

COMMUNITY DEVELOPMENT DEPARTMENT

45175 Ten Mile Road Novi, MI 48375 (248) 347-0415 Phone (248) 735-5600 Facsimile www.cityofnovi.org

ZONING BOARD OF APPEALS STAFF REPORT

FOR: City of Novi Zoning Board of Appeals ZONING BOARD APPEALS DATE: November 14, 2023

REGARDING: Parcel # 50-22-22-276-017(PZ23-0043)

BY: Alan Hall, Deputy Director Community Development

GENERAL INFORMATION:

Applicant

Novi Pet Resort

Variance Type

Dimensional Variance

Property Characteristics

Zoning District: This property is zoned Light Industrial (I-1)

Location: south of Grand River Avenue, west of Novi Road

Parcel #: 50-22-276-017

Request

The applicant is requesting variances from the City of Novi Zoning Ordinance Section 3.1.18.D for a reduction of exterior side yard setback to 10 ft. (ft. required, variance of 30 ft.); Section 4.46.4.B & 4.46.4.D to allow outdoor facilities to be located in the exterior side yard within the required setback; Section 4.19.2.F.i to allow refuse bin to be located in the exterior side yard; and Section 5.4 to waive the requirement for designated loading space. This property is zoned Light Industrial (I-1).

II. STAFF COMMENTS:

The proposed development parcel was created in part by the road reconfiguration for the construction of the Novi Road bridge over the rail tracks. It is unique in that it currently has street frontage on all (4) sides.

Case # PZ23-0043

III. RECOMMENDATION:

The Zoning Board of Appeals may take one of the following actions:

1.	I	mo	ve									PZ23-0043,	_	•
	be	caus	e			er						difficulty		
		(a)					etition	er will be ur	nrea	sonably	preve	nted or limite	d with res	 pect
		(b)	The	prope	erty is	s unique	e beca	use						
		(c)	Peti	tioner	did n	ot creat								
		(d)			_				-			n adjacent oi		ding
		(e)	The	relie				•				of the ordina		
		(f)	The	variar	nce gr	anted is	subjec	t to:						<u> </u>
				1. 2. 3. 4.	- - -									
2.		mo	ve	that	we	deny		variance 				PZ23-0043,	sought	by
				P:			has	not		show	n	practical	diffic	culty ——

(a)	The	circum	nstances		eatures			pro not un			_
	exist g	enerally	througho				_		•		·
(b)			nces and ecause			•	_			-	st are
(c)	The fa	•	grant relie		n mere ir based				•		•
(d)			would r					-		surrou	
(e)	Granti to	_	ariance w				-	and inte	nt of t	he ordi	nance

Should you have any further questions with regards to the matter please feel free to contact me at (248) 347-0423.

Alan Hall – Deputy Director Community Development - City of Novi



Community Development Department CEIVED

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SEP 0 1 2023

ZONING BOARD OF APPEALS APPLICATION

CITY OF NOVI COMMUNITY DEVELOPMENT APPLICATION MUST BE FILLED OUT COMPLETELY

I. PROPERTY INFORMATION (Add PROJECT NAME / SUBDIVISION	ress of subject ZBA Ca	ise)	Application Fee:	300.00
Novi Pet Resort - Proposed Pet Boarding F.	acility			The same of the sa
ADDRESS		LOT/SIUTE/SPACE #	Meeting Date:	5-10-25
No address listed - Corner of Novi Road & Gen Mar SIDWELL #			ZBA Case #: PZ 2	13-MH3
50-22-22 -276 -017		ptained from the Department	ZBA Case #: PZ_Z	.5 W 15
CROSS ROADS OF PROPERTY	(248) 347-0			
Gen Mar & Novi Road				
IS THE PROPERTY WITHIN A HOMEOWNER'S ASS	OCIATION JURISDICTION?	REQUEST IS FOR:		
∐ YES ✓ NO		•	MMERCIAL VACANT P	roperty Signage
DOES YOUR APPEAL RESULT FROM A NOT	TICE OF VIOLATION OR C	ITATION ISSUED?	(ES NO	
II. APPLICANT INFORMATION	L ELLAN ADDRESS			A MARIE ALIVERS
A. APPLICANT	EMAIL ADDRESS mblanek@stuckyvitale.com		CELL PHONE NO.	
NAME	molanek@stuckyvitale.com		TELEPHONE NO.	
John A. Vitale, AIA			248.546.6700	
ORGANIZATION/COMPANY			FAX NO.	
Stucky Vitale Architects ADDRESS		NEW		
27172 Woodward Ave.	0.50	CITY Royal Oak	STATE	ZIP CODE 48067
B. PROPERTY OWNER CHECK HI	ERE IF APPLICANT IS ALSO		1 1411	48007
Identify the person or organization that	EMAIL ADDRESS	THE THE PARTY OF T	CELL PHONE NO.	
owns the subject property:	KBaird@realestateone.com	m		
NAME Kovin Boird			TELEPHONE NO.	
Kevin Baird ORGANIZATION/COMPANY			248.709.2792	
Novi Gen Mar LLC c/o Registered Agent Kevin Bair	d		FAX NO.	
ADDRESS		CITY	STATE	ZIP CODE
720 Kimberly Drive	T	roy	MI	48098
III. ZONING INFORMATION A. ZONING DISTRICT				
\square R-A \square R-1 \square R-2				
	☐ R-3	□RM-1 □ RM-2	ШМН	
☑ -1	□TC □TC-1	OTHER		
B. VARIANCE REQUESTED				
INDICATE ORDINANCE SECTION (S) AND				
		MINIMUM BUILDING SETBACK / LAN	DSCAPE BUFFER & MODIFICATION	ON OF SETBACKS
		IUTDOOR FACILITIES LOCATED WITHIN SIDE STREET	YARD & ENCROACHMENT INTO BUILDING SETB	ACKS
		DUMPSTER LOCATED IN SIDE STRE	ET YARD (NO REAR YARD AVAIL)	ABLE)
4. Section <u>5.4.1</u>	'ariance requested _	DESIGNATED LOADING ZONE NOT P	ROVIDED (NOT NECESSARY FOR	R USE)
IV. FEES AND DRAWNINGS				
A. FEES				
Single Family Residential (Existing	ı) \$200 🔲 (With Violati	ion) \$250 🗌 Single Fam	nily Residential (New) S	\$250
✓ Multiple/Commercial/Industrial \$		on) \$400 Signs \$300		
House Moves \$300		etings (At discretion of B		
B. DRAWINGS 1-COPY & 1 DIGIT	TAL COPY SUBMITTED A			
 Dimensioned Drawings and Plans 	•	 Existing & propose 	d distance to adjacer	nt property lines
Site/Plot Plan Fyisting or proposed by illuling and a second se	Life e	 Location of existing 	g & proposed signs, if	applicable
Existing or proposed buildings or aNumber & location of all on-site po	ddition on the propert			fi managai
- Astroct Allocation of all off-sile be	arking, ii upplicable	Any other information	tion relevant to the Vo	riance application



ZONING BOARD OF APPEALS APPLICATION

V. VARIANCE	
A. VARIANCE (S) REQUESTED	
DIMENSIONAL USE SIGN	
There is a five (5) hold period before work/action can be taken on variance approvals.	
B. SIGN CASES (ONLY) Your signature on this application indicates that you agree to install a Mock-Up Sign ten ZBA meeting. Failure to install a mock-up sign may result in your case not being heard by schedule ZBA meeting, or cancelled. A mock-up sign is NOT to be an actual sign. Upon a be removed within five (5) days of the meeting. If the case is denied, the applicant is rest the removal of the mock-up or actual sign (if erected under violation) within five (5) days	the Board, postponed to the next approval, the mock-up sign must sponsible for all costs involved in
C. ORDINANCE	
City of Novi Ordinance, Section 7.10 – Miscellaneous	
No order of the ZBA permitting the erection of a building shall be valid for a period longer building permit for such erection or alteration is obtained within such period and such er and proceeds to completion in accordance with the terms of such permit.	r than one (1) year, unless a rection or alteration is started
No order of the ZBA permitting a use of a building or premises shall be valid for a period leading of the ZBA permitting a use of a building or premises shall be valid for a period leading to the eighty (180) days unless such use is established within such a period; provided, however, dependent upon the erection or alteration of a building such order shall continue in force for such erection or alteration is obtained within one (1) year and such erection or alteration in accordance with the terms of such permit.	where such use permitted is
D. APPEAL THE DETERMINATION OF THE BUILDING OFFICIAL	
PLEASE TAKE NOTICE:	
The undersigned hereby appeals the determination of the Building Official / Inspector or CONSTRUCT NEW HOME/BUILDING ADDITION TO EXISTING HOME/BUILDING SI	
ACCESSORY BUILDING USE OTHER	IGNAGE
VI APPLICANT & PROPERTY SIGNATURES	
A. APPLICANT Lab	8-31-23
Applicant Signature	Date
B. PROPERTY OWNER	
If the applicant is not the owner, the property owner must read and sign below: The undersigned affirms and acknowledges that he, she or they are the owner(s) of the papplication, and is/are aware of the contents of this application and related enclosures.	oroperty described in this
REFER TO INCLUDED PURCHASE AGREEMENT	
Property Owner Signature	Date
VII. FOR OFFICIAL USE ONLY	
DECISION ON APPEAL:	- 1 V VIIV. 1 III VIIV
☐ GRANTED ☐ DENIED	
The Building Inspector is hereby directed to issue a permit to the Applicant upon the follo	wing conditions:
Chairperson, Zoning Board of Appeals	Date



Community Development Department

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REVIEW STANDARDS DIMENSIONAL VARIANCE

The Zoning Board of Appeals (ZBA) will review the application package and determine if the proposed Dimensional Variance meets the required standards for approval. In the space below, and on additional paper if necessary, explain how the proposed project meets each of the following standards. (Increased costs associated with complying with the Zoning Ordinance will not be considered a basis for granting a Dimensional Variance.)

Standard #1. Circumstances or Physical Conditions.

Explain the circumstances or physical conditions that apply to the property that do not apply generally to other properties in the same zoning district or in the general vicinity. Circumstances or physical conditions may include:

a. Shape of Lot. Exceptional narrowness, shallowness or shape of a specific property in existence on the effective date of the Zoning Ordinance or amendment. Describe below:

Property has (4) four front yards due to 4 existing roads and (2) Oakland County Easements. One runs North and South and the other runs East and West.

OR

b. Environmental Conditions. Exceptional topographic or environmental conditions or other extraordinary situations on the land, building or structure. Describe below:
The East property line fonts Novi Rd where a steep grade change impacts the property making a portion of this side not feasible to build on.

OR

c. Abutting Property. The use or development of the property immediately adjacent to the subject property would prohibit the literal enforcement of the requirements of the Zoning Ordinance or would involve significant practical difficulties. **Describe below:**

As this property has roads on 4 sides, there is no immediate impact to adjacent properties.

Standard #2. Not Self-Created.

Describe the immediate practical difficulty causing the need for the Dimensional Variance, that the need for the requested variance is not the result of actions of the property owner or previous property owners (i.e., is not self-created).

As noted, property has (4) front yards which makes the need for dimensional variances the only option to be able to develop the property.

Standard #3. Strict Compliance.

Explain how the Dimensional Variance in strict compliance with regulations governing area, setback, frontage, height, bulk, density or other dimensional requirements will unreasonably prevent the property owner from using the property for a permitted purpose, or will render conformity with those regulations unnecessarily burdensome.

Requiring conformance with (4) front setbacks, extreme grade along Novi Rd and county easements will make the property unbuildable.

Standard #4. Minimum Variance Necessary.

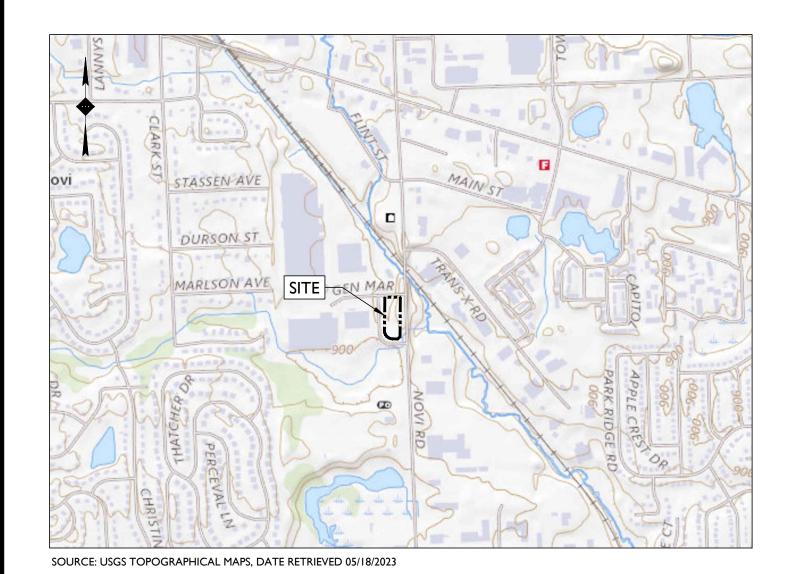
Explain how the Dimensional Variance requested is the minimum variance necessary to do substantial justice to the applicant as well as to other property owners in the district.

By allowance of establishing a one front yard for the property, this allows the other 3 sides to conform a much as possible to the remainder of the ordinances for set backs. Refer to the attached letter description for the actual variances being requested.

Standard #5. Adverse Impact on Surrounding Area.

Explain how the Dimensional Variance will not cause an adverse impact on surrounding property, property values, or the use and enjoyment of property in the neighborhood or zoning district.

As this property has frontage roads on all sides, there is no adverse impact to the adjacent properties. The proposed use and will allow an unused parcel to be developed and landscaped enhancing the entry off of Novi road/Gen Mar to the entire industrial development in lieu of a vacant minimally kept property.



LOCATION MAP

SCALE: I" = 1000'±

SITE DEVELOPMENT PLANS **FOR**

APPLICANT

STUCKY VITALE ARCHITECT MBLANEK@STUCKYVITALE.COM

PET RESORT NOVI PROPOSED PET BOARDING FACILITY

PID: 22-22-276-017 NORTHWEST CORNER OF NOVI ROAD AND GEN MAR CITY OF NOVI, OAKLAND COUNTY, MICHIGAN

SOURCE: NEARMAPS ONLINE MAPPING SYSTEM, DATE RETRIEVED 05/18/2023 **AERIAL MAP**

SCALE: I" = 200'±

(I-2) SOURCE: CITY OF NOVI LAND RECORDS AND PARCELS MAP, CITY OF NOVI ZONING MAP, DATE RETRIEVED 05/18/2023

ZONING MAP

SCALE: $I'' = 200' \pm$

LEGAL DESCRIPTION

A PARCEL OF LAND BEING PART OF THE NORTHEAST \$\frac{1}{4}\$ OF SECTION 22, OF TOWN I NORTH, RANGE 8 EAST, CITY OF NOVI, OAKLAND COUNTY, MICHIGAN BEING MORE PARTICULARLY DESCRIBED AS: COMMENCING AT THE EAST \(\frac{1}{4}\) CORNER OF SAID SECTION 22; THENCE NORTH 00 DEGREES 23 MINUTES 56 SECONDS EAST 523.79 FEET ALONG THE EAST LINE OF SAID SECTION 22, SAID LINE ALSO BEING CENTERLINE OF NOVI ROAD $\binom{1}{2}$ RIGHT OF WAY = 80 FEET); THENCE SOUTH 89 DEGREES 56 MINUTES 56 SECONDS WEST 80.00 FEET TO THE DEGREES 23 MINUTES 56 SECONDS WEST 409.99 FEET ALONG THE WESTERLY RIGHT OF WAY TO A POINT ON THE RIGHT OF WAY LINE GEN MAR DRIVE (VARIABLE WIDTH); THENCE ALONG SAID RIGHT OF WAY LINE THE FOLLOWING FIVE (5) CALLS: (1) SOUTH 45 DEGREES 23 MINUTES 18 SECONDS WEST 35.36 FEET, (2) NORTH 89 DEGREES 37 MINUTES 21 SECONDS WEST 53.99 FEET, (3) 134.08 FEET ALONG THE ARC OF THI CURVE TO THE RIGHT, HAVING A RADIUS 85.00 FEET, CENTRAL ANGLE OF 90 DEGREES 22 MINUTES 43 SECONDS, A CHORD BEARING NORTH 44 DEGREES 25 MINUTES 59 SECONDS WEST 120.60 FEET. (4) NORTH 00 DEGREES 45 MINUTES 22 SECONDS EAST 348.22 FEET, (5) NORTH 89 DEGREES 56 MINUTES 56 SECONDS EAST 161.85 FEET TO THE POINT OF BEGINNING. CONTAINING 1.58 ACRES OF LAND MORE OR LESS. ALSO SUBJECT TO ANY OTHER EASEMENTS OR RESTRICTIONS OF USE OR RECORD.

ALL WORK SHALL CONFORM TO THE **CURRENT CITY OF NOVI STANDARDS & SPECIFICATIONS**



PLANS PREPARED BY:



Detroit, MI · New York, NY · Boston, MA Princeton, NJ · Tampa, FL · Rutherford, NJ www.stonefieldeng.com

607 Shelby Suite 200, Detroit, MI 48226 Phone 248.247.1115

PLAN REFERENCE MATERIALS:

- I. THIS PLAN SET REFERENCES THE FOLLOWING DOCUMENTS **INCLUDING, BUT NOT LIMITED TO:**
- BOUNDARY & TOPOGRAPHICAL SURVEY PREPARED BY NOWRY & HALE LAND SURVEYING LLC, DATED 03/15/2023
- ARCHITECTURAL PLANS PREPARED BY STUCKY VITALE ARCHITECTS, DATED 05/05/2023
- **AERIAL MAP PROVIDED BY NEARMAPS ONLINE MAPPING SYSTEM, DATE RETRIEVED 05/18/2023**
- LOCATION MAP PROVIDED BY USGS TOPOGRAPHICAL MAPS, DATE RETRIEVED 05/18/2023
- 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.

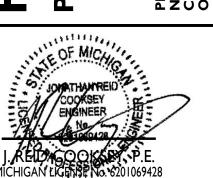
DRAWING TITLE	SHEET#
COVER SHEET	C-I
SITE PLAN	C-2
FIRE TRUCK CIRCULATION	C-3
GRADING PLAN	C-4
STORMWATER MANAGEMENT PLAN	C-5
UTILITY PLAN	C-6
LANDSCAPING PLAN	C-7
LANDSCAPING AREA AND TREE LAYOUT PLAN	C-8
LANDSCAPING DETAILS	C-9
LIGHTING PLAN	C-10
SOIL EROSION AND SEDIMENTATION CONTROL PLAN	C-11
CONSTRUCTION DETAILS	C-12, 13, & 14

SHEET INDEX

ADDITIONAL SHE	ETS
DRAWING TITLE	SHEET#
BOUNDARY & TOPOGRAPHIC SURVEY	I OF I

						RESUBMISSION FOR PRELIMINARY SITE PLAN APPROVA	PRELIMINARY SITE PLAN APPROVAL	DESCRIPTION	
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						07/19/2023	05/23/2023	DATE	
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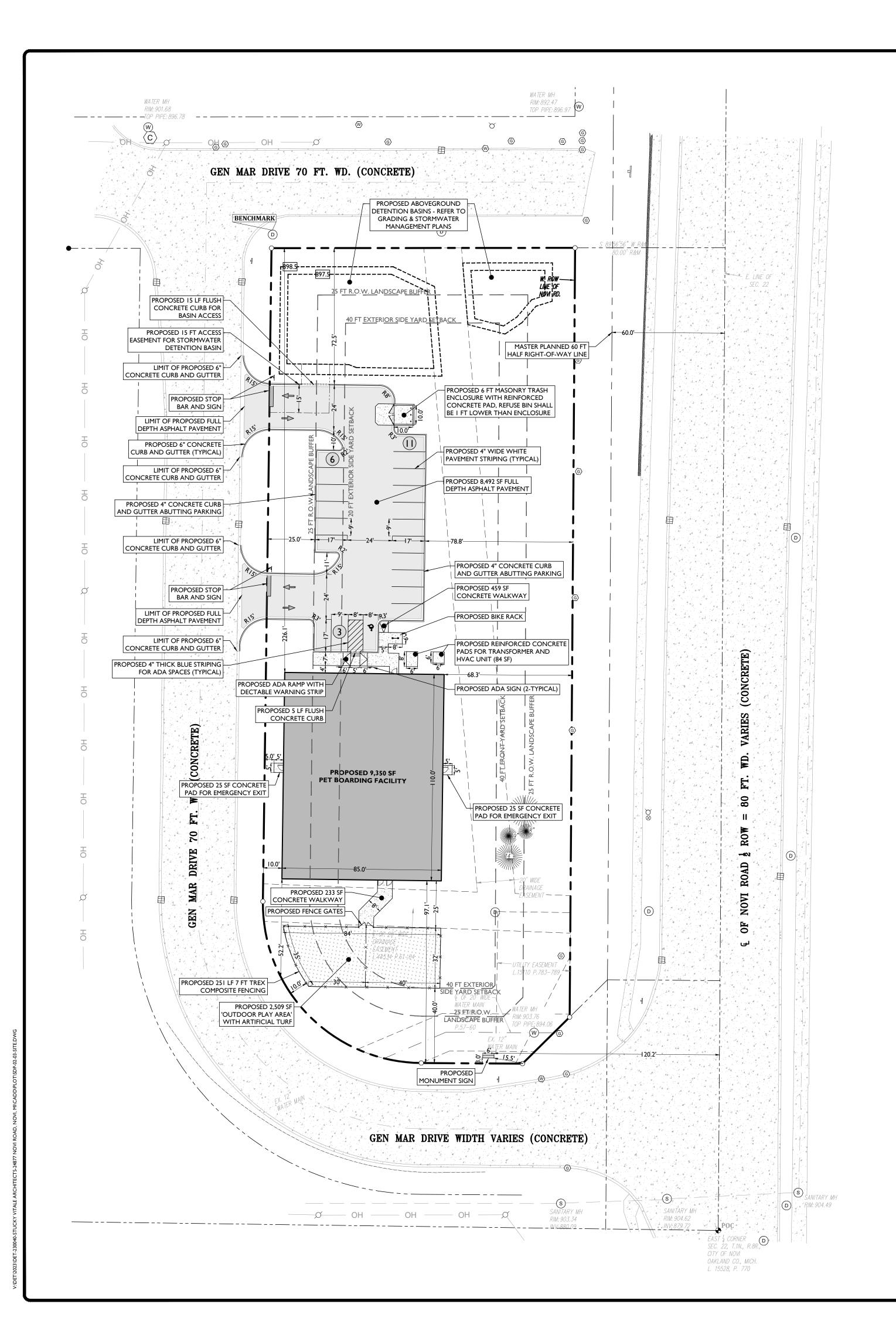




SCALE: AS SHOWN PROJECT ID: DET-230040

COVER SHEET

DRAWING: C-I





PROPOSED MODIFICATION - PER SECTION § 3.6.Q - PLANNING COMMISSION MAY MODIFY SETBACK REQUIREMENTS IN THOSE INSTANCES WHERE IT DETERMINES THAT SUCH MODIFICATION MAY RESULT IN IMPROVED USE OF THE SITE AND/OR IMPROVED LANDSCAPING. PROVIDED, THAT THE MODIFICATION DOES NOT REDUCE THE TOTAL AREA OF SETBACK ON THE SITE BELOW THE MINIMUM REQUIREMENTS.

-INCREASE FRONT YARD SETBACK BY 28.3 FT: 40 + 28.3 = 68.3 FT -INCREASE NORTH SIDE STREET YARD SETBACK BY 10 FT: 40 + 10 = 50 FT -REDUCE WEST SIDE STREET YARD SETBACK BY 30 FT: 40 - 30 = 10 FT

(V) PROPOSED VARIANCE

OFF-	OFF-STREET PARKING REQUIREMENTS							
CODE SECTION	REQUIRED	PROPOSED						
§ 5.2.12.C	PET BOARDING FACILITIES:	20 SPACES						
	I SPACE PER 700 SF OF USEABLE FLOOR AREA							
	(8,964 SF)(I SPACE / 700 SF) = 13 SPACES							
§ 5.3.2	90° PARKING:	9 FT X 17 FT						
	19 FT X 9 FT WITH 24 FT AISLE (1)	W/ 24 FT AISLE						
§ 5.3.2	BICYCLE PARKING:	2 SPACES						
	2 SPACES REQUIRED	2 FT X 6 FT						
	2 FT X 6 FT WITH 4 FT MANEUVERING LANE	W/ 4 FT AISLE						

PARKING SPACES MAY BE REDUCED IN LENGTH BY UP TO 2 FT WHEN ABUTTING LANDSCAPING OR WALKWAYS 7 FT IN WIDTH

PAVEMENT QUAN	TITIES
CONCRETE CURB & GUTTER	556 LF
FULL-DEPTH ASPHALT	8,492 SF
CONCRETE SIDEWALK (4")	743 SF
REINFORCED CONCRETE PAD	295 SF

FOR MUNICIPAL REFERENCE ONLY. CONTRACTOR TO VERIFY QUANTITIES PRIOR TO CONSTRUCTION.

"YIELD" (R I-2) SIGNS.

M.U.T.C.D.	TEXT	CO	_OR	SIZE OF SIGN (WIDTH X	TYPE OF	QUANTITY	
NUMBER	TEXT	LEGEND	BACKGROUND	HEIGHT)	MOUNT	QOANTITI	
STOP SIGN (RI-I)	STOP	WHITE	RED	36"x36"	GROUND	2	

I. ALL SIGNS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION (FHWA) MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), EXCEPT AS NOTED. 2. ALL SIGNS SHALL BE MOUNTED AS TO NOT OBSTRUCT THE SHAPE OF "STOP" (R1-1) AND

SIGN DATA TABLE

NOT TO SCALE



DESCRIPTION

SYMBOL PROPERTY LINE SETBACK LINE PROPOSED CURB & GUTTER PROPOSED FLUSH CURB = = = = = PROPOSED SIGNS / BOLLARDS PROPOSED BUILDING PROPOSED CONCRETE PAVEMENT PROPOSED ASPHALT PAVEMENT PROPOSED ARTIFICIAL TURF PROPOSED TREX COMPOSITE FENCE PROPOSED BUILDING DOORS

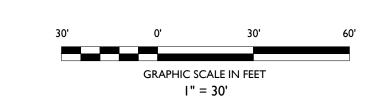
I. THE CONTRACTOR SHALL VERIFY AND FAMILIARIZE THEMSELVES WITH THE EXISTING SITE CONDITIONS AND THE PROPOSED SCOPE OF WORK (INCLUDING DIMENSIONS, LAYOUT, ETC.) PRIOR TO INITIATING THE IMPROVEMENTS IDENTIFIED WITHIN THESE DOCUMENTS. SHOULD ANY DISCREPANCY BE FOUND BETWEEN THE EXISTING SITE CONDITIONS AND THE PROPOSED WORK THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN,

PROPOSED DETENTION BASIN

- LLC. PRIOR TO THE START OF CONSTRUCTION. 2. 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. 3. ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS STONEFIELD ENGINEERING & DESIGN, LLC. AND IT'S 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.
- 4. THE CONTRACTOR SHALL NOT DEVIATE FROM THE PROPOSED IMPROVEMENTS IDENTIFIED WITHIN THIS PLAN SET UNLESS APPROVAL IS PROVIDED IN WRITING BY STONEFIELD ENGINEERING & DESIGN,
- 5. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE MEANS AND
- METHODS OF CONSTRUCTION. 6. 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 7. 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 CONTRACTORS EXPENSE. 8. 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. 9. THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL IN
- ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION. 10. 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. II. THE CONTRACTOR IS REQUIRED TO RETAIN AN OSHA CERTIFIED SAFETY INSPECTOR TO BE PRESENT ON SITE AT ALL TIMES DURING CONSTRUCTION & DEMOLITION ACTIVITIES.

