

**Brian J. Wendling**  
**Public Works Commissioner**  
 111 S. Michigan Ave., Suite 103  
 Saginaw, MI 48602  
 Phone 989-790-5258  
 Fax 989-790-5259



Drain Name: **R0900 - Rapanos Drain**

Location of work: **Saginaw Charter Twp. (Sec. 3)**

ITEMIZED UNIT PRICE BID SCHEDULE					
ITEM NO.	DESCRIPTION OF WORK	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	Tree Clearing and Grubbing	1	Lump Sum		
2	Reset 60" diameter RCP end section	1	Lump Sum		
3	Repair sink hole (just south of manhole/junction chamber on the south side (back side) of the guardrail	1	Lump Sum		
4	Plain Rip Rap Culvert End Treatment	25	Square Yards		
5	Cleanup and Restoration	1	Lump Sum		
				<b>Total:</b>	

1	Includes labor and equipment for tree clearing and grubbing within the drain easement, which is approximately 3.17 acres. Trees in the bottom of the ravine, approx. width of 100-130' wide should be cleared, grubbed and completely removed. Dead or leaning trees on the ravine slopes must also be removed. Trees on the slope may be cut flush with the slope and treated with Garlon 4 Ultra (25% active ingredient & 75% basil oil), per manufacturer's specifications. Live, quality trees, on the drain side slopes may be left in place, as determined during construction by SCPWC. It is anticipated that most trees inside the easement area are dead/junk trees and will need to be disposed of. Trees and brush are to be disposed of at the contractors discretion by one of the following methods: burn, chip, or haul away, unless otherwise indicated and agreed upon by the landowner. Wood chips may be spread along the maintenance path along the drain. The contractor shall obtain a burning permit where that is preferred disposal method. This item also includes the construction of a ramp to access the drain bottom with heavy machinery on the western side of the drain.
2	Includes labor, material, and equipment required to reset the end section at the storm sewer outlet to the drain. The end section has separated from the rest of the pipe. Excavate to expose the pipe, re-set the end section, use non-shrink grout to grout around the pipe connection and wrap non-woven filter fabric around the entire pipe over the grouted area. Pack soil back under and around the pipe to help support it. This bid item includes all items necessary to complete the job, whether specifically mentioned or implied.
3	Includes material, labor and equipment for excavation or hydro excavation to expose the pipe (sink hole is potentially due to a pipe separation at a joint). Use non-shrink grout to grout all the way around the separated location, wrap grouted pipe with non-woven filter fabric, and backfill to match existing contours. This bid item includes all items necessary to complete the job, whether specifically mentioned or implied.

4	Includes material, labor and equipment for excavation and grading to required contours, installation of non-woven filter fabric and placement of riprap. Rip rap shall be installed under and around the re-set pipe end section, as directed by SCPWC in the field. Additional items above quantity amount may be required, or item may be removed from contract - to be determined in the field during construction.
5	The area on site used for loading/unloading and staging of equipment shall be raked and leveled. Topsoil shall be used to fill in ruts, and the entire disturbed area is to be seeded with standard ditch bank seed.

-Upon bid approval, proof of insurance with the following additional insured's must be provided:

- Saginaw County Public Works
- Rapanos Drain Drainage District
- Saginaw County Road Commission
- Saginaw Charter Township

- Owner may retain a portion of the total payment, not more than 10% of the dollar value of the total Work completed, until the site is 100% restored as determined by the Owner/Engineer.

-Drain right of way is shown on attached easement drawing.

Accepted by:

\_\_\_\_\_  
Bidder Signature & Date

\_\_\_\_\_  
Marya N. Colpaert, P.E., Deputy Public Works  
Commissioner/Engineer

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Date Approved



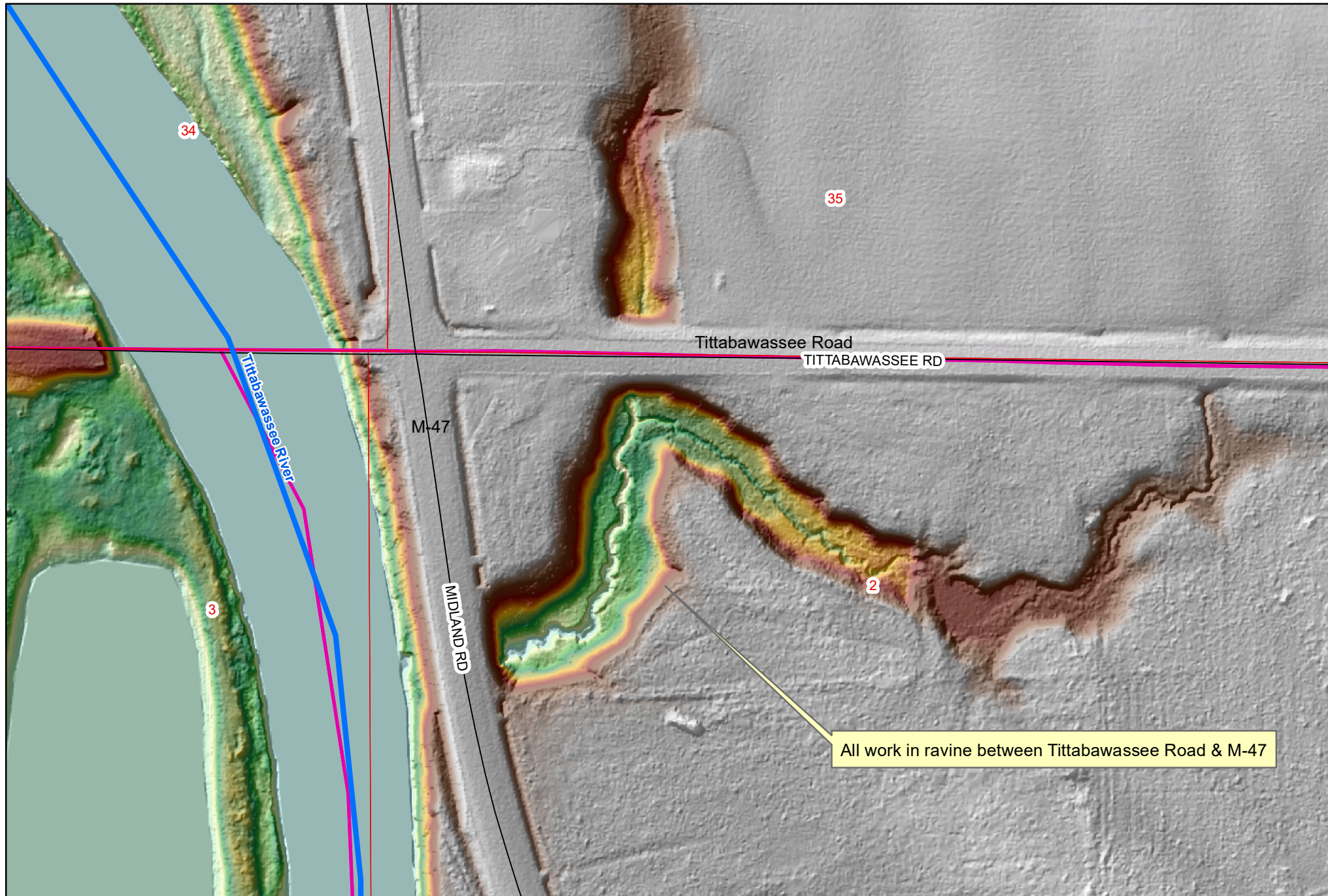
**R0900 - Rapanos Drain**  
**Saginaw Charter Township (Sec. 2)**  
**All work between Tittabawassee Road & M-47**



