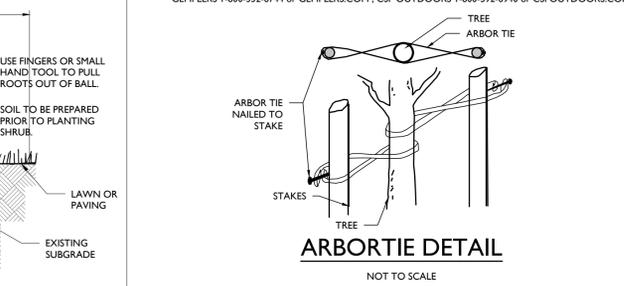


DECIDUOUS AND EVERGREEN SHRUB PLANTING DETAIL

NOT TO SCALE

INSTALLATION GUIDELINES:

- LOOP TIE AROUND TREE AND NAIL TO CEDAR STAKE.
- REMOVE ALL STAKING AND TIES AT END OF FIRST GROWING SEASON.
- FOLD ENDS OF ARBORTIE BACK, SECURE TO STAKES WITH 1" GALVANIZED ROOFING NAIL OR USE A KNOT.
- CONSULT LANDSCAPE ARCHITECT FOR STAKING OF TREES LARGER THAN 6".
- SOURCES INCLUDE:
 - GEIPLERS - 1-800-332-6744 OR GEIPLERS.COM ; CSP OUTDOORS - 1-800-592-6940 OR CSPOUTDOORS.COM

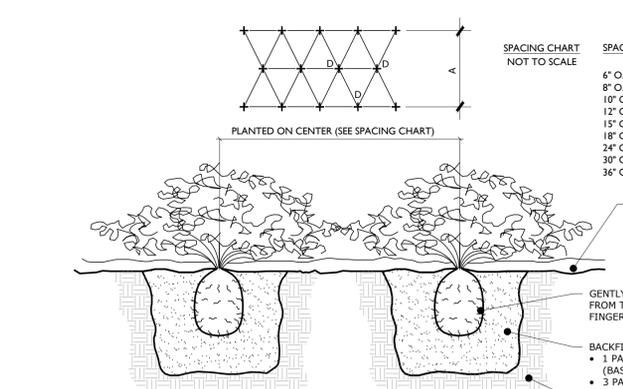


ARBORTIE DETAIL

NOT TO SCALE

NOTES:

- THOROUGHLY SOAK THE GROUND COVER ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
- SOIL AMENDMENTS:
 - MODIFY HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) OR GYPSUM
 - MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX
- ALL GROUND COVER AREAS SHALL BE TREATED WITH A PRE-EMERGENT PER MANUFACTURER'S SPECIFICATIONS

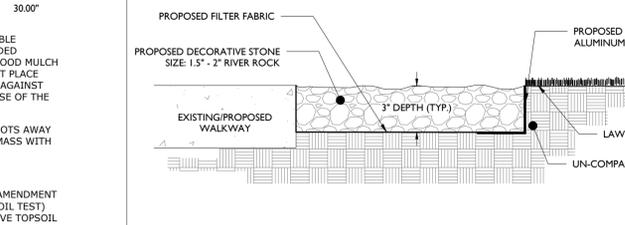


GROUND COVER/PERENNIAL/ANNUAL PLANTING DETAIL

NOT TO SCALE

PROPOSED ANGULAR DECORATIVE STONE

OR APPROVED EQUAL



PROPOSED ANGULAR DECORATIVE STONE DETAIL

NOT TO SCALE

GENERAL LANDSCAPING NOTES:

- THE LANDSCAPE CONTRACTOR SHALL FURNISH ALL MATERIALS AND PERFORM ALL WORK IN ACCORDANCE WITH THESE SPECIFICATIONS, APPROVED OR FINAL DRAWINGS, AND INSTRUCTIONS PROVIDED BY THE PROJECT LANDSCAPE DESIGNER, MUNICIPAL OFFICIALS, OR OWNER/OWNER'S REPRESENTATIVE. ALL WORK COMPLETED AND MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH THE INTENT OF THE SPECIFICATIONS, DRAWINGS, AND INSTRUCTIONS AND EXECUTED WITH THE STANDARD LEVEL OF CARE FOR THE LANDSCAPE INDUSTRY.
- WORK MUST BE CARRIED OUT ONLY DURING WEATHER CONDITIONS FAVORABLE TO LANDSCAPE CONSTRUCTION AND TO THE HEALTH AND WELFARE OF PLANTS. THE SUITABILITY OF SUCH WEATHER CONDITIONS SHALL BE DETERMINED BY THE PROJECT LANDSCAPE DESIGNER OR GOVERNING MUNICIPAL OFFICIAL.
- IT IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR, BEFORE ORDERING OR PURCHASING MATERIALS, TO PROVIDE SAMPLES OF THOSE MATERIALS TO THE PROJECT LANDSCAPE DESIGNER OR GOVERNING MUNICIPAL OFFICIAL FOR APPROVAL, IF SO REQUESTED.
- IF SAMPLES ARE REQUESTED, THE LANDSCAPE CONTRACTOR IS TO SUBMIT CERTIFICATION TAGS FROM TREES, SHRUBS, AND SEED VERIFYING TYPE AND PURITY.
- UNLESS OTHERWISE AUTHORIZED BY THE PROJECT LANDSCAPE DESIGNER OR GOVERNING MUNICIPAL OFFICIAL, THE LANDSCAPE CONTRACTOR SHALL PROVIDE NOTICE AT LEAST FORTY-EIGHT HOURS (48 HRS.) IN ADVANCE OF THE ANTICIPATED DELIVERY DATE TO THE PROJECT SITE. A LEGIBLE COPY OF THE INVOICE, SHOWING VARIETIES AND SIZES OF MATERIALS INCLUDED FOR EACH SHIPMENT SHALL BE FURNISHED TO THE PROJECT LANDSCAPE DESIGNER, OR GOVERNING MUNICIPAL OFFICIAL.
- THE PROJECT LANDSCAPE DESIGNER OR GOVERNING MUNICIPAL OFFICIAL RESERVES THE RIGHT TO INSPECT AND REJECT PLANTS AT ANY TIME AND AT ANY PLACE.

PROTECTION OF EXISTING VEGETATION NOTES:

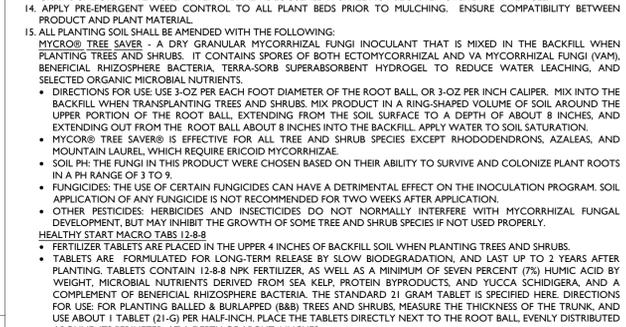
- BEFORE COMMENCING WORK, ALL EXISTING VEGETATION WHICH COULD BE IMPACTED AS A RESULT OF THE PROPOSED CONSTRUCTION ACTIVITIES MUST BE PROTECTED FROM DAMAGE BY THE INSTALLATION OF TREE PROTECTION FENCING. FENCING SHALL BE LOCATED AT THE DRIP-LINE OR LIMIT OF DISTURBANCE AS DEPICTED WITHIN THE APPROVED OR FINAL PLAN SET, ESTABLISHING THE TREE PROTECTION ZONE. FENCE INSTALLATION SHALL BE IN ACCORDANCE WITH THE TREE PROTECTION FENCING MANUAL. NO WORK MAY BEGIN UNTIL THIS REQUIREMENT IS FULFILLED. THE FENCING SHALL BE INSPECTED REGULARLY BY THE LANDSCAPE CONTRACTOR AND MAINTAINED UNTIL ALL CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.
- IN ORDER TO AVOID DAMAGE TO ROOTS, BARK OR LOWER BRANCHES, NO VEHICLE EQUIPMENT, DEBRIS, OR OTHER MATERIALS SHALL BE DRIVEN, PARKED OR PLACED WITHIN THE TREE PROTECTION ZONE. ALL ON-SITE CONTRACTORS SHALL USE ANY AND ALL PRECAUTIONARY MEASURES WHEN PERFORMING WORK AROUND TREES, WALKS, PAVEMENTS, UTILITIES, AND ANY OTHER FEATURES EITHER EXISTING OR PREVIOUSLY INSTALLED UNDER THIS CONTRACT.
- IN RARE INSTANCES WHERE EXCAVATING, FILL, OR GRADING IS REQUIRED WITHIN THE DRIP-LINE OF TREES TO REMAIN, THE WORK SHALL BE PERFORMED AS FOLLOWS:
 - TRENCHING WHEN TRENCHING OCCURS AROUND TREES TO REMAIN, THE TREE ROOTS SHALL NOT BE CUT, BUT THE TRENCH SHALL BE TUNNELLED UNDER OR AROUND THE ROOTS BY CAREFUL HAND DIGGING AND WITHOUT INJURY TO THE ROOTS. NO ROOTS, LIMBS OR WOODS ARE TO HAVE ANY PAINT OR MATERIAL APPLIED TO ANY SURFACE.
 - RAISING GRADES: WHEN THE GRADE AT AN EXISTING TREE IS BELOW THE NEW FINISHED GRADE, AND FILL NOT EXCEEDING 6 INCHES (6") IS REQUIRED, CLEAN, WASHED GRAVEL FROM ONE TO TWO INCHES (1" - 2") IN SIZE SHALL BE PLACED DIRECTLY AROUND THE TREE TRUNK. THE GRAVEL SHALL EXTEND OUT FROM THE TRUNK ON ALL SIDES A MINIMUM OF 18 INCHES (18") TO 24 INCHES (24") ABOVE THE FINISH GRADE AT TREE. INSTALLED MATERIAL SHALL BE GRAVEL BEFORE ANY EARTH FILL IS PLACED. NEW EARTH FILL SHALL NOT BE LEFT IN CONTACT WITH THE TRUNK OF ANY TREE REQUIRING FILL. WHERE FILL EXCEEDING 6 INCHES (6") IS REQUIRED, A DRY LAID TREE WELL SHALL BE CONSTRUCTED. IF APPLICABLE, TREE WELL INSTALLATION SHALL BE IN ACCORDANCE WITH THE PROVIDED "TREE WELL DETAIL."
 - LOWERING GRADES: EXISTING GRADES LOCATED IN AREAS WHERE THE NEW FINISHED GRADE IS TO BE LOWERED, SHALL HAVE RE-GRADING WORK DONE BY HAND TO THE INDICATED ELEVATION, NO GREATER THAN SIX INCHES (6"). ROOTS SHALL BE CUT CLEANLY THREE INCHES (3") BELOW FINISHED GRADE UNDER THE DIRECTION OF A LICENSED ARBORIST. WHERE CUT EXCEEDING 6 INCHES (6") IS REQUIRED, A DRY LAID RETAINING WALL SHALL BE CONSTRUCTED. IF APPLICABLE, THE RETAINING WALL INSTALLATION SHALL BE IN ACCORDANCE WITH THE PROVIDED "TREE RETAINING WALL DETAIL."