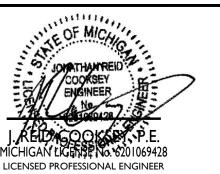
12. SHOULD AN EMPLOYEE OF STONEFIELD ENGINEERING & DESIGN, LLC.

- 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. 13. PETS SHALL NOT STAY OUTSIDE OVERNIGHT.
- 14. ANIMAL WASTE, BIOHAZARD MATERIALS OR BYPRODUCTS SHALL BE DISPOSED OF AS RECOMMENDED BY THE MICHIGAN DEPARTMENT OF PUBLIC HEALTH, AND/OR OTHER DULY APPOINTED AUTHORITY AT THE DISCRETION OF THE CITY. 15. NOISE SHALL BE MINIMIZED AND WILL NOT EXCEED 70 DECIBELS AT
- NIGHT TIME AND 75 DECIBELS DURING DAYTIME.
- 16. ANIMAL PICK-UP AND DROP-OFF SHALL BE ACCOMMODATED IN AN EFFICIENT MANNER AS TO NOT DISRUPT TRAFFIC CIRCULATION.



						RESUBMISSION FOR PRELIMINARY SITE PLAN AP	PRELIMINARY SITE PLAN APPROVAL	DESCRIPTION
						NB	NB	ВУ
						07/19/2023	05/23/2023	DATE
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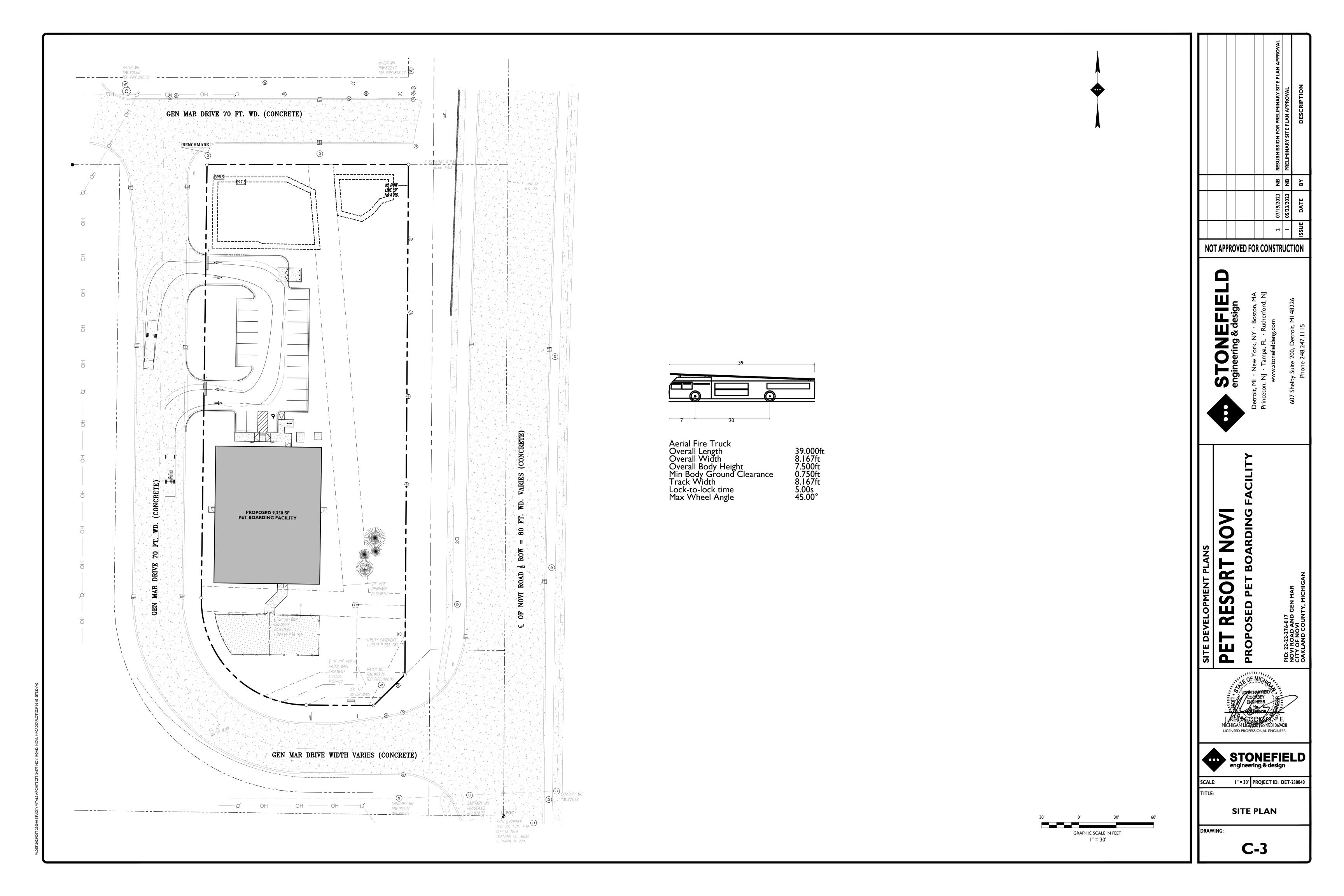
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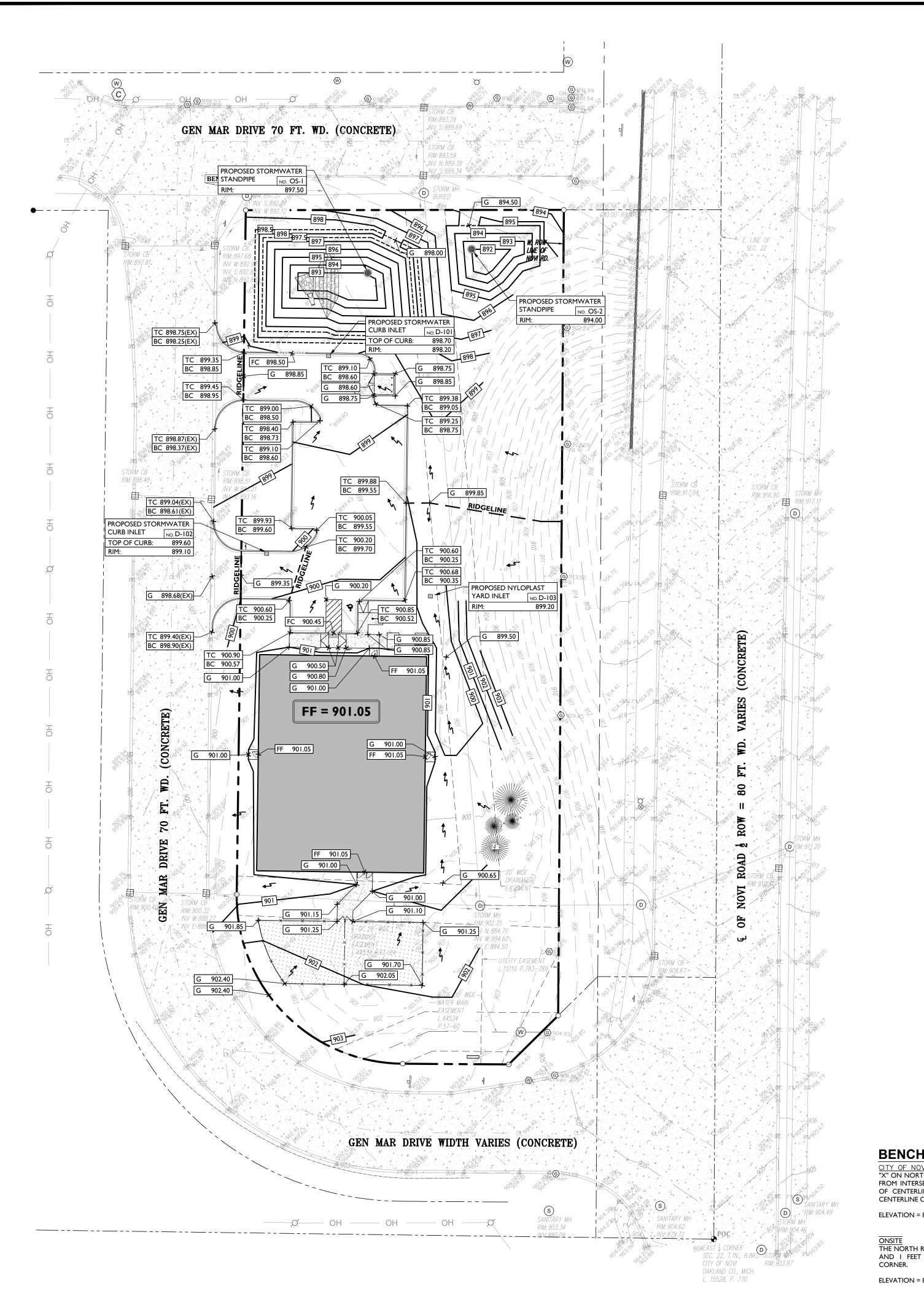




I" = 30' PROJECT ID: DET-230040

SITE PLAN







SYMBOL **DESCRIPTION**

PROPERTY LINE PROPOSED GRADING CONTOUR PROPOSED GRADING RIDGELINE RIDGELINE PROPOSED DIRECTION OF DRAINAGE FLOW **X** G 100.00 PROPOSED GRADE SPOT SHOT

> PROPOSED TOP OF CURB / BOTTOM OF CURB SPOT SHOT

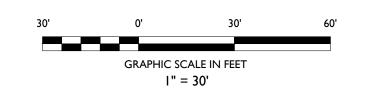
X FC 100.00 PROPOSED FLUSH CURB SPOT SHOT

PROPOSED STORMWATER STRUCTURES

GRADING NOTES

- I. ALL SOIL AND MATERIAL REMOVED FROM THE SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS. ANY GROUNDWATER DE-WATERING PRACTICES SHALL BE PERFORMED UNDER THE SUPERVISION OF A QUALIFIED PROFESSIONAL. THE CONTRACTOR IS REQUIRED TO OBTAIN ALL NECESSARY PERMITS FOR THE DISCHARGE OF DE-WATERED GROUNDWATER. ALL SOIL IMPORTED TO THE SITE SHALL BE CERTIFIED CLEAN FILL. CONTRACTOR SHALL MAINTAIN RECORDS OF
- ALL FILL MATERIALS BROUGHT TO THE SITE. 2. THE CONTRACTOR IS REQUIRED TO PROVIDE TEMPORARY AND/OR PERMANENT SHORING WHERE REQUIRED DURING EXCAVATION ACTIVITIES, INCLUDING BUT NOT LIMITED TO UTILITY TRENCHES, TO ENSURE THE STRUCTURAL INTEGRITY OF NEARBY STRUCTURES AND STABILITY OF THE SURROUNDING SOILS.
- 3. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 4 INCHES TO 7 INCHES ABOVE EXISTING GRADES UNLESS OTHERWISE NOTED. THE CONTRACTOR WILL SUPPLY ALL STAKEOUT CURB GRADE SHEETS TO STONEFIELD ENGINEERING & DESIGN, LLC. FOR REVIEW AND APPROVAL PRIOR TO POURING CURBS.
- 4. THE CONTRACTOR IS RESPONSIBLE TO SET ALL PROPOSED UTILITY COVERS AND RESET ALL EXISTING UTILITY COVERS WITHIN THE PROJECT LIMITS TO PROPOSED GRADE IN ACCORDANCE WITH ANY APPLICABLE MUNICIPAL, COUNTY, STATE AND/OR UTILITY
- 5. MINIMUM SLOPE REQUIREMENTS TO PREVENT PONDING SHALL BE AS CURB GUTTER:
 - CONCRETE SURFACES: 1.00%
- ASPHALT SURFACES: 6. A MINIMUM SLOPE OF 1.00% SHALL BE PROVIDED AWAY FROM ALL BUILDINGS. THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE FROM THE BUILDING IS ACHIEVED AND SHALL NOTIFY STONEFIELD
- ENGINEERING & DESIGN, LLC. IF THIS CONDITION CANNOT BE MET. 7. FOR PROJECTS WHERE BASEMENTS ARE PROPOSED, THE DEVELOPER IS RESPONSIBLE TO DETERMINE THE DEPTH TO GROUNDWATER AT THE LOCATION OF THE PROPOSED STRUCTURE. IF GROUNDWATER IS ENCOUNTERED WITHIN THE BASEMENT AREA, SPECIAL CONSTRUCTION METHODS SHALL BE UTILIZED AND REVIEWED/APPROVED BY THE CONSTRUCTION CODE OFFICIAL. IF SUMP PUMPS ARE UTILIZED, ALL DISCHARGES SHALL BE CONNECTED DIRECTLY TO THE PUBLIC STORM SEWER SYSTEM WITH APPROVAL FROM THE GOVERNING STORM SEWER SYSTEM AUTHORITY.

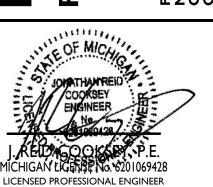
- I. THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 2.00% SLOPE IN ANY DIRECTION WITHIN THE ADA PARKING SPACES AND ACCESS
- 2. THE CONTRACTOR SHALL PROVIDE COMPLIANT SIGNAGE AT ALL
- ADA PARKING AREAS IN ACCORDANCE WITH STATE GUIDELINES. 3. THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 5.00% RUNNING SLOPE AND A MAXIMUM OF 2.00% CROSS SLOPE ALONG WALKWAYS WITHIN THE ACCESSIBLE PATH OF TRAVEL (SEE THE SITE PLAN FOR THE LOCATION OF THE ACCESSIBLE PATH). THE CONTRACTOR IS RESPONSIBLE TO ENSURE THE ACCESSIBLE PATH OF TRAVEL IS 36 INCHES WIDE OR GREATER UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
- 4. THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 2.00% SLOPE IN ANY DIRECTION AT ALL LANDINGS. LANDINGS INCLUDE, BUT ARE NOT LIMITED TO, THE TOP AND BOTTOM OF AN ACCESSIBLE RAMP, AT ACCESSIBLE BUILDING ENTRANCES, AT AN AREA IN FRONT OF A WALK-UP ATM, AND AT TURNING SPACES ALONG THE ACCESSIBLE PATH OF TRAVEL. THE LANDING AREA SHALL HAVE A MINIMUM CLEAR AREA OF 60 INCHES BY 60 INCHES UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
- 5. THE CONTRACTOR SHALL MAINTAIN A MAXIMUM 8.33% RUNNING SLOPE AND A MAXIMUM 2.00% CROSS SLOPE ON ANY CURB RAMPS ALONG THE ACCESSIBLE PATH OF TRAVEL. WHERE PROVIDED, CURB RAMP FLARES SHALL NOT HAVE A SLOPE GREATER THAN 10.00% IF A LANDING AREA IS PROVIDED AT THE TOP OF THE RAMP. FOR ALTERATIONS, A CURB RAMP FLARES SHALL NOT HAVE A SLOPE GREATER THAN 8.33% IF A LANDING AREA IS NOT PROVIDED AT THE TOP OF THE RAMP. CURBS RAMPS SHALL NOT RISE MORE THAN 6 INCHES IN ELEVATION WITHOUT A HANDRAIL. THE CLEAR WIDTH OF A CURB RAMP SHALL BE NO LESS THAN 36 INCHES WIDE.
- 6. ACCESSIBLE RAMPS WITH A RISE GREATER THAN 6 INCHES SHALL CONTAIN COMPLIANT HANDRAILS ON BOTH SIDES OF THE RAMP AND SHALL NOT RISE MORE THAN 30" IN ELEVATION WITHOUT A LANDING AREA IN BETWEEN RAMP RUNS. LANDING AREAS SHALL ALSO BE PROVIDED AT THE TOP AND BOTTOM OF THE RAMP. 7. A SLIP RESISTANT SURFACE SHALL BE CONSTRUCTED ALONG THE
- ACCESSIBLE PATH AND WITHIN ADA PARKING AREAS. 8. THE CONTRACTOR SHALL ENSURE A MAXIMUM OF 1/4 INCHES VERTICAL CHANGE IN LEVEL ALONG THE ACCESSIBLE PATH. WHERE A CHANGE IN LEVEL BETWEEN 1/4 INCHES AND 1/2 INCHES EXISTS, CONTRACTOR SHALL ENSURE THAT THE TOP 1/4 INCH CHANGE IN LEVEL IS BEVELED WITH A SLOPE NOT STEEPER THAN I UNIT
- VERTICAL AND 2 UNITS HORIZONTAL (2:1 SLOPE). 9. THE CONTRACTOR SHALL ENSURE THAT ANY OPENINGS (GAPS OR HORIZONTAL SEPARATION) ALONG THE ACCESSIBLE PATH SHALL NOT ALLOW PASSAGE OF A SPHERE GREATER THAN 1/2 INCH.



NOT APPROVED FOR CONSTRUCTION

ARDIN

SITE





I" = 30' PROJECT ID: DET-230040

GRADING PLAN

DRAWING:

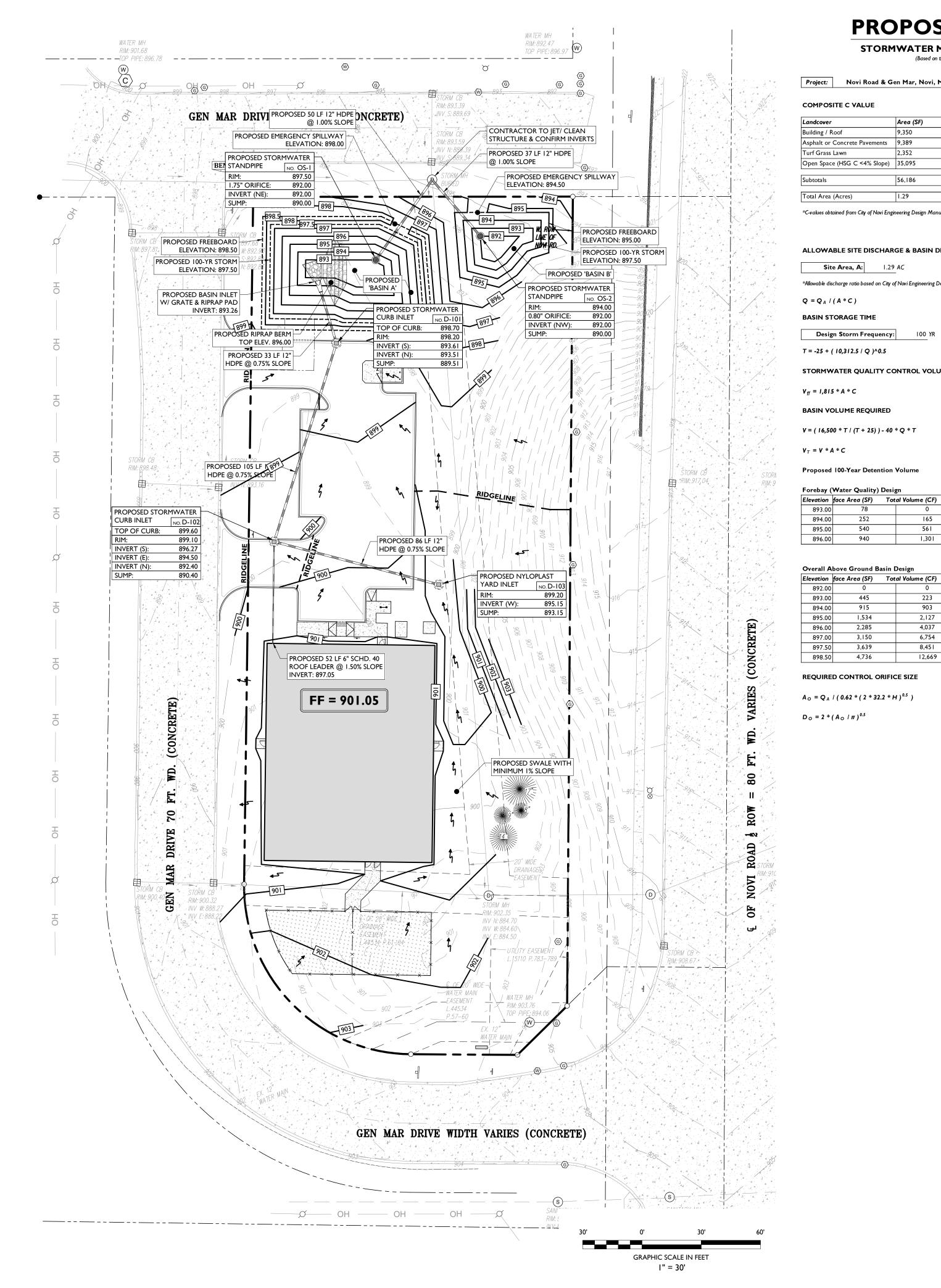
BENCHMARK:

CITY OF NOVI #2311
"X" ON NORTH RIM OF SANITARY MANHOLE LOCATED ACROSS FROM INTERSECTION OF GEN-MAR AND NOVI ROAD, 45 EAST OF CENTERLINE OF NOVI ROAD AND 80 FEET NORTH OF CENTERLINE OF GEN-MAR.

ELEVATION = 892.089800 NAVD88

THE NORTH RIM OF STORM MANHOLE LOCATED 7 FEET NORTH AND I FEET FROM THE NORTHWESTERLY MOST PROPERTY

ELEVATION = 897.57 NAVD88



PROPOSED 'BASIN A'

	STORM	1WATER MAI (Based on the City	_	1ENT CA lneering Design Man		ATION	15	
Project:	Novi Road & G	en Mar, Novi, MI	_	Designer:	NB		Date:	05/22/23
COMPOSIT	TE C VALUE							
Landcover		Area (SF)		C-Value*			Weighted \	/alue
Building / Ro	of	9,350	×	0.95		=	8,883	
Asphalt or C	oncrete Pavements	9,389	7 ×	0.95		=	8,920	
Turf Grass La	awn	2,352	7 ×	0.35		=	823	
Open Space	(HSG C <4% Slope)	35,095	×	0.30		=	10,529	
Subtotals		56,186	SF				29,154	
Total Area (A	Acres)	1.29	_]ac					
*C-values obtain	ned from City of Novi Eng	ineering Design Manual	_	Com	posite C	Value, C:	0.52	
			Relativ	e Imperviousn	ness C V	alue. Cius	0.32	
ALLOWAR	LE SITE DISCHAF	RGE & BASIN DISCH						•
Site	Area, A: 1.29	9 AC		*Allowabl	e Discha	rge Ratio:	0.15	CFSIAC
	·	of Novi Engineering Design /	Manual	Allowable S			-	
$Q = Q_A / ($		-,				Ratio, Q:	1	CFS/AC*IMI
	ORAGE TIME			Dasiii D	riseriai ge	rtacio, Q.	0.27	
	Storm Frequency	: 100 YR						
	10,312.5 / Q)^0.5			Basir	n Storage	e Time, T:	163.87	MINS
•	•	ONTROL VOLUME	RFOUIRF				L	
							٦	
V _{ff} = 1,815 ¹	* A * C			Stormwater Q	uality Vo	olume, V _{ff} :	1,215	.CF
BASIN VOL	UME REQUIRED							
V = (16,500	* T / (T + 25)) - 40	* Q * T		Basir	n Volume	e Ratio, V:	12,421	CF/AC*IMP
V _T = V * A	* C			Basin Vol	ume Req	uired, V _T :	8,314	CF
Proposed I	00-Year Detention	Volume						
Forebay (W	Vater Quality) Des	ign	_					
	• •	otal Volume (CF)	_					
893.00	78	0					1 .	
894.00	252	165			ay Top E		896.00	
895.00	540	561	1	Forebay Vol	ume Req	uired, V_{F-R} :	1,215	CF

8,451 3,639 4,736

1,534

2,285

3,150

2,127

6,754

 $A_{O} = Q_{A} / (0.62 * (2 * 32.2 * H)^{0.5})$

 $D_{\circ} = 2 * (A_{\circ} / \pi)^{0.5}$

Control Orifice Area, A _O :
Control Orifice Diameter, D _O :

Forebay Volume Proposed, V_{F-P}: 1,301 CF

Required 100-Year Flood Elev.: 897.46

Design 100-Year Flood Elev.: 897.50

Freeboard Elev.: 898.50

*Basin volume calculated based on a trapezoidal prism

Basin Volume Required, V_T: 8,314 CF

Basin Volume Proposed, V: 8,451 CF

Basin Height, H: 4.50 FT

Forebay Height:

STORMWATER MANAGEMENT CALCULATIONS (Based on the City of Novi Engineering Design Manual)

signer: NB		Date: 05/22/23	Project: Novi Road & G	en Mar, Novi, MI	_	Designer: N	В	Date: 05/22
			COMPOSITE C VALUE					
'alue*		Weighted Value	Landcover	Area (SF)		C-Value*		Weighted Value
5	_ =	8,883	Building / Roof	0	×	0.95	=	0
5	_ =	8,920	Asphalt or Concrete Pavements	0	×	0.95	=	0
5	_ =	823	Turf Grass Lawn	0	×	0.35	=	0
)	=	10,529	Open Space (HSG C <4% Slope)	12,818	x	0.30	=	3,845
		29,154	Subtotals	12,818	SF			3,845
			Total Area (Acres)	0.29	AC			
Composite	C Value, C	: 0.52	*C-values obtained from City of Novi Eng	ineering Design Manual		Compos	ite C Value, C:	0.30
erviousness C	Value, C _{IMP}	: 0.32			Relat	ive Imperviousness	C Value, C _{IMP} :	0.00
			ALLOWABLE SITE DISCHAR	RGE & BASIN DISCH	HARGE F	RATIO		
Allowable Discl	harge Ratio	: 0.15 <i>CFS/AC</i>	Site Area, A: 0.29	9 AC		*Allowable Di	ischarge Ratio:	0.15 CFSIAC
owable Site Dis	charge, Q A	: 0.19 CFS	*Allowable discharge ratio based on City	of Novi Engineering Design	Manual	Allowable Site	Discharge, Q _A :	0.04 CFS
Basin Dischar	ge Ratio, Q	: 0.29 CFS/AC*IMP	$Q = Q_A / (A * C)$			Basin Disch	narge Ratio, Q:	0.50 CFSIAC*
			BASIN STORAGE TIME					
			Design Storm Frequency	: 100 YR				

STORMWATER QUALITY CONTROL VOLUME REQUIRED

V _{ff} = 1,813 * A * C	ormwater Quality Volume, V _{ff} :	
BASIN VOLUME REQUIRED		
V = (16,500 * T / (T + 25)) - 40 * Q * T	Basin Volume Ratio, V:	11,255 <i>CFIAC</i> *

Elevation	face Area (SF)	Total Volume (CF)
892.00	171	0
893.00	476	324
894.00	905	1,014
895.00	1,456	2,195

$A_O = Q_A$	/ (0.62	* (2 * 32.2	* H) ^{0.5})

 $D_{\circ} = 2 * (A_{\circ} / \pi)^{0.5}$

 $V_T = V * A * C$

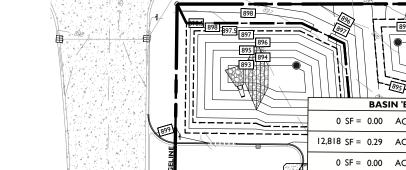
ce Area, A_O: Control Orifice Diameter, Do:

Basin Volume Required, V_T:

Basin Volume Required, V_T: 994 CF

Required 100-Year Flood Elev.: 893.97

Basin Volume Proposed, V: 1,014 CF



PROPOSED 'BASIN B'

dcover	Area (SF)		C-Value*		Weighted Value
ling / Roof	0	×	0.95	=	0
nalt or Concrete Pavements	0	×	0.95	=	0
Grass Lawn	0	×	0.35	=	0
n Space (HSG C <4% Slope)	12,818	х	0.30	=	3,845
					
otals	12,818	SF			3,845

	WABLE SITE DISCHARGE & BASIN DISCHARG	RATIO
	Site Area, A: 0.29 AC	*Allowable Discharge Ratio: 0.15 CFS/AC
vable discharge ratio based on City of Novi Engineering Design Manual Allowable Site Discharge, Q _A : 0.04 CFS	le discharge ratio based on City of Novi Engineering Design Manual	Allowable Site Discharge, QA: 0.04 CFS
Q _A / (A * C) Basin Discharge Ratio, Q: 0.50 CFS/AC	(A * C)	Basin Discharge Ratio, Q: 0.50 CFS/AC*IMI

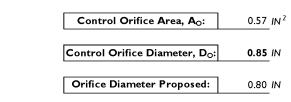
		-
$T = -25 + (10,312.5 / Q)^0.5$	Basin Storage Time, T:	118.61 MINS
	·	

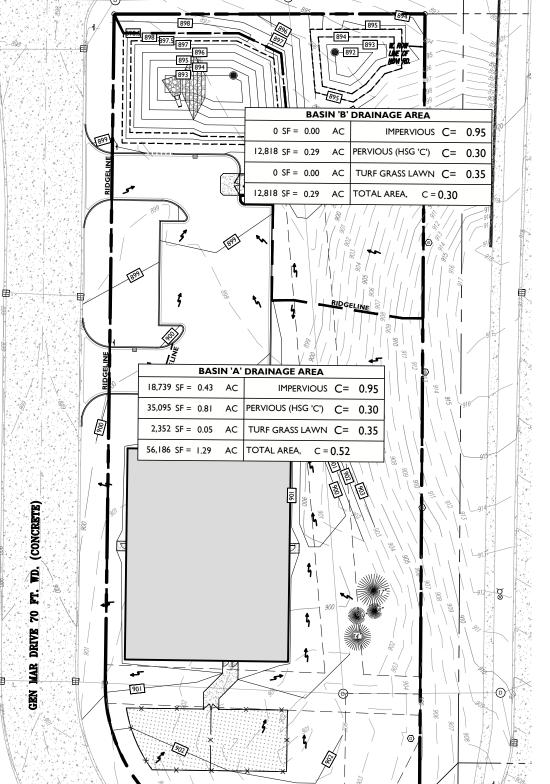
V _{ff} = 1,815 * A * C	ormwater Quality Volume, $V_{ m ff}$:	160

Proposed 100-Year Detention Volume

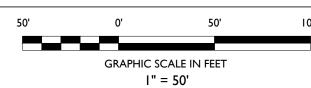
Elevation	face Area (SF)	Total Volume (CF)
892.00	171	0
893.00	476	324
894.00	905	1,014
895.00	1,456	2,195

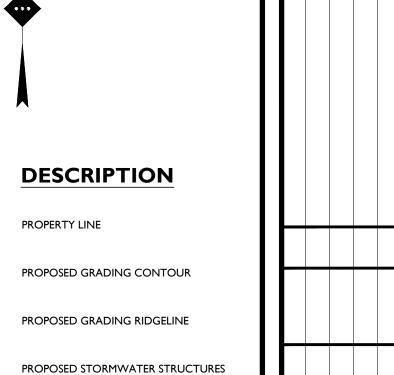
EQUIRED CONTROL ORIFICE SIZE	
$c_0 = O_0 / (0.62 * (2 * 32.2 * H))^{0.5})$	Control Orific





BASIN DRAINAGE AREAS





NOT APPROVED FOR CONSTRUCTION

DRAINAGE AND UTILITY NOTES

SYMBOL

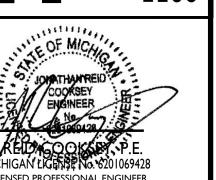
I. THE CONTRACTOR TO PERFORM A TEST PIT PRIOR TO CONSTRUCTION (RECOMMEND 30 DAYS PRIOR) AT LOCATIONS OF EXISTING UTILITY CROSSINGS FOR STORMWATER IMPROVEMENTS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. IN WRITING. 2. CONTRACTOR SHALL START CONSTRUCTION OF STORM LINES AT

PROPOSED STORMWATER PIPING

- THE LOWEST INVERT AND WORK UP-GRADIENT. 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

- THE CONTRACTOR IS REQUIRED TO REVIEW THE REFERENCED GEOTECHNICAL DOCUMENTS PRIOR TO CONSTRUCTION, THESE DOCUMENTS SHALL BE CONSIDERED A PART OF THE PLAN SET.
- 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 DESIGNS SHALL BE SUBMITTED TO STONEFIELD ENGINEERING & DESIGN, LLC. AND THE OWNER PRIOR TO THE START
- OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL OPEN EXCAVATIONS ARE PERFORMED AND PROTECTED IN ACCORDANCE WITH THE LATEST OSHA REGULATIONS.
- 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

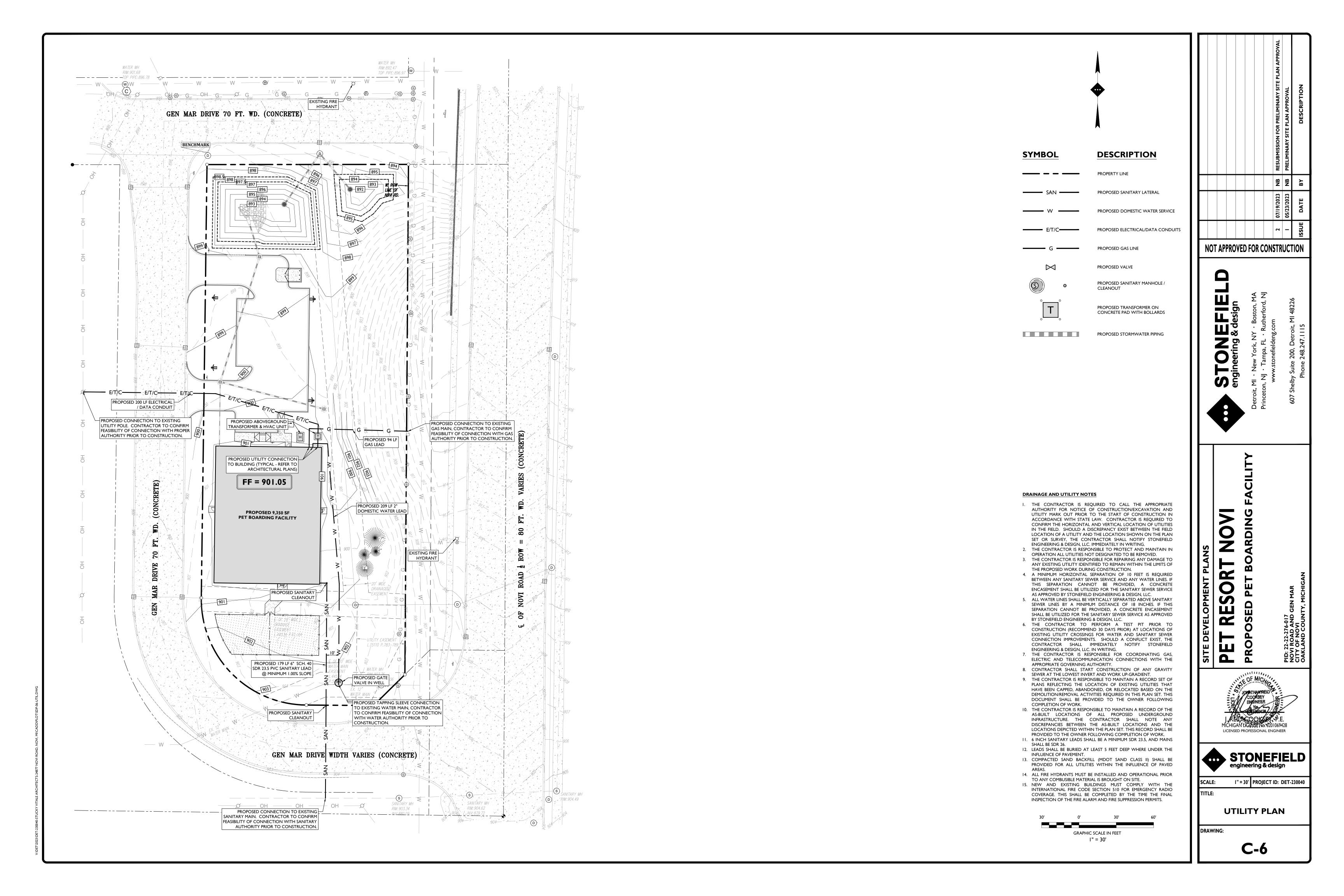




SCALE: AS SHOWN PROJECT ID: DET-230040

STORMWATER

MANAGEMENT PLAN





CODE SECTION	REQUIRED	PROPOSED
CODE SECTION	CONTROL	PROPOSED
§5.5.3.A.(5)	GREENBELT REQUIREMENTS: 3' TALL BERM WITH 3' CREST IS REQUIRED ALONG NOVI ROAD AND WESTERN GEN MAR FRONTAGE	NOT PROPOSED (W) ⁽²⁾
§5.5.3.B.ii.f	NOVI ROAD: GREENBELT WIDTH: 25 FT	67 FT
30.0.0.0	NOVI ROAD: MINIMUM BERM CREST: 3 FT	NOT PROPOSED (W) ⁽²⁾
	NOVI ROAD: MINIMUM BERM HEIGHT: 3 FT	No. 20 April 1997 Apri
		NOT PROPOSED (W) ⁽²⁾
	NOVI ROAD: 2-1/2 FOOT MASONRY OR DECORATIVE WALL	EVERGREEN PLANTINGS PROVIDED
	ONE CANOPY OR EVERGREEN TREE PER 40 LF:	
	NOVI ROAD: 420 LF	
	CANOPY TREES: (420 LF ⁽³⁾ / 60 LF) = 7 REQUIRED TREES	I PROPOSED TREES (W) 4 EXISTING TREES
	SUB-CANOPY TREES: (420 LF ⁽⁴⁾ / 40 LF) = 11 REQUIRED TREES	8 TREES (W)
	ROW TREES: (420 LF ⁽⁵⁾ / 45 LF) = 9 REQUIRED TREES	7 TREES (W)
§5.5.3.F.6	GEN-MAR: NORTH FRONTAGE: 142 LF	
Produced and April 1997	CANOPY TREES: (162 LF ⁽⁶⁾ / 35 LF) = 5 REQUIRED TREES	5 TREES
	CANOPY ROW: $(162 LF^{(6)} / 50 LF) = 3 REQUIRED TREES$	3 TREES
	SUB-CANOPY TREES: (162 LF ⁽⁶⁾ / 40 LF) = 4 REQUIRED TREES	4 TREES
	SERVICE CONTROL OF THE STREET OF THE SERVICE CONTROL OF THE SERVICE OF THE SERVIC	
	SHRUBS: (162 LF ⁽⁶⁾ / 20 LF) = 8 REQUIRED SHRUBS	8 SHRUBS
	PLANT MASSING: 10% OF FRONTAGE (162) * (0.10) = 16 LF	36 LF
	GEN-MAR: WEST-SOUTH FRONTAGE: 541 LF - 48 LF = 493 LF	
	CANOPY TREES: (493 LF / 35 LF) = 14 REQUIRED TREES	14 TREES
	CANOPY ROW: (493 LF / 50 LF) = 10 REQUIRED TREES	10 TREES
	SUB-CANOPY TREES: $(493 LF^{(7)} / 40 LF) = 12 REQUIRED TREES$	10 TREES (W)
	SHRUBS: (493 LF / 20 LF) = 25 REQUIRED SHRUBS	25 SHRUBS
	PLANT MASSING: 10% OF FRONTAGE (493) * (0.10) = 49 LF	71 LF
	PARKING LOT ISLAND REQUIREMENTS:	
§5.5.3.C.g	EACH ISLAND: MINIMUM 200 SF WITH 10 FT WIDTH	COMPLIES
	MINIMUM 3 FT BACK OF CURB TO TREE TRUNK	COMPLIES
	INTERIOR PARKING AREA REQUIREMENTS:	
§5.5.3.C.iii	TOTAL INTERIOR PARKING LOT ISLAND AREA AND	
	CANOPY TREE CHART: CATEGORY I, TC ZONE	
	a. [8,363 SF OF PARKING STALLS * 0.05] = 418 SF	
	b. [N/A] NO PARKING AREA OVER 50,000 SF c. TOTAL SF OF LANDSCAPE ISLANDS REQUIRED	812 SF
	A+B = TOTAL SF OF ISLANDS [418 + 0.0 = 418 SF]	612 31
	d. NUMBER OF CANOPY TREES REQUIRED	2 TREES
	C / 200 =TOTAL CANOPY TREES [418 / 200 = 2 REQUIRED TREES]	
	e. INTERIOR CANOPY TREES PERIMETER/35	7 TREES
	[243 LF / 35] = 7 INTERNAL TREES	
	PARKING LOT PERIMETER TREES:	
§5.5.3.C.iv	ONE PERIMETER CANOPY TREE PER 35 LF REQUIRED	
	ACCESS DRIVE	
	[VUA PERIMETER - BFST LINEAR FEET) / 35 VUA PERIMETER = 382 LF	
	BFST LINEAR FEET = 85 LF ACCESS DRIVES = 54 LF	
	[382 - 85 - 54] = 243 LF / (35) = 7 TREES	3 TREES PROPOSED (W)
	BUILDING FOUNDATION LANDSCAPE:	
§5.5.3.D.ii.a	MINIMUM FOUNDATION LANDSCAPE SQUARE FOOTAGE IS	
J	8 FT MULTIPLIED BY BUILDING PERIMETER (NOT	
	INCLUDING INGRESS / EGRESS)	
	[367 FT * 8 FT = 2,936 SF REQUIRED]	2,991 SF
§5.5.3.D.ii.b	LANDSCAPE PLANTING BEDS MINIMUM 75% OF BUILDING FOUNDATION AREA WITH 4 FT WIDTH.	
	[390 LF * 75% = 293 LF REQUIRED PLANTING BED]	365 LF
§5.5.3.D.ii.d	FACADES ADJACENT TO PUBLIC STREET SHALL HAVE	
₩ere or or all the	MINIMUM 60% PERIMETER AS GREENSPACE	
	[305 LF OF BUILDING FRONTAGE * 0.60 = 183 REQUIRED LF OF GREENSPACE]	285 LF (93.4%)
	10000 POSSON CONTROL NATIONAL CONTROL	
§5.5.3.E	DETENTION/RETENTION BASIN REQUIREMENTS: DETENTION BASIN SHALL BE PLANTED PER THE LDM	
χJ.J.J.E	MANUAL	
LDM 3	NATIVE PLANTS SHALL COVER 70-75% OF THE BASIN RIM	COMPLIES
LDM 3	CANOPY TREES PROVIDED AT A RATE OF (I) PER 35 LF	
	(429 LF / 35 LF) = 12 REQUIRED TREES	12 TREES
	10" TO 14" TALL GRASS ALONG SIDES OF BASIN	PROVIDED

MARCH

X

APRIL

- PROPOSED LANDSCAPING TO PROVIDE CONTINUOUS EVERGREEN SCREEN.

 DUE TO SIGHT VISION HINDRANCE A WAIVER IS REQUESTED FOR (4) FOUR ACCESSWAY PERIMETER
- BERM IS NOT PROPOSED DUE TO EXISTING SITE CONDITIONS REGARDING STEEP GRADE AND EASEMENTS INFLUENCING PLACEMENT OF BUILDING.
- TREES ARE NOT PROPOSED ALONG THE FRONTAGE ADJACENT TO THE WALL FACE: TOTAL OF 120 LF SUBTRACTED FROM THE TOTAL WESTERN BOUNDARY OF 420 LF. (300 LF) / (60) = 5 REQUIRED TREES.
- NOVI ROAD SUBCANOPY TREE CALCULATION OMITTING WALL LF: (300 LF) / (40) = 8 REQUIRED TREES. NOVI ROAD ROW TREE CALCULATION OMITTING WALL LF: (300 LF) / (45) = 7 REQUIRED TREES.
- GEN MAR NORTH CALCULATION OMITTING EASEMENT: (162 LF) (20 LF ÉASEMENT) = 142 TOTAL LF

MAINTENANCE REQUIREMENT SCHEDULE

X

X

X

X

X

GEN MAR EAST CALCULATION BUILDING FRONTAGE: (493 LF) - (109 LF BUILDING) = 384 TOTAL LF

APPLICANT

STUCKY VITALE ARCHITECTS 27127 WOODWARD AVENUE **ROYAL OAK, MI 48067-0925** 248-546-6700 MBLANEK@STUCKYVITALE.COM



			PLANT SCHEDUL	E					
DECIDUOUS TREES	CODE	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	QTY	UNIT COST	TOTAL	REMARKS
	ACE	ACER RUBRUM	RED MAPLE	2.5" - 3" CAL	B&B	5	\$400	\$2,000	NATIVE
(1)	CCA	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	2.5" - 3" CAL	B&B	5	\$400	\$2,000	NATIVE
(+)	GLE	GLEDITSIA TRIACANTHOS	HONEY LOCUST	2.5" - 3" CAL	B&B	6	\$400	\$2,400	NATIVE
(+)	NYS	NYSSA SYLVATICA	SOUR GUM	2.5" - 3" CAL	B&B	4	\$400	\$1,600	NATIVE
(+)	PLA	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	2.5" - 3" CAL	B&B	6	\$400	\$2,400	NATIVE
$\widetilde{(\mathbf{x})}$	QBR	QUERCUS RUBRA	RED OAK	2.5" - 3" CAL	B&B	7	\$400	\$2,800	NATIVE
ORNAMENTAL TREES	CODE	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	QTY	UNIT COST	TOTAL	REMARKS
	AME	AMELANCHIER LAEVIS	ALLEGHENY SERVICEBERRY	7' - 8' HT	B&B	8	\$400	\$3,200	NATIVE
\bigcirc	COR	CORNUS FLORIDA	FLOWERING DOGWOOD	2.5" - 3" CAL	B&B	8	\$400	\$3,200	NATIVE
①	CRA	CRATAEGUS CRUS-GALLI	COCKSPUR HAWTHORN	2.5" - 3" CAL	B&B	6	\$400	\$2,400	NATIVE
SHRUBS	CODE	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	QTY	UNIT COST	TOTAL	REMARKS
0	AZA	AZALEA X 'SILVER SWORD'	SILVER SWORD AZALEA	3 GAL.	РОТ	6	\$50	\$300	NOT NATIV
0	CEA	CEANOTHUS AMERICANUS	NEW JERSEY TEA	24" - 30"	B&B	22	\$50	\$1,100	NATIVE
⊕	CAL	CLETHRA ALNIFOLIA	SUMMERSWEET CLETHRA	18" - 24"	РОТ	11	\$50	\$550	NATIVE
0	FOT	FOTHERGILLA GARDENII	DWARF FOTHERGILLA	18" - 24"	РОТ	15	\$50	\$750	NOT NATIV
⊕	HYQ	HYDRANGEA QUERCIFOLIA	OAKLEAF HYDRANGEA	24" - 30"	POT	8	\$50	\$400	NOT NATIV
⊙	LIN	LINDERA BENZOIN	SPICEBUSH	24" - 30"	POT	21	\$50	\$1,050	NATIVE
0	PHY	PHYSOCARPUS OPULIFOLIUS	NINEBARK	24" - 30"	РОТ	24	\$50	\$1,200	NATIVE
₿	ROS	rosa carolina	CAROLINA ROSE	24" - 30"	B&B	15	\$50	\$750	NATIVE
0	VIB	VIBURNUM DENTATUM	VIBURNUM	36" - 42"	POT	24	\$50	\$1,200	NATIVE
EVERGREEN SHRUBS	CODE	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	QTY	UNIT COST	TOTAL	REMARKS
0	BUX	BUXUS MICROPHYLLA 'WINTER GEM'	GLOBE WINTER GEM BOXWOOD	18" - 24"	B&B	34	\$50	\$1,700	NOT NATIV
0	ICO	ILEX GLABRA 'COMPACTA'	COMPACT INKBERRY	18" - 24"	РОТ	41	\$50	\$2,050	NOT NATIV
0	JPS	JUNIPERUS X PFITZERIANA 'SEA GREEN'	SEA GREEN PFITZER JUNIPER	24" - 30"	РОТ	15	\$50	\$750	NOT NATIV
0	TAX	TAXUS X MEDIA 'DENSIFORMIS'	DENSE ANGLO-JAPANESE YEW	30" - 36"	B&B	41	\$50	\$2,050	NOT NATIV
GRASSES	CODE	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	QTY	UNIT COST	TOTAL	REMARKS
PERENNIALS	CAR	CAREX PENSYLVANICA BOTANICAL NAME	PENNSYLVANIA SEDGE COMMON NAME	I GAL. SIZE	POT, 24" O.C. CONTAINER	91 QTY	\$15 UNIT COST	\$1,365 TOTAL	NATIVE REMARKS
PEREINIALS	ECH	ECHINACEA PURPUREA	CONEFLOWER	I GAL.	POT, 18" O.C.	72	\$15	\$1,080	NATIVE
	RUD	RUDBECKIA FULGIDA 'LITTLE GOLDSTAR'	LITTLE GOLDSTAR CONEFLOWER	I GAL.	POT, 18" O.C.	70	\$15	\$1,050	NATIVE
ANDSCAPE MATERIAL						Leve	4341	¢2.00	¢12024
SEED	- 1				-	I SYD	4341	\$3.00	\$13,024
SOD	23	2	-	-	2	I SYD	0	\$6.00	\$0.00

NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN ON THE LANDSCAPE PLAN AND WITHIN THE PLANT LIST, THE PLAN SHALL DICTATE. * LANDSCAPE COST MAY VARY PER AVAILABILITY AND MARKET RATES. ** 16 OF 19 PROPOSED PLANTS ARE NATIVE (52.6%).

> THE STORMWATER BASIN IS DESIGNED TO EMPTY 24 - 48 HOURS AFTER RAINFALL EVENT

NO PROPOSED LOADING ZONE ON SITE.

TREES SHALL BE PLANTED:

• 10 FEET FROM HYDRANTS AND UTILITY 5 FEET FROM UTILITY LINES
 3 FEET FROM CURBS

CITY MUST APPROVE ANY SUBSTITUTIONS IN WRITING PRIOR TO INSTALLATION

UTILITY LINES ON SITE

NO EXISTING OR PROPOSED OVERHEAD

ANY TREE ON SITE WHICH IS REMOVED THAT IS NOT PERMITTED MUST BE REPLACED.

DEAD OR DECLINING TREES ON SITE SHALL BE REPLACED.

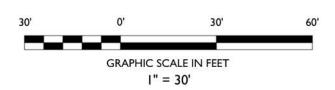
| IRRIGATION PLANS ARE REQUIRED AND SHALL BE PROVIDED AS PART OF THE FINAL SITE

SHOULD JAPANESE KNOTWEED OF PHRAGMITES BE PRESENT ON SITE THEY SHALL BE REMOVED FROM THE PREMISES

TREE PROTECTION FENCE SHALL BE (I) ONE FOOT OUTSIDE OF THE DRIPLINE

LANDSCAPING NOTES

- I. THE CONTRACTOR SHALL RESTORE ALL DISTURBED GRASS AND LANDSCAPED AREAS TO MATCH EXISTING CONDITIONS UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
- THE CONTRACTOR SHALL RESTORE ALL DISTURBED LAWN AREAS WITH A MINIMUM 4 INCH LAYER OF TOPSOIL AND SEED. 3. THE CONTRACTOR SHALL RESTORE MULCH AREAS WITH A MINIMUM
- 3 INCH LAYER OF MULCH. 4. THE MAXIMUM SLOPE ALLOWABLE IN LANDSCAPE RESTORATION AREAS SHALL BE 3 FEET HORIZONTAL TO 1 FOOT VERTICAL (3:1
- SLOPE) UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET. 5. THE CONTRACTOR IS REQUIRED TO LOCATE ALL SPRINKLER HEADS IN AREA OF LANDSCAPING DISTURBANCE PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL RELOCATE SPRINKLER HEADS AND LINES IN ACCORDANCE WITH OWNER'S DIRECTION
- WITHIN AREAS OF DISTURBANCE. 6. THE CONTRACTOR SHALL ENSURE THAT ALL DISTURBED LANDSCAPED AREAS ARE GRADED TO MEET FLUSH AT THE ELEVATION OF WALKWAYS AND TOP OF CURB ELEVATIONS EXCEPT UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET. NO ABRUPT CHANGES IN GRADE ARE PERMITTED IN DISTURBED LANDSCAPING
- ALL TRANSFORMERS MUST BE SCREENED PER THE CITY OF NOVI STANDARDS AND SPECIFICATIONS.



PAUL DEVITTO, L.L.A. MICHIGAN LICENSE No. 3901001797 LICENSED LANDSCAPE ARCHITECT

		RESUBMISSION FOR PRELIMINARY SITE PLAN APP	RESUBMISSION FOR PRELIMINARY SITE PLAN APP	PRELIMINARY SITE PLAN APPROVAL	DESCRIPTION
		KH	NB	NB	ВҮ
		08/11/2023	07/19/2023	05/23/2023	DATE
		3	2	_	ISSUE
T ADDDAY	/FD FOR	CON	CTD	110	FIAN

NOT APPROVED FOR CONSTRUCTION

J. REID COOKSEY, P.E.

LICENSED PROFESSIONAL ENGINEER

MÍCHIGAN LICENSE No. 6201069428



I" = 30' PROJECT ID: DET-230040

LANDSCAPING PLAN

DRAWING:

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

2. 3 OZ./1000 S.F. OR 6 LBS./ACRE

NO MOWING SHALL TAKE PLACE.

SCHIZACHYRIUM SCOPARIUS SPOROBOLUS HETEROLEPIS SOW ABOVE MIX AT A RATE OF 40% FORBS, 60% GRASSES/SEDGE/RUSH

WILD BLUE FLAG MARSH BLAZING STAR GREAT BLUE LOBELIA SYMPHYOTRICHUM PUNICEUM SWAMP ASTER BLUE VERVAIN VERBENA HASTATA SPARGANIUM EURYCARPUM COMMON BUR REED

2. 3 OZ./1000 S.F. OR 6 LBS./ACRE 3. NO MOWING SHALL TAKE PLACE.

