City of Reading Planning Commission December 12, 2022 Regular Meeting 7:00 P.M.

Call to Order

Roll Call

**Approval of Meeting Minutes- November 14, 2022** 

Agenda/Additions/Deletions

**Public Comments and Communication Items (Agenda Items)** 

**New Business** 

A. No New Business

**Old Business** 

A. Review Historic Overlay District

**Zoning Administrator Report** 

A. Family Dollar Zoning Review

**Public Comment (PC related)** 

**Comments from Commissioners** 

**Adjournment** 

#### READING PLANNING COMMISSION

#### CITY OF READING, MI

#### November 14, 2022

The meeting was called to order at 7:00 p.m. at Reading City Hall by Vice Chair Chad Penney. Present were Chad Penney, Warren Bartels, Chuck Hartshorn, and Kendra Stump. Absent/excused was Betty Blount. Also present was Alan Beeker. Chuck made a motion, seconded by Kendra, to approve the October minutes. Motion carried 4-0. The agenda was accepted as presented. There was no public communication.

**NEW BUSINESS: None** 

OLD BUSINESS: Review of the 2022 Work Goals for the Planning Commission as per the Master Plan—from p. 71 discussion of landlords and absentee landlords. There was discussion about landlords keeping their properties up and what authority that might fall under. There was a question as to whether the Planning Commission could adopt any ordinance amendments and the role of the city in the matter. Alan shared that there is a city code and any enforcement would be a city responsibility. There was some discussion about an IMPC code.

Under Plans the Planning Commission has worked on identifying recreational needs and some potential sites. More on this needs to be moved into 2023.

Under Code nothing has been done about adjusting housing standards which would especially fall within any R-2 zone. This will need to be moved into 2023. Any related design standards for higher density housing would also move into 2023.

From p. 73 under Code the city has posted signs about parking in the rear of downtown buildings. The Planning Commission will focus in December or their next meeting on three of the other areas: 1) reviewing and updating any historic overlay standards, 2) reviewing possible regulations and places for food vendor trucks, and 3) reviewing any parking formulas for land use and instituting parking maximums. Anything not completed moves into 2023.

From p. 75 under Plans, it was the consensus that any plans in this area would be initiated by any developer and reviewed.

Under Code, again any standards initiated by a developer would be reviewed as they would propose plans. As to any neighborhoods being connected, this would depend upon developing plans. These goals can be moved into 2023 and 2024.

ZONING ADMIMISTRATOR REPORT: Alan shared that Family Dollar has submitted plans for a store across from the Dollar General on the north side of town.

With no further business or comments, Chuck made a motion, seconded by Warren, to adjourn

Zoning District	Minimum Lot Area (Sq. ft.)(1)	Minimum Lot Width	Setbacks (Front/Sides /Rear)	Maximum Height	l I of	
R-1 Residential			<u> </u>			
1-family dwelling	9,600	66 ft.	20/10/35	20/10/35 25 ft.		
1-family dwelling	15,000(2)	100 ft.	30/15/35	25 ft.	15%	
2-family dwelling	7,600(3)	100 ft.	30/15/35	25 ft.	25%	
3–4 family dwelling	7,600(3)	120 ft.	40/20/40	30 ft.	25%	
R-2 Residential						
1-family dwelling	7,200(3)	66 ft.	20/10/30	25 ft.	25%	
2-family dwelling	6,000(3)	80 ft.	20/10/30	25 ft.	30%	
3–6 family dwelling	5,000(3)	120 ft.	40/20/40	35 ft.	35%	
R-3 Residential						
1-family dwelling	7,200(3)	66 ft.	20/10/30	25 ft.	25%	
2-family dwelling	6,000(3)	80 ft.	20/10/30	20/10/30 25 ft.		
3–8 family dwelling	4,000(3)	120 ft.	40/20/40	35 ft.	35%	
9+ family dwelling	4,000(3)	140 ft.	40/20/40	35 ft.	35%	
O Office	6,000(3)	66 ft.	20/10/35	30 ft.	40%	
B-1 Highway Commercial	12,000(3)	80 ft.	50/10/30(4)	30 ft.	40%	
B-2 Central Business	No minimum	None	0/0/0	35 ft.	100%	
1-1 Industrial	40,000(3)	200 ft.	75/50/50(4)	40 ft.	50%	
I-2 Industrial Park	40,000	150 ft.	50/15/15(5)	40 ft.	50%	
(1) For all residential distric	ts, the minimu	ım lot area sho	own is per dwell	ing unit		
(2) Without public sanitary	sewer, but wit	h an approved	l on-site septic ta	nk and drain	field	
(3) Not permitted unless ser	ved by public	sanitary sewe	r			
(4) If abutting residential us setback shall be increased b		*	esidential use, th	e required min	nimum	

(Ord., §§ 307, 307.1, passed 6-11-2002)

## § 152.026 HISTORIC OVERLAY DISTRICT.

(A) *Purpose*. The purpose of this section is to safeguard the heritage of the city by preserving a district in the city which reflects elements of its cultural, social, economic, political, or architectural

(5) 50 feet if abutting or facing any residential use or residential zoning district

history; to stabilize and improve property values in such district; to foster civic beauty; to strengthen the local economy; and to promote the use of historic districts for the education, pleasure, and welfare of the citizens of the city.

- (B) Overlay District. This Historic Overlay District shall be a superimposed district over the Zoning Map established by this chapter. The regulations of this Overlay District are in addition to any regulations in the underlying zoning districts. The regulations of this District supersede all conflicting regulations of the underlying zoning districts to the extent of such conflict and no further. The Historic Overlay map on the subsequent page shall establish the Overlay District.
- (C) Uses permitted. Any land use permitted by right in the underlying zoning district shall be permitted in this Overlay District subject to the requirements of this Overlay District. Any land use permitted by special use permit in the underlying land use district shall be permitted in this Overlay District, subject to the standards, conditions, and approvals required for a special use permit in addition to the requirements of this Overlay District.
  - (D) Use regulations.
- (1) Because of the unique historic character of the central business area of the city no development, preservation, and beautification will be permitted without a site plan approval by the Planning Commission.
- (2) In addition to the requirements for preparation of a site plan, pursuant to division (E) of this section, the site plan shall also include:
- (a) A rendering of exterior architectural features, along with a notation of materials and colors proposed to be used;
  - (b) A rendering of proposed signs, lamp posts, structures on sidewalks; and
- (c) A rendering of the building, in relationship to the surrounding area, such as but not limited to adjacent buildings.
  - (3) At least two copies of the renderings shall remain as file copies with the site plan.
- (E) *Historic standards*. In addition to the standards for site plan review, pursuant to division (F) of this section, standards shall also include the following consideration. In reviewing plans, the Planning Commission shall give consideration to:
- (1) The historic or architectural value and significance and its relationship to the historical value of the surrounding area, using design guidelines which address exterior features of the building;
- (2) The relationship of the exterior architectural features of the structure, including but not limited to signs, lamp posts, structures on sidewalks, to the rest of the structure and to the surrounding area; and
- (3) The general compatibility of exterior design, arrangement, texture, and materials proposed to be used.
- (a) The Planning Commission shall pass only on exterior features of a structure and shall not consider interior arrangements.
- (b) In case an application for repair or alteration affecting the exterior appearance of a structure or for the moving or demolition of a structure which the Planning Commission deems so

valuable that the loss thereof will adversely affect the overall character of the historic area, the Planning Commission shall endeavor to work out with the owner an economically feasible plan for preservation of the structure.

- (c) An application for repair or alteration affecting the exterior appearance of an historic structure, or for its moving or demolition, shall be approved by the Planning Commission if any of the following conditions prevail, and if in the opinion of the Planning Commission, the proposed changes will materially improve or correct these conditions.
  - 1. The structure constitutes a hazard to the safety of the public or its occupants.
- 2. The structure is a detriment to a major improvement program which will be of substantial benefit to the community.
  - 3. Retention of the structure would cause undue financial hardship to the owner.
- 4. Retention of the structure would not be in the best interest of the majority of the community.
  - (F) Review procedure.
    - (1) Review procedure. Review of a site plan shall be as provided for in § 152.106.
- (2) Site plan. When reviewing a site plan, the site plan shall be approved if there is substantial compliance with the guidelines as set forth in this chapter. All decisions of the Planning Commission related to the historic preservation aspect of site plan reviews shall be appealed to the Zoning Board of Appeals, if the disagreement with a review decision is based on substantial evidence.

(Ord., § 308, passed 6-11-2002)

#### **DISTRICT USES**

#### § 152.040 USES IN DISTRICTS.

Permitted and special land uses for each district are set forth in the District Use Schedule set out in §§ 152.041 through 152.048. Any use not expressly listed for a district is prohibited in that district. Special land uses require the review and approval of the Planning Commission subject to the provisions of §§ 152.105 and 152.106.

(Ord., § 306, passed 6-11-2002)

#### § 152.041 R-1 (LOW DENSITY RESIDENTIAL DISTRICT).

- (A) Permitted uses.
  - (1) Single-family detached dwelling;
  - (2) Home occupation;
  - (3) Family day care home;



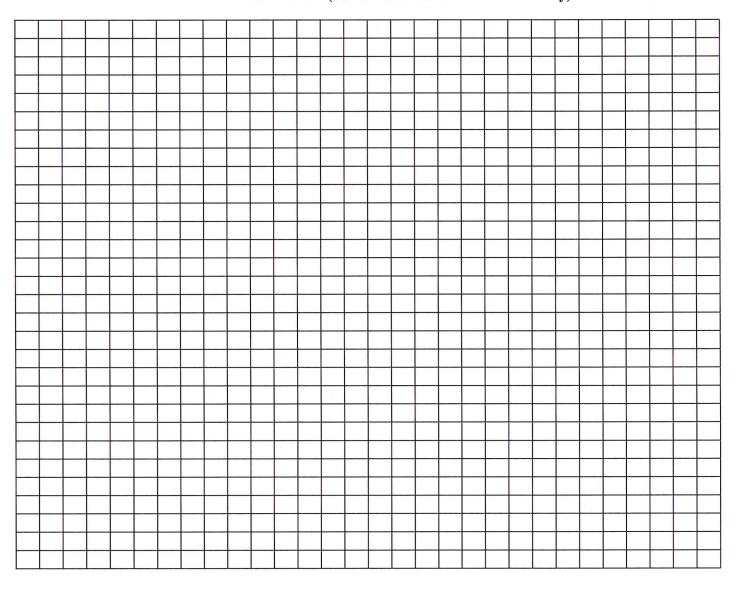
## ZONING COMPLIANCE PERMIT APPLICATION

PERMIT#\_\_\_\_

City of Reading 113 S. Main St, Reading, MI 49274

<ul> <li>1) Application is hereby made by the undersigned to: (check all that apply)</li> <li> use land _X construct new building(s) add to existing buildings alter existing building(s)</li> </ul>
for the following use(s) and/or construction of: New 10,500sf Family Dollar / Dollar Tree Combo Store
2) The applicant(s) is/are: (check all that apply)
X the owner of the property involved acting on behalf of the owner(s) of the property involved
3) PROPERTY OWNER INFORMATION
NAME Wolgast Acquisition Corporation PHONE 989-790-9120  ADDRESS 4835 Towne Centre Rd., Suite 203
CITY Saginaw STATE MI ZIP 48604
4) APPLICANT INFORMATION (CONTRACTOR/ENGINEER/ARCHITECT) if other than owner
NAME Cole Stadler PHONE 989-245-4900
E-MAIL cstadler@wolgast.com FAX NUMBER 989-393-5321
5) PROPERTY INFORMATION
PARCEL NUMBER
6) PRESENT ZONING (Circle all that apply) R1 R2 R3 B1 B2 II IP HOD
7) LOT SIZE FRONTAGE 250 feet DEPTH 333 feet TOTAL LOT AREA 83,250 sq ft
8) SET BACKS Front 32' Side 20' Side 20' Rear 32' 9) % OF LOT COVERED 45 %
10) BUILDING HEIGHT 28'5" FEET 1 STORIES 11) DISTANCE BETWEEN BUILDINGS 250 feet
12) OFF STREET PARKING 42 CARS 13) PUBLIC SEWER Yes No 14) PUBLIC WATER Yes No
I/We Cole Stadior / Wolgert Corporation do hereby swear that the above information is true and correct to the best of my knowledge. I hereby grant permission for the Zoning Administrator and/or his/her authorized agent to enter the above described property for the purpose of gathering information related to this application.
SIGNATURE OF APPLICANT: DATE 11/16/22
SIGNATURE OF APPLICANT:

#### SITE PLAN (attach additional sheets if necessary)



BELOW FOR OFFICE USE ONLY	
Complies With Zoning: []LOT AREA []HEIGHT []LOT COVERAGE []FRONT SETBACK []SIDE	,
SETBACK [ ] SIDE SETBACK [ ] REAR SETBACK [ ] DISTANCE BTWN BLDGS [ ] OFF STREET PARKING	
NOTES:	
[ ] Approved [ ] Denied ZONING ADMINISTRATORDATE	
Permit Fee Received [ ] CASH [ ] CHECK # Amount \$	

PLEASE CONTACT HILLSDALE COUNTY BUILDING DEPARTMENT AT 517-437-4130 FOR ANY FURTHER PERMIT REQUIREMENTS. A COPY OF THIS PERMIT WILL NEED TO BE PROVIDED TO THE BUILDING DEPARTMENT.

## CITY OF READING LAND DIVISION APPLICATION

IMPORTANT: You <u>MUST</u> answer all questions and include all attachments or this will be returned to you. To avoid delays in the Land Division Application process please provide all required documents and payment with this application.

Approval of a division of land is required before it is sold, when the new parcel is less than 40 acres and not just a property line adjustment (§102 e&f). This form is designed to comply with §108 and §109 of the Michigan Land Division Act, formally the Subdivision Control Act, PA 288 of 1967, as amended (particularly PA 591 of 1996 and PA 87 of 1997, MCL 560 et seq.)

Approval of a division is not a determination that the resulting parcels comply with other ordinances or regulations.

1,	PROPERTY OWNER Information:
	Name Hef Effings Farms Land LLC Phone: (517) 398-3592
	Address: Co Hat Reading Rd
	City: Neading State 1 Zip: 49374
2.	LOCATION of parent parcel to be split:
	Address: N MAIN STREET, READING, MI49274
	Parent parcel number: 30-20-100 001 001 22 7 4
3.	ATTACHMENTS (all attachments <u>MUST</u> be included) Letter each attachment as shown here.
A. B.	Attach a copy of proof of fee ownership (copy of warranty deed or completed land contract, not a quit claim deed)  A certificate from the County Treasurer that complies with the requirement of PA 23 of 2019, establishing all property taxes and special assessments due on the parcel or tract subject to the proposed division have been paid for 5 years preceding the date of the application.
C.	A survey and/or scale drawing (aerial with overlay can be purchased from Mapping at the Courthouse) that complies with requirements of PA 59 of 1996 as amended for the proposed division(s) of the parent parcel showing: proposed division(s) of the parent parcel showing:  (1) current <b>boundaries</b> and  (2) all previous divisions <b>made after</b> March 31, 1997 (indicate when made or none) and
	<ul> <li>(3) the proposed division(s) with dimensions each one outlined in a different color and</li> <li>(4) highlight remaining parcel, after division</li> </ul>
D.	(5) any existing improvements (buildings, wells, septic system, driveways, etc), and Driveway approval, or permit from Hillsdale County Road Commission, or
	Has existing approved driveway or No egress onto public road
	A copy of any transferred division rights (§109(2) of the Act) of the parent parcel. (STC Form L-4260a)  A fee of \$25 for each resulting division.  Make check payable to: Ben Wheeler Company  Other (please list)
4.	MPROVEMENTS Describe any existing improvements (buildings, well, septic, etc.,)  New 10,500sf building with a parking lot with 42 parking spaces
_	
5. i	PROPOSAL: Describe the division(s) being proposed:  Number of new Parcels1_
B.	Intended use(s) (please circle all that apply)Residential X Agricultural X Commercial/Industrial
D.	Each parcel has a minimum width of 250' feet
⊏.	Each parcel has a minimum area of square feet or1.91 acre(s)



G. Write here or atta			
Please see attac	ch a legal descript hed	tion for the remaining parent parce	(attach extra sheet if necessary)
6. NUMBER of future Identify the or your deed inc application)	ther parcel: cludes both statem	ransferred from the parent parcel to (See nents as required in §109(3) and §1	s another? §109(2) of the Statute. Make sure 09(4) of the Statute.) <b>(see 3.e of th</b> i
determination that the the use or developmen regulations are subject	resulting parcels cor nt of the parcels. Fina t to change and that	ally even if this division is approved. I	rules or regulations which may control understand ordinance, laws, zoning, and it to such changes that may occur before
for the reasons set fort	in size and its office th in this section. A r	s: The municipality or county approving and employees are not liable if a brootice of approval of a proposed division of the county approval of a proposed division of the county approval of a proposed division of the county approval of the county approving the county appr	uilding permit is not issued for the parce
Parties involved in a tra	ansaction of resulting	x bill for the original parcel will not be on parcels from this land division shall the control of the control	livided until the following tax year. The pe in agreement as to the responsibility
and f. Deffection PROPERTY OWNER Mail comp		to Ben Wheeler Company, PO B	<u>/0 -3/6 -30/33</u> DATE ox 541. Reading, MI 49274
	EOR OFFICE US	SE ONLY ADD NOT WRITE BELO	DW EINE
FEE TOO		279063 279180 DATE RECEIVED 1	7/22
APPROVED con	nditions if any:		
DENIED for rea	son of:		
DEMIED for test	1/0		
SIGNATURE_	Land Division Agei	DATE.	11-9-22
	0	nt DATE	

To: 19893935321 From: +15172832396 Date: 10/26/22 Time: 1:56 PM Page: 04

Stephenie Kyser Hillsdale County Treasurer 33 McCollum St. Suite 205 Hillsdale, MI 49242 Phone (517) 437-4700



## Land Division Tax Payment Certification Form

Name: He Gellinger Forms IIC Phone: 517 3983592
Name: 70 - CA
Owner Address. Of the Address.
Owner City, State, Zip: KOOCIOG
Property Address: N MAN 57
Property City, State, Zip: KCADING MI 49819
Parcel ID Number: 30 110 061 001 02 74
Attach a description of the parcel to be divided
[ ] CERTIFICATION DENIED
The Hillsdale County Treasurer's Office has found delinquent taxes on the parcel listed above and cannot issue a certification of tax payment.
Delinquent Taxes Owed:
ACERTIFICATION APPROVED
Pursuant to House Bill 4055, the Hillsdale County Treasurer's Office certifies that all property taxes and special assessments due on the above parcel subject to the proposed division for the five years preceding the date of the application have been paid. This certification does not include taxes, if any, now in the process of collection by the local tax collecting unit. EXCEPTION: This certification being subject to any Board of Review, Tribunal, and/or Principal Resident Exemption Denial.
M DATED ON OR AFTER MARCH 1, 2000
The return of current year delinquent taxes are not available for examination.
Certified by: Ditlin Reason Date Certified: 10180180

I MARKA BARAN DENANT SHAMI METER KAMITETARA (ADI ULU AN HETER HANDA MARKA ULU AN LABAR LABAR LABAR LABAR LABAR

FAGE 0779
STATE OF MICHIGAN - HILLSDALE COUNTY
Received 08/28/2013 10:21:29 AM 507120
RECORDED 08/28/2013 10:51:45 AM 1 of 4
BAMBI SOMERLOTT, REGISTER OF DEEDS

2013, by Richard L.