SOIL PREPARATION AND MULCH NOTES:

- LANDSCAPE CONTRACTOR SHALL OBTAIN A SOIL TEST OF THE IN-SITU TOPSOIL BY A CERTIFIED SOIL LABORATORY PRIOR TO PLANTING. LANDSCAPE CONTRACTOR SHALL ALLOW FOR A TWO WEEK TURNAROUND TIME FROM SUBMITTAL OF SAMPLE TO NOTIFICATION OF RESULTS.
- BASED ON SOIL TEST RESULTS, ADJUST THE RATES OF LIME AND FERTILIZER THAT SHALL BE MIXED INTO THE TOP SIX INCHES (6") OF TOPSOIL. THE LIME AND FERTILIZER RATES PROVIDED IN THIS SPECIFICATION ARE APPROXIMATE AND FOR BIDDING PURPOSES ONLY. IF ADDITIONAL AMENDMENTS ARE NECESSARY, ADJUST THE TOPSOIL AS FOLLOWS:
 - MODIFY HEAVY CLAY OR SILT SOILS (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) OR GYPSUM
 - MODIFY EXTREMELY SANDY SOILS (MORE THAN 85% SAND) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.
- TOPSOIL SHALL BE FERTILE, FRIABLE, NATURAL, TOPSOIL OF LOAMING CHARACTER, WITHOUT ADMIXTURE OF SUBSOIL MATERIAL OBTAINED FROM A WELLDRAINED ARABLE SITE, FREE FROM CLAY, LUMPS, COARSE SAND, STONES, PEBBLES, ROOTS, STICKS, AND OTHER FOREIGN MATERIAL GREATER THAN ONE INCH (1").
- TOPSOIL SHALL HAVE A PH RANGE OF 5.0-7.0 AND SHALL NOT CONTAIN LESS THAN 6% ORGANIC MATTER BY WEIGHT.
- OBTAIN TOPSOIL ONLY FROM LOCAL SOURCES OR FROM AREAS HAVING SIMILAR SOIL CHARACTERISTICS TO THAT FOUND AT THE PROJECT SITE.
- CONTRACTOR SHALL PROVIDE A SIX INCH (6") DEEP LAYER OF TOPSOIL IN ALL PLANTING AREAS. TOPSOIL SHALL BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO ACHIEVE THE DESIRED COMPACTED THICKNESS. THE SPREADING OF TOPSOIL SHALL NOT BE CONDUCTED UNDER MUDDY OR FROZEN SOIL CONDITIONS.
- UNLESS OTHERWISE NOTED IN THE CONTRACT, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF TOPSOIL AND THE ESTABLISHMENT OF FINE GRADING WITHIN THE DISTURBED AREA OF THE SITE.
- LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE SUB-GRADE ELEVATION MEETS THE FINISHED GRADE ELEVATION (LESS THE REQUIRED TOPSOIL), IN ACCORDANCE WITH THE APPROVED OR FINAL GRADING PLAN.
- ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE AS DEPICTED WITHIN THE APPROVED OR FINAL CONSTRUCTION SET UNLESS OTHERWISE DIRECTED BY THE PROJECT LANDSCAPE DESIGNER OR MUNICIPAL OFFICIAL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER SURFACE AND SUBSURFACE PLANT BED DRAINAGE PRIOR TO THE INSTALLATION OF PLANTINGS. IF POOR DRAINAGE CONDITIONS EXIST, CORRECTIVE ACTION SHALL BE TAKEN PRIOR TO INSTALLATION. ALL PLANTING AND LAWN AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW A FREE FLOW OF SURFACE WATER.
- DOUBLE SHREDDED HARDWOOD MULCH OR APPROVED EQUAL SHALL BE USED AS A THREE INCH (3") TOP DRESSING IN ALL SHRUB PLANTING BEDS AND AROUND ALL TREES PLANTED BY LANDSCAPE CONTRACTOR, GROUND COVER, PERENNIAL, AND ANNUAL PLANTING BEDS SHALL BE MULCHED WITH A TWO INCH (2") TOP DRESSING. SINGLE TREES OR SHRUBS SHALL BE MULCHED TO AVOID CONTACT WITH TRUNK OR PLANT STEM. MULCH SHALL BE OF SUFFICIENT CHARACTER AS NOT TO BE EASILY DISPLACED BY WIND OR WATER RUNOFF.
- WHENEVER POSSIBLE, THE SOIL PREPARATION AREA SHALL BE CONNECTED FROM PLANTING TO PLANTING.
- SOIL SHALL BE LOOSENED WITH A BACKHOE OR OTHER LARGE COARSE-TILING EQUIPMENT UNLESS THE SOIL IS FROZEN OR EXCESSIVELY WET. TILING THAT PRODUCES LARGE, COARSE CHUNKS OF SOIL IS PREFERABLE TO TILING THAT RESULTS IN FINE GRAINS UNIFORM IN TEXTURE. AFTER THE AREA IS LOOSENED IT SHALL NOT BE DRIVEN OVER BY ANY VEHICLE.
- APPLY PRE-EMERGENT WEED CONTROL TO ALL PLANT BEDS PRIOR TO MULCHING. ENSURE COMPATIBILITY BETWEEN PRODUCT AND PLANT MATERIAL.
- ALL PLANTING SOIL SHALL BE AMENDED WITH THE FOLLOWING:
 - MYCORRHIZAL TREE SAVER - A DRY GRANULAR MYCORRHIZAL FUNGI INOCULANT THAT IS MIXED IN THE BACKFILL WHEN PLANTING TREES AND SHRUBS. IT CONTAINS SPORES OF BOTH ECTOMYCORRHIZAL AND VA MYCORRHIZAL FUNGI (VAM), BENEFICIAL RHIZOSPHERE BACTERIA, TERRA-SORB SUPERABSORBENT HYDROGEL TO REDUCE WATER LEACHING, AND SELECTED ORGANIC MICROBIAL NUTRIENTS.
 - DIRECTIONS FOR USE: USE 3-OZ PER EACH FOOT DIAMETER OF THE ROOT BALL OR 3-OZ PER INCH CALIPER. MIX INTO THE BACKFILL WHEN TRANSPLANTING TREES AND SHRUBS. MIX PRODUCT IN A RING-SHAPED VOLUME OF SOIL AROUND THE UPPER PORTION OF THE ROOT BALL, EXTENDING FROM THE SOIL SURFACE TO A DEPTH OF ABOUT 8 INCHES, AND EXTENDING OUT FROM THE ROOT BALL ABOUT 8 INCHES INTO THE BACKFILL. APPLY WATER TO SOIL SATURATION.
 - MYCORRHIZAL TREE SAVER IS EFFECTIVE FOR ALL TREE AND SHRUB SPECIES EXCEPT RHODODENDRONS, AZALEAS, AND MOUNTAIN LAUREL, WHICH REQUIRE ENCOID MYCORRHIZAE.
 - SOIL PH: THE FUNGI IN THIS PRODUCT WERE CHOSEN BASED ON THEIR ABILITY TO SURVIVE AND COLONIZE PLANT ROOTS IN A PH RANGE OF 3 TO 9.
 - FUNGICIDES: THE USE OF CERTAIN FUNGICIDES CAN HAVE A DETRIMENTAL EFFECT ON THE INOCULATION PROGRAM. SOIL APPLICATION OF ANY FUNGICIDE IS NOT RECOMMENDED FOR TWO WEEKS AFTER APPLICATION.
 - OTHER PESTICIDES: HERBICIDES AND INSECTICIDES DO NOT NORMALLY INTERFERE WITH MYCORRHIZAL FUNGAL DEVELOPMENT, BUT MAY INHIBIT THE GROWTH OF SOME TREE AND SHRUB SPECIES IF NOT USED PROPERLY.
 - HEALTHY START MACRO TABS 12-8-8
 - FERTILIZER TABLETS ARE PLACED IN THE UPPER 4 INCHES OF BACKFILL SOIL WHEN PLANTING TREES AND SHRUBS.
 - TABLETS ARE FORMULATED FOR LONG-TERM RELEASE BY SLOW BIODEGRADATION, AND LAST UP TO 2 YEARS AFTER PLANTING. TABLETS CONTAIN 12-8-8 NPK FERTILIZER, AS WELL AS A MINIMUM OF SEVEN PERCENT (7%) HUMIC ACID BY WEIGHT. MICROBIAL NUTRIENTS DERIVED FROM SEA KUDZU, PROTEIN BY-PRODUCTS, AND YUCCA SCHIDIGERA, AND A COMPLEMENT OF BENEFICIAL RHIZOSPHERE BACTERIA. THE STANDARD 21 GRAM TABLET IS SPECIFIED HERE. DIRECTIONS FOR USE: FOR PLANTING BALLED & BURGLAPPED (BB&B) TREES AND SHRUBS, MEASURE THE THICKNESS OF THE TRUNK, AND USE ABOUT 1 TABLET (21-G) PER HALF-INCH. PLACE THE TABLETS DIRECTLY NEXT TO THE ROOT BALL, EVENLY DISTRIBUTED AROUND ITS PERIMETER, AT A DEPTH OF ABOUT 4 INCHES.

