

ATTACHMENT NAME:

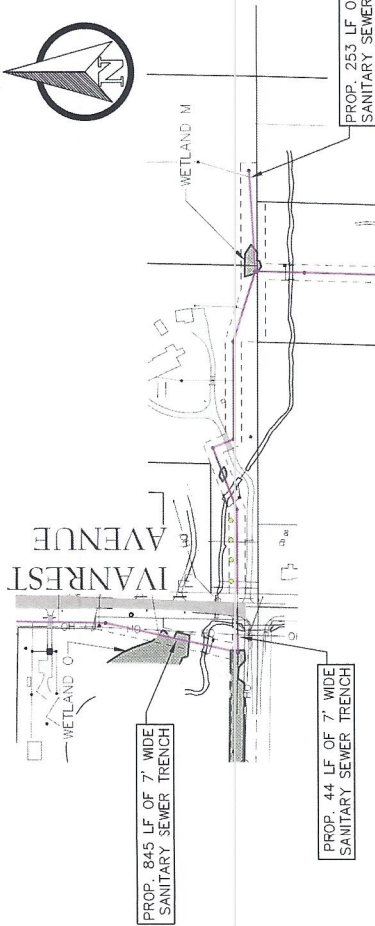
1260 WETLAND IMPACT SKETCH_20250414.pdf

ATTACHMENT TYPE:

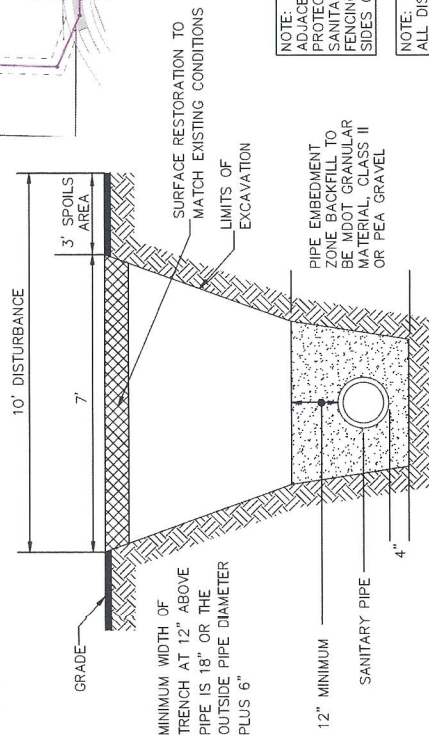
Adobe Portable Document Format (PDF) compound image



IVANREST AVENUE



COMPACTED BACKFILL ABOVE PIPE EMBEDMENT ZONE SHALL BE CLEAN SITE SUBSOIL OR MDOT GRANULAR MATERIAL, CLASS II WHEN EXCAVATED AREA IS WITHIN A 10' MIN. DISTANCE FROM ROAD SURFACES, DRIVES, PAVED AREAS, ETC.



NOTE: ADJACENT WETLANDS TO BE PROTECTED ALONG ENTIRE SANITARY SEWER ROUTE. SILT FENCING TO BE PLACED ON BOTH SIDES OF THE EXCAVATION

NOTE: ALL DISTURBED WETLAND AREAS TO BE RESTORED TO EXISTING GRADES, RESPREAD AREAS WITH EXISTING NATIVE WETLAND TOPSOIL.

TRENCH SECTION

NOT TO SCALE

WETLAND IMPACT					
AREA		VOLUME (CYD)			
SFT	ACRE	CUT	FILL	NET	
WETLAND J (REGULATED)	118	0.003	60	0	
WETLAND L (REGULATED)	165	0.004	84	0	
WETLAND M (REGULATED)	618	0.014	246	0	
WETLAND N (REGULATED)	NO IMPACT				
WETLAND O (REGULATED)	538	0.012	259	0	
TOTAL	1,430	0.033	726	726	0

STREAM IMPACT					
AREA		VOLUME (CYD)			
SFT	ACRE	CUT	FILL	NET	
STREAM CROSSING 1	112	0.003	39	0	
STREAM CROSSING 2	70	0.002	26	0	
STREAM CROSSING 3	91	0.002	22	0	
TOTAL	252	0.007	87	87	