MULCHING

MOWING OF

PRUNING

WILDFLOWERS

FERTILIZER AND

PAVED SURFACE

MAINTAINCE

INSECT AND DISEASE

PLANTING RENOVATION

LANDSCAPE STRUCTURES

LIGHTING MAINTENANCE

AMENDMENTS

CONTROL

SEASONAL PLANTINGS

MOWING OF TURF

1. SOW ABOVE MIX AT A RATE OF 40% FORBS, 60% GRASSES/SEDGE/RUSH

AUGUST SEPTEMBER OCTOBER NOVEMBER DECEMBER



1. SOW ABOVE MIX AT A RATE OF 40% FORBS, 60% GRASSES/SEDGE/RUSH

2. 3 OZ./1000 S.F. OR 6 LBS./ACRE

3. NO MOWING SHALL TAKE PLACE.

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NO MOWING SHALL TAKE PLACE

APPLICANT

STUCKY VITALE ARCHITECTS 27127 WOODWARD AVENUE **ROYAL OAK, MI 48067-0925** 248-546-6700 MBLANEK@STUCKYVITALE.COM

(F			PLANT SCHEDUL						
DECIDUOUS TREES	CODE	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	QTY	UNIT COST	TOTAL	REMARKS
DECIDOOOS TREES	CODE	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	QII	ONIT COST	TOTAL	KEITAKKS
	ACE	ACER RUBRUM	RED MAPLE	2.5" - 3" CAL	B&B	5	\$400	\$2,000	NATIVE
\oplus	CCA	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	2.5" - 3" CAL	B&B	5	\$400	\$2,000	NATIVE
+	GLE	GLEDITSIA TRIACANTHOS	HONEY LOCUST	2.5" - 3" CAL	B&B	6	\$400	\$2,400	NATIVE
+	NYS	NYSSA SYLVATICA	SOUR GUM	2.5" - 3" CAL	B&B	4	\$400	\$1,600	NATIVE
(+)	PLA	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	2.5" - 3" CAL	B&B	6	\$400	\$2,400	NATIVE
$\overline{\mathbb{X}}$	QBR	QUERCUS RUBRA	RED OAK	2.5" - 3" CAL	B&B	7	\$400	\$2,800	NATIVE
ORNAMENTAL TREES	CODE	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	QTY	UNIT COST	TOTAL	REMARKS
	AME	AMELANCHIER LAEVIS	ALLEGHENY SERVICEBERRY	7` - 8` HT	B&B	8	\$400	\$3,200	NATIVE
	COR	CORNUS FLORIDA	FLOWERING DOGWOOD	2.5" - 3" CAL	B&B	8	\$400	\$3,200	NATIVE
+	CRA	CRATAEGUS CRUS-GALLI	COCKSPUR HAWTHORN	2.5" - 3" CAL	B&B	6	\$400	\$2,400	NATIVE
SHRUBS	CODE	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	QTY	UNIT COST	TOTAL	REMARKS
•	AZA	AZALEA X 'SILVER SWORD'	SILVER SWORD AZALEA	3 GAL.	РОТ	6	\$50	\$300	NOT NATIVE
O	CEA	CEANOTHUS AMERICANUS	NEW JERSEY TEA	24" - 30"	B&B	22	\$50	\$1,100	NATIVE
<u> </u>	CAL	CLETHRA ALNIFOLIA	SUMMERSWEET CLETHRA	18" - 24"	POT	11	\$50	\$550	NATIVE
O	FOT	FOTHERGILLA GARDENII	DWARF FOTHERGILLA	18" - 24"	POT	15	\$50	\$750	NOT NATIVE
(†)	HYQ	HYDRANGEA QUERCIFOLIA	OAKLEAF HYDRANGEA	24" - 30"	POT	8	\$50	\$400	NOT NATIVE
<u> </u>	LIN	LINDERA BENZOIN	SPICEBUSH	24" - 30"	POT	21	\$50	\$1,050	NATIVE
	PHY	PHYSOCARPUS OPULIFOLIUS	NINEBARK	24" - 30"	POT	24	\$50	\$1,200	NATIVE
₩	ROS	ROSA CAROLINA	CAROLINA ROSE	24" - 30"	B&B	15	\$50	\$750	NATIVE
O	VIB	VIBURNUM DENTATUM	VIBURNUM	36" - 42"	POT	24	\$50	\$1,200	NATIVE
EVERGREEN SHRUBS	CODE	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	QTY	UNIT COST	TOTAL	REMARKS
•	BUX	BUXUS MICROPHYLLA 'WINTER GEM'	GLOBE WINTER GEM BOXWOOD	18" - 24"	B&B	34	\$50	\$1,700	NOT NATIVE
	ICO	ILEX GLABRA `COMPACTA`	COMPACT INKBERRY	18" - 24"	POT	41	\$50	\$2,050	NOT NATIVE
<u> </u>	JPS	JUNIPERUS X PFITZERIANA `SEA GREEN'	SEA GREEN PFITZER JUNIPER	24" - 30"	РОТ	15	\$50	\$750	NOT NATIVE
<u> </u>	TAX	TAXUS X MEDIA 'DENSIFORMIS'	DENSE ANGLO-JAPANESE YEW	30" - 36"	B&B	41	\$50	\$2,050	NOT NATIVE
GRASSES	CODE	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	QTY	UNIT COST	TOTAL	REMARKS
DEDENING THE	CAR	CAREX PENSYLVANICA	PENNSYLVANIA SEDGE	I GAL.	POT, 24" O.C.	91 QTY	\$15	\$1,365	NATIVE
PERENNIALS	CODE	BOTANICAL NAME ECHINACEA PURPUREA	COMMON NAME CONEFLOWER	SIZE I GAL.	CONTAINER POT, 18" O.C.	72	UNIT COST	*1,080	REMARKS NATIVE
	RUD	RUDBECKIA FULGIDA 'LITTLE GOLDSTAR'	LITTLE GOLDSTAR CONEFLOWER	I GAL.	POT, 18" O.C.	70	\$15	\$1,050	NATIVE
LANDSCAPE MATERIAL									
SEED	-	-	-	-	-	I SYD	4341	\$3.00	\$13,024
SOD	-	-	-	-	-	I SYD	0	\$6.00	\$0.00
MULCH	-	-	-	-	-	I CYD	60	\$35.00	\$2,100
								TOTAL:	\$54,469

NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN ON THE LANDSCAPE PLAN AND WITHIN THE PLANT LIST, THE PLAN SHALL DICTATE. * LANDSCAPE COST MAY VARY PER AVAILABILITY AND MARKET RATES. ** 16 OF 19 PROPOSED PLANTS ARE NATIVE (52.6%).

> THE STORMWATER BASIN IS DESIGNED TO EMPTY 24 - 48 HOURS AFTER RAINFALL EVENT

NO PROPOSED LOADING ZONE ON SITE.

• 3 FEET FROM CURBS

TREES SHALL BE PLANTED: • 10 FEET FROM HYDRANTS AND UTILITY 5 FEET FROM UTILITY LINES

CITY MUST APPROVE ANY SUBSTITUTIONS IN WRITING PRIOR TO INSTALLATION

NO EXISTING OR PROPOSED OVERHEAD UTILITY LINES ON SITE

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PAUL DEVITTO, L.L.A.

MICHIGAN LICENSE No. 3901001797 LICENSED LANDSCAPE ARCHITECT

IRRIGATION PLANS ARE REQUIRED AND SHALL BE PROVIDED AS PART OF THE FINAL SITE

SHOULD JAPANESE KNOTWEED OF PHRAGMITES BE PRESENT ON SITE THEY SHALL BE REMOVED FROM THE PREMISES

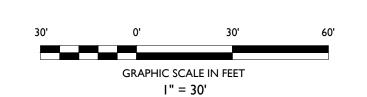
TREE PROTECTION FENCE SHALL BE (I) ONE FOOT OUTSIDE OF THE DRIPLINE

LANDSCAPING NOTES

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- WITH A MINIMUM 4 INCH LAYER OF TOPSOIL AND SEED. 3. THE CONTRACTOR SHALL RESTORE MULCH AREAS WITH A MINIMUM 3 INCH LAYER OF MULCH.

4. THE MAXIMUM SLOPE ALLOWABLE IN LANDSCAPE RESTORATION

- AREAS SHALL BE 3 FEET HORIZONTAL TO 1 FOOT VERTICAL (3:1 SLOPE) UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET. 5. THE CONTRACTOR IS REQUIRED TO LOCATE ALL SPRINKLER HEADS IN AREA OF LANDSCAPING DISTURBANCE PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL RELOCATE SPRINKLER HEADS AND LINES IN ACCORDANCE WITH OWNER'S DIRECTION
- WITHIN AREAS OF DISTURBANCE. 6. THE CONTRACTOR SHALL ENSURE THAT ALL DISTURBED LANDSCAPED AREAS ARE GRADED TO MEET FLUSH AT THE ELEVATION OF WALKWAYS AND TOP OF CURB ELEVATIONS EXCEPT UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET. NO ABRUPT CHANGES IN GRADE ARE PERMITTED IN DISTURBED LANDSCAPING
- 7. ALL TRANSFORMERS MUST BE SCREENED PER THE CITY OF NOVI STANDARDS AND SPECIFICATIONS.



NOT APPROVED FOR CONSTRUCTION



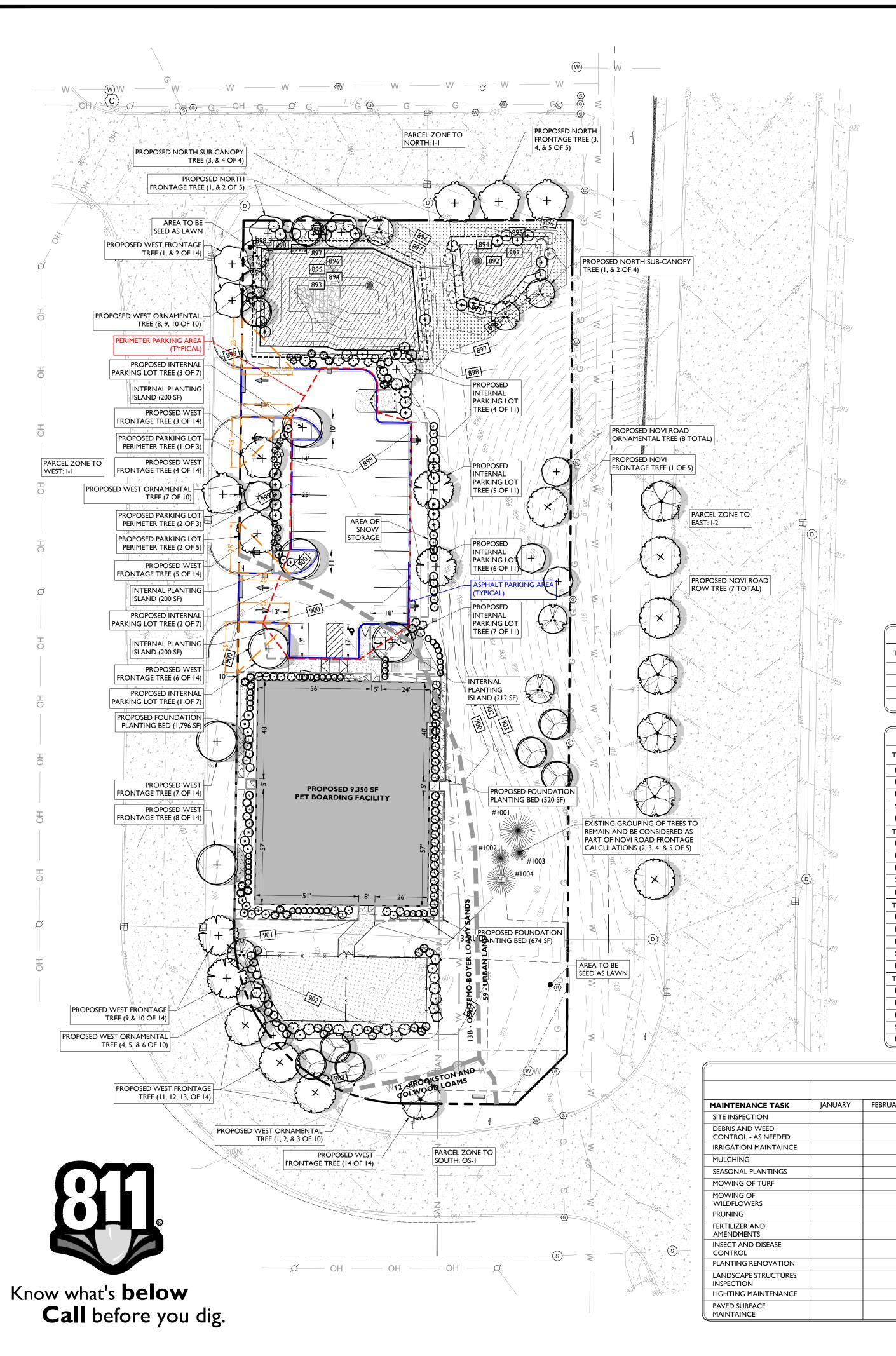
J. REID COOKSEY, P.E. MÍCHIGAN LICENSE No. 6201069428

LICENSED PROFESSIONAL ENGINEER



I" = 30' PROJECT ID: DET-230040

LANDSCAPING PLAN



EXISTING TREE INVENTORY TREE ID NUMBER RECOMMENDATION #1001 NORWAY SPRUCE TO REMAIN NORWAY SPRUCE FAIR TO REMAIN FAIR NORWAY SPRUCE TO REMAIN #1004 NORWAY SPRUCE FAIR TO REMAIN

SOU CHARACT	EDISTICS CHART						
SOIL CHARACTERISTICS CHART							
TYPE OF SOIL	BROOKSTON AND COLWOOD LAOMS						
PERCENT OF SITE COVERAGE	5.2%						
HYDROLOGIC SOIL GROUP	B/C/D						
DEPTH TO RESTRICTIVE LAYER	> 80 INCHES						
SOIL PERMEABILITY	0.20 TO 1.98 IN / HR						
DEPTH TO WATER TABLE	ABOUT 0 INCHES						
TYPE OF SOIL	OSHTEMO-BOYER LOAMY SANDS						
PERCENT OF SITE COVERAGE	24.8%						
HYDROLOGIC SOIL GROUP	A						
DEPTH TO RESTRICTIVE LAYER	> 80 INCHES						
SOIL PERMEABILITY	1.98 TO 5.95 IN / HR						
DEPTH TO WATER TABLE	> 80 INCHES						
TYPE OF SOIL	URBAN LAND						
PERCENT OF SITE COVERAGE	69.9%						
HYDROLOGIC SOIL GROUP	С						
DEPTH TO RESTRICTIVE LAYER	20 TO 36 INCHES						
SOIL PERMEABILITY	0.06 TO 0.20 IN / HR						
DEPTH TO WATER TABLE	> 80 INCHES						
TYPE OF SOIL	SLOAN - MARLETTE						
PERCENT OF SITE COVERAGE	0.1%						
HYDROLOGIC SOIL GROUP	B/D						
DEPTH TO RESTRICTIVE LAYER	0 TO 12 INCHES						
SOIL PERMEABILITY	0.20 TO 1.98 IN / HR						
DEPTH TO WATER TABLE	> 80 INCHES						

MAINTENANCE REQUIREMENT SCHEDULE												
	MONTH											
MAINTENANCE TASK	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
SITE INSPECTION			Х				Х				X	
DEBRIS AND WEED CONTROL - AS NEEDED			×	Х	Х	Х	х	×	х	х		
IRRIGATION MAINTAINCE				Х						×		
MULCHING				Х								
SEASONAL PLANTINGS					Х	Х	Х	Х	Х	X	X	
MOWING OF TURF			Х	Х	Х	Х	Х	Х	Х	Х	Х	
MOWING OF WILDFLOWERS											Х	
PRUNING			Х	X							X	
FERTILIZER AND AMENDMENTS			×	Х	×	х	×	×	×	x	×	
INSECT AND DISEASE CONTROL					Х	Х	х	х	Х	х		
PLANTING RENOVATION			Х							Х		
LANDSCAPE STRUCTURES INSPECTION				х								
LIGHTING MAINTENANCE			Х							Х		
PAVED SURFACE MAINTAINCE				х								

SHOULD JAPANESE KNOTWEED OF PHRAGMITES BE PRESENT ON SITE THEY SHALL BE REMOVED FROM THE PREMISES

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FOOT OUTSIDE OF THE DRIPLINE

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TREES SHALL BE PLANTED: 10 FEET FROM HYDRANTS AND UTILITY

STRUCTURES 5 FEET FROM UTILITY LINES • 3 FEET FROM CURBS

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ANY TREE ON SITE WHICH IS REMOVED THAT IS NOT PERMITTED MUST BE REPLACED.

DEAD OR DECLINING TREES ON SITE SHALL BE

PAUL DEVITTO, L.L.A. MICHIGAN LICENSE No. 3901001797 LICENSED LANDSCAPE ARCHITECT

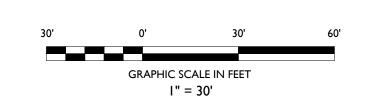
IRRIGATION CONTRACTOR TO PROVIDE A DESIGN FOR AN IRRIGATION SYSTEM SEPARATING PLANTING BEDS FROM LAWN AREA. PRIOR TO CONSTRUCTION, DESIGN IS TO BE SUBMITTED TO THE PROJECT LANDSCAPE DESIGNER FOR REVIEW AND APPROVAL. WHERE POSSIBLE, DRIP IRRIGATION AND OTHER WATER CONSERVATION TECHNIQUES SUCH AS RAIN SENSORS SHALL BE IMPLEMENTED. CONTRACTOR TO VERIFY MAXIMUM ON SITE DYNAMIC WATER PRESSURE AVAILABLE MEASURED IN PSI. PRESSURE REDUCING DEVICES OR BOOSTER PUMPS SHALL BE PROVIDED TO MEET SYSTEM PRESSURE REQUIREMENTS. DESIGN TO SHOW ALL VALVES, PIPING, HEADS, BACKFLOW PREVENTION, METERS, CONTROLLERS, AND SLEEVES WITHIN HARDSCAPE AREAS.

FOR COMMON AREA IRRIGATION SYSTEMS CONNECTED TO PUBLIC WATER SUPPLIES: INSTALL A BACKFLOW PREVENTION REDUCED PRESSURE ZONE ASSEMBLY (RPZ) WITH AN ASSE 1013 LISTING APPROVAL AT EACH TAP TO THE PUBLIC WATER SUPPLY. A MINIMUM CLEARANCE OF 12-INCHES MEASURED FROM THE BOTTOM OF PRESSURE RELIEF VALVE TO THE FINISHED LANDSCAPED GRADE SHALL BE REQUIRED. PROVIDE A DETAIL SHOWING THE RPZ INSTALLATION SETUP AND HEIGHT ABOVE GRADE. IF BACKFLOW PREVENTER IS TO BE ENCLOSED, PROVIDE A DETAIL OF THE ENCLOSURE WITH REQUIRED DRAINAGE OUTLETS. SHOW ALL LOCATIONS ON A SITE PLAN. A PLUMBING PERMIT IS REQUIRED FOR THE INSTALLATION OF THE BACKFLOW PREVENTER. INSTALLATION OF THE BACKFLOW PREVENTER SHALL BE IN SUCH A MANNER AS TO NOT REQUIRE BLOWING OUT THE SYSTEM THROUGH THE BACKFLOW PREVENTER. DRAIN PORTS AND BLOW OUT PORTS SHALL BE INCLUDED. ANY DEVIATIONS FROM THESE REQUIREMENTS MUST BE APPROVED THROUGH THE NOVI WATER & SEWER DIVISION CROSS CONNECTION CONTROL SPECIALIST (248-735-5661).

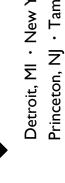
LANDSCAPING NOTES

IRRIGATION NOTE:

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						RESUBMISSION FOR PRELIMINARY SITE PLAN APPR	PRELIMINARY SITE PLAN APPROVAL	DESCRIPTION
						NB	NB	ВҮ
						07/19/2023	05/23/2023	DATE
						2	-	ISSUE
\PI	PRO	VEC	FO	R C	ON	STR	UC	ΓΙΟΝ



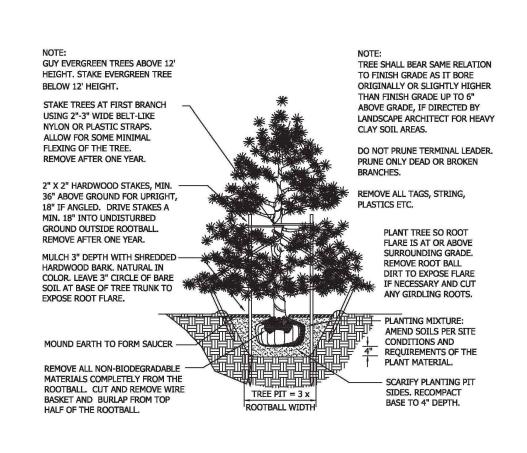
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J. REID COOKSEY, P.E. MÍCHIGAN LICENSE No. 6201069428 LICENSED PROFESSIONAL ENGINEER



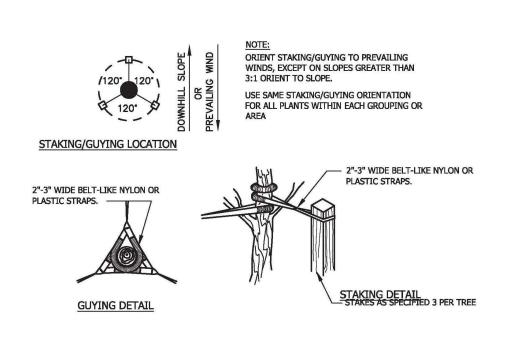
I" = 30' PROJECT ID: DET-230040

LANDSCAPING AREA AND TREE LAYOUT PLAN



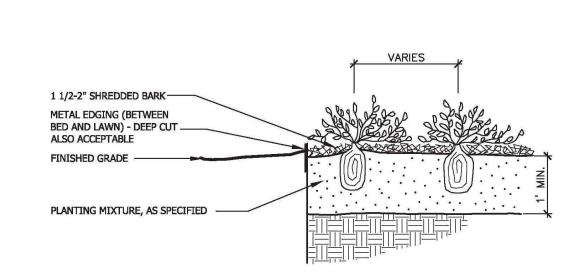
EVERGREEN TREE PLANTING DETAIL

NOT TO SCALE



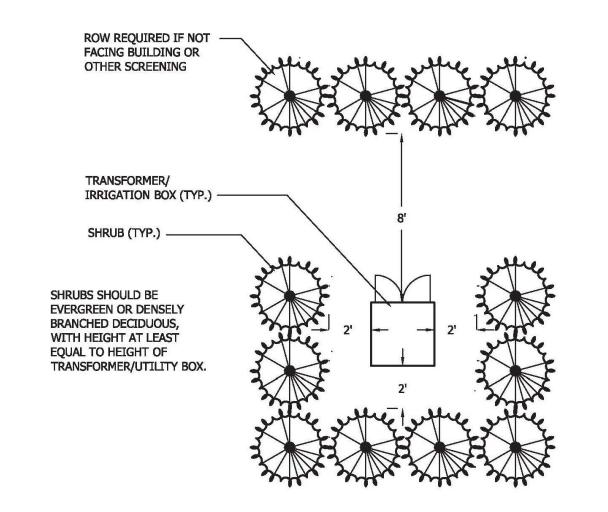
TREE STAKING DETAIL

NOT TO SCALE

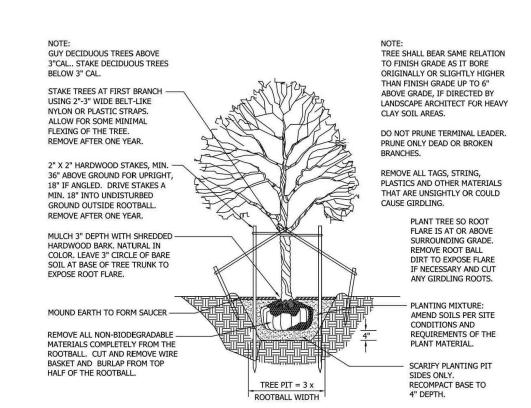


GROUND COVER/PERENNIAL/ANNUAL

PLANTING DETAIL

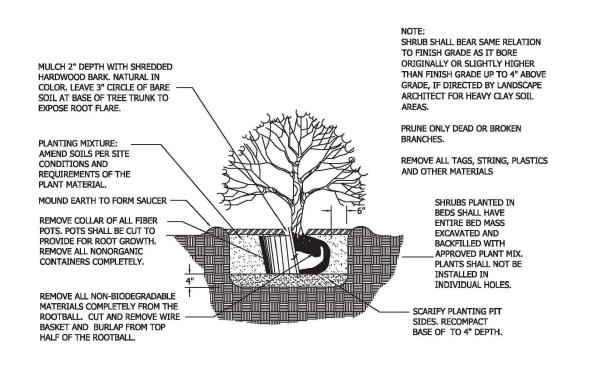


TRANSFORMER SCREENING DETAIL



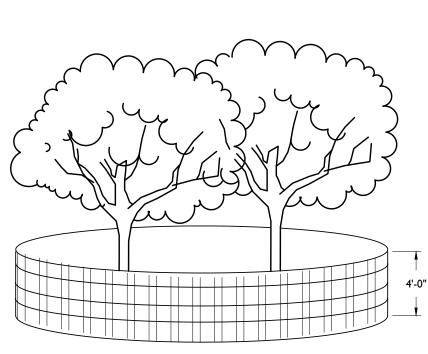
DECIDUOUS TREE PLANTING DETAIL

NOT TO SCALE



DECIDUOUS AND EVERGREEN SHRUB PLANTING DETAIL

NOT TO SCALE



SNOW FENCING IS TO BE 4'-0" HIGH AND SELF SUPPORTED.

- DO NOT STOCKPILE MATERIALS OR STORE EQUIPMENT WITHIN THE TREE PROTECTION FENCING. SNOW FENCE TO BE INSTALLED AT DRIP LINE OF EXISTING TREE OR TREE CLUSTER TO BE PROTECTED OR NO CLOSER THAN 6' FROM TREE TRUNK IF NECESSARY.
- IF THE PROJECT AREA ENCOMPASSES A PORTION OF THE DRIP LINE OF THE TREE, NO MORE THAN ONE THIRD OF THE OF THE TOTAL AREA OF WITHIN THE DRIP LINE SHOULD BE DISTURBED BY CONSTRUCTION OR REGRADING AND A 3" THICK LAYER OF MULCH SHALL BE INSTALLED OVER THE AREA OF THE DRIP LINE WHICH IS NOT PROTECTED BY FENCING TO PROVIDE A CUSHION.

TREE PROTECTION DETAIL

NOT TO SCALE

CITY OF NOVI GENERAL NOTES

I. ALL PLANT MATERIALS ARE TO BE INSTALLED IN A SOUND, WORKMAN-LIKE MANNER AND IN ACCORDANCE WITH THE **CURRENT CITY OF NOVI PLANTING REQUIREMENTS**

THE RIGHT TO INSPECT THE PLANT MATERIALS PRIOR TO PLANTING AND TO REJECT ANY PLANT MATERIALS DEEMED TO NOT

- ALL PLANT MATERIALS SHALL BE INSTALLED BETWEEN MARCH 15TH AND NOVEMBER 15TH 3. ALL PLANT MATERIALS ARE TO BE NORTHERN NURSERY GROWN NO.I GRADE AND INSTALLED ACCORDING TO ACCEPTED PLANTING PROCEDURES. ALL PLANT MATERIALS SHALL CONFORM TO THE CURRENT AAN STANDARDS FOR NURSERY STOCK. THEY SHALL BE PLANTED ACCORDING TO THE CITY OF NOVI PLANTING DETAILS AND SPECIFICATIONS. THE CITY SHALL HAVE
- MEET THE STANDARDS OF THE ZONING ORDINANCE. 4. ALL TREES SHALL HAVE A CENTRAL LEADER AND A RADIAL BRANCHING STRUCTURE. PARK GRADE TREES ARE NOT
- ACCEPTABLE. ALL TREES SHALL BE BALLED AND BURLAPPED (B&B). 5. ANY DECIDUOUS CANOPY TREES WITH BRANCHES THAT MIGHT TEND TO DEVELOP INTO "V" CROTCHES SHALL
- SUBORDINATED SO AS NOT TO BECOME DOMINANT BRANCHES. 6. MULCH SHALL BE NATURAL COLOR FINELY SHREDDED HARDWOOD BARK FOR ALL PLANTINGS. 3" THICK FOR TREES IN 4-FOOT DIAMETER CIRCLE WITH 3" PULLED AWAY FROM TRUNK. 2-3" THICK FOR SHRUBS AND SHRUB BEDS AND 2" THICK
- PLANTING PERIOD AS DETERMINED BY THE CITY OF NOVI. 8. ALL PLANT MATERIAL SHALL BE MAINTAINED IN A HEALTHY GROWING CONDITION, INCLUDING WATERING, CULTIVATION, WEED CONTROL AND SOIL ENRICHMENTS AS MAY BE NECESSARY

7. ALL PLANT MATERIAL SHALL BE WARRANTIED FOR TWO (2) FULL YEARS AFTER DATE OF ACCEPTANCE BY THE CITY OF NOVI.

ALL UNHEALTHY AND DEAD MATERIAL SHALL BE REPLACED WITHIN THREE (3) MONTHS OR THE NEXT APPROPRIATE

GENERAL LANDSCAPING NOTES

- I. THE LANDSCAPE CONTRACTOR SHALL FURNISH ALL MATERIALS AND PERFORM ALL WORK IN ACCORDANCE WITH THESE I. ALL PLANT MATERIAL SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2004) OR LATEST 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 INTENTION OF THE SPECIFICATIONS, DRAWINGS, AND INSTRUCTIONS AND EXECUTED WITH THE STANDARD LEVEL OF CARE FOR THE LANDSCAPE INDUSTRY. 2. 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.
- 3. 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.