320 160 0 320 Feet

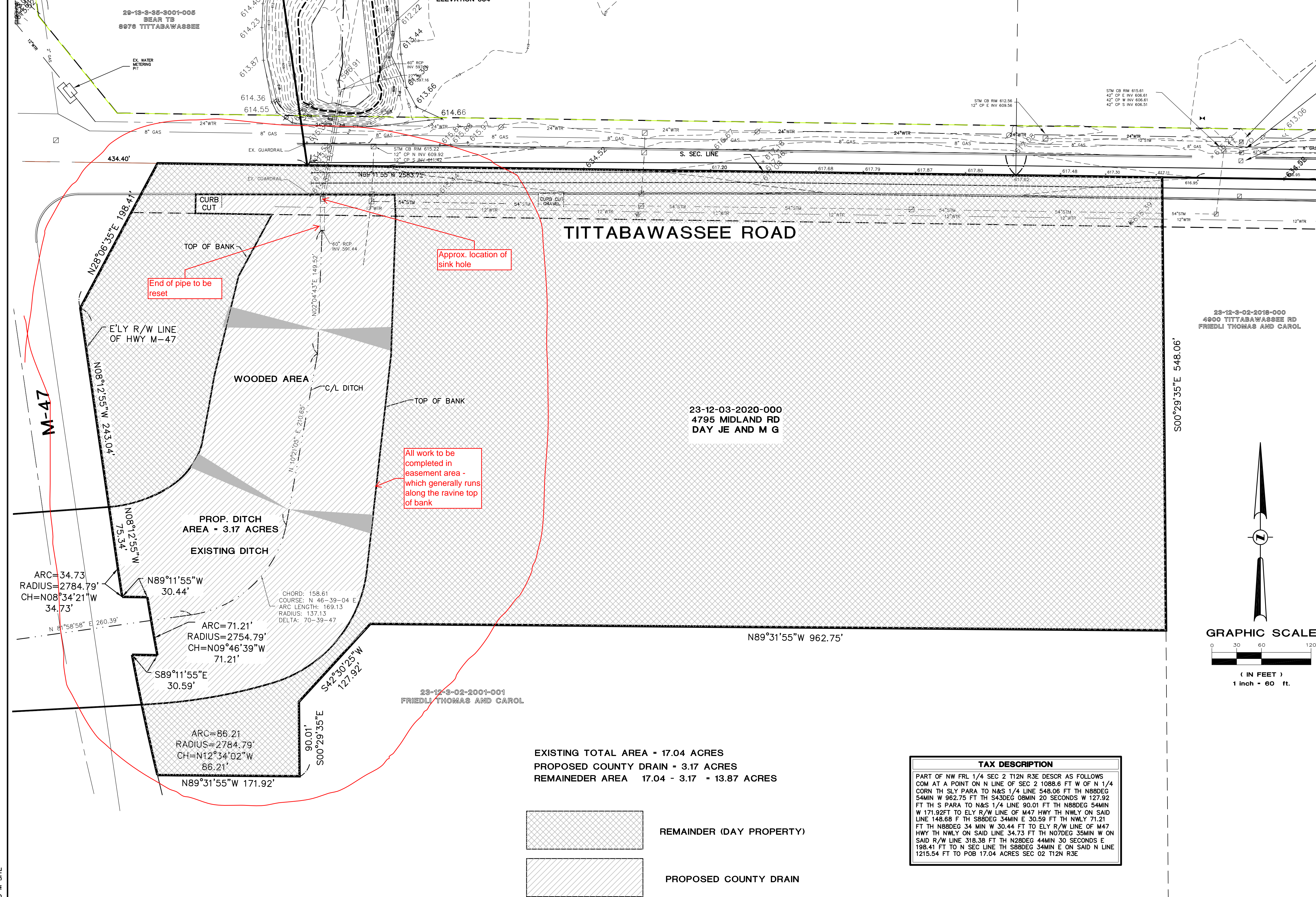


**R0900 - Rapanos Drain**  
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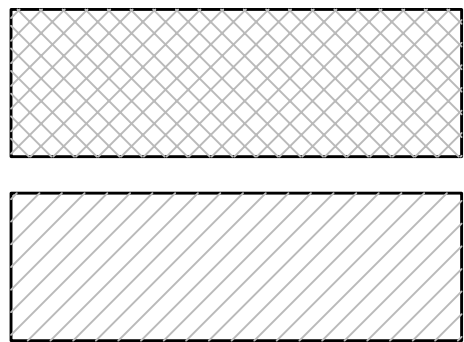


320 160 0 320 Feet





EXISTING TOTAL AREA - 17.04 ACRES  
PROPOSED COUNTY DRAIN - 3.17 ACRES  
REMAINDER AREA 17.04 - 3.17 = 13.87 ACRES



REMAINDER (DAY PROPERTY)  
PROPOSED COUNTY DRAIN

**TAX DESCRIPTION**

PART OF NW FRL 1/4 SEC 2 T12N R3E DESCR AS FOLLOWS  
COM AT A POINT ON N LINE OF SEC 2 1088.6 FT W OF N 1/4  
CORN TH SLY PARA TO N&S 1/4 LINE 548.06 FT TH N88DEG  
54MIN W 962.75 FT TH S43DEG 08MIN 20 SECONDS W 127.92  
FT TH S PARA TO N&S 1/4 LINE 90.01 FT TH N88DEG 54MIN  
W 171.92 FT TO ELY R/W LINE OF M47 HWY TH NWLY ON SAID  
LINE 148.68 F TH S88DEG 34MIN E 30.59 FT TH NWLY 71.21  
FT TH N88DEG 34 MIN W 30.44 FT TO ELY R/W LINE OF M47  
HWY TH NWLY ON SAID LINE 34.73 FT TH N07DEG 35MIN W ON  
SAID R/W LINE 318.38 FT TH N28DEG 44MIN 30 SECONDS E  
198.41 FT TO N SEC LINE TH S88DEG 34MIN E ON SAID N LINE  
1215.54 FT TO POB 17.04 ACRES SEC 02 T12N R3E

**TITTABAWASSEE ROAD**

23-12-03-2020-000  
4795 MIDLAND RD  
DAY JE AND M G

23-12-3-02-2018-000  
4900 TITTABAWASSEE RD  
FRIEDLI THOMAS AND CAROL