#### QUITCLAIM DEED

The Grantors, Richard L. Heffelfinger and Karen L. Heffelfinger, husband and wife, of 6491 W. Reading Road, Reading, Michigan 49274, quitclaim to Heffelfinger Farms Land, LLC, a Michigan limited liability company, of 6491 W. Reading Road, Reading, Michigan 49274, the following described premises:

SEE ADDENDUM A.

for the sum of One and No/100ths (\$1.00) Dollars.

Dated this 15th day of ANGINST , 2013.

Signed by:

Richard L. Heffelfinger

Karon I. Heffelfinger

Acknowledged before me in Branch County, Michigan,

Heffelfinger and Karen L. Heffelfinger.

Charles L Lillis

Notary Public, Branch County, Michigan acting in Branch County, Michigan My commission expires: 11/10/2019

Drafted by:

BIRINGER, HUTCHINSON, LILLIS,

BAPPERT & ANGELL, P.C. By: Megan R. Angell, Esq.

Century Bank and Trust Building

100 West Chicago Street

Coldwater, Michigan 49036-1897

Phone: (517) 279-9745 kgh corpl) 8731.3

Land in the Township of Reading, Hillsdale County, Michigan.

The NE 1/4 of NE 1/4 except a tract described as the E 16 rods of the NE 1/4 of the NE 1/4 of Section 36, Town 7 South, Range 4 West, Reading Township, Hillsdale County Michigan.

Tax Code No. 30-10-036-200-003-36-7-4

Specie

Land in the City of Reading, Hillsdale County, Michigan.

That part of the South 1/2 of the Southeast 1/4, described as beginning at a point 65 rods North and 21 1/3 rods West of the Southeast corner thereof on the North line of Lincoln Street, City of Reading, thence West to the West end of Lincoln Street, thence South 4 rods; thence West 8 rods to the Northwest corner of Berry's West Addition, thence South along the West line of said Addition to a point 24 rods North of the South Section line, thence West 19 2/3 rods, thence South to the Section line, thence West on Section line to Southwest corner of said South 1/2 of the Southeast 1/4, thence North to the Northwest corner thereof, thence East on the North line thereof to a point due North of the Point of Beginning, thence South to the Point of Beginning, EXCEPTING beginning at a point on the north line of Lincoln Street which is 65 rods North and 21 1/3 rods West of the Southeast corner of Section, for a Point of Beginning for this exception, thence West along the North line of Lincoln Street to West end of Lincoln Street, thence South 46 feet, thence due West 132 feet, to a point which is 20 feet due North of West line of Berry's West Addition, thence North 146 feet; thence due East to a point 100 feet due North of the Point of Beginning, thence South 100 feet to Point of Beginning. ALSO EXCEPTING beginning at a point 65 rods, 100 feet North and 23 1/3 rods West of the Southeast corner of Section, thence West 33 2/3 rods; thence North to the North line of the South 1/2 of the Southeast corner of Section, thence West 33 2/3 rods; thence North to the North line of the South 1/2 of the Southeast 1/4; thence East to point due North of the Point of Beginning; thence South to Point of Beginning, all in Section 22, Town 7 South, Range 4 West, City of Reading, Hillsdale County, Michigan.

EXCEPT land in the Southeast quarter, Section 22, Township 7 South, Range 4 West, City of Reading, Hillsdale County, Michigan, described as follows:

Commencing at the Southeast corner of the Southeast quarter of Section 22; thence North 89° 53' 1" West 1,232.32 feet to the POINT OF BEGINNING of this description; thence North 00° 1' 2" West 395.73 feet; thence North 89° 51' 20" West 154.04 feet; thence South 00° 1' 2" East 395.78 feet; thence South 89° 53' 1" East 154.04 feet to the place of beginning.

Subject to an easement for ingress and egress over the Northerly 3 rods which is hereby reserved by grantors but only for so long as the property adjacent to the conveyed property is owned by grantors or their successors in interest and is used for agricultural purposes and once that use is discontinued for a period of one (1) year this easement shall expire and be of no further force or effect.

Tax Code No. 30-20-110-001-009-22-7-4

Land in the City of Reading, Hillsdale County, Michigan.

The North 1/2 of the North 1/2 of the Southeast 1/4 of Section 22; ALSO EXCEPT the South 153 feet of the East 858 feet thereof.

ALSO, land beginning at a point 80 rods North and 52 rods West of the Southeast corner of Section 22, Town 7 South, Range 4 West, and running thence west 108 rods, thence North 40 rods, thence East 108 rods, thence south 40 rods to Point of Beginning. All in Section 22, Town 7 South, Range 4 West, City of Reading, Hillsdale County, Nichigan.

Tax Code Nos. 30-20-110-001-001-22-7-4; 30-20-110-001-003-22-7-4



#### OVERALL PARCEL DESCRIPTION

THE NORTH 1/2 OF THE NORTH 1/2 OF THE SOUTHEAST 1/4 OF SECTION 22; ALSO EXCEPT THE SOUTH 153 FEET OF THE EAST 858 FEET THEREOF. ALSO, LAND BEGINNING AT A POINT 80 RODS NORTH AND 52 RODS WEST OF THE SOUTHEAST CORNER OF SECTION 22, TOWN 7 SOUTH, RANGE 4 WEST, AND RUNNING THENCE WEST 108 RODS, THENCE NORTH 40 RODS, THENCE EAST 108 RODS, THENCE SOUTH 40 RODS TO POINT OF BEGINNING. ALL IN SECTION 22, TOWN 7 SOUTH, RANGE 4 WEST, CITY OF READING, HILLSDALE COUNTY, MICHIGAN.

TAX CODE NO'S 30-20-110-001-001-22-7-4; 30-20-110-001-003-22-7-4

#### SPLIT PARCEL DESCRIPTION

PART OF THE NORTH 1/2 OF THE NORTH 1/2 OF THE SOUTHEAST 1/4 OF SECTION 22, TOWN 7 SOUTH, RANGE 4 WEST, CITY OF READING, HILLSDALE COUNTY, MICHIGAN, BEING FURTHER DESCRIBED AS: COMMENCING AT THE EAST 1/4 OF SAID SECTION; THENCE S 00°02'24" W, 100.00 FEET ALONG THE EAST LINE OF SAID SECTION TO THE POINT OF BEGINNING; THENCE CONTINUING S 00°02'24" W, 250.00 FEET ALONG THE EAST LINE OF SAID SECTION; THENCE N 89°28'24" W, 333.00 FEET PARALLEL WITH EAST-WEST 1/4 LINE; THENCE N 00°02'22" E, 250.00 FEET PARALLEL WITH THE EAST LINE OF SAID SECTION; THENCE S 89°28'24" E, 333.00 FEET PARALLEL WITH EAST-WEST 1/4 LINE TO THE EAST LINE OF SAID SECTION AND THE POINT OF BEGINNING, CONTAINING 1.91 ACRES. MORE OR LESS

#### REMAINDER PARCEL DESCRIPTION

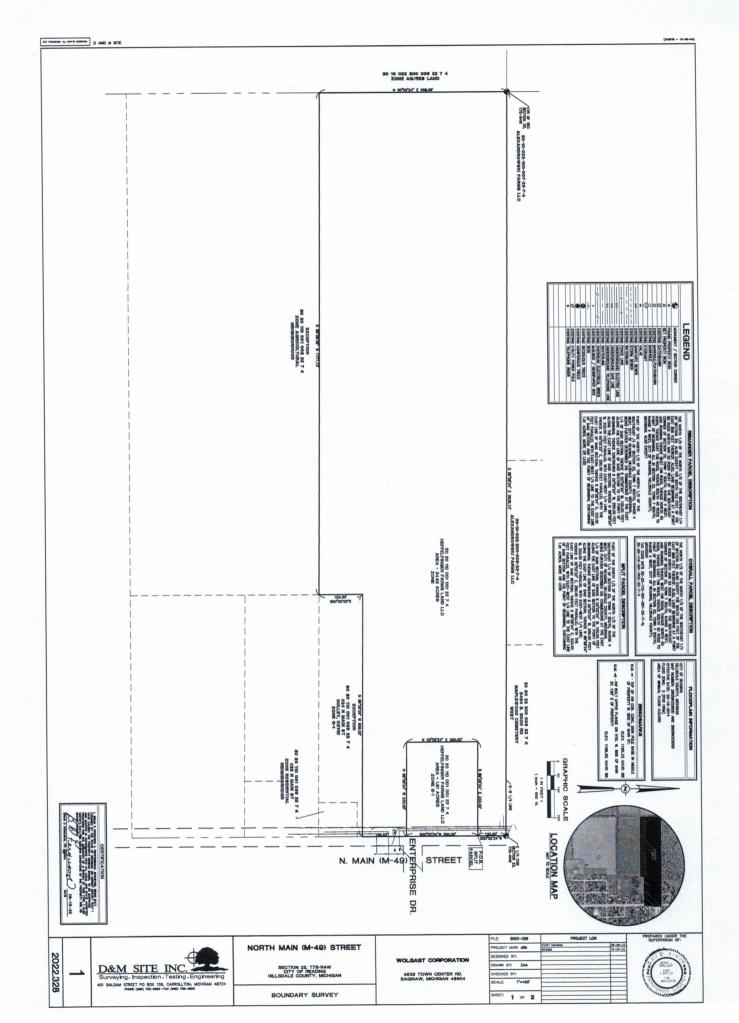
THE NORTH 1/2 OF THE NORTH 1/2 OF THE SOUTHEAST 1/4 OF SECTION 22; ALSO EXCEPT THE SOUTH 153 FEET OF THE EAST 858 FEET THEREOF. ALSO, LAND BEGINNING AT A POINT 80 RODS NORTH AND 52 RODS WEST OF THE SOUTHEAST CORNER OF SECTION 22, TOWN 7 SOUTH, RANGE 4 WEST, AND RUNNING THENCE WEST 108 RODS, THENCE NORTH 40 RODS, THENCE EAST 108 RODS, THENCE SOUTH 40 RODS TO POINT OF BEGINNING. ALL IN SECTION 22, TOWN 7 SOUTH, RANGE 4 WEST, CITY OF READING, HILLSDALE COUNTY, MICHIGAN. ALSO EXCEPT

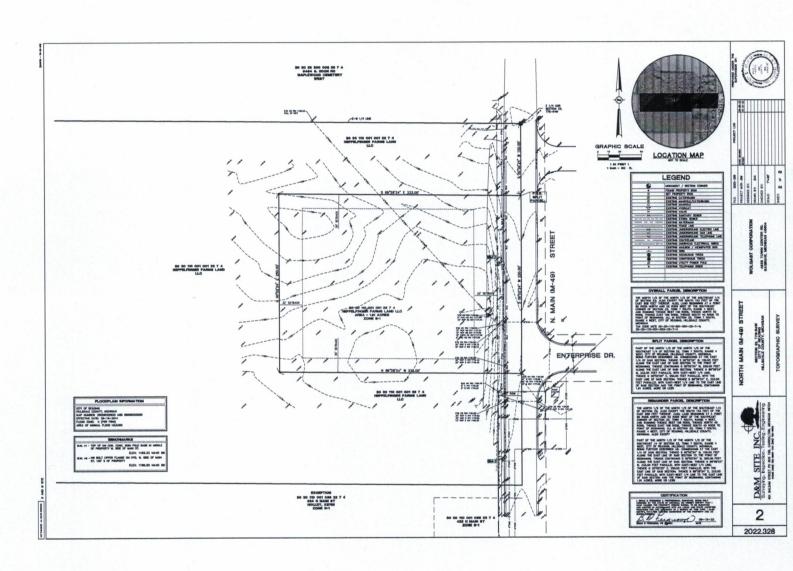
PART OF THE NORTH 1/2 OF THE NORTH 1/2 OF THE SOUTHEAST /4 OF SECTION 22, TOWN 7 SOUTH, RANGE 4 WEST, CITY OF READING, HILLSDALE COUNTY, MICHIGAN, BEING FURTHER DESCRIBED AS:

COMMENCING AT THE EAST 1/4 OF SAID SECTION; THENCE S 00°02'24"

W, 100.00 FEET ALONG THE EAST LINE OF SAID SECTION TO THE POINT

OF BEGINNING; THENCE CONTINUING S 00°02'24" W, 250.00 FEET ALONG THE EAST LINE OF SAID SECTION; THENCE N 89°28'24" W, 333.00 FEET PARALLEL WITH EAST-WEST 1/4 LINE; THENCE N 00°02'22" E, 250.00 FEET PARALLEL WITH THE EAST LINE OF SAID SECTION; THENCE S 89°28'24" E, 333.00 FEET PARALLEL WITH EAST-WEST 1/4 LINE TO THE EAST LINE OF SAID SECTION AND THE POINT OF BEGINNING, CONTAINING 1.91 ACRES. MORE OR LESS





# FAMILY DOLLAR NORTH MAIN (M-49) STREET

SECTION 22, T7S-R4W
CITY OF READING, HILLSDALE COUNTY, MICHIGAN

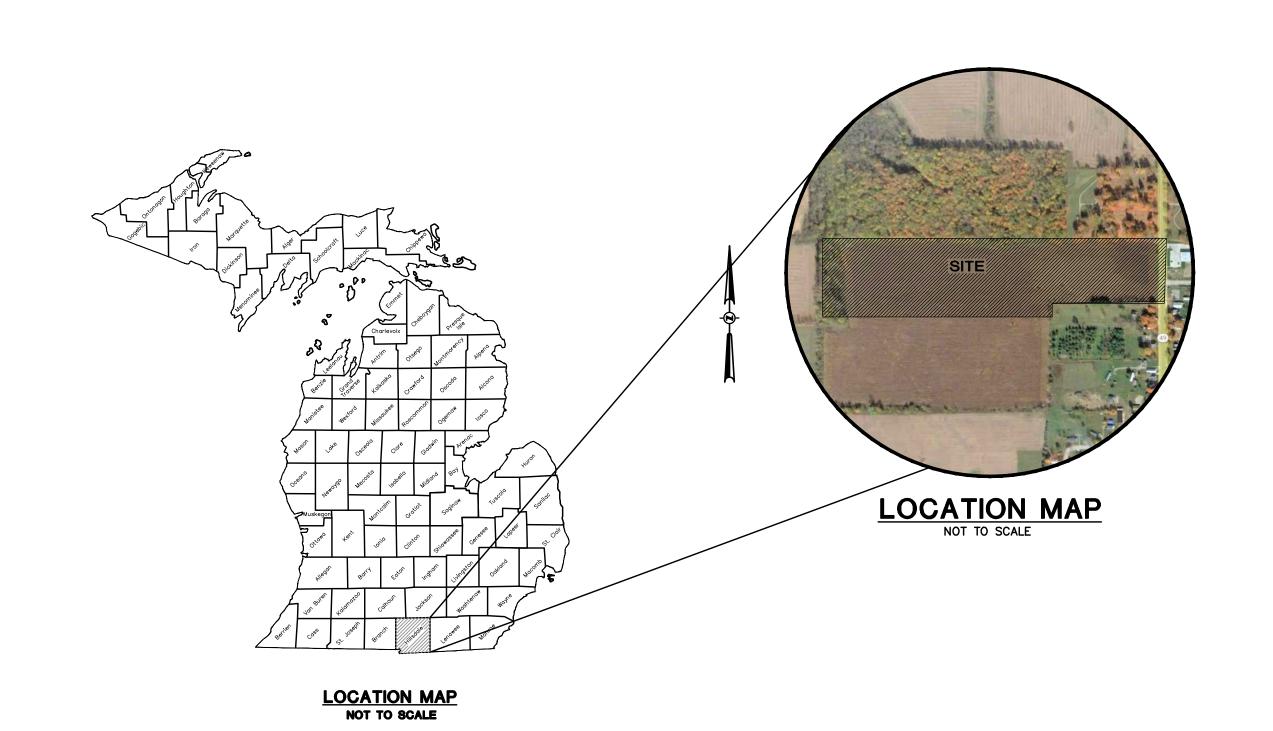
APPLICANT

WOLGAST CORPORATION 4835 TOWNE CENTER ROAD SUITE 203 SAGINAW, MI 48604

## CIVIL ENGINEER

D&M SITE, INC 401 BALSAM STREET P.O. BOX 159 CARROLLTON, MI 48724

	LEGEND
<b> </b>	MONUMENT / SECTION CORNER
•	FOUND PROPERTY IRON
	EXISTING CATCHBASIN
	PROPOSED CATCHBASIN
0	SET PROPERTY IRON
$\bigcirc$	EXISTING MANHOLE/CATCHBASIN
<b>@</b>	PROPOSED MANHOLE/CATCHBASIN
0	EXISTING MANHOLE
$\bigvee$	EXISTING HYDRANT
M	EXISTING VALVE
	EXISTING SANITARY SEWER
	EXISTING STORM SEWER
	PROPOSED STORM SEWER
	EXISTING WATERMAIN
	PROPOSED ASPHALT
	EXISTING CONCRETE SURFACE
	EXISTING BIT SURFACE
xx	EXISTING FENCE LINE
ELEC	UNDERGROUND ELECTRIC LINE
———— GAS ————	UNDERGROUND GAS LINE
TELE	UNDERGROUND TELEPHONE LINE
TV	UNDERGROUND CABLE T.V. LINE
— онw — онw —	EXISTING OVERHEAD ELECTRICAL WIRES
	EXISTING DECIDUOUS TREES
*	EXISTING CONIFEROUS TREES
	EXISTING SIGN
Ø	EXISTING UTILITY POWER POLE
▼	EXISTING TELEPHONE RISER
<b>←</b>	PROPOSED FLOW ARROW
TW 646.9	PROPOSED TOP OF WALK ELEVATION
TW 647.0	PROPOSED TOP OF CURB ELEVATION
FS 646.9	PROPOSED FINISH SURFACE ELEVATION
	PROPOSED MODIFIED CURB AND GUTTER



## DRAWING INDEX

C1.0 COVER SHEET
C1.1 SITE DETAILS
C1.2 MDOT DETAILS
C2.0 BOUNDARY SURVEY

C2.0 BOUNDARY SURVEY
C2.1 TOPOGRAPHIC SURVEY

C3.0 SITE PLAN

C4.0 GRADING AND UTILITY PLAN
C4.1 STORM MANAGEMENT CALCULATIONS

THE UTILITY LOCATIONS AS HEREON SHOWN ARE BASED ON FIELD OBSERVATIONS AND A CAREFUL REVIEW OF MUNICIPAL AND UTILITY RECORDS. HOWEVER, IT IS NOT POSSIBLE TO DETERMINE THE PRECISE SIZE, LOCATION, DEPTH, PRESSURE, OR ANY OTHER CHARACTERISTICS OF UNDERGROUND UTILITIES, TANKS OR SEPTIC FIELDS WITHOUT EXCAVATION. THEREFORE, WE CANNOT GUARANTEE THE ACCURACY OF COMPLETENESS OF THE BURIED UTILITY INFORMATION HEREON SHOWN. THE CONTRACTOR SHALL CALL MISS DIG (1-800-482-7171) A MINIMUM OF THREE WORKING DAYS PRIOR TO ANY EXCAVATION IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THESE UTILITY LOCATIONS PRIOR TO CONSTRUCTION AN MAKE EVERY EFFORT TO PROTECT AND/OR RELOCATE THEM A REQUIRED. THE CONTRACTOR SHALL NOTIFY THE ENGINEER/SURVEYOR AS SOON AS POSSIBLE IN THE EVENT A DISCREPANCY IS FOUND.