4. IF SAMPLES ARE REQUESTED, THE LANDSCAPE CONTRACTOR IS TO SUBMIT CERTIFICATION TAGS FROM TREES, SHRUBS AND

- SEED VERIFYING TYPE AND PURITY 5. UNLESS OTHERWISE AUTHORIZED BY THE PROIECT 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 OF ANY PLANT MATERIALS 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
- 6. 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:

DESIGNER, OR GOVERNING MUNICIPAL OFFICIAL.

- . 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 AS DEPICTED WITHIN THE APPROVED OR FINAL PLAN SET, ESTABLISHING THE TREE PROTECTION ZONE. FENCE INSTALLATION SHALL BE IN ACCORDANCE WITH THE PROVIDED "TREE PROTECTION FENCE DETAIL." 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. 2. IN ORDER TO AVOID DAMAGE TO ROOTS, BARK OR LOWER BRANCHES, NO VEHICLE, FOLIPMENT, 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.
- 3. 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 tunneled 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") AND FINISH APPROXIMATELY TWO INCHES (2") ABOVE THE FINISH GRADE AT TREE. INSTALL 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 TREES 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:

- I. 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.
- 2. 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 WITHIN THE "SEED SPECIFICATION" OR "SOD SPECIFICATION" IS APPROXIMATE AND FOR BIDDING PURPOSES ONLY. IF ADDITIONAL AMENDMENTS ARE NECESSARY, ADJUST THE TOPSOIL AS • 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%) 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 WELL-DRAINED ARABLE SITE, FREE FROM ALL CLAY, LUMPS, COARSE SANDS, STONES, PLANTS, ROOTS, STICKS, AND OTHER FOREIGN MATERIAL GREATER THAN ONE INCH (1").
- f. topsoil shall have a ph range of 5.0-7.0 and shall not contain less than 6% organic matter by weigh 5. OBTAIN TOPSOIL ONLY FROM LOCAL SOURCES OR FROM AREAS HAVING SIMILAR SOIL CHARACTERISTICS TO THAT FOUND AT THE PROIECT SITE.
- 5. 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. 8. LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE SUB-GRADE ELEVATION MEETS THE FINISHED GRADE ELEVATION (LESS THE REOUIRED TOPSOIL). IN ACCORDANCE WITH THE APPROVED OR FINAL GRADING PLAN.
- 9. ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE PROIECT LANDSCAPE DESIGNER OR MUNICIPAL OFFICIAL
- 10. 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 II. 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
- 12. WHENEVER POSSIBLE, THE SOIL PREPARATION AREA SHALL BE CONNECTED FROM PLANTING TO PLANTING.
- 13. SOIL SHALL BE LOOSENED WITH A BACKHOE OR OTHER LARGE COARSE-TILLING EQUIPMENT UNLESS THE SOIL IS FROZEN OR EXCESSIVELY WET. TILLING THAT PRODUCES LARGE, COARSE CHUNKS OF SOIL IS PREFERABLE TO TILLING THAT RESULTS IN FINE GRAINS UNIFORM IN TEXTURE. AFTER THE AREA IS LOOSENED IT SHALL NOT BE DRIVEN OVER BY ANY VEHICLE. 14. APPLY PRE-EMERGENT WEED CONTROL TO ALL PLANT BEDS PRIOR TO MULCHING. ENSURE COMPATIBILITY BETWEEN
- PRODUCT AND PLANT MATERIAL 15. ALL PLANTING SOIL SHALL BE AMENDED WITH THE FOLLOWING:

AROUND ITS PERIMETER, AT A DEPTH OF ABOUT 4 INCHES.

- MYCRO® 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. MYCOR® TREE SAVER® IS EFFECTIVE FOR ALL TREE AND SHRUB SPECIES EXCEPT RHODODENDRONS, AZALEAS, AND
- MOUNTAIN LAUREL, WHICH REQUIRE ERICOID 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.

- 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 KELP, PROTEIN BYPRODUCTS, AND YUCCA SCHIDIGERA, AND A COMPLEMENT OF BENEFICIAL RHIZOSPHERE BACTERIA. THE STANDARD 21 GRAM TABLET IS SPECIFIED HERE. DIRECTIONS FOR USE: FOR PLANTING BALLED & BURLAPPED (B&B) TREES AND SHRUBS, MEASURE THE THICKNESS OF THE TRUNK, AND USE ABOUT I TABLET (21-G) PER HALF-INCH. PLACE THE TABLETS DIRECTLY NEXT TO THE ROOT BALL, EVENLY DISTRIBUTED

CITY OF NOVI GENERAL NOTES:

INSTALLATION.

- 9. ANY SUBSTITUTIONS OR DEVIATIONS FROM THE LANDSCAPE PLAN MUST BE APPROVED IN WRITING BY THE CITY OF NOVI PRIOR TO INSTALLATION. 10. ALL TREE WRAP, STAKES, AND GUYS MUST BE REMOVED BY JULY 1ST FOLLOWING THE FIRST WINTER SEASON AFTER
- II. ALL LANDSCAPE AREAS ARE TO BE MAINTAINED IN HEALTHY GROWING CONDITION FREE OF DEBRIS AND REFUSE AND IN CONFORMANCE WITH THE APPROVED LANDSCAPE PLAN. 12. CONTRACTOR TO REMOVE ALL CONSTRUCTION DEBRIS AND EXCESS MATERIALS FROM THE SITE PRIOR TO FINAL ACCEPTANCE.
- 13. PLANT MATERIALS, EXCEPT SOD, GROUND COVERS, AND CREEPING VINE TYPE PLANTINGS, SHALL NOT BE LOCATED WITHIN FOUR (4) FEET OF THE PROPERTY LINE.
- 14. ALL TRÂNSFORMERS ARE TO BE SCREENED IN ACCORDANCE WITH THE CITY OF NOVI ORDINANCE AND SO AS TO NOT CONFLICT WITH DTE RESTRICTIONS. (SEE DETAIL THIS SHEET). 15. THE OWNER IS RESPONSIBLE FOR REQUEST OF FINAL INSPECTION AND ACCEPTANCE OF THE LANDSCAPE AT THE END OF THE
- 2-YEAR GUARANTEE PERIOD. 16. THE PROVIDER OF THE FINANCIAL GUARANTEE FOR THE LANDSCAPE INSTALLATION SHALL BE FULLY RESPONSIBLE FOR COMPLETION OF THE LANDSCAPE INSTALLATION AND MAINTENANCE PER THE APPROVED LANDSCAPE PLAN AND APPLICABLE
- CITY ORDINANCES. 17. A MINIMUM OF ONE CULTIVATION IN JUNE, JULY, AND AUGUST DURING THE (2) TWO YEAR WARRANTY PERIOD SHALL OCCUR.

PLANT QUALITY AND HANDLING NOTES

- REVISION AS PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION. 2. IN ALL CASES, BOTANICAL NAMES LISTED WITHIN THE APPROVED OR FINAL PLANT LIST SHALL TAKE PRECEDENCE OVER
- COMMON NAMES. 3. ALL PLANTS SHALL BE OF SELECTED SPECIMEN QUALITY, EXCEPTIONALLY HEAVY, 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 BE FREE OF DISEASE, INSECT PESTS, EGGS OR LARVAE. 4. 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 (I-1/4") WHICH HAVE NOT COMPLETELY CALLOUSED SHALL BE 5. 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. 6. 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.
- 7. ALL PLANTS DESIGNATED BALL AND BURLAP (B&B) MUST BE MOVED WITH THE ROOT SYSTEM AS SOLID UNITS WITH BALLS OF FARTH FIRMLY WRAPPED WITH BURLAP. THE DIAMETER AND DEPTH OF THE BALLS OF FARTH 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 PREPARATORY TO OR DURING THE PROCESS OF PLANTING. THE BALLS SHALL REMAIN INTACT DURING ALL OPERATIONS. ALL PLANTS THAT CANNOT BE PLANTED AT ONCE MUST BE HEELED-IN BY SETTING IN THE GROUND AND COVERING THE BALLS WITH SOIL OR MULCH AND THEN WATERING. HEMP BURLAP AND TWINE IS PREFERABLE TO TREATED. IF TREATED BURLAP IS
- USED, ALL TWINE IS TO BE CUT FROM AROUND THE TRUNK AND ALL BURLAP IS TO BE REMOVED. 8. 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 digging. Carelessness while in transit. Or improper handling or storage shall be cause for reiection 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. 9. ALL PLANT MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH THE CORRESPONDING LANDSCAPE PLAN AND PLANTING
- 10. 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 MOODCHIPS. PROPER IRRIGATION SHALL BE SUPPLIED SO AS TO NOT ALLOW THE ROOT BALL TO DRY OUT. PLANTINGS SHALL BE UNTIED AND PROPER SPACING SHALL BE ALLOTTED 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.
- LL NO PLANT MATERIAL SHALL BE PLANTED IN MUDDY OR FROZEN SOIL 12. PLANTS WITH INJURED ROOTS OR BRANCHES SHALL BE PRUNED PRIOR TO PLANTING UTILIZING CLEAN, SHARP TOOLS. ONLY DISEASED OR INJURED PLANTS SHALL BE REMOVED.

(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

- 13. IF ROCK OR OTHER UNDERGROUND OBSTRUCTION IS ENCOUNTERED. THE LANDSCAPE DESIGNER RESERVES THE RIGHT TO RELOCATE OR ENLARGE PLANTING PITS OR DELETE PLANT MATERIAL FROM THE CONTRACT. 14. IF PLANTS ARE PROPOSED WITHIN SIGHT TRIANGLES, TREES SHALL BE LIMBED AND MAINTAINED TO A HEIGHT OF EIGHT FEET
- 15. INSTALLATION SHALL OCCUR DURING THE FOLLOWING SEASONS:
- PLANTS (MARCH 15 NOVEMBER 15) LAWNS (MARCH 15 - IUNE 15 OR SEPTEMBER 1 - DECEMBER 1)

CERCIS CANADENSIS

- 16. THE FOLLOWING TREES ARE SUSCEPTIBLE TO TRANSPLANT SHOCK AND SHALL NOT BE PLANTED DURING THE FALL SEASON (STARTING SEPTEMBER 15
- ABIES CONCOLOR CORNUS VARIETIES **OSTRYA VIRGINIANA** ACER BUERGERIANUM CRATAEGUS VARIETIES PINUS NIGRA **ACER FREEMANII** CUPRESSOCYPARIS LEYLANDII PLATANUS VARIETIES ACER RUBRUM POPULUS VARIETIES FAGUS VARIETIES **ACER SACCHARINUM** PRUNUS VARIETIES HALESIA VARIETIES **BETULA VARIETIES** ILEX X FOSTERII

LIQUIDAMBAR VARIETIES

- PYRUS VARIETIES **CARPINUS VARIETIES** ILEX NELLIE STEVENS QUERCUS VARIETIES (NOT Q. PALUSTRIS) SALIX WEEPING VARIETIES CEDRUS DEODARA JUNIPERUS VIRGINIANA SORBUS VARIETIES **CELTIS VARIETIES** CERCIDIPHYLLUM VARIETIES KOELREUTERIA PANICULATA TAXODIUM VARIETIES
- CORNUS VARIETIES LIRIODENDRON VARIETIES TILIA TOMENTOSA VARIETIES **CRATAEGUS VARIETIES** MALUS IN LEAF **ULMUS PARVIFOLIA VARIETIES** NYSSA SYLVATICA ZELKOVA VARIETIES 17. IF A PROPOSED PLANT IS UNATTAINABLE OR ON THE FALL 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 AND CITY LANDSCAPE ARCHITECT PRIOR TO ORDERING AND INSTALLATION. 18. 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

TAXUX B REPANDENS

- STORED, STOCKPILED OR DISPOSED OF AND ALL PAVED AREAS SHALL BE CLEANED. 19. 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.
- 20. PLANT MATERIAL MUST BE GUARANTEED FOR A PERIOD OF 2 YEARS DURING THE MAINTENANCE PERIOD AND SHALL BEGIN IMMEDIATELY AFTER ALL PLANTS HAVE BEEN SATISFACTORILY INSTALLED.
- 21. 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 GUYS IF ORIGINALLY reouired. 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.
- 2. MOW ALL GRASS AREAS AT REGULAR INTERVALS TO KEEP THE GRASS HEIGHT FROM EXCEEDING 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. CLEANUP AFTER MOWING SHALL INCLUDE SWEEPING OR BLOWING OF PAVED AREAS AND SIDEWALKS TO
- CLEAR THEM FROM MOWING DEBRIS. 3. 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
- 24. SHOULD THE OWNER REQUIRE MAINTENANCE BEYOND THE STANDARD 90-DAY MAINTENANCE PERIOD, A SEPARATE CONTRACT SHALL BE ESTABLISHED. 25. LANDSCAPE CONTRACTOR SHALL WATER NEW PLANTINGS FROM TIME OF INSTALL AND THROUGHOUT REQUIRED 90-DAY
- THE LANDSCAPE CONTRACTOR SHALL FURNISH IT BY MEANS OR A WATERING TRUCK OR OTHER ACCEPTABLE MANNER. 26. 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.

MAINTENANCE PERIOD UNTIL PLANTS ARE ESTABLISHED. IF ON-SITE WATER IS NOT AVAILABLE AT THE PROJECT LOCATION,

27. 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 TWO YEARS (2 YR.) FROM APPROVAL OF LANDSCAPE INSTALLATION BY THE PROJECT LANDSCAPE DESIGNER, MUNICIPAL OFFICIAL, OR OWNER/OWNER'S REPRESENTATIVE
- 2. 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. 3. ALL REPLACEMENT PLANTS SHALL BE OF THE SAME SPECIES AND SIZE AS SPECIFIED ON THE APPROVED OR FINAL PLANT LIST. REPLACEMENTS RESULTING FROM REMOVAL, LOSS, OR DAMAGE DUE TO OCCUPANCY OF THE PROJECT IN ANY PART, 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. 4. THE CONTRACTOR SHALL INSTRUCT THE OWNER AS TO THE PROPER CARE AND MAINTENANCE OF ALL PLANTINGS.

LAWN (SEED OR SOD) NOTES:

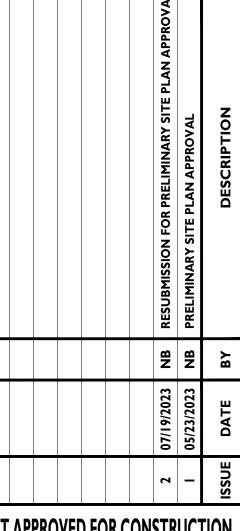
- SEED MIXTURE SHALL BE FRESH, CLEAN, NEW CROP SEED. SOD SHALL BE STRONGLY ROOTED, UNIFORM IN THICKNESS, AND
- FREE OF WEEDS, DISEASE, AND PESTS. 2. SEED OR SOD SHALL BE PURCHASED FROM A RECOGNIZED DISTRIBUTOR AND SHALL BE COMPOSED OF THE MIX OR BLEND WITHIN THE PROVIDED "SEED SPECIFICATION" OR "SOD SPECIFICATION." 3. REFERENCE LANDSCAPE PLAN FOR AREAS TO BE SEEDED OR LAID WITH SOD.
- 4. 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
- 5. 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, WASHOUT, SETTLEMENT OR OTHER CAUSES SHALL BE REPAIRED BY THE LANDSCAPE CONTRACTOR AT HIS EXPENSE. REMOVE ALL FENCES, SIGNS, BARRIERS OR OTHER TEMPORARY PROTECTIVE DEVICES ONCE LAWN HAS BEEN ESTABLISHED.

CITY OF NOVI NONLIVING DURABLE MATERIAL NOTES

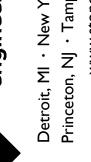
MATERIALS SHALL BE NATURAL AND COMPATIBLE WITH THE BUILDING.

NONLIVING DURABLE MATERIAL

- I. MULCH FOR ALL PLANTINGS SHALL BE PREMIUM SHREDDED HARDWOOD AND SHALL NOT BE ARTIFICIALLY COLORED. NO CYPRESS WOOD MULCH OR RUBBER MULCH IS TO BE USED.
- 2. TREES SHALL BE MULCHED TO A 3 INCHES OVERALL DEPTH AT PLANTING. 3. SHRUBS, GROUNDCOVERS AND PERENNIALS SHALL BE MULCHED TO A 2 INCHES OVERALL DEPTH AT PLANTING.
- 4. ALL LAWN TREES SHALL BE PLANTED WITH A 4 FOOT DIAMETER CIRCLE OF THE SHREDDED HARDWOOD BARK MULCH.
- 5. MULCH SHALL BE PULLED BACK 3 INCHES FROM THE TREE TRUNK IN A CIRCLE DOWN TO THE ROOT BALL DIRT TO EXPOSE THE ROOT COLLAR TO AIR. NO "VOLCANO" MULCHING IS ALLOWED AT PLANTING OR IN FUTURE APPLICATIONS OF MULCH. 6. IF A ROOTBALL'S DIRT IS PILED UP ON THE TRUNK, IT SHOULD BE REMOVED TO EXPOSE THE ROOT FLARE.
- 7. FOR FIRE SAFETY, SHREDDED HARDWOOD BARK IS NOT TO BE INSTALLED ADJACENT TO OR WITHIN 4 FEET OF BUILDINGS THAT ARE CONSTRUCTED OF COMBUSTIBLE MATERIALS. PLANTINGS ADJACENT TO COMBUSTIBLE BUILDINGS SHALL BE MULCHED WITH A NON-COMBUSTIBLE MATERIAL TYPICALLY MARKETED AS LANDSCAPE MULCH. THE COLOR OF SUCH
- 8. GRAVEL TYPE MULCHES ARE NOT PERMITTED WITHIN OR IMMEDIATELY ADJACENT TO PAVED PARKING LOTS OR ROADWAYS. APPROVAL OF TYPE, DEPTH AND SPECIFIC LOCATION FOR GRAVEL MULCH IS TO BE APPROVED BY THE CITY.
- 9. SPHAGNUM PEAT/BOG PEAT IS HARVESTED FROM FUNCTIONING WETLANDS SO IT SHALL NOT BE USED FOR LANDSCAPE PURPOSES, COMPOST MAY BE USED AS AN ALTERNATIVE.



NOT APPROVED FOR CONSTRUCTIO



. REID COOKSEY, P.E.

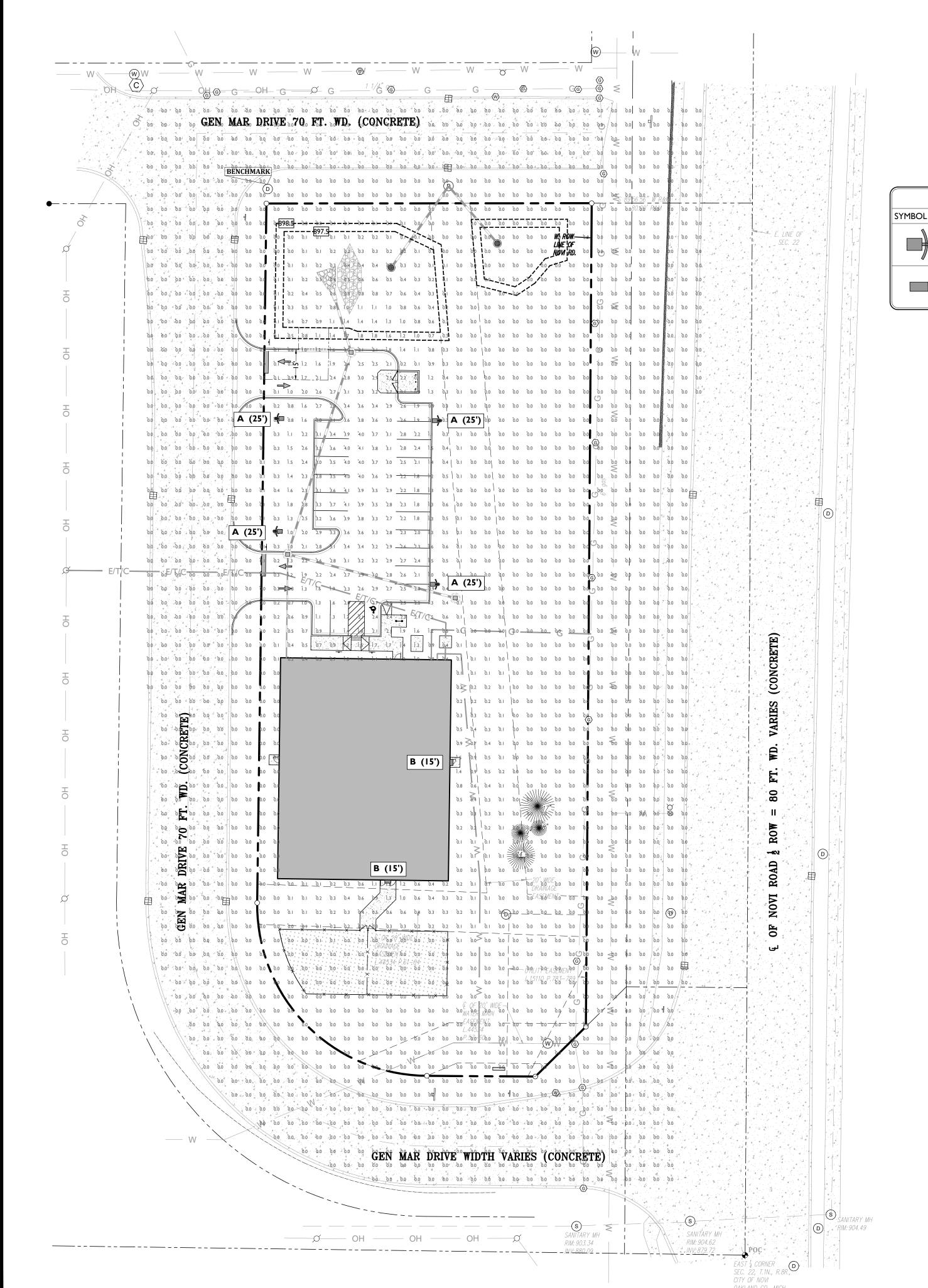
MĪCHIGAN LICENSE No. 6201069428

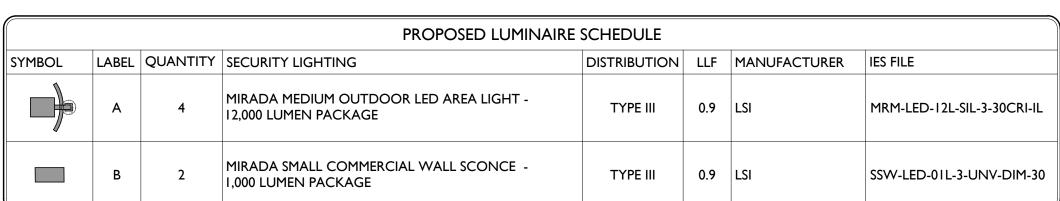
LICENSED PROFESSIONAL ENGINEER



SCALE: AS SHOWN PROJECT ID: DET-230040

LANDSCAPING DETAILS





REQUIRED	PROPOSED		
MAXIMUM AVERAGE TO MINIMUM RATIO:			
4:1	3:1		
MINIMUM ILLUMINATION:			
0.2 FC WITHIN PARKING AREAS	0.9 FC		
0.2 FC AT WITHIN WALKWAYS	0.7 FC		
I.0 FC AT ENTRANCES	I.2 FC		
MAXIMUM ILLUMINATION AT PROPERTY LINES:	0.1 FC		
1.0 FC			
MAXIMUM POLE HEIGHT:			
40 FT	25 FT		



FIXTURE 'A'



FIXTURE 'B'



SYMBOL

A (XX')

 $^+$ X.X

PROPOSED LIGHTING INTENSITY (FOOTCANDLES)

DESCRIPTION

(MOUNTING HEIGHT)

PROPOSED LIGHTING FIXTURE

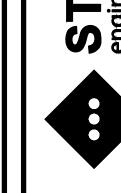
PROPOSED AREA LIGHT

PROPOSED BUILDING MOUNTED LIGHT

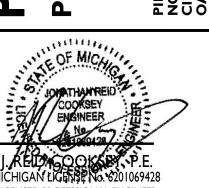
GENERAL LIGHTING NOTES

- I. 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 ARE WEATHER, VOLTAGE SUPPLY, LAMP TOLERANCE, EQUIPMENT SERVICE LIFE AND OTHER
- VARIABLE FIELD CONDITIONS. 2. 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.
- 3. 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: METAL HALIDE:
- 4. 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.
- 5. 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.