LANDSCAPE FILTER FABRIC

OR APPROVED EQUAL



LANDSCAPE FILTER FABRIC

OR APPROVED EQUAL



LANDSCAPE FILTER FABRIC

OR APPROVED EQUAL

PLANT MATERIAL AND HANDLING NOTES:

- ALL PLANT QUALITY SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2004) OR LATEST REVISION AS PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.
- IN ALL CASES, BOTANICAL NAMES LISTED WITHIN THE APPROVED OR FINAL PLANT LIST SHALL TAKE PRECEDENCE OVER COMMON NAMES.
- ALL PLANTS SHALL BE OF SELECTED SPECIMEN QUALITY, EXCEPTIONALLY HEALTHY, TIGHTLY KNIT, SO TRAINED OR FAVORED IN THEIR DEVELOPMENT AND APPEARANCE AS TO BE SUPERIOR IN FORM, NUMBER OF BRANCHES, COMPACTNESS AND SYMMETRY. ALL PLANTS SHALL HAVE A NORMAL HABIT OR SOUND, HEALTHY, VIGOROUS PLANTS WITH WELL DEVELOPED ROOT SYSTEM.
- PLANTS SHALL NOT BE PRUNED BEFORE DELIVERY. TREES WITH ABRASION OF THE BARK, SUNSCALDS, DISFIGURING KNOTS OR FRESH CUTS OF LIMBS OVER ONE AND ONE-FOURTH INCHES (1-1/4") WHICH HAVE NOT COMPLETELY CALLOUSED SHALL BE REJECTED.
- ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF GROWTH AND BE LEGIBLY TAGGED WITH THE PROPER NAME AND SIZE.
- THE ROOT SYSTEM OF EACH PLANT SHALL BE WELL PROVIDED WITH FIBROUS ROOTS. ALL PARTS SHALL BE SOUND, HEALTHY, VIGOROUS, WELL-BRANCHED AND DENSELY FOLIATED WHEN IN LEAF.
- ALL PLANTS INCLUDING BALLED AND BURGLAPPED (BB&B) MUST BE MOVED WITH THE ROOT SYSTEM AS SOLID UNITS WITH BALLS OF EARTH FIRMLY WRAPPED WITH BURGLAP. THE DIAMETER AND DEPTH OF THE BALLS OF EARTH MUST BE SUFFICIENT TO ENCOMPASS THE FIBROUS ROOT FEEDING SYSTEMS NECESSARY FOR THE HEALTHY DEVELOPMENT OF THE PLANT. NO PLANT SHALL BE ACCEPTED WHEN THE BALL OF EARTH SURROUNDING ITS ROOTS HAS BEEN BADLY CRACKED OR BROKEN. PLANTS THAT CANNOT BE PLANTED AT ONCE MUST BE HEALED-IN BY SETTING IN THE GROUND AND COVERING THE BALLS WITH SOIL OR MULCH AND THEN WATERING. HEMP BURGLAP AND TWINE IS PREFERABLE TO TREATED. IF TREATED BURGLAP IS USED, ALL TWINE IS TO BE CUT FROM AROUND THE TRUNK AND ALL BURGLAP IS TO BE REMOVED.
- PLANTS TRANSPORTED TO THE PROJECT IN OPEN VEHICLES SHALL BE COVERED WITH TARPS OR OTHER SUITABLE COVERS SECURELY FASTENED TO THE BODY OF THE VEHICLE TO PREVENT INJURY TO THE PLANTS. CLOSED VEHICLES SHALL BE ADEQUATELY VENTILATED TO PREVENT OVERHEATING OF THE PLANTS. EVIDENCE OF INADEQUATE PROTECTION FOLLOWING DELIVERY, CARELESS HANDLING OR STORAGE SHALL BE CAUSE FOR REJECTION OF PLANT MATERIAL. ALL PLANTS SHALL BE KEPT MOIST, FRESH, AND PROTECTED. SUCH PROTECTION SHALL ENCOMPASS THE ENTIRE PERIOD DURING WHICH THE PLANTS ARE IN TRANSIT, BEING HANDLED, OR ARE IN TEMPORARY STORAGE.
- ALL PLANT MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH THE CORRESPONDING LANDSCAPE PLAN AND PLANTING SCHEDULE.
- LANDSCAPE CONTRACTOR SHALL MAKE BEST EFFORT TO INSTALL PLANTINGS ON THE SAME DAY AS DELIVERY. IF PLANTS ARE NOT PLANTED IMMEDIATELY ON SITE, PROPER CARE SHALL BE TAKEN TO PLACE THE PLANTINGS IN PARTIAL SHADE WHEN POSSIBLE. THE ROOT BALL SHALL BE KEPT MOIST AT ALL TIME AND COVERED WITH MOISTENED MULCH OR AGED WOODCHIPS. PROPER IRRIGATION SHALL BE PROVIDED TO KEEP THE ROOT BALLS MOIST. PLANTS THAT ARE NOT PLANTED IMMEDIATELY SHALL BE UNTIED AND PROPER SPACING SHALL BE ALLOWED FOR AIR CIRCULATION AND TO PREVENT DISEASE, WILTING, AND LEAF LOSS. PLANTS THAT REMAIN UNPLANTED FOR A PERIOD OF TIME GREATER THAN THREE (3) DAYS SHALL BE HEALED IN WITH TOPSOIL OR MULCH AND WATERED AS REQUIRED TO PRESERVE ROOT MOISTURE.
- NO PLANT MATERIAL SHALL BE PLANTED IN MUDDY OR FROZEN SOIL.
- PLANTS WITH INJURED ROOTS OR BRANCHES SHALL BE PRUNED PRIOR TO PLANTING UTILIZING CLEAN, SHARP TOOLS. ONLY DISEASED OR INJURED PLANTS SHALL BE REMOVED.
- IF ROCK OR OTHER UNDERGROUND OBSTRUCTION IS ENCOUNTERED, THE LANDSCAPE DESIGNER RESERVES THE RIGHT TO RELOCATE OR ENLARGE PLANTINGS TO AVOID OBSTRUCTION. PLANTINGS SHALL BE MAINTAINED TO A HEIGHT OF EIGHT FEET (8') ABOVE GRADE, AND SHRUBS, GROUND COVER, PERENNIALS, AND ANNUALS SHALL BE MAINTAINED TO A HEIGHT NOT TO EXCEED TWO FEET (2') ABOVE GRADE UNLESS OTHERWISE NOTED OR SPECIFIED BY THE GOVERNING MUNICIPALITY OR AGENCY.
- INSTALLATION SHALL OCCUR DURING THE FOLLOWING SEASONS:
 - LAWNS (MARCH 15 - JUNE 15 OR SEPTEMBER 1 - DECEMBER 1)
 - THE FOLLOWING TREES ARE SUSCEPTIBLE TO TRANSPLANT SHOCK AND SHALL NOT BE PLANTED DURING THE FALL SEASON (STARTING SEPTEMBER 15):
 - ABIES CONCOLOR
 - ACER BUEGERIANUM
 - ACER FRIESELII
 - ACER RUBRUM
 - ACER SACCHARINUM
 - BETULA VARIETIES
 - CARPINUS VARIETIES
 - CERUS DEODARA
 - CELTIS VARIETIES
 - CERCIDIPHYLLUM VARIETIES
 - CERUS CANADENSIS
 - CORNUS VARIETIES
 - CRATAEGUS VARIETIES
 - CORNUS VARIETIES
 - CRATAEGUS VARIETIES
 - NYSSA SYLVATICA
 - OSTRYA VIRGINIANA
 - PISTIA NIGRA
 - PLATANUS VARIETIES
 - POPULUS VARIETIES
 - PRUNUS VARIETIES
 - PYRUS VARIETIES
 - QUERCUS VARIETIES (NOT Q. PALUSTRIS)
 - SALIX WEEPING VARIETIES
 - SORBUS VARIETIES
 - TAXODIUM VARIETIES
 - TAXUS VARIETIES
 - TILIA TOMENTOSA VARIETIES
 - ULMUS PARVIFOLIA VARIETIES
 - ZELKOVA VARIETIES
- IF A PROPOSED PLANT IS UNAVAILABLE OR ON THE LOCAL DIGGING HAZARD LIST, AN EQUIVALENT SPECIES OF THE SAME SIZE MAY BE REQUESTED FOR SUBSTITUTION OF THE ORIGINAL PLANT. ALL SUBSTITUTIONS SHALL BE APPROVED BY THE PROJECT LANDSCAPE DESIGNER OR MUNICIPAL OFFICIAL PRIOR TO ORDERING AND INSTALLATION.
- DURING THE COURSE OF CONSTRUCTION/PLANT INSTALLATION, EXCESS AND WASTE MATERIALS SHALL BE CONTINUOUSLY AND PROMPTLY REMOVED AT THE END OF EACH WORK DAY. ALL DEBRIS, MATERIALS, AND TOOLS SHALL BE PROPERLY STORED, STOCKPILED OR DISPOSED OF AND ALL PAVED AREAS SHALL BE CLEANED.
- THE LANDSCAPE CONTRACTOR SHALL DISPOSE OF ALL RUBBISH AND EXCESS SOIL AT HIS EXPENSE TO AN OFF-SITE LOCATION AS APPROVED BY THE LOCAL MUNICIPALITY.
- A 90-DAY MAINTENANCE PERIOD SHALL BEGIN IMMEDIATELY AFTER ALL PLANTS HAVE BEEN SATISFACTORILY INSTALLED. MAINTENANCE SHALL INCLUDE BUT NOT BE LIMITED TO: REPLACING MULCH THAT HAS BEEN DISPLACED BY EROSION OR OTHER MEANS, REPAIRING AND RESHAPING WATER RINGS OR SAUCERS, MAINTAINING STAKES AND GUY'S IF ORIGINALLY REQUIRED, WATERING WHEN NEEDED OR DIRECTED, WEEDING, PRUNING, SPRAYING, FERTILIZING, MOWING THE LAWN, AND PERFORMING ANY OTHER WORK REQUIRED TO KEEP THE PLANTS IN A HEALTHY CONDITION.
- SHOW ALL GRASS AREAS TO BE SEED. THE GRASS HEIGHT PROTECTED SHALL BE THREE INCHES (3"). MOWING SHALL BE PERFORMED ONLY WHEN GRASS IS DRY. MOWER BLADE SHALL BE SET TO REMOVE NO MORE THAN ONE THIRD (1/3) OF THE GRASS LENGTH. WHEN THE AMOUNT OF GRASS IS HEAVY, IT SHALL BE REMOVED TO PREVENT DESTRUCTION OF THE UNDERLYING TURF. MOW GRASS AREAS IN SUCH A MANNER AS TO PREVENT CLIPPINGS FROM BLOWING ON PAVED AREAS, AND SIDEWALKS. CLEAN MOWING SHALL INCLUDE SWEEPING OR BLOWING OF PAVED AREAS AND SIDEWALKS TO CLEAR THEM FROM MOWING DEBRIS.
- GRASSED AREAS DAMAGED DURING THE PROCESS OF THE WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, WHO SHALL RESTORE THE DISTURBED AREAS TO A CONDITION SATISFACTORY TO THE PROJECT LANDSCAPE DESIGNER, MUNICIPAL OFFICIAL, OR OWNER/OWNER'S REPRESENTATIVE. THIS MAY INCLUDE FILLING TO GRADE, FERTILIZING, SEEDING, AND MULCHING.
- SHOULD THE OWNER REQUIRE MAINTENANCE BEYOND THE STANDARD 90-DAY MAINTENANCE PERIOD, A SEPARATE CONTRACT SHALL BE ESTABLISHED.
- LANDSCAPE CONTRACTOR SHALL WATER NEW PLANTINGS FROM TIME OF INSTALL AND THROUGHOUT REQUIRED 90-DAY MAINTENANCE PERIOD UNTIL PLANTS ARE ESTABLISHED. IF ON-SITE WATER IS NOT AVAILABLE AT THE PROJECT LOCATION, THE LANDSCAPE CONTRACTOR SHALL FURNISH IT BY MEANS OF A WATERING TRUCK OR OTHER ACCEPTABLE MANNER.
- THE QUANTITY OF WATER APPLIED AT ONE TIME SHALL BE SUFFICIENT TO PENETRATE THE SOIL TO A MINIMUM OF EIGHT INCHES (8") IN SHRUB BEDS AND SIX INCHES (6") IN TURF AREAS AT A RATE WHICH WILL PREVENT SATURATION OF THE SOIL.
- IF AN AUTOMATIC IRRIGATION SYSTEM HAS BEEN INSTALLED, IT CAN BE USED FOR WATERING PLANT MATERIAL. HOWEVER, FAILURE OF THE SYSTEM DOES NOT ELIMINATE THE LANDSCAPE CONTRACTOR'S RESPONSIBILITY OF PLANT HEALTH AND ESTABLISHMENT.