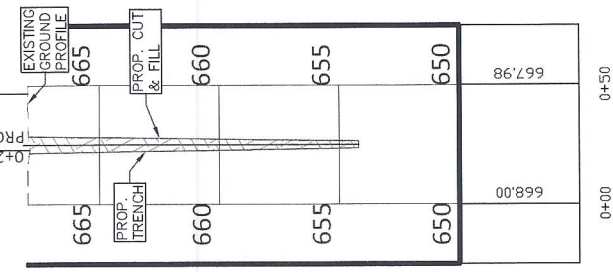
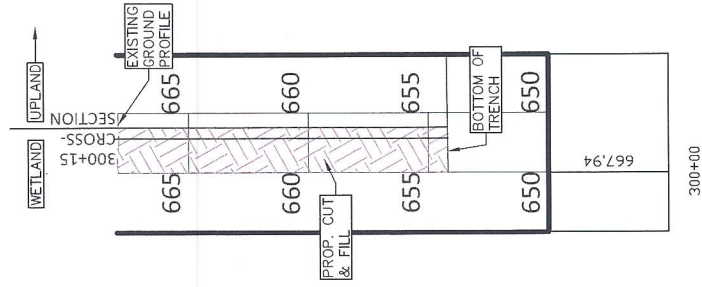
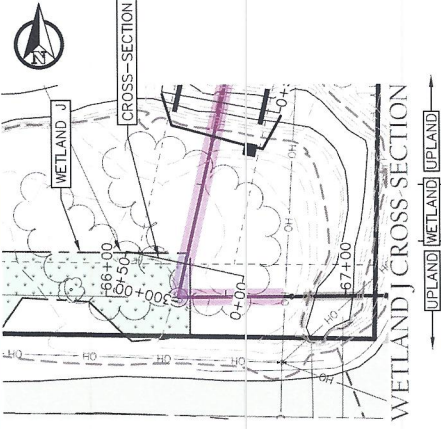
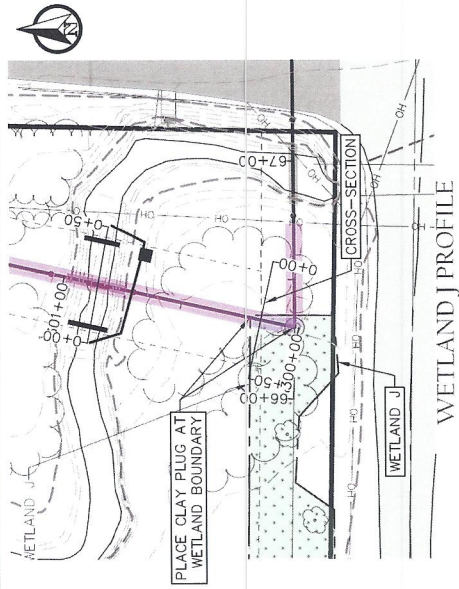
64TH STREET SW

LEGEND
REGULATED WETLAND
PROPOSED 7' WIDE
SANITARY SEWER TRENCH



BYRON NORTHWEST SANITARY SEWER
WETLAND IMPACT SKETCHES
APRIL 2025
JOB NO. 1260

Byron Center, MI
(616) 277-2185
Kalamazoo, MI
(269) 692-7320 x110
SHEET #1 OF 8 d
Issued On: 04/21/2025
Expires On: 04/21/2030



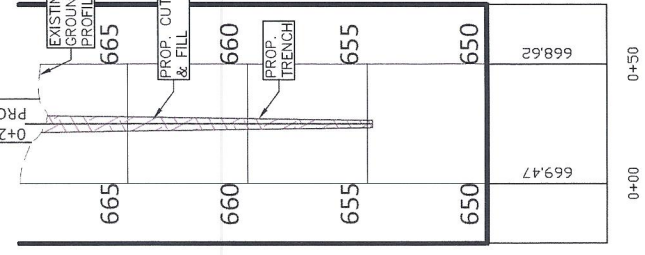
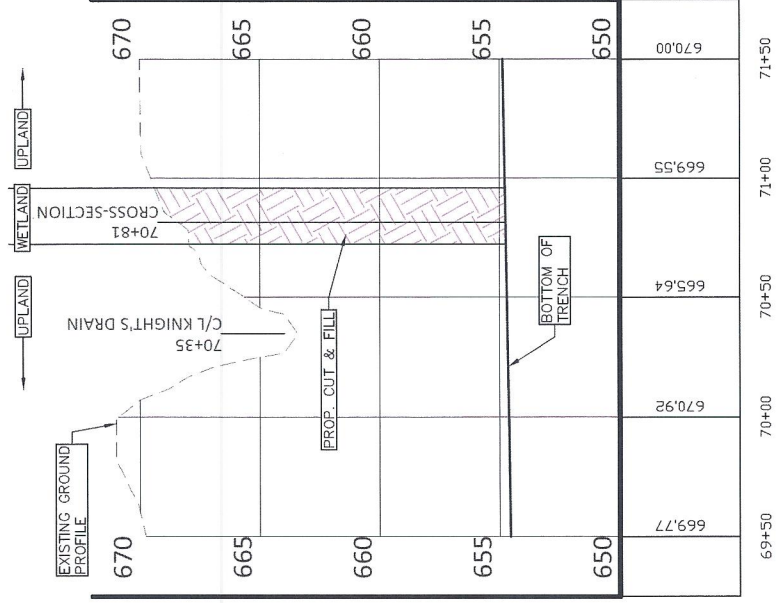
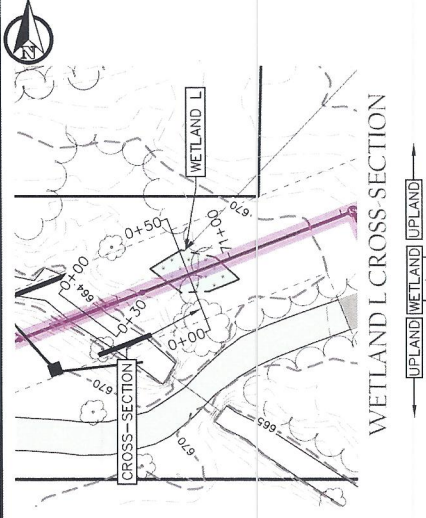
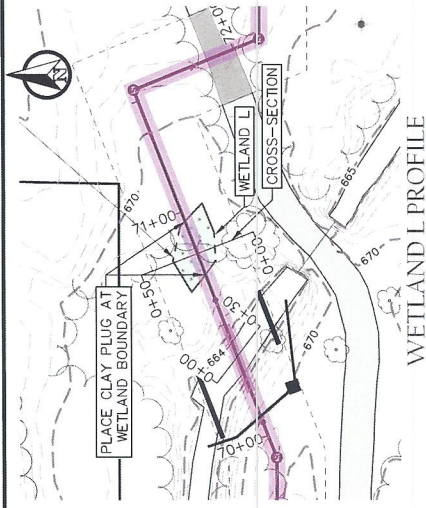
PLAN VIEW PROFILE VIEW
SCALE: 1" = 50' HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'