GRAPHIC SCALE IN FEET I" = 30'



NOT APPROVED FOR CONSTRUCTION



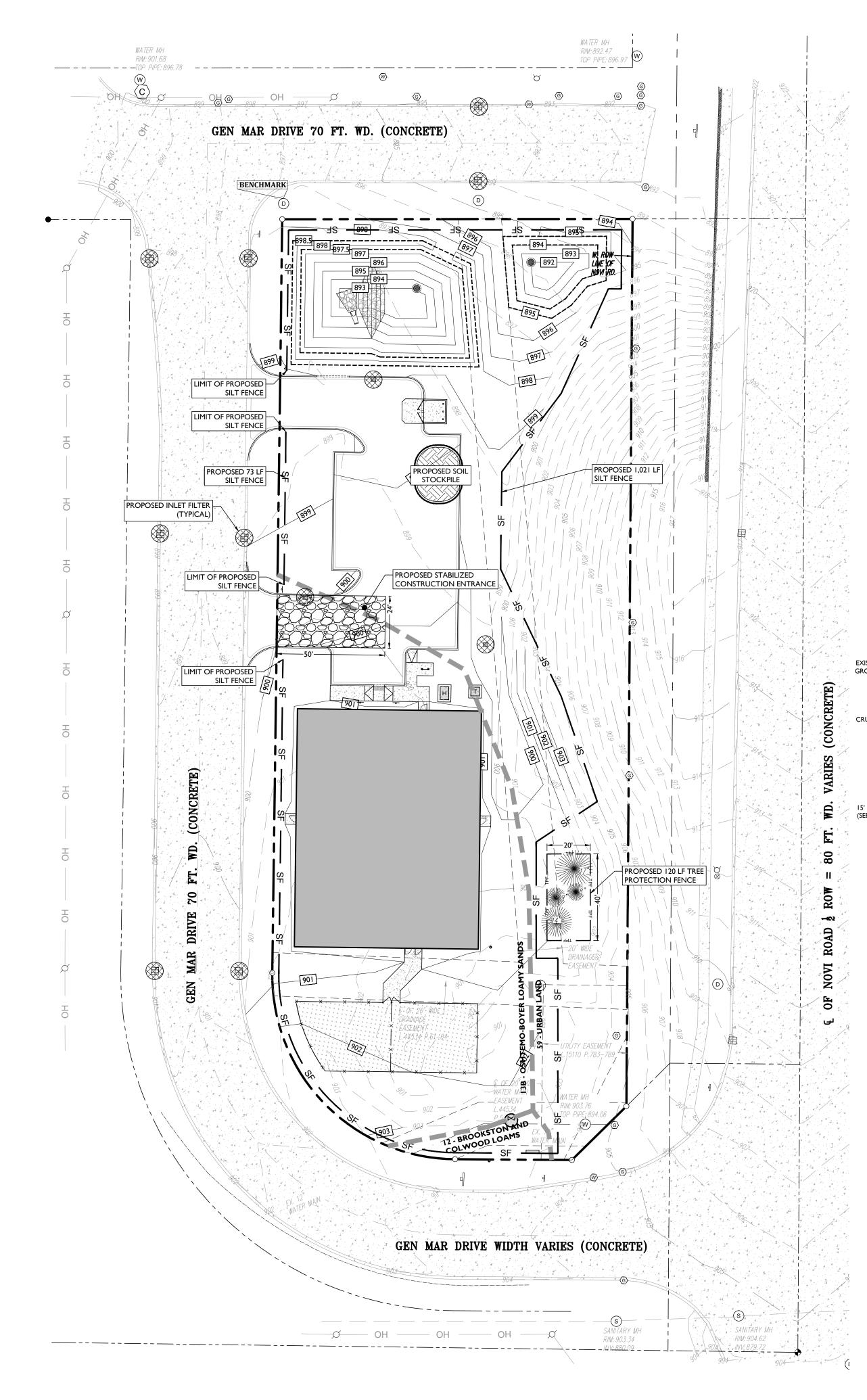


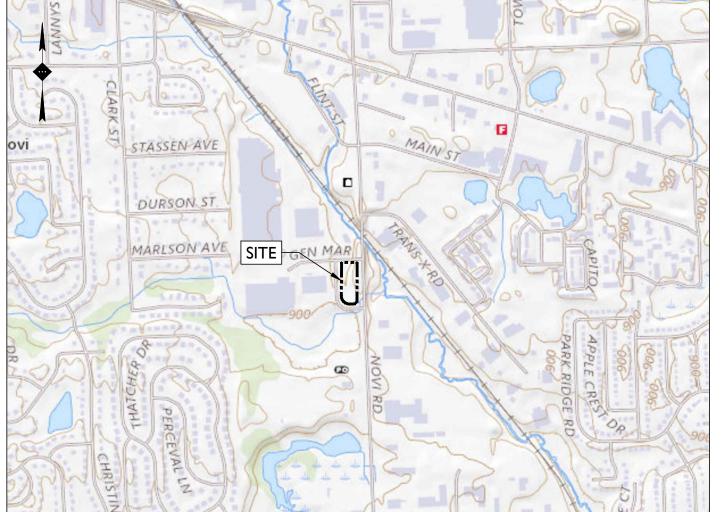
I" = 30' PROJECT ID: DET-230040

LIGHTING PLAN

DRAWING:

C-10





SOURCE: USGS TOPOGRAPHICAL MAPS, DATE RETRIEVED 05/18/2023

LOCATION MAP

SCALE: I" = 1000'±

SLOPE OF LENGTH OF STONE REQ'D

LEGAL DESCRIPTION

50' MINIMUM

(SEE CHART)

A PARCEL OF LAND BEING PART OF THE NORTHEAST 4 OF SECTION 22, OF TOWN I NORTH, RANGE 8 EAST, CITY OF NOVI, OAKLAND COUNTY, MICHIGAN BEING MORE PARTICULARLY DESCRIBED AS: COMMENCING AT THE EAST 4 CORNER OF SAID SECTION 22; THENCE NORTH 00 DEGREES 23 MINUTES 56 SECONDS EAST 523.79 FEET ALONG THE EAST LINE OF SAID SECTION 22, SAID LINE ALSO BEING CENTERLINE OF NOVI ROAD (RIGHT OF WAY = 80 FEET); THENCE SOUTH 89 DEGREES 56 MINUTES 56 SECONDS WEST 80.00 FEET TO THE WESTERLY RIGHT OF WAY LINE OF SAID NOVI ROAD AND THE POINT OF BEGINNING; THENCE SOUTH 00 DEGREES 23 MINUTES 56 SECONDS WEST 409.99 FEET ALONG THE WESTERLY RIGHT OF WAY TO A POINT ON THE RIGHT OF WAY LINE GEN MAR DRIVE (VARIABLE WIDTH); THENCE ALONG SAID RIGHT OF WAY LINE THE FOLLOWING FIVE (5) CALLS: (1) SOUTH 45 DEGREES 23 MINUTES 18 SECONDS WEST 35.36 FEET, (2) NORTH 89 DEGREES 37 MINUTES 21 SECONDS WEST 53.99 FEET, (3) 134.08 FEET ALONG THE ARC OF THE CURVE TO THE RIGHT, HAVING A RADIUS 85.00 FEET, CENTRAL ANGLE OF 90 DEGREES 22 MINUTES 43 SECONDS, A CHORD BEARING NORTH 44 DEGREES 25 MINUTES 59 SECONDS WEST 120.60 FEET, (4) NORTH 00 DEGREES 45 MINUTES 22 SECONDS EAST 348.22 FEET, (5) NORTH 89 DEGREES 56 MINUTES 56 SECONDS EAST 161.85 FEET TO THE POINT OF BEGINNING. CONTAINING 1.58 ACRES OF LAND MORE OR LESS. ALSO SUBJECT TO ANY OTHER EASEMENTS OR RESTRICTIONS OF USE OR RECORD.

(SEE CHART)		DUDUC	i	
6"		PUBLIC ROADWAY	COARSE GRAINED SOILS	FINE GRAINED SOILS
EXISTING GROUND 6" M	IN. PUBLIC ROADWAY	0% TO 2%	50 FEET	100 FEET
6"		2% TO 5%	100 FEET	200 FEET
		> 5%	SEE NO	OTE 4
GEOTEXTILE FABRIC —				_
CRUSHED STONE PAD (SEE NOTE I)				
PROFILE VIEW				
SO' MINIMUM (SEE CHART) I5' MINIMUM (SEE NOTE 2) CRUSHED STONE PAD (SEE NOTE I) PLAN VIEW	No. 2. WII TH 3. STC AW POO GR BEF STA SHA BAS SUE OR OR 5. CO BET	ONE SHALL BE ASTM (. 3 (2" TO 1") CLEAN (DTH SHALL BE 15' MIN E ACCESS POINT, WH ORMWATER FROM UF VAY FROM THE STABIL ORLY DRAINED LOCA AVEL FILTER OR GEO ORE THE STABILIZED HERE THE SLOPE OF T ABILIZED BASE OF HO ALL BE INSTALLED. TI SE COURSE AND USE 3-BASE SHALL BE AS PI DINANCE OR GOVER INTRACTOR SHALL PI TWEEN THE STABILIZE E PUBLIC ROADWAY.	CRUSHED ANGUL NIMUM OR THE FI IICHEVER IS GREA P-SLOPE AREAS SH LIZED PAD, WHE ATIONS, SUBSURF TEXTILE SHALL BI CONSTRUCTION HE ROADWAY E T MIX ASPHALT E HE TYPE AND TH OF DENSE GRAD RESCRIBED BY LC NING AUTHORN ROVIDE A SMOOTED CONSTRUCTION OF DENSTRUCTION OF CONSTRUCTION OF CONSTRUCTION OF THE STAND O	LAR STONE. ULL WIDTH OF ATER. HALL BE DIVERTED RE POSSIBLE. AT FACE DRAINAGE E INSTALLED N ENTRANCE. XCEEDS 5%, A BASE COURSE IICKNESS OF THE ED AGGREGATE DCAL MUNICIPAL TY. TH TRANSITION

STABILIZED CONSTRUCTION ACCESS DETAIL NOT TO SCALE

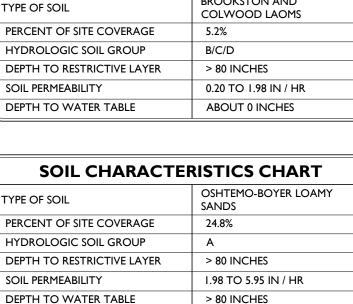
- DRAWSTRING RUNNING THROUGH DRIVE POSTS PLUMB OR FABRIC ALONG TOP OF FENCE 2" x 2" FENCE POST SLIGHTLY UPHILL SPACE 8'-0" O.C. SECURELY FASTEN FABRIC TO POSTS 10' DESIRABLE FLOW TOE OF SLOPE EMBED FABRIC 6" MINIMUM EMBED FABRIC 6" MINIMUM AND TAMP IN PLACE

I. SECURELY FASTEN GEOTEXTILE TO FENCE POST BY USE OF WIRE TIES, HOG RINGS, STAPLES OR POCKETS. FOUR TO SIX FASTENERS PER POST. 2. GEOTEXTILE FABRIC TO BE EMBEDDED 6" (MIN.) AND TAMP IN PLACE. S. SECURELY FASTEN ENDS OF INDIVIDUAL ROLLS OF GEOTEXTILE TO A POST BY WRAPPING EACH END OF THE GEOTEXTILE AROUND THE POST TWICE AND ATTACHING AS SPECIFIED IN NOTE I ABOVE. SPLICING OF INDIVIDUAL ROLLS SHALL NOT OCCUR AT LOW POINTS.

4. SET SILT FENCE WITHIN PROJECT LIMITS. 10'-0" IS DESIRABLE.

SILT FENCE DETAIL

NOT TO SCALE



SOIL CHARACTERISTICS CHART						
TYPE OF SOIL	URBAN LAND					
PERCENT OF SITE COVERAGE	69.8%					
HYDROLOGIC SOIL GROUP	С					
DEPTH TO RESTRICTIVE LAYER	20 TO 36 INCHES					
SOIL PERMEABILITY	0.06 TO 0.20 IN / HR					
DEPTH TO WATER TABLE	> 80 INCHES					

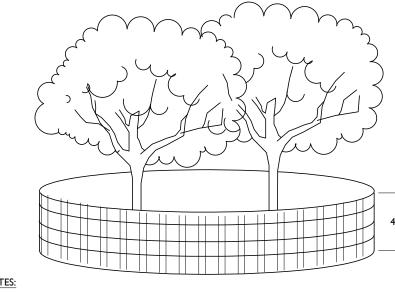
BENCHMARK:

CITY OF NOVI #2311
"X" ON NORTH RIM OF SANITARY MANHOLE LOCATED ACROSS FROM INTERSECTION OF GEN-MAR AND NOVI ROAD, 45 EAST OF CENTERLINE OF NOVI ROAD AND 80 FEET NORTH OF CENTERLINE OF GEN-MAR.

ELEVATION = 892.089800 NAVD88

THE NORTH RIM OF STORM MANHOLE LOCATED 7 FEET NORTH AND I FEET FROM THE NORTHWESTERLY MOST PROPERTY

ELEVATION = 897.57 NAVD88



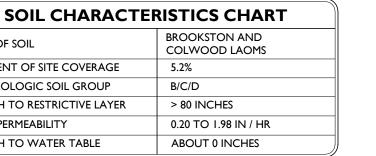
2. DO NOT STOCKPILE MATERIALS OR STORE EQUIPMENT WITHIN THE TREE PROTECTION

REMOVAL FROM INLET RESTRAINT (1/4 NYLON ROPE, 2 BAG DETAIL INSTALLATION DETAIL DUMP STRAP - CURB OPENING I" REBAR FOR BAG I. THE FILTER BAG SHALL SAFELY PASS FLOWS GREATER THAN THE I-YEAR 24-HOUR STORM EVENT. —DUMP STRAP SEDIMENT REMOVAL AND MAINTENANCE SHALL BE PERFORMED FREQUENTLY AND AFTER EVERY STORM EVENT. **INLET FILTER BAG DETAIL**

DUMP STRAPS

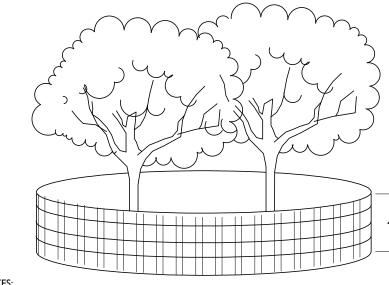
 STOCKPILES SHALL BE SITUATED SO AS NOT TO OBSTRUCT NATURAL DRAINAGE OR CAUSE OFF-SITE ENVIRONMENTAL DAMAGE.
 STOCKPILES SHALL BE STABILIZED IN ACCORDANCE WITH THE STANDARDS FOR PERMANENT OR TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION, AS APPROPRIATE (SEE SOIL EROSION NOTES).

SOIL STOCKPILE DETAIL



SOIL CHARACTERISTICS CHART						
TYPE OF SOIL	OSHTEMO-BOYER LOAMY SANDS					
PERCENT OF SITE COVERAGE	24.8%					
HYDROLOGIC SOIL GROUP	A					
DEPTH TO RESTRICTIVE LAYER	> 80 INCHES					
SOIL PERMEABILITY	1.98 TO 5.95 IN / HR					
DEPTH TO WATER TABLE	> 80 INCHES					

SOIL CHARACTERISTICS CHART						
TYPE OF SOIL	URBAN LAND					
PERCENT OF SITE COVERAGE	69.8%					
HYDROLOGIC SOIL GROUP	С					
DEPTH TO RESTRICTIVE LAYER	20 TO 36 INCHES					
SOIL PERMEABILITY	0.06 TO 0.20 IN / HR					
DEPTH TO WATER TABLE	> 80 INCHES					



. SNOW FENCING IS TO BE 4'-0" HIGH AND SELF SUPPORTED.

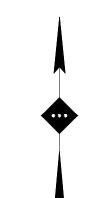
3. SNOW FENCE TO BE INSTALLED AT DRIP LINE OF EXISTING TREE OR TREE CLUSTER TO BE PROTECTED OR NO CLOSER THAN 6' FROM TREE TRUNK IF NECESSARY. 4. IF THE PROJECT AREA ENCOMPASSES A PORTION OF THE DRIP LINE OF THE TREE, NO MORE THAN ONE THIRD OF THE OF THE TOTAL AREA OF WITHIN THE DRIP LINE SHOULD BE DISTURBED BY CONSTRUCTION OR REGRADING AND A 3" THICK LAYER OF MULCH SHALL BE INSTALLED OVER THE AREA OF THE DRIP LINE WHICH IS NOT PROTECTED BY FENCING TO PROVIDE A CUSHION.

TREE PROTECTION DETAIL

NOT TO SCALE

MAINTAIN SOIL STOCKPILE STABILIZATION THROUGHOUT CONSTRUCTION STOCKPILE SHALL NOT EXCEED MAXIMUM 3: I SIDE SLOPE NOT TO SCALE 35' MAXIMUM INSTALL SILT FENCE -AROUND SOIL STOCKPILE (SEE DETAIL)

> **GRAPHIC SCALE IN FEET** I" = 30'



SYMBOL DESCRIPTION PROPERTY BOUNDARY ADJACENT 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

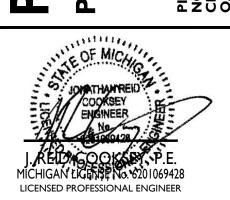
- I. THE CONTRACTOR IS RESPONSIBLE FOR SOIL EROSION AND SEDIMENT CONTROL IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL
- 2. THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL IN COMPLIANCE WITH LOCAL, STATE, AND FEDERAL AIR QUALITY
- 3. THE CONTRACTOR IS RESPONSIBLE TO INSPECT ALL SOIL EROSION AND SEDIMENT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

SEQUENCE OF CONSTRUCTION INSTALL STABILIZED CONSTRUCTION ENTRANCE AND SOIL

- EROSION AND SEDIMENTATION CONTROL MEASURES (5 DAYS) ROUGH GRADING AND TEMPORARY SEEDING (10 DAYS) EXCAVATE AND INSTALL UNDERGROUND UTILITIES, DRAINAGE PIPING, AND INLETS (15 DAYS) BUILDING CONSTRUCTION AND SITE IMPROVEMENTS (60 DAYS) LANDSCAPING IMPROVEMENTS AND FINAL SEEDING (7 DAYS)
- REMOVE SOIL EROSION MEASURES (I DAY)

TIME DURATIONS ARE APPROXIMATE AND ARE INTENDED TO ACT AS A GENERAL GUIDE TO THE CONSTRUCTION TIMELINE. ALL DURATIONS ARE SUBJECT TO CHANGE BY CONTRACTOR. CONTRACTOR SHALL SUBMIT CONSTRUCTION SCHEDULE TO CITY AND ENGINEER. CONTRACTOR SHALL PHASE CONSTRUCTION ACCORDINGLY.





NOT APPROVED FOR CONSTRUCTION

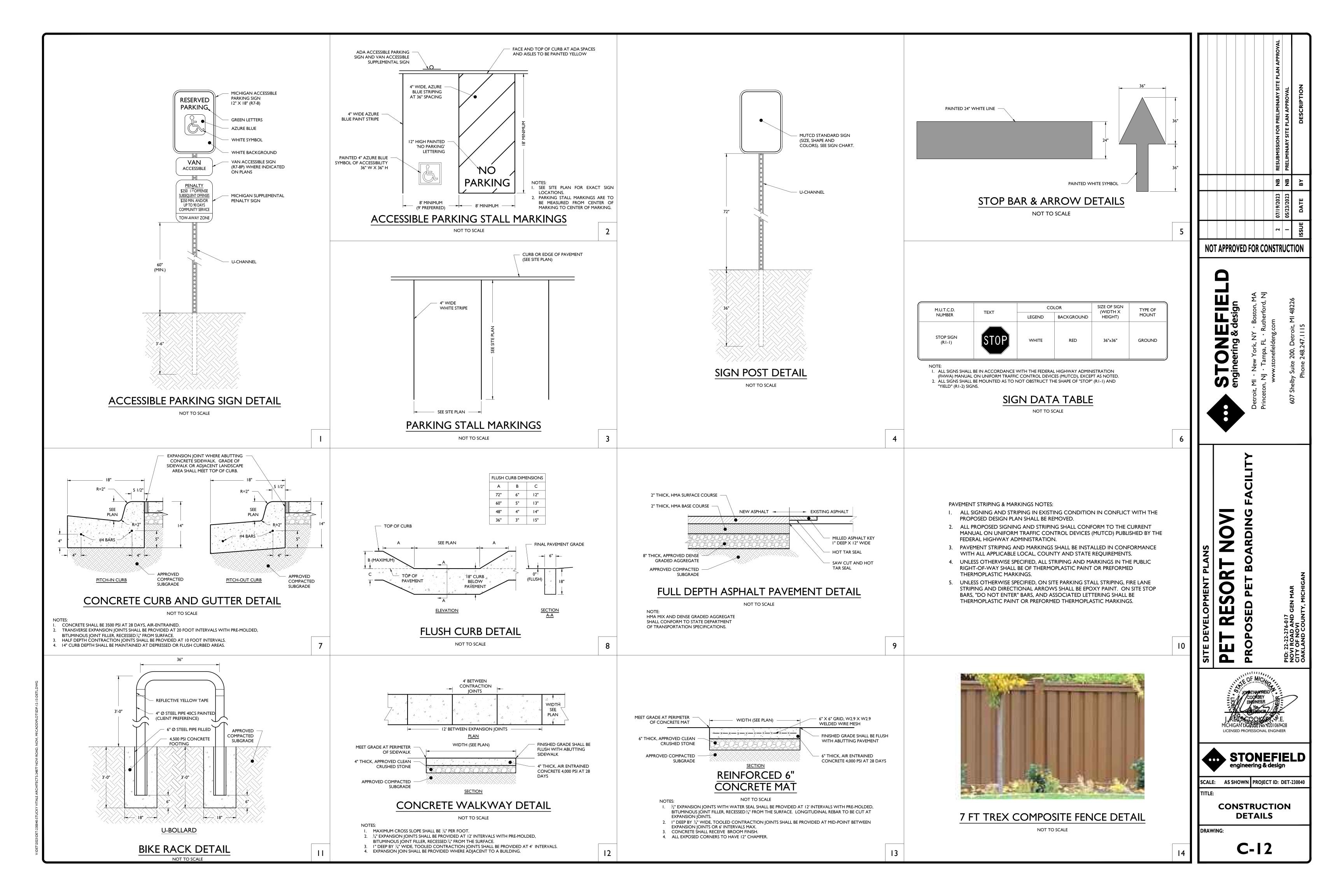


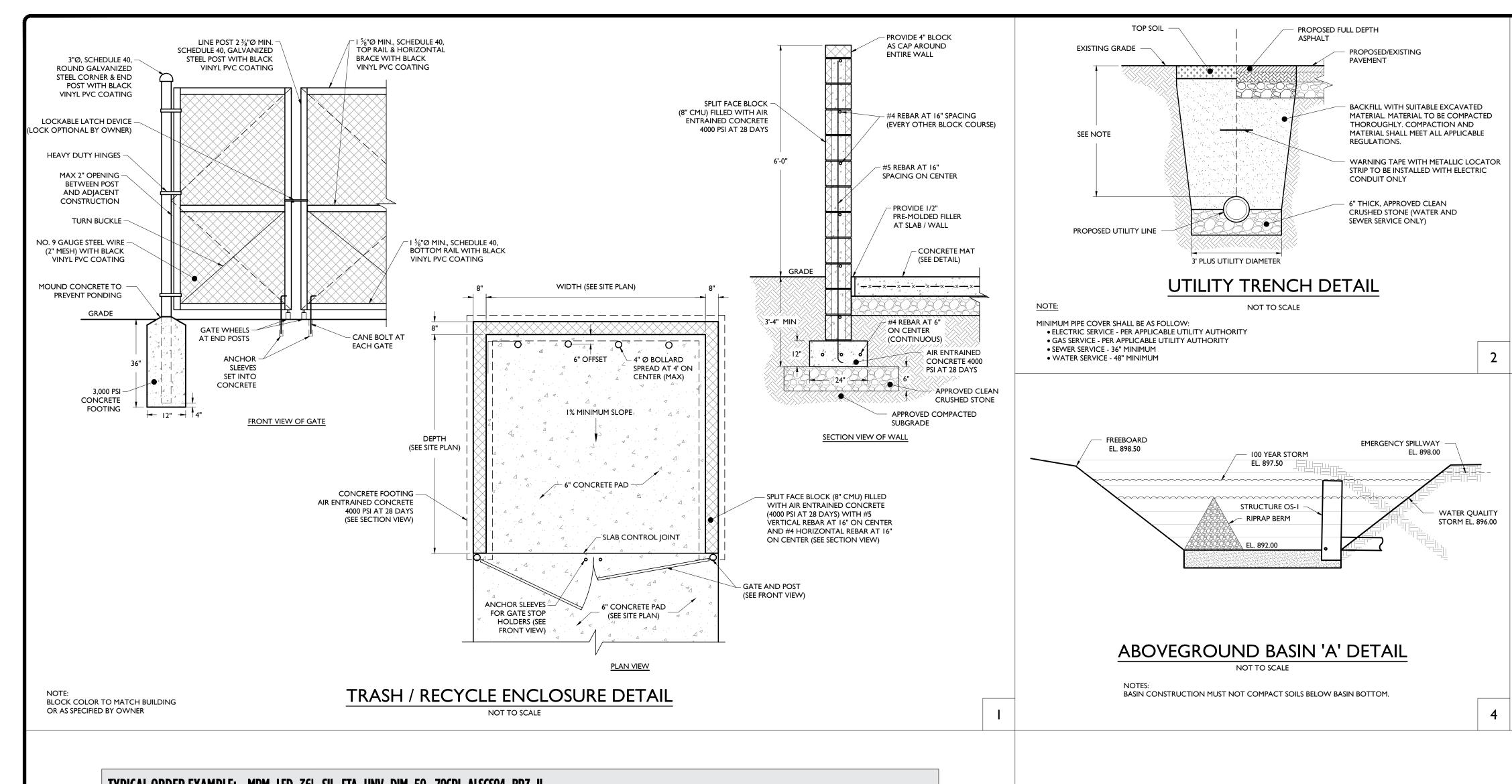
I" = 30' PROJECT ID: DET-230040

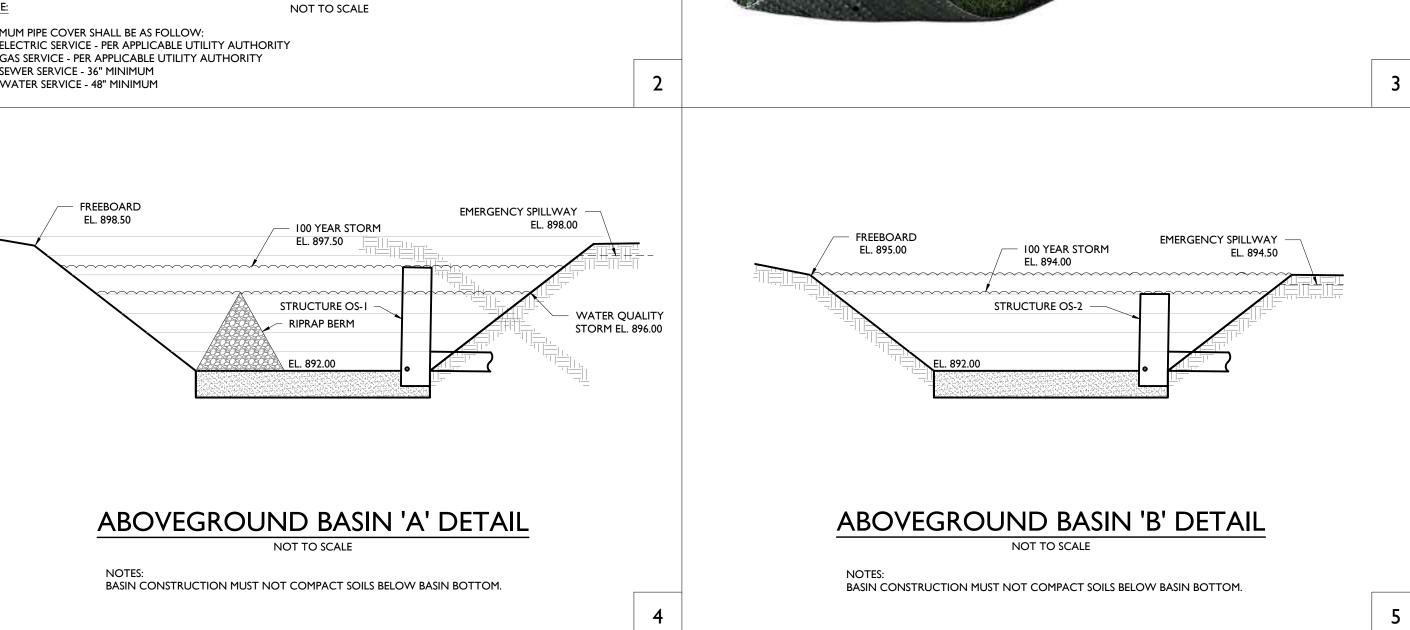
SOIL EROSION & SEDIMENT CONTROL PLAN

DRAWING:

C-II







PROVIDE 4" WIDE X 7" DEEP -

CONTINUOUS EDGE HAUNCH.