PLANT MATERIAL GUARANTEE NOTES:

- THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL FOR A PERIOD OF ONE (1) YEAR (1 YR.) FROM APPROVAL OF THE LANDSCAPE INSTALLATION BY THE PROJECT LANDSCAPE DESIGNER, MUNICIPAL OFFICIAL, OR OWNER/OWNER'S REPRESENTATIVE.
- THE LANDSCAPE CONTRACTOR SHALL REMOVE AND REPLACE DYING, DEAD, OR DEFECTIVE PLANT MATERIAL AT HIS EXPENSE. THE LANDSCAPE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ANY DAMAGES CAUSED BY HIS COMPANY'S OPERATIONS.
- ALL REPLACEMENT PLANTS SHALL BE OF THE SAME SPECIES AND SIZE AS SPECIFIED ON THE APPROVED OR FINAL PLANT LIST. REPLACEMENT SHALL BE OF THE SAME SIZE AS SPECIFIED ON THE APPROVED OR FINAL PLANT LIST. REPLACEMENT SHALL BE PERFORMED BY THE CONTRACTOR AT HIS EXPENSE. VANDALISM, PHYSICAL DAMAGE BY ANIMALS, VEHICLES, ETC., AND LOSSES DUE TO CURTAILMENT OF WATER BY LOCAL AUTHORITIES SHALL BE APPROVED AND PAID FOR BY THE OWNER.
- THE CONTRACTOR SHALL INSTRUCT THE OWNER AS TO THE PROPER CARE AND MAINTENANCE OF ALL PLANTINGS.

LAWN (SEED OR SOD) NOTES:

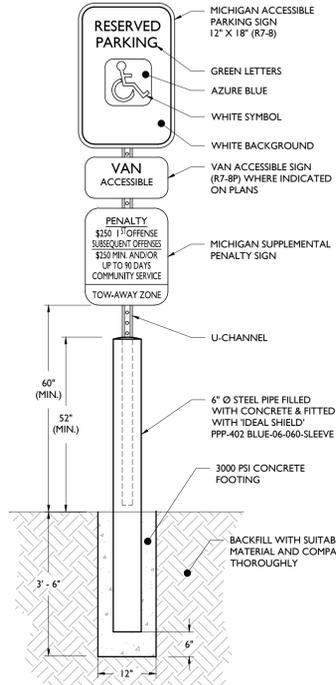
- SEED MIXTURE SHALL BE FRESH, CLEAN, NEW CROP SEED. SOD SHALL BE STRONGLY ROOTED, UNIFORM IN THICKNESS, AND FREE OF WEEDS, DISEASE, AND PESTS.
- SEED OR SOD SHALL BE PURCHASED FROM A RECOGNIZED DISTRIBUTOR AND SHALL BE COMPOSED OF THE MIX OR BLEND WITHIN THE PROVIDED "SEED SPECIFICATION" OR "SOD SPECIFICATION."
- REFERENCE LANDSCAPE PLAN FOR AREAS TO BE SEED OR LAID WITH SOD.
- SEEDING SHALL NOT BE PERFORMED IN WINDY WEATHER. IF THE SEASON OF THE PROJECT COMPLETION PROHIBITS PERMANENT STABILIZATION, TEMPORARY STABILIZATION SHALL BE PROVIDED IN ACCORDANCE WITH THE "TEMPORARY SEEDING SPECIFICATION"
- PROTECT NEW LAWN AREAS AGAINST TRESPASSING WHILE THE SEED IS GERMINATING. FURNISH AND INSTALL FENCES, SIGNS, BARRIERS OR ANY OTHER NECESSARY TEMPORARY PROTECTIVE DEVICES. DAMAGE RESULTING FROM TRESPASS, EROSION, WASHING, OR OTHER CAUSES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE. REMOVE ALL FENCES, SIGNS, BARRIERS OR OTHER TEMPORARY PROTECTIVE DEVICES ONCE LAWN HAS BEEN ESTABLISHED.

IRRIGATION DURING ESTABLISHMENT

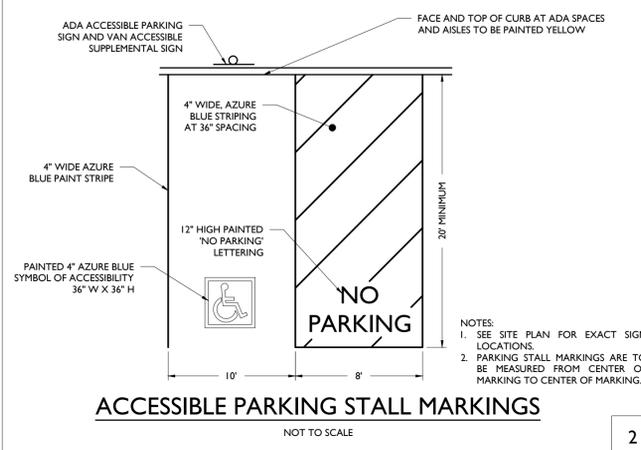
SIZE AT PLANTING	IRRIGATION FOR VITALITY	IRRIGATION FOR SURVIVAL
< 2" CALIPER	DAILY FOR TWO WEEKS, EVERY OTHER DAY FOR TWO MONTHS, WEEKLY UNTIL ESTABLISHED.	TWO TO THREE TIMES WEEKLY FOR TWO TO THREE MONTHS.
2"-4" CALIPER	DAILY FOR ONE MONTH, EVERY OTHER DAY FOR THREE MONTHS, WEEKLY UNTIL ESTABLISHED.	TWO TO THREE TIMES WEEKLY FOR THREE TO FOUR MONTHS.
4"-6" CALIPER	DAILY FOR SIX WEEKS, EVERY OTHER DAY FOR FIVE MONTHS, WEEKLY UNTIL ESTABLISHED.	TWICE WEEKLY FOR FOUR TO FIVE MONTHS.

TABLE NOTES:

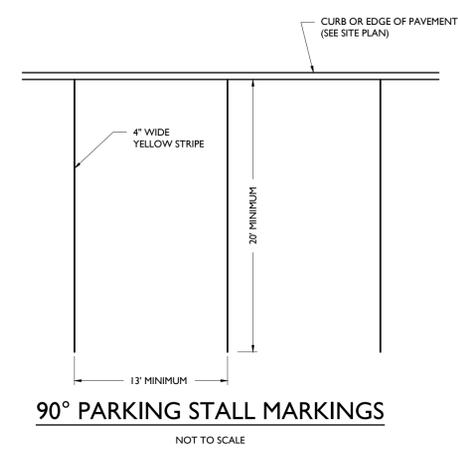
- AT EACH IRRIGATION, APPLY TWO TO THREE GALLONS PER INCH TRUNK CALIPER TO THE ROOT BALL SURFACE. APPLY IT IN A MANNER SO ALL WATER SOAKS THE ENTIRE ROOT BALL. DO NOT WATER IF ROOT BALL IS WETSATURATED ON THE IRRIGATION DAY.
- WHEN IRRIGATING FOR VITALITY, DELETE DAILY IRRIGATION WHEN PLANTING IN WINTER OR WHEN PLANTING IN COOL CLIMATES. ESTABLISHMENT TAKES THREE TO FOUR MONTHS PER INCH TRUNK CALIPER. NEVER APPLY IRRIGATION IF THE SOIL IS SATURATED.
- WHEN IRRIGATING FOR SURVIVAL, TREES TAKE MUCH LONGER TO ESTABL



ACCESSIBLE PARKING SIGN WITH BOLLARD DETAIL
NOT TO SCALE



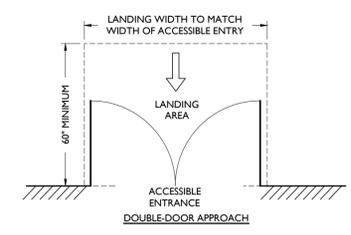
ACCESSIBLE PARKING STALL MARKINGS
NOT TO SCALE



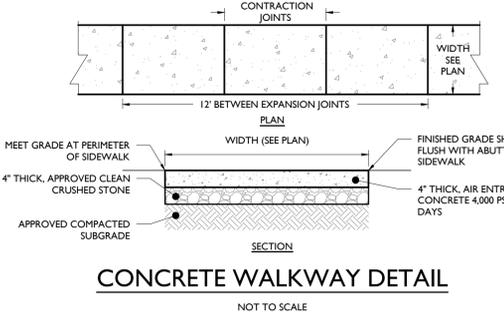
90° PARKING STALL MARKINGS
NOT TO SCALE

- PAVEMENT STRIPING & MARKINGS NOTES:**
1. ALL SIGNING AND STRIPING IN EXISTING CONDITION IN CONFLICT WITH THE PROPOSED DESIGN PLAN SHALL BE REMOVED.
 2. ALL PROPOSED SIGNING AND STRIPING SHALL CONFORM TO THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.
 3. PAVEMENT STRIPING AND MARKINGS SHALL BE INSTALLED IN CONFORMANCE WITH ALL APPLICABLE LOCAL, COUNTY AND STATE REQUIREMENTS.
 4. UNLESS OTHERWISE SPECIFIED, ALL STRIPING AND MARKINGS IN THE PUBLIC RIGHT-OF-WAY SHALL BE OF THERMOPLASTIC PAINT OR PREFORMED THERMOPLASTIC MARKINGS.
 5. UNLESS OTHERWISE SPECIFIED, ON SITE PARKING STALL STRIPING, FIRE LANE STRIPING AND DIRECTIONAL ARROWS SHALL BE EPOXY PAINT. ON SITE STOP BARS, "DO NOT ENTER" BARS, AND ASSOCIATED LETTERING SHALL BE THERMOPLASTIC PAINT OR PREFORMED THERMOPLASTIC MARKINGS.