BYRON NORTHWEST SANITARY SEWER
WETLAND J
APRIL 2025
JOB NO. 1260

Byron Center, MI
(616) 277-2185
Kalon@v&k.com
(248) 693-7720
SHEET 2 OF 8

Expires On: 04/21/2030

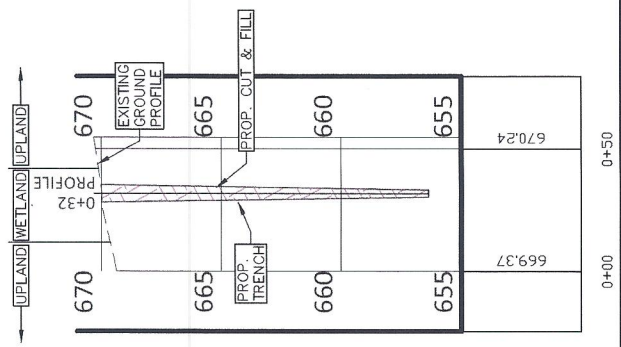
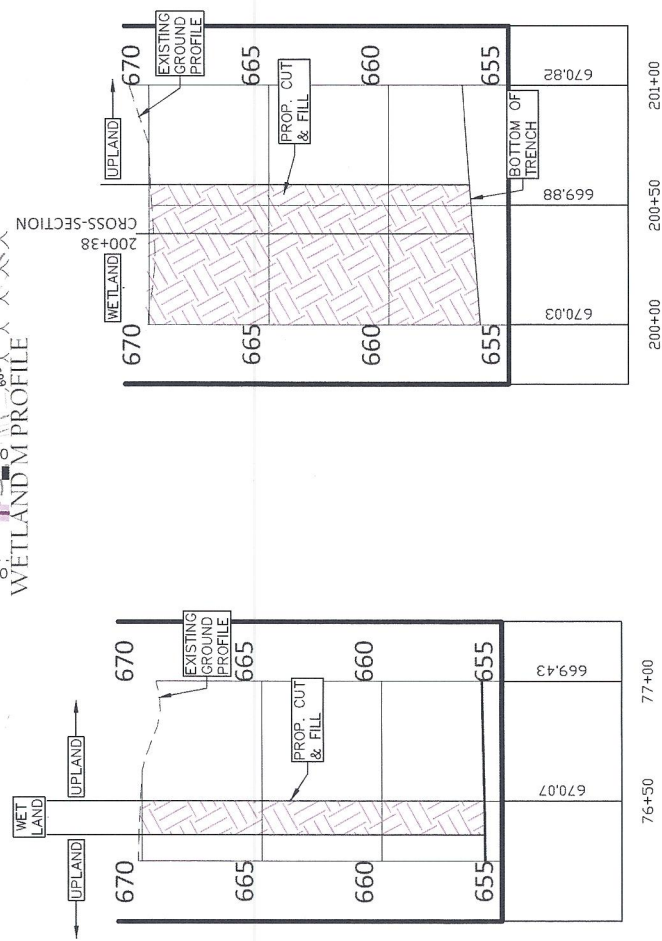
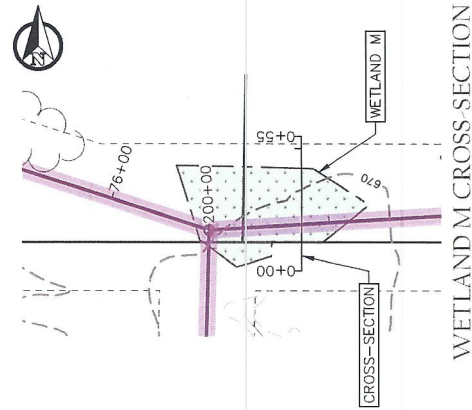


PLAN VIEW PROFILE VIEW
 SCALE: 1" = 50' HORIZONTAL: 1" = 50'
 VERTICAL: 1" = 5'



BYRON NORTHWEST SANITARY SEWER
 IMPACTED WETLAND L
 APRIL 2025
 JOB NO. 1260

Byron Center, MI
 (616) 277-2185
 Kalamazoo, MI
 (269) 692-3200
 SHEET 3 OF 8
 Expires On: 04/21/2030



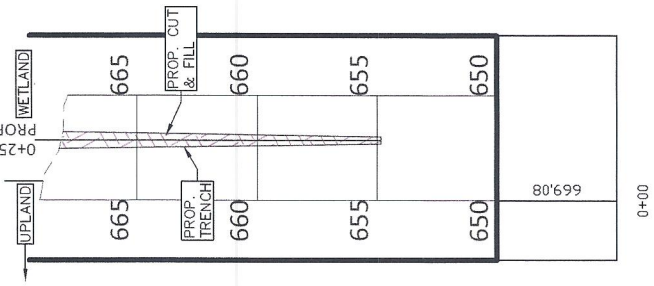
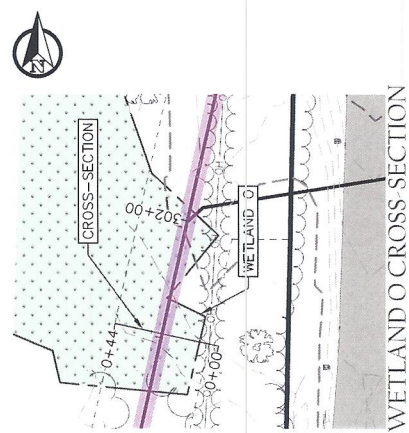
PLAN VIEW PROFILE VIEW
SCALE: 1" = 50' HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