## FLOODPLAIN INFORMATION

CITY OF READING
HILLSDALE COUNTY, MICHIGAN
MAP NUMBER: 26059C0260D AND 26059C0300D
EFFECTIVE DATE: 02-19-2014
FLOOD ZONE: X (PER FIRM)
AREA OF MINIMAL FLOOD HAZARD

## BENCHMARKS

B.M. \*1 - TOP OF NW COR. CONC. SIGN POLE BASE IN MIDDLE OF PROPERTY W. SIDE OF MAIN ST.

ELEV. 1185.33 NAVD 88

B.M. \*2 - NW BOLT UPPER FLANGE ON HYD. W. SIDE OF MAIN ST. 120' S OF PROPERTY

ELEV. 1186.50 NAVD 88

OVERALL PARCEL DESCRIPTION

THE NORTH 1/2 OF THE NORTH 1/2 OF THE SOUTHEAST /4
OF SECTION 22; ALSO EXCEPT THE SOUTH 153 FEET OF THE
EAST 858 FEET THEREOF. ALSO, LAND BEGINNING AT A POINT
80 RODS NORTH AND 52 RODS WEST OF THE SOUTHEAST
CORNER OF SECTION 22, TOWN 7 SOUTH, RANGE 4 WEST,
AND RUNNING THENCE WEST 108 ROAD, THENCE NORTH 40
RODS, THENCE EAST 108 ROADS, THENCE SOUTH 40 ROAD TO
POINT OF BEGINNING. ALL IN SECTION 22, TOWN 7 SOUTH,
RANGE 4 WEST, CITY OF READING, HILLSDALE COUNTY,
MICHIGAN

## SPLIT PARCEL DESCRIPTION

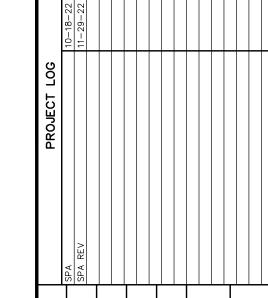
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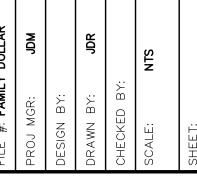
PART OF THE NORTH 1/2 OF THE NORTH 1/2 OF THE SOUTHEAST /4 OF SECTION 22, TOWN 7 SOUTH, RANGE 4 WEST, CITY OF READING, HILLSDALE COUNTY, MICHIGAN, BEING FURTHER DESCRIBED AS: COMMENCING AT THE EAST 1/4 OF SAID SECTION; THENCE S 00°02'24" W, 100.00 FEET ALONG THE EAST LINE OF SAID SECTION TO THE POINT OF BEGINNING; THENCE CONTINUING S 00°02'24" W, 250.00 FEET ALONG THE EAST LINE OF SAID SECTION; THENCE S N 89°28'24" W, 333.00 FEET PARALLEL WITH EAST—WEST 1/4 LINE; THENCE N 00°02'22" E, 250.00 FEET PARALLEL WITH THE EAST LINE OF SAID SECTION; THENCE S 89°28'24" E, 333.00 FEET PARALLEL WITH EAST—WEST 1/4 LINE TO THE EAST LINE OF SAID SECTION AND THE POINT OF BEGINNING,

#### REMAINDER PARCEL DESCRIPTION THE NORTH 1/2 OF THE NORTH 1/2 OF THE SOUTHEAST /4 OF SECTION 22; ALSO EXCEPT THE SOUTH 153 FEET OF THE EAST 858 FEET THEREOF. ALSO, LAND BEGINNING AT A POINT 80 RODS NORTH AND 52 RODS WEST OF THE SOUTHEAST CORNER OF SECTION 22, TOWN 7 SOUTH, RANGE 4 WEST, AND RUNNING THENCE WEST 108 ROAD, THENCE NORTH 40 RODS, THENCE EAST 108 ROADS, THENCE SOUTH 40 ROAD TO POINT OF BEGINNING. ALL IN SECTION 22, TOWN 7 SOUTH, RANGE 4 WEST, CITY OF READING, HILLSDALE COUNTY, MICHIGAN. ALSO EXCEPT PART OF THE NORTH 1/2 OF THE NORTH 1/2 OF THE SOUTHEAST /4 OF SECTION 22, TOWN 7 SOUTH, RANGE 4 WEST, CITY OF READING, HILLSDALE COUNTY, MICHIGAN, BEING FURTHER DESCRIBED AS: COMMENCING AT THE EAST 1/4 OF SAID SECTION; THENCE S 00°02'24" W, 100.00 FEET ALONG THE EAST LINE OF SAID SECTION TO THE POINT OF BEGINNING; THENCE CONTINUING S 00°02'24" W, 250.00 FEET ALONG THE EAST LINE OF SAID SECTION; THENCE S N 89'28'24" W, 333.00 FEET PARALLEL WITH EAST-WEST 1/4 LINE; THENCE N 00°02'22" E, 250.00 FEET PARALLEL WITH THE EAST LINE OF SAID SECTION; THENCE S 89°28'24" E, 333.00 FEET PARALLEL WITH EAST-WEST 1/4 LINE TO THE EAST LINE OF SAID SECTION AND THE POINT OF BEGINNING,

CONTAINING 1.91 ACRES. MORE OR LESS

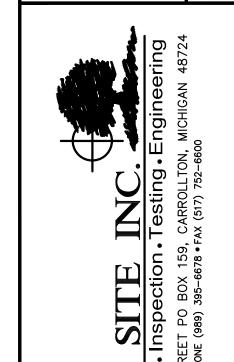




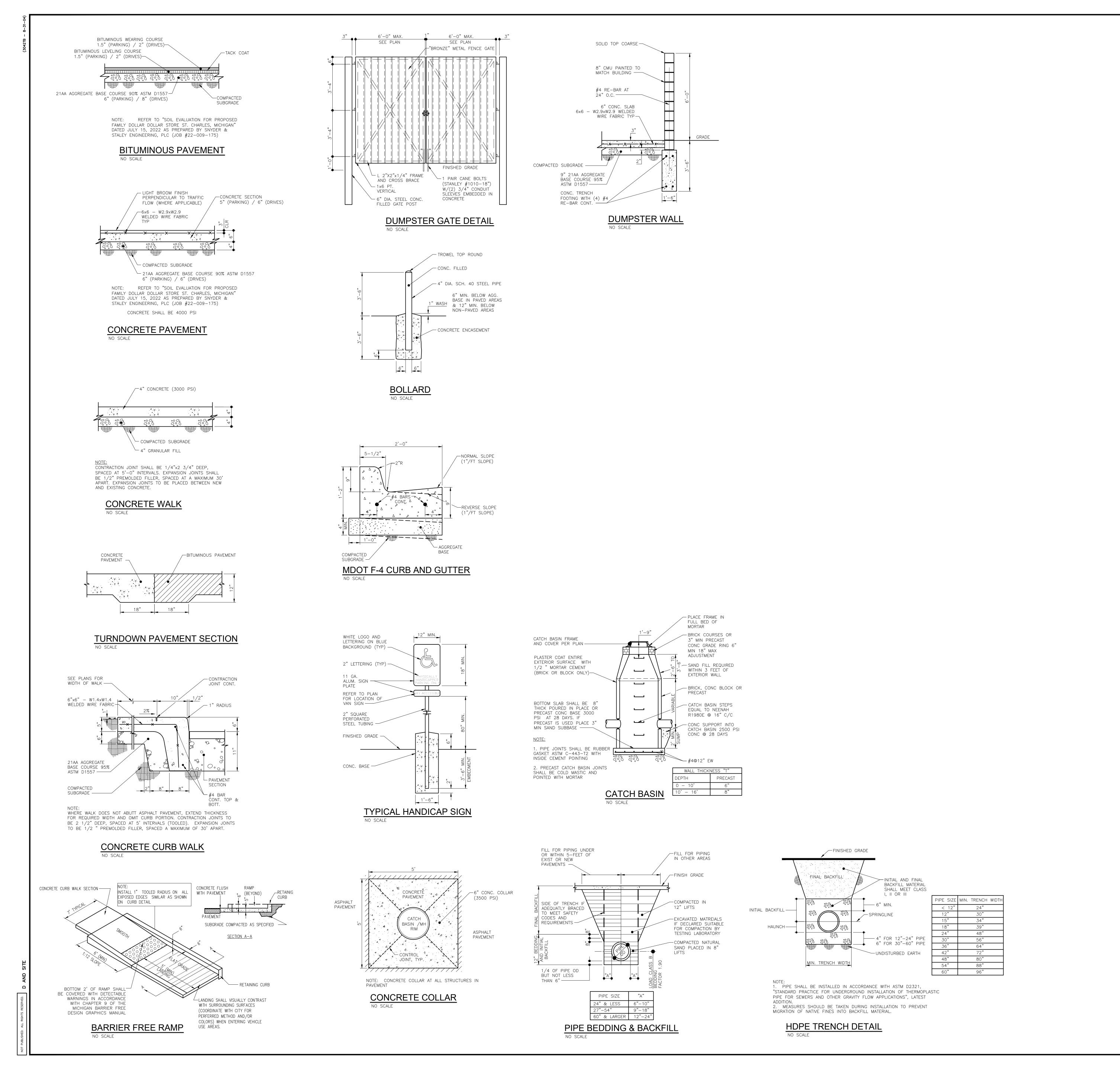


WOLGAST CORPORATION
335 TOWNE CENTER ROAD STE 203
SAGINAW, MI 48604

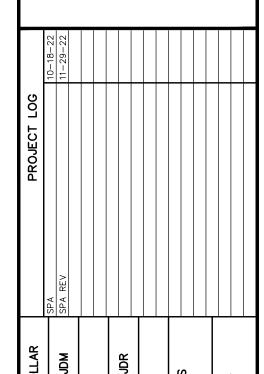
RTH MAIN (M-49) STREE
SECTION 22, T7S-R4W
CITY OF READING
HILLSDALE COUNTY, MICHIGAN



C1.0 2022-328



HONOIS ANDREW ANDREW ANDREW ANDREW ANDREW ANDREW A7380 A7380



PROJ MGR: JDM SPA REV
DESIGN BY:
DRAWN BY: JDR
CHECKED BY:
SCALE: NTS

WOLGAST CORPORATION
4835 TOWNE CENTER ROAD STE 203
SAGINAW, MI 48604

SECTION 22, T7S-R4W
CITY OF READING
HILLSDALE COUNTY, MICHIGAN

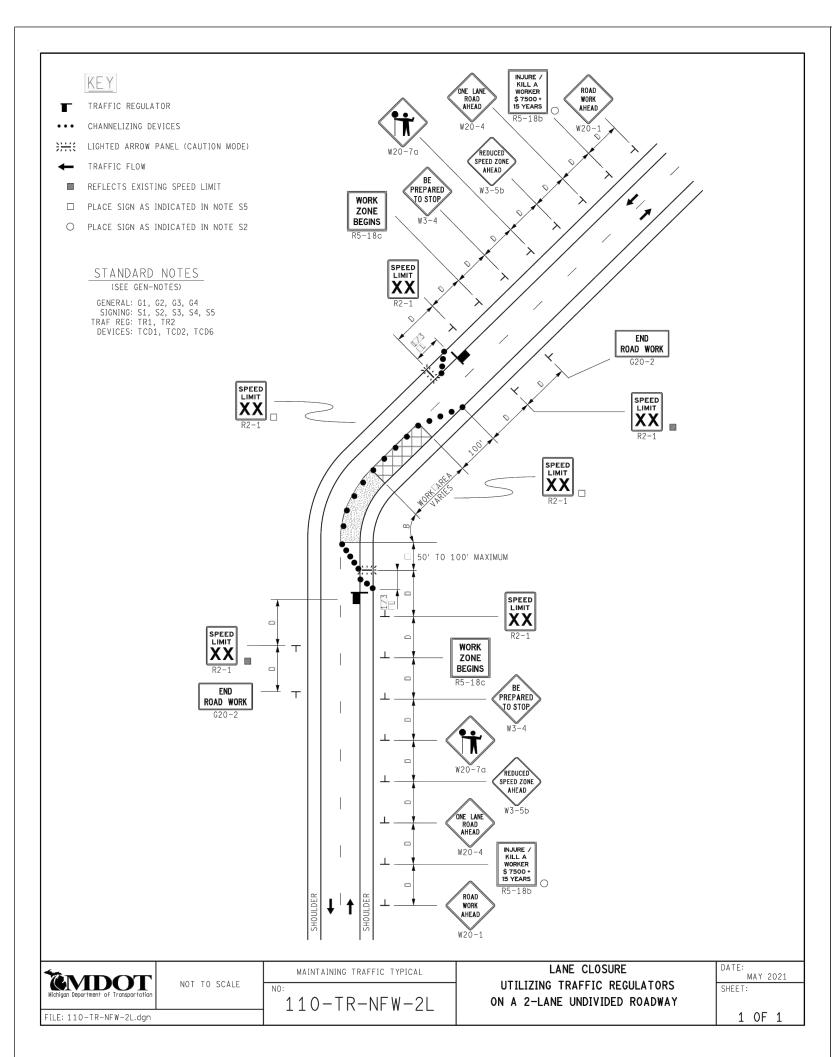
INC.
Testing Engineering
CARROLLTON, MICHIGAN 48724

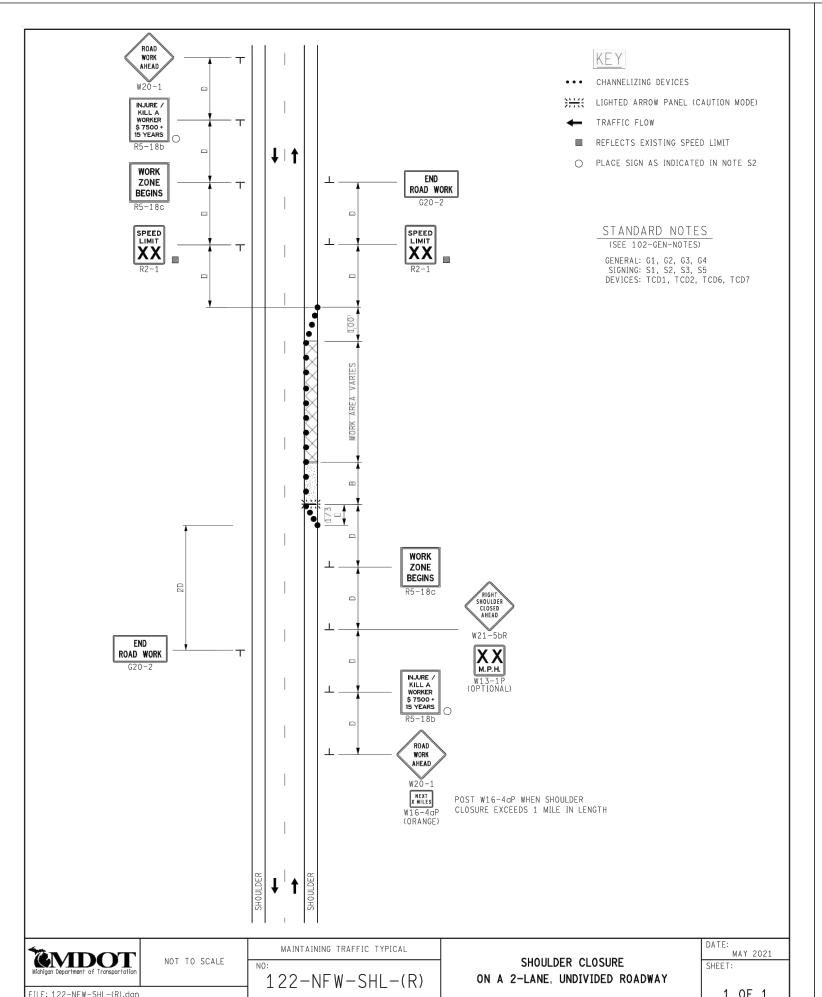
EM SITE INC. \*\*\*

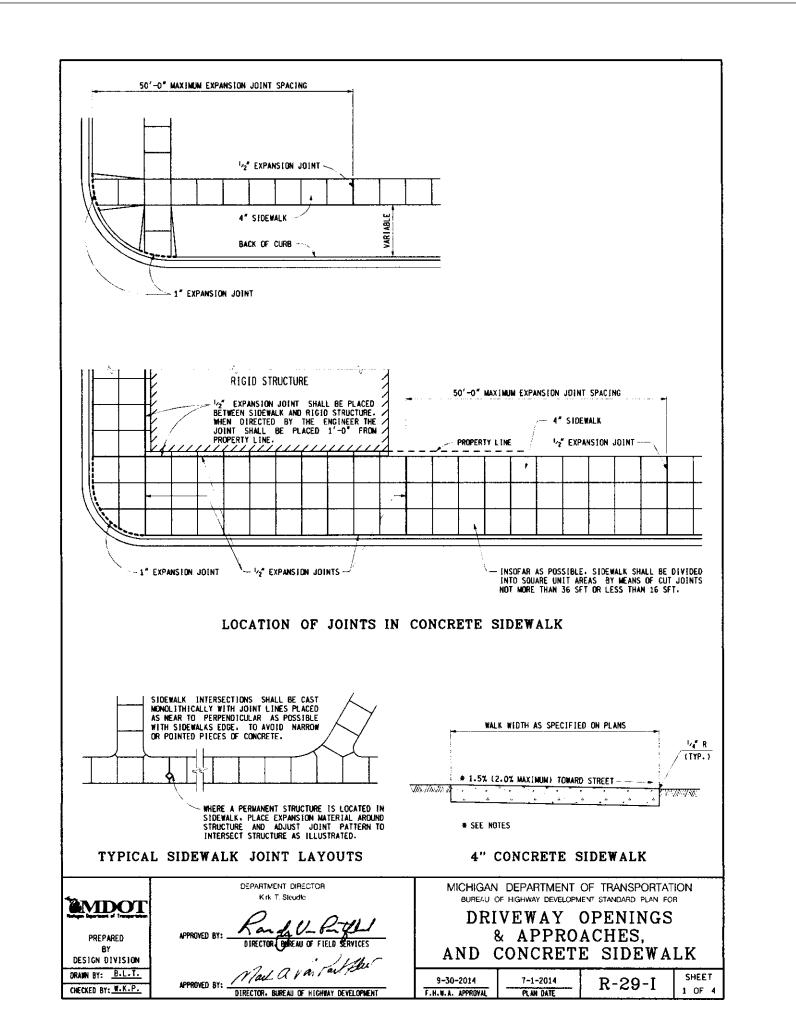
Reying Inspection Testing Enginee

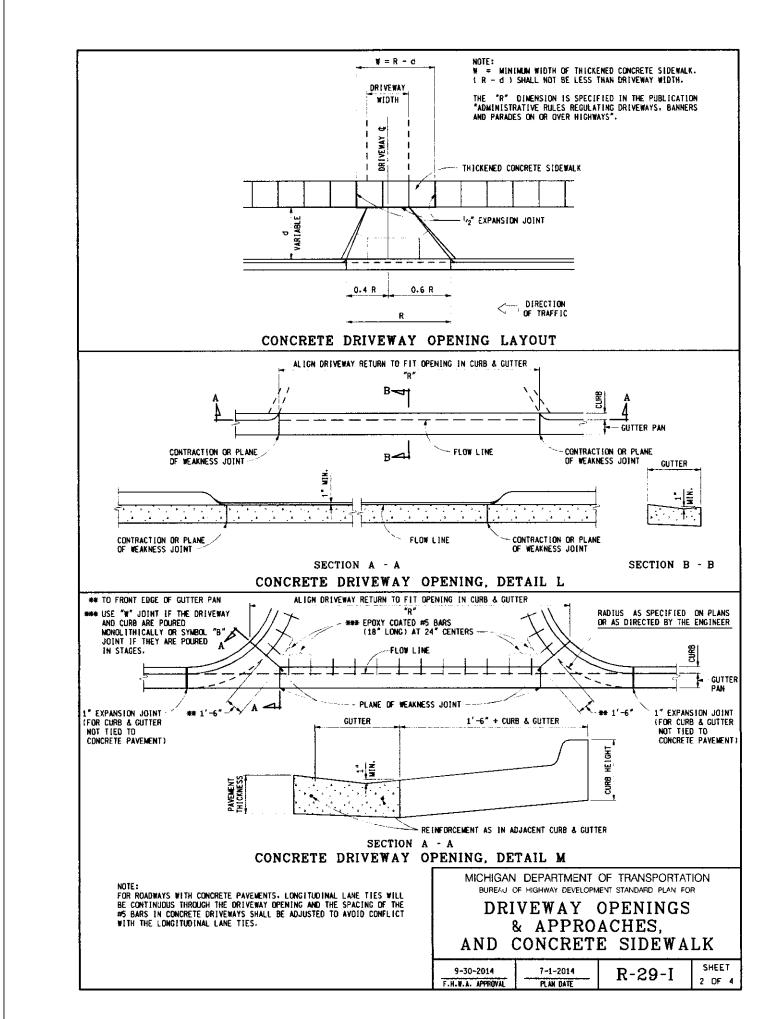
LSAM STREET PO BOX 159, CARROLLTON, MICHIGAN
PHONE (989) 395-6678 FAX (517) 752-6600

