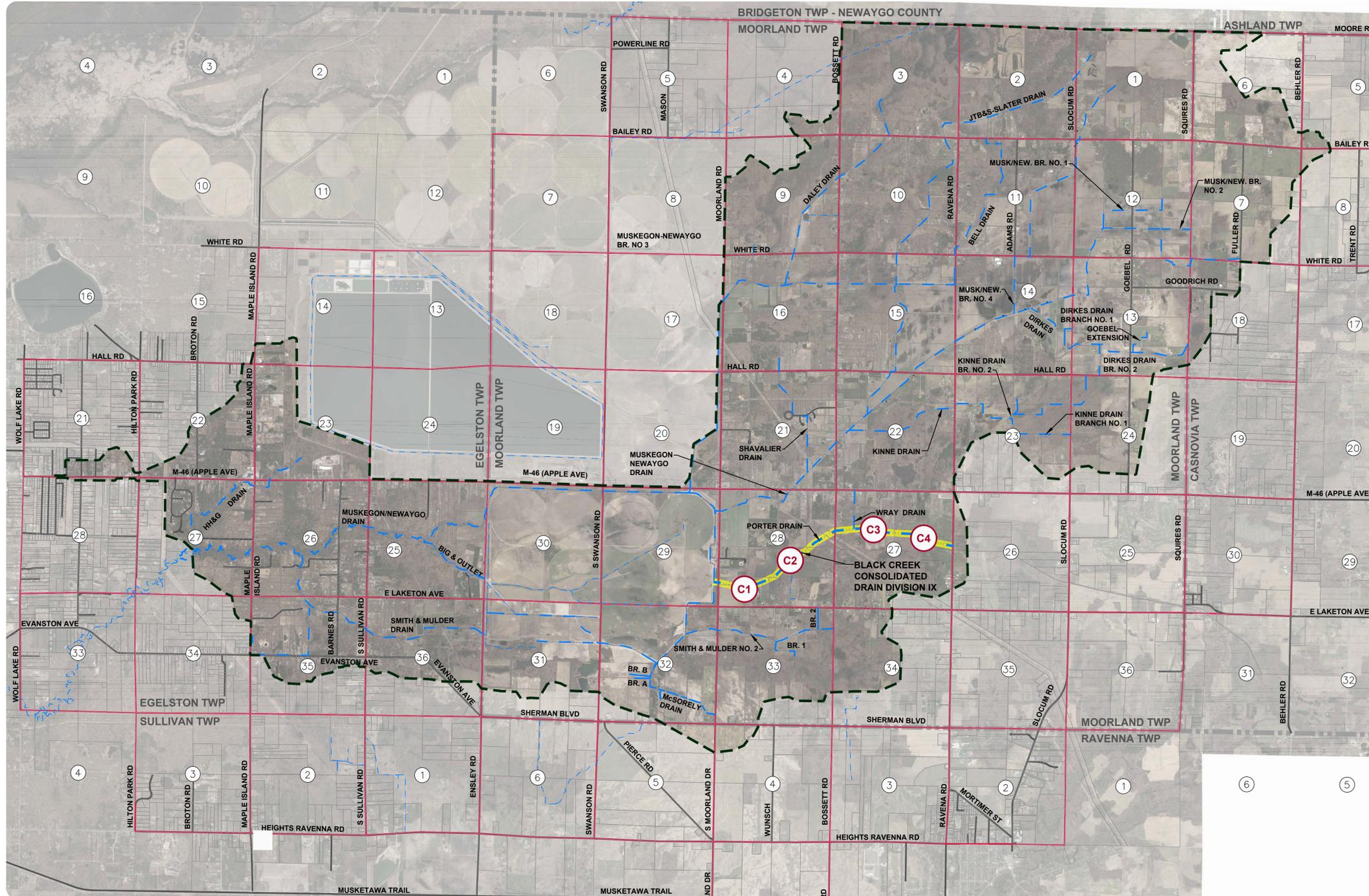
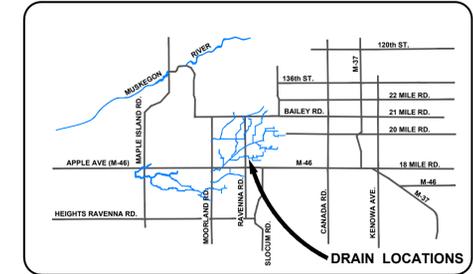




BLACK CREEK CONSOLIDATED DRAIN-DIVISION IX

FORMER PORTER DRAIN
 EGELSTON, MOORLAND, RAVENNA & CASNOVIA TOWNSHIPS
 MUSKEGON COUNTY, MICHIGAN



VICINITY MAP
 NOT TO SCALE

INDEX OF SHEETS

CS - COVER SHEET

C1 - PLAN & PROFILE
 FORMER PORTER DRAIN
 (STA. 0+00 - 29+50)

C2 - PLAN & PROFILE
 FORMER PORTER DRAIN
 (STA. 29+50 - 60+50)

C3 - PLAN & PROFILE
 FORMER PORTER DRAIN
 (STA. 60+50 - 90+50)