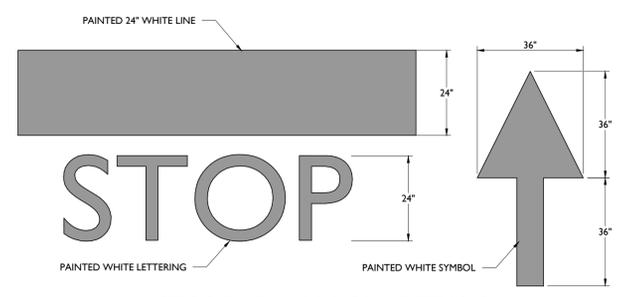
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ACCESSIBLE ENTRANCE LANDING DETAIL
NOT TO SCALE

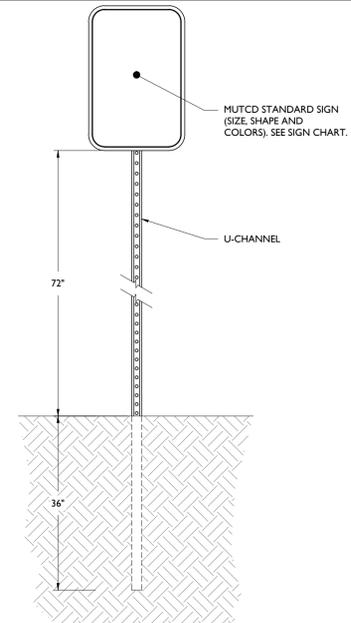


CONCRETE WALKWAY DETAIL
NOT TO SCALE



STOP BAR & ARROW DETAILS
NOT TO SCALE

7

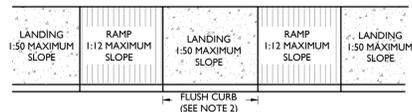


M.U.T.C.D. NUMBER	TEXT	COLOR		SIZE OF SIGN (WIDTH X HEIGHT)	TYPE OF MOUNT
		LEGEND	BACKGROUND		
STOP SIGN (R1-1)	STOP	WHITE	RED	36"x36"	GROUND
DO NOT ENTER (R5-1)	DO NOT ENTER	RED	WHITE	30"x30"	GROUND

SIGN DETAIL & DATA TABLE
NOT TO SCALE

- NOTES:**
1. MAXIMUM SLOPE ON LANDING SHALL BE 1:50 IN ALL DIRECTIONS.
 2. DIMENSIONS SHOWN HERE ARE THE MINIMUM DIMENSIONS REQUIRED FOR AN ADA COMPLIANT LANDING AT THE ACCESSIBLE ENTRANCE. REFER TO SITE PLAN FOR SITE SPECIFIC DIMENSIONS THAT MAY SPECIFY A LARGER LANDING AREA.
 3. CONTRACTOR SHALL CONTACT THE ENGINEER BEFORE CONSTRUCTION IF THE ACCESSIBLE ENTRANCE ON SITE DOES NOT MATCH THE SCENARIO SHOWN ABOVE.

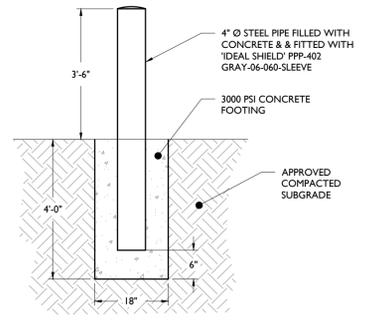
5



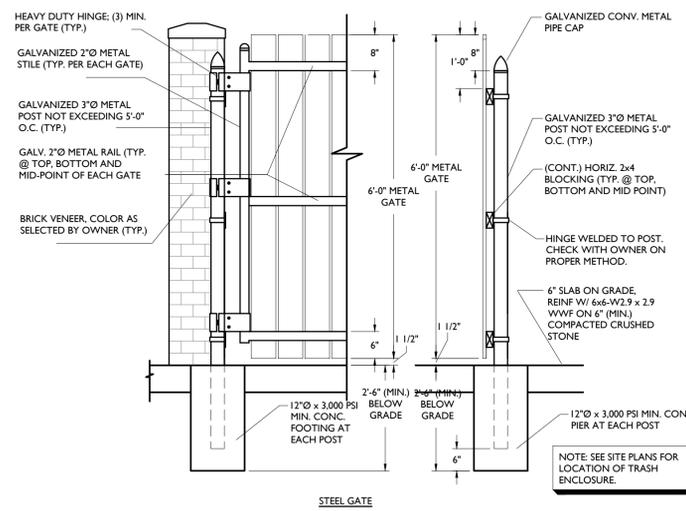
TRANSITION RAMP DETAIL
NOT TO SCALE

- NOTES:**
1. CROSS SLOPE ON RAMP SHALL NOT EXCEED 2%.
 2. A FLUSH CURB SHALL HAVE A MINIMUM WIDTH OF 36". SEE PLAN FOR EXACT WIDTH.
 3. RAMP SHALL HAVE A MAXIMUM RISE OF 6" WITHOUT A HANDRAIL.

9



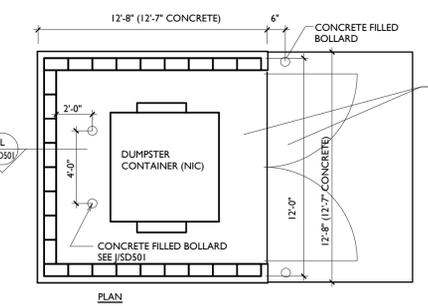
BOLLARD DETAIL
NOT TO SCALE



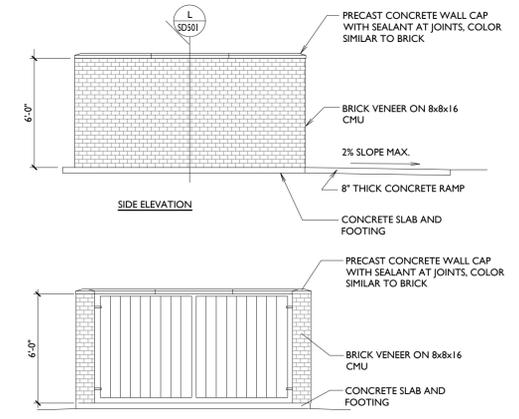
TRASH / RECYCLE ENCLOSURE DETAIL
NOT TO SCALE

- NOTE:** BLOCK COLOR TO MATCH BUILDING OR AS SPECIFIED BY OWNER

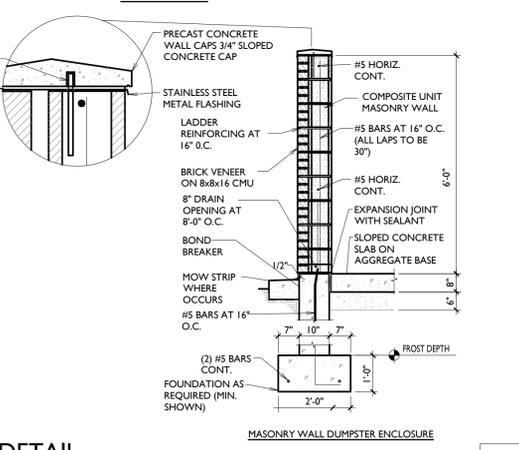
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PLAN



SIDE ELEVATION



FRONT ELEVATION

MASONRY WALL DUMPSTER ENCLOSURE

6

11

ISSUE	DATE	BY	DESCRIPTION
1	01/23/2024	JSEM	FOR SITE PLAN & SPECIAL USE PERMIT APPROVAL

NOT APPROVED FOR CONSTRUCTION

STONEFIELD engineering & design
Birmingham, MI · New York, NY · Salem, MA
Princeton, NJ · Tampa, FL · Rutherford, NJ
www.stonefielddesign.com
555 S. Old Woodward Avenue, Suite 12L, Birmingham, MI 48009
Phone 248.247.1115

EROP LLC
PROPOSED CAR WASH
PARCEL ID: 4715-22-400-033 & 4725-22-402-900
5580 E M36
HAMBURG TOWNSHIP
LIVINGSTON COUNTY, MICHIGAN 48169

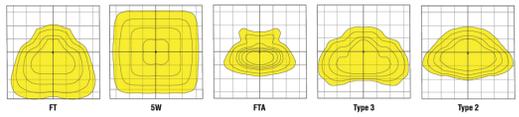
STATE OF MICHIGAN
Professional Engineer
STONEFIELD engineering & design
SCALE: AS SHOWN PROJECT ID: DET-240177
TITLE: CONSTRUCTION DETAILS
DRAWING: C-12

V:\2024\DET-240177\EROP-LLC-5580 E M36, HAMBURG TOWNSHIP, MICHIGAN\DET-240177-14-DTL.DWG



Mirada Medium - MRM Outdoor LED Area Light

Performance (Cont.) All published luminaire photometric testing performed to IESNA LM-79 standards. ISO footcandle plots below demonstrate the Mirada (MRM) light patterns only. Not for total fixture output. For complete specifications and IES files, see website.



Ordering Guide TYPICAL ORDER EXAMPLE: **MRM LED 36L SIL FTA UNV DIM 50 70CRI ALS6S04 BRZ IL**

Table with columns: Luminaire Profile, Light Source, Lumen Package, Lens, Distribution, Voltage, Driver. Includes options for color temperature, color rendering, controls, finish, and options.

Table with columns: Color Temp, Color Rendering, Controls (Choose One), Finish, Options. Lists various specifications and accessory part numbers.

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Mirada Small Wall Sconce Silicone (XWS SIL)

ORDERING GUIDE TYPICAL ORDER EXAMPLE: **XWS LED 6L SIL FT UNV DIM 40 70CRI ALB6S1 BLK CWBB**

Table with columns: Luminaire Profile, Light Source, Lumen Package, Lens, Distribution, Voltage, Driver. Includes options for color temperature, color rendering, controls, finish, and options.

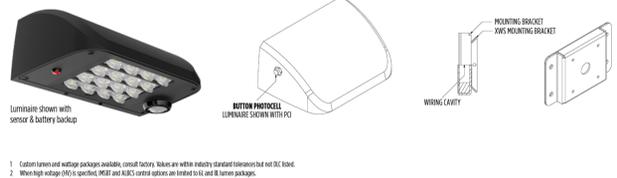
Table with columns: Color Temperature, Color Rendering, Controls, Finish, Options. Lists various specifications and accessory part numbers.

Need more information? Click here for our glossary. Have additional questions? Call us at (800) 436-7800.