BY SURFACE AMERICA

'DOGGYTURF' SYNTHETIC TURF

AGGREGATE (3/4" ANGULAR

SUB-BASE COMPACTED TO 95% -

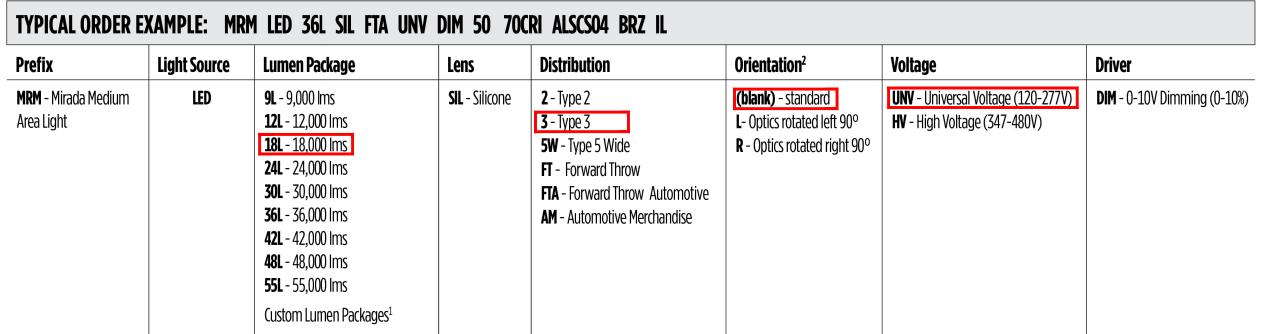
AGGREGATE OR SMALLER

WITH FINES (SAND AND QUARRY DUST))

COMPACTED TO 95%

& RUBBER BASEMENT, PROVIDED

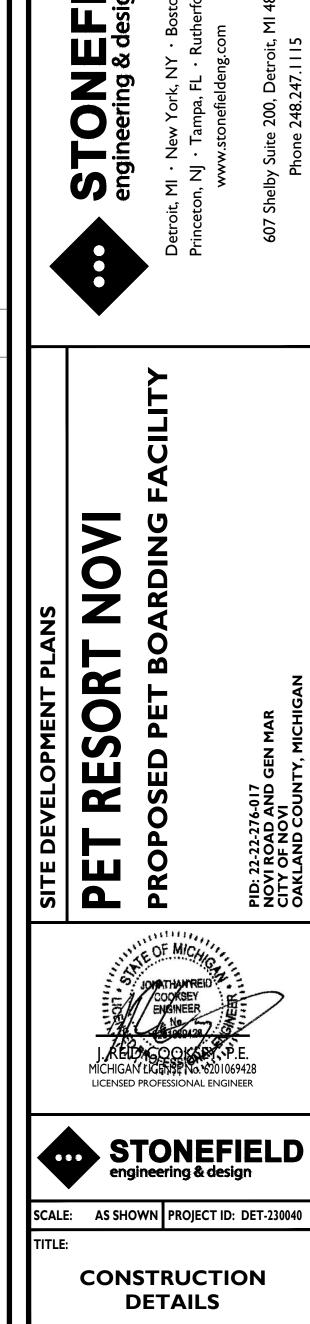
5" DENSE GRADE



FIXTURE 'A' CUT SHEET

Prefix	Light Source	Lumen Package	Distribution	Voltage	Driver	Color Temperature / Rendering	Finish	Options
SSW - Small Commercial Wall	LED	3L - 3,000	3 - Type 3 FT - Forward Throw Type 4	UNV - Universal Voltage (120-277V)	1	40 - 4000K / 70 CRI 50 - 5000K / 70 CRI	BRZ - Bronze	Blank - None PCIUNV - Button Photocontro (120-277V)

FIXTURE 'B' CUT SHEET



DRAWING:

C-13

NOT APPROVED FOR CONSTRUCTION

ARTIFICAL TURF

SURFACE DETAIL

NOT TO SCALE

,

* THE DETECTABLE WARNING SURFACE SHALL BE LOCATED SO THAT THE EDGE NEAREST THE RAIL CROSSING IS 6' MINIMUM AND IS' MAXIMUM FROM THE CENTER.INE OF THE NEAREST RAIL. DO NOT PLACE DETECTABLE DETECTABLE WARNING SURFACE 24" ACROSS FULL WIDTH (SEE NOTES) WARNING ON RAILROAD CROSSING MATERIAL RAILROAD CROSSING MATERIAL (TYP.) PEDESTRIAN GATE (WHERE PROVIDED) DETECTABLE WARNING SURFACE 24" ACROSS FULL WIDTH (SEE NOTES) DETECTABLE WARNING AT RAILROAD CROSSING NEAREST EDGE WITHIN 2" OF SHOULDER DETECTABLE WARNING SURFACE 24" ACROSS FULL WIDTH DETECTABLE WARNING AT FLUSH SHOULDER OR ROADWAY MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN FOR SIDEWALK RAMP AND DETECTABLE WARNING DETAILS 12-11-2017 R-28-J SHEET 5 OF 7

* MAXIMUM LANDING SLOPE IS 2.0% IN EACH DIRECTION OF TRAVEL. LANDING MINIMUM DIMENSIONS 5' x 5'. SEE NOTES.

** MAXIMUM RAMP CROSS SLOPE IS 2.0%, RUNNING SLOPE 5% - 7% (8.3% MAXIMUM). SEE NOTES.

"NON-WALKING" AREA

SIDEWALK RAMP TYPE R

(ROLLED SIDES)

* LANDING

- FULL CURB HEIGHT MAY BE REDUCED TO ACCOMMODATE MAXIMUM SIDE FLARE SLOPE

MICHIGAN DEPARTMENT OF TRANSPORTATION

BUREAU OF DEVELOPMENT STANDARD PLAN FOR

SIDEWALK RAMP AND

DETECTABLE WARNING DETAILS

 $\frac{12-11-2017}{PI \text{ AN DATE}}$ R-28-J

SIDEWALK RAMP TYPE F

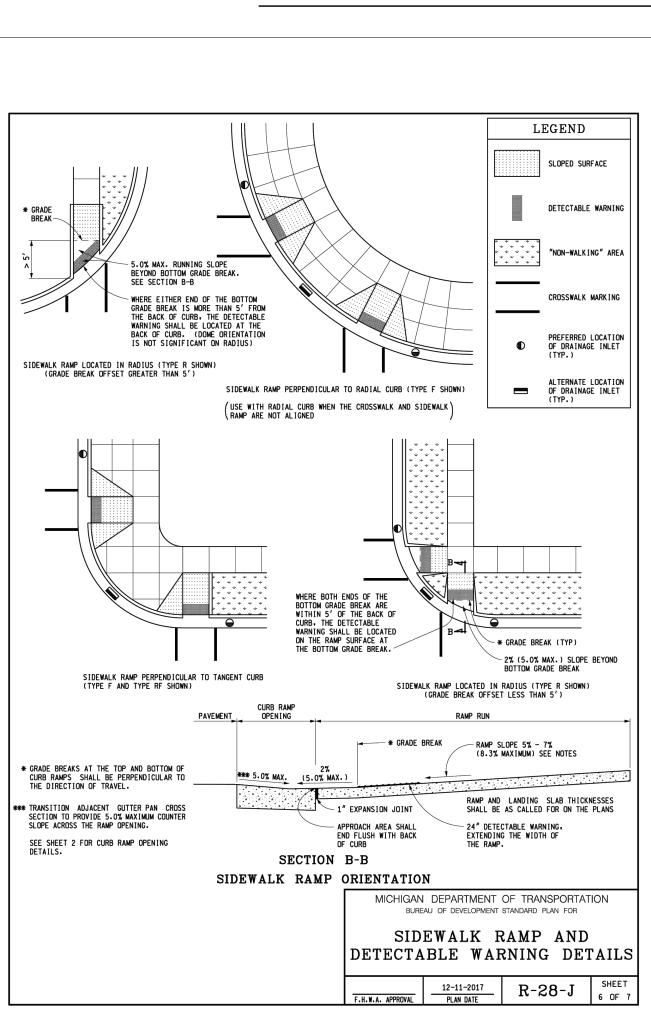
(FLARED SIDES, TWO RAMPS SHOWN)

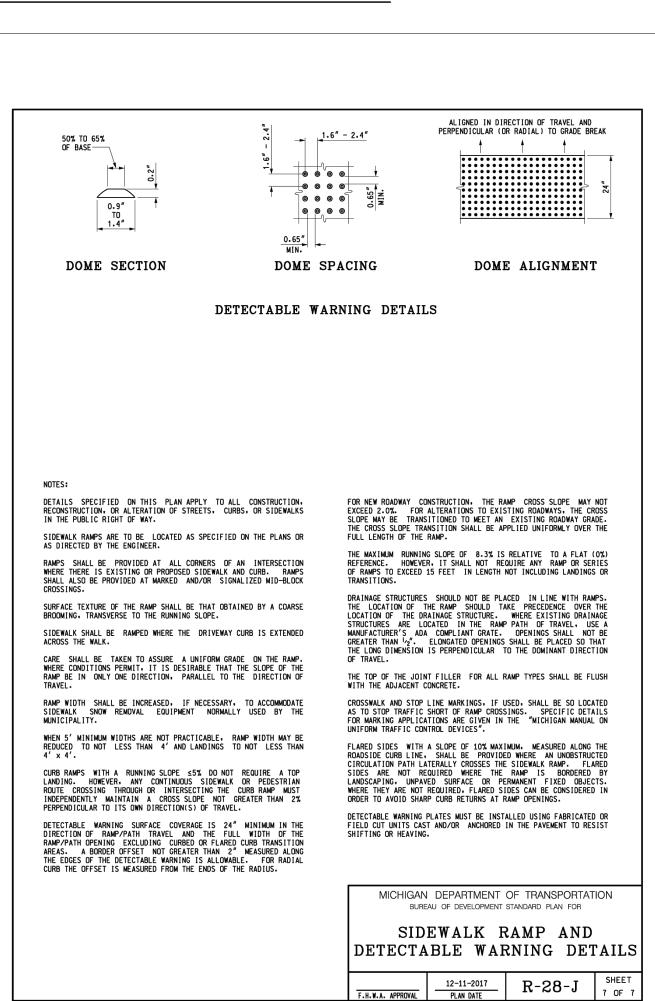
Kirk T. Steudle

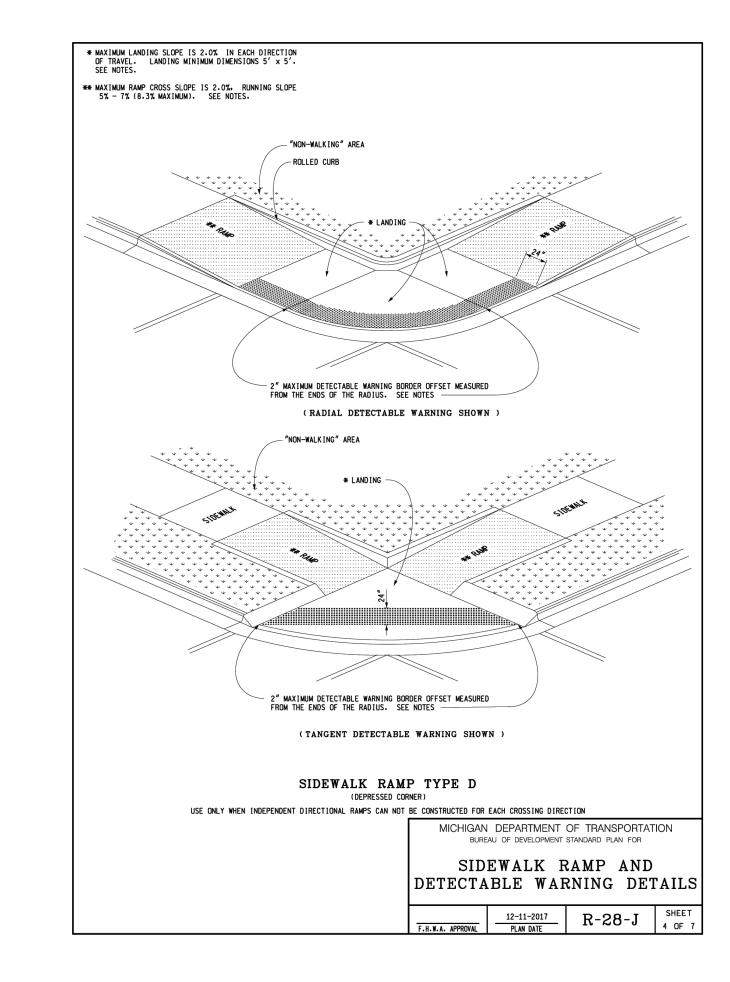
EMDOT

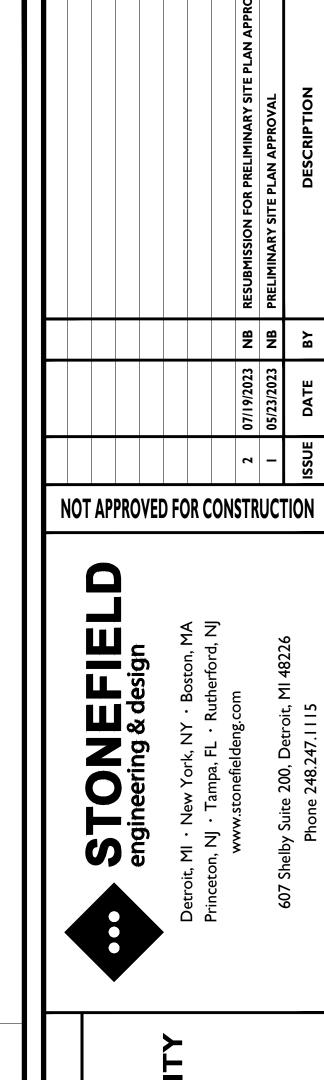
DESIGN DIVISION DRAWN BY: B.L.T.

CHECKED BY: W.K.P.









ARDIN

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S

PRO

LICENSED PROFESSIONAL ENGINEER

SCALE: AS SHOWN PROJECT ID: DET-230040

CONSTRUCTION **DETAILS**

DRAWING:

STONEFIELD

0

KE

MDOT SIDEWALK RAMP AND DETECTABLE WARNING STRIP DETAIL

MDOT SIDEWALK RAMP AND DETECTABLE WARNING STRIP DETAIL CONT.

* MAXIMUM LANDING SLOPE IS 2.0% IN EACH DIRECTION OF TRAVEL. LANDING MINIMUM DIMENSIONS 5' \times 5'. SEE NOTES.

** MAXIMUM RAMP CROSS SLOPE IS 2.0%, RUNNING SLOPE 5% - 7% (8.3% MAXIMUM). SEE NOTES.

DETECTABLE WARNING SURFACE 24" ACROSS FULL WIDTH (SEE NOTES)

* LANDING

RAMP AND LANDING SLAB THICKNESSES SHALL BE AS CALLED FOR ON THE PLANS

MICHIGAN DEPARTMENT OF TRANSPORTATION

BUREAU OF DEVELOPMENT STANDARD PLAN FOR

SIDEWALK RAMP AND

DETECTABLE WARNING DETAILS

12-11-2017 R-28-J

ROLLED CURB

* LANDING

SIDEWALK RAMP TYPE P (PARALLEL RAMP)
DO NOT USE IN AREAS WHERE PONDING MAY OCCUR

SIDEWALK RAMP TYPE C (COMBINATION RAMP)

SIDEWALK RAMP TYPE M

DETECTABLE WARNING SURFACE 24" ACROSS FULL WIDTH (SEE NOTES)

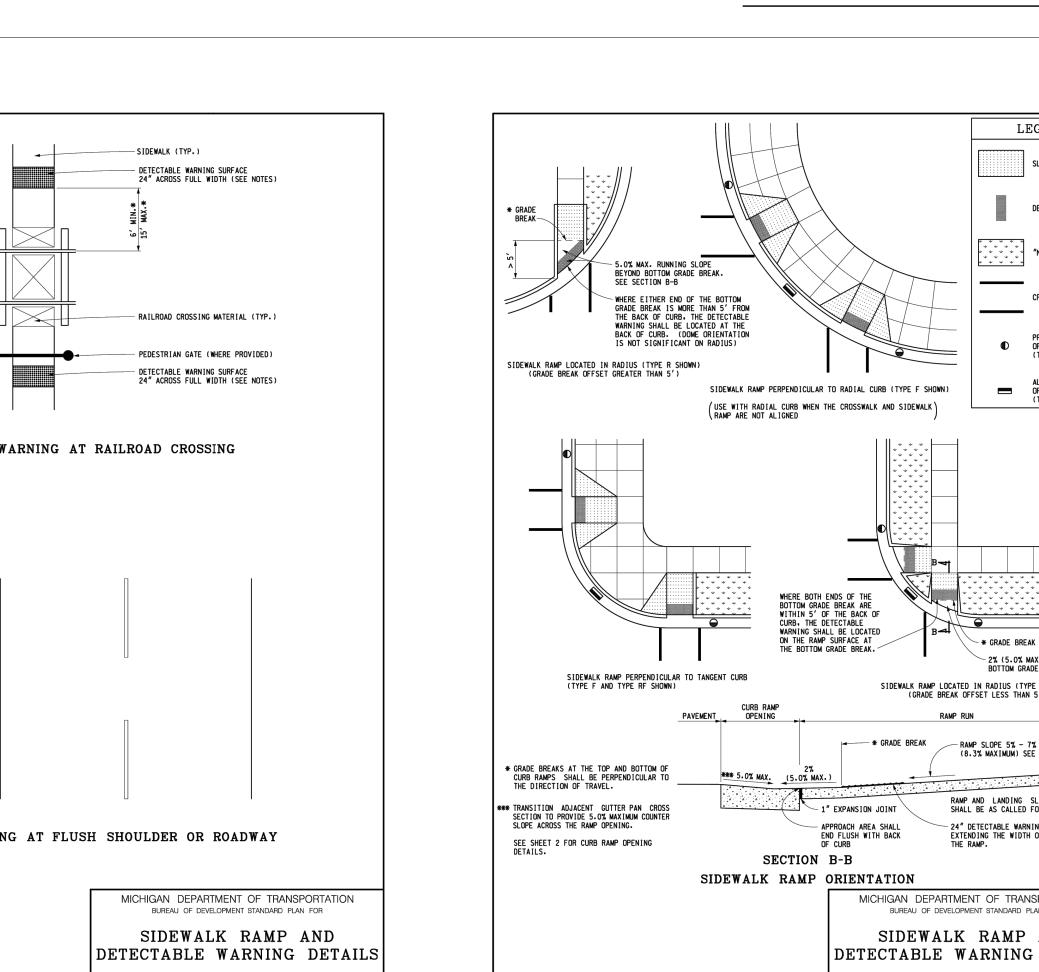
"NON-WALKING" AREA -

MICHIGA LE ARTMENT OF TRANSPORTATION

SIDEWALK RAMP AND

DETECTABLE WARNING DETAILS

12-11-2017 R-28-J



* MAXIMUM LANDING SLOPE IS 2.0% IN EACH DIRECTION OF TRAVEL. LANDING MINIMUM DIMENSIONS 5' x 5'. SEE NOTES.

** MAXIMUM RAMP CROSS SLOPE IS 2.0%, RUNNING SLOPE 5% - 7% (8.3% MAXIMUM). SEE NOTES.

PAVEMENT

REINFORCEMENT AS IN ADJACENT CURB & GUTTER -

FOR CURB TYPES SEE STANDARD PLAN R-30-SERIES

WALKING AREA

SIDEWALK RAMP TYPE RF

SECTION A-A

— PAVEMENT SHALL END FLUSH WITH THE GUTTER PAN

*** 5.0% MAX.

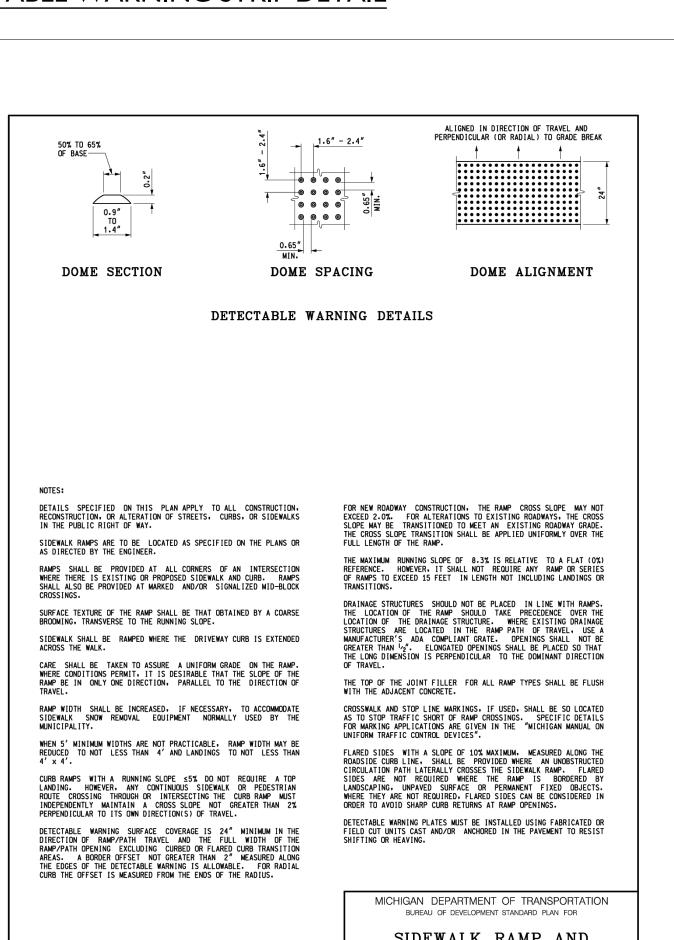
SECTION THROUGH CURB RAMP OPENING

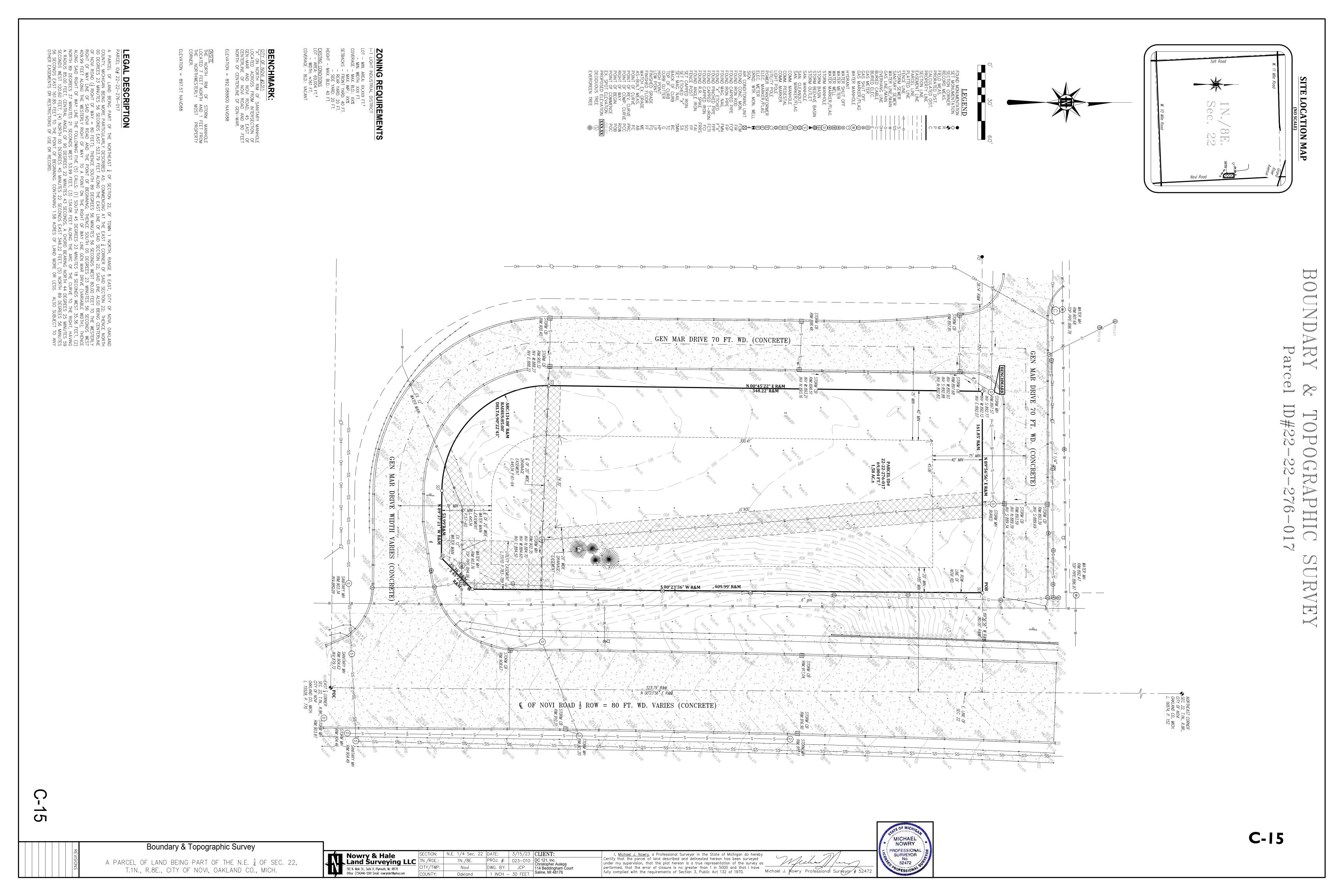
(TYPICAL ALL RAMP TYPES)

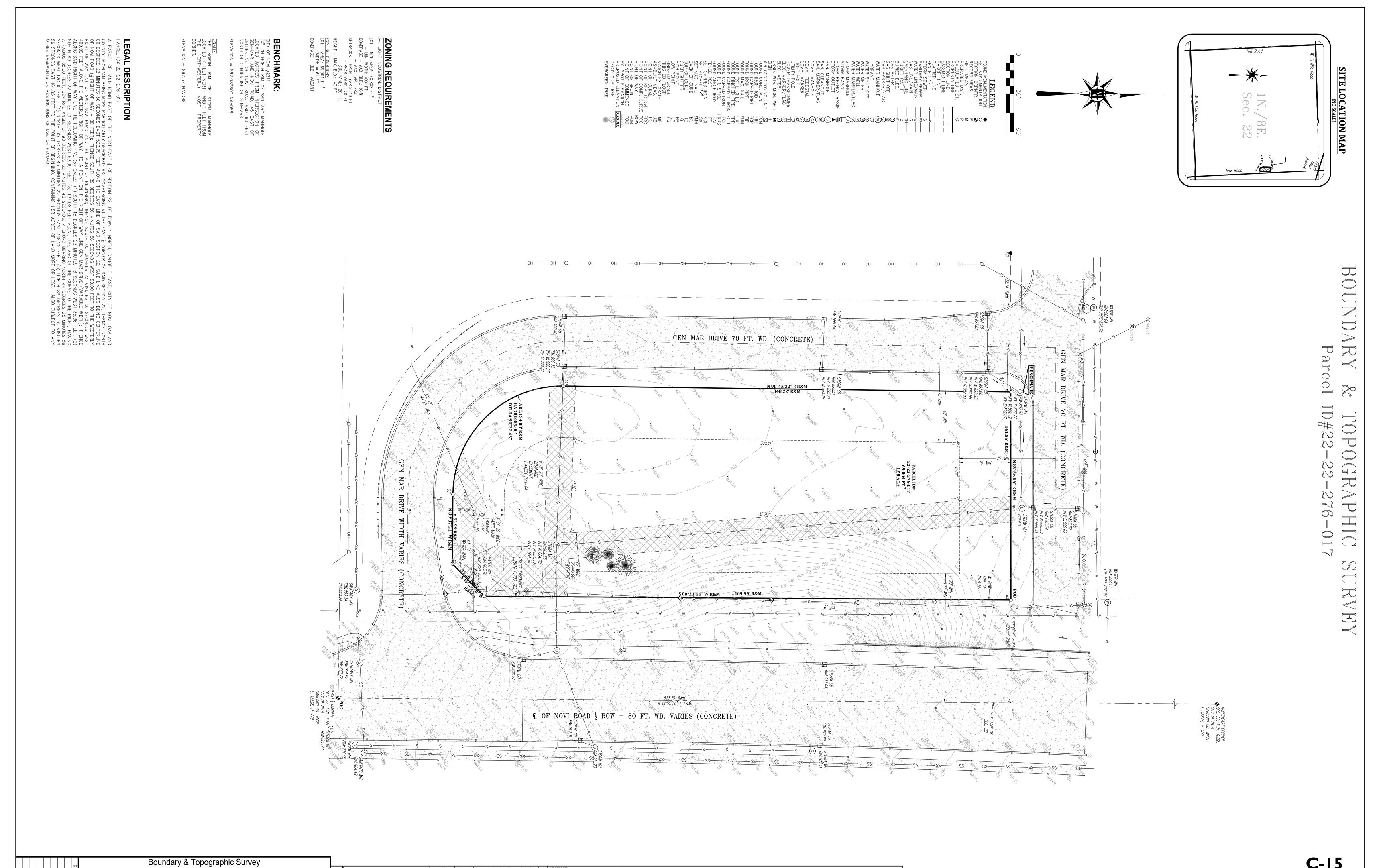
(ROLLED / FLARED SIDES)

- DETECTABLE WARNING SURFACE 24" ACROSS FULL WIDTH (SEE NOTES)

RAMP SLOPE 5% - 7% (8.3% MAXIMUM) SEE NOTES







I, Michael J. Nowry, a Professional Surveyor in the State of Michigan do hereby
Certify that the parcel of land described and delineated hereon has been surveyed under my supervision, that the plat hereon is a true representation of the survey as performed, that the error of closure is no greater than 1 in 5000 and that I have fully complied with the requirements of Section 3, Public Act 132 of 1970.