C4 - PLAN & PROFILE
 FORMER PORTER DRAIN
 (STA. 90+50 - 120+00)

C5 - DETAILS

LEGEND

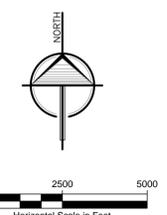
- ▲ - TRAVERSE POINT
- - WELL
- - HIGHWAY
- - MONUMENT
- - FOUND IRON STAKE
- - SET IRON STAKE
- - SIGN
- RR - RR SIGN
- - GUY POLE
- - GUY ANCHOR
- - UTILITY POLE
- - POST
- - SOIL BORING
- - U.G. UTILITY MARKER
- MB - MAILBOX
- - FIRE HYDRANT
- - WATER VALVE
- - GAS METER
- - WATER METER
- - TELEPHONE RISER
- - ELECTRIC METER
- - CATCH BASIN
- - SIGN
- - ROUND CATCH BASIN
- - UTILITY MANHOLE
- - STORM MANHOLE
- - SANITARY MANHOLE
- - ELECTRIC MANHOLE
- - TELEPHONE MANHOLE
- - SHRUB
- - DECIDUOUS TREE
- - CONIFEROUS TREE
- - WATER UTILITY LINE
- - TELEPHONE UTILITY LINE
- - ELECTRIC UTILITY LINE
- - GAS UTILITY LINE
- - STEAM UTILITY LINE
- - STORM UTILITY LINE
- - SANITARY UTILITY LINE
- - FIBER OPTIC UTILITY LINE
- - OVERHEAD UTILITY LINE

UTILITY CONTACTS

- | | | | |
|--|---|---|---|
| <p>CONSUMERS ENERGY
 KURT GOLDING
 MISSDIGDESIGNTICKERS
 @CMSENERGY.COM</p> | <p>MUSKEGON AREA INTERMEDIATE SCHOOL DISTRICT
 KEN LOPEZ
 (616) 393-0138 (O)
 MITICKETS@DIGTRACK.COM</p> | <p>GAS-AMERIGAS
 CHAD KROUSE
 (231) 638-3183 (O)
 CHAD.KROUSE@AMERIGAS.COM</p> | <p>FRONTIER/VERIZON
 KATHRYN ANDERSON
 (810) 724-3127 (O)
 MI.MISSDIG.FACILITIES.DESIGN.REQUEST@FTR.COM</p> |
| <p>GREAT LAKES ENERGY COOPERATIVE
 KIMBERLY MATELSKI
 (231) 487-1332 (O)
 DISPATCH@GLEENERGY.COM</p> | <p>GAS-DTE GAS TRANSMISSION
 BARBARA SAUNDERS
 (313) 235-5111 (O) &
 GREG BLOSSER
 (313) 235-1080 (O)
 BLOSSERG@DTEENERGY.COM</p> | <p>MUSKEGON COUNTY WASTEWATER
 STEVE BARNARD
 (231) 724-3441 (O)
 MISSDIG@CO.MUSKEGON.MI.US</p> | <p>WINDSTREAM COMMUNICATIONS
 (800) 289-1901 (O)
 LOCATE.DESK@WINDSTREAM.COM</p> |

LEGEND

- ENCLOSED CHANNEL DRAIN
- OPEN CHANNEL DRAIN
- DRAINAGE DISTRICT BOUNDARY
- SECTION LINE
- TOWNSHIP LINE
- ROADS
- PROPERTY LINES
- # SECTION NUMBERS
- C1 SHEET NUMBERS



3 WORKING DAYS
BEFORE YOU DIG
 CALL MISS DIG
 1-800-482-7171

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2121 3 Mile Rd. NW
 Walker, MI 49544
 Ph: 616-301-7888
 www.LREMI.com