ACCESSORY ORDERING INFORMATION*

Table with columns: Part Number, Description. Lists accessories like XWS Extended Housing, XWS Sensor Plus, etc.

- Battery Backup: Emergency battery system provides 90 minutes of constant power to the LED system, ensuring code compliance.



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Mirada Wall Sconce - XWM Outdoor LED Wall Sconce

Ordering Guide TYPICAL ORDER EXAMPLE: **XWM 2 LED Q3L Z7 UE BRZ ALS6**

Table with columns: Luminaire Profile, Light Source, Lumen Package, Lens, Distribution, Voltage, Driver. Includes options for color temperature, color rendering, controls, finish, and options.

Table with columns: Color Temp, Color Rendering, Controls (Choose One), Finish, Options. Lists various specifications and accessory part numbers.

Accessory Ordering Information

Table with columns: Description, Order Number, Description, Order Number. Lists various mounting hardware and fasteners.

- FOOTNOTES: 1 - Consult factory for availability. 2 - Not available in HV. 3 - Consult factory for site layout.



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G&G INDUSTRIAL LIGHTING logo and contact information. Includes website www.ggled.net and phone number 800.285.6780.



Low-Profile, Driverless Linkable IP67 LED Linear Luminaire

Product Features: Maintenance-Free Driverless Design. Connects directly to AC line voltage without an LED driver or electrolytic capacitors.

Easy to Install Quick-Connect Cabling: Convenient push-and-click connectors and cabling make GPX Series fixtures easy to install and disassembles.

Coextruded Copolyester/Aluminum Housing: Our patented process combines copolyester and aluminum together, with no seals or gaskets.

Superior Chemical & UV Resistance: Seamless polymeric outer shell provides IP67 ingress protection and is specialized for superior chemical resistance.

Performance Summary: Delivered Light Output: Up to 8,000 Lumens. Efficacy: 130 lm/W. CCT: Typical 5000K.

Ordering Information: Product Length, Lumen Output, Color Temp, Lens Diffusion, UV Protection, Through Wired, Voltage.

Table with columns: Cable, Type, Length, Wire, Mounting Hardware, Description. Lists various cable and mounting options.

Power & Connection Accessories: Cable, Type, Length, Wire, Mounting Hardware, Description.

STRONG. SIMPLE. COMPACT.

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SPECIFICATIONS FOR FIXTURES 'A' & 'B'

NOT TO SCALE

1

SPECIFICATIONS FOR FIXTURE 'C'

NOT TO SCALE

2

SPECIFICATIONS FOR FIXTURE 'D'

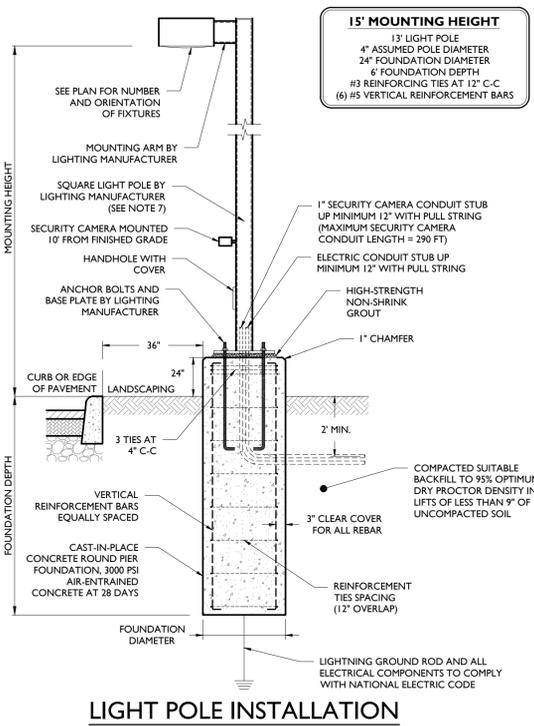
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3

SPECIFICATIONS FOR FIXTURE 'E'

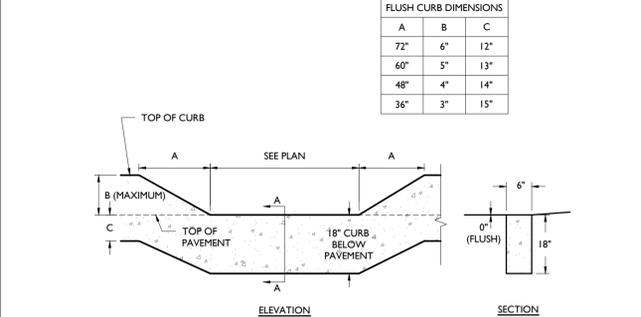
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4



LIGHT POLE INSTALLATION

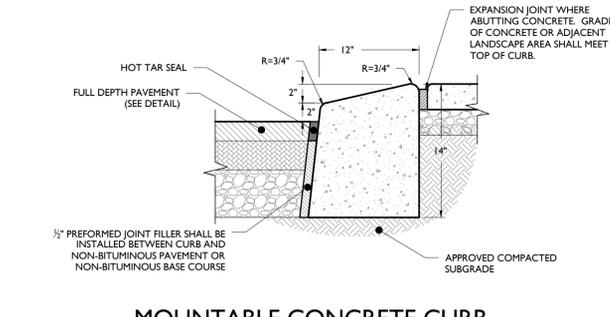
- NOTES: 1. MINIMUM SOIL BEARING PRESSURE OF 1500 PSF. SOIL FRICTION ANGLE OF 30 DEGREES, AND SOIL DRY UNIT WEIGHT OF 120 PCF SHALL BE CONFIRMED IN THE FIELD BY A QUALIFIED PROFESSIONAL.



FLUSH CURB DETAIL

NOT TO SCALE

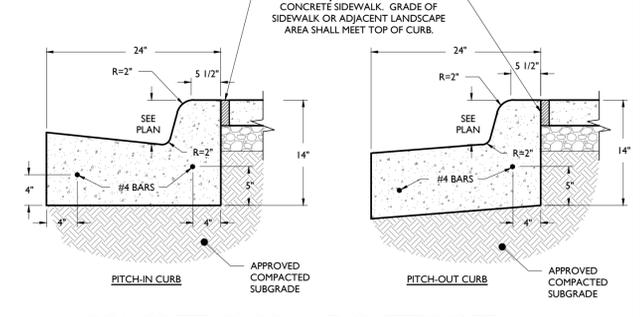
6



MOUNTABLE CONCRETE CURB

NOT TO SCALE

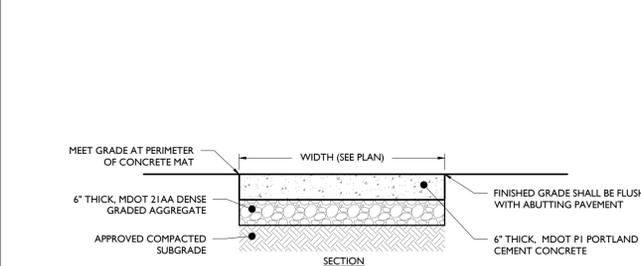
7



CONCRETE CURB AND GUTTER DETAIL

NOT TO SCALE

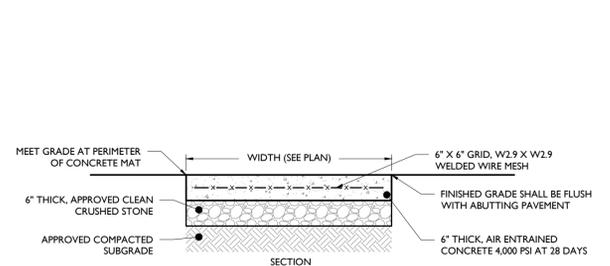
8



STANDARD DUTY CONCRETE PAVEMENT

NOT TO SCALE

9



REINFORCED 6" CONCRETE MAT (FOR TRANSFORMER PAD AND TRASH MATS)

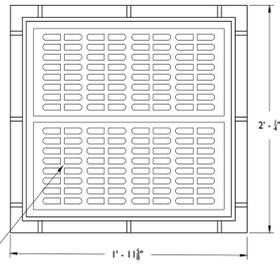
NOT TO SCALE

10

STONEFIELD engineering & design logo and contact information. Includes address in Birmingham, MI and phone number 248.247.1115.

EROP LLC logo and site development plans information. Includes parcel ID, address, and drawing title 'CONSTRUCTION DETAILS C-13'.

- NOTES:
1. STRUCTURE TO BE CONSTRUCTED OF REINFORCED PRECAST CONCRETE.
 2. FRAME AND GRATE TO BE CAST-IRON AND SUPPORT MINIMUM H-25 LOADING.
 3. ALL JOINTS TO BE WATER-TIGHT.
 4. SUBGRADE BENEATH STRUCTURE SHALL BE LEVELED AND COMPACTED AS NECESSARY PRIOR TO INSTALLING STRUCTURE.



GRATE (TOP VIEW)

BICYCLE SAFE GRATE TO BE LABELED / DEFINED PER LOCAL COMMUNITY STANDARDS AND REGULATIONS

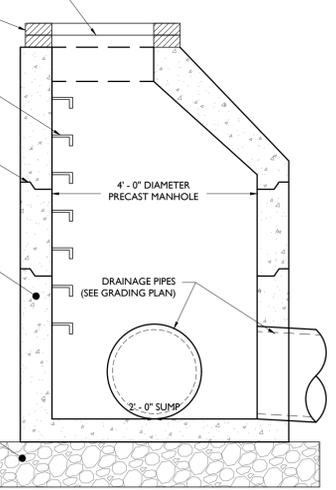
THE GRATE SHALL BE RAISED TO FINAL GRADE USING FROM 1 TO 3 PRECAST RINGS AND/OR BRICK

MANHOLE LADDER RUNGS (SEE DETAIL)

PRECAST SECTIONS SHALL BE JOINED USING A GASKET AND CEMENT GROUT TO PRODUCE A 'LEAK-FREE' JOINT.