Michael J. Nowry Professional Surveyor # 52472

Nowry & Hale Land Surveying LLC

192 N. Main St., Suite D, Plymouth, MI, 48170
Office: (734)446-5501 Email: nowryhale1@yahoo.com

A PARCEL OF LAND BEING PART OF THE N.E. $\frac{1}{4}$ OF SEC. 22, T.1N., R.8E., CITY OF NOVI, OAKLAND CO., MICH.

 PROJ. #:
 023-010
 DC 121, Inc. - Christopher Aulepp

 DWG. BY:
 JCP
 114 Beddingham Court Saline, MI 48176

 1 INCH - 30 FEET
 PAGE # 1 OF 1

PET RESORT | NOVI

NEW CONSTRUCTION NOVI ROAD & GEN MAR DRIVE NOVI, MI 48375

ARCHITECT:

STUCKY VITALE ARCHITECTS 27172 WOODWARD AVENUE **ROYAL OAK, MICHIGAN 48067** (248) 546-6700

STONEFIELD ENGINEERING 607 SHELBY SUITE 200 DETROIT, MI 48226 (248) 247-1115

PROJECT DATA:

BUILDING CODE AUTHORITY: CITY OF NOVI

OWNER: CHRISTOPHER AULEPP DC 121 INC. 114 BEDDINGHAM CT. **SALINE, MI 48176** (248) 2893250

TYPE OF CONSTRUCTION:

USE GROUP: B-BUSINESS

PROJECT AREA:

TOTAL PROJECT AREA = 9,350 SF

OCCUPANT LOAD: 9,350SF / 100 OCCUPANTS = 94 OCCUPANTS

EGRESS WIDTH: REQUIRED (.2" PER OCCUPANT) = 94X.2 = 19" PROVIDED = 36" x 3 DOORS = 108"

PLUMBING FIXTURE COUNTS: WATER CLOSETS REQUIRED 1 PER 25 PEOPLE = 2 WATER CLOSETS PROVIDED = 2

LAVATORIES REQUIRED 1 PER 40 PEOPLE = 2 LAVATORIES PROVIDED = 2

DRINKING FOUNTAINS REQUIRED 1 PER 100 = 1 DRINKING FOUNTAINS PROVIDED = 1

SERVICE SINK REQUIRED = 1 SERVICE SINK PROVIDED = 1

APPLICABLE CODES: (COMMERCIAL):

BUILDING CODE: 2015 MICHIGAN BUILDING CODE (MBC) AS AMENDED

MECHANICAL CODE:

2015 MICHIGAN MECHANICAL CODE AS AMENDED PLUMBING CODE:

2018 MICHIGAN PLUMBING CODE AS AMENDED

2017 NATIONAL ELECTRIC CODE (NEC) AS AMENDED & MICHIGAN AMENDMENTS PART 8.

ENERGY CODE:

2015 MICHIGAN BUILDING CODE (CHAPTER 13) 2015 MICHIGAN ENERGY CODE ASHRAE 90.1-2013 ENERGY STANDARDS FOR BUILDINGS

2015 INTERNATIONAL FIRE CODE REFERENCED IN 2015 MICHIGAN BUILDING CODE

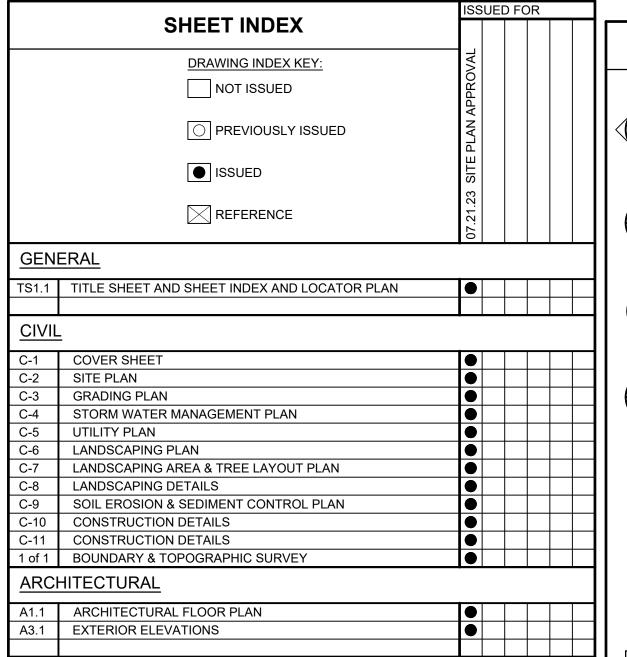
BARRIER FREE REQUIREMENTS: 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN (DOJ)

MBC-2012 (CHAPTER 11) ICC / ANSI 117.1 - 2009, EXCEPT SECTION 611 & 707

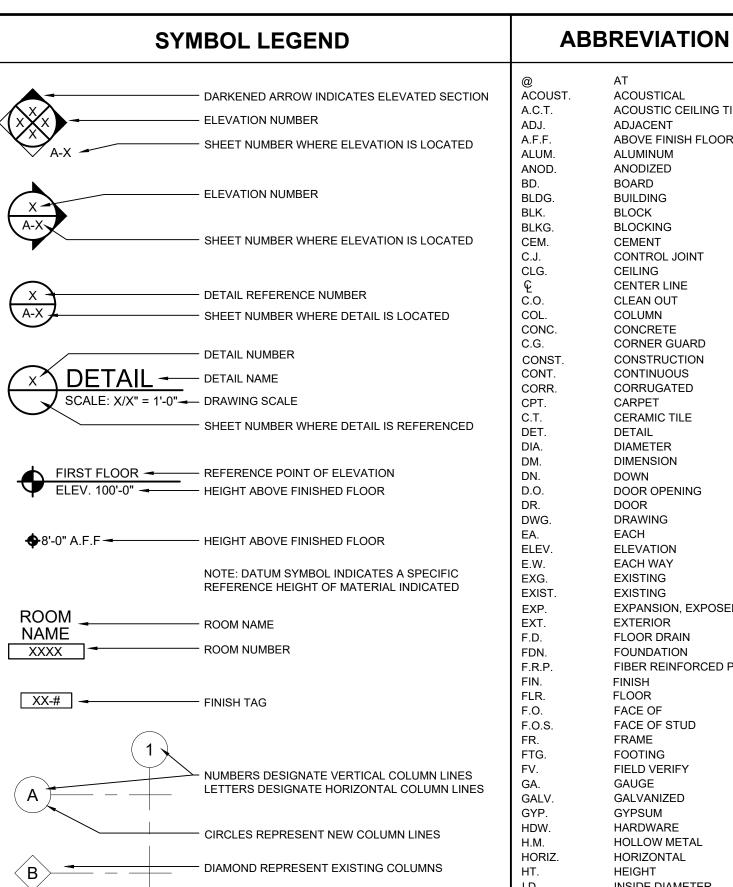
LIFE SAFETY CODES:

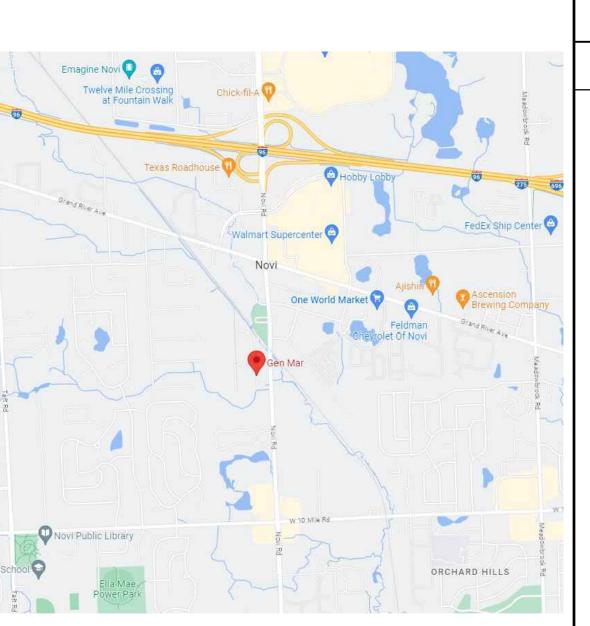
2015 NFPA 101 LIFE SAFETY CODE 2013 NFPA 72 NATIONAL FIRE ALARM CODE

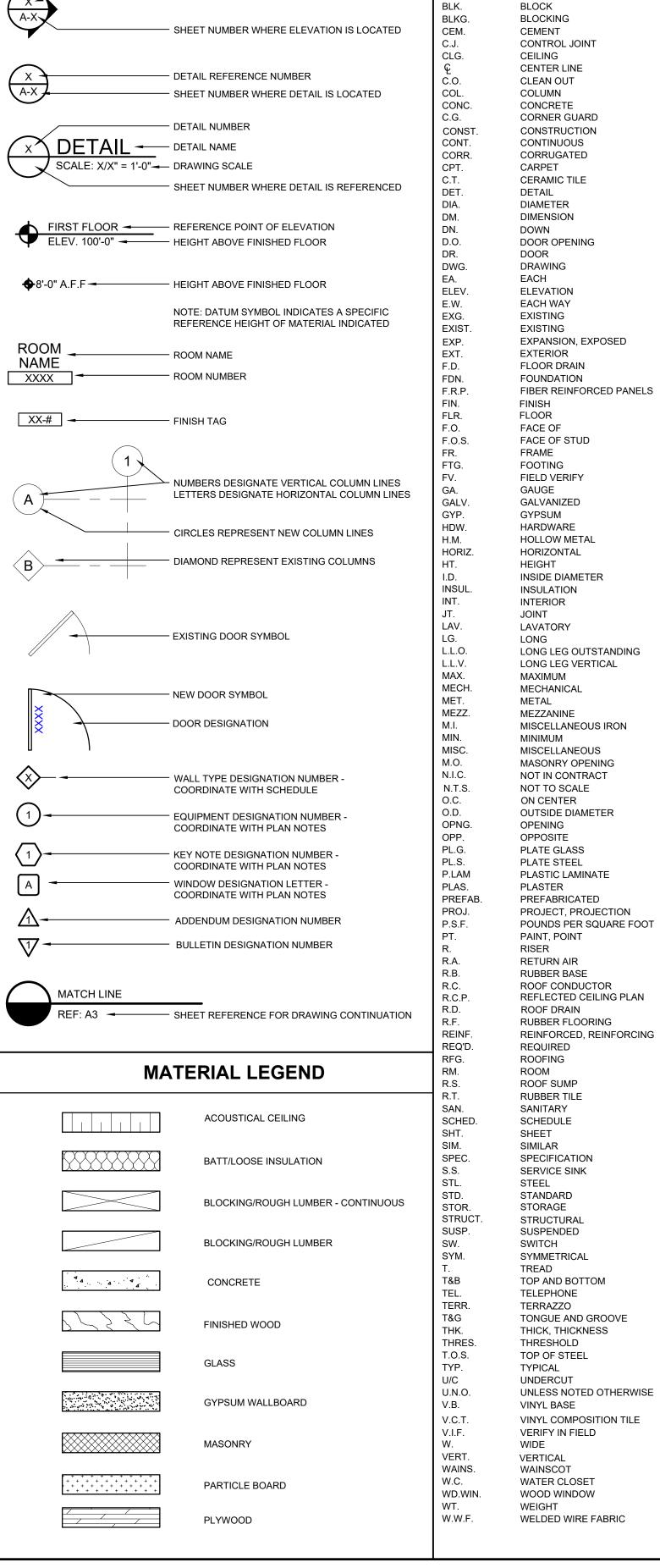




THESE CONSTRUCTION DRAWINGS WERE PREPARED FOR COMPLIANCE WITH THE MICHIGAN CONSTRUCTION CODES IN EFFECT AT THE TIME OF PERMIT SUBMITTAL. ALL ENGINEERS, CONTRACTORS AND SUPPLIERS INVOLVED WITH THIS PROJECT SHALL COMPLY WITH THE SAME CODES, ISSUED AND APPROVED CODE MODIFICATIONS AND/OR CITY CODE AUTHORITY CONSTRUCTION BOARDS OF APPEALS RULINGS AND WHENEVER REQUIRED SHALL PROVIDE SHOP DRAWINGS AND SUBMITTALS CLEARLY DESCRIBING COMPLIANCE TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE FOR REVIEW AND APPROVAL.







ACOUSTIC CEILING TILE

ABOVE FINISH FLOOR

ADJACENT

ANODIZED

STUCKY VITALE ARCHITECTS 27172 WOODWARD AVENUE ROYAL OAK. MI 48067-0925 P. 248.546.6700 F. 248.546.8454 WWW.STUCKYVITALE.COM

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Consultants:

PET RESORT | NOVI NOVI RD. & GEN MAR DR. NOVI. MI 48375

Issued for :

SITE PLAN APPROVAL 07.21.23

Drawn by:

Checked by JAV, MJB, AJD

Sheet Title: TITLE SHEET, SHEET INDEX, + LOCATOR PLAN

Project No. :

Sheet No.:

\ VICINITY MAP

85'-0" 7'-6" 27'-4" INFR. 102 STORAGE 106 15'-1" (B) INDOOR PLAY **(BI)** INDOOR PLAY **B** BO INDOOR PLAY 29'-9"

1 FLOOR PLAN A1.1 SCALE: 1/8" = 1'-0"

GENERAL FLOOR PLAN NOTES:

- 1. THIS DRAWING IS DIAGRAMMATIC AND SHOULD BE USED TO DETERMINE THE DESIGN INTENT. THE CONTRACTOR IS RESPONSIBLE FOR THE COMPLETE SET OF WORK AS INDICATED AND SHALL FIELD VERIFY ALL WORK, COORDINATE ALL DRAWINGS / NEW WORK AND SHALL NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES IN THE DOCUMENTS BEFORE PROCEEDING. FAILURE TO DO SO WILL RESULT IN THE CONTRACTOR TAKING FULL RESPONSIBILITY AND LIABILITY FOR SAID DISCREPANCIES.
- 2. ALL DIMENSIONS ARE SHOWN FROM FINISH FACE TO FINISH FACE OF PARTITION UNLESS OTHERWISE NOTED.
- 3. WALL THICKNESS' ARE NOMINAL NOT ACTUAL DIMENSIONS. SEE WALL SCHEDULE FOR ACTUAL DIMENSIONS.
- 4. ALL WOOD, INCLUDING BLOCKING, USED ON THE PROJECT SHALL BE FIRE RETARDANT
- 5. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL LOCAL, STATE, COUNTY CODE REGULATIONS, O.S.H.A., AND THE AMERICAN WITH DISABILITIES ACT (ADA). REFER TO THE CODE PLAN FOR MORE INFORMATION.
- 6. PROVIDE POSITIVE SLOPE TO ALL FLOOR DRAINS WHILE KEEPING FLOOR LEVEL AT WALL BASE CONDITION.
- 7. PROVIDE TRANSITION STRIPS AT EACH CHANGE IN FLOOR FINISH MATERIALS.
- 8. PAINT, PATCH AND REPAIR THE FOLLOWING TO MATCH EXISTING MATERIALS: FLOOR, WALL, AND CEILING SURFACES AS REQUIRED ADJACENT TO AREAS BEING DEMOLISHED. REFER TO DEMOLITION DRAWINGS FOR MORE INFORMATION.
- 9. REINFORCE WALL AND PROVIDE BLOCKING AS REQUIRED TO SUPPORT WALL CABINETS AND COUNTERTOPS.
- 10. THE CONTRACTOR SHALL PROVIDE AND INSTALL WALL REINFORCING FOR INSTALLATION OF ACCESSORIES, COAT RACKS, CHART RACKS, CASEWORK, AND
- 11. CLEAN AND REPAIR ALL EXISTING FLOOR FINISHES AS NECESSARY.

OTHER WALL MOUNTED ITEMS.

- 12. ALL EXPOSED PIPES, DUCTS, AND CONDUIT TO BE PAINTED TO MATCH EXISTING.
- 13. PROVIDE CONTROL JOINTS IN GYPSUM BOARD PARTITIONS AT 30'-0" O.C. MAXIMUM AND AS INDICATED IN THE CONTRACT DOCUMENTS.
- 14. COORDINATE WITH OWNER'S EQUIPMENT SUPPLIER FOR INSTALLATION REQUIREMENTS / LOCATIONS OF FLOOR / WALL / CEILING MOUNTED ITEMS; IE. CAMERAS, TV'S, SPEAKERS, SENSORS, SECURITY WIRING, VAULTS, ATM'S.
- 15. CONTRACTOR SHALL CONDUCT A ROUGH ELECTRICAL INSPECTION WITH OWNER, PRIOR TO ENCLOSING WALLS, FOR THE PURPOSE OF CONFIRMING ALL J-BOX LOCATIONS FOR POWER, DATA, VOICE, SWITCH, THERMOSTAT, ETC.
- 16. CONTRACTOR TO FILL ANY AND ALL EQUIPMENT PENETRATIONS OR DEPRESSIONS INTO OR THROUGH THE EXISTING SLAB THAT WILL NOT BE UTILIZED TO FEED NEW EQUIPMENT (I.E. ABANDONED FLOOR CORES, IMPRESSION FROM PREVIOUS EQUIPMENT FLOOR PLATE REMOVAL). PENETRATIONS SHALL BE FILLED WITH NON-SHRINK GROUT. THE SIDES OF ANY EXISTING OPENINGS SHALL BE MODIFIED/TAPERED SO THAT THEY ARE WIDER AT THE TOP THAN AT THE BOTTOM. FOR LARGE OPENINGS, PROVIDE ONE (1) #5 BAR 2" UP FROM BOTTOM OF HOLE.
- 17. A TACTILE SIGN STATING 'EXIT' AND COMPLYING WITH ICC-A117.1 SHALL BE PROVIDED ADJACENT TO EACH DOOR TO AN 'AREA OF REFUGE', AN EXTERIOR AREA FOR ASSISTED RESCUE, AN EXIT STAIRWAY, AN EXIT RAMP, AN EXIT PASSAGEWAY, AND THE EXIT DISCHARGE.
- 18. PROVIDE PERMANENT MIN 3-INCH HIGH CONTRASTING COLOR MARKING AND IDENTIFICATION AT ALL FIRE WALLS, FIRE BARRIERS, FIRE PARTITIONS, SMOKE BARRIERS, SMOKE PARTITIONS OR ANY OTHER WALL REQUIRED TO HAVE PROTECTED OPENINGS OR PENETRATIONS WITHIN 15 FEET AT THE END OF EACH WALL, AND NOT EXCEEDING 30 FEET MAXIMUM HORIZONTAL INTERVALS, MINIMUM 2 LOCATIONS EACH WALL. TYPICAL FOR ACCESSIBLE CONCEALED FLOOR, FLOOR-CEILING, OR ATTIC SPACES PER CODE (MBC 703.7)

FLOOR PLAN KEY LEGEND:

- 1 REFER TO LANDSCAPE PLAN FOR SCREENING
- $\langle 2 \rangle$ NEW BUILDING TRANSFORMER
- (3) MAKE UP AIR UNIT
- 4 GROUND MTD RTU
 - 5 LADDER TO STORAGE MEZZANINE ABOVE

KENNEL MATRIX:

- (A1) 14 SMALL 4'-8" X 3'-4"
- (A2) 1 SMALL 4'-8" X 3'-8"
- (B1) 90 MEDIUM 4'-8" X 4'-6"
- (B2) 3 MEDIUM 4'-10" X 4'-6" B3 2 MEDIUM - 5'-0" X 4'-0"
- (C1) 36 LARGE 6'-0" X 4'-6"
- C2 5 LARGE 6'-4" X 4'-2"
- (C3) 1 LARGE 6'-0" X 5'-0"

152 TOTAL

STUCKY VITALE ARCHITECTS 27172 WOODWARD AVENUE ROYAL OAK, MI 48067-0925 P. 248.546.6700 F. 248.546.8454 W W W . STUCKYVITALE.COM

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Consultants:

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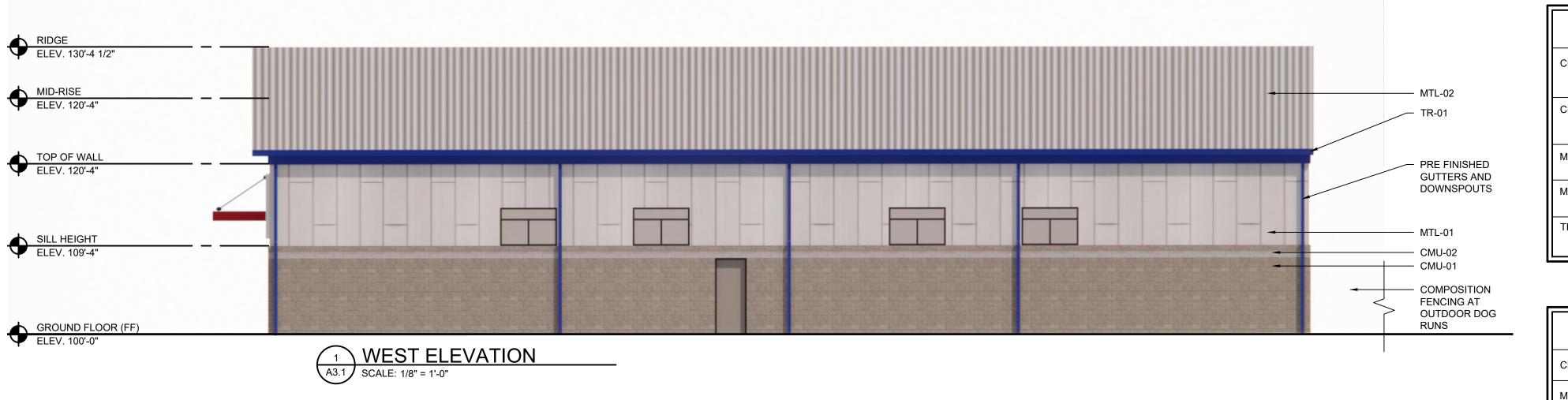
Drawn by : SVA

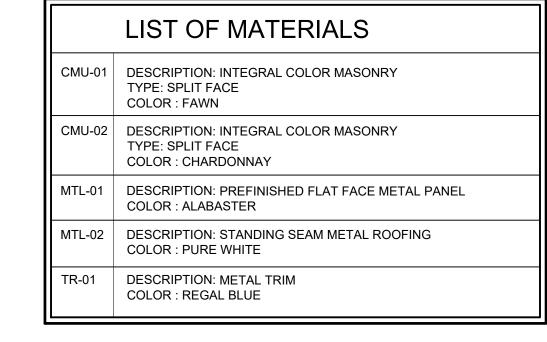
Checked by : JAV, MJB, AJD

Sheet Title : FLOOR PLAN

Project No. : 2023.030

Sheet No.:



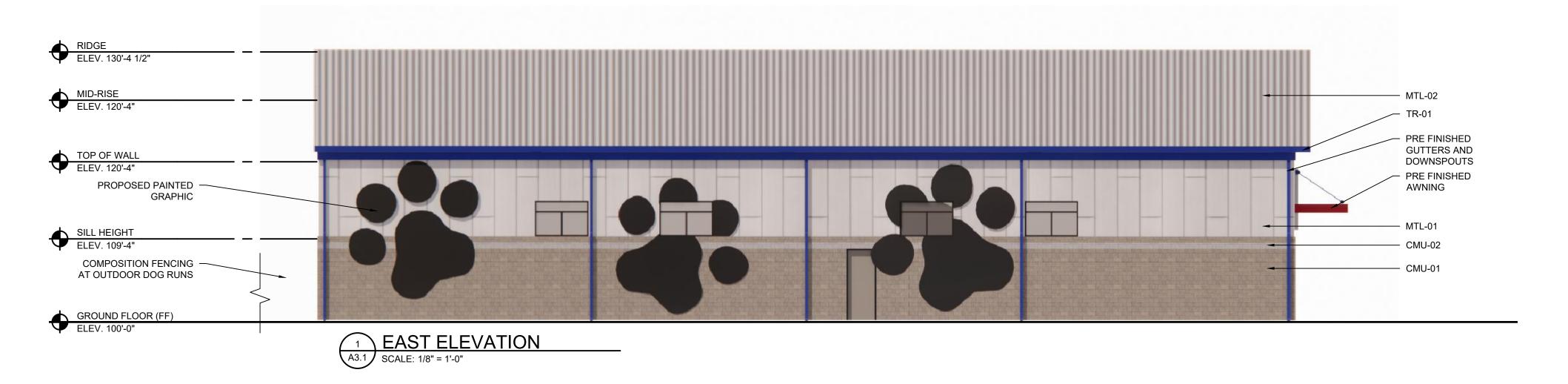


FACADE MATERIAL PERCENTAGES CMU 32% TOTAL COVERAGE MTL-01 FLAT METAL PANEL 38% TOTAL COVERAGE MTL-02 STANDING SEAM METAL ROOF 24% TOTAL COVERAGE

6% TOTAL COVERAGE

TR-01 TRIM







Project :

PET RESORT | NOVI NOVI RD. & GEN MAR DR. NOVI, MI 48375

STUCKY VITALE ARCHITECTS 27172 WOODWARD AVENUE

ROYAL OAK, MI 48067-0925

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SITE PLAN APPROVAL
07.21.23

Drawn by : KSH Checked by

Checked by : JAV, MJB

Sheet Title : EXTERIOR ELEVATIONS

Project No. : 2023.030

Sheet No. :

A3.1