LRE
 ENGINEERS & SURVEYORS

REVISIONS:	NO.	ISSUED FOR:	DATE
	1.	EX. CONDITION SURVEY	DEC. 2017
	2.	PRELIMINARY DESIGN	AUG. 2019
	3.	BIDS	JUNE 2020

MUSKEGON COUNTY DRAIN COMMISSIONER
 141 E. APPLE AVE., MUSKEGON, MI 49842

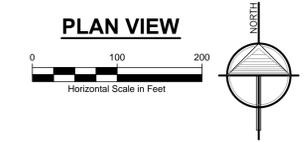
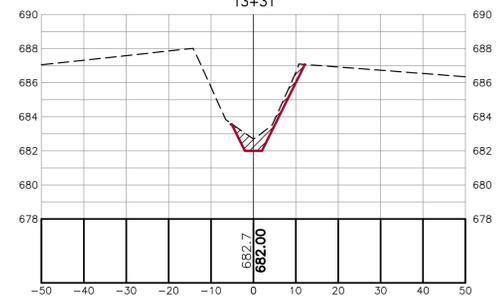
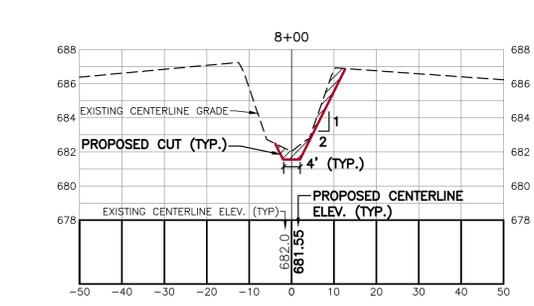
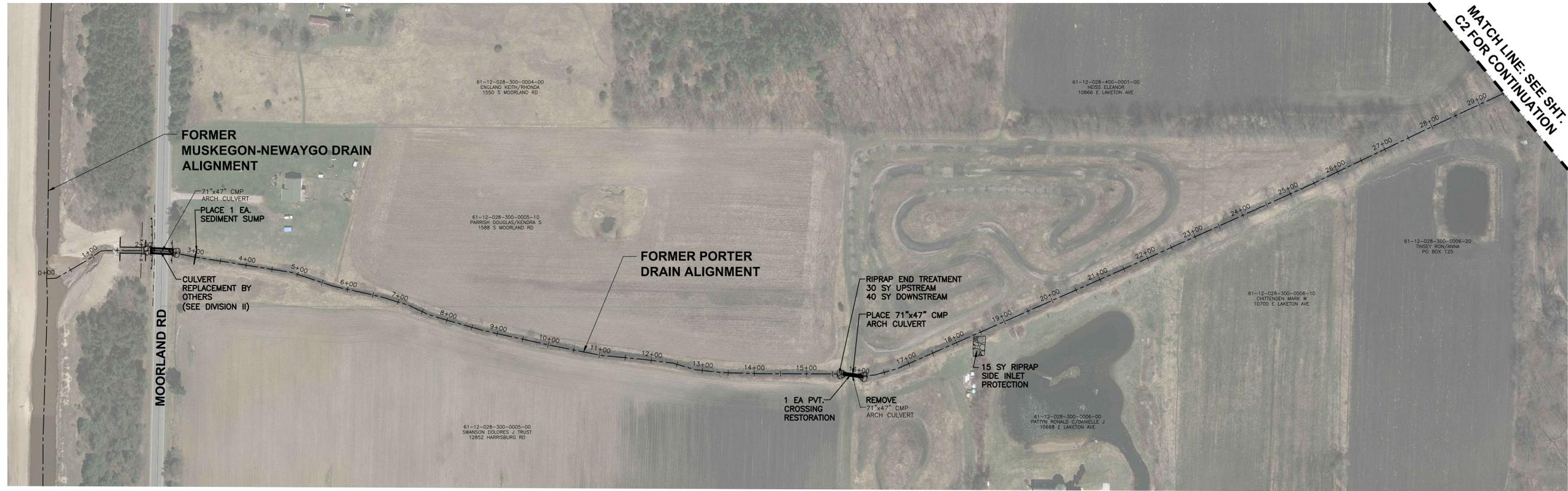
BLACK CREEK CONSOLIDATED DRAIN-DIVISION IX
 EGELSTON, MOORLAND, RAVENNA & CASNOVIA TOWNSHIPS, MUSKEGON COUNTY, MI

DATE	PROJECT
SEPT. 2017	141 E. APPLE AVE., MUSKEGON, MI 49842
AUG. 2019	BLACK CREEK CONSOLIDATED DRAIN-DIVISION IX
AUG. 2019	EGELSTON, MOORLAND, RAVENNA & CASNOVIA TOWNSHIPS, MUSKEGON COUNTY, MI
JUNE 2020	

PROJECT NUMBER: 17-008
 SURVEYED BY: CF JS
 DESIGNED BY: AWS
 DRAFTED BY: RAG
 CADC/DJF

COVER SHEET

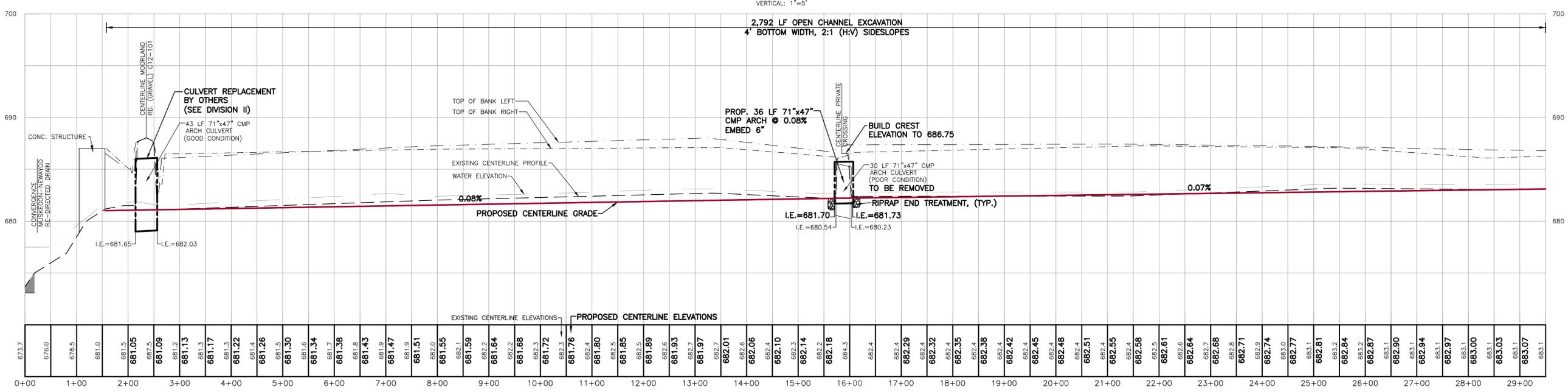
SHEET NUMBER
CS



CROSS SECTIONS
SCALE: HORIZONTAL: 1"=20'
VERTICAL: 1"=5'