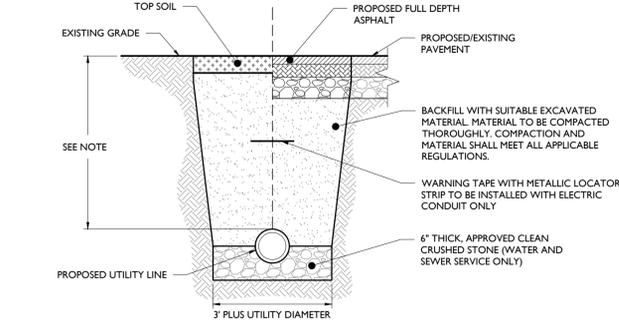
PRECAST REINFORCED CONCRETE STRUCTURE TO MEET MINIMUM H-25 LOADING

THE PRECAST STRUCTURE SHALL BE PLACED ON A MINIMUM OF 6" OF 3/4" CLEAN STONE



STORM INLET SIDE VIEW

PER MDOT TYPE 'R' COVER
NOT TO SCALE

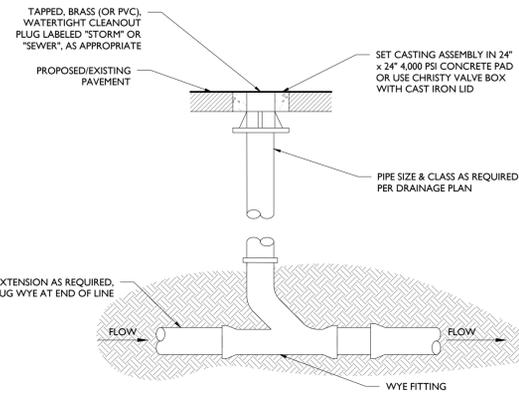


UTILITY TRENCH DETAIL

NOTE: NOT TO SCALE

- MINIMUM PIPE COVER SHALL BE AS FOLLOWS:
- ELECTRIC SERVICE - PER APPLICABLE UTILITY AUTHORITY
 - GAS SERVICE - PER APPLICABLE UTILITY AUTHORITY
 - SEWER SERVICE - 36" MINIMUM
 - WATER SERVICE - 48" MINIMUM

2



HARDSCAPE CLEAN-OUT

NOT TO SCALE

3

V:\0120\040177\040177.DWG - 0506 11:41 AM - HAMBURG TOWNSHIP - H:\CAD\01\040177\040177.DWG

NO.	DATE	ISSUE	BY	DESCRIPTION
1	01/23/2024	ISSUE	JSEB	FOR SITE PLAN & SPECIAL USE PERMIT APPROVAL

NOT APPROVED FOR CONSTRUCTION

STONEFIELD
engineering & design

Birmingham, MI · New York, NY · Salem, MA
Princeton, NJ · Tampa, FL · Rutherford, NJ
www.stonefielddesign.com

555 S. Old Woodward Avenue, Suite 12L, Birmingham, MI 48009
Phone 248.247.1115

SITE DEVELOPMENT PLANS

EROP LLC

PROPOSED CAR WASH
PARCEL ID: 4715-22-400-023 & 4725-22-402-900
5580 E M36
HAMBURG TOWNSHIP
LIVINGSTON COUNTY, MICHIGAN 48169

WHITEWATER EXPRESS CAR WASH

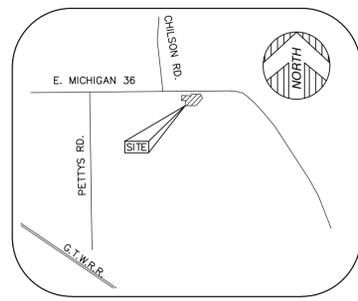


STONEFIELD
engineering & design

SCALE: AS SHOWN PROJECT ID: DET-240177

TITLE:
CONSTRUCTION DETAILS

DRAWING:
C-14



VICINITY MAP
(NOT TO SCALE)

PARKING

NO MARKED PARKING ON SITE.

PARCEL AREA

44,674± SQUARE FEET = 1.02± ACRES

BASIS OF BEARING

NORTH 88°05'53" EAST, BEING THE SOUTH LINE OF E. MICHIGAN AVE (M-36), AS DESCRIBED.

BENCHMARK

SITE BENCHMARK #1
SQUARE ON NORTHEAST SIDE OF CONCRETE LIGHT POLE BASE 150' ± FROM NORTHEAST CORNER OF BLDG 9682 ELEVATION = 861.19' (NAVD 88)

SITE BENCHMARK #2
SOUTHWEST CORNER OF RECTANGULAR CONCRETE PAD SOUTH OF SITE. ELEVATION = 860.07' (NAVD 88)

FLOOD NOTE

SUBJECT PARCEL LIES WITHIN:
OTHER FLOOD AREA (ZONE X): AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD.
OTHER AREA (ZONE X): AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.
AS SHOWN ON FLOOD INSURANCE RATE MAP: MAP NUMBER 26093C0454D, DATED 9/17/2008, PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

LEGEND

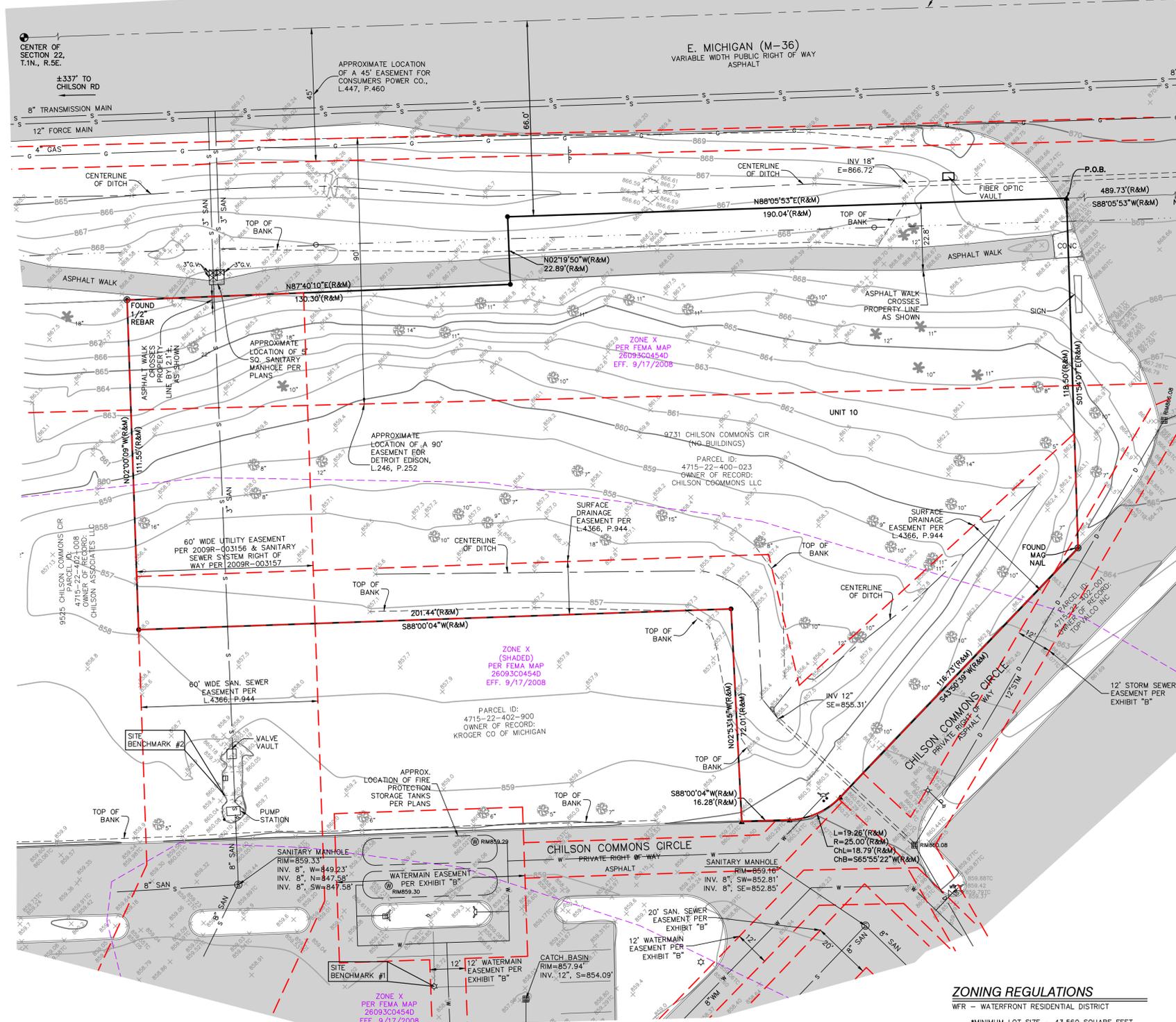
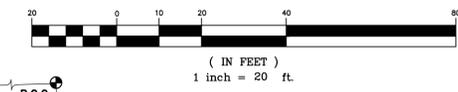
- SET 1/2" REBAR WITH CAP P.S. 47976
- ▲ SET MAG NAIL
- FOUND MONUMENT (AS NOTED)
- FOUND SECTION CORNER (AS NOTED)
- (R&M) RECORD AND MEASURED DIMENSION
- (R) RECORD DIMENSION
- (M) MEASURED DIMENSION
- GROUND ELEVATION
- ELECTRIC PANEL
- UTILITY POLE
- VENT PIPE
- LIGHT POLE WITH STREET LAMP
- SANITARY MANHOLE
- ROUND CATCH BASIN
- SQUARE CATCH BASIN
- FIRE HYDRANT
- FIRE DEPARTMENT CONNECTION
- WATER GATE MANHOLE
- WATER VALVE
- UNKNOWN MANHOLE
- BOLLARD
- LIGHT POST/LAMP POST
- DOUBLE POST SIGN
- DECIDUOUS TREE (AS NOTED)
- CONIFEROUS TREE (AS NOTED)
- PARCEL BOUNDARY LINE
- PLATTED LOT LINE
- SECTION LINE
- EASEMENT (AS NOTED)
- CENTERLINE OF DITCH
- CONCRETE CURB
- RAISED CONCRETE
- PARKING
- EDGE OF CONCRETE (CONC.)
- EDGE OF ASPHALT (ASPH.)
- OVERHEAD UTILITY LINE
- GAS LINE
- SANITARY LINE
- UNDERGROUND PIPE (AS NOTED)
- MINOR CONTOUR LINE
- MAJOR CONTOUR LINE
- FLOOD LINE
- ASPHALT
- CONCRETE

SURVEYOR'S NOTES

1. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES OTHER THAN THE STRUCTURE INVENTORY SHOWN HEREON.
2. THERE IS NO OBSERVED EVIDENCE OF CURRENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS.
3. THE SURVEYOR IS UNAWARE OF ANY PROPOSED CHANGES IN STREET RIGHT OF WAY LINES. THERE IS NO OBSERVED EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS.
4. THERE ARE NO VISIBLE ENCROACHMENTS ON SAID DESCRIBED PROPERTY, EXCEPT AS SHOWN ON THE SURVEY.
5. THE BOUNDARY LINE DIMENSIONS FORM A MATHEMATICALLY CLOSED FIGURE WITH ±0.1 FT. THERE ARE NO GAPS AND/OR GORES WITHIN ANY PORTION OF THE SUBJECT PROPERTY.