BYRON NORTHWEST SANITARY SEWER
IMPACTED WETLAND M
APRIL 2025
JOB NO.: 1260



Byron Center, MI
(616) 277-2185

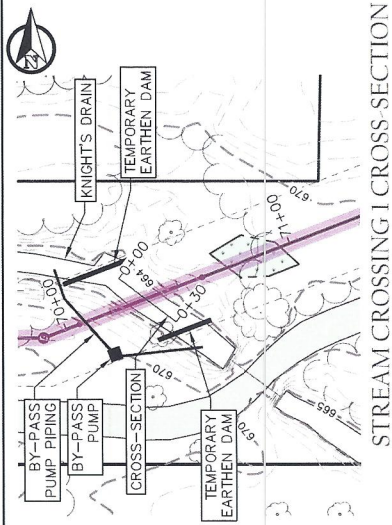
SHEET 4 OF 8
Issued On: 04/21/2025
Expires On: 04/21/2030



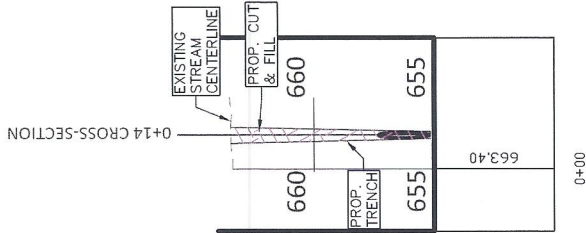
PLAN VIEW PROFILE VIEW
SCALE: 1" = 50' HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

BYRON NORTHWEST SANITARY SEWER
WETLAND 0
APRIL 2025
JOB NO. 1260

Byron Center, MI
(616) 277-2185



STREAM CROSSING 1 CROSS-SECTION



PLAN VIEW PROFILE VIEW
SCALE: 1" = 50' HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

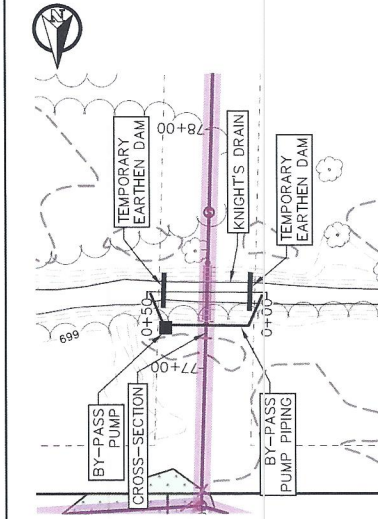
BYRON NORTHWEST SANITARY SEWER
STREAM CROSSING 1
APRIL 2025
JOB NO. 1250

Byron Center, MI
(616) 277-2185

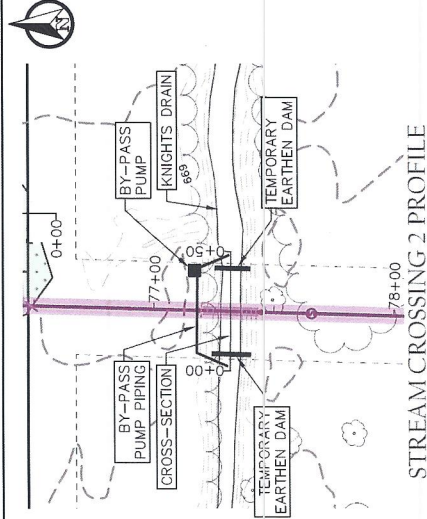
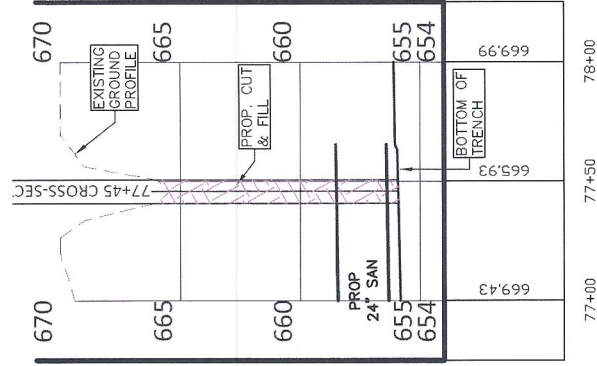
Kalamazoo, MI
(269) 697-7120