MISCELLANEOUS QUANTITIES:
 MOBILIZATION 1 LS
 OPEN CHANNEL SEEDING 2,792 LF
 MULCH BLANKET 3,500 SY
 RIPRAP 10 SY

- NOTES:**
1. DRAIN R.O.W. 100 FEET TOTAL, 50 FEET EACH SIDE OF CENTERLINE.
 2. MULCH BLANKET BANKS AS DIRECTED BY ENGINEER. PAID FOR AS SY MULCH BLANKET.
 3. SALVAGE AND RE-SPREAD TOPSOIL, SEED & MULCH ALL DISTURBED AREAS. PAID FOR AS LF OPEN CHANNEL SEEDING.
 4. REMOVE ALL DEAD, DYING, LEANING AND ANY ASH TREES WITHIN 5' OF DRAIN TOP OF BANK. PAID FOR AS LF OPEN CHANNEL EXCAVATION OR LF WOODY DEBRIS MANAGEMENT.
 5. IF DRAIN IS ACCESSED ACROSS PROPERTY OUTSIDE OF THE DRAIN EASEMENT, A LAND OWNER'S AGREEMENT FORM MUST BE OBTAINED.
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CENTERLINE PROFILE
SCALE: HORIZONTAL: 1" = 100'
VERTICAL: 1" = 5'

3 WORKING DAYS
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MUSKEGON COUNTY DRAIN COMMISSIONER
141 E. APPLE AVE., MUSKEGON, MI 49842

BLACK CREEK CONSOLIDATED DRAIN-DIVISION IX
EGELSTON, MOORLAND, RAVENNA & CASNOVA TOWNSHIPS, MUSKEGON COUNTY, MI

PROJECT NUMBER:	DATE
17-008	SEPT. 2017
	AUG. 2019
	AUG. 2019
	JUNE 2020

DESIGNED BY: AWS
DRAFTED BY: RAG
CAGC/DJF

PLAN & PROFILE
STA: 0+00 - 29+50
FORMER PORTER DRAIN

C1

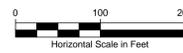
MATCH LINE: SEE SHT. C1 FOR CONTINUATION



MATCH LINE: SEE SHT. C3 FOR CONTINUATION

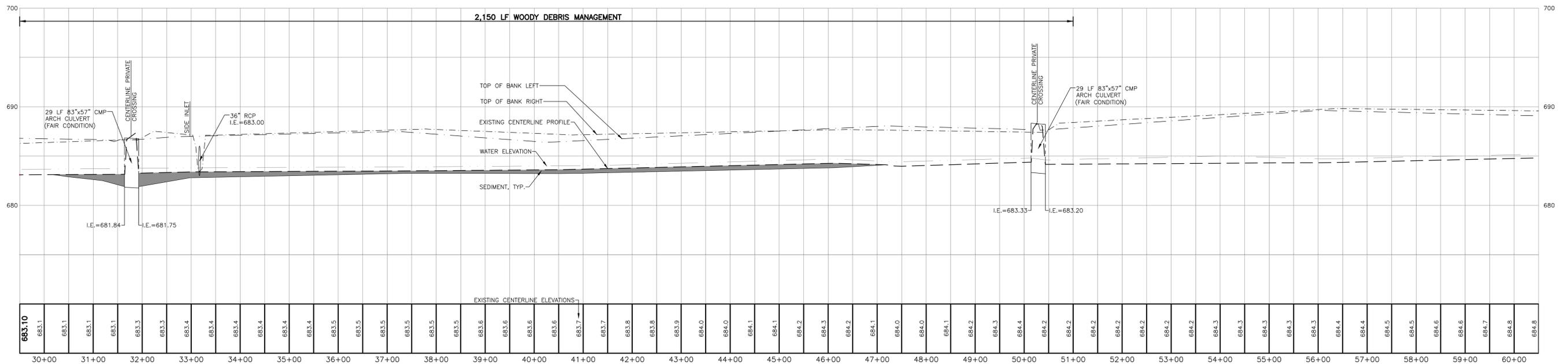


PLAN VIEW



NOTES:

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CENTERLINE PROFILE

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VERTICAL: 1" = 5'



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	2.	PRELIMINARY DESIGN	AUG. 2019
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CLIENT: MUSKOGEE COUNTY DRAIN COMMISSIONER
141 E. APPLE AVE., MUSKOGEE, MI 49842
PROJECT: BLACK CREEK CONSOLIDATED DRAIN-DIVISION IX
EGELSTON, MOORLAND, RAVENNA & CASNOVA TOWNSHIPS, MUSKOGEE COUNTY, MI