GRAPHIC SCALE



PROPERTY DESCRIPTION

THE LAND SITUATED IN THE TOWNSHIP OF HAMBURG, COUNTY OF LIVINGSTON, STATE OF MICHIGAN, DESCRIBED AS: UNIT 10, CHILSON COMMONS SHOPPING CENTER, ACCORDING TO THE MASTER DEED RECORDED IN LIBER 4366, PAGE 944, AS AMENDED, FIRST AMENDMENT TO MASTER DEED RECORDED IN LIBER 4738, PAGE 533, SECOND AMENDMENT TO MASTER DEED RECORDED IN INSTRUMENT NO. 2011R-00063, THIRD AMENDMENT TO MASTER DEED RECORDED IN INSTRUMENT NO. 2022R-022074 AND FOURTH AMENDMENT TO MASTER DEED RECORDED IN INSTRUMENT NO. 2025R-004336, AND DESIGNATED AS LIVINGSTON COUNTY CONDOMINIUM SUBDIVISION PLAN NO. 303, TOGETHER WITH RIGHTS IN THE GENERAL COMMON ELEMENTS AND THE LIMITED COMMON ELEMENTS AS SHOWN ON THE MASTER DEED AND AS DESCRIBED IN ACT 59 OF THE PUBLIC ACTS OF 1978, AS AMENDED.

TITLE REPORT NOTE

- ONLY THOSE EXCEPTIONS CONTAINED WITHIN THE FIRST AMERICAN TITLE INSURANCE COMPANY COMMITMENT NO. 1040240, REVISION A, DATED DECEMBER 9, 2025, AND RELISTED BELOW WERE CONSIDERED FOR THIS SURVEY. NO OTHER RECORDS RESEARCH WAS PERFORMED BY THE CERTIFYING SURVEYOR.
8. POLE LINE PERMIT IN FAVOR OF THE DETROIT EDISON COMPANY AND THE COVENANTS, CONDITIONS AND RESTRICTIONS CONTAINED IN INSTRUMENT RECORDED IN LIBER 246, PAGE 252. (AS SHOWN)
 9. RIGHT OF WAY IN FAVOR OF THE CONSUMERS POWER COMPANY AND THE COVENANTS, CONDITIONS AND RESTRICTIONS CONTAINED IN INSTRUMENT RECORDED IN LIBER 447, PAGE 460. (AS SHOWN)
 10. TERMS AND CONDITIONS CONTAINED IN HARDSHIP PLANNED UNIT DEVELOPMENT AGREEMENT AS DISCLOSED BY INSTRUMENT RECORDED IN LIBER 4350, PAGE 643. (AFFECTS SUBJECT PROPERTY; NOT PLOTTABLE. SEE DOCUMENT FOR TERMS AND CONDITIONS)
 - FIRST AMENDMENT TO HARDSHIP PLANNED UNIT DEVELOPMENT AGREEMENT RECORDED IN INSTRUMENT NO. 2011R-00092. (DOES NOT AFFECT SUBJECT PROPERTY)
 - SECOND AMENDED AND FULLY RESTATED HARDSHIP PLANNED UNIT DEVELOPMENT AGREEMENT RECORDED IN INSTRUMENT NO. 2021R-017179. (DOES NOT AFFECT SUBJECT PROPERTY)
 - FIRST AMENDMENT TO SECOND AMENDED AND FULLY RESTATED HARDSHIP PLANNED UNIT DEVELOPMENT AGREEMENT RECORDED IN INSTRUMENT NO. 2022R-022070. (DOES NOT AFFECT SUBJECT PROPERTY)
 - SECOND AMENDMENT TO SECOND AMENDED AND FULLY RESTATED HARDSHIP PLANNED UNIT DEVELOPMENT AGREEMENT RECORDED IN INSTRUMENT NO. 2024R-018120. (DOES NOT AFFECT SUBJECT PROPERTY)
 11. THE RIGHTS OF CO-OWNERS AND THE ADMINISTERING BODY AS SET FORTH IN THE MASTER DEED AND ACT 59 OF THE PUBLIC ACTS OF 1978 AS AMENDED, THE RIGHTS OF CO-OWNERS AND THE ADMINISTERING BODY, EASEMENTS, RESTRICTIONS AND OTHER TERMS, COVENANTS AND CONDITIONS SET FORTH IN THE MASTER DEED AND EXHIBITS THERETO RECORDED IN LIBER 4366, PAGE 944, LIVINGSTON COUNTY RECORDS, AND ANY AMENDMENTS THERETO. (EASEMENTS ARE AS SHOWN; SEE DOCUMENT FOR TERMS AND CONDITIONS)
 - FIRST AMENDMENT TO MASTER DEED RECORDED IN LIBER 4738, PAGE 533. (AFFECTS SUBJECT PROPERTY; NOT PLOTTABLE. SEE DOCUMENT FOR TERMS AND CONDITIONS)
 - SECOND AMENDMENT TO MASTER DEED RECORDED IN INSTRUMENT NO. 2011R-00063. (DOES NOT AFFECT SUBJECT PROPERTY)
 - THIRD AMENDMENT TO MASTER DEED RECORDED IN INSTRUMENT NO. 2022R-022074. (AFFECTS SUBJECT PROPERTY; NOT PLOTTABLE. SEE DOCUMENT FOR TERMS AND CONDITIONS)
 - FOURTH AMENDMENT TO MASTER DEED RECORDED IN INSTRUMENT NO. 2025R-004336. (DOES NOT AFFECT SUBJECT PROPERTY)
 12. TERMS AND CONDITIONS CONTAINED IN AGREEMENT FOR SEWER CONNECTION AS DISCLOSED BY INSTRUMENT RECORDED IN LIBER 4570, PAGE 13. (AFFECTS SUBJECT PROPERTY; NOT PLOTTABLE. SEE DOCUMENT FOR TERMS AND CONDITIONS)
 13. TERMS AND CONDITIONS CONTAINED IN EASEMENT FOR GAS PIPELINE AS DISCLOSED BY INSTRUMENT RECORDED IN LIBER 4662, PAGE 582. (EXACT LOCATION OF 10' EASEMENT IS UNKNOWN)
 14. DETROIT EDISON UNDERGROUND RESIDENTIAL DISTRIBUTION EASEMENT (RIGHT OF WAY) IN FAVOR OF THE DETROIT EDISON COMPANY AND SBC COMMUNICATIONS, INC., FORMERLY AMERTECH, FORMERLY MICHIGAN BELL TELEPHONE COMPANY AND THE COVENANTS, CONDITIONS AND RESTRICTIONS CONTAINED IN INSTRUMENT RECORDED IN LIBER 4746, PAGE 876. (DRAWING NO. R491939-6 AS REFERENCED IN SUBJECT DOCUMENT IS ILLEGIBLE)
 15. UTILITY EASEMENT IN FAVOR OF THE TOWNSHIP OF HAMBURG AND THE COVENANTS, CONDITIONS AND RESTRICTIONS CONTAINED IN INSTRUMENT RECORDED IN INSTRUMENT NO. 2009R-003156. (AS SHOWN)
 16. SANITARY SEWER SYSTEM BILL OF SALE, ASSIGNMENT AND DEDICATION IN FAVOR OF THE TOWNSHIP OF HAMBURG AND THE COVENANTS, CONDITIONS AND RESTRICTIONS CONTAINED IN INSTRUMENT RECORDED IN INSTRUMENT NO. 2009R-003157. (AS SHOWN)
 17. TERMS AND CONDITIONS CONTAINED IN EASEMENT DEED BY COURT ORDER IN SETTLEMENT OF LANDOWNER ACTION AS DISCLOSED BY INSTRUMENT RECORDED IN INSTRUMENT NO. 2013R-008991. (UNKNOWN IF EASEMENT AFFECTS SUBJECT PROPERTY; EASEMENT APPEARS TO BE LOCATED IN THE RAILROAD SOUTH OF THE PROPERTY)
- AFFIDAVIT OF JOSEPH E. JONES RECORDED IN INSTRUMENT NO. 2013R-008992. (UNKNOWN IF EASEMENT AFFECTS SUBJECT PROPERTY; EASEMENT APPEARS TO BE LOCATED IN THE RAILROAD SOUTH OF THE PROPERTY)
- PARTIAL QUITCLAIM RELEASE RECORDED IN INSTRUMENT NO. 2015R-028186. (UNKNOWN IF EASEMENT AFFECTS SUBJECT PROPERTY; EASEMENT APPEARS TO BE LOCATED IN THE RAILROAD SOUTH OF THE PROPERTY)

ZONING REGULATIONS

- WFR - WATERFRONT RESIDENTIAL DISTRICT
- *MINIMUM LOT SIZE - 43,560 SQUARE FEET
 - *MINIMUM LOT WIDTH - 150 FEET
 - *MAXIMUM LOT COVERAGE - 35/40%
 - *REQUIRED MINIMUM SETBACK LINES - FRONT - 25 FEET, SIDE - 10 FEET, REAR - 30 FEET
 - *MAXIMUM HEIGHT - 35 FEET/2.5 STORIES

NOTE: ALL ZONING INFORMATION IS TAKEN FROM THE TOWNSHIP OF HAMBURG WEBSITE. ALL ZONING INFORMATION MUST BE VERIFIED FOR COMPLETENESS WITH CURRENT ZONING REGULATIONS.

SURVEYOR'S CERTIFICATION

TO EROP LLC, AN ILLINOIS LIMITED LIABILITY COMPANY; STONFIELD ENGINEERING AND DESIGN; AND FIRST AMERICAN TITLE INSURANCE COMPANY:
THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 6A, 6B, 7A, 7B, 7C, 8, 9, 10, 11A, 13, 14, 16 AND 17 OF TABLE A, THEREOF. THE FIELD WORK WAS COMPLETED ON 10/30/25.
DATE OF PLAT OR MAP: 11/19/25

ANTHONY T. SYCKO, JR., P.S.
PROFESSIONAL SURVEYOR
MICHIGAN LICENSE NO. 47976
22556 GRATIOT AVE., EASTPOINT, MI 48021
Tsycko@kemtec-survey.com

KEM-TEC
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Detroit, MI 48207 (313) 758-0977
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Grand Blanc, MI 48031 (800) 694-0001
www.kemteccgroupofcompanies.com

ALTA / NSPS LAND TITLE SURVEY
PREPARED FOR: STONFIELD ENGINEERING AND DESIGN
9731 CHILSON COMMONS CIRCLE, HAMBURG TWP., MICHIGAN,
PART OF SECTION 22,
TOWN 1 NORTH, RANGE 5 EAST

NO.	DATE	DESCRIPTION	BY
1	11/19/25	RECEIVED TITLE WORK	AT
2	01/08/26	ADD UTILITY EASEMENT	PJK/JV
1	12/23/25	AT	AT
25-02256		REVISION	DATE

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