38 40 9 13 15 18 21 24 27 30 33 36 39 42 45 48 51 54 57 60 63 66 69 72 75 78 81 84 87 90 93 96 99 102 105 108 111 114 117 120 123 126 129 132 135 138 141 144 147 150 153 156 159 162 165 168 171 174 177 180 183 186 189 192 195 198 201 204 207 210 213 216 219 222 225 228 231 234 237 240 243 246 249 252 255 258 261 264 267 270 273 276 279 282 285 288 291 294 297 300 303 306 309 312 315 318 321 324 327 330 333 336 339 342 345 348 351 354 357 360 363 366 369 372 375 378 381 384 387 390 393 396 399 402 405 408 411 414 417 420 423 426 429 432 435 438 441 444 447 450 453 456 459 462 465 468 471 474 477 480 483 486 489 492 495 498 501 504 507 510 513 516 519 522 525 528 531 534 537 540 543 546 549 552 555 558 561 564 567 570 573 576 579 582 585 588 591 594 597 600 603 606 609 612 615 618 621 624 627 630 633 636 639 642 645 648 651 654 657 660 663 666 669 672 675 678 681 684 687 690 693 696 699 702 705 708 711 714 717 720 723 726 729 732 735 738 741 744 747 750 753 756 759 762 765 768 771 774 777 780 783 786 789 792 795 798 801 804 807 810 813 816 819 822 825 828 831 834 837 840 843 846 849 852 855 858 861 864 867 870 873 876 879 882 885 888 891 894 897 900 903 906 909 912 915 918 921 924 927 930 933 936 939 942 945 948 951 954 957 960 963 966 969 972 975 978 981 984 987 990 993 996 999 1002 1005 1008 1011 1014 1017 1020 1023 1026 1029 1032 1035 1038 1041 1044 1047 1050 1053 1056 1059 1062 1065 1068 1071 1074 1077 1080 1083 1086 1089 1092 1095 1098 1101 1104 1107 1110 1113 1116 1119 1122 1125 1128 1131 1134 1137 1140 1143 1146 1149 1152 1155 1158 1161 1164 1167 1170 1173 1176 1179 1182 1185 1188 1191 1194 1197 1200 1203 1206 1209 1212 1215 1218 1221 1224 1227 1230 1233 1236 1239 1242 1245 1248 1251 1254 1257 1260 1263 1266 1269 1272 1275 1278 1281 1284 1287 1290 1293 1296 1299 1302 1305 1308 1311 1314 1317 1320 1323 1326 1329 1332 1335 1338 1341 1344 1347 1350 1353 1356 1359 1362 1365 1368 1371 1374 1377 1380 1383 1386 1389 1392 1395 1398 1401 1404 1407 1410 1413 1416 1419 1422 1425 1428 1431 1434 1437 1440 1443 1446 1449 1452 1455 1458 1461 1464 1467 1470 1473 1476 1479 1482 1485 1488 1491 1494 1497 1500 1503 1506 1509 1512 1515 1518 1521 1524 1527 1530 1533 1536 1539 1542 1545 1548 1551 1554 1557 1560 1563 1566 1569 1572 1575 1578 1581 1584 1587 1590 1593 1596 1599 1602 1605 1608 1611 1614 1617 1620 1623 1626 1629 1632 1635 1638 1641 1644 1647 1650 1653 1656 1659 1662 1665 1668 1671 1674 1677 1680 1683 1686 1689 1692 1695 1698 1701 1704 1707 1710 1713 1716 1719 1722 1725 1728 1731 1734 1737 1740 1743 1746 1749 1752 1755 1758 1761 1764 1767 1770 1773 1776 1779 1782 1785 1788 1791 1794 1797 1800 1803 1806 1809 1812 1815 1818 1821 1824 1827 1830 1833 1836 1839 1842 1845 1848 1851 1854 1857 1860 1863 1866 1869 1872 1875 1878 1881 1884 1887 1890 1893 1896 1899 1902 1905 1908 1911 1914 1917 1920 1923 1926 1929 1932 1935 1938 1941 1944 1947 1950 1953 1956 1959 1962 1965 1968 1971 1974 1977 1980 1983 1986 1989 1992 1995 1998 2001 2004 2007 2010 2013 2016 2019 2022 2025 2028 2031 2034 2037 2040 2043 2046 2049 2052 2055 2058 2061 2064 2067 2070 2073 2076 2079 2082 2085 2088 2091 2094 2097 2100 2103 2106 2109 2112 2115 2118 2121 2124 2127 2130 2133 2136 2139 2142 2145 2148 2151 2154 2157 2160 2163 2166 2169 2172 2175 2178 2181 2184 2187 2190 2193 2196 2199 2202 2205 2208 2211 2214 2217 2220 2223 2226 2229 2232 2235 2238 2241 2244 2247 2250 2253 2256 2259 2262 2265 2268 2271 2274 2277 2280 2283 2286 2289 2292 2295 2298 2301 2304 2307 2310 2313 2316 2319 2322 2325 2328 2331 2334 2337 2340 2343 2346 2349 2352 2355 2358 2361 2364 2367 2370 2373 2376 2379 2382 2385 2388 2391 2394 2397 2400 2403 2406 2409 2412 2415 2418 2421 2424 2427 2430 2433 2436 2439 2442 2445 2448 2451 2454 2457 2460 2463 2466 2469 2472 2475 2478 2481 2484 2487 2490 2493 2496 2499 2502 2505 2508 2511 2514 2517 2520 2523 2526 2529 2532 2535 2538 2541 2544 2547 2550 2553 2556 2559 2562 2565 2568 2571 2574 2577 2580 2583 2586 2589 2592 2595 2598 2601 2604 2607 2610 2613 2616 2619 2622 2625 2628 2631 2634 2637 2640 2643 2646 2649 2652 2655 2658 2661 2664 2667 2670 2673 2676 2

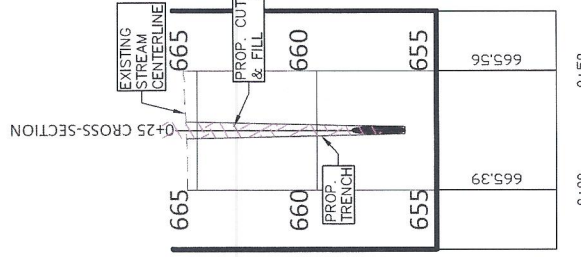
Issued On: 04/21/2025
Expires On: 04/21/2030