PROJECT NUMBER:	DATE
17-008	SEPT. 2017
	AUG. 2019
	AUG. 2019
	JUNE 2020

SURVEYED BY: CF JS
DESIGNED BY: AWS
DRAFTED BY: RAG
CADC:DJF

SHEET NAME: PLAN & PROFILE
STA: 29+50 - 60+50
FORMER PORTER DRAIN

SHEET NUMBER

C2

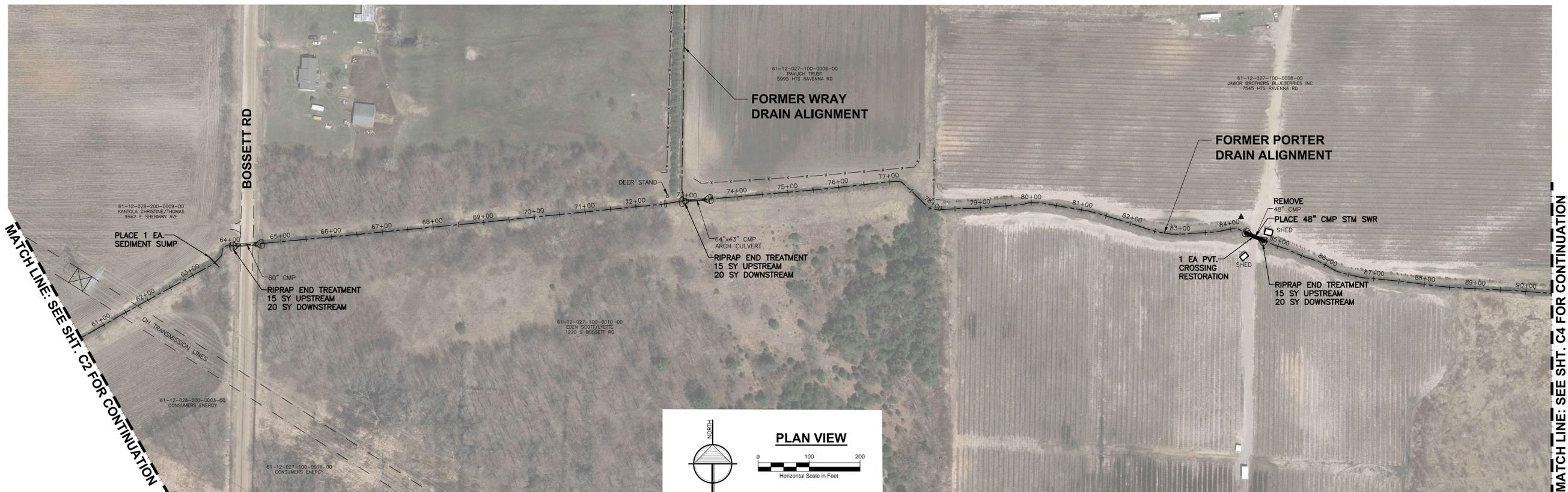
REVISIONS:	NO.	ISSUED FOR:	DATE
	1.	EX. CONDITION SURVEY	DEC. 2017
	2.	PRELIMINARY DESIGN	AUG. 2019
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141 E. APPLE AVE., MUSKOGEE, MI 49842
PROJECT: BLACK CREEK CONSOLIDATED DRAIN-DIVISION IX
EGELSTON, MOORLAND, RAVENNA & CASNOVA TOWNSHIPS, MUSKOGEE COUNTY, MI

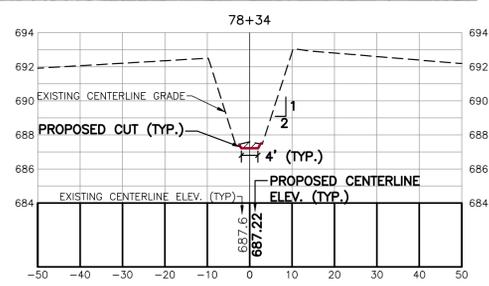
PROJECT NUMBER:	DATE
17-008	SEPT. 2017
	AUG. 2019
	AUG. 2019
	JUNE 2020

SURVEYED BY: CF JS
DESIGNED BY: AWS
DRAFTED BY: RAG
CADC:DJF

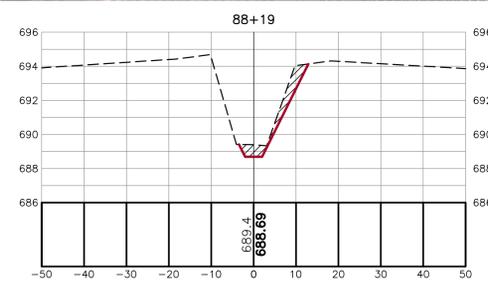
SHEET NAME: PLAN & PROFILE
STA: 60+50 - 90+50
FORMER PORTER DRAIN
SHEET NUMBER: C3



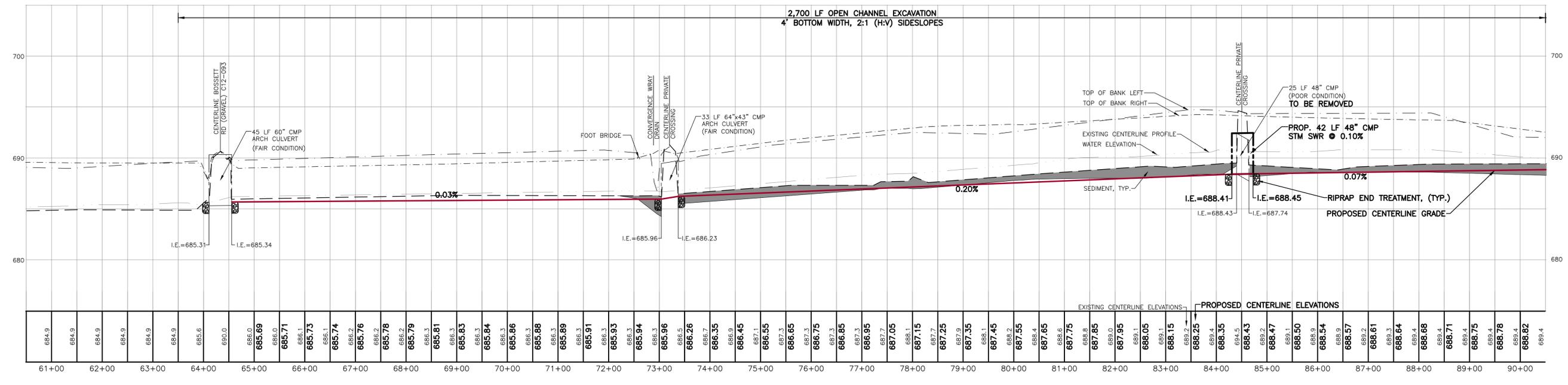
MISCELLANEOUS QUANTITIES:
OPEN CHANNEL SEEDING 2,700 LF
MULCH BLANKET 3,500 SY
RIPRAP 10 SY



CROSS SECTIONS
SCALE: HORIZONTAL: 1"=20'
VERTICAL: 1"=5'



- NOTES:**
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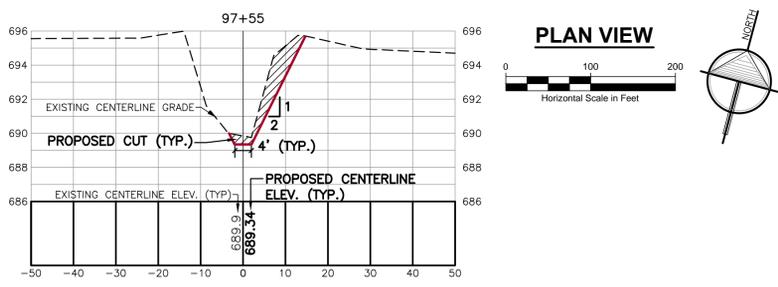
CENTERLINE PROFILE
SCALE: HORIZONTAL: 1"=100'
VERTICAL: 1"=5'

3 WORKING DAYS
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1-800-482-7171

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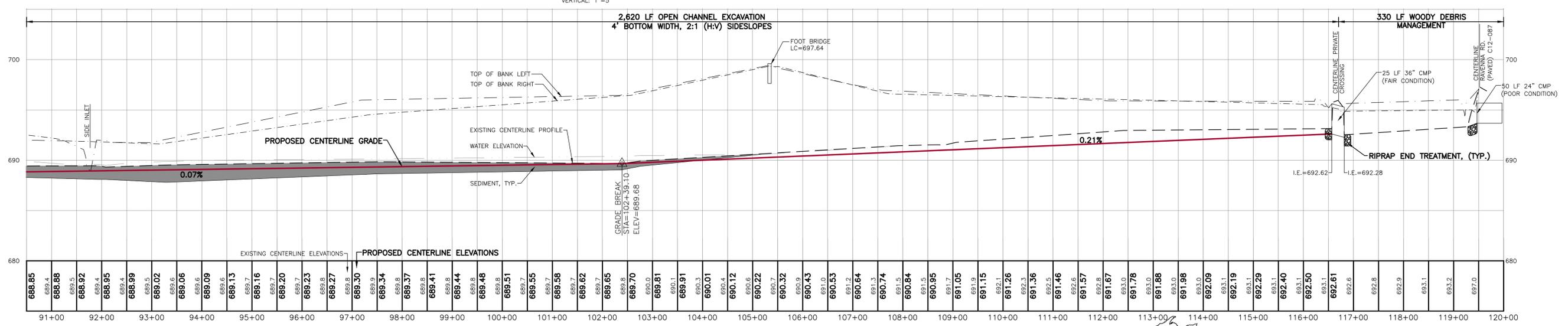


MISCELLANEOUS QUANTITIES:
 OPEN CHANNEL SEEDING 2,620 LF
 MULCH BLANKET 3,500 SY
 RIPRAP 50 SY



CROSS SECTIONS
 SCALE: HORIZONTAL: 1"=20'
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LRE
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	2.	PRELIMINARY DESIGN	AUG. 2019
	3.	BIDS	JUNE 2020

PROJECT: MUSKOGON COUNTY DRAIN COMMISSIONER
 141 E APPLE AVE., MUSKOGON, MI 49842
 CLIENT: BLACK CREEK CONSOLIDATED DRAIN-DIVISION IX
 EGGLESTON, MOORE AND RAVENNA & CASNOVA TOWNSHIPS, MUSKOGON COUNTY, MI

DATE	BY
SEPT. 2017	CF JS
AUG. 2019	DESIGNED BY: AWS
AUG. 2019	DRAFTED BY: RAG
JUNE 2020	CAOCC:DJF

PROJECT NUMBER: 17-008
 SHEET NAME: PLAN & PROFILE
 STA: 90+50 - 120+00
 FORMER PORTER DRAIN
 SHEET NUMBER: C4

NO.	DATE	ISSUED FOR
1.	DEC 2017	EX. CONDITION SURVEY
2.	AUG 2019	PRELIMINARY DESIGN
3.	JUNE 2020	BIDS

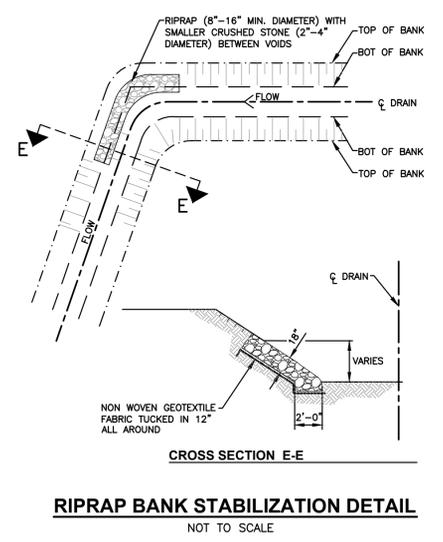
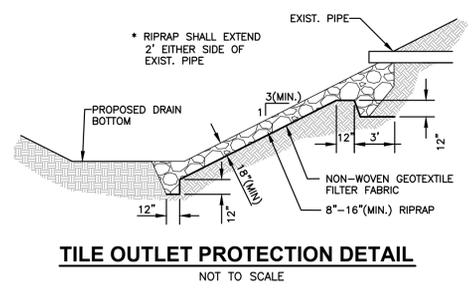
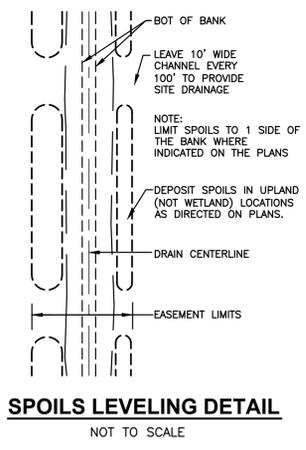
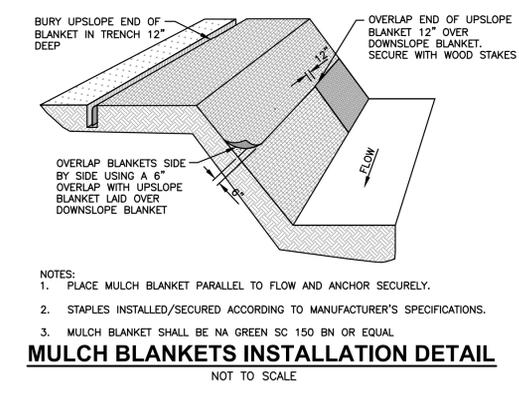
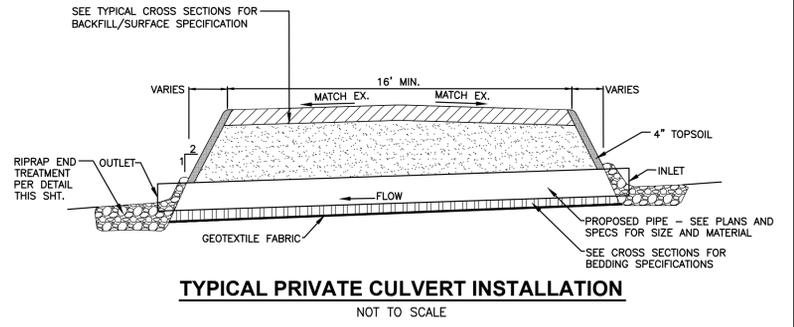
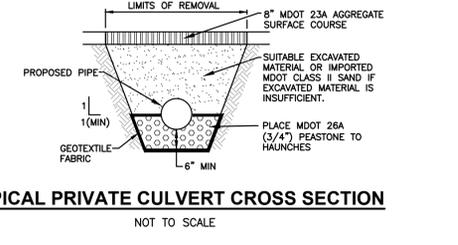
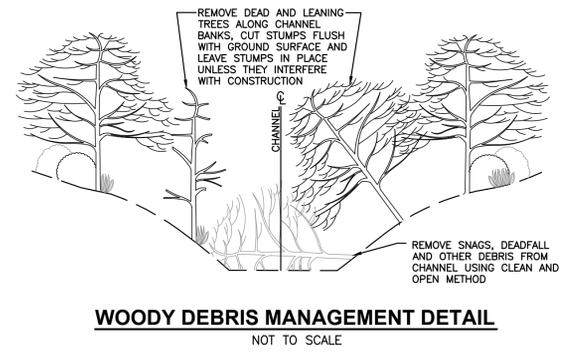
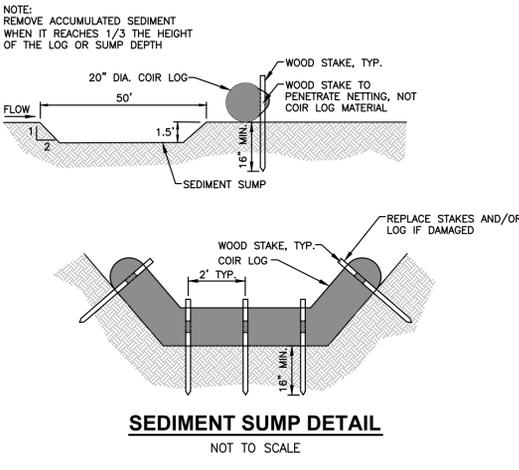
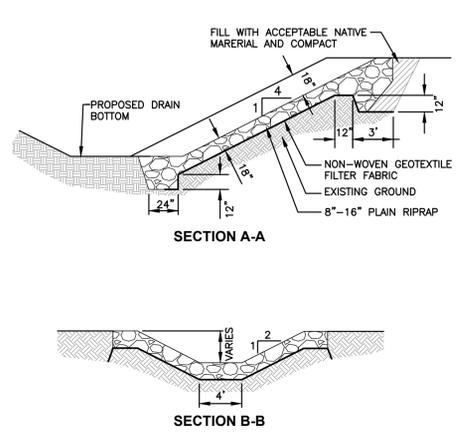
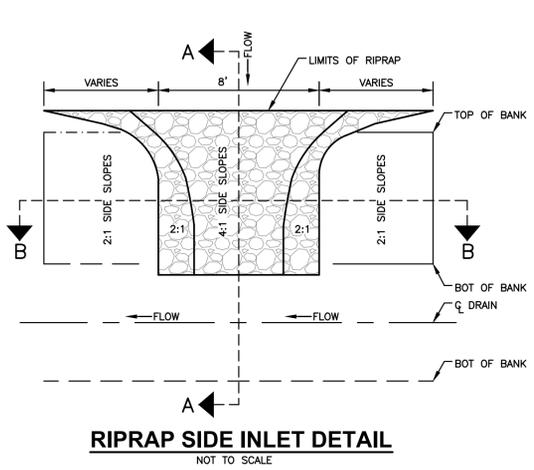
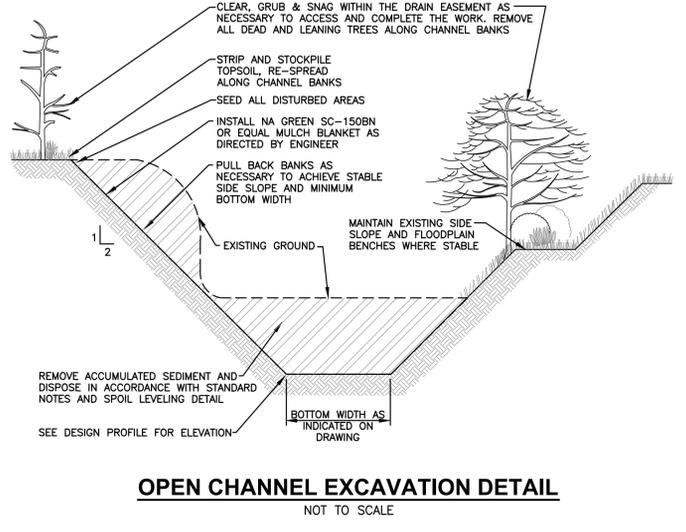
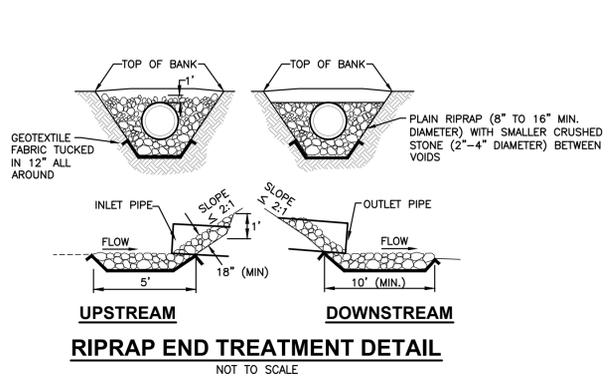
MUSKOGON COUNTY DRAIN COMMISSION
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PROJECT: BLACK CREEK CONSOLIDATED DRAIN-DIVISION IX
EGLISTON, MOORLAND, RAVENNA & CASNOVA TOWNSHIPS, MUSKOGON COUNTY, MI

DATE	PROJECT NUMBER
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AUG 2019	
AUG 2019	
AUG 2020	

PROJECT NUMBER: 17-008
SURVEYED BY: CT JS
DESIGNED BY: AWS
DRAFTED BY: RAG
CADC:DJF

DETAILS

SHEET NUMBER
C5



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