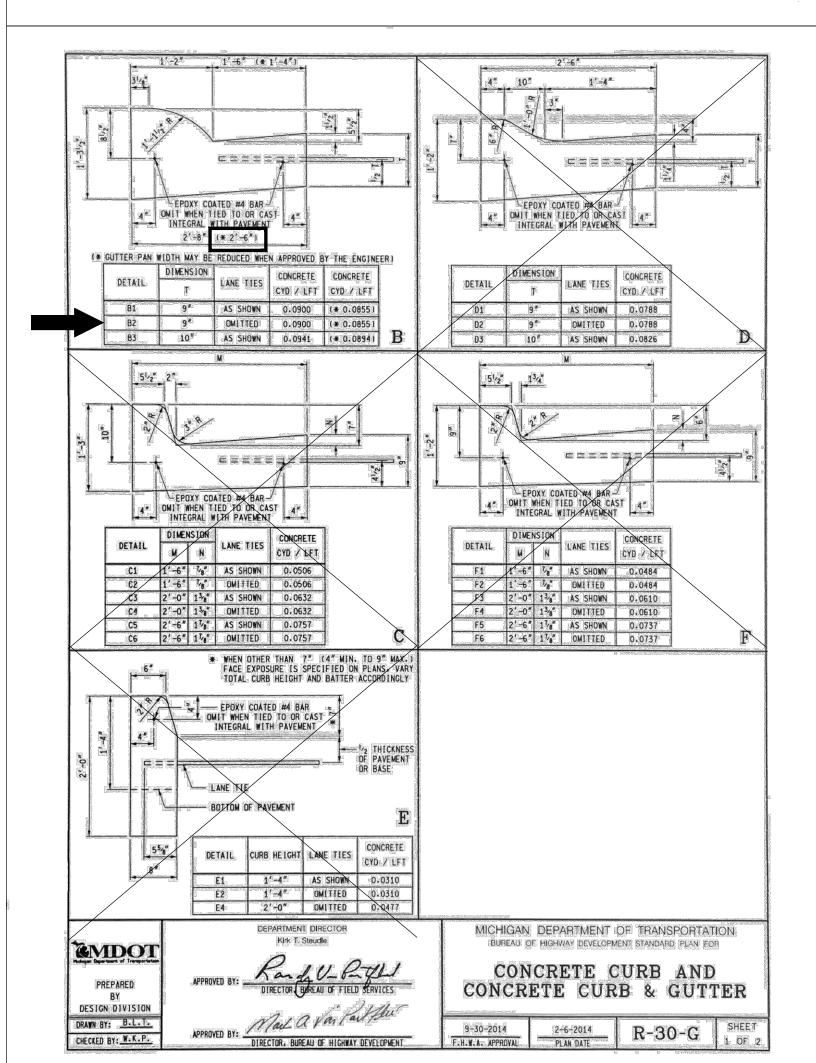
**C1.1** 2022-328

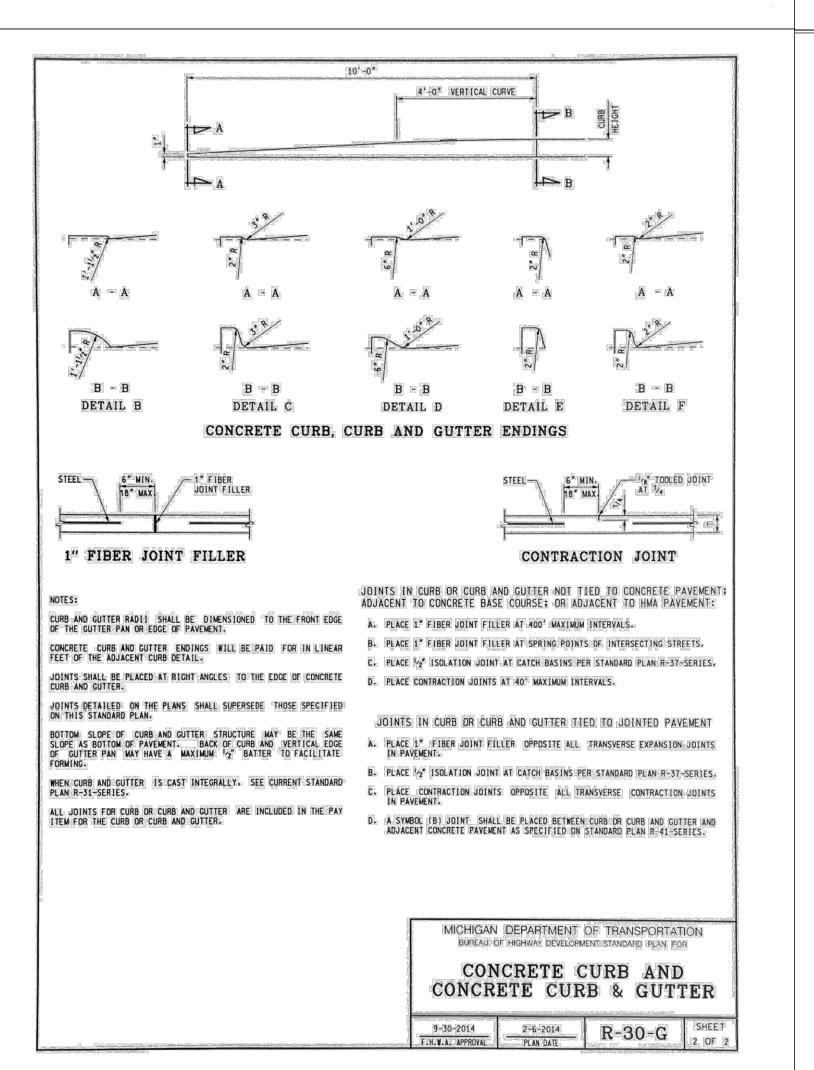


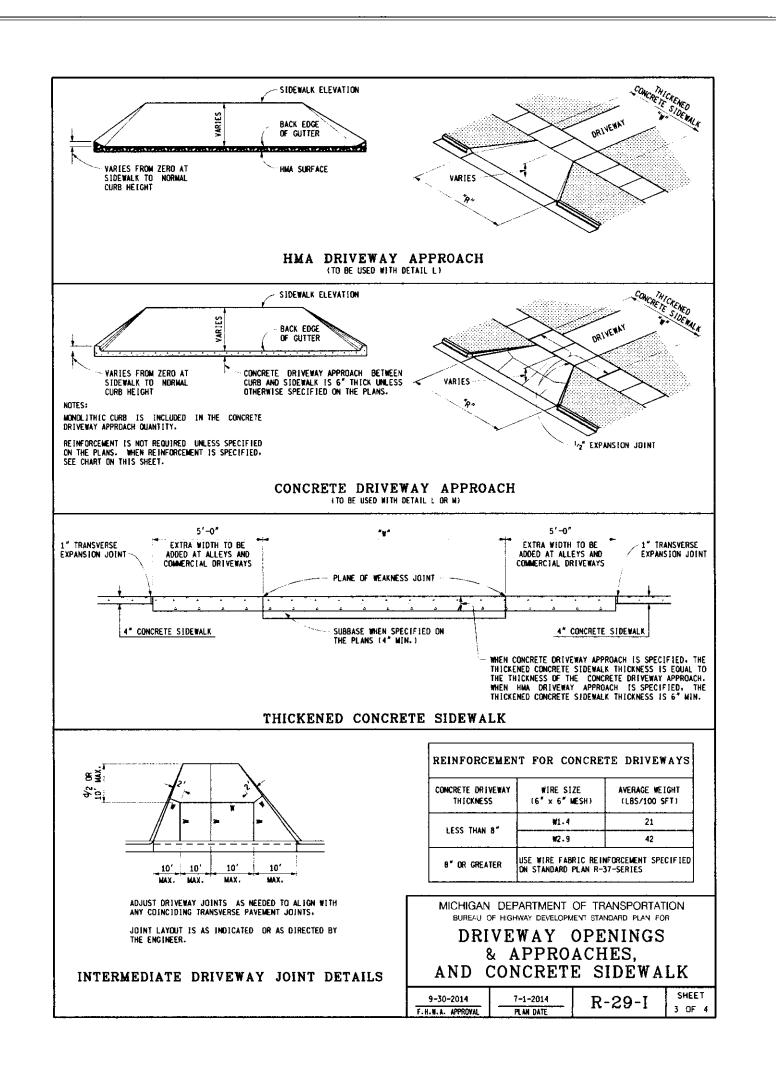


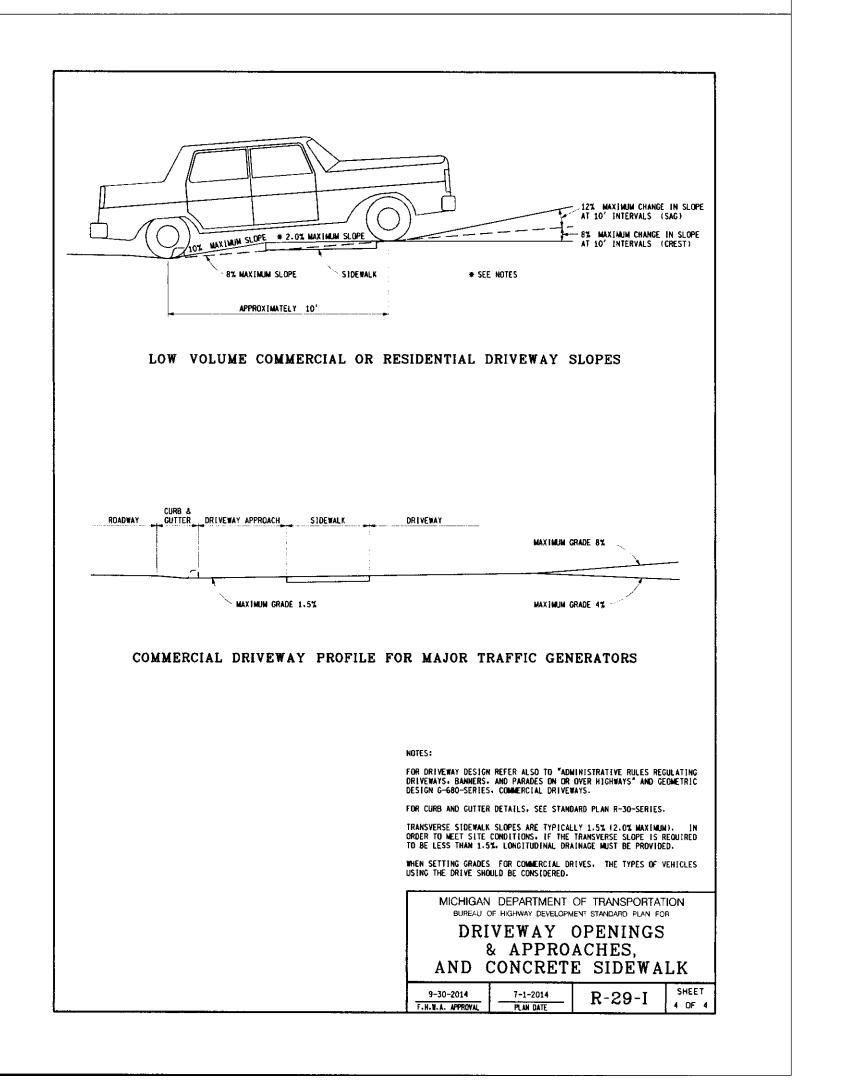




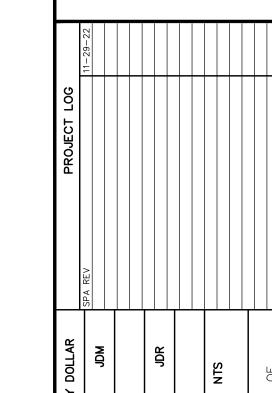












PROJ MGR: JDM

DESIGN BY:

CHECKED BY:

SCALE: NTS

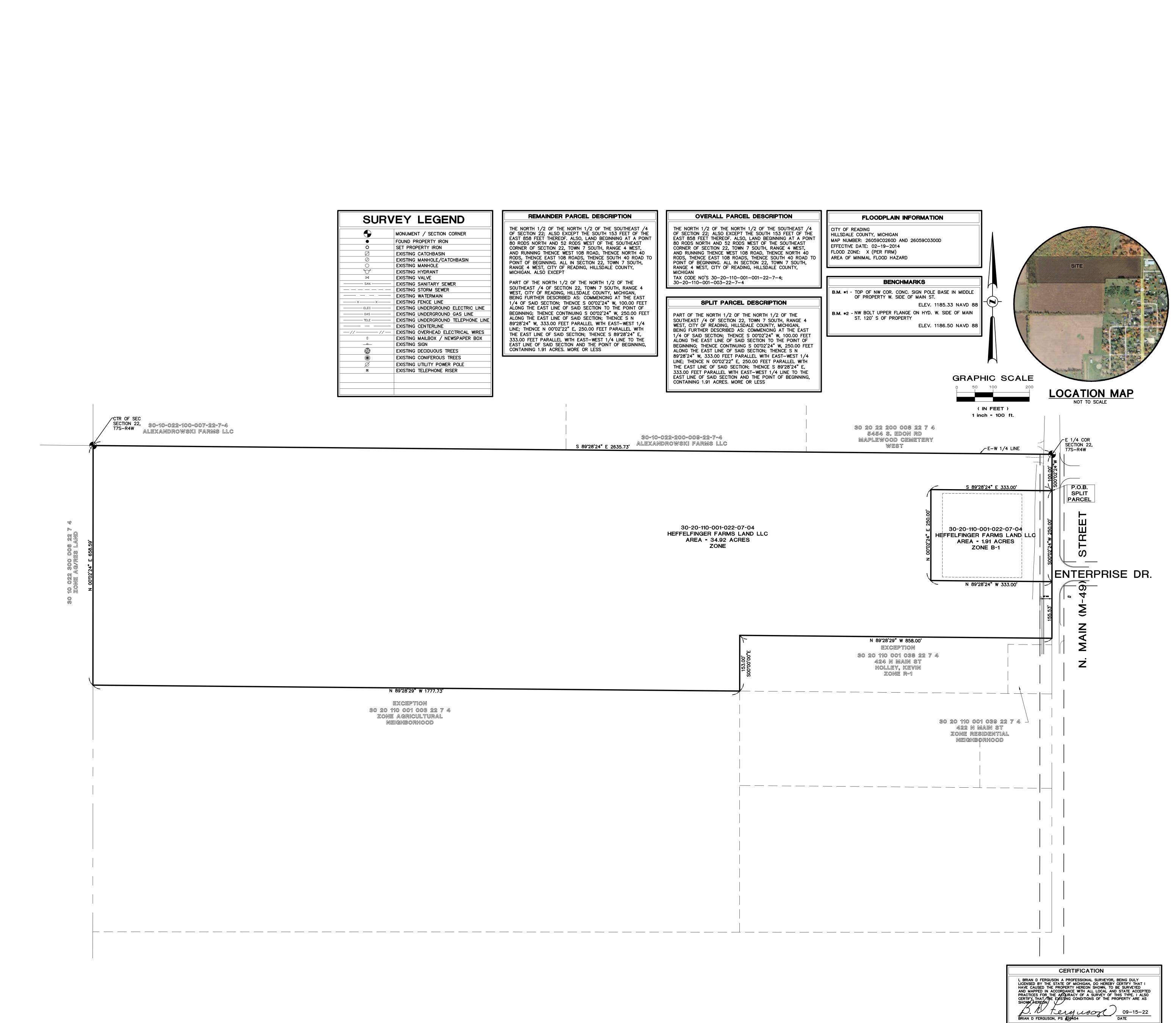
SHEET:

WOLGAST CORPORATION
4835 TOWNE CENTER ROAD STE 203
SAGINAW, MI 48604

SECTION 22, T7S-R4W
CITY OF READING
HILLSDALE COUNTY, MICHIGAN

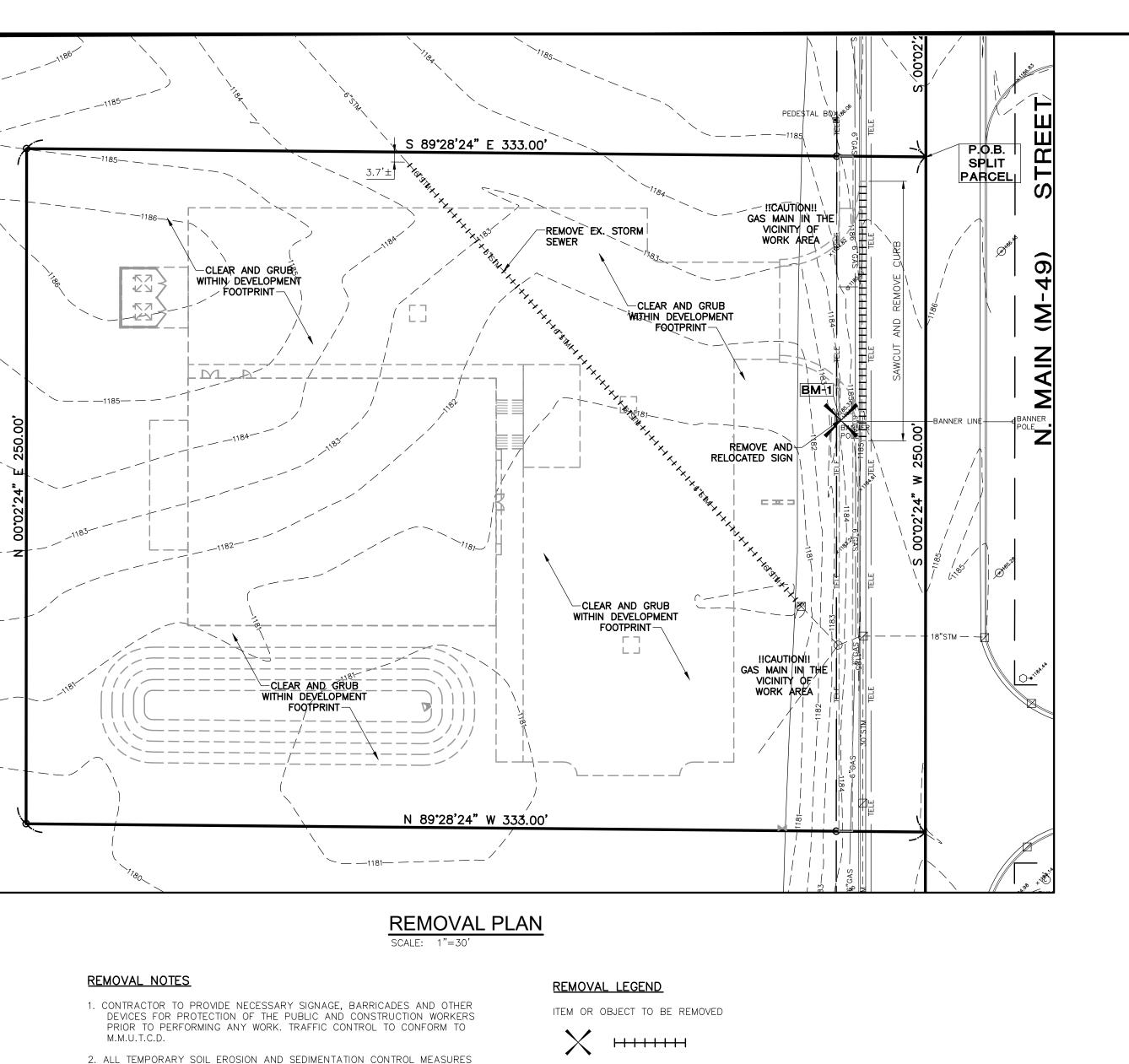
Pection Testing Engineering
PO BOX 159, CARROLLTON, MICHIGAN 48724
19) 395-6678 • FAX (517) 752-6600

C1.2 2022-328





2022-328



- ARE TO BE IN PLACE PRIOR TO STARTING REMOVALS. 3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE ALL PERMITS AND POST ALL BONDS PRIOR TO CONSTRUCTION, OR ENSURE THAT ALL REQUIRED PERMITS AND BONDS HAVE BEEN OBTAINED PRIOR TO
- 4. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING MISS-DIG AT 1-800-482-7171 AT LEAST 3 WORKING DAYS PRIOR TO
- 5. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR THE PROTECTION OF ALL EXISTING UTILITIES DURING CONSTRUCTION. ALL UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED WITH LIKE MATERIAL. THE EXACT LOCATION OF EXISTING UTILITIES SHALL BE LOCATED BY HAND DIGGING.
- 6. ALL DEMOLITION MATERIAL SHALL BE DISPOSED OF OFF-SITE. DISPOSE OF ALL DEBRIS LEGALLY OFF-SITE.
- 7. THE CONTRACTOR SHALL BE LIABLE FOR ANY DAMAGE TO STREETS, SIDEWALKS OTHER STRUCTURES AND ADJACENT AREAS CAUSED BY DEMOLITION OR HAULING OPERATIONS. 8. THE CONTRACTOR SHALL TAKE ALL NECESSARY ACTIONS TO ENSURE

AND FOUNDATIONS AS INDICATED.

- WORKER SAFETY AND COMPLIANCE WITH MI-OSHA GUIDELINES. 9. CONTRACTOR SHALL FULLY REMOVE ALL BUILDING STRUCTURES, SLABS
- 10. SAWCUTTING OF CONCRETE SHALL BE AT THE LOCATION INDICATED OR AT THE NEAREST JOINT.

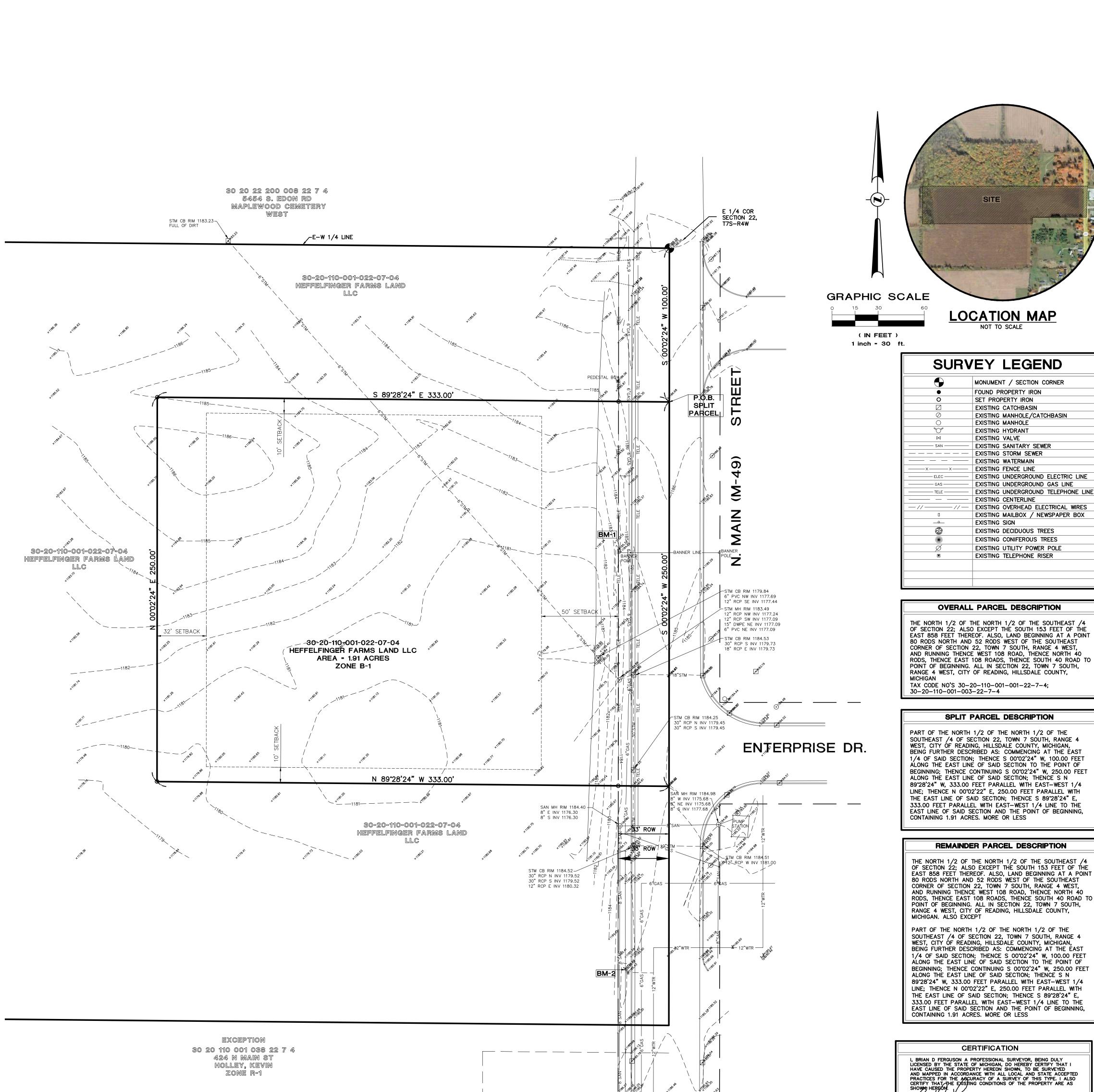
FLOODPLAIN INFORMATION CITY OF READING HILLSDALE COUNTY, MICHIGAN MAP NUMBER: 26059C0260D AND 26059C0300D EFFECTIVE DATE: 02-19-2014 FLOOD ZONE: X (PER FIRM)

BENCHMARKS

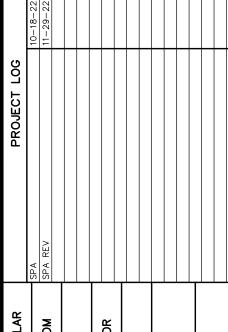
AREA OF MINIMAL FLOOD HAZARD

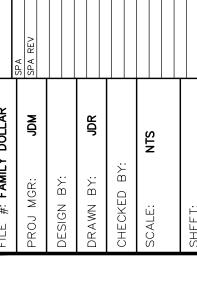
B.M. #1 - TOP OF NW COR. CONC. SIGN POLE BASE IN MIDDLE OF PROPERTY W. SIDE OF MAIN ST. ELEV. 1185.33 NAVD 88 B.M. #2 - NW BOLT UPPER FLANGE ON HYD. W. SIDE OF MAIN ST. 120' S OF PROPERTY

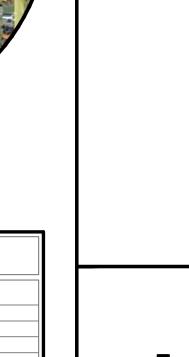
ELEV. 1186.50 NAVD 88











**LOCATION MAP** 

**SURVEY LEGEND** 

MONUMENT / SECTION CORNER

EXISTING MANHOLE/CATCHBASIN

EXISTING UNDERGROUND ELECTRIC LIN

EXISTING UNDERGROUND TELEPHONE LIN

EXISTING OVERHEAD ELECTRICAL WIRES EXISTING MAILBOX / NEWSPAPER BOX

EXISTING UNDERGROUND GAS LINE

FOUND PROPERTY IRON

EXISTING SANITARY SEWER EXISTING STORM SEWER EXISTING WATERMAIN

SET PROPERTY IRON

EXISTING MANHOLE

EXISTING HYDRANT

EXISTING FENCE LINE

EXISTING CENTERLINE

EXISTING DECIDUOUS TREES EXISTING CONIFEROUS TREES

EXISTING UTILITY POWER POLE

EXISTING TELEPHONE RISER

EXISTING SIGN

OVERALL PARCEL DESCRIPTION

SPLIT PARCEL DESCRIPTION

REMAINDER PARCEL DESCRIPTION

EXISTING VALVE

EXISTING CATCHBASIN

DOLLAR (M-49) ST



SITE Inspection

2022-328

CERTIFICATION I, BRIAN D FERGUSON A PROFESSIONAL SURVEYOR, BEING DULY LICENSED BY THE STATE OF MICHIGAN, DO HEREBY CERTIFY THAT I HAVE CAUSED THE PROPERTY HEREON SHOWN, TO BE SURVEYED AND MAPPED IN ACCORDANCE WITH ALL LOCAL AND STATE ACCEPTED PRACTICES FOR THE ACCURACY OF A SURVEY OF THIS TYPE. I ALSO CERTIFY THAT THE EXISTING CONDITIONS OF THE PROPERTY ARE AS SHOWN HEREON. 30 20 110 001 039 22 7 4 BRIAN D FERGUSON, PS #25454

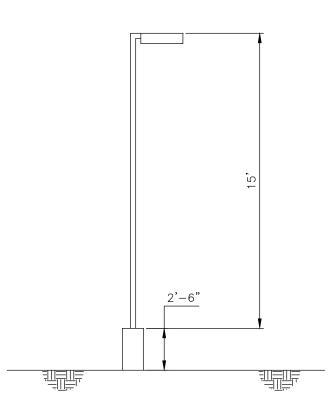
09-15-22
DATE 422 N MAIN ST

ZONE B-1

## SITE LIGHTING PLAN

AVERAGE	MAXIMUM	MINIMUM
1.0 FC	9.3 FC	0.0 FC
NOTE: "FC'	L DENOTES FOO	L CANDLE LEVE

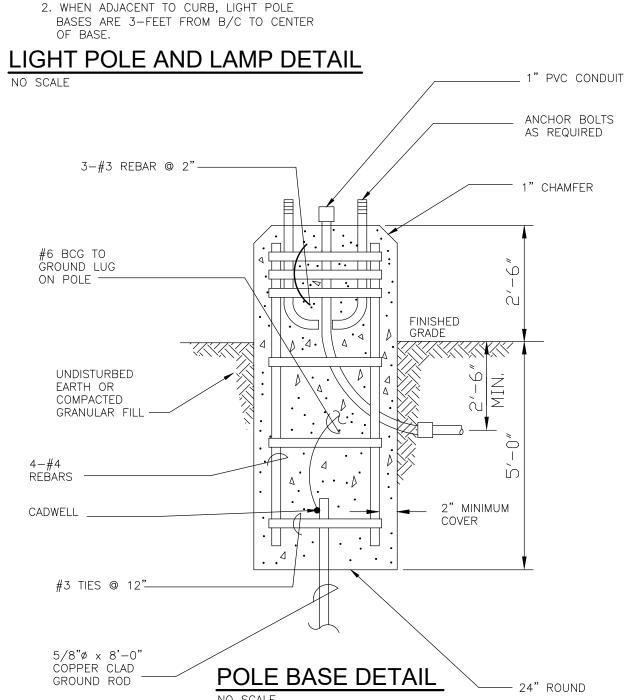
SA	LED AREA LIGHT	RSX1 P1 40K R2 MVOLT SPA DDBXD
WPA	LED WALL SCONCE	XWM-2-LED
WPB	LED WALL SCONCE	NEL-WP170



NOIE:

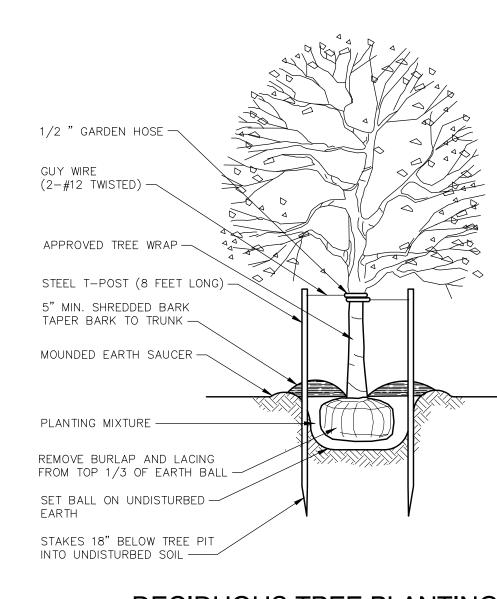
1. CONTRACTOR SHALL PROVIDE INDICATED

1. CONTRACTOR SHALL PROVIDE INDICATED LIGHTING OR OTHERWISE APPROVED EQUAL.



## LANDSCAPE GENERAL NOTES

- 1. CONTRACTOR TO PROVIDE DESIGN AND INSTALLATION OF UNDERGROUND IRRIGATION SYSTEM IN ACCORDANCE WITH PROJECT SPECIFICATIONS AND
- REGULATORY AGENCY REQUIREMENTS. 2. ALL GREEN SPACES AND PLANTING AREAS SHALL BE IRRIGATED.
- 3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE ALL PERMITS AND POST ALL BONDS PRIOR TO CONSTRUCTION.
- 4. REFER TO PLUMBING PLANS FOR LOCATION OF IRRIGATION METER.
- 6. SPACE ALL SHRUBS AT 5-FEET ON CENTER UNLESS OTHERWISE
- INDICATED ON THE PLANS 7. ALL DISTURBED LAWN AREAS SHALL BE RESTORED TO AT LEAST PREVIOUS
- CONDITION IN ACCORDANCE WITH PROJECT SPECIFICATIONS. 8. THE LANDSCAPE CONTRACTOR SHALL INCLUDE TOPSOIL IN BASE BID. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE AMOUNT OF TOPSOIL AVAILABLE ON-SITE.



DECIDUOUS TREE PLANTING SCALE: NONE

## LANDSCAPE NOTES

<u>DESCRIPTION</u>
This work shall consist of providing all necessary MATERIALS, LABOR, EQUIPMENT, TOOLS AND SUPERVISION REQUIRED EXECUTION AND GUARANTEE OF ALL PLANTINGS AND RELATED WORK AS SHOWN ON THE DRAWINGS.

PLANT MATERIALS SHALL CONFORM TO THE SIZES STATED ON THE PLANT LIST AND SHALL BE OF A MINIMUM SIZE OR LARGER. ALL OF SPREAD, CALIPER, BALL SIZE, TRUNK CROWN RATIO, QUALITY DESIGNATIONS, ETC., SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "ANSI STANDARDS FOR NURSERY STOCK". PLANT MATERIAL SHALL BE NURSERY GROWN AND INSPECTED BY THE OWNER'S REPRESENTATIVE AT THE SITE PRIOR TO PLANTING. THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL AT ANY TIME.

NURSERY STOCK SHALL BE PREPARED FOR SHIPMENT IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT ANSI SPECIFICATION Z60.1 AND SHALL BE ENCLOSED OR COVERED DURING TRANSPORTATION TO PREVENT DRYING.

UNLESS OTHERWISE SPECIFIED.

SITE PREPARATION THE CONTRACTOR SHALL VERIFY ALL EXISTING AND PROPOSED UTILITY LOCATIONS PRIOR TO CONSTRUCTION AND PROTECT AND REPAIR UTILITIES ENCOUNTERED DURING CONSTRUCTION WHETHER SHOWN ON THE PLANS OR NOT.

INDIVIDUAL HOLES SHALL BE CENTERED AT STAKED PLANT LOCATIONS. CONTRACTOR IS TO STAKE PRIOR TO PLACEMENT OF PLANT MATERIAL AND OBTAIN APPROVAL FROM THE OWNER'S REPRESENTATIVE. PLANTING HOLES SHALL BE DUG LARGE ENOUGH TO PERMIT PLACING PREPARED TOPSOIL 18" LATERALLY BEYOND THE ENDS OF THE ROOT BALLS FOR SHADE AND EVERGREEN TREES AND 6" LATERALLY FOR SHRUBS

EXCAVATED MATERIAL SHALL BE REMOVED FROM THE SITE AT THE TIME THE HOLE IS DUG. THE PLANTING HOLE SHALL BE BACKFILLED WITH PREPARED TOPSOIL THE SAME DAY THEY ARE DUG.

TOPSOIL SHALL AT FERTILE, FRIABLE NATURAL TOPSOIL OF CLAY LOAM CHARACTER CONTAINING AT LEAST 5% BUT NOT MORE THAN OF ORGANIC MATTER WITH A PH RANGE FROM 6.0 TO 7.0. TOPSOIL SHALL BE FREE OF CLAY LUMPS, COURSE SAND, STONES, PLANT ROOTS, STICKS OR OTHER FOREIGN MATTER.