STREAM CROSSING 2 CROSS-SECTION



STREAM CROSSING 2 PROFILE



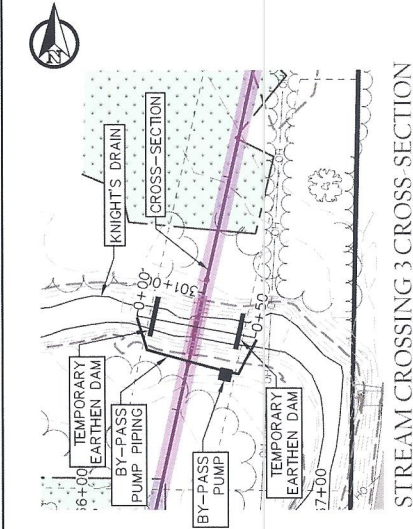
PLAN VIEW PROFILE VIEW
SCALE: 1" = 50' HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'



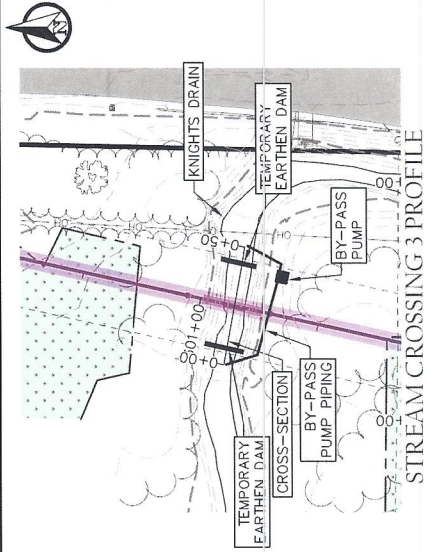
BYRON NORTHWEST SANITARY SEWER
STREAM CROSSING 2
APRIL 2025
JOB NO. 1260

Byron Center, MI
(616) 277-2185
Kalamazoo, MI
(269) 697-2130 x110
SHEET 06 OF 08

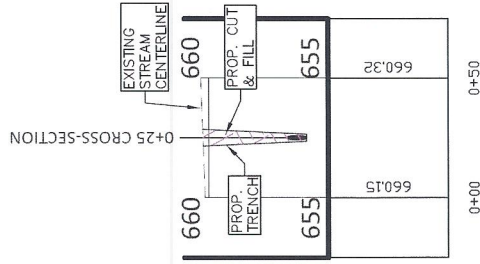
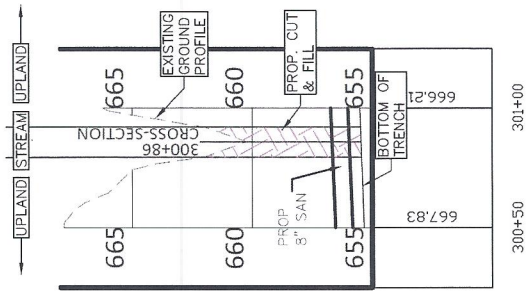
Issued On: 04/21/2025
Expires On: 04/21/2030



STREAM CROSSING 3 CROSS-SECTION



STREAM CROSSING 3 PROFILE



PLAN VIEW PROFILE VIEW
SCALE: 1" = 50' HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'



BYRON NORTHWEST SANITARY SEWER
STREAM CROSSING 3
APRIL 2025
JOB NO. 1260

Byron Center, MI
(616) 277-2185
Kalamazoo, MI
(269) 697-7430
SHEET 8 OF 8.ccd

ISSUED ON: 04/21/2025
Expires On: 04/21/2030

EXHIBIT 4

IVANREST AVENUE

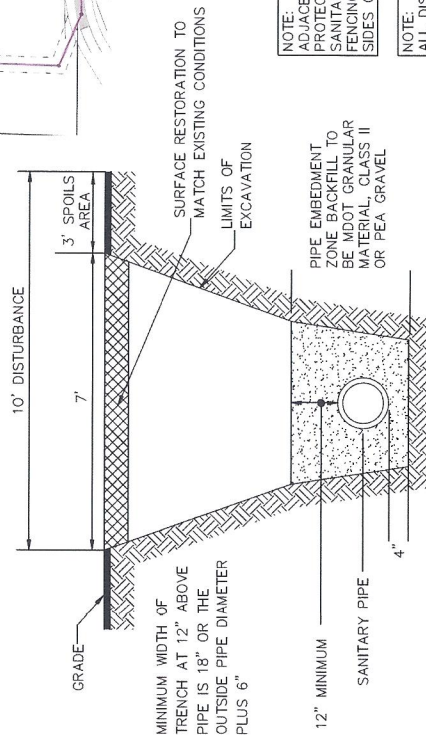


PROP. 845 LF OF 7' WIDE
SANITARY SEWER TRENCH

PROP. 44 LF OF 7' WIDE
SANITARY SEWER TRENCH

PROP. 253 LF OF 7' WIDE
SANITARY SEWER TRENCH

COMPACTED BACKFILL ABOVE PIPE
EMBEDMENT SHALL BE CLEAN
SITE SUBSOIL OR MDOT GRANULAR
MATERIAL, CLASS II WHEN EXCAVATED
AREA IS WITHIN A 10' MIN. DISTANCE
FROM ROAD SURFACES, DRIVES, PAVED
AREAS, ETC.

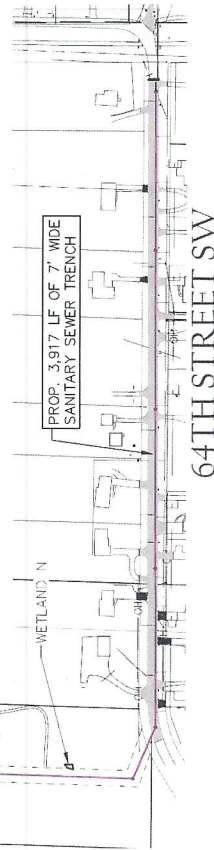


NOTE:
ADJACENT WETLANDS TO BE
PROTECTED ALONG ENTIRE
SANITARY SEWER ROUTE. SILT
FENCING TO BE PLACED ON BOTH
SIDES OF THE EXCAVATION

NOTE:
ALL DISTURBED WETLAND AREAS
TO BE RESTORED TO EXISTING
GRADES. RESPAVED AREAS WITH
EXISTING NATIVE WETLAND TOPSOIL.

WETLAND IMPACT				
	AREA		VOLUME (CYD)	
	SFT	ACRE	CUT	FILL NET
WETLAND J (REGULATED)	118	0.003	60	60 0
WETLAND L (REGULATED)	165	0.004	84	84 0
WETLAND M (REGULATED)	618	0.014	246	246 0
WETLAND N (REGULATED)	NO IMPACT			
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TOTAL	1,430	0.033	726	726 0

STREAM IMPACT				
	AREA		VOLUME (CYD)	
	SFT	ACRE	CUT	FILL NET
STREAM CROSSING 1	112	0.003	39	39 0
STREAM CROSSING 2	70	0.002	26	26 0
STREAM CROSSING 3	91	0.002	22	22 0
TOTAL	252	0.007	87	87 0



64TH STREET SW



BYRON NORTHWEST SANITARY SEWER
WETLAND IMPACT SKETCHES
APRIL 2025
JOB NO. 1260

Byron Center, MI
(616) 277-2185
Kalamazoo, MI
(269) 692-7920 x118
SHEET 1 OF 8

Expires On: 04/21/2030

EXHIBIT 5



GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
GEOLOGIC RESOURCES MANAGEMENT DIVISION



PHILLIP D. ROOS
DIRECTOR

February 19, 2025

VIA EMAIL

Barry Korhorn
Byron-Gaines Utility Authority
1381 84th Street SE
Caledonia, Michigan 49316

Dear Barry Korhorn:

SUBJECT: Michigan Department of Environment, Great Lakes, and Energy (EGLE)
Site-Specific Review (SSR) 9666-20252-50

This letter is in response to your request for an SSR for a large quantity water withdrawal located in Section 04 of Byron Township, Town 05N, Range 12W, Kent County. Under Part 327, Great Lakes Preservation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), all new large quantity withdrawals are prohibited from causing an adverse resource impact (ARI) to the surface waters of the state.

EGLE examined all reasonably available information and determined that the withdrawal is **not likely** to cause an **ARI**, and you are hereby authorized to proceed with making the withdrawal. The withdrawal has been verified a Zone B withdrawal in the Rush Creek watershed (ID 20937), which is classified as a cold transitional stream. Please be advised that this determination is a presumption contingent upon the withdrawal conditions specified below and may be rebutted by a preponderance of evidence that the withdrawal has caused, or is causing, an ARI.

Based on information provided through the Water Withdrawal Assessment Tool and staff discussions with the representative, the proposed withdrawal is registered with the following parameters:

Source:	Groundwater
<u>Location</u>	
Latitude:	42.847378°
Longitude:	-85.739281°
Capacity:	1000 gallons per minute
Pumping Frequency:	Intermittent
Months:	May – October
Days per Week:	7
Hours per Day:	24
Depth to the Top of the Screen Interval	30 feet

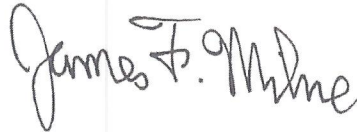
Barry Korhorn
Page 2
February 19, 2025

The registration number is Reg. 9666-20252-50; a copy of the registration receipt is enclosed. Please be aware that you, or your well driller, should contact your local environmental health department to obtain all necessary authorizations or permits prior to installing the dewatering well. You are advised to require your driller to inform you of any potential alterations to the construction of your well (e.g., well depth, screened interval, pump installation, or location). If the actual construction or operation characteristics for this withdrawal vary from what is registered, please contact Marian Maier, Water Use Assessment Unit, GRMD, at 517-331-2762 or MaierM3@Michigan.gov, to obtain approval to proceed pursuant to Subsection 32706b(5) of Part 327. The withdrawal must be made operational by installing the pump within 18 months of the date on the registration receipt.

Please notify Marian Maier when this temporary construction dewatering project is complete so that EGLE can close the registration and adjust the total amount of available water in the Rush Creek watershed.

If you have any questions, please feel free to contact me at 517-285-3253 or MilneJ@Michigan.gov. .

Sincerely,



James F. Milne, Supervisor
Water Use Assessment Unit
Geologic Resources Management Division
517-285-3253

Enclosure

cc/enc: Aaron Van Proyen, VK Civil
cc: Kent County Health Department
Kent County Conservation District
Kent County Drain Commissioner
Kent County Clerk
Ottawa County Department of Public Health
Ottawa County Conservation District
Ottawa County Drain Commissioner
Ottawa County Clerk
Byron Township Clerk, Kent County
Georgetown Township Clerk, Ottawa County
Jamestown Township Clerk, Ottawa County
City of Grandville, Kent County
City of Wyoming, Kent County
David Bradley, Ironwood Golf Course

Barry Korhorn
Page 3
February 19, 2025

Christine Byers, Whispering Springs III
Heath De Winter, De Winters Inc
Leroy DeVries, Henry Mast Greenhouses Inc
Ryan Glunz, Sunnybrook Country Club
Jeff Klaasen, Hidden Ridge Condominiums
William McQuade, Zion Christian School
Jeff Smith, Railside Golf Club
Roger Victory, Victory Farms LLC
Pete Warkema
Heritage Christian Reform Church
Baptist Church of Byron
2nd Evan Ref Church
Byron Center
Church of Jesus Christ
Abigail Eaton, MDARD
Jay Wesley, DNR
Audrie Kirk, EGLE
Mike Worm, EGLE
Marian Maier, EGLE
Garrett Link, EGLE



Registration Receipt

Registration ID: 9666-20252-50

Date Passed: 2/19/2025

Expiration Date: 8/19/2026

IMPORTANT - PLEASE READ

This registration is only valid for the withdrawal characteristics listed below. Any changes MUST be authorized by modifying the registration before making the withdrawal. To modify this registration, rerun the Water Withdrawal Assessment Tool with the new characteristics and proceed as directed. This withdrawal registration will expire 18 months from the date authorized unless the proposed well is constructed and the pump installed as registered. In addition, the total annual withdrawal may not exceed the amount indicated.