## CARE FOR PLANTS BEFORE PLANTING

PLANTS DESIGNATED "BB" SHALL BE BALLED AND BURLAPPED WITH FIRM NATURAL BALLS OF EARTH. CRACKED, LOOSENED OR BROKEN BALLS SHALL NOT BE PLANTED. THEY SHALL BE MARKED WITH SPRAY PAIN AND IMMEDIATELY REMOVED FROM THE JOB SITE. IMMEDIATELY FOLLOWING DELIVERY AT THE JOB SITE, ALL PLANTS THAT WILL NOT BE PLANTED THAT SAME DAY SHALL BE "HEELED IN" WITH SHREDDED BARK OR MOIST SOIL AND KEPT MOIST UNTIL

THE TRUNKS AND BRANCHES OF ALL TREES SHALL BE PROTECTED FROM INJURY OF ANY KIND DURING ALL OPERATIONS. THE OWNER'S REPRESENTATIVE SHALL REJECT ANY TREES THAT ARE

THE CONTRACTOR IS RESPONSIBLE FOR PLANTING MATERIALS PLUMB. SET THE TOP OF THE ROOT BALL AT OR SLIGHTLY HIGHER THAN THE SURROUNDING GRADE. PLANTS SHALL BE FACED TO GIVE THE BEST APPEARANCE OR RELATIONSHIP TO ADJACENT STRUCTURES. NO FILLING WILL BE PERMITTED AROUND TRUNK OR STEMS. WHEN THE PLANT HAS BEEN PROPERLY SET THE HOLE SHALL BE BACKFILLED TO 1/2 THE DEPTH OF THE BALL WITH PREPARED TOPSOIL MIXTURE, FIRMLY PACKED AND WATERED-IN AT TIME OF PLANTING. LOOSED AND REMOVE BURLAP AND LACING FROM UPPER 1/3 OF THE ROOT BALL. BACKFIL WITH PREPARED TOPSOIL, WHICH AFTER COMPACTION IS FLUSH WITH THE SURROUNDING GROUND.

<u>MULCHING</u> ALL PLANT MATERIAL SHALL BE ENCIRCLED WITH A 5" MINIMUM COVERING OF NON-DYED SHREDDED BARK MULCH TO 6" OUTSIDE THE PLANTING HOLE, TAPERING MULCH TO 2" AROUND THE TRUNK OF ALL PLANTS. SUBMIT SAMPLE TO THE OWNER'S REPRESENTATIVE FOR APPROVAL BEFORE PLACEMENT. WOOD CHIPS SHALL NOT BE ALLOWED ON THIS JOB.

## WRAPPING DECIDUOUS TREES

TREE WRAP SHALL COVER TRUNKS OF ALL DECIDUOUS TREES BEGINNING BELOW THE SOIL LINE JUST ABOVE THE ROOTS. TIE WITH TWINE IN 5 PLACES, INCLUDING THE TOP AND BOTTOM OF WRAPPING. MASKING TAPE OR WIRE WILL NOT BE ALLOWED.

## BRACING AND GUYING

GUYING SHALL BE EMPLOYED TO PREVENT LEANING OR LOOSENING OF THE TREE FROM THE BALL. BRACING MATERIAL SHALL BE T-POSTS PAINTED GREEN. GUYING MATERIAL SHALL BE 12 GAUGE WIRE AND GARDEN HOSE 1/2 INCH DIAMETER. GUY WIRE SHALL BE ENCASED IN HOSE TO PREVENT DIRECT CONTACT WITH THE TREE. DECIDUOUS TREES SHALL BE BRACED OR GUYED IMMEDIATELY AFTER THE TREE WRAPPING IS COMPLETE.

#### STEEL LANDSCAPE EDGING 4" STEEL LANDSCAPE EDGING SHALL BE USED ON THIS PROJECT.

FINISHING AND CLEANING UP

ALUMINUM OR PLASTIC EDGING WILL NOT BE ALLOWED. UPON COMPLETION, ALL PLANT MATERIAL MUST BE PRUNED. THE

AMOUNT OF PRUNING SHALL BE LIMITED TO THE MINIMUM NECESSARY TO REMOVE DEAD OR INJURED BRANCHES AND TO COMPENSATE FOR THE LOSS OF ROOTS FROM TRANSPLANTING. ALL CUTS SHALL BE MADE FLUSH LEAVING NOT STUBS. PRUNING PAIN SHALL NOT BE USED.

IMMEDIATELY UPON COMPLETION OF THE WORK, THE CONTRACTOR

### SHALL CLEAN UP THE AREA OF SURPLUS MATERIALS. THE CONTRACTOR SHALL REPAIR AND RE-ESTABLISH TURF IN RUTTED

THE LANDSCAPE INSTALLATION CONTRACTOR SHALL REPLACE ALL UNHEALTHY VEGETATION AND PLANTINGS WITHIN ONE (1) YEAR OF INITIAL PLANTING OR SUBSEQUENT PLANTING PERIOD.

## **GENERAL NOTES**

- 1. REFER TO ARCHITECTURAL PLANS TO VERIFY BUILDING DIMENSIONS. 2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE ALL PERMITS AND POST ALL BONDS PRIOR TO CONSTRUCTION, OR ENSURE THAT ALL REQUIRED PERMITS AND BONDS HAVE BEEN OBTAINED PRIOR TO
- 3. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING MISS-DIG AT 1-800-482-7171 AT LEAST 3 WORKING DAYS PRIOR TO EXCAVATION.
- 4. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR THE PROTECTION OF ALL EXISTING UTILITIES DURING CONSTRUCTION. ALL UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED WITH LIKE MATERIAL. THE EXACT LOCATION OF EXISTING UTILITIES SHALL BE LOCATED BY HAND DIGGING.
- 5. DIMENSIONS ARE TO FACE OF CURB, OUTSIDE FACE OF BUILDING, EDGE OF PAVEMENT, CENTER OF STRUCTURE OR OTHERWISE INDICATED. 6. ALL PAVING MATERIALS AND OPERATIONS SHALL BE IN CONFORMANCE
- WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION. 7. PARKING STALL SPACES TO BE 4" SOLID WHITE PAINT STRIPES.
- FREE STRIPPING OF 4" SOLID BLUE @ 2' O.C. ON 45' ANGLE. 8. ALL WORK SHALL CONFORM TO THE CURRENT CITY OF READING AND MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS.

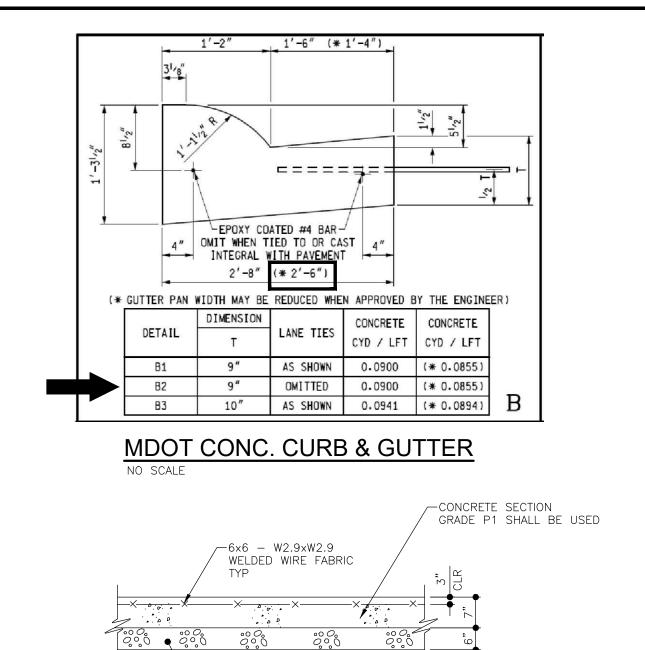
HANDICAP PARKING TO BE 4" SOLID BLUE PAINT STRIPES W/ BARRIER

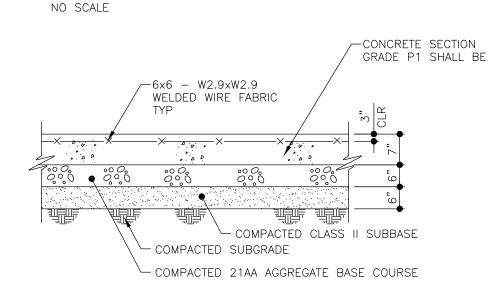
## SITE INFORMATION

PROPERTY: AREA = 1.91 ACRES GROSS / 1.72 NET (74,997 S.F.)

LOT COVERAGE: BUILDING AREA = 10,500 S.F. LOT COVERAGE = 10,500 / 74,997 = 14.0%

PROVIDED STANDARD = 40BARRIER FREE = 2 PROVIDED = 42 SPACES





MDOT COMMERCIAL DRIVEWAY CONCRETE PAVEMENT

QUANTITY KEY BOTANICAL NAME

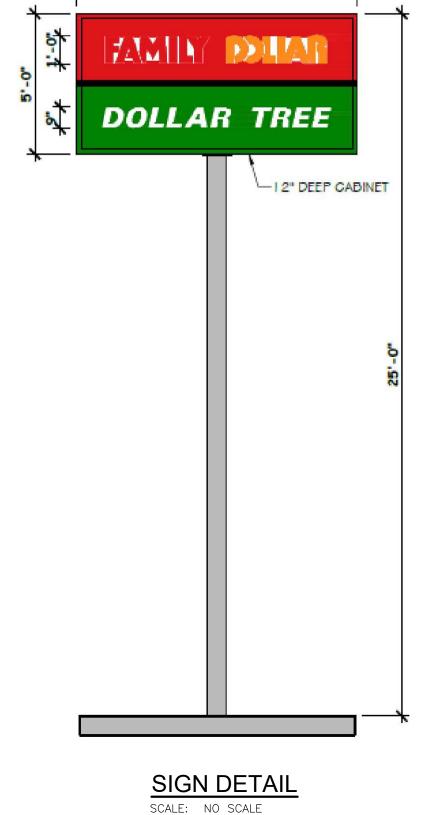
3 TC GLEDITSIA T.I. 'SKYLINE'

DECIDUOUS TREES

PLANTING SCHEDULE

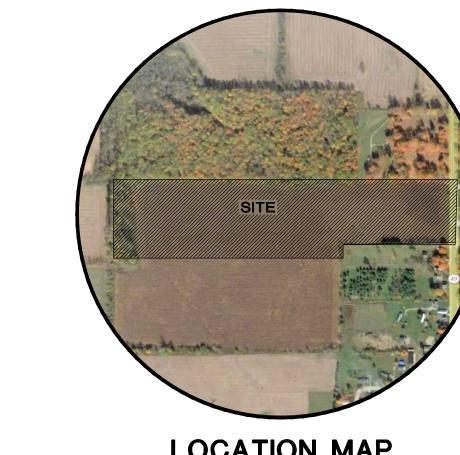
COMMON NAME

SKYLINE HONEYLOCUST

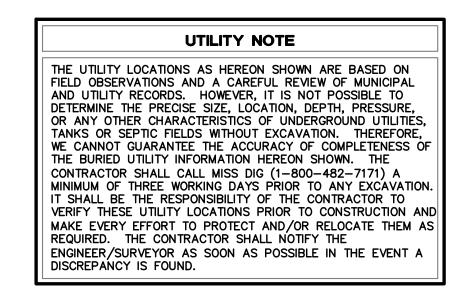


SIZE

2.5" B&B



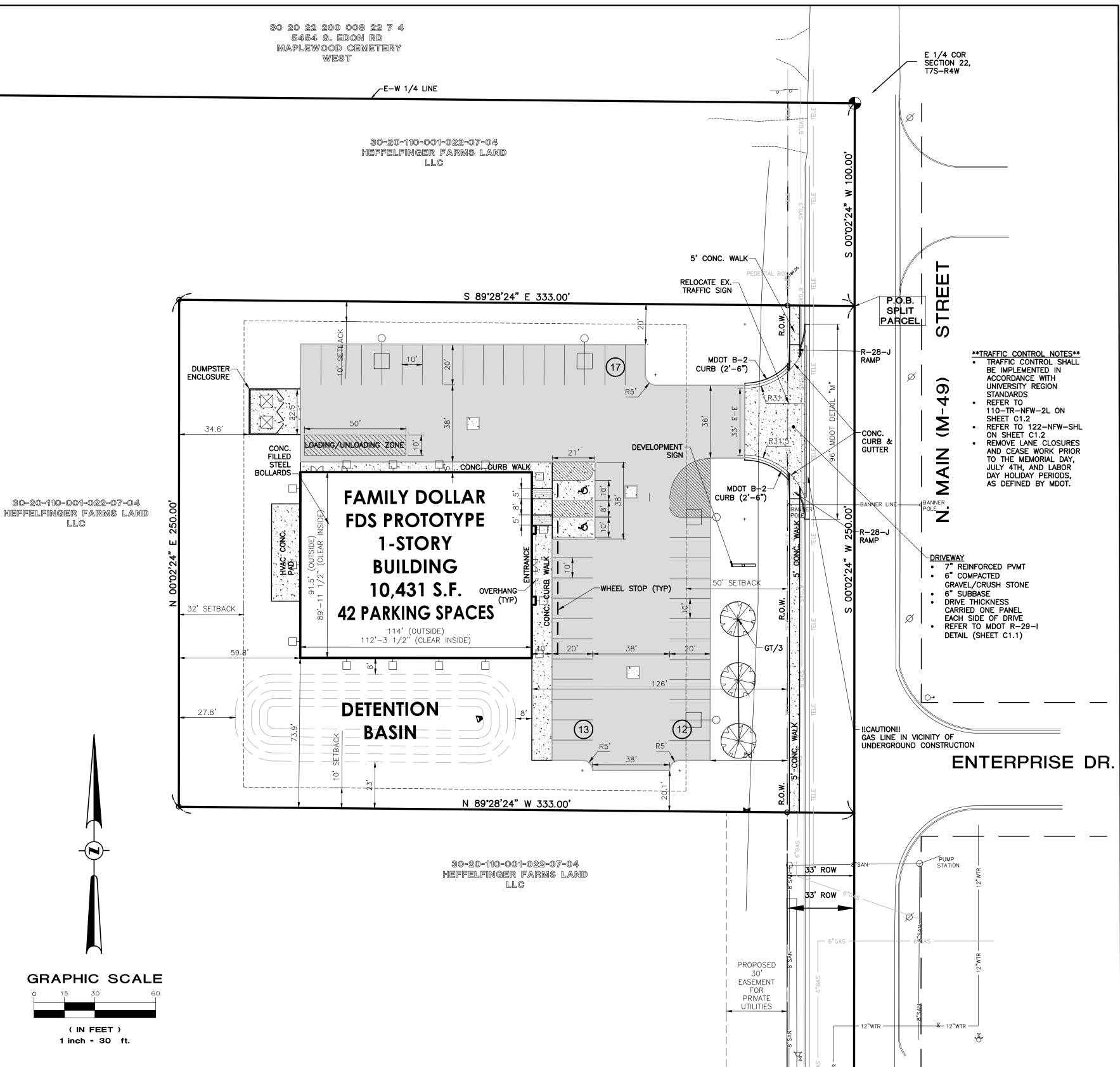




PAVEMENT INFORMATION

BITUMINOUS PAVEMENT

CONCRETE PAVEMENT



2022-328

## **EROSION CONTROL PLAN**

## SOIL EROSION & SEDIMENTATION CONTROL NOTES

1. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE COUNTY DRAIN COMMISSIONER'S STANDARDS AND SPECIFICATIONS. DAILY INSPECTIONS SHALL BE MADE BY THE CONTRACTOR TO

PERFORMED WITHOUT DELAY. ANY EROSION OR SEDIMENT FROM WORK ON THIS SITE SHALL BE CONTAINED ON THE SITE AND NOT ALLOWED TO COLLECT ON ANY OFF-SITE AREAS OR IN WATERWAYS. WATERWAYS INCLUDE BOTH NATURAL AND MANMADE OPEN DITCHES, STREAMS, STORM

DETERMINE THE EFFECTIVENESS OF EROSION AND SEDIMENT

4. CONTRACTOR SHALL APPLY TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES AS REQUIRED AND AS DIRECTED ON THESE PLANS. CONTRACTOR SHALL REMOVE TEMPORARY MEASURES AS SOON AS PERMANENT STABILIZATION OF SLOPES, DITCHES AND OTHER EARTH CHANGES HAVE BEEN ESTABLISHED.

5. AFTER ALL TEMPORARY EROSION CONTROL MEASURES HAVE BEEN INSTALLED, THE CONTRACTOR SHALL CONTACT THE AUTHORITY WITH JURISDICTION FOR AN INSTALLATION INSPECTION. 6. DUST CONTROL SHALL BE EXERCISED AT ALL TIMES WITHIN THE PROJECT BY THE CONTRACTOR. 7. ALL MUD, DIRT AND DEBRIS TRACKED ONTO EXISTING ROADS SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR NO LESS THAN

PROMPTLY REMOVED BY THE CONTRACTOR. 8. PERMANENT EROSION CONTROL MEASURES SHALL BE COMPLETED WITHIN 15 CALENDAR DAYS AFTER FINAL GRADING OR EARTH MOVING ACTIVITY HAS BEEN COMPLETED. A FINAL INSPECTION SHALL BE SCHEDULED BY THE CONTRACTOR.

ON A DAILY BASIS. ALL MUD, DIRT AND DEBRIS TRACKED OR

SPILLED ONTO PAVED SURFACES WITHIN THIS SITE SHALL BE

9. AUTHORITY WITH JURISDICTION SHALL INSPECT ALL SOIL EROSION CONTROL MEASURES. UPON THEIR DIRECTION, ADDITIONAL MEASURES SHALL BE CONSTRUCTED AND MAINTENANCE WORK SHALL BE PERFORMED TO ENSURE COMPLIANCE WITH ALL PERMIT REQUIREMENTS.

## MAINTENANCE NOTES

DRAINS, LAKES AND PONDS.

1. SOIL STOCKPILES
PERIODIC INSPECTIONS SHOULD BE DONE TO ENSURE EXCESSIVE EROSION HAS NOT OCCURRED. IF RUNOFF OR WIND EROSION HAS OCCURRED, REDUCE THE SIDE SLOPES OF THE SPOIL PILE, OR RE-STABILIZE THE STOCKPILE BY PROVIDING TEMPORARY SEEDING.

WHEN FILTER FENCING IS USED AROUND A SPOIL PILE, PERIODIC CHECKS SHOULD BE MADE TO ENSURE THAT PIPING HAS NOT OCCURRED UNDER THE FENCING, AND TO ENSURE THE FENCE HAS NOT COLLAPSED DUE TO SOIL SLIPPAGE OR ACCESS BY CONSTRUCTION EQUIPMENT. REPAIR ANY DAMAGED FENCING IMMEDIATELY.

BERMS AT THE BASE OF THE SPOIL PILE WHICH BECOME DAMAGED SHOULD BE REPLACED. TO PREVENT DUST FROM BECOMING A PUBLIC NUISANCE AND CAUSING

OFF-SITE DAMAGES, DUST CONTROL SHOULD BE ONGOING DURING EARTH CHANGE ACTIVITIES. 3. SILT FENCE SILT FENCE SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. SILT FENCES SHOULD BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL

IF THE FENCE IS SAGGING OR THE SOIL HAS REACHED ONE HALF (1/2)THE HEIGHT OF THE FABRIC, THE SOIL BEHIND THE FABRIC MUST BE REMOVED AND DISPOSED OF IN A STABLE UPLAND SITE. THE SOIL CAN BE ADDED TO THE SOIL STOCKPILE. IF THE FABRIC IS BEING UNDERCUT (I.E. IF WATER IS SEEPING UNDER

THE FENCE), THE FENCE SHOULD BE REMOVED AND REINSTALLED

FOLLOWING THE PROCEDURES GIVEN ABOVE. FABRIC WHICH DECOMPOSES OR OTHERWISE BECOMES INEFFECTIVE

AND SEVERAL TIMES DURING PROLONGED RAINFALLS.

SHOULD BE REMOVED AND REPLACED WITH NEW FILTER FABRIC SILT FENCES SHOULD BE REMOVED ONCE VEGETATION IS WELL

ESTABLISHED AND THE UP-SLOPE AREA IS FULLY STABILIZED.

4. SEEDING
NEWLY SEEDED AREAS NEED TO BE INSPECTED FREQUENTLY FOR THE FIRST FEW MONTHS TO ENSURE THE GRASS IS GROWING. IF THE SEEDED AREA IS DAMAGED DUE TO RUNOFF, ADDITIONAL STORMWATER

MEASURES MAY BE NEEDED. SPOT SEEDED CAN BE DONE ON SMALL

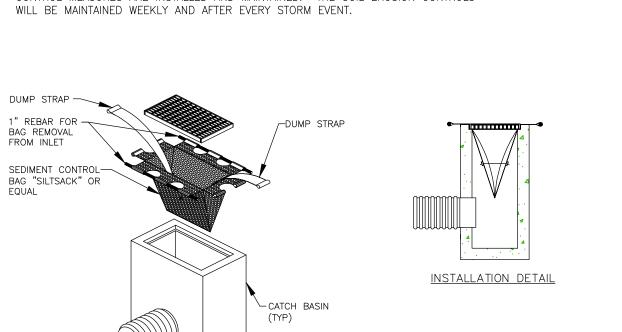
AREAS TO FILL IN BARE SPOTS WHERE GRASS DIDN'T GROW PROPERLY.

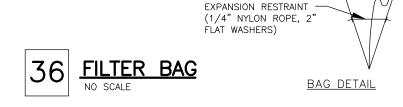
HED AREAS SHOULD BE CHECKED FOLLOWING EACH RAIN TO ENSURE THE MULCH IS STAYING IN PLACE. ADDITIONAL TACKING MATERIALS OR NETTING MAY NEED TO BE APPLIED TO HOLD THE MULCH

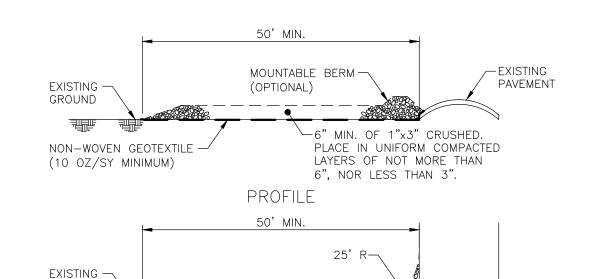
6. CONSTRUCTION ENTRANCE
PROPER MAINTENANCE MAY INCLUDE ADDING ADDITIONAL LAYERS OF STONE WHEN THE ORIGINAL STONE BECOMES COVERED WITH MUD. AFTER EACH STORM EVENT, INSPECT THE ROAD FOR EROSION AND MAKE ANY NECESSARY REPAIRS. ALL SEDIMENT DROPPED OR ERODED ONTO PUBLIC RIGHT-OF-WAY SHOULD BE REMOVED IMMEDIATELY BY SWEEPING.

## CONSTRUCTION SEQUENCE

- 1. PROVIDE EROSION CONTROL MEASURES THAT WILL BE USED AS PART OF THIS WORK. INSTALL ADDITIONAL MEASURES AS REQUIRED BY THESE DRAWINGS AND AS FIELD
- 2. REMOVE PAVEMENT AND THE INDICATED UTILITY STRUCTURES FULL-DEPTH. REMOVE TREES, SHRUBS, STUMPS AND ROOT SYSTEMS TO MINIMUM DEPTH OF 42" AND LEGALLY DISPOSE OFF-SITE. PROTECT TREES TO REMAIN WITH CONSTRUCTION FENCING PLACED AROUND PERIPHERY OF TREE DRIP-LINE.
- 3. IMPLEMENT TEMPORARY SOIL EROSION CONTROL MEASURES, INCLUDING SILT FENCE INSTALLATION AND GRAVEL ACCESS DRIVE.
- 4. STRIP TOPSOIL AND STOCKPILE.
- 5. CONSTRUCT STORM SEWER SYSTEM COMPLETE. IMMEDIATELY INSTALL INLET FILTERS ON ALL CATCH BASINS.
- 6. BEGIN FOUNDATION INSTALLATION.
- 7. INSTALL SANITARY SEWER AND WATERMAIN.
- 8. INSTALL ALL OTHER UTILITIES. 9. INSTALL ALL PAVEMENT.
- 10. BEGIN PERMANENT AND TEMPORARY SEEDING AND MULCHING, RESTORATION OF ALL CUT AND FILL SLOPES SHALL BE COMPLETED IMMEDIATELY AFTER FINAL GRADING.
- 11. DAILY, OR AS REQUIRED, CONSTRUCT AND MAINTAIN TEMPORARY BERMS, DRAINS, SILT FENCE, SEDIMENT TRAPS, ETC. MULCH AND SEED AS REQUIRED.
- 12. COMPLETE INSTALLATION OF PERMANENT EROSION CONTROL MEASURES, INCLUDING
- RESTORATION OPERATIONS. PERFORM PAVEMENT INSTALLATION. 13. FINISH GRADE, REDISTRIBUTE TOPSOIL AND ESTABLISH VEGETATION ON ALL
- DISTURBED GROUND AREAS.
- 14. CLEAN PAVEMENT AND STORM SEWERS OF ALL SEDIMENT.
- 15. REMOVE SOIL EROSION CONTROL MEASURES AFTER PERMANENT VEGETATION HAS BEEN ESTABLISHED.
- 16. INSTALL LANDSCAPING.
- 17. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL SOIL EROSION CONTROL MEASURES ARE INSTALLED AND MAINTAINED. THE SOIL EROSION CONTROLS WILL BE MAINTAINED WEEKLY AND AFTER EVERY STORM EVENT.









GROUND

# TOE-IN METHODS

POST "A" POST "B" SECTION "B" SECTION "A" -TOP VIEW SECTION JOINTING NOTES:
1) 6" MIN. ANCHOR TRENCH

2) STAKES AT 6' MAX SPACING 3) DRIVE STAKES MIN. 1' INTO GROUND

. REFER TO ARCHITECTURAL PLANS TO VERIFY BUILDING 2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE ALL PERMITS AND POST ALL BONDS PRIOR TO CONSTRUCTION. OR ENSURE THAT ALL REQUIRED PERMITS AND BONDS HAVE BEEN OBTAINED PRIOR TO

3. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING MISS-DIG AT 1-800-482-7171 AT LEAST 3 WORKING DAYS PRIOR TO EXCAVATION. 4. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR THE PROTECTION OF ALL EXISTING UTILITIES DURING CONSTRUCTION. ALL UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED WITH LIKE MATERIAL. THE EXACT LOCATION OF EXISTING UTILITIES

SHALL BE LOCATED BY HAND DIGGING. 5. DIMENSIONS ARE TO FACE OF CURB, OUTSIDE FACE OF BUILDING, EDGE OF PAVEMENT, CENTER OF STRUCTURE OR OTHERWISE INDICATED.

6. ALL WORK SHALL CONFORM TO THE CURRENT CITY OF

READING AND MDOT STANDARDS AND SPECIFICATIONS.

#### SPLIT PARCEL DESCRIPTION PART OF THE NORTH 1/2 OF THE NORTH 1/2 OF THE SOUTHEAST /4 OF SECTION 22, TOWN 7 SOUTH, RANGE 4 WEST, CITY OF READING, HILLSDALE COUNTY, MICHIGAN, BEING FURTHER DESCRIBED AS: COMMENCING AT THE EAST 1/4 OF SAID SECTION; THENCE S 00°02'24" W, 100.00 FEET ALONG THE EAST LINE OF SAID SECTION TO THE POINT OF BEGINNING; THENCE CONTINUING S 00°02'24" W, 250.00 FEET ALONG THE EAST LINE OF SAID SECTION; THENCE S N 89°28'24" W, 333.00 FEET PARALLEL WITH EAST-WEST 1/4 LINE; THENCE N 00°02'22" E, 250.00 FEET PARALLEL WITH THE EAST LINE OF SAID SECTION; THENCE S 89°28'24" E, 333.00 FEET PARALLEL WITH EAST-WEST 1/4 LINE TO THE

EAST LINE OF SAID SECTION AND THE POINT OF BEGINNING, CONTAINING 1.91 ACRES. MORE OR LESS

#### FLOODPLAIN INFORMATION CITY OF READING HILLSDALE COUNTY, MICHIGAN MAP NUMBER: 26059C0260D AND 26059C0300D EFFECTIVE DATE: 02-19-2014 FLOOD ZONE: X (PER FIRM) AREA OF MINIMAL FLOOD HAZARD

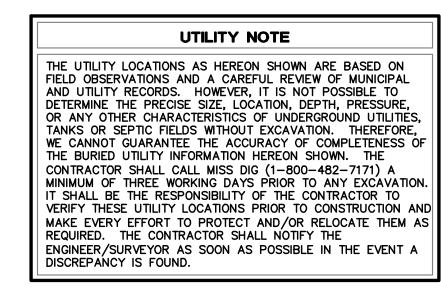
**BENCHMARKS** B.M. \*1 - TOP OF NW COR. CONC. SIGN POLE BASE IN MIDDLE OF PROPERTY W. SIDE OF MAIN ST. ELEV. 1185.33 NAVD 88 B.M. #2 - NW BOLT UPPER FLANGE ON HYD. W. SIDE OF MAIN ST. 120' S OF PROPERTY ELEV. 1186.50 NAVD 88

**RESPONSIBLE PARTY** WOLGAST CORPORATION 4835 TOWNE CENTER RD SUITE 203 SAGINAW, MI 48604 PH 989-790-9120

SOIL CONDITIONS JSDA NRCS WEB SOIL SURVEY FOR HILLSDALE COUNTY 10B: HILLSDALE-RIDDLES COMPLEX, 2 TO 6 PERCENT SLOPES

## SOIL EROSION CONTROL MEASURES

2	SELECTIVE GRADING & SHAPING	WATER CAN BE DIVERTED TO MINIMIZE EROSION FLATTER SLOPES EASE EROSION PROBLEMS
4	VEGETATIVE STABILIZATION	TEMPORARY AND PERMANENT SEED APPLICATIONS
54	SILT FENCE	USES GEOTEXTILE FABRIC AND POSTS OR POLES. EASY TO CONSTRUCT AND LOCATE AS NECESSARY.
60	TEMPORARY GRAVEL CONSTRUCTION ENTRANCE	STABILIZES SOIL SURFACES, THUS MINIMIZING EROSION PERMITS CONSTRUCTION TRAFFIC IN ADVERSE WEATHER MAY BE USED AS PART OF PERMANENT BASE CONSTRUCTION OF PAVED AREAS







**LOCATION MAP** 

SOIL EROSION & SEDIMEN OPERATION TIME SCHEDULE		)N C	ONTF	ROL	D	ISTU	RBEI	) AR	EA =	= 1.8	8 ±	ACR	RES
CONSTRUCTION SEQUENCE APR 2023 MAY JUN JUL AUG SEP OCT NOV DEC 20							JAN 2024	FEB	MAR	APR			
TEMPORARY EROSION CONTROL MEASURES	_												
REMOVALS / ROUGH GRADE													
STORM SEWER			ſ										
FOUNDATION / BLDG. CONSTRUCTION													
SANITARY SEWER & WATER MAIN			_										
INSTALL ALL OTHER UTILITIES													
SITE CONSTRUCTION & PAVEMENT													
PERMANENT EROSION CONTROL MEASURES												-	
FINISH GRADING													
LANDSCAPING													

DRAINAGE OUTLET MUNICIPAL STORM SEWER NORTH N. MAIN STREET RIGHT-OF-WAY

OVERFLOW CHANNEL

DETENTION BASIN

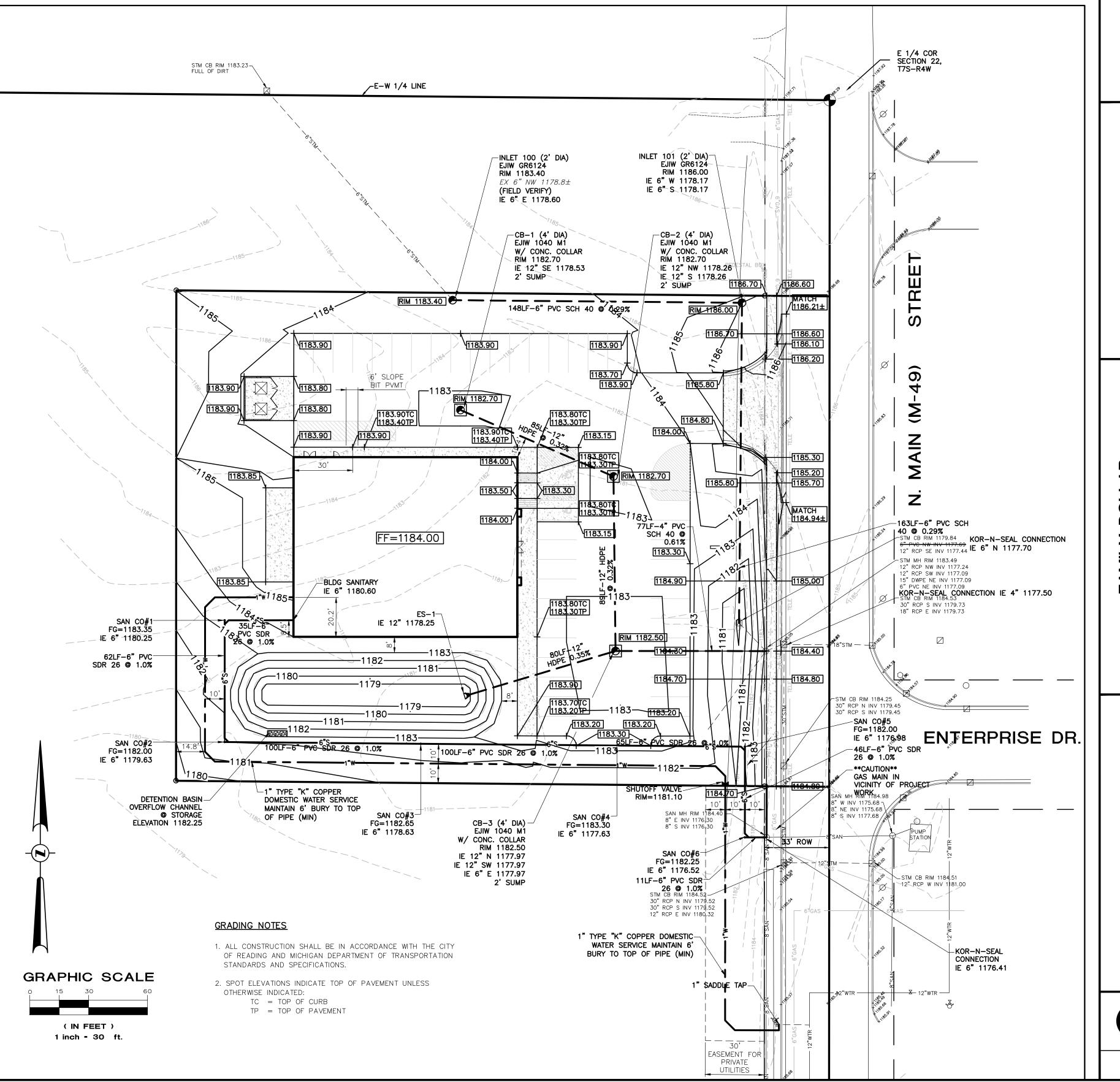
**DETENTION BASIN** 

NO SCALE

**OVERFLOW CHANNEL** 

UNDERLAIN W/ 60Z/SY NON-WOVEN GEOTEXTILE

> NEAREST WATER BODY MEADE DRAIN APPROXIMATELY 3,000± LF TO THE SOUTHEAST OF THE PROJECT SITE



2022-328

## 0 2 4 6 8 10 12 14 16 18 20 22 24 26 FAMILY DOLLAR: READING, MI DRAINAGE DESIGN CHECKLIST FOR

**PROPOSED 2-YEAR** 

Hyd. No. 2 -- 2 Year

Site Inforn	nation		Existing				Proposed				
Drainage Area (A	1.92	Acres			1.91	Acres					
Site % Imperviou	IS	0.0%	)			45.79	%				
Existing flow to Proposed flow to MDOT ROW											
		ROW	Wi	thout Dete	•			equired dete	ention*		
Frequency	Discharge (cft)	Runoff Volume (cft)	Discharge (cft)	Velocity * * (ft/s)	Runoff Volume (cft)	Discharge (cft)	Velocity (ft/s)	Reguired Storage Volume * * * (cft)	Design Storage Volume (cft)	Wate Surfac Elevati (ft)	
2-year Storm Event	0.215	1,444	1.909		5,591	0.371		4,147	4,147	1180.	
10-year Storm Event	1.324	4,592	4.010		11,318	0.411		6,726	6,726	1181.	
50-year Storm Event	3.296	9,870	6.848		19,195	0.440		9,325	9,325	1182.	
100-year Storm Event * * * *	4.403	12,883	8.299		23,300	0.452	5.619	10,417	10,417	1182.	

\* Not required if proposed discharge is less than or equal to the existing discharge without detention.

\* \* Not applicable (N/A) if "sheet flow" into MDOT ROW or detention is proposed. \* \* \* Difference in volume between the proposed and existing conditions. N/A if proposed volume is less than or equal to

existing volume. \* \* \* \* Harmful Interference Evaluation

**Certification** 

, P.E., have prepared the attached plans and specifications for the Andrew Andre (Print vour name) proposed drainage system. The proposed flow from this drainage system is discharged at a flow rate equal to or less than the existing flow rate conditions into the MDOT stormwater conveyance system; the velocity discharged is properly dissipated; there is storage on the permit applicant's property for the range of flows above so that no harmful interference to MDOT ROW or adjacent properties will be caused. This discharge to MDOT's stormwater system will not cause a violation of MDOT's NPDES stormwater discharge permit and the site is designed to include best management practices (BMPs) to treat the first inch of runoff to achieve 80% total suspended



Michigan Professional Engineer License Number \_

This document shall be sealed in the space to the left and submitted with the

OCTOBER 18, 2022 FAMILY DOLLAR: READING, MI **Hydrograph Report** Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022 Thursday, 10 / 6 / 2022 Hyd. No. 1 **EXISTING 10-YEAR** = SCS Runoff Peak discharge Hydrograph type

0 2 4 6 8 10 12 14 16 18 20 22 24 26

PROPOSED 10-YEAR

Hyd. No. 2 -- 10 Year

0 2 4 6 8 10 12 14 16 18 20 22 24 26

STAGE-STORAGE-DISCHARGE

Incr. Storage (cuft)

Weir Structures

= ---

Weir Coeff.

No No No **TW Elev. (ft)** = 0.00

Total storage (cuff

= 10 yrs

= 2 min

= 0.0 %

= 3.73 in

= 24 hrs

= User

= 1.910 ac

Storm frequency

Time interval

Basin Slope

Total precip.

Storm duration

— Hyd No. 1

OCTOBER 18, 2022

**Hydrograph Report** 

Hyd. No. 2

Hydrograph type

Storm frequency

Time interval

Basin Slope

Total precip.

Storm duration

— Hyd No. 2

Pond No. 1 - Family Dollar Reading

Pond storage is based on user-defined values.

1180.00 1181.00

= 77.00

= 0.61

= .013

= 0.60

204 1179.00 1,478 1180.00 3,722 1181.00 7,036 1182.00 11,523 1183.00

= n/a

Pond Data

No. Barrels

Length (ft)

Slope (%)

Orifice Coeff.

Multi-Stage

Stage / Storage Table

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

= 1177.97 0.00 0.00 0.00

0.00 0.00 0.00

0.00 0.00 n/a

0.60 0.60 0.60

.013 .013 n/a

0.22 oc 0.30 oc

Tc method

Q (cfs)

Drainage area

PROPOSED 10-YEAR

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

= SCS Runoff

= 10 yrs

= 2 min

= 0.0 %

= 3.73 in

= 24 hrs

= User

= 1.910 ac

Tc method

Q (cfs)

Drainage area

Thursday, 10 / 6 / 2022

Q (cfs)

= 0.215 cfs

= 12.10 hrs

= 1,444 cuft

= 61

= 0 ft

= 484

FAMILY DOLLAR: READING, MI

= 1.909 cfs

= 12.07 hrs

= 5,591 cuft

= Type II

= 78

= 0 ft

= 484

Time of conc. (Tc) = 15.00 min

Peak discharge

Time to peak

Hyd. volume

Distribution

Shape factor

Curve number

Hydraulic length

Thursday, 10 / 6 / 2022

Q (cfs)

= Type II

Time of conc. (Tc) = 15.00 min

Peak discharge

Time to peak

Curve number

Hydraulic length

Hyd. volume

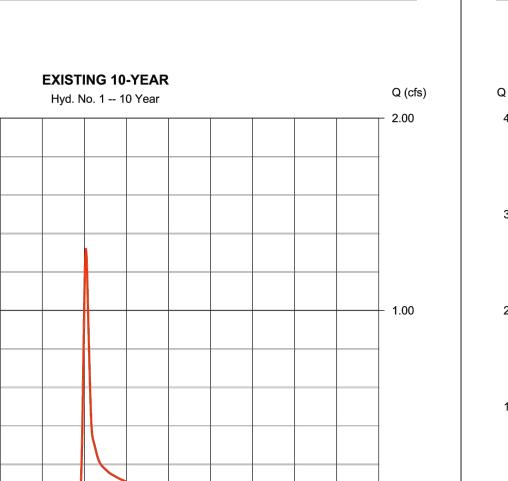
Distribution

**EXISTING 2-YEAR** 

Hyd. No. 1 -- 2 Year

Shape factor

= 1.324 cfs Time to peak = 12.07 hrs = 4,592 cuft Hyd. volume Curve number = 61 = 0 ftHydraulic length Time of conc. (Tc) = 15.00 min = Type II Distribution Shape factor = 484



FAMILY DOLLAR: READING, MI

= 4.010 cfs

= 12.03 hrs

= 11,318 cuft

= 78

= 0 ft

= 484

FAMILY DOLLAR: READING, MI

0.00 0.00 0.00

0.00 0.00 0.00

= 3.33 3.33 3.33

= No No No No

Tuesday, 11 / 29 / 2022

0.220 0.300 0.363 0.416 0.464

= Type II

Time of conc. (Tc) = 15.00 min

Peak discharge

Time to peak

Hyd. volume

Curve number

Distribution

Shape factor

Hydraulic length

Thursday, 10 / 6 / 2022

Q (cfs)

Hydraflow Hydrographs Extension	on for Autodesk® Civil 3D® by Autodesk, I	nc. v2022	Thursday, 10 /
Hyd. No. 1			
EXISTING 50-YEAR			
Hydrograph type	= SCS Runoff	Peak discharge	= 3.296 cfs
Storm frequency	= 50 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 9,870 cuft
Drainage area	= 1.910 ac	Curve number	= 61
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 15.00 min
Total precip.	= 5.15 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484
Storm duration			• • • • • • • • • • • • • • • • • • • •

**Hydrograph Report** 

Hydrograph Report

Hyd. No. 2

Hydrograph type

Storm frequency

Time interval

Drainage area

Basin Slope

Total precip.

Storm duration

—— Hyd No. 2

Tc method

Q (cfs)

PROPOSED 50-YEAR

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2022

= SCS Runoff

= 50 yrs

= 1.910 ac

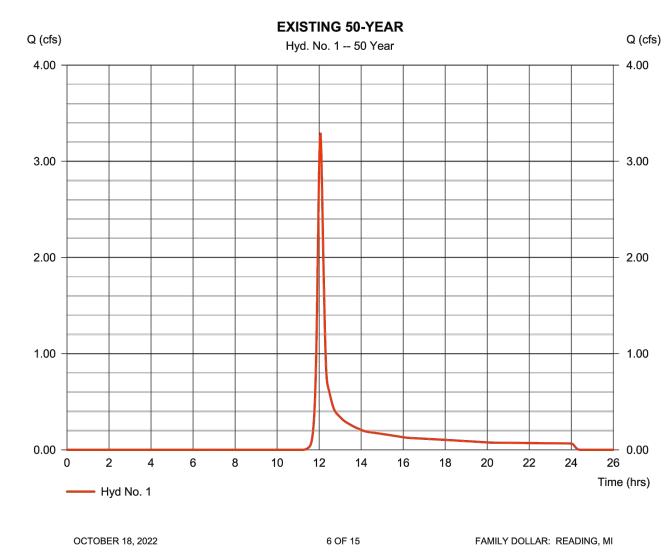
= 2 min

= 0.0 %

= User

= 5.15 in

= 24 hrs



Thursday, 10 / 6 / 2022

Q (cfs)

= 6.848 cfs

= 12.03 hrs

= 78

= 0 ft

= 484

= Type II

FAMILY DOLLAR: READING, MI

Time of conc. (Tc) = 15.00 min

= 19,195 cuft

Peak discharge

Time to peak

Curve number Hydraulic length

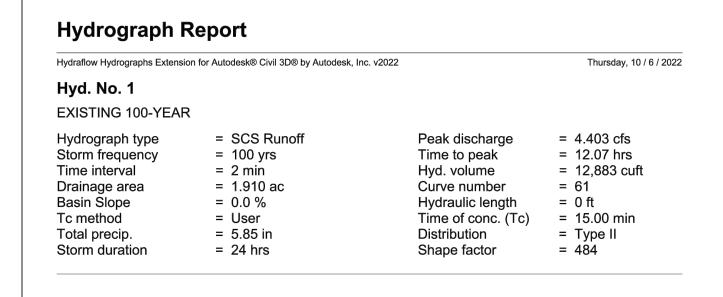
Hyd. volume

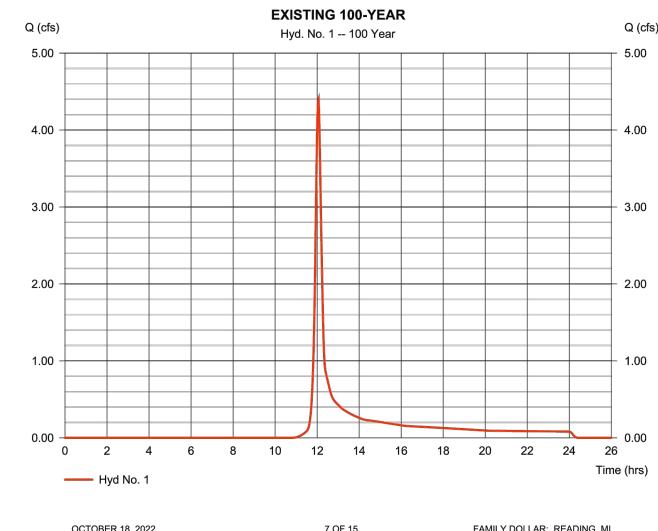
Distribution

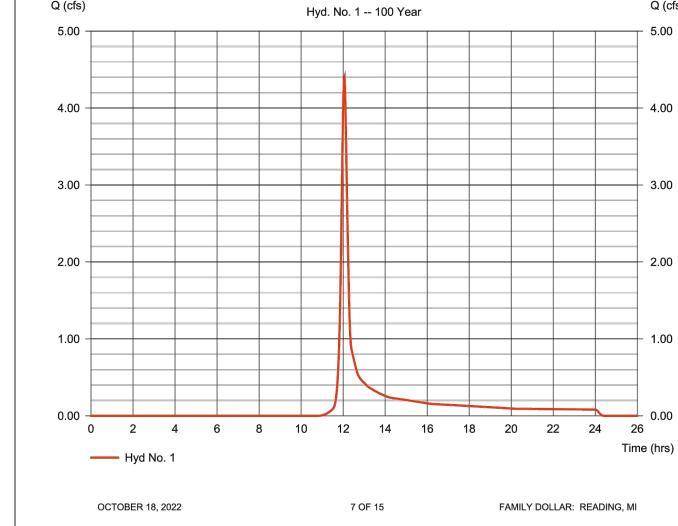
**PROPOSED 50-YEAR** 

Hyd. No. 2 -- 50 Year

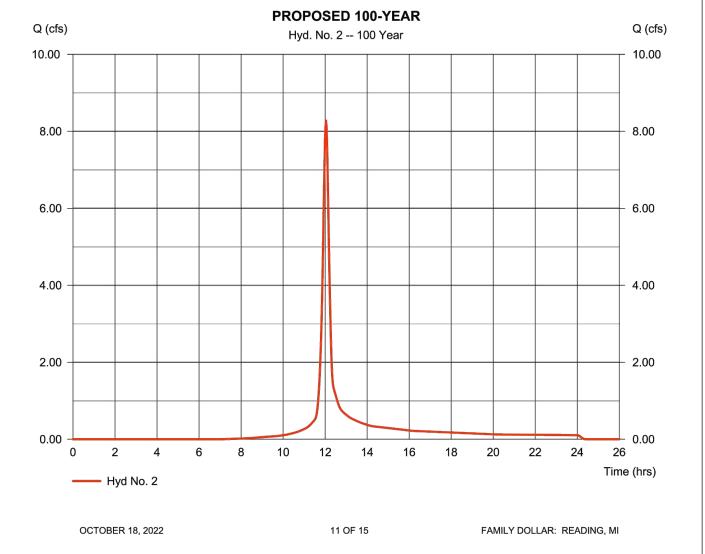
Shape factor

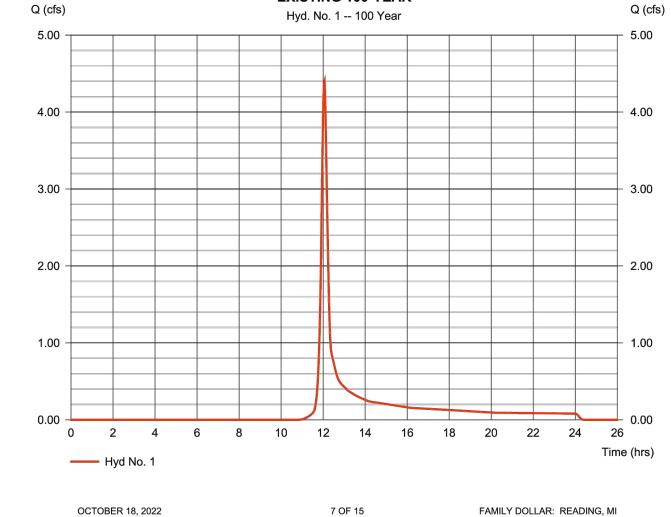






Hydraflow Hydrographs Extensi	on for Autodesk® Civil 3D® by Autodesk, In	nc. v2022	Thursday, 10 / 6 / 2022
Hyd. No. 2			
PROPOSED 100-YE	AR		
Hydrograph type Storm frequency Time interval Drainage area	= SCS Runoff = 100 yrs = 2 min = 1.910 ac	Peak discharge Time to peak Hyd. volume Curve number	= 8.299 cfs = 12.03 hrs = 23,300 cuft = 78
Basin Slope Tc method Total precip. Storm duration	= 0.0 % = User = 5.85 in = 24 hrs	Hydraulic length Time of conc. (Tc) Distribution Shape factor	= 0 ft = 15.00 min = Type II = 484





<b>DETENTION CALCULATION</b>

10B Hillsdale-Riddles Complex, 2 to 6 percent slopes B

RUNOFF CURVE NUMBERS

Cover Type Soil Type Area (acre) CN CN \* A

1.91

98 85.5813

Soil Group

Cover Type Soil Type Area (acre) CN CN \* A

READING FAMILY DOLLAR

RUNOFF CURVE NUMBERS

Open Space Soil Group "B"

Open Space Soil Group "B"

(Good condition grass cover > 75%) Impervious Soil Group "B" 0.87

WEIGHTED CN = AREA (ACRES) =

WEIGHTED CN = AREA (ACRES) =

SOILINFORMATION Soil Type Description

**PROPOSED** 

(Good condition grass cover > 75%) Impervious Soil Group "B" 0.00

EVENT	VOL (cu ft)	<b>ELEVATION</b>	VEL (ft/sec)	DISCH (cfs)
2-Year	4,147	1180.63		0.371
10-Year	6,726	1181.41		0.411
50-Year	9,325	1182.01		0.440
100-Year	10,417	1182.25	5.619	0.452
PROPOSE	D DETENTIO	ON SYSTEM		
STORAGE	<b>NITHIN STOP</b>	RM PIPE AND	DETENTION	BASIN
			Structure	Cumulative
Description	Area, sft	Length/Ht,	Volume, cft	Volume, cft
12" HDPE	0.79	253	199	199
CB-1	12.57	3.97	50	249
CB-2	12.57	4.24	53	302
CB-3	12.57	4.53	57	359
STRUCTURE	DIA. (IN)	RIM	INVERT	LENGTH
CB-1	48	1182.70	1178.53	85
CB-2	48	1182.70	1178.26	89
	48	1182.50	1177.97	79

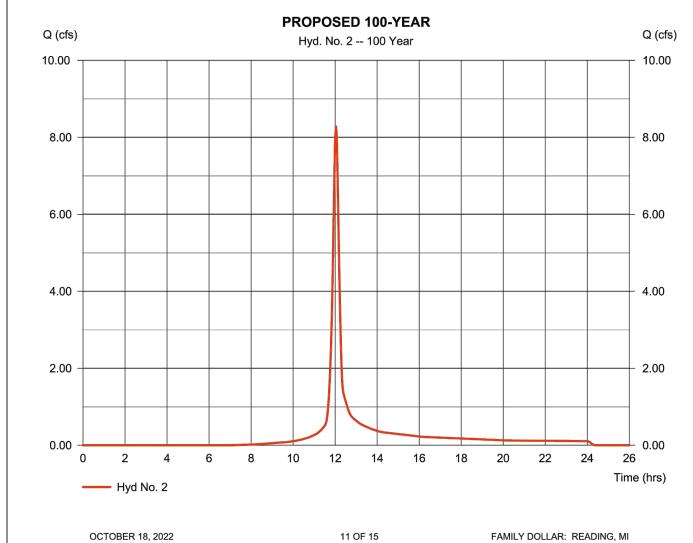
CB-3	46	1162.50	11//.9/				
DETENTION BASIN VOLUME							
ELEV	AREA	AVG.	VOLUME				
	(ft <sup>2</sup> )		(ft <sup>3</sup> )				
1178.25	0		0				
4470	700	368	404				
1179	736	966	184				
1179.0	1,195	000	667				
		1,425					
1180	1,655		1,379				
1190.0	2.465	1,910	2 224				
1180.0	2,165	2,419	2,334				
1181	2,674	2,410	3,544				
		2,954					
1181.0	3,234		5,021				
1182	3,794	3,514	6,778				
1102	3,734	4,099	0,770				
1182.0	4,405	.,,	8,828				
		4,710					
1183	5,015		11,183				
TOTAL DETI	ENTION						
IOIAL DEIL							

OTAL DET	LIVITOIV		
ELEVATION	INC. VOL (cft)	VOL (cft)	
1178.25	0	0	
1179	204	204	
1180	1,275	1,478	
1181	2,244	3,722	
1182	3,314	7,036	
1183	4,484	11,523	
STAGE-STO	RAGE-DISCHA	RGE TABLE	:

1105	4,404	11,525	
AGE-STOP	RAGE-DISCI	HARGE TABL	E
	Stage	Detention	Restricted
Elevation	(ft)	Vol (cf)	Disch (cfs)
1178.25	0.00	0	0.140
1179	0.25	204	0.220
1180	1.25	1,478	0.300
1181	2.25	3,722	0.363
1182	3.25	7,036	0.416
1183	4.25	11,523	0.464

DISCHARGE	
Note: Discharge shall be at the pre-developed (existing)	10-year storm event condition

Overflow Outfall	Upstream Storage	Downstream	Distance	Pipe	PIPE	VELOC
(cfs)	Elevation	Invert	(LF)	Dia (IN)	CAP (cfs)	(ft/sec
1.324	1182.25	1177.50	77	4	0.490	5.619



## JACKSON TSC URBAN DRAINAGE DESIGN CHECKLIST FOR JACKSON, HILLSDALE, AND LENAWEE COUNTIES

0 2 4 6 8 10 12 14 16 18 20 22 24 26

PLEASE COMPLETE THE DRAINAGE DESIGN CHECKLIST (FORM 2484, http://mdotjboss.state.mi.us/webforms/GetDocument.htm?fileName=2484.pdf) USING THE INFORMATION REQUIRED BELOW.

PROVIDE THE FOLLOWING USING THE RATIONAL METHOD, FOUND IN CHAPTER 3 OF THE 2006 MDOT DRAINAGE DESIGN AND STORMWATER MANAGEMENT MANUAL (<a href="http://www.michigan.gov/stormwatermgt">http://www.michigan.gov/stormwatermgt</a>):

★ PLANS OF PROPOSED STORM WATER CONVEYANCE SYSTEM CONNECTION DETAILS TO MDOT SYSTEM (Manhole inside ROW)

CONTOUR MAP

LENGTH OF SHEET FLOW

SLOPE OF SHEET FLOW AREA LAND USE (EXISTING AND PROPOSED) RUNOFF COEFFICIENTS USED (Per table 3-1 in DDSMM pg. 3-20)

TIME OF CONCENTRATION (see pgs. 3-22, 3-23 in DDSMM) RAINFALL INTENSITIES USED (per Appendix 3-B in DDSMM pg. 3-B-1) UNDEVELOPED PEAK RUNOFF FOR A 10YR, 50YR, AND 100YR STORM

DEVELOPED PEAK RUNOFF FOR A 10YR, 50YR, AND 100YR STORM

DETENTION VOLUME REQUIRED FOR 50 YEAR STORM EVENT (check 100 year, provide first flush volume)

HYDRAULIC CAPACITY OF PROPOSED 4" STORM OUTLET @0.61% NEEDS TO BE NO GREATER THAN <u>0.7 CFS</u>

Design discharge @ 0.49 cfs

#### THIS DESIGN MUST BE SIGNED AND STAMPED BY A MICHIGAN REGISTERED PROFESSIONAL ENGINEER

Family Dollar North Main (M-49) Street Reading, Hillsdale County, MI

11/29/2022