Contact Information

Property Owner Contact Information:

Name: Barry Korhorn
Facility Name: Byron-Gaines Utility Authority
Address: 1381 84th Street SE
City: Caledonia
State: MI
Zip Code: 49316
Phone: 616-971-0002
e-mail: bd.korhorn@bgua.org

Representative Contact Information:

Name: Aaron Van Proyen
Relationship to Owner: Engineer
Address: 7885 Byron Center Avenue
City: Byron Center
State: MI
Zip Code: 49315
Phone: 616-277-2185
e-mail: aaron@vkcivil.com

Summary

Home Watershed:	20937
Zone:	B
Pumping Capacity (gpm):	1,000
Well Casing Depth (ft):	30
Withdrawal Source:	Groundwater
Aquifer Type:	Glacial
Pumping Frequency:	Intermittent
Hrs/Day:	24
Days/Week:	7
Months of Year:	May - October
Latitude:	42.847378°
Longitude:	-85.739281°
County:	Kent
Town Range Section:	T05N R12W Section 04 Byron Township
Location of Discharge:	Knights Drain/ Rush Creek
Purpose:	Dewatering

Total Annual Withdrawal (gallons): 263,934,720

EXHIBIT 6



Water Well And Pump Record

Completion is required under authority of Part 127 Act 368 PA 1978.



Import ID:

Failure to comply is a misdemeanor.

Tax No:	Permit No:	County: Kent	Township: Byron			
Well ID: 41000060541 Elevation: Latitude: 42.84484 Longitude: -85.73605 Method of Collection: GPS Std Positioning Svc SA Off		Town/Range: 05N 12W	Section: 4	Well Status: Active	WSSN:	Source ID/Well No:
		Distance and Direction from Road Intersection: 1828' EAST AND 22' NORTH FROM INTERSECTION OF IVANREST AVE SW AND 64TH ST SW				
		Well Owner: KYLE MAAS				
		Well Address: 2930 64TH ST SW BYRON CENTER, MI 49315		Owner Address: 2930 64TH ST SW BYRON CENTER, MI 49315		

Drilling Method: Rotary	Well Use: Household	Pump Installed: Yes	Pump Installation Only: No
Well Depth: 159.00 ft.	Date Completed: 8/6/2025	Pump Installation Date: 8/8/2025	HP: 0.75
Well Type: Replacement	Height: 1.00 ft. above grade	Manufacturer: Grundfos	Pump Type: Submersible
Casing Type: PVC plastic		Model Number: SQE15-150	Pump Capacity: 15 GPM
Casing Joint: Solvent welded/glued		Drop Pipe Length: 60.00 ft.	Pump Voltage:
Casing Fitting: Shale packer/trap		Drop Pipe Diameter: 1.25 in.	Drilling Record ID:
		Draw Down Seal Used: No	
Diameter: 5.00 in. to 125.00 ft. depth SDR: 21.00		Pressure Tank Installed: Yes	
		Pressure Tank Type: Diaphragm/bladder	
Borehole: 8.75 in. to 125.00 ft. depth 4.75 in. to 159.00 ft. depth		Manufacturer: Flex-Lite-Flexcon	
		Model Number: FT 18	Tank Capacity: 4.5 Gallons
		Pressure Relief Valve Installed: Yes	

Static Water Level: 20.00 ft. Below Grade	Yield Test Method: Air	Formation Description	Thickness	Depth to Bottom
Well Yield Test: Pumping level 156.00 ft. after 1.00 hrs. at 150 GPM		Red Clay Sandy	21.00	21.00
		Sand Medium Wood	38.00	59.00
		Gravel Coarse	56.00	115.00
Screen Installed: No	Intake: Bedrock Well	Limestone W/Shale	3.00	118.00
		Limestone	10.00	128.00
		Limestone W/Sandstone W/Shale	7.00	135.00
		Green Sandstone	24.00	159.00

Well Grouted: Yes	Grouting Method: Grout pipe outside casing	Geology Remarks:
Grouting Material: Bentonite slurry	Bags: 12.00 Additives: None Depth: 0.00 ft. to 125.00 ft.	
Wellhead Completion: Pitless adapter		
Nearest Source of Possible Contamination:		Drilling Machine Operator Name: JACK WIEST
Type: Septic tank	Distance: 75 ft. Direction: Southwest	Employment: Employee
		Pump Installer: MATT MOORE/PHIL JACOBSON
Abandoned Well Plugged: No		Contractor Type: Water Well Drilling Contractor Reg No: 41-2028
Reason Not Plugged: Well still in use for non-drinking water purposes		Business Name: Buer Well Drilling Inc
		Business Address: 239 E Main St, Caledonia, MI, 49316

Water Well Contractor's Certification	
This well and/or pump installation was performed under my registration.	
Signature of Registered Contractor	Date

General Remarks:
Other Remarks: